Caltta DMR Professional Series

Best Choice for High-grade Communications

As a core member of the DMR Association, Caltta boasts mature technology and a high accumulation of industry experience and has contributed a lot to the evolution of DMR technology and the decision of industry standards, due to which Caltta well deserves the leading role in providing DMR products.

Caltta DMR Professional Series is fully compliant with ETSI DMR standard, providing users with higher-level communication, fulfillment of more complicated service needs and evolution to broadband. It has successfully served millions of global users in wide industries like public safety, transportation, energy, commercial and more.

Model: PH600/PH660/PH690/PM790/PR900

www.caltta.co.uk

PH600/PH660/PH690
DMR Portable Radios

PH660 PH690 PH600

Features

Digital-and-analogue Compatible

Compatible with both digital and analog modes, PH6 series realizes the smooth evolution of the system. It also supports digital direct/repeater dual-time slots and automatic cross-site roaming.

Military Standard

Designed in accordance with MIL-STD-810G standard, PH6 series has passed all kinds of reliability tests like drop test and is resistant to dropping and shocks at various levels.

Large-capacity Battery

With the 2600mAh large-capacity battery and digital power reduction technology, PH6 series can work for at least 20 hours in digital mode(5:5:90), meeting the needs of long work shifts in all industries.

Loud and Clear

The 2W high-power speaker ensures a loud enough voice came from the radio. And the optimized audio design and noise cancellation technology help the radio extract speakers' voices from the background noises. Thus, PH6 series ensures clear communication even in a noisy environment.

Enhanced Security

PH6 series support 40bit Basic Encryption. 128/256bit AES Encryption is Optional which highly ensures communication security.

Easy Holding

Only 270g/290g/310g (PH600/PH660/PH690)) in weight, PH6 series is easy to hold and operate. The surface is designed with anti-slip texture, making it comfortable to hold and anti-slip even in wet environments.

IP68 Protection

IP68 rated, PH6 series is resistant to water and dust, ensuring normal operation in extreme environments, like changing weather, construction sites, wild areas, and more.

Complete Services

In addition to basic DMR voice and data services, PH6 series also supports many optional features such as GPS/BDS, Bluetooth, VOX, Mandown, SFR (PH690), ECS trunking, voice recording, etc.

Optimized Operating Experience

PH690 boasts a 2.0-inch LCD screen and full keyboard, which facilitates users to review information directly and clearly, and provides users with more options and convenience when operating. Users can really enjoy a richer operating experience.

Accessory interface

PM790 DMR Mobile Radio

1. Emergency key
2. Accessory interface
3. P1/P2/P3 Keys
4. LCD
5. Back/Group call management key
6. OK/Menu key
7. Call/Answer key
8. Up/Down key
9. Power Key
10. Hook key
11. LED indicator
12. Channel/Volume rotary knob
13. Antenna interface
14. Power interface
15. DB26 interface
16. GPS antenna interface

Features

Analogue and Digital Compatibility, Versatile Functionality

PM790 supports DMR conventional/trunking, as well as analog conventional and MPT trunking. It provides double channel capacity with DMO true 2-slot, and supports ECS (Enhanced Conventional System), which can be used in a wide variety of industries and scenarios.

Vehicle Mounted Design, Excellent User Interface

With standard DIN size, PM790 can be installed in the center console. The ignition power cord of PM790 can be easily connected to the vehicle start circuit to protect the vehicle power supply. The 2.0-inch large screen and full keypad hand microphone allow users to operate comfortably and communicate freely.

Reliable Quality

IP54 and MIL-STD-810H compliant, PM790 is built for harsh in-vehicle environments with shock and vibration, and its rugged design keeps you connected anytime anywhere.

Loud and Clear Sound

With a 6W built-in front speaker, excellent audio design, and optimized noise-reduction technology, PM790 provides loud and clear sound to help you hear and speak clearly in a noisy environment. The user can also connect an external speaker with a higher power through the DB26 interface.

Various External Interfaces

The user can expand various functions using external interfaces, including an audio port, serial port, USB port, GPIO control interface, and so on. With a complete set of AT commands, users can control and integrate the mobile radio by developing customized applications.

Rich Services

In addition to standard voice and data services, PM790 offers plenty of supplementary services to improve the usability of the radio and help users to work more efficiently. It's equipped with GPS/BDS modules to enable precise location tracking and can report the location information as needed. It also supports local voice recording for up to 250 hours.

Abundant Peripherals

With a built-in Bluetooth module, PM790 can be connected to Bluetooth audio/PTT peripherals, bringing more convenient operation to users.

Enhanced Security

The software/hardware encryption functions allow users to transmit information securely and reliably, largely enhancing information security.

