

NEWSPACE MARKET · COMPANY PROFILE



# SPUTNIX

Russia · founded 2011 · [sputnix.ru/en](https://sputnix.ru/en)

60

PRODUCTS

7

WITH DATASHEETS

[newspacemarket.com/companies/sitronics-sputnix/](https://newspacemarket.com/companies/sitronics-sputnix/)

as of 20 August 2026



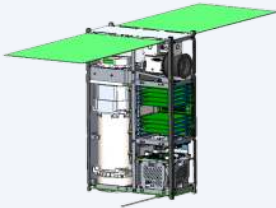
# SPUTNIX

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SPUTNIX (SPUTNIX LLC, ООО «СПУТНИКС») is a Russian designer and manufacturer of small-satellite hardware, founded in 2011 in Moscow as a spin-off of the Satellite Technology Division of SCANEX. The company develops and produces CubeSat platforms (OrbiCraft-Pro line in 1U/3U/6U/12U form factors), onboard subsystems (on-board computers, ADCS sensors and actuators, radio/communication modules, power systems, thermal control units), ground stations, and test equipment, and is based at the Skolkovo Technopark in Moscow. On August 25, 2021, SITRONICS Group (a subsidiary of AFK Sistema) acquired 71.06% of SPUTNIX's shares. Sitronics Group is a large, diversified Russian technology holding whose own corporate site ([sitronics.com](http://sitronics.com)) covers unrelated business lines (servers, EV charging, industrial IoT, satellite-data services) and does not carry a cubesat-hardware product catalog. SPUTNIX continues to operate under its own brand and product line, with its own website ([sputnix.ru](http://sputnix.ru)) hosting the full, current hardware catalog; this listing therefore uses "SPUTNIX" as the trading name and [sputnix.ru](http://sputnix.ru) as the canonical website, while noting Sitronics Group as its parent/majority shareholder. SPUTNIX's product line has substantial flight heritage, including the TabletSat-Aurora and OrbiCraft-Pro/Zorkiy CubeSat missions, and its onboard software and ADCS algorithms have been flight-qualified across multiple missions. The company also operates or supplies ground-segment infrastructure (mission control centers, ground stations) and test facilities (anechoic chamber, air-bearing tables) supporting its satellite hardware business.

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



SPUTNIX

6U CubeSat Platform SXC6 ADC AS TFF

6U CubeSat platform with 3-axis ADCS. Up to 12 kg S/C mass, 78 Wh battery, 35 W solar panels, UHF transceiver with deployable antennas. Reaction wheels and sun orientation included

|                        |                        |
|------------------------|------------------------|
| Form factor            | 6U CubeSat             |
| Dimensions (stowed)    | 118.6 × 228.6 × 366 mm |
| Max S/C mass           | 12 kg                  |
| Battery capacity       | 78 Wh                  |
| Peak solar power       | 35 W                   |
| ADCS pointing (sunlit) | up to 1°               |
| UHF frequency          | 435–438 MHz            |

price on request



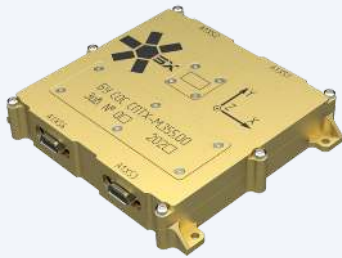
SPUTNIX

6U CubeSat Platform SXC6 VOL AS TF

Minimal 6U CubeSat platform with maximum payload volume. PSS with battery, UHF transceiver, electromagnetic detumbling only — no ADCS or reaction wheels. For simple payload mission

|                     |                        |
|---------------------|------------------------|
| Form factor         | 6U CubeSat             |
| Dimensions (stowed) | 118.6 × 228.6 × 366 mm |
| Max S/C mass        | 12 kg                  |
| Battery capacity    | 78 Wh                  |
| Peak solar power    | 35 W                   |
| UHF frequency       | 435–438 MHz            |

price on request



## SPUTNIX

### ADCS control unit

A dual-redundant attitude control and stabilization system control unit (OSSCU, SX-SBOX-ADCU-01) running SPUTNIX's flight-qualified ADCS software.

|                       |                                    |
|-----------------------|------------------------------------|
| Dimensions, mm        | 101 x 100 x 20 (without fasteners) |
| Mass, g               | 220                                |
| Power voltage, V      | 6-36 (without galvanic isolation)  |
| Power consumption, Wt | no more than 5 (average 2)         |
| Duplicated interfaces | CAN2B, RS422/485                   |
| Reservation           | Hot redundancy                     |
| Processor             | 160 MHz, ARM Cortex-M4             |

price on request



## SPUTNIX

### ADCS Hardware-in-the-Loop Simulation Bench

Hardware-in-the-loop simulation bench for developing and verifying attitude determination, stabilization and navigation systems of small spacecraft under conditions emulating LEO f

|                          |                                                                                            |
|--------------------------|--------------------------------------------------------------------------------------------|
| Type                     | ADCS hardware-in-the-loop bench                                                            |
| SXC config 01            | CubeSat 1U/3U/6U; Helmholtz coils 2 m, Ø600 mm uniform field; air-bearing ≤ 35 kg; pointin |
| SXC config 02            | Educational; Helmholtz coils 1.3 m, Ø250 mm field; air-bearing ≤ 35 kg; accuracy ≤ 1°      |
| SXC config 03            | Professional small-sat; Merritt coils; Ø900–1300 mm field; air-bearing ≤ 160 kg; accuracy  |
| Sun simulator            | ≥ 90,000 lx at 1.5 m, ~6000 K                                                              |
| Magnetic field amplitude | ± 150 µT (config 01)                                                                       |
| Variants                 | SXL-SC0E-ADCS-01 / -02 / -03                                                               |

price on request



## SPUTNIX

### Aerotable test bench for mutual movement of spacecraft

A frictionless air-bearing table for testing relative-motion, docking, and multi-satellite GNC algorithms.

|                                                       |                       |
|-------------------------------------------------------|-----------------------|
| Overall dimensions                                    | 5000x4000x3000 mm     |
| Active area dimensions                                | 1860x2480 mm          |
| Platform carrying capacity                            | up to 10 kg           |
| Working clearance between table surface and platforms | up to 0.5 mm          |
| Working body                                          | atmospheric air       |
| Mechanical horizon accuracy                           | not worse than 0.1 mm |
| Independent measurement system accuracy (orientation) | not worse than 1 deg  |

price on request [datasheet](#)



