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**

**Copper-to-Fiber Media Converters**

**Low data-rate signal multiplexing copper-to-fiber media conversion**

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Photonic Datasheet
Copper-to-Fiber Media Converters
Multiplexing Signal Aggregator

FUNCTIONAL BLOCK DIAGRAMS

SIGNAL AGGREGATOR FUNCTIONAL DIAGRAMS

- Aggregates multiple electrical signals
- Serializes the signals
- Opto-electronic conversion

I/O signal: Digital, analog, video, data

1 - 10 GB/sec fiber-optic single link

Bonded links up to 40Gbps
Or bi-di single-fiber link for slip-ring applications

Signal Aggregation Media Converter

2 Fiber Optical Solution

Signal Aggregation Media Converter

Single Optical Fiber Solution

Signal Aggregation Media Converter

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

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