

AgileMax[®] 1RU

AM3217A CWDM

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
- Multiple CWDM upstream transmitter wavelength options for re-transmission to headend or hub
- Dedicated upstream and downstream ports
- Enables DOCSIS 3.0 and DOCSIS 3.1 upstream and downstream network capability
- Expands network reach and adds capability for higher split ratios in the optical network
- 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.

CWDM Upstream Options for Segmentation

AgileMax AM3217A units have a dedicated CWDM Return Transmitter that is available in multiple wavelength options. The transmitter provides a return link back to the headend or hub, enabling several AgileMax modules to share a common return fiber.

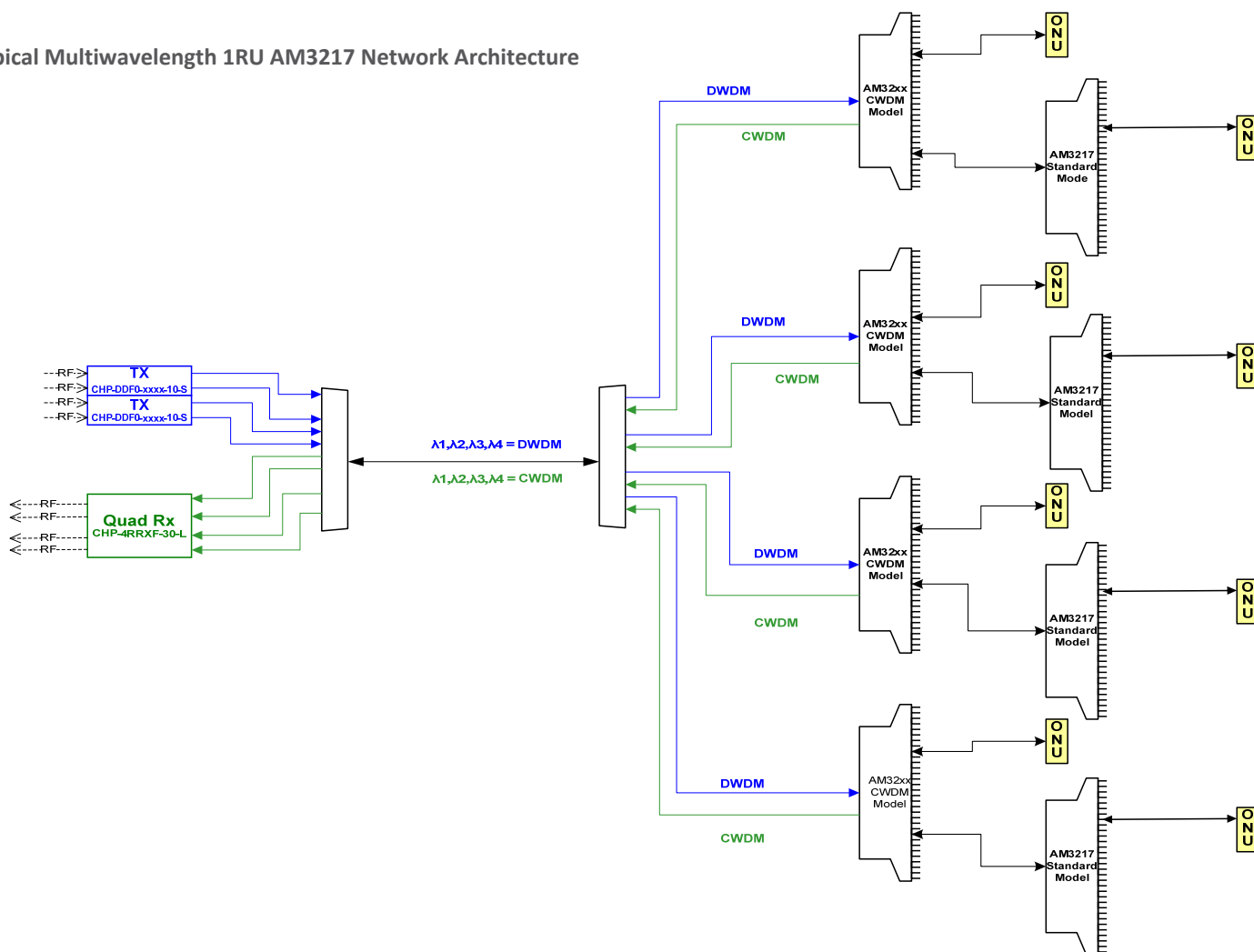
Future-Proof Current Networks

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 DOCSIS 3.0 and DOCSIS 3.1 network capability, allowing operators to maximize the potential of their fiber infrastructures.

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 Multiwavelength 1RU AM3217 Network Architecture



SPECIFICATIONS (TYPICAL)

AgileMax 1RU AM3217A

Operating Wavelength (Distribution Ports)	
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
Upstream Optical Input Level (Distribution Ports) (See note 2)	-3 to +3 dBm
Upstream Transmitter Wavelengths	1471, 1491, 1591, or 1611 nm
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 (see note 4)	1260 – 1360 nm, 1480 – 1500 nm, 1575 – 1581 nm
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.
4. PON needs to be injected externally to the AgileMax on the Downstream Common Port. The HFC 1611 nm ONU Upstream has a dedicated port.

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	—	C	N	N	—	N	1	Y	N	F	S

1 – 2 **Module Type**

Rack Mount

3 – 4 **Optical Split Ports**

32

5 – 6 **EDFA Power (dBm)**

17 (only option for CWDM upstream)

7 **Upstream Receiver Port**

1610 nm

9 **Return Laser Type**

- A — 1611 nm
- B — 1471 nm
- C — 1491 nm
- D — 1591 nm

10 **Additional Ports**

N — None

11 **Local PON Injection Port**

N — None (not available on CWDM models)

13 **Future**

N — None

14 **Package**

1 — 1RU

15 **Dedicated Upstream Port**

Y — Yes

16 **Future 2**

N — None

17 **Powering**

F — +24 Vdc

18 **Optical Connectors**

S — SC/APC

RELATED PRODUCTS

CHP CORWave® 3 Transmitters	CP8xxxx RFoG ONUs
CHP EDFAs	HT3545 Transmitters
CH3000	NH4000 VHub
FA35xx EDFAs	

Customer Care

Contact Customer Care for product information and sales:

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