7-1600

CHELTON

Next Gen Logic Converter Unit

Key features:

- ETSO compliant*
- Built-In Test Diagnostic Facility

Type 7-1600 is a high performance Logic Converter Unit (LCU) designed to work in conjunction with Chelton's range of tuneable airborne antennas.



High performance military aircraft need to maintain continuity for broadband, frequency hopping V/UHF secure communications. Radios need to integrate seamlessly with antennas to maximize the reliability and resilience of such communications.

Chelton offers a wide range of logic converter units (LCU) and antennas that serve all major radio types.

The LCU takes frequency information from the radio and matches the performance of the antenna to that frequency. The latest generation 7-1600 LCU has tuning protocols to interface to the following radios:

- ARC-210 (Gen 3 to Gen 6)
- ARC-231
- ARC-232
- ARC-201D
- ARC-186
- ARC-182
- ARC-222
- R&S 6000
- CNR 9000
- Thales TRA 6XXX
- Chelton RT5000 & RT7000
- MXF48X and MXF45X
- SRT651 fast hop
- SRT700
- SRT-800

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The 7-1600 is powered from the 28 Volts DC aircraft supply.

ELECTRICAL

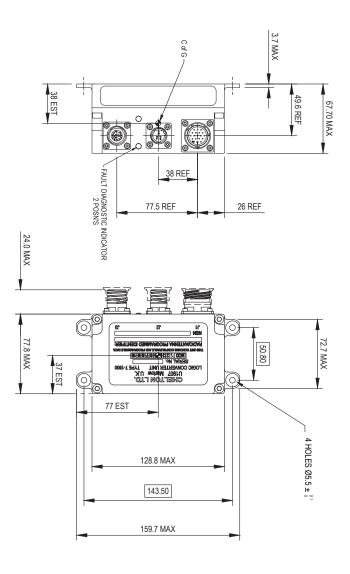
DC Power Input	16 to 32 Volts dc
Normal Working Voltage	22 to 29 Volts dc
Emergency Working Voltage	16 to 32 Volts dc
Protection	Reverse polarity and transient protection
Power Interrupts	Protection in accordance with DO-160G
Serial Control Interface	Radio dependent: Differential Manchester Encoded serial bit stream Serial data and separate synchronous clock
Antenna Drive Interface	Each of the nine drive-lines gives either a high voltage reverse bias or a constant current source for the PIN diodes in the antenna
	High Level: Antenna segment, PIN diode reverse biased: +150 V ± 20 V**
	Low Level: Antenna segment, PIN diode forward biased: -180 mA ± 25 mA constant current source
Connector	J1 : D38999/20FD19PN J2 : D38999/20FA98PN J3 : D38999/20FB35SN

MECHANICAL

Dimensions (LxWxH)	159.7 x 77.8 x 67.7 mm
Weight	0.8 (kg)
Mounting	Four holes fixed location

ENVIRONMENTAL

Standard	DO-160G
Continuous Operating Temperature	-55 to +70 °C
Altitude	75,000 ft



- * The ETSO compliant when using a ETSO compliant antenna only, such as the 12-4004.
- ** When using the 12-4004 antenna. Other antennas could drag this figure lower.