

NEWSPACE MARKET · SECTOR CATALOGUE

Microelectronics & Components

Every unit we list in this sector — specifications, manufacturers and where to ask for a quote. Compiled from the live NewSpace Market catalogue.

340

PRODUCTS

55

MANUFACTURERS

22

COUNTRIES

89

WITH DATASHEETS

newspacemarket.com/catalogues/microelectronics/

as of 2 September 2026

What is inside

This catalogue lists **340 microelectronics & components products** offered by **55 manufacturers** across **22 countries**. Of those, 89 carry a manufacturer datasheet and 0 publish a price; the rest are quoted on request — normal in this market, where configuration drives cost.

Entries are grouped alphabetically by manufacturer. Every product links back to its page on newspacemarket.com, where you will find the full specification, the datasheet and a quote form that reaches the manufacturer directly.

Compiled 2 September 2026 from the live catalogue. Specifications are as published by the manufacturers; we normalise units but do not re-measure. Where a figure looked implausible it was left out rather than guessed.

Manufacturers by country

United States13

India7

United Kingdom5

China4

Ireland3

Germany3

Spain2

Sweden2

France1

South Korea1

Japan1

Poland1

Russia1

Norway1

Netherlands1

Luxembourg1

Italy1

New Zealand1

Switzerland1

Slovenia1

Canada1

Czech Republic1

All products at a glance

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
10 W GaN High Power Amplifier HPA11201721B	ReliaSat	United Kingdom	Technology: 0.25 um GaN on SiC, space-qualified (UMS GH25-10 process)	on request
10 W GaN High Power Amplifier Packaged HPA11201721QF	ReliaSat	United Kingdom	Technology: 0.25 um GaN on SiC, space-qualified	on request
2082-5026-00-CRYO Attenuator	XMA Corporation	United States	Item #: 2082-5026-00-CRYO	on request
3D Stacked Space Memory Modules	3D Plus (HEICO)	France	Memory types: SRAM, NOR FLASH, EEPROM, DRAM	on request
Absolute Pressure Sensor Vt 208	Glavkosmos	Russia	Purpose: Absolute pressure measurement for liquid rocket engine control and...	on request
ADM-VB630 Adaptive SoC Development for Space	Alpha Data Parallel Systems	United Kingdom	Operating temperature: -55 to +105 °C	on request
ADM-XRC-9R1	Alpha Data Parallel Systems	United Kingdom	—	on request
Analogue Microchip of the Receive/Transmit Tract	Glavkosmos	Russia	W*h*t: 6 × 6 × 1 mm	on request
AST-500 Multi-GNSS Baseband SoC	Accord	India	Constellations: GPS, GLONASS, NavIC, BeiDou, Galileo, QZSS, GAGAN	on request
Bedrock Secure Processor	General Dynamics Mission Systems	United States	Lower Power Domain: <3 Watts in reduced power mode	on request
Bliley Space-Qualified Frequency Control Products	Bliley Technologies	United States	Products: Crystal oscillators, VCXOs, frequency control	on request
CA3	IDEAS (Integrated Detector Electronics AS)	Norway	Channels: 32/64	on request
Capacitor K50-80	Glavkosmos	Russia	Purpose: Capacitors are intended to be used in power electronics	on request
Capacitor K50-81	Glavkosmos	Russia	Purpose: Capacitors are intended to be used in power electronics	on request
Capacitor K50-83	Glavkosmos	Russia	Purpose: Small size power supplies and AC/DC converters for application in ...	on request
Capacitor K50-84	Glavkosmos	Russia	Year of release: 2006	on request
Capacitor K50-85	Glavkosmos	Russia	Rated voltage: 6.3...450 V	on request
Capacitor K50-87	Glavkosmos	Russia	Rated voltage: 6.3...450 V	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Capacitor K50-88	Glavkosmos	Russia	Purpose: Small size power supplies and AC/DC converters for application in ...	on request
Capacitor K50-89	Glavkosmos	Russia	Rated voltage: 63...450 V	on request
Capacitor K50-90	Glavkosmos	Russia	Purpose: Medical equipment, railway transport, special-purpose vehicles, el...	on request
Capacitor K50-91	Glavkosmos	Russia	Purpose: Small size power supplies and AC/DC converters for application in ...	on request
Capacitor K50-92	Glavkosmos	Russia	Purpose: Small size power supplies and AC/DC converters for application in ...	on request
Capacitor K52-11	Glavkosmos	Russia	Purpose: Power supply modules for airborne electronics, aviation, rocket an...	on request
Capacitor K52-17	Glavkosmos	Russia	Purpose: Power supply modules for airborne electronics, aviation, rocket an...	on request
Capacitor K52-18	Glavkosmos	Russia	Purpose: Power supply modules for airborne electronics, aviation, rocket an...	on request
Capacitor K52-19	Glavkosmos	Russia	Purpose: Power supply modules for airborne electronics, aviation, rocket an...	on request
Capacitor K52-20	Glavkosmos	Russia	Purpose: Power supply modules for airborne electronics, aviation, rocket an...	on request
Capacitor K52-21	Glavkosmos	Russia	Year of release: 2008	on request
Capacitor K52-9	Glavkosmos	Russia	Purpose: Power supply modules for airborne electronics, aviation, rocket an...	on request
Capacitor K53-1A	Glavkosmos	Russia	Rated voltage: 6.3...40 V	on request
Capacitor K53-4	Glavkosmos	Russia	Purpose: Power supply modules for airborne electronics, aviation, rocket an...	on request
Capacitor K53-65	Glavkosmos	Russia	Purpose: Capacitors are intended to be used in electronics with specific re...	on request
Capacitor K53-66	Glavkosmos	Russia	Purpose: Power supply modules for airborne electronics, aviation, rocket an...	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Capacitor K53-68	Glavkosmos	Russia	Purpose: Capacitors are intended to be used in special-purpose vehicles	on request
Capacitor K53-69	Glavkosmos	Russia	Purpose: Capacitors are intended to be used in electronics with specific re...	on request
Capacitor K53-7	Glavkosmos	Russia	Purpose: Power supply modules for airborne electronics, aviation, rocket an...	on request
Capacitor K53-72	Glavkosmos	Russia	Purpose: Power supply modules for airborne electronics, aviation, rocket an...	on request
Capacitors K50-96	Glavkosmos	Russia	Year of release: 2017	on request
Capacitors K50-97	Glavkosmos	Russia	Year of release: 2019	on request
Capacitors K50-98	Glavkosmos	Russia	Purpose: Small size power supplies and AC/DC converters for application in ...	on request
Capacitors K58-26	Glavkosmos	Russia	Purpose: Energy storage: voltage drop compensation, power bridging, burst d...	on request
CB3P-6231 3U OpenVPX Network Switch Board and Carrier with BuiltSAFE	Mercury Systems	United States	Power Consumption: 7 W	on request
CCD97	Teledyne e2v	United Kingdom	Active pixels: 512 x 512	on request
CCM3011 3U OpenVPX I/O Carrier Board	Mercury Systems	United States	Mezzanine site: 1x XMC/PMC	on request
Centum Space-Grade Electronics	Centum Electronics	India	Products: Space-grade PCBs, power modules, avionics	on request
Chip on Diamond	Akash Systems	United States	Temperature Reduction (GPU-on-Diamond): ~60%	on request
Circuit Assemblies	Minco Products, Inc	United States	—	on request
CJ10 Series Rectangle Electrical Connector	Hunan Kaida Space Connectors	China	Type: Rectangle electrical connector	on request
Component Qualification Services	ALTER Technology	Spain	Failure analysis: Root cause investigation of component failures	on request
Coordinated Filtering of Weak Signals with a Base of 4096 Counts VLSI	Glavkosmos	Russia	Purpose: Trusted systems, digital signal processing	on request
Copernicus Earth Observation Payload Electronics	OHB Italia S.p.A.	Italy	Program: ESA Copernicus (Sentinel satellites and related missions)	on request
cPCI COTS Modules	Data Patterns (India) Ltd.	India	—	on request
Cryogenic and Space Vacuum Testing	ALTER Technology	Spain	Test environment: Deep vacuum and cryogenic temperatures	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
CRYSTAL OSCILLATORS, CLASS 2 Variant 01	Rakon Limited	New Zealand	Nominal output frequency: 4 to 100 MHz	on request
CRYSTAL OSCILLATORS, CLASS 2 Variant 02	Rakon Limited	New Zealand	Nominal output frequency: 4 to 100 MHz	on request
CRYSTAL OSCILLATORS, CLASS 2 Variant 03	Rakon Limited	New Zealand	Nominal output frequency: 4 to 100 MHz	on request
CRYSTAL OSCILLATORS, CLASS 2 Variant 04	Rakon Limited	New Zealand	Nominal output frequency: 4 to 100 MHz	on request
CRYSTAL OSCILLATORS, CLASS 2 Variant 06	Rakon Limited	New Zealand	Nominal output frequency: 4 to 100 MHz	on request
Custom FLEX PCB	Minco Products, Inc	United States	–	on request
CXCH series circular electrical connector	Hunan Kaida Space Connectors	China	–	on request
CXCH-01 series	Hunan Kaida Space Connectors	China	Standard: GJB2889	on request
DC Block, 1.85mm-m, DC-65GHz (Item #6546-6010-65)	XMA Corporation	United States	Item #: 6546-6010-65	on request
DDR BGA Memory	Mercury Systems	United States	Capacity: 128 MB to 16 GB	on request
Defence and Space Electronics Systems	Centum Electronics	India	Products: PCDUs, DC-DC converters, battery management, RF assemblies, PCBAs	on request
Deployable Booms & Antennas	Astronika	Poland	Types: Tubular booms, antenna deployers, dual-wishbone	on request
Deployment Mechanisms & Space Instruments	Astronika	Poland	Flight heritage: NASA InSight Mars lander (MOLE mechanism)	on request
Diamond-based Semiconductor Technologies	Space Forge Limited	United Kingdom	Materials: Diamond, gallium nitride (GaN), aluminum nitride (AlN)	on request
Diamond-Cooled SERVERS	Akash Systems	United States	GPU temperature reduction: 10°C	on request
Digital IF Processors & Waveform Generators	Data Patterns (India) Ltd.	India	–	on request
Digital Isolator	Glavkosmos	Russia	Purpose: It is used for galvanic isolation of interfaces of the type USB, C...	on request
Digital signal Processor 1879 VM 6Y	Glavkosmos	Russia	Type of shell: HSBGA-544L	on request
E-Band SP8T RF Switch MMIC E-SP8T-7681	Arralis	Ireland	Technology: GaAs Schottky Diode MMIC	on request
E698PM Radiation-hardened SPARC V8 Quadcore Processor System-on-Chip (SoC)	O.C.E. Technology	–	–	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
EEPROM Memory	Mercury Systems	United States	Type: SRAM/EEPROM	on request
Electrical Testing for EEE Components	ALTER Technology	Spain	ESD testing capability: Up to 16.5 kV	on request
Electronic Filters	FAULHABER Drive Systems	Germany	Supply voltage: 0...50 V	on request
Electronic Materials	Sheldahl (Multek Flexible Circuits)	United States	Product families: Flexible flat cable (FFC) materials, fuel cell materials	on request
Embedded NOR Flash	Mercury Systems	United States	Model: W764M32V1-XBX	on request
Environmental Testing for Space Components	ALTER Technology	Spain	Thermal tests: Accelerated bias aging, cryogenic evaluation, HAST, humidity...	on request
ESA Space Test Center	ALTER Technology	Spain	Certification standard: ECSS-Q-ST-20-07C	on request
Ferrite Circulators and Isolators	Mercury Systems	United States	Freq Start: 0.500 GHz	on request
Fixed Frequency Synthesizer 8-16 GHz FSN11200816QF	ReliaSat	United Kingdom	Frequency range: 8-16 GHz (custom fixed frequency)	on request
FLEX CIRCUITS	Minco Products, Inc	United States	Circuit substandard panel size: 10.5 x 22" max/12 x 24" (267 x 559 mm max./...	on request
FPGA Mezzanine Card (FMC)	Data Patterns (India) Ltd.	India	Product name: DP-FMC-1002 - Dual Channel 12 BIT / 10 Bit 4 GSPS / 3 GSPS FM...	on request
Gaisler Embedded Computer Systems and Microelectronics	Gaisler	Sweden	Product standards: QML Q/V, ECSS9000, ECSS9030, ECSS-ST-60-13C	on request
GPS Filter Amplifiers	Mercury Systems	United States	L2 (1227 MHz) Bandwidth: +/-15	on request
GR716A	Gaisler	Sweden	Status: Flight Models Available	on request
GR765 Octa-Core RISC-V/SPARC Rad-Hard SoC	Gaisler	Sweden	Cores: Up to 8, RISC-V/SPARC	on request
Green Cells	Maana Electric	Luxembourg	—	on request
GSC6204 6U OpenVPX GPGPU Coprocessing Board	Mercury Systems	United States	GPU: NVIDIA® Quadro® TU104	on request
GSP2022 GEESATCOM Satellite Communication Chip	Geespace	China	Process technology: 22 nm	on request
Guerin Technologies Satellite Components	Guerin Technologies	India	Products: Satellite electronics and components	on request
HDS6605 6U OpenVPX Multiprocessing Board	Mercury Systems	United States	CPU: Intel Xeon Scalable server-class CPU, 1.9 GHz, 22-core	on request
Helios Secure Processor IP	General Dynamics Mission Systems	United States	—	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Hengtong Space-Grade Optical Cable	Hengtong Optic Electric Space Cable Division	China	Products: Space-qualified optical fiber and electrical cable	on request
HIGH DENSITY INTERCONNECT	Minco Products, Inc	United States	Microvia formation: 50 micron	on request
High Density NAND Flash Memory for Space	3D Plus (HEICO)	France	Density options: 4 Tb, 8 Tb	on request
HIGH RELIABILITY FPGAs & ASICs	NanoXplore	–	Products: Radiation-tolerant FPGA and processor chips	on request
High Speed Processors	Data Patterns (India) Ltd.	India	–	on request
High-Power SMT Limiters	Mercury Systems	United States	Free Range: 8.5 - 12 GHz	on request
hisaor AI chip	O.C.E. Technology	–	–	on request
HISAOR Rad-tolerant AI SOC	O.C.E. Technology	–	–	on request
Hold-Down & Release Mechanisms (HDRM)	Astronika	Poland	Type: Non-pyrotechnic, electromagnetic activation	on request
Hyperboloid Socket Contacts	Hunan Kaida Space Connectors	China	Contact technology: Hyperboloid (springtac)	on request
IDE1140	IDEAS (Integrated Detector Electronics AS)	Norway	–	on request
IDE1180 AMADEUS	IDEAS (Integrated Detector Electronics AS)	Norway	–	on request
IDE3160	IDEAS (Integrated Detector Electronics AS)	Norway	–	on request
IDE3380 SIPHRA	IDEAS (Integrated Detector Electronics AS)	Norway	–	on request
IDE3381 APOCAT	IDEAS (Integrated Detector Electronics AS)	Norway	–	on request
IDE3465	IDEAS (Integrated Detector Electronics AS)	Norway	Channels: 20	on request
IDE3466	IDEAS (Integrated Detector Electronics AS)	Norway	–	on request
IDE4184	IDEAS (Integrated Detector Electronics AS)	Norway	–	on request
IDE4281	IDEAS (Integrated Detector Electronics AS)	Norway	Number of channels: 12	on request
IDE8420 NIRCA MkII	IDEAS (Integrated Detector Electronics AS)	Norway	–	on request
Immunity Cryptographic IP	General Dynamics Mission Systems	United States	–	on request
Integrated Circuit 1888 TX 018	Glavkosmos	Russia	Purpose: Onboard multimedia processing, video/audio encoding/decoding, ARIN...	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Interface Module with Application Processor	Glavkosmos	Russia	Purpose: Vehicle sensor data collection, telemetry transfer, black-box reco...	on request
IOM-300 XMC I/O Interface Board	Mercury Systems	United States	I/O Ports: Front panel, 12-channel fiber I/O or 8-channel copper I/O	on request
IOM-400 XMC I/O Interface Board	Mercury Systems	United States	Main user FPGA: Xilinx Ultrascale+ KU11P (default) or KU15P (Industrial Grade)	on request
J14 series rectangle electrical connector	Hunan Kaida Space Connectors	China	Standard: Q/HD20037-2007	on request
J14 Series Rectangle Electrical Connector	Hunan Kaida Space Connectors	China	Standard: Q/HD20037-2007 (Chinese military)	on request
J14B series	Hunan Kaida Space Connectors	China	Standard: GJB142A-94	on request
J14F series rectangle electrical connector	Hunan Kaida Space Connectors	China	Standard: Q/HD20037-2007	on request
J14H series	Hunan Kaida Space Connectors	China	Standard: Q/HD20037-2007	on request
J30J Series Micro-D Rectangle Electrical Connector	Hunan Kaida Space Connectors	China	Standard: MIL-C-83513 / J30J	on request
J36 Series Rectangle Electrical Connector	Hunan Kaida Space Connectors	China	Standard: Q/HD20038-2007 (Chinese military)	on request
J7B Series Rectangle Electrical Connector	Hunan Kaida Space Connectors	China	Standard: GJB176A-97 (Chinese military)	on request
K-Band Solid State Power Amplifier SSPA11201721SS	ReliaSat	United Kingdom	Frequency: 17-20.5 GHz	on request
K/Ka-Band Low Noise Amplifier MMIC KKa-LNA-1929	Arralis	Ireland	Technology: GaAs pHEMT MMIC, 3-stage	on request
Ka-Band Analog Phase Shifter MMIC Ka-PS-2533	Arralis	Ireland	Technology: GaAs Diode MMIC (analog)	on request
Ka-Band Low Noise Amplifier Module LNA11202131SS	ReliaSat	United Kingdom	Frequency: 21-31 GHz	on request
L-Band Microwave Discrete Attenuator	Glavkosmos	Russia	Purpose: Construction of radio transceivers.	on request
L-band Microwave Discrete Phase Shifter	Glavkosmos	Russia	W*h*t: 5*5*1 mm	on request
L-band Microwave Double Balanced Mixer	Glavkosmos	Russia	Purpose: Construction of radio transceivers.	on request
L-band Microwave LNA	Glavkosmos	Russia	Purpose: Construction of radio transceivers.	on request
Laser Communication Terminal	AstroGate Labs	India	Downlink speed: up to 1 Gbps	on request
LDS3507 3U OpenVPX, CMOSS/SOSA-aligned, Single Board Computer	Mercury Systems	United States	Processor: Intel 12-core Xeon D processor @ 1.5 GHz	on request
LEON5 SPARC V8 Processor IP Core	Gaisler	Sweden	Architecture: SPARC V8, 32-bit	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Low-Noise Amplifiers	Mercury Systems	United States	Freq Start: 0.1 GHz	on request
Low-SWaP RF Converters	Mercury Systems	United States	–	on request
LVDS Space Radiation Tolerant Interfaces	3D Plus (HEICO)	France	Switching rate: >400 Mbps (200 MHz)	on request
LVT Space Radiation Hardened Interfaces	3D Plus (HEICO)	France	Channel density: 32 channels per package	on request
Materials and Processes Laboratory	ALTER Technology	Spain	PCB standards: IPC-A-600, IPC-A-610, ECSS-Q-ST-70-60C, ECSS-Q-ST-70-61C	on request
MDM microwave varactors	Glavkosmos	Russia	Range of nominal values of set of capacitors: from 1.0 to 500 Petafarad	on request
Mechanical Testing for Space Components	ALTER Technology	Spain	Constant acceleration capability: Up to 50,000 g	on request
Medium-Power, Broadband Amplifiers	Mercury Systems	United States	Freq Start: 0.5 - 6 GHz	on request
Metafilter Colour Filter Technology	Metahelios	United Kingdom	Low-light sensitivity improvement: 30% enhanced (night-time photography)	on request
Metafilter Image Sensor Technology	Metahelios	United Kingdom	Enhanced sensitivity for night time photography: 30 %	on request
Microchip Space-Grade Radiation-Hardened Microcontrollers	Microchip Technology / Microsemi (Space)	United States	Products: Radiation-hardened microcontrollers, FPGAs, power ICs	on request
Micropower ADC	Glavkosmos	Russia	Purpose: For use in space systems. Radiation resistant ADC.	on request
Microwave LSI Frequency Synthesizer with VCO	Glavkosmos	Russia	Purpose: Construction of radio transceivers	on request
Microwave p-i-n Elements	Glavkosmos	Russia	Purpose: Discrete amplitude/phase control in AESA phase shifters for space-...	on request
MIL-C-26482 Series I Circular Connector	Hunan Kaida Space Connectors	China	Standard: MIL-C-26482 Series I	on request
MIL-C-26482 series I military standard connector	Hunan Kaida Space Connectors	China	Standard: MIL-C-26482 series I	on request
MIL-C-26482 series II	Hunan Kaida Space Connectors	China	Standard: MIL-C-26482 series II	on request
MIL-C-26482 Series II Circular Connector	Hunan Kaida Space Connectors	China	Standard: MIL-C-26482 Series II	on request
MIL-C-5015 series connector	Hunan Kaida Space Connectors	China	Shell material: Aluminum alloy	on request
MIL-DTL-38999 series I	Hunan Kaida Space Connectors	China	Coupling: bayonet	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
MIL-DTL-38999 Series I Circular Connector	Hunan Kaida Space Connectors	China	Standard: MIL-DTL-38999 Series I	on request
MIL-DTL-38999 series II	Hunan Kaida Space Connectors	China	Standard: MIL-DTL-38999 series II	on request
MIL-DTL-38999 Series II Circular Connector	Hunan Kaida Space Connectors	China	Standard: MIL-DTL-38999 Series II	on request
MIL-DTL-38999 Series III Circular Connector	Hunan Kaida Space Connectors	China	Standard: MIL-DTL-38999 Series III	on request
MIL-DTL-38999 series III military standard connector	Hunan Kaida Space Connectors	China	Standard: MIL-DTL-38999 series III	on request
MIL-DTL-38999 series IV	Hunan Kaida Space Connectors	China	Shielding: EMI/RFI shielding with grounding	on request
MIL-DTL-38999 Series IV Circular Connector	Hunan Kaida Space Connectors	China	Standard: MIL-DTL-38999 Series IV	on request
Millimeter-Wave Amplifiers	Mercury Systems	United States	Freq Start: 40 GHz	on request
Miniature Flex-coils	Minco Products, Inc	United States	Maximum outside dimension (Round): 4.50" (114 mm)	on request
MNEMOSYNE Space Non-Volatile Memory	3D Plus (HEICO)	France	Technology: 22 nm STT-MRAM FDSOI	on request
MS3100A 10SL Wall mounting receptacle	Hunan Kaida Space Connectors	China	A thread: 5/8-24 UNF	on request
MS3100A 12 Wall mounting receptacle	Hunan Kaida Space Connectors	China	A thread: 3/4-20 UNEF	on request
MS3100A 12S Wall mounting receptacle	Hunan Kaida Space Connectors	China	A thread: 3/4-20 UNEF	on request
MS3100A 14 Wall mounting receptacle	Hunan Kaida Space Connectors	China	A thread: 7/8-20 UNEF	on request
MS3100A 14S Wall mounting receptacle	Hunan Kaida Space Connectors	China	A thread: 7/8-20 UNEF	on request
MS3100A 16 Wall mounting receptacle	Hunan Kaida Space Connectors	China	A thread: 1-20 UNEF	on request
MS3100A 16S Wall mounting receptacle	Hunan Kaida Space Connectors	China	A thread: 1-20 UNEF	on request
MS3100A 18 Wall mounting receptacle	Hunan Kaida Space Connectors	China	A thread: 1 1/8-18 NEF	on request
Multi-layer Flex	Minco Products, Inc	United States	—	on request
Multicontroller 1888 BC 048	Glavkosmos	Russia	Type of shell: HFCBGA-676	on request
Multiplexers and Diplexers	Mercury Systems	United States	Passband 1: 1435 - 1540 MHz	on request
NOEL-V RISC-V Processor IP Core	Gaisler	Sweden	Architecture: RISC-V	on request
OCE TID-ADC	O.C.E. Technology	—	TID monitoring range: up to 100 kRad cumulative dose	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Optical Materials	Sheldahl (Multek Flexible Circuits)	United States	Coating chemistries: ITO (indium tin oxide), PEDOT	on request
PAKPIC	Mbryonics	Ireland	Fibre array attach process - lidded and lidless fibre arrays: Yes	on request
PakPIC Photonic Packaging Services	Mbryonics	Ireland	Fibre array channel counts: 8, 12, 16 (32-channel by request)	on request
Parts Engineering and Product Assurance	ALTER Technology	Spain	Standards compliance: ECSS-Q-ST-60C	on request
PCI Express Chip 1888 BB 018 A	Glavkosmos	Russia	Type of shell: MK8306-144-1	on request
Phase-Locked Oscillators	WORK Microwave	Germany	Freq. Range (PLO with external reference): 125 – 2500 MHz	on request
Picocom Baseband SoCs and Carrier-Grade Software	Picocom	Ireland	Products: Baseband chipsets, communication technology	on request
Pigtail	Lens R&D	Netherlands	Material: Titanium	on request
Pressure Sensor DAV 067	Glavkosmos	Russia	Range of measurements: 0-0.001; 0-0.0014; 0-0.002	on request
Pressure Sensor Frequency Vt 1201	Glavkosmos	Russia	Range of measurements (0-rn): 0-0.5; 0-1; 0-2; 0-4; 0-5.6; 0-8; 0-16; 0-22;...	on request
Pressure Sensor Vt 212 A.1	Glavkosmos	Russia	Range of measurements: 0-2.8; 0-4; 0-5.6; 0-8; 0-11; 0-16; 0-22; 0-30; 0-45...	on request
Primary Absolute Pressure Transducer Vt 227	Glavkosmos	Russia	Lead time: 6 months	on request
Printed Electronics	Sheldahl (Multek Flexible Circuits)	United States	Inks & pastes: Silver, Carbon/graphite, Ag/AgCl, PTC, PEDOT, dielectrics, g...	on request
Procurement Engineering for Space EEE Components	ALTER Technology	Spain	Procurement approaches: Coordinated Parts Procurement (CPPA), Direct Procur...	on request
Programmable Frequency Synthesizer 16-32 GHz FSN11201632QFP	ReliaSat	United Kingdom	Frequency range: 16-32 GHz (programmable)	on request
Q8 SDR Dock Daughterboard	Xiphos Technologies	Canada	RF transceiver: Analog Devices AD9361	on request
Q8RF Gen 1 RFSoC Processor	Xiphos Technologies	Canada	Mpsoc: Xilinx Zynq UltraScale+ ZU28DR	on request
Rad-Hard ASICs and FPGA Design for Space	Arquimea	Spain	Design types: Analog, digital, mixed-signal ASIC, FPGA, ASSP, IP cores	on request
Rad-Hard LVDS IP & IC Products for Space (SpaceWire / SpaceFibre)	Arquimea	Spain	LVDS data rate: >500 Mbps	on request
Radiation Test – RADLAB	ALTER Technology	Spain	TID dose rate: >100 Krad(Si)/h	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Radiation-resistant VLSI SoC with Integrated MP Core	Glavkosmos	Russia	Purpose: Radiation-resistant highly reliable airborne control and informati...	on request
Rectangle Military Standard Connector – KAIDA	Hunan Kaida Space Connectors	China	Series: CJ10	on request
Reed Solomon Space Radiation Mitigation IP Core	3D Plus (HEICO)	France	Galois field: GL(2^4)	on request
RF & Microwave Testing	ALTER Technology	Spain	Frequency range: 300 MHz to 300 GHz	on request
RF and Microwave Switches	Mercury Systems	United States	Frequency: 0.5 - 18 GHz	on request
RF Filters	Mercury Systems	United States	Passband 1: 0.1 – 910 MHz	on request
RIGID FLEX PCB	Minco Products, Inc	United States	–	on request
RIMC – Radiation Intelligent Memory Controller IP	3D Plus (HEICO)	France	Supported memory types: DDR2, DDR3, DDR4 SDRAM	on request
RSAP (Radiation-Effects Susceptibility Analysis & Prediction)	Lucid Circuit	United States	–	on request
RT ProASIC3	Microchip Technology / Microsemi (Space)	United States	Device: RT3PE600L	on request
RT3PE600L	Microchip Technology / Microsemi (Space)	United States	System gates: 600,000	on request
RT4G150 (RTG4)	Microchip Technology / Microsemi (Space)	United States	FPGA fabric: 4th-gen flash-based (65 nm)	on request
RTAX-DSP	Microchip Technology / Microsemi (Space)	United States	Device: RTAX2000D	on request
RTAX-S/SL	Microchip Technology / Microsemi (Space)	United States	Device: RTAX250S/SL	on request
RTAX2000D/DL	Microchip Technology / Microsemi (Space)	United States	System gates: 2,000,000	on request
RTIMS Flash – Radiation Tolerant Intelligent Memory Stack	3D Plus (HEICO)	France	Density options: 24 Gb, 48 Gb, 64 Gb	on request
RTM60S 6U OpenVPX I/O Rear Transition and Carrier Module	Mercury Systems	United States	RS-232 interfaces: 2x	on request
RTSX-SU	Microchip Technology / Microsemi (Space)	United States	System performance: 230 MHz (310 MHz internal)	on request
Satellite Transponder Systems	Saab Space	Sweden	Functions: Telecommunications transponders, TT&C signal processing	on request
SB600 Series Rectangle Electrical Connector	Hunan Kaida Space Connectors	China	Standard: ARINC600	on request
SCFE3820 3U OpenVPX FPGA Carrier Board	Mercury Systems	United States	Form Factor: Single slot 3U OpenVPX	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
SCFE3821 3U OpenVPX FPGA Board	Mercury Systems	United States	Physical: Single Slot 3U OpenVPX form factor	on request
SCFE6110 6U OpenVPX FPGA Board	Mercury Systems	United States	FMC sites: Two ANSI/VITA 57.4	on request
SCFE6120 6U OpenVPX FPGA Carrier Board	Mercury Systems	United States	Dimensions: Single Slot 6U OpenVPX form factor	on request
SCM6010 & CAN6000 6U OpenVPX SSD Storage	Mercury Systems	United States	Storage: Up to 24 TB	on request
SDR Chipset	Saankhya Labs	India	–	on request
Sensor of a Difference of Pressure DRI 095	Glavkosmos	Russia	Range of measurements: ±2.0; ±5.3; ±16	on request
Sensor of Rapidly Varying Pressures 611M	Glavkosmos	Russia	Lead time: 6 months	on request
SFM6104 6U OpenVPX, SOSA-aligned, Network Switch Board	Mercury Systems	United States	Form Factor: 6U OpenVPX, 1.0" slot pitch	on request
SFM6105 6U OpenVPX Network Switch Board	Mercury Systems	United States	PCIe Interfaces: 24x x4 PCIe Gen3	on request
SFM6126 6U OpenVPX Network Switch Board	Mercury Systems	United States	PCIe Switching: Full Gen3 high-bandwidth	on request
Shaanxi Huada Space Electronics	Shaanxi Huada	China	Product type: Space-grade electronics and semiconductors	on request
SINGLE- AND DOUBLE-LAYER FLEX	Minco Products, Inc	United States	–	on request
Single-part and Small-scale Production of Ceramic Modules	Glavkosmos	Russia	Purpose: Applied for manufacturing radioelectronic modules with 3D topology...	on request
Single-part and Small-scale Production of Interconnection Ceramic Printed Circuit Boards	Glavkosmos	Russia	Year of release: 1980	on request
SiP – System-in-Package	O.C.E. Technology	–	–	on request
SL-300X Universal Demodulator	Saankhya Labs	India	Architecture: Software Defined Radio (SDR)-based demodulator SoC	on request
SL-400X Mobile TV Integrated Receiver	Saankhya Labs	India	Interface: SDIO/SPI	on request
SL100x Universal Demodulator	Saankhya Labs	India	Input: Flexible interface to IF/LIF tuners and digital input	on request
SL900x Universal Modulator	Saankhya Labs	India	Input: Digital Parallel Transport Stream (TS)	on request
Space Blowers & Motion Components	ASPINA	Japan	Products: Blowers, motors, actuators, pumps	on request
Space Hardware & Onboard Computer	AP Satellite (APSI)	South Korea	Products: OBC, data recorder, micro satellite avionics	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Space Qualified 2-Way Power Divider	KRYTAR	United States	Configuration: 2-way matched-line directional divider (MLDD)	on request
Space Qualified Coaxial Termination T3M-SQ	KRYTAR	United States	Frequency versatility: DC to 40.0 GHz	on request
Space Qualified Directional Coupler 101040010-SQ	KRYTAR	United States	Frequency range: 1.0 to 40.0 GHz	on request
Space Radiation Mitigation Majority Voter	3D Plus (HEICO)	France	Part number: 3DRC3508ES2861	on request
Space Radiation Tolerant DDR SDRAM (DDR1)	3D Plus (HEICO)	France	Density range: 2 Gb to 8 Gb	on request
Space Radiation Tolerant DDR2 SDRAM	3D Plus (HEICO)	France	Density range: 1 Gb to 8 Gb	on request
Space Radiation Tolerant DDR3 SDRAM	3D Plus (HEICO)	France	Supply voltage: 1.5 V (1.35 V backward compatible)	on request
Space Radiation Tolerant DDR4 SDRAM	3D Plus (HEICO)	France	Capacity range: 16 Gb to 64 Gb	on request
Space Radiation Tolerant EEPROM	3D Plus (HEICO)	France	Density range: 1 Mb to 8 Mb	on request
Space Radiation Tolerant MRAM	3D Plus (HEICO)	France	Density range: 1 Mb to 64 Mb	on request
Space Radiation Tolerant NAND Flash	3D Plus (HEICO)	France	Density range: 8 Gb to 128 Gb	on request
Space Radiation Tolerant NOR Flash	3D Plus (HEICO)	France	Density range: 64 Mb to 2 Gb	on request
Space Radiation Tolerant PROM	3D Plus (HEICO)	France	Memory type: Non-volatile, One-Time Programmable (OTP)	on request
Space Radiation Tolerant SDRAM	3D Plus (HEICO)	France	Capacity range: 512 Mb to 4 Gb	on request
Space Radiation Tolerant SPI NOR Flash	3D Plus (HEICO)	France	Density range: 128 Mb to 512 Mb	on request
Space Radiation Tolerant SRAM Memory	3D Plus (HEICO)	France	Operating voltage: 3.3 V or 5.0 V	on request
Space Solutions (Frequency Control Solutions)	Rakon Limited	New Zealand	Type: Integrated Master Reference Oscillator subsystem	on request
Space-Grade Crystal Oscillators and Frequency References	Bliley Technologies	United States	Product types: OCX0, TCX0, VCTCX0, VCX0, SAW oscillators	on request
Space-Grade Fiber Optic Cables and Interconnects	Hengtong Optic Electric Space Cable Division	China	Products: Space fiber optics, coaxial RF cables, power cables, interconnect...	on request
SpaceTech Laser Head Electronics (LHE)	SpaceTech GmbH	Germany	DC bias current: <= 500 mA	on request
SpaceWire IP Core (PicoSkyFT)	SkyLabs d.o.o.	Slovenia	Product code: SKY-9001	on request
TA1216 SISO Power Amplifier	Triad RF Systems	United States	Model: TA1216	on request
TAB®PLUS Long-Term Conservation System	ALTER Technology	Spain	Preservation duration: Up to 50 years	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Teledyne e2v CCD201-20 Electron Multiplying CCD (EMCCD)	Teledyne e2v	United Kingdom	Active pixels: 1024 x 1024	on request
Teledyne e2v CCD290-99 Large-Area Back-Illuminated Scientific CCD	Teledyne e2v	United Kingdom	Number of pixels: 9216 (H) x 9232 (V)	on request
Teledyne e2v CCD351-00 L3Vision Electron Multiplying CCD	Teledyne e2v	United Kingdom	Active pixels: 1024 x 1024	on request
Teledyne e2v CCD47-20 Frame-Transfer Scientific CCD	Teledyne e2v	United Kingdom	Image format: 1024 by 1024 (1:1)	on request
TeraBIX Silicon Photonic Transceiver	Mbryonics	Ireland	Data rate: Up to 56 Gb/s NRZ or 112 Gb/s PAM4	on request
TILE — Thermal Integrated LEO Edge Compute Module	Sophia Space	United States	Dimensions: ~1 m ² surface area, ~1 cm thick (foldable)	on request
Twist Pin	Hunan Kaida Space Connectors	China	D: Ø 0.72	on request
Twist Pin Contacts	Hunan Kaida Space Connectors	China	No. 1 outer diameter d: 0.72 mm	on request
Ultra-Low Phase Noise Amplifiers	Mercury Systems	United States	Freq Start: 0.8 GHz	on request
VA10805 Radiation-Hardened ARM Cortex-M0 Microcontroller	VORAGO Technologies	United States	Cpu core: ARM Cortex-M0	on request
VA32HDR14.2	IDEAS (Integrated Detector Electronics AS)	Norway	Number of channels: 32	on request
VA32HDR14.3	IDEAS (Integrated Detector Electronics AS)	Norway	Number of channels: 33	on request
VA41620 Radiation-Hardened ARM Cortex-M4 Microcontroller	VORAGO Technologies	United States	Cpu core: ARM Cortex-M4 with single-precision FPU	on request
VA41628 Radiation-Hardened ARM Cortex-M4 Microcontroller (128-pin)	VORAGO Technologies	United States	Cpu core: ARM Cortex-M4 with FPU	on request
VA41629 Radiation-Hardened ARM Cortex-M4 Microcontroller (Plastic Package)	VORAGO Technologies	United States	Cpu core: ARM Cortex-M4 with single-precision FPU	on request
VA41630 Radiation-Hardened ARM Cortex-M4 Microcontroller	VORAGO Technologies	United States	Cpu core: ARM Cortex-M4 with single-precision FPU	on request
VA5 Family of Rad-Hard and Rad-Tolerant Microcontrollers	VORAGO Technologies	United States	Cores: Dual Arm® Cortex®-M55 Cores with Integrated Floating-Point Unit (FPU...	on request
VA53230 Dual-Core Radiation-Hardened ARM Cortex-M55 Microcontroller	VORAGO Technologies	United States	Cpu cores: 2x ARM Cortex-M55 with FPU and Helium SIMD	on request
VA7230 Space-Grade Edge Computing Microprocessor (ARM Cortex-A72)	VORAGO Technologies	United States	Cpu cores: 2x ARM Cortex-A72, up to 1.5 GHz	on request
VASCM3.2	IDEAS (Integrated Detector Electronics AS)	Norway	Channels: 128	on request
VATA64HDR16.2	IDEAS (Integrated Detector Electronics AS)	Norway	—	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
VATAGP7.1	IDEAS (Integrated Detector Electronics AS)	Norway	Number of channels: 128	on request
VATAGP8	IDEAS (Integrated Detector Electronics AS)	Norway	–	on request
VaultIC408 — Post-Quantum Secure Element for IoT	SEALSQ / WISeSat	Switzerland	Certifications: Common Criteria EAL5+; FIPS 140-3 Level 3 (CMVP validated)	on request
Vibration Testing for Space Hardware	ALTER Technology	Spain	Vibration types: Sine, random, shock	on request
VLCI Receipt/Transmit Center-LSN	Glavkosmos	Russia	Purpose: LSN, systems with Soft-Define Radio	on request
VLSI 16-bit ADC with a Sampling Frequency of 200 MHz	Glavkosmos	Russia	Purpose: Critical systems ADC for radar, communications, DSP, and measureme...	on request
VLSI Direct Conversion Wideband Quadrature Demodulator	Glavkosmos	Russia	Purpose: Construction of radio transceivers	on request
VLSI Frequency Synthesizer Based on Direct Digital Conversion	Glavkosmos	Russia	Purpose: Construction of radio transceivers.	on request
VLSI SIC for GNSS receiver	Glavkosmos	Russia	Purpose: Navigation module PRO-04	on request
VLSI SoCs with Integrated Microprocessor Cores	Glavkosmos	Russia	Purpose: Demanding systems, digital signal processing systems	on request
VLSI Wideband Direct Conversion Modulator	Glavkosmos	Russia	Purpose: Construction of radio transceivers.	on request
VME COTS Modules	Data Patterns (India) Ltd.	India	–	on request
VPX COTS Modules	Data Patterns (India) Ltd.	India	–	on request
VVDN Satellite Electronics Manufacturing	VVDN Technologies	India	Products: Satellite subsystems, avionics, electronic components	on request
XC series	Hunan Kaida Space Connectors	China	Standard: GJB2889	on request
XC Series Circular Connector (Springtac Socket)	Hunan Kaida Space Connectors	China	Standard: GJB2889 (Chinese military)	on request
XCA series	Hunan Kaida Space Connectors	China	Standard: GJB2889	on request
XCD series	Hunan Kaida Space Connectors	China	–	on request
XCE series circular electrical connector	Hunan Kaida Space Connectors	China	Standard: GJB2889	on request
XCF series circular electrical connector	Hunan Kaida Space Connectors	China	Standard: GJB2889	on request
XCG series	Hunan Kaida Space Connectors	China	Standard: GJB2889	on request
XCM series	Hunan Kaida Space Connectors	China	Standard: GJB2889	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
XSCAPE Readout IP Core	Zaitra	Czech Republic	Compatible imagers: Simera Sense xScape100, xScape200	on request
Y11 series circular electrical connector	Hunan Kaida Space Connectors	China	Standard: GJB101A-1997	on request
Y16 series circular electrical connector	Hunan Kaida Space Connectors	China	Standard: Q/HD20030-2006	on request
Y17 series	Hunan Kaida Space Connectors	China	Standard: Q/Ag1.027 A-2006	on request
Y18 series circular electrical connector	Hunan Kaida Space Connectors	China	Standard: Q/Ag1.028-2004	on request
Y2 series circular connector	Hunan Kaida Space Connectors	China	Standard: Q/321283LSC02-2007	on request
Y2 Series Circular Connector	Hunan Kaida Space Connectors	China	Standard: Q/321283LSC02-2007 (Chinese military)	on request
Y23 series circular electrical connector	Hunan Kaida Space Connectors	China	Standard: GJB599A	on request
Y24 series	Hunan Kaida Space Connectors	China	Standard: Q/Ag1.084.1-2006	on request
Y25 series	Hunan Kaida Space Connectors	China	Standard: Q/Ag1.087.1-2002	on request
Y27 Series Circular Electrical Connector	Hunan Kaida Space Connectors	China	Standard: GJB2905-2004 (Chinese military standard)	on request
Y27 series circular electrical connector	Hunan Kaida Space Connectors	China	Basic series: Y27	on request
Y2PX series	Hunan Kaida Space Connectors	China	Standard: HB6-77-83	on request
Y3 series	Hunan Kaida Space Connectors	China	–	on request
Y3A series	Hunan Kaida Space Connectors	China	Standard: GJB2905-2004 and GJB101A-97	on request
Y3B series circular electrical connector	Hunan Kaida Space Connectors	China	Standard: GJB2905-2004 and GJB101A-97	on request
Y4 series	Hunan Kaida Space Connectors	China	Standard: Q/Ag1.004-2000	on request
Y4 Series Circular Connector	Hunan Kaida Space Connectors	China	Standard: Q/Ag1.004-2000 (Chinese military)	on request
Y50DX series	Hunan Kaida Space Connectors	China	Standard: GJB101A-97	on request
Y50EX series circular electrical connector	Hunan Kaida Space Connectors	China	Standard: GJB598A-96	on request
Y50PD series circular electrical connector	Hunan Kaida Space Connectors	China	Standard: GJB101A-97	on request
Y50X series	Hunan Kaida Space Connectors	China	Standard: GJB101A-1997	on request
YGD series	Hunan Kaida Space Connectors	China	Standard: GJB5371-2005	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
YGP series circular electrical connector	Hunan Kaida Space Connectors	China	Coupling: bayonet coupling	on request
YL series	Hunan Kaida Space Connectors	China	Standard: GJB598A-1996	on request
YL11 series circular electrical connector	Hunan Kaida Space Connectors	China	Standard: GJB101A-1997	on request
YLD series	Hunan Kaida Space Connectors	China	—	on request
YPM4 series circular electrical connector	Hunan Kaida Space Connectors	China	—	on request
YQ2 series	Hunan Kaida Space Connectors	China	Standard: GJB598A	on request
YXK series	Hunan Kaida Space Connectors	China	Standard: HB6112-86 and HB6-77-83	on request

