

VL-FTX 1310nm Forward Transmitter

Description

The VL-FTX series is a high performance 1310nm DFB laser transmitter module and ideal for broadcast and narrowcast applications in optical transportation. The modules can provide a wide range of optical output power to deliver both analog and digital signals. High performance, advanced pre-distortion circuitry achieves superior CSO and CTB. All configuration parameters of modules can be monitored by LED screens on the front panel of the module, or by the VL-EMS equipment management module. The VL-FTX module can be operated also by AGC or MGC modes. These modes can be set up on the front panel.



Specifications

| Parameter | Unit | Specification | Note |
|---|------|----------------------|-------------------------|
| Optical Performance | | | |
| Wavelength | nm | 1310 +/-20 | -- |
| Output power | mW | 6/8/10/13/16/20 | -- |
| Connector | -- | SC/APC | -- |
| RF Performance | | | |
| Bandwidth | MHz | 50-1003 | -- |
| Return loss | -dB | ≥16 | -- |
| Input level | dBmV | 15+/-4 27+/-4 | Broadband Narrowband |
| Impedance | ohm | 75 | -- |
| Flatness | dB | +/-0.75 | -- |
| Connector | | F-female | -- |
| Test point | dB | -20+/-1 -32+/-1 | Broadband Narrowband |
| Link Performance 15km fiber + attenuator, receive power -1dBm (77 NTSC channels) | | | |
| CSO | dBc | ≤-63 | -- |
| CTB | dBc | ≤-67 | -- |
| XMOD | dBc | ≤-65 | -- |
| Electrical/Physical Performance | | | |
| Supply voltage | VDC | 24 | -- |
| Power consumption | W | <12.5 | -- |
| Dimensions | mm | 395D x 24W x 128H | -- |
| Weight | Kg | 1.2 | -- |

Features

- High performance distributed feedback (DFB) laser with pre-distortion circuit
- Hot-swap capability
- Bandwidth 50~1003MHz
- 6/8/10/13/16/20 mW optical output power
- Automatic/manual gain control (AGC/MGC)
- Broadband and narrowband input
- RF input test point
- Short circuit protection

CNR

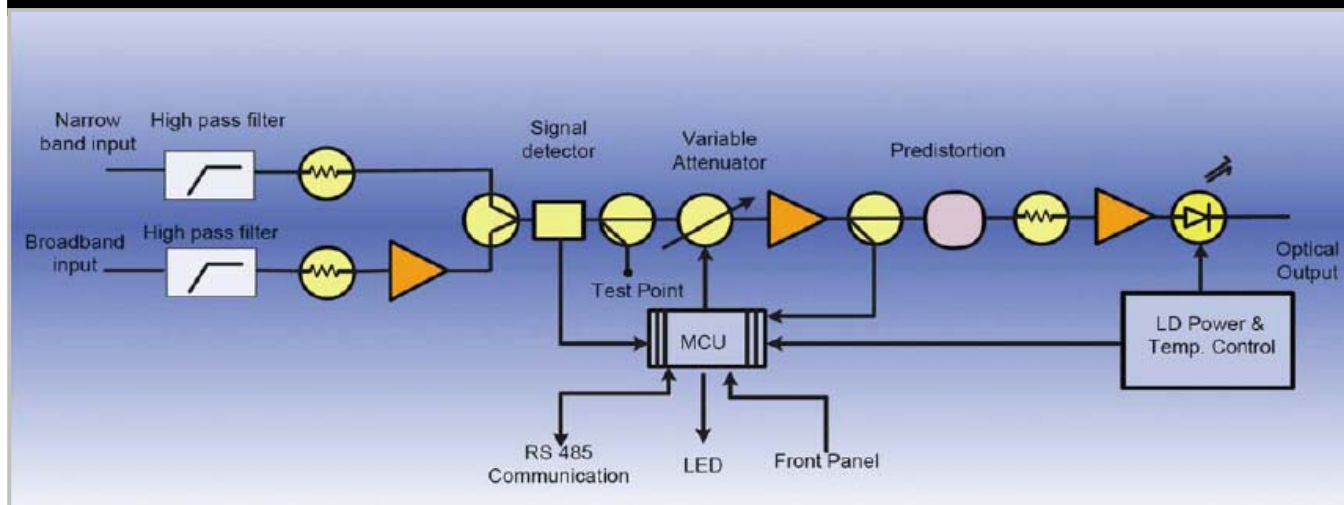
| Power Loss | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
|------------|----|----|----|----|----|----|----|----|----|
| 06mW | 53 | 52 | 51 | 50 | | | | | |
| 08mW | | 53 | 52 | 51 | 50 | | | | |
| 10mW | | | 53 | 52 | 51 | 50 | | | |
| 13mW | | | | 53 | 52 | 51 | 50 | | |
| 16mW | | | | | 53 | 52 | 51 | 50 | |
| 20mW | | | | | | 53 | 52 | 51 | 50 |

Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only. Functional operation of the device is not implied at these conditions. Exposure to absolute maximum ratings for extended periods can adversely affect device reliability.

| Parameter | Symbol | Unit | Min | Max |
|-----------------------|--------|------|-----|--------------------|
| Operating temperature | Top | °C | 0 | 50 |
| Storage temperature | Tstg | °C | -40 | 70 |
| Humidity | H | % | | 85, non-condensing |

Block Diagram



Ordering Information

| VL-FTX-1310-3 | -- | XX | -- | XXX | -- | XX |
|---------------|----|--|----|----------------------------|----|------------------|
| | | Optical power: 08 = 8dBm 09 = 9dBm 10 = 10dBm 11 = 11dBm 12 = 12dBm 13 = 13dBm | | Connector: SCA = SC/APC | | Customer specify |