

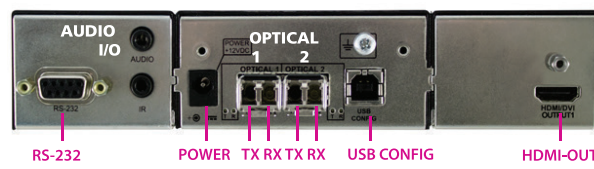
Voyager VG-RX

Daisy-chainable Fiber Optic Receivers with Input Switching

- Video Module Options**
RX-HDMI
SRx-HDMI
RX-DVI
- Core Module Options**
VG-RX2 (2-port)
VG-RX4 (4-port)
- Auxiliary Module Options**
TX/RX-ISA
(Audio, RS-232)



* VGA, Component, Composite, S-Video



VG-RX2 HDMI-ISA Shown (HDMI with Audio, RS-232)

The Voyager VG-RX is a high performance receiver for short or long haul transmission of uncompressed high-definition video, audio and RS-232 control signals over fiber optic cabling. The VG-RX offers built-in full-duplex daisy-chaining capability and dual-input switching capability.

Key Features

- Singlemode or multimode fiber (VG-RX-SM, VG-RX-MM)
- Uncompressed multi-format video at 1920x1200
- Multi-format audio & RS-232
- Daisy-chain capability with full bidirectional signal support
- Advanced EDID management and HDCP compliance

Available Configurations

Voyager VG-RX receivers are available in numerous combinations of video and auxiliary signal types. Each VG-RX receiver consists of a core module (VG-RX2, VG-RX4), a choice of video modules (HDMI, DVI) and an optional auxiliary module for other signal types (audio, RS-232).

Video Option Modules

Interchangeable Plug & Play Modules Video Formats

TX Video Modules	Local Out	Video In
TX-HDMI	YES (with HDCP)	HDMI/DVI (HDCP)
TX-DVI	YES (with HDCP)	DVI/HDMI (HDCP)
TX-VGA	YES	VGA, Composite, Component, S-Video

RX Video Modules	Video Out
RX-HDMI	HDMI (HDCP)
RX-DVI	DVI (HDCP)

Magenta's innovative Flex-VCA architecture allows each Voyager transmitter and receiver to support a wide variety of video formats through plug and play field interchangeable modules.

With built in auto format conversion, sources and displays of all supported video types can be interconnected on the same network without the need for external converters, thereby reducing both cost and the number of potential failure points. The ability to configure and change video types in the field greatly increases the flexibility in specification, procurement, installation and troubleshooting.

Auxiliary Option Modules

Interchangeable Plug & Play Modules for Audio & RS-232

Magenta's innovative Flex-VCA architecture also allows each Voyager transmitter and receiver to support a wide variety of auxiliary signal types through plug and play field interchangeable modules. With the unique FiberMAX engine, all auxiliary signal types can be simultaneously transmitted at full bandwidth with hi-definition video over fiber reducing the need for additional extenders and cabling.

Auxiliary Option Module	Bi-directional RS-232	Analog Audio In (TX); Audio Out (RX)
TX/RX ISA	✓	✓



USB 2.0 KVM Extender

The all new USB 2.0 KVM Extender now allows you to extend USB 500m via multimode & 10Km with singlemode fiber. This device is also fully compatible with the Voyager Matrix simplex I/O cards, providing you with the ability to mix a KVM matrix with all your video and audio distribution in one box.



Voyager VG-Matrix

Fiber Optic Matrix Switchers

Each configured Voyager transmitter and receiver is also compatible with all Voyager series matrix switchers. The VG-Matrix series delivers a modular and scalable full crosspoint matrix switching platform which can be field configured in increments of 8 inputs and/or outputs up to 160x160, and larger! Fiber I/O cards connect seamlessly to the fiber inputs or outputs of Voyager transmitters and receivers, delivering matrix switching and long distance extension in one platform. Switch sizes larger than 160x160 are available. Please contact Magenta for details.

