FEATURES

Supplementary

- Profiles
- QR Code
- Roaming
- Covert Mode
- Radio Check
- Remote Monitor
- Alert Call

Operating Modes

- Digital Conventional
- Analogue Conventional
- Digital Trunking

Data Services

- Text Message
- Status Message
- Quick Text Message

Voice Service

- Private Call
- Group Call
- All Call
- PSTN/PABX Call
- Broadcast Call
- Emergency Call
- Call Priority

Connection

- BT Audio
- BT Data
- High Efficiency GNSS
  -GPS
  -GLONASS
- Wide Range of Accessories
- Open API

Safety

- Emergency
- Man Down
- Lone Worker
- Authentication
- Air Interface Encryption
- End-to-End Encryption
- Scrambler
- Disable/Enable
- Micro SD Card

Analogue Mode

- 2-Tone signalling
- HDC1200

APPLICATIONS


Transportation


Manufacturing


Business


Public Safety


Security


Utility

SPECIFICATIONS

General	
Frequency Range	UHF: 350~470MHz VHF: 136~174MHz
Channel Capacity	1024
Zone Capacity	64
Channels Per Zone	256
Channel Spacing	12.5kHz/20kHz/25kHz
Operating Voltage	7.7V (rated)
Battery	2400 mAh Li-polymer
Battery Life (5/5/90 Duty Cycle,High TX Power)	24h (GNSS disabled) 20h (GNSS enabled)
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω
Dimensions (H x W x D)	132 x 55 x 29.5mm
Weight(with antenna&battery)	310g
Display	LCD, 320×240 pixel, 262000 colors, 2.4 inch, 10 rows
BT	BT 5.0 BLE+EDR
Receiver	
Sensitivity	Analogue: 0.18μV (12dB SINAD); 0.16μV (Typical) (12dB SINAD) Digital: 0.18μV/BER5%
Adjacent Channel Selectivity	TIA-603: 60dB@12.5kHz / 70dB@20/25kHz ETSI: 60dB@12.5kHz / 70dB@20/25kHz
Intermodulation	TIA-603: 70dB@12.5/20/25kHz ETSI: 65dB@12.5/20/25kHz
Spurious Response Rejection	TIA-603: 70dB@12.5/20/25kHz ETSI: 70dB@12.5/20/25kHz
Blocking	TIA-603: 80dB ETSI: 84dB
Hum and Noise	40dB@12.5kHz; 43dB@20kHz; 45dB@25kHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	≤3%
Audio Response	+1 ~ -3dB
Conducted Spurious Emission	<-57dBm

Transmitter	
RF Power Output	UHF:1W/4W VHF:1W/5W
FM Modulation	11K0F3E@12.5kHz 14K0F3E@20kHz 16K0F3E@25kHz
4FSK Digital Modulation	12.5kHz Data Only: 7K60FXD 12.5kHz Data and Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm<1GHz; -30dBm>1GHz
Modulation Limiting	±2.5kHz@12.5kHz;±4.0kHz@20kHz; ±5.0kHz@25kHz
FM Hum&Noise	40dB@12.5kHz; 43dB@20kHz; 45dB@25kHz
Adjacent Channel Power	60dB@12.5kHz; 70dB@20/25kHz
Audio Response	+1 ~ -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE+2™
Digital Protocol	ETSI-TS102 361-1,-2,-3,-4
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 Protection	IEC60529- IP68
Humidity	MIL-STD-810 G
Shock and Vibration	MIL-STD-810 G
Location Services	
Accuracy specs are for long-term tracking(5 satellites visible at nominal -130dBm)	
GNSS	GPS, GPS+GLONASS,GPS+BDS
TTFF(TimeTo First Fix) Cold Start	<1 min (Typical)
TTFF (Time To First Fix) Hot Start	<10 sec (Typical)
Horizontal Accuracy	<5m (probable at -130dBm)

*Radio only - Battery -20°C

ACCESSORIES

Standard


Charger


Adapter(12V/1A)


Li-polymer 2400mAh battery

Antenna


Belt Clip


Strap

Optional


BT Wireless earpiece


Programming Cable (USB Port)


BT wireless ring PTT


BT Wireless remote speaker microphone


Wired Earpiece

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As the leading supplier, Hytera has huge experience in R&D and manufacturing of professional digital radios. Having analyzed and extracted users' need, we perceive that it is not enough to improve the status: the radio needs to be more future ready.

Taking inspiration from the feedback received from our users, we are continuously envisioning and exploring better communication within an ecosystem of new standards, new technologies, new products and new applications across the innovation chain. The HP785 is our brand new professional digital radio, and represents the future on style and functions that refreshes the standards in digital radios, providing more efficient and more reliable communication with loud and clear audio, powerful battery, remarkable portability and ruggedness for ease of use across multiple environments and industries.



HIGHLIGHTS

THINNER AND LIGHTER

An optimized mechanical design and a compact lithium polymer battery are discreetly made to fit into the HP785's design, making the radio only 29.5mm in thicknesses and 310g in weight. This easy to carry and minimalist design benefits officers by allowing them to keep their focus on the critical mission at hand.

LONGER BATTERY LIFE

HP785 optimizes product design and technologies to reduce power consumption, meanwhile the latest in proven lithium polymer technology is used in the standard battery which is lighter and smaller than ever before.

The new technology achieves a shift life of 26 hours on high transmit power at duty cycle 5/5/90 so ensures a full day of delivering key information and calls.

LOUDER AND CLEARER AUDIO

HP785 equips an optimised powerful loudspeaker that can help users to hear clear sounds even in a noisy environment. Water-porting technology is also used to drain out any water that gets into the speaker cavity, ensuring the audio clarity is maintained in case of water.

AI-based noise cancellation technology can decrease 30dB background noise and howling. No matter what noise environment the calling party is in, it ensures that the called party hears a clear sound.

MORE INTUITIVE AND EFFICIENT

HP785 brings a large screen and a brand new intuitive UI to make the operation more efficient. The 2.4-inch colour screen can display more information (i.e. 6 contacts) per page. Its Quick Access Menu allows users to set the radio faster. Messages are listed in conversation for quick reading and review. The Interface Switcher is added to the option of programmable buttons, allowing quick switch between up to four frequently accessed interfaces.

ENHANCED COVERAGE

The HP785 extends the operational range and improves the talk range through high receiver sensitivity and high transmit power, stretching communications into areas where it simply was not possible before. This enhanced coverage improves the user safety and reduces network cost as much as possible.

HIGHER LEVEL OF RUGGEDNESS

HP785 is designed as per the MIL-STD-810 G. It is IP68 rated, impervious to water jets and submersible to a depth of 2 meters for 4 hours, and also resilient to 2-meter drops onto concrete. No matter where the mission drives the user, the HP785 is the partner to count on, because it can stand up to the toughest environment.

FLEXIBLE WIRELESS CONNECTION

HP785 supports built-in BT 5.0 for wireless connections. The advantage of BT 5.0 is low power consumption, rapid transmission and supports multiple devices and more rich data applications such as BT earpiece, BT Patrol, BT positioning.





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