



RCA
Communications Systems

P25 Public Safety Radio



RPX6500 UHF / VHF
P25 Mobile Two-Way Radio

WORKS WITH YOUR CURRENT RADIOS!

Guaranteed compatible with your current P25 radios.

RCA's RPX6500 mobile radio meets all Project 25 (P25) specifications for Police, Fire, Ambulance, and other emergency services. P25 radios meet Military Standard Spec 810F for durability, shock and humidity. RCA's P25 mobile radio has 25W of power for maximum signal coverage with an optional upgrade to 110W. RCA's 4 Year Warranty is the best in the industry, giving you peace of mind when purchasing P25 equipment.

RPX6500 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 Up to 1500 channels and up to 250 Individual/Talkgroup ID's

Safety/Emergency Functions Stun/Kill/Revive, Emergency Alarm and optional GPS or AVL

Control Options Your choice of a remote control head with microphone or a keypad/display handset microphone

Flexible Mounting Radio can be mounted just about anywhere in a vehicle while the remote control head with microphone or handset microphone can be placed where it's needed most



Easy-To-Read Dot-Matrix Display Bright backlight makes it easy to navigate through the menu and radio functions

Large Channel Switch and 3 Position Zone Select Option Makes switching channels and zones easy, even when wearing gloves

Durable and Reliable All aluminum design 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

25W of Power Powerful signal provides extended coverage. Optional upgrade to 110W of power is available for even greater coverage.

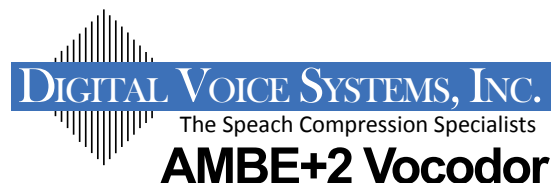
IP54 Rated RCA's P25 mobile radio is dust and splash resistant

Desktop Base Station Option Convert a RPX6500 mobile unit into a Desktop Base Station with the DBSK6500 Conversion Kit

Frequencies and Part Numbers

VHF (136-174 MHz) - RPX6500V;
UHF (335-400 MHz) - RPX6500UR;
UHF (400-480 MHz) - RPX6500U;
UHF (440-520 MHz) - RPX6500U2

P25 CAP





RPX6500 SPECIFICATIONS

GENERAL			
Frequency Bands	136 - 174 MHz ("V"); 335 - 400 MHz ("UR"); 400 - 480 MHz ("U"); 440 - 520 MHz ("U2")		
Dimensions	(H) 2.2 inches (56mm) x (W) 6.7 inches (170mm) x (D) 6.5 inches (165mm)		
Weight	2 lbs 14 ounces (1.3kg)		
Power Supply	10.8 - 16.3 V DC		
Channel Spacing	10, 12.5, 20 or 25 kHz		
Channel Stability	<1.5 ppm		
Inputs/Outputs	Ignition-sense input; PTT; Carrier Detect; On/Off; Configurable output		
Antenna Connector	50 Ω BNC		
Modulation	Pre-emphasized FM, C4FM		
Conformance	EN 300 086, EN 300 113, EN 300 219, EN 300 279, AS4295, FCC, IC P25CAP Compliant		
Environmental Protection	IP54		
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)		

P25 CAP

TRANSMITTER SPECIFICATION	
Power Output	1 - 25 Watts (3 programmable levels)
Current Consumption	<7.5 A (UHF)
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)
Duty Cycle	1 minute transmit, 4 minute receive
Modulation	C4FM, FM
Transmitter Power	1-25 W, 3 programmable levels
Transmit Rise 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	4 W into 4 @ <5% distortion (link for 10 W into 8)
Blocking	>95 dB at +/- 1 MHz
Hum and Noise	>40 dB (12.5 kHz); >45 dB (25 kHz)

- ANALOG CONVENTIONAL**
- CTCSS • DCS • Sequential Tone (Selcall) • FFSK • DTMF • Status
 - Status Calls • 240 Scan/Vote Groups • 250 Entry Phone Book
 - 1,000 Channels • Analog Mode Including Scrambler

- ANALOG TRUNKED OPERATION**
- 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**
- 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



For more information, visit www.RCACommunicationsSystems.com

ACCESSORIES & OPTIONS



Radio Control Head
CTRH6500



Keypad Speaker Mic
MM6500WP



Standard Speaker Mic
MM6500



Keypad Speaker Mic w/ Display (Black)
KDH6500



Keypad Speaker Mic w/ Display (Red)
KDH6500R



Keypad Speaker Mic w/ Display (Yellow)
KDH6500Y



Keypad Speaker Mic w/ Display (Blue)
KDH6500B



External Speaker
EXSPK6500



3dB Stainless Steel Mobile Antenna
B4503_(UHF) / B1443_(VHF)



0dB Stainless Steel Mobile Antenna
QW450_(UHF) / QW152_(VHF)



Magnetic Roof Mount for Antenna
G8PI



Base Station Kit-Desktop Mic & Power Supply
DMM6500 + SS-18



For more information, visit
www.RCACommunicationsSystems.com

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