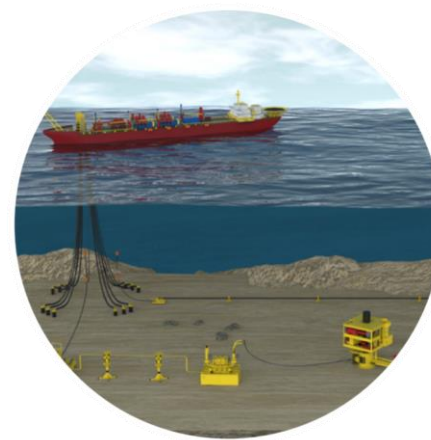
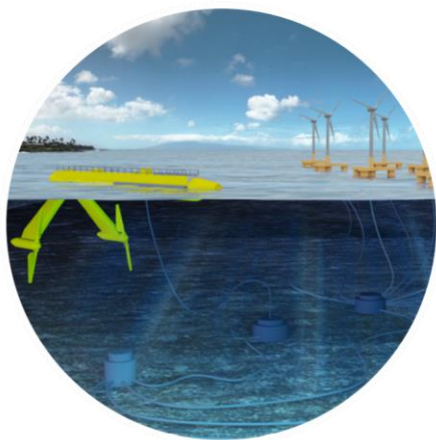




Moog Focal 907-X Series

March 2026



Why 907-X Series?

- Component Obsolescence – updates are required to maintain manufacturability
- Analog to SDI conversion for video. (Simplification of the Pilot's Cabin, elimination of a redundant Analog to Digital converter box)
- Ethernet bandwidths are increasing with most new vehicles requiring up to 10 Gb/s of aggregate bandwidth, and some advanced systems demanding 20+ Gb/s. The 907 GEM tops out at 2.5 Gb/s.
 - 907-X Series provides modular increments of 10 Gb/s
- Most serial ports can be converted to IP at the ROV which simplifies the wire harnessing in the Pilot's Cabin and reduces the complexity of the console electronics down to a simple Ethernet port.
- HD video demand is increasing; we don't support this in legacy 907 and in 914-X Series it is one optical wavelength per HD video signal which increases CWDM and SFP costs along with solution size. 907-X Series provides cost effective HD Video multiplexing.
- By using advanced FPGA and Ethernet switching technology Moog Focal can provide higher bandwidth multiplexers in a high-density package.
- All the rugged reliability of legacy 907 and 914-X Series, with added features, increased signal density, increased bandwidth and improved performance.
- Diagnostics is always included; implemented via integrated Webserver. No software to install.

New Product – now shipping

914-XGBE (10 Gb Ethernet Media Converter)

- 914-XGBE media converter is a ruggedized 10G Ethernet media converter
- Uses CWDM transceivers or single fiber bi-directional
- Local diagnostics provided over a dedicated Ethernet port
- Low latency
- Conductive cooling ready
- Small form factor
- Capable of these conversions:
 - 10GBASE-T to 10GBASE-x*
 - 1000BASE-T to 1000BASE-x*
 - 10/100/1000BASE-T(X) to SGMII (optical)
- While this is not technically a 907 card, it is a new 914-X Series card with advanced diagnostics similar to the next generation 907-X Series. The form factor is smaller as that was all that was required for the media converter.

