

LS200-10 ZR-EDFA CHASSIS_AC

60LXA0001 (1663938)

The Coherent Lite System Chassis (LS200-10 ZR-EDFA Chassis) is designed to support Coherent pluggable modules, such as POLS EDFA, OTDR, OPS, OSC and others, to monitor and manage the optical network in coordination with these pluggable modules.

It provides an open and flexible platform, which can be equipped with different pluggable modules with required functions according to demands, enabling convenient and fast deployment.

In a space-efficient 1RU chassis design, the device includes 8 QSFP (Quad Small Form-factor Pluggable) ports and 2 SFP (Small Form-factor Pluggable) ports, delivering a compact alternative to traditional optical network systems. The pluggable modules can be configured on demand, leading to lower and more controllable cost.



FEATURES

- Space-efficient and cost-effective for 1RU chassis paired with pluggable modules
- Simple and straightforward installation
- Open and flexible platform
- Easy to operate with pluggable modules
- Flexible functions by swap pluggable modules as demand
- Lower power consumption compared with traditional optical line system

APPLICATIONS

- Data Center Interconnects (DCI)

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1.0 Product Overview

The document outlines the product specifications of a COHERENT optical module for 1RU Chassis including 1 piece 8x QSFP+2SFP carrier board, with a RS232 console port that can be accessed through either DB9 or RJ45. The chassis supports 10 modules **compatible with** various Coherent QSFP POLS (or ZR-EDFAs), OTDR, OPS, OSC **etc.**

1.1 Application Notes

- This chassis supports 8 pluggable QSFP and 2 pluggable SFP modules at most, it provides the golden finger pin management and I2C communication with all these pluggable modules.
- This chassis supports some basic FW related CDB commands, including "get firmware information" and FW upgrade function (FW upgrade instruction please refer to Coherent application notes and files.).
- The user can use SFFI commands to communicate with the selected pluggable module's EEPROM. CDB can also be implemented based on it, like the OTDR file transfer, which has been supported by Coherent optical network chassis tool.

2.0 Optical Network Chassis Tool

The LS200-10 ZR-EDFA Chassis is supported by the Coherent Optical Module Measurement Tool, a Windows-based application designed for module selection, and optical module related operations. The tool communicates with the chassis through the RS232 management interface and provides a graphical user interface for selecting installed optical modules, initiating measurements, retrieving optical module data, and displaying measurement results.

The software is intended for laboratory evaluation, system commissioning, field deployment, and maintenance activities.

2.1 Device Selection and Configuration

The Device Selection page allows the user to establish communication with the chassis and select the target optical module for measurement and optical module operations.

The following parameters are configurable:

- Chassis PN: Identifies the connected chassis platform.
- Optical Module Port: Selects the target QSFP or SFP port.
- Optical Module Type: Displays the detected optical module installed in the selected port.
- UART COM Port: Selects the serial communication interface connected to the chassis management port automatically or manually.

The software provides a graphical chassis view that highlights the selected port location, reducing installation and operational errors during deployment and troubleshooting.

