

CR600

60Gbaud Optical/Electrical Clock Data Recovery Unit



The Dimension CR600 Optoelectronic Clock Recovery Unit supports both NRZ and PAM4 modulation formats, with the capability to recover optoelectronic clock up to 60 GBaud. The system integrates single and multi-mode OE conversion circuits, and clock recovery circuits, making it suitable for both electrical and optical applications. The unit meets the stringent requirements for high sensitivity and low inherent jitter, ensuring excellent measurement accuracy. With a user-friendly interface, it is easy to configure and use. Whether you're testing computer systems, optical communication systems, or verifying standards compliance, the Dimension CR600 Clock Recovery Unit offers an outstanding, highly reliable, and cost-effective clock recovery solution.

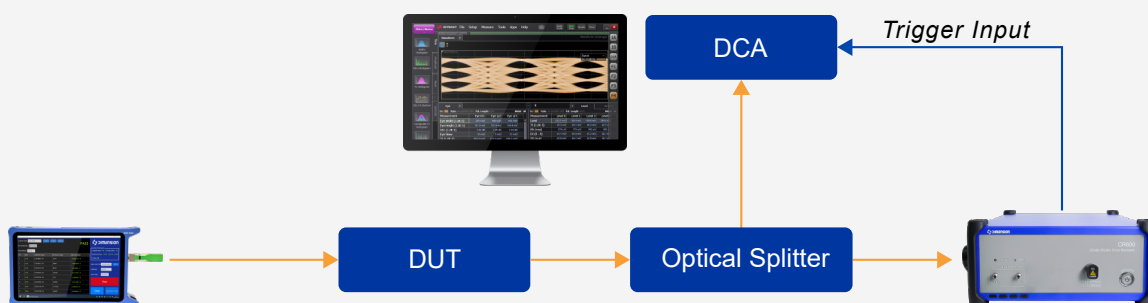
Key Features

- Supports NRZ and PAM4 signals, with rates up to 120 Gbps
- Compact, portable, and easy to use
- Integrated OE and clock recovery design
- Supports single/multi-mode optical signals with sensitivity better than -10dBm
- Ultra-low random jitter < 230 fs RM

