



## 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  
ATC Services  
Wireless Mesh Networks

**P6000** are low-cost defence-grade data links that provide a lightweight, robust, and affordable solution for professional applications and critical platforms.

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.

The transceivers can establish unidirectional or bidirectional data links between network nodes. A proprietary TDMA scheme allows the implementation of any network topology, without the need for external timing sources.

Multiple devices can be connected simultaneously to the P6000 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 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.
- Proprietary algorithms to ensure performance under high dynamics (>2000Km/h, >10g).
- Up to 2W 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.
- 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 platform 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 TDMA configuration
  - Serial interfaces and AES encryption keys
  - Signal and system status indicators
- 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	
Frequency Bands	70 MHz to 6 GHz
Waveform	Proprietary COFDM <i>Configurable Modulation &amp; Coding Rate</i>
Data Rate	700 Kbps to 78 Mbps
Max. RF Output Power	2 W <i>UHF, L, S</i> 0.5 W <i>C-band</i>
Multiplexing	FDMA, TDMA
Networking	Configurable Mesh, Multiple Nodes
Interfaces	
RF Connectors	2x SMA 50Ω
Ethernet	1000BASE-T, RJ-45 connector
Circular Connector	MIL-DTL D38999
Serial Interfaces	RS232, RS422/485, UART, SBUS
Input Power Supply	+24 to +30 VDC
Max. Current Consumption	0.8A @28VDC
Mechanical	
Dimensions	118x107x48 mm
Weight	690 g
Material	Aluminium 6082, Nickel Plating
Environmental	
Operating Temperature	-40°C...+75°C
Storage Temperature	-55°C...+85°C
Ingress Protection Rating	IP67 Waterproof
Temperature, Vibration, Shock	MIL-STD-810
EMI/EMC	MIL-STD-461
RoHS	Yes
Export Classification	NLR, ITAR-free

**Ordering Information**

Part Numbering P6000 - TX  - RX  - B  -  -

RF Band, MHz	Bandwidth	Data Rate	Serial Interfaces	Encryption
U1 350-500	01 1 MHz	0.7 to 2.5 Mbps	R2 2x RS232	N No
U2 850-960	02 2 MHz	1.4 to 5.0 Mbps	R4 1x RS422/485	E AES-128
L1 1150-1350	05 5 MHz	3.7 to 13 Mbps	B2 2x SBUS	
L2 1350-1450	07 7.5 MHz	5.6 to 19 Mbps	U2 2x UART	
L3 1450-1650	15 15 MHz	11 to 39 Mbps	RB 1x RS232, 1x SBUS	
L4 1750-1950	30 30 MHz	22 to 78 Mbps	RU 1x RS232, 1x UART	
S1 2000-2200				
S2 2200-2400				
S3 2400-2500				
C1 4400-4600				
C2 4700-4900				
C3 5050-5250				
C4 5250-5450				
C5 5500-5700				
C6 5700-5900				

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