Products by manufacturer

3D Plus (HEICO)

FRANCE · 1995 · 21 PRODUCTS

World-leading manufacturer of space electronic components using proprietary 3D interconnect technology for extreme miniaturization.



3D PLUS (HEICO) 3D Stacked Space Memory Modules

Radiation-hardened 3D stacked memory modules for space — SRAM, FLASH, EEPROM in dense miniaturized packages qualified to ESA ESCC and MIL standards for satellite and deep space app

Memory types	SRAM, NOR FLASH, EEPROM, DRAM
Technology	Radiation-hardened 3D vertical stacking
Qualification	ESA ESCC 9000, MIL-PRF-38535
Radiation tolerance	TID, SEL, SEU qualified per product datasheet
Package	Hermetically sealed SMD / flatpack

price on request

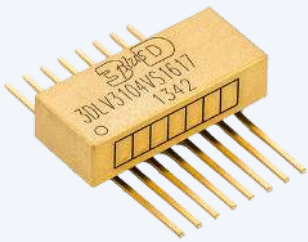


3D PLUS (HEICO) High Density NAND Flash Memory for Space

Ultra-high-density TLC NAND Flash for space in p-SLC mode, offering 4 Tb and 8 Tb capacities via ONFI 4.2/NV-DDR3 at 600 MHz. BGA-packaged for onboard recorders and payload data st

Density options	4 Tb, 8 Tb
Technology	TLC in p-SLC mode
Interface standard	ONFI 4.2
Interface type	NV-DDR3
Maximum interface speed	600 MHz

price on request



3D PLUS (HEICO) LVDS Space Radiation Tolerant Interfaces

Radiation-tolerant LVDS line drivers, receivers, and transceivers for space with 4 or 8 channels in a single miniaturized SOP package, supporting >400 Mbps on 3.3V. Proven in mi

Switching rate	>400 Mbps (200 MHz)
Power supply	3.3 V
TID tolerance	>100 krad(Si)
SEL lethh	>80 MeV.cm²/mg
SEU immunity	Immune

price on request [datasheet](#)



3D PLUS (HEICO) LVT Space Radiation Hardened Interfaces

Radiation-hardened LVT dual 16-bit transceivers and level shifters for space, providing 32 channels in a single SOP82 package with cold sparing and bus hold, SEL/SEU immune, and TI

Channel density	32 channels per package
Propagation delay	1–4 ns
TID tolerance	>100 krad(Si)
SEL immunity	Immune
SEU immunity	Immune

price on request



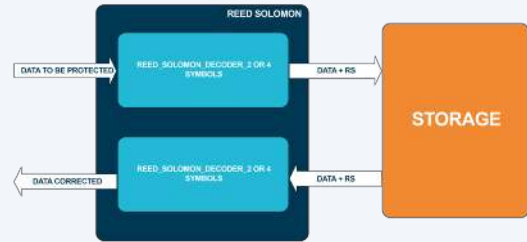
3D PLUS (HEICO)

MNEMOSYNE Space Non-Volatile Memory

SEE-immune non-volatile memory ASIC based on 22 nm STT-MRAM FDSOI technology with up to 1 Gb density, 100 krad(Si) TID tolerance, and immunity to SEL/SEU/SEFI/SET up to 85 MeV.cm²/

Technology	22 nm STT-MRAM FDSOI
Maximum density	1 Gb
Supply voltage options	1.8 V or 3.3 V
Serial interface	SPI, DSPI, QSPI, OSPI
Parallel interface	EEPROM-compatible

price on request



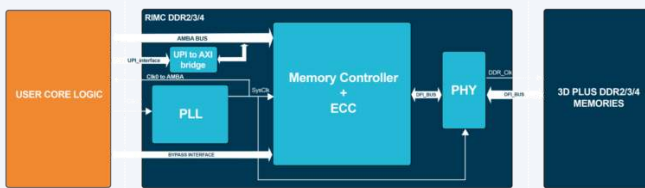
3D PLUS (HEICO)

Reed Solomon Space Radiation Mitigation IP Core

Encoding and decoding Reed-Solomon IP core for space data protection, operating on Galois field $GL(2^4)$ with configurable 1 or 2 symbol correction. Designed to protect data stored

Galois field	$GL(2^4)$
Symbol size	4 bits
Maximum message size	15 symbols (60 bits)
Symbol correction capacity	1 or 2 symbols (configurable)
Encoder type	Combinatory entity (zero latency)

price on request



3D PLUS (HEICO)

RIMC – Radiation Intelligent Memory Controller IP

Fully configurable DDR2/3/4 SDRAM memory controller IP core with SEU mitigation, SEFI protection, and AMBA-compliant user interface. Supports data widths from 8-bit to 144-bit and

Supported memory types	DDR2, DDR3, DDR4 SDRAM
Data width range	8-bit to 144-bit
Maximum speed (DDR4)	1,200 MHz
Phy interface (DDR2/3)	DFI 2.1
Phy interface (DDR4)	DFI 3.1

price on request



3D PLUS (HEICO)

RTIMS Flash – Radiation Tolerant Intelligent Memory Stack

Plug-and-play radiation-tolerant NAND Flash with embedded Flash Memory Controller (FMC) and TMR/EDAC radiation protection. Available in 24 Gb, 48 Gb, and 64 Gb, enabling seamless i

Density options	24 Gb, 48 Gb, 64 Gb
Memory technology	SLC-based NAND Flash with embedded FMC
TID tolerance	>50 krad(Si)
SEL letth	>62.5 MeV.cm ² /mg
Program/erase cycles	100,000

price on request



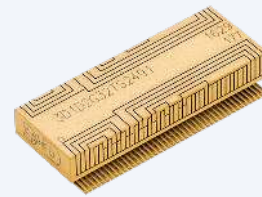
3D PLUS (HEICO)

Space Radiation Mitigation Majority Voter

3-input high-speed octal majority voter (3DRC3508ES2861) with built-in TMR for SEE mitigation in space. Operates 1.65–5.5V at up to 100 Mbps with 13 ns propagation delay and cold s

Part number	3DRC3508ES2861
Supply voltage range	1.65 V to 5.5 V
Supply voltage	Up to 5.5 V at any Vcc
Data rate	Up to 100 Mbps
Propagation delay	13 ns maximum at 3.3 V

price on request



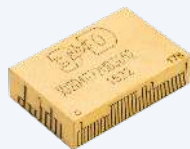
3D PLUS (HEICO)

Space Radiation Tolerant DDR SDRAM (DDR1)

Radiation-tolerant DDR1 SDRAM modules for space applications with densities from 2 Gb to 8 Gb at 400 MT/s. Available in SOP and BGA packages; note these are not recommended for new

Density range	2 Gb to 8 Gb
Speed	Up to 400 MT/s
Operating voltage	2.5 V
Data bus widths	x16b, x32b, x72b
Operating temperature	-40°C to +105°C

price on request



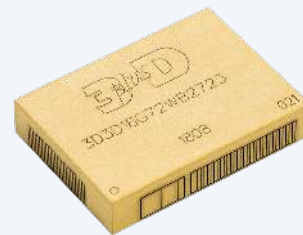
3D PLUS (HEICO)

Space Radiation Tolerant DDR2 SDRAM

Radiation-tolerant DDR2 SDRAM for space with densities from 1 Gb to 8 Gb at up to 667 MT/s on 1.8V. Features embedded decoupling capacitors and has flight heritage on the Mars 2020

Density range	1 Gb to 8 Gb
Speed	Up to 667 MT/s
Operating voltage	1.8 V
Data bus widths	x8b, x48b, x72b
Operating temperature	-40°C to +105°C

price on request



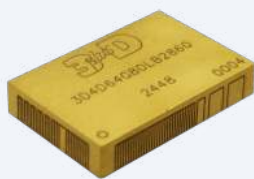
3D PLUS (HEICO)

Space Radiation Tolerant DDR3 SDRAM

Space-qualified DDR3 SDRAM with densities from 16 Gb to 24 Gb at up to 1333 MT/s on 1.35–1.5V. BGA-packaged with embedded decoupling capacitors for signal integrity in harsh orbita

Supply voltage	1.5 V (1.35 V backward compatible)
Speed	Up to 1333 MT/s
Available densities	16 Gb, 24 Gb
Organization options	x16b, x48b, x72b
Operating temperature	-40°C to +105°C

price on request



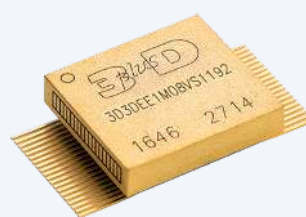
3D PLUS (HEICO)

Space Radiation Tolerant DDR4 SDRAM

Radiation-tolerant DDR4 SDRAM for space with densities from 16 Gb to 64 Gb at up to 2400 MT/s on 1.2V. BGA-packaged with embedded decoupling and termination resistors for high-speed

Capacity range	16 Gb to 64 Gb
Organization	x48b, x72b, x80b
Vdd/vddq	1.2 V
Vpp	2.5 V
Speed	Up to 2400 MT/s

price on request



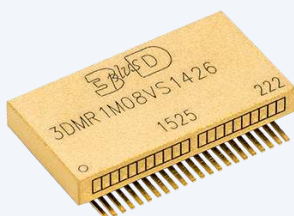
3D PLUS (HEICO)

Space Radiation Tolerant EEPROM

Radiation-tolerant EEPROM for space with on-board and in-orbit programming capability, densities from 1 Mb to 8 Mb, 10,000 write/erase cycles, and 10-year data retention. Available

Density range	1 Mb to 8 Mb
Write/erase cycles	10,000 cycles
Data retention	10 years
Access time	250 ns
Supply voltage	3.3 V or 5.0 V

price on request



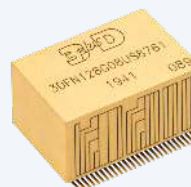
3D PLUS (HEICO)

Space Radiation Tolerant MRAM

Radiation-tolerant MRAM for space based on Everspin technology, offering SRAM-speed performance with inherent SEU immunity, unlimited endurance, and 20-year data retention. Densiti

Density range	1 Mb to 64 Mb
Supply voltage	3.3 V
Access time	40 ns
Data bus widths	x8b, x16b, x32b, x40b
Read/write endurance	Unlimited

price on request



3D PLUS (HEICO)

Space Radiation Tolerant NAND Flash

Radiation-tolerant SLC NAND Flash for space with densities from 8 Gb to 128 Gb, 100,000 P/E cycles, and asynchronous/synchronous parallel interfaces. Designed for high-density data

Density range	8 Gb to 128 Gb
Technology	Single Level Cell (SLC)
Interface	Asynchronous and synchronous parallel
Data bus widths	x8b or x16b
Program/erase cycles	100,000 cycles

price on request



3D PLUS (HEICO)

Space Radiation Tolerant NOR Flash

High-density radiation-tolerant NOR Flash memory for space on 3.3V with parallel interface, densities from 64 Mb to 2 Gb, zero bad blocks, and 20-year data retention. Flight-proven

Density range	64 Mb to 2 Gb
Supply voltage	3.3 V
Interface	Asynchronous parallel (x8 or x16)
Access time	90–110 ns
Data retention	20 years

price on request



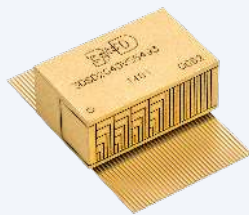
3D PLUS (HEICO)

Space Radiation Tolerant PROM

One-time programmable non-volatile PROM for space applications with up to 128 Mb density, 20-year data retention, and immunity to SEL and SEU up to 120 MeV.cm²/mg. Available with s

Memory type	Non-volatile, One-Time Programmable (OTP)
Density range	32 Mb to 128 Mb
Interface	Serial or 8-bit parallel
Clock rate	20 MHz
Access time	250 ns

price on request



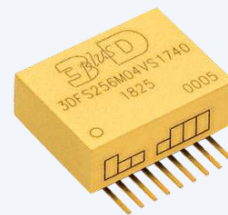
3D PLUS (HEICO)

Space Radiation Tolerant SDRAM

High-performance radiation-tolerant SDRAM for space applications, offering capacities from 512 Mb to 4 Gb at up to 133 MT/s. Proven flight heritage since 2003 across scientific, Ea

Capacity range	512 Mb to 4 Gb
Operating speed	Up to 133 MT/s
Data bus width	x8, x16, x32, x40, x64 bits
Operating voltage	3.3 V
Operating temperature	-40°C to +105°C

price on request



3D PLUS (HEICO)

Space Radiation Tolerant SPI NOR Flash

Radiation-tolerant SPI NOR Flash for space in QSPI (high speed, up to 133 MHz) and TMR (SEU-immune) variants, with densities from 128 Mb to 512 Mb on 3.3V. Flight heritage since 20

Density range	128 Mb to 512 Mb
Operating voltage	3.3 V
Qspi clock speed	Up to 133 MHz
Tmr clock speed	Up to 50 MHz
Data retention	20 years

price on request



3D PLUS (HEICO)

Space Radiation Tolerant SRAM Memory

Radiation-tolerant SRAM memory modules for space applications, operating at 3.3V or 5.0V with densities from 4 Mb to 32 Mb and access times of 12 ns. Available in multiple bus widths

Operating voltage	3.3 V or 5.0 V
Density range	4 Mb to 32 Mb
Access time	12 ns
Data bus widths	x8b, x16b, x32b, x40b
Operating temperature	-55°C to +125°C

[price on request](#) [datasheet](#)

Accord

INDIA · 1991 · 1 PRODUCT

Accord Software & Systems designs and manufactures customized GPS/GNSS receivers for space applications and GPS/GNSS semiconductor chips for defense and commercial markets.



ACCORD

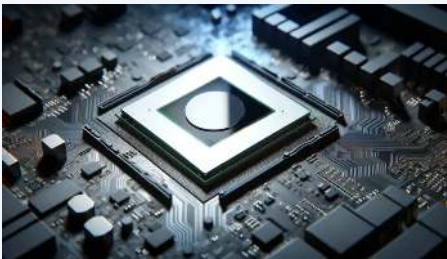
AST-500 Multi-GNSS Baseband SoC

Indigenous multi-constellation GNSS System-on-Chip supporting GPS, GLONASS, NavIC, BeiDou, Galileo, QZSS, and GAGAN across L1/L2/L5/S-band — dual-core 440 MHz CPU, 8 Mbit SRAM.

Constellations	GPS, GLONASS, NavIC, BeiDou, Galileo, QZSS, GAGAN
Frequencies	L1, L2, L5, S-band (dual concurrent)
Cpu	Dual-core 440 MHz with FPU
Sram	8 Mbits
Battery-backed ram	32 KB

[price on request](#)

US developer of GaN-on-Diamond satellite radios and power amplifiers delivering 3-5x higher data rates through proprietary Diamond Cooling technology.



AKASH SYSTEMS

Chip on Diamond

Akash Systems' Chips-on-Diamond integrates the extreme thermal conductivity of diamond with essential computing components like GPUs, CPUs, and Memory, significantly cutting coolin

Temperature Reduction (GPU-on-Diamond)	~60%
Compute Increase	2-4x more
Energy Reduction	~40%

price on request



AKASH SYSTEMS

Diamond-Cooled SERVERS

Akash's Diamond Cooled Servers drastically reduce GPU temperatures with Diamond Cooling® technology, providing thermal headroom for performance optimization.

