



# CableServ Return Transmitter for Harmonic® HLN 384\* Series Optical Nodes

## Product Description

CableServ® offers a series of Return Path transmitter modules for Harmonic® HLN 384\* PWRBlazer Series Optical Nodes

The Return Transmitters are offered in DFB 1310nm and 1550nm, as well as 1470 to 1610nm ITU CWDM wavelengths.

## Applications

- Replacement Return TX Modules.
- Upgrade of Fabry-Perot to DFB return transmitters for launch of Telephony.
- CWDM Modules for multiplexing upstream data on a single fiber.



These high performance return transmitters perform equal to or better than the original manufacturer's products. For Cable Operators launching Telephony, CableServ offers DFB return transmitters that directly replace the original low performance Fabry-Perot devices, offering increased performance.

In traditional data transmission, the overloading of a return transmitter can result in laser clipping and lost data packets forcing a request to re-transmit data. With Digital Telephone Services laser clipping and the resulting lost data packets may result in dropped telephone calls. For this reason many CATV operators are upgrading to better performing DFB return transmitters.

CableServ also offers CWDM (Coarse Wavelength Division Multiplexing) Technology Return Modules. These are an ideal solution when there is no additional fiber at the node, yet the node is required to be segmented. CWDM allows the combining of multiple return paths. The individual node segments are modulated on to individual return lasers and multiplexed onto a single fiber.

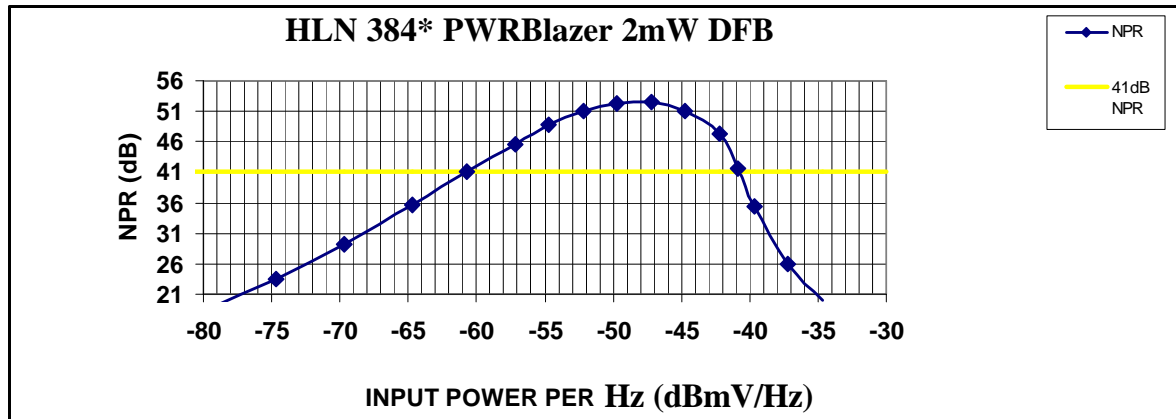
## Product Features

- LED Indicator for Laser Power Alarm
- LED Indicator for RF Input Alarm
- Low Power Consumption
- Two-Year CableServ Warranty

HARMONIC <sup>®</sup> HLN 384* NODE RETURN TRANSMITTERS			
PARAMETER	Notes	Units	Reverse
Technology			DFB Uncooled
Wavelength		nm	1310
Wavelength: WDM Models		nm	1550
Wavelength: CWDM Models (ITU Grid)		nm	1470-1610
Passband		MHz	5-200
Frequency Response		+/- dB	0.5
Input return Loss		dB	-16
Optical Output Power		mW	2, 3
Return Path NPR @ 41 dB C/(N+IM)	1	dB	see plot
Optical Connector	2		SC/APC

**NOTES:**

1. Typical NPR with 10dB Optical Link (21km Fiber and 3dB Passive loss)
2. Other connector types available on special order.



PRODUCT NAME	ORDER NUMBER
CS RTX HRMC NTM-3247-SA/555 CWDM	824-906-300-OCE
CS RTX HRMC NTM-3247-SA/547 CWDM	824-906-303-OCE
CS RTX HRMC NTM-3247-SA/549 CWDM	824-906-304-OCE
CS RTX HRMC NTM-3247-SA/551 CWDM	824-906-305-OCE
CS RTX HRMC NTM-3247-SA/553 CWDM	824-906-306-OCE
CS RTX HRMC NTM-3247-SA/557 CWDM	824-906-307-OCE
CS RTX HRMC NTM-3247-SA/559 CWDM	824-906-308-OCE
CS RTX HRMC NTM-3247-SA/561 CWDM	824-906-309-OCE
CS RTX HRMC NTM-3245-SA/304 1310DFB	824-907-345-OCE
CS RTX HRMC NTM-3248-SA/505 1550DFB	824-907-346-OCE



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