

Plug-In EMI Adapter For Power Lines

Measure Noise on Live Power Lines with Your Oscilloscope or Spectrum Analyzer

Power lines often carry high-frequency noise (EMI), This noise causes multiple problems for equipment operation and sometimes leads to component damage. OnFILTER' plug-in EMI Adapter MSN01 provides easy way to observe noise on power lines with your oscilloscope, spectrum analyzer or any other instrument without exposing them to high voltage from the power lines

OnFILTER' MSN01 plugged into your AC power outlet completely blocks 50/60Hz AC mains voltage and provides only high frequency signals from power line via its 50 Ohms output. You can observe waveforms of noise on the screen of your oscilloscope or analyze noise spectrum with your spectrum analyzer.

MSN01 utilized true balanced input and offers complete galvanic isolation from high-voltage power line. It can be switched between differential (normal) and common mode settings providing complete information to your instrument . With plug adapter MSN01 can work with many types of electrical outlets with voltage up to 250VAC.



Applications

- Electronic manufacturing
- Semiconductor fabrication
- Test and measurements
- Power line communication (PLC)
- Data centers
- Industrial robotics
- Medical
- Military and aerospace
- Wherever EMI is an issue

Features

- Measurements of high-frequency signals on live power lines and ground
- Galvanic isolation from power line
- True balanced input
- Overvoltage protection
- 50 Ohms output

EMI Power Line "Probe"

Your oscilloscope, spectrum analyzer or signal strength meter is now capable of measuring high-frequency signals riding on live power lines

Power Line Isolation

MSN01 provides complete galvanic isolation from high voltage on power lines so that your instrument is not exposed to high voltage

Balanced Input

MSN01 offers true balanced input reducing errors from ground coupling of your oscilloscope or spectrum analyzer

Differential and Common Modes

MSN01 is easily switched between differential (i.e. live/neutral) and common mode (i.e. live+neutral/ground) measurements

Overvoltage Protection

Noise on power lines, especially transient spikes, can reach significant amplitude. MSN01 has special protective circuit limiting such spikes to no more than 15V of either polarity without sacrificing its performance at lower amplitudes

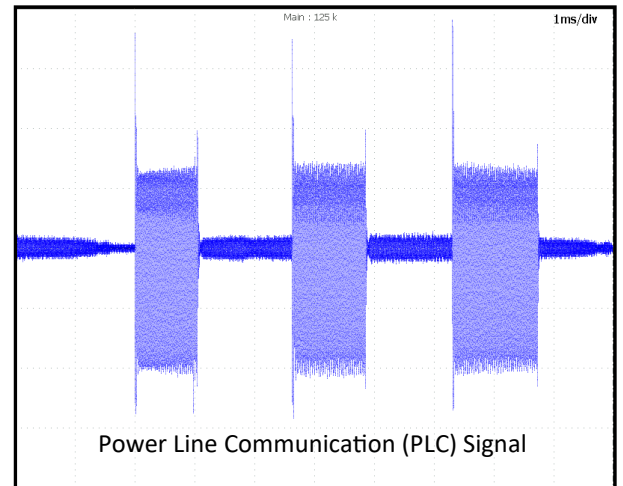
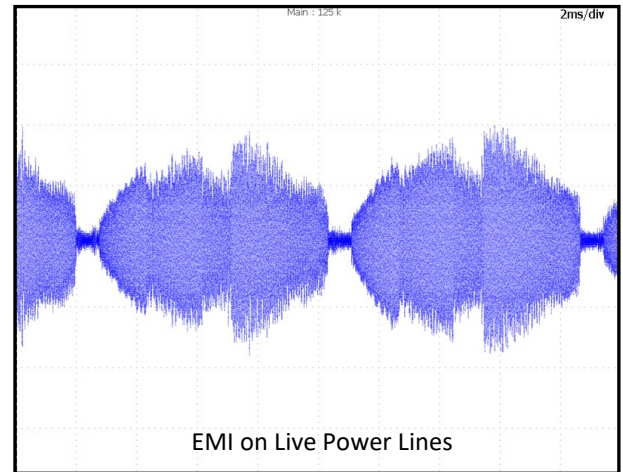
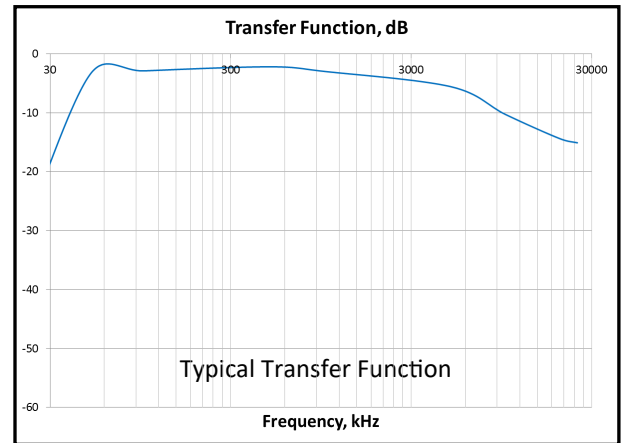
Plug-In EMI Adapter For Power Lines Model MSN01



Specification

MSN01 power line EMI adapters enable measurements of high frequency signals on live power lines

Parameter	MSN01
Rated Voltage, RMS	250VAC Max.
Power Plug	US-type NEMA5-15P
Frequency Response	30kHz...30MHz
Measurement Modes	Differential Common Mode
Output Impedance	50 Ohms
Output Connector	BNC
Output Signal Limiter	<15V Peak
Power Indication	LED



Application Note

If you looking at this datasheet on a computer, you can click on the link below to the Application Note which is available in the [Library](#) on our web site:

[App Note: Measurement and Management of Power Line Communication](#)

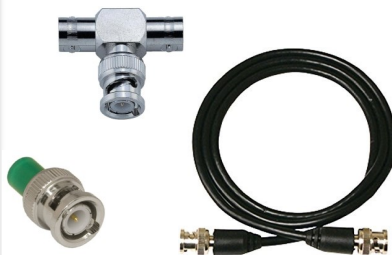
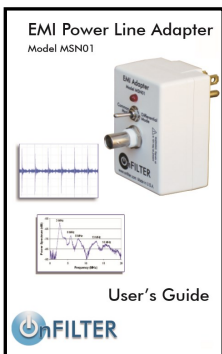
Ordering Information

Order model **MSN01**.

MSN01 comes with the following:

- BNC cable
- BNC 50 Ohms terminator
- BNC T-connector
- User's Guide

If you are planning to use MSN01 with a spectrum analyzer, you may want to consider optional 20dB attenuator since peak EMI signals on power lines may exceed input capabilities of your spectrum analyzer. This is not a problem for oscilloscopes which should be set to 1M input (included adapters provide 50 Ohms input impedance)



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