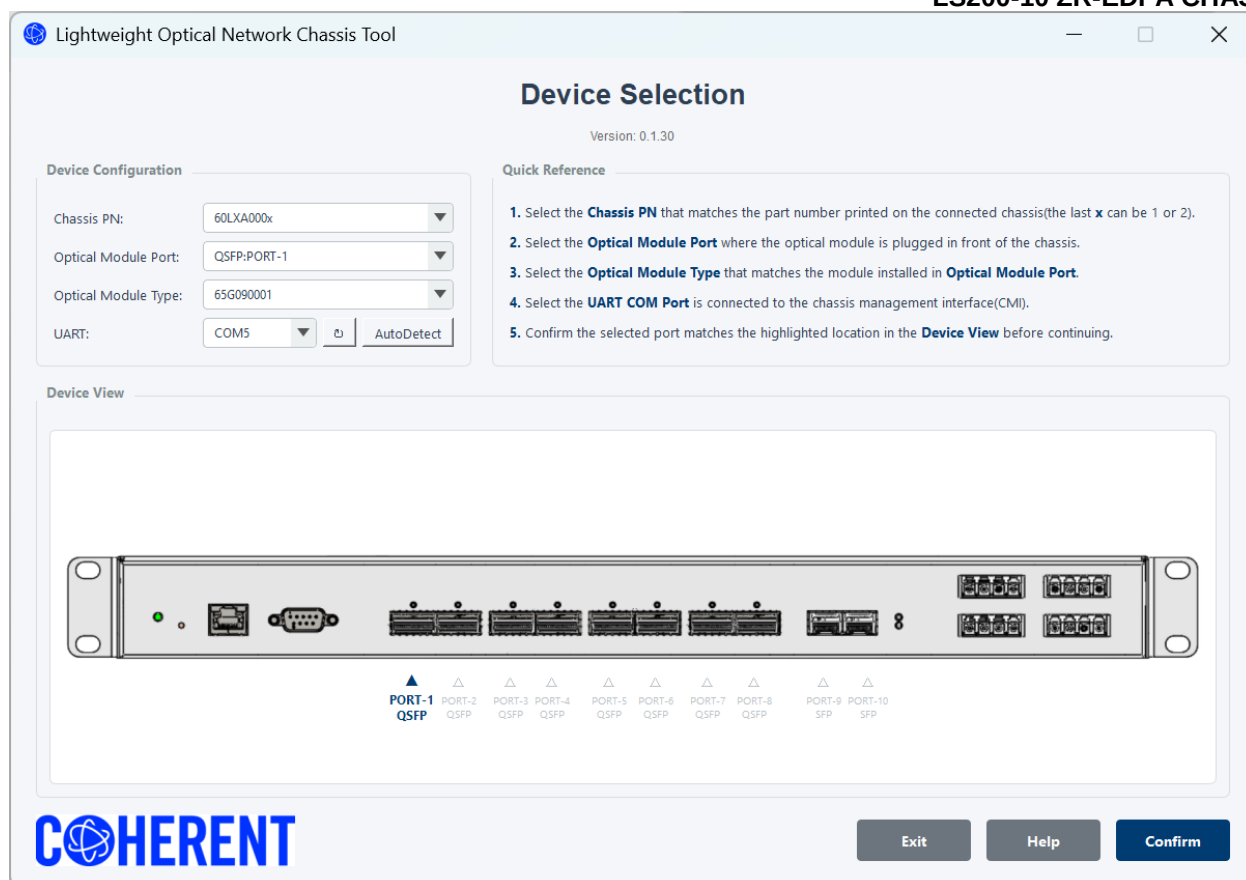


Figure 1. Optical Module Measurement Tool Device Selection Interface

2.2 OTDR Measurement and Results Display

For OTDR-enabled optical modules, the software supports automated OTDR measurement execution and result retrieval.

The Auto Scan function automatically initiates an OTDR trace acquisition sequence and collects measurement data from the selected optical module. The acquired trace is displayed graphically and can be analyzed for fiber events and link characteristics.

The OTDR measurement interface provides:

- Real-time OTDR trace display.
- Event contents collection and display.
- Event, trace, SOR files collection and output.
- Load old events and traces files to recall tracking plots and events

Measurement results are presented in both graphical and tabular formats to facilitate network commissioning, troubleshooting, and fiber characterization activities.

