

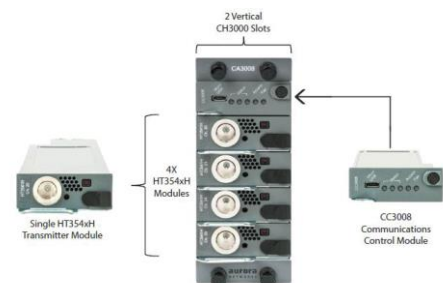
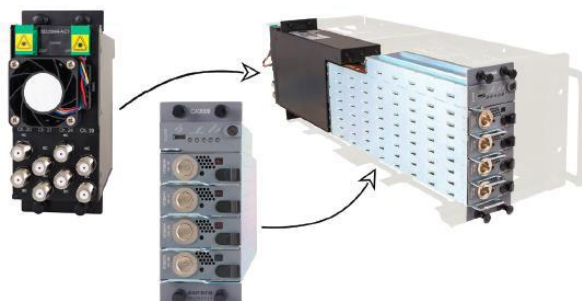
COMMSCOPE HT354xH Serie

FULL-SPECTRUM-DWDM-TRANSMITTER MIT DOPPELTER DICHTE

Die COMMSCOPE HT354xH Serie der Full Spectrum Dense Wave Division Multiplexing (DWDM) Transmitter mit doppelter Dichte bieten große Leistung und eine hohe Rack-Dichte in Übertragungslösungen für Kabel-TV und Service-Anbieter.



- DWDM-Transmitter: bis zu 40 Wellenlängen auf dem ITU-Raster
- Hot plug in/out, einzeln austauschbare Transmitter-Module
- Optimiert für Full-Spectrum-Verwendung
- HT3541H: Analog-Frequenz bis zu 258 MHz plus QAM-Frequenz
- HT3542H: Analog-Frequenz bis zu 552 MHz plus QAM-Frequenz
- Geringer Stromverbrauch
- Branchenweit höchste Installationsdichte: bis zu 24 Transmitter pro 3HE-Chassis mit redundanter Stromversorgung und optischem Multiplexing
- Front Zugang -20 dB Input Testpunkt
- Front Panel Laser On/Off Schalter
- Lokale und ferngesteuerte Status-Monitoring Möglichkeiten



SPEZIFIKATIONEN

PHYSICAL	
Dimensions	11.5" D x 0.8" H x 2.0" W (29.2 x 2.0 x 5.1 cm)*
Weight	0.75 lbs. (0.34 kg)
	* Four (4) transmitter units designed to be vertically stacked, plus a CC3008 Communications Module, and installed inside a CA3008 Module Carrier. The combination occupies two slots in a 3RU CH3000 Chassis.
ENVIRONMENTAL	
Operating	–20° to +65°C (–4° to 149°F)
Storage	–40° to +85°C (–40° to +185°F)
Humidity	5% to 95% non-condensing
RF AND OPTICAL INTERFACE	
RF input	F-type male (mates to BD31A4 or BD35M4 Back Plates)
Input RF test point	G-type male (located at front panel, –20 dB)
Optical connector	SC/APC (mates to BD31A4 or BD35M4 Back Plates)
POWER REQUIREMENTS	
Input voltage	12 VDC
Power consumption	10 W (per transmitter) including controller and back plate cooling fan
GENERAL	
Hot plug-in/out	
Manual gain alignment	
CHANNEL LOADING	
HT3541H: 0–30 Analog channels (up to 258 MHz), plus QAM channels	
HT3542H: 0–79 Analog channels (up to 552 MHz), plus QAM channels	
HT3543H: All QAM channels	
OPTICAL	
Optical output power	10 ± 0.25 dBm
Wavelength	See DWDM ITU Channel Plans description
Fiber length (user-settable, adjustable dispersion compensation)	HT3541H and HT3543H: 60 km (in 5 km steps) HT3542H: 40 km (in 1 km steps) • Additional external dispersion compensation can be supported for some applications.
ELECTRICAL	
Passband	45–1218 MHz
Frequency response (including slope)	• ± 1.0 dB (BC input @ 25°C) • – 6 ± 0.5 dB (NC input relative to BC input)
Nominal RF input levels (input attenuator = 0 dB)	HT3541H: • 16.2 dBmV/ch for 30 analog channels into BC input • 10.2 dBmV/ch for 256-QAM channels into BC input, or 16.2 dBmV/ch into NC input HT3542H: • 15 dBmV/ch for 79 analog channels into BC input • 9 dBmV/ch for 256-QAM channels into BC input, or 15 dBmV/ch into NC input HT3543H: • 10.7 dBmV/ch for 154 256-QAM channels into BC input, or 16.7 dBmV/ch into NC input
RF input impedance	75 Ω, nom
RF input return loss	18 dB, min
RF input attenuator/amplify range (Manual Mode)	–6.0 to +5.0 dB Normal mode. High-gain mode (+5.5, +6.0 dB) supports BC RF input port, NC RF input is terminated.
RF input attenuator step size	0.5 dB
AGC Mode	Maintains laser power to within ± 3 dB of the learned RF value
Level stability (typical)	± 0.5 dB (–1 worst case relative to 25°C)
256-QAM BER	< 10 ^{–5} (pre-FEC, ITU-C)
MER	> 37 dB to 50°C; > 36 dB to 65°C

