

**Bi-directional Video/Audio/Data Robotic Camera Links**



*Delivers Camera and Control Signals in Both Directions — for HD/SDI Digital and Analog Video*

Telecast's POV (point-of-view) line of fiber optic video/data transceiver modules are the perfect acquisition and transport systems for your high quality robotic cameras. Select the 5200-series for analog cameras, or the 5400-series for digital SDI or HD/SDI cameras.

As a broadcast link, these modules are used for goal cameras, beauty shots, etc. As a high end professional video link, they preserve the quality and integrity of your CCD camera output, while giving you two or three channels of high speed, duplex data for pan-tilt-zoom (PTZ) and camera control. The return video path provides a broadcast quality monitor return, or a genlock or tri-level sync signal to the camera. Audio paths are available for program audio or for creating 4-wire circuits.



The 5400-series supports digital video rates from 270 Mbps up to 1.5Gbps uncompressed HD/SDI. The 5200-series supports NTSC,PAL and SECAM video formats, and provides up to 10 MHz of video bandwidth.

The transceivers are available as stand alone "throw down"modules or as 2-slot wide rack mount (base station end only) modules to fit our Viper II 3RU frames.

*Features  
Telecast  
POV units  
can serve  
as handy,  
multifunction  
links for a  
variety of  
purposes  
in your  
broadcast  
perations*

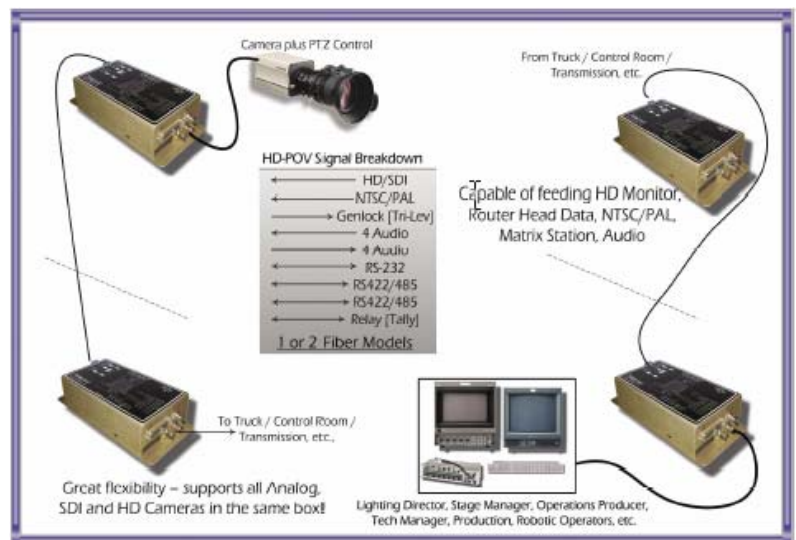
*POV systems  
can support  
virtually  
all robotic  
cameras,  
including  
state of the  
art HD/POV  
platforms*

**Features**

- Bi-directional on one or two fibers
- For Analog or Digital HD/SDI cameras
- Digital versions for SDI or HD/SDI  
From 270 Mbps to 1.5 Gbps uncompressed
- Analog video meets RS250-C short haul specs  
NTSC,PAL &SECAM compatible  
Broadcast-quality,digitally transmitted  
Wideband video,up to 10 MHz
- Two or three duplex data channels  
One RS-232,up to 150 kbaud  
One or two RS-422/485,up to 1 Mbaud
- 2 GPI relay closure circuits,one each way
- Return genlock,or tri-level sync for HD
- Optional audio,4 channels each direction
- Optional camera-power version  
Uses SMPTE hybrid fiber/wire cable  
Includes two auxiliary power outputs
- Durable construction
- Rack-mount or stand-alone base station ends
- Wide temperature range
- Low power consumption
- High reliability design

**Applications**

- Television broadcast robotic camera links
- Action sports shots
- Beauty shots
- Traffic cameras
- Production video/audio feeds
- High end surveillance video
- Closed circuit television
- Remote cams



