

NEWSPACE MARKET · COMPANY PROFILE

EMXYS

Emxys

Spain · founded 2007 · emxys.com

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PRODUCTS

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as of 20 August 2026

Emxys

Emxys (Electronics and Mechanisms from Extreme Systems) is a research-driven company founded in Valencia, Spain, specialising in high-performance electronics and embedded systems for space applications. The company designs and manufactures electronics for space instruments, data acquisition, and control systems, delivering solutions for both space and terrestrial markets. Emxys's flagship product line centres on the ODALISS nanosatellite platform — a complete, high-performance CubeSat bus with optical communications capability. The ODALISS architecture is built around a high-speed, multi-protocol logic bus that allows data-intensive payloads to be connected in a scalable, modular configuration. This design philosophy enables researchers and mission operators to integrate the most demanding scientific instruments without compromising data throughput. Beyond the complete platform, Emxys offers the individual subsystems as standalone products: the ODALCOM optical transceiver for infrared high-data-rate links, the DIPPP and OBC embedded computers for onboard processing, the PDCU power distribution and control unit, VHF/UHF TTC transceivers, triple-junction solar panels with integrated sensors, and an SDR-based ground station covering UHF, VHF, and S-band frequencies. Emxys has supported European and international space missions including work with Arianespace and UPMSat-2. The company holds AS 9100 aerospace quality certification and operates as part of Spain's growing commercial space sector.

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



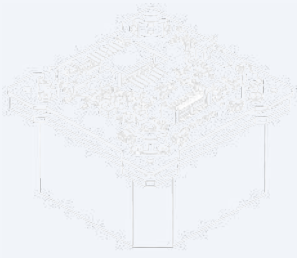
EMXYS

EMXYS Ground Station

The EMXYS Ground Station is a 19-inch rack-mounted terrestrial radio station for satellite communications, featuring an embedded computer, SDR, and optional rotor for satellite tra

SDR over Ethernet	Yes
Enclosure	19 inch standard
Satellite Tracking	Yes
Software included for telemetry and telecommand	Open source COSMOS
Software included for satellite tracking and rotor control	Open source Gpredict
Network implementation	Local network to receive/transmit data and receive RF samples
Connection system	TCP/IP protocol with Ethernet gigabit switch

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EMXYS

ODALCOM

ODALCOM is a Free-Space C Band laser transceiver designed for small satellite platforms, enabling high-performance optical space-to-ground communication links with high data rates

Tx rate	500 Mbps
Volume	1U
Mass	<1.5Kg
Power consumption	lower than 3W
Optical Power	up to 1W (100 mw nominal)
Logic interface	SPI, Ethernet, I2C
Nominal Optical Power transmission	200mW (23 dBm)

price on request



EMXYS
ODALISS

ODALISS is a high-performance nanosatellite platform with optical communications, providing all necessary subsystems for space missions, available in 3U and 6U CubeSat sizes.

Structure Material	7075 Aluminum Hard Anodized
Structure Architecture	High-performance architecture for high-speed logic interconnection
Structure Sizes	3U and 6U CubeSat
Intended orbit	LEO
Power system	Modular Li-Ion battery packs
Solar panels	3U and 6U available
Nominal power	8W

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EMXYS
ODALISS DIPP

The ODALISS DIPP is a compact, high-performance Data-Intensive Payload Processor designed for satellite applications, featuring a dual-core ARM + FPGA architecture running Linux OS

Connectors	80-pins high-speed interface backplane connector.
Connectors	10-pin Pogo-style for program and debug without mechanical stress.
Connectors	10-pin Pogo-style for NAND flash data access.
Memory	eMMC NAND flash or microSD card configurable from 4GB up to 256GB.
Memory	1GB or 512GB DDR3L RAM.
High-speed connectivity	10/100Mbps capacitive-coupled Ethernet connection.
High-speed connectivity	USB Port.

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ODALISS PDCU

The ODALISS PDCU is a highly efficient Power Distribution and Control Unit designed for space avionics, featuring redundant Solar Array Regulators with MPPT and comprehensive batte

Battery Pack Configuration	Dual 2s1p Li-Ion battery
Nominal voltage per battery	+7.4V
Fully charged voltage per battery	+8.2V
Fully charged current per battery	1A
Maximum discharge current per battery	8A
Capacity per battery	3450mAh
Peak output power	36W

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ODALISS Solar Panels

The ODALISS Solar Panels are highly efficient 3U/6U CubeSat compatible solar panels equipped with the latest triple junction technology and integrated temperature and sun sensors.

Cell efficiency	higher than 29%
Sensors	Integrated active linear temperature transducer.
Sensors	High sensitivity Silicon photodiode included.
Connectors	Three 4-pin solar array power output for flexible panels interconnection.
Connectors	One 4-pin for temperature sensor.
Connectors	One 2-pin for Sun sensor.
Connectors	Available with Remove Before Flight (RBF) pin and ODALISS Interface Port for power managem

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EMXYS

ODALISS TTC

The ODALISS TTC is an embedded CubeSat radio communication module designed for space-to-ground communications, featuring a fully configurable half-duplex VHF/UHF transceiver.

CPU	168MHz ARM® 32-bit Cortex®-M4, STM32 processor unit
Power supply	Redundant power-supply from regulated and unregulated bus
Power supply range	+5.8V to +8.4V (+7.6V nominal)
Control lines	TTC Enable and Status lines
Communication type	Half-duplex earth-space communications
Redundancy	Possibility to use a redundant TTC unit
Rx BER	<10 ⁻⁵

price on request

[datasheet](#)

Contact Emxys

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