GPU temperature reduction	10°C
Token throughput improvement	15%
Additional FLOPs/watt	22%
Operational inlet temperature	120°F
Power to cooling	100% LESS

price on request

Alpha Data Parallel Systems manufactures FPGA cards, I/O adaptors, carrier cards, and development kits. They provide custom solutions and legacy products for various markets, including space and high-reliability development. Their products



ALPHA DATA PARALLEL SYSTEMS

ADM-VB630 Adaptive SoC Development for Space

A 3U Space VPX reference platform featuring the AMD Versal AI Edge XQRVE2302 Adaptive SoC for Space applications, available in 160 mm or 220 mm deep Space VPX form factors.

Operating temperature	-55 to +105 °C
Storage temperature	-60 to +150 °C
Vibration	5 Hz to 100 Hz, PSD increasing at 3 dB/octave 100 Hz to 1000 Hz, PSD = 0.1 g2/Hz 1000 Hz t
Shock	40 g, 11 millisecond
Humidity	Up to 95% (non-condensing)

price on request datasheet



ALPHA DATA PARALLEL SYSTEMS

ADM-XRC-9R1

The ADM-XRC-9R1 is a high-performance System On Module (SOM) based on the AMD Zynq Ultrascale+ RFSoc, combining FPGA Fabric, ADC and DAC interfaces, and ARM CPU cores in a single I

price on request datasheet

ALTER Technology provides laboratory and engineering services for high-reliability EEE components, specializing in microelectronics and optoelectronics engineering, procurement, assembly, and testing



ALTER TECHNOLOGY
Component Qualification Services

ALTER Technology rigorously assesses and certifies EEE components for space missions through failure analysis, counterfeit detection, constructional analysis, destructive physical

Failure analysis	Root cause investigation of component failures
Counterfeit detection	Identification and elimination of counterfeit components
Constructional analysis	Internal structure evaluation for design integrity
Dpa	Detailed examination of internal failures and manufacturing defects
Lot acceptance testing	Batch compliance verification

price on request



ALTER TECHNOLOGY
Cryogenic and Space Vacuum Testing

ALTER Technology provides cryogenic and space vacuum testing services using deep vacuum chambers and cryostats to qualify image sensors, photonic devices, and quantum systems for s

Test environment	Deep vacuum and cryogenic temperatures
Quantum applications	Single-photon detectors, superconducting circuits, entangled photon sources
Qualification tests	Outgassing behavior, thermal contraction, mechanical integrity
Custom setups	Specialized vacuum chambers and cryostats with controlled temperature and pressure

price on request



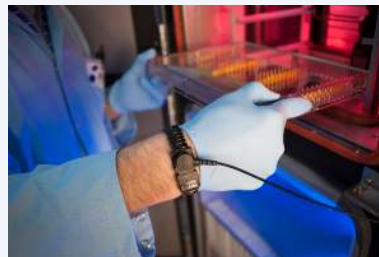
ALTER TECHNOLOGY

Electrical Testing for EEE Components

ALTER Technology provides accredited electrical testing for electronic components including ESD testing up to 16.5 kV, LCR characterization up to 3 GHz, high-power dielectric test

ESD testing capability	Up to 16.5 kV
ESD standard	EN 61000-4-2
ESD modes	Contact and air-discharge
Dielectric withstanding voltage	Up to 12 kV
Lcr characterization frequency	Up to 3 GHz

price on request



ALTER TECHNOLOGY

Environmental Testing for Space Components

ALTER Technology provides ENAC-accredited environmental testing simulating temperature, humidity, mechanical stress, and radiation conditions for space and high-reliability electro

Thermal tests	Accelerated bias aging, cryogenic evaluation, HAST, humidity, temperature cycling, thermal
Mechanical tests	Mechanical testing, preconditioning, radiation testing, salt atmosphere testing
Compliance tests	IP testing, EMC testing
Enac accreditation	345/LE 809
EMC directive	Notified Body for 2004/108/EC

price on request

ALTER TECHNOLOGY

ESA Space Test Center

ALTER Technology operates an ESA-certified space test center per ECSS-Q-ST-20-07C for validation of small satellites and their components, offering environmental, EMC, vibration, s

Certification standard	ECSS-Q-ST-20-07C
Parent organization	TÜV NORD GROUP
Testing capabilities	Thermal vacuum, vibration, shock, EMC
Digital platform	doEEEt.com – high-reliability parts data with radiation tolerance filtering
Services	Parts selection, COTS assessment, custom packaging, qualification management, component st

price on request



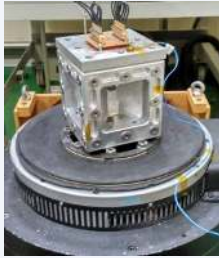
ALTER TECHNOLOGY

Materials and Processes Laboratory

ALTER Technology's Materials & Processes Lab offers cross-section analysis, PCB qualification, crimp quality services, advanced materials analysis (SEM-EDS, Raman, FT-IR, XPS),

PCB standards	IPC-A-600, IPC-A-610, ECSS-Q-ST-70-60C, ECSS-Q-ST-70-61C
Crimp standard	ECSS-Q-ST-70-26C
Materials analysis techniques	SEM-EDS, Raman Microscopy, FT-IR, XPS
Coating characterization	Tg, CTE, layer thickness, surface energy, adhesion, roughness
Non-destructive inspection	C-SAM (Scanning Acoustic Microscopy), 2D X-ray, 3D CT

price on request



ALTER TECHNOLOGY

Mechanical Testing for Space Components

ALTER Technology provides vibration, shock, and constant acceleration testing for space components to validate structural integrity under launch and operational stress, with capabilities

Constant acceleration capability	Up to 50,000 g
Vibration test types	Sine, random, sine-on-random, random-on-random
Vibration standards	ECSS-Q-ST-70-08C, ECSS-Q-ST-70-38C, EN 60068-2-6, EN 60068-2-64, ISO 19683, EN 61373
Shock methods	Classical mechanical shock, Shock Response Spectrum (SRS)
Shock standards	EN 60068-2-27, MIL-STD-202, MIL-STD-883, ECSS-Q-ST-70-38C, ISO 19683

price on request



ALTER TECHNOLOGY

Procurement Engineering for Space EEE Components

ALTER Technology provides coordinated and direct procurement engineering for space EEE components, including Declared Component List management, supplier audits, incoming inspection

Procurement approaches	Coordinated Parts Procurement (CPPA), Direct Procurement
Primary customer	ESA satellite projects (CPPA)
Documentation	PADs, procurement specifications, test plans
Testing services	Incoming inspection, DPA, screening, evaluation testing, LAT, re-living
Compliance	ITAR compliance management

price on request

ALTER TECHNOLOGY

Parts Engineering and Product Assurance

ALTER Technology provides EEE parts engineering and product assurance across the complete lifecycle of space unit design, covering Declared Component Lists, radiation engineering,

Standards compliance	ECSS-Q-ST-60C
Radiation tests	TID, TNID (displacement damage), SEE
Radiation software tools	OMERE, CREME96, FLUKA, FASTRAD
Mission types supported	LEO, GEO
Review phases supported	PDR, CDR, MRR, TMR

price on request



ALTER TECHNOLOGY

Radiation Test – RADLAB

ALTER RADLAB provides comprehensive radiation testing for EEE components used in space and high-reliability applications, covering total ionizing dose, heavy ion, proton, laser, and

TID dose rate	>100 Krad(Si)/h
TID source type	Cobalt-60 (panoramic, cell, and pool sources)
TID biasing modes	Static and dynamic biasing
Heavy ion effects tested	SEU, SET, SEL, SESB, SEB, SEGR, SEFI
Additional test methods	Proton (SEE and displacement damage), laser pre-qualification, neutron (accelerated soft e

price on request

[datasheet](#)



ALTER TECHNOLOGY
RF & Microwave Testing

ALTER Technology provides a full set of RF and microwave testing activities covering traditional low-frequency EEE components and microwave devices across 300 MHz to 300 GHz, inclu

Frequency range	300 MHz to 300 GHz
Technology coverage	MMIC, microstrip, coaxial, rectangular waveguide
Design methods	Distributed circuit elements, transmission-line theory
Markets served	Space, aerospace, defense, high-reliability

price on request

ALTER TECHNOLOGY
TAB@PLUS Long-Term Conservation System

TAB@PLUS is a proprietary controlled-atmosphere system for preserving electronic components for up to 50 years, actively suppressing aging mechanisms rather than merely slowing the

Preservation duration	Up to 50 years
Core technology	Controlled atmosphere with absorbers and temperature-managed diffusion control
Protection mechanisms	Eliminates harmful gases, blocks intermetallic growth, multi-layer functional packaging
Monitoring	Cyclical monitoring and analysis with continuous validation
Supported item types	Displays, assemblies, devices, wafers, dies

price on request



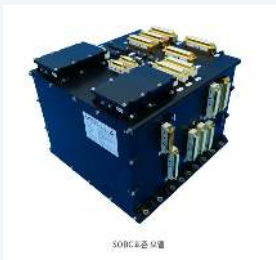
ALTER TECHNOLOGY
Vibration Testing for Space Hardware

ALTER Technology provides specialized vibration testing to validate space component and package reliability under sine, random, and shock conditions simulating rocket launch and op

Vibration types	Sine, random, shock
Mil-std-883 methods	2002, 2005, 2006, 2007, 2026
Mil-std-750 methods	2016, 2046, 2051, 2056, 2057
Mil-std-202 methods	201, 204, 213, 214
Ecss standards	ESCC 3401, ESCC Q-ST-70-38, ECSS-Q-ST-70-08C

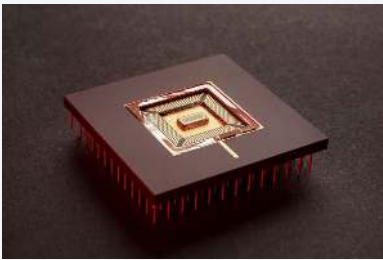
price on request [datasheet](#)

AP Satellite Inc. (APSI) is a South Korean KOSDAQ-listed company manufacturing satellite communication terminals and space hardware, including onboard computers and small satellite platforms for Korean space missions.



AP SATELLITE (APSI)	
Space Hardware & Onboard Computer	
APSI develops space-qualified hardware including standard onboard computers (OBC), space data recorders, micro satellite avionics, and small satellite platforms for Korean space mi	
Products	OBC, data recorder, micro satellite avionics
Missions	Danuri (KPL0), KPS
Orbit	LEO, GEO, Lunar
Standard	MIL-STD, Korean space qualification
price on request	

Spanish space technology company founded 2007 in Leganes, developing MEMS relay switches, SiC power devices, and miniaturized power conditioning units for satellite applications.



ARQUIMEA	
Rad-Hard ASICs and FPGA Design for Space	
End-to-end radiation-hardened analog, digital, and mixed-signal ASIC and FPGA design services for space, from requirements definition through chip manufacturing and space-standard	
Design types	Analog, digital, mixed-signal ASIC, FPGA, ASSP, IP cores
Technology nodes	Mature nodes to 22 nm FDSOI and below
Radiation effects covered	TID, latch-up, SEU, SET, displacement damage
Quality standards	ESA ECSS, NASA, MIL
Notable missions	SpainSat NG, EUTELSAT QUANTUM, ESA COSMIC VISION, Galileo



ARQUIMEA	
Rad-Hard LVDS IP & IC Products for Space (SpaceWire / SpaceFibre)	
Fully European space-grade radiation-hardened LVDS driver, receiver, transceiver, and repeater ICs, plus SEPHY Ethernet PHY and SECHIS SERDES, enabling SpaceWire and SpaceFibre hig	
LVDS data rate	>500 Mbps
LVDS family devices	Driver, Receiver, Transceiver, Repeater
LVDS reference part	ARQ-LVT001 (Dual BiCMOS 500 Mbps Transceiver)
Sephy standard	10BASE-T / 100BASE-TX Ethernet PHY
Sephy data rates	10 Mbps and 100 Mbps

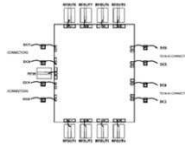
price on request

price on request

Arralis

IRELAND · 3 PRODUCTS

Irish developer of mmWave and RF/microwave MMICs, modules, phased-array antennas, and radar/comms front-end systems for satellite, aerospace and defense markets.



ARRALIS

E-Band SP8T RF Switch MMIC E-SP8T-7681

The E-SP8T-7681 is a GaAs Schottky diode MMIC single-pole 8-throw RF switch covering 76-81 GHz with 4.5-5 dB insertion loss, 20-25 dB isolation, and 22 dBm power handling for autom

Technology	GaAs Schottky Diode MMIC
Frequency	76-81 GHz
Switch configuration	SP8T (single-pole 8-throw)
Insertion loss	4.5-5 dB
Isolation	20-25 dB

price on request

[datasheet](#)



ARRALIS

K/Ka-Band Low Noise Amplifier MMIC KKa-LNA-1929

The KKa-LNA-1929 is a GaAs pHEMT 3-stage MMIC low noise amplifier covering both 17-21 GHz (K-band) and 27-31 GHz (Ka-band), providing 20 dB gain and 2.5 dB noise figure in a bare d

Technology	GaAs pHEMT MMIC, 3-stage
Frequency	17-21 GHz (K-band) and 27-31 GHz (Ka-band)
Gain	16-24 dB (typ. 20 dB)
Noise figure	2.5-3.2 dB
Supply voltage	4-6 V

price on request

[datasheet](#)



ARRALIS

Ka-Band Analog Phase Shifter MMIC Ka-PS-2533

The Ka-PS-2533 is a GaAs diode MMIC analog phase shifter covering 25.5-32.5 GHz with a full 360-degree phase variation, designed for phased array beam steering in Ka-band satellite

Technology	GaAs Diode MMIC (analog)
Frequency	25.5-32.5 GHz
Phase variation	0-360 degrees
Insertion loss	5-10 dB
Phase tracking	+/-25 degrees

price on request

[datasheet](#)

ASPINA

JAPAN · 1948 · 1 PRODUCT

ASPINA is the corporate brand of Shinano Kenshi Co., Ltd., a Japanese precision technology group manufacturing motors, actuators, blowers, and

electronic components for space, medical, and industrial applications.



ASPINA

Space Blowers & Motion Components

ASPINA (Shinano Kenshi) develops precision motors, blowers, and motion components for space applications, including hardware qualified for the International Space Station (ISS). Th

Products	Blowers, motors, actuators, pumps
Flight heritage	Hardware launched to International Space Station (ISS)
Applications	Thermal control, life support, rack cooling, satellite mechanisms
Environment	Microgravity, vacuum, radiation qualified

price on request

AstroGate Labs

INDIA · 2017 · 1 PRODUCT

AstroGate Labs is a Bengaluru-based space startup pioneering laser communication terminals for nano and small satellites, enabling 1 Gbps space-to-ground data downlinks.

ASTROGATE LABS

Laser Communication Terminal

AstroGate Labs’ laser communication terminal is one of the smallest optical comm terminals for nano and small satellites, enabling space-to-ground data downlinks up to 1 Gbps

Downlink speed	up to 1 Gbps
Vs RF	10-100x faster, lower cost
Target platforms	Nano and small satellites
Flight heritage	Validated with Indian Navy, ISRO, DRDO
Award	DRDO Dare 2 Dream Award 2024

price on request

Astronika is a Polish space mechanisms company and ESA/NASA mission supplier, developing deployable booms, hold-down mechanisms, penetrating devices, and precision actuators for science and commercial satellite missions.



ASTRONIKA
Deployable Booms & Antennas

Astronika designs and manufactures tubular boom-based deployable structures and antenna systems for satellites. Products include rigid-flex PCB-based antennas, carbon-fiber and met

Types	Tubular booms, antenna deployers, dual-wishbone
Materials	Carbon fiber, metals, rigid- flex PCB
Flight heritage	ESA JUICE, RadCube, multiple CubeSats
Applications	Communication, navigation, science sensors

price on request



ASTRONIKA
Deployment Mechanisms & Space Instruments

Astronika designs and manufactures deployment mechanisms, in-situ measurement instruments, and electromagnetic actuators for space science missions and small satellites. The compan

Flight heritage	NASA InSight Mars lander (MOLE mechanism)
Products	Deployment mechanisms, coilgun actuators, CubeSat deployers
Technology	Rigid-flex PCB, electromagnetic actuation
Applications	Science missions, CubeSats, small satellites

price on request



ASTRONIKA
Hold-Down & Release Mechanisms (HDRM)

Astronika's non-pyrotechnic hold-down and release mechanisms (HDRMs) secure spacecraft appendages during launch and release them reliably on command in orbit. Used on NASA In

Type	Non-pyrotechnic, electromagnetic activation
Flight heritage	NASA InSight (HP3 Mole), ESA Hera
Applications	Booms, antennas, solar panels, instruments
Activation	Electromagnetic / shape memory alloy

price on request

US manufacturer of precision frequency control products — oscillators, crystals, and synthesizers — including space-grade and radiation-hardened components for satellite and defense missions.

BLILEY TECHNOLOGIES
Bliley Space-Qualified Frequency Control Products
US manufacturer of space-qualified crystal oscillators and frequency control products for satellite timing and communication systems.

Products	Crystal oscillators, VCXOs, frequency control
Applications	Satellite timing, communication, navigation

price on request

BLILEY TECHNOLOGIES
Space-Grade Crystal Oscillators and Frequency References
Bliley Technologies' radiation-tolerant OCXO, TCXO, and VCTCXO crystal oscillators and frequency reference modules for satellite timing, navigation, and communications.

Product types	OCXO, TCXO, VCTCXO, VCXO, SAW oscillators
Frequency range	1 MHz – several GHz
Stability	±0.05 ppb/°C (OCXO, best grade)
Radiation	Radiation-tolerant screened; total ionizing dose tested
Standards	MIL-PRF-55310 screening, ITAR controlled

price on request

Centum Electronics

INDIA · 1963 · 2 PRODUCTS

Indian defense and space electronics company founded 1963 in Bengaluru, supplying hybrid microelectronics, power systems, and satellite subsystem assemblies to ISRO and defense programs.



CENTUM ELECTRONICS
Centum Space-Grade Electronics
Indian electronics manufacturer producing space-qualified printed circuit boards, power modules, and avionics for satellite and defense applications.

Products	Space-grade PCBs, power modules, avionics
Customers	ISRO, commercial satellite manufacturers

price on request



CENTUM ELECTRONICS
Defence and Space Electronics Systems
Centum Electronics' electronic subsystems for Indian space and defence programs — including PCBs, power electronics, and test equipment for ISRO satellite and launch vehicle missio

Products	PCDUs, DC-DC converters, battery management, RF assemblies, PCBAs
Customers	ISRO, HAL (Tier-1 supplier), Indian defence programs
Certifications	AS9100D, ISO 9001:2015, NADCAP
European presence	Centum Adetel Group, France
HQ	Bengaluru, India (BSE/NSE listed)

price on request

Data Patterns (India) Ltd.

INDIA · 1998 · 6 PRODUCTS

Vertically integrated Indian defence and aerospace electronics company designing and manufacturing avionics, microelectronics, RF/microwave, radar, test equipment and space systems.

Microelectronics & Components · NewSpace Market · newspacemarket.com

p. 35 / 117



DP-cPCI-5586 High Voltage Insulation Tester

DATA PATTERNS (INDIA) LTD.

cPCI COTS Modules

Compact PCI processor, display and I/O modules and chassis

price on request



4-Channel, 250 MHz 16-bit ADC PMC XMC Module

DATA PATTERNS (INDIA) LTD.

Digital IF Processors & Waveform Generators

High-speed digitizer and waveform generation modules for signal processing

price on request



DATA PATTERNS (INDIA) LTD.

FPGA Mezzanine Card (FMC)

A family of FPGA Mezzanine Card (FMC), Signal Conditioner Card (SC) and Switched Mezzanine Card (XMC) plug-in modules from Data Patterns for high-speed ADC/DAC digitization, wavefo

Product name DP-FMC-1002 - Dual Channel 12 BIT / 10 Bit 4 GSPS / 3 GSPS FMC ADC Module

Product name (2) DP-FMC-2009 - Dual Channel 14 BIT FMC DAC Module

Product name (3) DP-FMC-5001 - 400 MHz Dual Channel 14 BIT FMC ADC

Product name (4) DP-FMC-5004 - 125 MHz Quad Channel 16 BIT FMC ADC

Product name (5) DP-PMC-1104 - Quad Channel 105 MHz 16 BIT ADC PMC Module

price on request



High Performance VPX based FMC Carrier Module

DATA PATTERNS (INDIA) LTD.

High Speed Processors

Multi-core and FPGA-based high-speed processing modules for radar and image processing

price on request



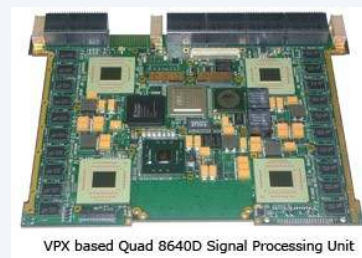
Versa Module Eurocard(VME)

DATA PATTERNS (INDIA) LTD.

VME COTS Modules

VME64x rugged I/O, signal processing and chassis products

price on request



VPX based Quad 8640D Signal Processing Unit

DATA PATTERNS (INDIA) LTD.

VPX COTS Modules

VPX (ANSI/VITA 46.0) rugged processing and RF modules for defence applications

price on request

FAULHABER Drive Systems manufactures DC-Motors, Brushless DC-Motors, Motors with integrated Electronics, Stepper Motors, Linear Motors, Precision Gearheads, Linear Actuators, Encoders, and Drive Electronics. They also provide accessories su



FAULHABER DRIVE SYSTEMS

Electronic Filters

FAULHABER offers motor-side and input-side electronic filters designed to suppress electromagnetic interference (EMI) in drive systems, ensuring reliable operation in sensitive app

Supply voltage	0...50 V
Max. continuous power losses	100 W
Continuous output current	2 A
Operating temperature	-25...+65 °C
Storage temperature range	-25...+85 °C

[price on request](#) [datasheet](#)

Gaisler

Radiation-hardened microprocessors, IP cores, and software for space and high-reliability embedded systems.



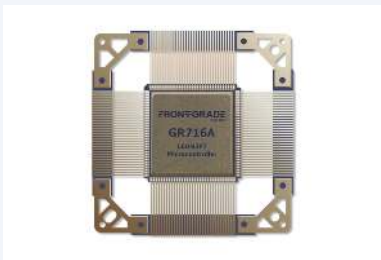
GAISLER

Gaisler Embedded Computer Systems and Microelectronics

Gaisler provides embedded computer systems and radiation-hardened microelectronics, including VHDL IP cores and a complete software ecosystem for LEON SPARC and NOEL RISC-V process

Product standards	QML Q/V, ECSS9000, ECSS9030, ECSS-ST-60-13C
Flight heritage	Millions of flight hours since 2001

[price on request](#)



GAISLER

GR716A

The GR716A is a radiation-hardened, fault-tolerant LEON3FT SPARC V8 microcontroller designed for space and other high-reliability applications, featuring integrated communication i

Status	Flight Models Available
Processor	fault-tolerant LEON3FT SPARC V8
Supply voltage	single 3.3 V
Qualification status	Flight parts available (*Electrical rejects may be delivered in lieu of dummy package mode
Frequency	50 MHz

[price on request](#) [datasheet](#)



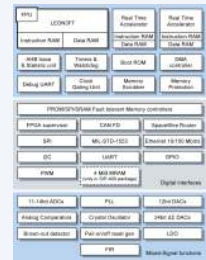
GAISLER

GR765 Octa-Core RISC-V/SPARC Rad-Hard SoC

Next-generation rad-hard system-on-chip with 8 RISC-V/SPARC cores, embedded FPGA, and integrated hardware security module.

Cores	Up to 8, RISC-V/SPARC
Memory interfaces	DDR2/DDR3/DDR4
High-speed i/o	SpaceFibre, WizardLink
Embedded FPGA	Radiation-hardened eFPGA, 32k LUTs
Security	Isolated HSM SoC, PQC support, hardware root of trust

price on request [datasheet](#)



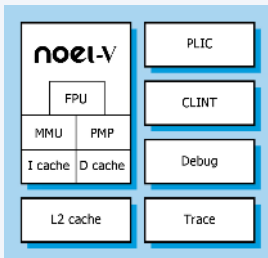
GAISLER

LEON5 SPARC V8 Processor IP Core

Configurable synthesizable VHDL SPARC V8 processor IP core for FPGA and deep-submicron ASIC SoC designs.

Architecture	SPARC V8, 32-bit
Delivery	Synthesizable VHDL IP core (GRLIB)
Target technologies	High-end FPGA, deep-submicron ASIC
Compatibility	Backward compatible with LEON3/LEON4 software
Status	Available

price on request [datasheet](#)



GAISLER

NOEL-V RISC-V Processor IP Core

Configurable synthesizable RISC-V processor IP core for space, offering dual-issue execution and flight-proven design.

Architecture	RISC-V
Issue width	Up to dual-issue (2 instructions/cycle)
Delivery	Synthesizable VHDL IP core (GRLIB)
Flight heritage	Flight-proven in Earth orbit
Status	Available

price on request

Chinese satellite IoT operator (part of Geely Holding) building and operating the GEESATCOM low Earth orbit communication constellation and satellite terminal hardware.



GEESPACE
GSP2022 GEESATCOM Satellite Communication Chip

The GEESATCOM GSP2022 satellite communication chip leverages an industry-leading 22nm manufacturing process, specifically designed for satellite communication and navigation. It in

Process technology	22 nm
Processor	ARM Cortex-A7
Design	RF and baseband integrated SoC
RF architecture	High-linearity, anti-interference
Dimensions	4 mm x 4 mm

price on request

General Dynamics Mission Systems

General Dynamics Mission Systems is a defense electronics manufacturer and integrator providing mission-critical solutions for land, sea, air, space, and cyber domains.



GENERAL DYNAMICS MISSION SYSTEMS
Bedrock Secure Processor

Bedrock is a purpose-built secure processor designed to fulfill U.S. Anti-Tamper and Cyber Survivability requirements to protect weapon systems containing Critical Program Informat

Lower Power Domain	<3 Watts in reduced power mode
Full Power Domain	<10 Watts
Low Power Domain RISC-V processor speed	500 MHz (1000MIPS)
Full Power Domain RISC-V processor speed	800 MHz (6400MIPS)
Low Power Domain eFPGA	50k 6-input Look Up Tables (LUTs), 156KB of BRAMS and 26



GENERAL DYNAMICS MISSION SYSTEMS
Helios Secure Processor IP

Helios Memory Guard (HMG) and Helios Processing Systems (HPS) are designed to defend against physical attacks on secure data through authentication and encryption.

price on request

DSP slices

price on request



GENERAL DYNAMICS MISSION SYSTEMS

Immunity Cryptographic IP

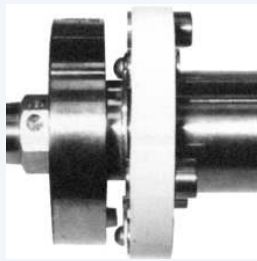
Immunity Cryptographic IP cores from Idaho Scientific are designed to protect embedded hardware and firmware by encrypting, decrypting, and authenticating information.

price on request

Glavkosmos

RUSSIA · 1985 · 63 PRODUCTS

Glavkosmos coordinates international human spaceflight projects, facilitates satellite launches, develops and supplies rocket components, and provides equipment for space crews.



GLAVKOSMOS

Absolute Pressure Sensor Vt 208

Flight-proven strain-gauge absolute pressure sensor (0–11 kPa, 5% error, 0.35 kg) for liquid rocket engine control and diagnostics.

Purpose	Absolute pressure measurement for liquid rocket engine control and diagnostics
Lead time	6 months
Flight qualification	Yes
Customization	Can be adapted to customer requirements
Measurement range	0–0.0028; 0–0.0056; 0–0.011

price on request



GLAVKOSMOS

Analogue Microchip of the Receive/Transmit Tract

Analog transceiver circuit ORTD-LSN, together with DRT-LSN, is intended for use in the equipment of base stations and subscriber terminals of the local navigation system. Separatel

W*h*t	6 × 6 × 1 mm
Mass	1 g
Supply voltage	3 V
Operating temperature range	-40 - +85 °C
Case	QFN 64L (8x8, 0.4 pitch, EXPOSED PAD)

price on request



GLAVKOSMOS

Capacitor K50-80

Low-impedance aluminum electrolytic capacitors with screw terminals, rated for wide voltage and capacitance ranges and extended operating temperatures, intended for use in power el

Purpose	Capacitors are intended to be used in power electronics
Year of release	2005
Design life	25 years
Lead time	3 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K50-81

K50-81 is a low-impedance aluminum electrolytic capacitor with wire terminals, designed for power electronics applications with an extended operating temperature range.

Purpose	Capacitors are intended to be used in power electronics
Year of release	2005
Design life	25 years
Lead time	3 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K50-83

K50-83 is a low-impedance aluminum electrolytic capacitor with radial wire terminals and sealed construction, designed for small-size power supplies and AC/DC converters in demandi

Purpose	Small size power supplies and AC/DC converters for application in demanding conditions, mo
Year of release	2006
Design life	25 years
Lead time	3 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K50-84

Aluminum electrolytic capacitor with radial screw terminals, designed for small-size power supplies and AC/DC converters operating in demanding conditions.

Year of release	2006
Design life	25 years
Lead time	3 months
Possibility to adapt the product to customer requirements	No
Rated voltage	16...100 V

price on request



GLAVKOSMOS

Capacitor K50-85

K50-85 is a compact aluminum electrolytic capacitor with axial-wire terminals designed for small-size power supplies and AC/DC converters operating in demanding conditions.

