

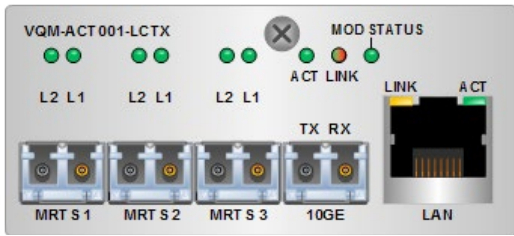
Velocity Advanced Concentrator Transport · 10G

PRODUCT FEATURES

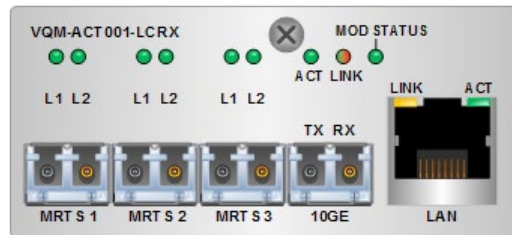
Standard



Configurable



Modular Transmitter



Modular Receiver

The System

Thinklogical has developed the Advanced Concentrator Transport 10G (ACT-10), a 10G Ethernet solution to allow extension across service provider networks. This advanced technology allows for extension well beyond Thinklogical's current 80km fiber-extension products, allowing users to interface with sources spanning wide geographical regions covered by the service provider network. Paired with Thinklogical's VelocityKVM, DVI and Audio & Peripheral Extension Systems, powered by Thinklogical's patented Multi-Rate Transmission System (MRTS) Technology, the ACT-10 allows users to transmit **two MRTS streams (two video sources, a single USB 2.0 interface, keyboard, mouse, audio, serial and stereo) over a single 10G data stream, for transport over a Wide Area Network.**

The ACT-10 is compatible with Thinklogical's Velocity extenders

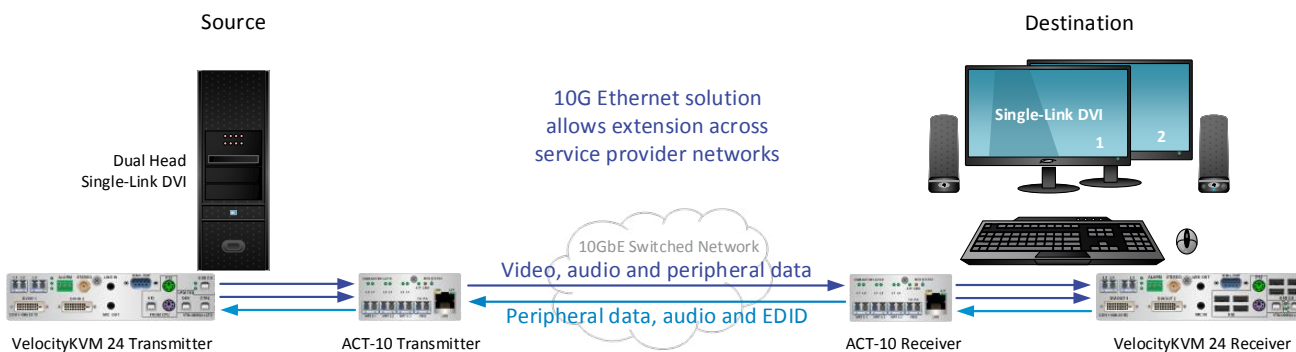
for single-link and dual-link DVI. The system includes a Thinklogical Velocity Transmitter, which connects to the source. The Transmitter converts the signals from the source into MRTS data for fiber optic transmission. This signal is transmitted to the ACT-10 Transmitter, which converts the MRTS data into 10G Ethernet MAC encapsulated packets with VLAN tags, enabling the data to be received by the service provider LAN network interface.

The service provider is required to supply the required Network Interface Device (NID) with a 10GE LAN interface on the user side and a WAN interface, SONET OC-192, CET, OTN-ODU2 or PON on the service provider side. It is also required that the service provider WAN will include an SLA indicating no packet reordering, a maximum latency of 50ms and a PDV no greater than 1us.

After data is transmitted through the service provider network via VLAN switching, data is received by an ACT-10 Receiver, at the opposite end of the system. The data is converted from 10G Ethernet MAC encapsulation, back to Thinklogical's patented MRTS Technology. The ACT-10 then transmits the data to a Velocity Receiver, which connects to the destination to display the content.

FORM FACTOR

ACT-10 systems are available in a modular form factor. The modular extenders are compact and hot-swappable, enabling users to field configure any modular chassis. Additionally, the optical modules are also hot-swappable. The modular systems promote system flexibility, scalability and a reduced maintenance effort. For additional information, please see Modular Chassis specifications.



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Specifications

Q-Series Extender Modules (VQM)

Video Resolution	Two video sources up to a maximum video bandwidth of 1920x1200
Optical Cable	Up to Eight (8) multi-mode or single mode fiber optic cables, for fewer fibers contact Thinklogical (fiber not supplied, available for purchase)
Optical Distance	Multi-Mode up to 1000m 65m: OM1 (62.5/125); 350m: OM2 (50/125); 750m: OM3 (50/125 SX+); 1000m: OM4 (50/125eSX+) Single Mode up to 80km All Distances: OS2 (9/125)
Optical Wavelength	Multi-Mode: 850nm; Single Mode: 1310nm (CWDM and DWDM wavelengths available, contact Thinklogical for further information)
Data Rate	Forward channels: 6.25Gbps; Back Channels: 2Gbps
Environmental	Operating Temperature: 0°C-50°C; Humidity: 5-95% RH, non-condensing
Compliance	Approvals for United States of America, Canada, and European Union
Standards Compliance	IEEE 802.3ae, IEEE 802.1Q, IEEE 802.1p
Warranty	One year · Extended warranties available for purchase
Mounting Brackets	See Modular Chassis Specifications
Power Consumption	16 Watts
Supply Voltage	Universal AC Power Supply, 100-240VAC, 47-63Hz
Weight	1.50lb (0.68kg)

Dimensions

Rack Size	See Modular Chassis Specifications
Height x Width x Depth	1.59" (40.42mm) x 3.69" (93.80mm) x 6.37" (161.69mm)
Tolerance	± 0.039" (1.00mm)

Connectors

LAN Connector	RJ45 (1) [Cable: Cat5e UTP or better]
Fiber Connectors	LC (4)

Cables Included

Transmitter	(1) Power Cable [See Modular Chassis Specifications]
Receiver	(1) Power Cable [See Modular Chassis Specifications]

Contact Thinklogical for additional specifications.

Ordering Information

V **Q** **M** - **A** **C** **T** **0** **0** **1** - **L** **C**

Each Extender Module requires a Modular Chassis; for further information, see Modular Chassis Specifications.

VQS-001300	Q-1300 Chassis Supports a single Q-Series Module
VQS-002300	Q-2300 Chassis Supports up to two Q-Series Modules
VQS-004300	Q-4300 Chassis Supports up to four Q-Series Modules
VTS-Q04200	Q-4200 Chassis Supports up to two Q-Series Modules and a single T-Series Module

TX Transmitter Module
RX Receiver Module

For additional customization, Thinklogical utilizes a single **Optics Package (VOP)** per extender, available in Multi-Mode or Single Mode, allowing extension of up to 1000m, 10km, 40km or 80km.

Please consult Thinklogical for VOP Ordering Information.

When ordering an ACT-10 select from the following VOP's:

VOP-M60 for Multi-Mode Extension up to 1000m
VOP-TBD for Single Mode Extension up to 10km
VOP-TBD for Single Mode Extension up to 40km