

**PRE-CFP2-ER4, PRE-CFP2M-ER4**  
CFP2, 1310nm, SMF, 40km, 100Gbps & 112Gbps



**Product Features:**

- EML Transmitters
- SOA-PIN Receivers
- SMF Transmission Medium
- LC-UPC Connector Type
- Digital Diagnostics Monitoring (DDM)



**Product Applications:**

- 100G Ethernet
- OTN Transport

**General Specifications**

| Parameter                               | Symbol      | Min                       | Typ | Max                      | Unit |
|---|-------------|---------------------------|-----|--------------------------|------|
| Case Operating Temperature (Commercial) | $T_{op}$    | 0                         | -   | 70                       | °C   |
| Power Consumption                       | $P_w$       | -                         | -   | 9                        | W    |
| Power Supply Current                    | $I_{cc}$    | -                         | -   | 2200                     | mA   |
| Power Supply Voltage                    | $V_{cc}$    | 3.2                       | 3.3 | 3.4                      | V    |
| Storage Humidity                        | $H_s$       | 5                         | -   | 95                       | %    |
| Storage Temperature                     | $T_s$       | -40                       | -   | 85                       | °C   |
| Transmission Distance                   | TD          | -                         | -   | 40                       | km   |
| Data Rate (Total)                       | $DR_T$      | 103.125                   | -   | 111.81                   | Gbps |
| Data Rate (Per Lane)                    | $DR_{lane}$ | 25.78125<br>$\pm 100$ ppm | -   | 27.95249<br>$\pm 20$ ppm | GBd  |

### Optical Characteristics: Transmitter

| Parameter                             | Symbol      | Min     | Typ     | Max     | Unit  |
|---------------------------------------|-------------|---------|---------|---------|-------|
| Center Wavelength 1                   | $\lambda_1$ | 1294.53 | 1295.56 | 1296.59 | nm    |
| Center Wavelength 2                   | $\lambda_2$ | 1299.02 | 1300.05 | 1301.09 | nm    |
| Center Wavelength 3                   | $\lambda_3$ | 1303.54 | 1304.58 | 1305.63 | nm    |
| Center Wavelength 4                   | $\lambda_4$ | 1308.09 | 1309.14 | 1310.19 | nm    |
| Transmit Power per lane (100GE)       | $P_{OUT}$   | -2.9    | -       | 2.9     | dBm   |
| Transmit Power per lane (OTU4)        | $P_{OUT}$   | -2.7    | -       | 2.9     | dBm   |
| Side Mode Suppression Ratio           | SMSR        | 30      | -       | -       | dB    |
| Dispersion Penalty per lane           | DP          | -       | -       | 2.5     | dB    |
| Extinction Ratio (100GE & OTU4)       | ER          | 8       | -       | -       | dB    |
| Relative Intensity Noise              | RIN         | -       | -       | -130    | dB/Hz |
| Transmitter OFF Output Power per lane | $P_{OFF}$   | -       | -       | -30     | dBm   |

### Optical Characteristics: Receiver

| Parameter                             | Symbol      | Min     | Typ     | Max     | Unit |
|---------------------------------------|-------------|---------|---------|---------|------|
| Receiver Wavelength 1                 | $\lambda_1$ | 1294.53 | 1295.56 | 1296.59 | nm   |
| Receiver Wavelength 2                 | $\lambda_2$ | 1299.02 | 1300.05 | 1301.09 | nm   |
| Receiver Wavelength 3                 | $\lambda_3$ | 1303.54 | 1304.58 | 1305.63 | nm   |
| Receiver Wavelength 4                 | $\lambda_4$ | 1308.09 | 1309.14 | 1310.19 | nm   |
| Damage Threshold per lane             | $P_D$       | 5.5     | -       | -       | dBm  |
| Receiver Sensitivity per lane (100GE) | R           | -       | -       | -21.4   | dBm  |
| Receiver Sensitivity per lane (OTU4)  | R           | -       | -       | -23.2   | dBm  |

### Product Ordering Information

| Part Number  | Description                      |
|--------------|----------------------------------|
| PRE-CFP-ER4  | CFP2, 1310nm, SMF, 40km, 100Gbps |
| PRE-CFP-ER4M | CFP2, 1310nm, SMF, 40km, 112Gbps |