Key Features

- Full-matrix crosspoint switching
- Modular & scalable from 8x8 to 160x160
- Uncompressed multi-format digital & analog video at 1920x1200
- Multi-format audio & RS-232
- Auto format conversion between video & audio signal types
- Mixed singlemode and multimode fiber support
- Advanced EDID management and full HDCP compliance
- Redundant, hot swappable power supplies with dual AC inputs
- In duplex mode, each port on the 8-port I/O card can be used as an input or output, delivering a fully flexible system capable of 1x7, 2x6, 3x5, 4x4, 5x3, 6x2 or 7x1 configuration per card.

Distance Range

- Multimode: 1640ft/500m (OM1), 2200FT/671m (OM2), 3300FT/1KM (OM3), 6600ft/2KM (OM4)
- Singlemode: 2.5MI/4KM and 18.75MI/30KM (4KM and 30KM optics available from Magenta)

*Maximum fiber distance is limited by optical dB loss of system infrastructure

Modes of Operation

- Simplex: Requires only one LC Fiber Video (without auto DDC and HDCP), Audio and Unidirectional RS-232
- Duplex: Requires duplex LC fiber (two strands) Video (with auto DDC and HDCP), Audio and Bidirectional RS-232



Voyager VG-Matrix 160x shown with optional integrated touch-screen controller (front) and fully populated (rear)



Voyager VG-Matrix 48x front and rear

Voyager CF-18

Rack Mountable Tx/Rx Cage

Designed for applications requiring a large number of Voyager transmitters or receivers to be densely packed into a small space, the Voyager CF-18 holds up to 18 Voyager CF transmitter or receiver units. Made to fit into a 19" rack, the CF-18 also eliminates the need for separate power supplies, powering all enclosed units with its backplane. Save installation time and space.



Voyager CF-18:
Holds up to 18 Voyager transmitters or receivers

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The Future of AV Extension and Switching

- Mix and match numerous video formats with auto format conversion
- Integrate multiple signal types, including video, audio and serial
 - Mix and "manage" protected vs. unprotected content (HDCP)
 - Cost effectively extend all signals over industry standard fiber

Magenta Research's Voyager Fiber Optic Signal Distribution Platform is an interoperable set of transmitters, receivers and matrix switchers. When combined together, these components enable a virtually limitless variety of end-to-end configurations for the distribution of uncompressed video, audio and RS-232 signals over fiber. Designed to deliver exceptional high resolution image quality and 24/7 reliability, the Voyager series offers advanced functionality and usability for digital signage and ProAV systems integration.

VOYAGER

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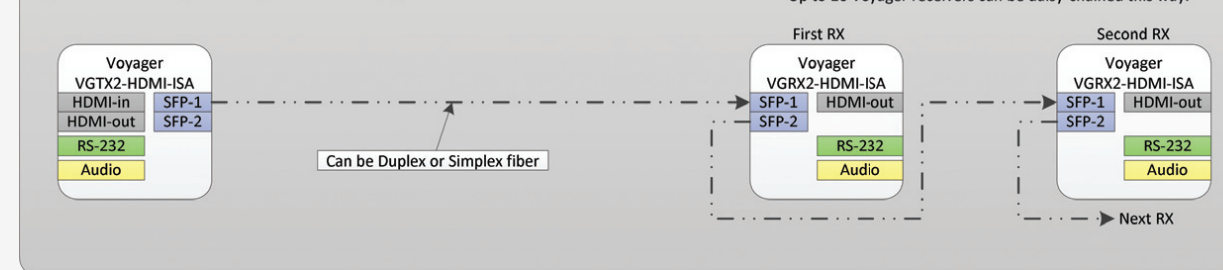
Distance, Performance and Reliability

