

# SVR-P255 P25 Enhanced Vehicular Repeater Solution

MULTI CHANNEL

2 WATT COVERAGE

ESP™ PRIORITY STRUCTURE

NEW P25 SMART TRUNKING™

P25 EMERGENCY CALLS

P25 PHASE 1 COMPLIANT

AES/DES ENCRYPTION OPTION



- ▲ 20 Programmable Channels
- ▲ **ESP™** Multi-Vehicle Format
- ▲ Triggers **P25** Emergency Call with Hot Mic
- ▲ Passes **P25** Channel Status to Portable User
- ▲ Notifies Portable User if **Out of Range** of SVR-P255
- ▲ Seamless Trunking Handshake Through SVR-P255
- ▲ Notifies Portable User if Mobile is **Out of Range** of P25 Network
- ▲ Works with **KENWOOD Viking™** radios



## SVR-P255 P25 Enhanced Vehicular Repeater Solution

The SVR-P255 is the latest generation simplex vehicular repeater from Pyramid Communications that is fully compliant with the **APCO Project 25** Phase 1 Digital Common Air Interface (CAI) protocol.

The all new **P25 SmartTrunking™** feature works with **KENWOOD Viking portables** and **Viking VM900** mobile radio to create a seamless trunking handshake between the mobile radio network and SVR-P255 user. This ensures that portable radio users outside the vehicle get quick and accurate notifications of all transmissions to the P25 network. Users will get indications of **Channel Grant, Busy, Denial, Out of Range** just as if they were on a trunked channel of the digital network.

In addition, the SVR-P255 offers optional **AES and DES encryption**, and enhanced P25 **emergency signaling** from portable to dispatch through the SVR-P255. This allows the SVR to relay an emergency with **Hot Mic** from the portable radio user.

The SVR-P255 also utilizes the Pyramid's latest **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.



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# Specifications



## 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>	.2uV to 2uV adjustable	.2uV to 2uV adjustable	.2uV to 2uV 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

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

### Physical

Dimensions	5.75"W x 10"L x 2.25"H
Weight	38 ounces
Case	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

