

AgileMax[®] 1RU

AM3200A, AM3217A
Complete OBI Elimination
HPON[™] Distribution Solution

FEATURES

- Eliminates Optical Beat Interference (OBI) from RFoG networks, allowing operators to deploy high capacity, FTTH networks that leverage the DOCSIS[®] infrastructure
- Enables DOCSIS 3.0 and DOCSIS 3.1 upstream and downstream network capacity
- Expands network reach and adds capability for higher split ratios in the optical network
- Compatible with 1G and 10G EPON wavelengths, future proofing networks for future PON migrations
- Compatible with standards-based 1550/1610 nm RFoG deployments, integrating seamlessly with existing headend and customer premise equipment



PRODUCT OVERVIEW

The ARRIS AgileMax[®] is an exciting new breakthrough in RF-over-Glass (RFoG) FTTH network technology. Replacing the optical splitters commonly found in traditional RFoG architectures, next-generation HPON[™] powered by AgileMax optical distribution technology allows operators to completely eliminate Optical Beat Interference (OBI) from their networks—even in networks with multiple, active upstream lasers. By eliminating OBI, operators can significantly expand their networks' upstream and downstream capacity and data speed without changing back office infrastructure. As a result, AgileMax deployments overcome the cost, scalability, and capacity restrictions that limit RFoG performance, while greatly reducing operational complexity in these networks.

Future-Proof Current Networks

Current solutions for mitigating the effects of OBI in the network typically rely on techniques such as limiting simultaneous upstream transmissions via the use of only a single upstream channel, utilizing CMTS scheduling algorithms in DOCSIS® 3.0, or utilizing wavelength management techniques in the RFoG ONU. **These techniques limit network capacity and add cost and complexity to RFoG deployments.**

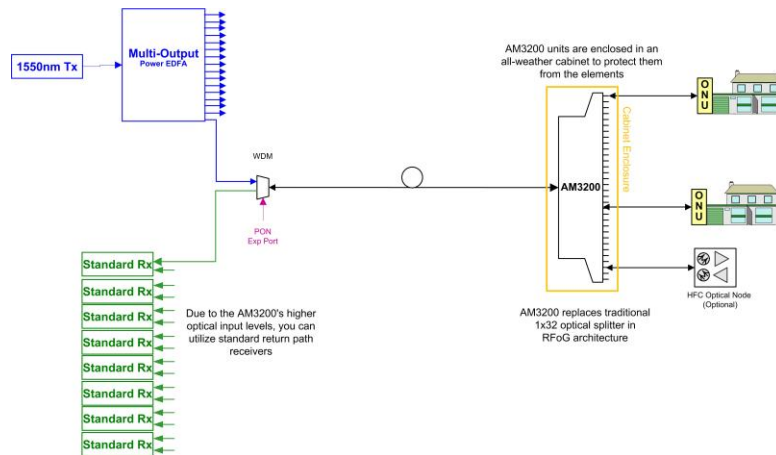
As operators migrate to higher-capacity DOCSIS 3.0 (and eventually DOCSIS 3.1) networks, they will need a way to eliminate OBI without compromising network performance. The ARRIS HPON™ solution powered by AgileMax® meets this need by enabling full DOCSIS 3.0 and DOCSIS 3.1 network capacity with no restrictions, allowing operators to reach the full potential of their fiber infrastructure.

AgileMax also provides full support for 1G and 10G PON wavelengths, enabling RFoG and PON networks to coexist over the same fiber deployments. This capability provides a future-proof solution which allows operators to maximize their fiber assets, migrating to PON-based solutions as necessary.

