Westell® | ProtectLink™ CS45-727-827-A0

UL2524 and NFPA Public Safety, Class A & B BDAs

General Information

The Westell ProtectLink Public Safety Next Generation 1/2W BDA has one of the smallest form factors available on the market. The Class A or Class B BDA includes 700/800 MHz dual-band support, 1/2W output power, and additional auxillary alarms. Westell's ProtectLink public safety BDA are an integral part of any NFPA complaint ERCES (Emergency Responder Communication Enhancement System).

ProtectLink includes a full-featured, easy to use web GUI. The product also includes adjustable bandwidth filters, intelligent oscillation management, built-in isolation test, NFPA/UL2524 alarm capabilities, built-in annunciator with an optional remote annunciator panel. The BDA supports 64 total enabled channels allocated across bands in blocks of 8. Individual filter bandwidths of 12.5 kHz or 75 kHz are available for class A operation. Class B filters support 150 kHz or up to full bandwidth.

ProtectLink™
CS45-727-827-A0

Frequency Range

- Uplink: 799-806 MHz, 806-824 MHz
- Downlink: 769-776 MHz, 851-869 MHz

Product Highlights

- Class B and Class A operation
- 1/2W downlink RF power per band
- Intelligent oscillation management, self-healing
- 90 dB downlink gain, 80 dB uplink
- Built in front panel annunciator with additional custom LED's
- Built-in remote annunciator communications link
- Emergency Transmit Disable
- Supports SNMP

- Fast uplink squelch response per filter
- Independent gain control per filter
- Compact footprint
- NEMA4 conduit glands included
- Supports both digital and analog modulation
- Supports P25 phase 1 & 2
- P25 phase 2 AGC (Automatic Gain Control) per time slot to address near/far users on the same channel
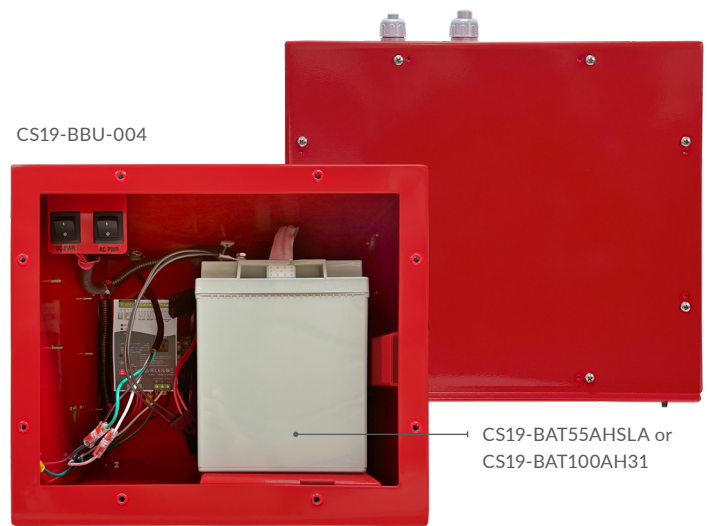- 3-year warranty

Product Certification

- UL-2524: In-building 2-Way Emergency Responder Communication Enhancement System (ERCES)

- NEMA 4 enclosure
- NFPA 1221 and NFPA 1225

Ordering Information

Part Number	Description
ProtectLink™ BDAs	
CS45-727-827-A0	700/800 MHz, 1/2W, Class A/B BDA
CS45-727-827-K1	1/2W Class A/B dual-band 12 hr battery kit
CS45-727-827-K2	1/2W Class A/B dual-band 24 hr battery kit
ProtectLink™ BDA Accessories	
CS19-BBU-004	Wall-mountable battery cabinet
CS19-BAT-55AHSLA	BATTERY 55 AH SLA 12V (12 hr)
CS19-BAT100AH31	BATTERY 100 AH AGM GRP-31 12V (24 hr)

