



TCN684 Tacan Ground Beacon



DESCRIPTION

The TCN684 TACAN is a wideband navigation aid system which provides range and bearing information. It is compatible with all existing Airborne TACAN interrogators. The system is designed and manufactured to meet the requirements laid down in MIL-STD-291C, FAA-E-2828a, ICAO Annex 10 and MIL-STD-810F for this type of equipment. In addition, all devices, material and tests are in accordance with above standards.



TECHNICAL FEATURES

Accuracy	±30 m for Distance, ±1° for Bearing
Transmitter	Transmitter Frequency Range: 962 MHz to 1213 MHz X - Channel Pulse Pair Spacing: 12 µs Y - Channel Pulse Pair Spacing: 30 µs Pulse Shape and Spectrum: According to MIL-STD-291B Peak Output Power: Max up to 5KW Reply Delay: 50 µs nominal in X mode, 56-74 µs Programmable in Y mode Reply Delay Stabilization: ± 0.05 µs
Receiver	Transponder Reply Efficiency: > 63 % Receiver Frequency Range : 1025 MHz to 1150 MHz Receiver Dynamic Range: 80 dB Receiver Sensitivity: - 92dBm for 70% Reply Efficiency
Antenna	Antenna Gain: 5.0 dBi at beam maximum averaged with TACAN modulation Antenna Azimuth Coverage: Omni-directional with 9 lobe cardioids shape pattern Azimuth Modulation: -2° to +40° Antenna Polarization: Vertical VSWR: Less than 1.8 with respect to 50 ohm input. Power Rating: 6kW input power with 4% duty cycle Elevation Coverage: -2° to 40° <ul style="list-style-type: none"> □ Slope at horizon 1.7dB/degree □ Peak gain approx. 3° □ Side lobes below - 16dB relative to peak

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