

Specification

General

Digital Protocol	ETSI TS 102 361-1, -2, -3
Frequency	UHF1: 400-470MHz UHF3: 350-400MHz VHF: 136-174MHz
Channel Capacity	1024
Channel Spacing	12.5kHz/20KHz/25KHz
Max Duty Cycle	100%
Operating Voltage	AC100-240V @50/60Hz DC13.6±20%
Backup Power Supply	Support
Size (H*W*D)	436×44.5×366.4mm (Standard 19-inch 1U height frame)
Weight	8.5Kg
Screen	2.0-inch HD LCD, 320×240, 10 status LEDs

Environmental

Operating Temperature	-30°C ~ +60°C
Storage Temperature	-40°C ~ +85°C

General Disclaimer:
The specifications in this document are in accordance with the applicable standard test. Due to the continuous technology development, Caltta may change the specifications without notice.

Receiver

Sensitivity (Analog Typical)	0.14uV (12dB SINAD)
Sensitivity (Digital Typical)	0.14uV (5% BER)
Adjacent Channel Selectivity	65dB@12.5 kHz/75dB@25 kHz (TIA-603D) 65dB@12.5 kHz/75dB@25 kHz (ETSI)
Intermodulation	75 dB (TIA603D) 70dB (ETSI)
Spurious Rejection	80dB (TIA603D) 80 dB (ETSI)
Blocking or Desensitization	98dB (TIA603D) 95dB (ETSI)
Hum and Noise	-40 dB@12.5KHz / -45 dB@25KHz
Audio Distortion @ Rated Audio	≤3% (Typical)
Audio Response	+1~-3dB (TIA603D)
Conducted Spurious Emission	-57 dBm (TIA603D)

Transmitter

Frequency Stability	±0.5ppm
Power Output	1W - 50W (UHF1/UHF3/VHF)
FM Modulation	12.5KHz :11K0F3E /25KHz:16K0F3E
4FSK Digital Modulation	12.5KHz Data Only: 7K60FXD 12.5KHz Voice and Data: 7K60FXE
Conducted/ Radiated Emission	-36dBm ≤1GHz ; -30dBm >1GHz
Modulation Limiting	±2.5KHz @12.5KHz /±5.0KHz @25KHz
Adjacent Channel Power	-60dB@12.5KHz , -70dB@/25kHz
FM Hum and Noise	-40dB@12.5kHz, - 45dB@/25kHz
Audio Distortion @ Rated Audio	≤3% (Typical)
Audio Response	+1~-3dB(TIA603D)



Digital Repeater
Super Coverage, Flexible Networking



Privacy Statement:
Caltta Technologies is a leading provider of comprehensive critical communication solutions and committed to protecting personal data in accordance with applicable laws and regulations and with technologies including anonymization and data encryption and necessary security management measures.

Features

Flexible Networking

PR900 supports flexible networking based on diversified scenarios: IP connection extends coverage; simulcast fulfills large coverage with fixed frequency; active link offers wide coverage; ECS(Enhanced Conventional System) realizes dynamic channel allocation.

High Spectrum and Power Efficiency

With DMR two-slot TDMA technologies, PR900 allows a single carrier with a bandwidth of 12.5 kHz to support two independent calls, with each time slot occupying a bandwidth of 6.25 kHz, which reduces transmission time in half and saves battery power consumption by 40%, effectively prolonging the standby time of DMR radios.

High Security and Reliability

Professional encryption algorithm as well as service protection mechanisms such as authentication and remote stun, help to ensure the data security and reliability of the DMR system and the end user's life safety to the utmost extent.

2.0-inch Color Display

PR900 adopts 2.0-inch HD color screen, making it more convenient for users to review and operate.

Ultra Slim Design

PR900 adopts 1U design, making the height half of conventional repeaters and saving space when installing.

Standard DMR Products Embrace Interconnection

As Caltta is a member of the DMR Association, the PR900 repeater is fully compliant with DMR standard and can interconnect with any other DMR system and radios that comply with DMR standard.

Easy Operation for Users

PR900 adopts a 2.0-inch HD color screen, making it more convenient for users to review information and operate.

Digital and Analog Compatible

Smart digital-analog automatic detection mechanism ensures legacy analog radios can still be used under our PR900, to guarantee customers' historical investment to the greatest extent.

Better Audio Quality

Digital voice processing reduces the impact of environmental noise on voice quality, making the call voice clearer. Thus, it is suitable for complicated and noisy work scenarios with constant changes.

Rich Interfaces

PR900 supports the access of the remote microphone and provides a customization interface to realize more third-party extension services.

Scenarios



Forestry



Public Safety



Firefighting



City Management



Sport Events



Property Management



Education

