sFPDP Generator SFG2501

Features

- ✓ Traffic generator
- ✓ 2.5Gb/s sFPDP line rate
  - • Others available
- ✓ SFP modules
  - • Fibre optic - LC
    - ▪ 850nm (multimode)
    - ▪ 1310nm (single mode)
    - ▪ 1550nm (single mode)
  - • Copper - RJ45
- ✓ USB3
- ✓ Portable / rugged enclosure
- ✓ Graphical user interface
- ✓ User programmable frames

Applications

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

The SFG2501 sFPDP Generator is a bench top interface that extends the capabilities of an existing PC, allowing it to interact with sFPDP data link.

The SFG2501 is designed to work out-of-the-box with a standard PC running Microsoft Windows. It allows the software running on the PC to control and exchange data with an sFPDP data link, without the complexity of first installing and testing a firmware core.

Its compact size and rugged enclosure means that the SFG2501 is ideally suited to laboratory or field-testing.

Applications

The SFG2501 has been used in following example applications:

- • Stimulation of a radar-processing unit where the actual radar is not available to provide signals
- • Automated testing of sFPDP based systems
- • Testing radar and sonar algorithms by injecting pre-recorded or simulated data streams

Interfaces

The SFG2501 uses 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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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
- sFPDP data rates up to 140MBytes/s are achievable
  Sustained data rates are platform dependant

Graphical user interface
- Easy to use
- Shipped with example data files to enable fast set up
- Can run a sequence once, a pre-defined number of times or continuously
- Load/Save/Create and Edit programmed sequences
- Operations are selected from a drop down list to be inserted into, or appended to, programmed sequences
- Flow control can be enabled or disabled
- CRC can be enabled or disabled
- FPDP frames (with or without syncs) can be programmed as well as arbitrary sync without data
- Data files can be transmitted with options to set the transmission rate, CRC enable, no sync, sync before or sync with last word
- CRC and data errors can be inserted into the data stream

Physical specification

- Connectors:
  USB3.0 (for connection to host computer *(not included)*)
  Power supply input
  SFP (A) (sFPDP input/output)
  SFP (B) (repeat of input on SFP (A))
- Indicators:
  Power (blue)　　　Status (green/blue)
  Link (yellow)　　　Data (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

Test and Verification

Equipment for

Imaging Sensors

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Link to website