# Specifications

## Video, Digital

Interface	SMPTE 259M,292M
SDI Rates Supported	270 Mbps to 1.5 Gbps,Uncompressed
Input Coaxial Equalization	Up to 100 meters
Input Level	800 mV (peak to peak)
Input/Output Impedance	75 Ohms
Bit-Error Rate (@-22 dBm)	10 <sup>-12</sup>
Jitter (pathological data pattern)	<0.2 UI
Rise/Fall Times	<270 ps

## Video, Analog

Interface	RS170,NTSC,PAL,SECAM
Input/Output Level	1 Vp-p,75 Ohms
Frequency Response	
30Hz-5MHz	±0.15 dB
-3dB point, min.	>10MHz
Signal to Noise Ratio, weighted	>70 dB
Differential gain	<1%
Differential phase	<0.7 °
Line Time Distortion	<0.5 IRE
Chrominance-Luminance Intermod.	<0.5%

## Audio

Input/Output Impedance	10kohm/30ohm
Frequency Response	±0.2 dB,20Hz to 20kHz
Audio Signal to Noise Ratio	>95 dB, A-weighted
Total Harmonic Distortion (20Hz to 20kHz)	<0.1%

## Data/Auxiliary

RS422 or RS485,selectable	0 to 1 Mbaud
RS232	0 to 150 kbaud
Jitter	33 nsec
Contact Closure	Normally Open, Form 1 SPST

## Electro-Optical

Operating Wavelengths	1310 nm &1550 nm
Transmitter Laser output power, minimum, standard	-7 dBm
Receiver Sensitivity, minimum, standard	-22 dBm
Fiber Compatibility	single mode (5400-series), single or multimode (5200-series)

Optical Connector-	Standard Optional	ST type SC type
CP Powered camera end, optional		LEMO SMPTE Hybrid
Recommended distance limit	Standard Optional,DFB laser	5 km 20 km

## Mechanical/Electrical/

### Environmental

Dimensions (LxWxH)	
Throw down unit, basic	8.7"Lx 3.9"W x1"H
Throw down unit, high	8.7"L x3.9"W x2"H
Throw down unit, camera powered	9.7"L x4.8"W x3.2"H
Rack Mounted,2 Slots in V2Frame	11.3"L x5"W x2"H
CA5442X field unit	13"L x8.4"W x3.4"H
Weight (per stand-alone module)	10-12 ounces
Video connectors	BNC
AUX signal connector, data 1 &2 plus GPI closure	DB-15
AUX signal connector, data 3 plus audio in/out (high unit &CP)	DB-25
AUX power output, CP unit only	4-pin XLR,female
Connectors, Outputs 1 and 2	50 watts max@14 VDC
Power rating, nominal	5-10 watts@10-18VDC
Power Requirement, feature dependent	-25 ° to +55 °C
Temperature Range	0 to 95%RH,Noncondensing
Humidity Range	



CP5442 powered camera end HD/POV module uses SMPTE hybrid fiber/wire cable

CA5442 non-powered camera end HD/POV module uses two single mode fibers



Modules are available as "throw down" units or may be rack mounted in the popular Viper II frame.

## Product Options

Part No.	NTSC/ PAL	GL/ 3L	HD/ SDI	Audio Tx/Rx	RS 232	422/ 485	Cam Pwr	No. Fib
TR5221	1	1			1	1		1
TR5222	1	1			1	1		2
TR5241	1	1		4x4	1	2		1
TR5242	1	1		4x4	1	2		2
CA/BS5422	1	1	1		1	1		2
CP/BS5422	1	1	1		1	1	x	2
CA/BS5442	1	1	1	4x4	1	2		2
CP/BS5442	1	1	1	4x4	1	2	x	2

GL/3L=Genlock/Tri-level sync;422/485=switchable RS422/RS485  
Camera Power provided from (intermediate) HDX™ via SMPTE



Ruggedized CA5442X custom package, designed for Fletcher Chicago, brings AC power input, DC output and a connector set specially adapted for HD sports production

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