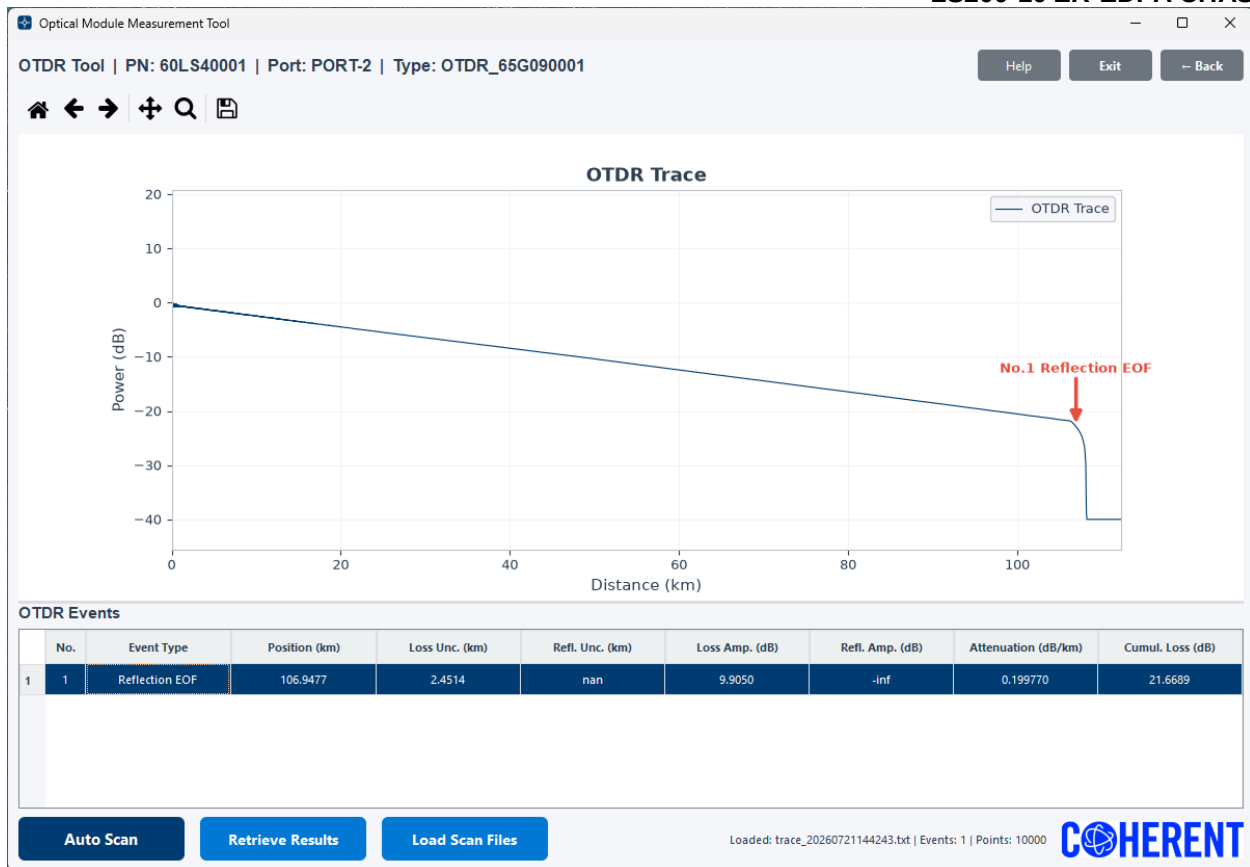


Figure 2. OTDR Auto Scan and Trace Analysis Interface

2.3 Operating Procedure

A typical measurement workflow is as follows:

- 1) Connect the chassis management port to the host computer.
- 2) Launch the Optical Module Measurement Tool.
- 3) Select the chassis, target optical module port, and communication interface.
- 4) Confirm the detected optical module type.
- 5) Start an OTDR Auto Scan operation.
- 6) Retrieve and review the measurement results.
- 7) Analyze OTDR events and fiber characteristics.
- 8) Save or reload trace files when required for further analysis.

