

ARU-100

HPNA TEST PROBE



Speed up in-home HPNA and triple-play deployments with ease

KEY FEATURES

Designed for EXFO's award-winning AXS-200/600 series

Allows for triple-play performance certification over an HPNA coaxial environment

Verifies HPNA performance with compatible devices in the home—ideal for prequalifying or troubleshooting HPNA deployments

Based on the HPNA v3.1 specification and ITU-T G.9954 standard for assured compatibility in an HPNA environment

SPEC SHEET



Assessing
Next-Gen Networks

HPNA NETWORK ASSESSMENT

Thanks to EXFO's ARU-100 HPNA Test Probe, service providers can successfully reuse existing in-home coaxial networks. Coupled with EXFO's AXS-200/600 series, the ARU-100 is based on the specifications of the Home Phone-Line Networking Alliance (HPNA) to help evaluate HPNA networks for impairments and their ability to support triple-play services delivered by FTTx networks. Specifically, this accessory is designed for technicians and engineers who must prequalify, install and troubleshoot the in-home coaxial network for HPNA deployments.



Triple-Play Testing over HPNA Deployments

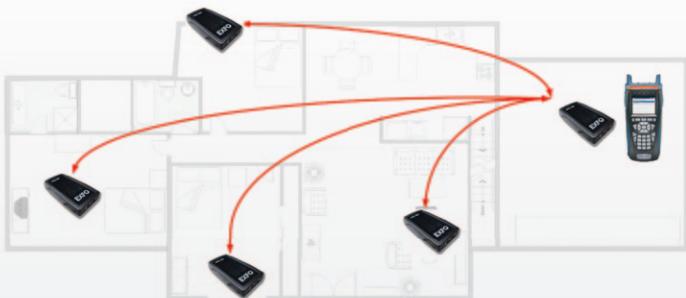
EXFO's AXS-200/600 series is the first solution for triple-play testing over HPNA deployments. With the powerful Internet protocol television (IPTV) analysis function, users can monitor performance by looking at the Internet group management protocol (IGMP) join/leave requests, bandwidth utilization and the overall quality of the IPTV stream. In addition to IPTV testing, the series supports voice-over-IP (VoIP) monitoring and data analysis functions.

HPNA Devices Discovery

The ARU-100 can locate HPNA devices at the customer premises, whether they are existing devices such as gateways and set-top boxes (STBs) or other EXFO HPNA probes located throughout the home. This test probe can also establish the chipset revision level of each distributed HPNA device in addition to providing basic statistical information such as the number of transmitted, received and dropped packets.

HPNA Tests HPNA Analysis	
Device Detected : 4	<input type="button" value="Refresh"/>
Device MAC Address	00:03:01:ff:62:e6
Mode	Client
Link State	Up
Sync State	Sync
SW Version	01.07.05
Chipset Version	CG3110
Frequency Band	12-28
<input type="button" value="TestSummary"/> <input type="button" value="HPNA Info"/> <input type="button" value="NET Test"/>	

HPNA Tests HPNA Analysis	
Select Device :	00:03:01:ff:62:e6
Tx Packets	217
Rx Packets	1310
Tx Bytes	16348
Rx Bytes	52022
Rx CRC Packets	0
Tx Packets Dropped	0
Rx Packets Dropped	0
<input type="button" value="Noise Floor"/> <input type="button" value="Statistics"/> <input type="button" value="Save Result"/>	



Prequalification of a coaxial environment for HPNA deployment.



Troubleshooting existing HPNA (coaxial) environment.

Quality Testing over Coaxial Drops

The ARU-100 simplifies the quality testing of HPNA services over coaxial drops. Based on an industry-standard HPNA chipset, the ARU-100 reports data rates (PHY rates), signal-to-noise ratio (SNR) and attenuation between HPNA devices in forward and reverse directions. These parameters and values are compared to user-definable pass/fail criteria, making it easier to locate questionable service or identify faulty equipment.

HPNA Tests HPNA Analysis				
Start Single Pair		Start All Pairs		
Device 1:		Device 2:		
00 : 03 : 01 : ff : 62 : e6		00 : 03 : 01 : ff : 62 : e7		
Test Status		View Next		
Completed				
Test Result	Forward		Reverse	
PER	0	✓	0	✓
SNR (dB)	44.54	✓	44.46	✓
Data Rate (Mbps)	144	✓	144	✓
Attenuation (dB)	5.00	✓	5.00	✓
TestSummary		HPNA Info		NET Test

SPECIFICATIONS

Size (H x W x D)	31 mm x 84 mm x 170 mm a (1 ³ / ₁₆ in x 3 ⁵ / ₁₆ in x 6 ⁷ / ₁₆ in)
Weight (without accessories)	0.25 kg (0.55 lb)
Connectors	F81 coaxial, 10/100 Ethernet
Power	Rechargeable Li-Ion battery or AC/DC adapter/charger
Battery life	4 h (continuous use)
Charging time	4.5 h
Temperature	
Operating	0 °C to 40 °C (32 °F to 104 °F)
Storage	-20 °C to 60 °C (-4 °F to 140 °F)
Relative humidity	0 % to 95 % non-condensing

HPNA RECEIVER/ANALYZER

Auto-discovery of HPNA devices and MAC addresses
Auto-test with pass/fail criteria between user-selected HPNA devices or all HPNA devices
Physical layer data rate (Mbit/s)
Signal-to-noise ratio (SNR)
Transmitted and received packets
Lost packets
User-configurable packet count and length
Attenuation (dB)
Power spectral density noise (dBm/Hz)

Note

a. Depth including F81 connector.

ORDERING INFORMATION

ARU-100-XX-XX

Status

P = Primary HPNA probe
R = Remote HPNA probe

HPNA Software Option

00 = Without probe software
HPNA = HPNA software for AXS-200/600 series ^a

Example: ARU-100-P-HPNA

Note

- a. Available only with the Primary HPNA probe.

EXFO Headquarters > Tel.: +1 418 683-0211 | Toll-free: +1 800 663-3936 (USA and Canada) | Fax: +1 418 683-2170 | info@EXFO.com | www.EXFO.com

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EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices. In addition, all of EXFO's manufactured products are compliant with the European Union's WEEE directive. For more information, please visit www.EXFO.com/recycle. Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.

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