Caltta PH600 Serial DMR Handheld Radio Products List

Please click to product title to see details!

Specification

General

Digital Protocol	ETSI TS102 361-1, -2, -3, -4(optional)
Frequency	UHF1：400-470MHz UHF3：350-400MHz 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	Analog: 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 (optional)
Location	GPS / Glonass (optional)
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

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.
* To realize 64 channel capacity and 4 zone capacity, users need to upgrade the firmware to V5.0 or above.

Receiver

Sensitivity (Analog)	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/UHF3), 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)

Professional Digital Radio

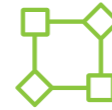## Small in Size, Huge in Performance

MODEL PH600

www.caltta.com

Features

Compact Design

Only 270g(antenna and battery included) in weight and 100mm in height. Portable and easy to operate. The surface is designed with anti-slip texture, making it comfortable to hold and anti-slip even in wet environments.

Digital-and-analog Compatible

Digital-and-analog compatible, PH600 realizes the smooth evolution of the system. It also supports digital direct/repeater dual-time slots and automatic cross-site roaming.

IP68 Protection

IP68 rated, PH600 is resistant to water and dust, ensuring normal operation in extreme environments.

Full Encryption

Support 40bit basic encryption. 128/256bit AES encryption are optional. It also supports lone worker, alarm, man-down and other functions to protect users' safety.

Large-capacity Battery

With the 2600mAh large-capacity battery and digital power reduction technology, PH600 can work for at least 20 hours in digital mode(5:5:90), meeting the needs of long work shifts.

Loud and Clear Voice

With a 2W speaker and optimized audio design, PH600 ensures clear communication even in a noisy environment.

Complete Services

In addition to basic DMR voice and data services, PH600 also supports many optional features such as GPS/BDS , Bluetooth , VOX , etc.

Military Standard

MIL-STD-810G rated, PH600 is resistant to dropping and shocks at various levels.

Scenarios

Hotel

Scenic Spot

Hospital

School

Accessories

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 | Programming Cable |

Specification

General

Digital Protocol	ETSI TS102 361-1, -2, -3, -4(optional)
Frequency	UHF1: 400-470MHz UHF3:350-400MHz 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	Analog: 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 (optional)
Location	GPS / Glonass (optional)
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 (Analog)	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/UHF3), 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)

Professional Digital Radio

Small in Size, Huge in Performance

MODEL   PH660

Features

Full Encryption

Support 40bit basic encryption. 128/256bit AES encryption are optional. It also supports lone worker, alarm, man-down and other functions to protect users' safety.

Loud and Clear Voice

With a 2W speaker and optimized audio design, PH660 ensures clear communication even in a noisy environment.

Compact Design

Only 290g(antenna and battery included) in weight and 100mm in height. Portable and easy to operate. The surface is designed with anti-slip texture, making it comfortable to hold and anti-slip even in wet environments.

Military Standard

MIL-STD-810G rated, PH660 is resistant to dropping and shocks at various levels.

Large-capacity Battery

With a 2600mAh large-capacity battery and digital power reduction technology, PH660 can work for at least 20 hours in digital mode(5:5:90), meeting the needs of long work shifts.

Complete Services

In addition to basic DMR voice and data services, PH660 also supports many optional features such as GPS/BDS , Bluetooth , VOX , etc.

Digital-and-analog Compatible

Digital-and-analog compatible, PH660 realizes the smooth evolution of the system. It also supports digital direct/repeater dual-time slots and automatic cross-site roaming.
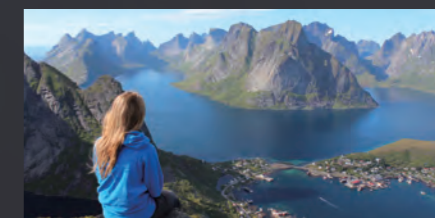
IP68 Protection

IP68 rated, PH660 is resistant to water and dust, ensuring normal operation in extreme environments.

Scenarios

Hotel

Scenic Spot

Hospital

School

Accessories

Standard
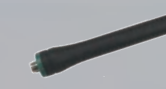
| Desktop Charger | Belt Clip | 2600mAh Li-ion Battery | Power Adapter | Antenna |

Optional

| 8-way Charger | Bluetooth Earphone | Bluetooth PTT Ring | Transparent Tube Earphone | C-Style Earphone | Remote Microphone | Programming Cable |

Specification

General

Digital Protocol	ETSI TS102 361-1, -2, -3, -4(optional)
Frequency	UHF1：400-470MHz UHF3：350-400MHz VHF：136-174MHz
Channel Capacity	1024
Zone Capacity	64
Channel Spacing	12.5kHz/20KHz/25KHz
Frequency Stability	±0.5ppm (Max)
Operating Voltage	7.4V
Battery Capacity	2600mAh(standard) Li-ion
Battery Life	Analog: 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	326g (with antenna, battery & belt clip)
Screen	2.0-inch LCD, 240×320, 6-line text
Vocoder	AMBE++
Bluetooth	BT2.1+EDR / 4.0 (optional)
VOX	Support
Location	GPS / Glonass (optional)
Man down / Vibration	Support
Real-time Clock	Support
Encryption	Support 40bit basic encryption; 128/256bit AES encryption is optional
Programmable Keys	3
Antenna Length	≤16 cm

Environmental

Operating Temperature	-30°C ~ +60°C
Storage Temperature	-40°C ~ +85°C
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
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Horizontal Accuracy	<10m

Receiver

Sensitivity (Analog)	0.18uV(12dB SINAD)
Sensitivity (Digital)	0.18uV (5% BER)
Adjacent Channel Selectivity	60dB@12.5KHz/70dB@20/25KHz (TIA603A) -1T
	60dB@12.5KHz /70dB@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
FM Noise	40 dB (Min)
Rated Audio Power	0.5W
Max Audio Power	2.0W
Rated Audio Distortion	≤3% (Max)
Audio Response	+1~-3dB (TIA603D)
Conducted Spurious Emission	-57 dBm (TIA603D)

Transmitter

Power Output	1W/4W (UHF1/UHF3), 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 Noise	40 dB (Min)
Adjacent Channel Power	60 dB@12.5KHz / 70 dB @20/25KHz
Audio Distortion	≤3% (Max)
Audio Response	+1~-3dB(TIA603D)

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Professional Digital Radio

Small in Size, Huge in Performance

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MODEL PH690

www.caltta.com

Features

Full Encryption

Support 40bit basic encryption. 128/256bit AES encryption are optional. It also supports lone worker, alarm, man-down and other functions to protect users' safety.

Excellent Appearance

The 2.0-inch LCD screen and full keyboard bring users a richer operating experience.

Large-capacity Battery

With a 2600mAh large-capacity battery and digital power reduction technology, PH690 can work for at least 20 hours in digital mode(5:5:90), meeting the needs of long work shifts.

Loud and Clear Voice

With a 2W speaker and optimized audio design, PH690 ensures clear communication even in a noisy environment.

Complete Services

In addition to basic DMR voice and data services, PH690 also supports many optional features such as GPS/BDS , Bluetooth , VOX , etc.

Military Standard

MIL-STD-810G rated, PH690 is resistant to dropping and shocks at various levels.

Digital-and-analog Compatible

Digital-and-analog compatible, PH690 realizes the smooth evolution of the system. It also supports digital direct/repeater dual-time slots and automatic cross-site roaming.

IP68 Protection

IP68 rated, PH690 is resistant to water and dust, ensuring normal operation in extreme environments.

Scenarios

Hotel

Scenic Spot

Hospital

School

Accessories

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	Programming Cable