

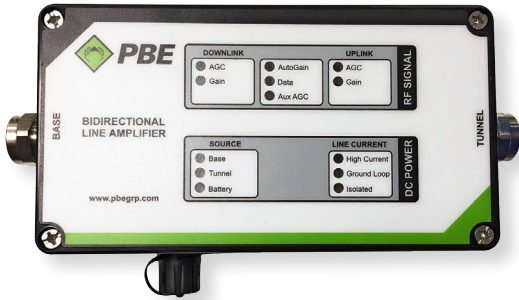
# BDA-4

## Bidirectional Line Amplifiers



INNOVATING SAFETY. POWERING PRODUCTIVITY.

### PBE's BDA-4 Amplifier Maintains Signal Levels and can be used as a tag reader, modem or gateway



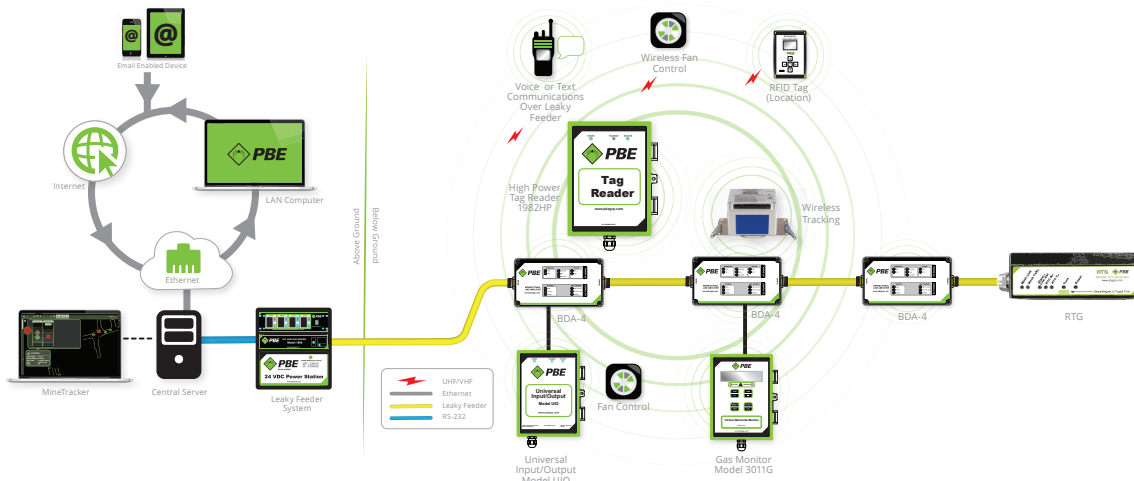
#### FEATURES OVERVIEW

- Local and optional remote diagnostics
- Downlink auxiliary band
- VHF and UHF versions
- IP55/NEMA4X rated enclosure
- High noise immunity
- Ground loop detection
- Auto Gain Control (AGC)
- Three Multi-Platform Communications Adapter (MPCA) slots
- Quick connect option available for all models upon request
- Adjusts to minimize degradation of signal to noise ratio

#### THE BIDIRECTIONAL LINE AMPLIFIER (BDA-4):

- Provides remote and local diagnostics to indicate the current state of the amplifier for ease of maintenance
- Supports voice and data transmission, incorporates bidirectional amplifiers and a third auxiliary band
- Powered from the Leaky Feeder line
- Housed in a minimum IP55 rated heavy duty enclosure
- Incorporates SAW filter design to increase bandwidth and provide solid and consistent RF performance
- Has three Multi-Platform Communications Adapters (MPCA) allowing functionality expansion using PBE modules
- Wireless tracking interconnectivity (900 MHz and 868 MHz)
- Wired interconnectivity on select models (PBE proprietary 4800 BAUD system)
- Compatible with PBE's Proximity Alert System
- AGC with Remote Tone Generator (RTG) for auto balancing amplifiers

The Bidirectional Line Amplifier (BDA-4) is part of PBE's Leaky Feeder System which provides a reliable and simple to use underground data acquisition and communications system.



