Clarity®
Advanced Solutions
6A

legrand®

Ortronics

Clarity 6A connectivity

more effectively supports the internal and alien performance requirements of 10 Gigabit Ethernet.

Clarity 6A components use Ortronics'® innovative technique of full quad reactance to minimize internal crosstalk, while providing better impedance match to cable. When this technology is combined with Ortronics' leadership in connector center tuning, the result is superior Cat 6a/10G performance. A nearly transparent, high speed signal path between the Clarity 6A jacks or patch panels and patch cords ensures enhanced signal-to-noise performance.

FEATURES

- ETL verified to TIA T568C.2 Category 6a and characterized out to 500 MHz
- Meets TIA T568C.2 Category 6a component specifications
- Backwards compatible to TIA Category 6 and 5e
- Quad reactance minimizes internal and alien crosstalk
- Tactical Isolation Zones minimize effect of alien noise
- Fully compliant with RoHS standards

Quad Reactance
Q_R Technology

As transmission speeds increase, it is a greater challenge to control pair to pair noise in the channel. Originally, the 10BASE-T ethernet standard controlled pair to pair noise by improving the balance of the twisted pairs in the cable. 100BaseT and 1GBase T required additional methods to minimize the noise contribution of the T568 A + B wired plugs so Ortronics introduced Clarity dual reactance jack technology to introduce opposing magnetic fields (reactance) to counteract and minimize this noise contribution to the channel.

The 10G application and Category 6a specifications raise the demands of connector noise control even further with requirements 3 dB above Cat 6 and extended from 250 – 500 MHz. To accomplish this with any headroom additional reactance needed to be introduced and be located as close as possible to the noise source (the plug).

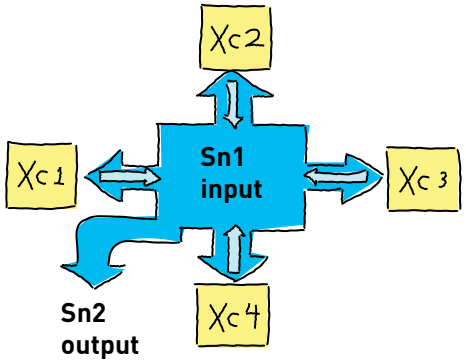
Quad reactance (Q_R) has four synchronized passive reactance circuits that uses a portion of the originating signal to reduce the noise that is produced when the signal passes through the plug jack interface during the transmission of data. Reactance circuitry (Xc) is designed to counteract the noise at the originating source with a balance approach at optimal locations. This is a passive approach, so no outside power is required.

