

# TXRX Systems Series 64

## Bi-Directional Amplifier System



DS039360-1  
1/4/2024

**700/800 MHz Dual Band Capable BDA**  
**Class A - Band Selective**

### Frequency Range

- Uplink 788-806 / 806-824 MHz
- Downlink 758-776 / 851-869 MHz

### Product Features

- RF power, and Class B and Class A operation
- Intelligent oscillation management, self-healing
- 90 dB downlink gain, 80dB uplink
- Built-in battery charging and alarm circuitry
- Built-in annunciator communications link
- Emergency Transmit Disable
- Supports SNMP
- Uplink and downlink squelch per filter
- Independent gain control per filter
- Compact footprint
- NEMA4 conduit glands included
- Supports both digital and analog modulation
- Supports P25 phase 1 & 2
- 3-year warranty



### Compliances

- NFPA 72:2022
- NFPA 1225:2022
- Oscillation alarm in compliance with California Fire Code 2022

### Model Ordering

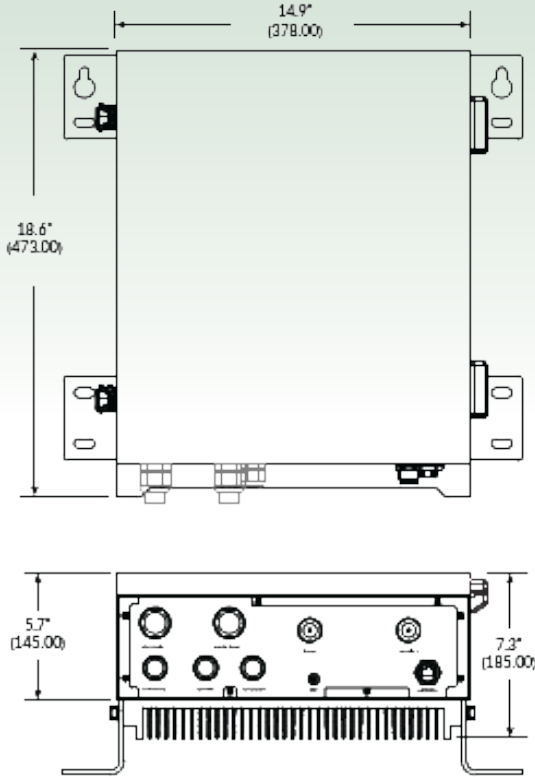
Part Number	Description
64-82N-25-90-DF-RD-NF	Dual-band 700/800 (758-869 MHz), 0.5, 1, 2.5 watt, Class A/B BDA.
64-89A-25-90-DF-RD-NF	Single-band 800 (806-869 MHz), 0.5, 1, 2.5 watt, Class A/B BDA. Canada, ISED RSS-131.

## Specifications

Electrical	
Main power input	110 VAC (88-264VAC)
AC power consumption (max.)	210W max. (1.9Amps @ 110VAC)
Battery charger output	28VDC
DC input range	24 - 30VDC
DC power consumption (Dual Band)	130 watts (5.3 Amps)
DC power consumption (single-band)	90 watts (3.7 Amps)
DL output power	34dBm (2.5W) or 30dBm (1W)
UL output power	27dBm, (0.5W)
DL gain	90dB +/- 3dB
UL gain	80dB
Noise figure @ max gain	<7dB
AGC dynamic range	60dB
Gain adjustment range	30dB
Filter gain adjustment	30dB
Squelch adjustment range	-60 to -90dBm
VSWR	<1.5:1
Number of filters Class A BDA	32 per band
Number of filters Class B BDA	4 per band
Class A BDA filter bandwidths	12.5KHz, 25KHz, 50KHz, 75KHz, 100KHz, 150KHz
Class B BDA filter bandwidths	250KHz, 500KHz, 1MHz, 2MHz, 3MHz, 7MHz, 10MHz, 18MHz
Mechanical	
Dimensions (H x W x D)	18.6 x 14.9 x 7.3 in
Approximate weight (lbs.)	49.5
Mounting	Wall-mount
Weatherproofing	IP65/NEMA Type 4
Cable feedthroughs	Cord grips and flex conduit fittings included
Antenna Ports	4.3-10 (F)
User interface: GUI & NMS	RJ45 jack, web browser based
Alarm Connections	Compression screw terminals
Annunciator	RJ45 jack
AC & DC power	Compression screw terminals
Operating Temperature	-30° C - +50° C
Color	Red
Network Connection	RJ-45

Propagation Delay	12.5KHz, 60us 25KHz, 36us 50KHz, 25us 75KHz, 15us 100KHz, 15us 150KHz, 15us 250KHz, 15us 500KHz, 9us 1MHz, 8us 2MHz, 7us 3MHz, 7us 7MHz, 6us 10MHz, 6us
55dB filter rejection, from band edge	12.5KHz, 30KHz 25KHz, 50KHz 50KHz, 105KHz 75KHz, 210KHz 100KHz, 210KHz 150KHz, 210KHz 250KHz, 210KHz 500KHz, 500KHz 1MHz, 500KHz 2MHz, 750KHz 3MHz, 750KHz 7MHz, 1MHz 10MHz, 1MHz
UL max input power	+10dBm
DL max input power	0dBm

### Mechanical Outline



### Accessories

<b>95-CAB-01-BB</b>	Battery Cabinet NFPA compliant (NEMA 3R)
<b>95-BAT-45-2</b>	Battery Kit -includes (2) 12V-45AH batteries (2 required for holdover with generator backup)
<b>95-BAT-100-2</b>	Battery Kit -includes (2) 12V-100AH batteries (2 required, 12 Hour)
<b>95-BAT-160-2</b>	Battery Kit -includes (2) 12V-160AH batteries (2 required, 24 Hour)
<b>95-ANC-REMOTE</b>	Single Unit Remote Annunciator for monitoring single device.

### Note:

\*To achieve UL 2524, the BDA must be installed with remote annunciator and battery backup. These items can be purchased from TX RX Systems as shown above.