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.

**FEATURES**

- Segmentable 2x16 downstream capability
- -48 Vdc and +24 Vdc options for network powering; 110/220 Vac Mains option for outlet powering
- Supports R-ONUs with multiple CWDM upstream wavelength, integrating seamlessly with existing headend and customer premise equipment
- Available with multiple CWDM upstream transmitter wavelengths for re-transmission to headend or hub
- Optical downstream test points, 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 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.
The AgileMax AM3200D provides segmentation capability in the downstream to scale back from 32 port segments to 16 port segments with two 1x16 internal splitters. The AM3200D supports a much wider operating range for the upstream input levels and enables the use of R-ONUs with alternative CWDM wavelengths, excluding the 1550 nm band used for the downstream. A dedicated CWDM Return transmitter available with multiple wavelengths 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 the return transmission OMI to be set to optimize return performance over the 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 HPON 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.

### SPECIFICATIONS (TYPICAL)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Wavelength</strong></td>
<td></td>
</tr>
<tr>
<td>Downstream</td>
<td>1551 nm ± 7.5 nm</td>
</tr>
<tr>
<td>Upstream</td>
<td>CWDM band 1271 – 1611 nm, excluding 1551 nm ± 10 nm</td>
</tr>
<tr>
<td><strong>Insertion Loss, Downstream (two 1x16 splitters)</strong></td>
<td>&lt; 15 dB (two independent 1x16 units)</td>
</tr>
<tr>
<td><strong>Insertion Loss Uniformity, Downstream</strong></td>
<td>± 1.0 dB</td>
</tr>
<tr>
<td><strong>Number of Subscriber Ports</strong></td>
<td>32 (2 groups of 16)</td>
</tr>
<tr>
<td><strong>Upstream Optical Input Level (Distribution Ports)</strong></td>
<td>–10 to +3 dBm</td>
</tr>
<tr>
<td><strong>Optical Test Point (Downstream)</strong></td>
<td>–20 dB reference to each optical input</td>
</tr>
<tr>
<td><strong>Upstream Transmitter</strong></td>
<td></td>
</tr>
<tr>
<td>Output Power</td>
<td>3 dBm</td>
</tr>
<tr>
<td>Upstream TX Mode Select</td>
<td>Constant transmit or Burst Mode (note 1)</td>
</tr>
<tr>
<td>RF Test Point</td>
<td>22 dBmV (note 2)</td>
</tr>
<tr>
<td><strong>Power Consumption, –48 Vcc Units (Maximum)</strong></td>
<td>9 watts</td>
</tr>
<tr>
<td><strong>Power Consumption, +24 Vcc/Mains Units (Maximum)</strong></td>
<td>6.8 watts</td>
</tr>
<tr>
<td><strong>Maximum Input Current, –48 Vcc Units (note 2)</strong></td>
<td>0.4 A</td>
</tr>
<tr>
<td><strong>Maximum Input Current, +24 Vcc/Mains Units (note 2)</strong></td>
<td>0.3 A</td>
</tr>
<tr>
<td>Optical Connectors</td>
<td>SC/APC or LC/APC options</td>
</tr>
<tr>
<td>PON Wavelength Compatibility</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>Input Voltage Range, –48 Vcc Units</strong></td>
<td>–22 to –60 Vcc</td>
</tr>
<tr>
<td><strong>Input Voltage Range, +24 Vcc/Mains Units</strong></td>
<td>+22 to +29 Vcc</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>–40° to +60°C</td>
</tr>
<tr>
<td>Operating/Storage Humidity Range</td>
<td>5 to 90%, non-condensing</td>
</tr>
<tr>
<td>Dimensions</td>
<td>1.72 in H x 16.73 in W x 11.25 in D (4.37 x 42.49 x 28.575 cm)</td>
</tr>
<tr>
<td>Weight</td>
<td>8.5 lbs (3.86 kg)</td>
</tr>
</tbody>
</table>

**NOTES:**

1. Via front panel switch
2. With 27 dBmV/ch input at an ARRIS ONU input. Adjustable from the front panel from 22dBmV to 7dBmV

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Fiber-Deep   DOCSIS® 3.1   Node Segmentation   RFoG   FTtx
## AgileMax® AM3200D HPO™ Optical Distribution Solution

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<th>15</th>
<th>16</th>
<th>17</th>
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<tbody>
<tr>
<td>A</td>
<td>M</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>D</td>
<td>A</td>
<td>2</td>
<td>N</td>
<td>—</td>
<td>N</td>
<td>1</td>
<td>Y</td>
<td>N</td>
<td>D</td>
</tr>
</tbody>
</table>

**1 – 2** Module Type
- Rack Mount

**3 – 4** Optical Split Ports
- 32

**5 – 6** EDFA Power (dBm)
- 00 — no EDFA

**7** Upstream Receiver Port
- D — 1370-1610 nm (excludes 1550 nm)

**9** Return Laser Type
- A — 1611 nm
- B — 1471 nm
- C — 1491 nm
- D — 1591 nm
- E — 1571 nm
- F — 1551 nm
- G — 1531 nm
- H — 1511 nm

**10** Additional Ports
- 2 — 2x16 Forward Input

**11** Local PON Injection Port
- N — None

**13** Future
- N — None

**14** Package
- 1 — 1RU

**15** Dedicated Upstream Port
- Y — Yes

**16** Future 2
- N — None

**17** Powering
- D — –48 VDC
- F — +24 VDC
- M — Mains (110/220 Vac)

**18** Optical Connectors
- S — SC/APC
- L — LC/APC

### RELATED PRODUCTS
- CHP CORWave® 3 Transmitters
- CP8xxxx RFoG ONUs
- CHP EDFAs
- HT3545
- CH3000

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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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