

Technical Specifications

General

Frequency	UHF1: 400-470MHz
Channel Capacity	1024
Zone Capacity	64 (Maximum 32 groups per zone)
Channel Spacing	12.5kHz/20KHz/25KHz
Frequency Stability	±0.5ppm
Operating Voltage	7.4V
Battery Capacity	1500mAh (Standard) / 2400mAh (Optional)
Battery Life	Analog:12 hrs (5:5:90 duty cycle, high power Tx) Digital: 14 hrs (5:5:90 duty cycle, high power Tx)
Size (H×W×D)	132*55*24mm
Weight	About 300g (with Antenna and Battery)
Body Material	Metal + engineering plastic
Screen	2.2 inch Brilliant LCD, 240×320, 6 Lines Text
Vocoder	NVOC / AMBE++ dual vocoder
Single Frequency Relay	Support
Real Time Clock	Support
VOX	Support
Man down	Support
Vibration	Support
Call Recording	250 hrs
Bluetooth	Bluetooth chip, bluetooth audio/PTT/Positioning
Location	Beidou/GPS
Encryption	Support

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-810 G

Beidou/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	< 60 s
TTFF (Time To First Fix) - Hot Start	< 10 s
Horizontal Accuracy	< 10 m

DMR Receiver

Sensitivity (Analog)	0.18uV(12dB SINAD)
Sensitivity (Digital)	0.18uV (5% BER)
	60 dB@12.5KHz/70 dB@20/25KHz (TIA603A) -1T
Adjacent Channel Selectivity	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 or Desensitization	97dB(TIA603D)
	94dB(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
Audio Distortion @ Rated Audio	≤3% (Typical)
Audio Response	+1~-3dB (TIA603D)
Conducted Spurious Emission	-57 dBm (TIA603D)

DMR Transmitter

Low Power Output	1 W
High Power Output	4W(UHF3)
FM Modulation	12.5KHz: 11K0F3E / 20KHz: 14K0F3E / 25KHz: 16K0F3E
	12.5KHz Data Only: 7K60F1D&7K60FXD
4FSK Digital Modulation Emission	12.5KHz Voice Only: 7K60F1E&7K60FXE
	12.5KHz Voice And Data: 7K60F1W
Conducted/Radiated	-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 @ Rated Audio	≤3% (Typical)
Audio Response	+1~-3dB(TIA603D)

The specifications in this document are in accordance with the applicable standard test. There are a number of factors that could cause the actual results. Due to the continuous development of technology, Catta may change the information at any time without notice.

Ultrathin DMR Portable Radio

A Masterpiece for Communications



Features

Digital and Analog Compatible, Rich Services

Z9 supports DMR digital conventional/trunking standards and is compatible with analog conventional and MPT trunking. It provides double channel capacity through dual time slots and supports conventional, Ad-Hoc, and trunking networking. With BlueTooth, Beidou/GPS, man-down alarm, call recording, vibration prompt, VOX, and other functions, it meets the needs of different scenarios in all walks of life.

Thin and Light, Clear and Large Screen

It adopts a 24mm ultra-thin metal body, and the overall weight is only 300g, which is easy to carry. With a 2.2-inch color screen and 240 * 320 high resolution supporting 6-line text display, and a full digital keypad + dual knob, Z9 is convenient.

Digital Audio, Clear and Loud

2W high-power loudspeaker combined with excellent sound chamber and noise reduction design brings clear and loud voice with no fear of noisy environments.

IP68 Protection, Military Standard Quality

With IP68-level protection, Z9 is not afraid of rain, water immersion and dust. It has passed the certification of the American Military Standard MIL-STD-810G, and can deal with severe conditions such as shock and vibration.

High-capacity and Power-saving, Long-lasting Battery Life

The standard 1500mAh battery with the power-saving design of digital technology ensures that the radio can be used for more than 14 hours under high power (5:5:90 mode) to meet the long-term work needs of front-line people.

Single-frequency Relay, Coverage Extension

Z9 supports single frequency relay function optionally, to relay at signal blind zone and extend communication distance.

Soft and Hard Encryption to Protect Security

Provide 40bit basic voice encryption, optional support for AES128/256bit high-level soft encryption or TF card hard encryption, to ensure the security of call information, provide functions such as independent work, one-key alarm, and fall alarm to protect user safety.



Application Scenario



Public Safety



Police



Airport & Port



Urban Fire Fighting



Forest Fire Fighting



Emergency Rescue

Accessories

Standard



Desktop Charger



1500mAh Lithium Battery



Power Adaptor



Belt Clip



Antenna



Hand Rope

Optional



8-way Charger



PTT Shoulder Microphone



Transparent Acoustic Tube Earpiece



C-Style Earpiece



BlueTooth Headset



Bluetooth PTT



Programming Cable



2400mAh Lithium Battery

After-sales Services

With abundant technologies and A highly specialized technical team, Caltta is able to provide users with high-quality products, tailored solutions, and perfect after-sales services. Each product provided by Caltta has undergone strict factory tests, can meet communication requirements in harsh and dangerous environments, and provide users with secure, reliable, and efficient communication. Meanwhile, Caltta also provides users with professional pre-sales and after-sales technical supports, comprehensive technical documentation and training services, expert remote telephone support, local after-sales service, active software maintenance, and software updates, etc. All-round services bring a worry-free user experience all the way.