800MHz Bi-Directional Amplifier (BDA)

800-890MHz

BD8089-yyyy-zz series

RFI's 800MHz Bi-Directional Amplifier (BDA) is a compact IP-rated wall or pole mountable, RF-transparent repeater. The BDA is ideal for rebroadcasting RF coverage in confined areas such as in tunnels and mining sites as well as remote locations.

The standard model can pass a 5MHz window in each. The BDA's RF-transparent operation is compatible with most analogue and digital technologies. Communications content is passed without demodulation and network protocol features such as encryption and over-the-air-rekeying are also passed securely.

The standard architecture of this BDA provides user-friendly, convenient and efficient in-field maintenance.

The BDA is available in standard and high-power variants with optional RF over Fibre interface and multiple power supply and battery backup options.

Features:

- Analogue and digital compatible – supports most network technologies
- Maximum +40dBm output power (1 carrier, high power model)
- Adjustable gain of up to 80dB* (High power model)
- 5MHz pass bandwidth and 25-40MHz minimum Tx/Rx separation*
- Compact IP-rated wall/pole mountable enclosure
- Multiple power supply options (12 VDC, 24 VDC, 48 VDC and 90-264VAC)
- Available in Off-Air and Fibre-Fed models
- Optional battery backup (Separate enclosure)
- Ethernet communications port for configuration and monitoring

Technical Specifications

Model Number		BD8089-yyyy-zz
Amplifier Frequency Range MHz		746-960
Internal Duplexer Tuning Range (Lo/Hi) MHz		800-845 / 845-890*
Internal Duplexer Passband MHz		5 (fixed)*
Minimum Tx/Rx Separation MHz		25-40 (depending on the gain settings)*
Output Power dBm (maximum)	High Power	+40 (1 Carrier)
	Standard Power	+21 (1 Carrier)
Gain Range dB	High Power	53-80*
	Standard Power	38-67
RF Connector Type		N(f)
Optical Connector Type		FC / APC
Operational Temperature Range C / F		-10° to +60° / 14° to 140°
Power Supply Options		12VDC, 24VDC, 48VDC or 90-264VAC
Alarm Interface		"Form C" Dry Relay Contacts Command Line Interface / Ethernet
Finish		Powder Coated Aluminium, Stainless Steel
Cooling		Passive (Convection)
Environmental Protection Rating		IP65
Chassis Earthing		Dual M6 studs
Net Dimensions mm / in	H	620 / 24.40
	W	450 / 17.71
	D	270 / 10.62
Weight Kg / lb		35 / 77.16
Mounting		Wall Mount / Pole Mount
RF over Fibre Options		Single Fibre (WDM), Dual Fibre (Simplex) or None
Compliance		RoHS

*Alternative frequencies, passbands, minimum Tx/Rx separations and higher gains are also available. Please contact RFI for more info.

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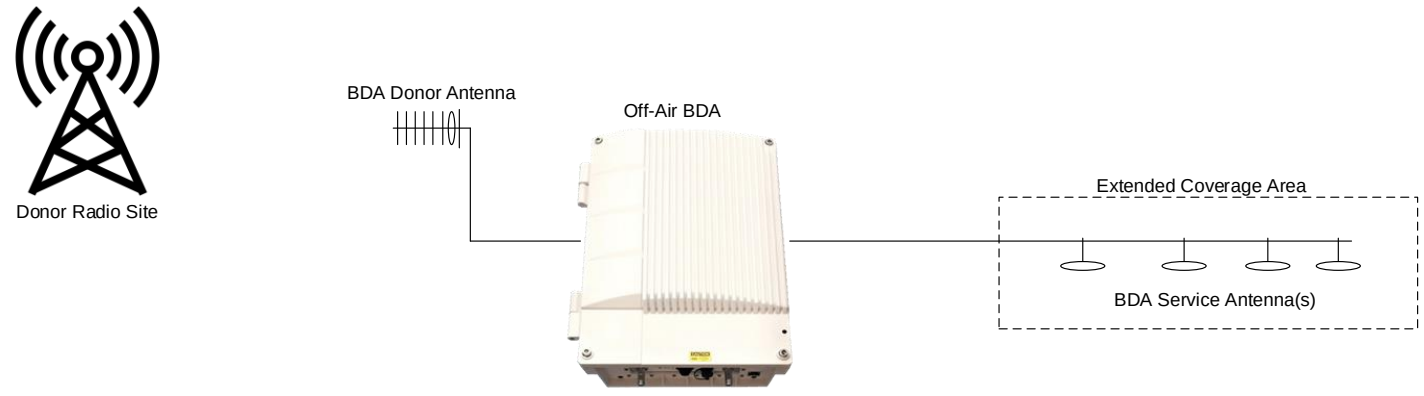
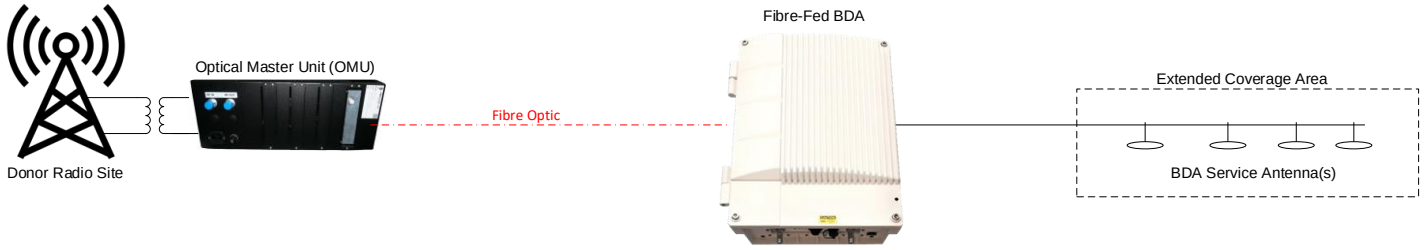
Ordering Information

Model Number	BD8089-yyyy-zz
RF Power Options	
BD8089-0yyy-zz	Standard Power Downlink and Uplink
BD8089-1yyy-zz	High Power Downlink, Standard Power Uplink
BD8089-2yyy-zz	Standard Power Downlink, High Power Uplink
BD8089-3yyy-zz	High Power Downlink and Uplink
RF over Fibre	
BD8089-y0yy-zz	No RF over Fibre (Off-Air)
BD8089-y1yy-zz	Single Fibre (WDM)
BD8089-y2yy-zz	Dual Fibre (Simplex)
Duplexers	
BD8089-yy0y-zz	Standard Duplexers
BD8089-yyAy-zz	Alternative Duplexers
Additional Options	
BD8089-yyy0-zz	No Additional Options
BD8089-yyyB-zz	Battery Backup
BD8089-yyyC-zz	Custom Specification
Power Supply	
BD8089-yyyy-12	12VDC
BD8089-yyyy-24	24VDC
BD8089-yyyy-48	48VDC
BD8089-yyyy-AC	90-264VAC

Typical Configurations



Off-Air BDAs



Fibre-Fed BDAs

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