NetXpert XG2 series comparison chart

Features	NetXpert XG2 PLUS	NetXpert XG2 10G	NetXpert XG2 2.5/5G	NetXpert XG2 1G
Active network test on Copper	✓	✓	✓	✓
Passive qualification test on Copper	✓	✓	✓	✓
Active network test on Fiber Optic (SM/MM)	✓	✓	✓	✓
Passive qualification test on Fiber Optic (SM/MM)	✓			
Maximum speed:	10Gbps	10Gbps	5Gbps	1Gbps
Mainframe unit:	2	1	1	1
Active remote unit:	1	1	1	1
Upgradeable to NetXpert XG2 - 2.5/5G				✓
Upgradeable to NetXpert XG2 - 10G			✓	✓
Upgradeable to NetXpert XG2 - PLUS		✓	✓	✓
Compatible with Fiber Microscope	✓	✓	✓	✓
Compatible with Cable Probe (CP15)	✓	✓	✓	✓
Compatible with ID remote identifiers	✓	✓	✓	✓
Compliant to IEEE 802.3an Standards to support up to 10Gbps	✓	✓	✓	✓

Compliant to 802.3af/at/bt to support PoE/+/++ testing	✓	✓	✓	✓
Compliant to Wi-Fi 802.11a/b/g/n/ac to support Wi-Fi.	✓	✓	✓	✓
Generate graphical PDF reports	✓	✓	✓	✓

Find out more

Ethernet | Qualifier

The Ethernet protocol is the basis for the pass/fail statement of the qualification devices. By means of tests that are based around the Ethernet transmission system, such as the determination of the signal-to-noise ratio and the delay time between the wire pairs of a transmission path, followed by a Bit Error Rate Test (BERT), qualifiers make their decision about suitable for Ethernet traffic, such as error free or faulty transmission. In addition, there is troubleshooting tests as you already know from the high-quality wiring testers, such as acoustic cable viewfinders and simple link pulse generators to allow the link LEDs on the switches to flash. They then connect to the network, either via DHCP or fixed addressing. As soon as they are part of the active network, scan, ping and traceroute functions are available for commissioning and troubleshooting. Also important is the possibility to perform PoE load tests according to IEEE 802.3 af/at/bt to ensure the remote power supply of terminal devices.

Copper | Qualifier

The technology of data transmission via copper cables is far from being exhausted. However, the new technologies require a higher quality of cabling. In order to ensure that the existing cabling supports the higher data rates, appropriate tests must be carried out and documented before commissioning. In addition, existing networks must be qualified for the ability to upgrade. Tests up to 10Gbit/s are already possible in the environment of the latest generation of qualifiers, regardless of the cable category or junction boxes.

Fiber | Qualifiers

Fiber optic cables not only offer a high data throughput, they are also immune to eavesdropping and interference. Fibre optic cables can therefore easily be laid in parallel with other supply lines - electromagnetic interference does not occur. The disadvantage of fiber optic cabling, however, is the cost. They are more expensive than copper cables but have a considerably lower attenuation and are therefore suitable for long distances. But even for short distances in LANs, optical fibers are increasingly being installed nowadays. Especially for the measurement and documentation of optical networks, the necessary measurement technology must be of high quality and future-proof.

To *Certify* or to *Qualify*?

Certifiers measure cabling against international cabling standards. Certifiers are commonly used for documentation of new enterprise and industrial cabling installations. Qualifiers test if cabling can transmit without errors a certain Ethernet speed. Qualifiers are often used either in smaller installations, in moves, adds and changes as well as for troubleshooting ethernet and PoE connections.

Application space for Certification and Qualification

Certification	**Qualification**
Large commercial building	Small or medium sized office
Buildings within campuses	Standalone buildings
Globally networked company building	Local courier company office
University, stadium, school	Local cafe
When cabling warranty is supplied for new building installation	Update existing office and prove network will perform to 1/5/10Gbps
When required to certify by project	When required by customer to provide a report When required by businesses to provide a report When certification is not specified

What are you looking for?

Certification	Qualification
TIA-568, ISO-11801, ISO-14763 Cabling Standards	IEEE 802.3 Ethernet Standards
Permanent Link, Channel Link, End-to-End links, MPTL, etc	Network speed (NBASET - eg, 10BASE-T, 100BASE-TX, 1GBASE-T, 10GBASE-T), Network/port/device discovery, PoE load test, Ping, LLDP/CDP detection, etc
Length, Wiremap, Insertion/Return Loss, Near-end Crosstalks (NEXT/PSNEXT), Near/Far-end Attenuation-to-Crosstalk Ratios (ACRN/ACRF/PSACRN/PSACRF), delays, resistance	Bit Error Rate Test (BERT), Signal-to-Noise Ratio (SNR), delay skews
MHz (Frequency), dB/dBm (Loss)	Mb/s or Gb/s (Speed)