



CATALOGUE

Flight proven CubeSat subsystems





CUBESAT PLATFORMS



POWER MODULES



COMMUNICATION



SOLAR PANELS



ANTENNAS



STRUCTURES



ONBOARD COMPUTER



EDUCATIONAL MODULES



CUSTOM MODULES

CLICK ON YOUR DESIRED CATEGORY

R&D powerhouse



In-house mechanical, radio, hardware and software know-how

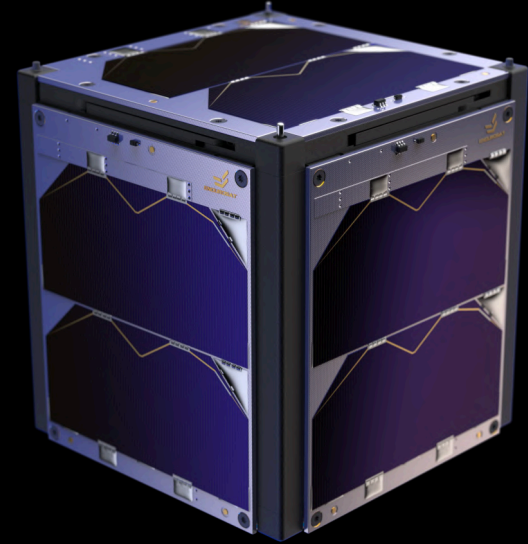
Mass production capability

Fully closed ISO9001-certified production capabilities capable of producing and qualifying hundreds of subsystems per month

