

SELEX ES[®] MODEL 1120A TACAN



CHOOSE THE TACAN SOLUTION BASED ON TIME-TESTED RELIABILITY

Built on more than a decade of performance in over 600 locations of the 1118A/1119A DME throughout the world, the Selex ES[®] TACAN offers field-proven reliability and ease of operation. The Model 1120A TACAN is built on the DME of choice for the FAA.

PRODUCT OVERVIEW

Sold and in operation in more than 55 nations, Selex ES Distance Measuring Equipment (DME) has a field-proven record of performance for en route and precision approach and landing applications. Now the 1120A TACAN takes advantage of that legacy by maintaining 90% commonality with the 1119A DME. Selex ES TACANs offer highly reliable operation, advanced performance and ease of maintenance. Selex ES TACANs interface to any VOR system available today and meet or exceed ICAO Annex 10 recommendations. The 1120A TACAN supports the needs of both military and civil users, including support for use in DME/DME civil navigation networks.

ADDITIONAL FEATURES INCLUDE:

- › Single and Dual Equipment
- › Fully redundant transmitters with hot standby monitoring
- › Comprehensive Remote Maintenance Monitoring (RMM)
- › Fault Diagnostics
- › Remote Integrity Verification/Control
- › Traffic Load Monitoring



SPECIFICATIONS

TECHNICAL	
	STANAG 5034 The Standard TACAN Signal
	MIL-STD-291C Military Standard Tactical Air Navigation (TACAN) Signal
	FAA-E-2996 Performance Specification Distance Measuring Equipment (DME)
	EUROCAE ED 57 Minimum Performance Specification for DME/N and DME/P
	DO-278 Software Integrity Assurance Considerations for Communication, Navigation, Surveillance and Air Traffic Management (CNS/ATM) Systems
MECHANICAL	
Weight	204 kg (450 lbs.)
Dimensions	183 cm H x 61cm W x 61cm D (72" H x 24" W x 24" D)
ENVIRONMENTAL	
Temperature	-10°C to +55°C indoor equipment, -50° to +70° C outdoor equipment
Relative Humidity	Up to 95% (non-condensing) indoor equipment. Up to 100% for outdoor equipment
Altitude	0 to 3048 m (0 to 10,000 ft) MSL
Duty Cycle	Continuous
Wind	Up to 161 km/h (100 mph)
ELECTRICAL	
Primary Power	85-264 V AC, 47 to 63 Hz, single phase
Power Consumption	Single equipment: 235 VA, dual equipment: 445 VA
	Equipment includes independent power supplies for main and standby equipment. Power supply failures indicated at control and monitor port by aural and visual alarms.
Operating Frequency Band	960 to 1215 MHz
Frequency Accuracy and Stability	±0.0005% for the assigned channel
Power Output	≥ 5000 watts (adjustable from 1000 – 5000 W, 1dB steps)
Transmitter Pulse	X channel pulse spacing 12 ± 0.1µs, Y channel pulse spacing 30 ± 0.1µs
Pulse Shape Rise	2.0 µs ± 0.25 µs
Pulse Width	3.5 ± 0.5µs
Transmit Pulse Count	2700-5400 PPS + Burst Pulses
Replay Delay	X channel 50 ± 0.1 µs (adjustable from 35-56 µs), Y channel 56 ± 0.1 µs (adjustable from 50-62 µs)
Dynamic Range	-110 dBW/m ² (-94dBm, -124 dBW) to -22 dBW/m ² (-6dBm, -36 dBW)
Receiver Sensitivity	70% replies at -124 dBW (-94 dBm, -110 dBW/m ²) at cabinet antenna connector
System Shutdown	<ul style="list-style-type: none"> • 15 Hz Phase Error exceeds 4.0° • 135 Hz Phase Error exceeds 0.8° • Reply delay error exceeds 0.1 to 1.0 µs (configurable) • Pulse spacing error exceeds 0.5 µs ± 0.2µs • A fall of 6 dB or more of minimum transponder receiver sensitivity • RF power reduced by 3 dB • VSWR > 4.0:1 • Ident: continuous, lack of ident, or wrong code • Reply efficiency falls below 70% • Transmitter count (PRF) falls below 2700 pps or exceeds 6000 pps (upper limit adjustable)
Built-in Test Equipment (BITE)	Accessible via IP/Ethernet+SNMP, USB, and legacy RS232 terminal interface
Remote Maintenance Monitoring (RMM)	A (separate/optional) personal computer and PMDT software provide monitoring and control of the TACAN, specifically providing the capabilities of monitor automated tests. The software provides user-friendly Windows™ menus. Over 40 parameters can be collected and displayed with pre-alarms and alarms. Security is assured by the incorporation of a 4-level password system. RMM can provide fault isolation down to the LRU from the local and remote sites with unlimited range over telephone lines.

Note: Specifications are subject to change without notification. Please contact Selex ES for your current requirements.

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