Rated voltage	6.3...450 V
Rated capacitance, µf	1...4700
Capacitance tolerance	+30...-10; +50...-10; ±20
High environmental temperature, maximum value during operation	100 S
Low environmental temperature, minimum value during operation	minus 60 C

price on request



GLAVKOSMOS

Capacitor K50-87

K50-87 is an aluminum electrolytic capacitor with axial-wire terminals designed for small-size power supplies and AC/DC converters operating in demanding conditions.

Rated voltage	6.3...450 V
Rated capacitance, µf	1...15000
Capacitance tolerance	+50...-20; ±20
High environmental temperature, maximum value during operation	125 S
Low environmental temperature, minimum value during operation	minus 60 C

price on request



GLAVKOSMOS

Capacitor K50-88

K50-88 is an aluminum electrolytic capacitor with radial wire terminals designed for small-size power supplies and AC/DC converters used in demanding conditions, including mobile r

Purpose	Small size power supplies and AC/DC converters for application in demanding conditions, mo
Year of release	2008
Design life	25 years
Lead time	3 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K50-89

Aluminum electrolytic capacitor with radial wire terminals, designed for small power supplies and AC/DC converters operating in demanding environmental conditions.

Rated voltage	63...450 V
Rated capacitance, µf	470...4700
Capacitance tolerance	+50...-20; ±20
High environmental temperature, maximum value during operation	125 S
Low environmental temperature, minimum value during operation	minus 60 C

price on request



GLAVKOSMOS

Capacitor K50-90

High-reliability aluminum electrolytic capacitor with radial screw terminals, rated up to 450 V and 680 μ F, designed for long service life in demanding applications.

Purpose	Medical equipment, railway transport, special-purpose vehicles, electrical power supplies,
Year of release	2010
Design life	25 years
Lead time	3 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K50-91

Aluminum electrolytic capacitor for small-size power supplies and AC/DC converters used in demanding conditions.

Purpose	Small size power supplies and AC/DC converters for application in demanding conditions, mo
Year of release	2010
Design life	25 years
Lead time	3 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K50-92

Aluminum electrolytic capacitor with axial-wire terminals designed for small-size power supplies and AC/DC converters operating in demanding conditions.

Purpose	Small size power supplies and AC/DC converters for application in demanding conditions, mo
Year of release	2010
Design life	25 years
Lead time	3 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K52-11

The K52-11 is a highly-reliable tantalum wet-slug capacitor designed for severe operating conditions in airborne electronics, aviation, rocket and space equipment, chain radar syst

Purpose	Power supply modules for airborne electronics, aviation, rocket and space equipment, chain
Year of release	1986
Design life	15 years
Lead time	2 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K52-17

The K52-17 is a highly-reliable tantalum wet-slug capacitor designed for severe operating conditions in airborne electronics, aviation, rocket and space equipment, chain radar syst

Purpose	Power supply modules for airborne electronics, aviation, rocket and space equipment, chain
---------	---

Year of release	2001
-----------------	------

Design life	25 years
-------------	----------

Lead time	2 months
-----------	----------

Possibility to adapt the product to customer requirements	No
--	----

price on request



GLAVKOSMOS

Capacitor K52-18

The K52-18 is a highly-reliable tantalum wet-slug capacitor designed for severe operating conditions in airborne electronics, aviation, rocket, and space equipment, including commu

Purpose	Power supply modules for airborne electronics, aviation, rocket and space equipment, chain
---------	---

Year of release	2004
-----------------	------

Design life	25 years
-------------	----------

Lead time	2 months
-----------	----------

Possibility to adapt the product to customer requirements	No
--	----

price on request



GLAVKOSMOS

Capacitor K52-19

The K52-19 is a highly-reliable tantalum wet-slug capacitor designed for severe operating conditions in airborne electronics, aviation, rocket and space equipment, chain radar syst

Purpose	Power supply modules for airborne electronics, aviation, rocket and space equipment, chain
---------	---

Year of release	2007
-----------------	------

Design life	25 years
-------------	----------

Lead time	2 months
-----------	----------

Possibility to adapt the product to customer requirements	No
--	----

price on request



GLAVKOSMOS

Capacitor K52-20

The K52-20 is a highly-reliable tantalum wet-slug capacitor designed for severe operating conditions, including those found in rocket and space equipment and communications satelliti

Purpose	Power supply modules for airborne electronics, aviation, rocket and space equipment, chain
---------	---

Year of release	2009
-----------------	------

Design life	25 years
-------------	----------

Lead time	2 months
-----------	----------

Possibility to adapt the product to customer requirements	No
--	----

price on request



GLAVKOSMOS

Capacitor K52-21

The Capacitor K52-21 is a highly-reliable tantalum wet-slug capacitor designed for severe operating conditions, offering high specific capacitance and stable performance.

Year of release	2008
Design life	30 years
Lead time	2 months
Possibility to adapt the product to customer requirements	No
Rated voltage	63 V

price on request



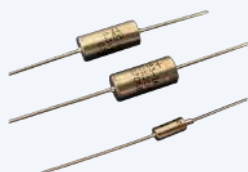
GLAVKOSMOS

Capacitor K52-9

Tantalum wet-slug capacitor designed for power supply modules used in airborne, rocket, and space equipment, including communications satellites and radar systems.

Purpose	Power supply modules for airborne electronics, aviation, rocket and space equipment, chain
Year of release	1985
Design life	25 years
Lead time	2 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K53-1A

Tantalum solid-electrolyte capacitor for space, aviation and rocket electronics power supply modules.

Rated voltage	6.3...40 V
Rated capacitance	0.033...100 μ F
Capacitance tolerance	$\pm 10\%$; $\pm 20\%$; $\pm 30\%$
Operating temperature	-60°C to +125°C
Design life	25 years

price on request



GLAVKOSMOS

Capacitor K53-4

The K53-4 is a series of tantalum solid-electrolyte capacitors designed for power supply modules in airborne electronics, aviation, rocket and space equipment, chain radar systems,

Purpose	Power supply modules for airborne electronics, aviation, rocket and space equipment, chain
Year of release	1997
Design life	20 years
Lead time	3 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K53-65

The K53-65 is a series of surface-mount tantalum solid-electrolyte capacitors designed for electronics with stringent weight-size requirements, offering low equivalent series resis

Purpose	Capacitors are intended to be used in electronics with specific requirements to weight-siz
---------	--

Year of release	2005
Design life	25 years
Lead time	4 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K53-66

The K53-66 is a series of tantalum solid-electrolyte capacitors designed for power supply modules in airborne electronics, aviation, rocket, and space equipment, including communic

Purpose	Power supply modules for airborne electronics, aviation, rocket and space equipment, chain
---------	--

Year of release	2005
Design life	25 years
Lead time	3 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K53-68

K53-68 is a surface-mount tantalum solid-electrolyte capacitor designed for use in special-purpose vehicles, offering low impedance and low leakage current across a wide temperatur

Purpose	Capacitors are intended to be used in special-purpose vehicles
---------	--

Year of release	2006
Design life	25 years
Lead time	4 months
Possibility to adapt the product to customer requirements	No

price on request

GLAVKOSMOS

Capacitor K53-69

The K53-69 is a series of tantalum solid-electrolyte, surface-mount capacitors designed for electronics with specific weight-size requirements, offering a guaranteed service life o

Purpose	Capacitors are intended to be used in electronics with specific requirements to weight-siz
---------	--

Year of release	2006
Design life	25 years
Lead time	4 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K53-7

The K53-7 is a series of tantalum solid-electrolyte capacitors designed for power supply modules in airborne electronics, aviation, rocket and space equipment, chain radar systems,

Purpose	Power supply modules for airborne electronics, aviation, rocket and space equipment, chain
---------	---

Year of release	1997
Design life	25 years
Lead time	3 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitor K53-72

The K53-72 is a series of tantalum solid-electrolyte capacitors designed for power supply modules in airborne electronics, aviation, rocket, and space equipment, including communic

Purpose	Power supply modules for airborne electronics, aviation, rocket and space equipment, chain
---------	---

Year of release	2009
Design life	25 years
Lead time	4 months
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Capacitors K50-96

K50-96 are aluminum electrolytic capacitors designed for small-size power supplies and AC/DC converters operating in demanding environmental conditions.

Year of release	2017
Design life	25 years
Lead time	4 months
Possibility to adapt the product to customer requirements	No
Rated voltage	6.3...450 V

price on request

GLAVKOSMOS

Capacitors K50-97

K50-97 are high-voltage, small-sized aluminum electrolytic capacitors (snap-in and surface-mount) developed to substitute foreign-made equivalents for space applications.

Year of release	2019
Design life	20 years
Lead time	4 months
Possibility to adapt the product to customer requirements	No
Rated voltage	6.3...450 V

price on request



GLAVKOSMOS

Capacitors K50-98

Aluminum electrolytic capacitors with snap-in terminals for small power supplies and AC/DC converters used in demanding conditions.

Purpose	Small size power supplies and AC/DC converters for application in demanding conditions, mo
Year of release	2018
Design life	20 years
Lead time	4 months
Possibility to adapt the product to customer requirements	No

price on request



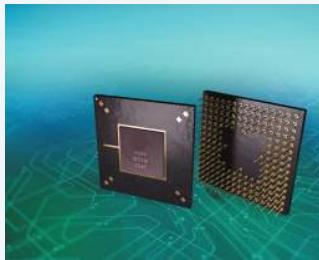
GLAVKOSMOS

Capacitors K58-26

Supercapacitor (2.7 V, 1–100 F, 15–200 mΩ ESR, -50 to +65 °C, fast charge, maintenance-free, no memory effect). For energy storage and backup power.

Purpose	Energy storage: voltage drop compensation, power bridging, burst discharge, autonomous bac
Year of release	2017
Lead time	2 months
Rated voltage	2.7 V
Rated capacitance, f	1–100

price on request



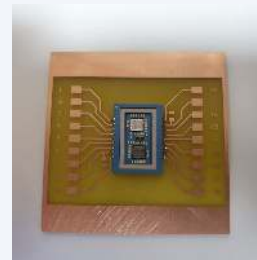
GLAVKOSMOS

Coordinated Filtering of Weak Signals with a Base of 4096 Counts VLSI

A VLSI microcircuit performing coordinated filtering and compression of FM and LFM weak signals with a base of 4096 or more, used for secondary processing of weak radar signals.

Purpose	Trusted systems, digital signal processing
Year of release	2012
Design life	3 years
Lead time	12 months
Flight qualification of the product	No

price on request



GLAVKOSMOS

Digital Isolator

A radiation-resistant digital isolator designed for galvanic isolation of various interfaces, offering 20 Mbit/s performance across 3 channels.

Purpose	It is used for galvanic isolation of interfaces of the type USB, CAN, RS-485, RS-232, SPI,
Lead time	12 months
Flight qualification of the product	No
Possibility to adapt the product to customer requirements	No
Performance	20 mbit/s

price on request



GLAVKOSMOS

Digital signal Processor 1879 VM 6Y

The 1879 BM 6Y is a high-performance digital signal processor featuring a VLIW/SIMD architecture with two NMC4 processor cores, each containing a RISC processor and two 64-bit copr

Type of shell	HSBGA-544L
Supply voltage	cores – 1.0 V; peripherals CMOS – 3.3 V; peripherals SSTL – 1.8 V
Leakage current	low level at the input of the CMOS buffer: 10 µA (UIL = 0 V, UCC1 = 3.6 V); high level at
Working temperature	-45 +85 °C
Technology	CMOS 90 nm

price on request



GLAVKOSMOS

Interface Module with Application Processor

Vehicle telemetry interface module (120×90×40 mm, 120 g, 9–36 V, <4 W) with RS-485/232/CAN/USB, 8 digital + 4 analog inputs, black-box memory.

Purpose	Vehicle sensor data collection, telemetry transfer, black-box recording, and smart card re
Year of release	2017
Design life	3 years
Lead time	8 months
Dimensions	120×90×40 mm

price on request



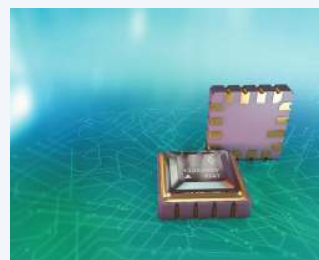
GLAVKOSMOS

Integrated Circuit 1888 TX 018

High-performance VLSI MIVEM multimedia SoC (CMOS 28 nm, HFCBGA-1024, 800 MHz PowerPC + 400 MHz NMC3, -50 to +70 °C) for onboard video/audio processing and ARINC 818.

Purpose	Onboard multimedia processing, video/audio encoding/decoding, ARINC 818 interface switchin
Technology	CMOS 28 nm
Package	HFCBGA-1024
Acceptance type	5
Operating temperature	-50 to +70 °C

price on request



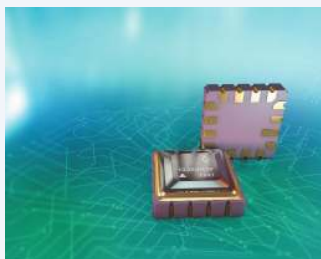
GLAVKOSMOS

L-Band Microwave Discrete Attenuator

The L-Band Microwave Discrete Attenuator is a silicon-germanium BiKMOS MMIC designed to control the amplitude of L-band input signals for radio transceivers, including those used i

Purpose	Construction of radio transceivers.
Year of release	2014
Design life	3 years
Lead time	10 months
Flight qualification of the product	No

price on request



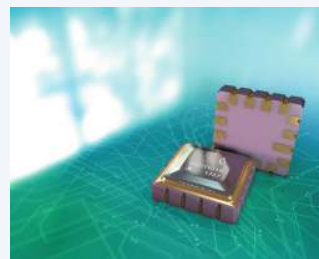
GLAVKOSMOS

L-band Microwave Discrete Phase Shifter

The L-band Microwave Discrete Phase Shifter is a monolithic microwave integrated circuit (MMIC) designed for controlling the phase of L-band input signals in radio transceivers. It

W*h*t	5*5*1 mm
Mass	2 g
Supply voltage	5±0.15 V
Operating temperature range	-60 - +85 °C
Digital supply voltage	5±0.15 V

price on request



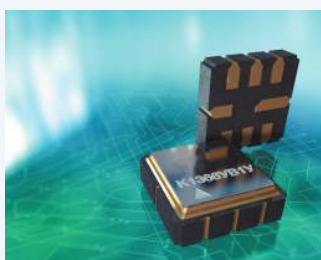
GLAVKOSMOS

L-band Microwave Double Balanced Mixer

An L-band microwave double balanced mixer, implemented as a SiGe BiK MOS MMIC, designed for use in radio transceivers' receiving and transmitting paths.

Purpose	Construction of radio transceivers.
Year of release	2014
Design life	3 years
Lead time	10 months
Flight qualification of the product	No

price on request



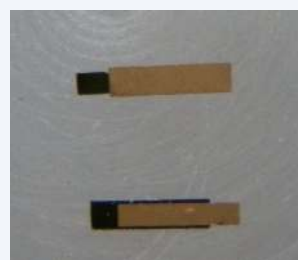
GLAVKOSMOS

L-band Microwave LNA

The L-band Microwave LNA is a silicon-germanium BiK MOS microwave monolithic integrated circuit (MMIC) designed for radio transceivers, particularly in satellite communications and

Purpose	Construction of radio transceivers.
Year of release	2014
Design life	3 years
Lead time	10 months
Flight qualification of the product	No

price on request



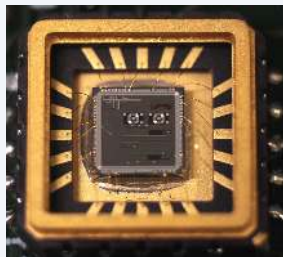
GLAVKOSMOS

MDM microwave varactors

Uncased microwave varactor capacitors built on thin semiconductor and dielectric membranes for use in phase shifter modules of space-based AESA radar and communication systems.

Range of nominal values of set of capacitors	from 1.0 to 500 Petafarad
Operating frequency	> 50 GHz
Breakdown voltage	> 40 V
The tangent of the dielectric loss angle	< 0.01
Time between failures	100 000 hours

price on request



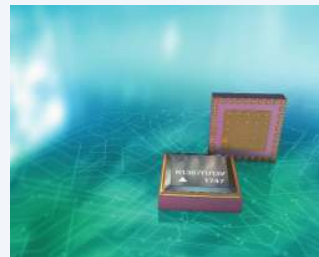
GLAVKOSMOS

Micropower ADC

The Micropower ADC is a radiation-resistant, 10-bit analog-to-digital converter designed for space systems, offering up to 1 MS/s performance and a 16-channel input multiplexer.

Purpose	For use in space systems. Radiation resistant ADC.
Year of release	2014
Lead time	12 months
Flight qualification of the product	No
Possibility to adapt the product to customer requirements	No

price on request



GLAVKOSMOS

Microwave LSI Frequency Synthesizer with VCO

A Silicon-Germanium BiKMOS VLSI frequency synthesizer designed to produce a stable high-frequency signal in the 375-6000 MHz range with low phase noise, suitable for various commun

Purpose	Construction of radio transceivers
Year of release	2014
Design life	3 years
Lead time	10 months
Flight qualification of the product	No

price on request



GLAVKOSMOS

Microwave p-i-n Elements

Uncased microwave p-i-n switching elements on thin membrane (>50 GHz, >50 V Vbr, 5 Ω Ron, 5–20 μm membrane) for AESA phase shifters in space/aviation systems.

Purpose	Discrete amplitude/phase control in AESA phase shifters for space-based location and commu
Year of release	2013
Application areas	Aviation; space; radio engineering, electronics, microelectronics; civil industries
Operating frequency	>50 V
Capacitance (vr=10 v, f=1 mhz), pf	0.001–0.015

price on request



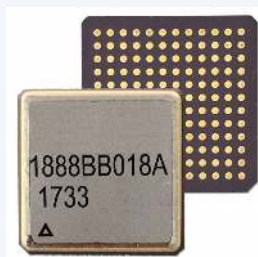
GLAVKOSMOS

Multicontroller 1888 BC 048

The Multicontroller 1888 BC 048 is a microelectronic component designed for creating small-sized integrated on-board information and control systems (BIUS). It features various int

Type of shell	HFCBGA-676
Supply voltage +3,3 v	for CMOS I / 0 buffers;
Supply voltage +0,9 v	core voltage;
Supply voltage +0,9 v (2)	for PLLs and transceivers for PCIe and SGMII interfaces;
Supply voltage +1,35 v	supply voltage of DDR3 I / 0 buffers;

price on request



GLAVKOSMOS

PCI Express Chip 1888 BB 018 A

The 1888 BB 018 A is a PCI Express physical interface device chip designed to expand the functionality of interface modules and devices by supporting the high-speed PCI Express sta

Type of shell	MK8306-144-1
Supply voltage	I / 0 buffers – 1.8 V to 3.3 V; cores: 1.25 V; I / 0 blocks: 1.2 V; clock generation circu
Dynamic current consumption for the power circuit	UDDD1: 3.5 mA; UDDA2: 15 mA; UDDD2: 320 mA; UDDD3: 30 mA; UDDA1: 85 mA; UDD: 50 mA;
Working temperature	-60 +85 °C
Technology	CMOS 130 nm

price on request



GLAVKOSMOS

Pressure Sensor DAV 067

The Pressure Sensor DAV 067 converts absolute pressure of liquid and gaseous aggressive and non-aggressive working media into an electrical signal for control and diagnostics of li

Range of measurements	0-0.001; 0-0.0014; 0-0.002
The basic reduced error,%, not more	5
The normalizing value of the output signal un, mv / v	7.2-10.8
Supply voltage	6+0.3-1.2
Weight, kg, not more	0.35 kg

price on request



GLAVKOSMOS

Pressure Sensor Frequency Vt 1201

The Pressure Sensor Frequency Vt 1201 is a high-precision, noise-immune sensor designed for measuring excess static and gradient pressure in liquid and gaseous aggressive and non-a

Range of measurements (0-rn)	0-0.5; 0-1; 0-2; 0-4; 0-5.6; 0-8; 0-16; 0-22; 0-30; 0-45; 0-60; 0-90; 0-125; 0-180
Error,%, not more	0.5
Output signal	14.4-22.8 kHz
Consumption current, ma, not more	50 mA
Mass	0.3 kg

price on request



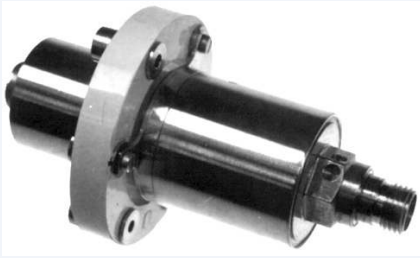
GLAVKOSMOS

Pressure Sensor Vt 212 A.1

The Pressure Sensor Vt 212 A.1 is a flight-qualified thin-film strain gauge sensor designed for measuring static-dynamic pressure in liquid rocket engines, capable of operating in

Range of measurements	0-2.8; 0-4; 0-5.6; 0-8; 0-11; 0-16; 0-22; 0-30; 0-45; 0-60; 0-90; 0-125
The basic reduced error	0.6 %
Nominal output signal un	9 mV
Supply voltage	6±1.2
Weight, kg, not more	0.12

price on request



GLAVKOSMOS

Primary Absolute Pressure Transducer Vt 227

The Vt 227 is a flight-qualified primary absolute pressure transducer designed for measuring liquid and gaseous media in artificial Earth satellites, offering high reliability and

Lead time	6 months
Flight qualification of the product	Yes
Possibility to adapt the product to customer requirements	Yes
Range of measurements	94430-107730 Pa; 81130-121030 Pa; 81130-107730 Pa
The basic error, not more	0.8 %

price on request



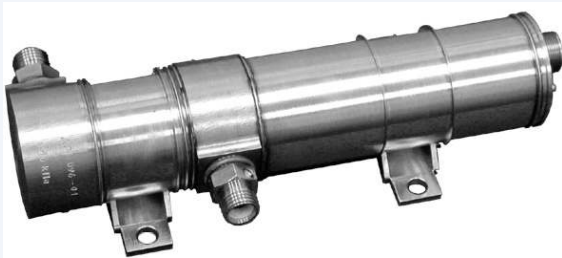
GLAVKOSMOS

Radiation-resistant VLSI SoC with Integrated MP Core

A radiation-resistant, highly reliable VLSI System-on-Chip (SoC) with an integrated microprocessor core, designed for critical space, air, and ground applications.

Purpose	Radiation-resistant highly reliable airborne control and information processing equipment
Year of release	2012
Design life	3 years
Lead time	12 months
Flight qualification of the product	No

price on request



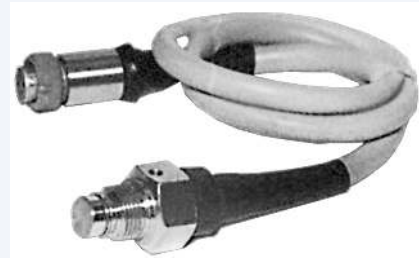
GLAVKOSMOS

Sensor of a Difference of Pressure DRI 095

The DRI 095 is a flight-qualified differential pressure sensor designed for monitoring and control systems in rocket and space technology, measuring pressure differences in gaseous

Range of measurements	± 2.0 ; ± 5.3 ; ± 16
Working absolute pressure	0.7-113 kPa
The basic error	± 1.0 %
Rated output signal	4.7-5.9 V
Weight, kg, not more	0.55

price on request



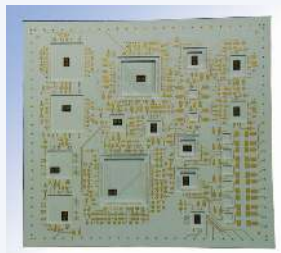
GLAVKOSMOS

Sensor of Rapidly Varying Pressures 611M

The Sensor of Rapidly Varying Pressures 611M is a piezoelectric sensor designed for measuring rapidly varying pressures in liquid and gaseous non-aggressive media within power plan

Lead time	6 months
Flight qualification of the product	Yes
Range of measurements of rapidly varying pressures	0.045-5.6 Mpa
Range of influence of slowly varying pressures	4.0-63 Mpa
Sensitivity, not less	$20 \cdot 10^{-5}$ mV / Pa

price on request

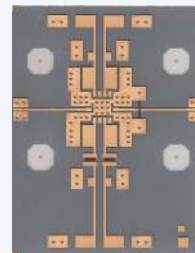


GLAVKOSMOS

Single-part and Small-scale Production of Ceramic Modules

A manufacturing service for producing single-unit and small batches of ceramic radioelectronic modules with 3D topology, including modules for microwave ranges, using LTCC technology

Purpose	Applied for manufacturing radioelectronic modules with 3D topology as well as modules oper
Year of release	2013
Design life	Depends on product requirements
Lead time	Based on the degree of product complexity
Flight qualification of the product	No
price on request	



GLAVKOSMOS

Single-part and Small-scale Production of Interconnection Ceramic Printed Circuit Boards

This product offers single-part and small-scale production of interconnection ceramic printed circuit boards designed for microwave transmitting-receiving radio equipment units.

Year of release	1980
Design life	Depends on product requirements.
Lead time	Based on the degree of product complexity.
Flight qualification of the product	No
Possibility to adapt the product to customer requirements	Yes
price on request	



GLAVKOSMOS

VLCI Receipt/Transmit Center-LSN

A microcircuit (DRT-LSN) using Soft-Defined Radio for use in base stations and subscriber terminals of a local navigation system (LSN), handling CDMA-based positioning and data tra

Purpose	LSN, systems with Soft-Define Radio
Year of release	2018
Design life	3 years
Lead time	8 months
Flight qualification of the product	No
price on request	

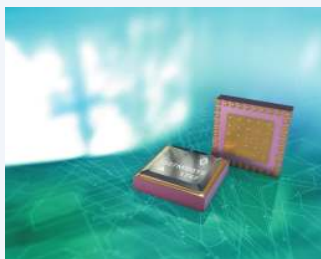


GLAVKOSMOS

VLSI 16-bit ADC with a Sampling Frequency of 200 MHz

CMOS 90 nm 16-bit 200 MSps pipeline ADC (H18.64-2B, 2.5 V, 26.6x26.6x2.9 mm, 3 g, 85 dB SFDR, 75 dB SNR, -60 to +85 °C, built-in calibration) for radar/comms.

Purpose	Critical systems ADC for radar, communications, DSP, and measurement equipment
Year of release	2018
Design life	3 years
Lead time	12 months
Technology	CMOS 90 nm
price on request	



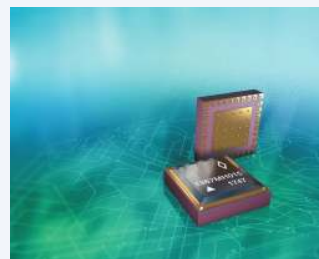
GLAVKOSMOS

VLSI Direct Conversion Wideband Quadrature Demodulator

A silicon-germanium BiCMOS VLSI broadband quadrature demodulator chip for constructing radio transceivers in military and special equipment.

Purpose	Construction of radio transceivers
Year of release	2014
Design life	3 years
Lead time	10 months
Flight qualification of the product	No

price on request



GLAVKOSMOS

VLSI Frequency Synthesizer Based on Direct Digital Conversion

A silicon-germanium BiCMOS VLSI frequency synthesizer designed for stable high-frequency signal generation up to 600 MHz with ultra-low frequency tuning step, low phase noise, and

Purpose	Construction of radio transceivers.
Year of release	2014
Design life	3 years
Lead time	10 months
Flight qualification of the product	No

price on request



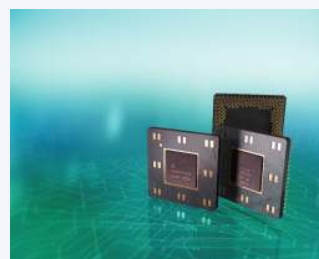
GLAVKOSMOS

VLSI SIC for GNSS receiver

A System-in-Package (SiP) microcircuit designed for civil navigation equipment, capable of receiving and processing GNSS signals from GLONASS, GPS, and GALILEO constellations.

Purpose	Navigation module PR0-04
Year of release	2015
Design life	3 years
Lead time	6 months
Flight qualification of the product	No

price on request



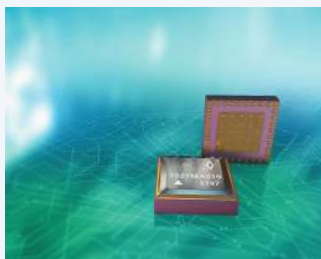
GLAVKOSMOS

VLSI SoCs with Integrated Microprocessor Cores

Semi-custom programmable VLSI system-on-chip central computers with embedded 32-bit RISC microprocessor cores, intended as the computing basis for integrated flight control systems

Purpose	Demanding systems, digital signal processing systems
Year of release	2015
Design life	3 years
Lead time	12 months
Flight qualification of the product	No

price on request



GLAVKOSMOS

VLSI Wideband Direct Conversion Modulator

A silicon-germanium BiKMOS VLSI broadband quadrature modulator designed for radio transceivers, offering unipolar local oscillator inclusion, switchable conversion factors, and low

Purpose	Construction of radio transceivers.
Year of release	2015
Design life	3 years
Lead time	10 months
Flight qualification of the product	No

price on request

Guerin Technologies

INDIA · 1 PRODUCT

Bangalore-based space tech startup developing reliable satellite sub-systems for LEO and MEO constellations using advanced materials and manufacturing.

GUERIN TECHNOLOGIES

Guerin Technologies Satellite Components

Indian electronics and components manufacturer supporting satellite subsystem development for the domestic space sector.

Products	Satellite electronics and components
Country	India

price on request

Hengtong Optic Electric Space Cable Division

CHINA · 2 PRODUCTS

Space cable and harness division of Hengtong Group, supplying radiation-tolerant cable assemblies and interconnects for Chinese satellite and launch vehicle programmes.

