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Optical transmitter and receiver · MVX24T/R Series
Technical Specification

CONTENT

1.0 PRODUCT DESCRIPTION

MVX T/R digital series optical transmitters and receivers adopt digital video coding techniques and WDM techniques. They provide an excellent solution for the user needs of long distance and high quality optical fiber transmissions and may be configured with several options for single and multi-path digital video, audio, data and Ethernet. The product line includes options for single fiber one way digital video, single fiber up to 64 routes of video and up to 128 routes audio, as well as data uni-directional and bi-directional applications.

MVX24T/R can transmit 2 standard definition composite audio/video signals from various sources such as a TV studios, headend, camera, video conference, medical and educational sources and many other applications. There are also options available for camera and tripod head control data. Additional options for these applications must be ordered with your unit.

2.0 PRODUCT FEATURES

- 10Bit digital video coding, for broadcast transmission quality video/audio.

- Automatically compatible PAL/NTSC/SECAM video modes.

- No cross interference of the analog frequency modulation/amplitude modulation optical transceiver.

- 24 digit PCM digital audio coding.

- Data options support the interface of RS-232, RS-422, RS-485, Manchester, power switch signal, 10~100M Ethernet and others. System uses common data communication protocols. *options must be specified when ordering.

- Can be ordered for use with different fiber types and distances. Multi-mode: 0-5Km. Single mode: 0-20Km, 0-40 Km, 0-60 Km, 0-80 Km, 0-100Km.

- 0 Km application, unsaturated and no need to modulate.

- Comes with standard SC/APC fiber connectors, may be ordered with optional connectors at customers request.

- Flexible network construction can be ordered with module cassette chassis, independent structure or standard 1U casing options.
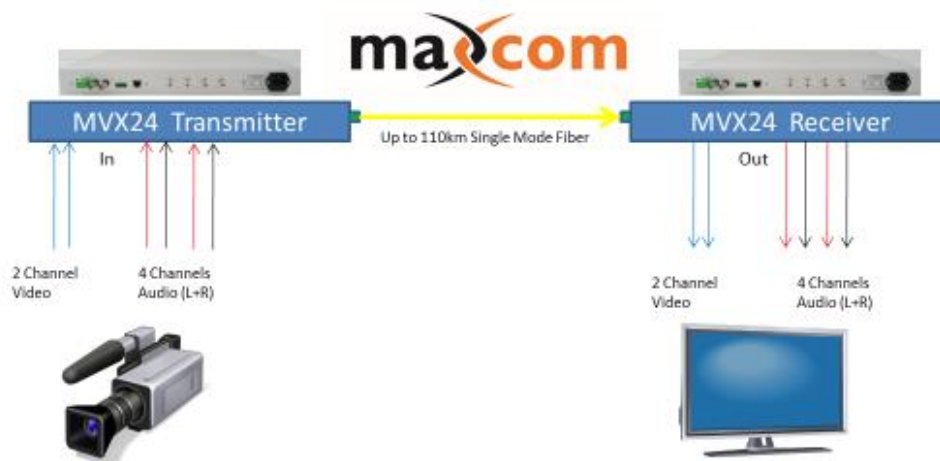
3.0 MAIN APPLICATIONS

- Video, audio transmission systems for CATV.

- Highway, traffic monitor, communication systems.

- City community intelligent monitoring communication systems.

- Market, industrial, educational, electronic safety and surveillance monitoring systems.

- Military communication systems.

- Campus network, video conference, medical treatment video systems.

4.0 SELECT INDICATOR

- LOCK --- Receiving lock indicator, illuminates when establishing the correct link with transmit leg, indicates unit is receiving data

- DATA --- Data indicator light blinks when the serial data level used for communications changes *when ordered w/option

- LINK --- Illuminates when IP network connects properly. *when ordered w/option

- SPD --- IP network communication rate, 100M --- Illuminates, 10M --- dark *when ordered w/option

- DUP --- FDX --- illuminates, semiduplex --- dark *when ordered w/option

Sample application diagram of model MVX24 transmitter and receiver

5.0   TECHNICAL INDEX

Parameter			Index
Video feature	Coding	(Bit)	10
	Sampling frequency	(MHz)	15.36
	Band width	(MHz)	8
	DG	(%)	<1 (Max)
	DP	(°)	<1 (Max)
			≤0.5 (Typical)
	FT	(%)	<0.5 (Max)
	SNR	(dB)	>67 (weighing)
	Input/output resistance	(Ω)	75 (Disequilibrium)
	Input/output level		1.0Vp-p
	Video port		BNC
Audio feature	Sampling frequency	(KHz)	52.3
	Frequency response	(KHz)	10Hz-20KHz
	Coding	(Bit)	24
	SNR	(dB)	>85
	Audio input/output resistance	(Ω)	600, 10K, 47K disequilibrium (equilibrium)
	Nonlinear distortion	(%)	<1, (1KHz)
Data feature	Physical interface		Shield surpass 5type RJ45
	Data direction		Forward/reverse /Bi -direction
	Data form		RS232/RS422/RS485/Manchester
	Rate	(Kbps)	0 ~ 256
Optic feature	Physical interface		SC/UPC, SC/APC, FC/UPC, FC/APC, ST/PC
	Optical fiber type	(μm)	Single mode: 9/125
			Multi-mode: 62.5/125
	Wavelength	(nm)	Single mode: 1310/1550
			Multi-mode: 850/1300
	Receiver sensitivity	(dBm)	-35(1 route video series)
			-28(more than 2 route audio system)
	Optical link	(dB)	≤25 (1 route audio)
General feature	Power supply	(V)	90~265 city power
	Work temperature	(°C)	-40 ~ +65
	Storage temperature	(°C)	-40 ~ +85
	Work humidity	(%)	0 ~95 (uncondensation)
	Mean-time-to double failure		>100,000 hours
	Size, weight		1U: 482(W)×280mm(L)×44mm(H), ≤3Kg
			5U: 482mm(W)×242mm(L)×222mm(H), ≤8Kg
			at most 16 slot, 64 route video
	Module insert card type		222mm(W)×210mm(L)×28mm(H)(1 slot), ≤1Kg
			222mm(W)×210mm(L)×51mm(H)(2 slot), ≤1.5Kg