

# Specification

General	
Frequency Range	VHF: 136-174MHz UHF1: 400-470MHz
Channel Capacity	32
Zone Capacity	2
Channel Spacing	12.5kHz/20kHz/25kHz
Frequency Stability	±0.5ppm
Operating Voltage	7.4V
Battery Capacity	2500mAh
Battery Life (5/5/90 Working Cycle High Power Transmission)	Analogue: 16 Hours Digital: 20 Hours
Size (H×W×D) (Without Antenna)	116.4*54.5*36.5mm
Weight (with Battery And Antenna)	275g
Screen	N/A
Vocoder	AMBE++
Layout	Top volume/switch knob x1, channel knob x1 Side PTT key x1, programmable key x2, top SOS key x1
External Interface	18pin waterproof interface, support audio/programming
Recording	optional
VOX	Support
Roaming	Support
Encryption	40/128/256 bit basic encryption

Environmental	
Operating Temperature	-30 °C ~ +60 °C
Storage Temperature	-40 °C ~ +85 °C
ESD	IEC61000-4-2 (level 3) ±6kV (Contact) ±8kV (Air)
Dust and Water Resistance	IP67
Reliability	MIL-STD-810 G

Receiver	
Sensitivity (Analogue)	0.20uV(12dB SINAD)
Sensitivity (Digital)	0.20uV ( 5% BER )
Adjacent Selectivity	60dB@12.5kHz/70dB@20/25kHz (TIA603A) -1T 45dB@12.5kHz/70dB@20/25kHz (TIA603D) -2T 60dB@12.5kHz/70dB@20/25kHz ( ETSI )
Inter-modulation	70 dB (TIA603D) 65 dB (ETSI)
Spurious Response Rejection	70dB ( TIA603D ) 70dB ( ETSI )
Blocking	80dB ( TIA603D) 84dB ( ETSI )
Co-Channel Rejection	-12~0 dB @12.5kHz/-8~0 dB @20/25kHz
Hum & Noise	-40dB@12.5kHz/-43dB@20kHz/-45dB@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	
RF Power Output (Low)	1W
RF Power Output (High)	4W
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 & 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)

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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.

**Caltta** 

# DH500

DMR Portable Radio



## Feature



### Security Encryption Protection

All models support 40/128/256bit basic encryption to improve call security .



### Support Dispatching

The DH5 series supports multiple dispatching services such as radio registration, radio check, remote stun/revive.



### Reliable Quality

Compliant with IP67 protection, making it suitable for outdoor working in harsh environments.



### Innovative Baseband/RF Design

The innovative ARM+DSP+ discrete RF design ensures that the best performance and sensitivity.



### Loud and Clear Voice

Carefully optimized audio design, combined with an excellent audio encoder, ensure the loudness and maximize the fidelity of the voice. Even in a noisy environment, it can accurately identify the speaker and hear the content clearly.



### Large Capacity Battery, Long Battery Life

With 2500mAh large capacity battery, DH500 can operate continuously for at least 20 hours in digital mode, meeting the needs of long work shift on the front line.



### Rich Services

Based on an excellent platform, DH500 can provide abundant services, such as Emergency Call, Lone Worker, Man Down, VOX, roaming. Advanced services such as call recording can also be enabled.

## Standard Accessories



## Optional Accessories



## Application Scenarios



### Digital Conventional Compatible with Analogue

DH500 support standard narrowband digital conventional mode. Supports DMO / repeater dual-slot call function in digital mode. Call capacity is doubled compared with analogue. With digital-analogue conventional compatibility, DH500 can quickly switch between digital/analogue mode, where migration is required.



### Classic PTT layout, Easy To Operate

DH500 is optimized in accordance with typical PTT scheme, using the super-sized PTT button and the double-knob design at the top, which makes the user's operation handy.