Video extension, distribution and switching over fiber

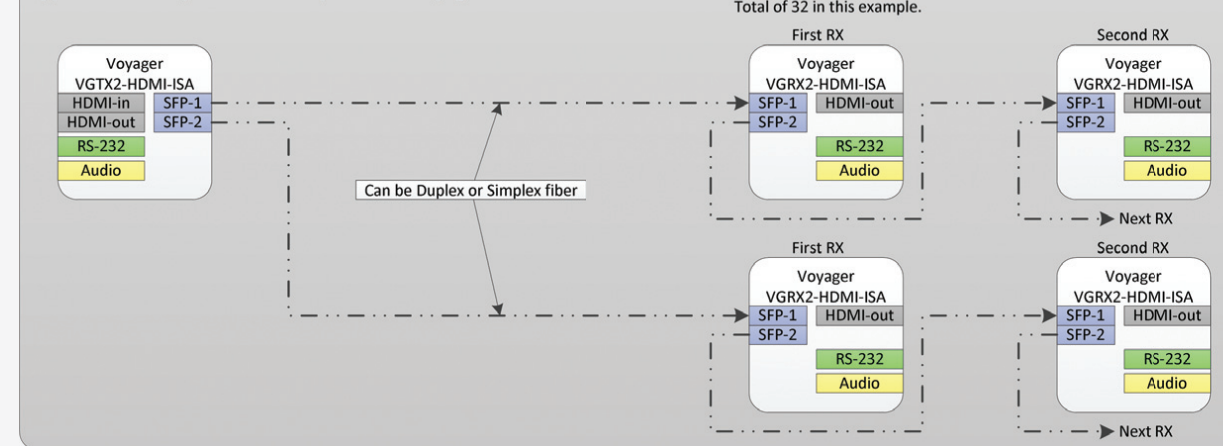
Finally, a cost effective solution that can manage both digital & analog signals in a single platform and support HDCP. Voyager is also flexible enough to adapt to any installation footprint, and super easy to install and configure. It's a system for today, and for tomorrow.

Application Examples

Application Example: Daisy-chained Voyager RX



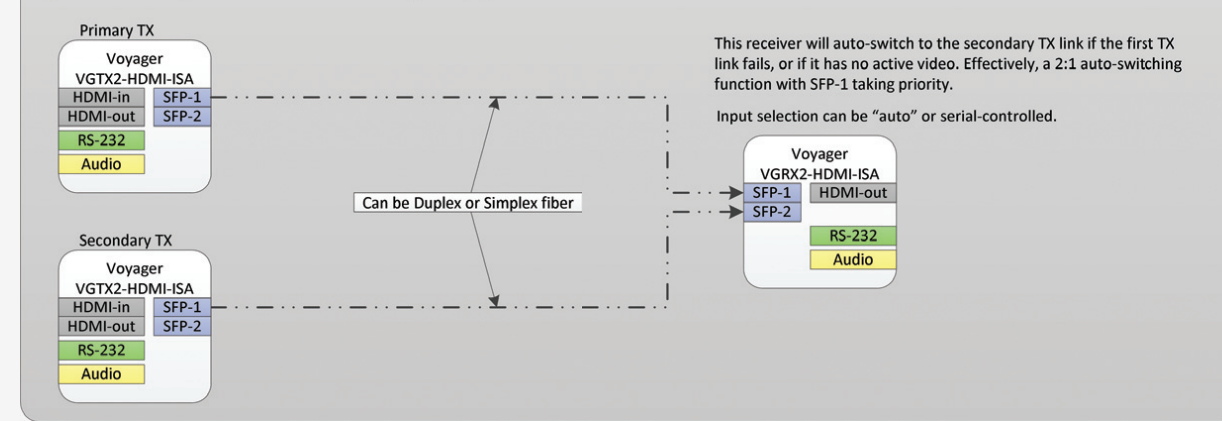
Application Example: Star & Daisy-chained Voyager RX