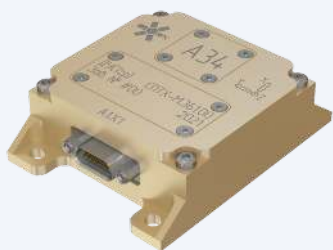
## SPUTNIX

### Anechoic chamber

A modular, on-site-assembled anechoic chamber (200 MHz-45 GHz) for antenna pattern and EMC testing.

|                      |                                    |
|----------------------|------------------------------------|
| Working volume       | not less than 2x2x2 m              |
| Anechoic volume      | 0.7x0.7x0.7 m                      |
| Doorway dimensions   | at least 1.9x1.9 m                 |
| Anechoic level       | at least 20 dB (400-440 MHz range) |
| Shielding level      | at least 40 dB (400-440 MHz range) |
| Pyramidal RAM height | 350 mm                             |
| Mobility             | yes                                |

price on request [datasheet](#)



#### SPUTNIX

##### Angular velocity sensor

A triaxial MEMS-based angular velocity sensor (SX-SBOX-AVS-MEMS-01) for small satellite attitude determination.

|                                                                                |                                  |
|--------------------------------------------------------------------------------|----------------------------------|
| Dimensions, mm                                                                 | 54 x 52 x 20 (without fasteners) |
| Mass, g                                                                        | 75                               |
| Power voltage, V                                                               | 6-36 without galvanic isolation  |
| Power consumption, Wt                                                          | 0.6                              |
| Duplicated interfaces                                                          | CAN2B                            |
| Random component of zero signal drift at constant temperature ( $1\sigma$ )    | 2°/h                             |
| Spectral noise power density (averaging over 100 seconds, $1\sigma$ ) per axis | 0.15°/√h                         |

price on request



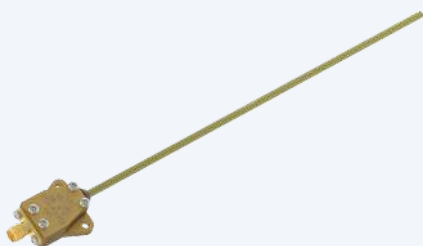
#### SPUTNIX

##### Antenna-feeder system of global navigation satellite systems

A passive printed L1-band antenna (AFS-GNSS) for receiving GNSS positioning signals aboard a spacecraft.

|                                                |                     |
|------------------------------------------------|---------------------|
| Antenna Type                                   | Printed             |
| Operating frequency range                      | 1559-1607 MHz       |
| Gain                                           | at least 5.5 dB     |
| Standing wave voltage coefficient              | no more than 1.5    |
| Type of polarization                           | Circular, RHCP      |
| Normal ellipticity coefficient                 | no more than 1.7 dB |
| Width of radiation pattern at minus 3 dB level | at least 84 degrees |

price on request



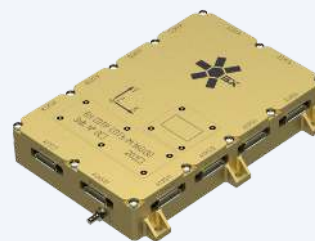
#### SPUTNIX

##### Antenna-feeder system of the UHF band

A monopole UHF-band antenna converting electrical signals into electromagnetic waves for satellite communications.

|                                   |                    |
|-----------------------------------|--------------------|
| Antenna Type                      | monopole           |
| Operating frequency range         | 400-403 MHz        |
| Gain                              | at least 4 dB      |
| Standing wave voltage coefficient | no more than 2     |
| Type of polarization              | linear             |
| Dimensions                        | 12.4 x 25 x 205 mm |
| Mass                              | 21 g               |

price on request



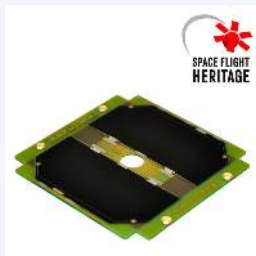
#### SPUTNIX

##### Control unit of the thermal regime support system

A redundant thermal control unit (SX-SBOX-THERMU-01) that monitors and manages heaters based on analog/digital temperature sensors across the service platform and payload.

|                                                     |                   |
|-----------------------------------------------------|-------------------|
| Dimensions                                          | 200 x 130 x 30 mm |
| Mass                                                | 600 g             |
| Supply voltage                                      | 22-33 V           |
| Power consumption without heaters included, no more | 5 W               |
| Duplicated interface                                | CAN2B             |
| Number of half-sets in device                       | 2 pcs             |
| Number of electric heaters connected per half-set   | 14 pcs            |

price on request



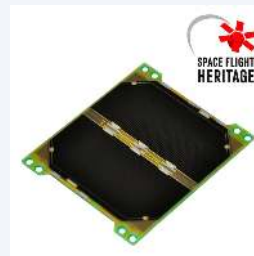
#### SPUTNIX

### CubeSat GaAs End/Edge Solar Panel SXC-SGE-03

GaAs solar panel with integrated electromagnetic coil for CubeSat top/bottom edges. 98×98 mm, 28% efficiency, 480–520 mA Isc, 37 g. Center aperture for sun sensors.

|                       |                 |
|-----------------------|-----------------|
| Dimensions            | 98 × 98 × 10 mm |
| Mass                  | 37 g            |
| Cell efficiency       | 28%             |
| Open circuit voltage  | 5.0–5.5 V       |
| Short circuit current | 480–520 mA      |
| Built-in coil area    | 1.9 m²          |

price on request



#### SPUTNIX

### CubeSat GaAs Side Solar Panel SXC-SGS-03

GaAs solar panel with built-in electromagnetic coil for CubeSat side surfaces. 98×82.6 mm, 28% efficiency, 480–520 mA Isc, 30 g. Scalable for 2U and 3U frames.

|                       |                    |
|-----------------------|--------------------|
| Dimensions            | 98 × 82.6 × 8.6 mm |
| Mass                  | 30 g               |
| Cell efficiency       | 28%                |
| Open circuit voltage  | 5.0–5.5 V          |
| Short circuit current | 480–520 mA         |
| Built-in coil area    | 1.9 m²             |

price on request



#### SPUTNIX

### CubeSat OBC / ADCS Motherboard SXC-MB-04-ADC

Raspberry Pi CM3+ carrier board with integrated ADCS controller, magnetometer, gyroscope, EM coil driver, temperature sensor, RTC, and 3-channel power switch. CAN bus throughout.