CS19-BBU-004

CS19-BAT55AHSLA or CS19-BAT100AH31

Providing Public Safety Solutions for Over 20 Years

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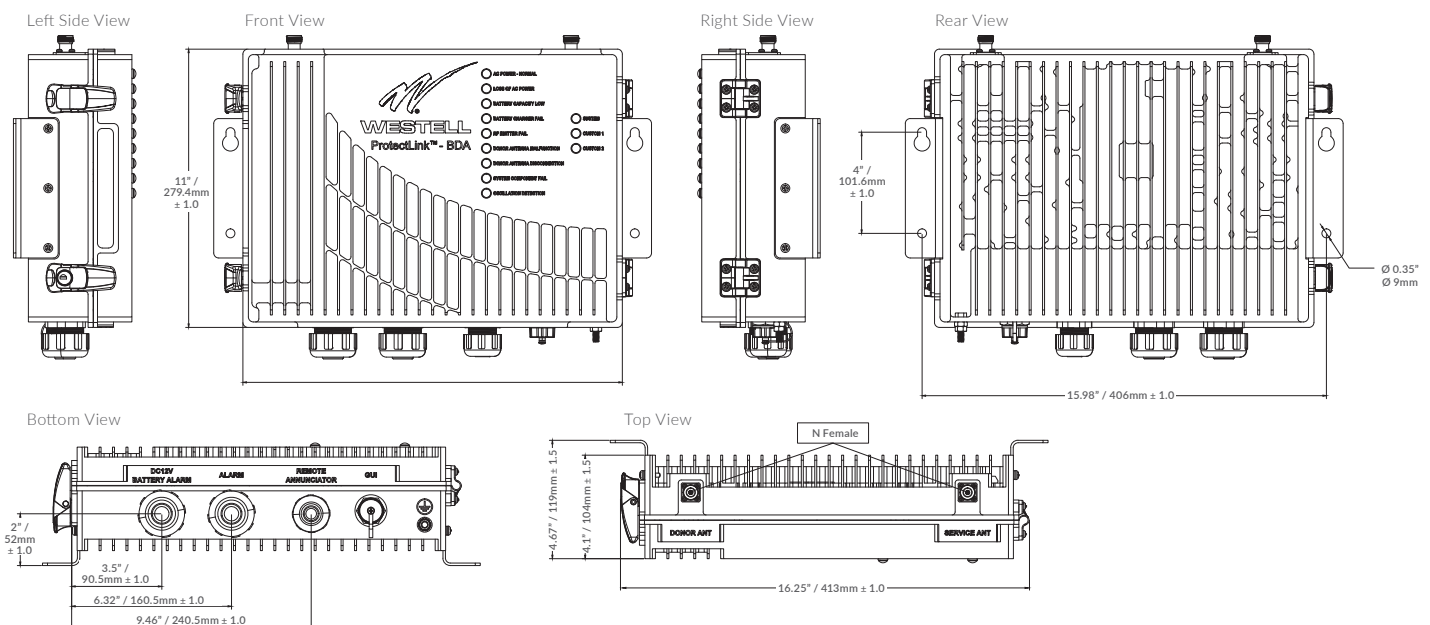
BDA Electrial Specifications

Main power input	12 VDC nominal
DC power consumption (dual-band)	<45W
DL output power	27 dBm/band
UL output power	24 dBm (1/4W) 700 MHz 24 dBm (1/4W) 800 MHz
DL gain	90 dB
UL gain	80 dB
Noise figure @ max gain	<7 dB
AGC dynamic range	60 dB
Gain adjustment range	30 dB
Filter gain adjustment	30 dB
Squelch adjustment range	-70 to -100 dBm
VSWR	<1.5:1
Number of filters Class A/B BDA	64 total, increments of 8 per band
Class A BDA filter bandwidths	12.5KHz, 75 KHz
Class B BDA filter bandwidths	150 KHz, full band
Propagation delay	12.5 KHz, 61us 75 KHz, 15us
55dB filter rejection, from band edge	12.5 KHz, 30 KHz 75 KHz, 210 KHz 150 KHz, 210 KHz
UL max input power	+10 dBm
DL max input power	0 dBm

BDA Mechanical Specifications

Dimensions (H x W x D)	11 x 15 x 4 in
Approximate weight (lbs)	15
Mounting	Wall-mount
Weatherproofing	IP65/NEMA Type 4
Cable feedthroughs	Cordgrips and flex conduit fittings included
Connectors	
Antenna ports	N female
User interface: GUI & NMS	RJ45 jack, web browser based
Alarm connections	Compression screw terminals
Annunciator	RJ45 jack
DC power	Cable from BBC or compression screws
Operating temperature	-30° C to +50° C
Color	Red

CS45-727-827-A0 Diagram

IBW-CS45-727-827-A0-DS_08052024