



RCA
Communications Systems

P25 Public Safety Radios



RPX4500 UHF / VHF
RPX4600 UHF / VHF

WORKS WITH YOUR CURRENT RADIOS!

Guaranteed compatible with your current 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 Spec 810F for durability, droppage, and shock. Each handheld radio has 5W of power for maximum signal coverage and will last up to 11 hours on a single charge. RCA's 4 Year Warranty is the best in the industry, providing peace of mind when purchasing P25 equipment.

RPX4500 / RPX4600 FEATURES

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

P25 CAP COMPLIANT 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

AMBE+2™ VOCODER Advanced digital vocoder eliminates background noise, providing loud, crystal clear communication

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 which provide Public Safety essential functions such as: 2-Tone Paging, PTT ID, Individual/Group Call, Call Alert, Emergency Alarm, Remote Monitor, Radio Inhibit, Radio Check, Radio Mute/Unmute, Text Messaging

LARGE PTT BUTTON AND CHANNEL SELECTION

Knob Units are easy to use, even when wearing gloves

7 PROGRAMMABLE BUTTONS Customize your radio to meet your needs

EASY-TO-READ DOT-MATRIX DISPLAY Bright backlight makes it easy to navigate through the menu and radio functions

DURABLE AND RELIABLE Meets Military Specs (MIL-STD-810C/D/E/F) for durability, shock, droppage, extreme temperatures, solar radiation, vibration, rain, humidity, salt fog, blowing dust and sand.

5W OF POWER Maximum signal strength and coverage while lasting up to 11 hours on a single charge with typical 5:5:90 usage

IP67 RATED RCA's P25 handheld radios are completely waterproof (submersible 1 meter/30 minutes) and dust proof

MULTI-PIN SCREW-IN ACCESSORY CONNECTOR

Secures audio accessories to the radio chassis to maintain watertight capabilities and to ensure reliable performance

MESSAGING RPX4600 can transmit and receive short messages and text messages

FREQUENCIES AND PART NUMBERS

VHF (136-174 MHz) - RPX4500V or RPX4600V;
UHF (400-480 MHz) - RPX4500U or RPX4600U;
UHF (440-520 MHz) - RPX4500U2 or RPX4600U2



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

P25 CAP

www.RCACommunicationsSystems.com



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 P25CAP Compliant | | |
| 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 | |
| <ul style="list-style-type: none"> • CTCSS, DCS, FFSK, DTMF • 2-Tone Paging • MDC1200 • Sequential Tone (Selcall) • Status Calls • 240 Scan/Vote Groups • 250 Entry Phone Book • 1,000 channels • Analog Mode Including Scrambler | |
| ANALOG TRUNKING | |
| <ul style="list-style-type: none"> • MPT1327 • MPT1343 • 250 Entry Phonebook • Status • Status Calls • 1,024 Trunked Channels • Busy, Queued • Abbreviated Dialling • Normal, Priority, Emergency, Group, Broadcast • Diversion | |
| P25 CONVENTIONAL AND TRUNKING | |
| <ul style="list-style-type: none"> • P25 CAP Compliant • 40 Zones • 1,500 Channels • Trunked • Scanning • Voting • Individual Calls • Emergency Call • Status • Status Calls • CTCSS, DCS, DTMF • AMBE+2 Vocoder • DES OFB and AES 256 Bit Encryption | |



P25 CAP

For more information, visit www.RCACommunicationsSystems.com

ACCESSORIES & OPTIONS



**Light Duty
Speaker Mic**
SM220-X43



**Heavy Duty
Speaker Mic**
SM310-X43



**Waterproof Speaker
Mic with GPS**
SM252WPG-X43



**Nylon & Leather
Holsters**
For RPX4500
& RPX4600



**Two-Wire Surveillance
Kit In-Ear Style**
SK21NE-X43



**Light Duty Behind the
Head Headset**
HS21V-X43



**High Noise Headset - Over
the Head & Behind the Head**
HS61NR-X43, HS71NR-X43



**3" and 6" Antennas
Available**



**2200mAh Lithium-Ion
Battery**
B4522LI



**3000mAh Lithium-Ion
Battery**
B4530LI



Single Unit Charger
CH4501 PKG



6 Bank Charger
CH4506 PKG



For more information, visit
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