Orion XT Cross Repeater

CATx AND FIBER EXTENDER

► Increases the distance Orion X digital signals can be transmitted

► Cross converts between CATx and fiber signals

► Works with Orion XTenders and Orion X and XC matrix switches

► Bi-directional CATx and fiber ports are automatically configured as inputs or outputs

► High quality signal processing and amplification eliminates signal degradation and transmission artifacts

Features and Benefits

■ Extends Orion X signals by 460ft (140m) on either side of the unit over CATx cable

■ Extends Orion X signals by 32,808ft (10km) on either side of the unit over single-mode fiber cable

■ Available in CATx-only, fiber-only and mixed CATx and fiber models

■ All ports are bidirectional and automatically configure as inputs or outputs

■ Available in single repeater models for a single digital signal and dual repeater models to extend two digital signals

■ Mixed CATx and fiber models automatically convert between electrical and optical signals

■ Compatible with all Orion XTenders and Orion X and XC matrix switches

■ Each Cross Repeater card installs in an Orion XTender chassis, available in 2, 4, 6, and 21 card sizes

■ High quality signal processing and amplification eliminates signal degradation and transmission artifacts
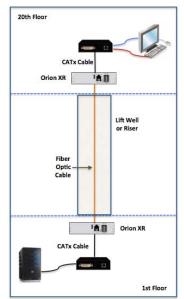

Orion XT Cross Repeater fiber card

Product Overview

The Orion XT Cross Repeater is a highly flexible product for extending Orion X digital signals beyond their normal limits. Each CATx Cross Repeater adds 460ft (140m) to the extension length of the Orion X equipment alone. Each single-mode fiber Cross Repeater adds 32,808ft (10km) to the original extension distance.
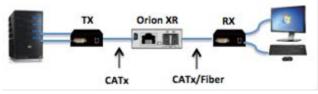
Both fiber and CATx ports are bidirectional, functioning automatically as either inputs or outputs.

Orion XT Cross Repeaters can convert signals on a CATx network to fiber, and then convert back to CATx at the receiver end. This can be used to bridge buildings with copper based networks that are located some distance apart. The Orion XT Cross Repeater converts automatically between electrical and optical signals.
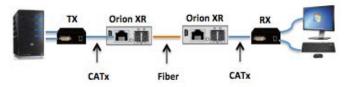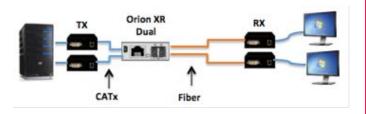

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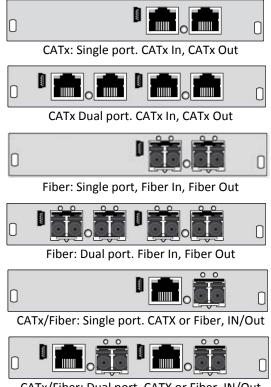## Typical Applications

Cable repeater for KVM extension

Fiber long distance extension. CATx to fiber

Dual video cross conversion. CATx to fiber

Orion XT Cross Repeater Models

CATx: Single port. CATx In, CATx Out

CATx Dual port. CATx In, CATx Out

Fiber: Single port, Fiber In, Fiber Out

Fiber: Dual port. Fiber In, Fiber Out

CATx/Fiber: Single port. CATX or Fiber, IN/Out

CATx/Fiber: Dual port. CATX or Fiber, IN/Out

Note: Each card occupies 1 card slot in an Orion XTender chassis

Specifications

Chassis Dimensions (W x D x H)	2 card: 5.7" x 5.8" x 1.6" (145x147x41mm) 4 card: 11.5" x 5.8" x 1.6" (293x147x41mm) 6 card: 17.4" x 5.8" x 1.6" (442x147x41mm)
Power	100-240 VAC, 50-60Hz 2 card: 5 Volts / 3 Amps 4 card: 5 Volts / 5 Amps 6 card: 5 Volts / 8 Amps
Interconnect Cable Requirements (CATx and Fiber)	**CATx RJ45, EIA/TIA 568-B, 1000Base-T** Shielded solid core CATx5e/6/7, AWG 24 Cat X Patch Cable AWG 26/8 Use ferrites at both ends **Fiber SFP, Single-mode, LC Type** Single-mode 9µm, 2 fibers Multimode 50µm, 2 fibers Multimode 62.5µm, 2 fibers
Cable distances	CATx 24 AWG 460 ft. (140 m) CATx 26/28 AWG 230 ft. (70 m) Fiber MM 62.5µm 656 ft. (200 m) Fiber MM 50µm 1312 ft. (400 m) Fiber MM 50µm OM3 3280 ft. (1000 m) Fiber SM 9µm 32,800 ft. (10,000 m)
LED indicators	Fail On = Connection failure Status On = Connection available Red = device ready Blue = Link 1 available, Link 2 not detected Green = Link 2 available, Link 1 not detected Light Blue = Link 1 and Link 2 available
Environment	Operating temp: 41°F – 113°F (5°C – 45°C) Storage temp: 13°F – 140°F (-25°C – 60°C) Rel. humidity: max 80%, non-condensing
Approvals	FCC part 15 Class A, UL, CE, CAN/CSA, TUV, WEEE, RoHS/RoHS 2

Part numbers

Part number	Description
OX2-CNV-01CC	CATx / CATx, single port, 2 card chassis
OX2-CNV-01SC	CATx / Fiber, single port, 2 card chassis
OX2-CNV-01SS	Fiber / Fiber, single port, 2 card chassis
OX2-CNV-02CC	CATx / CATx, dual port, 2 card chassis
OX2-CNV-02SC	CATx / Fiber, dual port, 2 card chassis
OX2-CNV-02SS	Fiber / Fiber, dual port, 2 card chassis

A point-to-point connection is required. Operation with patch cables is possible but it will decrease the maximum cable distance. Routing over an active network component such as an ethernet hub or router is not allowed.