

# SVR P250 P25 Compliant

MULTI CHANNEL

2 WATT COVERAGE

NEW ESP PRIORITY STRUCTURE

WIDE OR NARROW BAND

EMERGENCY SIGNALING

P25 PHASE 1 COMPLIANT

AES/DES ENCRYPTION



- ▲ **P25 Phase 1 Compliant**
- ▲ 20 Channels
- ▲ New ESP™ Multi Vehicle Format
- ▲ AES / DES Encryption
- ▲ Programmable P25 or Analog Per Channel
- ▲ SVR-200 and SVR-250 Compatible
- ▲ Wide or Narrow Band Programmable Per Channel
- ▲ Emergency Signalling
- ▲ Factory Interface Cables for Most Popular Public Safety Radios

## SVR P250 P25 Twenty-Channel Digital Vehicular Repeater

The SVR-P250 is the next generation vehicular repeater from Pyramid Communications that is fully compliant with the **APCO Project 25 Phase 1 Digital Common Air Interface (CAI)** protocol.

Advanced features include **secure communications** with P25 portable radios, **AES and DES encryption**, and **emergency signalling** from portable to dispatch. **PC programmable** for up to **20 channels**, with P25, wideband/narrowband, CTCSS/DCS, and emergency signalling on a per channel basis.

The SVR-P250 utilizes the new **ESP™ priority structure** that **resolves priority conflicts during repeater idle time** rather than at the critical start of a conversation. With ESP™, priority vehicles are assigned without user intervention to ensure **uninterrupted communications** when users exit their vehicles. ESP™ also ensures a quick recovery if two vehicles get in a priority mode at one scene.

The SVR-P250 is **both P25 and analog capable** and can interface to analog or P25 mobiles providing **flexible inter-operability between systems** that wouldn't normally be able to communicate. The SVR-P250 will **interface to analog, digital, conventional or trunking mobiles** and is capable of operating with SkyTerra (formally MSV) mobile satellite phones. In trunking mode, the SVR-P250 ensures proper acquisition of the trunking channel and uses the **Smart Trunking Access™** mechanism of alerting the portable users of trunking status information.

In analog mode, the SVR-P250 is **fully compatible with existing SVR-200 and SVR-250** vehicular repeaters to provide seamless integration while users upgrade their systems from analog to P25 digital.

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**PYRAMID**  
COMMUNICATIONS

# Specifications SVR P250



## TRANSMITTER

	VHF	UHF	764-870
<b>Frequency Range</b>	<b>136-174 MHz</b>	<b>450-530 MHz</b>	<b>764-776 MHz + 850-870 MHz</b>
<b>RF power out</b>	0.5 - 2W	0.5 - 2W	0.25 - 1W
<b>Spurious emissions</b>	-70dBc	-70dBc	-70dBc
<b>Frequency stability -30°~+60°C</b>	±1.5PPM	±1.5PPM	±1.5PPM
<b>Modulation</b>	10K0F1D, 10K0F1E, 10K0F7D, 10K0F7E, 11K0F3E, 12K3F1D, 16K0F3E, 4K80F2D, 7K60F1D, 8K10F1D, 8K10F1E, 8K10F7D, 8K10F7E, 8K40F2D	10K0F1D, 10K0F1E, 10K0F7D, 10K0F7E, 11K0F3E, 12K3F1D, 16K0F3E, 4K80F2D, 7K60F1D, 8K10F1D, 8K10F1E, 8K10F7D, 8K10F7E, 8K40F2D	10K0F1D, 10K0F1E, 10K0F7D, 10K0F7E, 11K0F3E, 12K3F1D, 16K0F3E, 4K80F2D, 7K60F1D, 8K10F1D, 8K10F1E, 8K10F7D, 8K10F7E, 8K40F2D
<b>Hum and noise</b>			
25/30kHz	-43dB	-43dB	-40dB
12.5kHz	-38dB	-38dB	-33dB
<b>Audio response (300-3kHz)</b>	Flat or -6dB/octave	Flat or -6dB/octave	Flat or -6dB/octave
<b>Audio distortion</b>	<3% @ 1kHz 60% deviation	<3% @ 1kHz 60% deviation	<3% @ 1kHz 60% deviation
<b>Local mic sensitivity</b>	300mV - 5VPP	300mV - 5VPP	300mV - 5VPP
<b>FCC Type Acceptance</b>	LRUSVR-P250V	LRUSVR-P250U	LRUSVR-P250M
<b>Industry Canada Approval</b>	2390A-SVRP250V	2390A-SVRP250U	2390A-SVRP250M

## RECEIVER

	VHF	UHF	764-870
<b>Frequency Range</b>	<b>136-174 MHz</b>	<b>450-530 MHz</b>	<b>764-776 MHz + 850-870 MHz</b>
<b>Analog sensitivity</b>	0.28uV	0.28uV	0.28uV
<b>Digital sensitivity (5% BER)</b>	0.20uV	0.20uV	0.20uV
<b>Squelch sensitivity</b>	.2µV to 2µV adjustable	.2µV to 2µV adjustable	.2µV to 2µV adjustable
<b>Selectivity</b>			
25/30kHz channel	75dB	75dB	75dB
12.5kHz channel	65dB	65dB	65dB
<b>Spurious/image rejection</b>	75dB	75dB	75dB
<b>IMD response</b>	75dB	75dB	75dB
<b>Frequency stability</b>	±1.5PPM	±1.5PPM	±1.5PPM
<b>Audio response (300-3kHz)</b>	Flat or +6dB/octave	Flat or +6dB/octave	Flat or +6dB/octave
<b>Audio output</b>	0-5VPP AC coupled 600/2.2K	0-5VPP AC coupled 600/2.2K	0-5VPP AC coupled 600/2.2K
<b>Local Rx audio</b>	400 mW 8 Ohms@ <5% distortion	400 mW 8 Ohms@ <5% distortion	400 mW 8 Ohms@ <5% distortion



## Power Requirements

<b>DC Supply</b>	13.6VDC negative ground ± 25%
<b>Standby</b>	170mA
<b>Receive</b>	250mA @ 400mW Rx Audio
<b>Transmit</b>	<2A @ rated output

<b>Physical Dimensions</b>	5.75"W x 8"L x 2.25"H
<b>Weight</b>	38 ounces
<b>Case</b>	One piece extruded aluminium

Mil-Std-810D/E Ratings	
501.2	Procedure II High Temp +60°C
502.3	Procedure II Low Temp -30°C
507.2	Procedure II Humidity
510.2	Procedure II Blowing Dust
514.3	Procedure I Category 8 Vibration, Ground Vehicle
516.3	Procedure I Shock