Model	PM790	PH600	PH660	PH690
Appearance				
Protocol	DMR/Analogue			
Frequency	UHF1: 400-470MHz VHF: 136-174MHz			
Power Output	25W/45W (UHF1) 25W/50W (VHF)	4W (UHF1) 5W (VHF)		
Sensitivity (Analogue)	0.20uV(12dB SINAD)	0.18uV(12dB SINAD)		
Sensitivity (Digital)	0.20uV (5% BER)	0.18uV (5% BER)		
Channel Capacity	1024	64	1024	1024
Zone Capacity	64	4	64	64
Size(H x W x D)	49×178×156mm	100×54.5×37.5mm (without antenna)	100×54.5×36.5mm (without antenna)	126*54.5*36.5mm (without antenna)
Weight (antenna and battery included)	About 1.3kg	270g	290g	310g
Operating Voltage	DC 13.6V±15%	7.4V		
Standard Battery	n/a	2600mAh		
Screen	2.0-inch TFT LCD, 220×176mm	n/a	1.75-inch transflective LCD, 240×180mm	2.0-inch transflective LCD, 240×320mm
Keypad	Full keypad on the remote speaker	n/a	Half keypad	Full keypad
Services	GPS/BDS, Bluetooth, SOS, Real-time Clock, Mandown			
Dust and Water Resistance	IP54	IP68		
Reliability	MIL-STD-810H	MIL-STD-810G		

PR900 Digital Repeater

1 Cooling Port
2 Channel/Volume Button
3 LCD Display
4 Multi-functional Button
5 LED Indicator
6 Speaker
7 Power on Button
8 Accessory Port
9 AC Power Switch
10 AC Power Socket
11 DC Power Socket
12 USB Port
13 LAN Port
14 AUX Port
15 Rx Port（BNC type）
16 Tx Port(N type)
17 Grounding Screw

Features

Ultra Slim Design

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

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.

Digital-analogue Compatible

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

Rich Interfaces

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

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.

1+1 Power Backup

PR900 provide connection for both 110/220V AC power and 13.6V±15% DC power. When AC power fails, DC power will backup and power on the system. DC power support 12V DC battery.

Easy Operation for Users

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

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.

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.

Rich Services

Besides basic PTT services, PR900 also supports text message, status message, map-based location services, and call recording to enrich the user experience.

High Spectrum and Power Efficiency

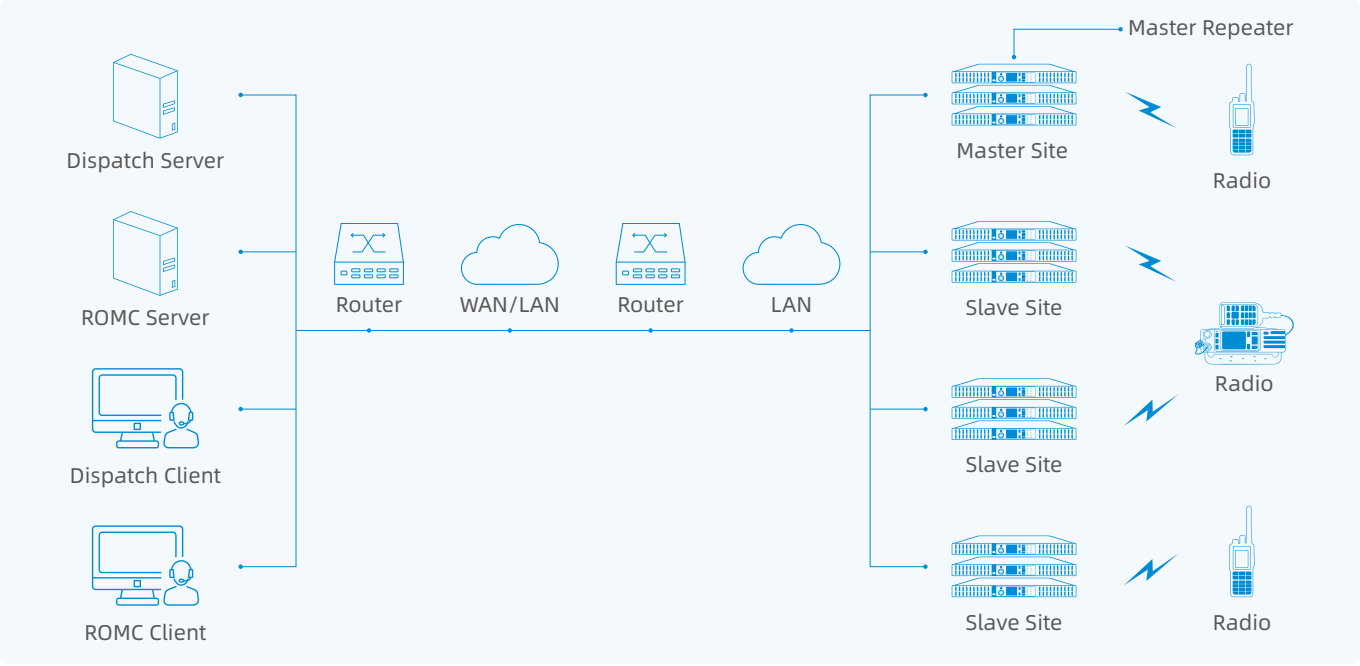
With DMR two-slot TDMA technologies, PR900 allows a single carrier with a bandwidth of 12.5 kHz to support two independent calls, with each time slot occupying a bandwidth of 6.25 kHz, which reduces transmission time in half and saves battery power consumption by 40%, effectively prolonging the standby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

