



**Payke Tasver 4**

The FM Optic System provides a Cost Effective and Reliable solution for Long Haul Transmission (Up to 50 Km) of high quality Video, Audios application.

In Transmitter module, the four Analog Audios Inputs converted to Digital and Multiplexed into 2Mbit/s steam, then modulated by 10.7MHz IF Carrier. The Audios Carrier combined with the Analog Video Input, FM modulated into 70MHz Carrier, and then Intensity Modulated into Optical Laser Output. The laser intensity maintains Constant by using optoelectronic feedback loop. The light signal is coupled into a single-mode fiber pigtail.

In Receiver module, the light signal received via multi-mode fiber converted to electrical by sensitive PIN photo diode,

amplified with low noise circuit, automatic gain controlled, demodulated from 70 MHz carrier, separate Video/ Audio carrier signal, filtering and amplifying video signal to obtain level and specific requirements. The Audios Sub-Carrier 10.7 MHz shall be demodulated to 2Mbit/sec, multiplexing the four digital audio signals, and then converted to high quality analog outputs.

Video/Audio inputs/outputs, Optical input/output connector, with power plug are located in the rear panel.

Key, Volume, and Display used to adjust audio level outputs for receiver side, whereas listens in via stereo-jack and Tx/Rx/Video state Indicators in the Tx/Rx front panel.

**Features**

- -10dbm Optical Transmitter diode via single-mode fiber
- -10dbm to -27dbm Optical Receiver sensitivity via multi-mode fiber
- Analog 70MHz FM Modulation, Optical Intensity Modulation (IM-FM)
- High Quality Digital Audios Converter
- Adjustable Audios/Video Receiver level
- AC main or 48V DC Inputs Supply
- 1RU Structure for Tx, Rx



**Specification**

<b>TX</b>	Input Video Signal	(BNC×2), CVBS, Max 1.5Vp-p, Negative Sync, 75 Ω, Common Mode Rejection, Active Loop-Through Output, loss input indicator
	Input Audio Signals	(XLR×4), 10KΩ /600Ω selectable balance, > +9dbu, listen in (stereo-jack×2), overload and loss (4×indicator)
	Optical Output	DIN Connector, -10dbm laser diode, 9/125um SM Fiber, 1310nm,
<b>RX</b>	Output Video Signal	(BNC×2), 75 Ω, gain adj., B.W.; 25~5.5MHz ±0.5db (CCIR-289), Non-linearity; >3%, Diff. gain; >5%, Diff. phase; >2°, S/N; <55db
	Output Audio Signals	(XLR×4), 60Ω balance, gain Adj., B.W.; 40~15KHz ±0.4db (CCIR-644-1), Distortion; >0.01%, Crosstalk; <85db, S/N; <80db
	Optical Input	DIN Connector, -10dbm ~-27dbm sensitivity, 1300nm, 50/125um Fiber
<b>Mod.</b>	Audios A/D	16 bit resolution, 32KHz sample rate, 4 channel, PCM 2048Kbit/s
	Audios Carrier (IF)	10.7 MHz, deviation; ±500KHz, input; 2.048 Mbit/s Carrier; IF
	Combiner & separator	Audios Carrier to Picture ratio; 20%, Input; 1Vp-p,
	FM Modulation	Center Frequency; 70MHz, Deviation; ±7MHz, Input; 1Vp-p
<b>General</b>	Power	Input; 220V AC ±20% (50Hz), Outputs; ±8 V DC, +5V DC, 10Watt
	Weigh	1.6Kg Tx or Rx,
	Temperature	Operating; 0 to +50 °C, Storage; -10 to +60 °C,
	Humidity	Operating; 10 to 85%, Storage; 0 to 95%,