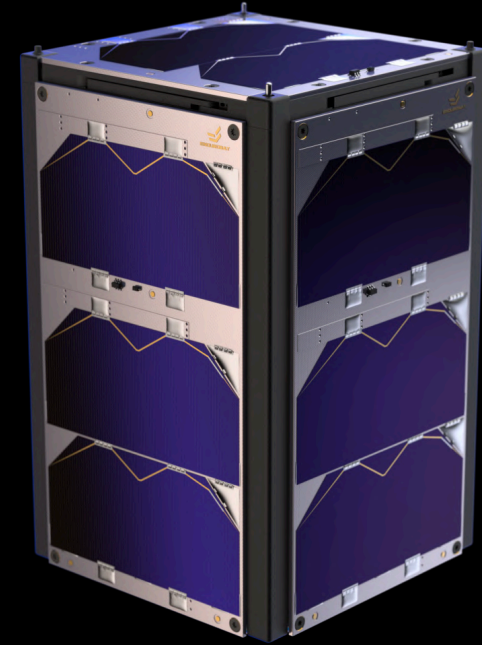




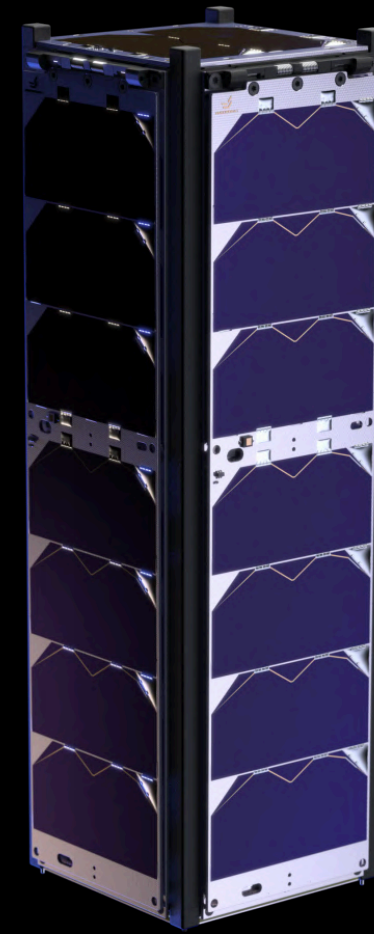
Software-defined buses



1U



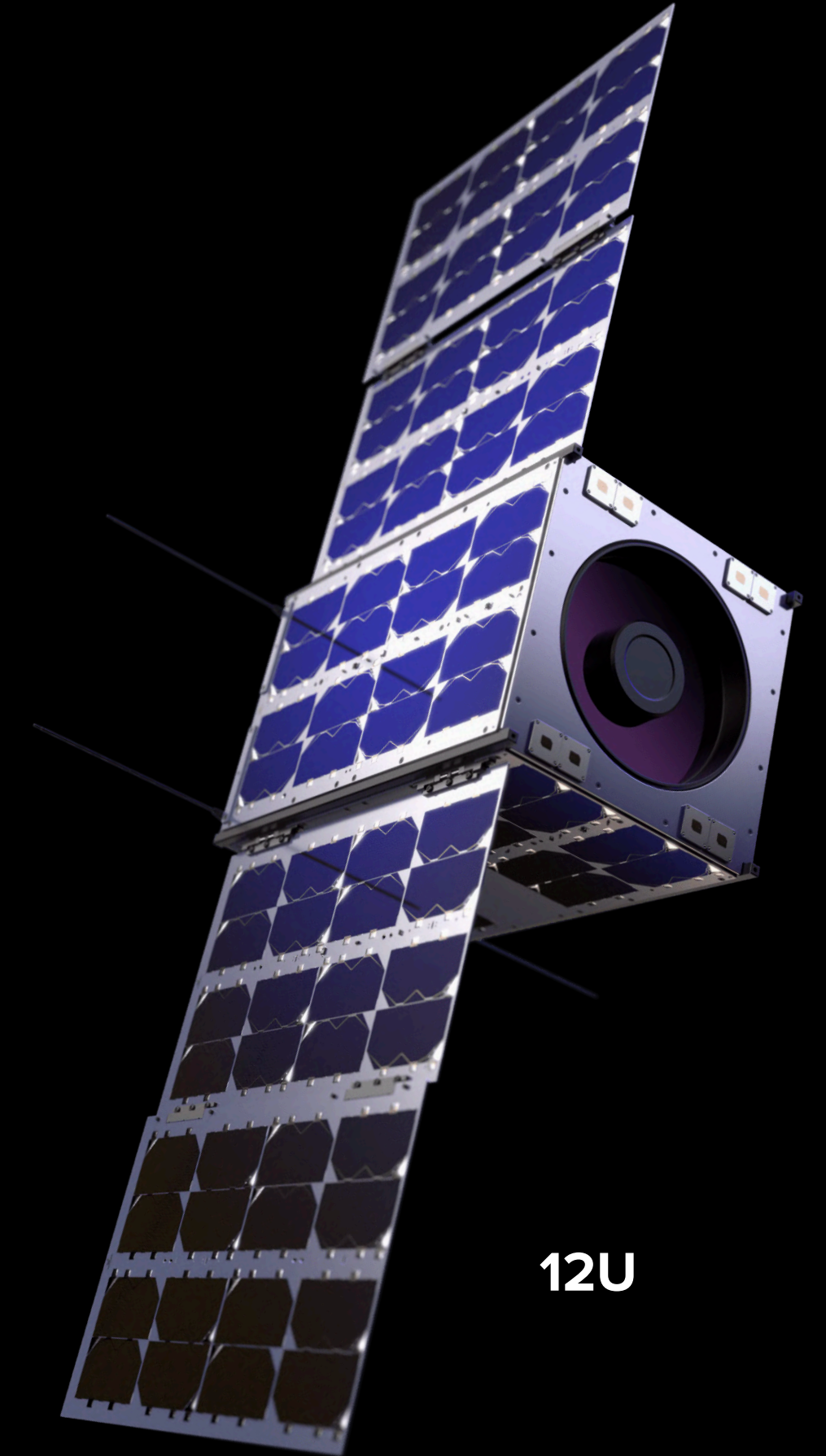
1.5U



3U



6U



12U

Engineering support included: ⌚ 10 hours

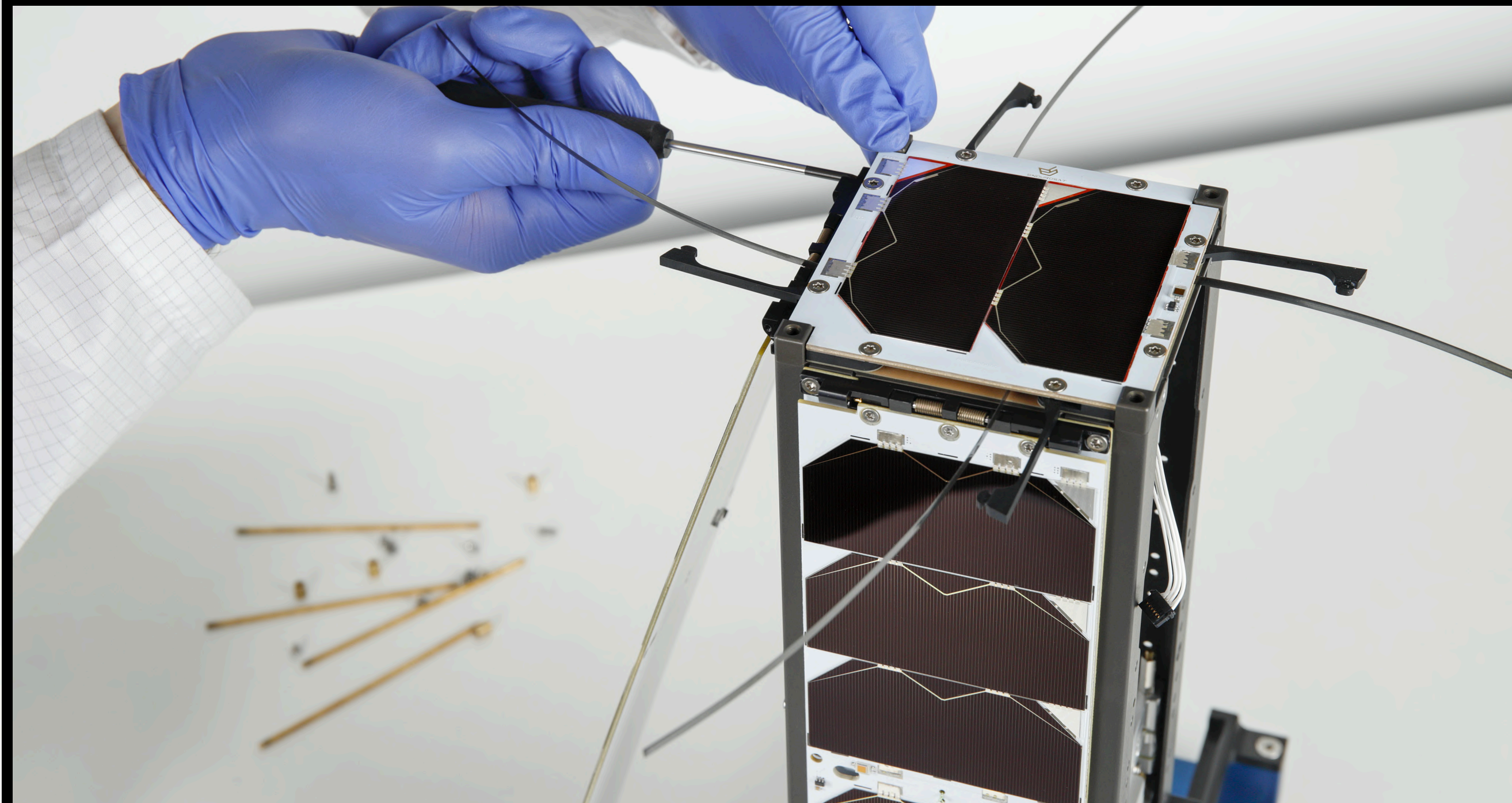
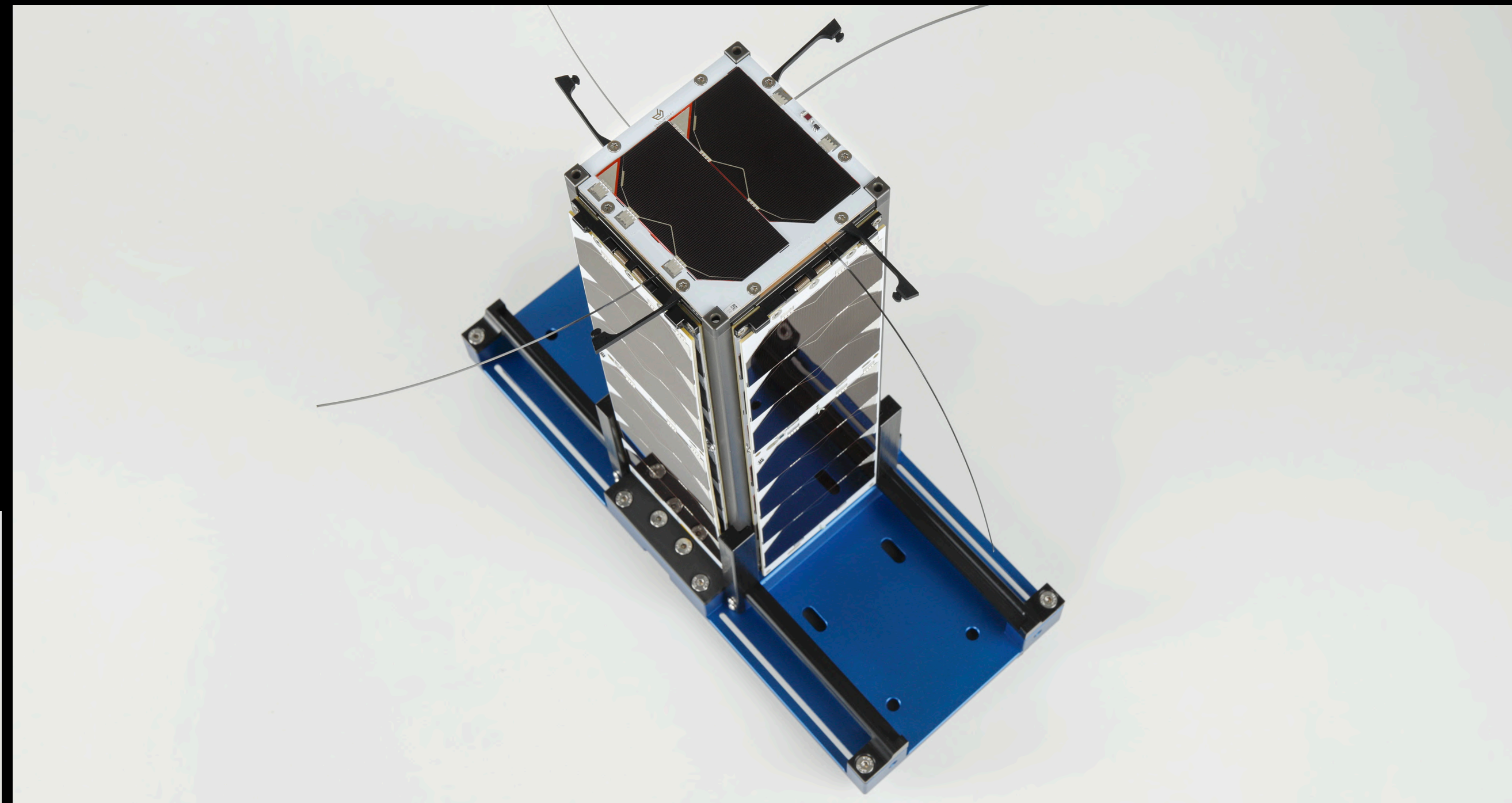
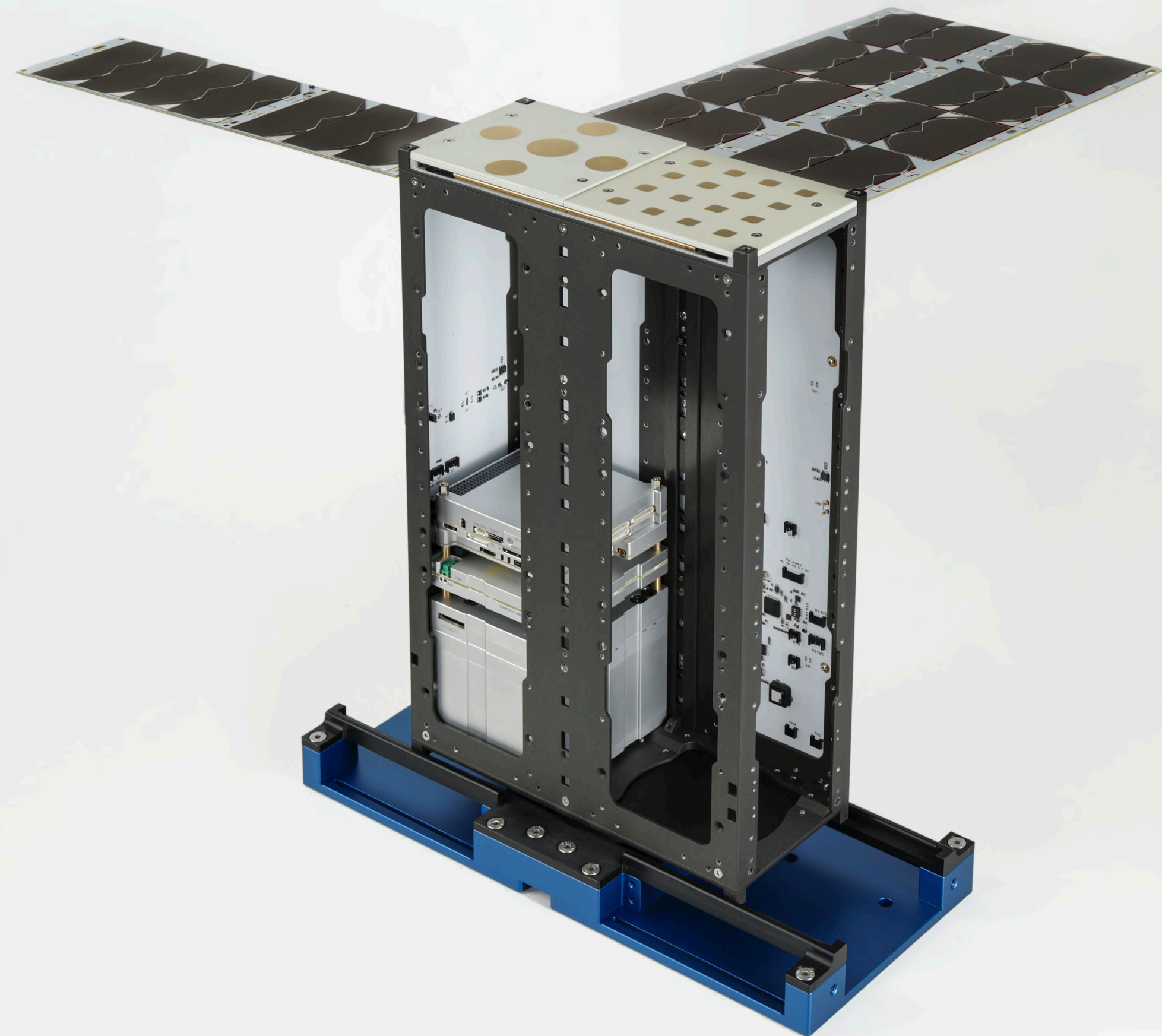
Lead time: 2-4 months

Platform Features	1U	1.5U	3U	6U	12U
Bus Mass	850 g	1050 g	2.4–2.9 kg	4.2–4.8 kg	6-8 kg
Available Payload Mass	500 g	950 g	0.5–1.6 kg	7.2–7.8 kg	14-16 kg
Available Payload Volume					
- X	97 mm	97 mm	97 mm	97 mm	197 mm
- Y	97 mm	97 mm	97 mm	197 mm	197 mm
- Z	53 mm	104 mm	173 mm	223 mm	225 mm
Average Payload Power Available	0.7 W	0.9 W	10 W	10–30 W	20-45 W
Available Power Buses	3.3 V, 5 V, battery raw	3.3 V, 5 V, battery raw	3.3 V, 5 V, 6–12 V (configurable), battery raw	3.3 V, 5 V, 6–12 V (configurable), battery raw	3.3 V, 5 V, customizable 6-12 V and Battery raw
Telemetry and Telecommand Data Rate	up to 19.6 kbps	up to 19.6 kbps	up to 19.6 kbps	up to 2 Mbps	up to 2 Mbps
Payload Data Rate	up to 19.6 kbps	up to 19.6 kbps	up to 125 Mbps	up to 125 Mbps	up to 1 Gbps