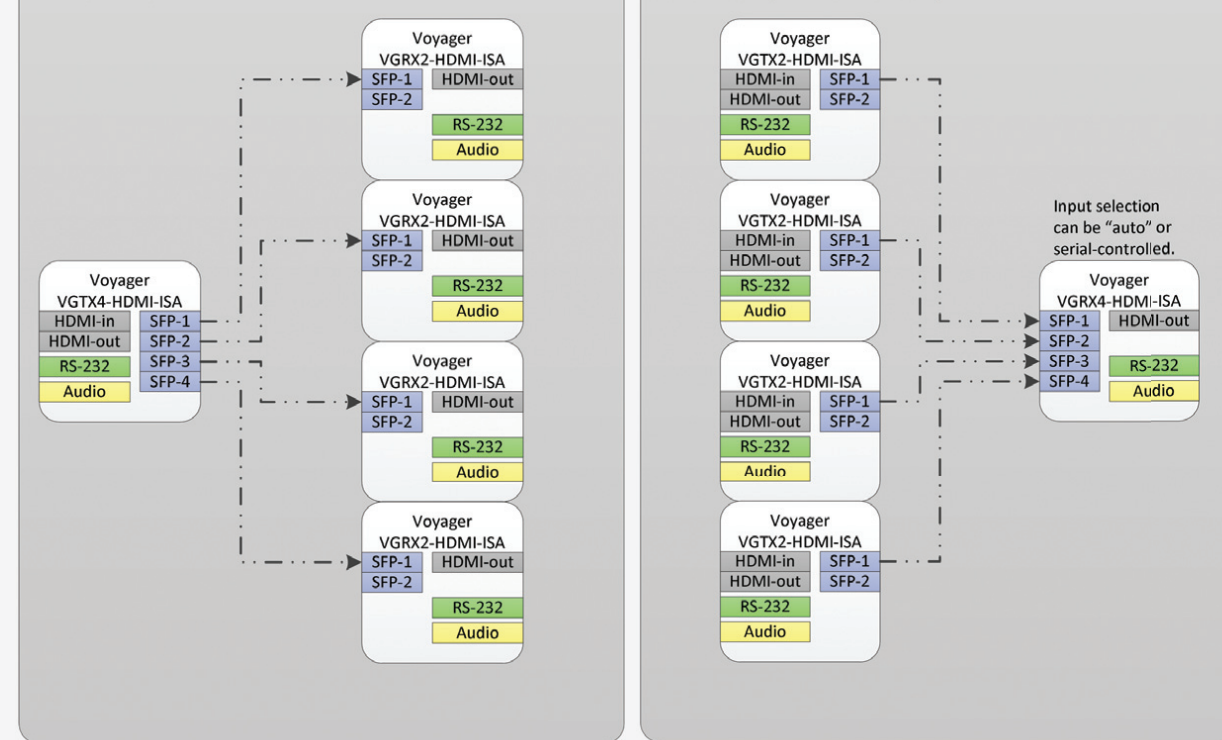
Key:
 - - - Simplex fiber (1 dot)
 - - - Duplex fiber (2 dots)
 — Copper cabling (solid)
 — HD-SDI video (pink)
 — HDMI video (black)
 — Analog video (red)
 — L/R audio (amber)
 — USB link (dark blue)
 — LAN (aqua)
 — RS-232 Serial (green)

Application Examples

Application Example: 2:1 Auto-mux to a single Voyager RX



Example: Voyager 4-port transmitter driving multiple receivers (1:4 DA function).



Key:
 - - - Simplex fiber (1 dot)
 - - - Duplex fiber (2 dots)
 — Copper cabling (solid)
 — HD-SDI video (pink)
 — HDMI video (black)
 — Analog video (red)
 — L/R audio (amber)
 — USB link (dark blue)
 — LAN (aqua)
 — RS-232 Serial (green)

The Voyager series uses a modular building block approach to deliver hundreds of different product configurations, with numerous video and auxiliary signal types, fiber types and component types.

Type	Name	Configurations	Distance Options
Transmitters	VG-TX2	2-port	Multimode Optics 6600ft/2Km
	VG-TX2	4-port	
Receivers	VG-RX2	Daisy-chain, 2x1 Switch	Singlemode Optics 18.75 miles/ 30Km
	VG-RX4	Daisy-chain, 4x1 Switch	
Matrix Switchers	VG-Matrix 48x	8x8 – 64x64	
	VG-Matrix 160x	8x8 – 160x160	

The Core module determines the building block component type, such as transmitter or receiver. The Video module determines the video format, while the optional Auxiliary module determines the supported auxiliary signal types. Both plug easily into the Core module to deliver numerous video and auxiliary signal combinations. These are summarized below.