|              |                                        |
|--------------|----------------------------------------|
| Form factor  | PC/104                                 |
| Computer     | Raspberry Pi CM3/CM3+                  |
| ADCS         | Integrated standalone controller       |
| Interfaces   | CAN, SPI, I2C, UART, USB 2.0, Ethernet |
| Connectivity | WiFi hotspot/client module             |

price on request



#### SPUTNIX

### CubeSat Payload Development Tools

Debug/development tools for OrbiCraft-Pro payloads: the SXC-MBB-03 payload base board for SXC1/SXC3 platforms (design & software released by SPUTNIX as open source), and the SX

|                  |                                                                 |
|------------------|-----------------------------------------------------------------|
| Type             | Payload development & debug tools                               |
| SXC-MBB-03       | Payload base board for SXC1 / SXC3 (open-source design & SW)    |
| SXC-DEVKIT-06-BG | Payload developer kit for SXC6                                  |
| Use              | Component & board-stack functional tests, payload compatibility |

price on request



## SPUTNIX

### CubeSat Reaction Wheels Module SXC-FW4-02

4-flywheel reaction wheel module for 3U+ CubeSats. DC brushless motors with vacuum-rated bearings, CAN interface per driver,  $\pm 5000$  RPM, max torque 8.8/8.8/4.5 mNm (X/Y/Z), 580 g.

|                |                     |
|----------------|---------------------|
| Dimensions     | 97.5 × 97.5 × 80 mm |
| Mass           | 580 g               |
| Supply voltage | 5–12 V              |
| Speed range    | $\pm 5000$ RPM      |
| Max torque X/Y | 8.8 mNm             |
| Max torque Z   | 4.5 mNm             |
| Interface      | CAN2.0B 1 Mbit/s    |

price on request



## SPUTNIX

### CubeSat Sun Sensor SXC-SD-01-3U

Two-axis digital sun sensor for nanosatellites.  $\pm 60^\circ$  FOV,  $< 0.3^\circ$  accuracy, 31.3×27.5×10.3 mm, 7 g, CAN interface. Factory calibrated, no customer calibration required.

|                        |                       |
|------------------------|-----------------------|
| Dimensions             | 31.3 × 27.5 × 10.3 mm |
| Mass                   | 7 g                   |
| Field of view          | $\pm 60^\circ$        |
| Accuracy ( $1\sigma$ ) | $< 0.3^\circ$         |
| Noise                  | $< 0.01^\circ$        |
| Power consumption      | 30–50 mW              |
| Interface              | CAN2.0B 1 Mbit/s      |

price on request



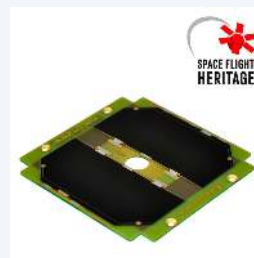
## SPUTNIX

### Fibre-Optic Gyroscope

A high-precision fibre-optic gyroscope (FOG, SX-SBOX-AVS-FOG-01) with a control unit and 4-element sensitive assembly (3 main + 1 backup) for orientation determination.

|                                                                                                        |                                        |
|--------------------------------------------------------------------------------------------------------|----------------------------------------|
| Dimensions of the sensor unit                                                                          | 275 × 275 × 160 mm (without fasteners) |
| Dimensions of the control unit                                                                         | 171 × 111 × 44 mm (without fasteners)  |
| Power voltage, V                                                                                       | 22-34, galvanic isolation 500V         |
| Power consumption, Wt                                                                                  | up to 33                               |
| Mass of control unit with sensor unit, kg                                                              | 1.7                                    |
| Duplicated interfaces                                                                                  | CAN2B                                  |
| Random component of zero signal drift at constant temperature (100 sec-averaging, $1\sigma$ ) per axis | $\leq 0.005^\circ/\text{h}$            |

price on request



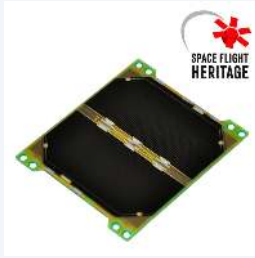
## SPUTNIX

### GaAs end edge solar panel with coils

A GaAs solar panel with a built-in electromagnetic coil designed for CubeSat top/bottom edges, with a central aperture for sun sensors or small payloads (SXC-SGE-03).

|            |                                                                 |
|------------|-----------------------------------------------------------------|
| Model      | SPUTNIX SXC-SGE-03                                              |
| Feature    | Compatible with SPUTNIX SXC1 and SXC3 CubeSat frames            |
| Feature    | Diode protection circuit                                        |
| Feature    | Built-in planar coil                                            |
| Feature    | Scalable power and coils using several panels                   |
| Dimensions | 98 × 98 × 10 mm (1.8mm thickness w/o connector) ( $\pm 0.2$ mm) |
| Mass       | 37 ± 3 g                                                        |

price on request



#### SPUTNIX

##### GaAs side solar panel with coils

A GaAs solar panel with a built-in electromagnetic detumbling coil, sized for CubeSat side surfaces (SXC-SGS-03).

|            |                                                             |
|------------|-------------------------------------------------------------|
| Model      | SPUTNIX SXC-SGS-03                                          |
| Feature    | Compatible with SPUTNIX SXC1 and SXC3 CubeSat frames        |
| Feature    | Diode protection circuit                                    |
| Feature    | Built-in planar coil                                        |
| Feature    | Scalable power and coils using several panels               |
| Dimensions | 98 x 82.6 x 8.6 mm (1.8mm thickness w/o connector) (±0.2mm) |
| Mass       | 30 ± 3 g                                                    |

price on request



#### SPUTNIX

##### High-power distribution and control unit

A power switching unit (PSU-h) distributing main/backup power lines and redundant data/timing buses between up to 8 onboard devices.

|                       |                                    |
|-----------------------|------------------------------------|
| Dimensions, mm        | 244 x 171 x 45 (without fasteners) |
| Mass, kg              | 1.1                                |
| Power voltage, V      | 22-34                              |
| Power consumption, Wt | 5                                  |
| Duplicated interfaces | CAN2B                              |
| Number of ports       | up to 8                            |
| Reservation           | cold redundancy                    |

price on request





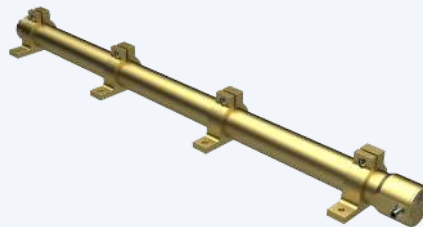
## SPUTNIX

### High-speed radio line control unit

A power and control interface converter unit that interfaces with high-speed transmitters of target information.