Caltta DMR Solutions

To meet various demands from different industries, Caltta considers from the customers' perspective and has developed several DMR solutions to pragmatically solve customers' problems. Fully compliant with ETSI DMR standard, Caltta DMR solutions help customers economically and quickly achieve a smooth upgrade from analogue to digital, and meanwhile provide high efficiency and customized services to facilitate users in their daily work.

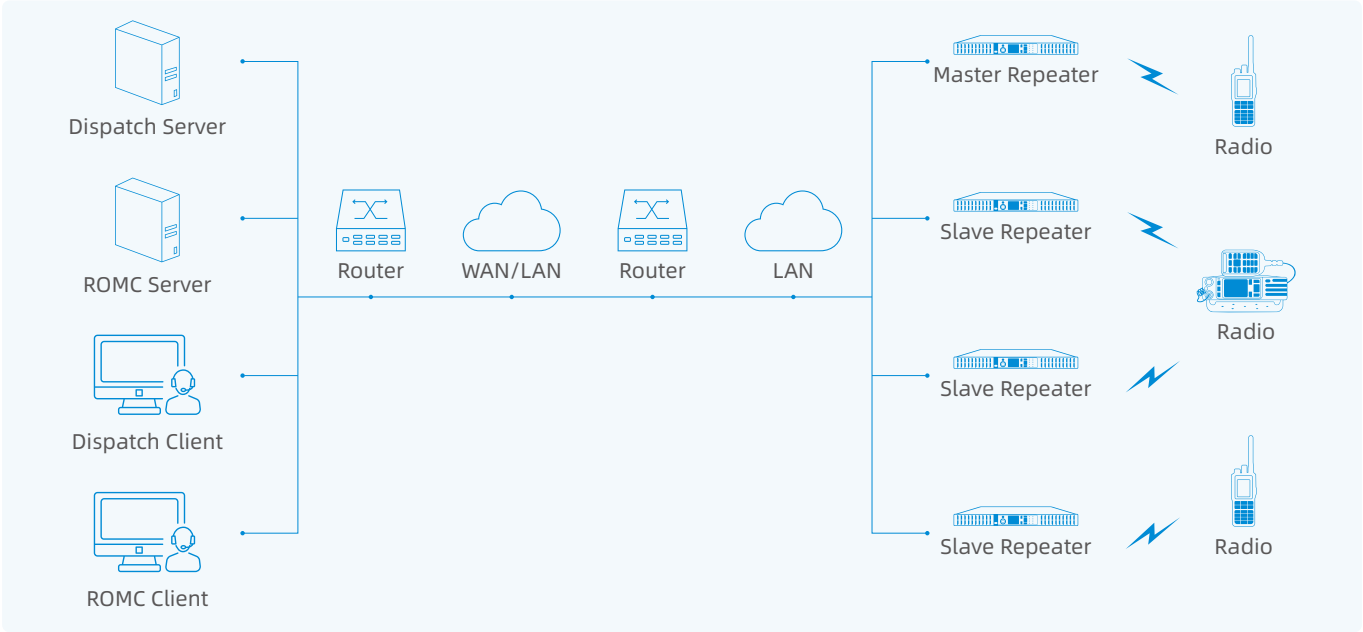
Enhanced Conventional System (ECS)

The Enhanced Conventional System (ECS) combines multiple repeaters working in the digital repeater mode in the same area to form an enhanced conventional site. By sharing the logical channels of the repeaters on the site, the radio is allowed to use all the repeaters on the site to communicate, realizing dynamic channel allocation which balances channel loading and avoids traffic congestion of data transmission or single repeater failure and improving the channel utilization.



