

FODA Trailblazer Series

Outdoor Fiber Optic Receiver & Distribution Amplifier

The FODA Series are outdoor optical nodes designed for HFC applications. They consist of a high quality optical receiver module combined with a power doubling hybrid amplifier stage resulting in excellent CNR and CTB performance over a wide optical input range. Designed with cast-aluminum housings, the FODA is ideal for outdoor as well as indoor back board installations.

The FODA Series is available in one-way (only), two-way (capable) and fully two-way equipped models. Numerous optical return transmitter options are available for different wavelengths and output powers to satisfy a variety of installation requirements.

The FODA housing utilizes a carbonized rubber and wire mesh gasket to provide excellent protection against RFI and moisture ingress. 5/8" entry fittings in the housing allow hard line cable to connect directly to the amplifier. For RG-11 or RG-6 cabling applications, a KS-F adapter is included to provide an output "F" connection. The FODA has flexible powering features. For indoor use, the supplied external 60 VAC power supply (not applicable to FODA stock number 7586) is connected to the auxiliary power "F" connector using flexible coax. This permits remote powering, so the unit can be installed without the need for nearby electrical outlet. Powering can also be accomplished using 60/90 VAC CATV network powering (not applicable to stock number 7586) via the output 5/8" entry.

The FODA stock number 7586 has an FC/APC optical input connector mounted on the housing and is therefore not intended to be mounted directly outdoors. 60/90 VAC powering is accomplished through a dedicated 5/8" housing port. A 60/90 VAC power supply is not provided.

FODA stock numbers 7578 and 7588 have their optical connector(s) mounted within their housings and are suitable for mounting directly outdoors. These models are shipped with an indoor 60 VAC power supply and can be powered via the dedicated power input "F" connector or network powered from the RF output connector.

- Exceptional CNR Performance
- Optical Input Test Jack – Scaled DC output (1V/mW)
- 860 MHz Forward Bandwidth
- 2-Way Models available with 36/49 or 42/54 MHz Splits
- Numerous Return Laser Options (FP, DFB, 1310 nm, 1550 nm)
- 60/90 VAC Powering (60 VAC PS included in all models except stock number 7586)
- Built in 20 dB In/Out RF Test Ports
- Cast Aluminum Housing for Outdoor or Indoor Mounting
- Forward Path Interstage Variable Gain and Slope Controls



**BLONDER
TONGUE**
LABORATORIES, INC.

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○ Features & Benefits

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○ Specifications

	7586	7578-3X5X	7588-4X5X
Optical:			
Forward Operating Wavelength:	1310/1550 nm	1310/1550 nm	1310/1550 nm
Input Range:	-4 to +3 dBm	-4 to +3 dBm	-4 to +3 dBm
RF:			
Forward Bandwidth:	45-860 MHz	49-860 MHz	54-860 MHz
Bandpass Flatness:	+/- 1 dB	+/- 1 dB	+/- 1 dB
-20 dB In/Output Test Ports	-20 +/- 2dB	-20 +/- 2dB	-20 +/- 2dB
Gain Control Range:	10 dB	10 dB	10 dB
Slope Control Range:	8 dB	8 dB	8 dB
Output Level:	36/44 dBmV	36/44 dBmV	36/44 dBmV
Output Return Loss:	16 dB	16 dB	16 dB
Composite Triple Beat (CTB): a, b, c	-62 dB	-62 dB	-62 dB
Composite Second Order (CSO): a, b, c	-61 dB	-61 dB	-61 dB
Carrier Noise Ratio (CNR): a, b	53 dB	53 dB	53 dB
Hum Modulation:	-70 dB	-70 dB	-70 dB
Return Bandwidth:	N/A	5-36 MHz	5-42 MHz
Connectors:			
Optical Input:	FC/APC	Available with FC/APC or SC/APC	Available with FC/APC or SC/APC
RF Output:	5/8" Entry Fitting	5/8" Entry Fitting	5/8" Entry Fitting
60/90 VAC Input:	5/8" Entry Fitting	"F" Female or Through RF Out Connector	"F" Female or Through RF Out Connector
Mechanical:			
Dimensions (W x H x D):	7.75 x 10.0 x 3.12 in., 196.85 x 254.0 x 79.25 mm		
Weight:	8.0 lbs., 2.61 kg		
General:			
Current Draw:			
@ 40 VAC	625 mA	625 mA	625 mA
@ 60 VAC	375 mA	375 mA	375 mA
@ 90 VAC	275 mA	275 mA	275 mA
Operating Temperature:	-40 to +60 degrees C	-40 to +60 degrees C	-40 to +60 degrees C
Optical Return Transmitter Options	N/A	1.) No Return Transmitter 2.) Non-Isolated 1.5 mW, 1310 nm, FP 3.) 2 mW, 1310 nm, FP 4.) 3 mW, 1310 nm, DFB 5.) 2.5 mW, 1550 nm, DFB	1.) No Return Transmitter 2.) Non-Isolated 1.5 mW, 1310 nm, FP 3.) 2 mW, 1310 nm, FP 4.) 3 mW, 1310 nm, DFB 5.) 2.5 mW, 1550 nm, DFB

NOTES:

- (a) At 110 channel loading and rated output level
 (b) Using FIBT transmitter and -1 dBm optical input
 (c) Distortion levels improve as output level is reduced

Please refer to the Product Instruction Manual for more specifications.