|                                            |                                        |
|--------------------------------------------|----------------------------------------|
| Power supply                               | 22...33 V, galvanic isolation<br>500 V |
| Control interface                          | CAN, duplicated                        |
| Output power parameters                    | +11...+16.5 V, 30 W                    |
| Parameters of the control output interface | x4 RS-422                              |
| Dimensions                                 | 171 x 120 x 46 mm                      |
| Mass                                       | 750 g                                  |

price on request



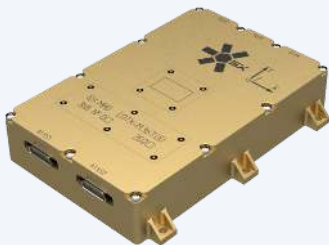
## SPUTNIX

### Magnetic torquers

A family of proprietary magnetic torquer rods (SX-MT-1 through SX-MT-30) used with the magnetic torquers control unit for low-accuracy attitude damping and flywheel unloading; a mi

|                |                                                                                               |
|----------------|-----------------------------------------------------------------------------------------------|
| Model SX-MT-1  | Maximum moment 1 A*m2,<br>Consumption 0.4 Wt, Mass 200 g, Diameter 16 mm, Dimensions 140x30x3 |
| Model SX-MT-5  | Maximum moment 5 A*m2,<br>Consumption 0.6 Wt, Mass 350 g, Diameter 20 mm, Dimensions 220x50x3 |
| Model SX-MT-10 | Maximum moment 10 A*m2,<br>Consumption 0.7 Wt, Mass 550 g, Diameter 20 mm, Dimensions 320x50x |
| Model SX-MT-15 | Maximum moment 15 A*m2,<br>Consumption 0.8 Wt, Mass 650 g, Diameter 20 mm, Dimensions 400x50x |
| Model SX-MT-20 | Maximum moment 20 A*m2,<br>Consumption 1.0 Wt, Mass 800 g, Diameter 20 mm, Dimensions 470x50x |
| Model SX-MT-25 | Maximum moment 25 A*m2,<br>Consumption 1.2 Wt, Mass 1000 g, Diameter 22 mm, Dimensions 470x50 |
| Model SX-MT-30 | Maximum moment 30 A*m2,<br>Consumption 1.8 Wt, Mass 1200 g, Diameter 25 mm, Dimensions 440x50 |

price on request



#### SPUTNIX

### Magnetic torquers control unit

A control unit (SX-SBOX-MTQU-01) driving up to three magnetic torquers via PDM channels to implement angular velocity damping and flywheel unloading.

|                                   |                                  |
|-----------------------------------|----------------------------------|
| Dimensions, mm                    | 54 x 48 x 20 (without fasteners) |
| Mass, g                           | 85                               |
| Power voltage, V                  | 6-36 without galvanic isolation  |
| Power consumption, Wt             | 0.8                              |
| Duplicated interfaces             | CAN2B                            |
| Control channels of MT            | 3                                |
| Method of managing channels of MT | PDM                              |

price on request



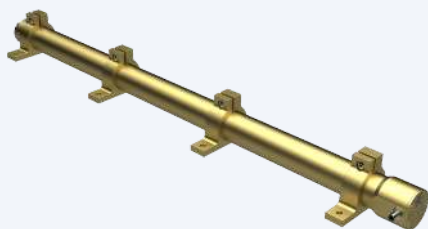
#### SPUTNIX

### Magnetometer

A triaxial anisotropic-magnetoresistive magnetometer (SX-SBOX-MAG-01) used in attitude determination alongside magnetic torquers for detumbling and momentum unloading.

|                                    |                                  |
|------------------------------------|----------------------------------|
| Dimensions, mm                     | 54 x 52 x 16 (without fasteners) |
| Mass, g                            | 70                               |
| Power voltage, V                   | 6-36 without galvanic isolation  |
| Power consumption, Wt              | 0.8                              |
| Measurement range, nT              | ±100000                          |
| Measurement noise ( $\sigma$ ), nT | 100                              |

price on request



#### SPUTNIX

### Microsatellite Magnetic Torquers SX-MT Series

Series of 7 magnetic torquers for microsatellite attitude control and detumbling. Dipole moments from 1 to 30 Am<sup>2</sup>, masses 200–1200 g. Compatible with SPUTNIX Pallada platform.

|                     |                                                                    |
|---------------------|--------------------------------------------------------------------|
| Models available    | SX-MT-1, SX-MT-5, SX-MT-10, SX-MT-15, SX-MT-20, SX-MT-25, SX-MT-30 |
| Dipole moment range | 1–30 Am <sup>2</sup>                                               |
| Supply voltage      | ±10 V                                                              |
| Mass range          | 200–1200 g                                                         |

price on request



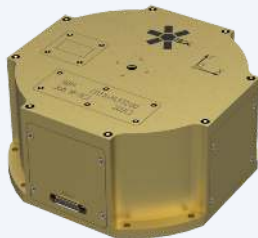
#### SPUTNIX

### Microsatellite Magnetometer SX-SBOX-MAG-01

3-axis magnetometer for microsatellite ADCS. Anisotropic magnetoresistive sensors, ±100,000 nT range, 100 nT noise, 54×52×16 mm, 70 g, CAN2B. Used for detumbling and flywheel unloading.

|                     |                    |
|---------------------|--------------------|
| Dimensions          | 54 × 52 × 16 mm    |
| Mass                | 70 g               |
| Measurement range   | ±100,000 nT        |
| Noise (1 $\sigma$ ) | 100 nT             |
| Power consumption   | 0.8 W              |
| Interface           | CAN2B (duplicated) |

price on request



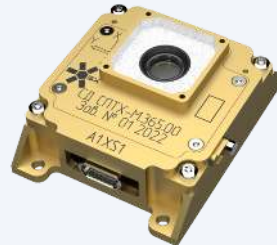
#### SPUTNIX

##### Microsatellite Reaction Wheel SX-SBOX-RWH-50-2.0-01

Control flywheel motor (CFM) for microsatellites. Max torque 0.05 Nm, max kinetic moment 2 Nms, 3.2 kg, CAN2B interface. Compatible with ECSS standards.

|                    |                    |
|--------------------|--------------------|
| Dimensions         | 160 × 160 × 80 mm  |
| Mass               | 3.2 kg             |
| Supply voltage     | 22–34 V            |
| Max control torque | 0.05 Nm            |
| Max kinetic moment | 2 Nms              |
| Interface          | CAN2B (duplicated) |

price on request



#### SPUTNIX

##### Microsatellite Sun Sensor SX-SBOX-SUNS-01

Sun sensor for microsatellites and small spacecraft. Half-angle 45° FOV, 0.15° accuracy, 43×43×16 mm, 45 g, CAN2B. Uses matrix photodetector with anti-glare algorithms.