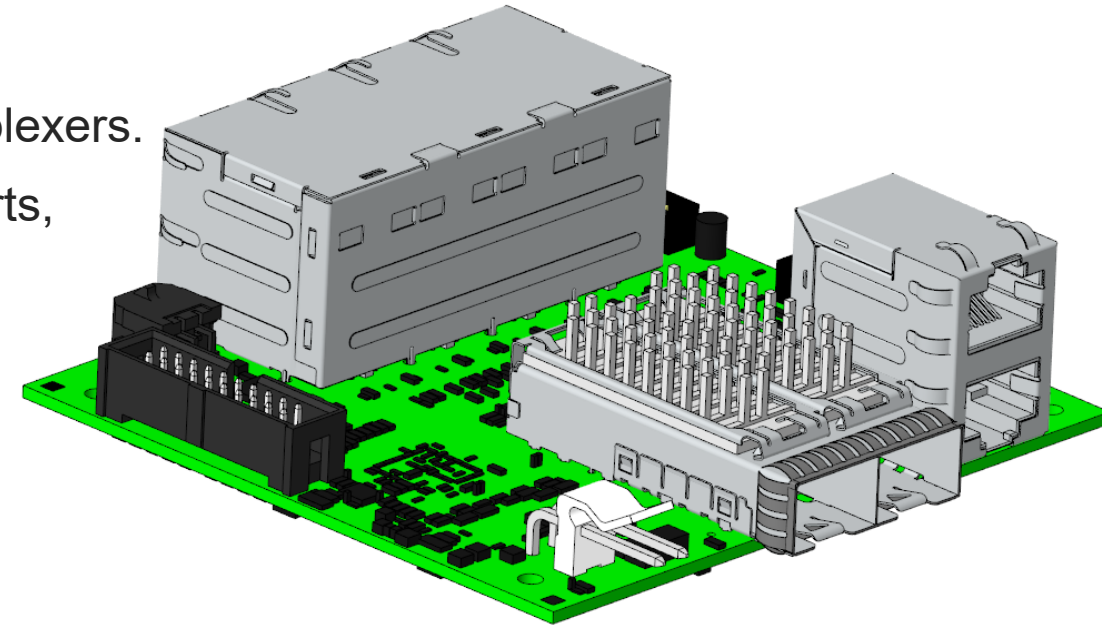
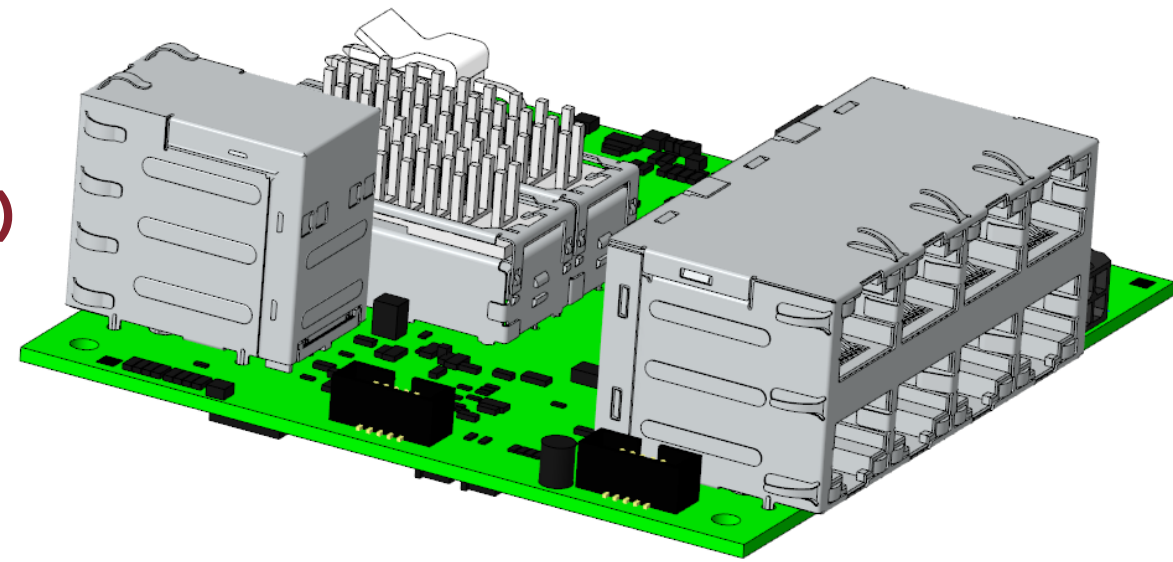


*optical standard dictated by transceiver choice

New Product (Q4 2026)

907-XGBES (12 port, 10 Gb Ethernet Switch)

- 907-XGBES
 - 10x 10/100/1000BASE-T ports
 - 2x 10GBASE-X optical ports
 - Provides expansion for more ports or for redundancy
 - Diagnostics over Ethernet:
 - Port link status
 - VLAN setup
- This is the core Ethernet card for all new 907-X Series multiplexers.
- 30 Gb/s switch fabric for lossless communication over 12 ports, ideal for high bandwidth sensors, cameras and sonars.



