

Westell® | ProtectLink™ CS45-734-834-A0

UL2524 and NFPA Public Safety, Class A & B BDAs

General Information

The Westell ProtectLink Public Safety Next Generation 2.5W BDA is Westell's newest Fiber DAS ready bi-directional amplifier. The Class A or Class B BDA includes 700/800 MHz dual-band support, 2.5W output power, and built-in annunciator with additional auxiliary alarms. Westell's ProtectLink public safety BDAs 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, and an optional remote annunciator panel. The BDA supports 96 total enabled channels allocated across bands in blocks of 8. Individual filter bandwidths of 12.5 kHz, 50 kHz, or 75 kHz are available for class A operation. Class B filters support 150 kHz or up to full bandwidth.

Frequency Range

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

Product Highlights

- Class B and Class A operation
- 2.5W downlink RF power per band
- Intelligent oscillation management, self-healing
- 90 dB downlink gain, 80 dB uplink gain
- Built in front panel annunciator with additional custom LED's
- Fiber DAS ready* with SMA ports
- Built-in remote annunciator communications link
- Emergency Transmit Disable
- Supports SNMP
- Fast uplink squelch response per filter
- Independent gain control per filter
- Compact footprint
- NEMA 4 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
- PSERN June 1 2025 compliant**

Product Certification

- UL-2524: In-building 2-Way Emergency Responder Communication Enhancement System (ERCES)
- NEMA 4 enclosure
- NFPA 1221 and NFPA 1225
- FCC ID: CH8734834

* FiberDAS requires ProtectLinkV2 HE to support Fiber DAS expansion.

** Compliant with PSERN June 1 requirement to automatically disable UL amplification after 60 minutes and re-enable UL amplification within 0.5 seconds of receiving signal higher than the uplink squelch threshold.



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Ordering Information

Part Number	Description
ProtectLink™ BDAs	
CS45-734-834-A0	90DB GAIN, 2.5W, PS-700+800 BDA CL A/B
CS45-734-834-K1	PSKIT-700/800, 2.5W BDA, BBU W/145AH-12HR
CS45-734-834-K2	PSKIT-700/800, 2.5W BDA, BBU W/145AH-24HR
ProtectLink™ BDA Accessories	
CS19-BBU-005	WALL-MOUNTABLE BATTERY CABINET
CS19-BAT145AH-SLA	BATTERY 145 AH SLA 12V (12 HRS), 1 REQUIRED; (24 HRS), 2 REQUIRED



CS19-BBU-005

CS19-BAT145AH-SLA



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BDA Electrical Specifications

Main power input	12 VDC nominal
DC power consumption (dual-band)	123W
DL output power	34 dBm/band
UL output power	27 dBm (1/2W) 700 MHz 27 dBm (1/2W) 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	96 total, increments of 8 per band
Class A BDA filter bandwidths	12KHz, 50 KHz, 75 KHz
Class B BDA filter bandwidths	150 KHz, full band
Propagation delay	12 kHz, 61 uS 50 KHz, 25uS 75 kHz, 15uS
55dB filter rejection, from band edge	12.5 kHz (30 kHz) 50 kHz (105 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)	12.6" x 16.54" x 5.47"
Approximate weight (lbs)	25.6
Mounting	Wall-mount
Weatherproofing	IP65/NEMA 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



CS45-734-834-A0, interior view

CS45-734-834-A0 Diagram