2.4 Supported Functions

The current software release supports the following functions:

Function	Description
Device Discovery	Detect connected chassis and optical modules
Port Selection	Select target module connect port
UART Communication	RS232-based management interface
OTDR Auto Scan	Automated OTDR measurement execution
Trace Display	Graphical OTDR trace visualization
Event Table	Display OTDR event information

Function	Description
Result Retrieval	Read measurement data from module
Trace File Loading	Load previously saved trace files

2.5 Environment Requirements

The application is intended to run on:

- Windows 10 (64-bit)
- Windows 11 (64-bit)

Software requirements:

- Microsoft Visual C++ Runtime

Hardware Requirements

- UART Interface

NOTE: The software currently only supports OTDR module to do auto scan, show trace curves, event details, and output event, trace, and SOR files, and reload the old files to analysis.

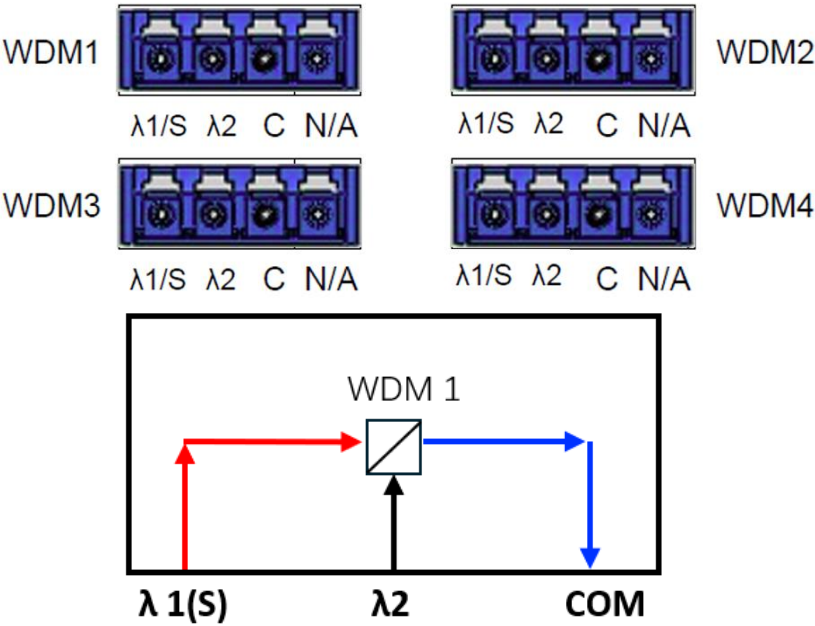
3.0 Product Information

Coherent PN	Coherent Product Code	Product Description
1663938	60LXA0001	LS200-10 ZR-EDFA CHASSIS,AC,60LXA0001

4.0 Optical specification

The chassis supports 8x QSFP and 2 SFP and can integrate 4 WDM modules which can combine the OSC wavelength signal with traffic wavelength signals.

- QSFP-EDFA
 - QSFP module to support 400G/800G/1.6T ZR, ZR+, ZR Lite (Coherent lite)
 - Support full C-band wavelength
 - Auto-provisioning (plug & play) to simplify OAM&P
 - APC and AGC mode to adapt to various scenarios
 - Implementation of SFF-8636/CMIS 4.0 memory map for easy deployment
 - CDB upgrade comply CMIS 4.0
- QSFP-eOTDR
 - Integrated Signal/OTDR WDM
 - 1625nm launching wavelength
 - QSFP module to support router/transponder mount
 - Operation during commissioning and live traffic
 - Management I/F CMIS 4.0
- QSFP-OPS
 - QSFP module to support standard switches and routers
 - Support C/L-band wavelength
 - Bidirectional path with switch and 3dB splitter
 - Implementation of CMIS 4.0
- SFP-OSC
 - SFP optical transceiver module
 - Compliant with SFP MSA and SFF-8472
 - High dynamic range
 - With duplex LC receptacle
- Integrated WDM components
 - To combine the OSC wavelength signal with traffic wavelength signals
 - The WDM ports are defined as follows:



5.0 Mechanical Specifications

Outline dimensions comply with 19-inch 1RU form factor.

