

Features

- Link loss budgets available from +3 to +15 dB
- 46–1002 MHz RF bandwidth
- Enables very high rack density (14 transmitters per 3RU chassis)
- Occupies only one full-depth slot
- +15 dBmV/channel RF input drive level
- Optional second port for narrowcast input (with or without AGC)
- Superior flatness, ± 0.5 dB
- Front access –20 dB input test point
- Front panel laser On/Off interlock switch
- True dynamic Plug and Play
- Open standard TCP/IP SNMP support
- Local and remote status monitoring features
- Local and remote RF level control and alarm level settings

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Analog 1310nm Transmitter (Standard Performance 1 GHz Models)



The Aurora AT3300G series 1 GHz 1310nm Transmitters provide increased bandwidth capacity for the expanding service demands of HDTV, VoIP, VOD and high speed DOCSIS. These transmitters are ideal for broadcast and narrowcast applications for optical transport with link losses ranging from 3 to 15 dB.

The AT3300G series is available with either a single 46 to 1002 MHz RF input or a dual RF input version for combining separate broadcast and narrowcast inputs within the transmitter. The dual input version is designed to provide 50 dB isolation between the narrowcast and broadcast inputs to protect against NC crosstalk on adjacent transmitters via the RF drive network. An AGC option, available for the dual input version, compensates for variations in the RF input level to the transmitter to maintain constant transmitter output RF drive level to the laser.

High density packaging enables network operators to install up to 14 transmitters per 3RU chassis, all of which can be monitored remotely or locally from the power supply module. Additionally, the compact single-width module design can be plugged in either the front or rear of the CH3000 3RU chassis to optimize equipment installation and operating conditions.

The compact design minimizes rack space requirements in headends or hubs and enhances deployment of traditional HFC, passive HFC and fiber to the home (FTTH) networks.

AT3300G

Product Specifications

Physical:

- Dimensions: 13.0" D x 4.3" H x 1.0" W (3RU)
(33 cm x 11 cm x 2.5 cm)
- Weight: 1.7 lbs (0.77 kg)

Environmental:

- Operating temperature range: 0° to +50°C
(32° to 122°F)
- Storage temperature range: -40° to +85°C
(-40° to 185°F)
- Humidity: 5% to 95% non-condensing

Power Requirements:

- Input voltage: 12 V_{DC}
- Power consumption: 12 W

General:

- Wavelength: 1310 nm ± 20 nm
- Hot plug-in/out
- Manual gain alignment
- Optional AGC (AT33xxG-A-2-AS models only)

RF and Optical Interface:

- RF input(s): F-type (at Back Plate BP-A1 or BP-A8)
- Input RF test point: G-type (at front panel, -20 dB)
- Optical connector: SC/APC (at Back Plate BP-A1 or BP-A8)

Electrical:

- Pass band: 46–1002 MHz
79 NTSC analog channel loading:
46-550 MHz
450 MHz QAM channel loading:
550-1002 MHz
(6 dB below analog channels)
- Frequency response (including slope):
BC Input: ±0.5 dB
NC Input: ±0.75 dB
- Nominal RF input levels (dBmV/ch):
For models with single RF input port:
NTSC 50-550 MHz: 15
QAM 550-1002 MHz: 9
For models with optional second port
for narrowcast RF input:
NTSC 50-550 MHz: 15
QAM 550-1002 MHz: 15
(Level of QAM signals through Aux RF input becomes
6 dB less after internal combiner.)

For models with optional second port
for narrowcast RF input and AGC:

	Mode	
	AGC	Manual
NTSC 50-550 MHz:	18	15
QAM 550-1002 MHz:	18	15

(Level of QAM signals through Aux RF input becomes
6 dB less after internal combiner. With AGC enabled,
capture range is ±3 dB.)

- Manual gain control range: 0 to -6 dB minimum

- Manual gain control step: 0.5 dB
- Input impedance: 75 Ω
- Input return loss, minimum (all RF inputs):
18 dB (46–1002 MHz)
- Level stability: ±1 dB (over operating
temperature range)
- Fiber-only link performance¹ (with full
channel loading of 50–550 MHz analog and
550–1002 MHz QAM):
CNR²: 52 dB
CSO: 65 dB
CTB: 70 dB
XMOD: 65 dB

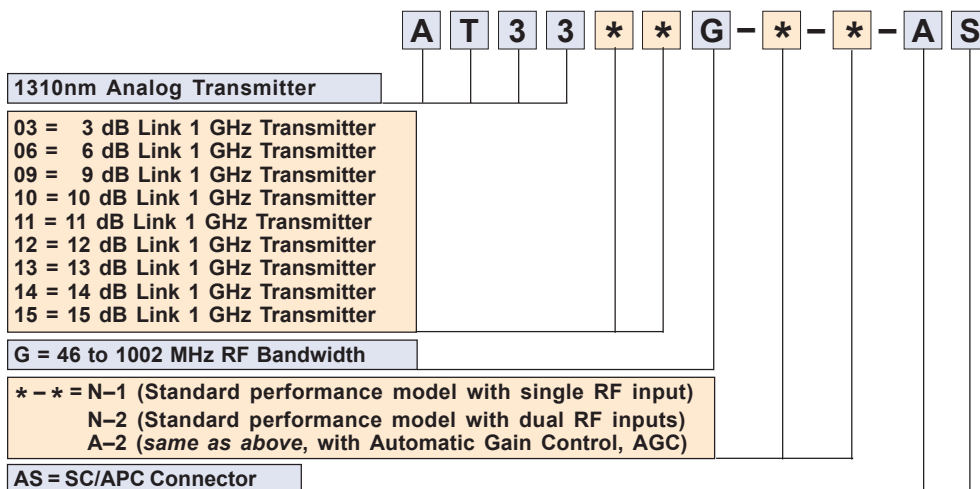
¹ Guaranteed over full operating temperature range
² CNR measurements with 4 MHz noise bandwidth
for NTSC channels.

- NC-BC RF input isolation: > 50 dB
(for models with optional second port for
narrowcast RF input)
- 256 QAM BER (ITU-C pre-FEC): 1.0x10⁻⁵

Optical Fiber Loss and Performance:

Link Loss (dB)	Output Power (dBm)	Fiber Loss (min) (dB)
3	2.75 - 3.75	2.5
6	5.75 - 6.75	5.5
9	8.75 - 9.75	8.5
10	9.75 - 10.75	9.5
11	10.75 - 11.75	10.5
12	11.75 - 12.75	11.5
13	12.75 - 13.75	12.5
14	13.75 - 14.75	13.5
15	14.75 - 15.75	14.5

Ordering Information



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