

TX RX SYSTEMS Public Safety BDA

Model: 64-65-05-65-DF-RD-NF



DS039433-1A


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Bidirectional Amplifier UHF 406-430 MHz Range

Frequency Bands Supported:

- 406-420 MHz (Government Land Mobile Services)
- 420-430 MHz (UHF Canadian border areas)

Product Features

- Class B BDA
- Field Upgradeable – add new channels and new bands
- Easy to use User Interface for setup and configuration
- Network interface capabilities available as an option
- Very compact size, Low power consumption
- Lowest Spurious due to advanced filtering design
- Unique front-end design, exceptional filtering
- FCC Certified
- UL 2524 Listed
- NFPA Compliant Alarms provided
- Designed and manufactured in USA 



Product Description

TX RX System's UHF BDAs and DAS solutions utilize a new architecture that provides a modular, upgradeable, redundant and power efficient Public Safety in-building coverage solution. This innovative approach utilizes dedicated parallel channel processing assuring the lowest spurious and highest signal performance for clear mission-critical coverage enhancement.

The modular card system permits single channel expansion on any frequency thanks to its very low-power amp architecture. This architecture allows for the most compact BDA available – fitting up to 5 bands into a small unit. The very low power consumption keeps the required battery backup system to a minimum.

Specifications

Parameter	Value
BDA Classification	Broadband (Class B)
Frequency Range Coverage	406-420 MHz (Government) 420-430 MHz (Canadian Border)
RF Input, no damage	0 dBm max
Noise Figure	5 - 8 dB typ*
RF Power (406-420 MHz)	DL RF power out = +20dBm* UL RF power out = +17dBm*
RF Power (420-430 MHz)	DL RF power out = +27dBm* UL RF power out = +24dBm*
Gain	65 dB
Gain Control	30 dB attenuation range
Spurious Emissions	FCC Compliant
RF Connectors	Donor port connector: Type N(f) DAS Port: connector: Type N(f)
Power Supply	120 VAC power primary DC input from BBU
Power Consumption	22 W
Enclosure type	NEMA4
Dimensions	19" x 18" x 6.7" (483 x 457 x 170 mm)
Weight	approx. 55 lbs
Operating Temperature	0 to +50 deg C

*Note: Power level, Gain will vary based on custom configurations.

NFPA Alarms:

- System Component Failure – Summary Alarm
- Active emitter fail / Power amp / Oscillation indicator
- Donor Antenna Fail
- Battery Charge Fail
- AC Power loss
- Low Battery Capacity
- Com-Link (data connection to Remote Annunciator)
- Door Alarm

Key (BDA) design features:

- **Plug-in Modular card system**
Each low-cost card performs narrow-band signal processing on a single frequency. This allows wide flexibility in configuring the system with mixed frequency bands, for example 3 VHF, 8 UHF and five 800 MHz frequencies in one Class A channelized unit.
- **Excellent wall plug efficiency**
Due to the modular architecture, frequencies that are not keyed up can have their cards shut down to preserve power. This reduces heat within the NEMA enclosure, relaxes demand on battery backup reducing costs, and improves reliability for a longer life and fewer failures.
- **Advanced Super-heterodyne front end** Significantly improves near-far performance compared to legacy technology, eases close-in TX and RX frequency management, and therefore interlaced frequencies are handled with ease – as close as <200kHz. Consult with Applications Engineering with your challenging frequency spectrum.