

VHF Bi-Directional Amplifier (BDA)

132-174MHz

99-38 Series



RFI's VHF Bi-Directional Amplifiers (BDA) are compact IP-rated wall mountable, RF-transparent band selective repeaters. The BDA is ideal for rebroadcasting RF coverage in confined areas such as in tunnels and mining sites as well as remote locations.

Depending on the model, it can pass a 1MHz to 2MHz window in each direction in the selected frequency sub band. 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 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 models)
- Adjustable Gain of up to 90dB (High power models)
- Available in multiple models supporting various pass bandwidths and Tx/Rx separations
- Compact IP-rated suits wall mountable enclosures
- Multiple Power Supply Options (12 VDC, 24 VDC, 48 VDC and 90-264VAC)
- Available in Off-Air and Fibre-Fed models
- Optional Battery Backup
- Optional communications port for configuration and monitoring

Technical Specifications

Model Number		99-38-xxx						
Frequency MHz		132-142	138-148	148-159	155-166	159-170	164-175	148-173
Filtering		Internal (Duplexers and Filters)						
Pass Bandwidth MHz		1-2*						
Minimum Tx/Rx Separation (typical) MHz		2.5 - 4*						21
Output Power dBm (maximum)	High Power	+40 (1 Carrier)						
	Standard Power	+21 (1 Carrier)						
Gain Range dB	High Power	53-90						
	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 (Optional)		"Form C" Dry Relay Contacts						
		Command Line Interface / Ethernet						
Finish		Powder Coated Sheet Steel						
Cooling		Passive (Convection)						
Environmental Protection Rating		IP66						
Net Dimensions mm / in	H	600, 800, 1000 / 23.62, 31.49, 39.37*						
	W	600, 1000 / 23.62, 39.37*						
	D	210, 250 / 8.26, 9.84*						
Weight Kg / lb (Typical)		25 - 50 / 55 - 110*						
Mounting		Wall Mount						
RF over Fibre Options		Single Fibre (WDM), Dual Fibre (Simplex) or None						
Compliance		RoHS						

* Depending on the model

Please contact RFI for more information about the available models and the appropriate part numbers.

Typical Configurations



BDA Donor Antenna



Off-Air BDA



Extended Coverage Area



BDA Service Antenna(s)

Off-Air BDAs



Optical Master Unit (OMU)



Fibre Optic

Fibre-Fed BDA



Extended Coverage Area



BDA Service Antenna(s)

Fibre-fed BDAs