

OM4F

RADAR VIDEO FIBER OPTIC MODEM

Applications

Extension of a Kelvin Hughes SharpEye™ radar link up to 15 Km



Description

The OM4F-T combines the Kelvin Hughes SharpEye™ radar analog video and azimuth data, and transmits them over an optical fiber. The OM4F-R receives this optical signal and outputs high quality analog video and azimuth data. A second fiber allows remote monitoring of performance as well as a bi-directional CAN-bus channel. A bar graph displays the received optical signal strength. The Azimuth input/output pulses (ACP and ARP) can be switch selected to be differential or single ended. An Alarm relay closes on loss of link, power supply failure, etc.

The following signals are transmitted.

- 1 - Radar video -0.1 to 6 Vpeak at 0-10 MHz BW
- 1 - Radar Sync pulse.
- 2 - Azimuth pulses.
- 1 - CAN-Bus bi-directional signal.

Features

- 14 bit A-D gives high quality video
- Single or multimode fiber operation
- Redundant power supply inputs
- Received-optical-power meter
- Display of remote modem's indicators
- Power/Link fail alarm relay
- DIN rail and 19" rack mounting option
- Industrial temperature -40°C to 70°C
- 5 Year warranty

Specifications¹

Optical²

Range singlemode fiber15 km
 Range multimode fiber 50/125 or 62.5/125 um4 km

Video Channel

1 dB Bandwidth >10 MHz
 S/N Ratio (Peak signal to random noise) > 68 dB (Non-Weighted)
 Input voltage - 0.1 to 6 Vp
 I/O impedance /connector 75Ω BNC

Sync Channel

Signal Input/Output NRZ typically 0-12V
 Bit rate transparent from DC to 10 Mbps
 I/O impedance /connector 75Ω BNC

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Specifications (continued)

Azimuth (ACP/ARP) Channels

Signal Input/Output	NRZ typically 0-12V, or RS422
Bit rate transparent from	DC to 10 Mbps
I/O impedance /connector	120Ω DB9-P

CAN-Bus

Max Data Rate	500 kbps short fiber, 10 kbps 5km fiber
I/O connector	DB9-S

General

Power supply input	18 TO 30VDC
Power consumption	<4W
Operating temperature	-40°C to 70°C
Dimensions	14 x 4 x 12 cm

Part Numbers

- OM4F-T = Transmitter (input end)
- OM4F-R = Receiver (output end)

Accessories

The OM4F may be ordered with a mounting clip which allows it to be snapped to 35mm or G-type DIN rails.
Part number: DIN-CLIP-05
Consult the factory for 19" rack mount option.

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