

Portable Digital TV/RF Analyzer

SLM 1478



The SLM 1478 digital TV/RF analyzer answers the needs of TV/ RF technicians and installers in today's broadcast and high speed CATV video delivery networks. Capable of testing and analyzing digital TV/RF formats including NTSC, ATSC, QAM and DOCSIS from 4 MHz to a full 1 GHz. The SLM 1478 provides in depth test results including pre and post BER, MER, DOCSIS 3.0 channel bonding and dropped packets. The color display offers easy to interpret good and bad bar graphs as well as improved spectral and constellation display resolution for thorough troubleshooting. The front panel features easy to interpret icons that make set up and unit navigation simple. The SLM 1478 also offers a LAN port for network connections and FTP download applications such as downloading the results of its automated pass/fail test for system documentation and record keeping. The SLM 1478 is designed to meet the rigors of everyday field use with a rugged display that is both dependable and viewable even in the brightest sunlight.

KEY FEATURES

- ATSC digital RF measurements to 1GHz including Average power, pre/post BER, MER, spectral analysis, noise margin and constellation for QAM A and B
- DOCSIS 3.0 capabilities for complete modem installation testing for both forward and return path analysis
- Full featured rugged color spectral display for in-depth signal analysis and troubleshooting
- Includes optical power meter for fiber optics testing and troubleshooting
- Uploading of scan log test data either with internal RF cable modem or LAN
- Channel plans and log file transfers in/out with a USB thumb drive
- CLI leakage and upstream ingress testing capabilities to ensure system integrity
- User definable automatic channel scan testing /logging with Pass/Fail analysis
- SMART software PC interface for meter upgrades, channel plans and AutoScan testing/logging management.
- Alpha/numeric keypad for direct channel/frequency selection
- 12-Volt AC/DC charging with Auto-off for battery saving operation

APPLICATIONS

- CATV/DOCSIS installation and troubleshooting
- Off-air antenna alignment and ATSC broadcast quality analyzing
- Private TV/RF distribution systems in schools, corporate campuses, correctional institutions, and hospitality networks
- Custom home theater and CATV network installations

SPECIFICATIONS

Portable Digital TV/RF Analyzer SLM 1478

LEVEL MEASUREMENT OR SPECTRUM ANALYSIS

Frequency Range:	TV and Radio 4-1000 Mhz
Frequency Resolution:	25 KHz
RF Input Impedance:	75Ω
Dynamic Range:	15 dBuV to 125 dBuV or -45 to +65 dBmV or -98 to +16 dBm
Measurement Resolution:	0.1 dB
Level Measurement Acc:	1 dB typ. (2 dB max.)
A/V Ratio:	1.5 dB typ. (2 dB max.)
C/N Ratio:	30 to 45dB +/-1.5dB Max; 45-50dB +/-2dB
Measure Filter Bandwidth:	100 KHz @ -3 dB
Custom Channel Plans:	25 (199 ch. per plan)

DIGITAL MEASUREMENTS

8VSB, QAM 16-32-64-128-256 (Annex A & B), J-83	
Frequency Band:	4-1000 Mhz
Power Measurement	
Dynamic Range:	-45 to 65 dBmV
BER Measurement:	bBER up to 1 x 10 ⁻⁹ aBER up to 1 x 10 ⁻⁹
MER Measurement:	10 dB to 40dB
Constellation Display:	16-32-64-128-256 QAM

OPTICAL MEASUREMENTS

Wavelengths (nm):	850,1310,1550
Range:	-25 to 10 dBm
Resolution:	.1 dB
Accuracy:	+/- 0.5 dB

COMM: PORTS

DOCSIS 3.0 and RF:	F - Female
LAN:	RJ45 10/100 Ethernet
USB 2.0:	Type B (PC Interface)
USB 2.0:	Type A (USB drive)

LEAKAGE MEASUREMENTS

Frequency Range:	115-140 MHz
Resolution:	25 KHz

DOCSIS MEASUREMENTS

DOCSIS 3.0 Compliant Modem	
Frequency Band:	5-1000 Mhz
Input Impedance:	75Ω
Range:	-45 to +65 dBmV
Measurements Include:	Level, MER, Pre/Post BER, Lost Packet, Transmit Power, Transmitted Packets, Received Packets, PER, Latency Min/Max Avg, Channel Bonding Upstream Level and IP Status
MAC Address:	Default or user defined

UPSTREAM GENERATOR/TESTING

Generator Frequency:	5-65 MHz
Modulation:	QAM, QPSK, 8,16,32,64
Typical Range:	8 to 53 dBmV
Channel Bonding:	Up to 4 upstream channels bonding supported ingress scan spectrum
Frequency range:	5-65MHz
Channel bonding:	up to 4 upstream channels bonding supported
Ingress Scan Spectrum	
Frequency:	5 -65 MHz
Level:	25 dBuV to 125 dBuV
Accuracy:	+/- 2dB
BW:	100KHz @ -3dB

GENERAL SPECIFICATIONS

Power Supply:	Built in NiMh rechargeable battery, external power supply 12 VDC 1A
Battery Duration at 25°C:	2.5 hours
Size:	H 8.9" x W 4.9" x D 2.4"
PC Interface:	USB
Display:	Color LCD 3.5" (320px x 240px)
Front-Panel:	Alpha numeric keypad
Power Save:	TFT backlight timer, brightness adj.
PC Management:	SMART software
Standard Accessories:	Top to bottom case guards Soft carry case and strap USB 2.0 cable AC adapter 12V automotive charging cable RF & optical connectors SMART software

**All specifications are subject to change without notice.*