Flight proven CubeSat platforms

Remarkable satellites





Communication



**X-Band
Transmitter**



**S-Band
Transmitter**



**S-Band
Receiver**



**UHF
Transmitter**

Engineering support included: ⌚ 5 hours

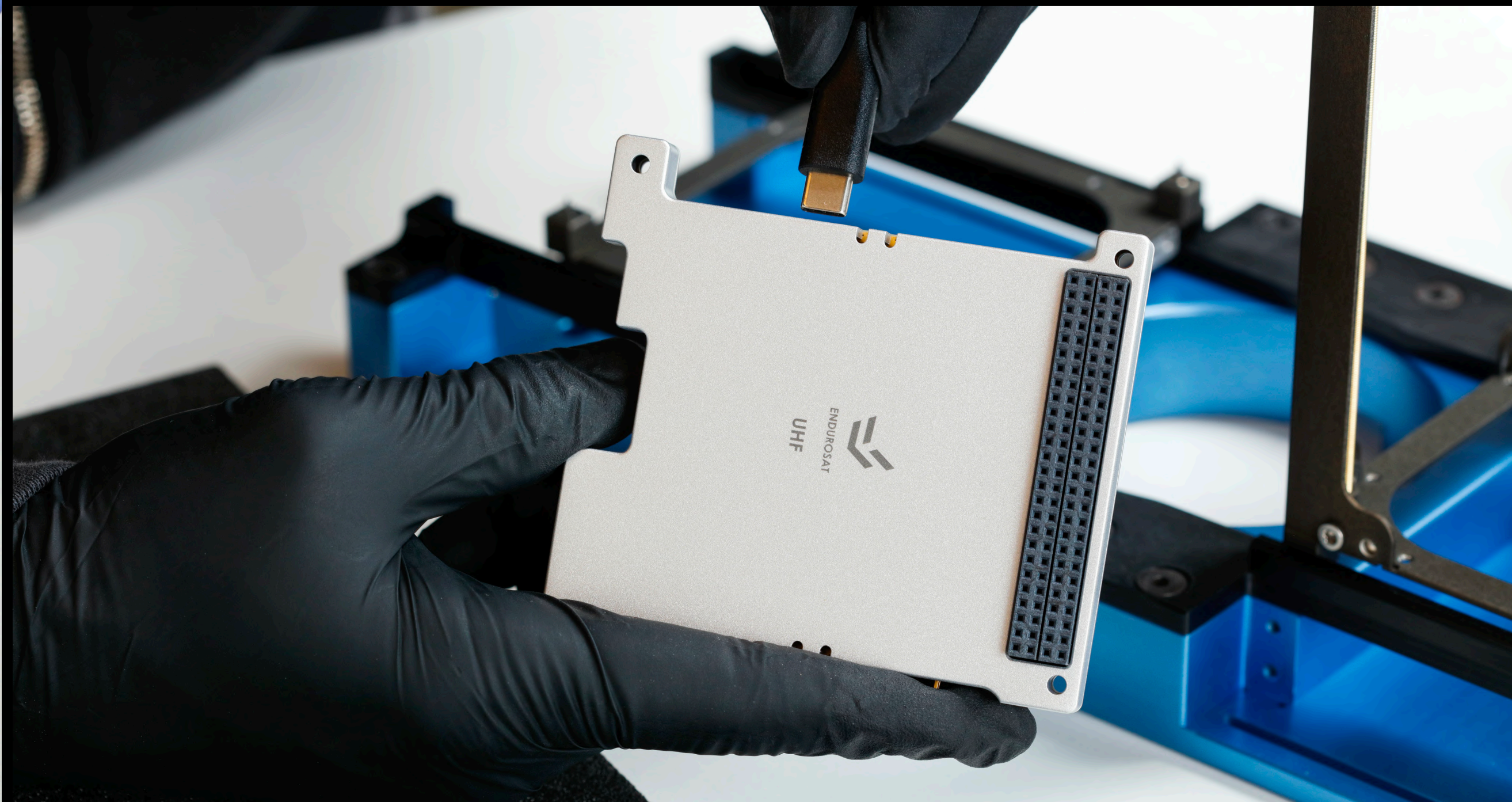
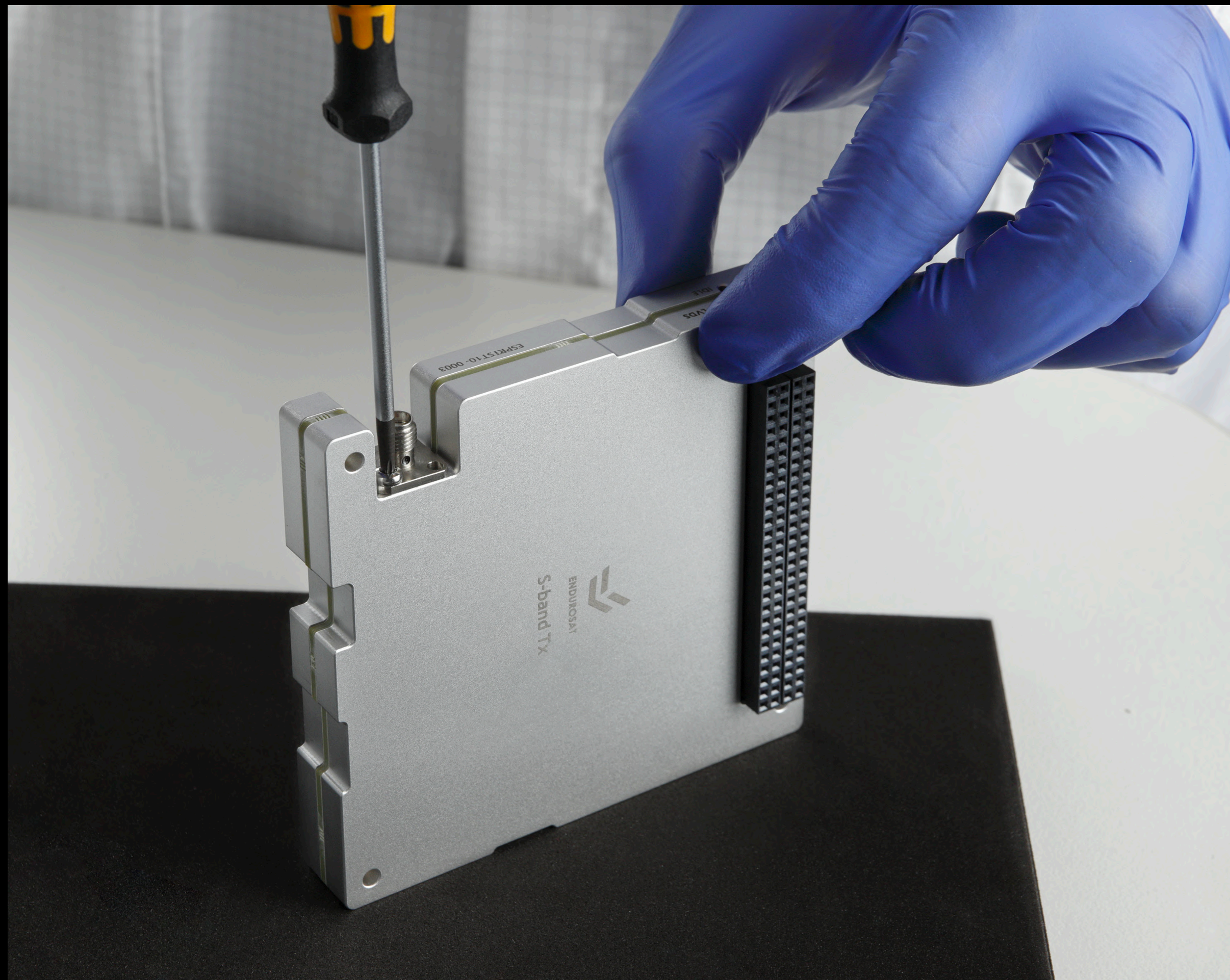
Lead time: 2 weeks

Communication Module Features	UHF Transceiver II	S-Band Transmitter	S-band Receiver	X-Band Transmitter
Frequency Range (Tx)	400–403 MHz or 430–440 MHz	2200–2290 MHz or 2400–2450 MHz	-	7900-8400
Frequency Range (Rx)	400–403 MHz or 430–440 MHz	-	2025-2110 MHz	-
Modulation	2GFSK OOK, GMSK, 2FSK, 2GFSK, (optional)	QPSK, 8-PSK, 16-APSK	BPSK, QPSK	QPSK, 8-PSK, 16-APSK, 32-APSK
Mass	94 g	250 g	180 g	270 g
Maximum Gross Datarate	19.2 kbps	20 Mbps	4 Mbps	150 Mbps
Tx Power	1 W (2W optional)	0.5-2 W (In-flight configurable)	-	0.5-2 W (In-flight configurable)
Sensitivity	up to -121 dBm	-	-95 dBm	-
Frequency Stability	±2.5 ppm	±1.0 ppm	-	±1.0 ppm
Local and Remote Firmware Update	X	X	X	X
Power Supply	-	5 V or 10–24.5 V	5 V or 9–15 V	12–24 V
Internal Memory	-	up to 32 GB	up to 32 GB	up to 32 GB



