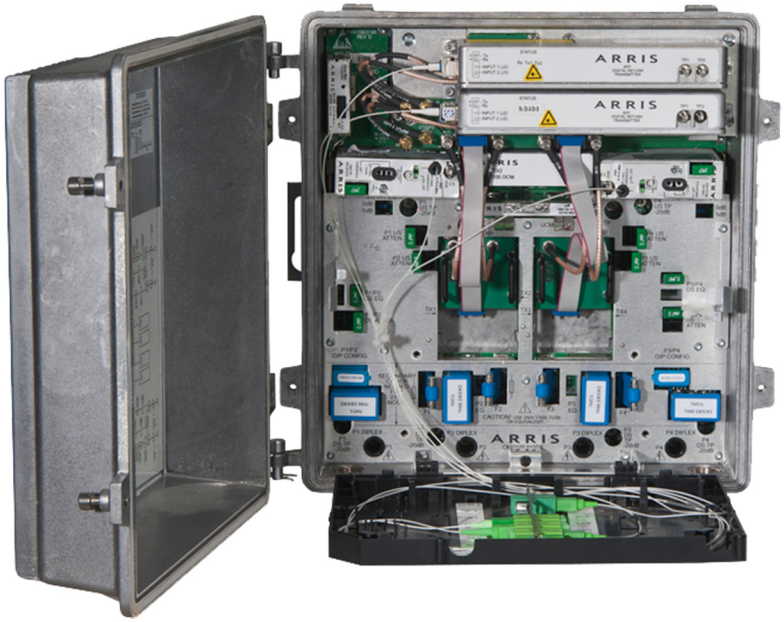
Opti Max™ Optical Node Series

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	
Forward Path Optical		
Optical Input Wavelength, nm	1290 to 1600	
Optical Input Range, without optical AGC, dBm[1]	-6 to +3	
Equivalent Input Noise (HG Rx), pA/Hz$^{0.5}$	5	
Forward Path RF		
Operating Passband, MHz[2]	**5-42/54-1002**	**5-85/105-1002**
Output Level @ 1002 MHz, >3.5% OMI, dBuV, min.[3]		
GaAs RF Module	51	51
GaN RF Module	57	57
Level Stability, ± dB, max.	1.5	1.5
Forward Aligned Tilt, dB[4]	5 ± 1	5 ± 1
Flatness @ Gain Slope[2]	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
79 NTSC Channel Performance[5,6]		
Number of Channels, NTSC	79	75
Frequency, MHz	1006/ 870/550/54	1006/ 870/550/85
Output Level, dBmV[3]	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[7]	61	61
Hum Modulation (Time Domain @ 10A)		
54 to 600 MHz, dB	60	60
601 to 1006 MHz, dB	65	65
Return Path RF		
Operating Passband, MHz	**5-42**	**5-85**
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:

1. Two active outputs. Four total outputs available with optional 7-DCX type output plug-in distribution modules.
2. 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.
3. 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.
4. Measured with respect to tilt from 60 to 1006 MHz.
5. Referenced to 23°C with a fixed optical input.
6. Output level variation with respect to output level at –3 dBm input.
7. 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
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Note: Specifications are subject to change without notice.

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