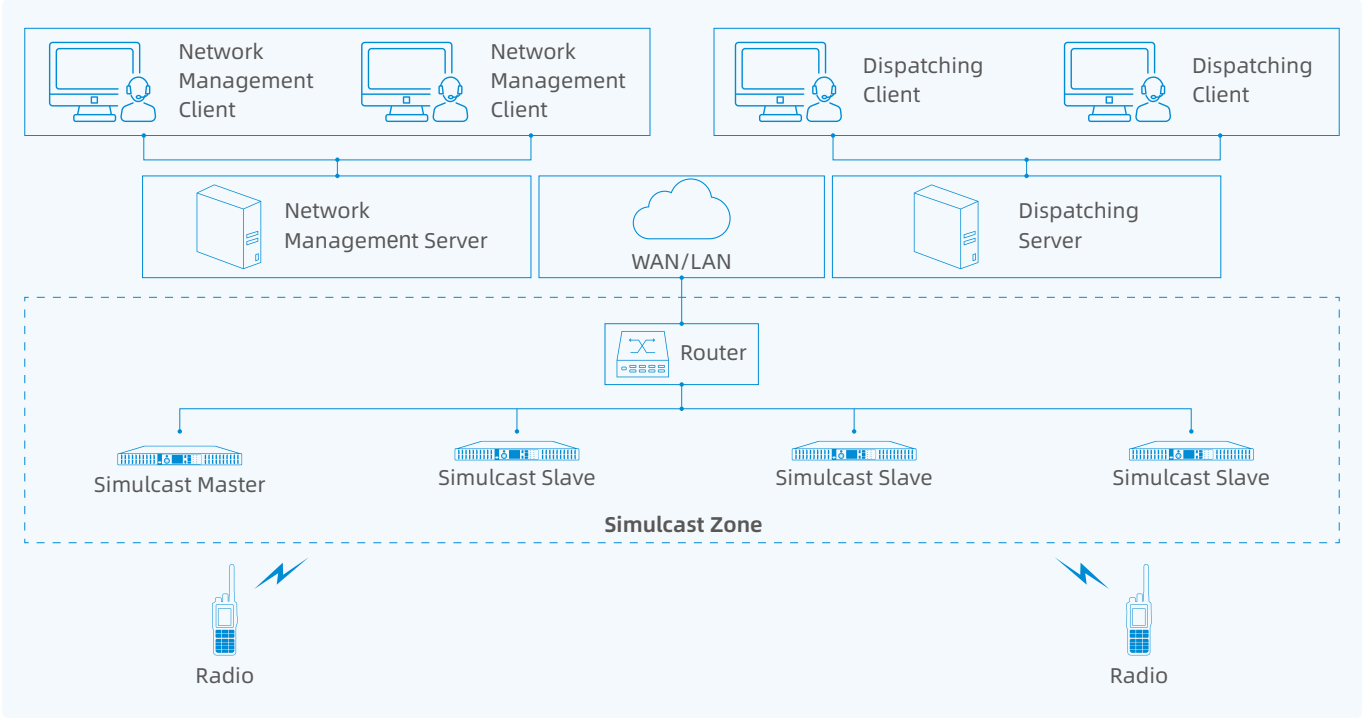
IP Connection

IP Connection solution interconnects repeaters scattered in different areas with IP network. These repeaters exchange voice, data and control signaling through the IP network to form a multi-repeater IP connect system. The IP Connection expands the communication coverage of the repeater and realizes long-distance cross-area communication. The typical scenarios of this solution include smart city construction, port, airport, large factory, etc.



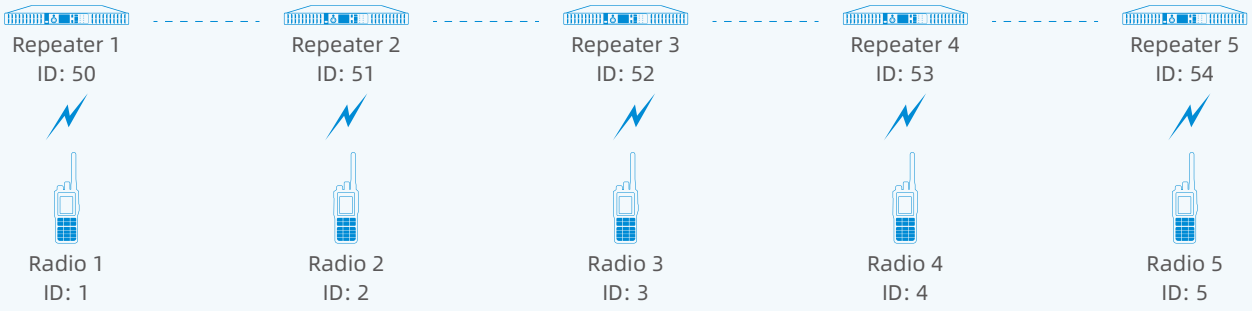
Simulcast

Caltta Simulcast solution integrates Caltta products (DMR radios and repeaters) and IP connection to realize the effect of 1+1>2. It is mainly used in scenarios where users are widely distributed with limited frequency, and multiple repeaters are required to form the network coverage. The system connects multiple IP interconnected repeaters and gets them to work at the same transmitting and receiving frequency, thus saving the frequency resource while providing wide coverage. Meanwhile, an intelligent dynamic delay compensation algorithm is adopted to ensure simulcast performance and voice quality.

