RPU2160

RPX On-site Portable Repeater

Extend your Range, Improve your Communications.

The Motorola RPX repeater improves communications coverage by overcoming dead spots and increasing your two-way radios' range. This compact durable solution is easily deployable for both indoor and outdoor applications. Available with 16 user-selectable repeater frequency pairs, battery backup, and computer programmability RPX provides the flexibility to customize your repeater needs.

General Features:

- 16 pre-programmed channels
- Programmable via PC or CPS software
- MIL SPEC 810 and IP55 environmental certification
- Alkaline/Li-Ion backup battery solutions
- Manager Lock
- Time-Out Timer
- Courtesy beep
- Battery back-up alert
- Repeater ID
- Transmission Hang time
- Reverse Burst

Fully compatible with RDX high power radios
Take full advantage of your RDX radios and accessories with the RPX repeater. Pick up and re-use the RDX, batteries and programming cables.

Power and Coverage
2W repeater supports analog transmissions in the UHF (TX 450-455 MHz / RX 465-470 MHz) band to extend range and eliminate deadspots.

Rugged and Water Resistant
Durable to withstand harsh environments. Meets Military 810 C, D, E and F and IP55 specifications for shock, rain, humidity, salt fog, vibration, sand/dust, temperature shock, high and low temperature.

Cost Effective Solution
Feature rich solution at an affordable price for a wide range of markets including: education, hospitality, tourism, retail, construction and property management.

Flexible and Durable Battery Solutions
Several battery solutions are available for permanent or temporary on-site power. The standard Alkaline Battery Frame, provides up to 16 hours of backup power via 12AA batteries. Optional vehicular charger and Li-Ion battery frame kit available.

Battery Back-up Tone
Sends a warning alert notifying users they are on back-up battery supply.

Portable and Easily Deployable
Light weight (2 lbs) and easily deployable in on-scene situations. RPX offers 16 different pre-programmed channels to facilitate setting up multiple repeaters for different user groups.

Customer Programming Software (CPS)
Use your PC to program your repeater and provide access to customizable features.

Standard Features
The RPX repeater ships standard with the following features:

- Wall Mount Holster
- 110V/220V Power Supply
- Alkaline battery Frame
- Dipole Antenna

Optional Accessories
RPX offers a full line of accessories to meet the versatile needs of different market segments:

- Vehicle Charger
- Li-On Battery Frame Kit
- Magnetic Mount/ Antenna/RF Cable Kit
- UHF Dipole Antenna
- Wall Mount Holster

PRODUCT SPECIFICATIONS	RPU2160	
	UHF 25 kHz	UHF 12.5 kHz
Power Output	2W	2W
FCC ID	AZ492FT4887	AZ492FT4887
Emission Designators	16K0F3E	11K0F3E
Operating RF Band (MHz)	450-470	450-470
Frequency Separation	10 MHz	10 MHz
TX Freq band	450-455 MHz	450-455 MHz
RX Freq band	465-470 MHz	465-470 MHz
Channel Spacing (narrow and wide band)	25 kHz	12.5 kHz
Mode of Operation	Duplex	Duplex
Band Separation:	10 MHz	10 MHz
Station Identifier Signaling	Morse Code	Morse Code
Number of Operating Channels	1 (TX/RX) Channel	1 (TX/RX) Channel
Number of software Programmable Channels/ Knob channels	16	16
Synthesized steps	1 Hz	1 Hz
Tone/Code Signalling	PL/DPL	PL/DPL
Hang-Time Timer	0-50 seconds (Programmable)	0-50 seconds (Programmable)
Time-out timer	1, 2 or 3 min	1, 2 or 3 min
RF Connector	Mini UHF	Mini UHF
Vehicle Charger	Yes	Yes
Antenna Impedance	50 Ohms	50 Ohms
Duty Cycle	100%	100%
PL Codes	39 + 6 programmable codes	39 + 6 programmable codes
DPL Codes	84 DPL + 84 Inverted DPL	84 DPL + 84 Inverted DPL
Input Voltage	110/220 Vac / 12 Vdc	110/220 Vac / 12 Vdc
Input Current Repeater(@ 110 Vac and 2W operation)		
TX/RX	264 mA	264 mA
Standby	33mA	33mA
Input Current Transceiver (@ 12 Vdc and 2W operation)		
TX/RX	1.6 A	1.6 A
Standby	200 mA	200 mA
Transmitter		
Frequency Range (MHz)	450-455 MHz	450-455 MHz
Carrier RF Output	2.0 Watts	2.0 Watts
Frequency Stability	+/- 1.5 PPM (-30C to + 60C)	+/- 1.5 PPM (-30C to + 60C)
Modulation	Direct FM	Direct FM
Deviation (Modulation Limiting)	± 5.0kHz	± 2.5.kHz
FM Hum & Noise	-50 dB	-45 dB
Adjacent Channel Power	60dBc	60dBc
Radiated Spurious Emissions	<-13dbm	<-20dbm
Receiver		
Frequency Range (MHz)	465 - 470	465 - 470
Frequency Stability	+/- 1.5 PPM (-30C to + 60C)	+/- 1.5 PPM (-30C to + 60C)
Audio Frequency	300Hz to 3 kHz	300Hz to 3 kHz
Sensitivity (12 dB SINAD)	-119 dBm (0.25 uV)	-119 dBm (0.25 uV)
Selectivity (Adjacent Channel Selectivity)	-75 dB	-70 dB
Intermodulation rejection	-70 dB	-70 dB
Spurious response Rejection (blocking 1Mhz)	-90 dB	-90 dB
Radiated Spurious Emissions	< -57 dBm	< -57 dBm
Input impedance	50 Ohms	50 Ohms