Figure 1: Mechanical dimensions

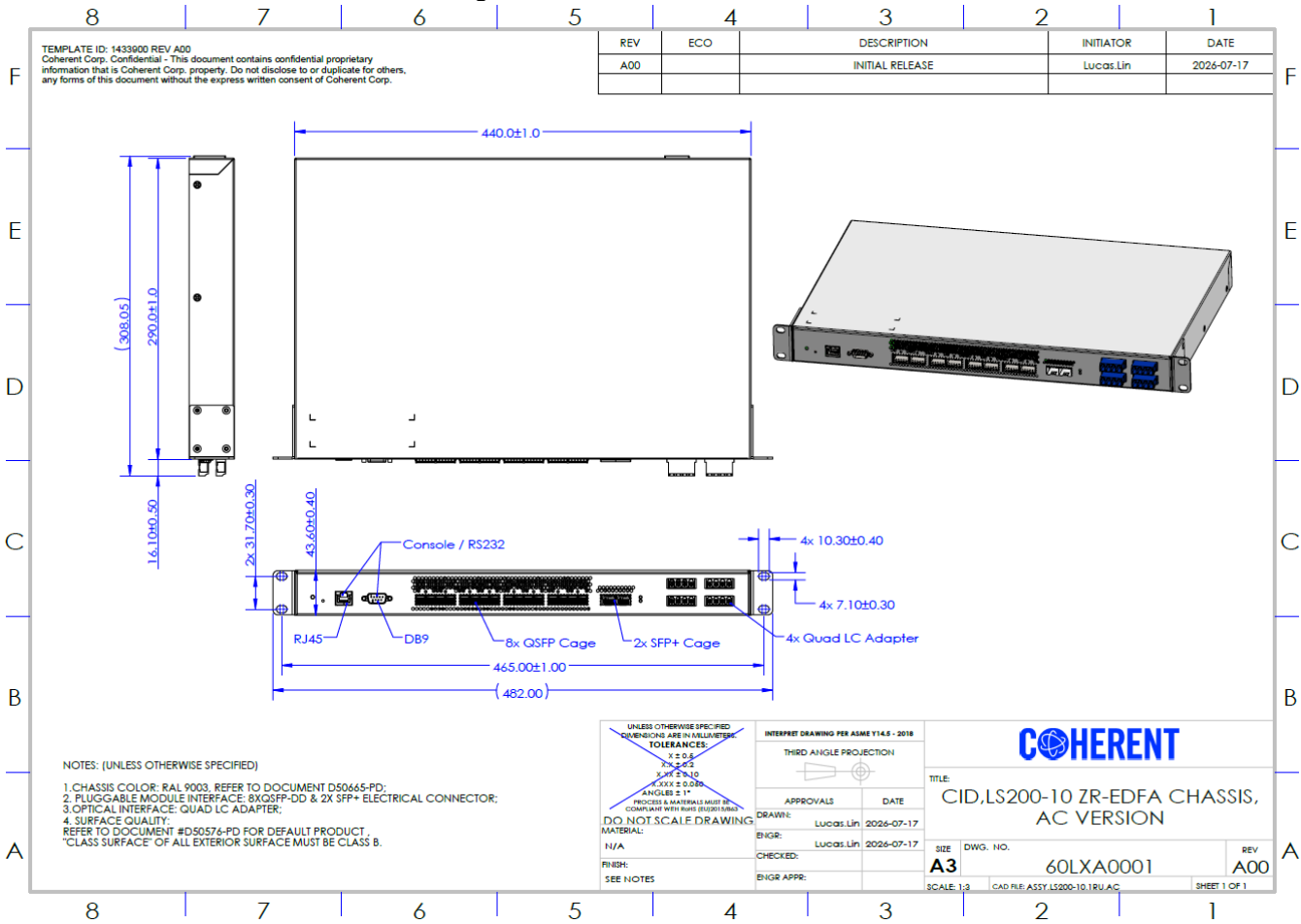
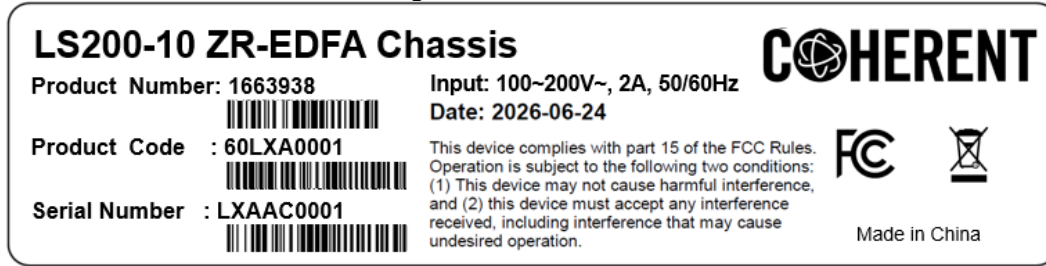


