

NEWSPACE MARKET · COMPANY PROFILE



GAUSS Srl

Italy · founded 2012 · gauss.space

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as of 20 August 2026



GAUSS Srl

The Group of Astrodynamics for the Use of Space Systems, GAUSS Srl (Gruppo di Astrodinamica per L'Uso dei Sistemi Spaziali), is based in Rome and carries on the more than ten-year-old tradition of the Scuola di Ingegneria Aerospaziale in the field of microsatellites, evolving from an academic research group into an innovative company. Founded in 2012, GAUSS originated from the university research group established at the Laboratory of Astrodynamics under the chair of Applied Astrodynamics held by Professor Filippo Graziani from 1978 to 2010. The company benefits from over thirty years of experience at the School of Aerospace Engineering of the University of Rome "Sapienza," led by founder Prof. Filippo Graziani (member of the International Academy of Astronautics) and co-founder Chantal Cappelletti. Since the early nineties, GAUSS members managed design, ground testing, integration, launch and ground operations for the UniSat Program; the first microsatellite, UniSat, was launched in September 2000, followed by several small satellites up to UniSat-7. Today GAUSS works in its own labs on new satellite technologies, collaborating with the Italian Space Agency (ASI) and other companies, specializing in complete lifecycle management of CubeSats and NanoSatellites — from concept and design to manufacturing, testing and launch support — plus subsystems (OBCs, UHF radios, power, structures), ground station equipment, and CubeSat/PocketQube deployers.

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.

SERVICES

Services

Aerospace consulting

GAUSS provides tailored aerospace consulting, offering customized solutions, leveraging industry veterans' expertise, and utilizing cutting-edge tools like CAD, CFD, and FEM for optimal project perfor

Integration and testing

GAUSS provides comprehensive satellite testing and integration services, utilizing facilities like a vacuum chamber and electronics laboratory for rigorous component and system validation.

Mission Analysis

GAUSS provides complete mission design, working with clients to define optimal solutions for orbit, launcher, satellite numbers, subsystems, and payloads, including comprehensive simulations.

Satellite Design

GAUSS offers collaborative and customized satellite design services, focusing on small CubeSats, with flexible options, payload integration, and cost-effective solutions.

Space observation

GAUSS provides cutting-edge space observation services from Castelgrande Observatory, offering telescope access, expert guidance, customized experiences, and research opportunities.

Product catalogue



GAUSS SRL

ABACUS On-Board Computer

General-purpose dual-core (MCU + FPGA) on-board computer for satellite and CubeSat missions with flight-proven heritage.

Cores	Two cores (MCU MSP430 and FPGA Spartan-3E) directly interconnected with a 24-line bus
MCU	MSP430 EP series, 16-bit RISC MCU, up to 25MHz, HiRel Enhanced Product (Texas Instruments)
Analog I/O	10x 3.3V analog input; up to 45x digital GPIO channels
GPIO	16x voltage-level-shiftable GPIOs with interrupt features
COM ports	4x COM ports (one also RS422/485, Full or Half Duplex)
Bus interfaces	2x I2C and 1x SPI bus
FPGA	Xilinx Spartan-3E FPGA, RAM based core, 500K gates

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price on request

datasheet



GAUSS SRL

GAUSS Mini Ground Dongle

USB low-power UHF transceiver/TNC dongle for safely simulating a ground station under laboratory conditions.

Output power	Up to 15 dBm
Frequency band	UHF for TT&C
Interface	USB, with drivers for Windows, Linux and MAC
Protocol	AX.25 supported
FEC	Viterbi k4 (Viterbi k7 & Reed-Solomon on request)
TNC	Integrated TNC, KISS interface
Mode	Transparent mode supported

price on request

datasheet



GAUSS SRL

GAUSS RADIO UHF – 2W/5W

A software-reconfigurable UHF radio transceiver for CubeSats and small satellites, available in 2 W and 5 W output power versions.

Configurations	2 W (low-power) and 5 W (high-power) versions
Uplink/Downlink	Totally independent; each configurable with different frequencies, modulations and protocols
Reconfigurability	Reconfigurable via software, including dynamic output power changes
Form factor	Stackable on the same PCB/104 board (two radios in parallel or redundant configuration)
Included accessories	Adapter board for testing and a computer software interface
Compatibility	Fully compatible with the GAUSS Mini Ground Dongle

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GAUSS SRL

GPOD CubeSat Deployer

Flexible 1U-3U+ CubeSat deployment mechanism with accessible side panels and non-explosive Frangibolt actuation, flight-proven on Dnepr launches.

Mass	1.9 kg
Nominal Payload Mass	4 kg
Maximum Payload Mass	5.2 kg
Outside envelope (3U)	430 x 132 x 129 mm
Inner Envelope (3U)	100 x 100 x 340.5 mm
Ejection velocity (+Z axis)	1.11 to 1.25 m/s (with nominal payload mass)
Ejection max angle error (+Z axis)	2.25 deg

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[datasheet](#)

Contact GAUSS Srl

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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