

## Key Highlights:

- **Type:** SFP+
- **Compatibility:** Multi-Vendor MSA Compatible
- **Tx Wavelength:** Ch. 61 (1528.77 nm)
- **Rx Wavelength:** ITU-T DWDM Grid 100 GHz C-Band
- **Media Type:** Single-Mode Fiber (SMF)
- **Optical Budget:** 14 dB
- **Max. Distance:** 40 km
- **Data Rate:** 1.228-10.138 Gbps
- **Temperature:** Industrial -45°C - +85°C



## Optical Transceiver: DWDM-10GFH-SFP-40I-61

### Product Description:

DWDM-10GFH-SFP-40I-61 is Multi-Vendor MSA Compatible SFP+ (Small Form factor Pluggable) Transceiver, operating over Double Fiber DWDM Single-Mode Fiber (SMF) optical cable. It has minimum guaranteed optical budget of 14 dB, with in most cases is enough to reach about 40 km distance. However, distance is just indicative parameter calculated for comfort of identification. Eventually we calculate distance taking in account minimal optical budget and average attenuation of optical cabling in industry. This transceiver use top quality EML Laser transmitter with operating at nominal wavelength Ch. 61 (1528.77 nm) and ITU-T DWDM Grid 100 GHz C-Band PIN Photodiode receiver. It support DDM/DOM optical diagnostics, with provide diagnostic information about the present operating conditions. DWDM-10GFH-SFP-40I-61 operates in Industrial -45°C - +85°C temperature range and has Double LC interface. SFP+ support 1.228-10.138 Gbps data rate and such applications as CPRI option 2 (1228.8 Mbps)|CPRI option 3 (2.458 Gbps)|CPRI option 5 (4.915 Gbps)|CPRI option 6 (6.144 Gbps)|CPRI option 7 (9.830 Gbps)|CPRI option 8 (10.138 Gbps)|OBSAI RP3 x 2 (1.536 Gbps)|OBSAI RP3 x 4 (3.072 Gbps)|OBSAI RP3 x 8 (6.144 Gbps). DWDM-10GFH-SFP-40I-61 SFP+ Double Fiber DWDM optical transceiver is multi-purpose module used in number of different places of today's networking. Consequently, most popular applications are CPRI LTE 4G RRU and BBU Interconnections in C-RAN Fronthaul, OBSAI LTE 4G RRU and BBU Interconnections in C-RAN Fronthaul and other optical links.

Transceiver is CE/RoHS certified and it is Compliant with product safety standards. DWDM-10GFH-SFP-40I-61 SFP+ Transceiver is fully compliant to SFP+ Multi Source Agreement SFF-8431. Consequently, it means that module is compatible with 80% of networking equipment, where is not implemented a special algorithm for protection against third party modules. However – we can provide SFP+ transceiver with custom-encoded firmware in order to make it work almost in any equipment. Therefore, we will be glad to know what your requirement is. Because our focus is providing top quality service, we are performing serious quality checks before delivery of our products. As a result, we do optical parameter measurements, connector cleanliness tests and SFP transceiver EEPROM memory data validation tests.



