Specification

General	0
Frequency	UHF1: 400-470MHz
Channel Capacity	512
Zone Capacity	32
Channel Spacing	12.5kHz/20KHz/25KHz
Frequency Stability	±0.5ppm
Operating Voltage	7.4V
Battery Capacity	2500mAh(standard)
Battery Life	Analog: 16 Hours Digital: 20 Hours (5: 5: 90 working cycle, high power transmission)
Size (H x W x D)	116.5x54.5x35.5mm (with 2500mAh battery, without antenna)
Weight	285g (with 2500mAh battery and antenna)
Screen	1.75-inch LCD, 160*128
Vocoder	AMBE++
Layout	Top: volume/switch knob x1, channel knob x1 Side: PTT key x1, programmable key x2, SOS key x1 A full keypad
External Interface	18-pin waterproof interface, support audio/programming
VOX	Support
Roaming	Support
Real-time Clock	Support
Encryption	Support 40/128/256bit basic private encryption

Environmental		0
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	IP67	
Reliability	MIL-STD-810H	

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	0
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 Poinstian	70 dB (TIA603D)
Spurious Rejection	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		
RF Power Output (Low)	1 W	
RF Power Output (High)	4W (UHF1)	
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)	















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.



Digital Portable Radio

Professional and Outstanding





Features

Compact and Portable

Compact design makes DH590 only 285g(antenna and battery included) and portable. The surface is designed with anti-slip texture, making it comfortable to hold and anti-slip even in wet environments. The classic dual-knob makes it easier to operate.

Loud and Clear Voice

With a 2W speaker and optimized audio design, DH590 ensures clear communication even in a noisy environment.

Abundant Services

Support abundant functions, like real-time time display and VOX, to meet the requirements of different industries. It can also expand dispatching services, realizing radio check, remote stun/revive, etc.

Caltta

Caltta Group

Full Encryption

Support 40/128/256bit basic private encryption to improve call security and avoid information leakage. It can also guarantee users' safety with functions like lone worker and alarm.

_arge-capacity Battery

With a 2500mAh large-capacity battery, DH590 can work for at least 20 hours in digital mode(5:5:90), meeting the needs of long work shifts.

Digital-and-analog Compatible

Digital-and-analog compatible, DH590 realizes the smooth evolution of the system. It also supports digital direct/repeater modes, dual time slots, and automatic cross-site roaming.



Scenarios









Shopping Malls

Commercial Center

Schools

Residential Area

Accessories

Standard











Standard: Desktop Charger

Belt Clip

2500mAh Li-ion Battery

Power Adapter

Antenna

Optional







8-way Charger

Programming Cable

C-Style Earpiece