

# PSR-78-8527-PKG

0.5W DSP 700/800MHz Public Safety Repeater with Annunciator

The PSR-78-8527-PKG is the new addition to ADRF's public safety repeater product line designed to protect the lives of first responders and building occupants. Its compact size and low output power make the PSR-78-8527-PKG an ideal solution for small to medium size buildings.

Through the use of digital signal processing (DSP) filter technology, the PSR-78-8527-PKG helps eliminate adjacent channel interference to allow band selectivity and support for 700 MHz and 800 MHz Public Safety frequencies including Band 14. Up to two non-contiguous wideband filters can be supported in the 700 MHz and up to two non-contiguous wideband filters can be supported in the 800MHz Public Safety frequencies via ADRF's celebrated web-based GUI, which provides versatility and total control to the user.

The PSR-78-8527-PKG is the best-in-class public safety repeater with Band 14 support and is fully compliant with International Fire Code (IFC) and National Fire Protection Association (NFPA) codes.



## Product Features

- Tested and approved under UL 62368-01 by Underwriters Laboratories
- NFPA 72, NFPA 1221, IFC code compliant
- Includes PSR-ANN-L annunciator to provide visual and audible alarms with the option to extend up to 1000 ft
- Supports 700/800 MHz, including Band 14 analog and digital systems
- Alarming output to supervised circuits for: antenna, amplifier, AC or DC power supply, battery, annunciator disconnect, and charger failure including oscillation detection with automatic amplifier shutdown routine
- NEMA 4 enclosure for both indoor and outdoor environments
- Supports FCC Part 90 Class B wideband repeater designations
- Up to 85 dB of gain and up to 27 dBm composite output power
- Supports P25 Phase 1 (FDMA) and Phase 2 (TDMA) communications

# Product Specifications

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### Electronic Specifications

		Downlink	Uplink
Frequency Range	700 MHz	758-776 MHz	788-806 MHz
	800 MHz	851-869 MHz	806-824 MHz
Composite Output Power		27 dBm	24 dBm
System Gain		55-85 dB	55-85 dB
Gain Control Range / Step		30 / 0.5 dB	30 / 0.5 dB
ALC Range		30 dB	30 dB
Support of Filter BW		2 Non-Contiguous Sub-Band of 3 / 5 / 6 / 10 / 17 / 18 MHz	
Filter Roll-Off		60 dBc @ Filter Bandwidth Edge +1 MHz	
Squelch (UL)		-95 ~ -80 dBm in 5 dB steps	
Spurious		FCC Rule Compliant	
Passband Ripple		±2 dB	
Noise Figure @ Max Gain		≤ 7 dB	
System Group Delay		≤ 7 μs	
Power		110 ~ 240 VAC, 60 Hz (Free Voltage)	
Power Consumption (AC / DC)		< 130 W / < 91.7 W	
No Damage / Max Input Power		+10 dBm	
Impedance		50 Ω	
VSWR		< 1.5:1	
Operating Temperature		-22°F to +122°F (-30°C to +50°C)	
Annunciator Decibel Level		100 dB @ 1 m	

### Mechanical Specifications

Dimensions (W x D x H)	Repeater	10.13 x 7.56 x 19.7 in (257 x 192 x 500 mm)
	Annunciator	5.91 x 2.56 x 6.32 in (150 x 65 x 160.3 mm)
Weight	Repeater	35.7 lbs (16.2 kg)
	Annunciator	2.75 lbs (1.25 kg)
RF Connector		4.3-10 (Female, 2EA) : Donor Ant, Server Ant
		SMA (Female, 2EA) : -30dB Output Monitor
Conduit Connector Hole (1/2")		Annunciator, AC, Battery, External Alarm (AAI)
Weather Resistance		NEMA 4

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