

WireXpert Series

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CAT6_A+ Adapter

CAT6_A+ adapters for the WireXpert Series enable all WireXpert 500, 500-PLUS and 4500 devices to test Direct Current Resistance Unbalance (DCRU) on twisted pair shielded and unshielded LAN cabling additionally to the regular Autotest parameters. CAT6_A+ adapters also help to identify on shielded cables whether the cable shield is connected to the correct socket.

APPLICATION DESCRIPTION

With the roll-out of high power PoE (Power over Ethernet) applications up to 60 or 100W, the Direct Current (DC) resistance of twisted pair cabling becomes an important parameter. If the DC resistance of a cable pair is too high and/or the DC resistance between pairs or even within wires of a pair differs too much, the temperature of that pair or wire can increase above the allowed cable or connector specification. As a result, that cabling will suffer accelerated aging or even damaging: Furthermore, there is also a significant risk to lose data due to signal distortion. Therefore, ISO/IEC, TIA and Cenelec have defined testing of DCRU as an optional parameter that can be added to regular cable certification, in case the use of high power PoE is planned for a specific cabling installation.

FEATURES

- Measures DC Resistance Unbalance between and in pairs of twisted pair LAN cabling in accordance with TIA and IEC specifications
- Allows additionally testing of all regular Autotest parameters such as Insertion Loss, NEXT, Return Loss, ACR-N and ACR-F and related Power-Sum values
- Shield Integrity Test to determine correct connection of the shield to the cabling connections
- Supports testing of crossover cables



TECHNICAL SPECIFICATION

Compatible with

- WireXpert 500, WireXpert 500-PLUS, WireXpert 4500 with software version 8.100 or higher
- eXport PC documentation software version 8.100 or higher

Standards Compliance

- ISO/IEC 11801-1:2017 Class D, E, E_A Permanent Link and Channel
- EN 50173-1:2018 Class D, E, E_A Permanent Link and Channel
- IEC 61935-1-2:2019
- TIA568.2-D CAT 3, 5, 5e, 6, 6A Permanent Link and Channel
- ANSI/TIA 1152-A

Connector

- Channel Adapter: RJ45 socket
- Permanent Link Adapter: TERA socket (requires an additional measurement cable set *WX_AC_6ALCORD2*)

Measurement of DC loop resistance

- Range: 0 to 100Ω
- Accuracy: +/- (0.5Ω + 1% of DC loop resistance)
- Resolution: 0.01Ω

Measurement of DC resistance unbalance within each pair

- Range: 0 to 100Ω
- Accuracy: +/- (0.025Ω + 0.3% of DC loop resistance for this pair)
- Resolution: 0.005Ω

Measurement of DC resistance unbalance between pairs

- Range: 0 to 100Ω
- Accuracy: +/- (0.025Ω + 0.3% of average DC loop resistance for these two pairs)
- Resolution: 0.005Ω

Cross-Over Cabling Test on

- 1000Base-T
- 100Base-T

WireXpert and eXport software

Version 8.1 or higher

Environmental conditions

Same as WireXpert 500, 500-PLUS and 4500

Weight

80g per piece



ORDERING INFORMATION

Article number 228271

Set of 2 CAT6_A+ DCRU Channel Adapters

Contains:
2 DC Resistance Unbalance channel test adapters with RJ45 sockets, soft pouch, QSG

Article number 228273

Set of 2 CAT6_A+ DCRU Permanent Link Adapters

Contains:
2 DC Resistance Unbalance permanent link adapters with TERA sockets, soft pouch, QSG

IMPORTANT: Permanent Link measurement cords (*Article number: 228012 / WX_AC_6ALCORD2*) are not included

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For more information please contact:

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