# G-WAVE

# 1-BOX™ 700/800 MHz Fiber Remote, Battery Back-Up & Annunciator in a Single NEMA 4X Enclosure

**BDA LI-ION BBU ANNUNCIATOR**

**1-BOX™**

## General

The 1-BOX™ Emergency Responder Communications Enhancement System (ERCES) is a cutting-edge solution designed to enhance and extend in-building wireless communication capabilities for First Responders. 1-BOX™ offers powerful bi-directional amplification and gain control features, it optimizes signal strength for both uplink and downlink transmissions and hosts battery back-up capabilities in a single enclosure. The 1-BOX™ ERCES is FCC-certified, compliant with the latest NFPA and IFC code regulations, and equipped with oscillation detection and visual/audible alarms via the internal annunciator. Easy to install and boasting a sleek design, 1-BOX™ is an essential component for ensuring reliable and compliant wireless communication in buildings, meeting the highest industry standards. 1-BOX™ is designed, engineered and built in the USA. 🇺🇸

## Standard Features

- This product complies with FCC 90.219 requirements
- NFPA/IFC Compliant Local Alarming with dry contacts
- Audible Alarm with Mute capability
- Green or Blue LED option under normal operation
- GUI, Monitoring and Gain Control Via RJ45
- Oscillation Detect, Display and Auto Shutdown of Amplifiers
- Built-in 12-Hour or 24-Hour Battery Back-Up
- Made in the USA!

## Electrical Specifications

| Description | Units | 700 / 800 MHz |
|---|---|---|
| Downlink Frequency Range | MHz | 769 - 775 / 851 - 861 |
| Uplink Frequency Range | MHz | 799 - 816 |
| Gain | dB | 55 |
| Gain Adjustment Range | dB | 0-30 in 1 dB steps |
| Noise Figure (System) | dB | 5.0 (Max), 4.5 (Typ.) |
| Propagation Delay | µsec | <0.3 |
| Input/Output Impedance | Ω | 50 |
| VSWR IN/OUT | | <1.5:1 |
| Power Supply | | 90 to 305 VAC (47-63 Hz) |
| AC Current Draw (Typ.) | A | 2.8A @ 115V, 1.4A @230V |

| Downlink Output Power Options | | Units | ½ W | 2 W |
|---|---|---|---|---|
| Output Power Composite Downlink | | dBm | +27 | +33 |
| Output Power Composite Uplink | | dBm | +5 | |
| Output Power ALC Set Downlink | | dBm | +27 ±1 | +33 ±1 |
| Output Power ALC Set Uplink | | dBm | +5 ±1 | |
| 3rd Order Output Intercept Point | Downlink: | dBm | +48 | +52 |
| | Uplink: | dBm | +30 | |

