



## PT-2000

### New Generation IFF / Mode S Transponder

- The PT-2000 is the latest offering from Tellumat in a line of successful electronic identification products, adding to a proven track record in supplying high quality avionics with state of the art in microwave and digital signal processing.
- Full mode 1, 2, 3/A and C interrogation/reply functionality.
- Secure Mode (Mode 4, custom National Secure Mode and upgradeability to successor IFF system).
- Secure mode has automatic code changing (ACC) facility.
- Mode S minimum data-link transponder capability to DO-181A.
- Full Mode S Extended Length Message (ELM) capability by software upgrade.
- Software/firmware upgrade and access to maintenance information (including detailed configuration status) available via front panel connector.
- Compact, lightweight 3/8 ATR construction, with externally accessible secure mode cryptographic computer within the volume.
- 28V DC aircraft power supply. No special cooling requirements.
- Control and data interfacing via dual-redundant MIL-STD-1553B or ARINC 429 digital data bus. TCAS computer interfacing via high speed ARINC 429 link.

**Tellumat**

### PT-2000



### FUNCTIONAL CHARACTERISTICS

Standard Reply Modes	1, 2, 3/A, C and S
Secure Modes	Mode 4, National Secure Mode, Automatic Code Changing
Mode S Level	Minimum Datalink Transponder per DO-181A - upgradeable to full ELM
Interfaces	MIL-STD-1553B or ARINC 429, TCAS Computer: 100kbps ARINC 429, Parallel Altitude: per ARINC 572

### RECEIVER TRANSMITTER

Receiver Frequency	Centre 1030 0.5MHz
Receiver Sensitivity	-72 to -78dBm Minimum Trigger Level
Dynamic Range	Minimum Trigger Level to -22dBm
Transmitter Frequency	1090 0.5MHz
Transmitter Power	500W (+57dBm) nominal peak

### RELIABILITY

Mean Time Between Failures	4000 hours (calculated)
Integrity Monitoring	Comprehensive Built-in Test (BIT) System and module status indication

### PHYSICAL CHARACTERISTICS

Mass	<6.5kg
Dimensions	Length 317mm
• (3/8 ATR Short)	Width 90mm
	Height 190mm
Cryptographic Module	Included in above volume
Mounting Tray	Standard 3/8 ATR tray available
Cooling	Convection (no special cooling arrangements required)

### ENVIRONMENTAL AND EMC

Operating Temperature Range	-40°C to +70°C (+85°C intermittent)
Maximum Altitude	70 000ft
Environmental Qualification	per MIL-STD-810
Electromagnetic Compatibility	per MIL-STD-461 and MIL-STD-462

### POWER SUPPLY

Power Supply Input	Nominal 28Vdc to MIL-STD-704D
Power Consumption (Nominal)	35W
Power Consumption (Maximum)	60W