Other Product Specs	UHF 25 kHz	UHF 12.5 kHz
Li-On Battery Solution	Available as an accessory	Available as an accessory
Alkaline Battery Frame Solution	Yes	Yes
Dimensions (H x W x D) (inches):	4.7H x 7.4W x 2.0D	4.7H x 7.W x 2.0D
Weight		
Repeater with Li-On Frame and Batteries	2.1 lbs	2.1 lbs
Repeater with with Alkaline Frame and Batteries	2 lbs	2 lbs
Average Battery Life @ 100% duty (20%/80% operation):		
With Alkaline Frame	16 Hours	16 Hours
With Li-On Battery	16Hrs (2400 mAH)	16 Hrs (2400 mAH)
Charging Time (@ repeater 100% charging 0% transmitting):		
	3.5 Hrs (2400 mAH)	3.5 Hrs (2400 mAH)

Military Standards

Shock 516.3 / 1, 4

Standard	810 - C	810 - D	810 - E	810 - F	810 - G
Low Pressure	500.1/ 1	500.2/ 2	500.3 / 2	500.4 / 1	500.5 / 1
High Temperature	500.1/ 1	500.2/ 1, 2	501.3 / 1, 2	501.4 / 1, 2	501.5 / 1, 2
Low Temperature	500.1/ 1	502.2/ 1, 2	502.3 / 1, 2	502.4 / 1, 2	502.5 / 1, 2
Temperature Shock	500.1/ 1	502.2/ 1, 2	503.3 / 1	503.4 / 1	503.5 / 1
Solar Radiation	500.1/ 1	502.2/ 1, 2	505.3 / 1	505.4 / 1	505.5 / 1
Rain	500.1/ 1	506.2/ 1, 2	506.3 / 1, 2	506.4 / 1,2,3	506.5 / 1,2,3
Humidity	500.1/ 1	507.2/ 2, 3	507.3 / 1, 2	507.4 / 1	507.5 / 1
Salt Fog	500.1/ 1	507.2/ 2, 3	509.3 / 1	509.4 / 1	509.5 / 1
Dust	500.1/ 1	507.2/ 2, 3	510.3 / 1	510.4 / 1	510.5 / 1
Vibration	500.1/ 1	507.2/ 2, 3	514.4 / 1	514.5 / 1	514.6 / 1
Shock	500.1/ 1	507.2/ 2, 3	516.4 / 1, 4	516.5 / 1	516.6 / 1

Environmental Specs

Operating Temperature (on power supply)	-30°C to +60°C (Repeater)	-30°C to +60°C (Repeater)
Sealing	IP55	IP55
Shock & Vibration	Polycarbonate Housing passes EIA 603	
Dust & Humidity	Satisfied EIA 603	
UL Approval	Type 1	

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