



"Results You Can Count On"

Universal Powerline Communications Splitter/ 3-Channel Splitter Combiner

**For Physical-Layer Testing of
G.hn Devices Over Power Lines**



Model GHN-SP-UPLC

The Model GHN-SP-UPLC Universal Powerline Communications Splitter device is used to provide a controlled AC port to the PLC modem, separate and isolate the high-frequency PLC signal from AC power, and make it accessible on three BNC ports labelled L1, L2 and L3 with a controlled impedance. Having the PLC signal on BNC ports allows using standard instruments and accessories to perform measurements and build controlled topologies. Capable of performing Dynamic PSD Test and Cognitive Frequency Exclusion test (Dynamic Notching) per EN 50561-1 using Model 501 and 501-Probe-Coax.



Back view of the GHN-SP-UPLC

Main Features

- Similar to AMN / LISN specified in CISPR-16, extending the concept to all three lines
- Suitable for all types of broadband MIMO PLC (not valid for narrowband PLC < 2 MHz)
- Basic building block for TR-208 and EN-50561 tests
- High performance AC filter which provides high isolation with similar common-mode and differential-mode impedance on each line, L1, L2 and L3
- Provides galvanic isolation and common-mode filtering to prevent PLC leakage on data port
- BNC connectors for High Frequency signals on L1, L2, and L3
- Embedded Zero-Cross Detector for AC-synchronized measurements and tests
- Used with Telebyte Noise Generator for WT-208 testing
- Used with Telebyte Digital Analyzer for ITU-G.9964 PSD, CENELEC EN 50561-1, EN 50561-3 measurements



Adaptors available for multiple regions.



Universal Powerline Communications Splitter/ 3-Channel Splitter Combiner (continued)

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Model GHN-SP-SPLCOMB-UPLC-3

The Model GHN-SP-SPLCOMB-3 3-Channel Splitter/Combiner is a symmetrical power splitter and combiner where all the ports have 6 dB attenuation to each other.

This product provides one set of three BNC ports on one side and two sets on either side. The spacing between connectors is the same as in the GHN-SP-UPLC Universal Powerline Communications Splitter, allowing the device to be connected directly using male-male BNC barrels to reduce the number of cables. (Unused ports of the 3-Channel Power Splitter/Combiner must be terminated with 50Ω.)



The GHN-SP-UPLC connected to the GHN-SP-SPLCOMB-UPLC-3



**Universal Powerline Communications Splitter/
3-Channel Splitter Combiner
(continued)**

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Specifications

GHN-SP-UPLC	
Electrical Safety	Complies with EN 61010-1 : EN 60950-1
Insertion Loss (Single Line)	EUT to BNC OUT (L1-L3): 0.35dB@ 80 MHz, 0.45dB@ 100 MHz
Differential Line Impedance	100 ohm +/- 10% (1MHz to 100 MHz)
Continuous Operating Voltage	90 to 240VAC, 50 Hz/60 Hz
Outputs: L1, L2, L3	BNC-female Connector, 50 Ω Impedance, 1MHz to 100MHz

Specifications are subject to change without notice. Made in USA.

Ordering Options

MODEL	DESCRIPTION
GHN-SP-UPLC	Universal PLC Splitter with Schuko socket
GHN-ADP-CH_BR	Approved Power Adaptor for GHN-SP-UPLC (Switzerland, Brazil)
GHN-ADP-UK	Approved Power Adaptor for GHN-SP-UPLC (United Kingdom)
GHN-ADP-IT_RCH	Approved Power Adaptor for GHN-SP-UPLC (Italy, Chile)
GHN-ADP-AU_RCN_AR	Approved Power Adaptor for GHN-SP-UPLC (Australia, China, Argentina)
GHN-ADP-NA	Approved Power Adaptor for GHN-SP-UPLC (North America)
GHN-SP-SPLCOMB-UPLC-3	3-Channel Splitter/Combiner
GHN-AT-PROG-UPLC-3-SLOPE	PLC 3-Channel Attenuator with Slope Filter (see separate datasheet)
1XBNCM-1XSMAM-1F	BNC(male)-to-SMA(male) cable, length 1 foot
BNC-BNC-BARRELPLUG	BNC Plug-to-BNC Plug in-line barrel
BNC-TERM-50	50-ohm BNC Terminator
1XRJ45M-1XRJ45M-3F	Cat6 Shielded Patch Cable - SSTP Bare Copper, RJ-45 male connectors, length 3 feet