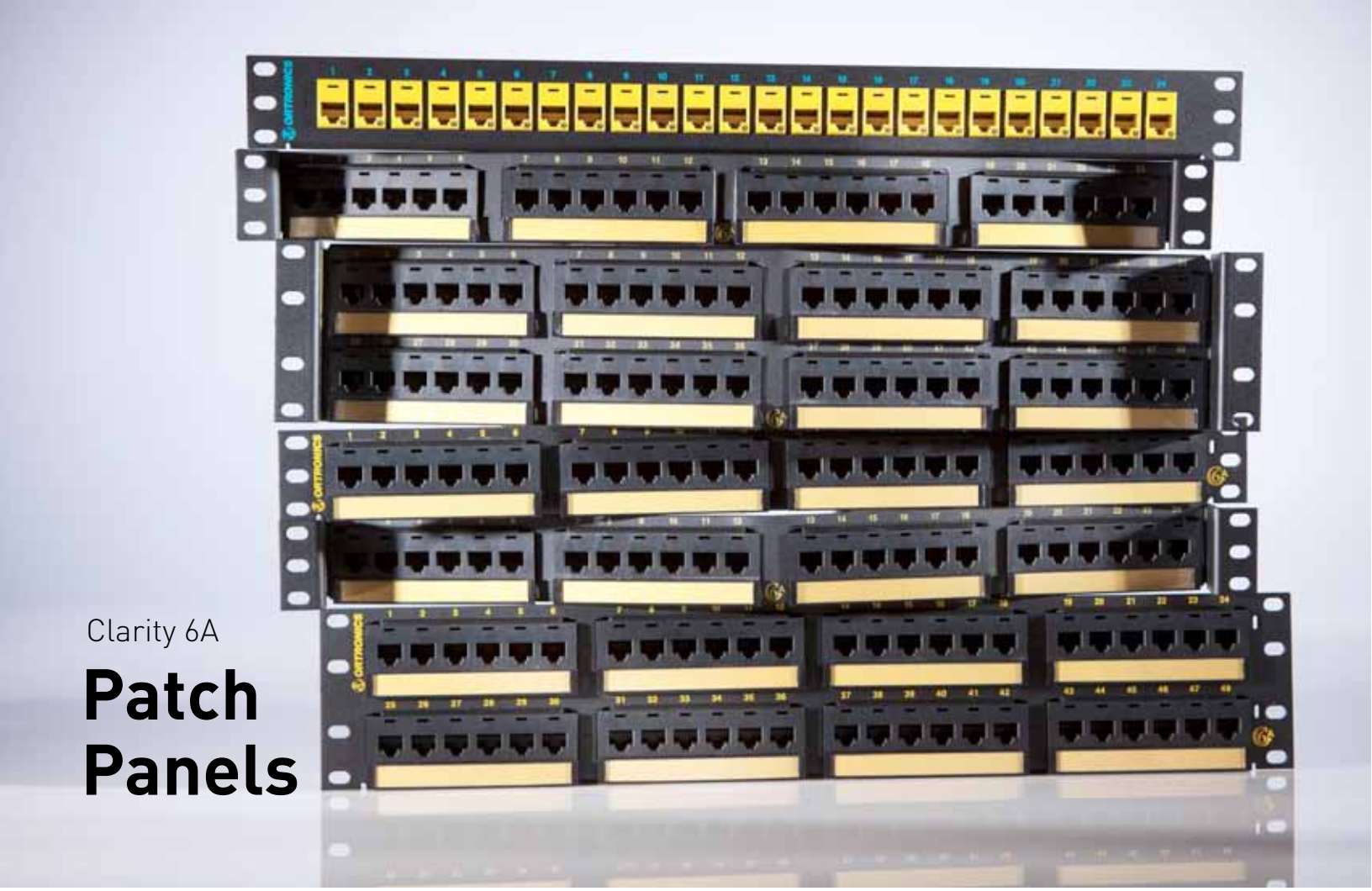
The end result is a significant improvement of data signal power ratio over the latest TIA Category 6a UTP structure cabling specifications.

Clarity 6A performs above the standards set for Category 6a

- 60% less signal power of Near End Cross Talk (NEXT) is being allowed to couple to adjacent pairs
- 80% less signal power of Return Loss (RL) is being reflected back to the source
- 8% improved Power Transfer (PT): PT is the amount of signal power, less reflective losses, being transferred to the receiver

This shows the input noise interface section interaction with the reactance sections of the connectors modular insert. The reactance sections provide opposing feedback circuitry that attack the input noise Sn1 source to effectively reduce the out-going connectivity signal noise Sn2 .





Clarity 6A

Patch Panels

Angled, Flat and TracJack Patch Panels

Clarity^{6A} patch panels are available in the traditional panel format with multi-port modules, with the added flexibility of flat or angled versions. Utilizing innovative methods for circuit isolation, the Clarity^{6A} multi-port patch panels support the alien crosstalk requirements of IEEE 10G and TIA Category 6a cabling specifications without requiring the use of individual jacks for your panel termination. Clarity^{6A} multi-port panels support traditional termination practices with mechanical accommodations for easy termination of the larger conductors of Cat6a cables, providing a labor-saving alternative to the individual jack panel.

We also offer Clarity^{6A} individual jack panels, which hold Clarity^{6A} Panel Jacks to provide an alternative horizontal cross connect solution for 10 Gigabit Ethernet networks.

