

**PORTABLE TRANSMISSION LINE TESTER
SITE MASTER 110/330**

700 to 3000 MHz



The site master is a hand held VSWR/return loss/fault location tool designed for field engineers and technicians. It has a rugged, molded case and weighs only 2.2 pounds (1 kg). It replaces a number of more bulky, expensive pieces of equipment. Built-in memory capability allows measurements in the field to be recorded for future verification of transmission line integrity. Ideal for transmission line installation and maintenance. Applications include analog and digital transmission lines for cellular, wireless and CATV networks.

Features

- Wide band coverage: 700 to 1100 MHz, 1400 to 2200 MHz, 2200 to 3300 MHz
- Precision VSWR and return loss measurements
- Distance-To-Fault capability
- Immune to incoming interference
- CW mode for optimizing antennas, transmission lines and single port devices
- Save and recall up to 25 traces and 9 setups in internal memory
- Limit lines and audible Pass/Fail indicator

Applications

- **Immune to incoming interference**
Site master combines a synthesizer with a vector error corrected reflectometer. The reflectometer only detects the signal from the synthesizer. Therefore, site master can be used at live sites without interference from external RF signals regardless of their format (TDMA, CDMA, PCN, etc.).
- **Built-in memory**
Test data on transmission lines is compared to the installation test record to verify performance. Site master can store up to 25 data traces. Software tools allow easy comparison by simply "dragging and dropping" the current data over the historical data in a Windows™ environment.
- **Distance-To-Fault**
A different return loss characteristic between current and historical data indicate a fault in the transmission line or antenna. The site master data is easily converted into Distance-To-Fault information providing precise information on the location of the fault.

Specifications

Model	110	330
Sweep frequency range	One band of 700 to 1100 MHz	Three bands of 700 to 1100 MHz, 1400 to 2200 MHz, and 2200 to 3300 MHz
Frequency accuracy (CW mode)	75 ppm	
Frequency resolution	100 kHz	
Measurement range VSWR	1.00 to 65.00	
Return loss resolution	0.1 dB	
Fault location resolution, nominal*1	1% of maximum range	
Dynamic range	54 dB	
Directivity (corrected)	36 dB	
Test port, Type N	50 Ω, 75 Ω with adaptor	
Maximum power output, nominal	9 dBm	-9 dBm
Immunity to interfering signals up to the level of*2	+10 dBm	-15 dBm
Maximum input (damage level)	+22 dBm	
Mass	2.2 lbs.	
Size	8" x 7" x 2-1/4"	
Temperature storage operation*3	-20° to 75°C, 0° to 50°C	

*1: Fault location is done by inverse fourier transformation of data taken with the site master. Resolution and max range depend on the number of frequency data points, frequency sweep range and dielectric constant of the cable being tested.

$$\text{Resolution (meters)} = 1.5 \times 10^8 / (\sqrt{\epsilon} \times \Delta \text{ Frequency})$$

$$\text{Maximum range} = \text{Resolution} \times 110$$

*2: Immunity measurement made in CW mode with incoming interference signal at frequency of operation (worst case situation). Typically immunity is better when swept frequency is used.

*3: Specifications are valid when unit is calibrated at ambient temperature.

Ordering information

Please specify model/order number, name and quantity when ordering.

Model/Order No.	Name	Remarks
110	Main frame	
330	Site Master (Portable Transmission Line Tester)	700 to 1100 MHz
	Site Master (Portable Transmission Line Tester)	700 to 3300 MHz
	Standard Accessories	
10580-00002	Use's Guide	
10580-00003	Instruction Card	
D40882	Soft Carrying Case	
510-88	Economy N-Type Short	
510-89	Economy N-Type Load	
40-74	AC-DC Adapter	
806-62	Automotive 12 V Adapter	12 volt DC adapter
B40981	Serial Interface Cable	
	One Year Warranty	
	Fault location (DTF) and Management Software Tools	Battery, firmware and software 3.5 inch floppy disk
	Optional Accessories	
22N50	Precision N Type Short-Open	
28N50-3	Precision N Type Load	
100/1	1 Meter Phase Stable Cable	
100/3	3 Meter Phase Stable Cable	
100/5	5 Meter Phase Stable Cable	
510-88	Spare Economy N Type Short	
510-89	Spare Economy N Type Load	
D40882	Spare Soft Carrying Case	
40-74	Spare AC-DC Adapter	
806-62	Spare Automotive 12 Volt Adapter	
B40981	Spare Serial Interface Cable	
760-194	Transit Case for Site Master	