

PSR-VU-9537-X

VHF/UHF Channelized Digital Repeater

The PSR-VU-9537-X is a new dual band (VHF/UHF) digital public safety repeater designed to protect the lives of first responders and building occupants.

Through the use of digital filtering technology (DSP), the PSR-VU-9537-X helps eliminate adjacent channel interference to allow band selectivity and support VHF and UHF rebanding. Up to 1 wide band and up to 8 non-contiguous narrow bands can be simultaneously supported in each of the VHF and UHF Public Safety frequencies via ADRF's celebrated web-based GUI, which provides versatility and total control to the user.

The PSR-VU-9537-X is fully compliant with International Fire Code (IFC) and National Fire Protection Association (NFPA). This ensures that first responders have reliable radio communications in small to large buildings. It is the next generation in ADRF's acclaimed PSR Series Public Safety Repeaters.



Product Features

- Tested and approved under UL 2524, Second Edition to receive MET Classified for UL 2524 Fire & Shock as comprehensive solution including PSR, annunciator and ADRF BBx Series battery backups
- NFPA & IFC code compliant
- Alarming output to supervised circuits for: antenna, amplifier, AC or DC power supply, battery, and charger failure including oscillation detection with automatic amplifier shutdown routine
- Type 4 (UL50/UL50E) Enclosure
- Supports up to 1 wideband and up to 8 non-contiguous narrow bands
- Supports both analog and digital systems

Product Specifications

PSR-VU-9537-X (VHF/UHF Channelized Digital Repeater)



Technical Specifications

	Downlink	Uplink
Frequency Range	VHF: 136 - 174 MHz UHF: 380 - 512 MHz	VHF: 136 - 174 MHz UHF: 380 - 512 MHz
Composite Output Power	VHF: 28 dBm UHF: 37 dBm	VHF: 24 dBm UHF: 27 dBm
System Gain	VHF: 85 dB UHF: 85 dB (APCO25) 95 dB (LMR450)	VHF: 85 dB UHF: 85 dB (APCO25) 95 dB (LMR450)
Simultaneous Filter Support	Up to 1 Wide Band and Up to 8 Non-Contiguous Narrow Bands	
Passband Filter Bandwidth	Wide: 1/2/4/5 MHz Narrow: 6.25 - 331.25 KHz (6.25 x n, n = 1-53)	
Filter Roll-off	Wide: 65 dBc @ Bandwidth Edge + 500 KHz Narrow: 60 dBc @ Bandwidth Edge + (Filter BW/2)	
Passband Ripple	±2 dB	
Channel Setting Resolution	0.5 KHz	
Noise Figure @ Max Gain	< 3.5 dB w/ out duplexing	
Output ALC Dynamic Range	60 dB	
Gain Dynamic Range	45 dB	
System Group Delay	5 - 240 µs	
Spurious	FCC Compliant	
AC Power	110 - 240 VAC, 60 Hz (Free Voltage)	
Power Consumption	UHF Band: 214 W VHF Band: 210 W	
Max RF Input	-20 dBm (up to +10 dBm without damage)	
Impedance	50 Ω	
VSWR	< 1.5 : 1	
Humidity	5% - 90% condensed	
Remote Alarm / Network	Dry Contacts Outputs, Web-GUI, SNMP	
Certification	MET Classified for UL 2524 Fire & Shock FCC: Part 90 Class A / Class B	
Annunciator Decibel Level	100 dB @ 1 m	

Mechanical Specifications

Dimensions (Repeater Annunciator)	12.0 x 14.3 x 21.3 in (w/out mount bracket) 5.91 x 2.84 x 6.32 in (w/out bracket)
Weight (Repeater Annunciator)	65 lbs (w/out mount bracket) 2.5 lbs (w/out bracket)
Connectors	4.3-10 (Female)
Weather Resistance	Type 4 (UL50/UL50E)
Operating Temperature	-40°F to +140°F (-40°C to +60°C)

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