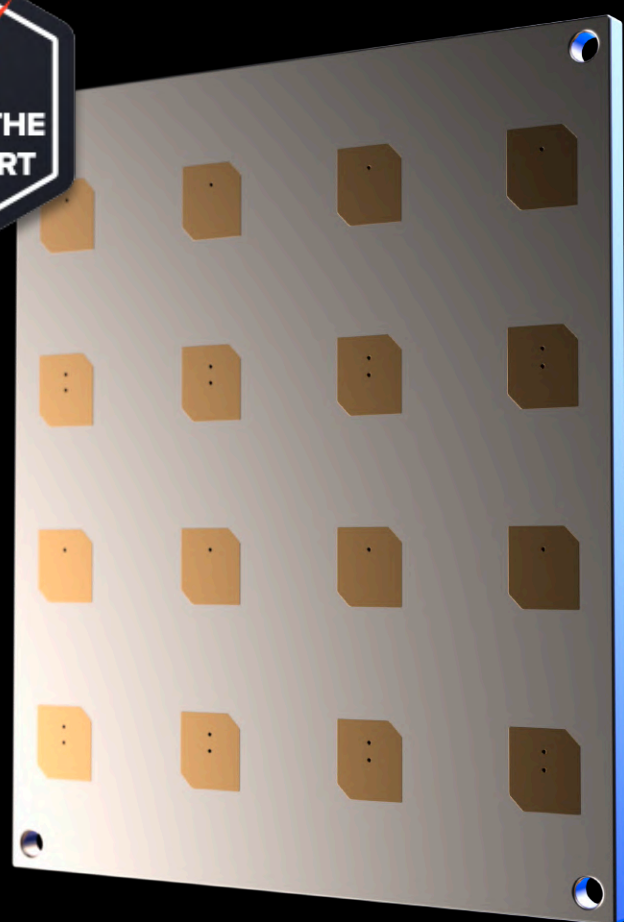
Flight proven communication

High speed data from space

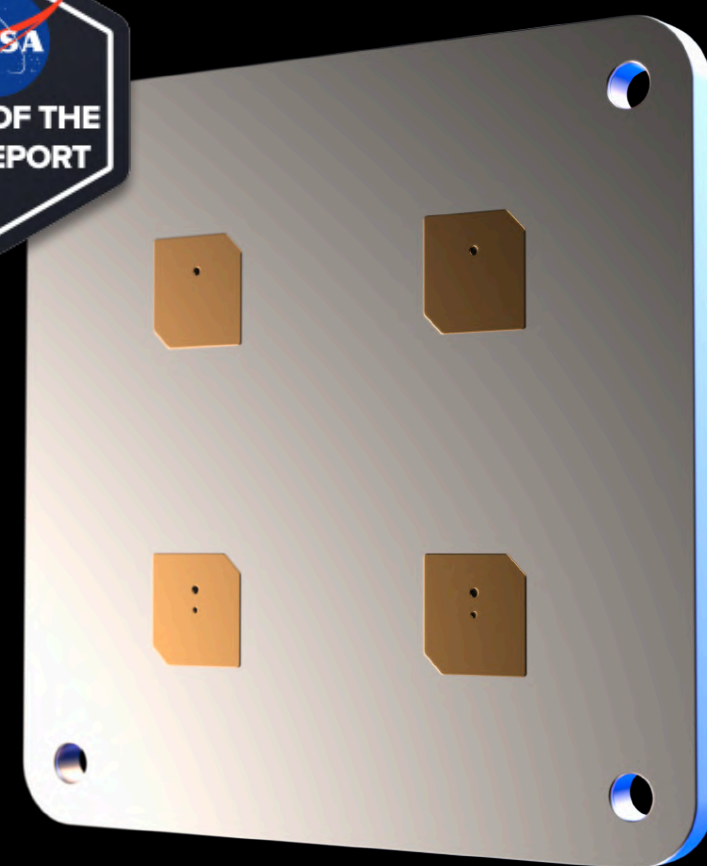




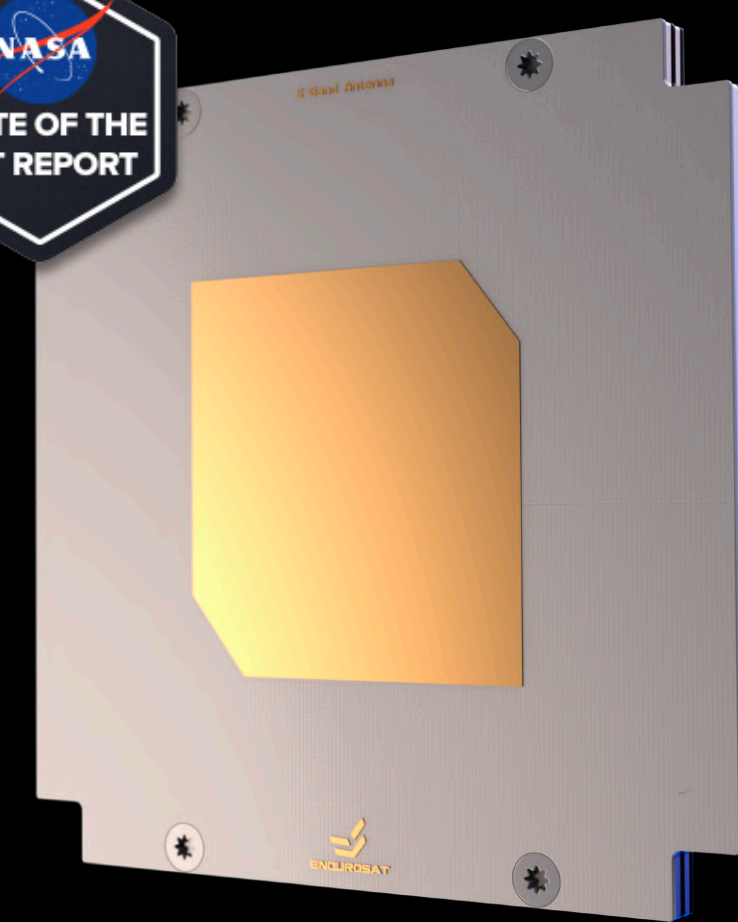
Antennas



**4x4
X-Band Array**



**2x2
X-Band Array**



**S-Band
Antenna**



**UHF
Antenna**

Engineering support included: ⌚ 5 hours

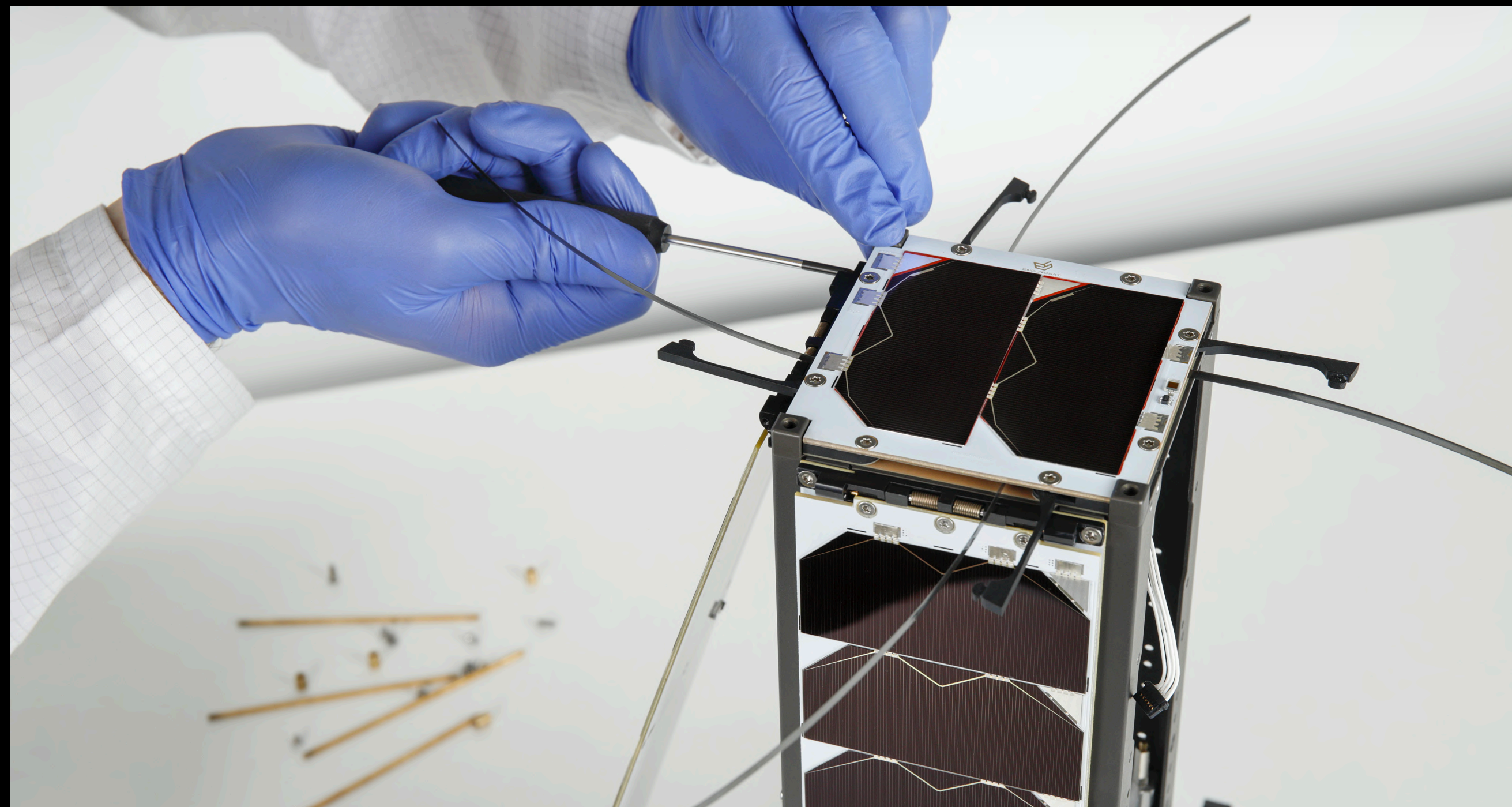
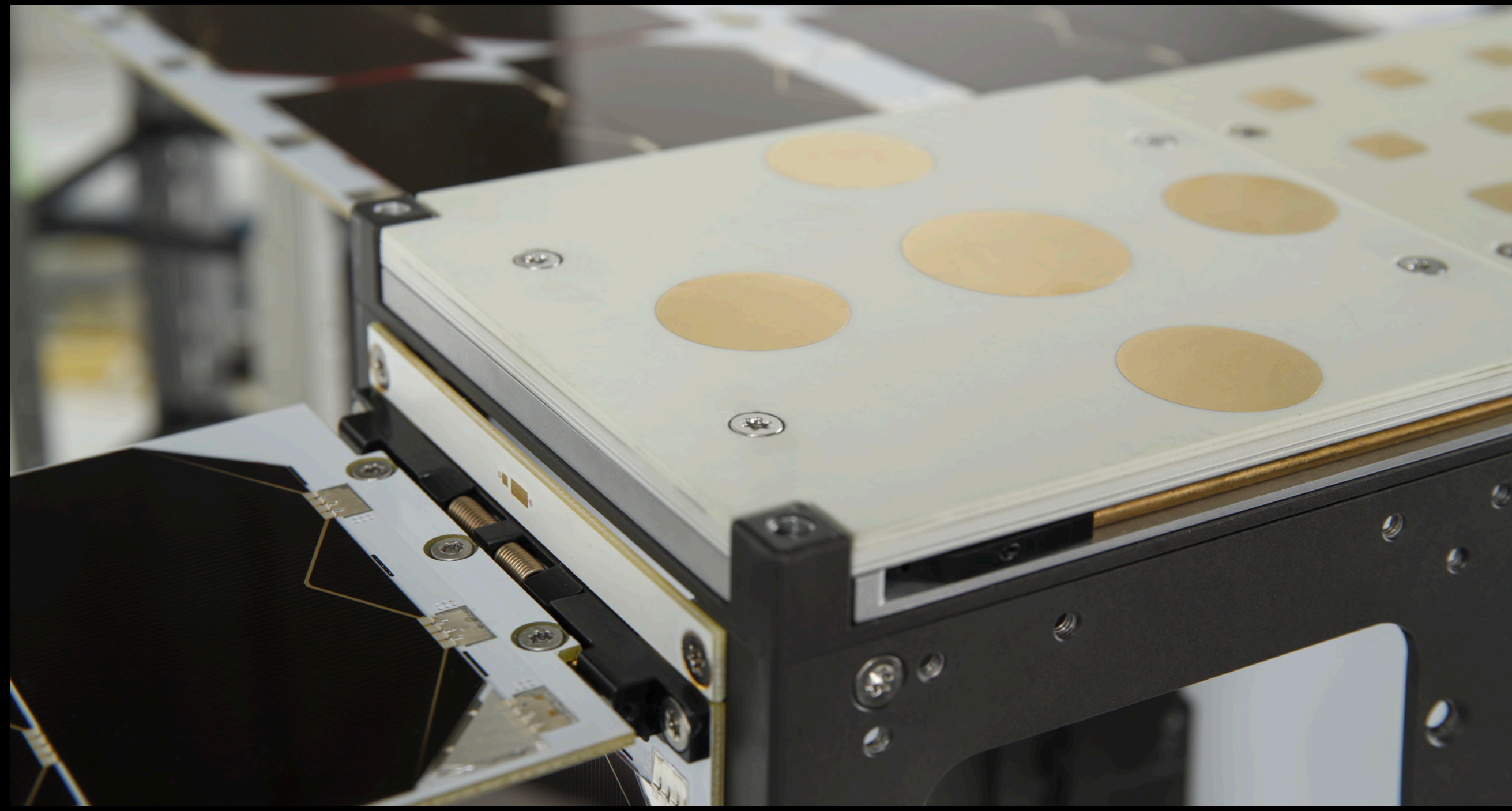
Lead time: 2 weeks

Antennae Features	UHF	S-Band Antennas (ISM and Commercial)	S-Band Wideband	X-Band 2x2 Patch Arrey	X-Band 4x4 Patch Arrey
Frequency Range	435–438 MHz	2400 - 2450 MHz 2025–2110 MHz	2025-2110 MHz and 2200-2290 MHz	8025–8400 MHz	8025–8400 MHz
Half Power Beam Width	omnidirectional	70 °	70 °	40 °	18 °
Gain	>0 dBi	>7 dBi	5+ dBi	>12 dBi	>16 dBi
Polarization	Circular	Selectable Circular	Right Hand Circular	Right Hand Circular	Right Hand Circular
Mass	85 g	64 g	115 g	23.2 g	53 g
RF Output Power	up to 2 W	up to 4 W	up to 4 W	up to 4 W	up to 4 W



