



Microchip Technology / Microsemi (Space)

United States · founded 1989 · microchip.com/en-us/products/aerospace-and-defense/space

8

PRODUCTS

newspacemarket.com/companies/microchip-technology-microsemi/

as of 20 August 2026

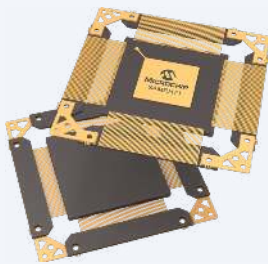
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Microchip Technology / Microsemi (Space)

Microchip Technology is an American semiconductor manufacturer founded in 1989 and headquartered in Chandler, Arizona. The company develops and manufactures microcontrollers, microprocessors, mixed-signal analog ICs, and memory devices for embedded systems applications. Through its 2018 acquisition of Microsemi Corporation, Microchip significantly expanded its space and defense semiconductor portfolio. Microchip's space and high-reliability division produces radiation-hardened and radiation-tolerant microcontrollers, FPGAs, ASICs, power management devices, and precision timing solutions qualified for use in spacecraft, launch vehicles, and high-reliability defense applications. Its products meet stringent MIL-STD and ESCC standards for space environments. The Microsemi heritage products include space-qualified FPGAs used in satellite payload processing, radiation-hardened power converters, and high-precision oscillators for satellite timing and synchronization. These products are embedded in hundreds of commercial, scientific, and defense satellites. With over 20,000 employees globally, Microchip Technology is one of the world's largest microcontroller manufacturers and a critical supplier of space-qualified semiconductors for satellite OEMs, prime contractors, and defense agencies.

This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

Product catalogue



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

price on request



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

FlashROM Bits

1,000

Routed

18

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

Routed Globals

18

PLLs

6

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 (65nm)

SERDES

integrated high-speed interfaces

SEL Immunity

LET > 103 MeV·cm2/mg

SEU Immunity

LET > 37 MeV·cm2/mg

SEU Rate

< 1E-12 errors/bit-day (GEO Solar Min)

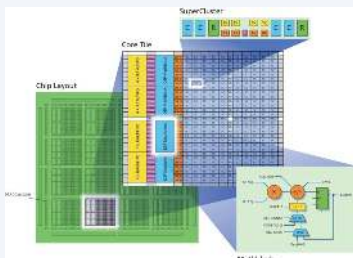
Total Ionizing Dose (TID)

> 100 krad

Package options

CQFP-352, CG/LG-1657, FCG1657

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	RTAX4000D
System Gates	2,000,000
System Gates	4,000,000
ASIC Gates	250,000
ASIC Gates	500,000
Register (R-cells)	9,856

price on request



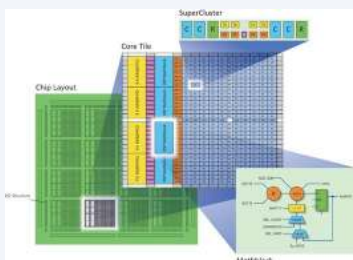
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RTAX-S/SL

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
Core RAM Blocks	12
Core RAM Bits (k=1,024)	54 k

price on request



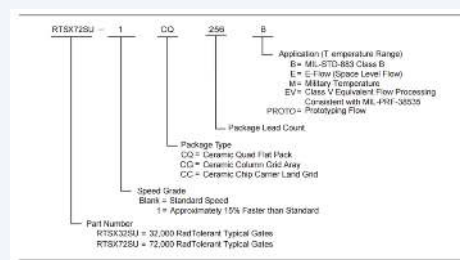
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RTAX2000D/DL

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
Core RAM kbits	288
DSP Mathblocks	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
Security	Secure programming technology prevents reverse engineering and design theft
Resource utilization	100% circuit resource utilization with 100% pin locking

price on request

Contact Microchip Technology / Microsemi (Space)

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

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