

## E7000L

# Cable & Antenna Analyzer

### Key Benefits

- Handheld, lightweight, field-proven design withstands harsh environments and lighting conditions
- Easily set up measurements with over 100 preset wireless frequency bands and cable types
- Reduce test time with dual measurement display to make two measurements simultaneously
- Detect signal degradation and system performance over time with trace overlay
- Instant Pass/Fail status
- Manage your measurement data and test setups with Measurement Center Software
- Intuitive touchscreen user interface for easier, faster measurements



Verify cell site RF transmission settings, cable feedline and antenna systems.

The proliferation of wireless networks has placed increased demands on wireless professionals and contractors, who install, maintain and troubleshoot wireless communication networks. The majority of problems in wireless network installation and performance often occur within the base station infrastructure consisting of the cable and antenna system and associated RF connectors. Compounding the problem, often times cell sites are located in rural or difficult to access locations.

Designed specifically for carriers, wireless professionals and contractors who install, maintain and troubleshoot wireless communications networks, the E7000 Series of Cable & Antenna Analyzers provide all necessary measurement functions and performance to accurately diagnose and verify the site's cable and antenna system and RF connectors, as well as basic fiber-feedline testing.

### Measurements

- Reflection - Return Loss or VSWR
- Fault Location - DTF/RL or DTF/VSWR
- Cable-loss
- 1-Port Phase
- Smith Chart

### Optional Measurements Modes

- RF Power Meter (DML-015)
- Optical Power Meter (DML-016)
- Visual Fault Locator (DML-017)

**Performance Specifications**

<b>Frequency</b>	
Frequency Range (E7000L)	2 MHz – 4.4 GHz
Resolution	0.5 kHz
<b>Measurement Speed</b>	
Reflection	< 1.0 mS/point
DTF	< 1.25 mS/point
Data Points	130, 259, 517, 1033, 2065
<b>Measurement Accuracy</b>	
Corrected Directivity	42 dB (typical, after standard OSL calibration) 38 dB (typical, after eCAL calibration)
<b>Output Power</b>	
0 dBm (Nominal)	
<b>Interference Immunity</b>	
On-channel	+18 dBm @ >1 MHz of carrier frequency
Off-channel	+13 dBm within ± 10 kHz of carrier frequency
<b>Measurements</b>	
Return Loss	0 to 60dB (Resolution 0.01 dB)
VSWR	1:1 to 65:1
Cable Loss	0 to 30 dB (Resolution 0.01 dB)
DTF Range (Distance)	1500 meters (4921 feet)
<b>Connectors (Reflection/RF Out)</b>	
RF Out	Type N, female, 50Ω
RF Out Damage Level	25 dBm, ± 50 VDC
<b>Connectivity</b>	
USB host	USB 2.0 Type A
USB client	5-pin mini-B (connect to PC for data transfer)
LAN	RJ45 10M/100M LAN Ethernet Port
<b>Display</b>	
Type / Size	TFT LCD / 7.0" (800 x 480)
<b>Data Storage</b>	
Internal	1 GB, > 2000 saved measurement files
External	Limited by size of USB flash drive
<b>Battery</b>	
Type	Li-Ion, 7.4V, 7.5AH
Operation	TYP.> 8.0 hours, continuous
<b>Environmental</b>	
Operating Temperature	-10°C to + 55 °C
Storage Temperature	-40 °C to + 80°C
Maximum Humidity	95% RH (non-condensing) @ 40 °C
Shock	Mil-PRF-28800F Class
Altitude	4600 meters, operating and non-operating
<b>EMC</b>	
European EMC	IEC/EN 61326-1:2006
<b>AC Power</b>	
AC Adapter Output	11-14 VDC
AC Adapter Input	100 – 240 VAC, 50-60 Hz
<b>Size &amp; Weight</b>	
Size	245 mm x 190 mm x 75 mm (9.64 in x 7.48 in x 2.95 in)
Weight	2 kg (4.4 lbs)

**Standard Accessories**

Rechargeable Li-Ion battery: 7.4V, 7.5Ah	6130.0100.01
AC-DC adapter: 11-14VDC	FSP065-RAB
Vehicle Plug-in lighter adapter	E8000-040
1.5m RF Test Port Cable, N(m), 6GHz	E7000-0702
Calibration Combo Open/Short/Load, N(m), 6GHz	E7000-0700
Soft carry case	DS2800-008
Measurement Center Software CD-ROM with Users-Manual	E7000-0200

**Optional Accessories**

RF Test Port Cable, Armored, phase stable, 1.5m, N(m) to N(f), 6GHz, 50Ω	DTC-6SNMNF-1.5
RF Test Port Cable, Armored, phase stable, 1.5m, N(m) to 7/16 DIN(f), 6GHz, 50Ω	DTC-6SNMDF-1.5
RF Test Port Cable, Armored, phase stable, 1.5m, N(m) to 7/16 DIN(m), 6GHz, 50Ω	DTC-6SNMDM-1.5
RF Test Port Cable, Armored, phase stable, 3.0m, N(m) to N(f), 6GHz, 50Ω	DTC-6SNMNF-3.0
RF Test Port Cable, Armored, phase stable, 3.0m, N(m) to 7/16 DIN(f), 6GHz, 50Ω	DTC-6S8NMDF-3.0
RF Test Port Cable, Armored, phase stable, 3.0m, N(m) to 7/16 DIN(m), 6GHz, 50Ω	DTC-6SNMDM-3.0
RF Test Port Extension Cable, phase stable, 1.5m, N(f) to N(f), 6GHz, 50Ω	DTC-6SNFNF-1.5
Precision Adapter Kit, 50Ω (NMDM, NFDm, NMDF, NFDF, DFDM90°)	DPAK-6G100
Precision Adapter, N(m) to N(m), DC to 18GHz, 50Ω	DPA-NMNM
Precision Adapter, N(f) to N(m), DC to 18GHz, 50Ω	DPA-NFNM
Precision Adapter, N(f) to N(f), DC to 18GHz, 50Ω	DPA-NFNF
Precision Adapter, N(f) to 7/16 DIN N(m), DC to 6GHz, 50Ω	DPA-NFDM
Precision Adapter, N(f) to 7/16 DIN N(f), DC to 6GHz, 50Ω	DPA-NFDF
Precision Adapter, N(f) to SMA(f), DC to 6GHz, 50Ω	DPA-NFSF