



The IP Data Link that Works

Platforms

UAV, RPAS, Drones
Rotary & Fixed-Wing Platforms
Control Stations
Vehicles, Rovers, Handheld Units
Ground Communications
Launchers, Balloons
Stratospheric Platforms

Applications

ISR Data Links
Telemetry & Video Streaming
Commanding & Control (C2)
Radio Control Range Extender
Wireless Mesh Networks

P6000 are low-cost defence-grade data links that provide a lightweight, robust, and affordable solution for professional and critical platforms. A higher power version delivering up to 5W is available for long-range applications.

P6000 implements innovative synchronisation algorithms specifically designed to keep communication performance under high dynamics. This results in the unique broadband solution in the market that shows no signal degradation after take-off.

FDMA and TDMA multiplexing allow point-to-point, point-to-multipoint, and mesh networks with configurable time slots, data relay, and dynamic routing capabilities. Based on a proprietary channel access scheme, any network topology can be implemented without the need for external timing sources.

Multiple devices can be connected simultaneously to the Ethernet and serial interfaces, centralising data links for C2, Telemetry, Audio, and Video in a single device.

P6000 are compatible with S-6000 Dual Transceivers series.

One Hub for all your Links

- A single transceiver for Commanding & Control (C2), Telemetry, Audio, and Video streaming.
- Simultaneous connection of multiple devices via Ethernet and serial data interfaces.
- Plug-and-play with most autopilots, radio controls, gimbals, and IP cameras.

Stable Data Links On-the-move

- Up to 78 Mbps at UHF, L, S, and C-bands.
- FDMA and TDMA operational modes.
- Proprietary algorithms to ensure performance under high dynamics (>2000Km/h, >10g).
- Up to 5W output power for long-range data links.

Mesh Network

- Robust TDMA with configurable nodes (master or slave, with relay and mesh capabilities) to setup any network topology.
- Internally synchronised, GPS not needed.
- Dynamic Packet Routing between nodes without LoS.
- IP Filtering, Wireless Bridge, IP Multicast.

Defence-grade for All

- Aluminium enclosure, extended temperature range, vibration/shock robustness, IP67 waterproof.
- Optimised dimensions and weight for thermal management and EMI/EMC.
- Robust power supply including EMI filtering, overcurrent, and reverse voltage protections. +5VDC output is available to supply other devices.

Flexible & Easy Configuration

- IP Commanding & Control protocol for local and remote configuration and status monitoring:
 - Signal parameters: RF, data rate, output power
 - Network and FDMA/TDMA configuration
 - Serial interfaces and AES encryption keys
 - Signal and system status indicators, including BIST
- Commanding App implementing the protocol.
- ANSI C drivers for integration in customer application.

Options & Support

- Included
 - 12 months of Maintenance and Remote Support
 - Commanding App & Drivers
 - Circular Connector Cable Assembly
- Options
 - AES-128 Encryption
 - Ground and Airborne Antennas
 - External Low Noise Amplifiers (LNA)
 - On-site Integration Support and Training

Specifications

Signal	P6000	P6000+
Frequency Bands	70 MHz to 6 GHz	
Waveform	Proprietary COFDM <i>Configurable Modulation & Coding Rate</i>	
Data Rate	700 Kbps to 78 Mbps	
Max. RF Output Power	2 W _{UHF, L, S} 0.2 W _{C-band}	5 W _{UHF, L, S, C}
Multiple Access	FDMA, TDMA	
Networking	Configurable Mesh, Multiple Nodes	
Interfaces		
RF Connectors	2x SMA 50Ω	
Ethernet <i>Data & Control</i>	1000BASE-T, RJ-45 connector	
Circular Connector	MIL-DTL D38999	
Serial Interfaces <i>Data</i>	RS232, RS422/485, UART, SBUS	
Input Power Supply	+24 to +30 VDC	
Max. Current Consumption	0.8A @28VDC	2.0A @28VDC
Mechanical		
Dimensions	118x107x48 mm	118x166x59 mm
Weight	0.7 Kg	1.3 Kg
Material	Aluminium 6082, Nickel Plating	
Environmental		
Operating Temperature	-40°C...+75°C	
Storage Temperature	-55°C...+85°C	
Ingress Protection Rating	IP67 Waterproof	
Temp., Vibration, Shock	MIL-STD-810	
EMI/EMC	MIL-STD-461	
RoHS	Yes	
Export Classification	NLR, ITAR-free	

Ordering Information

Part Numbering P6000 [x] TX [XX] - RX [XX] - B [XX] - [XX] - [X]

Model	- P6000 up to 2W	+ P6000+ up to 5W
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RF Band, MHz	Bandwidth	Data Rate
U1	300-500	01 1 MHz 0.7 to 2.5 Mbps
U2	800-1000	02 2 MHz 1.4 to 5.0 Mbps
L1	1150-1350	05 5 MHz 3.7 to 13 Mbps
L2	1350-1550	07 7.5 MHz 5.6 to 19 Mbps
L3	1550-1750	15 15 MHz 11 to 39 Mbps
L4	1750-1950	20 20 MHz 15 to 52 Mbps
S1	2000-2200	30 30 MHz 22 to 78 Mbps
S2	2200-2400	
S3	2400-2600	
C1	4400-4600	
C2	4700-4900	
C3	5050-5250	
C4	5250-5450	
C5	5500-5700	
C6	5700-5900	

Serial Interfaces	Encryption
R2 2x RS232	N No
R4 1x RS422/485	E AES-128
B2 2x SBUS	
U2 2x UART	
RB 1x RS232, 1x SBUS	
RU 1x RS232, 1x UART	

Contact us for non-listed RF band, bandwidth, or serial interface