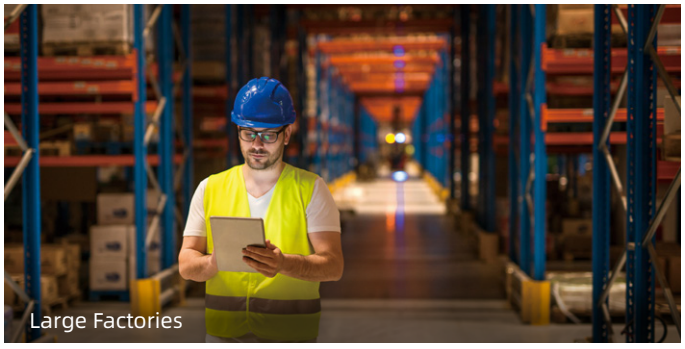


Active Link

Caltta Active Link is a wireless solution designed for where there is no IP network, providing wide coverage and stable connection based on back-to-back wireless link. It constructs wireless link with fixed repeaters and guarantees signal coverage. Radios can roam and communicate seamlessly across sites. Active Link solution is frequently used in deserted and wide areas like mountains and deep forests to construct communications networks.



Applicable Scenarios



Accessories

PH6 Portable Radios

Standard


Desktop Charger


2600mAh Li-ion Battery


Power Adapter


Antenna


Belt Clip

Optional


8-way Charger


Bluetooth Earphone


Bluetooth PTT Ring


Transparent Tube Earphone


C-Style Earphone


Remote Microphone


D-Style Earphone

PM790 Mobile Radio

Standard


Full Keypad Microphone


Mounting Bracket


Power Cable


GPS Antenna

Optional


3.5dBi Antenna


5.5dBi Antenna

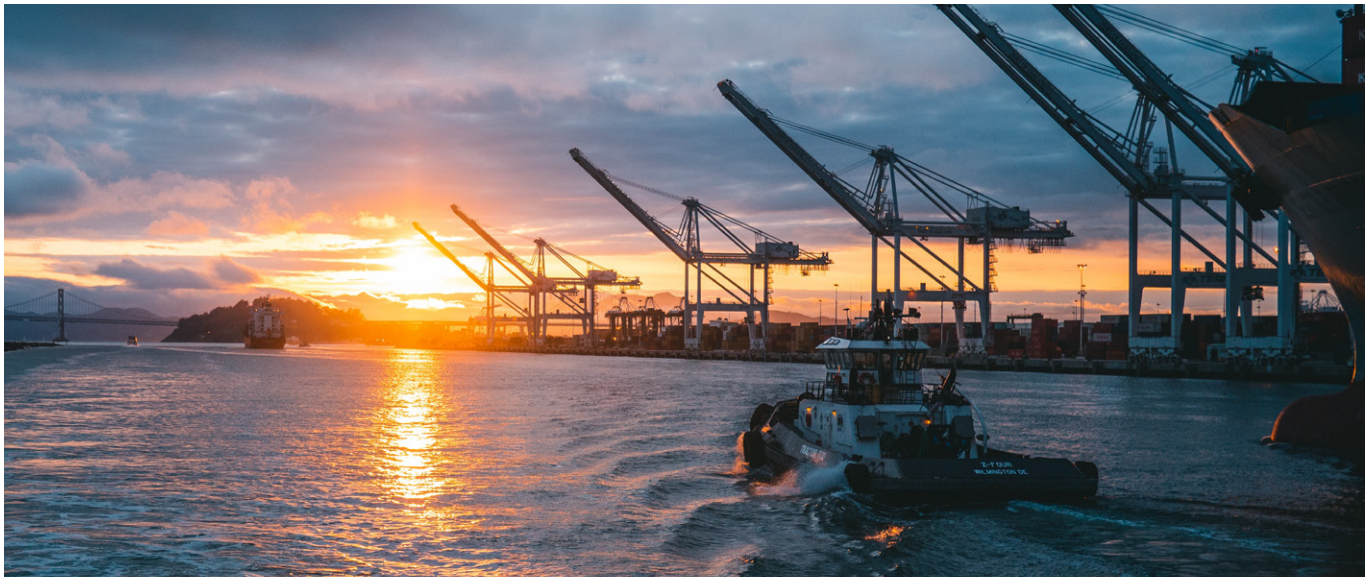

M90 Magnetic Antenna Base


M110 Magnetic Antenna Base


Base Station Radio Power Supply


Programming Cable


Split Kit



Specifications

PH600

General

Digital Protocol	ETSI TS102 361-1, -2, -3, -4 (optional)
Frequency	UHF1：400-470MHz VHF：136-174MHz
Channel Capacity	64
Zone Capacity	4
Channel Spacing	12.5kHz/20KHz/25KHz
Frequency Stability	±0.5ppm
Operating Voltage	7.4V
Battery Capacity	2600mAh(standard)
Battery Life	Analogue: 16 Hours Digital: 20 Hours (5: 5: 90 working cycle, high power transmission)
Size (H x W x D)	100×54.5×37.5mm (without antenna)
Weight	270g
Vocoder	AMBE++
Bluetooth	BT2.1+EDR / 4.0
Location	GPS / Glonass
Man down / Vibration	Support
Encryption	Support 40bit basic encryption; 128/256bit AES encryption is optional

Environmental

Operating Temperature	-30℃ ~ +60℃
Storage Temperature	-40℃ ~ +85℃
ESD	IEC 61000-4-2 (level 4) ±8kV (Contact) ±15kV (Air)
Dust and Water Resistance	IP68
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

Receiver

Sensitivity (Analogue)	0.18uV(12dB SINAD)
Sensitivity (Digital)	0.18uV (5% BER)