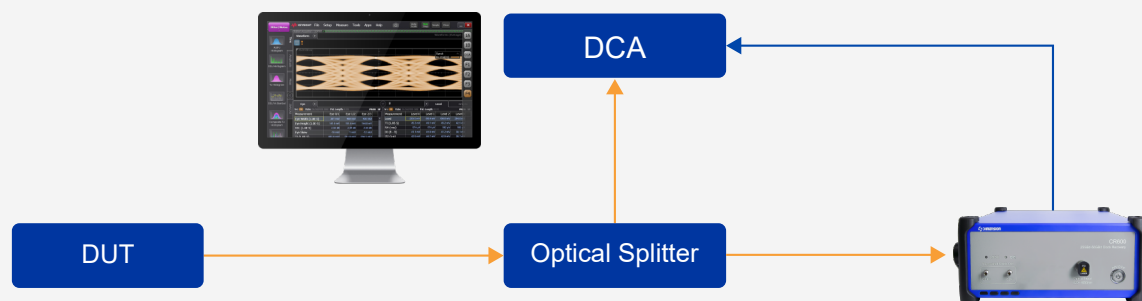
Applications

- Optical Transceiver Module
- Subsystem Clock Recovery
- Eye Diagram Test

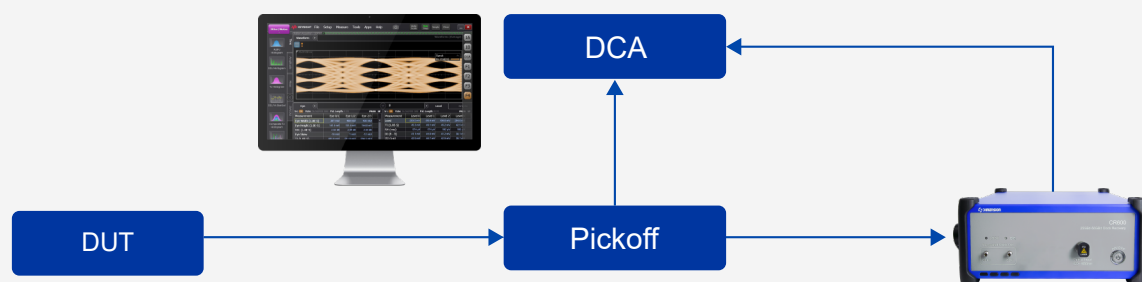
Typical Application: 800G Eye Diagram Test



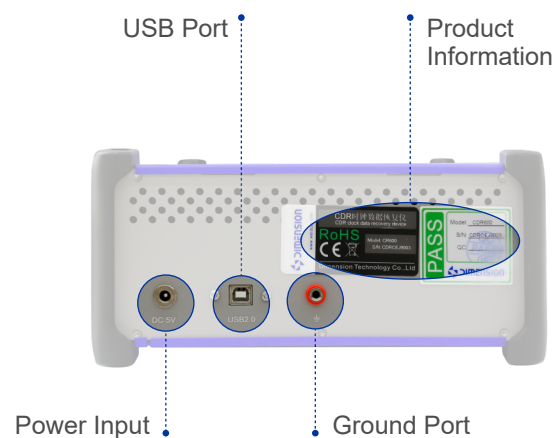
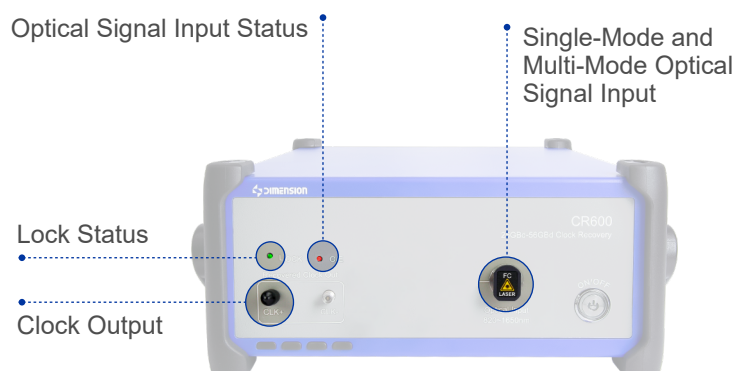
Optical Eye Diagram Testing



