

# LNM-1 Line Noise Meter and Scope Interface

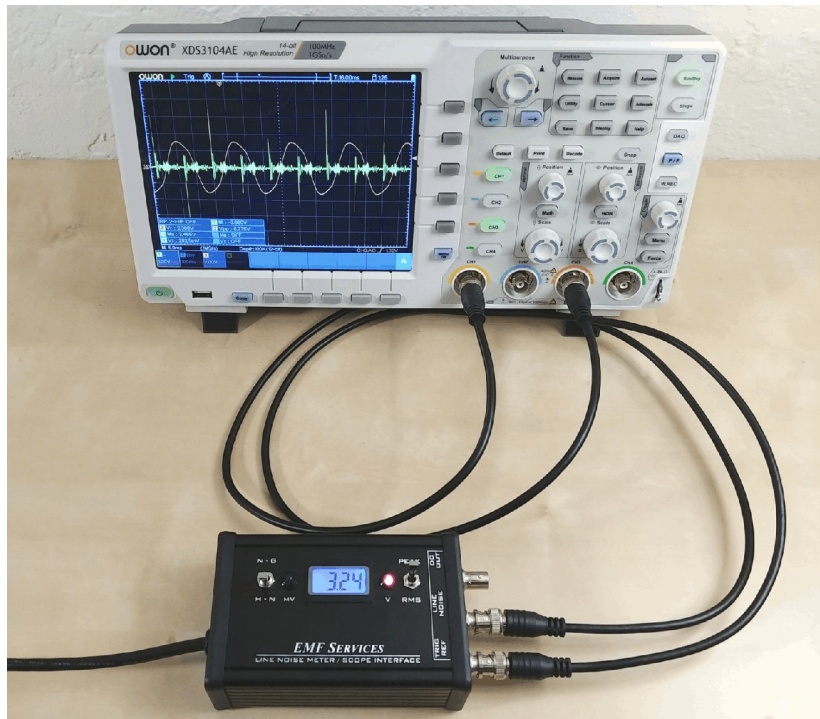
## 1.7 kHz - 2.0 MHz



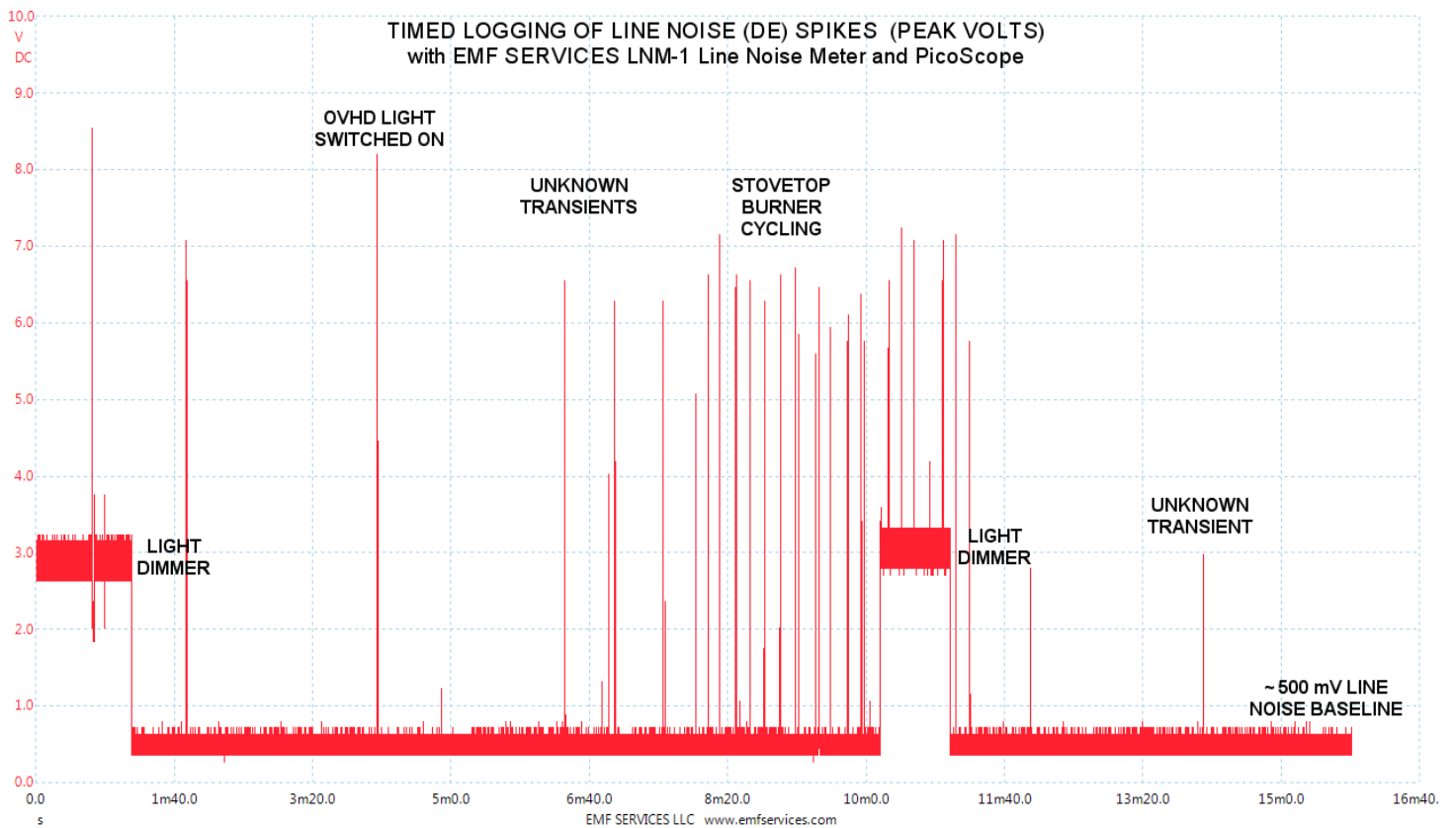
- The LNM-1 combines an AC line noise meter and scope interface (high-pass filter) in one professional grade instrument with tightly defined performance specifications.
- Frequency coverage from 1.7 kHz to 2.0 MHz allows observation of the lowest frequencies of interest.
- Facilitates identification of noise sources by waveform signature on an oscilloscope and frequency display on a spectrum analyzer.
- Easy hookup with 2 plug-in cables. No scope probes to clip to bare wires. No shocks. No confusion.
- Reads true RMS or PEAK spike amplitude in standard engineering units.
- Reads line noise up to 9,000 mV (9 Volts).
- Clean noise waveform with no confusing 60 Hz bleed-thru to limit measurement accuracy.
- Even without a scope, this instrument will reveal high amplitude noise spikes (such as from light dimmers) that you would not have known were present because meters without peak reading capability do not show them.
- The DC OUT signal can display high amplitude switching transients that are too fast to show up on a digital meter. This adds a new dimension to analysis of line noise.
- Timed logging of line noise over minutes to hours is now possible using a basic PicoScope or other data logging instrument.
- The noise trace on a scope is precisely time-correlated to the 60 Hz reference waveform for observation of where on the 60 Hz cycle the noise impulses actually occur.