Link performance	HT3541H		HT3542H		HT3543H	
Loading	30A + 124 QAM		79A + 75 QAM		154 QAM	
Length (km)	40	60	30	40	40	60
CNR* (dB)	52	50	51	50	See MER	See MER
CSO (dB)	61	58	60	58	-	-
CTB (dB)	65	65	65	65	-	-
* max 1 dB degradation at temperature extremes						
An HT3541H transmitter can also be used as a narrowcast transmitter. For example, in BC/NC overlay systems, it would have the performance of an AT3535G-xx-1-AS transmitter. For more information about BC/NC overlay system performance and evolution from low NC 256-QAM channel loading to full spectrum 256-QAM channel loading, or for information about full spectrum multiwavelength applications with up to 40 DWDM wavelengths, please contact your COMMScope representative.						

DWDM ITU CHANNEL PLANS

COMMScope supports DWDM network architectures with a variety of products on the standard DWDM ITU Grid (ITU-T G.694.1). For a more complete description, please refer to the COMMScope DWDM ITU Grid Channel Plan data sheet.

COMMScope BD35M4-AC

DOUBLE-DENSITY BACK PLATE

Diese Back-Plate bietet Verbindungen für eine Gruppe von 4 HT3540H Serie-Transmittern, welche im selben Modulträger CA3008 mit dem Kommunikationsmodul CC3008 installiert sind. Diese 4-Kanal MUX Back-Plates (für die die Outputs von einer Back-Plate zur nächsten kaskadiert werden können) kann für verschiedene Kanal-Gruppen bestellt werden.



SPEZIFIKATIONEN

PHYSICAL	
Dimensions	7.2" D x 5.2" H x 2.0" W* (18.2 x 13.2 x 5.1 cm)
Weight	2.0 lb. (0.91 kg)
ENVIRONMENTAL	
Operating	-20° to +65°C (-4° to 149°F)
Storage	-40° to +85°C (-40° to +185°F)
Humidity	5% to 95% non-condensing
POWER REQUIREMENTS	
Input voltage	12 VDC
Power consumption	5 W max (2.5 W Typ), including the replaceable cooling fan
OPTICAL INTERFACE	
Optical Connectors	SC/APC (2)
	- DWDM INP (input from previous mux back plate) - DWDM OUT (output to network or next mux back plate)
RF INTERFACE	
8 F-Type Connectors	4 BC and 4 NC (1 BC/NC pair per transmitter)

OPTICAL		
Channel spacing	100 GHz	
Channel plan	See ITU Channel Plans description	
Insertion Losses, including connectors	Typ	Max
• DWDM input to DWDM output	1.0 dB	1.2 dB
• Ch. yy input to DWDM output	1.4 dB	1.6 dB
Uniformity, including connectors		
• Module Uniformity	0.7 dB	1.0 dB
• Paired Uniformity	0.4 dB	0.6 dB
Return loss, min	45 dB	
Directivity, min	55 dB	
Passband @ 0.2 dB		
• Ch. yy input to DWDM output	± 0.125 nm	
• DWDM input to DWDM output	Passes 1423.5 through 1617.5 with a notch at the channel add/drop band. WDL for the passband is within ± 0.15 dB	
Ripple within passband	0.5 dB max	
Polarization dependent loss, max	0.1 dB (typically < 0.05 dB)	
Power handling, max (any input port)	21.8 dBm	

COMMSCOPE BD31A4-100

DOUBLE-DENSITY BACK PLATE

Das BD31A4 ist ein Double-Density Back-Plate, welches entweder 4 separate BC und 4 separate NC HF-Inputs oder 1 gemeinsamen BC und 4 separate NC HF-Inputs für 4 HT3541H Transmitter bietet.

Das BD31A4-100 bietet HF-Input und optische Verbindungen zu oder von HT3541H Transmittern.



SPEZIFIKATIONEN

PHYSICAL	
Dimensions	7.2" D x 5.2" H x 2.0" W* (18.2 x 13.2 x 5.1 cm)
Weight	2.0 lb. (0.91 kg)
ENVIRONMENTAL	
Operating	-20° to +65°C (-4° to 149°F)
Storage	-40° to +85°C (-40° to +185°F)
Humidity	5% to 95% non-condensing
POWER REQUIREMENTS	
Input voltage	12 VDC
Power consumption	5 W max (2.5 W Typ), including the replaceable cooling fan
OPTICAL	
	Through 4 SC/APC connectors, the BD31A4-100 provides optical pass-through from the HT354xH transmitter.
Optical Insertion Loss	0.2 dB Typ; 0.4 dB Max
	Refer to the HT354xH product specifications for more information.
RF INTERFACE	
	The BD31A4-100 provides RF to the HT354xH transmitter through F-type RF connectors.
	• 4 BC and 4 NC (BD31A4-100-H12F-0-AS) • 1 BC and 4 NC (BD31A4-100-H10F-0-AS)