## AVAILABLE BDA-4 MODELS (CHECK WITH PBE WHEN SELECTING FREQUENCY)

Model Number	Downlink (MHz)	Uplink (MHz)	Termination	Impedance	Tracking	Wired	Approvals
Model BDA-4	403 – 413	428 – 438	Saddle and Clamp	75 ohm	--	Yes	
Model BDA4-T	403 – 413	428 – 438	Saddle and Clamp	75 ohm	10-bit	Yes	
Model BDA4-32T	403 – 413	428 – 438	Saddle and Clamp	75 ohm	32-bit	Yes	
Model BDA-4 (408/429)	403 – 414	420 – 438	Saddle and Clamp	75 ohm	--	Yes	
Model BDA-4 (452.5/468.5) - N	448 – 455	465 – 472	N-Type	50 ohm	--	Yes	
Model BDA-4AU	462.5 – 467.5	450 – 455	N-Type	50 ohm	--	Yes	
Model BDA-4AU32T	462.5 – 467.5	450 – 455	N-Type	50 ohm	32-bit	Yes	
Model BDA-4AUT	462.5 – 467.5	450 – 455	N-Type	50 ohm	10-bit	Yes	
Model BDA-4U	480 – 490	450 – 460	Saddle and Clamp	75 ohm	--	No	MSHA
Model BDA-4U(N)	480 – 490	450 – 460	Saddle and Clamp	75 ohm	--	Yes	
Model BDA-4U32T	480 – 490	450 – 460	Saddle and Clamp	75 ohm	32-bit	No	MSHA
Model BDA-4UT	480 – 490	450 – 460	Saddle and Clamp	75 ohm	10-bit	No	MSHA
Model BDA-4UT(N)	480 – 490	450 – 460	Saddle and Clamp	75 ohm	10-bit	Yes	
Model BDA-4V	145 – 160	170 – 185	Saddle and Clamp	75 ohm	--	No	MSHA
Model BDA-4V(N)	145 – 160	170 – 185	Saddle and Clamp	75 ohm	--	Yes	
Model BDA-4V32T	145 – 160	170 – 185	Saddle and Clamp	75 ohm	32-bit	No	MSHA
Model BDA-4VT	145 – 160	170 – 185	Saddle and Clamp	75 ohm	10-bit	No	MSHA
Model BDA-4VT(N)	145 – 160	170 – 185	Saddle and Clamp	75 ohm	10-bit	Yes	
Model BDA-4QV(N)	145 – 160	170 – 185	Quick Connect	75 ohm	--	Yes	
Model BDA-4VG*	145 – 160	170 – 185	Saddle and Clamp	75 ohm	32-bit	No	MSHA
Model BDA-4UG*	480 – 490	450 – 460	Saddle and Clamp	75 ohm	32-bit	No	MSHA
500-2469-003* [10-bit version of the (32-Bit) BDA-4VG]	145 - 160	170 - 185	Saddle and Clamp	75 ohm	10-bit	No	MSHA
500-2470-003* [10-bit version of the (32-Bit) BDA-4UG]	480 - 490	450 - 460	Saddle and Clamp	75 ohm	10-bit	No	MSHA

\*Both gateway and amplifier with no diag.

## SPECIFICATIONS

<b>Operating Voltage:</b>	12 – 48 Volts DC
<b>Operating Temperature:</b>	-20°C to 55°C   -4°F to 131°F
<b>Auxiliary Frequency:</b>	VHF: 25 – 90 MHz; UHF: 40 – 170MHz
<b>Maximum Gain:</b>	VHF: 28 dB; UHF: 34 dB
<b>Weight and dimensions:</b>	~1.8 kg; 220(w) x 120(d) x 95(h) mm