

# 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 include:

- 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 (Software selectable)
- Class B Device: 56 Channels at 100 kHz or 150 kHz Bandwidth (Software selectable)
- 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)  
 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

## Power

Consumption @ 12 VDC, 62 W Max

## 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

## 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 kHz (usec) (Class A)	26	
System Group Delay @ 100 kHz / 150 kHz (usec) (Class B)	15 / 13.6	

## Physical Specifications

Width	Height	Depth	Weight
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
	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

## Patents and Design

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

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