	Transmitters		Receivers	
Core Modules	VG-TX2	VG-TX4	VG-RX2	VG-RX4
Configuration	2-port	4-port	2-port	4-port
Fiber Type (Max Distance)	Receiver Dependent		Multimode (>6600ft/ 2Km)	Singlemode (18.75miles/ 30Km)
Video Signal Option Modules				
HDMI, DVI (HDCP)	TX-HDMI		RX-HDMI SRX-HDMI (scaling receiver)	
DVI, HDMI (HDCP)	TX-DVI		RX-DVI	
VGA, YPbPr, Composite, Y/C	TX-VGA			
Auxiliary Signal Option Modules				
Audio, RS-232	TX/RX-ISA		TX/RX-ISA	

Key Features

- Fully interoperable fiber extension, distribution & switching platform for AV
- Uncompressed multi-format digital & analog video at 1920x1200
- Multi-format audio & RS-232 Auto format conversion between video & audio signal types
- Advanced EDID management and HDCP compliance
- Range of up to 6600FT/2KM (multimode) and 18.75MI/30KM (singlemode)
- Modular Flex-VCA architecture for field upgradability & interchangeability of signals
- FiberMAX Engine for high bandwidth, multi-signal transmission on standard SFP optics
- Magenta quality and reliability for 24/7 operation

Other Features

- Real-time status LED indicators
- Locking power connectors (optional)
- ESD protection
- Rack-mount and wall-mount support
- Industry standard LC connectors
- Audio gain, attenuation adjustment and muting capability

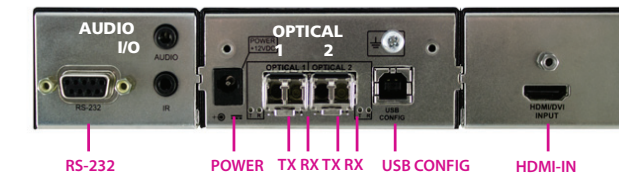
Voyager VG-TX

Two and Four-port Fiber Optic Transmitters

- Video Module Options**
 TX-HDMI
 TX-DVI
 TX-VGA*
- Core Module Options**
 VG-TX2 (2-port)
 VG-TX4 (4-port)
- Auxiliary Module Options**
 TX/RX-ISA
 (Audio, RS-232)



HDMI-LOCAL OUT * VGA, Component, Composite, S-Video



VG-TX2 HDMI-ISA Shown (HDMI with Audio, RS-232)

The Voyager VG-TX is a high performance transmitter for short or long haul transmission of uncompressed high-definition video, audio and RS-232 control signals over fiber optic cabling. Multi-port fiber outputs enable multi-point distribution capability.

Key Features

- Two (VG-TX2) or four (VG-TX4) duplex fiber output ports
- Uncompressed multi-format video at 1920x1200
- Multi-format audio and RS-232
- Auto format conversion between video & audio signal types
- Distance range of up to 18.75MI/30KM determined by receiver
- Singlemode or multimode fiber support
- Advanced EDID management and HDCP compliance

Available Configurations

VG-TX transmitters are available in numerous combinations of video and auxiliary signal types. Each VG-TX transmitter consists of a core modules (VG-TX2 and VG-TX4), a choice of video modules (HDMI, DVI, VGA) and an optional auxiliary module for other signal types (audio, RS-232).

Modes of Operation

- | | |
|--|---|
| Simplex mode
One strand LC fiber | Duplex mode
Two strands (duplex) LC fiber |
| Video (without HDCP) | Video (with HDCP) |
| Audio, unidirectional RS-232 | Audio, bidirectional RS-232 |
| Daisy-chain output support (RX only) | Daisy-chaining |