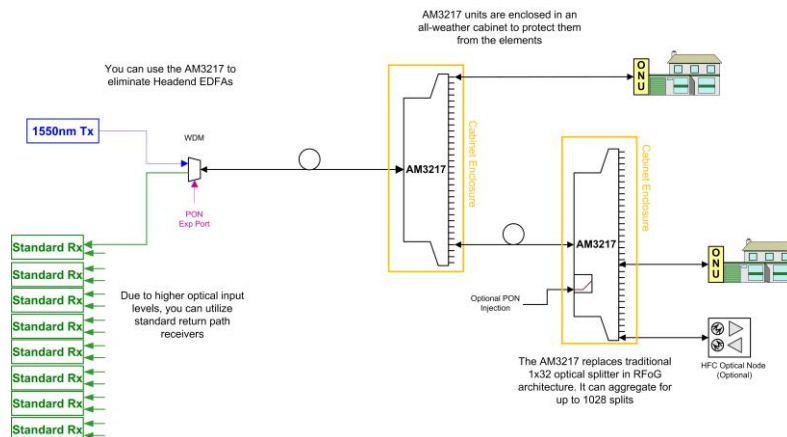
Long Reach, Large Splits

The AgileMax solution provides the flexibility to expand optical reach and split ratio, allowing operators to more easily deploy new FTTH networks as needed to support growing customer demand. AgileMax network deployments also can easily achieve twice the reach of traditional RFoG. By using AgileMax instead of passive splitters, operators can achieve service groups up to 1024 ONUs to a single headend optical receiver port with absolutely no OBI in the upstream.

Typical 1RU AM3200 Network Architecture



Typical 1RU AM3217 Network Architecture





SPECIFICATIONS (TYPICAL)

AgileMax 1RU AM3200

Characteristics	Specifications
Operating Wavelength	
Downstream	1260 – 1598 nm
Upstream	1611 ± 10 nm
Insertion Loss, Downstream	18 dB
Insertion Loss Uniformity, Downstream	± 1.0 dB
Output Power, Standard Upstream (See note 2)	3 dBm
Output Power, Low Output Upstream	-12 dBm
Upstream Optical Input Level (Distribution Ports) (See note 2)	-3 to +3 dBm
Number of Subscriber Ports	32
DC Current (+24 Vdc)	180 mA
Power Consumption	4.5 watts

AgileMax 1RU AM3217

Operating Wavelength	
Downstream	1551 ± 7.5 nm
Upstream	1611 ± 10 nm
Output Power, Downstream	-1 dBm
Insertion Loss Uniformity, Downstream	± 1.0 dB
Output Power, Standard Upstream (see note 1)	3 dBm
Output Power, Low Output Upstream	-12 dBm
Upstream Optical Input Level (Distribution Ports) (See note 2)	-3 to +3 dBm
Downstream Optical Input Level (See note 3)	-3 to +6 dBm
Number of Subscriber Ports	32
Power Consumption	8.7 watts
DC Current	360 mA

AgileMax Common Specifications

Optical Connector	SC/APC
PON Wavelength Compatibility	1260 – 1360 nm, 1480 – 1500 nm, 1575 – 1581 nm
PON Insertion Loss from Common to Port (Standard Models)	19 dB
PON Injection Loss from Injection to Ports (model with optional PON Injection port)	19 dB
PON to Common Isolation (model with optional PON Injection port)	50 dB
Input Voltage Range	22–26 VDC
Maximum Input Voltage (+24 Vdc)	+29 VDC
Operating Temperature Range	-40°C to +60°C
Dimensions	1.72 in H x 19.00 in W x 11.25 in D (4.37 x 48.26 x 28.575 cm)
Weight	8.5 lbs (3.86 kg)

NOTES:

1. Upstream output power is +3 dBm, with the presence of upstream optical input on any distribution port within the specified wavelength and optical input range. If there is no upstream optical input power present on the distribution port, the upstream output power level will be approximately -6 dBm or lower.
2. For a cascaded AgileMax architecture, the upstream optical input range is 0 to +3 dBm.
3. > -1 dBm optical input recommended for optimum performance.

ORDERING INFORMATION

1	2	3	4	5	6	7		9	10	11		13	14	15	16	17	18
A	M	3	2	1	7	A	—	A	N	N	—	N	1	N	N	F	S

1 – 2	Module Type	Rack Mount
3 – 4	Optical Split Ports	32
5 – 6	EDFA Power (dBm)	00 17
7	Upstream Receiver Port	1610 nm
9	Return Laser Type	A — 1610 nm (3 dBm output) X — 1610 low power (–12 dBm output)
10	Additional Ports	N — None
11	Local PON Injection Port	N — None J — Yes

13	Future	N — None
14	Package	1 — 1RU
15	Future 1	N — None
16	Future 2	N — None
17	Powering	F — +24 VDC
18	Optical Connectors	S — SC/APC

RELATED PRODUCTS

CHP CORWave® 3 Transmitters	FTTM2000 RFoG ONUs
CHP EDFAs	FTTM2200 RFoG ONUs
Trans Max® 4100	

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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Ask us about the complete Access Technologies Solutions portfolio:

HPON/RFoG-AgileMax