HENGTONG OPTIC ELECTRIC SPACE CABLE DIVISION

Hengtong Space-Grade Optical Cable

Chinese cable manufacturer (Hengtong Optic-Electric) producing space-qualified optical fiber and electrical cable for satellite and spacecraft harnessing.

Products	Space-qualified optical fiber and electrical cable
Application	Satellite and spacecraft wiring harnesses
Country	China

price on request

HENGTONG OPTIC ELECTRIC SPACE CABLE DIVISION

Space-Grade Fiber Optic Cables and Interconnects

Hengtong Optic-Electric's space-qualified fiber optic cables, coaxial assemblies, and high-frequency interconnects for satellite platforms and space station applications.

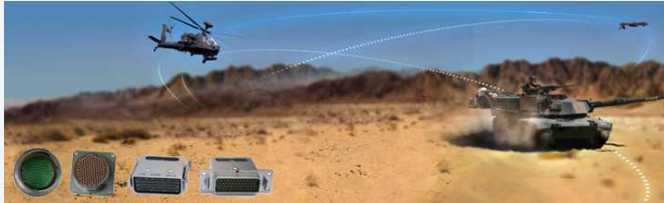
Products	Space fiber optics, coaxial RF cables, power cables, interconnect assemblies
Materials	Polyimide/PTFE jacketing (low outgassing), radiation-hardened fiber
Temp range	-180°C to +120°C

Flight heritage	Tiangong space station, Tianzhou cargo spacecraft programs
HQ	Suzhou, China (Shanghai Stock Exchange listed)
price on request	

Hunan Kaida Space Connectors

CHINA · 1995 · 74 PRODUCTS

Hunan Kaida Electronic Co., Ltd. (KD Connector) is a Chinese aerospace-grade connector manufacturer headquartered in Hunan Province, China, designing and producing high-reliability circular and rectangular electrical connectors, RF connecto



HUNAN KAIDA SPACE CONNECTORS

CJ10 Series Rectangle Electrical Connector

Anti-misplug rectangle connector with EMI shielding and springtac contacts, designed for reliable high-density interconnect in demanding environments.

Type	Rectangle electrical connector
Features	Anti-misplug keying, EMI shielding, springtac contacts
Operating temperature	-55...+125 °C
Relative humidity	95% at 40 °C
Vibration	196 m/s2 at 10 Hz ~ 2000 Hz

price on request [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

CXCH series circular electrical connector

The CXCH series circular electrical connector conforms to Chinese military connector standard GJB2889 and is extended from the XC series.

price on request



HUNAN KAIDA SPACE CONNECTORS
CXCH-01 series

The CXCH-01 series circular electrical connector conforms to Chinese military connector standard GJB2889, extended from the XC series, and features bayonet coupling with solder or

Standard	GJB2889
Coupling	bayonet coupling
Contacts	solder or crimp springtac contact

price on request



HUNAN KAIDA SPACE CONNECTORS
Hyperboloid Socket Contacts

Copper-alloy hyperboloid (springtac) socket contacts with gold or silver plating for military circular connectors.

Contact technology	Hyperboloid (springtac)
Material	Copper alloy CuZn40 C28000 or per specification
Surface treatment	Gold plating 0.2-1.27 um, silver plating, or per specification
Compatible standards	MIL-C-5015, MIL-C-26482, MIL-DTL-38999, GJB, Y-series and XC-series connectors
Current rating	Customizable per requirements

price on request [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS
J14 series rectangle electrical connector

The J14 series rectangle electrical connector conforms to Chinese military connector standard Q/HD20037-2007, featuring a high-strength composite shell.

Standard	Q/HD20037-2007
Material	high strong composite

price on request

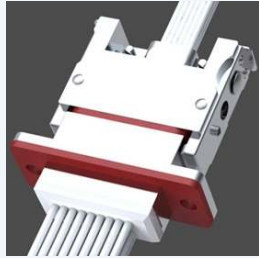


HUNAN KAIDA SPACE CONNECTORS
J14 Series Rectangle Electrical Connector

High-strength composite shell rectangular connector conforming to Chinese military standard Q/HD20037-2007.

Standard	Q/HD20037-2007 (Chinese military)
Shell material	High-strength composite
Contact type	J (pin), K (socket)
Connector type	T (plug), Z (receptacle)
Termination style	Solder (default), 90 deg elbow PCB (1), Straight PCB (2)

price on request [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

J14B series

The J14B series is a rectangle electrical connector that conforms to the Chinese military connector standard GJB142A-94.

Standard	GJB142A-94
price on request	



HUNAN KAIDA SPACE CONNECTORS

J14F series rectangle electrical connector

The J14F series is a rectangle electrical connector conforming to Chinese military connector standard Q/HD20037-2007, designed with crimp contacts and higher contact density.

Standard	Q/HD20037-2007
price on request	



HUNAN KAIDA SPACE CONNECTORS

J14H series

The J14H series is a rectangle electrical connector conforming to Chinese military connector standard Q/HD20037-2007, designed with solder contacts and higher contact density.

Standard	Q/HD20037-2007
price on request	



HUNAN KAIDA SPACE CONNECTORS

J30J Series Micro-D Rectangle Electrical Connector

MIL-C-83513 compatible micro-D rectangular connector mateable with US MDM series, in 9 to 100 contact configurations.

Standard	MIL-C-83513 / J30J
Contact counts	9, 15, 21, 25, 31, 37, 51, 66, 74, 100
Connector type	TJ (plug with pin), ZK (receptacle with socket)
Termination options	Crimp, Solder S, Straight PCB N, 90 deg elbow PCB W
Finish	Nickel plating (default), Cadmium plating G
price on request datasheet	



HUNAN KAIDA SPACE CONNECTORS

J36 Series Rectangle Electrical Connector

Chinese military standard Q/HD20038-2007 rectangular connector with low-magnetism variant.

Standard	Q/HD20038-2007 (Chinese military)
Type	A (standard), E (low magnetism)
Contact count	9, 15, 26, 38, 52, 62, 74
Connector type	Z (receptacle), T (plug)
Contact type	K (socket), K2 (socket straight PCB), J (pin), J2 (pin straight PCB)

[price on request](#) [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

J7B Series Rectangle Electrical Connector

Chinese military standard GJB176A-97 rectangular connector, backward-compatible with J7A series.

Standard	GJB176A-97 (Chinese military)
Temperature range min	-50 deg C
Number of contacts	9, 17, 26, 38, 50, 62, 72
Connector type	T (plug), Z (receptacle)
Contact type	J (pin), K (socket)

[price on request](#) [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

MIL-C-26482 Series I Circular Connector

Bayonet-coupled military circular connector with solder contacts conforming to MIL-C-26482 Series I.

Standard	MIL-C-26482 Series I
Part number example	MS 3110 E 18-32 P N L
Shell types	3110 (wall mount), 3111 (cable), 3112 (box mount), 3114 (jam nut), 3116 (plug), 3117 (bulk)
Type codes	B, E, F, J, M, P, R
Shell sizes	08, 10, 12, 14, 16, 18, 20, 22, 24

[price on request](#) [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

MIL-C-26482 series I military standard connector

The MIL-C-26482 series I circular connector is designed for quick bayonet coupling, solder contact, small size, and medium contact density.

Standard	MIL-C-26482 series I
Coupling	bayonet
Contacts	solder contact
Contacts (2)	medium contact density

[price on request](#)



HUNAN KAIDA SPACE CONNECTORS

MIL-C-26482 series II

The MIL-C-26482 Series II military standard connector is an upgrade to Series I, featuring bayonet coupling, rear-removable crimp contacts, and RFI shielding.

Standard	MIL-C-26482 series II
Coupling	bayonet coupling
Contacts	rear-removable crimp contact
Shielding	RFI shielding

[price on request](#)



HUNAN KAIDA SPACE CONNECTORS

MIL-C-26482 Series II Circular Connector

Upgraded bayonet-coupled MIL-C-26482 Series II circular connector with PCB contact options.

Standard	MIL-C-26482 Series II
Part number example	MS 3474 W 18-6 P N
Shell types	3470 (narrow flange receptacle), 3471 (cable connecting), 3472 (wide flange), 3474 (jam nut)
Shell sizes	08, 10, 12, 14, 16, 18, 20, 22, 24
Contact type	P (crimp pin), S (crimp socket), PL (PCB pin), SL (PCB socket)

[price on request](#)

[datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

MIL-C-5015 series connector

A series of military standard circular connectors designed for various applications, offering different shell types, service classes, and contact layouts.

Shell material	Aluminum alloy
Shell plating	Olive drab cadmium or zinc plating
Insulator material	Synthetic rubber
Contact material	Copper alloy
Contact plating	Silver plating

[price on request](#)

[datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

MIL-DTL-38999 series I

The MIL-DTL-38999 series I circular connector is designed for quick bayonet coupling, solder contact, and removable crimp contact.

Coupling	bayonet
Shielding	EMI/RFI

[price on request](#)



HUNAN KAIDA SPACE CONNECTORS

MIL-DTL-38999 Series I Circular Connector

Bayonet-coupled MIL-DTL-38999 Series I connector with solder and removable crimp contacts.

Standard	MIL-DTL-38999 Series I
Part number example	MS 27466 E 19 B 35 P N
Connector types	27467 (straight plug), 27466 (wall-mount sq. receptacle front), 27656 (wall-mount sq. rece
Shell sizes	09, 11, 13, 15, 17, 19, 21, 23, 25
Finish options	Olive green cadmium B, Black anodized C, Passivated stainless E, Electroless nickel F

[price on request](#) [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

MIL-DTL-38999 series II

The MIL-DTL-38999 series II circular connector is designed for quick bayonet coupling, solder contact, and removable crimp contact, offering EMI/RFI shielding and high contact dens

Standard	MIL-DTL-38999 series II
----------	-------------------------

[price on request](#)



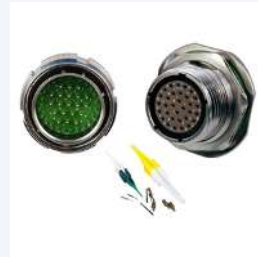
HUNAN KAIDA SPACE CONNECTORS

MIL-DTL-38999 Series II Circular Connector

Bayonet-coupled MIL-DTL-38999 Series II with shielded plug option and removable crimp contacts.

Standard	MIL-DTL-38999 Series II
Connector types	27473 (plug), 27472 (wall-mount sq. receptacle front), 27497 (wall-mount sq. receptacle re
Shell sizes	08, 10, 12, 14, 16, 18, 20, 22, 24
Finish options	Olive green cadmium B, Black anodized C, Passivated stainless E, Electroless nickel F
Contact type	Crimp pin/socket, Solder pin/socket, PCB pins/sockets (long/short)

[price on request](#) [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

MIL-DTL-38999 Series III Circular Connector

Triple-start thread coupling MIL-DTL-38999 Series III connector with anti-decoupling mechanism.

Standard	MIL-DTL-38999 Series III
Connector types	20 (square flange receptacle), 24 (jam nut receptacle), 26 (shielding plug)
Shell sizes	09/A, 11/B, 13/C, 15/D, 17/E, 19/F, 21/G, 23/H, 25/J
Finish options	Olive green cadmium W, Electroless nickel F, Stainless steel passivated K
Contact type	P (crimp pin), S (crimp socket), PH (solder pin), SH (solder socket), PL (long PCB pin), P

[price on request](#) [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS
MIL-DTL-38999 series III military standard connector

The MIL-DTL-38999 series III circular connector features triple start thread coupling with anti-decoupling mechanism, solder and removable crimp contacts, and excellent environment

Standard	MIL-DTL-38999 series III
Coupling	triple start thread coupling with anti-decoupling mechanism
Contacts	solder contact and removable crimp contact
Shielding	EMI/RFI shielding

price on request



HUNAN KAIDA SPACE CONNECTORS
MIL-DTL-38999 series IV

The MIL-DTL-38999 series IV circular connector is designed for breech lock with quick disconnect and removable crimp contacts.

Shielding	EMI/RFI shielding with grounding
-----------	----------------------------------

price on request



HUNAN KAIDA SPACE CONNECTORS
MIL-DTL-38999 Series IV Circular Connector

Breech-lock quick-disconnect MIL-DTL-38999 Series IV connector with hermetic options.

Standard	MIL-DTL-38999 Series IV
Connector types	40 (wall mount sq. receptacle), 41 (hermetic), 42 (box mount), 43-44 (jam nut options), 45
Shell sizes	11/B, 13/C, 15/D, 17/E, 19/F, 21/G, 23/H, 25/J
Finish options	Olive green cadmium on aluminum W, Electroless nickel on aluminum F, Hermetic electrodepos
Contact type	P (pin), S (socket)

price on request [datasheet](#)

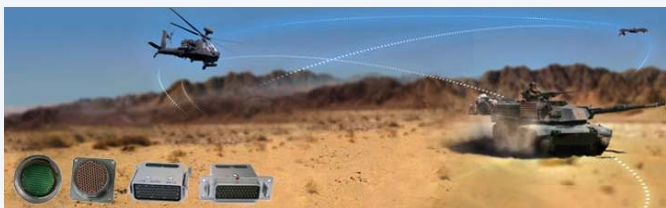


HUNAN KAIDA SPACE CONNECTORS
MS3100A 10SL Wall mounting receptacle

A wall mounting receptacle with 5/8-24 UNF A Thread and 5/8-24NEF V Thread.

A thread	5/8-24 UNF
B	9.53 Min
K min /max	1.58/3.96
L max	38.88
M+0.79/-0.00	14.28

price on request



HUNAN KAIDA SPACE CONNECTORS

MS3100A 12 Wall mounting receptacle

A wall mounting receptacle with 3/4-20 UNEF A Thread and 5/8-24NEF V Thread.

A thread	3/4-20 UNEF
B	15.88 Min
K min /max	1.58/3.96
L max	52.37
M+0.79/-0.00	19.05

price on request



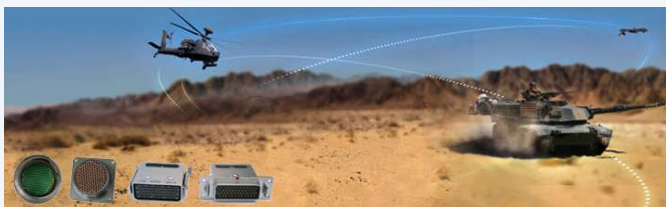
HUNAN KAIDA SPACE CONNECTORS

MS3100A 12S Wall mounting receptacle

A wall mounting receptacle with 3/4-20 UNEF A Thread and 5/8-24NEF V Thread.

A thread	3/4-20 UNEF
B	9.53 Min
K min /max	1.58/3.96
L max	42.87
M+0.79/-0.00	14.28

price on request



HUNAN KAIDA SPACE CONNECTORS

MS3100A 14 Wall mounting receptacle

A wall mounting receptacle with 7/8-20 UNEF A Thread and 3/4-20 UNEF V Thread.

A thread	7/8-20 UNEF
B	15.88 Min
K min /max	1.58/3.96
L max	52.37
M+0.79/-0.00	19.05

price on request



HUNAN KAIDA SPACE CONNECTORS

MS3100A 14S Wall mounting receptacle

A wall mounting receptacle with 7/8-20 UNEF A Thread and 3/4-20 UNEF V Thread.

A thread	7/8-20 UNEF
B	9.53 Min
K min /max	1.58/3.96
L max	42.87
M+0.79/-0.00	14.28

price on request

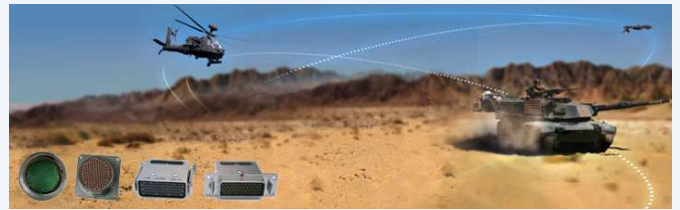


HUNAN KAIDA SPACE CONNECTORS
MS3100A 16 Wall mounting receptacle

A wall mounting receptacle with 1-20 UNEF A Thread and 7/8-20 UNEF V Thread.

A thread	1-20 UNEF
B	15.88 Min
K min /max	1.58/3.96
L max	52.37
M+0.79/-0.00	19.05

price on request

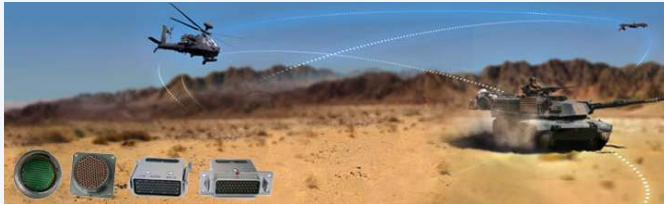


HUNAN KAIDA SPACE CONNECTORS
MS3100A 16S Wall mounting receptacle

A wall mounting receptacle with 1-20 UNEF A Thread and 7/8-20 UNEF V Thread.

A thread	1-20 UNEF
B	9.53 Min
K min /max	1.58/3.96
L max	42.87
M+0.79/-0.00	14.28

price on request



HUNAN KAIDA SPACE CONNECTORS
MS3100A 18 Wall mounting receptacle

A wall mounting receptacle with 1 1/8-18 NEF A Thread.

A thread	1 1/8-18 NEF
B	15.88 Min
K min /max	2.39/5.15
L max	52.37
M+0.79/-0.00	19.05

price on request



HUNAN KAIDA SPACE CONNECTORS
Rectangle Military Standard Connector – KAIDA

The CJ10 series rectangle electrical connector is a professional-grade military standard connector designed for various applications.

Series	CJ10
Type of connector (Single)	Z = Receptacle with socket, T = Plug with pin
Contact number (Single)	6~67
Type of termination (Single)	H = Solder
Back shell (Single)	1, 3 = Without back shell, 4 = With back shell

price on request [datasheet](#)



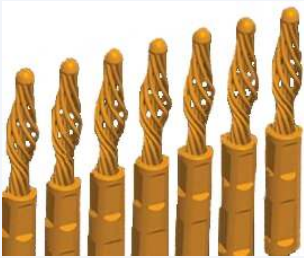
HUNAN KAIDA SPACE CONNECTORS

SB600 Series Rectangle Electrical Connector

Rectangle electrical connector conforming to military connector standard ARINC600 — for demanding aerospace and defense interconnect applications.

Standard	ARINC600
Type	Rectangle electrical connector
Operating temperature	-55~+125 °C
Relative humidity	95% at 40 °C
Vibration	196 m/s2 at 10~2000 Hz

[price on request](#) [datasheet](#)



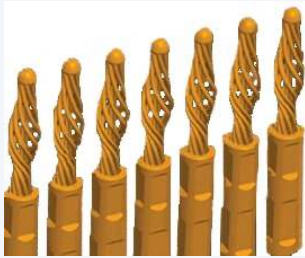
HUNAN KAIDA SPACE CONNECTORS

Twist Pin

Professional manufacturer of military standard twist pin contacts, available in various standard dimensions with a lead time of approximately 10-15 days.

D	Φ 0.72
D (2)	Φ 0.42
L0	1.3
L1	1.3
L	4.6

[price on request](#)



HUNAN KAIDA SPACE CONNECTORS

Twist Pin Contacts

Military-grade twist pin contacts for circular connectors in three standard dimensions, approx. 10-15 day lead time.

No. 1 outer diameter d	0.72 mm
No. 1 inner diameter d	0.42 mm
No. 1 length l0	1.3 mm
No. 1 length l1	1.3 mm
No. 1 total length l	4.6 mm

[price on request](#) [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

XC series

The XC series circular electrical connector conforms to Chinese military connector standard GJB2889 and features bayonet coupling, solder or crimp contacts, and springtac sockets.

Standard	GJB2889
----------	---------

[price on request](#)



HUNAN KAIDA SPACE CONNECTORS

XC Series Circular Connector (Springtac Socket)

Chinese military standard GJB2889 circular connector with springtac hyperboloid socket contacts and bayonet coupling.

Standard	GJB2889 (Chinese military)
Shell sizes	14, 18, 22, 24, 27, 30, 33, 36, 39
Connector types	T (plug with crimp), F (square flange receptacle), Y (circular receptacle), S (jam nut her
Contact count	01 to 62
Contact type	Z/Z1 (silver/gold pins), K/K1 (silver/gold sockets), M/M1 (hermetic silver/gold)

price on request [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

XCA series

The XCA series circular electrical connector conforms to Chinese military connector standard GJB2889 and is designed with bayonet coupling, solder or crimp springtac contact.

Standard	GJB2889
Coupling	bayonet
Contacts	solder or crimp springtac

price on request



HUNAN KAIDA SPACE CONNECTORS

XCD series

The XCD series circular electrical connector conforms to Chinese military connector standard GJB2889 and is extended from the XC series.

price on request



HUNAN KAIDA SPACE CONNECTORS

XCE series circular electrical connector

The XCE series circular electrical connector conforms to Chinese military standard GJB2889, offering smaller weight, volume, and higher contact density compared to the XC series.

Standard	GJB2889
Coupling	bayonet

price on request



HUNAN KAIDA SPACE CONNECTORS

XCF series circular electrical connector

The XCF series circular electrical connector conforms to Chinese military connector standard GJB2889 and is designed with bayonet coupling, solder or crimp springtac contact.

Standard	GJB2889
Coupling	bayonet

price on request



HUNAN KAIDA SPACE CONNECTORS

XCG series

The XCG series circular electrical connector conforms to Chinese military connector standard GJB2889 and is an extension of the XC series.

Standard	GJB2889
Coupling	bayonet coupling
Contacts	solder or crimp springtac contact

price on request



HUNAN KAIDA SPACE CONNECTORS

XCM series

The XCM series circular electrical connector conforms to Chinese military connector standard GJB2889 and is designed with bayonet coupling, solder contact, and springtac socket.

Standard	GJB2889
Coupling	bayonet coupling
Contacts	solder contact and springtac socket

price on request



HUNAN KAIDA SPACE CONNECTORS

Y11 series circular electrical connector

The Y11 series circular electrical connector conforms to Chinese military standard GJB101A-1997, featuring quick interior bayonet coupling, small size, light weight, and solder con

Standard	GJB101A-1997
Coupling	bayonet coupling quick release

price on request



HUNAN KAIDA SPACE CONNECTORS

Y16 series circular electrical connector

The Y16 series circular electrical connector conforms to Chinese military connector standard Q/HD20030-2006 and is designed with center bolt coupling.

Standard Q/HD20030-2006

Coupling center bolt coupling

price on request



HUNAN KAIDA SPACE CONNECTORS

Y17 series

The Y17 series circular electrical connector conforms to Chinese military connector standard Q/Ag1.027A-2006 and is designed for bayonet coupling, mainly suited for big power curve

Standard Q/Ag1.027 A-2006

Coupling bayonet

price on request



HUNAN KAIDA SPACE CONNECTORS

Y18 series circular electrical connector

The Y18 series circular electrical connector conforms to Chinese military connector standard Q/Ag1.028-2004, featuring thread coupling, high contact density, small size, and light

Standard Q/Ag1.028-2004

Coupling thread coupling

price on request



HUNAN KAIDA SPACE CONNECTORS

Y2 series circular connector

The Y2 series circular electrical connector conforms to Chinese military connector standard Q/321283LSC02-2007 and features quick bayonet coupling, solder contacts, and a hermetic

Standard Q/321283LSC02-2007

Coupling bayonet

price on request



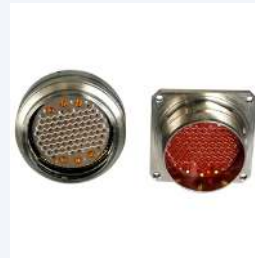
HUNAN KAIDA SPACE CONNECTORS

Y2 Series Circular Connector

Chinese military standard Y2 circular connector with bayonet coupling conforming to Q/321283LSC02-2007, up to 120 contacts.

Standard	Q/321283LSC02-2007 (Chinese military)
Number of contacts	2, 3, 4, 5, 7, 10, 14, 19, 24, 32, 36, 37, 50, 65, 81, 120
Connector type	T (plug), Z (receptacle)
Contact type	J (pin), K (socket)
Receptacle style	L (cable connecting), B (square flange)

price on request [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS

Y23 series circular electrical connector

The Y23 series circular electrical connector conforms to Chinese military connector standard GJB599A and American military connector standard MIL-DTL-38999 series IV.

Standard	GJB599A
Standard (2)	MIL-DTL-38999 series IV

price on request



HUNAN KAIDA SPACE CONNECTORS

Y24 series

The Y24 series circular electrical connector conforms to Chinese military connector standard Q/Ag1.084.1-2006 and features thread coupling, rain-proof, dust-proof, and shielding sh

Standard	Q/Ag1.084.1-2006
Coupling	thread
Shielding	shell

price on request



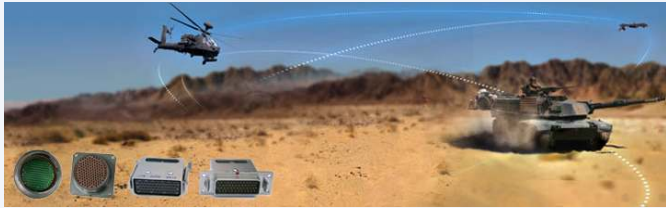
HUNAN KAIDA SPACE CONNECTORS

Y25 series

The Y25 series circular electrical connector conforms to Chinese military connector standard Q/Ag1.087.1-2002 and features thread coupling, rain-proof, dust-proof, and shielding sh

Standard	Q/Ag1.087.1-2002
Coupling	thread coupling

price on request



HUNAN KAIDA SPACE CONNECTORS
Y27 Series Circular Electrical Connector

Circular electrical connector conforming to Chinese military connector standard GJB2905-2004 — for aerospace and defense interconnect applications.

Standard	GJB2905-2004 (Chinese military standard)
Type	Circular electrical connector
Operating temperature	-55 °C ~ +200 °C
Relative humidity	90% ~ 95%
Working height	≤ 3000 m

[price on request](#) [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS
Y27 series circular electrical connector

The Y27 series circular electrical connector from Hunan Kaida Space Connectors features a push-pull locking mechanism and conforms to Chinese military connector standard GJB2905-20

Basic series	Y27
Type	Q, A, B, C, F, G, H (Omit = Q, H = Springtac contact)
Orientation	I, II, III, IV, V, VI (Omit = I)
Shell size	08, 10, 12, 14, 16, 18, 20, 22, 24, 28, 30
Number of contact	01 ~ 61

[price on request](#) [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS
Y2PX series

The Y2PX series circular electrical connector conforms to Chinese military connector standard HB6-77-83 and features bayonet coupling and shielding.

Standard	HB6-77-83
Coupling	bayonet

[price on request](#)



HUNAN KAIDA SPACE CONNECTORS
Y3 series

The Y3 series circular electrical connector conforms to Chinese military connector standard Q/Ag1.003-2002 and features a straight insert locking and pull release design.

[price on request](#)



HUNAN KAIDA SPACE CONNECTORS

Y3A series

The Y3A series circular electrical connector conforms to Chinese military connector standards GJB2905-2004 and GJB101A-97.

Standard	GJB2905-2004 and GJB101A-97
Coupling	push-pull
Shielding	EMI/RFI

price on request



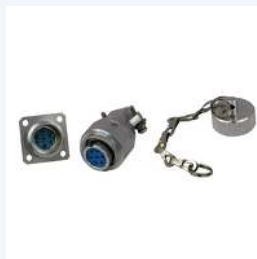
HUNAN KAIDA SPACE CONNECTORS

Y3B series circular electrical connector

The Y3B series circular electrical connector conforms to Chinese military connector standards GJB2905-2004 and GJB101A-97, offering a higher working current than the Y3A series.

Standard	GJB2905-2004 and GJB101A-97
----------	-----------------------------

price on request



HUNAN KAIDA SPACE CONNECTORS

Y4 series

The Y4 series circular electrical connector conforms to Chinese military connector standard Q/Ag1.004-2000 and features a thread coupling and hermetic receptacle design.

Standard	Q/Ag1.004-2000
----------	----------------

price on request



HUNAN KAIDA SPACE CONNECTORS

Y4 Series Circular Connector

Thread-coupled Chinese military standard Y4 circular connector with hermetic receptacle option, conforming to Q/Ag1.004-2000.

Standard	Q/Ag1.004-2000 (Chinese military)
Number of contacts	2, 3, 4, 5, 7
Connector type	T (plug), Z (receptacle)
Contact type	J (pin), K (socket)
Back shell style	L (cable connecting), B (square flange)

price on request [datasheet](#)



HUNAN KAIDA SPACE CONNECTORS
Y50DX series

The Y50DX series circular electrical connector conforms to Chinese military connector standard GJB101A-97, offering bayonet coupling, small volume, high density, and big current ca

Standard	GJB101A-97
Coupling	bayonet
price on request	



HUNAN KAIDA SPACE CONNECTORS
Y50EX series circular electrical connector

The Y50EX series circular electrical connector conforms to Chinese military connector standard GJB598A-96, featuring a bayonet coupling, small volume, and high density.

Standard	GJB598A-96
price on request	



HUNAN KAIDA SPACE CONNECTORS
Y50PD series circular electrical connector

The Y50PD series circular electrical connector conforms to Chinese military connector standard GJB101A-97 and is an upgrade from the Y50EX series, featuring bayonet coupling, solde

Standard	GJB101A-97
Coupling	bayonet coupling
Contacts	solder contact
price on request	



HUNAN KAIDA SPACE CONNECTORS
Y50X series

The Y50X series circular electrical connector conforms to Chinese military connector standard GJB101A-1997, featuring bayonet coupling, small volume, and high density.

Standard	GJB101A-1997
Coupling	bayonet
price on request	



HUNAN KAIDA SPACE CONNECTORS
YGD series

The YGD series circular electrical connector conforms to Chinese military connector standard GJB5371-2005 and features bayonet coupling with solder springtac contacts.

