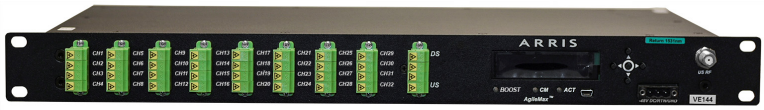
AgileMax® 1RU

AM3223D CWDM

Complete OBI Elimination
RFoG Distribution Solution

FEATURES



- High-power internal EDFA
- –48 VDC option for network powering; 60/90 VAC line powering
- Multiple CWDM upstream wavelengths support R-ONUs for seamless integration with existing headend and customer premise equipment
- Multiple CWDM upstream transmitter wavelength options for re-transmission to headend or hub
- Upstream RF test point
- Eliminates Optical Beat Interference (OBI) from RFoG networks, allowing operators to deploy high capacity, FTTH networks that leverage existing DOCSIS® infrastructure
- 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

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 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.

The AgileMax AM3223D features an internal, high-power EDFA that overcomes the splitter losses needed for distributed architecture FTTx designs, while also supporting additional passive splitters in the field that may be used in conjunction with ARRIS OBI-Free ONUs. In addition, the AM3223D supports a wider operating range for upstream input levels than conventional passive splitters. The AM3223D also enables the use of R-ONUs with alternative CWDM wavelengths, excluding the 1550 nm band which is used by the AM3223D for the downstream path. A dedicated CWDM return transmitter, available with multiple wavelength options, provides the return link back to the headend or hub, enabling several AgileMax modules to share a common return fiber. The user variable level control enables operators to set the return transmission OMI to optimize return performance over a wide optical input range from the individual R-ONUs.

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 solution powered by AgileMax meets this need by enabling DOCSIS 3.0 and DOCSIS 3.1 network capacity, allowing operators to reach the full potential of their fiber infrastructure.

Long Reach, Large Splits

The AgileMax solution provides the flexibility to expand optical reach and split ratios, 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. Using AgileMax instead of passive splitters, combined with the use of multiple CWDM return wavelengths, enables operators to support up to 256 R-ONUs with a single AgileMax with absolutely no OBI in the upstream.

AGILEMAX AM3223D SPECIFICATIONS (TYPICAL)

Characteristics	Specifications
Operating Wavelength	
Downstream	1551 nm ± 7.5 nm
Upstream	CWDM band 1271 – 1611 nm, excluding 1551 nm ± 10 nm
Output Power, Downstream	+6 dBm (nominal)
Insertion Loss Uniformity, Downstream	± 1.0 dB
Number of Subscriber Ports	32
Upstream Optical Input Level (Distribution Ports)	–10 to +3 dBm
Downstream Optical Input Level	–5 to +6 dBm
Upstream Transmitter	
Output Power	3 dBm
Wavelength	1511, 1531, 1591, or 1611 nm, selected by model number (note 1)
Upstream TX Mode Select	Constant transmit or Burst Mode (note 2)
RF Test Point	20 dBmV (note 3)
Power Consumption, –48 VDC Units (Maximum)	15 watts
Maximum Input Current , –48 VDC Units (@ –22 VDC)	0.63 A
Optical Connectors	LC/APC
PON Wavelength Compatibility	Not Supported
Input Voltage Range, –48 VDC Units	–22 to –60 VDC
Normal Operating Temperature Range	–40° to +50°C environment
Extended Operating Temperature Range	–51° to +60°C environment can be supported by adding 1RU of rack space above and below the AM3223D
Dimensions	1.72 in H x 16.73 in W x 11.25 in D (4.37 x 42.49 x 28.575 cm)
Weight	8.5 lbs (3.86 kg)

NOTES:
1. 1471 nm, 1491 nm, 1551 nm, and 1571 nm return lasers are available when ordering a minimum quantity of AM3223D units.
2. Via front panel switch
3. With 27 dBmV/ch input at an ARRIS ONU input. Adjustable from the front panel from 22 dBmV to 7 dBmV

ORDERING INFORMATION

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

1 – 2	Module Type	13	Future
	Rack Mount		N — None
3 – 4	Optical Split Ports	14	Package
	32		1 — 1RU
5 – 6	EDFA Power (dBm)	15	Dedicated Upstream Port
	23 — 23 dBm internal EDFA		Y — Yes
7	Upstream Receiver Port	16	Future 2
	D — 1271-1611 nm (excludes 1550 nm)		N — None
9	Return Laser Type[1]	17	Powering
	A — 1611 nm D — 1591 nm G — 1531 nm H — 1511 nm		D — –48 VDC
10	Additional Ports	18	Optical Connectors
	N — None		L — LC/APC
11	Local PON Injection Port		
	N — None		

NOTE:
1. 1471 nm, 1491 nm, 1551 nm, and 1571 nm return lasers are available when ordering a minimum quantity of AM3223D units.

RELATED PRODUCTS

CHP CORWave® 3 Transmitters	CP8xxxx RFoG ONUs
CHP EDFAs	HT354xH Transmitters
CH3000	

Customer Care

Contact Customer Care for product information and sales:
- United States: 866-36-ARRIS
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