

Opti Max™ Optical Node Series

DT7 Series

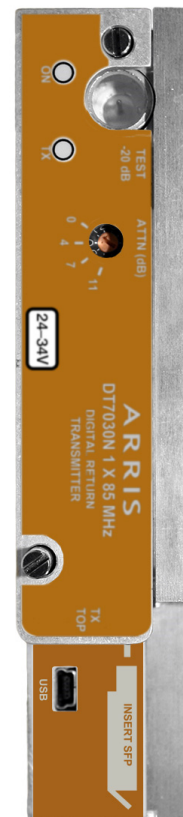
Digital Return Transmitter

for CH3000 chassis-based DR3450 Digital Receivers

FEATURES

- Compatible with Opti Max optical nodes
- 1x85 and 2x85 MHz digital return performance
- Compatible with CH3000 chassis-based DR3450 digital return receivers, allowing customer options in headend optics platforms
- Flexible Small Form Pluggable (SFP) 1310, CWDM, and DWDM optics for simplified deployment logistics
- Remote status monitoring compatibility
- Full Opti-Trace Craft Management Software compatibility

The CommScope DT7 Series of digital return transmitters are a simple and cost-effective way for cable operators to integrate newly deployed Opti Max™ nodes with existing CH3000 headend optics platforms. Once the DT7 series digital transmitter is installed in a node, it is designed to communicate seamlessly with CH3000-based DR3450 digital return receivers and provide 1:1 or 2:1 digital performance in the return path while maintaining maximum density in the CH3000 chassis. The result is a standardized, end-to-end digital return solution that provides customers with a choice of headend optics platforms and allows them to leverage an installed base of CH3000 headend optics platforms. In addition to superior return path performance, initial DT7 transmitter modules support select Element Management System monitoring features from the CH3000 chassis—including SFP parameter monitoring, module detection, and module information—for full fault and configuration management capability.



CommScope offers a full range of 1310, CWDM, and DWDM Small Form Pluggable (SFP) optics for the DT7 transmitter series that support data rates of 4.25 Gbps. CWDM SFPs support links of up to 50 km and are available in 16 wavelengths; DWDM SFPs support longer links of up to 80 km and are available in 40 wavelengths. 1310 SFPs support short links of 10 km or less. 1550 SFPs support links of up to 40 km.

Two different DT7 series modules are available to support both 1x85 and 2x85 operation with full Digital Element Management System (DEMS) monitoring via the CommScope Opti-Trace[®] software. Both the 1x85 and 2x85 modules are compatible with Opti Max OM6000™, OM4120™, OM4100™, and OM2741 optical nodes to provide cable operators with maximum design and network flexibility. Contact your CommScope Sales Professional for additional information.

SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions	6.0 in L x 4.0 in H x 1.3 in W (15.24 cm x 10.16 cm x 3.3 cm)
Weight	1.0 lb (0.45 kg)
	Mini USB port for firmware updates
Environmental	
Operating Temperature Range	-40° to +85°C (-40° to 185°F)
Storage Temperature Range	-40° to +100°C (-40° to 212°F)
Humidity	5% to 95% non-condensing
General	
	Hot plug-in/out
Optical Interface Connectors	LC Duplex on SFP
Optical Transmission Bit Rates	4250 Mb/s
Number of RF Channels	1 for 1x85 modules and 2 for 2x85 modules
RF	
Operational Bandwidth	5–85 MHz
Input Return Loss, min	16 dB
Level Repeatability	± 1.0 dB
System Full Gain	26.5 dB min (to DR3450N-99 output)
Input Test Point	-20 ± 0.5 dB
Frequency Response	± 0.5 dB
Distortion	
Nominal Loading	5–85 MHz
Nominal Input	-60 dBmV/Hz
NPR Dynamic Range @40	17 dB
BER Dynamic Range @1.E-06	29 dB
Peak NPR	49 dB
Power Requirements	
Input Voltage	24 ± 0.5 V _{dc} 5.0 ± 0.2 V _{dc}
Module Power Consumption, with SFP	10 W
SFP Power Consumption, max	2 W

DIGITAL RETURN ORDERING INFORMATION

Model Name	Description
Factory Configured Optical Node	Various return configurations, including options with DT7 digital return transmitter(s). Contact your CommScope Sales Representative for more information.
1510499-001 (Separate Module)	DT7030N-85-01 – 1x85 MHz, Opti Max OM6000/OM4120/OM4100/OM2741, CH3 DR3450 Compatible, 4.25G SFP Required (See Below), Full Opti-Trace compatibility
1510499-002 (Separate Module)	DT7230N-85-02 – 2x85 MHz, Opti Max OM6000/OM4120/OM4100/OM2741, CH3 DR3450 Compatible, 4.25G SFP Required (See Below), Full Opti-Trace compatibility

SFP ORDERING INFORMATION

Model Name	Description
1509444-xx1 (xx = 27–61)	4.25G CWDM Transceiver SFP, 18 Wavelengths Supported 1270 nm to 1610 nm
1509445-xx1 (xx = 20–60)	4.25G DWDM TX Only SFP, 41 Wavelengths Supported ITU Channels 20–60
TKCxxx-TL40 (xxxx = 1270–1610)	4.25G CWDM Transceiver SFP, 18 Wavelengths Supported 1270 nm to 1610 nm
TKD4580-xx-PI (xx = 20–62)	4.25G DWDM Transceiver SFP, 41 Wavelengths Supported ITU Channels 20–62

RELATED PRODUCTS

Optical Nodes	Fiber Service Cables
Analog CWDM and DWDM Return Transmitters	Optical Passives
1.2 GHz Forward Receivers	Installation Services

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656

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Note: Specifications are subject to change without notice.

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