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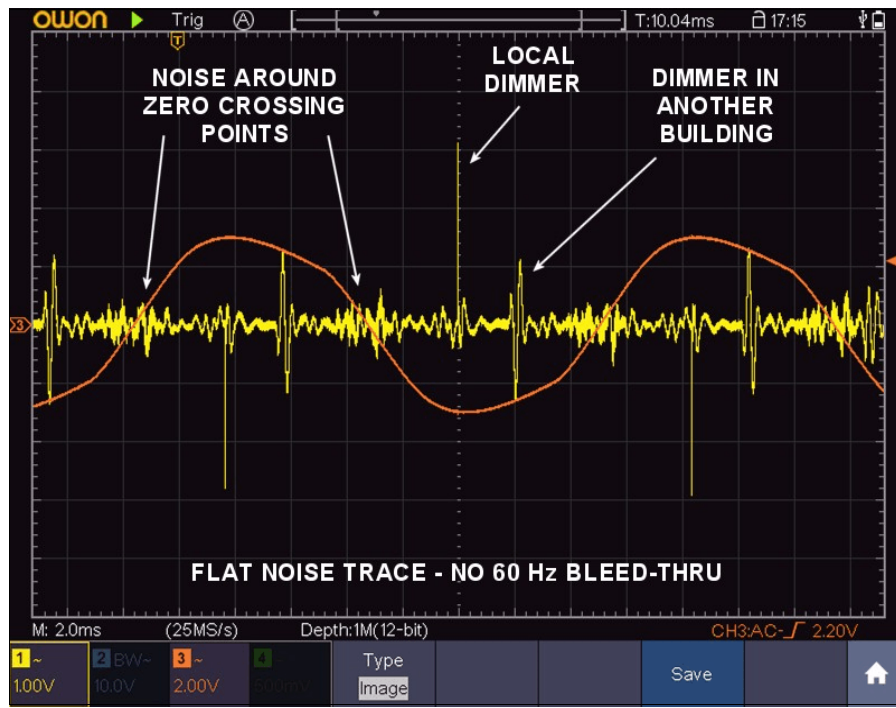


**Easy Connection - Plug line cord into wall receptacle and connect two BNC cables to scope.**



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**Noise Trace (Yellow) and Reference Trace (Red)**