Adjacent Channel Selectivity	60 dB@12.5KHz/70 dB@20/25KHz (TIA603A) -1T 45dB@12.5KHz /70 dB@20/25KHz (TIA603D) -2T 60dB@12.5KHz /70 dB@20/25KHz (ETSI)
Intermodulation	70 dB (TIA603D) 65 dB (ETSI)
Spurious Rejection	70 dB (TIA603D) 70 dB (ETSI)
Blocking	80dB(TIA603D) 84dB(ETSI)
Co-channel Rejection	-12~0 dB @12.5KHz/-8~0 dB @20/25KHz
Hum and Noise	-40 dB@12.5KHz /-43 dB@20KHz /-45 dB@25KHz
Rated Audio Power	0.5W
Max Audio Power	2.0W
Rated Audio Distortion	≤3% (typical value)
Audio Response	+1 ~ -3dB (TIA603D)
Conducted Spurious Emission	-57 dBm (TIA603D)

Transmitter

Power Output	1W/4W (UHF1), 1W/5W (VHF)
FM Modulation	12.5KHz: 11K0F3E / 20KHz: 14K0F3E / 25KHz: 16K0F3E
4FSK Digital Modulation	12.5KHz Data Only: 7K60F1D&7K60FXD 12.5KHz Voice Only: 7K60F1E&7K60FXE 12.5KHz Voice And Data: 7K60F1W
Conducted/ Radiated Emission	-36dBm ≤1GHz ; -30dBm >1GHz
Modulation Limiting	±2.5KHz @12.5KHz /±4KHz @20KHz /±5.0KHz @25KHz
FM Hum and Noise	-40 dB@12.5KHz /-43dB@20KHz /-45 dB@25KHz
Adjacent Channel Power	60 dB@12.5KHz /70 dB @20/25KHz
Audio Distortion	≤3% (typical value)
Audio Response	+1 ~ -3dB(TIA603D)

PH660

General

Digital Protocol	ETSI TS102 361-1, -2, -3, -4(optional)
Frequency	UHF1: 400-470MHz VHF: 136-174MHz
Channel Capacity	1024
Zone Capacity	64
Channel Spacing	12.5kHz/20KHz/25KHz
Frequency Stability	±0.5ppm
Operating Voltage	7.4V
Battery Capacity	2600mAh (standard)
Battery Life	Analogue: 16 Hours Digital: 20 Hours (5: 5: 90 working cycle, high power transmission)
Size (H x W x D)	100×54.5×36.5mm (without antenna)
Weight	290g
Screen	1.75-inch transflective LCD, 240×180
Vocoder	AMBE++
Bluetooth	BT2.1+EDR / 4.0
Location	GPS / Glonass
Man down / Vibration	Support
Real-time Clock	Support
Encryption	Support 40bit basic encryption 128/256bit AES encryption is optional

Environmental

Operating Temperature	-30℃ ~ +60℃
Storage Temperature	-40℃ ~ +85℃
ESD	IEC 61000-4-2 (level 4) ±8kV (Contact) ±15kV (Air)
Dust and Water Resistance	IP68
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

