

# RD622

Indoor Wall Mount Repeater



- DMR & Analog Auto Switching
- 3 in 1 Integrated Repeater: RF, Power Supply, & Optional Duplexer





## RD622

An indoor DMR and Analog dual mode repeater in a compact design, embedded with a power supply and optional mini duplexer. Its innovative design enables it to easily support wall-mount installation with AC/DC power. Multiple sites can connect via IP along with the RD982 to support flexible wide area and large building coverage. Integration with Hytera SmartDispatch or other 3rd party GPS dispatching software can be achieved by the RJ45 port in the side of the repeater.

## Applications

Hotel

Malls

Hospital

Education

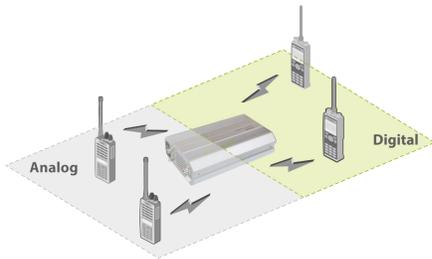
Security

Property Management

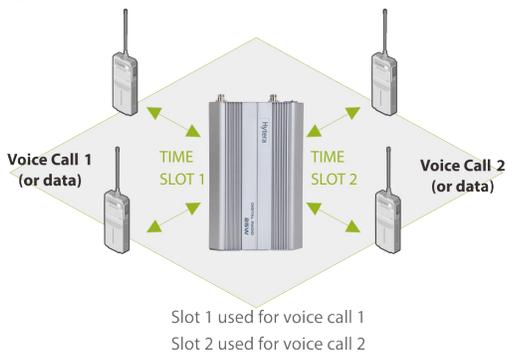


# Product Features

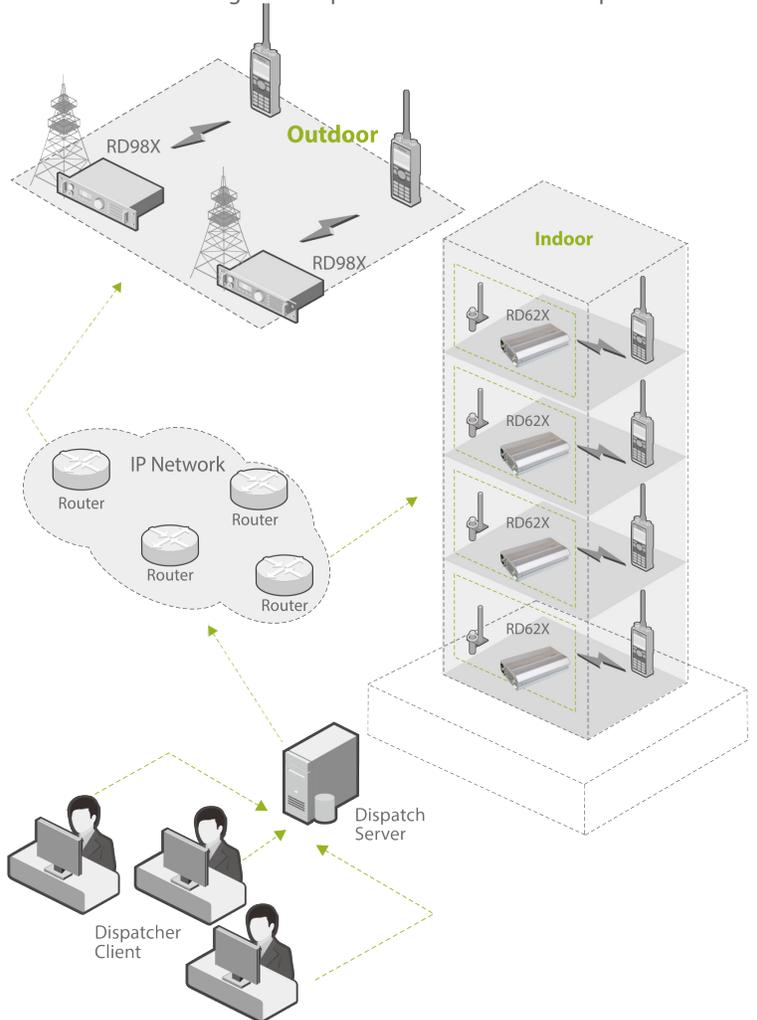
- All-In-One Compact Design**  
 Compact design, integrates RF, power supply, and optional duplexer into one box, which makes the RD622 smaller, lighter, and easier for wall-mount installation and indoor coverage.
- Multi CTCSS/CDCSS Decode**  
 Decoding up to a maximum of 16 CDCSS/CTCSS codes in Analog channels allowing coverage for different Analog voice users from various groups
- Repeater Access Management**  
 A repeater access control feature allowing better security to prevent unauthorized users from accessing the radio network.
- Analog Scan**  
 Analog voice and signaling scan, allowing coverage of different analog voice users from various groups.
- Interoperability**  
 Two repeaters can be interconnected to provide interoperability between UHF and VHF. A single repeater can auto switch between Analog and Digital mode, allowing for efficient frequency sharing between Analog and Digital users and an easy digital migration. See example below.



- Digital Audio Streaming of Dual Time Slots**  
 The streaming of both the voice slots via the rear port accessory pins, allowing for capability expansion via future development and recording of communications via SmartDispatch. See example below.



