

Modular Media Converter

Model 907-Flex

Focal Technologies Corporation, a Moog Inc. company, has over 30 years of expertise in supplying standard and custom marine products for harsh environments and is a leading manufacturer of high performance and high quality multiplexers. Contact Focal for any assistance in selecting the best solution for your requirements.



The 907-FLEX is a modular media converter capable of providing digital video, analog video, Ethernet or OEO (Optical-Electrical-Optical) conversion. Although many custom configurations are possible, the 907-FLEX is available in three standard offerings: HD4 - Quad HD Video, HDA - Dual HD Video and Dual Analog Video or HDE - Dual HD Video and Gigabit Ethernet. Customized OEO versions are available to boost optical signals, switch between fiber types or change wavelengths. The 907-FLEX runs from a +5 VDC power supply, as normally required for the 907 product family, but is also available in a version for +12 VDC power. Common transceiver options provide optical power budgets of 24 dB with up to 10 km of singlemode fiber. Coarse wave division multiplexer (CWDM) transceivers and optical cards are used to combine the 907-FLEX with multiple 907 media converters or other multiplexers. Also, the 907-FLEX supports mounting for a on-board CWDM module, creating a standalone single fiber solution.

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Features

- Standard offerings for Quad (4) HD Video (HD4), Dual (2) HD Video and Dual (2) Analog Video (HDA) or Dual HD (2) Video and Gigabit Ethernet (HDE)
- HD Video complies with SMPTE-424M (3G-SDI), SMPTE-292M (HDSDI), SMPTE-259M (SDI)
- 10/100/1000 Mbps Ethernet, low latency
- NTSC composite analog video
- Interchangeable SFP optical transceivers
- Rugged design for harsh environments
- Compatible with 907-DIAG-E diagnostic card and Graphical User Interface (GUI) software

Benefits

- Reduces costs of systems using multiple digital video, multiple analog video and Ethernet
- Replaces multiple media converters
- Supports a wide range of optical options, including CWDM wavelengths
- Simplifies troubleshooting with advanced diagnostics
- Reduces space requirements

Applications

- Remotely Operated Vehicles (ROVs)
- Armoured Vehicles
- Tethered Aerostats
- Video Security Systems
- OEO Converters
- Fiber-optic Repeaters

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Specifications

HD4 - Quad HD Video	
No. of Channels	4
HD Format	1080p/1080i/720p 3G-SDI (SMPTE-424M), HD-SDI (SMPTE-292M), SD-SDI (SMPTE-259M)
Video Impedance	75 Ohms input/output
Video Latency	< 1 μ s (not including fiber, ~5 μ s/km)
Optical Fiber	4 x singlemode (9/125 μ m)
Baud Rate	2.97 Gbaud max.
Wavelength	1471 - 1531 nm (standard)
HDA - Dual HD Video and Dual Analog Video	
No. Channels	2 x HD Video, 2 x Analog Video
HD Format	1080p/1080i/720p 3G-SDI (SMPTE-424M), HD-SDI (SMPTE-292M), SD-SDI (SMPTE-259M)
Analog Format	NTSC / PAL
Video Impedance	75 Ohms input/output, HD and analog
Video Latency	<1 μ s (not including fiber, ~5 μ s/km)
Optical Fiber	4 x singlemode (9/125 μ m)
Baud Rate	2.97 Gbaud max
Wavelength	1471 - 1531 nm (standard)
Mechanical	
PCB Dimensions	PC/104 standard, 3.550" x 3.775"
Mounting Holes	PC/104 standard
Weight	< 120 g (0.25 lb), including SFP
Backplane Connector	Proprietary (Non-standard) pinout
Options	Custom enclosures
Electrical	
Power Voltage	+5.0 VDC +/- 10%, regulated
Power Current	1.0A typical (1.5 A max.)
Protection	Overvoltage, undervoltage, reverse polarity, 3A time-delay fuse
Options	+12 VDC factory option

HDE - Dual HD Video and Gigabit Ethernet	
No. of Channels	2 x HD Video, 1 x Gigabit Ethernet
HD Format	1080p/1080i/720p 3G-SDI (SMPTE-424M), HD-SDI (SMPTE-292M), SD-SDI (SMPTE-259M)
Video Impedance	75 Ohms input/output, HD and analog
Video Latency	< 1 μ s (not including fiber, ~5 μ s/km)
Ethernet Data Rates	10/100/1000 BASE-T(X)
Ethernet Latency	< 1 μ s (not including fiber, ~5 μ s/km)
Optical Fiber	4 x singlemode (9/125 μ m)
Baud Rate	2.97 Gbaud max.(HD), 1.25 Gbaud (Ethernet)
Wavelength	1471 – 1531 nm (standard)
Optical	
Fiber Type	1
Flux Budget	> 24 dB standard
Options	CWDM (> 24 dB, 1271 - 1611 nm), Higher / lower optical budget
Connectors	
Optical	LC (2 per SFP)
Video	HD-BNC (digital and analog)
Ethernet	RJ-45
Power	2-pin Molex, 0.156 inch spacing
Options	Optical ST/PC when CWDM on-board
Environmental	
Temperature	-10°C to +60°C (operational) -40°C to +85°C (storage)
Humidity	85% RH, non-condensing
Vibration	5g, 25-1000 Hz, 3 axes
Shock	30 g, 11 ms half sine, 3 axes
Diagnostics	
LEDs	Power, Power Fault
Ethernet to PC	Diagnostics from console through 907-DIAG-E card. Diagnostics from remote from 907 motherboard

All specifications and information are subject to change without notice. Please contact Focal for the latest updates.

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