



Copper-to-Fiber Media Converters Multiplexing Signal Aggregator

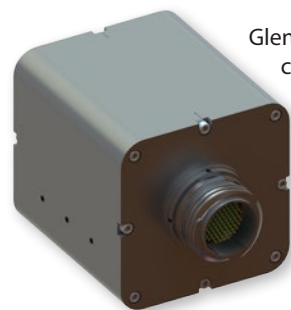


PRODUCT SELECTION GUIDE

visit glenair.com for detailed product datasheets

SIGNAL AGGREGATION Copper-to-Fiber Media Converters

Combine multiple electrical signals into a high-speed fiber data stream



Glenair signal aggregation media converters integrate a set of compact opto-electronic modules to digitize and/or aggregate multiple common signal types, and combine them onto high-data-rate serial optical fiber channels. Silicon field-programmable gate array (FPGA) technology provides a flexible way to accommodate many signal I/O types.

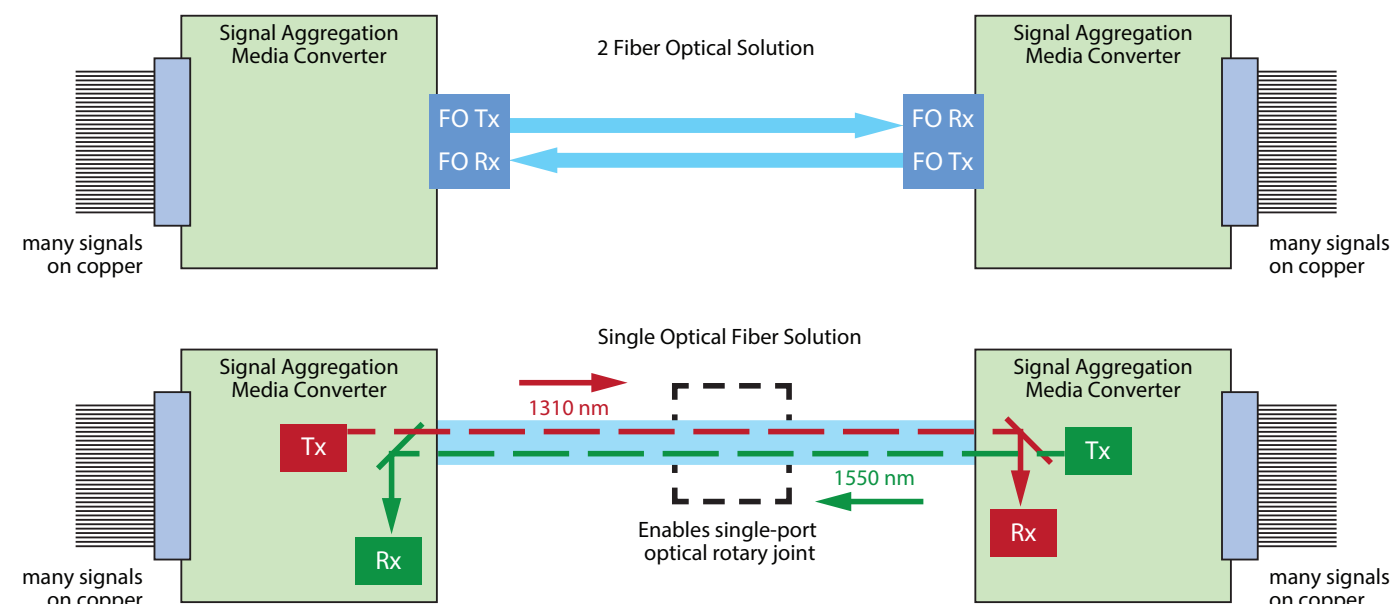
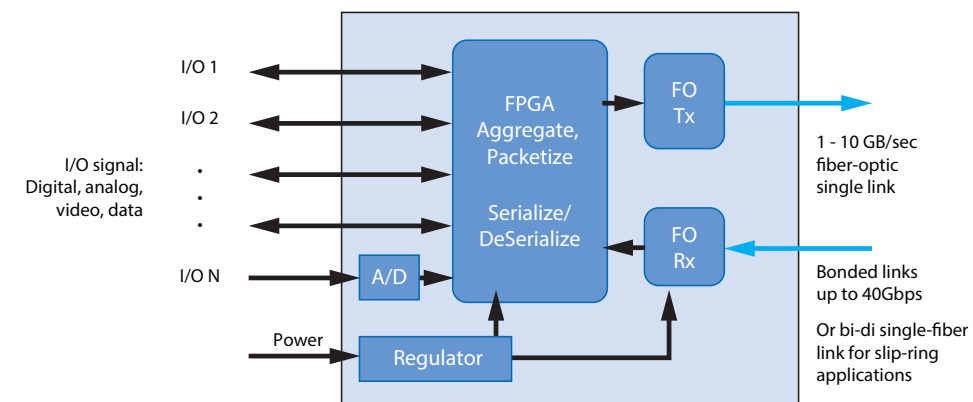
- Dramatically reduce size, weight, wire count, and shielding of copper cables
- Leverage the high bandwidth of optical fiber by multiplexing many lower-data-rate signals onto a few fibers
- One high-speed opto-electronic interface can serve practically all signal types
- Ideal solution to enable optical rotary joints
- -40°C to +85°C operating temperature range
- Meets MIL-STD-810 Mechanical Shock and Vibration
- Meets MIL-STD-1344 immersion resistance
- Advanced monitor & control functions via serial interface to facilitate network management and BIT

Signal Aggregation Media Converter Selection Guide

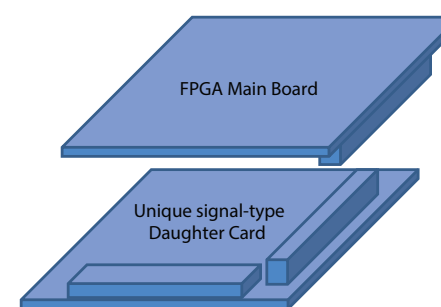
050-501	12-Channel RS422 Copper-to-Fiber Media Converter
050-502	6x RS-422 and 6x ARINC 429 Copper-to-Fiber Media Converter
050-503	DVI/HDMI (Dual fiber) + USB(HID) interface (KVM) Copper-to-Fiber Media Converter
050-504	CAN Bus "bridge"(ARINC 825), ARINC 429, ARINC 664 (AFDX ethernet) DO-160 compliant Copper-to-Fiber Media Converter
050-505	2x Ethernet, 2xRS-422 or 2xRS-232 (422 & 232 not simultaneously) Copper-to-Fiber Media Converter

SIGNAL AGGREGATOR FUNCTIONAL DIAGRAMS

- One compact LRU digitizes or aggregates multiple electrical signals on copper using an FPGA
- FPGA digitizes and serializes the signals onto a high-speed data stream
- Opto-electronic converters get the serialized signals on and off the optical fiber



FPGA MAIN BOARD AND DAUGHTER CARD ARCHITECTURE CAN HANDLE MANY SIGNAL TYPES



SERIAL

- RS422/RS485
- RS232
- USB
- MIL-STD-1553
- CAN Bus
- ARINC 429
- SMBus
- I2C
- SPI
- Ethernet 10/100/1000

VIDEO

- DVI
- HDMI
- SMPTE SDI
- SMPTE HD-SDI
- SMPTE 3G-SDI
- ARINC 818
- VGA

ANALOG

- RF/IF Sampling
- Analog Sensor Data

Contact the factory for other signal formats and custom configurations