Flight proven antennas

Stable communication





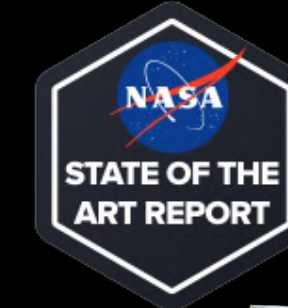
Power Modules



**EPS 2
Power Module**



**EPS 1
Power Module**



**EPS 1
Plus Power Module**

Engineering support included: ⌚ 5 hours

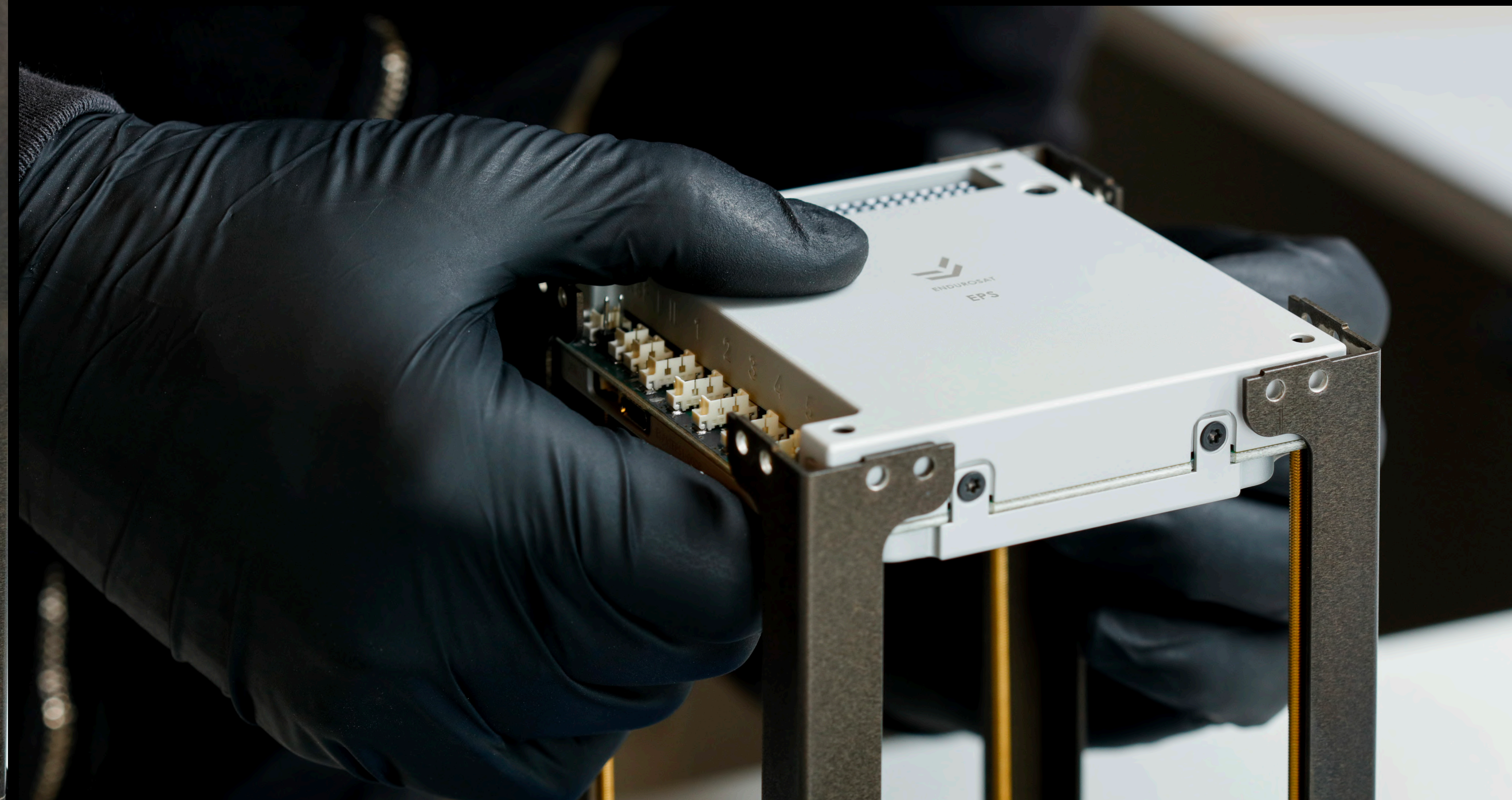
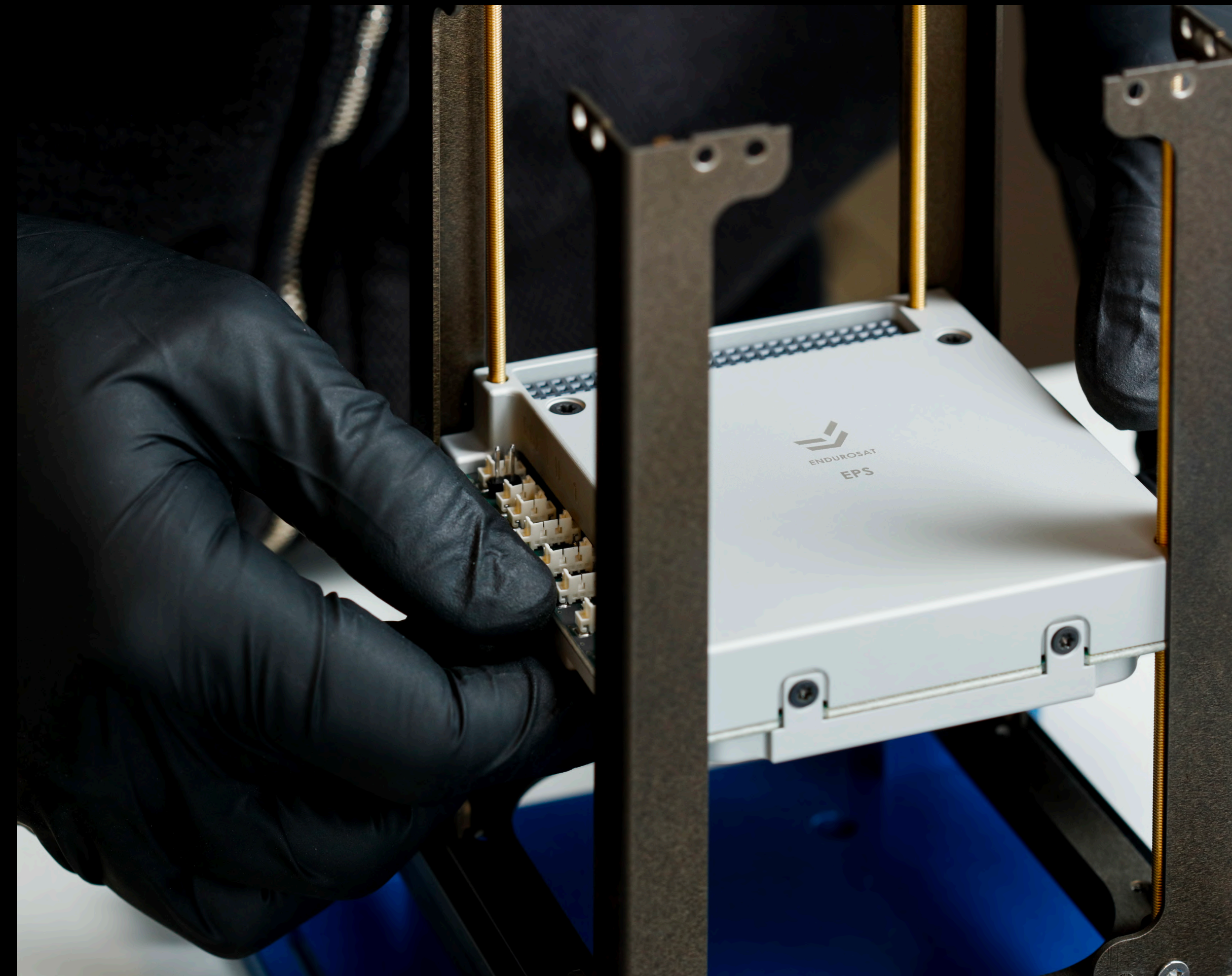
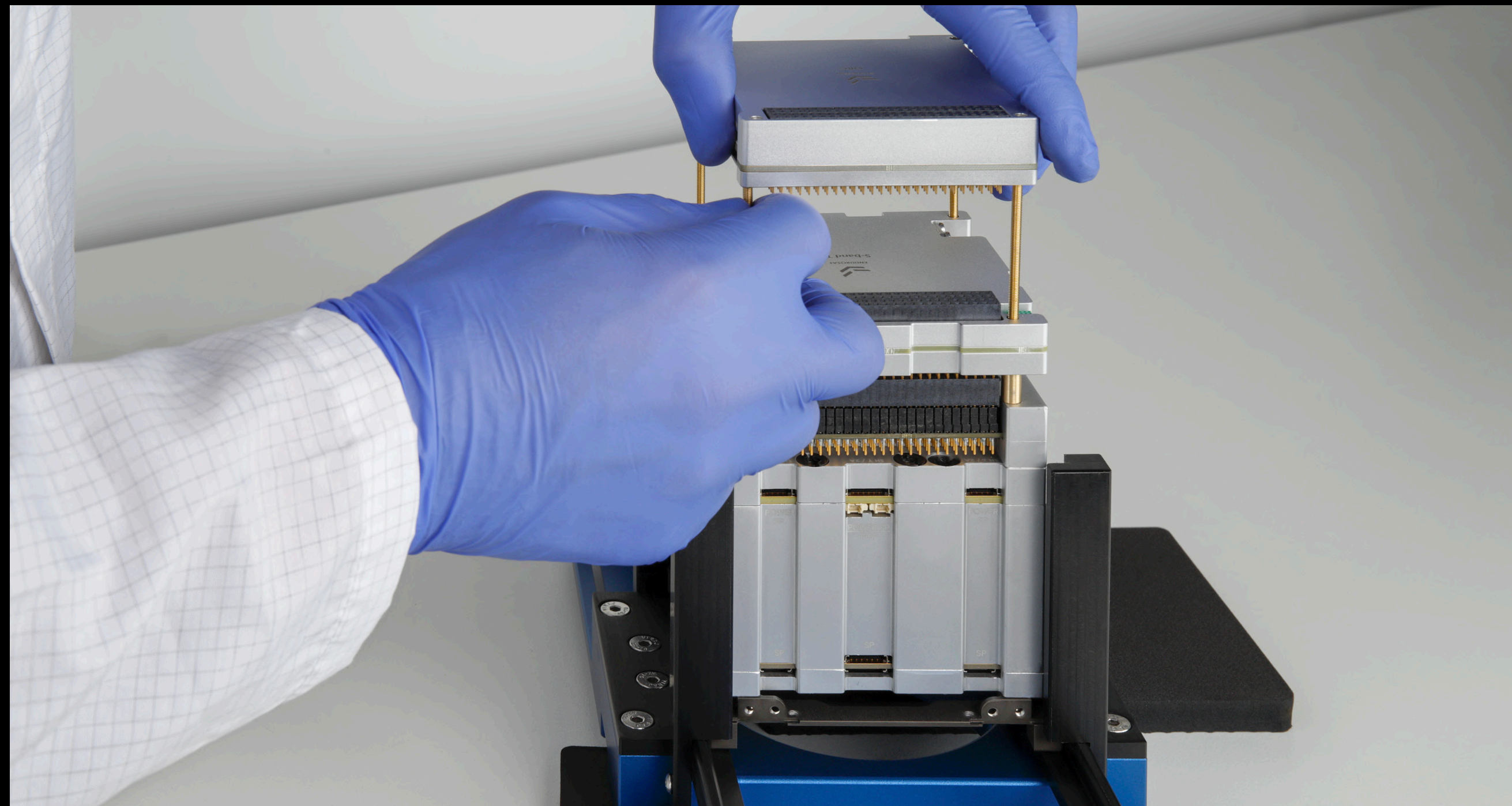
Lead time: 2 weeks

