

SHIELD SOLO

Integrated Public Safety BDA

MODEL NUMBER: L41-7EB

The SHIELD SOLO public safety solution is a half-watt emergency radio communication system that delivers best-in-class talk-in and talk-out performance with a no noise guarantee. An ERCES that fully complies with current fire codes, SOLO is an integrated public safety BDA that provides 700/800 MHz Land Mobile Radio (LMR) coverage. This versatile system converts between Class A and Class B in the field using the Nextivity WAVE PRO app and accepts DC power from either the purpose-built SHIELD SOLO Battery Backup Unit (BBU) or a standard third-party BBU device. In addition to being compatible with other public safety systems, SOLO is listed to UL 2524 and complies with IFC 510 and NFPA 1221. SOLO also works alongside the Nextivity COMPASS XR and WAVE Portal for seamless installation and robust remote monitoring and management capabilities.



SHIELD SOLO



Features and Benefits:

- ERCES Public Safety Solution: 0.5W Emergency Responder Communication Enhancement System for 700/800 MHz LMR
- Class A Device: 64 Channels at 12.5 kHz Bandwidth or 56 Channels at 75 kHz Low Delay (Software selectable)
- Class B Device: 56 Channels at 100 kHz Bandwidth (Very Low Delay)
- No Noise Guarantee: Automatic Calculation and Setting of Isolation as well as Uplink and Downlink Gain
- Talk-Out and Grid Testing: Industry-First Uplink and Downlink Tests via Nextivity WAVE PRO app and COMPASS XR
- Nextivity Proprietary IntelliBoost Chip: Delivers Unparalleled Real-Time Talk-in and Talk-Out Performance
- End-to-End System Monitoring: Built-in Remote Monitoring and Management via Nextivity WAVE Portal

Public Safety Network and Network Protection Features

Support for 700 MHz and 800 MHz (P25, Analog)

Fast Automatic Gain Control (AGC) prevents near-far effect of P25 phase 2 channels, or time slots if on the same channel

NFPA 1221, IFC 210, NEMA 4 certified, listed to UL 2524

Automatic UL and DL gain setting for Public Safety Channels

Uplink Muting Mode (Squelch) automatically shuts down uplink transmissions when no active user equipment is detected

Benefits

One solution provides a complete code-compliant ERCES

Certifications reduce time-to-market and downstream costs

Remote monitoring assures that the system is performing per design

Minimal noise in network through optimal gain and power settings ensure best overall radio performance

Assured best audio quality

Environmental

54 VDC

Product Ingress Protection (IP) Rating

Relative Humidity

Maximum Surface Temperature (any point)

-4 to 122°F (NU-CU) / 32-122°F (MU)

NEMA 4

0% to 95%, noncondensing

44°C @ 30°C ambient / 111°F @ 86°F

Power

Consumption @ 12 VDC, 62 W Max

Installation

Wall-mounting hardware included

iBwave VEX files available

Radio Performance

Band	700 (LMR)	800 (LMR)
Frequency Range, Downlink (MHz)	768–775	851–861
Frequency Range, Uplink (MHz)	798–805	806–816
Technology	P25/Analog	
DL (Downlink) Output Power (dBm)	27	
UL (Uplink) Output Power (dBm)	26	
Minimum Input level (DL/UL) dBm	-100 / -90	
Maximum Input level (DL/UL) dBm	-20 / -27	
System maximum gain (dB)	90	
Noise Figure at max gain (dB)	5	
Return loss (dB)	-8	
System Group Delay @ 12.5 / 75 kHz (usec) (Class A)	23/12.9	
System Group Delay @ 100 kHz (usec) (Class B)	11.2	
18.11 in	11.42 in	4.84 in
		12 lb

Connections

2x Type-N female connectors (Donor and Server Antennas)

1x 24 pin alarm connector

1x RJ45 connector for connection to the remote annunciator

1x Terminal block for power-off switch and external alarms

1x DC port for connection to the battery backup unit

Certifications

FCC Part 15, 90	Listed to UL 2524			2524 LISTED		
	IFC 510					
	NFPA 1221					
	NEMA 4					
	ISED (Canada)					

System Management

Nextivity WAVE PRO mobile app

Nextivity WAVE Portal: Status (list and map), Commissioning, Diagnostics, Software Updates, Settings, Reporting, Alarms and Notifications

SNMP v2c and v3: Support for Alarm Management and Software Updates

Patents and Design

Nextivity products are covered by multiple Nextivity, Inc., patents and pending patents.

Designed by Nextivity, Inc. in San Diego, California, USA.