|                            |                    |
|----------------------------|--------------------|
| Dimensions                 | 43 × 43 × 16 mm    |
| Mass                       | 45 g               |
| Field of view (half-angle) | 45°                |
| Accuracy (1σ)              | 0.15°              |
| Power consumption          | 0.4 W              |
| Interface                  | CAN2B (duplicated) |

price on request

#### SPUTNIX

##### Mission Control Center (MCC)

Mission Control Center for centralized, automated control of a spacecraft or satellite constellation in Earth orbit. It aggregates data from all ground stations, then processes, an

|            |                                                                    |
|------------|--------------------------------------------------------------------|
| Type       | Mission Control Center<br>(software & facility)                    |
| Function   | Centralized automated control<br>of spacecraft /<br>constellations |
| Inputs     | Aggregates telemetry from all<br>ground stations                   |
| Operations | Data processing, analysis,<br>storage and commanding               |

price on request



#### SPUTNIX

##### On-board computer

A radiation-tolerant, dual-redundant onboard computer (SX-SBOX-OBC-01) built on a SPARC v8 Leon4FT processor with CAN, SpaceWire and optional MIL-STD-1553-like interfaces.

|                       |                                                            |
|-----------------------|------------------------------------------------------------|
| Dimensions, mm        | 171 × 111 × 51 (without<br>fasteners)                      |
| Mass, kg              | 0.86                                                       |
| Power voltage, V      | 22–34, galvanic isolation<br>500V                          |
| Power consumption, Wt | up to 10                                                   |
| Duplicated interfaces | CAN2B, SpaceWire, MK0/MIL-<br>STD-1553-like bus (optional) |

price on request

[datasheet](#)



#### SPUTNIX

### On-board computer (with a set of sensors and ADC controller)

A Raspberry Pi Compute Module carrier board (SXC-MB-04-ADC) integrating an ADCS controller, gyroscope/magnetometer sensors, coil driver and power switching for CubeSats.

|         |                                                                                          |
|---------|------------------------------------------------------------------------------------------|
| Model   | SPUTNIX SXC-MB-04-ADC                                                                    |
| Feature | Flexible architecture, all devices on CAN bus interconnect                               |
| Feature | Raspberry Compute Module CM3/CM3+                                                        |
| Feature | Sensors on CAN bus (magnetometer, attitude rate sensor, temperature, voltages, currents) |
| Feature | EM torquer driver                                                                        |
| Feature | On-board ADCS controller                                                                 |
| Feature | Low-power board-managing MCU with autonomous detumbling mode                             |

price on request



#### SPUTNIX

### On-board software

The flight software (RTEMS-based) for SPUTNIX's onboard computer complex, implementing telemetry/telecommand, ADCS algorithms and device management per ECSS/CCSDS standards.

price on request



#### SPUTNIX

### OrbiCraft-Pro 1U CubeSat Platform

1U CubeSat satellite platform / assembly kit. The "Flight" (SXC1-GA) version is factory-assembled and tested with GaAs solar panels, ready for payload integration; an "Experimental

|                         |                             |
|-------------------------|-----------------------------|
| Form factor             | 1U CubeSat                  |
| Dimensions              | 108 × 108 × 113.5           |
| Mass (without payload)  | ≤ 0.95                      |
| Max mass (with payload) | ≤ 1.33                      |
| Payload volume          | 80 × 70 × 20                |
| Solar cells             | 6 (GaAs / Si)               |
| Battery                 | Li-Ion 2S 5000 mAh, ≥ 39 Wh |

price on request



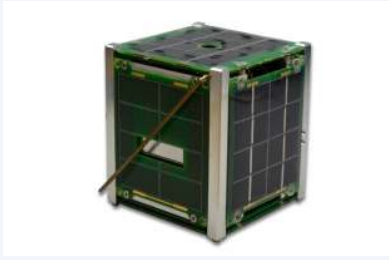
#### SPUTNIX

### OrbiCraft-Pro 1U Experimental (SXC1)

1U CubeSat platform kit with silicon solar panels for educational and laboratory use.

|                  |                      |
|------------------|----------------------|
| Mass             | 0.9-0.95 kg          |
| Dimensions       | 108 × 108 × 113.5 mm |
| Battery capacity | 39 Wh                |
| Data bus         | CAN2.0B              |
| Solar panels     | 6, silicon           |
| Radio            | 435-437 MHz, AX.25   |

price on request

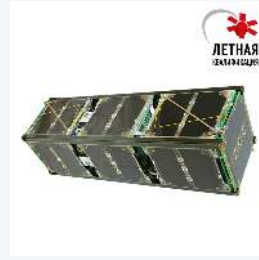


#### SPUTNIX

##### OrbiCraft-Pro 1U Flight (SXC1-GA)

Flight-ready 1U CubeSat platform with GaAs solar panels and electromagnetic ADCS.

|                     |                                              |
|---------------------|----------------------------------------------|
| Mass (with payload) | 1.33 kg                                      |
| Solar panels        | GaAs                                         |
| ADCS                | Electromagnetic, B-dot<br>detumbling control |
| price on request    |                                              |



#### SPUTNIX

##### OrbiCraft-Pro 3U CubeSat Platform

3U CubeSat satellite platform / assembly kit. The "Flight" (SXC3-GA) version is factory-assembled and tested with GaAs solar panels. Variants: Experimental (SXC3), Flight (SXC3-GA)

|                         |                             |
|-------------------------|-----------------------------|
| Form factor             | 3U CubeSat                  |
| Mass (without payload)  | 1.4                         |
| Max mass (with payload) | 4                           |
| Dimensions              | 108 × 108 × 340.5           |
| Payload volume          | 80 × 70 × 20                |
| Solar cells             | 14                          |
| Battery                 | Li-Ion 2S 5000 mAh, ≥ 39 Wh |
| price on request        |                             |

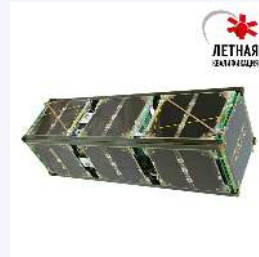


#### SPUTNIX

##### OrbiCraft-Pro 3U Experimental (SXC3)

SPUTNIX OrbiCraft-Pro 3U assembled and factory-verified CubeSat platform with silicon solar panels, ready for payload integration and educational or experimental use.