Power Supply Features	EPS I	EPS I+	EPS II
# of Input Channels from Solar Panels	3	3	3
Redundant Solar Panel Connectors	-	-	X
Current Limitation (for Input and Output Channels)	up to 5.5 V	up to 5.5 V	10–36 V
Input Current (per Solar Panel Channel)	up to 1.8 A	up to 1.8 A	up to 4 A
Integrated Blocking Diode (for each Solar Panel Channel)	X	X	X
Standard Battery Pack Capacity	10.2 Wh	20.4 Wh	84 Wh
Standard Battery Pack Voltage	3.7 V	3.7 V	17.8 V
Mass (EPS + Batteries)	208 g	298 g	1280 g
Output Power Buses - 3.3 V	1	1	2
- 5 V	1	1	2 (fully redundant)
- Battery Raw	1	1	1 (fully redundant)
- Programmable	-	1 (up to 5 V)	6-12V
Interfaces	UART, I ² C, USB-C	UART, I ² C, USB-C	RS-485, USB



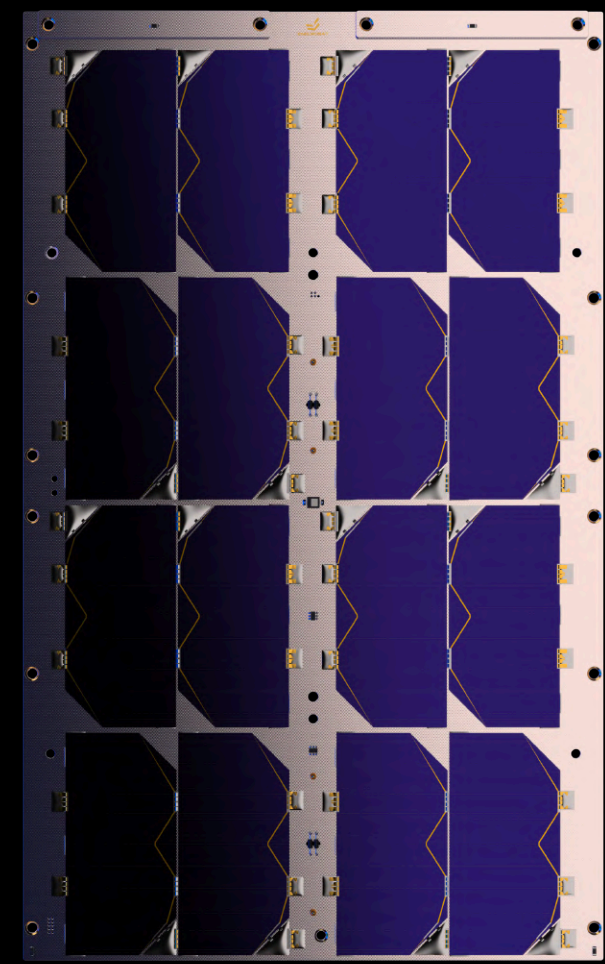
Flight proven power modules

Power and efficiency in orbit

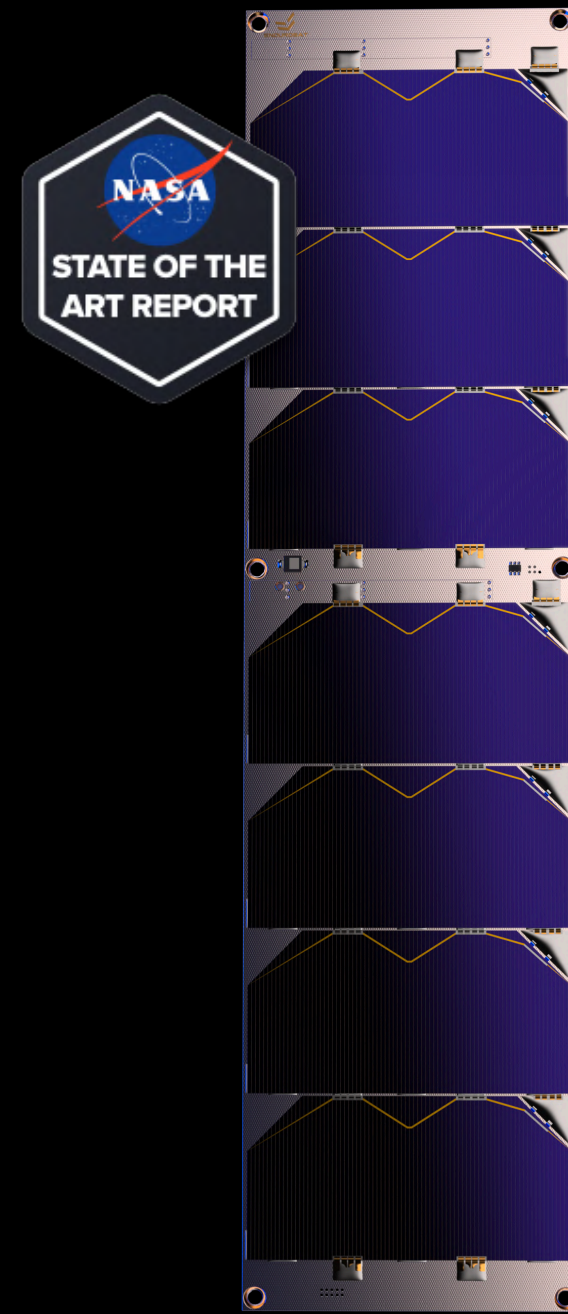




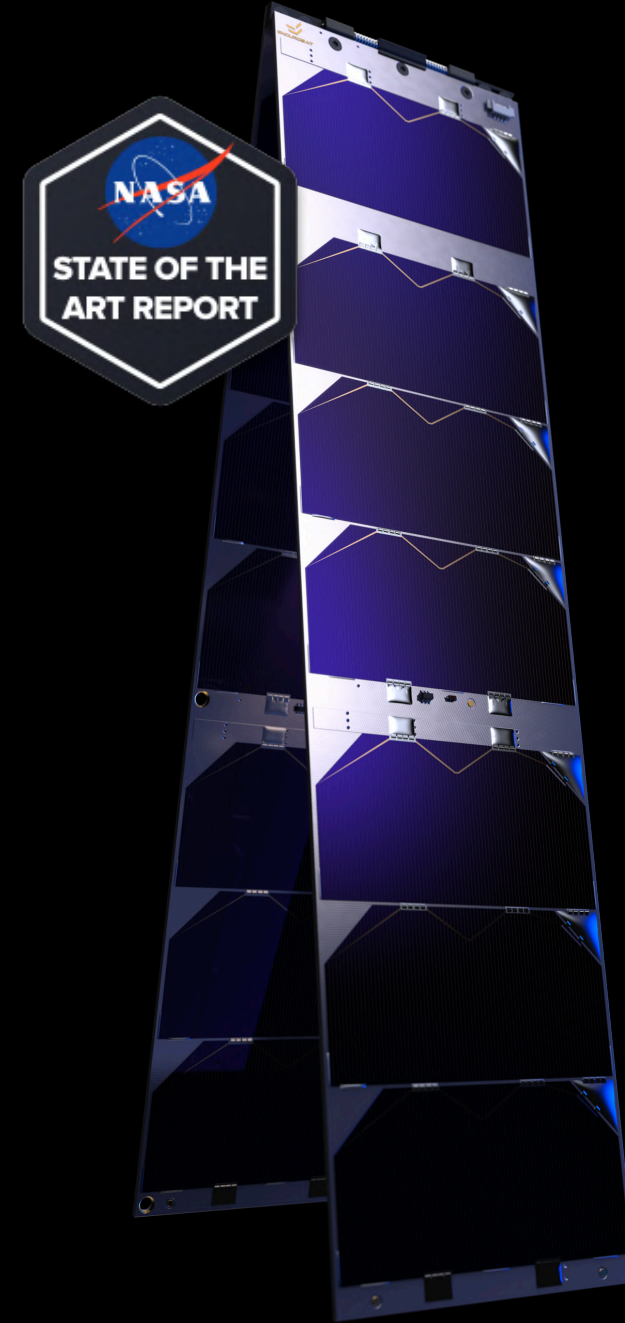
Solar panels



**6U Deployable
Solar Array**



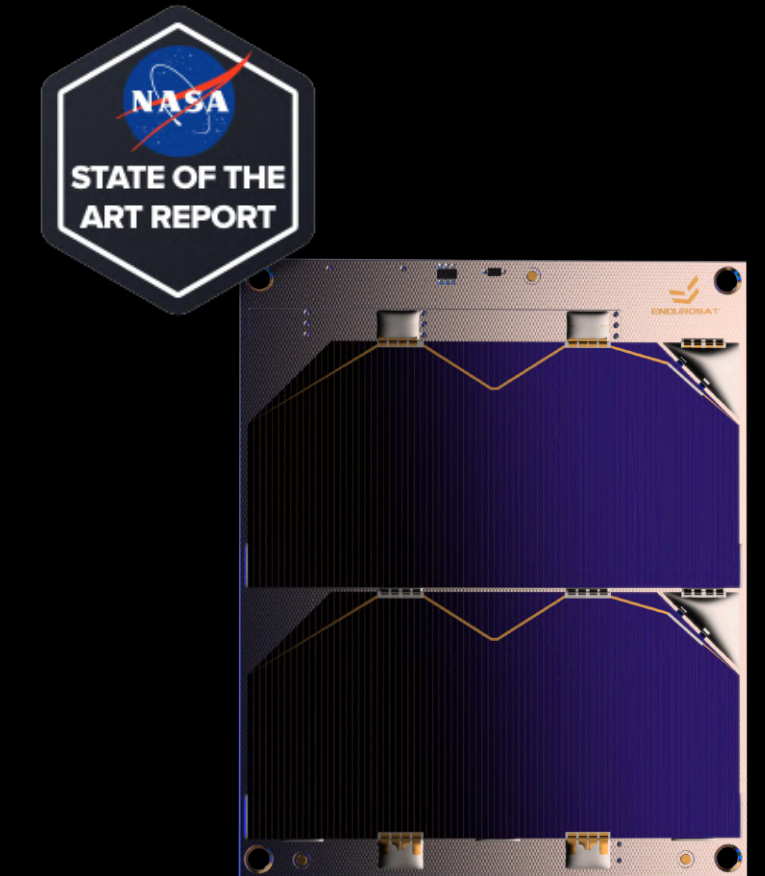
**3U Solar
Panel**



**3U Deployable
Solar Array**



**1.5U Solar
Panel**



**1U Solar
Panel**

Engineering support included: ⌚ 5 hours

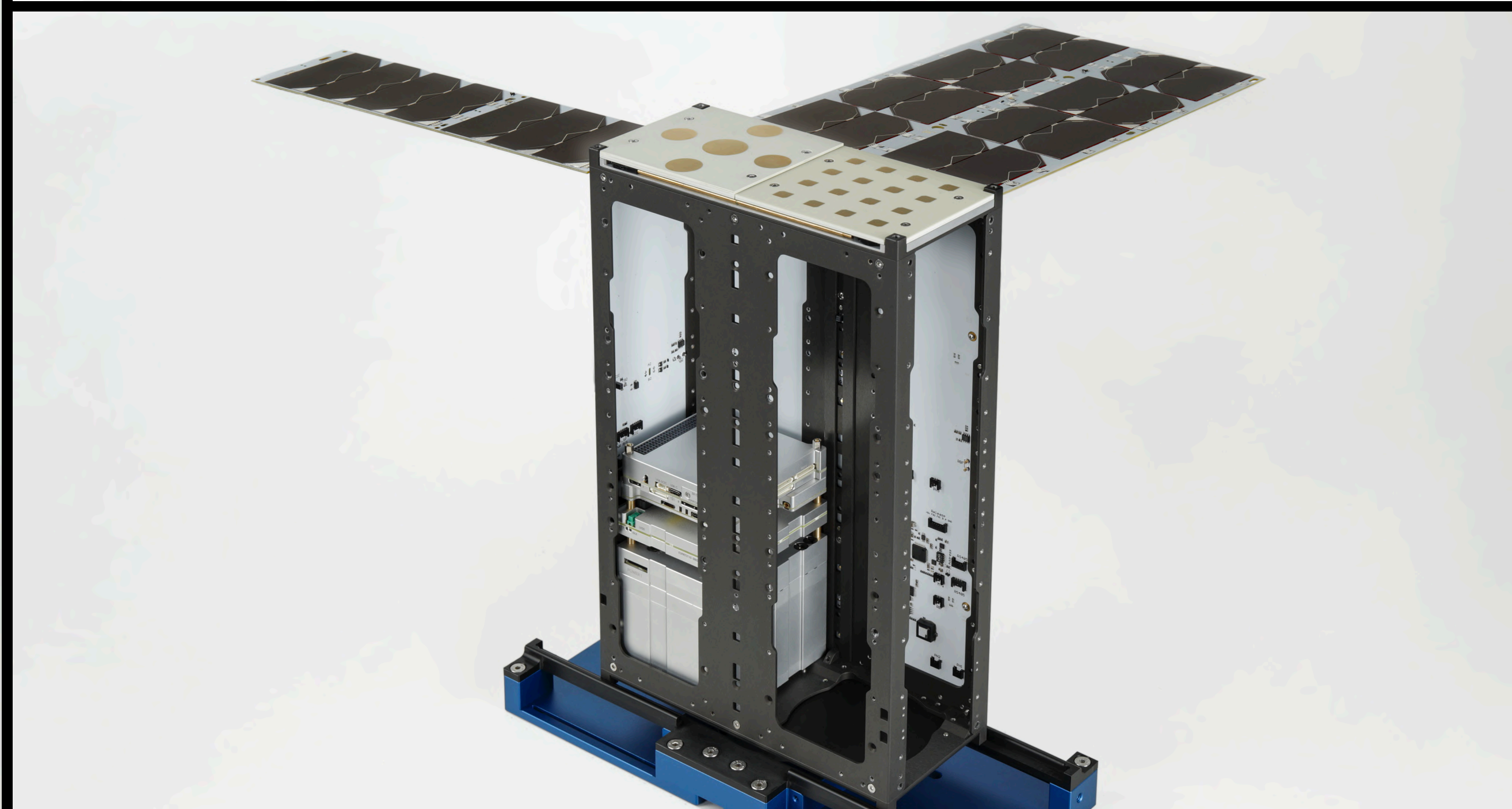
Lead time: 2 weeks

Solar Panel Features	1U	1.5 U	3 U	3U Deployable	6U	6U Deployable
Azur Space Solar Cells 3G30A	X	X	X	X	X	X
Maximum Power Efficiency	Up to 30%	Up to 30%	Up to 30%	Up to 30%	Up to 30%	Up to 30%
Maximum Power Generation in LEO	2.4 W	3.6 W	8.4 W	8.4 W	19.4 W	19.4 W
Number of Cells - on the Main Panel	2	3	7	7	16	16
- on the Upper Panel	-	-	-	7	-	16
Possible Cell Configurations	2S1P	3S1P	7S1P	7S1P	4S4P 82AP	4S4P 82AP
Low Power MCU with FRAM	-	-	X	X	X	X
External FRAM	-	-	X	X	X	X
Sun and Temperature Sensors	X	X	X	X	X	X
- Gyroscope (optional)	X	X	X	X	X	X
Actuators - Magnetorquer (optional)	X	X	-	-	-	-
Interfaces - UART	-	-	X	X	X	X
- SPI	X	X	X	X	X	X
- I ² C	-	-	X	X	X	X
- RS-485	-	-	X	X	X	X



