COMMSCOPE AT3552D

ANALOG EXTERNALLY MODULATED FULL SPECTRUM TRANSMITTER

The COMMSCOPE AT3552 series 1550 nm externally modulated analog transmitters are available in several optional configurations to meet various network requirements. Two series of models are available with differing minimum optical output power levels.

The characteristics of the transmitter's source laser allow high carrier-to-noise ratio (CNR) while the proprietary predistortion circuit that drives the optical modulator provides excellent CSO and CTB performance, with 450 MHz of digital channel loading 6 dB below the analog channels.

- 46 – 1002 MHz-RF Bandwith
- 79 – channel NTSC channel loading
- Multiple wavelength options
- Externally mudulated broadcast transmitter
- Full spectrum transmitter
- Second port for narrowcast input
- Level control: Manual or AGC
- Occupies only one fulldepth slot
- Front access – 20dB input test point
- Hot plug – in/out
- Local and Remote status

SPECIFICATIONS

PHYSICAL		ENVIRONMENTAL	
Dimensions	13.0" D x 4.3" H x 1.0" W (33 cm x 11 cm x 2.5 cm)	Operating temperature range	–20º to +65ºC
		Storage temperature range	–40º to +85ºC
Weight	1.8 lbs (0.82 kg)	Humidity	5% to 95% non-condensing
RF AND OPTICAL INTERFACE		**GERNERAL**	
Wavelength	1563.0 nm ±0.9 nm (Broadcast, "BA" models), or one 1 of 16 channels on DWDM ITU Grid	Channel plans	79-channel NTSC
Optical connector	SC/APC on back plate	Link length	Up to 65 km
RF input	F-type (female connectors at back plate)	Optical output power, min.	Model AT3552D-xx-02-AS: 12 dBm
Input RF test point	G-type (male connector at front panel – 20 dB)	Operating modes	Video and CW (both with AGC), and Manual (without AGC)

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POWER REQUIREMENTS		OPTICAL	
Input voltage	12 VDC	Optical output power	10 ±0.25 dBm
Power consumption	12 W	Wavelength	See DWDM ITU Channel Plans description
		Fiber length (user-settable, adjustable dispersion compensation)	AT3545G-xx-1-AS: 60 km (in 5 km steps) AT3545G-xx-2-AS: 40 km (in 1 km steps)
		Additional external dispersion compensation can be supported for some applications.	

ELECTRICAL		ELECTRICAL		
Pass band	46–1002 MHz	**256 QAM BER (ITU-C PRE-FEC, WITH CW ANALOG CARRIERS):1.0X10-5**		
79 NTSC analog channel loading	46-550 MHz			
450 MHz QAM channel loading	550-1002 MHz (6 dB below analog channels)	Fiber-only Link Performance (over operating temperature range)		Output Power Level
Frequency response flatness (including slope)	±0.5 dB (46 to 550 MHz), ±0.75 dB (46 to 1002 MHz)			
AGC range	±3 dB			
Manual gain control range	0 to –6.0 dB			
Manual gain control step size	0.5 dB	SBS Suppression[1]	dBm	12.5
Input return loss, minimum	18 dB	Carrier-to-noise Ratio (CNR)[2] In band (45–552 MHz)	dB	51
Level stability	±0.6 dB	Composite Second Order (CSO)[3] In band (45–552 MHz)	dB	62
Nominal RF Input levels (dBmV/ch)	Mode AGC Manual NTSC 50-550 MHz: 18 15 QAM 550-1002 MHz: 18 15 (Level of QAM signals through Aux NC RF input becomes 6 dB less after internal combiner. With AGC enabled, capture range is ±3 dB.)	Composite Triple Beat (CTB) In band (45–552 MHz)	dB	62
		Cross Modulation (XMOD)	dB	60

[1]Full channel loading of 79 NTSC analog channels (4 MHz NBW) over 54–552 MHz, and 75 256-QAM channels over 552-1002 MHz.40 km receive optical power +0.25 dBm.
[2]All values are specified with un-modulated carriers of equal power at the input of the transmitter.

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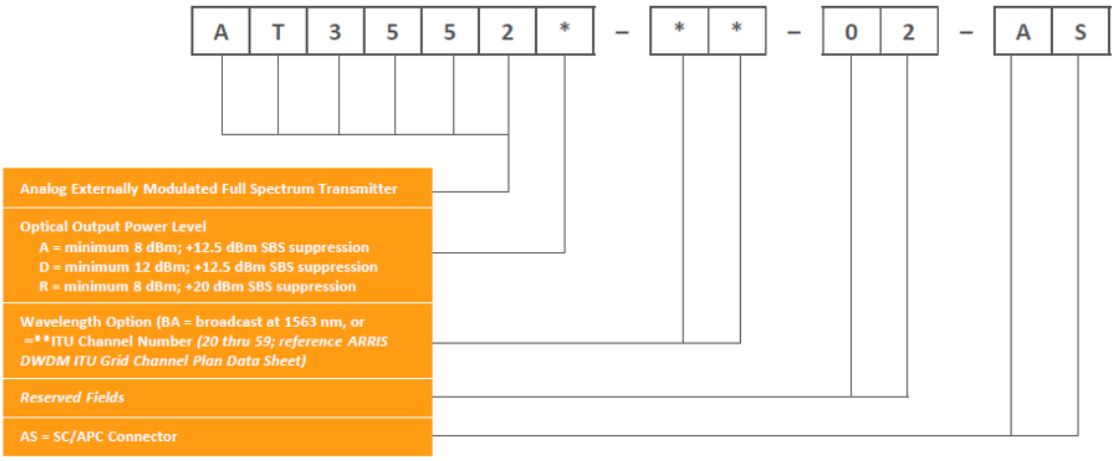
ORDERING INFORMATION:



Module Back Plates

AT3552 series transmitters may be connected to one of two different styles of chassis back plates, which must be ordered separately depending on the application. One style provides connections for a single transmitter. This single-width back plate may be ordered as:

B P – A 6

The second style provides connections for a group of four transmitters installed in adjacent chassis slots. These 4-channel mux back plates (for which outputs can be cascaded from one back plate to another) may be ordered for various channel groups. Please refer to the data sheet for these back plates for further information.

B P – 3 5 M 4 – C F * – 1 – 0 2 – A S

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