

Headend Optics Platform (CH3000)

DR3250N Dual Digital Receiver (5-100 MHz Passband)

FEATURES

- High packaging density, two receivers per single width, full-depth module
- Single channel link mode or dual channel "2-fer" link modes, selectable via software user interface
- High RF output: (-32 dBmV/Hz typical)
- Superior noise performance
- RF output level is independent of optical input power and provides output level stability in alternate routing applications
- Front access -20 dB test points
- Hot plug-in/out
- Local and remote status monitoring
- Occupies one full-depth slot





PRODUCT OVERVIEW

The DR3250N Dual Digital Receiver utilizes ARRIS's state-of-the-art digital reverse technology to receive 5–100 MHz RF signals. Its capabilities allow deployment of compact and robust high speed digital broadband systems.

ARRIS's DR3250N receiver interfaces with the BP3100C-00 Optical Receiver Back Plate, enabling up to eight digital receivers (two receivers per module) to be installed in four adjacent module slots of ARRIS's 3RU CH3000 chassis. A total of 24 receivers (12 DR3250N modules) and three associated BP3100C back plates can be installed in each chassis, while supporting redundant power supplies.

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Headend Optics-DR3250N

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Node Segmentation

HPON[™]/RFoG

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In single channel mode, each receiver module can terminate two node clusters using two optical receivers mounted in an associated back plate. The digital data extracted from each optical link is converted through a high speed digital-to-analog converter (DAC), resulting in an RF output signal.

In dual channel "2-fer" mode, each DR3250N, with an associated optical receiver mounted in the back plate, terminates one return path wavelength that has been transported over a single optical fiber. The advanced design provides simultaneous conversion of digital return path traffic from two RF return segments coming from the node. Used in combination with DT4250N Digital Transceivers in optical nodes, the DR3250N allows quick and cost effective doubling of the amount of return bandwidth available from any node in the network, therefore conserving and optimizing the cable operators' investment in the fiber network. Two dual channel transceivers, when used in a fully segmented node, in combination with DWDM techniques and two DR3250N digital return path receivers connected to the back plate provide four discrete return paths from a single node over a single return fiber.

SPECIFICATIONS	
Characteristics	Specification
Physical	
Dimensions	13.0" D x 4.3" H x 1.0" W (3RU) (33 cm x 11 cm x 2.5 cm)
Weight	1.6 lbs (0.72 kg)
Environmental	
Operating temperature range	-20° to +65°C (-4° to 149°F)
Storage temperature range	-40° to +85°C (-40° to 185°F)
Humidity	5% to 95% non-condensing
Optical Interface	
Optical connectors	LC/UPC in SFP (on RR40xx in Back Plate BP3100C-00)
Electrical Interface	
Main RF outputs (each channel)	F-type female connector (on Back Plate BP3100C-00)
Output test points (each channel)	G-type female connector (front panel, -20 dB)
Power Requirements	
Input voltage	12 V _{DC} (provided via chassis mid-plane connection)
Power consumption	10.2 W (excluding 2.1 W power feed to 1/4 of a BP3100C-00 and SFPs)
General	
	Hot plug-in/out
	Manual gain alignment
Electrical (RF path - each channel)	
Passband	5–100 MHz
Frequency response	± 0.5 dB
Nominal output level	-32 dBmV/Hz with 5-100 MHz loading and -63 dBmV/Hz input to digital transceiver
Output RF level adjustment range	0–26 dB (0.5 dB increments) (–58 dB for diagnostic)
Output return loss	18 dB min
Optical (BP3100C-00 with RR40xx SFP Receiver)	
Wavelength	1263.5 - 1617.5 nm
Input return loss	27 dB
Optical power input range	(see RR40xx Data Sheet)

RELATED PRODUCTS	
CH3000 Chassis	Optical Patch Cords
Optical Nodes	Optical Passives
BP Back plates	Installation Services

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ORDERING INFORMATION



Module Back Plate (Back plate and RR40xx SFP Receiver must be ordered separately.)



Optical Receiver Back Plate

Module Back Plate



Each back plate accommodates up to four DR3250N receiver modules.

Model BP3100C-00

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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