

ATSC 3.0 Handheld Signal Level Meter SLM 1530



OVERVIEW

The ultra-portable SLM 1530 ATSC 3.0 Handheld Signal Level Meter is the perfect solution for broadcast professionals testing all-new ATSC 3.0 equipment and installations. Beyond the ATSC 3.0, it includes full support for legacy ATSC 1.0 and also QAM-B cable signals making it an all-around tool for testing, installation and maintenance.

This lightweight meter is packed with big features including in-depth RF measurements such as signal level, MER, BER, C/N and constellation diagrams. It also has a powerful spectrum analyzer function available for single channel all the way to full spectrum views. The built-in pass/fail metrics make it easy to quickly identify issues in any system.

In addition to the RF measurements, the SLM 1530 includes the ability to fully decode and display in full motion and color the video and audio components of received RF signals. This provides at-a-glance assurance that the RF system is working. The included webUI, Ethernet and Wi-Fi connectivity brings remote control, log download and simple firmware updates to handle the constantly evolving ATSC 3.0 settings.

The SLM 1530 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. It also includes a 5 hour battery and a padded nylon case with all the straps and handles a user could want.

APPLICATIONS

- Testing and maintenance of new ATSC 3.0 and other digital RF equipment, such as modulators, receivers and decoders
- Professional installation and troubleshooting of digital TV broadcasts, cable TV digital or analog reception and distribution paths
- Antenna alignment for private TV/RF distribution systems in schools, campuses and hospitality networks



KEY FEATURES

- Professional ATSC 3.0 hardware demodulator built in
- Ultra-portable handheld form factor with 5-hour battery
- 2.8" full-color LCD screen for easy navigation and results viewing
- Full motion video and audio decoding of received channels
- Digital RF measurements including average power/level, pre/post BER, MER, spectral analysis and constellation
- Built-in webUI for remote control, remote measurements, firmware updates and datalog retrieval

SPECIFICATIONS

ATSC 3.0 Handheld Signal Level Meter - SLM 1530

GENERAL SPECIFICATIONS

Display:	2.8" TFT 400 x 240 full color
Weight:	1.12 lbs. (510 g)
Size:	6.9 x 3.9 x 2 in / 175 x 100 x 52 mm (H x W x D)
AC Adaptor:	Input: 100-240 VAC 50-60Hz; Output: 12 VDC, 2A
Battery:	Lithium Ion smart battery (7.2 VDC, 2600 mAh)
Operating Time:	> 5 hours
Operating Temperature:	23°F to 104°F (-5°C to 45°C)
Storage Temperature:	-4°F to 158°F (-20°C to 70°C)
Humidity:	5% to 95% non-condensing
Ruggedness:	Survives 1 m (3 ft) drop to concrete on all sides
Interfaces:	RJ45 10/100 Ethernet interface for remote control and measurements Wi-Fi Client or Access Point Bluetooth for datalog retrieval and automatic software updates (Coming Soon with software update!)
Storage:	400 MB (internal) for measurements
Power up time:	<10 seconds

TECHNICAL SPECIFICATIONS

Frequency Range:	5 MHz to 1002 MHz
Resolution:	10 kHz
Tuning:	By frequency or channel
Input/Impedance	75Ω F-type connector, replaceable

DIGITAL MEASUREMENTS

Power:	-35 to +60 dBmV
C/N:	up to 40 dB
MER:	up to 38 dB
BER:	Included
Accuracy:	±2 dB
Resolution:	0.1 dB

QAM-B INPUT

Demodulation:	ITU-T J.83B
Modulations:	64 and 256 QAM
Symbol Rate:	5.056941, 5.360537, 5.6 Msym/s
DFE filter:	On / Off
Pre-BER and Post-BER:	1.0E-3 to 1.0E-8

ATSC 3.0 INPUT

Demodulation:	ATSC 3.0
Bandwidth:	6, 7 and 8 MHz
FFT Size:	8, 16 and 32K
Features:	Mandatory Modulation and Coding Combinations All guard interval pattern Single and multiple-PLPs SISO and MISO transmission TDM, FDM and LDM (Layered Division Multiplexing) ALP (ATSC Link Layer Protocol) SLT service name extraction Impulse Response test

ATSC 1.0 INPUT

Demodulation:	ATSC 1.0
Bandwidth:	6 MHz
Features:	8VSB modulation 2/3 code rate TVCT service name extraction

SPECTRUM ANALYZER

Span:	5, 10, 20, 50, 100, 200, 500 MHz and Full
Scale:	5 and 10 dB/div
Features:	Automatic and manual reference level

CONSTELLATION

Display:	16, 32, 64, 128, 256, 1024 and 4096 QAM
Zoom Capability:	Yes

ECHO DISPLAY

Graphical representation: Yes

SYSTEM SCAN

Channels:	User-selectable zoom up to ALL CHANNELS (analog and/or digital)
Measurements:	Level bar representation and C/N/BER/MER of the selected channel

WI-FI SCAN

Bands:	2.4 and 5 GHz
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OTHER INCLUDED FEATURES

- Web access with screen mirroring
- Service info including TSID, service name, PID and encode type
- Real-time video and audio decoding of formats supported by ATSC 1.0 and ATSC 3.0
- ATSC 3.0 video and audio descrambling (Future feature, where applicable)
- Factory and customizable Pass/Fail indicators
- Factory and customizable channel plans

INCLUDED ACCESSORIES

- Protective nylon case
- 100-240 VAC AC adaptor
- 12 VDC car charger
- Field-replaceable F connector