Receiver

Sensitivity (Analogue)	0.18uV(12dB SINAD)
Sensitivity (Digital)	0.18uV (5% BER)
Adjacent Channel Selectivity	60 dB@12.5KHz/70 dB@20/25KHz (TIA603A) -1T 45dB@12.5KHz /70 dB@20/25KHz (TIA603D) -2T 60dB@12.5KHz /70 dB@20/25KHz (ETSI)
Intermodulation	70 dB (TIA603D) 65 dB (ETSI)
Spurious Rejection	70 dB (TIA603D) 70 dB (ETSI)
Blocking	80dB(TIA603D) 84dB(ETSI)
Co-channel Rejection	-12~0 dB @12.5KHz/-8~0 dB @20/25KHz
Hum and Noise	-40 dB@12.5KHz /-43 dB@20KHz /-45 dB@25KHz
Rated Audio Power	0.5W
Max Audio Power	2.0W
Rated Audio Distortion	≤3% (typical value)
Audio Response	+1 ~ -3dB (TIA603D)
Conducted Spurious Emission	-57 dBm (TIA603D)

Transmitter

Power Output	1W/4W (UHF1), 1W/5W (VHF)
FM Modulation	12.5KHz: 11K0F3E / 20KHz: 14K0F3E / 25KHz: 16K0F3E
4FSK Digital Modulation	12.5KHz Data Only: 7K60F1D&7K60FXD 12.5KHz Voice Only: 7K60F1E&7K60FXE 12.5KHz Voice And Data: 7K60F1W
Conducted/ Radiated Emission	-36dBm ≤1GHz ; -30dBm >1GHz
Modulation Limiting	±2.5KHz @12.5KHz /±4KHz @20KHz /±5.0KHz @25KHz
FM Hum and Noise	-40 dB@12.5KHz /-43dB@20KHz /-45 dB@25KHz
Adjacent Channel Power	60 dB@12.5KHz /70 dB @20/25KHz
Audio Distortion	≤3% (typical value)
Audio Response	+1 ~ -3dB(TIA603D)

PH690

General

Digital Protocol	ETSI TS102 361-1, -2, -3, -4(optional)
Frequency	UHF1：400-470MHz VHF：136-174MHz
Channel Capacity	1024
Zone Capacity	64
Channel Spacing	12.5kHz/20KHz/25KHz
Frequency Stability	±0.5ppm
Operating Voltage	7.4V
Battery Capacity	2600mAh (standard)
Battery Life	Analogue: 16 Hours Digital: 20 Hours (5: 5: 90 working cycle, high power transmission)
Size (H x W x D)	126*54.5*36.5mm (without antenna)
Weight	310g (with antenna and battery)
Screen	2.0-inch LCD, 240×320, 6-line text
Vocoder	AMBE++
Bluetooth	BT2.1+EDR / 4.0
VOX	Support
Location	GPS / Glonass
Man down / Vibration	Support
Real-time Clock	Support
Encryption	Support 40bit basic encryption; 128/256bit AES encryption is optional

Environmental

Operating Temperature	-30℃ ~ +60℃
Storage Temperature	-40℃ ~ +85℃
ESD	IEC 61000-4-2 (level 4) ±8kV (Contact) ±15kV (Air)
Dust and Water Resistance	IP68
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

Receiver

Sensitivity (Analogue)	0.18uV(12dB SINAD)
Sensitivity (Digital)	0.18uV (5% BER)
Adjacent Channel Selectivity	60 dB@12.5KHz/70 dB@20/25KHz (TIA603A) -1T 45dB@12.5KHz /70 dB@20/25KHz (TIA603D) -2T 60dB@12.5KHz /70 dB@20/25KHz (ETSI)
Intermodulation	70 dB (TIA603D) 65 dB (ETSI)
Spurious Rejection	70 dB (TIA603D) 70 dB (ETSI)
Blocking	80dB(TIA603D) 84dB(ETSI)
Co-channel Rejection	-12~0 dB @12.5KHz/-8~0 dB @20/25KHz
Hum and Noise	-40 dB@12.5KHz /-43 dB@20KHz /-45 dB@25KHz
Rated Audio Power	0.5W
Max Audio Power	2.0W
Rated Audio Distortion	≤3% (typical value)
Audio Response	+1 ~ -3dB (TIA603D)
Conducted Spurious Emission	-57 dBm (TIA603D)

