

4K optical transmission for PTZ camera



Topas 4K is specially designed and shaped to complete perfectly the UE150, UE160, FR-7 or similar devices. The mechanical interface of the transmitter enclosure has been precisely cut so it matches the camera bottom and mounting bracket for quick and easy installation while staying visually discrete.

The transmission module works with standard SMPTE cables (Lemo and Neutrik) and allows to power remotely the PTZ camera and the Topas 4K transmitter over 800 meters either with 12Volts or 19Volts depending the Camera. The transmitter is also available with local power option and SC/APC or LC/PC connectors.

The receiver side comes with a dedicated standalone half rack 1RU receiver with remote power capacity and basic Led diagnosis for key signals presence/activity and optical power condition. Two half rack units can be installed side by side with the proper coupling kit to form a full 1RU 19" unit.

Each TOPAS 4K system transmits the following signal set:

- 1 x 12G SDI signal from Camera,
- 1 x 3G SDI signal from Camera,
- 1 x HD SDI monitoring signal from Camera,
- 1 x HD SDI from basestation (return path),
- 1 x Genlock from basestation (Composite video / Black burst / Tri-level),
- 2 x Audio (asymmetric) from basestation (suitable for Timecode),
- 1 x Ethernet 10/100 Mbps,
- 1 x Serial data RS 232/422/485,
- 1 x Tally Contact closure from basestation.

A small internal silent fan provides cooling of the transmitter electronics and power supply section.



Technical Specifications

Optical	
Dynamic range:	15 dB for control and 3G SDI, 10dB for 12G SDI
Connector:	Remote powering: LEMO 3K (EDW / FXW) or NEUTRIK OpticalCon DUO. Local powering: SC/APC
SDI Video HD to 12G	
Connector:	3G certified 75Ω BNC and 12G certified 75Ω BNC
Standard:	HD, 3G, 6G, 12G
Amplitude:	Input: cable equalization on all channels including 12G. Output: 800 mV pp / reclocked
Return loss:	Better than: - 15 dB for 0 to 1.5 Ghz, - 10 dB for 1,5G to 3G, -6dB for 3G to 12G
Composite Video / GL	
Number, connector:	1 from basestation to camera, 75Ω BNC
Standard:	Composite video, Black Burst, Tri-level (Bi / Tri level auto sense)
Performance:	BW > 5.8 MHz at +/- 0.2 dB, DgDp < 1%, < 1°, Group delay < 10 ns, SNR > 67 dB (CCIR567)
Analog Audio	
Number, connector:	2 channels from basestation, 2.5mm Jack
Impedance:	Input: 10 KΩ (asymmetrical / non-floating), Output: 20 Ω (asymmetrical / non-floating)
Amplitude:	+9 dBm maximum (asymmetrical)
Bandwidth:	50 Hz to 15 KHz at +/- 0.5dB, (20 Hz to 20 KHz at -3 dB)
Distortion:	0.05% at 1Khz / 0 dBm
Signal to noise ratio:	90dB, "A" weighted
Data	
Number, connector:	1 bidirectional channel on RJ45 (direct connexion to UE150)
Protocols:	RS485, RS422, RS232
Data rate:	0 to 500 Kbd/s
Ethernet	
Number, connector:	1 channel, RJ 45
Protocols:	10 or 100 Mb/s, Full or Half-duplex (Auto sense), MDI or MDI-X (Auto sense)
Tally	
Number:	1 Tally (Shared with the DATA connector)
Tally output:	Relay (dry contact) shared with serial RJ45 (direct connection to UE150)
Tally input:	Contact input
Power section	
Camera unit:	8 Watts + Silent fan cooling
Camera power capacity	50W continuous (from 0 to 800 meters SMPTE). Voltage: 12Volts for Panasonic / 19Volts for Sony.
Mechanical	
Transmitter:	33mm thickness / Size of the camera, weight 1.45kg
Transmitter Color:	Available in Black or White enclosure
Receiver:	1/2 RU 19" rack, depth 300mm excluding connectors, weight 1.55kg
19" Rack integration:	Coupling kit available for two 2 receivers for integration in 1RU 19", weight 0.05kg
Operating Temp range:	From -20 to + 60°C. (Avoiding direct sun exposition)

Dedicated 1RU-half width Topas 4K receiver
(front & back with LEMO)



19" integration with two Topas 4K Receivers
(with the coupling kit fitted)



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