ALT-8015

FMCW/Military Pulse Radio Altimeter Flightline Test Set

Product Specification

Cobham AvComm

User Interface

Display	*12" color LCD, sun light readable w/ back light*
Controls	*Touch-screen*
Antenna Couplers	*TX and RX*
Coupler Loss Compensation	*0 to 19.9 dB*

TX/RX Direct Connection Ports

Impedance	*50 Ω*
SWR	
TX	*2.5:1*
RX	*1.5:1*
Connector	*TNC x 2 (single TX/RX channel)*

Receiver

RF Input Frequency

Range	*4.20 GHz to 4.40 GHz (ITAR Limited)*

FMCW/CDF FMCW

Frequency Measurement	
Range	*4.20 GHz to 4.40 GHz (ITAR Limited)*
Accuracy	*±5 MHz*
FM Sweep Rate Measurement	
Range	*50 Hz to 400 Hz*
Accuracy	*±5 Hz*
FM Deviation	
Range	*±20 MHz to 100 MHz*
Accuracy	*±5 MHz*

Pulse

Frequency Measurement	
Range	*4.20 GHz to 4.40 GHz (ITAR Limited)*
Accuracy	*±10 MHz*
TX Power Measurement	
Range	*1 mW (0 dBm) to 300 W (+54 dBm) peak*
Accuracy >50 ns	*±2 dB*
Accuracy <50 ns	*±3 dB*
TX Pulse Width Measurement	
Range	*20 ns to 400 ns*
Accuracy	*±10 ns*
TX Pulse PRF Measurement	
Range	*2 kHz to 30 kHz*
Accuracy	*±5%*

Generator

Linear Altitude Simulation

Range FMCW/CDF	*-20 to 8,000 ft.*
Range Pulse	*50 to 8,000 ft.**

** Note: lower altitude limit determined by connecting RF coax cable length*

Resolution	*1 ft. Increments*
Accuracy	*±1.5ft or 2% RMS (whichever is greater)*

Linear Altitude Rate

Range	*1 to 120,000 fpm*
Resolution	*1 fpm*

Test Cable (automatic compensation)

Test Cable Length	*1 to 100 ft.*
Test Cable Loss	*0 to 9.9 dB*

AID (direct connect)

Fixed Selectable	*0, 20, 40, 57 or 80 ft.*
User Entered	*0 to 99 ft.*

Altitude Offset *-25 to 100 ft.*

RF Level

Manual Mode (FM/CW)	
Range	*-84 to +9 dBm (dependent upon cable loss, coupler loss and external attenuation)*
Accuracy	*±4 dB*
Manual Mode (Pulse)	
Range	*-76 to +17 dBm (dependent upon cable loss, coupler loss and external attenuation)*
Accuracy	*±4 dB*
Auto Mode	*TX Power – Height Path Loss- Scattering Loss- Offset*
RF Level Offset (auto)	*-20 to +20 dB*

RF Path Loss Simulation *0 to 8,000 ft.*

Frequency Stability *±1 ppm*

Enviromental

Test Set

Operating Temperature	*-20° ≤ to ≤ 55°C*
Storage Temperature	*-30° ≤ to ≤ 71°C*
Altitude	*≤10,000 meters*

Supplied External AC to DC Converter

Use	*Indoors*
Altitude	*≤10,000 meters*
Operating Temperature	*5° to 40°C*
Storage Temperature	*-20° to 71°C*

Physical Characteristics

Size:	
Test set only	*10.6"H x 13.9"W x 3.4"D 27.0 cm x 35.5 cm x 8.7 cm*
w/ standard access.	*12" H x 30.5"W x 22.5"D 30.5 cm x 77.5 cm x 57.2 cm*
Weight:	*15.5 lbs. (test set only) 62 lbs. (shipping weight)*

Certifications

Test Set

Operational Humidity	*MIL-PRF-28800F, Class 2*
Storage Humidity	*MIL-PRF-28800F, Class 2*
Vibration Limits	*MIL-PRF-28800F, Class 2*
Shock, Functional	*MIL-PRF-28800F, Class 2*
Transit Drop	*MIL-PRF-28800F, Class 2*
Drip Proof	*MIL-PRF-28800F, Class 2*
Dust	*MIL-PRF-28800F, Class 2*
Salt	*MIL-PRF-28800F, Class 2*
Explosive Atmosphere	*MIL-STD-810F, Method 511.4, Procedure 1*
Safety Compliance	*UL-61010:2001* *CSA 22.2 No 1010.1*
WEEE	
ROHS	
EMC	
Emissions	*MIL-PRF28800F Class 2* *EN 61326:1998 Class A* *EN 61000-3-2* *EN 61000-3-3*
Immunity	*MIL-PRF28800F Class 2* *EN 61326:1998 Class A*

External AC-DC Converter

Safety Compliance	*UL 1950 DS* *CSA 22.2 No. 234* *VDE EN 60 950*
EMI/RFI Compliance	*FCC Docket 20780 Curve "B"* *EMC EN 61326*

Transit Case

Drop Test	*FED-STD-101C Method 5007.1 Paragraph 6.3, Procedure A, Level A*
Falling Dart Impact	*ATA 300 Category I*
Vibration, Loose Cargo	*FED-STD-101C Method 5019*
Vibration, Sweep	*ATA 300 Category I*
Simulated Rainfall	*MIL-STD-810F Method 506.4, Procedure II of 4.1.2* *FED-STD-101C Method 5009.1 Sec 6.7.1*
Immersion	*MIL-STD-810F Method 512.4*

This product is subject to the Export Administration ("EAR") (15 CFR 730-774) and may not be exported, re-exported or otherwise transferred to a foreign person, or outside the United States without authorization from the U.S. Department of Commerce.

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