Standard	GJB5371-2005
Coupling	bayonet coupling
Contacts	solder springtac contact
price on request	



HUNAN KAIDA SPACE CONNECTORS
YGP series circular electrical connector

The YGP series circular electrical connector is an upgrade to the P series, featuring bayonet coupling and solder springtac contacts.

Coupling	bayonet coupling
Contacts	solder springtac contact
Dimensions	10 kinds of shell size
Contacts (2)	5 kinds of contact
price on request	



HUNAN KAIDA SPACE CONNECTORS
YL series

The YL series circular electrical connector conforms to Chinese military standard GJB598A-1996, featuring bayonet coupling, solder contacts, and high contact density.

Standard	GJB598A-1996
Coupling	bayonet coupling
Contacts	solder contact

price on request



HUNAN KAIDA SPACE CONNECTORS
YL11 series circular electrical connector

The YL11 series circular electrical connector conforms to Chinese military connector standard GJB101A-1997, featuring bayonet coupling, rain-proof design, small size, and high dens

Standard	GJB101A-1997
Coupling	bayonet

price on request



HUNAN KAIDA SPACE CONNECTORS
YLD series

The YLD series circular electrical connector conforms to Chinese military connector standard GJB101A-1997 and is an upgrade from the YL11 series, designed with bayonet coupling.

price on request



HUNAN KAIDA SPACE CONNECTORS
YPM4 series circular electrical connector

The YPM4 series circular electrical connector conforms to the Russian military connector standard GOST E0.364.196.TY, designed for robust performance in demanding environments.

price on request



HUNAN KAIDA SPACE CONNECTORS
YQ2 series

The YQ2 series circular electrical connector conforms to Chinese military connector standard GJB598A and is designed with bayonet coupling.

Standard	GJB598A
----------	---------

price on request



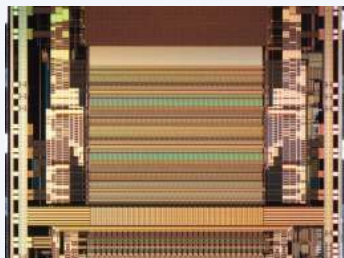
HUNAN KAIDA SPACE CONNECTORS
YXK series

The YXK series circular electrical connector conforms to Chinese military connector standards HB6112-86 and HB6-77-83, featuring bayonet coupling, small volume, and solder or crimp

Standard	HB6112-86 and HB6-77-83
Coupling	bayonet coupling
Contacts	solder or crimp contact

price on request

Fabless designer of radiation-hardened ASICs and detector readout electronics for space, science and industry.

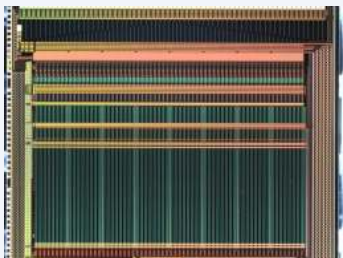


IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
CA3

The CA3 is an ASIC with 32/64-channels for energy resolved single-photon counting optimized for CZT/CdTe detectors.

Channels 32/64

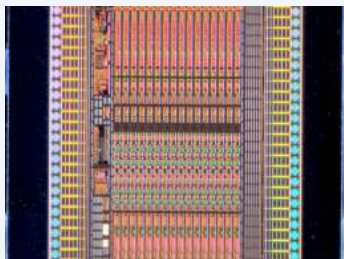
price on request



IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
IDE1140

The IDE1140 (previously VA140) is a 64 channel low-noise/low power high dynamic range charge sensitive preamplifier-shaper circuit, with simultaneous sample and hold, multiplexed a

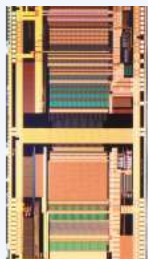
price on request



IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
IDE1180 AMADEUS

The IDE1180 is an application specific integrated circuit (ASIC), which has been designed for the front-end readout of multi-channel plates (MCPs).

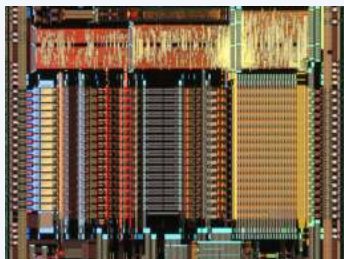
price on request



IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
IDE3160

The IDE3160 (previously VATA160) is an application specific integrated circuit (ASIC), which has been designed for the front-end readout of photomultiplier tubes coupled to scintil

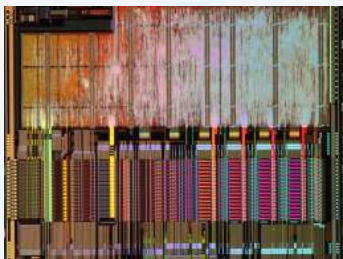
price on request



IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
IDE3380 SIPHRA

The IDE3380 is an integrated circuit (IC) for the readout of photon detectors, such as photomultiplier tubes (PMTs), silicon photomultipliers (SiPMs), and multi-pixel photon counte

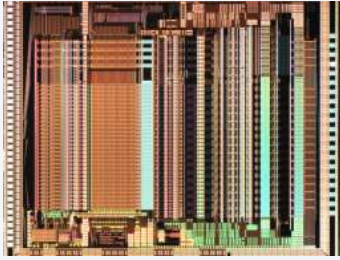
price on request



IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
IDE3381 APOCAT

IDE3381 APOCAT – ROIC for high-rate, high-resolution x-ray and gamma-rayspectroscopy with scintillators and PMTs or SiPMs, operating in space and for solar missions.

price on request

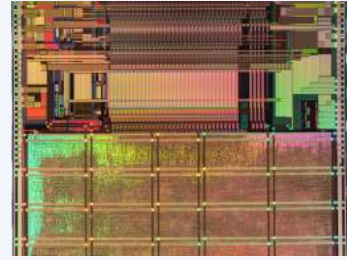


IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
IDE3465

20-channel charge sensitive preamplifier-shaper circuit with a total of 37 digital logic trigger outputs and one analog multiplexer output for pulse heights.

Channels	20
Digital logic trigger outputs	37
Analog multiplexer output	one

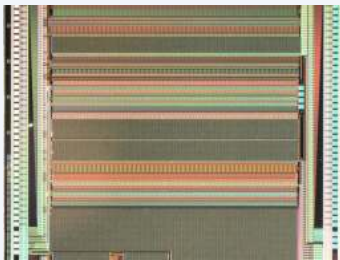
price on request



IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
IDE3466

The IDE3466 (also VATA466) is an application specific integrated circuit (ASIC), which has been designed for the p-side readout of silicon detectors for charged particles.

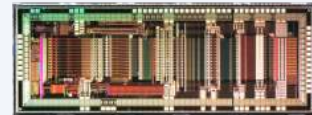
price on request



IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
IDE4184

The IDE4184 is an application specific integrated circuit (ASIC), which has been designed for the readout of CdTe/CZT radiation detectors.

price on request

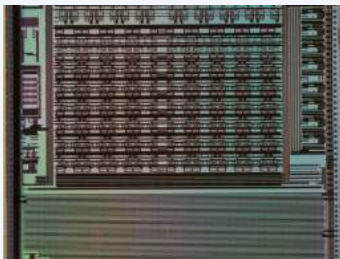


IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
IDE4281

12-channel charge-sensitive preamplifier-shaper circuit with programmable peaking time from 0.75 μ s to 4 μ s and current compensation on each input.

Number of channels	12
Peaking time	0.75 μ s to 4 μ s

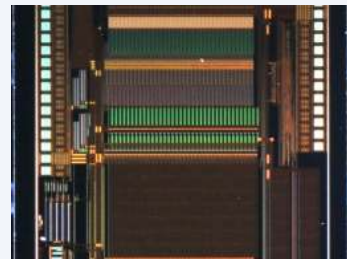
price on request



IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
IDE8420 NIRCA MkII

NIRCA MkII is an integrated circuit (ASIC) for reading out infrared focal plane arrays for Earth observation from space.

price on request

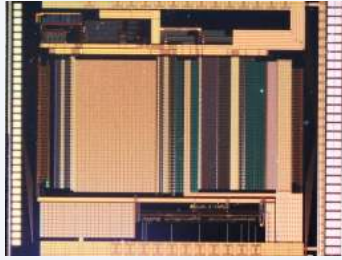


IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
VA32HDR14.2

32-channel and high dynamic range charge sensitive preamplifier-shaper circuit, with sample and hold, multiplexed analog readout and calibration facilities

Number of channels	32
--------------------	----

price on request



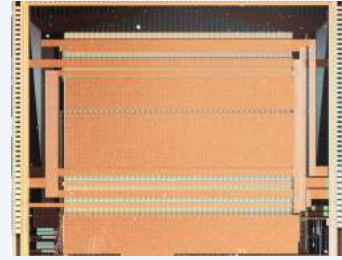
IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
VA32HDR14.3

33-channel and high dynamic range charge sensitive preamplifier-shaper circuit, with sample and hold, multiplexed analog readout and calibration facilities.

Number of channels 33

Type charge sensitive preamplifier-shaper circuit

price on request

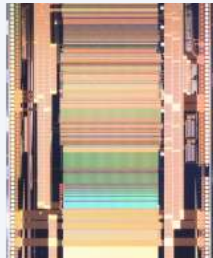


IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
VASCM3.2

The VASCM3.2 is a 128 channel low-noise/low power current sensitive preamplifier-filter circuit, with two-channel alternating sample and hold.

Channels 128

price on request



IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
VATA64HDR16.2

The VATA64HDR16.2 is a 64-channel charge sensitive amplifier for SiPM read-out.

price on request



IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
VATAGP7.1

128-channel general-purpose charge-sensitive amplifier. Each channel features buffered preamplifiers, a shaper with sample/hold, multiplexed analogue readout and calibration facilities.

Number of channels 128

price on request



IDEAS (INTEGRATED DETECTOR ELECTRONICS AS)
VATAGP8

The VATAGP8 is an integrated circuit that allows one to measure the charge from radiation sensors.

price on request

KRYTAR designs and manufactures ultra-broadband microwave, mmWave, and RF components and test equipment for commercial and military applications, covering DC to 110 GHz.

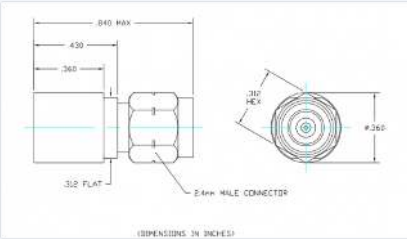


KRYTAR
Space Qualified 2-Way Power Divider

Ultra-broadband matched-line 2-way power divider family covering 0.5-45 GHz, available space-qualified.

Configuration	2-way matched-line directional divider (MLDD)
Frequency	Model dependent: 0.5-26.5 GHz, 1-40 GHz, 2-20 GHz, 3-45 GHz and others
Isolation	14-19 dB (band dependent)
Insertion loss	1.1-2.5 dB (band dependent)
Amplitude tracking	+/-0.3 to +/-0.7 dB

[price on request](#) [datasheet](#)



KRYTAR
Space Qualified Coaxial Termination T3M-SQ

The KRYTAR Model T3M-SQ is a rugged, 50 Ohm space-qualified coaxial termination designed for ultra-broadband microwave components and test equipment, offering exceptional frequency

Frequency versatility	DC to 40.0 GHz
Maximum vswr (DC-8 GHz)	1.06
Maximum vswr (8-26.5 GHz)	1.15
Maximum vswr (26.5-40 GHz)	1.20
Maximum power rating	0.5 Watts

[price on request](#) [datasheet](#)



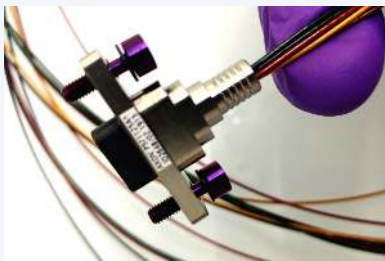
KRYTAR
Space Qualified Directional Coupler 101040010-SQ

The KRYTAR Model 101040010-SQ is a space-qualified, ultra-broadband directional coupler operating from 1.0 to 40.0 GHz, designed for systems requiring external leveling, precise mo

Frequency range	1.0 to 40.0 GHz
Nominal coupling (with respect to output)	10 dB, ±1.0 dB
Frequency sensitivity	±1.52 dB
Insertion loss (including coupled power) (1-20 GHz)	< 1.3 dB
Insertion loss (including coupled power) (20-40 GHz)	< 1.7 dB

[price on request](#) [datasheet](#)

Dutch manufacturer of precision optical components and sun sensors for space missions, with flight heritage on ESA programs including LISA.



LENS R&D

Pigtail

An extended temperature Titanium pigtail with a ceramic insert and ECSS qualified radiation hardened wiring, designed to withstand over 40MRad.

Material	Titanium
Insert material	Ceramic
Wiring qualification	ECSS qualified radiation hardened
Radiation hardness	>40MRad

price on request

Lucid Circuit

Lucid Circuit designs resilient, high-performance AI microprocessors for edge computing in aerospace, satellite, defense, and other mission-critical applications.



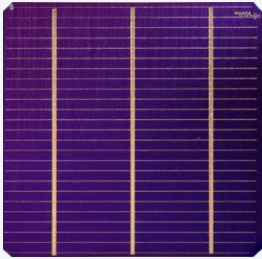
LUCID CIRCUIT

RSAP (Radiation-Effects Susceptibility Analysis & Prediction)

Machine-learning platform that predicts a chip design's susceptibility to cosmic-ray-induced failures before fabrication.

price on request

Dual-use clean energy and ISRU technology company developing automated solar manufacturing and regolith-processing systems for Earth and space.



MAANA ELECTRIC

Green Cells

Heterojunction solar cells manufactured with physical vapor deposition to cut emissions and eliminate hazardous chemicals.

price on request

Ireland's largest photonics company, building end-to-end optical communication systems for space connectivity.



MBRYONICS

PAKPIC

PAKPIC offers high-precision packaging services for photonic integrated circuits (PICs), including fibre array attachment, mechanical mounting, and flip-chip bonding, tailored for

Fibre array attach process - lidded and lidless fibre arrays	Yes
Fibre array attach process - channel configurations	8, 12, 16 channel (32-channel by request)
Fibre array attach process - pitch	127 µm or 250 µm
Fibre array attach process - fibre types	UHNA (3 µm SSCs) or SSMF (6-10 µm SSCs)
Fibre array attach process - electrical connections	DC and FR supported

price on request



MBRYONICS

PakPIC Photonic Packaging Services

High-precision photonic packaging service — fibre array attachment, flip-chip bonding with sub-micron accuracy, and mechanical package design for SOI, SiN, and InP photonic integra

Fibre array channel counts	8, 12, 16 (32-channel by request)
Pitch	127 µm or 250 µm
Spot-size converters	UHNA (3 µm) or SSMF (6-10 µm)
Flip-chip placement accuracy	< 1 µm
Supported material systems	SOI, SiN, InP

price on request

MBRYONICS

TeraBIX Silicon Photonic Transceiver

Radiation-hardened silicon photonic transceiver for space and HPC optical data transmission — up to 112 Gb/s PAM4, under 5 mW/Gb/s power, hermetically sealed, SDA Standard 3.1 comp

Data rate	Up to 56 Gb/s NRZ or 112 Gb/s PAM4
Power consumption	< 5 mW/Gb/s
Standards	SDA Standard 3.1
Design	Radiation-hardened, hermetically sealed, pluggable fiber connectors
Power (224 Gbps total, NRZ)	0.735 W typical, 3.3 pJ/bit

price on request

Mercury Systems

UNITED STATES · 30 PRODUCTS

Mercury Systems delivers end-to-end processing ecosystems for aerospace and defense systems. They provide signal, compute, data management, display, and secure products. They have supported over 75 different spacecraft missions, including e



MERCURY SYSTEMS

CB3P-6231 3U OpenVPX Network Switch Board and Carrier with BuiltSAFE

The CB3P-6231 is a 3U OpenVPX™ PCIe® switch PMC/XMC carrier board for use with Mercury’s ROCK-2 subsystem, offering PCIe Gen1/Gen2/Gen3 lane switching capability.

Power Consumption	7 W
XMC Sites	1
PMC Sites	1
PCIe Switch	32-lanes
PCIe Generations	Gen1/Gen2/Gen3

price on request datasheet



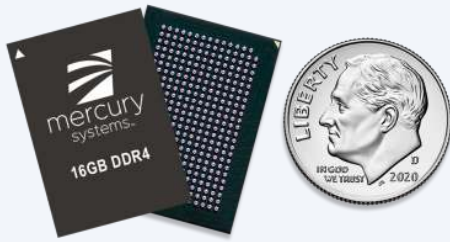
MERCURY SYSTEMS

CCM3011 3U OpenVPX I/O Carrier Board

The CCM3011 3U OpenVPX I/O Carrier Board expands processing module bandwidth capacity with an additional mezzanine site, supporting bi-directional, high-bandwidth I/O data.

Mezzanine site	1x XMC/PMC
Switch	On-board 32-line
System management	Advanced OpenVPX (VITA 46.11)
Serial interface	1x from IPMC to front-panel interface
Cooling	Air and conduction cooled

price on request datasheet



MERCURY SYSTEMS

DDR BGA Memory

Compact and rugged BGA memory devices optimized for size, weight, and power (SWaP) constrained applications in military and commercial aerospace.

Capacity	128 MB to 16 GB
Data rate	2400 Mb/s
Data bus	72-bit-wide
Moisture-sensitivity level	3

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

EEPROM Memory

Mercury Systems offers military-grade high-density EEPROM and SRAM/EEPROM devices designed to sustain the longevity of legacy military embedded systems.

Type	SRAM/EEPROM
Size	2 MB
Organization	128Kx16
Part Number	WSE128K16-XH1X
Data Rate (ns)	35/150, 45/120

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

Embedded NOR Flash

Guarantee reliable system operations in harsh environments with military-grade high-density embedded NOR flash in hermetic packaging.

Model	W764M32V1-XBX
Density	256 MB
Organization	64M x 32
Speed (ns)	110-120 ns
Voltage	3.3 V

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

Ferrite Circulators and Isolators

Mercury Systems offers ferrite circulators and isolators optimized for harsh environments, available as off-the-shelf or custom-designed solutions.

Freq Start	0.500 GHz
Freq Stop	36 GHz
Isolation (min)	12 dB
Insertion Loss (max)	2.4 dB
VSWR	1.12:1

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

GPS Filter Amplifiers

Mercury Systems' family of GPS filters/amplifiers is designed for high reliability GPS receivers in mission-critical applications across ground, airborne, missile, and launch/reent

L2 (1227 MHz) Bandwidth	+/- 15
L1 (1575 MHz) Bandwidth	+/- 15
Gain	48 dB
Noise Figure	2 dB
Size (inches)	2.0 x 5.75 x 9.0

[price on request](#) [datasheet](#)



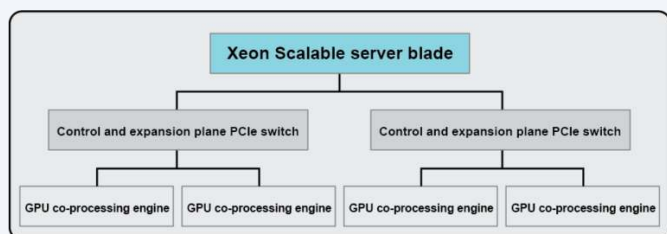
MERCURY SYSTEMS

GSC6204 6U OpenVPX GPGPU Coprocessing Board

The GSC6204 OpenVPX GPGPU Coprocessing Board off-loads compute-intensive functions to GPU coprocessors, providing scalable processing power for complex workloads in commercial and de

GPU	NVIDIA® Quadro® TU104
CUDA Cores	6144
Memory	32 GB GDDR6
Interconnects	PCIe Gen3 and NVIDIA NVLink™
Software Support	NVIDIA, CUDA®, OpenCL™

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

HDS6605 6U OpenVPX Multiprocessing Board

The EnsembleSeries™ HDS6605 is a 6U OpenVPX multiprocessor board powered by Intel® Xeon® Scalable processor, offering 40 Gb/s or 100 Gb/s Ethernet switch fabrics for extreme enviro

CPU	Intel Xeon Scalable server-class CPU, 1.9 GHz, 22-core
SDRAM per blade	Up to 192 GB DDR4-2666
Ethernet high speed switch fabrics	Up to 100 Gb/s
Co-processing and I/O expansion plane communications	Gen3 PCIe
Environmental protection	MOTS+

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

High-Power SMT Limiters

Mercury Systems' portfolio of high-power RF limiters are precision engineered to deliver uncompromising performance for SWaP-sensitive applications demanding full functionality in

Free Range	8.5 - 12 GHz
Max Pulse Width	5 µSec
Peak Power	200 W
Flat Leakage	17 dBm
Dimensions	4 mm x 3 mm

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

IOM-300 XMC I/O Interface Board

The IOM-300 XMC I/O Interface Board is a highly configurable mezzanine designed to expand embedded streaming capabilities with software-defined sFPDP, 10Gb/s Ethernet, Fibre Channel

I/O Ports	Front panel, 12-channel fiber I/O or 8-channel copper I/O
Interfaces	sFPDP (VITA 17.1), 10Gb/s Ethernet, Fibre Channel and PCIe Gen 3
FPGA	Altera® Stratix® V FPGA with second FPGA for programming and personalized security
Form Factor	Open systems architecture (OSA) XMC
Cooling	Air and conduction cooled

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

IOM-400 XMC I/O Interface Board

The IOM-400 embedded streaming I/O module bridges incoming sensor data streams to PCIe connected processors and accelerators, serving as a key building block for subsystems managin

Main user FPGA	Xilinx Ultrascale+ KU11P (default) or KU15P (Industrial Grade)
DDR4 SDRAM	8 GB
Flash memory capacity	256 MB (able to hold 2 images)
PCIe ports to host processor	Gen3 x8 via P15 XMC connector
Fiber links channels	Up to 24 transmit, 24 receive, or 12 transmit/12 receive

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

LDS3507 3U OpenVPX, CMOSS/SOSA-aligned, Single Board Computer

The EnsembleSeries™ LDS3507 combines a 12-core Intel® Xeon® D processor with a Xilinx® Zynq® UltraScale+™ ZU19 FPGA to deliver high-performance processing for radar, electronic war

Processor	Intel 12-core Xeon D processor @ 1.5 GHz
FPGA	Xilinx UltraScale+ ZU19
Memory	Up to 16 GB DDR4 memory ECC
Ethernet	40 GbE and 10 GbE
PCIe	x8 PCIe expansion plane

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

Low-Noise Amplifiers

Custom and catalog LNA solutions for harsh environments, with broadband, narrowband, and high-frequency options to meet diverse requirements.

Freq Start	0.1 GHz
Freq Stop	40 GHz
Gain min	13 dB
Flatness max	±0.6 dB
NF max	0.7 dB

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

Low-SWaP RF Converters

Mercury's SWaP-focused RF frequency converters bring high-performance and mission-to-mission flexibility in harsh, space-constrained environments.

[price on request](#)



MERCURY SYSTEMS

Medium-Power, Broadband Amplifiers

Mercury Systems offers a family of distributed amplifiers providing proven, broadband microwave performance up to 40 GHz with solid gain, flatness, noise figure, and output power.

Freq Start	0.5 - 6 GHz
Freq Stop	2 - 20 GHz
Gain min	18 - 37 dB
Flatness max	±1 - 3.5 dB
NF max	3.5 - 6.5 dB

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

Millimeter-Wave Amplifiers

Mercury Systems offers rugged millimeter-wave amplifier solutions operating at V-band, with standard designs up to 65GHz and custom products available to support high-frequency req

Freq Start	40 GHz
Freq Stop	60 GHz
Gain min	30 dB
Flatness max	±3 dB
PldB min	10 dBm

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

Multiplexers and Diplexers

Trusted microwave multiplexers and diplexers for critical signal filtering and routing in the most demanding aerospace and defense applications, including space programs.

Passband 1	1435 - 1540 MHz
Passband 2	1750 - 1850 MHz
Passband 3	2200 - 2290 MHz
Passband 4	2310 - 2400 MHz
Insertion Loss	0.5 dB

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

RF and Microwave Switches

Mercury's PIN-diode switch family spans the frequency range of 500MHz to 40 GHz, offering high-performance with optional integrated, high-speed TTL or CMOS controlled drivers in a

Frequency	0.5 - 18 GHz
Insertion Loss	3.4 dB MAX
VSWR	2.0 MAX
Isolation	60 dB MIN
Switching Speed	100 nS MAX

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

RF Filters

Mercury Systems offers rugged RF high-pass, low-pass, and bandpass filters for radar, EW, GPS/GNSS, and satellite payloads, proven on applications from ground to space.

Passband 1	0.1 – 910 MHz
Passband 2	1680 – 1820 MHz
Insertion Loss	0.3 dB
VSWR	1.5:1
Isolation	50 dB Minimum

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

RTM60S 6U OpenVPX I/O Rear Transition and Carrier Module

The EnsembleSeries™ RTM60S is a 6U OpenVPX Ethernet I/O rear transition module and mezzanine carrier, providing configurable rear I/O for switch modules.

RS-232 interfaces	2x
10/100/1000BASE-T Ethernet interfaces	2x
10/100BASE-T Ethernet interface	1x
MicroDB15 interface	1x

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

SCFE3820 3U OpenVPX FPGA Carrier Board

A single-slot FPGA processing module designed for high performance and agile system integration, ideal for SWaP-focused applications in harsh environments.

Form Factor	Single slot 3U OpenVPX
OpenVPX Interface Architecture	ANSI/VITA 65-2010 (R2013)
Backplane Interface Slot Profile	VITA 65.0 SLT-PAY-2F1F2U-14.2.1
FPGA Processor	One Xilinx Zynq® Ultrascale+™ ZU11EG governor
Memory	8 GB DDR4 (512M x 16)

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

SCFE3821 3U OpenVPX FPGA Board

The EnsembleSeries™ SCFE3821 is a single-slot, OpenVPX™ FPGA processing module designed for high performance and agile system integration, ideal for SWaP-focused applications in ha

Physical	Single Slot 3U OpenVPX form factor
OpenVPX interface architecture	ANSI/VITA 65-2010 (R2013)
Backplane Interface	VITA 65.0 SLT-PAY-2F1F2U-14.2.1 slot profile
FPGA processor	One Xilinx Zynq® Ultrascale+™ ZU11EG governor
FPGA processor (2)	One Xilinx Virtex® Ultrascale+™ VU7P prosecutor

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

SCFE6110 6U OpenVPX FPGA Board

A configurable FPGA processing module with two FMC sites and integrated BuiltSECURE™ technology, designed for system security engineering.

FMC sites	Two ANSI/VITA 57.4
FMC card support	single and double width
Backplane Interface	VITA 65.0 SLT6-PAY-4F1Q2U2T-10.2.1 Slot Profile
FPGA processors	Two Xilinx Kintex UltraScale KU115 Prosecutors
Governor FPGA	One Xilinx Kintex UltraScale KU115

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

SCFE6120 6U OpenVPX FPGA Carrier Board

The EnsembleSeries™ SCFE6120 is a versatile OpenVPX™ FPGA processing module designed for high performance and agile system integration, incorporating Virtex® Ultrascale+™ FPGA proc

Dimensions	Single Slot 6U OpenVPX form factor
FMC sites	Two FMC ANSI/VITA 57.4 sites
FPGA processors	Two Xilinx Virtex® Ultrascale+™ VU9P Prosecutors
FPGA processors (2)	One Xilinx Zynq® Ultrascale+™ ZU11EG Governor
Memory	20 GB of DDR4 SDRAM

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

SCM6010 & CAN6000 6U OpenVPX SSD Storage

The EnsembleSeries™ SCM6010 is a 6U OpenVPX SSD plug-in storage module with PCIe switching and removable canister (CAN6000), offering low-latency storage that performs like memory.

Storage	Up to 24 TB
PCIe Lanes	48 x PCIe Gen3
Form Factor	6U OpenVPX
Environmental Protection	MOTS+
System Management	VITA 46.11

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

SFM6104 6U OpenVPX, SOSA-aligned, Network Switch Board

The SFM6104 6U OpenVPX network switch board provides comprehensive layer-2 switching and system management for up to 18 OpenVPX payload slots, featuring 40 Gigabit Ethernet or Infini

Form Factor	6U OpenVPX, 1.0" slot pitch
ASIC	Mellanox® 6th gen SwitchX 2 VPI
Bandwidth	40 GbE or InfiniBand
Ethernet Standards	40GBASE-KR4 and 10GBASE-KX4
InfiniBand Standards	FDR-10, QDR, DDR and SDR

[price on request](#) [datasheet](#)



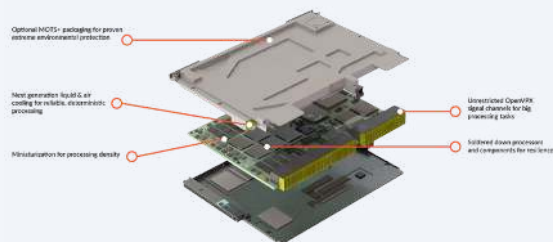
MERCURY SYSTEMS

SFM6105 6U OpenVPX Network Switch Board

The SFM6105 is a 6U OpenVPX network switch board designed for efficient, low-latency PCIe switching with advanced system management capabilities.