Figure 2: Chassis Label



6.0 Installation Instructions

The LS200-10 ZR-EDFA Chassis is designed for either rack-mounted installation or desktop installation.

For rack-mounted applications, the equipment shall be installed in an equipment rack.

For desktop applications, the equipment may be placed on a stable, flat, and level surface with adequate clearance provided for ventilation and cable routing.

Before installing the equipment into a rack, ensure that the rack is securely installed and capable of supporting the weight of the equipment.

When installing the equipment in a rack:

- Maintain adequate airflow around the equipment.
- Do not install the equipment in a location where the ambient temperature exceeds the specified operating temperature range.
- Ensure that the rack is properly grounded in accordance with local electrical regulations.
- After installation, verify that all mounting hardware is securely fastened and that the equipment is properly supported.

7.0 Electrical Specifications

Parameter	Spec.
Rated Input Voltage	100-240VACrms, 50/60Hz
Maximum Input Voltage	90-264VACrms, 50/60Hz
Maximum Input Current	≤2.0Arms
Power connector	IEC 60320 C14
Rated Power	≤150W (Full load)
Service Ports	8xQSFP
	2xSFP 100M/1Gbps Pass-through Ethernet
Management Ports	1xRJ45 Console RS232
	1xDB9 Console RS232
Fans	2+1 Redundancy

8.0 Environmental Specifications

Parameter	Min	Max	Unit
Operating Temperature Range	+5	+45	°C
Storage Temperature Range	-40	+70	°C
Operating Humidity (non-condensing).	+5	+85	% RH
Storage Humidity (non-condensing).	+5	+93	% RH

9.0 Protective Earthing Connection

To comply with the safety regulations, the equipment chassis shall be permanently connected to the installation's protective earthing system using one of the following methods:

- A power supply cord connected to a socket-outlet with a protective earthing contact, in accordance with local wiring codes;
- A dedicated protective earthing wire connected to the equipment's designated earthing terminal, sized in compliance with IEC/UL standards.
- Any other earthing solution that provides a reliable, low-resistance connection to the protective earth, and meets all applicable safety requirements.

10.0 RoHS Compliance

Coherent is fully committed to environment protection and sustainable development and has set in place a comprehensive program for removing polluting and hazardous substances from all its products. The relevant evidence of RoHS compliance is held as part of our controlled documentation for each of our compliant products. RoHS compliance parts are available to order, please refer to the ordering information section for further details.

11.0 FCC Compliance Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

12.0 Information Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by Coherent before they become applicable to any order or contract.

In accordance with the Coherent policy of continuous improvement specifications may change without notice. Further details are available from any Coherent sales representative.

This product is protected by patent applications pending worldwide.

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13.0 Document Tracking

Date	ECO	Description of Modifications	Name	Issue/Rev
2026-10-12	N/A	Initial version	Jacky Lin/Lucas Lin	A00