

PR680

Portable Digital Repeater



*UHF Version

- Light and Portable for Front-line Applications
- Easy Extension and Flexible Networking
- High Rx Sensitivity for Better Coverage
- Convenient Operation with Screen
- Concurrent Dual Voice Call
- Palm RSM and Earphone for PTT
- Large Battery for Longer Standby
- IP67 and MIL-STD-810G

Highlights



Light and Portable

The compact backpack design and lightweight 3.7kg (with antenna and battery) body make PR680 be easily carried on the back and rapidly deployed to the front line.



Easy Configuration

Built-in screen and keypad make configuration and startup easy and efficient, and you can set the parameters of PR680 conveniently and quickly.



Flexible Networking

It can achieve dedicated area coverage independently or trans-regional coverage through IP interconnection.



Standard Compliant

Complies with ETSI DMR standards, and is compatible with radios of mainstream DMR manufacturers to save customer's investment.



Wide Coverage

Built-in duplexer and carefully optimized RF circuit offer the repeater with excellent radio performance and achieve a wide range of digital conventional network coverage.



Large Capacity and Replaceable Battery

Equipped with a built-in battery of 236Wh capacity, which can support long-term working shift. Meanwhile, PR680 can also be connected to an external power adapter or battery for power supply.



Dual Local Calls

PR680 can be connected with the RSM and PTT earphone through the device's audio interface, and simultaneously connect calls from two slots.



Ruggedized and Reliable Design

IP67 and MIL-STD-810G compliant, working temperature ranges from -30°C~+60°C, meeting the requirements of complex scenarios.



Application Scenarios

Single Site Networking



IP Connection Networking



Accessories

Standard Accessories



236Wh Li-ion Battery



Power Adapter



Bendable Whip Antenna



Earphone



RSM



Ethernet Cable

Optional Accessories



Portable Backpack

Specifications

General	
Protocol	ETSI TS 102 361-1,-2,-3
Working Mode	Single Site/IP Connection
Frequency	UHF1: 400-470MHz (default: 409-413MHz/419-423MHz) VHF: 136-174MHz (default: 164-166MHz/169.8-171.8MHz)
Channel Spacing	12.5kHz
Size (H×W×D)	UHF: 320*190*70mm VHF: 455*220*70mm (With Handle)
Weight	UHF:3.7Kg VHF:5.6Kg (With Antenna and Battery)
Battery Capacity	236Wh @ 14.8V
Power Supply	Internal Replaceable Battery External Power Adaptor
Charging	Charging with Repeater Standalone Battery Charging
Standby Current	< 0.55A
Tx Current	10W Tx Power < 4A 25W Tx Power < 5A
Location	GPS (Optional)
Display	2.0 inch 240×320 Color LCD , 10 LED Indicators
Keypad	Functional Keypad
Audio Accessory	External Remote Speaker Microphone, Earpiece
Vocoder	AMBE++
Receiver	
Frequency Stability	±0.5ppm
Sensitivity(Analog Typical)	0.18uV(12dB SINAD)
Sensitivity(Digital Typical)	0.18uV (5% BER)
Adjacent Channel Selectivity	65 dB@12.5KHz / 75 dB@25KHz (TIA603D) 65 dB@12.5KHz / 75 dB@25KHz (ETSI)
Intermodulation	75 dB (TIA603D) 70 dB (ETSI)
Spurious Rejection	80dB (TIA603D) 80dB (ETSI)
Blocking or Desensitization	98dB (TIA603D) 95dB (ETSI)
Hum and Noise	-40 dB@12.5KHz / -45 dB@25KHz
Audio Dist ortion	≤3%
Audio Response	+1 ~ -3dB (TIA603D)
Conducted Spurious Emission	-57 dBm (TIA603D)

Transmitter	
Frequency Stability	±0.5ppm
Output Power	1 ~ 25W Continual Adjustment
FM Modulation	12.5KHz: 11K0F3E 25KHz:16K0F3E
4FSK Digital Modulation	12.5KHz Data Only: 7K60F1D&7K60FXD 12.5KHz Voice And Data: 7K60FXE
FM Modulation Emission	-36dBm ≤1GHz ; -30dBm >1GHz
Modulation Limiting	±2.5KHz @12.5KHz /±5.0KHz @25KHz
Hum and Noise	-40 dB@12.5KHz / -45 dB @25KHz
Adjacent Channel Power	-60dB@12.5KHz/-70dB@25KHz
Audio Distortion	≤3%
Audio Response	+1 ~ -3dB

Environmental	
Operating Temperature	-30°C ~ +60°C (Standard Battery) -40°C ~ +60°C (Chill-proof battery)
Storage Temperature	-40°C ~ +85°C
Dust and Water Resistance	IP67
Reliability	MIL-STD-810G

GPS	
Accuracy specs are for long-term tracking (95th percentile values>5 satellites visible at nominal -130 dBm signal strength)	
TTFF (Time To First Fix) Cold Start	<60s
TTFF (Time To First Fix) Hot Start	<10s
Horizontal Accuracy	<10m

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 timely notice.

Caltta CALTTA TECHNOLOGIES CO.,LTD.

Address: 12F/Building G2, International E-City, Nanshan, Shenzhen, China

Web: <https://www.caltta.com/> E-mail: sales@caltta.com Post: 518052

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.