New Product (Q1 2027)

907-SS8 (Serial Server)

- Serial Servers convert serial data to Ethernet
- When all (or most) serial data is converted to Ethernet in the ROV, this greatly simplifies the Pilot's cabin wire harnessing.
- 907-SS8 converts 8 individually isolated serial ports to a single Ethernet stream @ 10Mb/s or less.
 - An Ethernet switch with 2 user Ethernet ports provides daisy chain ability for the ethernet traffic allowing up to 8x 907-SS8 cards to share a single Ethernet port for optical conversion via the 907-XGBES.
 - All serial ports are RS-232/485/422 compatible
 - Setup and diagnostics are provided via Ethernet
 - Compatible with any standard Ethernet Mux or Media converter (914-X Series, 907 GEM)
- This provides serial ports compatible with the 907-XGBES
- Stacking is possible but not required, the link to the mux is a simple CAT5 cable.

New Product (Q2 2027)

907-HDM6 (HD Video Multiplexer)

- WROV have significant HD video requirements for the sensors PODs, and they require extremely low latency. Our media converters (914-HDV2) and low latency multiplexing technology (914-HDE, 924-HDE) are a key technology to serve this market.
- The 907-HDM6 increases the channel count to 6:
 - 6x 3G-SDI = 18 Gb/s => requires 2x 10G optical streams (2 SFPs are installed)
 - 6x HD-SDI = 9 Gb/s => requires 1x 10G optical stream (1 SFP is installed)
- Diagnostics is provided via Ethernet
- A user Ethernet port is provided for sensor data and/or 907-SS8 readiness
- An expansion port for 'transparent' serial is provided (907-DX8 or 907-AX2)
- Deterministic low latency, uncompressed video

Simplification with a new product (Q3 2027)

907-AVM6 (Analog Video Multiplexer)

- Legacy 907 analog video cards come in several variants:
 - 907 R/C (Obsolete) 3 video
 - 907 E 2 video
 - 907 + 4 video
 - 907 V 6 video
- Replace with a single 6 video channel card for all situations -> 907-AVM6 (Analog Video Multiplexer)
- Diagnostics included over Ethernet, similar to 914-XGBE.
- 1x multiplexed gigabit Ethernet port allowing compatibility for 907 E replacements and for simple Ethernet sensor or system connectivity.
- Expansion port for 907-DX8 cards (new) and AIBs via 907-AX2 (new)
- Optically compatible with the 907-HDM6 which provides SDI outputs at the console.
- Deterministic low latency
- Optical baud rate is either 10G or 4.25G

New Product (Q3 2027)

907-DX8 (Serial Data Expansion)

- This is similar to the 907-SER, but is compatible with the 907-HDM6 and 907-AVM6 multiplexers.
- Each port is individually isolated
- Configurable for RS-232/485/422 and TTL communication
- Deterministic low latency

New Product (proposal stage)

907-HDV6

- 3G/HD-SDI media conversion to SMPTE ST 2110 and ST 2022 protocols
 - 6x 3G-SDI to dual (redundant) 25G optical Ethernet
 - 6x HD-SDI to dual (redundant) 10G optical Ethernet
 - Other options available, including compression.
- Low latency, industry standard uncompressed video over Ethernet
 - Requires conversion of the Pilot's Cabin and equipment to new broadcast over Ethernet standards.

907 Form Factor advantages

Backwards compatible for major WROV OEMs

- Compatible with all existing 907 mounting arrangements
- Compatible with 907 optical cards
 - CWDM
 - FOS
 - SPLIT
 - Etc...
- Connectors on 2 opposing sides only, small size ideal for pressure bottles.
 - No 3rd side as per [+] and GEM cards
- Large enough size to accommodate high signal density:
 - 8 serial ports
 - 6 video ports
 - 10 Ethernet ports
- Small enough size for most pressure bottles.
 - 5"+ ID