

RFoG FTTx MINI FIBER NODE 4 & 8 RF OUTPUTS

Ideal for Fiber to the Curb Architectures
Replace the Tap, Not the Drop!



THIS IS INNOVATION

PCT's BMFN-4OxxAS and BMFN-8OxxAS Forward and Return Path Transceivers for RFoG, PON and Hybrid PON networks deliver advanced bi-directional, interactive RF services over a passive fiber optic distribution network. Being the first RFoG mini node in the industry with 4 and 8 RF outputs, the units are designed to operate on RFoG systems or optional overlay of RFoG systems onto Passive Optical Network (PON) systems with either a 1310 or a 1610 nm return laser option. These burst-mode mini nodes provide the freedom and flexibility to work with any PON solution that uses industry standard optical wavelengths, and serves as the optical transport layer for RF video or DOCSIS technologies.

By replacing 4 or 8 output taps and eliminating the need for additional splitting elements after the node (like traditional mini nodes with only one output), bi-directional services can be provided over extended RF frequencies while being agnostic to head-end equipment and customer premises equipment. This ensures that today's operating processes are preserved. PCT's burst-mode mini nodes provide flexibility to grow your network to meet customer demand now and into the future.

Standard Features

- 4 or 8 outputs with RF spectrum to 1 GHz
- Universal HFC set top box and head-end support
- Transparent return path capability
- Support most in-home applications without amplifiers
- Direct or remote powering over 75 Ohm coax cabling



RFoG FTTx MINI FIBER NODE

Delivers Advanced Bi-Directional, Interactive RF Services

Specifications

Parameters	Unit	PCT-BMFN-4OxxAS / 8OxxAS	PCT-BMFN-654OxxAS / 654OxxAS	PCT-BMFN-858OxxAS / 858OxxAS
Downstream				
Optical Receiver				
Wavelength Range	nm	1540 to 1565		
Input Power Range	dBm	+1 to -7		
Connector Type	- -	SC / APC Female		
Return Loss	dB	≥ 40		
RF Performance				
Passband	MHz	54 to 1002	85 to 1002	102 to 1002
Output Level	dBmV	+17 per output @ 1002 MHz CW		
Output Level Stability	dB	± 2 over +1 to -6 dBm input range		
CNR	dBc	≥ 45 @ -5 dBm optical input		
CSO	dBc	≤ -60 @ -5 dBm optical input		
CTB	dBc	≤ -60 @ -5 dBm optical input		
Output Return Loss	dB	≥ 16		
Output Flatness				
54 to 1002 MHz	dB	± 1.5, excluding tilt		
Output Tilt				
54 to 1002 MHz	dB	5 ± 2		
Upstream				
Return Transmitter				
Transmission Wavelength	nm	1310 ± 7 (C3) or 1610 ± 7 (C18)		
Laser Type	- -	FP (1310 nm only) / DFB		
Optical Power	dBm	0 (FP), +3 (1310 nm DFB), +3 (1610 nm DFB)		
Optical Interface	- -	SC / APC Female		
RF Performance				
Passband	MHz	5 to 42	5 to 65	5 to 85
Input Range	dBmV	33, 4 Channels		
Turn on Threshold	dBmV	15		
Dynamic Range @ 38 dB NPR	dB	> 10		
General				
Interface	- -	Dedicated F port, Female		
Power	VDC / mA	15 / 500, F-type connector AC / DC power adapter to dedicated PWR input or RF output port with power inserter		
Operating Temperature	°C (°F)	-40 to +70 (-40 to +158) ambient		
Storage Temperature	°C (°F)	-40 to +85 (-40 to +185) ambient		
Humidity	%	up to 95, non-condensing		
Status Indicator	dBm	Optical Input Power LED: Green >-9, Red <-10		
Dimensions (W x H x D)	mm (in)	179 x 105 x 54.5 (7.05 x 4.13 x 2.15)		
Mounting	- -	Direct mounting in an interior panel or wall		

Ordering Information

RFoG FTTx Burst Mode Mini Fiber Node

Example: PCT-BMFN-4OxxAS Mini Fiber Node, Burst Mode, 4 RF Output, SC / APC with US Power Adapter

PCT	-	BMFN	-					Description
				(blank)				5 to 42 MHz Passband
				65				5 to 65 MHz Passband
				85				5 to 85 MHz Passband
					4O			4 RF Output Ports
					8O			8 RF Output Ports
						F		1310 nm FP
						03		1310 nm DFB
						18		1610 nm DFB
							AS	SC/APC Optical Connector Type
							FS	FC/APC Optical Connector Type
							FU	FC/UPC Optical Connector Type
							US	SC/UPC Optical Connector Type
							(blank)	US Style Power Adapter
							C	C Style Power Adapter (Only 5 to 65 MHz or 5 to 85 MHz)
							NP	No Power Adapter (Any Passband)

Options and Accessories

Switch Mode Power Supply with Mounting Tab

SMPS515RH2W	LED, 2 Wire Input Connector, 15 VDC, 0.5 A
SMPS515RHF	LED, F Port Input Connector, 15 VDC, 0.5 A
SMPS512UTRH	LED, RoHS, US Plug Style, 12 VDC, 0.5 A

Switch Mode Power Supply

SMPC512CRH	RoHS, C plug, 12 VDC, 0.5 A
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Power Inserter

PCT-MPI-12	High Isolation, 5 to 1218 MHz
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