

# 10G Industrial SFP (Single-mode Dual Fiber 10KM)



- SFP+ package with LC connector;
- 1310nm DFB Laser and PIN photo detector
- Up to 10km transmission on SMF
- Power dissipation < 1W
- LVPECL compatible data input/output interface
- Low EMI and excellent ESD protection
- laser safety standard IEC-60825 compliant
- Compatible with RoHS
- Compatible with SFF8472

## Technical Parameter(SA-SD1310)

|                          |   |
|--------------------------|---|
| Absolute Maximum Ratings | <p>The storage temperature ranges from <b>-40°C to +85°C</b>.</p> <p>The supply voltage must not exceed <b>+3.6V</b>, with a minimum of <b>0V</b>.</p> <p>The operating relative humidity should be between <b>0% and 85%</b>.</p>  |
| Operation Environment    | <p>The device operates with a supply voltage between <b>3.15V and 3.45V</b>.</p> <p>The operating case temperature should be within <b>0°C to +70°C</b>.</p> <p>Power dissipation is up to <b>1 watt</b>.</p> <p>The supported data rate is <b>10.3125 Mbps</b>.</p>  |
| Receiver Section         | <p>The center wavelength (<math>\lambda_0</math>) is 1310 nm.</p> <p>The receiver sensitivity is -14 dBm, while the receiver overload level is -13 dBm.</p> <p>The return loss measures +0.5 dBm.</p> <p>The Loss of Signal (LOS) assert level is -12 dBm, the LOS de-assert level is -28 dBm, and the LOS hysteresis is -15 dBm.</p> |

## APPLICATION

- 10GBASE-SR/SW 10G Ethernet
- 1200-Mx-SN-I 10G Fiber Channel

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**Transmitter Section**

- The center wavelength ( $\lambda_0$ ) ranges from **1290 nm to 1330 nm**, with a typical value of **1310 nm**.
  - The average output power ranges from **-5 dBm to +0.5 dBm**.
  - The Side Mode Suppression Ratio (SMSR) is at least **35 db**.
  - The extinction ratio (Er) is at least **3.5 dB** (measured between 20% and 80% rise/fall time).
  - The total jitter is **3.2 db**.
  - The relative intensity noise (RIN) is **-128 dB/Hz**.
  - Total jitter complies with **IEEE 802.3ae** standards.
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