

VTN-ITU-CH-*

**DWDM ANALOG RETURN TRANSMITTERS,
OPTICAL NODE SERIES**



FEATURES

- Enables bandwidth expansion via upstream node segmentation
- DWDM models accommodate a wide variety of network architectures
- Supports migration to fiber deep networks by maximizing fiber usage
- Hot swappable, plug and play modules simplify installation and maintenance
- 5 to 204 MHz RF Passband to support DOCSIS 3.1



PRODUCT OVERVIEW

ARRIS increases the segmentation options for the VTN244 1 GHz optical node with the introduction of analog Dense Wave Division Multiplex (DWDM) return path transmitters. These transmitters provide an ideal solution when network designs call for more wavelength aggregation or greater link distance than CWDM transmitters can provide.

The VTN-ITU-CH* transmitters feature cooled, 8 dBm Distributed Feedback (DFBT) lasers based on the International Telecommunications Union (ITU) wavelength grid. Without amplification, the typical link budget is 14 dB. When needed, the VTN-ITU-CH* DWDM signals can be amplified by Erbium Doped Fiber Amplifiers (EDFA) to overcome large link budgets similar to digital return links.

The VTN-ITU-CH* is supported by the VTN-DOCSIS status monitor transponder. Parameters for control and monitoring include optical output power, laser bias current, and supply current.

SPECIFICATIONS

Available Wavelength Range	ITU CH 20 – 60
Wavelength Stability	± 0.08 nm Max.
Optical Output Power	8.0 ± 0.4 dBm
Optical Power Test Point	1.0 ± 0.15 mW/V
Optical Modulation Index	20.0 ± 2.0 %
RF Bandwidth	5 MHz to 204 MHz
Frequency Response Flatness	± 0.5 dB Max.
RF Return Loss	16 dB Min.
Nominal RF Input Level (Total Power) ¹	18 dBmV
Dynamic Range For NPR >= 40 dB ²	15 dB
Supply Current +5.75 V Supply	600 mA Max.
Dimensions	4.0 in L x 0.86 in W x 2.4 in D (104 x 22 x 62 mm)
Weight	1 lb (0.45 kgs)
Operating Temperature Range (Node)	–40° F to 140° F (–40° C to 60° C)

Notes:

1. Recommended Total RF Power at the Node Housing Port is 28 dBmV.
2. 37 MHz Loading (5 MHz – 42 MHz) 40 km SMF 28 fiber, plus passive loss to obtain –6 dBm optical input to receiver

RELATED PRODUCTS

DOCSIS Transponder	Ingress Control Switches
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Power Supplies	Optical Passives
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Fiber Service Cable	Installation Services
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Note: Specifications are subject to change without notice.

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