FEATURES

- ETL verified to Category 6a
- More transparent signal path with Clarity^{6A} cords
- Standard termination practice—110 tool
- IDC towers designed to accept larger 10 Gig cable conductors
- Easy-to-follow universal wiring label is quick and user-friendly to eliminate confusion
- All Clarity^{6A} panels include label fields and rear cable management
- Meets TIA T568C.2 Category 6a component specifications
- Backwards compatible to Category 6 and Category 5e

ORDERING INFORMATION

PART NO.	DESCRIPTION
OR-PHA6AU24	24-port Angled Clarity^{6A} patch panel, T568A/B, 1.75"x 19" (1RU)
OR-PHA6AU48	48-port Angled Clarity^{6A} patch panel, T568A/B, 3.5"x 19" (2RU)
OR-PHD6AU24	24-port Flat Clarity^{6A} patch panel, T568A/B, 1.75"x 19" (1RU)
OR-PHD6AU48	48-port Flat Clarity^{6A} patch panel, T568A/B, 3.5"x 19" (2RU)
OR-PHAPJU24	24-port Unloaded Angled PJ panel, 1.75"x19" (1RU)
OR-PHAPJU48	48-port Unloaded Angled PJ panel, 3.5"x19" (2RU)
OR-PHAPJU72	72-port Unloaded Angled PJ panel, 3.5"x19" (2RU)
OR-PHDPJU24	24-port Unloaded Flat PJ panel, 1.75"x19" (1RU)
OR-PHDPJU48	48-port Unloaded Flat PJ panel, 3.5"x19" (2RU)
OR-PHDPJU72	72-port Unloaded Flat PJ panel, 3.5"x19" (2RU)
OR-PJ6A-00	Panel Jack Clarity 6A T568A/B, 8 pos, Black

NOTE: Clarity Panel Jacks (PJs) are also available in these colors
(-36 blue, -42 red, -43 orange, -44 yellow, -45 green)
For these colors add tailcode at end of part numbers.

TracJacks & Patch Cords

Patch Cords

Clarity^{6A} patch cords combine 10 Gig performance with the flexibility of stranded conductor cordage for increased flexibility and ease of cable management. MC610 patch cord assemblies combine with Ortronics' 6A jacks and panels to deliver reliable Cat 6a/10 Gig channel performance.

FEATURES

- Stranded conductor 10 Gig patch cords for greater flexibility
- More transparent signal path with Clarity^{6A} jacks and patch panels
- 100% factory tested for performance, reliability and long life

ORDERING INFORMATION

PART NO.	DESCRIPTION	LENGTH
OR-MC61003-09	Modular Cord, white, Clarity^{6A}	3 ft.
OR-MC61005-09		5 ft.
OR-MC61007-09		7 ft.
OR-MC61009-09		9 ft.
OR-MC61015-09		15 ft.
OR-MC61025-09		25 ft.

Note: To order other standard colors change suffix on MC cords: -02=red, -04=yellow, -05=green, -06=blue, -08=gray, -09=white.

TracJacks

Clarity^{6A} TracJacks exceed all TIA Category 6a component requirements while achieving new levels of performance when installed in a channel. They support standard 110 termination practices with mechanical accommodations for easy termination of the larger conductors of 10 Gig cables. These front-loading jacks can be used in any TracJack® workstation outlet.

FEATURES

- ETL verified Category 6a
- More transparent signal path with Clarity MC610 cords
- Standard termination practice—110 tool
- Low emission IDC contacts
- TracJack IDC towers designed to accept larger 10 Gig cable conductors
- TracJacks feature an easy-to-follow universal wiring label that is quick and user-friendly
- Jacks fit in all TracJack plates and housings
- Icon compatible, "C6A" marking on jack face
- Jacks available in ten colors

ORDERING INFORMATION

PART NO.	DESCRIPTION
OR-TJ6A	TracJack Clarity^{6A}, Exit 180°

NOTE: Standard color is fog white. To order other standard colors add suffix on TracJacks: -00=black, -36=blue, -42=red, -43=orange, -44=yellow, -45=green, -68=Wiremold®gray, -88=white, -99=Wiremold®ivory.

designed to be better.™

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