**OPTICAL TRANSMISSION FOR HE120 / HE130**

The TOPAS HE120 is an optical fiber transmission unit intended for a PANASONIC AW - HE120 / 130 camera. The special shape of the TOPAS HE120 directly fits under the camera base. The TOPAS HE120 feature the same mechanical interface as the camera bottom and its base plate, allowing quick and easy upgrade of existing installations. Its lowest thickness allows discrete installation even with LEMO connectors.

The module transmits the following signals:

- 1 3G SDI IN,
- 1 Composite IN,
- 1 GENLOCK,
- 1 RS 422 bidirectional,
- 1 GP OUT,
- 1 IP 100 Mb/s.

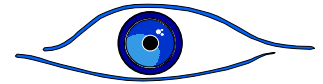
The module has three optical connector and remote power options:

- 1 **LEMO 3K or NEUTRIK OpticalCon Duo** hybrid connector, the remote powering of the camera and the transmission module is done by the TOPAS receiver module.
- 2 **SC/APC** connectors, the module is powered by the DC Adapter of the Camera.

As an option, the module can transmit two bidirectional audio signals, a microphone stereo input with remote gain setting and phantom power is also available. Two GPIO come with the audio option.

For local monitoring, the composite input signal at camera can optionally be replaced by a return HD SDI OUT channel.

HE40S and UE70 are also supported with the use of a specific camera base plate.



TECHNICAL SPECIFICATIONS

SD/HD Video	
Number, Connector:	BNC, 1 signal from camera to CCU Video option: One HD SDI return channel
Standard:	SDI, ASI, HD, 3G
Impedance:	75 Ω
Return loss:	Better than -15 dB for 0 to 1500Mhz and better than -10 dB for 1500 to 3000Mhz
Analog Video	
Connector:	BNC, 1 bidirectional, Genlock + PAL from camera Video option take the place of the Composite
Standard:	PAL, SECAM, NTSC
Impedance:	75 Ω
Bandwidth:	> 5.8 MHz à +/- 0.2 dB
Differential Gain:	< 1%
Differential Phase:	< 1°
Group delay:	< 10 ns
SNR:	> 67dB (CCIR567)
Ethernet	
Signal:	1
Connector:	RJ45 (Auto MDI)
Speed / duplex :	10 or 100 Mb/s (Auto sense), Full or Half-duplex (Auto negotiation)
Serial	
Signal:	1 bidirectional channel
Protocol:	RS485, RS422, RS232, setting on receiver board & through NetRacer platform management
Data rate:	0 to 500 Kbs (protocol less)
Closure contact:	With audio option: 2 GPIO, SUB D-9 sockets connector on audio breakout cable
Analog Audio (Option)	
Number, Connector:	2 bidirectional, on one multi-point connector, Breakout cable on 4 XLR (2 in, 2 out) provided
Impedance:	Differential input 10 KΩ (non floating), Differential output 20 Ω (non floating)
Amplitude:	0 dBm nominal (saturation at + 12 dBm)
Bandwidth:	50 Hz to 15 KHz within +/- 0.5dB, (20Hz to 20 KHz within -3dB)
Distortion:	0.05% at 1Khz + 12 dBm
SNR:	90dB "A weighted"
Mike input, Gain:	From 0 to 60 dB, Tunable by 6dB steps, setting on receiver board & through NET RACER platform management
Phantom power:	48 volts switchable, Source Impedance 6.8 KΩ
Led display	
Video:	Presence (1Led)
Ethernet:	"Link" and "activity" (2 Led)
RS 422/485:	"Rx" and "Tx" (2 Led)
Optical:	Optical receiving state (1 Led)
Power supply:	All internal power supplies are within 5% tolerance (1 led)
Power supply (Local)	
Consumption:	4 to 5 Watts depending on module options
Voltage:	12 Volts from camera DC Adapter
Connector:	Socket and Plug (ring 6.5mm, pin 3mm)
(Remote power)	
Range/ Connector:	600 meters of SMPTE cable (section 16 AWG) / Lemo 3K or NEUTRIK
Remote input voltage:	24 to 48 Volts (from receiver module for remote powering)
Output power / Voltage:	12 volts 20 Watts for camera supply
Output connector:	Plug (ring 6.5mm, pin 3mm) - Center pin is +12 Volts
Mechanical	
Camera side:	Black or white camera base shaped cabinet
CCU side:	Card for 3RU Platform RACK or stand alone, see TOPAS RT and NET RACER documentations
Cable provided:	All signal cable to AW HE120 / 130, breakout cable for Audio/Gpio in option.

ERECA reserve the right to change specifications without notice.