Optical Eye Diagram Testing

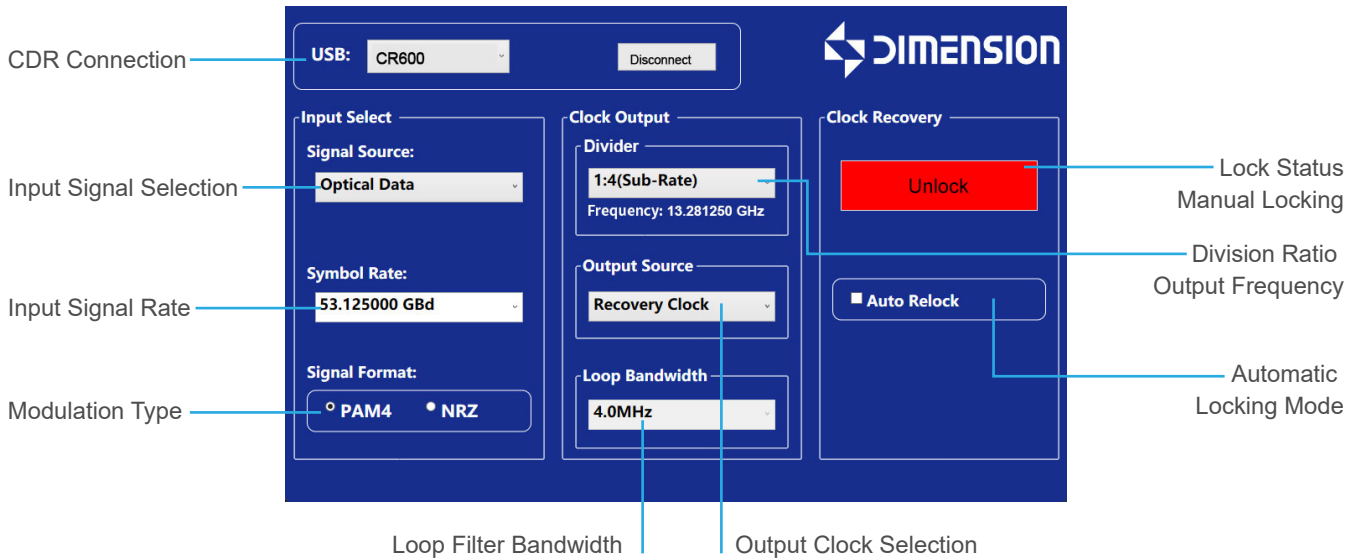


Panel Introduction



User Interface

The CR600 provides a simple user interface, allowing easy parameter setting and selection, while intuitively displaying the operating status and relevant parameters of the clock recovery unit.



Communication Protocol

The CR600 comes with a comprehensive communication protocol, which allows users to set various parameters and read the operating status of the unit via the USB port. Program examples are provided, enabling users to easily integrate the CR600 into their testing systems.

Code Example:

15.*IDN?

Return system information.

Send: *IDN?

Return: CR600 100GBd CDR, FW Ver:1.0

```
string strValue = "";
if (!SendCommand("*IDN?")) return "NoDevice";
if (!ReceiveData(ref strValue)) return "NoDevice";
if (strValue == "") return "NoDevice";
return strValue.TrimEnd();
```

```
public string GetInstrumentInfor()
{
    try
    {
        Mux.WaitOne();

        string strValue = "";
        if (!SendCommand("*IDN?")) return "NoDevice";
        if (!ReceiveData(ref strValue)) return "NoDevice";
        if (strValue == "") return "NoDevice";
        return strValue.TrimEnd();
    }
    finally
    {
        Mux.ReleaseMutex();
    }
}
```

Specifications

Electrical Parameters	
Data Rate Input Range	24~30Gbaud, 48~60Gbaud
Modulation Type	NRZ/PAM4
OE Output Connector Type	2.92mm female, 50 Ω
OE Output Amplitude	400mVpp @56GBd
CLK In Connector Type	2.92mm female, 50 Ω
CLK In Amplitude (Max.)	600mVpp @56GBd
CLK Out Connector Type	2.92mm female, 50 Ω
CLK Out Amplitude (Diff.)	700mVpp @26.56GHz
CLK In Sensitivity (Diff.)	100mVpp @56GBd
Division Ratio	1/2, 1/4, 1/8, 1/16, 1/32, 1/64
Jitter	<230fs @13.28GHz
Loop Filter Bandwidth	4 MHz
Standard Signals	± 100 ppm
Auto Relock	Yes
Internal CLK Output	Yes
CLK Diff. Output	Yes
Optical Parameters	
Data Rate Input Range	24~30Gbaud, 48~60Gbaud
Sensitivity	-12dBm@53.125 Gbaud, PAM4 SM -10dBm@53.125 Gbaud, PAM4 MM
Optical Signal Type/mode	Single-Mode, Multi-Mode
Wavelength Range	820~1650nm
Return Loss	16 dB
Optical Connector Type	SM: FC/PC 9/125um MM: FC/PC 50/125um
Others	
Operating Temperature	10°C to 40°C(50°F to 104°F)
DC Power Supply	5V
Humidity	95% RH, non-condensing
Communication Port	USB, LAN
Power Consumption	6W

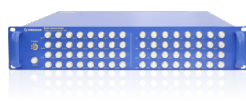
Order Info

Model	Description
CR600	60Gbaud Optical Electrical Clock Data Recovery Unit

Related Products



Programmable Optical Attenuator



Optical Switch



BERT800P

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