sFPDP Analyser SFA2502

Features

- ✓ 2.5Gb/s sFPDP line rate
  - Others available
- ✓ SFP modules
  - Fibre optic - LC
    - 850nm (multimode)
    - 1310nm (single mode)
    - 1550nm (single mode)
  - Copper - RJ45
- ✓ USB3.0
- ✓ Portable / rugged enclosure
- ✓ Graphical user interface
- ✓ In line connection between sFPDP devices with very low latency

Applications

- ✓ Digital signal processing
- ✓ Radar
- ✓ Sonar
- ✓ High speed data acquisition
- ✓ High resolution video
- ✓ Lab-based testing
- ✓ Field testing

The SFA2502 sFPDP Analyser is a bench top interface that extends the capabilities of an existing PC, allowing it to sample low level sFPDP serial characters. The SFA2502 can support users in the development and test of new and existing sFPDP links.

Signals from two SFP cages are electrically looped so that the SFA2502 can be connected “in line” between two sFPDP devices without interfering, apart from nominal latency. Both directions are simultaneously monitored so that, for example, time measurements can be made between control frames and the corresponding responses.

The SFA2502 is designed to work out-of-the-box, with a standard PC running Linux or Microsoft Windows. The user interface provides triggering options and displays the resulting samples using tabular and graphical viewing formats.

Its compact size and rugged enclosure means that the SFA2502 is ideally suited to laboratory or field-testing.

Applications

The SFA2502 can be used in following example applications:

- Verification of sFPDP interfaces
- Performance measurement
- System testing

Interfaces

The SFA2502 requires a USB3 port to connect to a user’s PC or Laptop computer.

The sFPDP interface may be fibre-optic (LC) or wire (RJ45).

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Test and Verification Equipment for Imaging Sensors

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Functional specification

Data rate

- 2.5Gb/s line rate is supported as standard
- Other line rates up to 3.125Gb/s are available on request
- The full bandwidth can be used in both directions between systems
  Data words are counted but masked to keep transfers to the host at achievable rates

Graphical user interface

- Easy to use
- Tabular view for displaying decoded characters
- Graphical views for displaying sFPDP and resulting FPDP frames
- Trigger options include:
  - SOF by type
  - FEOF
  - SEOF by type
  - MEOF
  - SWDV
  - GO
  - STOP
  - CRC error
  - Data word value
  - Zero length sFPDP data frames
  - Trigger to start, trigger to stop and trigger to stop after period
- Zoom in, out and to trigger

Other

- The host computer is used for buffering captured data, so the analyser is capable of large sampling depths

Physical specification

- Connectors: USB3.0 (for connection to host computer *(not included)*)
  Power supply input
  SFP (A) (to connect to first sFPDP device)
  SFP (B) (to connect to second sFPDP device)
- Indicators: Power (blue) Status (green/blue)
  Link A (yellow) Data A (green/red)
  Link B (yellow) Data B (green/red)
- Supply voltage: 12V @ 1A
- Power consumption: <10W
- Operating temperature: 0°C ~ 40°C
- Operating humidity: 5% ~ 95% non-condensing
- Dimensions: 150mm *Length* x 105mm *Width* x 55mm *Height*
- Weight: 0.82Kg

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