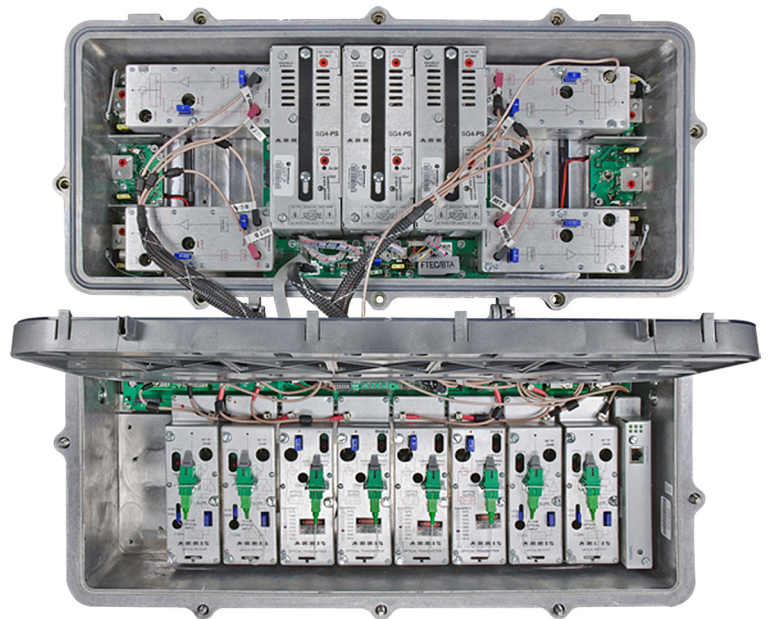# Optical Node Series

SG4000
Forward and Return Configuration Boards

FEATURES

- Enables subscriber bandwidth expansion via downstream and upstream segmentation
- Allows return RF bandwidth expansion up to 85 MHz
- Supports analog and digital return technologies
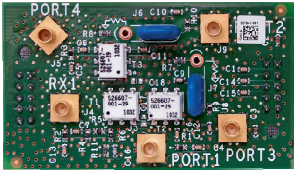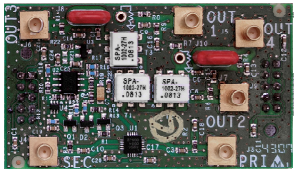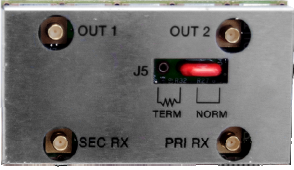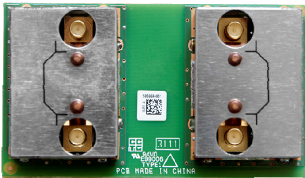- Hot-swappable for simplified maintenance

PRODUCT OVERVIEW

The ARRIS SG4000 4X4 modular optical node supports a variety of forward and return path segmentation or redundancy options. These options are supported by configuration-specific boards that plug into the main router board located in the node's lid. Once installed, the boards direct signal flow to the proper input and output modules. Connections to the optics and RF modules are via RF cables for intuitive installation. Each board is coded to provide signal path awareness when an optional DOCSIS SCTE/HMS compatible status monitor transponder is installed. Like all SG4000 modules, you can install or remove the configuration boards while the node is powered and operational, which simplifies maintenance.

Fiber-Deep   **DOCSIS® 3.1**   **Node Segmentation**   **HPON™/RFoG**   **FTTx**
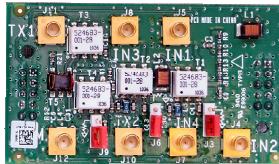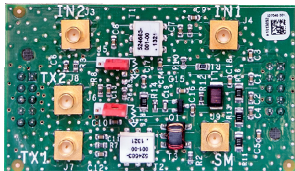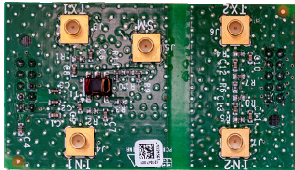
Forward Path Configuration Boards

The SG4000 supports up to two forward path configuration boards, each of which is capable of servicing two SG-4 receivers. The boards are available in Standard Split, Split Redundant, Segmented 2X, and Segmented 4X models. The number of boards, and where the boards are seated in the main router board, are determined by which forward path configuration option you choose:

Model Number	Forward Path Configuration Number of Receivers	Physical View	Number Of Configuration Boards Required	Router Configuration Board Location
SG4-100-FS-R	Forward Split - A single receiver splits the content to all four RF ports		One	Forward Location 1
SG4-100-FRS-R	Split Redundant - Primary & Secondary receivers split the content to all four RF outputs		One	Forward Location 1
SG4-100-FWD-2X-R	Segmented 2X - Two receivers feed unique content to two pairs of RF outputs		Two	Forward Location 1 Forward Location 4
SG4-100-FWD-2X-RED-R	Segmented 2X - Two pairs of receivers (Primary & Secondary) feed unique content to two pairs of RF outputs		Two	Forward Location 1 Forward Location 4
SG4-100-FWD-4X-R	Segmented 4X - Four receivers each deliver unique content to an independent RF output		Two	Forward Location 1 Forward Location 4

RELATED PRODUCTS	
Digital Return Transmitter	Optical Patch Cords
SFPs	Optical Passives
Fiber Service Cable	Installation Services

Return Path Configuration Boards

The SG4000 supports up to two return path configuration boards. A single board is available that supports Combined and Combined Redundant applications. A single board (qty. of 2) also supports Split Return 2X and Split Return 2X Redundant Configurations. Finally, a Segmented 4X board is available for complete segmentation. A single SG4-DRT-2X-85 Digital Return Transmitter with two RF channels can be used in all configurations instead of two analog transmitters. The number of boards, and where the boards are seated in the main router board, are determined by which return path configuration option you choose:

Model Number	Return Path Configuration Number of Transmitters	Physical View	Number Of Configuration Boards Required	Router Configuration Board Location
SG4-100-RET-COMB-RED-R	Combined Return — All four RF returns are combined on a single transmitter		One	Return Location 2
	Combined Redundant Return — All four RF returns are combined on two transmitters		One	Return Location 2
SG4-100-RET-2X-RED-R	Split Return — Two RF returns are combined on one transmitter; the other two RF returns are combined on a second transmitter		Two	Return Location 2 Return Location 3
	Split Redundant Return — Two RF returns are combined on two transmitters; the other two RF returns are combined on two additional transmitters		Two	Return Location 2 Return Location 3
SG4-100-RET-4X-SEG-R	Segmented Return — Each RF return is directed to an individual transmitter.		Two	Return Location 2 Return Location 3

Note: Specifications are subject to change without notice.

Customer Care

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