

VIAVI

ALT-8015

FMCW/Military Pulse Radio Altimeter Test Set

General Specification

User Interface	
Display	12" color LCD, sun light readable with 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 to 4.40 GHz (ITAR Limited)
FMCW/CDF FMCW	
Frequency Measurement	Range: 4.20 to 4.40 GHz (ITAR Limited) Accuracy: ± 5 MHz



FM Sweep Rate Measurement	Range: 50 to 400 Hz Accuracy: ± 5 Hz
FM Deviation	Range: ± 20 to 100 MHz Accuracy: ± 5 MHz
Pulse	
Frequency Measurement	Range: 4.20 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: $\pm 5\%$
Generator	
FMCW	
Linear Altitude Simulation	Range: -20 to 8,000 ft Resolution: 1 ft. increments Accuracy: (-20 to 5500 ft) ± 1.5 ft or 2% RMS, (whichever is greater)
Pulse	
Linear Altitude Simulation	Range: 50 to 8,000 ft* Resolution: 1 ft increments Accuracy: ± 1.5 ft or 2% RMS, (whichever is greater)
Linear Altitude Rate	
Test Cable (automatic compensation)	Range: 1 to 120,000 fpm Resolution: 1 fpm
AID (direct connect)	Test Cable Length: 1 to 100 ft Test Cable Loss: 0 to 9.9 dB
	Fixed Selectable: 0, 20, 40, 57 or 80 ft User Entered: 0 to 99 ft

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

Generator (continued)	
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

Environmental

Test Set	
Operating Temperature	-20° to 55° C (-4° to 131° F)
Storage Temperature	-30° to 71° C (-22° to 159.8° F)
Altitude	≤10,000

Supplied External AC to DC Converter

Operating Temperature	5° to 40° C (41° to 104° F)
Storage Temperature	-20° to 71° C (-4° to 159.8° F)
Altitude	≤10,000 meters

Physical Characteristics

Dimensions	Test set only	10.6 x 13.9 x 3.4 in (H x W x D) (27.0 x 35.5 x 8.7 cm)
	w/ standard accessories	12 x 30.5x 22.5 in (30.5 x 77.5 x 57.2 cm)
Weight	15.5 lbs (7.03 kg) test set only	
	62 lbs (28.12 kg) 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



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