MODEL 1118A/1119A
Distance Measuring Equipment*

With more than a decade of performance in over 600 locations throughout the world, the SELEX DME continues to offer field-proven reliability and ease of operation.

*Improved/enhanced version of the original models 1118 and 1119 DME’s.

PRODUCT OVERVIEW
Sold and in operation in more than 55 nations, SELEX Distance Measuring Equipment (DME) has a field-proven record of performance for en route and precision approach landing applications. Available in low and high power configurations (Models 1118A and 1119A, respectively), SELEX’s DMEs offer highly reliable operation, advanced performance and ease of maintenance. SELEX’s DME’s interface to any ILS and VOR systems available today, and meet or exceed ICAO Annex 10 recommendations.

Now, with the improved 1118A and 1119A, reliability and maintainability are further enhanced and improved to reduce downtime and routine site visits. SELEX also offers a DME Retrofit Kit which upgrades most vacuum tube model DME’s to provide enhanced solid-state performance and extended service life.

ADDITIONAL FEATURES INCLUDE:
- Dual and Single Equipment
- Either transmitter selectable for main or standby
- Comprehensive RMM (optional):
  - Fault Diagnostics
  - Remote Certification/Control
  - Trend Analysis
  - Dual Independent Monitoring
  - Traffic Load Monitoring

SPECIFICATIONS
MECHANICAL
Weight: 1118A DME: 180 lbs (81.7 kg) Low Power DME. 1119A DME: 210 lbs (95.5 kg) High Power DME.

Dimensions: 72”H x 24”W x 24”D (183 cmH x 61 cmW x 61 cmD).

ENVIRONMENTAL
Temperature: -10°C to +55°C indoor equipment, -50° to +70° outdoor equipment.

Relative Humidity: Up to 95% indoor equipment. Up to 100% for outdoor equipment.

Altitude: 0 to 4573 m (0 to 15,000 ft) MSL.

Duty Cycle: Continuous.

Wind: Up to 100 mph (161 kph).

ELECTRICAL
Primary Power: 85-264 V AC, 47 to 63 Hz, single phase.

Equipment includes independent power supplies for main and standby equipment. Power supply failures indicated at control and monitor port by aural & visual alarms.

Operating Frequency Band: 960 to 1215 MHz.

Frequency Accuracy and Stability: ±0.0005% for the assigned channel.


Transmitter Pulse: X channel pulse spacing 12± 0.1µs, Y channel pulse spacing 30 ±0.1µs.

Pulse Shape Rise and Decay: 2.5 µs ± 0.25 µs

Pulse Width: 3.5 ±0.5µs.

Transmit Pulse Count: 1000 to 5400 pps ±90 pps.

System Time Reference: Selectable: first or second pulse.

System Time Delay: X channel 50-µs ± 0.2 µs, Y channel 56-µs ± 0.2 µs, micro-processor control (adjustable from nominal to ± 15 µs).

Dynamic Range: -110 dBW/m2 to -22 dBW/m2.
-94 dBm to -6 dBm
-124 dBW to +36 dBW

Receiver Sensitivity: 70% replies at -124 dBW (-94 dBm, -110 dBW/m2) at cabinet antenna connector.

System Shutdown: Reply delay error exceeds 0.5 µs ±0.2µs. 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 > 3.0:1. Continuous ident longer than 9 seconds. Lack of ident greater than 65 seconds. Reply efficiency falls below 70%. Transmitter count (PRF) falls below 700 pps or exceeds 4500 pps (adjustable).

Built-in Test Equipment (BITE): Accessible via RS232 terminal (includes RF Power).

RMM: Includes a personal computer and PMDT software to provide monitoring and control of the DME, specifically the capabilities of monitor automated tests, fault isolation down to the LRU, and data logging. 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.

System programmed to perform automatic checks at preset intervals. RMM is capable of providing fault isolation from the local and remote sites with unlimited range over telephone lines.

**ANTENNA**

Size: 77.8" (197.6 cm) long, 8 radiator assemblies (driven elements) plus a choke assembly at each end, 3.25" (8.25 cm) OD radome. Has top cap and base flange.

Weight: 21 lbs (9.5 kg) (excluding optional obstruction light and other mounting fixtures).

Circularity: ±1 dB max to main beam angle and ±1 dB max on horizon.

Frequency Range: 960 to 1215 MHz (no adjustments or tuning required).

Polarization: Vertically polarized.

Gain, Main Beam: 8 dBi minimum.

Impedance: 50 ohm.

VSWR: Not greater than 2:1 (960-1215 MHz).

Range: Meets ICAO Annex 10 for enroute and terminal coverage.

Omnidirectional as standard for co-location with VOR or stand-alone. Unidirectional option for ILS co-location if desired.