product guide

data sheet

FOL1553-P

Portable Standalone Fibre Optic Extension Systems for MIL-STD-1553

What is FOL1553-P?

FOL1553-P is an abbreviation for Fibre Optic Link (Portable), being a two part system to extend a MIL-STD-1553 stub. The system has been designed for applications where the distance from the UUT (Unit Under Test) has to be extended.

Two types of FOL-P systems are available:

FOL1553-P

Simulator System

Simulator systems provide a bi-directional optical extension for MIL-STD-1553 bus stubs. These systems can be configured to extend one MIL-STD-1553 bus stub for up to 100m limited by the MIL-STD-1553 Status Word Response time extension (caused by system inherent delay and propagation delay on the fibre).

The FOL1553-P Simulator System consists of two identical FOL1553-P bi-directional Units.

FOL1553-P

Monitor System

Monitor systems provide a uni-directional optical extension for MIL-STD-1553 bus stubs. These systems can extend each independent MIL-STD-1553 bus stub up to 500m limited by the optical attenuation in the fibre.

The FOL1553-P Monitor System consists of an Optical Transmitter Unit (connected to the UUT) known as FOL1553-P-T and an Optical Receiver Unit (connected to the Tester) known as FOL1553-P-R.

In both cases FOL1553-P units are 'stand alone' applications with integrated battery and optional plug-in DC power supply. FOL1553-P provides a flexible, simple and easy to operate system making it an ideal solution for both fixed and portable applications.

- Remote Monitoring/ Simulation
- MIL-STD-1553 Stub Extensions

FOL1553-P Front

FOL1553-P Rear

Features

The FOL1553-P design comprises a two part system and requires no software to operate.

- Portable - Easy to use 'Plug & Play' design
- Optical Link: COTS 62.5/ 125μm multimode gradient index fibre with ST-connectors (wavelength 1300nm)
- EMC protection as per common industry standards
- Extended Temperature Version available
- Battery Packs for Stand alone operation integrated (up to 4:30h for monitor operation or 3h for simulator operation, also depending on bus load)
- External DC power supply for battery charging or operation: 12..28VDC
- MIL-STD-1553 Coupling Mode: Transformer Coupled

Connector Types:

- TWINAX BJ77 connectors for MIL-STD-1553 buses
- ST-connectors for Fibre Optics
- DC power supply plug

Temperature:

- Standard Version: 0°C... +45°C
- Extended Version: (Operating) -20°C... +60°C
  (reduced battery capacity at low end)
  (Charge) 0°C... +45°C

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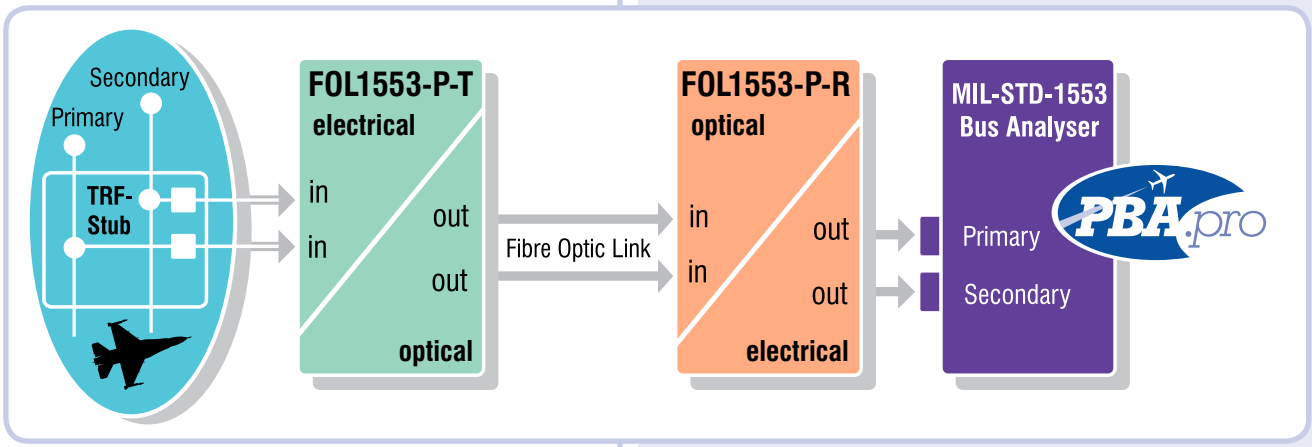
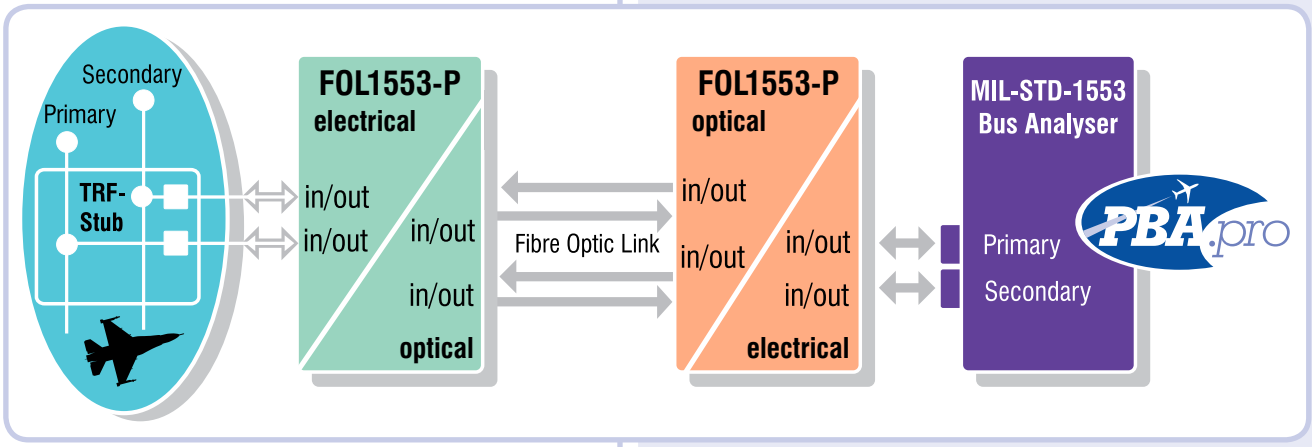
Right on Target

FOL1553-P Monitoring System (uni-directional)



Simulator System (bi-directional)



FOL1553-P (Rear View)

Ordering Information

FOL1553-P-T

Compact Dual redundant MIL-STD-1553 Fibre Optic Extension Module; Transmit direction only (i.e. transmit data into Fibre Optic Link); including Battery Pack and Power Supply Adapter

FOL1553-P

Compact Dual redundant MIL-STD-1553 Fibre Optic Extension Module; Transmit and Receive direction; including Battery Pack and Power Supply Adapter

FOL1553-P-R

Compact Dual redundant MIL-STD-1553 Fibre Optic Extension Module; Receive direction only (i.e. receive data from Fibre Optic Link); including Battery Pack and Power Supply Adapter

AIM can supply the fibre optical interconnecting cables as an option. Please contact the factory for more information and prices.

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