

COMMSCOPE DR3421

DUAL RETURN CHANNEL DIGITAL RECEIVER (5-65 MHz PASSBAND)

The DR3421 Dual Return Channel Digital Receiver utilizes state-of-the-art technology for digital return path applications, and its capabilities allow deployment of compact and robust high-speed digital broadband systems. The advanced design provides simultaneous conversion of digital return path traffic from two RF return segments to two discrete RF output ports. Used in combination with DT4232N Digital Transceivers in optical nodes or DT3515C Digital Transmitters, the DR3421 allows quick and cost effective doubling of the amount of return bandwidth available from any node in the network. These dual-segment digital return receiver modules are primarily used in traditional HFC systems, where larger node sizes are the norm.



- Dual D-A conversion provides discrete RF signals from two return segments per optical input
- High RF output (−33 dBmV/Hz typical)
- Superior noise performance
- RF output level independent of optical input power provides output level stability in alternate routing applications
- Front access −20 dB test points for each return path
- Hot plug-in/out
- Local and remote status monitoring
- Occupies one full-depth slot



SPECIFICATIONS

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 inRR40x0-00-PI SFPs (on BP3100C-00 Back Plate)
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 VDC(provided via chassis mid-plane connection)
Power consumption	17 W (excluding power feed to BP3100C-00)
GENERAL	
Hot plug-in/out	
Manual gain alignment	
External RF A/B switch support (Model AB02S1S)	
ELECTRICAL (RF PATH -EACH CHANNEL)	
Passband	5–65 MHz
Frequency response	±0.5 dB
Nominal output level	−33 dBmV/Hz with 5-65 MHz loading
Output RF level adjustment range	0–58 dB (1 dB increments)
Output return loss	18 dB min
Isolation between RF channels	−60 dB
Level stability	±0.5 dB
Level repeatability	±1.0 dB

ORDERING INFORMATION

Module Part Number

D	R	3	4	2	1	-	A	S

Dual Digital Receiver

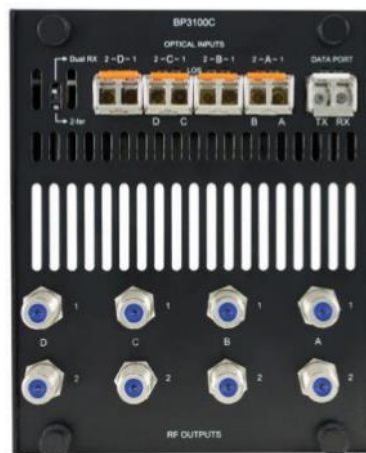
Module Back Plate

(Back plate must be ordered separately.)

B	P	3	1	0	0	C	-	0	0

Optical Receiver Back Plate

Module Back Plate



Each back plate accommodates up to four DR3421 receiver modules.

Model BP3100C-00