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System Specifications[1,2]

BER: 10^{-6}
Dynamic Range: >35
RF Output at reciever: > 40 dBmV/ch

1.Specifications for a 50 km of fiber + attenuator with 0 dBm on the receiver.

2. BER measured without Forward Error Correction.

Optical Output

Wavelength: 1549.32-1560.61 nm
Output Power: 8 dBm
Flatness: < 1 dB peak-to-valley
Laser shutdown: DISABLE/ENABLE switch
Eye protection: Safety shutter

Model	Wavelength (nm)
HLD 7205-W00	1549.32 - 1560.61
HLD 7205-W01	1549.32
HLD 7205-W02	1550.92
HLD 7205-W03	1552.52
HLD 7205-W04	1554.13
HLD 7205-W05	1555.75
HLD 7205-W06	1557.36
HLD 7205-W07	1558.98
HLD 7205-W08	1560.61

RF Input

Input level range: 13 to 25 dBmV
Operational bandwidth: 5 to 200 MHz
RF attenuator adjustment range: 10 dB in 0.1 dB steps
Impedance: 75 Ω
Return loss: > 16 dB
Level control: Manual

User Interface

Front panel:
- Bi-state status LED: Normal = Green, Alarm = Red
- Module selection indicator: Yellow LED
- Function slide switch and set-up adjustment
- Monitor point:
  - Laser RF drive monitor
  - Flatness: ± 1.5 dB
  - Return loss: > 16 dB
  - Connector type: Male GSK

Rear panel:
- Laser ENABLE switch
- Laser enabled: Yellow LED

Element Management System - NETWatch™/HEM

HEM interface: RS-485, RS-232C connectors (in HLP 4200)

Power Requirements

Nominal: +24 VDC; supplied by HLP 4200 bus
Maximum: +28 VDC
Consumption: 26 Watts maximum

Environmental

Operating temperature range: -20° to +65° C (+32° to 122° F)
Storage temperature range: –40° to +70° C (+32° to 158° F)
Automatic three speed fan adjustment at: 40° & 50° C (104° to 122° F)
Relative humidity: Maximum 85% non-condensing
Over temperature laser protection: Software and hardware

Physical

Dimensions: 2.6″ W x 4.4″ H x 11.7″ D
Weight: 3.6 lbs.
Mounting: HLP 4200 platform; one module slot
Optical connector type: SC/APC[6]
RF connector type: Standard F, RG-59 cable type (accepts 0.51 - 1.06 mm center conductor diameter)

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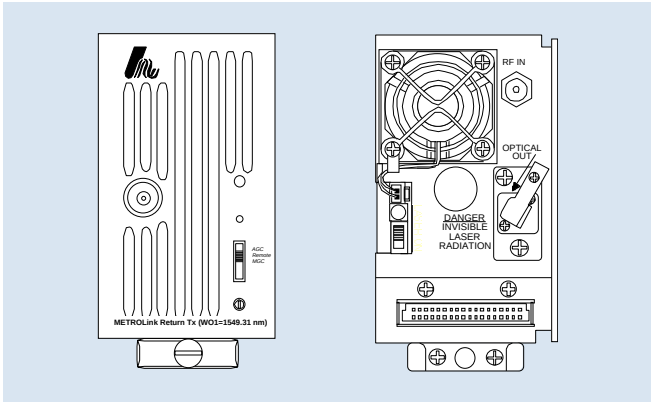
METROLink™ HLD 7205 DWDM Return Transmitter



Product Description

Harmonic's METROLink HLD 7205 is a family of high performance DFB laser transmitter modules designed for return path narrowcasting applications.. The DFB laser's wavelength is stabilized and aligned to one of eight wavelengths on the ITU grid with 200 GHz (1.6 nm) spacing. By using Dense Wavelength Division Multiplxing (DWDM), multiple return path signals can be carried on a single fiber. The HLD 7205 transmitters can operate alone or in combination with Harmonic's METROLink family of gain flattened optical amplifiers, and DWDM multiplexers and demultiplexers for complete system solutions.

The HLD 7205 transmitter modules are compact, intelligent and easily configurable by means of the user-friendly interface, allowing for set-up in minutes. The transmitters can be set up via the HLP 4200WD platform front panel menu, the module front panel function slide switch and set-up adjustment, or via the NETWatch™ Element Management System.

Continuous high performance and reliability of the transmitters are assured by a microprocessor and associated firmware which control and monitor all vital functions. Monitored functions include laser temperature and operating point, optical power, module temperature and composite RF drive level.

The optical components within the HLD 7205 transmitter module have been designed for ease-of-use and maintenance. The module features an optical connector on a removable plate on the back of the unit, facilitating simple cleaning and maintenance.

Advantages

The innovative design of the HLD 7205 transmitter and Harmonic's complete line of METROLink products offer many advantages to address the needs of today and tomorrow, making it the industry's leading solution for return path digital services:

- DWDM offeres high-performance alternative to frequency stacking.
- Shares common platform with the METROLink gain flattened EDFA, forward path transmitter and wavelength selected broadcast transmitter.
- Integrated element management with SNMP compatibility.
- Microprocessor control of all key parameters provides consistent and optimum product performance and monitoring.
- 200 MHz bandwidth provides flexibility in RF channel allocation.
- Unparalleled flat frequency response provides high performance and efficient system integration.
- Integrated RF pre-amplifier reduces transmitter drive level requirements.
- Simple "plug and play" operation reduces time and cost of installation.

Applications

- Two-way HFC system
- High-quality replacement for frequency stackers
- Targeted digital services (Video on Demand (VOD), Internet, cable telephony, IP telephony)

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