|                         |                                                                    |
|-------------------------|--------------------------------------------------------------------|
| Form factor             | 3U CubeSat                                                         |
| On-board computer       | with Raspberry Pi – 1 pc.                                          |
| Power supply system     | with battery unit – 1 pc.                                          |
| Solar panels (side)     | 12 × Si solar side panels<br>with coils                            |
| Solar panels (end edge) | 2 × Si end edge solar panels<br>with coils                         |
| Radio                   | UHF transceiver – 1 pc.                                            |
| Antenna                 | UHF antenna system with<br>service panel and RBF switch<br>– 1 pc. |
| price on request        |                                                                    |



#### SPUTNIX

##### OrbiCraft-Pro 3U Flight (SXC3-GA)

Flight-ready 3U CubeSat platform with GaAs solar panels across 14 panel faces.

|                  |                                    |
|------------------|------------------------------------|
| Mass             | 1.45 kg (4 kg max with<br>payload) |
| Solar panels     | 14, GaAs                           |
| price on request |                                    |



#### SPUTNIX

### OrbiCraft-Pro 3U Profi (SXC3-GA-ADC)

3U CubeSat platform with 3-axis ADCS, reaction wheels, and 5 sun sensors for precision pointing missions.

|      |                                         |
|------|-----------------------------------------|
| ADCS | 3-axis, reaction wheels + 5 sun sensors |
|------|-----------------------------------------|

|              |      |
|--------------|------|
| Solar panels | GaAs |
|--------------|------|

price on request



#### SPUTNIX

### OrbiCraft-Pro Educational CubeSat Kit

Functional 1U/3U CubeSat training kit with full set of subsystems (OBC, EPS, ADCS, comms) for universities.

|          |                                 |
|----------|---------------------------------|
| Kit type | Functional CubeSat training kit |
|----------|---------------------------------|

|             |         |
|-------------|---------|
| Form factor | 1U / 3U |
|-------------|---------|

|           |      |
|-----------|------|
| Mass (1U) | ~1.0 |
|-----------|------|

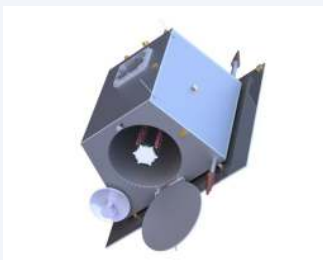
|            |                                            |
|------------|--------------------------------------------|
| Subsystems | OBC, EPS, ADCS, UHF transceiver, structure |
|------------|--------------------------------------------|

|            |          |
|------------|----------|
| Ground SDR | included |
|------------|----------|

|               |   |
|---------------|---|
| Power (orbit) | 2 |
|---------------|---|

|         |              |
|---------|--------------|
| Battery | Li-Ion 10 Wh |
|---------|--------------|

price on request



#### SPUTNIX

### Pallada Microsatellite Platform

Microsatellite bus for spacecraft of 80–200 kg, providing service systems and accommodation for a wide range of payloads independent of the target-instrument configuration. Designe

|                |                                          |
|----------------|------------------------------------------|
| Platform class | Microsatellite bus, 80–200 kg spacecraft |
|----------------|------------------------------------------|

|       |              |
|-------|--------------|
| Orbit | LEO, 500–800 |
|-------|--------------|

|                 |     |
|-----------------|-----|
| Design lifetime | ≥ 3 |
|-----------------|-----|

|                             |       |
|-----------------------------|-------|
| Platform mass (instruments) | ≤ 120 |
|-----------------------------|-------|

|              |      |
|--------------|------|
| Payload mass | ≤ 80 |
|--------------|------|

|             |    |
|-------------|----|
| Bus voltage | 27 |
|-------------|----|

|                         |           |
|-------------------------|-----------|
| Solar array power (max) | up to 500 |
|-------------------------|-----------|

price on request



#### SPUTNIX

### Payload baseboard for platforms SXC1/3

A PC/104-compatible breadboard carrier for developing payloads and other systems that need access to the satellite's CAN bus.

|       |                    |
|-------|--------------------|
| Model | SPUTNIX SXC-MBB-03 |
|-------|--------------------|

|         |                                  |
|---------|----------------------------------|
| Feature | approved MCU with CAN bus design |
|---------|----------------------------------|

|         |                             |
|---------|-----------------------------|
| Feature | user area with 2.54mm pitch |
|---------|-----------------------------|

|         |                                         |
|---------|-----------------------------------------|
| Feature | controllable power system for user area |
|---------|-----------------------------------------|

|         |                          |
|---------|--------------------------|
| Feature | board schematic provided |
|---------|--------------------------|

|         |                                 |
|---------|---------------------------------|
| Feature | firmware source files available |
|---------|---------------------------------|

|         |                      |
|---------|----------------------|
| Feature | bootloader available |
|---------|----------------------|

price on request



## SPUTNIX

### Power supply system (with battery unit)

A two-module CubeSat EPS (SXC-PSS-03) consisting of a power system controller (SXC-PSU-03) and battery module (SXC-BAT-03) for solar power collection, storage, and distribution.

|                                         |                                   |
|-----------------------------------------|-----------------------------------|
| SXC-PSU-03 Dimensions                   | 98.4 x 96 x 19 mm ( $\pm 0.2$ mm) |
| SXC-PSU-03 Mass                         | 20 $\pm$ 2 g                      |
| Solar panels channels                   | 3                                 |
| Solar panel type                        | GaAs, Si                          |
| Solar panel voltage                     | 3.5..5.5V                         |
| Maximum solar panel current per channel | 1500 mA                           |
| Maximum summary solar panels current    | 3000 mA                           |

price on request



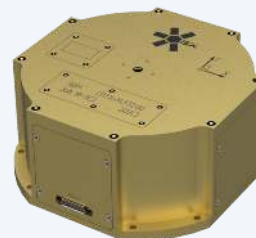
## SPUTNIX

### Reaction wheels module

A 4-flywheel reaction wheel module (SXC-FW4-02) for CubeSat 3-axis attitude control, integrating drivers and control electronics on a single PC/104 card.

|         |                                                              |
|---------|--------------------------------------------------------------|
| Model   | SPUTNIX SXC-FW4-02                                           |
| Feature | Complete 3-axis angular rate actuators for CubeSat satellite |
| Feature | Easily integrates with SPUTNIX platforms                     |
| Feature | Four brushless DC motors with vacuum-rated bearings          |
| Feature | Wide power supply range                                      |
| Feature | Momentum and current control algorithms                      |
| Feature | Voltage, current and temperature sensors for each motor      |

price on request



## SPUTNIX

### Reaction wheel

A control flywheel motor (CFM, SX-SBOX-RWH-50-2.0-01) generating control torque via rotor acceleration/deceleration for larger satellite platforms.