- Repeater Diagnostic And Control (RDAC)**  
 Remote IP connection to monitor, diagnose, and control the repeater thus increasing maintenance efficiency. The Hytera developed RDAC is able to support multiple master network connections to allow the radio administrator to monitor multiple radio networks.
- AC / DC Auto Switch**  
 Integrates an internal power supply that supports a battery floating charge. The power supports 13.6V±15% DC and 90V-264V AC. If the AC power is cut off, the DC power (battery) automatically takes over without interruption.
- Multiple Sites via IP**  
 Network connection via the IP port of the repeater to form a private radio network to meet data and voice communication needs for wide-area coverage and dispersed locations. See example below.



# Accessories

Optional



Mounting Bracket BRK21



V AC Power Cord PWC03



Programming Cable (USB Port) PC40



V DC Power Cord PWC06

See website for full list

# Specifications

|         |                     |   |             |  |
|---------|---------------------|---|-------------|--|
| General | Frequency Range     | VHF: 136 - 174MHz<br>UHF1: 400 - 470MHz |             |  |
|         | Channel Capacity    | 16                                      |             |  |
|         | Channel Spacing     | 25 / 20 / 12.5KHz                       |             |  |
|         | Operating Voltage   | 13.6 V DC $\pm$ 15% ; 90-264V AC        |             |  |
|         | Current Drain       | Standby                                 | $\leq$ 0.5A |  |
|         |                     | Transmit                                | $\leq$ 5.5A |  |
|         | Frequency Stability | $\pm$ 0.5ppm                            |             |  |
|         | Antenna Impedance   | 50 $\Omega$                             |             |  |
|         | Duty Cycle          | 100%                                    |             |  |
|         | Dimensions (HxWxD)  | 11.85 x 7.24 x 2 inches                 |             |  |
|         | Weight              | 6.61 lbs                                |             |  |
|         | FCC ID              | TBA                                     |             |  |
|         | Industry Canada ID  | TBA                                     |             |  |

|                              |                            |                  |
|------------------------------|----------------------------|------------------|
| Environmental Specifications | Operating Temperature      | -22° F ~ +140° F |
|                              | Storage Temperature        | -40° F ~ +185° F |
|                              | ESD                        | N/A              |
|                              | American Military Standard | N/A              |
|                              | Dust & Water Intrusion     | N/A              |
|                              | Humidity                   | N/A              |
|                              | Shock & Vibration          | N/A              |

|             |  |  |
|-------------|--|--|
| Transmitter | RF Power Output  | 1-25W (continuous)   |
|             | FM Modulation (Analog Emissions Designator)            | 11K $\phi$ F3E @ 12.5KHz; 14K $\phi$ F3E @ 20KHz; 16K $\phi$ F3E @ 25KHz |
|             | 4FSK Digital Modulation (Digital Emissions Designator) | 12.5KHz Data Only: 7K $\phi$ F3E<br>12.5KHz Data & Voice: 7K $\phi$ F3E  |
|             | Conducted/Radiated Emission                            | -36dBm < 1GHz<br>-30dBm > 1GHz   |
|             | Modulation Limiting                                    | $\pm$ 2.5KHz @ 12.5KHz; $\pm$ 4.0KHz @ 20KHz; $\pm$ 5.0KHz @ 25KHz       |
|             | FM Hum & Noise   | 40dB @ 12.5KHz; 43dB @ 20KHz; 45dB @ 25KHz                               |
|             | Adjacent Channel Power                                 | 60dB @ 12.5KHz<br>70dB @ 20/25KHz  |
|             | Audio Response   | +1 ~ -3dB  |
|             | Audio Distortion                                       | $\leq$ 3%  |
|             | Digital Vocoder Type                                   | AMBE++ or SELP   |
|             | Digital Protocol                                       | ETSI-TS102 361-1, 2&3  |

|          |  |  |  |
|----------|--|--|--|
| Receiver | Sensitivity                              | Analog   | 0.3 $\mu$ V (12dB SINAD) ;<br>0.22 $\mu$ V (Typical) (12dB SINAD);<br>0.4 $\mu$ V (20dB SINAD) |
|          |  | Digital  | 0.3 $\mu$ V/BER5%  |
|          | Selectivity TIA-603 ETSI                 | 65dB @ 12.5KHz / 75dB @ 20/25KHz<br>60dB @ 12.5KHz / 70dB @ 20/25KHz |  |
|          | Intermodulation TIA-603 ETSI             | 75dB @ 12.5/20/25KHz<br>70dB @ 12.5/20/25KHz                         |  |
|          | Spurious Response Rejection TIA-603 ETSI | 75dB @ 12.5/20/25KHz<br>70dB @ 12.5/20/25KHz                         |  |
|          | Blocking TIA-603 ETSI                    | 90dB<br>84dB   |  |
|          | S/N                                      | 40dB @ 12.5KHz; 43dB @ 20KHz;<br>45dB @ 25KHz                        |  |
|          | Rated Audio Distortion                   | $\leq$ 3%  |  |
|          | Audio Response                           | +1 ~ -3dB  |  |
|          | Conducted Spurious Emission              | < -57dBm   |  |

## Your Local Dealer

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