# CD-4000 Clock data recovery

## OPTICAL/ELECTRICAL CDR BOX FOR 28/56 GBd



**Efficient CDR solution for the production line.**

## KEY FEATURES

Supports NRZ and PAM4 signals

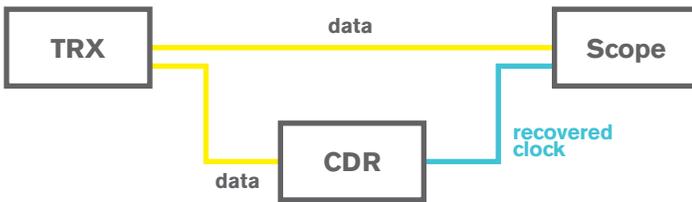Integrated O/E with optical splitter (optional)
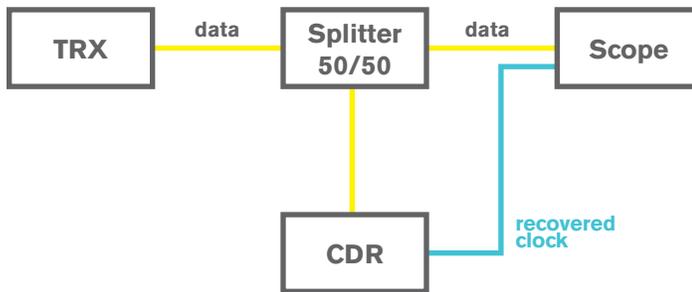
Ultra low random jitter

Auto-locking

**EXFO**

## TEST CONFIGURATIONS OF 53G TRANSCEIVER

**1** **400GBASE-DR4**
**400GBASE-FR4**



Test pattern: PRBS7Q to PRBS16Q and SSPRQ.

**2** **100GBASE-DR1**
**100GBASE-FR1**



Test pattern: PRBS7Q to PRBS16Q.

Test pattern: limited support for SSPRQ.

## SPECIFICATIONS

All specifications are typical at 23 °C ± 2 °C unless otherwise specified.

| OPTICAL SPECIFICATIONS | |
|---|---|
| Symbol rate (GBd) | 25 - 56 (depends on model) |
| Wavelength (nm) | 1250 - 1650 |
| Return loss (dB) | −30 (at 1310/1550 nm) |
| Input sensitivity (dBm) | −5 (at 1310/1550 nm) |
| Damage power (mW) | 5 |
| Connector type | FC/PC (9/125 µm) |
| Loop bandwidth (MHz) | 20 |
| Clock output ratio | /8 for 53G, 56G<br>/4 for 26G, 28G |
| Recovered clock random jitter (fs) | < 290 (0 dBm, PRBS16Q at 53 GBd) |
| Clock output amplitude (mV) | 400 (typical) |

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## ELECTRICAL SPECIFICATIONS

| | |
|---|---|
| Symbol rate (GBd) | 25 - 56 |
| Bandwidth (GHz) | 25.6 - 31.9 |
| Return loss (dB) | −30 |
| Input amplitude (mV$_{ppd}$) | 350 - 550 |
| Connector type | 2.92 mm (K) |
| Loop bandwidth (MHz) | 20 |
| Clock output ratio | /8 for 53G, 56G<br>/4 for 26G, 28G |
| Recovered clock random jitter (fs) | <50 |

## GENERAL SPECIFICATIONS

| | | |
|---|---|---|
| Size (H x W x D) | | 103 mm x 442 mm x 300 mm (4.1 in x 17.4 in x 11.8 in) |
| Weight | | ≤10 kg (22 lb) |
| Temperature | Operating<br>Storage | 5 °C to 40 °C (41 °F to 104 °F)<br>−20 °C to 70 °C (−4 °F to 158 °F) |
| Relative humidity | | 20% to 80% |
| Power [a] | | 100/120 Vac (50/60/400 Hz)<br>220/240 Vac (50/60 Hz)<br>60 W typical/80 W max. |
| Access interface | | Gigabit Ethernet (RJ45 port) |

a. Operate with supply voltage fluctuations up to ±10 % of the nominal voltage.

## ORDERING INFORMATION

**CD-4000-XX-XX**

**Model**
56-O = 28 GBd/56 GBd optical CDR box
56-E = 28 GBd/56 GBd electrical CDR box

**Options**
50S = Built-in 50/50 splitter
80S = Built-in 80/20 splitter

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