Transmitter

Power Output	1W/4W (UHF1), 1W/5W (VHF)
FM Modulation	12.5KHz: 11K0F3E / 20KHz: 14K0F3E / 25KHz: 16K0F3E
4FSK Digital Modulation	12.5KHz Data Only: 7K60F1D&7K60FXD 12.5KHz Voice Only: 7K60F1E&7K60FXE 12.5KHz Voice And Data: 7K60F1W
Conducted/ Radiated Emission	-36dBm ≤1GHz ; -30dBm >1GHz
Modulation Limiting	±2.5KHz @12.5KHz /±4KHz @20KHz /±5.0KHz @25KHz
FM Hum and Noise	-40 dB@12.5KHz /-43dB@20KHz /-45 dB@25KHz
Adjacent Channel Power	60 dB@12.5KHz /70 dB @20/25KHz
Audio Distortion	≤3% (typical value)
Audio Response	+1 ~ -3dB(TIA603D)

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.

PM790

General

Frequency	UHF1：400-470MHz VHF：136-174MHz
Channel Capacity	1024
Zone Capacity	64 (Maximum 32 CHs in a zone)
Channel Spacing	12.5kHz/20KHz/25KHz
Frequency Stability	±0.5ppm
Operating Voltage	DC 13.6V±15%
Size (H x W x D)	49*178*156mm
Weight	about 1.3Kg
Screen	2.0-inch TFT LCD, 220×176, 4-line text
Vocoder	AMBE++
Real-time Clock	Support
Man down / Vibration	Support
Recording	Support
Bluetooth	Built-in BT4.0 Chip Support BT Audio/PTT/Positioning Device
Location	GPS/BDS
Encryption	Supports 40bit basic encryption. 128/256bit AES encryption is optional.

Environmental

Operating Temperature	-30℃ ~ +60℃
Storage Temperature	-40℃ ~ +85℃
ESD	IEC 61000-4-2 (level 4) ±8kV (Contact) ±15kV (Air)
Dust and Water Resistance	IP54
Reliability	MIL-STD-810H

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

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Receiver

Sensitivity (Analogue)	0.20uV(12dB SINAD)
Sensitivity (Digital)	0.20uV (5% BER)
Adjacent Channel Selectivity	60 dB@12.5KHz /70 dB@20/25KHz (TIA603A) -1T 50dB@12.5KHz //75 dB@20/25KHz (TIA603D) -2T 60dB@12.5KHz /70 dB@20/25KHz (ETSI)
Intermodulation	75 dB (TIA603D) 70 dB (ETSI)
Spurious Rejection	75 dB (TIA603D) 70 dB (ETSI)
Blocking	97dB(TIA603D) 95dB(ETSI)
Co-channel Rejection	-12~0 dB @12.5KHz/-8~0 dB @20/25KHz
Hum and Noise	-40 dB@12.5KHz /-43dB@20KHz /-45 dB@25KHz
Rated Audio Power	3W (Build-in)
Max Audio Power	6W (Build-in)
Rated Audio Distortion	⩽3% (typical value)
Audio Response	+1～-3dB(TIA603D)
Conducted Spurious Emission	-57 dBm (TIA603D)

Transmitter

Low Power Output	5-25W(UHF1/VHF)
High Power Output	5-45W(UHF1); 5-50W(VHF)
FM Modulation	12.5KHz: 11K0F3E / 20KHz: 14K0F3E / 25KHz: 16K0F3E
4FSK Digital Modulation	12.5KHz Data Only: 7K60F1D&7K60FXD 12.5KHz Voice Only: 7K60F1E&7K60FXE 12.5KHz Voice and Data: 7K60F1W
Conducted/ Radiated Emission	-36dBm ≤1GHz ; -30dBm >1GHz
Modulation Limiting	±2.5KHz @12.5KHz /±4KHz @20KHz /±5.0KHz @25KHz
FM Hum and Noise	-40 dB@12.5KHz /-43dB@20KHz /-45 dB@25KHz
Adjacent Channel Power	60 dB@12.5KHz /70 dB @20/25KHz
Audio Distortion	≤3% (typical value)
Audio Response	+1 ~ -3dB(TIA603D)

PR900

Receiver

Sensitivity (Analogue 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/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)

General

Digital Protocol	ETSI TS 102 361-1, -2, -3
Frequency	UHF1：400-470MHz VHF：136-174MHz
Channel Capacity	1024
Channel Spacing	12.5kHz/20KHz/25KHz
Max Duty Cycle	100%
Operating Voltage	AC100-240V @50/60Hz DC13.6V±15%
Backup Power Supply	Support
Size (W*H*D)	436×44.5×366.4mm (Standard 19-inch 1U height frame)
Weight	8.5Kg
Screen	2.0’ HD LCD, 220*176 Pixels, 10 status LED

Environmental

Operating Temperature	-30℃ ~ +60℃
Storage Temperature	-40℃ ~ +85℃

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.

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