



UHF & LTE Bi-Directional Amplifier

- Voice and LTE communications
- Supports 16 to 32 noise-free voice radio channels
- Mine-wide LTE Band 28 signal distribution

FEATURES

Becker Mining Systems' smartcom® UHF Line Amplifiers compensate for Leaky Feeder and splitting losses. The UHF Bi-Directional Amplifier provides voice and LTE communications in a single device.

The UHF band, which extends from 435 MHz to 455 MHz on the uplink and from 460 MHz to 480 MHz on the downlink, provides for 16 to 32 noise-free voice radio channels.

The UHF Bi-Directional Amplifier supports LTE Band 28, thus providing mine-wide LTE signal distribution.

Local and Remote Diagnostics and accurate Automatic Gain Control (AGC) without Return Pilot noise build-up are built into every amplifier.

2 year component and workmanship warranty

TECHNICAL DATA

PERFORMANCE SPECIFICATIONS	
Input Impedance	50 Ω
Input Voltage	10.5 V to 36 V
Current Consumption	380 mA @ 12 V 300 mA @ 16 V 210 mA @ 24 V 200 mA @ 36 V
DC Blocking	No
Gain Control Modes	Manual, Automatic
Attenuation Adjustment Range	0 to 31.5 dB in 0.5 dB steps

MECHANICAL DATA	
Dimensions	270 mm x 125 mm x 105 mm
Weight	1050 g
Enclosure	ABS, anti-static
Connectors	N-Type Jack

ENVIRONMENTAL DATA	
Temperature Range	-20 to +60 °C
Protection Class	IP66

OTHER SUPPORTED BANDS
5, 8, 12, 13, 14, 17, 20, 26

LTE BAND 28 SPECIFICATIONS	
Bandpass (3 dB)	703 MHz to 748 MHz (uplink); 758 MHz to 803 MHz (downlink)
Bandwidth (3 dB)	45 MHz
Gain	25.5 dB from 703 MHz to 748 MHz; 26 dB from 758 MHz to 803 MHz
Passband Ripple	< 1.5 dB

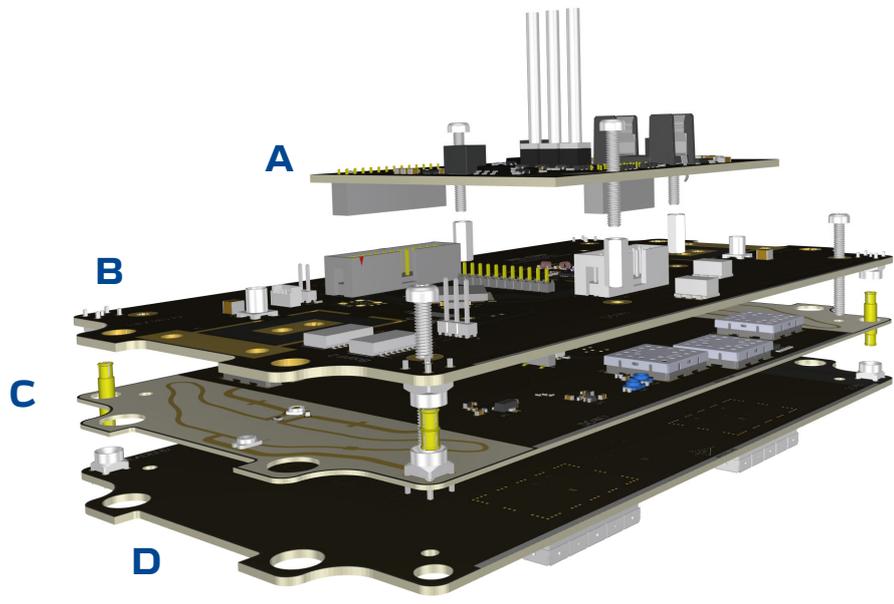
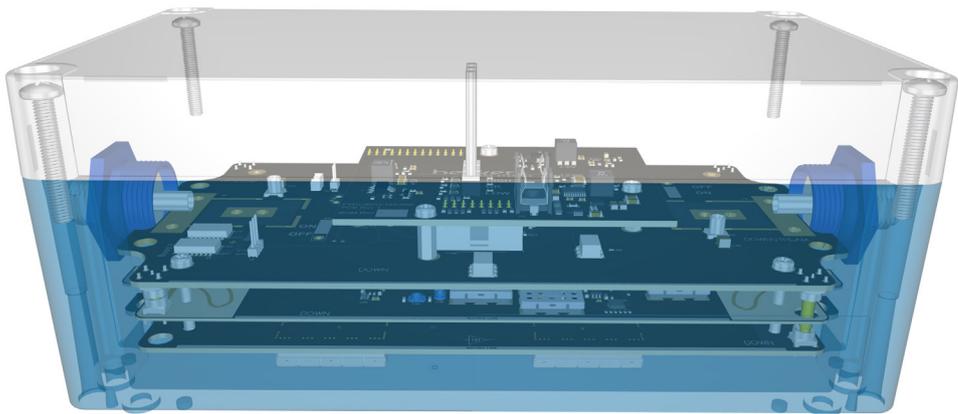
450 MHz BAND SPECIFICATIONS FOR VOICE	
Bandpass (3 dB)	435 MHz to 455 MHz (uplink); 460 MHz to 480 MHz (downlink)
Bandwidth (3 dB)	20 MHz
Gain	435 MHz, 19.81 dB at 455 MHz; 19.94 dB at 460 MHz, 20.42 dB at 480 MHz
Passband Ripple	< 1.5 dB

Technical data are limit values.

If the product is integrated into systems or operated in combination with other devices, its permissible operating values can deviate from these limit values. Subject to technical modifications without prior notice.

MB-UBDA-01-WW#

UHF BI-DIRECTIONAL AMPLIFIER



A	Power Board
B	Main Board - acts as the interface between amplifier and the Leaky Feeder network
C	450 MHz - provides communication capabilities
D	LTE - provides LTE Band 28 functionality

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