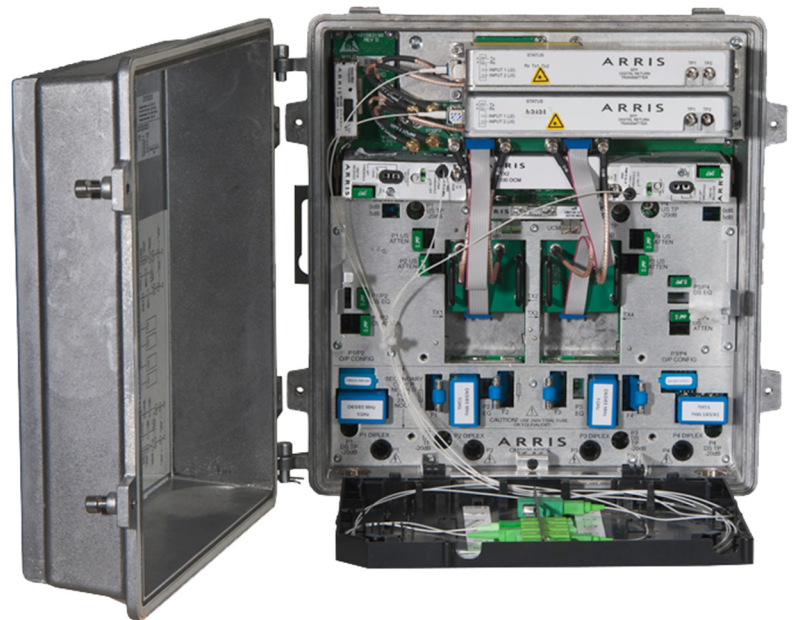


# Opti Max™ Optical Node Series

## OM2100 2x4 Segmentable Cabinet Node

### FEATURES

- 1 GHz optional GaN technology delivers higher output and enhanced reliability for fiber deep designs
- Supports CWDM, DWDM, and CORWave® multiwavelength technologies
- SFP based digital return expands upstream bandwidth and enables service group aggregation
- Integrated optical passive design for multiwavelength support and ease of installation
- Value Max transponder with HMS/AM protocol support



### PRODUCT OVERVIEW

The ARRIS Opti Max™ OM2100 cabinet node provides an ideal segmentation solution for street cabinet and pedestal applications. The Opti Max 2100 supports CWDM, DWDM, and ARRIS CORWave® multiwavelength technologies, allowing cable operators to maximize their fiber allocation. The node supports downstream 2X segmentation with the addition of a second optical receiver and is available with optional GaN technology to support a variety of network architectures. In the return path, the OM2100 supports 4X segmentation services with a variety of analog and digital return transmitter technologies. The node is available with a local AC powering option for additional flexibility in indoor applications that require a wall plug in. The node is supplied with a 110V North American plug or 220V universal plug; other plugs can be field installed.

## GENERAL NODE SPECIFICATIONS

Characteristics	Specifications	
<b>Forward Path Optical</b>		
Optical Input Wavelength, nm	1290 to 1600	
Optical Input Range, without optical AGC, dBm <sup>1</sup>	-6 to +3	
Equivalent Input Noise (HG Rx), pA/Hz <sup>0.5</sup>	5	
<b>Forward Path RF</b>		
Operating Passband, MHz <sup>2</sup>	<b>5-42/54-1002</b>	<b>5-85/105-1002</b>
Output Level @ 1002 MHz, >3.5% OMI, dBuV, min. <sup>3</sup>		
GaAs RF Module	51	51
GaN RF Module	57	57
Level Stability, ± dB, max.	1.5	1.5
Forward Aligned Tilt, dB <sup>4</sup>	5 ± 1	5 ± 1
Flatness @ Gain Slope <sup>2</sup>	0.6/1.2	0.3/1.0
Return Loss, @ 40 MHz, dB, min.	18 -1.5 dB/octave	18 -1.5 dB/octave
Port to Port Isolation, dB, typ.	> 60	> 60
<b>79 NTSC Channel Performance<sup>5,6</sup></b>		
Number of Channels, NTSC	79	75
Frequency, MHz	1006/ 870/550/54	1006/ 870/550/85
Output Level, dBmV <sup>3</sup>	54/52/47/39	54/52/47/39
Carrier to Noise Ratio, 4 MHz, 75 Ω, dB	58	58
Composite Triple Beat, -dBc	71	71
Composite 2IM, -dBc	66	66
Cross Modulation, per NCTA std., -dB	68	68
Composite Intermodulation Noise (CIN), dB <sup>7</sup>	61	61
<b>Hum Modulation (Time Domain @ 10A)</b>		
54 to 600 MHz, dB	60	60
601 to 1006 MHz, dB	65	65
<b>Return Path RF</b>		
Operating Passband, MHz	<b>5-42</b>	<b>5-85</b>
Optimum RF Input Level, dBmV/6 MHz	10	10
Gain Slope, dB	10	10
Flatness @ Gain Slope, dB	1.0	1.0
Return Loss, dB (All RF Ports)	0.3/1.0	0.3/1.0
Port to Port Isolation, dB, typ.	16	16
Test Points	70/55	70/55
RF Input Directional dB	-20 ± 0.75	-20 ± 0.75

**NOTES:**

- Two active outputs. Four total outputs available with optional 7-DCX type output plug-in distribution modules.
- Minimum output level with EQ installed and an optical input of -6 dBm: 3.5% Tx OMI = 51 dBmV; 4.0% Tx OMI = 52 dBmV; 4.5% Tx OMI = 53 dBmV; 5.0% Tx OMI = 54 dBmV. Nodes configured with optical AGC will maintain these output levels over the optical input range.
- Linear tilt with 5 dB onboard EQ energized and no plug-in EQ. Tilt is measured from 48 to 1006 MHz and is determined using a best fit/least squares formula.
- Measured with respect to tilt from 60 to 1006 MHz.
- Referenced to 23°C with a fixed optical input.
- Output level variation with respect to output level at -3 dBm input.
- The distortion values listed are for the node only. To obtain a particular link performance, combine the listed node performance values along with the applicable transmitter performance values.

## RELATED PRODUCTS

Digital Return Transmitter	Optical Patch Cords
SFPs	Optical Passives
Fiber Service Cable	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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Nodes-OM2100