Westell® | ProtectLink™ CS40-734834-CAN

UL2524 and NFPA Public Safety, Class A & B BDAs

General Information

The Westell ProtectLink Public Safety BDAs represent the next revolution in Public Safety DAS design, offering the most flexible platform available on the market. The platform includes 700/800 MHz band support, adjustable 0.5 through 2.5 watt RF output options, Class A or Class B operation, and dual-band operation. Westell's ProtectLink public safety BDAs are an integral part of any NFPA complaint ERCES (Emergency Responder Radio Enhancement System).

ProtectLink includes a full-featured, easy to use web GUI. The product also includes adjustable frequency filters, intelligent oscillation management, dedicated FirstNet® filter profile, built-in isolation test, NFPA/UL2524 alarm capabilities, built-in annunciator communication link with an optional remote annunciator panel and built-in battery backup circuitry. Class A settings include 32 filters per band with individual filter bandwidths starting at 12.5KHz to full band. Class B settings include four individual filters starting at 250KHz bandwidth to full band.

ProtectLink BDA

Frequency Range

- Uplink: 798-806 / 806-824 MHz
- Downlink: 768-776 / 851-869 MHz

Product Highlights

- RF power, and Class B and Class A operation
- Intelligent oscillation management, self-healing
- 75 dB downlink gain, 75 dB uplink gain
- Built-in battery charging and alarm circuitry
- Built-in annunciator communications link
- Emergency Transmit Disable
- Supports SNMP
- Fast uplink and downlink squelch per filter

- P25 phase 2 AGC (Automatic Gain Control) per time slot to address near/far users on the same channel
- 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

Product Certification

- UL 2524: In-building 2-Way Emergency Radio Communication Enhancement Systems (ERCES)
- UL 508A: Industrial control panels (UL50E Type 4)

- UL 62368-1: Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements
- ISED RSS-131

Ordering Information

Part Number	Description
ProtectLink™ BDAs	
CS40-734834-CAN	Dual-band 700/800MHz, 0.5, 1, 2.5 watt, Class A/B BDA. Canada, ISED RSS-131.
ProtectLink™ BDA Accessories	
CS40-ANNUNC	BDA Remote annunciator, for monitoring a single device.
CS19-BBC-003	Wall-mountable battery cabinet.
CS19-PYL12V45FS	45AH sealed lead-acid battery (2 required, 4 hour).
CS19-PYL12V100FT	100AH sealed lead-acid battery (2 required, 12 hour).
CS19-PYL12V160FT	160AH sealed lead-acid battery (2 required, 24 hour) per NFPA.

UL2524 and NFPA Public Safety, Class A & B BDAs

BDA Electrial Specifications

Main power input	110 VAC (88-264VAC)
AC power consumption	210W max. (1.9Amps @ 110VAC)
Battery charger output	28 VDC
DC input range	24 - 30 VDC
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	75dB typical
UL gain	75dB
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
Class B BDA filter bandwidths	250KHz, 500KHz, 1MHz, 2MHz, 3MHz, 7MHz, 10MHz, 18MHz

Propagation delay	12.5KHz, 61us 25KHz, 38us 50KHz, 25us 75KHz, 17us 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 250KHz, 210KHz 500KHz, 500KHz 1MHz, 500KHz 2MHz, 750KHz 3MHz, 750KHz 7MHz, 1MHz 10MHz, 1MHz
UL max input power	+10dBm
DL max input power	0dBm

BDA Mechanical Specifications

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	Cordgrips and flex conduit fittings included
Connectors	
Antenna ports	4.3-10 female
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

14.9" (378.00)
18.6" (473.00)
5.7" (145.00)
7.3" (185.00)

IBW-CS40-734834-CAN-DS-07172024