

ARRIS DT3550N

DIGITAL RETURN TRANSMITTER WITH DUAL RF INPUTS

The DT3550N Digital Transmitter digitizes two RF return paths (with 5–100 MHz passband), multiplexes them, and transmits them on a single return wavelength. By combining two RF returns on a single wavelength, the DT3550N alleviates fiber exhaustion and greatly simplifies the network by enabling the use of WDM transport from hubs to the headend. The SFP optical transceiver socket supports options of DWDM, CWDM, 1310 nm or 1550 nm returns.

The high density half-depth packaging enables network operators to install up to 24 transmitters with 48 RF returns per 3RU chassis, with redundant power supplies, all of which can be monitored remotely or locally. The compact design minimizes rack space requirements in hubs.



- Digitizes 5–100 MHz RF return paths
- Multiplexes two return segments into a single data stream
- SFP socket for DWDM, CWDM, 1310 nm, and 1550 nm optical output options
- Hot plug-in/out
- Local and remote status monitoring
- High density: occupies one half-depth slot in the CH3000 Chassis

SPECIFICATIONS

PHYSICAL		ENVIRONMENTAL	
Dimensions	13.0" D x 4.3" H x 1.0" W (3RU) (33 cm x 11 cm x 2.5 cm)	Operating temperature range	-20° to +65°C (-4° to 149°F)
		Storage temperature range	-40° to +85°C (-40° to 185°F)
Weight	1.2 lbs (0.72 kg)	Humidity	5% to 95% non-condensing
INTERFACE		OPTICAL OUTPUT	
Optical connector	LC/UPC (in SFP transceiver)	Supports TKx series SFP Transceivers	Please see individual TKx SFP data sheets for technical specifications
RF input connectors	Two F-type connectors on front panel	GENERAL	
		Optical transmission bit rate	4.25 Gbps
RF input test points	Two G-type male connectors on front panel	Hot plug-In/Out	
		Manual gain alignment	

RF INPUTS		DISTORTIONS	
Number of inputs	2	Input, nominal	-61 dBmV/Hz (7 dBmV/6.4 MHz channel)
Channel characteristics (each channel)		Loading, nominal	5–100 MHz (64 QAM carriers or equivalent Gaussian noise)
Passband	5–100 MHz	Dynamic range@ 40 dB CNR	11 dB with full 5–100 MHz channel loading
Frequency response	± 0.5 dB	Peak NPR	47 dB
Input return loss, min	16 dB	POWER REQUIREMENTS	
Level stability	± 0.5 dB	Input voltage	12 VDC (provided via chassis mid-plane connection)
Input level RF test point	-20 ± 0.5 dB		
Test point return loss, min	18 dB	Module power consumption	10 W (including SFP transceiver)
System minimum gain	27 dB (with DR3450N receiver)		
Isolation between channels	55 dB 5-90 MHz, 50 dB 90-100 MHz (with DR3450N receiver)		

ORDERING INFORMATION

Part Number	Description
DT3550N-99-00	5 – 100 MHz Return Passband Digital Transmitter with Dual RF Inputs

RELATED PRODUCTS

CH3000 Chassis DR3450N