RCA
Communications Systems

RPX4500
RPX4600

RPX4500

RPX4600

P25
DIGITAL · DIGITAL WIRELESS · SANS FIL · NUMERIQUE · INALAMBRICO

3 YEAR
WARRANTY
PROTECTION PROGRAM

IP 67

DIGITAL VOICE SYSTEMS, INC.
The Speach Compression Specialists
AMBE+2 Vocodor

P25 Public Safety Handhelds

Guaranteed compatible with other P25 radios.

RCA's RPX4500/RPX4600 handheld radios meet all Project 25 (P25) specifications for Police, Fire, Ambulance, and other emergency services. P25 radios meet Military Standard Spec 810F for durability, shock and droppage. RCA's P25 radios have up to 5W of power for maximum signal coverage while lasting up to 11 hours on a single charge. RCA's 4 Year Warranty is the best in the industry, giving you peace of mind when purchasing P25 equipment.

MULTICOM™ TECHNOLOGY Provides cross-platform P25 Conventional and P25 Trunking system capability, as well as Analog Conventional and MPT1327 Trunking system capability

P25 CROSS-BRAND COMPATIBILITY Provides interoperability, integrating easily with any existing public safety analog, P25 Conventional and P25 Trunking Systems

MIXED MODE OPERATION Auto Sense option enables radios to auto-detect incoming analog or P25 Digital signals

ENCRYPTION OPTIONS DES-OFB 128-bit or AES 256-bit encryption in P25 Digital mode or Scrambler voice encryption in analog mode

LARGE CHANNEL, INDIVIDUAL AND TALKGROUP CAPACITY Radios have up to 1500 channels and up to 250 Individual/Talkgroup ID's

VOTING/SCANNING FUNCTIONS Dual mode scan, dual priority scan and trunked priority scan options with 240 Scan/Voting Groups

SAFETY/EMERGENCY FUNCTIONS Lone Worker, Stun/Kill/Revive, Emergency Alarm and optional GPS/Man Down

SIGNALING COMPATIBLE WITH LEGACY PUBLIC SAFETY SYSTEMS 2-Tone, 5-Tone, DTMF Encode/Decode and MDC1200 Encode/Decode signaling systems capable of providing compatibility wiith essential legacy analog Public Safety functions

LARGE PTT BUTTON AND CHANNEL SELECTION KNOB Units are easy to use, even when wearing gloves

7 PROGRAMMABLE BUTTONS Customize your radio to your needs

RPX4500 / RPX4600 SPECIFICATIONS

GENERAL

Frequency Bands	136 - 174 MHz (VHF "V"); 400 - 480 MHz (UHF "U"); 440 - 520 MHz (UHF "U2")
Dimensions	(H) 5.8 inches (147mm) x (W) 2.5 inches (63mm) x (D) 1.4 inches (36mm)
Weight	14.4 ounces (408g) with 3000 mAh battery
Battery	Li-ion 2200 mAh or 3000 mAh
Battery Life	>10 hours, high transmit power 2200 mAh battery, 90:5:5 duty cycle
Channel Stability	<1.5 ppm
Display	102 x 64 pixels
Switching Bandwidth	Full band
Modulation	Pre-emphasized FM, C4FM
Conformance	EN 300 086, EN 300 113, EN 300 219, EN 300 489, EN 60950, AS4295, FCC, IC
Environmental Protection	IP67 (Submersible/Dust Proof)

Environmental Standards	MIL-STD-810 F	Method	Procedure
	Low Pressure (Altitude), Storage	500.4	I
	Low Pressure (Altitude), Operational	500.4	II
	High Temp, Storage	501.4	I
	High Temp, Operating	501.4	II
	Low Temp, Storage	502.4	I
	Low Temp, Operating	502.4	II
	Thermal Shock	503.4	I
	Solar Radiation	505.4	I(A2)
	Relative Humidity	507.4	
	Dust	510.4	I
	Sand	510.4	II
	General Vibration: Truck/trailer/tracked - restrained cargo	514.5	I Cat 24
	General Vibration: Minimum Integrity	514.5	I Cat 24
	Shock - Transit Drop	516.5	IV

Operating Temperature	-22°F (-30°C) - 140°F (60°C)	
Emission Designators	Analog	11K0F3E, 11K2F3E, 16K0F3E
	Digital	8K00F1E, 8K10F1D/F1E, 11K0F1D, 11K2F1D, 16K0F1D

TRANSMITTER SPECIFICATION

Power Output	0.5 - 5 W, 3 programmable levels
Audio Distortion	<3% at 1 kHz, 60% deviation
Audio Frequency Response	+1 dB to -3 dB of pre-emphasized 300 to 3000 Hz on 25 kHz Channel (300 to 2550 Hz on 12.5 kHz Channel)
Tx/Rx switching time	<25 ms
Hum and Noise	>40 dB (12.5 kHz); >45 dB (25 kHz)

RECEIVER SPECIFICATION

Sensitivity	<0.3 µV for 12 dB SINAD <0.3 µV for 5% BER
Selectivity	>73 dB (25 kHz) >65 dB (12.5 kHz)
Intermodulation	>70 dB
Audio Frequency Response	+1 dB to -3 dB of de-emphasized 300 to 3000 Hz on 25 kHz Channel (300 to 2550 Hz on 12.5 kHz Channel)
Audio Output	500 mW into 16 @ <5% distortion
Blocking	>95 dB at +/- 1 MHz
Hum and Noise	>40 dB (12.5 kHz); >45 dB (25 kHz)

ANALOG CONVENTIONAL

• Single and two-frequency simplex • 2-Tone Paging • MDC1200 • Sequential Tone (selcall) • 200 channels (RPX4500) • 1,000 channels (RPX4600) • 240 scan / vote groups (RPX4600) • CTCSS, DCS, FFSK, DTMF • Analog mode including scrambler

ANALOG TRUNKING

• Two-frequency simplex in MPT 1327 trunked systems
• 1024 trunked channels in 50 sub bands
• MPT 1327 • MPT 1343

P25 CONVENTIONAL AND TRUNKING

• 40 zones • 1,500 channel pool
• 5 Trunking systems • Scanning • Voting • Emergency call
• DES OFB and AES 256 Bit Encryption • Individual Calls
• CTCSS, DCS, DTMF • 2 Tone, 5 Tone • AMBE+2 Vocoder

P25 DIGITAL WIRELESS

3 YEAR WARRANTY PROTECTION PROGRAM

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Created in U.S.A.

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