## Product Specification:

| Parameter                   | Value                                                                                                                                                                                                                                                |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Media Type:                 | Single-Mode Fiber (SMF)                                                                                                                                                                                                                              |
| Tx Wavelength:              | Ch. 61 (1528.77 nm)                                                                                                                                                                                                                                  |
| Rx Wavelength:              | ITU-T DWDM Grid 100 GHz C-Band                                                                                                                                                                                                                       |
| Minimum Optical Budget:     | 14 dB                                                                                                                                                                                                                                                |
| Maximum Distance:           | 40 km                                                                                                                                                                                                                                                |
| Supported Data Rate:        | 1.228-10.138 Gbps                                                                                                                                                                                                                                    |
| Supported Applications:     | CPRI option 2 (1228.8 Mbps) CPRI option 3 (2.458 Gbps) CPRI option 5 (4.915 Gbps) CPRI option 6 (6.144 Gbps) CPRI option 7 (9.830 Gbps) CPRI option 8 (10.138 Gbps) OBSAI RP3 x 2 (1.536 Gbps) OBSAI RP3 x 4 (3.072 Gbps) OBSAI RP3 x 8 (6.144 Gbps) |
| DDM/DOM:                    | Support                                                                                                                                                                                                                                              |
| Temperature Range:          | Industrial -45°C - +85°C                                                                                                                                                                                                                             |
| Connectors:                 | Double LC                                                                                                                                                                                                                                            |
| Tx Wavelength Bandwidth:    | 100GHz (0.8nm)                                                                                                                                                                                                                                       |
| Rx Wavelength Bandwidth:    | 1260 - 1620 nm                                                                                                                                                                                                                                       |
| Minimum Transmitting Power: | -2 dB                                                                                                                                                                                                                                                |
| Maximum Transmitting Power: | 4 dB                                                                                                                                                                                                                                                 |
| Receiver Sensitivity:       | -16 dBm                                                                                                                                                                                                                                              |
| Receiver Overload:          | -1 dBm                                                                                                                                                                                                                                               |
| Dispersion:                 | 850-1000 ps/nm                                                                                                                                                                                                                                       |
| Transmitter Type:           | EML Laser                                                                                                                                                                                                                                            |
| Receiver Type:              | PIN Photodiode                                                                                                                                                                                                                                       |
| Sidemode Suppression Ratio: | 35 dB                                                                                                                                                                                                                                                |
| Max. Receiver Reflectance:  | - 12 dB                                                                                                                                                                                                                                              |
| Power:                      | +3.3V single power supply                                                                                                                                                                                                                            |
| Power Consumption:          | 350mA                                                                                                                                                                                                                                                |
| MTBF value at 35 °C:        | 1'000'000 Hours.                                                                                                                                                                                                                                     |
| Chip-set:                   | MAXIM MINDSPEED SEMTECH                                                                                                                                                                                                                              |
| Compliance:                 | CE Class 1 FDA and IEC60825-1 Laser Safety Compliant RoHS SFF-8431 SFP MSA                                                                                                                                                                           |



## Compatibility:

EDGE Optical transceivers can be provided with custom-encoded firmware, in order to provide compatibility with more than 50 vendor brands in data and telecom communications industry:

**MS** - General MSA  
**AD** - ADVA  
**AL** - Alcatel-Lucent  
**AR** - Arista  
**AV** - Avaya  
**BR** - Brocade  
**CN** - Ciena  
**CI** - Cisco  
**DL** - Dell & Force10  
**DK** - D-Link  
**EM** - EMC2  
**ET** - Enterasys

**ER** - Ericsson  
**EX** - Extreme Networks  
**F5** - F5 Networks  
**FO** - Fortinet  
**FU** - Fujitsu  
**H3** - H3C  
**HI** - Hirschmann  
**HP\*** - HP Networking  
**HS\*** - HP Storage  
**HU** - Huawei  
**IB** - IBM  
**IF** - Infinera

**IN** - Intel  
**JU** - Juniper Networks  
**LI** - Linksys  
**ML** - Mellanox  
**ME** - Meraki (Cisco)  
**MT** - MikroTik  
**MO** - Moxa  
**MR** - MRV  
**NG** - Netgear  
**NS** - NSN  
**PA** - Palo Alto Network  
**QL** - Qlogic

**RD** - RAD  
**RU** - Ruijie Networks  
**SM** - Supermicro  
**SY** - Synology  
**TC** - Telco Systems  
**TP** - TP-LINK  
**TN** - Trendnet  
**WG** - WatchGuard  
**ZT** - ZTE  
**XX** - Other

## Warranty:

EDGE Optic's provides a limited **warranty for sixty (60) months** from Purchaser's receipt of the Equipment represented in this data sheet against defective design or workmanship.