## Specifications

Measurement Functions	
Frequency Response (@1,000 mV RMS)	1.7 kHz - 2.0 MHz (-3 dB) 2.0 kHz to 1.5 MHz (+/-0.5 dB)
RMS Amplitude Range	10 mV - 3,000 mV
PEAK Amplitude Range	30 mV - 9,000 mV
RMS Measurement Accuracy	5% for 200 mV - 2,000 mV
PEAK Measurement Accuracy (noise spikes)	5% for 1,000 mV to 9,000 mV
Minimum pulse width for peak reading accuracy	300 nS (-3 dB)
Output impedance for DC OUT port	50K ohm (min 1M ohm input Z for scope or logger)
Scope Interface	
Frequency Response (@1,000 mV RMS)	1.7 kHz - 2.8 MHz (-3 dB) 2.0 kHz to 2.0 MHz (+/-0.5 dB)
RMS Amplitude Range	0 - 7,000 mV
PEAK Amplitude Range	0 - 13,000 mV
Maximum Output Amplitude	+/- 13.0 V
Noise position relative to reference waveform	+/- 100 uS
Output delay for 1 uS pulses @ 60 Hz repetition rate	240 nS
General	
Operating Voltage	120V AC (240V version available by special order)
AC line cord	5 ft with USA standard 3-prong plug (NEMA 5-15P)
Accessories supplied	(2) 3 ft BNC - BNC cables

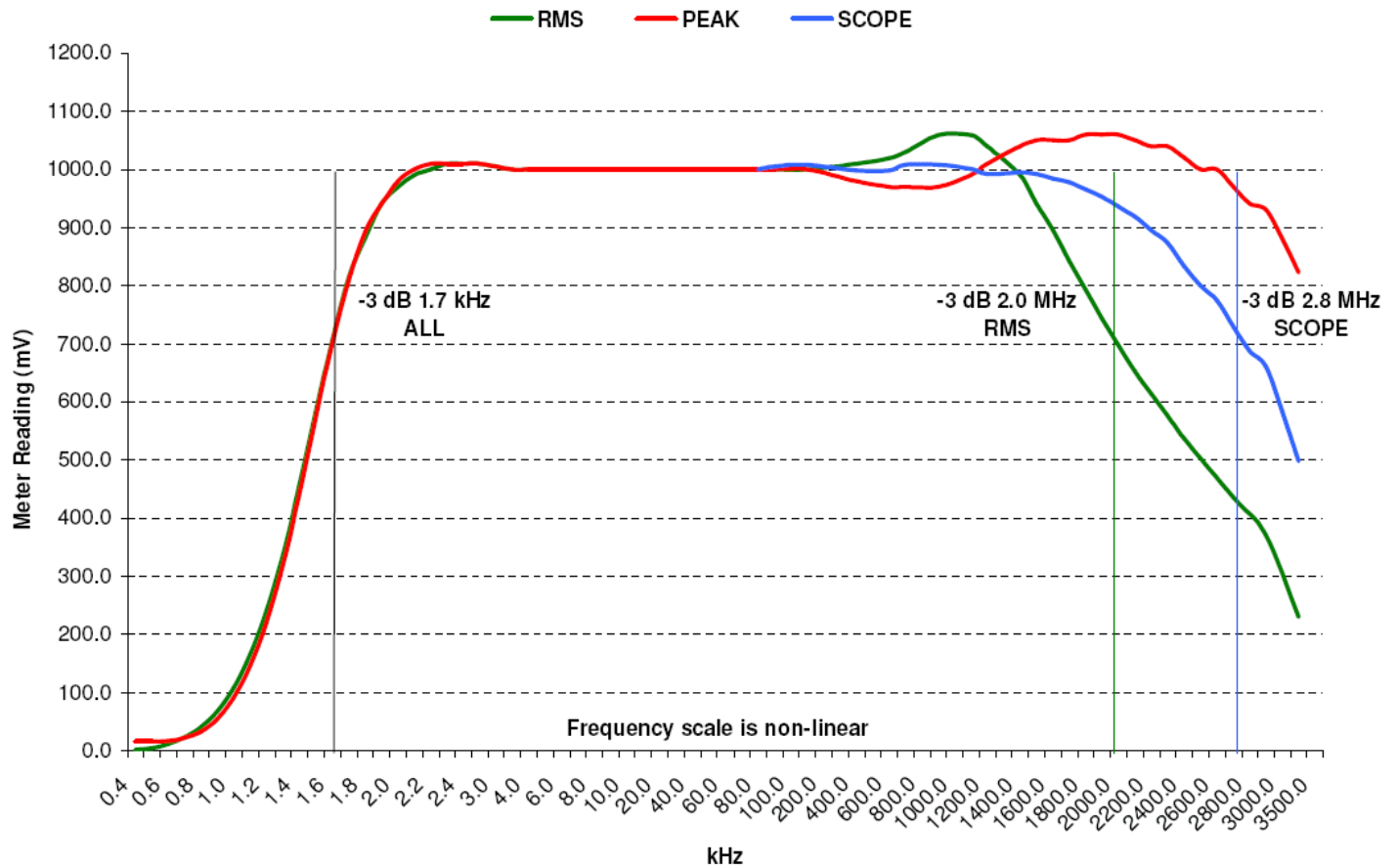
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## LNM-1 Line Noise Meter Frequency Response

1000 mV Applied at Line Cord



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