

E7000A/E7100A Cable & Antenna Analyzer

- **Cable and Antenna Analyzer**

E7000A 25 MHz to 4400 MHz
E7100A 25 MHz to 6100 MHz

- **Spectrum Analyzer Option**

E7000A-SA 9 kHz to 3000 MHz

- High Performance
- Fast Measurement Speed
- Easy to Use
- Cost Effective
- Long Life Lithium Ion Battery inside

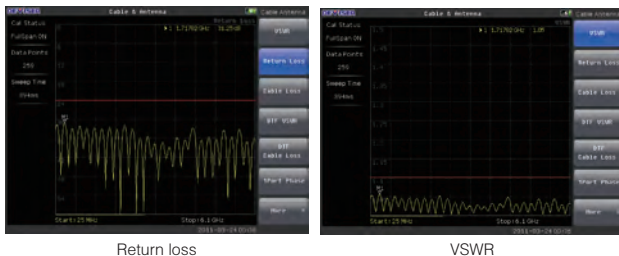
Overview

E7000A series cable and antenna analyzer is a perfect instrument for wireless and broadcasting base station. It covers 25MHz to 6100MHz frequency span and fits for the wireless communication and broadcasting market.

E7000A series provides 3 GHz spectrum analyzer option. The spectrum analyzer option can be configured as spectrum analyzer, interference analysis, power meter, and field strength meter. With the multi-functional capabilities, it eliminates the need to carry and learn multiple instruments.

- **Return Loss/VSWR**

With >42 dB return loss dynamic range, E7000A series verifies the cable and antenna system which conform to performance specifications.

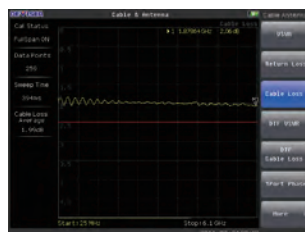


Return loss

VSWR

- **Cable Loss**

Cable loss function measures insertion loss within the cable feedline system. The E7000A series automatically calculates the average cable loss.



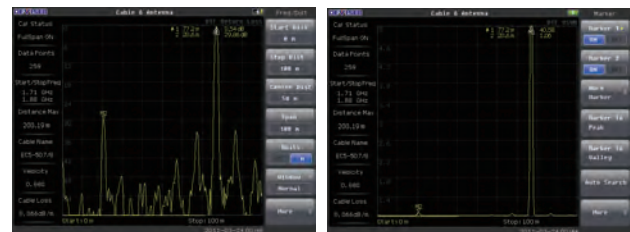
Cable loss



- **Distance-To-Fault**

DTF (distance-to-fault) function troubleshoots systems and locate the problem.

E7000A series displays cable characteristic (VSWR and RETURN LOSS) versus distance. Using the tools, users can monitor small relative changes over time.



DTF - Return Loss

DTF - VSWR

- **2-ports Transmission Measurements (With E7000A-SA Option)**

2-ports transmission measurement enables you to measure gain, isolation and insertion loss as well as sector-to-sector isolation verification.

- **USB Inline Power Meter Option**

The USB inline power meter option provides RMS measurement for both CW and digital modulated signal. It supports 300MHz-4GHz frequency range and 0.2-150W average power range.



Power Meter

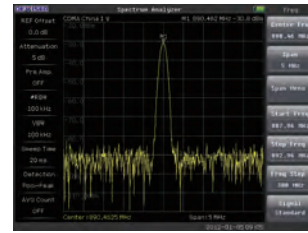
Transmission Measurement

- **Spectrum Analyzer Option (E7000A-SA)**

E7000A-SA covers 9 k Hz to 3 GHz frequency range.

With this option, E7000A series can provide spectrum analysis, power meter channel power, field strength, spectrogram display, ACPR, OBW and interference signal analysis functions.

For detail, please refer to the specifications of E8000A spectrum analyzer.



Spectrum analyzer

- **GPS Receiver Option**

GPS receiver option provides location (longitude, latitude, altitude) and Universal Time (UT) information. For the E7000A series, all measurement results can be saved with location and time information.

Key Features

- **All in one tool**

E7000A series is integrated with cable&antenna analyzer and spectrum analyzer. Users can perform measurement for wireless and broadcasting base station installation, maintenance with only one instrument – E7000A series.

- **Friendly GUI**

Better user interface and easy to use.

- **Fast measurement speed**

With 1.5ms/point sweep time, it is better for field measurement.

- **Large internal memory**

With more than 1GB internal memory space, E7000A series can save more 2000 trace files.

- **Flexible calibration mode**

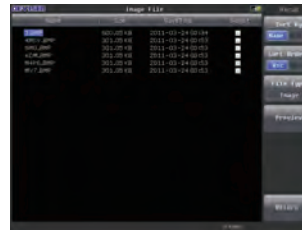
E7000A series has 2 calibration modes. Standard OSL (OPEN-SHORT-LOAD) calibration is more accurate. Full span calibration is based on the stand OSL mode. With this mode, users don't need to

re-calibrate the E7000 series when change the frequency range.

- **Easy data link**

E7000A series has one 10M/100M LAN port. It supports standard SCPI program interface which is open to user for developing user defined program.

E7000A series has 2 USB ports. It is easy to import and export files between the instrument and USB disk.



Files



Calibration

Specifications

	E7000A	E7100A
Measurement	VSWR Return Loss Cable Loss Distance-to-Fault (DTF) Return Loss Distance-to-Fault (DTF) VSWR 1-Port Phase Smith Chart	
Frequency Range 1~25MHz Option	25 MHz ~ 4400 MHz	25 MHz ~ 6100 MHz
Frequency Resolution	1 kHz	
Frequency Accuracy	±5 ppm	
Output Power Level	0 dBm typical	
Sweep Time	1.5 ms/point	
Data Points	130, 259, 517, 1033, 2065	
RF Immunity		
	+13 dBm within ±10 kHz of the carrier frequency +20 dBm @ >1.0 MHz from carrier frequency	
Corrected Directivity	>42 dB after OSL calibration >38dB after ECAL	
Return Loss		
Range	0.00-60.00 dB	
Resolution	0.01 dB	
VSWR		
Range	1-65	
Resolution	0.0001	
Cable Loss		
Range	0.00-30.00 dB	

	E7000A	E7100A
Resolution	0.01 dB	
DTF		
Return Loss Range	0.00-60 dB	
VSWR Range	1-65	
Length	$0 \text{ to } (\text{Data points}-1)/(\text{Span} \times 2) \times V_p \times C$ Span=frequency range	
Resolution (m)	$=V_p \times C / (\text{Span} \times 2)$	
RF Output Port	NF Type	
Impedance	50 Ω	
Display	6.5" TFT LCD, 640*480	
Interface	1 USB2.0, 1 mini USB 1 10 M / 100 M LAN port	
Storage Space	1GB memory, >2000 trace files	
Operating Temperature	-10 ~ +55 °C	
Storage Temperature	-20 ~ +80 °C	
Weight	< 2.2 kg	
Dimension(L×W×H)(mm)	258 × 173 × 74	
Power Supply		
Battery	11.1 V, 5.2AH	
Continuous Work Time	Typ.> 6 hours	
AC Adapter Output	15 ~ 19 V DC	
AC Adapter Input	100-240 V AC, 50-60 Hz	
Language	English, Chinese	