ARRIS

# Opti Max

## Opti Max4100 1 GHz Fully Segmentable Node

- 1 GHz technology
- 42/54 MHz , 55/70 MHz , 65/85 MHz , and 85/105 MHz frequency splits
- Full 4 x 4 forward and return segmentation capability
- Investment preservation through high level of scalability
- Analog and digital CWDM return path options to optimize fiber
- DWDM architecture support
- Major EMS protocol support
- Advanced fiber management with available CWDM, and CORWave™

The ARRIS Opti Max4100 1 GHz Fully Segmentable Node is a modular, pay-as-you-grow platform. The Opti Max4100 facilitates full 4 x 4 forward and return segmentation with an industry-leading port-to-port isolation. 1 GHz will enable broadband service providers to increase forward capacity for HDTV over previous program offerings, thereby allowing a typically 40% increase over current HDTV channels in a lineup.

The Opti Max4100's modular design allows a high level of scalability, which enables operators to deploy minimal configurations today and expand as subscriber demands increase. Expansion options include forward and return segmentation and redundancy, analog and digital CWDM return transmitters, network powering redundancy, and element management options with major EMS protocols, including open-standard HMS protocol.

In addition, the Opti Max4100 node supports fiber-poor systems with a variety of return transmitter options and the availability of an 85/105 MHz option, which doubles return bandwidth without capital expenditures for additional return transmitters.

### Features

- High port-to-port isolation enables true segmentation upgrades
- Wavelength-stable, analog CWDM and 2:1 TDM digital CWDM/DWDM return transmitters that meet the ± 6.5 nm ITU-T G.695 standard over the full –40 to 60° C temperature range
- Four active output ports with GaAs hybrids to achieve 53.5 dBmV at 1 GHz and –3 dBm minimum optical input
- 15 ampere power passing and surge termination

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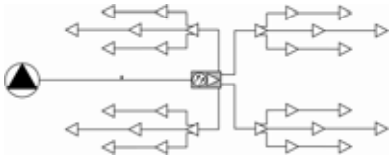
## Applications

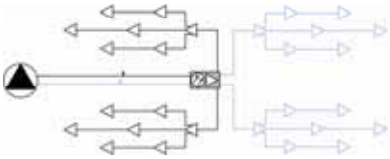
The Opti Max4100 can be deployed in three basic configurations and two redundant configurations to meet HFC system architecture needs: 1 x 4, 1 x 4 with redundancy, 2 x 2 segmentation, 2 x 2 with redundancy, and 4 x 4 segmentation, in addition to more unique configurations. Regardless of the configuration, the Opti Max4100 supports a variety of configurations and achieves the port-to-port isolation performance operators demand for analog and sophisticated digital modulation applications.

- 1 x 4 Forward/Return Configuration—The basic 1 x 4 configuration of the Opti Max4100 can be easily configured to provide redundant fiber routes in both the forward and return paths and redundant powering for operators who require increased network reliability.
- 2 x 2 Forward/Return Segmentation—To migrate to the 2 x 2 segmentation configuration, simply activate a spare fiber and install a second forward receiver, a second return transmitter, and the associated configuration modules. The 2 x 2 segmentation configuration can also be easily configured to provide redundant fiber routes in both the forward and return paths and redundant powering for those operators who require increased network reliability.
- 4 x 4 Forward/Return Segmentation—To migrate to the 4 x 4 segmentation configuration, activate two additional spare fibers and install two additional forward receivers, two additional return transmitters, and the associated configuration modules.

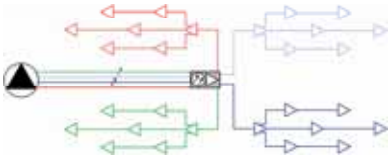
**1 x 4 Forward/Return Configuration**



**2 x 2 Forward/Return Configuration**

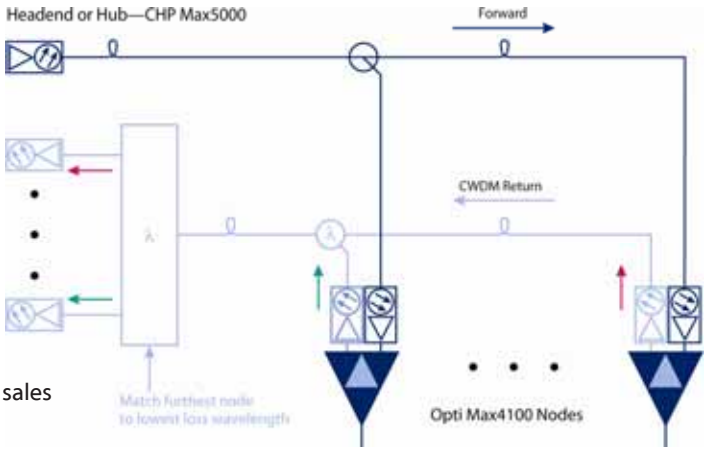


**4 x 4 Forward/Return Configuration**



With CWDM Digital Return, eight 1550nm digital return path transmitters at 20nm spacing are each used for a direct short- or medium-haul return from node to hub. These eight separate return paths are then coarse wave division multiplexed onto one fiber for transport to the headend using the following wavelengths: 1471, 1491, 1511, 1531, 1551, 1571, 1591, and 1611nm. Eight CHP Max5000 digital return receivers installed in the headend complete this application. The CWDM Digital Return is an ideal solution for eight or less wavelengths over one fiber.

The CWDM Digital Return Solution must be configured with the CHP Max5000™ digital return receiver in a headend/hub location.

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Find more information about the Opti Max 4100 1 GHz Fully Segmentable Node:

- Opti Max 4100 1 GHz Fully Segmentable Node Technical Specifications (Publication Code: OM4100_TS.pdf)

## Customer Care

Contact Customer Care for product information and sales
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