

Digital Return Receiver

CHP-D2RRX-85-AA-S

Digital Return Receiver compatible with DT4 and DT7 85 MHz Transmitters

FEATURES

- Enables NC4000, NC2000, and VHubs to connect to the CHP Platform
- Digital Return technology for ease of set-up and simplified “plug and play” operation
- 2:1 Time Division Multiplexing solution supports 1x85 and 2x85 MHz bandwidth digital return performance
- Dual Density receiver optimizes valuable Headend/hub real estate
- Remote node monitoring with Digital Element Management System (DEMS) eliminates the need for a transponder
- Full CORView Lite and Element Management Software Compatibility



PRODUCT OVERVIEW

Designed to support HFC network integration from platform to platform, the CHP-D2RRX-85-AA-S is the first CHP-based receiver to support the legacy digital return protocol from ARRIS DT4 and DT7 transmitters installed in NC4000, NC2000, and OM6000 node platforms.

ARRIS's next-generation digital return solutions offer easy set-up and performance that is independent of link distance. The new ARRIS digital return system offers two, 5 to 85 MHz Time Domain Multiplexed (TDM) RF channels that make it easy to manage node segmentation and subscriber growth (in the 2-fer mode). The receiver will also support a single 1x85 MHz TDM stream from the transmitter (in the 1-fer mode).

CHP-D2RRX-85-AA-S CHP Digital Receiver Module

The CHP-D2RRX-85-AA-S dual digital return path receiver module contains two independent receiver circuits in a single width CHP module, enabling up to 20 receivers, or 40 RF streams, in a fully-loaded CHP chassis. With four RF outputs, a single DRR module can support a full, 4x4 segmented node, increasing the efficiency of node splits and preserving valuable real estate in the hub or headend. The CHP-D2RRX-85-AA-S is compatible with the DT4 85 MHz transmitter that works with NC2000 and NC4000 nodes and the VHub. It is also compatible with the DT7 85 MHz transmitter that works with Opti Max OM6000 and OM4120 nodes.



The receiver utilizes Avalanche Photo Diode (APD) technology, enabling very high receiver sensitivity to extend link reach. The receiver supports an optical input range of to -23 to -10 dBm.

An additional benefit of ARRIS's next-generation digital return system is the integrated Digital Element Management System (DEMS) monitoring provided by the transmitter modules, which eliminates the need for a separate DOCSIS transponder. Key parameters and module status of the node are communicated to the receiver via overhead bits in the digital return data stream. Available in 3Q18 for download and upgrade of the module and Corview software.

The CHP Management Module (SMM-2), combined with the CORView EMS platform, manages the devices through standard SNMP/CLI interfaces and sophisticated Graphical User Interfaces.

RECEIVER SPECIFICATIONS

CHP-D2RRX-85-AA-S

RECEIVER SPECIFICATIONS	
CHP-D2RRX-85-AA-S	
Optical	
Input Wavelength Range, nm	1200 to 1620
Optical Input Range, dBm	-23 to -10
Optical Connector Type	SC/APC (8 degrees)
RF	
RF Output Bandpass, MHz	5 – 85
Output Level, dBmV	+40 max ²
Channel to Channel Isolation, dB	60
Output Return Loss, dB	-16
Output and Test Point Impedance, ohms	75
RF Output Test Point, dB	-20 ± 1.0
RF Connector Types	
Output	F-type
Test Points	F-type
General	
Dimensions	3.44 in H x 1.25 in W x 18.5 in D (8.44 cm x 3.18 cm x 46.99 cm)
Weight	3.0 lbs (1.35 kg)
Operating Temperature Range	0° to +50°C (32° to +122°F)
Power Consumption, W, Typical/Maximum	16/18



LINK SPECIFICATIONS

Link Budget (DT4 or DT7 transmitters with recommended SFP)	10 km fiber
1310	50 km fiber, 23 dB link budget
CWDM	80 km fiber, 26 dB link budget
DWDM	
Peak Noise-Power Ratio (NPR), typical	47 dB
Dynamic Range, @ ≥ 40 NPR, typical ^{1,2}	17/11 dB (1-fer/2-fer)
BER Dynamic Range, @ $\leq 10^{-6}$ BER ^{1,2}	29/23 dB (1-fer/2-fer)
RF Link Gain, dB ³	30 / 32 (1-fer/2-fer)
Link Flatness, dB ³	± 1.0

- NOTES:**
1. Typical performance provided for the transmitter installed in the OM6/NC4 at 23°C
 2. With minimum transmitter and receiver attenuation setting.
 3. Measured from input of DT7x30/DT4250N to D2RRX output.

RELATED PRODUCTS

OM6000 Optical Node	VHub
NC4000 Optical Node	OM4120 Optical Node
NC2000 Optical Node	Installation Services

Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
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Note: Specifications are subject to change without notice.

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