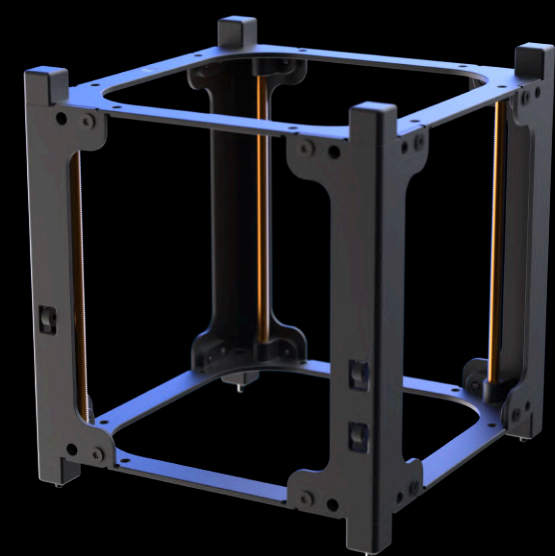
Flight proven solar panels

Power and efficiency in orbit

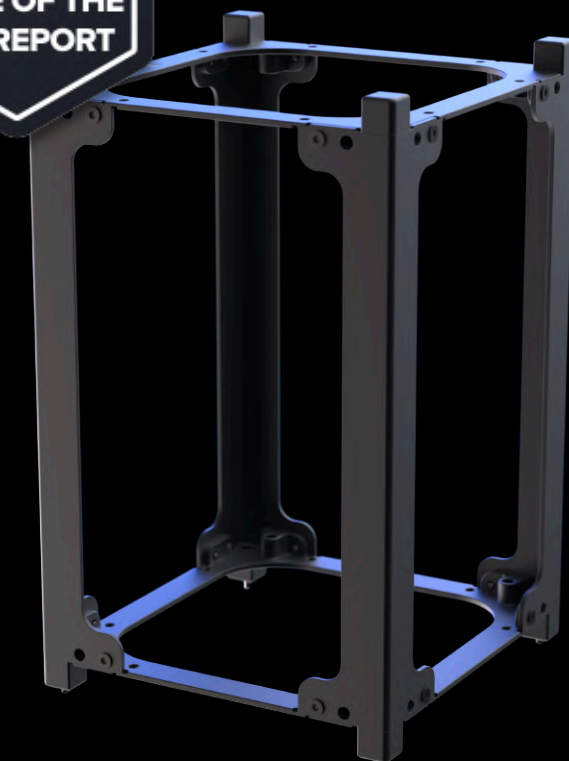




Structures



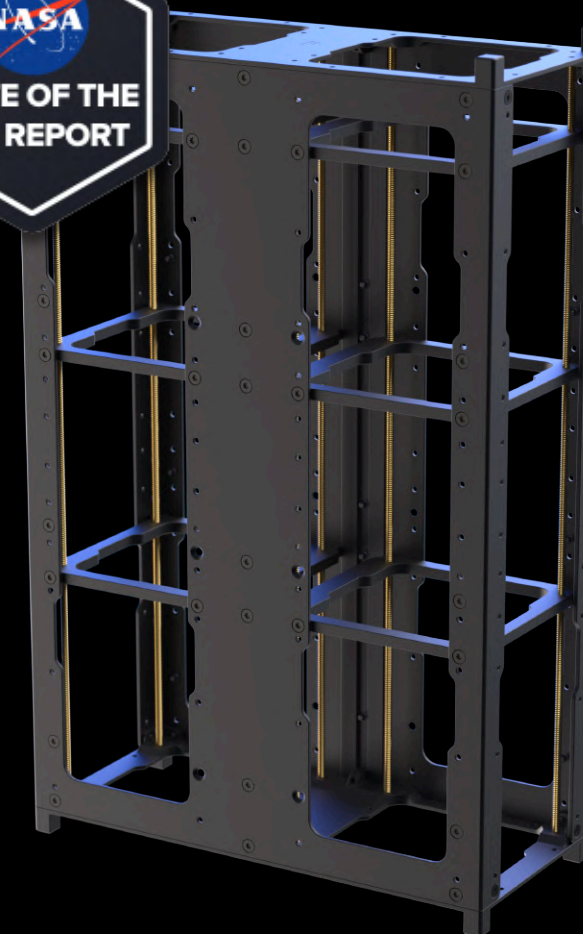
1U



1.5U



3U



6U

Engineering support included: ⌚ 1 hour

Lead time: 1 week

Structure Features**1U****1.5U****3U****6U****Dimensions****- X**

100 mm

100 mm

100 mm

100 mm

- Y

100 mm

100 mm

100 mm

100 mm

- Z

113.5 mm

170.2 mm

340.5 mm

366 mm

Material

Aluminum 6082

Aluminum 6082

Aluminum 6082

Aluminum 6082

Overall Mass

120 g

152 g

290 g

850 g

Roller Switch Options

X

X

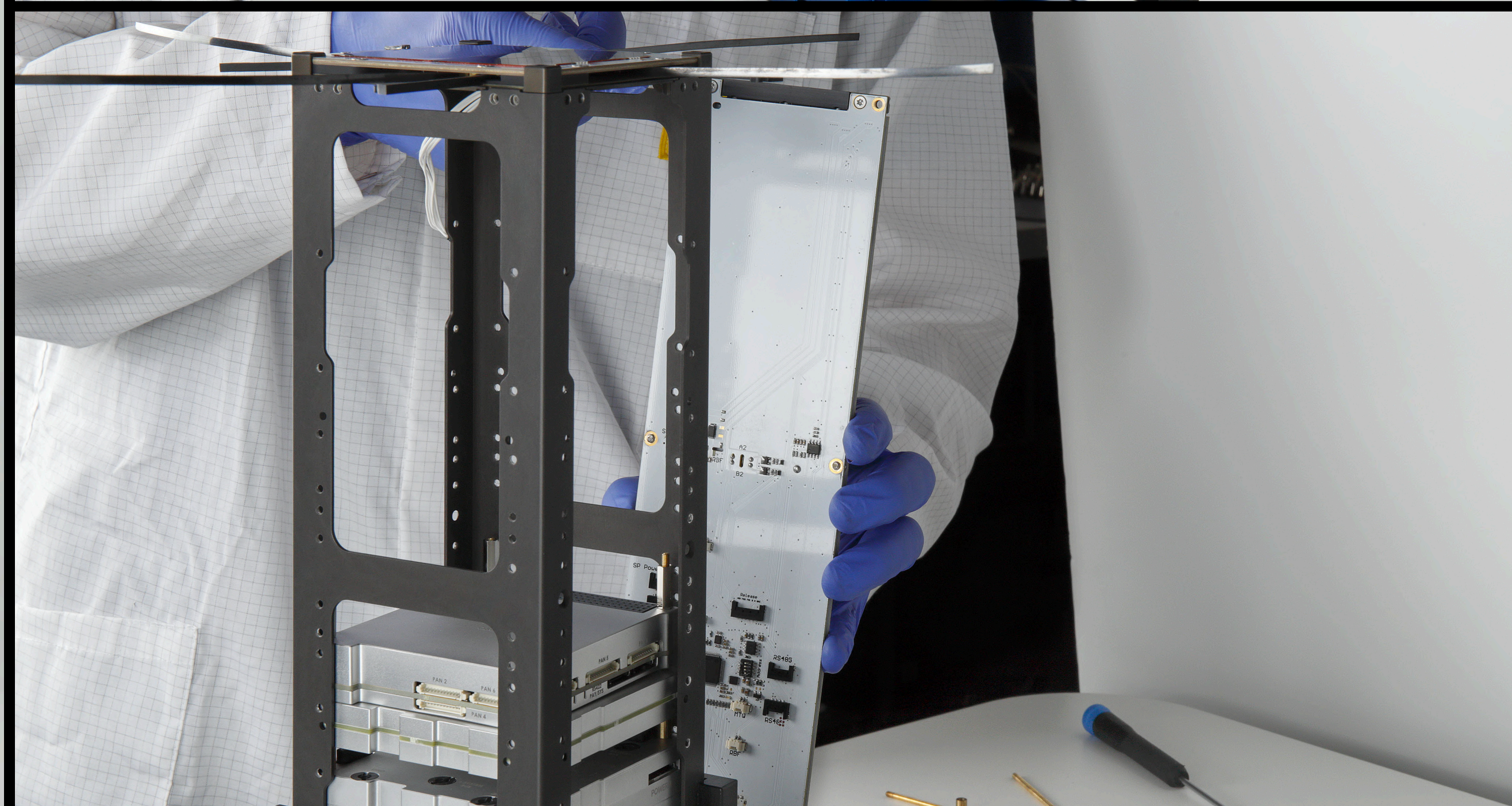
X

X



Flight proven structures

Extreme precision and durability





Onboard Computer (OBC)



Engineering support included: ⌚ 5 hours

Lead time: 2 weeks

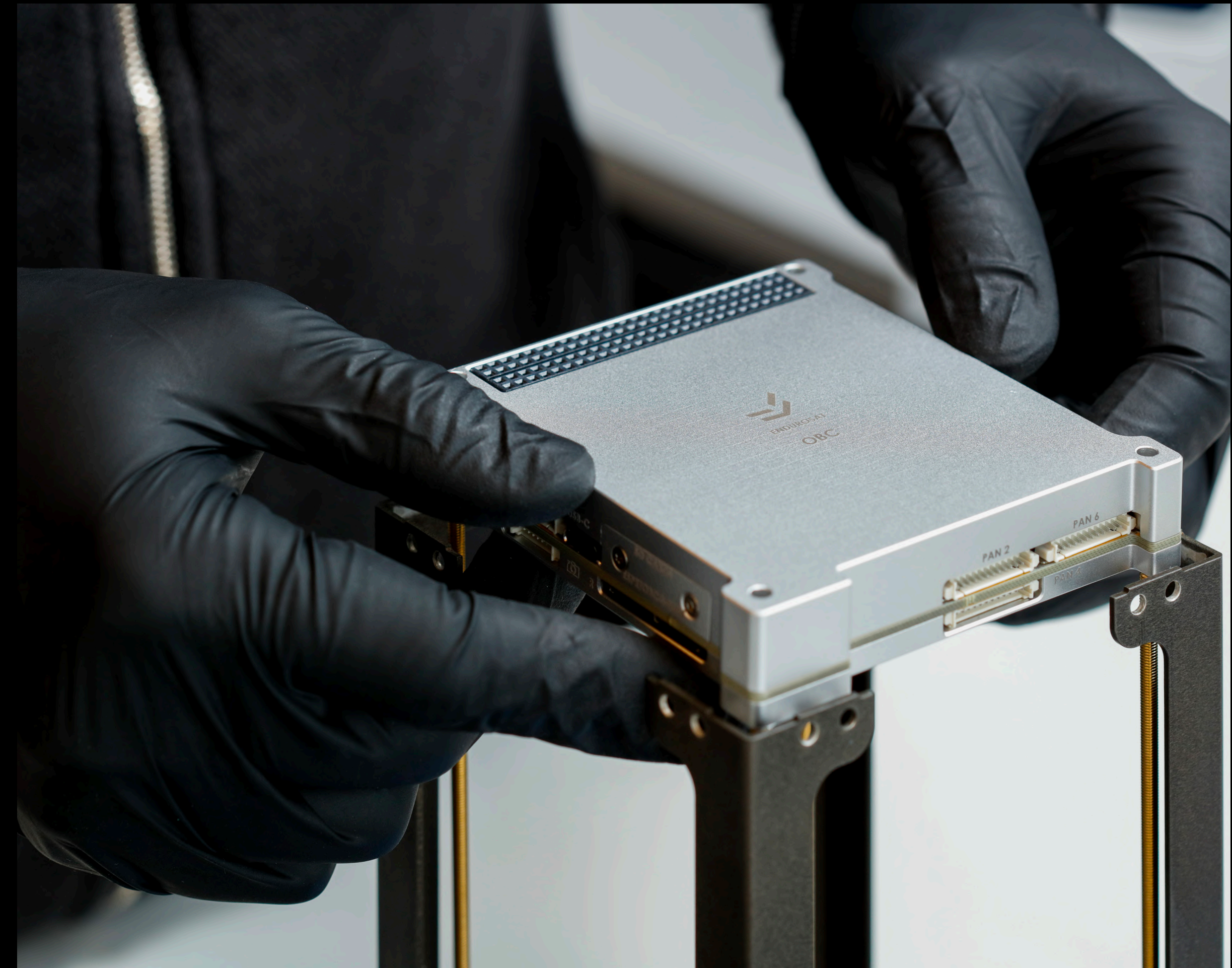
OBC

Processor	ARM Cortex M7
Program Memory Size	2MB
RAM	256kB
Card Slots	2x MicroSD
Compatibility	Full set of drivers for EnduroSat modules
Double-Redundancy	magnetometer
Clock Type	Real Time Clock
Power Saving	Flexible frequency
Mass	130 g
Interfaces	4x RS-485 or RS-422, 3x UART, 2x I2C, SPI, USB

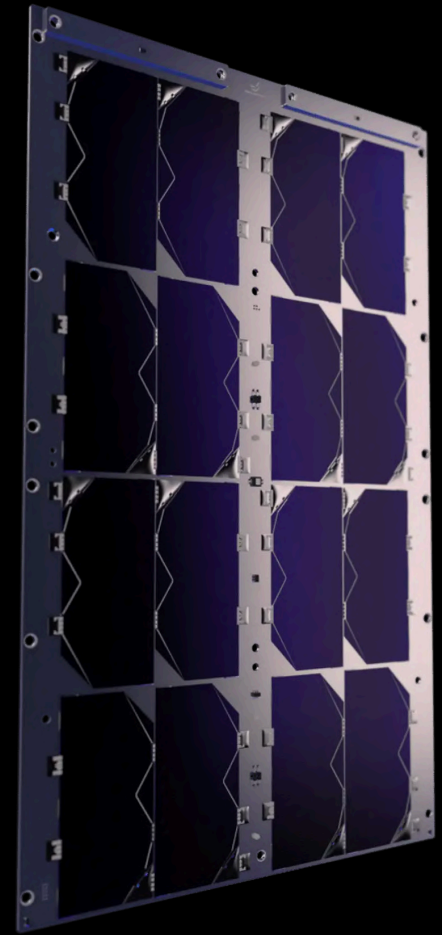


Flight proven onboard computers

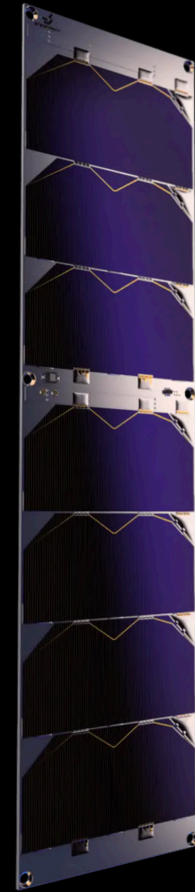
Advanced avionics and data processing



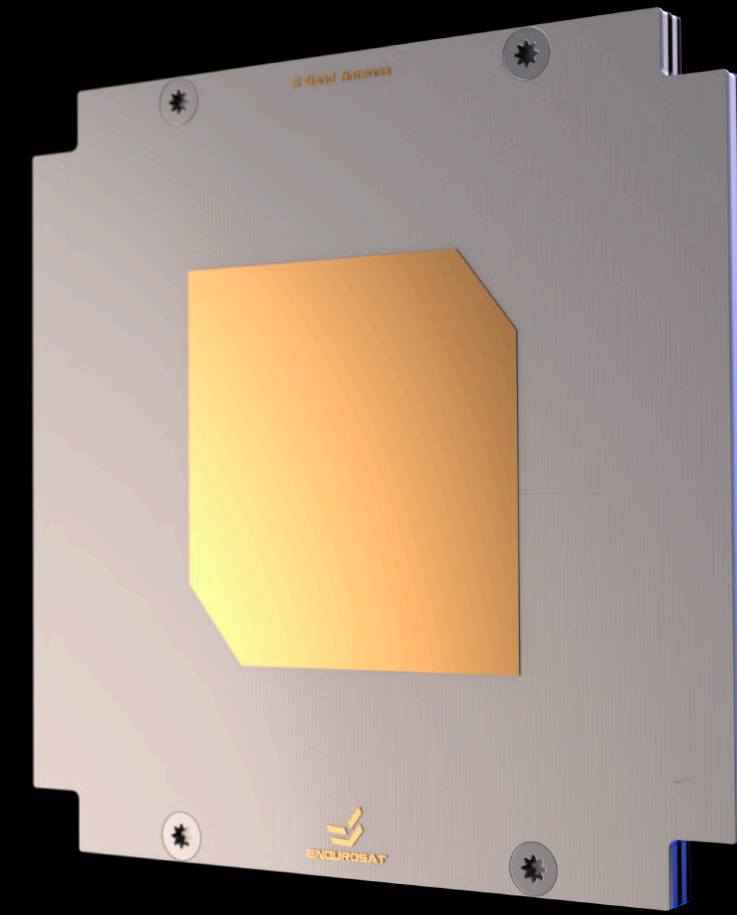
Custom Modules



Custom 6U Solar Panel



Custom 3U Solar Panel



Custom Patch Antenna

REQUEST A QUOTE

Space Comm System For Education



Engineering support included: ⌚ 5 hours

Lead time: 2 weeks

SPACE IS CLOSER THAN YOU THINK

ENDUROSAT.COM

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