|                                  |                                    |
|----------------------------------|------------------------------------|
| Dimensions, mm                   | 160 x 160 x 80 (without fasteners) |
| Mass, kg                         | 3.2                                |
| Power voltage, V                 | 22-34 (without galvanic isolation) |
| Peak power consumption, Wt       | 43                                 |
| Power consumption, Wt            | 10                                 |
| Duplicated interfaces            | CAN2B                              |
| Maximum control torque, Nmax, Nm | 0.05                               |

price on request



## SPUTNIX

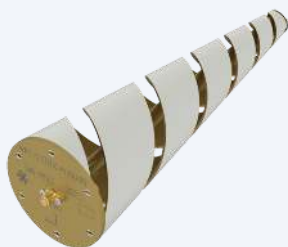
### Regulation and control equipment

The EPS regulation and control equipment (RCE) that manages battery charging/discharging and power distribution together with solar and storage batteries.

|                                                                  |                                     |
|------------------------------------------------------------------|-------------------------------------|
| Dimensions, mm                                                   | 306 x 161 x 140 (without fasteners) |
| Mass, kg                                                         | 7                                   |
| Power voltage, V                                                 | 22-34                               |
| Power consumption, Wt                                            | 10                                  |
| Duplicated interfaces                                            | CAN2B, RS485, SpaceWire             |
| Redundant galvanically separated stabilized subscriber power bus | 27V, ECSS-E-ST-20-20C               |
| Redundant unstabilized subscriber power bus                      | 27V, ECSS-E-ST-20-20C               |

price on request





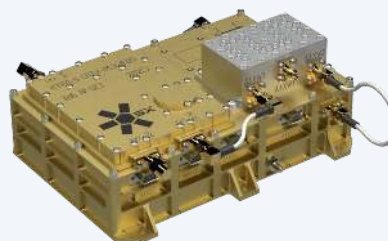
#### SPUTNIX

### S band antenna-feeder system

A lightweight, 3D-metal-printed two-way spiral S-band antenna for spacecraft command/telemetry radio links.

|                                   |                   |
|-----------------------------------|-------------------|
| Antenna Type                      | Two-way spiral    |
| Operating frequency range         | 2000-2290 MHz     |
| Gain                              | at least 4 dB     |
| Standing wave voltage coefficient | no more than 1.65 |
| Type of polarization              | Circular, RHCP    |
| Dimensions                        | 80 x 80 x 235 mm  |
| Mass                              | 190 g             |

price on request



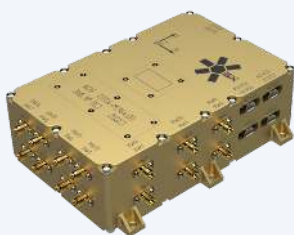
#### SPUTNIX

### S-band TM/TC radio link

A full-duplex S-band command-telemetry radio link for high-speed communication with ground stations and inter-satellite links.

|                                          |                                                 |
|------------------------------------------|-------------------------------------------------|
| Dimensions, mm                           | 117 x 111 x 48 (without fasteners and diplexer) |
| Mass, kg                                 | 0.85 (without diplexer)                         |
| Power voltage, V                         | 22-34, galvanic isolation 500V                  |
| Power consumption, Wt                    | 22 (reception + transmission), 3 (reception)    |
| Duplicated interfaces                    | CAN2B, SpaceWire, RS-485, Ethernet              |
| Operating mode                           | Full duplex                                     |
| Operating frequency range reception, MHz | 2025-2110                                       |

price on request



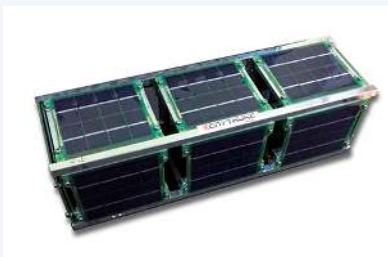
#### SPUTNIX

### Satellite navigation equipment

A GNSS receiver unit (SX-SBOX-GNSS-01) providing precision position, velocity and time synchronization for the spacecraft.

|                                   |                                    |
|-----------------------------------|------------------------------------|
| Dimensions, mm                    | 171 x 111 x 51 (without fasteners) |
| Mass, kg                          | 0.7                                |
| Power voltage, V                  | 22-34, galvanic isolation 500V     |
| Power consumption, Wt             | 2                                  |
| Duplicated interfaces             | CAN2B, SpaceWire                   |
| Coordinate determination error, m | 10 (sigma)                         |
| Speed determination error, m/s    | 0.01                               |

price on request



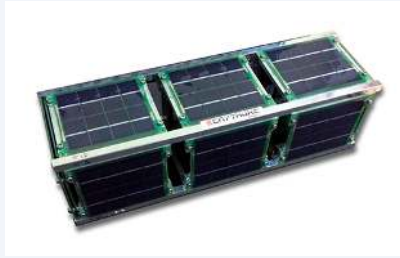
#### SPUTNIX

### Satellite platform OrbiCraft-Pro 3U modification "Engineering model for Profi"

An assembled and manufacturer-verified 3U CubeSat engineering model (article SXC3-ADC) with silicon (Si) solar panels and triaxial ADCS, intended for adjustment of control and ADC

price on request





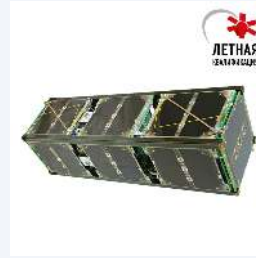
#### SPUTNIX

### Satellite platform OrbiCraft-Pro 3U modification “Experimental”

An assembled and manufacturer-verified 3U CubeSat platform (article SXC3) with silicon (Si) solar panels and basic B-DOT ADCS, intended primarily as a laboratory/educational model.

|                                              |                            |
|----------------------------------------------|----------------------------|
| Mass assembled (w/o payload)                 | 1.4 kg                     |
| Max mass allowed (w/ payload)                | 4 kg                       |
| Dimensions (springs pressed, antenna folded) | 108x108x340.5 mm           |
| Dimensions at rails                          | 100x100x340.5 mm           |
| Available volume for payload                 | not less than 80x70x140 mm |
| Output voltage                               | 5V +-0.5 V                 |
| Output current                               | not more than 2A           |

price on request



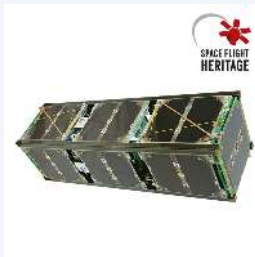
#### SPUTNIX

### Satellite platform OrbiCraft-Pro 3U modification “Flight”

An assembled and manufacturer-verified 3U CubeSat platform (article SXC3-GA) with GaAs solar panels, ready for payload integration and suitable for actual low-Earth-orbit flight.

