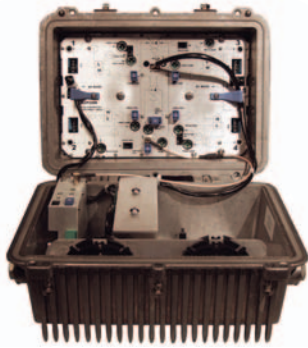


# Broadband Outdoor Four Output Fiber Node

Trailblazer Series - BOFN



The BOFN-S4S-870-50 is a high performance, four output, two-way optical node capable of greater than +50dBmV output levels and performance to 870MHz. The BOFN-S4S-870-50 is configured in a finned weatherproof aluminum housing suitable for outdoor strand or pedestal installation. It is specifically designed to operate over wide temperature ranges, and operates from standard CATV 60 VAC power. Cable and fiber entry and exit ports accept standard 5/8-24 threaded CATV connectors. The optical receiver and optional BORT Series return laser transmitters have SC-APC optical connectors, FC/APC connectors are available on a special order basis. Internal RF connections are made with 75Ω mini-SMB connectors. RF test points are male Type “G” connectors and mate with standard adapters.

The BOFN-S4S-870-50 has four identical bi-directional coaxial ports. Each port has a forward (downstream) passband of 54-870MHz and a reverse (upstream) passband of 5-42MHz. All four bi-directional ports are capable of passing power into or out of the BOFN-S4S-870-50. A fifth port designated as a power port can be optionally configured to also serve as an RF port for return-band signals into or out of the housing. Jumper plugs controlling the power configuration for each of the ports can be replaced with automotive-type ATC fuses.

## ○ Features & Benefits

- Exceptional Performance at Low Optical Input Levels
- Four High Level RF Outputs
- Flexible 45-90 VAC Powering Options
- Two-way Operation with Optional Return Transmitter

## ○ Specifications

Optical Input Range: -4 dBm to +3 dBm	In/Out Return Loss:
Forward Frequency Range: 54 MHz to 870 MHz	>16 dB – All Ports 1 Through 4 Port 5 (Power Port) - >15 dB to 65 MHz with Optional Return Port Configuration
Reverse Frequency Range: 5 MHz to 42 MHz	Operating Temperature Range: -40° C to +65° C
Forward Frequency Response: ± <0.75 dB to 870 MHz	Gain Variation vs. Temperature: <±1 dB Typical <±1.5 dB Max
Reverse Frequency Response: ± <0.75dB, 5MHz to 42 MHz	AC Power Requirements: 60 VAC @ 50-60 Hz; (45 VAC to 90 VAC) Will withstand overvoltage to 140 VAC
Output Level (Forward): +50 dBmV @ 550 MHz (Each of Four Outputs) with -4 dBm Optical Input, 16 dB Slope to 870 MHz, and Transmitter OMI @3.2%.	Hum Modulation: >60dB @ 15 Amps AC Current from any One Port 7 MHz to 25 MHz>65dB @ 15 Amps AC current from any One Port 25 MHz to 870 MHz
Distortion: >62 dB CSO/CTB @ Above Output and +3 dBm Optical Input Carrier Loading (77 channels) to 550 MHz. Simulated Data Loading @ -6 dB from 550 MHz to 870 MHz	Dimensions (WxHxL): 11-1/2 x 8-1/4 x 9, in Weight: 19 lbs.
Carrier to Noise: >53 dB @ -1 dBm Optical or Greater Carrier loading (77 Channels) to 550 MHz	

## Optional Plug-In Module

The BORT Series are optional return transmitter plug-in modules for the BOFN-S4S-870-50 (#7554) outdoor fiber node. Two models are available depending on the particular application. The BORT-S3S-420 (#7560) employs a Fabry-Perot (FP) laser with 1 mW (0 dBm) of optical output power. It is recommended for data applications only. The BORT-S3S-424 (#7564) has a DFB laser with 3 mW (4.8 dBm) of optical output power. The #7564 is recommended for both data and return video applications. Both BORT Series transmitters have a return RF frequency bandwidth of 5-42 MHz and SC/APC optical connectors. FC/APC connectors will be available on a special order basis.

## ○ Ordering Information

Model	Stock No.	Description
BOFN-S4S-870-50	7554	Broadband Outdoor Fiber Node 4 Output, 54-870 MHz, +50 dBmV per Port, 5-42 MHz Return
<b>Optional Plug-In Modules</b>		
BORT-S3S-420	7560	BOFN-S4S-870-50 Plug-In Return Transmitter 0 dBm FP Laser, SC/APC Connector, 5-42 MHz
BORT-S3S-424	7564	BOFN-S4S-870-50 Plug-In Return Transmitter 4.8 dBm DFB Laser, SC/APC Connector, 5-42 MHz
<b>Accessories</b>		
LPA-EQ8	5833	LPA Series Plug-In Cable Equalizer 870 MHz, Values:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18
LPA-PD-XX	5834	LPA Series Plug-In Attenuator 870 MHz, Values:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18