BMW CONSULTANTS

HIGH RESOLUTION VIDEO FIBRE OPTIC TRANSMISSION SYSTEM

As optical fibres rapidly become the preferred industry transmission medium it becomes increasingly cost effective to fully utilise the unique capabilities of fibre optic systems.

Of the many advantageous properties of fibre optics, wide bandwidth and high speed transmission stand out. These allow high bit rate and multi-channel signals to be transmitted on a single optical fibre.

Video systems have many applications in the fields of perimeter security and access control, RADAR, CAD/CAM etc. These technologies are in wide and growing use in Europe and the USA. Typical sites include airports, shopping malls, banks, motorways and Government establishments.

OPT 1000 Series

The OPT 1000 Series provides high quality reliable transmission of video signals from CCTV bandwidths to 100 MHz for high resolution graphics applications.

Special Features and Benefits

Low cost high quality video transmission.

Up to 36 channels in a single sub-rack.

One fibre per channel

10 MHz, 25 MHz, 50 MHz, and 100 MHz bandwidths

Minimum frequency response 5Hz

Full diagnostic LED display

850nm and 1300 nm wavelengths

Standalone and Rack modules

Compatible with all OPTRONICS sub-rack systems

External sync for RGB application

Exclusive 3 year warranty

VIDEO TRANSMITTERS AND RECEIVERS

Transmitters and receivers have the same type of packaging i.e. rack and desktop. Each rack and desktop unit has three independent channels. The desktop units include a power supply powered

from the mains. The sub-rack, for rack modules, has a built in power supply that can power up to 36 channels. The performance specifications for the links, listed below, are the same regardless of housing type.

VIDEO PERFORMANCE	
Input/output level	1 V peak to peak
Bandwidth	10, 25, 100 MHz
Sync. Pulse error	<4%
Signal to Noise Ratio (weighted at -18dBm received power)	>57 dB
Differential gain	<4%
Differential phase	<2.5%
K rating	<3%
Bar tilt	<2%
2T pulse/bar	<1%
Chrominance/Luminance gain	<4%
Chrominance/Luminance delay	<12 nsec
Luminance non-linearity	<5%
Return loss	>30db

MECHANICAL DIMENSIONS	Dimensions in mm
Euro-module (rack mounted)	6HP x 160 x 3U
Desk top	230 x 195 x 50
Sub-rack	482.6 x 300 x 3U

OPTICAL SPECIFICATIONS	
LED at 850nm (50/125 fibre)	-15dBm
Power budget	12dB

CONNECTORS	
Optical fibre connector	ST
Video signal	BNC 75 ohms

ENVIROMENTAL SPECIFICATIONS	
Operating temperature	0°C to +50°C
Storage temperature	-20°C to +65°C
Relative humidity(non-condensing)	<95%

POWER SUPPLIES	
Euro-module	±12 VDC
3 channel transmitter	+400mA,-100mA
	±12 VDC
3 channel receiver	+270mA,-100mA
Desk top	240VAC (5 Watts)
3 channel transmitter	240 VAC (4 Watts)
3 channel receiver	

Part Numbers

Transmitter Card (video)	OPT1100-xx.y.z
Receiver Card (video)	OPT 1110-xx.y.z

where

. xx specifies the wavelength xx= 86 for 860 nm and 13 for 1300 nm
y specifies connectors y=SMA or ST
z specifies the fibre size
z= 1 50/125,
z= 2 62.5/125
z= 3 9/125

BMW CONSULTANTS
Hines Farm, Comberton
CAMBRIDGE CB3 7BZ UK
Tel.: (+44) 1223 263384
Fax.: (+44) 1223 264384

UNIFIBRE SRL
Viale Ranzoni, 5
20149 MILANO ITALY
Tel: 0039 2 4072 887
Fax: 0039 2 4049 073