# COMMSCOPE AT3545G

## FULL SPECTRUM DWDM TRANSMITTER

Leistungsstarke 1-GHz-Transmitter der Reihe AT3545G und AT3552 ermöglichen den Aufbau eines Kabelnetzwerks mit allen QAM-Funktionen, mit 40-DWDM- beziehungsweise 16-DWDM-Wellenlängen, sowie eine nahtlose Migration für künftige CCAP-Inbetriebnahmen. AT3545G-Transmitter wurden für zwei Anwendungen optimiert:

- Analog-Frequenz (bis zu 258 MHz) plus QAM-Frequenz bis zu 1002 MHz – ideal für eine Migration in eine hohe oder maximale QAM-Frequenz
- Maximale Analog-Frequenz (bis zu 552 MHz) plus QAM-Frequenz bis zu 1002 MHz – ideal für Knotenteilungen
- Optimiert für Full-Spektrum Belegung
- Wählbarer HF-Gain erlaubt niedrigere HF Eingangspegel
- -20dB Input Testpunkt an der Vorderseite
- Laser On/Of Interlock-Schalter an der Vorderseite
- Hot Plug->In/Out
- Status-Monitoring vor Ort oder über Fernsteuerung möglich
- Belegt einen ganzen Slot

## SPEZIFIKATIONEN

| PHYSICAL | |
|---|---|
| Dimensions | Dimensions: 13.0” D x 4.3” H x 1.0” W (3RU)<br>(33 cm x 11 cm x 2.5 cm) |
| Weight | 1.7 lbs (0.77 kg) |

| ENVIRONMENTAL | |
|---|---|
| Operating Temperature Range | –20º to +65ºC (–4º to 149ºF) |
| Storage Temperature Range | –40º to +85ºC (–40º to 185ºF) |
| Humidity | 5% to 95% non-condensing |

| RF AND OPTICAL INTERFACE | |
|---|---|
| RF input | F-type male (mates to BP-A4 or BP35M4x) |
| Input RF test point | G-type male (located at front panel, – 20 dB) |
| Optical connector | SC/APC (mates to BP-A4 or BP35M4x) |

| DWDM ITU CHANNEL PLANS |
|---|
| COMMSCOPE Networks supports DWDM network architectures with a variety of products on the standard DWDM ITU Grid (ITU-T G.694.1).<br>For more complete description, please refer to the COMMSCOPE Networks DWDM ITU Grid Channel Plan data sheet. |

| POWER REQUIREMENTS | |
|---|---|
| Input voltage | 12 VDC |
| Power consumption | 12 W |

| OPTICAL | |
|---|---|
| Optical output power | 10 ±0.25 dBm |
| Wavelength | See DWDM ITU Channel Plans description |
| Fiber length (user-settable, adjustable dispersion compensation) | AT3545G-xx-1-AS: 60 km (in 5 km steps)<br>AT3545G-xx-2-AS: 40 km (in 1 km steps) |
| Additional external dispersion compensation can be supported for some applications. | |

## ELECTRICAL

Pass band: 46–1002 MHz
Frequency response (including slope): ±0.75 dB (46–1002 MHz)

Nominal RF input levels (with input attenuator = 0 dB):

For models AT3545G-xx-1-AS:
Normal Gain Setting: 16 dBmV for analog channels, 10 dBmV for 256-QAM channels
High Gain Setting: 15 dB below Normal Gain Settings

For models AT3545G-xx-2-AS:
Normal Gain Setting: 15 dBmV for analog channels,
9 dBmV for 256-QAM channels
High Gain Setting: 15 dB below Normal Gain Settings

RF input impedance: 75 Ω, nom
RF input return loss: 18 dB, min
RF input attenuator range: 0 to –6 dB, minimum
RF input attenuator step size: 0.5 dB
Level stability: ±0.6 dB (over operating temperature range) 256-QAM BER: <10–5 (pre-FEC, ITU-C) MER: >37 dB
Link performance with CW + QAM loading:

## ELECTRICAL

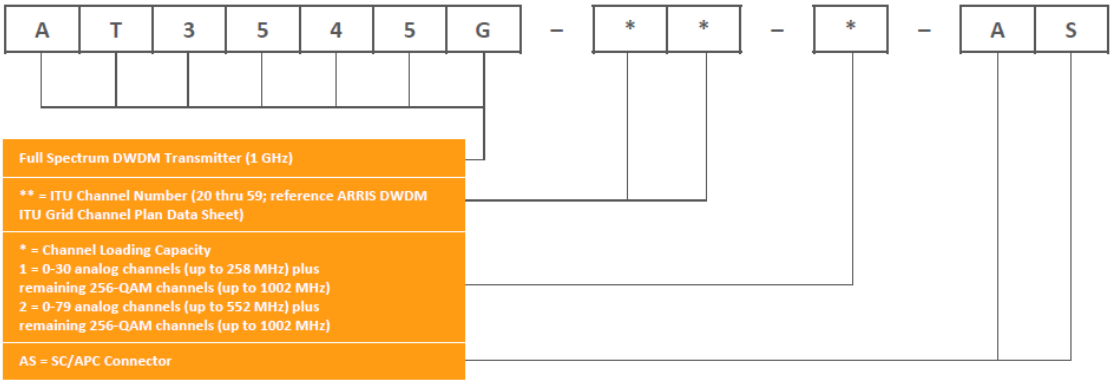
| | Transmitter Models | | | |
|---|---|---|---|---|
| | AT3545G-xx-1-AS | | AT3545G-xx-2-AS | |
| | Link Length (km) | | | |
| | 40 | 60 | 30 | 40 |
| CNR** (dB): | 52 | 50 | 51 | 50 |
| CSO (dB): | 61 | 58 | 60 | 58 |
| CTB (dB): | 65 | 65 | 65 | 65 |

An AT3545G-xx-1-AS transmitter can also be used as a full or partially loaded QAM transmitter.

For example, in BC/NC overlay systems, it would have the performance of an AT3535G-xx-1-AS transmitter.

© 2019 Normann Engineering GmbH • Linzer Str. 139 • A-4600 Wels • T +43 (0) 7242 70 921-0 • office@normann-engineering.com • Irrtum, Satz- und Druckfehler vorbehalten

## BESTELLINFORMATIONEN




### Module Back Plates

AT3545G 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 4

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 0 – A S