PCIe Interfaces	24x x4 PCIe Gen3
PCIe Data Rate Compatibility	Gen2 or Gen1
System Management	VITA 46.11 compliant IPMC
Environmental Protection	MOTS+
Compliance	VPX-REDI and VITA 65

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

SFM6126 6U OpenVPX Network Switch Board

The EnsembleSeries™ SFM6126 switch is a critical building block for composable, embedded data center architectures, enabling efficient, low-latency PCIe switching for AI, sensor fu

PCIe Switching	Full Gen3 high-bandwidth
Control Plane Switching	16x ports of 10GbE
I/O Sites	Dual XMC
System Management	VITA 46.11
Fiber Optic Interface	VITA 66 (available)

[price on request](#) [datasheet](#)



MERCURY SYSTEMS

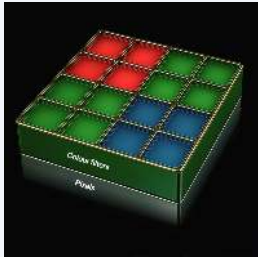
Ultra-Low Phase Noise Amplifiers

Broadband microwave amplifiers to 40 GHz designed to minimize system phase noise for critical applications.

Freq Start	0.8 GHz
Freq Stop	3 GHz
Gain min	18 dB
Flatness max	±1 dB
Phase Noise 100Hz	-150

[price on request](#) [datasheet](#)

Metahelios develops proprietary Metafilter technology that reshapes image sensor manufacturing while revolutionising image quality for high-resolution camera chips, including improved low-light sensitivity and glare reduction.

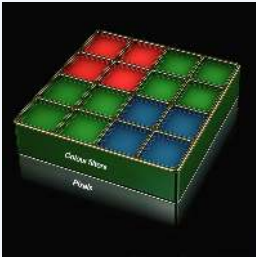


METAHELIOS
Metafilter Colour Filter Technology

Next-generation camera chip colour filter technology delivering 30% enhanced low-light sensitivity and superior colour sharpness — inorganic Bayer filter replacement for image sens

Low-light sensitivity improvement	30% enhanced (night-time photography)
Filter material	Inorganic (vs. traditional organic Bayer filter)
Key benefits	Enhanced colour sharpness, simplified manufacturing supply chain
Accelerator program	Silicon Catalyst ChipStartUK (1 of 10 UK companies selected from 40 applicants)

price on request



METAHELIOS
Metafilter Image Sensor Technology

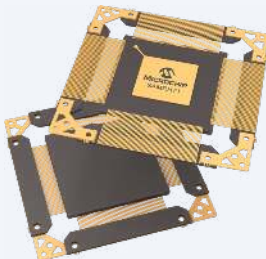
Proprietary colour filter technology for camera chips, improving low-light sensitivity, colour sharpness and manufacturing simplicity.

Enhanced sensitivity for night time photography	30 %
---	------

price on request

Microchip Technology / Microsemi (Space)

Leading American semiconductor company providing radiation-hardened microcontrollers, FPGAs, and timing solutions for space applications.



MICROCHIP TECHNOLOGY / MICROSEMI (SPACE)
Microchip Space-Grade Radiation-Hardened Microcontrollers

US semiconductor manufacturer producing radiation-hardened microcontrollers, FPGAs, and power management ICs qualified for space applications.

Products	Radiation-hardened microcontrollers, FPGAs, power ICs
Applications	Satellite avionics, power systems, payload electronics
Country	USA



MICROCHIP TECHNOLOGY / MICROSEMI (SPACE)
RT ProASIC3

RT ProASIC3 FPGAs are flash-based, radiation-tolerant, reprogrammable, and nonvolatile field-programmable gate arrays designed for low-power space applications requiring up to 350

Device	RT3PE600L
System gates	600,000
Logic tiles	13,824
Core ram blocks	24
Core ram kbits (1,024 bits)	108

price on request



MICROCHIP TECHNOLOGY / MICROSEMI (SPACE)

RT3PE600L

Radiation-tolerant RT ProASIC3 flash FPGA, 600,000 system gates, low-power space applications.

System gates	600,000
Logic tiles	13,824
Core ram blocks	24
Core ram kbits	108
Flashrom bits	1,000

price on request

price on request



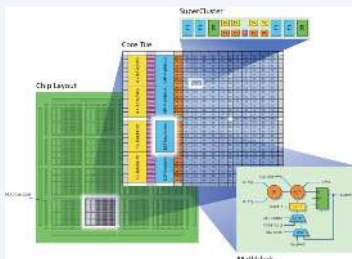
MICROCHIP TECHNOLOGY / MICROSEMI (SPACE)

RT4G150 (RTG4)

Radiation-tolerant RTG4 flash FPGA (150K LE) with SERDES, immune to configuration upsets. Packages: CQ352, FCG1657, CG1657.

FPGA fabric	4th-gen flash-based (65 nm)
Serdes	integrated high-speed interfaces
SEL immunity	LET > 103 MeV·cm ² /mg
SEU immunity	LET > 37 MeV·cm ² /mg
SEU rate	< 1E-12 errors/bit-day (GEO Solar Min)

price on request



MICROCHIP TECHNOLOGY / MICROSEMI (SPACE)

RTAX-DSP

The RTAX-DSP is a radiation-tolerant, space-flight FPGA with embedded multiply-accumulate blocks for efficient implementation of DSP algorithms in space applications. It offers high

Device	RTAX2000D
Device (2)	RTAX4000D
System gates	2,000,000
System gates (2)	4,000,000
ASIC gates	250,000

price on request



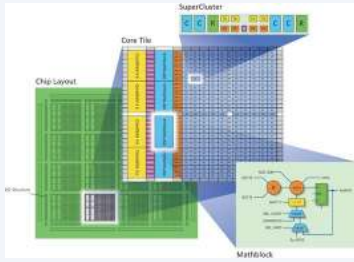
MICROCHIP TECHNOLOGY / MICROSEMI (SPACE)

RTAX-S/SL

The RTAX-S/SL are radiation-tolerant FPGAs designed for space-flight systems, offering high performance, low power consumption, and a true single-chip form factor with QML Class V

Device	RTAX250S/SL
Equivalent system gates	250,000
ASIC gates	30,000
Register (R-cells)	1,408
Combinatorial (C-cells)	2,816

price on request

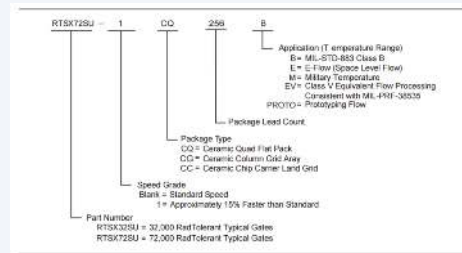


MICROCHIP TECHNOLOGY / MICROSEMI (SPACE) RTAX2000D/DL

Radiation-tolerant RTAX-DSP FPGA with embedded DSP mathblocks, 2,000,000 equivalent system gates.

System gates	2,000,000
ASIC gates	250,000
Register (R-cells)	9,856
Combinatorial (C-cells)	19,712
Core ram blocks	64

price on request



MICROCHIP TECHNOLOGY / MICROSEMI (SPACE) RTSX-SU

RTSX-SU is a family of high-reliability, radiation-tolerant antifuse-based FPGAs derived from Microsemi's commercial SX-A family, built for space applications.

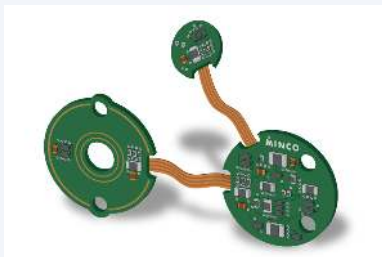
System performance	230 MHz (310 MHz internal)
Standby power consumption	Up to 68 mW
Operating voltage	3.3 V and 5.0 V mixed voltage
Configurable i/o support	3.3 V/5 V PCI, LVTTTL, TTL, and CMOS
Input tolerance / drive strength	5 V input tolerance and 5 V drive strength

price on request

Minco Products, Inc

UNITED STATES · 8 PRODUCTS

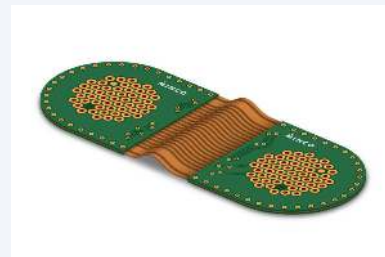
Minco Products, Inc. designs and manufactures solutions for heating, flex circuits, temperature sensing, and instrumentation. They offer off-the-shelf products and craft customized solutions in partnership with engineering teams.



MINCO PRODUCTS, INC Circuit Assemblies

Minco engineers provide expertise in assembly, testing, and quality assurance for flexible circuit solutions, ensuring high accuracy and fully integrated designs.

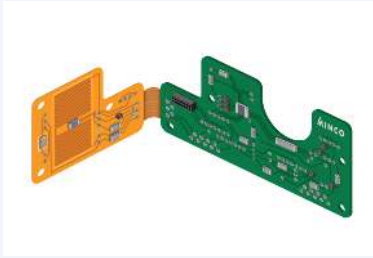
price on request



MINCO PRODUCTS, INC Custom FLEX PCB

Minco's flex circuit design experts can introduce robust features to meet a variety of needs for custom flexible printed circuit boards.

price on request

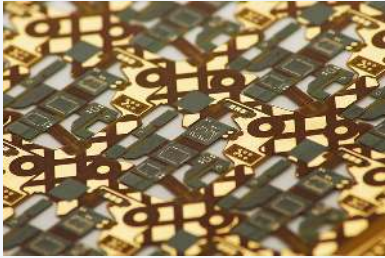


MINCO PRODUCTS, INC
FLEX CIRCUITS

Minco Products offers innovative and precision-engineered flexible printed circuit board (Flex PCB) solutions, designed to reduce weight and cost while improving performance in dem

Circuit substandard panel size	10.5 x 22" max/12 x 24" (267 x 559 mm max./305 x 610 mm), 16.5 x 22" max/18 x 24" (419 x 584 mm max.)
Layers	18 for selected designs
Conductor width/space	0.002" (0.05 mm) minimum / 0.002" (0.05 mm) minimum for thinnest foils
Hole diameter	0.002" (0.05 mm) minimum
Outline dimensions and hole-to-border tolerance	SRD: 0.015" (0.38 mm) + 0.1% linear distance CMD: 0.010" (0.25 mm) + 0.1% linear distance

[price on request](#) [datasheet](#)



MINCO PRODUCTS, INC
HIGH DENSITY INTERCONNECT

Minco High Density Interconnect (HDI) flex circuits improve electrical performance and consistency by using vias as small as 50 microns or 9-micron copper to increase density in a

Microvia formation	50 micron
Registration accuracy	±12 micron
Thru-hole plating aspect ratio	12:1
Blind microvia aspect ratio	1:1
Surface and hole thickness uniformity	4% CV

[price on request](#) [datasheet](#)



MINCO PRODUCTS, INC
Miniature Flex-coils

Minco flex-coils combine the advantages of antenna coils and flexible circuits in one compact package, offering a lightweight solution protected by polyimide insulation.

Maximum outside dimension (Round)	4.50" (114 mm)
Maximum outside dimension (Rectangular, L)	4.50" (114) max
Maximum outside dimension (Rectangular, W)	5.0" (127 mm)
Minimum center opening (Round)	0.04" (1,0 mm)
Minimum center opening (Rectangular)	0.18" (4,6 mm)

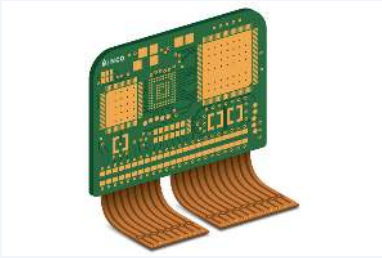
[price on request](#) [datasheet](#)



MINCO PRODUCTS, INC
Multi-layer Flex

Minco's multi-layer flex technology allows stacking layers in applications where wire bundles would otherwise consume excessive space.

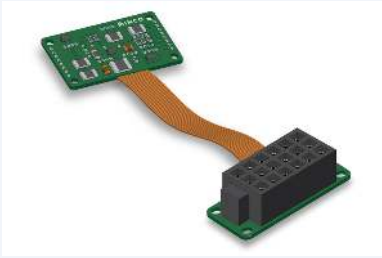
[price on request](#)



MINCO PRODUCTS, INC
RIGID FLEX PCB

Minco's rigid flex circuits combine flexible and rigid board technologies to create compact, robust circuit solutions for demanding applications.

[price on request](#)



MINCO PRODUCTS, INC
SINGLE- AND DOUBLE-LAYER FLEX

Minco's single and double-layer flex circuits are designed to reduce weight and cost while improving performance in demanding applications.

[price on request](#)

NanoXplore

2010 · 1 PRODUCT

NanoXplore designs and manufactures radiation-hardened FPGAs, SoC FPGAs, and ASICs, along with design software tools, for the Space, Aerospace, Defense, and Industrial markets.



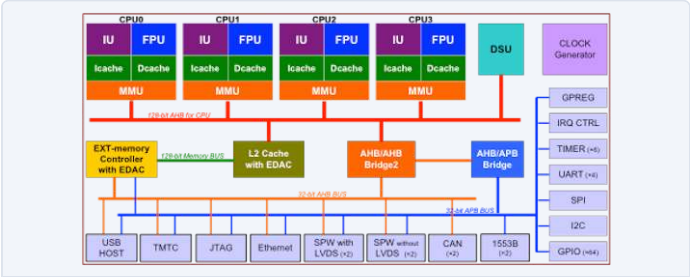
NANOXPLORE
HIGH RELIABILITY FPGAs & ASICs

NanoXplore provides high-reliability, radiation-hardened FPGAs and ASICs designed for demanding applications in space, aerospace, defense, and industrial markets.

Products	Radiation-tolerant FPGA and processor chips
Purpose	European space electronics supply chain autonomy
Country	France
Device	NX2H540TSC
ASIC Gates	8000000

[price on request](#) [datasheet](#)

OCE Technology designs and manufactures high-reliability embedded software, hardware, and satellite subsystems for challenging applications, with heritage on Chinese satellites.



O.C.E. TECHNOLOGY
E698PM Radiation-hardened SPARC V8 Quadcore Processor System-on-Chip (SoC)

The E698PM Radiation hardened processor is a high performance, high reliability, high integration and low power multi-core SoC, compliant with the SPARC V8 standard.

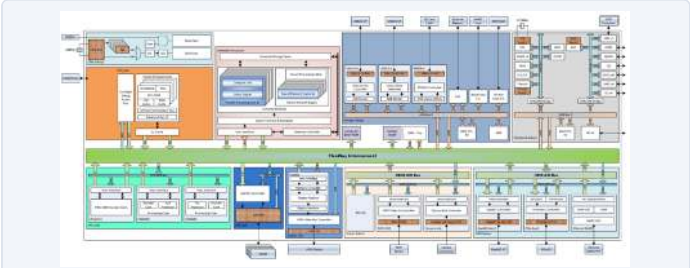
price on request



O.C.E. TECHNOLOGY
hisaor AI chip

O.C.E. Technology's hisaor AI chip is designed for embedded vision applications, featuring multiple GPUs, neural network accelerators, and ARM Cortex-A9 processors for high-resolut

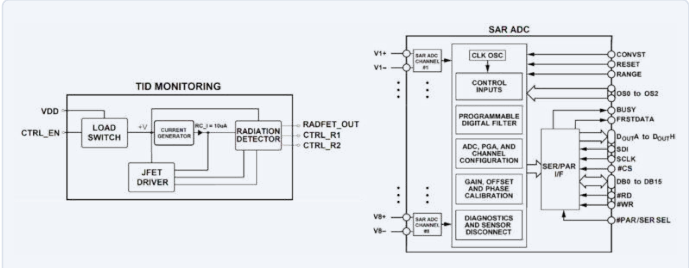
price on request



O.C.E. TECHNOLOGY
HISAOR Rad-tolerant AI SOC

HISAOR is a rad-tolerant high performance (12 TOPS, 64 GFLOPS) AI SOC designed for high-reliability embedded AI applications.

price on request



O.C.E. TECHNOLOGY
OCE TID-ADC

The OCE TID-ADC is a Total Irradiation Dose (TID) monitoring module with a high frequency analogue-to-digital converter supporting 8-channel 16-bit successive-approximation-register

TID monitoring range	up to 100 kRad cumulative dose
ADC channels	8-channel
ADC resolution	16-bit
Maximum sampling	1MSPS
Analog channel input impedance	1 MΩ

price on request



O.C.E. TECHNOLOGY

SiP – System-in-Package

System-in-package (SiP) components integrate multiple integrated circuits into a single module, offering high performance and reliability for harsh environments.

price on request

OHB Italia S.p.A.

ITALY · 1985 · 1 PRODUCT

Italian subsidiary of German space group OHB SE — satellite systems, Earth observation payloads, and space electronics for ESA and Italian Space Agency programs.



OHB ITALIA S.P.A.

Copernicus Earth Observation Payload Electronics

Satellite payload electronics and subsystems for ESA Copernicus Earth observation program — data handling, instrument control, and ground segment software contributed by OHB Italia

Program	ESA Copernicus (Sentinel satellites and related missions)
Contributions	Data handling units, instrument control electronics, ground software
Parent group	OHB SE
Customer	European Space Agency (ESA)

price on request

Picocom designs and markets open RAN standard-compliant baseband SoCs and carrier-grade software for 4G/5G small cell infrastructure and non-terrestrial networks via satellite, supporting diverse comm



PICOCOM
Picocom Baseband SoCs and Carrier-Grade Software

Picocom designs and markets open RAN standard-compliant baseband SoCs and carrier-grade software for 4G and 5G small cell infrastructure, including non-terrestrial networks (NTN) v

Products
Baseband chipsets,
communication technology

price on request

Rakon Limited

Global leader in frequency control and timing solutions — space-qualified oscillators, GNSS receivers and S-band transceivers — with 40+ years of flight heritage.



RAKON LIMITED
CRYSTAL OSCILLATORS, CLASS 2 Variant 01

A rad-hard crystal oscillator, Class 2, with AHCMOS/ACMOS compatible output, operating from 4MHz to 100MHz, supplied in a 14-lead Flat Package (FP1).

Nominal output frequency	4 to 100 MHz
Case	FP1
Nominal supply voltage	3.3 V
Output waveform	AHCMOS, ACMOS
Weight max	5 g

price on request

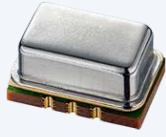


RAKON LIMITED
CRYSTAL OSCILLATORS, CLASS 2 Variant 02

A rad-hard crystal oscillator, Class 2, with AHCMOS/ACMOS compatible output, operating from 4MHz to 100MHz, supplied in a 20-lead Flat Package (FP2).

Nominal output frequency	4 to 100 MHz
Case	FP2
Nominal supply voltage	3.3 V
Output waveform	AHCMOS, ACMOS
Weight max	5 g

price on request



RAKON LIMITED

CRYSTAL OSCILLATORS, CLASS 2 Variant 03

A rad-hard crystal oscillator, Class 2, with AHCMOS/ACMOS compatible output, operating from 4MHz to 100MHz, supplied in a 12-lead Flat Package (FP3).

Nominal output frequency	4 to 100 MHz
Case	FP3
Nominal supply voltage	3.3 V
Output waveform	AHCMOS, ACMOS
Weight max	5 g

[price on request](#)



RAKON LIMITED

CRYSTAL OSCILLATORS, CLASS 2 Variant 04

A rad-hard crystal oscillator, Class 2, with AHCMOS/ACMOS compatible output, operating from 4MHz to 100MHz, supplied in a 16-lead Flat Package (FP4).

Nominal output frequency	4 to 100 MHz
Case	FP4
Nominal supply voltage	3.3 V
Output waveform	AHCMOS, ACMOS
Weight max	5 g

[price on request](#)



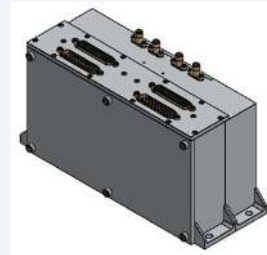
RAKON LIMITED

CRYSTAL OSCILLATORS, CLASS 2 Variant 06

A rad-hard crystal oscillator, Class 2, with AHCMOS/ACMOS compatible output, operating from 4MHz to 100MHz, supplied in a 4-lead J-Lead Package (JL2).

Nominal output frequency	4 to 100 MHz
Case	JL2
Nominal supply voltage	3.3 V
Output waveform	AHCMOS, ACMOS
Weight max	2 g

[price on request](#)



RAKON LIMITED

Space Solutions (Frequency Control Solutions)

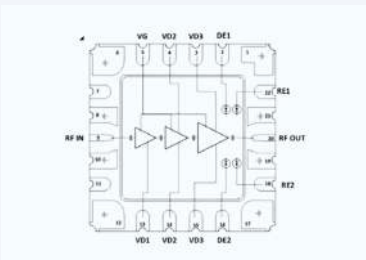
Rakon offers space-qualified frequency control solutions, including oscillators and timing modules, designed to withstand extreme space environments for various space applications.

Type	Integrated Master Reference Oscillator subsystem
Variants	NewSpace (NS MR0), NewSpace Compact (NS MR0 Compact), Hi-Rel (HR MR0)
Product class	NewSpace / Hi-Rel Space
Frequency	10 MHz to 240 MHz
Accuracy	±200 ppb for 12 years (free run)

[price on request](#)

[datasheet](#)

5G markets.



RELIASAT
10 W GaN High Power Amplifier Packaged HPA11201721QF

The HPA11201721QF is a space-qualified 10 W GaN on SiC MMIC high power amplifier in a 7x7 mm hermetically sealed surface-mount ceramic QFN package, covering 17-20.5 GHz with 20 dB

Technology	0.25 μ m GaN on SiC, space-qualified
Frequency	17-20.5 GHz
Saturated output power	>10 W (>40 dBm)
Large-signal gain	20 dB
Power-added efficiency (PAE)	>25%

price on request [datasheet](#)



RELIASAT

K-Band Solid State Power Amplifier SSPA11201721SS

The SSPA11201721SS is a K-band GaN solid state power amplifier module delivering over 10 W saturated output power across 17-20.5 GHz from a single 25-28 V supply, with integrated p

Frequency	17-20.5 GHz
Saturated output power	>10 W (>40 dBm)
Small-signal gain	21-24 dB
Supply voltage	25-28 VDC (single supply)
Drain current	2.5 A

price on request [datasheet](#)

price on request [datasheet](#)



RELIASAT

Ka-Band Low Noise Amplifier Module LNA11202131SS

The LNA11202131SS is a multi-stage Ka-band low noise amplifier module covering 21-31 GHz with 34 dB gain and 2.5 dB noise figure, featuring enable/disable control and current and t

Frequency	21-31 GHz
Gain	34 dB
Noise figure	2.5 dB
Supply voltage	7-40 V (single supply)
RF connectors	2.92 mm

[price on request](#) [datasheet](#)



RELIASAT

Programmable Frequency Synthesizer 16-32 GHz FSN11201632QFP

The FSN11201632QFP is a programmable low-phase-noise microwave frequency synthesizer covering 16-32 GHz with -95 dBc/Hz phase noise at 10 kHz offset, in a compact 25.4x25.4x6.35 mm

Frequency range	16-32 GHz (programmable)
Phase noise	-95 dBc/Hz at 10 kHz offset
Spurious	<-80 dBc
Package	25.4 x 25.4 x 6.35 mm surface mount
Dimensions	25.4 x 25.4 x 6.35 mm

[price on request](#) [datasheet](#)

Saab Space

SWEDEN · 1937 · 1 PRODUCT

Swedish defense and aerospace company providing satellite transponders, on-board computers, and telecommunications systems for European and international space programs.



SAAB SPACE

Satellite Transponder Systems

Satellite communication transponder and payload electronics — telecommunications and TT&C signal processing hardware with ESA and commercial satellite flight heritage.

Functions	Telecommunications transponders, TT&C signal processing
Orbit classes	GE0, ME0, LE0 satellite applications
Flight heritage	ESA missions, European commercial satellites
Parent capability	Includes former RUAG Space Sweden operations (2022)

[price on request](#) [datasheet](#)

Indian SDR semiconductor company in Bengaluru; Prism SX software-defined radio platform supporting DVB-S2X/DVB-T2/ATSC 3.0 for VSAT terminals, satellite broadband, and direct broadcast receivers.



SAANKHYA LABS
SDR Chipset

Award-winning, patented, and fully programmable Software Defined Radio (SDR) chipsets designed for ultra-low power consumption and small footprint, supporting multiple waveforms ac

price on request



SAANKHYA LABS
SL-300X Universal Demodulator

Compact next-gen universal DTV demodulator SoC for live TV reception on smart TVs, set-top boxes and home gateways.

Architecture	Software Defined Radio (SDR)-based demodulator SoC
Integration	Integrated FEC decoder, de-interleaver memory, high-precision ADC & PLLs
Applications	Terrestrial, satellite and cable DTV reception

price on request



SAANKHYA LABS
SL-400X Mobile TV Integrated Receiver

Compact next-generation universal mobile DTV receiver IC.

Interface	SDIO/SPI
Interface (TS)	Transport Stream (TS) Serial
Interface (3)	I2C / SPI master/slave
Interface (4)	RF
Frequency Range	470 to 858 MHz

price on request

SAANKHYA LABS
SL100x Universal Demodulator

SL100x is a fully Software Defined Radio (SDR) baseband demodulator IC supporting worldwide terrestrial, cable, radio, TV and satellite receiver broadcasting standards through soft

Input	Flexible interface to IF/LIF tuners and digital input
Output	Parallel Digital Transport Stream output interface; AGC outputs for RF and IF stages; CVBS
Single carrier	QPSK, 16/32/64/128/256 QAM
Multicarrier (OFDM)	QPSK, 16/32/64/128/256 QAM
Tv / cable / radio standards	ATSC, DVB-T, ISDB-T, DTMB, Clear QAM, DVB-C, ISDB-C, NTSC, PAL, SECAM, FM, DRM, DAB

price on request



SAANKHYA LABS

SL900x Universal Modulator

SL900x is a family of fully software-defined universal baseband modulator ICs supporting worldwide terrestrial and cable TV standards as well as non-standard, proprietary waveforms

Input	Digital Parallel Transport Stream (TS)
Output	Zero-IF and Low-IF (up to 10 MHz) and Digital Output; I2C for programming and waveform dow
Single carrier	QPSK, 16/32/64/128/256 QAM
Multicarrier (OFDM)	QPSK, 16/32/64/128/256 QAM
Tv / cable / radio standards	ATSC, DVB-T, ISDB-T, Clear QAM, DVB-C, ISDB-C

price on request

SEALSQ / WISeSat

SWITZERLAND · 1 PRODUCT

Semiconductor and cybersecurity company (NASDAQ: LAES) providing secure chips and its WISeSat satellite IoT constellation for authenticated, encrypted device-to-satellite connectivity.



SEALSQ / WISESAT

VaultIC408 — Post-Quantum Secure Element for IoT

The VaultIC408 is SEALSQ Corp's commercial secure element (secure microcontroller) designed for IoT device identity, authentication, and post-quantum cryptographic operations

Certifications	Common Criteria EAL5+; FIPS 140-3 Level 3 (CMVP validated)
Cryptographic algorithms	ECC up to 572-bit, AES, SHA-256/384/512, ECDSA (FIPS 186-4), ECDH
Key storage	Up to 16 kB user file system
Operating voltage	1.62–5.5 V
Operating temperature	-40°C to +105°C (extended industrial)

price on request

Shaanxi Huada Science Technology Co., Ltd. is a Chinese manufacturer of RF coaxial connectors, low frequency connectors, and RF coaxial cable components for aerospace applications, supplying to satellites, manned spacecraft, space stations,

SHAANXI HUADA

Shaanxi Huada Space Electronics

Chinese space-grade electronics and semiconductor products from Shaanxi Huada, supplying the Chinese aerospace and satellite manufacturing sector.

Product type

Space-grade electronics and semiconductors

Country

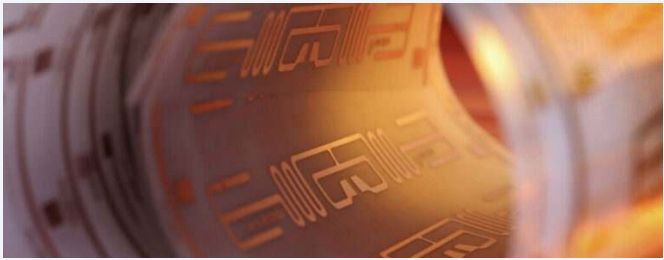
China

Customers

Chinese satellite and launch vehicle manufacturers

price on request

Sheldahl (Multek Flexible Circuits) is a US manufacturer of flexible printed circuits, printed electronics, electronic materials, and aerospace thermal control materials, headquartered in Northfield, Minnesota.



SHELDAHL (MULTEK FLEXIBLE CIRCUITS)

Electronic Materials

Advanced electronic material solutions including flexible flat cable and fuel cell materials for compact, reliable designs.

Product families

Flexible flat cable (FFC) materials, fuel cell materials

Manufacturing base

Roll-to-roll processing, surface finishing, precision lamination

Target markets

Automotive electrification, battery management, consumer electronics, industrial controls

price on request



SHELDAHL (MULTEK FLEXIBLE CIRCUITS)

Optical Materials

ITO and PEDOT transparent conductive coatings for touch sensors, flexible displays, wearables, and solar cells.

Coating chemistries

ITO (indium tin oxide), PEDOT

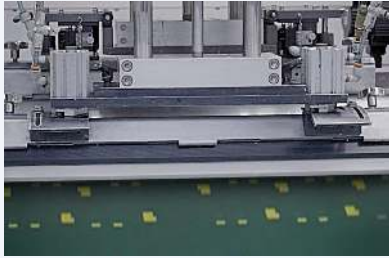
Key properties

High flexibility, low electrical resistance, optical clarity

Applications

Capacitive touch sensors, flexible displays, wearable devices, solar cells

price on request



SHELDAHL (MULTEK FLEXIBLE CIRCUITS)

Printed Electronics

Custom printed circuit solutions from simple switches to complex multi-pass prints with integrated printed components.