## 1-BOX™: BETTER - FASTER - CHEAPER - SAFER - EASIER

**AMERICAN BUILT DAS**

## Mechanical Specifications

| Description | Specification |
|---|---|
| Enclosure Rating | NEMA 4X |
| Dimensions (H x W x D) | 24 x 24 x 8 in. |
| Net Weight (Estimated)<br>Including 12-Hour Batteries:<br>Including 24-Hour Battery: | <br>34 kg / 75 lbs<br>38.5 kg / 85 lbs |
| Mounting | Wall Mount |
| RF Connector | N-Female |
| Fiber Connector | SC-APC |
| Operating Temperature Range | -20 to +55 °C |
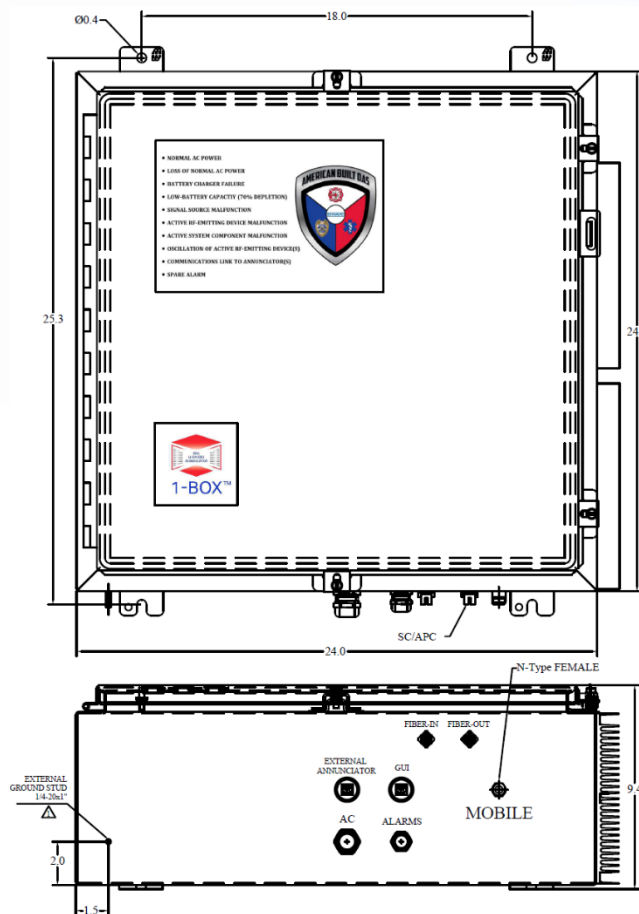
## Public Safety 700/800 MHz Band Options

| Frequency Bands | Uplink | Downlink |
|---|---|---|
| PS7 | 799-805 MHz | 769-775 MHz |
| PS7FN (FirstNet) | 788-798 MHz | 758-768 MHz |
| PS7W | 788-805 MHz | 758-775 MHz |
| PS8 | 806-816 MHz | 851-861 MHz |
| PS7/PS8 | 799-816 MHz | 769-775 MHz<br>851-861 MHz |
| (FirstNet)<br>PS7FN/PS8 | 788-798 MHz<br>806-816 MHz | 758-798 MHz<br>851-861 MHz |
| PS7W/PS8 | 788-816 MHz | 758-776 MHz<br>851-861 MHz |



## Ordering Information

| Part Number | Description | UL/DL Output Power | Gain | NFPA Compliant |
|---|---|---|---|---|
| 1BOXFR-PSX-5/27-55-N | Single Band Fiber Remote, +5 dBm UL / +27 dBm DL, 55 dB Gain, "N" Enclosure | 5/27 dBm | 55 | w/ 12 Hours BBU |
| 1BOXFR-PSX-5/27-55-N-24 | | | | w/ 24 Hours BBU |
| 1BOXFR-PSX-5/33-55-N | Single Band Fiber Remote, +5 dBm UL / +33 dBm DL, 55 dB Gain, "N" Enclosure | 5/33 dBm | | w/ 12 Hours BBU |
| 1BOXFR-PSX-5/33-55-N-24 | | | | w/ 24 Hours BBU |
| 1BOXFR-PSX/PSX-5/27-55-N | Dual Band Fiber Remote, +5 dBm UL / +27 dBm DL, 55 dB Gain, "N" Enclosure | 5/27 dBm | | w/ 12 Hours BBU |
| 1BOXFR-PSX/PSX-5/27-55-N-24 | | | | w/ 24 Hours BBU |
| 1BOXFR-PSX/PSX-5/33-55-N | Dual Band Fiber Remote, +5 dBm UL / +33 dBm DL, 55 dB Gain, "N" Enclosure | 5/33 dBm | | w/ 12 Hours BBU |
| 1BOXFR-PSX/PSX-5/33-55-N-24 | | | | w/ 24 Hours BBU |

| Part Number | Description |
|---|---|
| SA-AP-DC1 | +24VDC Stand-alone Annunciator Panel via RJ45 w/ "Form-C" dry contact relays |