



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

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
- Supports up to 4 secondary annunciators

Electrical Specifications

Description	Units	700 / 800 MHz
Downlink Frequency Range	MHz	769 - 775 / 851 - 861
Uplink Frequency Range	MHz	799 - 816
Gain	dB	85
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	+27	
Output Power ALC Set Downlink		dBm	+27 ±1	+33 ±1
Output Power ALC Set Uplink		dBm	+27 ±1	
3 rd Order Output Intercept Point	Downlink:	dBm	+48	+52
	Uplink:	dBm	+48	

1-BOX™; BETTER - FASTER - CHEAPER - SAFER - EASIER





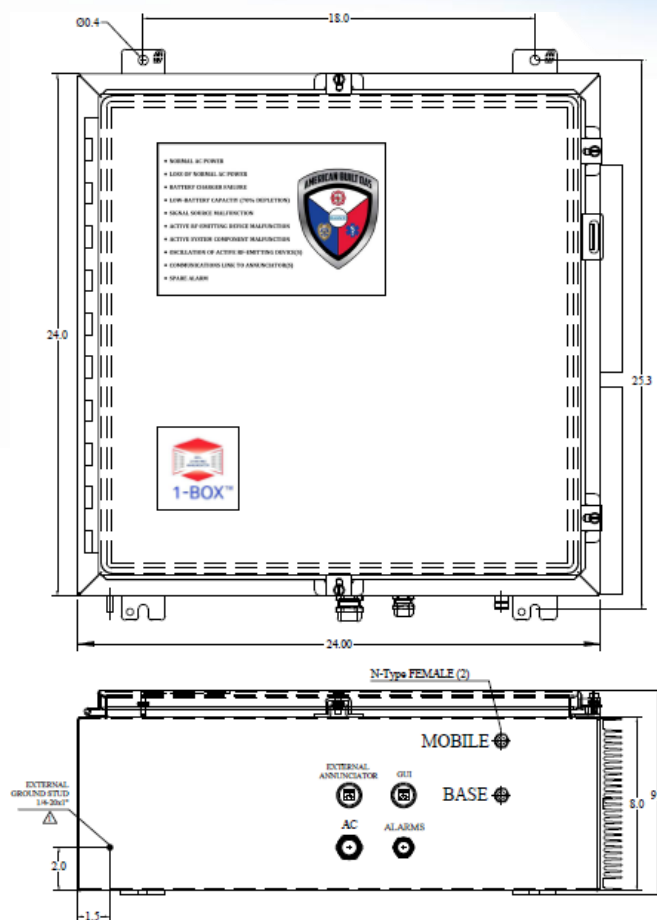
Outline Drawing

Mechanical Specifications

Description	Specification
Enclosure Rating	NEMA 4X
Dimensions (H x W x D)	24 x 24 x 8 in.
Net Weight (Estimated)	
Including 12-Hour Batteries:	34 kg / 75 lbs
Including 24-Hour Battery:	38.5 kg / 85 lbs
Mounting	Wall Mount
RF Connector	N-Female
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 851-861 MHz
(FirstNet)	788-798 MHz	758-798 MHz
PS7FN/PS8	806-816 MHz	851-861 MHz
PS7W/PS8	788-816 MHz	758-776 MHz 851-861 MHz



Ordering Information

Part Number	Description	UL/DL Output Power	Gain	NFPA Compliant
1BOX-PSX-27/27-85-N	Single Band PS BDA, +27 dBm UL / +27 dBm DL, 85 dB Gain, "N" Enclosure	27/27 dBm	85	w/ 12 Hours BBU
1BOX-PSX-27/27-85-N-24				w/ 24 Hours BBU
1BOX-PSX-27/33-85-N	Single Band PS BDA, +27 dBm UL / +33 dBm DL, 85 dB Gain, "N" Enclosure	27/33 dBm		w/ 12 Hours BBU
1BOX-PSX-27/33-85-N-24				w/ 24 Hours BBU
1BOX-PSX/PSX-27/27-85-N	Dual Band PS BDA, +27 dBm UL / +27 dBm DL, 85 dB Gain, "N" Enclosure	27/27 dBm		w/ 12 Hours BBU
1BOX-PSX/PSX-27/27-85-N-24				w/ 24 Hours BBU
1BOX-PSX/PSX-27/33-85-N	Dual Band PS BDA, +27 dBm UL / +33 dBm DL, 85 dB Gain, "N" Enclosure	27/33 dBm		w/ 12 Hours BBU
1BOX-PSX/PSX-27/33-85-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



Warning

This is not a consumer device. It is designed for installation by FCC LICENSEES and QUALIFIED INSTALLERS. You MUST have an FCC LICENSE or express consent of an FCC Licensee to operate this device. Unauthorized use may result in significant forfeiture penalties, including penalties in excess of \$100,000 for each continuing violation.