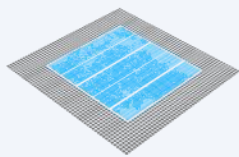
Inks & pastes	Silver, Carbon/graphite, Ag/AgCl, PTC, PEDOT, dielectrics, graphic inks, zinc, nano silver
Substrates	PET, PI (polyimide), TPU/stretchable materials, coated fabrics
Circuit fabrication	Roll-to-roll manufacturing, single/double-sided, multi- layer printing, screen-thru- vias, c
Finishing & assembly	Shielding film application, electrical testing, circuit blanking, stiffeners/foams

price on request

SkyLabs d.o.o.

SLOVENIA · 2013 · 1 PRODUCT

SkyLabs is a Slovenian space-technology company that designs and manufactures miniaturized, fault-tolerant on-board data handling, communications, power, ADCS/GNC and EGSE equipment for small satellites.



SKYLABS D.O.O.

SpaceWire IP Core (PicoSkyFT)

Rad-hard-by-design, fault tolerant 8/16-bit embedded processor IP core (PicoSkyFT) for SoC integration.

Product code	SKY-9001
Architecture	Harvard enhanced RISC pipelined architecture, ~1 MIPS/MHz
Instruction set	PicoSky ISA with 140 instructions, high code density
Operating modes	Supervisor, User, Debug, Sleep, Reset
Radiation hardening	Radiation hardened by design; all memories EDAC protected

(Multiple SEC-DED)

price on request

Sophia Space

UNITED STATES · 2023 · 1 PRODUCT

Developer of space-native AI edge compute hardware for orbital data processing.



SOPHIA SPACE

TILE — Thermal Integrated LEO Edge Compute Module

Modular, solar-powered, passively-cooled AI edge compute panel for satellites and space stations, delivering up to 800 TOPS per unit.

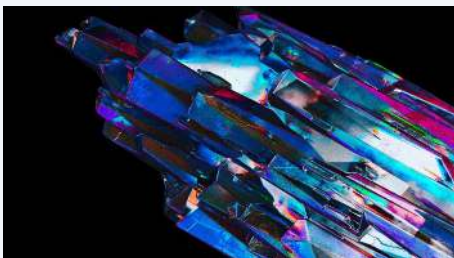
Dimensions	~1 m ² surface area, ~1 cm thick (foldable)
Compute per tile	Up to 800 TOPS (4 × Sophia BLADE single-board compute units)
Power efficiency	~92% of generated solar power to computation
Cooling	Passive — space vacuum + aluminum alloy heat spreader/radiator; no fans
Power	Non-parasitic — self-generated solar; does not draw from host satellite

price on request

Space Forge Limited

UNITED KINGDOM · 2018 · 1 PRODUCT

UK company (Cardiff, Wales) developing reusable in-space manufacturing platforms and a non-ablative reentry heat shield for producing semiconductor materials in microgravity.



SPACE FORGE LIMITED

Diamond-based Semiconductor Technologies

Space Forge is developing diamond-based semiconductor technologies for enhanced thermal management, quantum applications, and improved interfaces, targeting sectors including aeros

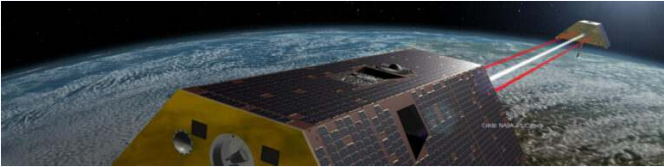
Materials	Diamond, gallium nitride (GaN), aluminum nitride
-----------	--

	(ALxN)
Manufacturing environment	Microgravity, in-orbit chemical vapor deposition
Target applications	Power electronics, RF devices, advanced semiconductor markets
price on request	

SpaceTech GmbH

GERMANY · 2004 · 1 PRODUCT

German space company designing, developing and producing solar arrays, laser-optical instruments and space electronics for satellite missions.



SPACETECH GMBH

SpaceTech Laser Head Electronics (LHE)

Low-noise, high-speed Laser Head Electronics for space and laboratory use, enabling ultra-stable laser sources.

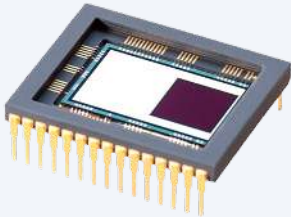
DC bias current	<= 500 mA
Ultra-low current noise	<= 1 nA/√(Hz) @ f > 1 kHz
AC current	<= 500 mA
Modulation bandwidth	<= 10 MHz
Temperature control	Precision Thermo Electric Cooler (TEC) control loops for seed-laser, pump-laser and photod

price on request

Teledyne e2v

UNITED KINGDOM · 1947 · 5 PRODUCTS

UK-based developer of radiation-hardened CCDs, processors, ADCs, and memory devices for space applications. Products have decades of flight heritage on ESA, NASA, and commercial satellite missions.

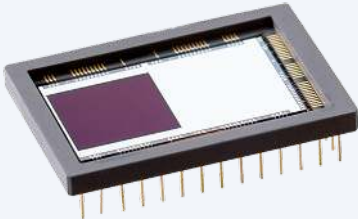


TELEDYNE E2V

CCD97

The CCD97 is a frame transfer, electron multiplying CCD sensor designed for high frame rate, ultra-low light applications, featuring high quantum efficiency through Teledyne e2v's

Active pixels	512 x 512
---------------	-----------



TELEDYNE E2V

Teledyne e2v CCD201-20 Electron Multiplying CCD (EMCCD)

Frame-transfer electron multiplying CCD (EMCCD) designed for extreme performance in high frame rate, ultra-low light applications, with single-photon sensitivity and variable multi

Pixel size	16 μm square
Sensitivity	Single photon sensitive
Gain	Variable multiplicative gain, 1x-1000x
Additional output	Additional conventional output amplifier

[price on request](#) [datasheet](#)

Active pixels	1024 x 1024
Pixel size	13 μm square
Sensitivity	Single photon sensitive
Gain	Variable multiplication gain, 1x-1000x
Additional output	Additional conventional output amplifier (OSH)

[price on request](#) [datasheet](#)



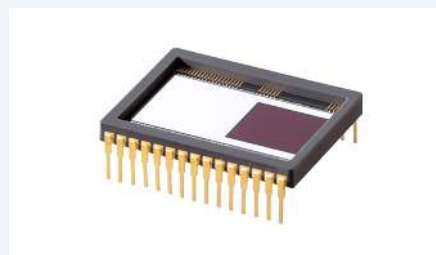
TELEDYNE E2V

Teledyne e2v CCD290-99 Large-Area Back-Illuminated Scientific CCD

Large-area, back-illuminated scientific CCD image sensor for demanding astronomical and scientific imaging applications, with very low read-out noise for exceptional sensitivity.

Number of pixels	9216 (H) x 9232 (V)
Pixel size	10 μm square
Image area	92.2 mm x 92.4 mm
Outputs	16
Package size	98.5 x 93.7 mm

[price on request](#) [datasheet](#)



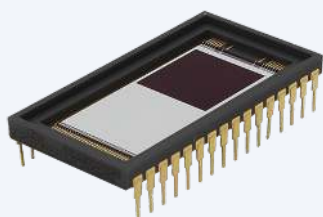
TELEDYNE E2V

Teledyne e2v CCD351-00 L3Vision Electron Multiplying CCD

Frame-transfer L3Vision electron multiplying CCD sensor designed for extreme performance in high frame rate, ultra-low light applications, with variable multiplication gain up to 3

Active pixels	1024 x 1024
Pixel size	10 μm square
Gain	Variable multiplication gain, 1x-1000x+
Frame rate	Up to 30 fps
Dark current	Inverted mode operation for low dark current

[price on request](#) [datasheet](#)



TELEDYNE E2V

Teledyne e2v CCD47-20 Frame-Transfer Scientific CCD

Frame-transfer CCD sensor with extremely low noise amplifiers, made with Teledyne Space Imaging's Advanced Inverted Mode process for minimal dark current, suited to demanding scien

Image format	1024 by 1024 (1:1)
Image area	13.3 x 13.3 mm
Illumination	Front or back illuminated format
Architecture	Frame transfer operation
Pixel size	13 μm square

[price on request](#) [datasheet](#)

New Jersey-based manufacturer of GaN power amplifiers and bi-directional amplifiers for military, commercial, and space radio systems covering 30 MHz to 8.5 GHz in compact, ruggedized modules.



TRIAD RF SYSTEMS

TA1216 SISO Power Amplifier

The TA1216 is a class AB GaN SISO Power Amplifier operating from 300 to 6000 MHz, designed for high power density, efficiency, and linearity in both military and commercial applica

Model	TA1216
Frequency low	300 MHz
Frequency high	6000 MHz
P1db dbm (Typ)	42
Tx gain	55 dB

[price on request](#) [datasheet](#)

VORAGO Technologies designs radiation-hardened ARM microcontrollers and processors for space and extreme-environment applications using patented HARDSIL technology.



VORAGO TECHNOLOGIES

VA10805 Radiation-Hardened ARM Cortex-M0 Microcontroller

HARDSIL 50 MHz ARM Cortex-M0 MCU with >300 krad(Si) TID for CubeSats, power sequencing, and relay control in LEO missions.

Cpu core	ARM Cortex-M0
Clock frequency	Up to 50 MHz
Core voltage	1.5 V +/- 10%
I/o voltage	3.3 V +/- 10%
Program sram	256 KB (on-chip)

[price on request](#) [datasheet](#)



VORAGO TECHNOLOGIES

VA41620 Radiation-Hardened ARM Cortex-M4 Microcontroller

The VORAGO VA41620 is a radiation-hardened, high-performance 32-bit microcontroller built on an ARM Cortex-M4 core with single-precision Floating Point Unit (FPU), manufactured usi

Cpu core	ARM Cortex-M4 with single-precision FPU
Clock frequency	Up to 100 MHz
Core voltage	1.5 V +/- 10%
I/o voltage	3.3 V +/- 10%
Data sram	64 KB (on-chip, with EDAC)

[price on request](#)



VORAGO TECHNOLOGIES

VA41628 Radiation-Hardened ARM Cortex-M4 Microcontroller (128-pin)

Cost-effective 50 MHz HARDSIL ARM Cortex-M4 MCU in 128-pin ceramic package with >300 krad(Si) TID for digital-centric space designs.

Cpu core	ARM Cortex-M4 with FPU
Clock frequency	Up to 50 MHz
Core voltage	1.5 V +/- 10%
I/o voltage	3.3 V +/- 10%
Data sram	64 KB (on-chip, with EDAC)

[price on request](#) [datasheet](#)



VORAGO TECHNOLOGIES

VA41629 Radiation-Hardened ARM Cortex-M4 Microcontroller (Plastic Package)

The VORAGO VA41629 is a radiation-hardened ARM Cortex-M4 microcontroller that brings the full performance of the VA41620 — 100 MHz clock, 64 KB data SRAM, 256 KB program SRAM, and

Cpu core	ARM Cortex-M4 with single-precision FPU
Clock frequency	Up to 100 MHz
Core voltage	1.5 V +/- 10%
I/o voltage	3.3 V +/- 10%
Data sram	64 KB (on-chip, with EDAC)

[price on request](#)



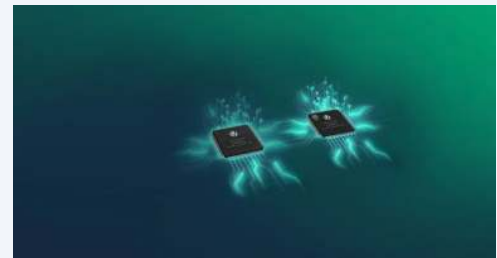
VORAGO TECHNOLOGIES

VA41630 Radiation-Hardened ARM Cortex-M4 Microcontroller

The VORAGO VA41630 is the company's flagship radiation-hardened microcontroller and the first product from a small private semiconductor designer to earn QML-Q+ qualification

Cpu core	ARM Cortex-M4 with single-precision FPU
Clock frequency	Up to 100 MHz
Core voltage	1.5 V +/- 10%
I/o voltage	3.3 V +/- 10%
Data sram	64 KB (on-chip, with EDAC)

[price on request](#)



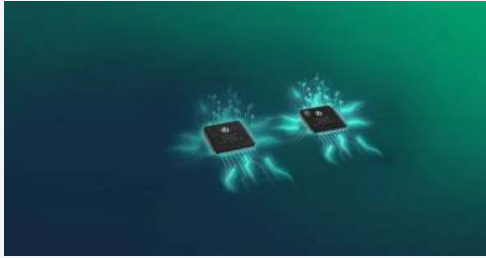
VORAGO TECHNOLOGIES

VA5 Family of Rad-Hard and Rad-Tolerant Microcontrollers

The VA5 family comprises VORAGO's first generation of dual-core Arm® Cortex®-M55 microcontrollers, available in radiation-hardened (RH) and radiation-tolerant (RT) versions, design

Cores	Dual Arm® Cortex®-M55 Cores with Integrated Floating-Point Unit (FPU), Memory Protection U
Non-volatile memory (NVM)	256 KB
On-chip double word sram	512 KB
On-chip byte sram	128 KB
Memory architecture features	EDAC & scrub engine for error resilience

[price on request](#)



VORAGO TECHNOLOGIES

VA53230 Dual-Core Radiation-Hardened ARM Cortex-M55 Microcontroller

The VORAGO VA53230 is the lead product of the VA5 family — VORAGO’s first generation of dual-core microcontrollers — and represents a major leap in on-board processing capabi

Cpu cores	2x ARM Cortex-M55 with FPU and Helium SIMD
Clock frequency	Up to 200 MHz
Nvm (On-chip)	256 KB
Sram (Double Word)	512 KB
Sram (Byte)	128 KB

price on request



VORAGO TECHNOLOGIES

VA7230 Space-Grade Edge Computing Microprocessor (ARM Cortex-A72)

Dual-core 1.5 GHz ARM Cortex-A72 MPU with integrated GPU and TSN Ethernet, radiation-tolerant to >100 krad(Si) LDR, for AI/edge computing in space.

Cpu cores	2x ARM Cortex-A72, up to 1.5 GHz
L2 cache	1 MB shared (ECC protected)
Integrated gpu	3D GPU, 10.4 GFLOPS, OpenCL 1.2, OpenGL ES 3.1
Dram controller	32-bit DDR3L/DDR4 with SECCED ECC
Ethernet interfaces	6x (up to 2.5 Gbps), 4-port TSN embedded switch

price on request

VVDN Technologies

INDIA · 2007 · 1 PRODUCT

India-based contract engineering and electronics manufacturing company serving aerospace and defence with avionics, tactical communications, UAS and satellite communications subsystems.



VVDN TECHNOLOGIES

VVDN Satellite Electronics Manufacturing

Indian electronics design and manufacturing services (EDMS) company producing satellite subsystems, avionics, and space-grade electronic components.

Products	Satellite subsystems, avionics, electronic components
Capability	Electronics design and manufacturing services (EDMS)
Country	India

price on request

WORK Microwave develops and manufactures RF electronics technologies and products. They create innovative RF electronics and digital signal processing, including satellite communication, optical ground station, virtualized DIFI solutions, d



WORK MICROWAVE
Phase-Locked Oscillators

WORK Microwave offers a wide selection of high-performance frequency sources, including fixed-frequency, frequency-agile with phase-locked sources and frequency synthesizers from 1

Freq. Range (PLO with external reference)	125 – 2500 MHz
Model No. (PLO with external reference)	PL0-CR0-xxxx-EXT
Freq. Range (PLO with internal TCXO)	125 – 2500 MHz
Model No. (PLO with internal TCXO)	PL0-CR0-xxxx-TCX0
Freq. Range (PLO with internal OCXO)	10.0 – 30.0 GHz

price on request

Xiphos Technologies

Xiphos Technologies designs low-SWaP Zynq and Versal-based computing modules and on-board computers for SmallSats, offering 120+ years of cumulative flight heritage.



XIPHOS TECHNOLOGIES
Q8 SDR Dock Daughterboard

The Xiphos Q8 SDR Dock is a daughterboard for the Q8 processor board that integrates an Analog Devices AD9361 RF agile transceiver module, enabling the Q8 to interface with high-ba

RF transceiver	Analog Devices AD9361
RF outputs	2x
RF inputs	2x
Other interfaces	CAN Bus, USB 2.0, PPS input, LVDS GPIO (SpaceWire capable)



XIPHOS TECHNOLOGIES
Q8RF Gen 1 RFSoc Processor

The Xiphos Q8RF is a space-qualified RFSoc processor built around the Xilinx Zynq UltraScale+ ZU28DR, which integrates high-speed RF-class ADCs and DACs, programmable FPGA logic, a

Mpsoc	Xilinx Zynq UltraScale+ ZU28DR
Application cpu	Quad-core ARM Cortex-A53 @ up to 1.2 GHz
Real-time cpu	Dual-core ARM Cortex-R5 @ 500 MHz

Dimensions	80 x 80 x 34.7 mm (with Q8 installed)
price on request	

Ps ram	4 GB LPDDR4 DRAM (EDAC)
Pl ram	4 GB DDR4 DRAM
price on request	

XMA Corporation

UNITED STATES · 2003 · 2 PRODUCTS

US passive microwave and RF components manufacturer in Manchester, NH; TVAC-rated space hardware, cryogenic components, attenuators, adapters, power dividers for satellite and defence.



XMA CORPORATION

2082-5026-00-CRYO Attenuator

A cryogenic SMA male-to-female attenuator designed for use in extremely cold environments, capable of handling up to 2W of average power and operating at frequencies up to 18 GHz.

Item #	2082-5026-00-CRYO
Description	Atten, SMA-m/f, 18 GHz, 2 W
Materials	SS
Types	Attenuators
Connector	SMA

price on request

datasheet



XMA CORPORATION

DC Block, 1.85mm-m, DC-65GHz (Item #6546-6010-65)

A 1.85mm male-to-female DC block passive microwave component rated from DC to 65 GHz, used to block DC bias while passing RF signal through a coaxial line.

Item #	6546-6010-65
Description	DC Block, 1.85 mm-m, DC-65 GHz,
Materials	SS
Types	Dc Block
Connector	1.85 mm

price on request

datasheet

Zaitra

CZECH REPUBLIC · 2020 · 1 PRODUCT

Czech space-tech company building on-board data processing hardware and AI software that make Earth observation satellites more autonomous.



ZAITRA

XSCAPE Readout IP Core

Lightweight FPGA IP core providing a complete, CPU-free data path from Simera Sense xScape imagers to structured image output.

Compatible imagers	Simera Sense xScape100, xScape200
Compatible socs	AMD Zynq UltraScale+ MPSoC, Zynq 7000
Max data rate	400 Mbps (SDR/DDR readout)

FPGA footprint	1,087 LUTs, 1,770 Flip-Flops, 13 BRAM, 1 DSP
Data integrity	CRC-32 verification per packet
price on request datasheet	

Manufacturers in this sector

3D Plus (HEICO)

France · 1995 · 21 products

World-leading manufacturer of space electronic components using proprietary 3D interconnect technology for extreme miniaturization.

Accord

India · 1991 · 1 product

Accord Software & Systems designs and manufactures customized GPS/GNSS receivers for space applications and GPS/GNSS semiconductor chips for defense and commercial markets.

Akash Systems

United States · 2 products

US developer of GaN-on-Diamond satellite radios and power amplifiers delivering 3-5x higher data rates through proprietary Diamond Cooling technology.

Alpha Data Parallel Systems

United Kingdom · 2 products

Alpha Data Parallel Systems manufactures FPGA cards, I/O adaptors, carrier cards, and development kits. They provide custom solutions and legacy products for various markets, including space

ALTER Technology

Spain · 1986 · 13 products

ALTER Technology provides laboratory and engineering services for high-reliability EEE components, specializing in microelectronics and optoelectronics engineering, procurement, assembly, an

AP Satellite (APSI)

South Korea · 2011 · 1 product

AP Satellite Inc. (APSI) is a South Korean KOSDAQ-listed company manufacturing satellite communication terminals and space hardware, including onboard computers and small satellite platforms

Arquimea

Spain · 2007 · 2 products

Spanish space technology company founded 2007 in Leganes, developing MEMS relay switches, SiC power devices, and miniaturized power conditioning units for satellite applications.

Arralis

Ireland · 3 products

Irish developer of mmWave and RF/microwave MMICs, modules, phased-array antennas, and radar/comms front-end systems for satellite, aerospace and defense markets.

ASPINA

Japan · 1948 · 1 product

ASPINA is the corporate brand of Shinano Kenshi Co., Ltd., a Japanese precision technology group manufacturing motors, actuators, blowers, and electronic components for space, medical, and i

AstroGate Labs

India · 2017 · 1 product

AstroGate Labs is a Bengaluru-based space startup pioneering laser communication terminals for nano and small satellites, enabling 1 Gbps space-to-ground data downlinks.

Astronika

Poland · 2013 · 3 products

Astronika is a Polish space mechanisms company and ESA/NASA mission supplier, developing deployable booms, hold-down mechanisms, penetrating devices, and precision actuators for science and

Bliley Technologies

United States · 1930 · 2 products

US manufacturer of precision frequency control products — oscillators, crystals, and synthesizers — including space-grade and radiation-hardened components for satellite and defense missions

Centum Electronics

India · 1963 · 2 products

Indian defense and space electronics company founded 1963 in Bengaluru, supplying hybrid microelectronics, power systems, and satellite subsystem assemblies to ISRO and defense programs.

Data Patterns (India) Ltd.

India · 1998 · 6 products

Vertically integrated Indian defence and aerospace electronics company designing and manufacturing avionics, microelectronics, RF/microwave, radar, test equipment and space systems.

FAULHABER Drive Systems

Germany · 1 product

FAULHABER Drive Systems manufactures DC-Motors, Brushless DC-Motors, Motors with integrated Electronics, Stepper Motors, Linear Motors, Precision Gearheads, Linear Actuators, Encoders, and D

Gaisler

Sweden · 2001 · 5 products

Radiation-hardened microprocessors, IP cores, and software for space and high-reliability embedded systems.

Geespace

China · 2018 · 1 product

Chinese satellite IoT operator (part of Geely Holding) building and operating the GEESATCOM low Earth orbit communication constellation and satellite terminal hardware.

General Dynamics Mission Systems

United States · 1954 · 3 products

General Dynamics Mission Systems is a defense electronics manufacturer and integrator providing mission-critical solutions for land, sea, air, space, and cyber domains.

Glavkosmos

Russia · 1985 · 63 products

Glavkosmos coordinates international human spaceflight projects, facilitates satellite launches, develops and supplies rocket components, and provides equipment for space crews.

Guerin Technologies

India · 1 product

Bangalore-based space tech startup developing reliable satellite sub-systems for LEO and MEO constellations using advanced materials and manufacturing.

Hengtong Optic Electric Space Cable Division

China · 2 products

Space cable and harness division of Hengtong Group, supplying radiation-tolerant cable assemblies and interconnects for Chinese satellite and launch vehicle programmes.

Hunan Kaida Space Connectors

China · 1995 · 74 products

Hunan Kaida Electronic Co., Ltd. (KD Connector) is a Chinese aerospace-grade connector manufacturer headquartered in Hunan Province, China, designing and producing high-reliability circular

IDEAS (Integrated Detector Electronics AS)

Norway · 1992 · 17 products

Fabless designer of radiation-hardened ASICs and detector readout electronics for space, science and industry.

KRYTAR

United States · 1975 · 3 products

KRYTAR designs and manufactures ultra-broadband microwave, mmWave, and RF components and test equipment for commercial and military applications, covering DC to 110 GHz.

Lens R&D

Netherlands · 1 product

Dutch manufacturer of precision optical components and sun sensors for space missions, with flight heritage on ESA programs including LISA.

Lucid Circuit

United States · 2017 · 1 product

Lucid Circuit designs resilient, high-performance AI microprocessors for edge computing in aerospace, satellite, defense, and other mission-critical applications.

Maana Electric

Luxembourg · 2018 · 1 product

Dual-use clean energy and ISRU technology company developing automated solar manufacturing and regolith-processing systems for Earth and space.

Mbryonics

Ireland · 2014 · 3 products

Ireland's largest photonics company, building end-to-end optical communication systems for space connectivity.

Mercury Systems

United States · 30 products

Mercury Systems delivers end-to-end processing ecosystems for aerospace and defense systems. They provide signal, compute, data management, display, and secure products. They have supported

Metahelios

United Kingdom · 2022 · 2 products

Metahelios develops proprietary Metafilter technology that reshapes image sensor manufacturing while revolutionising image quality for high-resolution camera chips, including improved low-li

Microchip Technology / Microsemi (Space)

United States · 1989 · 8 products

Leading American semiconductor company providing radiation-hardened microcontrollers, FPGAs, and timing solutions for space applications.

Minco Products, Inc

United States · 8 products

Minco Products, Inc. designs and manufactures solutions for heating, flex circuits, temperature sensing, and instrumentation. They offer off-the-shelf products and craft customized solutions

NanoXplore

2010 · 1 product

NanoXplore designs and manufactures radiation-hardened FPGAs, SoC FPGAs, and ASICs, along with design software tools, for the Space, Aerospace, Defense, and Industrial markets.

O.C.E. Technology

5 products

OCE Technology designs and manufactures high-reliability embedded software, hardware, and satellite subsystems for challenging applications, with heritage on Chinese satellites.

OHB Italia S.p.A.

Italy · 1985 · 1 product

Italian subsidiary of German space group OHB SE — satellite systems, Earth observation payloads, and space electronics for ESA and Italian Space Agency programs.

Picocom

Ireland · 1 product

Picocom designs and markets open RAN standard-compliant baseband SoCs and carrier-grade software for 4G/5G small cell infrastructure and non-terrestrial networks via satellite, supporting di

Rakon Limited

New Zealand · 1967 · 6 products

Global leader in frequency control and timing solutions — space-qualified oscillators, GNSS receivers and S-band transceivers — with 40+ years of flight heritage.

ReliaSat

United Kingdom · 2020 · 6 products

ReliaSat is a UK manufacturer of Ka-band RF and mm-wave systems, transceivers, phased array antennas, and MMICs for satellite, aerospace, defence, and 5G markets.

Saab Space

Sweden · 1937 · 1 product

Swedish defense and aerospace company providing satellite transponders, on-board computers, and telecommunications systems for European and international space programs.

Saankhya Labs

India · 2006 · 5 products

Indian SDR semiconductor company in Bengaluru; Prism SX software-defined radio platform supporting DVB-S2X/DVB-T2/ATSC 3.0 for VSAT terminals, satellite broadband, and direct broadcast recei

SEALSQ / WISeSat

Switzerland · 1 product

Semiconductor and cybersecurity company (NASDAQ: LAES) providing secure chips and its WISeSat satellite IoT constellation for authenticated, encrypted device-to-satellite connectivity.

Shaanxi Huada

China · 1966 · 1 product

Shaanxi Huada Science Technology Co., Ltd. is a Chinese manufacturer of RF coaxial connectors, low frequency connectors, and RF coaxial cable components for aerospace applications, supplying

Sheldahl (Mutek Flexible Circuits)

United States · 1959 · 3 products

Sheldahl (Mutek Flexible Circuits) is a US manufacturer of flexible printed circuits, printed electronics, electronic materials, and aerospace thermal control materials, headquartered in No

SkyLabs d.o.o.

Slovenia · 2013 · 1 product

SkyLabs is a Slovenian space-technology company that designs and manufactures miniaturized, fault-tolerant on-board data handling, communications, power, ADCS/GNC and EGSE equipment for smal

Sophia Space

United States · 2023 · 1 product

Developer of space-native AI edge compute hardware for orbital data processing.

Space Forge Limited

United Kingdom · 2018 · 1 product

UK company (Cardiff, Wales) developing reusable in-space manufacturing platforms and a non-ablative reentry heat shield for producing semiconductor materials in microgravity.

SpaceTech GmbH

Germany · 2004 · 1 product

German space company designing, developing and producing solar arrays, laser-optical instruments and space electronics for satellite missions.

Teledyne e2v

United Kingdom · 1947 · 5 products

UK-based developer of radiation-hardened CCDs, processors, ADCs, and memory devices for space applications. Products have decades of flight heritage on ESA, NASA, and commercial satellite mi

Triad RF Systems

United States · 2016 · 1 product

New Jersey-based manufacturer of GaN power amplifiers and bi-directional amplifiers for military, commercial, and space radio systems covering 30 MHz to 8.5 GHz in compact, ruggedized module

VORAGO Technologies

United States · 2012 · 8 products

VORAGO Technologies designs radiation-hardened ARM microcontrollers and processors for space and extreme-environment applications using patented HARDSIL technology.

VVDN Technologies

India · 2007 · 1 product

India-based contract engineering and electronics manufacturing company serving aerospace and defence with avionics, tactical communications, UAS and satellite communications subsystems.

WORK Microwave

Germany · 1 product

WORK Microwave develops and manufactures RF electronics technologies and products. They create innovative RF electronics and digital signal processing, including satellite communication, opt

Xiphos Technologies

Canada · 2003 · 2 products

Xiphos Technologies designs low-SWaP Zynq and Versal-based computing modules and on-board computers for SmallSats, offering 120+ years of cumulative flight heritage.

XMA Corporation

United States · 2003 · 2 products

US passive microwave and RF components manufacturer in Manchester, NH; TVAC-rated space hardware, cryogenic components, attenuators, adapters, power dividers for satellite and defence.

Zaitra

Czech Republic · 2020 · 1 product

Czech space-tech company building on-board data processing hardware and AI software that make Earth observation satellites more autonomous.

Need a quote?

Open any product on newspacemarket.com and send one request — it goes straight to the manufacturer. Comparing several? Add them to a list and send a single bulk request.

<https://newspacemarket.com/catalogues/microelectronics/>

© 2026 NewSpace Market. Product data belongs to the respective manufacturers. This catalogue may be shared freely.