The DSA 1480 CATV Digital Signal Analyzer provides a comprehensive low cost solution to the needs of installers and technicians in today’s complex cable video delivery systems. Capable of analyzing both analog and digital cable signal formats to 1GHz, the DSA 1480 provides in-depth digital channel tests including MER, BER, block errors, noise margin, constellation, and spectral analysis. A pass, margin or fail indication simplifies interpretation. Additionally, the MPEG network and program/services names, and video/audio packet ID data lists are indicated providing advanced verification and troubleshooting information.

The DSA 1480 provides unique features to overcome the challenges faced by today’s CATV technicians. For ease in operation, the channel tuning plan can be tailored to the system to be tested with manual, automatic or software setup. An AutoDiscovery test automatically detects the QAM signal type and relative standard when in doubt. Multiple channels and their respective levels are simultaneously displayed with the BarScan and Tilt Tests to simplify inspection and aid in slope adjustments. A Leakage Test helps pinpoint cable shielding problems which may cause spectrum interference and/or ingress. An Ingress Test shows potential ingress interference problems in the upstream spectrum.

The DSA 1480 features a bright LCD display, battery power saving & reconditioning features, and with its many automated features makes the technicians job simpler and faster. The DSA 1480’s construction provides the durability needed for many years of dependable field use.

**KEY FEATURES**

- A CATV digital and analog TV-RF signal analyzer with measurements to 1GHz and multiple user languages including Spanish and Portuguese
- Comprehensive digital TV/RF channel measurements including MER, Pre/Post BER, Block Errors, Noise Margin, Constellation, and Spectrum Analyzer.
- Automatic quality analysis: FAIL-MARGINAL-PASS for easy interpretation
- Reads MPEG data providing services lists, A/V PIDs, encryption, and multiple language information
- Provides user defined automatic channel scan testing/logging which includes a Pass/Fail analysis
- Provides a bar graph presentation “BarScan” of multiple channels and their respective signal level, quickly showing system frequency response issues
- Measures intensity (uV/m) of signal emitted or “leaking” from the shielded cable system to identify points of ingress and shielding problems
- Provides a Tilt Test showing the difference in level between two selected channels to quickly determine cable slope, or adjust system equalization
- SMART software PC interface for meter upgrades, channel plans and Logger file management
- Light weight, moisture resistant, strong ABS case – ultra-bright LCD display insures years of reliable service
- Over 4 hour battery time - power management features including auto shutoff timer and display brightness adjustments to extend battery time.
- Battery conditioning feature to regenerate/measure battery levels and calibrate the battery indicator
- Comes complete with carry case, power adapter, automotive power/charging cable, and USB cable.

**APPLICATIONS**

- Testing & verifying cable analog and digital channel performance during CATV installations
- Troubleshooting cable line or equipment problems to restore an acceptable level of CATV service
- Maintenance of cable TV/RF distribution systems in schools, corporate campuses, correctional institutions, and hospitality networks
- Testing and troubleshooting cable TV system extensions in homes or commercial buildings
- Testing and troubleshooting private pay-tv delivery TV-RF systems
SPECIFICATIONS
CATV Digital Signal Analyzer DSA 1480

MEASUREMENT
Frequency Range:
CATV: 4 – 1000 MHz
Dynamic range: -35 to 60 dBmV
RF Input Impedance: 75 ohms
Measure Tuning: By RF Channel or Freq.
Freq. Resolution: 25 KHz
Analog Measurement: Video Level, Audio Level, A/V ratio, C/N
Measurement Accuracy: +/- 1.5 dB, (1.0 dB Typical)
Level Measurement Resolution: 0.1 dB
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

Digital Measurement
Digital Modulation types: QAM 16-32-64-128-256 (J-83 Annex A & B),
Digital Measurements: Level, Noise Margin, Pre-Viterbi (bBER),
After-Viterbi (aBER), MER, Block Errors
BER Measurement: bBER/aBER up to 1 x 10-9
MER Measurement: 10 dB to 40dB
Constellation Diagram: 16-32-64-128-256 QAM

MPEG2/4 SPECIAL FUNCTIONS
Network/Program (Bouquet) ID: names listed
Modulation Parameters ID: modulation type shown
Service Encryption Detection: yes/no
Encryption/CA System ID: type listed
Bouquet/Network Service List: A/V PID list

SPECTRUM ANALYZER FUNCTIONS
Spectrum Tuning: By transponder or frequency
Span Selection: 2, 5, 7, 10, 20, 50, 100, 500MHz, full
Max Hold Function: shows peak level reference line

LEAKAGE MEASUREMENT
Leakage Test: Field intensity uV/m
Frequency Range: 115-140 MHz
Resolution: 25 KHz

UPSTREAM TESTING
Ingress Scan Spectrum
Frequency: 5 - 65 MHz
Level: 25 dBuV to 125 dBuV
Accuracy: +/- 2dB
BW: 100KHz @ -3dB

SPECIAL FUNCTIONS
Bar Scan: Multi-CH. level via bars
Tilt: Ch. 1/Ch.2 level ratio – BarScan display

GENERAL SPECIFICATIONS
Memory Plans: 99 with 199 transponders per Plan
Logger Plans: 99 logger plans
Display: Hi brightness LCD (64 x 128)
Firmware Upgrades: USB via software
USB Port: USB 2.0 type B PC
Built-in battery operation: > 4 Hrs
Power Save: LCD backlight auto-off timer, brightness adj.
Battery Reconditioning: Built-In battery test/recovery algorithm
Dimensions: 4.3 x 8.6 x 6.5 in. (HWD)
Weight: 2.4 lbs
Case: ABS plastic
Standard Accessories Includes:
Soft padded case
AC power adaptor & battery charger
12V lighter adaptor & battery charger
USB 2.0 cable

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