○ Ordering Information

Model	Stock No.	Description
FODA-860	7586	Fiber Optic Outdoor Receiver/Amplifier, 45-860 MHz, 1310/1550 nm, FC/APC, One-Way Only
FODA-860-31SS	7578 31SS	Fiber Optic Outdoor Receiver/Amplifier, 5-36/49-860 MHz Return/Fwd Split, Return TX Capable, SC/APC
FODA-860-31SF	7578 31SF	Fiber Optic Outdoor Receiver/Amplifier, 5-36/49-860 MHz Return/Fwd Split, Return TX Capable, FC/APC
FODA-860-32SS	7578 32SS	Fiber Optic Outdoor Receiver/Amplifier, 5-36/49-860 MHz Return/Fwd Split, Non-Isol. 1.5 mW, 1310 nm, FP, SC/APC
FODA-860-32SF	7578 32SF	Fiber Optic Outdoor Receiver/Amplifier, 5-36/49-860 MHz Return/Fwd Split, Non-Isol. 1.5 mW, 1310 nm, FP, FC/APC
FODA-860-33SS	7578 33SS	Fiber Optic Outdoor Receiver/Amplifier, 5-36/49-860 MHz Return/Fwd Split, 2 mW, 1310 nm, FP, SC/APC
FODA-860-33SF	7578 33SF	Fiber Optic Outdoor Receiver/Amplifier, 5-36/49-860 MHz Return/Fwd Split, 2 mW, 1310 nm, FP, FC/APC
FODA-860-34SS	7578 34SS	Fiber Optic Outdoor Receiver/Amplifier, 5-36/49-860 MHz Return/Fwd Split, 3 mW, 1310 nm, DFB, SC/APC
FODA-860-34SF	7578 34SF	Fiber Optic Outdoor Receiver/Amplifier, 5-36/49-860 MHz Return/Fwd Split, 3 mW, 1310 nm, DFB, FC/APC
FODA-860-35SS	7578 35SS	Fiber Optic Outdoor Receiver/Amplifier, 5-36/49-860 MHz Return/Fwd Split, 2.5 mW, 1550 nm, DFB, SC/APC
FODA-860-35SF	7578 35SF	Fiber Optic Outdoor Receiver/Amplifier, 5-36/49-860 MHz Return/Fwd Split, 2.5 mW, 1550 nm, DFB, FC/APC
FODA-860-41SS	7588 41SS	Fiber Optic Outdoor Receiver/Amplifier, 5-42/54-860 MHz Return/Fwd Split, Return TX Capable, SC/APC
FODA-860-41SF	7588 41SF	Fiber Optic Outdoor Receiver/Amplifier, 5-42/54-860 MHz Return/Fwd Split, Return TX Capable, FC/APC
FODA-860-42SS	7588 42SS	Fiber Optic Outdoor Receiver/Amplifier, 5-42/54-860 MHz Return/Fwd Split, Non-Isol. 1.5 mW, 1310 nm, FP, SC/APC
FODA-860-42SF	7588 42SF	Fiber Optic Outdoor Receiver/Amplifier, 5-42/54-860 MHz Return/Fwd Split, Non-Isol. 1.5 mW, 1310 nm, FP, FC/APC
FODA-860-43SS	7588 43SS	Fiber Optic Outdoor Receiver/Amplifier, 5-42/54-860 MHz Return/Fwd Split, 2 mW, 1310 nm, FP, SC/APC
FODA-860-43SF	7588 43SF	Fiber Optic Outdoor Receiver/Amplifier, 5-42/54-860 MHz Return/Fwd Split, 2 mW, 1310 nm, FP, FC/APC
FODA-860-44SS	7588 44SS	Fiber Optic Outdoor Receiver/Amplifier, 5-42/54-860 MHz Return/Fwd Split, 3 mW, 1310 nm, DFB, SC/APC
FODA-860-44SF	7588 44SF	Fiber Optic Outdoor Receiver/Amplifier, 5-42/54-860 MHz Return/Fwd Split, 3 mW, 1310 nm, DFB, FC/APC
FODA-860-45SS	7588 45SS	Fiber Optic Outdoor Receiver/Amplifier, 5-42/54-860 MHz Return/Fwd Split, 2.5 mW, 1550 nm, DFB, SC/APC
FODA-860-45SF	7588 45SF	Fiber Optic Outdoor Receiver/Amplifier, 5-42/54-860 MHz Return/Fwd Split, 2.5 mW, 1550 nm, DFB, FC/APC



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