

# Headend Optics Platform

AT3300G-E-1 (65/85 System Applications)  
Analog 1310 nm Transmitter  
Enhanced Performance 1 GHz Models

## FEATURES

- Link loss budgets available from +2 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
- Superior flatness,  $\pm 0.6$  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



## PRODUCT OVERVIEW

The ARRIS AT3300G series 1 GHz 1310 nm Enhanced Performance 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 2 to 15 dB.

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.

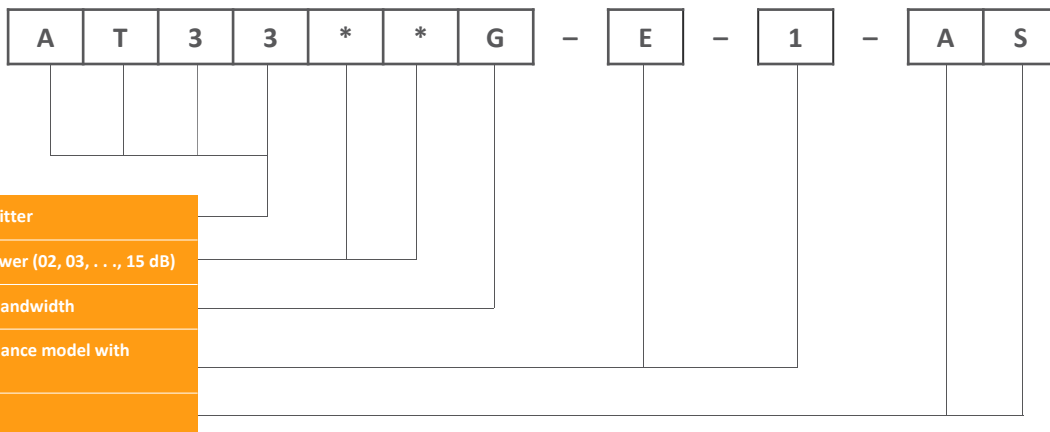
The compact design minimizes rack space requirements in headends or hubs and enhances deployment of traditional HFC, passive HFC, and fiber to the home (FTTH) networks.

## SPECIFICATIONS

Characteristics	Specification
<b>Physical</b>	
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)
<b>Environmental</b>	
Operating temperature range	-20° to +65°C (-4° to 149°F)
Storage temperature range	-40°C to +85°C (-40°F to +185°F)
Humidity	5% to 95% non-condensing
<b>Power Requirements</b>	
Input voltage	12 V <sub>DC</sub>
Power consumption	15 W
<b>General</b>	
Wavelength	1310 nm ± 10 nm
Hot plug-in/out	
Manual gain alignment	
<b>RF and Optical Interface</b>	
RF input(s)	F-type (at Back Plate BP-A1)
Input RF test point	G-type (at front panel, -20 dB)
Optical connector	SC/APC (at Back Plate BP-A1)
<b>Electrical</b>	
Pass band	46–1002 MHz <ul style="list-style-type: none"> <li>• 64 PAL B/G analog channel loading: 85-598 MHz</li> <li>• QAM channel loading: 598-1002 MHz (6 dB below analog channels)</li> </ul>
Frequency response (including slope)	± 0.6 dB
Nominal RF input levels (dBmV/ch)	<ul style="list-style-type: none"> <li>• Analog 85-598 MHz: 16</li> <li>• QAM 598-1002 MHz: 10</li> </ul>
Manual gain control range	-6 to 0 dB (relative to nominal level)
Manual gain control step	0.5 dB
Input impedance	75 Ω
Input return loss, minimum (all RF inputs)	<ul style="list-style-type: none"> <li>• 18 dB, min (46–550 MHz)</li> <li>• 16 dB, min (550–1002 MHz)</li> </ul>
Level stability	± 1 dB (over operating temperature range)
Fiber-only link performance <sup>1</sup> (with full channel loading of 85–598 MHz analog and 598–1002 MHz QAM)	<ul style="list-style-type: none"> <li>• CNR<sup>2</sup>: 53 dB (models with 2 to 11 dBm output power)</li> <li style="padding-left: 40px;">52 dB (models with 12 to 13 dBm output power)</li> <li style="padding-left: 40px;">51 dB (models with 14 to 15 dBm output power)</li> <li>• CSO<sup>3</sup>: 65 dB</li> <li>• CTB: 70 dB</li> <li>• XMOD: 65 dB</li> </ul> <p><sup>1</sup> Guaranteed over full operating temperature range  <sup>2</sup> CNR measurements with 4 MHz noise bandwidth for NTSC channels.  <sup>3</sup> CSO: 62 models with 14 to 15 dBm output power.</p>
256-QAM BER (ITU-C pre-FEC)	1.0 x 10 <sup>-5</sup>

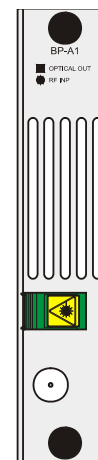
Optical Fiber Loss and Performance	Link Loss (dB)	Output Power (dBm)	Fiber Loss (min) (dB)
	2	1.75 – 2.75	1.5
	3	2.75 – 3.75	2.5
	4	3.75 – 4.75	3.5
	5	4.75 – 5.75	4.5
	6	5.75 – 6.75	5.5
	7	6.75 – 7.75	6.5
	8	7.75 – 8.75	7.5
	9	8.75 – 9.75	8.5
	10	9.75 – 10.75	9.0
	11	10.75 – 11.75	9.0
	12	11.75 – 12.75	9.0
	13	12.75 – 13.75	9.0
	14	13.75 – 14.75	9.0
	15	14.75 – 15.75	9.0

ORDERING INFORMATION



Required Module Back Plate

Back plates are included with ordered modules.



B P - A 1

RELATED PRODUCTS

CH3000 Chassis	Optical Patch Cords
Optical Transmitters	Optical Passives
BP Back plates	Installation Services

Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656

Note: Specifications are subject to change without notice.

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