|                                              |                            |
|----------------------------------------------|----------------------------|
| Mass assembled (w/o payload)                 | 1.45 kg                    |
| Max mass allowed (w/ payload)                | 4 kg                       |
| Dimensions (springs pressed, antenna folded) | 108x108x340.5 mm           |
| Dimensions at rails                          | 100x100x340.5 mm           |
| Available volume for payload                 | not less than 80x70x140 mm |
| Output voltage                               | 5V +-0.5 V                 |
| Output current                               | not more than 2A           |

price on request



#### SPUTNIX

### Satellite platform OrbiCraft-Pro 3U modification “Profi X”

An assembled and manufacturer-verified 3U CubeSat platform (article SXC3-GA-ADC-XB) with GaAs solar panels, triaxial ADCS, and an X-band transmitter with antenna, suitable for labo

price on request



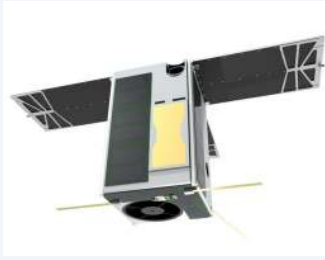
#### SPUTNIX

### Satellite platform OrbiCraft-Pro 3U modification “Profi”

An assembled and manufacturer-verified 3U CubeSat platform (article SXC3-GA-ADC) with GaAs solar panels and a triaxial ADCS with reaction wheels and sun sensors, suitable for labor

|                                              |                            |
|----------------------------------------------|----------------------------|
| Mass assembled (w/o payload)                 | 1.45 kg                    |
| Max mass allowed (w/ payload)                | 4 kg                       |
| Dimensions (springs pressed, antenna folded) | 108x108x340.5 mm           |
| Available volume for payload                 | not less than 80x70x140 mm |
| Output voltage                               | 5V +-0.5 V                 |
| Available average payload power on LEO       | not more than 1500 mW      |
| Battery capacity                             | not less than 39 Wh        |

price on request



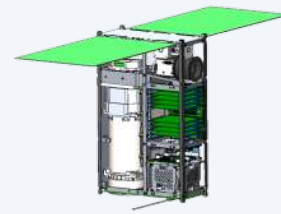
#### SPUTNIX

##### Satellite platform SXC12

A universal, combinable 12U CubeSat platform with flexible redundant subsystem configuration, high-speed X-band downlink, and gas propulsion system, designed for launch in standard

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Circular working orbit altitude | LEO to 600 km                     |
| Active period                   | not less than 1.5 years (up to 3) |
| Separation method               | Standard container CubeSat 12U    |
| Outer dimensions                | 226.3x226.3x366+-0.5 mm           |
| Maximum mass                    | 24 kg                             |
| Battery capacity                | 120 Wh                            |
| Service radio frequency         | 400-401 MHz                       |

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



#### SPUTNIX

##### Satellite Platform SXC6 ADC (SXC6-ADC)

6U CubeSat bus with 3-axis ADCS configuration and 4U payload volume.

|                |        |
|----------------|--------|
| Form factor    | 6U     |
| ADCS           | 3-axis |
| Payload volume | 4U     |

[price on request](#)



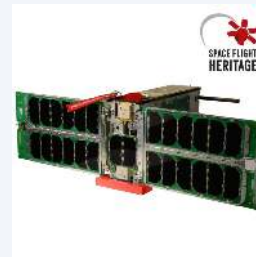
#### SPUTNIX

##### Satellite Platform SXC6 Basic (SXC6-VOL)

Minimal-configuration 6U CubeSat bus maximizing payload volume up to 5U.

|                    |    |
|--------------------|----|
| Form factor        | 6U |
| Max payload volume | 5U |

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



#### SPUTNIX

##### Satellite platform SXC6 modification "ADC"

A mid-tier 6U CubeSat platform configuration of the SXC6 family with basic three-axial ADCS, allowing the spacecraft to be oriented in space via redundant subsystems.

|                                 |                        |
|---------------------------------|------------------------|
| Outer dimensions transport mode | 118.6x228.6x366 mm     |
| Outer dimensions deployed       | 118.6x228.6x820 mm     |
| Mass (w/o payload)              | 5 kg                   |
| Maximum mass                    | 12 kg                  |
| Battery capacity                | 78 Wh                  |
| Peak power per solar panel      | not less than 35 W     |
| Service radio frequency         | 435-438 or 400-401 MHz |

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



#### SPUTNIX

##### Satellite platform SXC6 modification "Basic"

The simplest configuration of the SXC6 6U CubeSat platform, offering only basic service systems (power, UHF comms, electromagnetic damping) to maximize available payload volume.

|                                 |                                     |
|---------------------------------|-------------------------------------|
| Outer dimensions transport mode | 118.6x228.6x366 mm                  |
| Rail dimensions                 | 100+-0.15 x 100+-0.15 x 366+-0.5 mm |
| Mass (w/o payload)              | 3.4 kg                              |
| Maximum mass                    | 12 kg                               |
| Power supply voltage            | 5+-0.5 V                            |
| Power consumption               | 3 A                                 |
| Operating temperature range     | -30...+60 C                         |

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



#### SPUTNIX

##### Satellite platform SXC6 modification "RS"

The maximum-capability 6U CubeSat platform configuration of the SXC6 family, fully equipped for remote sensing, astronomical observation, and high-speed X-band downlink.

|                                 |                                            |
|---------------------------------|--------------------------------------------|
| Outer dimensions transport mode | 118.6x228.6x366 mm                         |
| Outer dimensions deployed       | 118.6x228.6x820 mm                         |
| Mass (w/o payload)              | 5.9 kg                                     |
| Maximum mass                    | 12 kg                                      |
| Battery capacity                | 78 Wh                                      |
| Peak power per solar panel      | not less than 35 W                         |
| ADCS algorithms                 | B-DOT, sun orientation, nadir, point trace |

[price on request](#)

## Contact SPUTNIX

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.

<https://newspacemarket.com/companies/sitronics-sputnix/>

<https://sputnix.ru/en/>