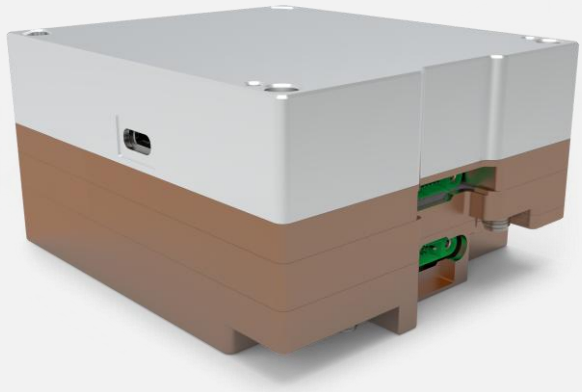
YTTEK



SDRspace™

Satellite Communication Payload

Compact size. Exceptional power.

5 W TX output power and 720 Mbps data rate in sub-1U size

YTTEK SDRspace is a compact yet powerful satellite communication payload, purpose-built for CubeSats and other space-constrained satellites. Despite its small form factor, it delivers exceptional performance—with up to 5 W transmit power and a 720 Mbps transmit data rate, plus a 160 Mbps receive data rate—enabling long-range, high-speed communication for data-intensive applications. Its software-defined radio architecture offers maximum flexibility to adapt to diverse mission requirements.

5 W max TX power delivers strong, long-range satellite connectivity

High output power ensures excellent signal quality and optimal throughput, while reducing the complexity and sensitivity requirements of ground stations or user terminals (UT). It enables reliable reception even at lower elevation angles, translating into longer transmission distances and broader coverage.

Applications

Satellite communication

Key features

- 5 W max TX power delivers strong, long-range satellite connectivity
- Selectable TX frequencies (X & Ku bands)
- 720 Mbps/160 Mbps high-speed data rate for TX/RX supports real-time, data-heavy missions
- Compact size under 1U for seamless CubeSat integration
- CCSDS and DVB-S2 compliant

720 Mbps/160 Mbps high-speed data rate for TX/RX supports real-time, data-heavy missions

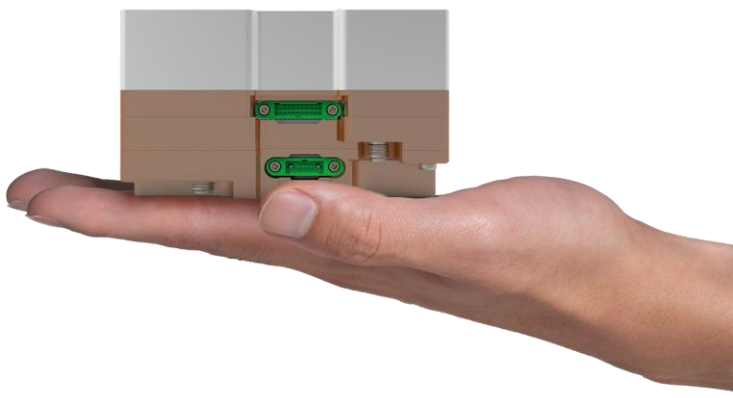
With a maximum data rate of 720 Mbps, SDRspace enables not only the transmission of satellite data and Earth observation imagery, but also supports real-time calls, video conferencing, and live video streaming—bringing high-bandwidth, interactive connectivity to orbit.

Highly flexible SDR architecture

Built on a software-defined radio foundation, SDRspace offers exceptional flexibility—enabling users to meet diverse mission requirements through reconfigurable RF parameters.

Compact size under 1U for seamless CubeSat integration

In space-constrained satellite environments, every cubic centimeter counts. With a form factor under 1U, SDRspace integrates effortlessly into CubeSat architectures—freeing up valuable space for additional payloads or enabling smaller, lighter satellites to reduce overall launch costs.



Specifications

Item	Spec.
TX frequency options	X-band, 8.0 GHz – 8.4 GHz Ku-band, 10.7 GHz – 12.7 GHz
RX frequency range	Ku-band, 14.0 GHz – 14.5 GHz
Maximum TX power	5 W
Maximum TX data rate	720 Mbps
Maximum RX data rate	160 Mbps
Communication specification	CCSDS and DVB-S2 compliant
Modulations	QPSK, 8PSK, 16APSK
Interfaces	2 × LVDS 2 × GPIO 1 × RJ45
Input voltage	12 V
Maximum power consumption	58 W
Dimension	100 mm × 87.4 mm × 52.01 mm
Weight	< 1800g
Operating temperature	-30 ℃ to 60 ℃

Visit YTTEK

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