

**Dual-mode Rugged Radio  
PTC680  
ALL IN ONE ALL IN CONTROL  
MISSION CRITICAL FOCUSED**



## Overview

Hytera PTC680 dual-mode rugged radio combines a mission-critical TETRA radio with an Android-based smartphone in a single device. It harnesses the power of narrowband and broadband technologies to provide mission-critical voice call, photo and video taking, positioning, and more. This innovative radio can communicate with narrowband radios over broadband network such as 2G, 3G, LTE, and WLAN.

As a professional rugged radio, the PTC680 is engineered for effortless usability. The ergonomic design on smart knob and keys and the modular design on UIs make it easy for you to accomplish tasks with one hand.



## Key Features



All-in-one



Dual screens



IP68



Smart knob



Loud and clear audio



AI-based noise  
cancellation



Remote control





## Highlights

### Precise positioning

The PTC680 provides fast and accurate positioning to track people or devices, indoor and outdoor. The GPS, Galileo, GLONASS, QZSS, BDS, and A-GPS are used for outdoor positioning, while the location-based service (LBS) and WLAN are adopted for indoor positioning.



### Live streaming

Thanks to the dual HD cameras, the PTC680 allows you to capture on-site pictures and videos, and then send them to another radio or command center in real time to dramatically improve situational awareness. The PTC680 also supports the external camera.



### Purpose-built app

The PTC680 supports apps developed by Hytera such as Navigator and other third-party apps. This helps you communicate and respond efficiently.



### Broadband-narrowband convergence

With the Hytera HyTalk MC solution adopted, the PTC680 can communicate with narrowband radios over broadband network, extending the coverage to where the narrowband network is not available.





## All-in-one device

With highly integrated and modular design, the PTC680 combines a TETRA radio and a smartphone into a single device. So you do not need to carry two separate handsets for accessing voice, data, video, and more.



## Loud and clear audio

Using the enlarged front chamber technology and professional acoustic design, the PTC680 can output sound at up to 128 dB. To ensure crystal and clear audio in noisy environments, the PTC680 adopts AI-based noise cancellation, echo cancellation, and wind noise reduction technologies.



## All-round security assurance

The PTC680 can secure the voice and data through authentication, software and hardware encryption, or more. TrustZone protects the system; full-disk encryption (FDE) protects the user data; air interface encryption (AIE) and end-to-end encryption (E2EE) protect the voice and data communication; and remote control helps you manage radios.



## Rugged and durable

Rated at IP68 and ESD IEC Level 4, the PTC680 withstands water, dust, and electrostatic discharge. It can also withstand 1.5-meter drop from all angles. The industrial-grade touchscreen stands up to continuous use in any weather. All these help the PTC680 perform well in harsh environments.



## Smart management

You can remotely manage radios in batches, including upgrade, programming, permission control, key configuration, app management, device health management, and data backup and recovery.





## Accessories

### Standard



2,400 mAh Li-Poly Battery  
BP2402



Charger (2A)  
CH20L13



Power Adapter (2A)



Belt Clip  
BC39



Antenna



Strap  
RO03

### Optional



Earpiece  
EHW08



Wireless PTT  
POA121



Wireless Remote  
Speaker Microphone  
SM27W2



PTT&MIC Controller  
ACN-02P



Water-proof Remote  
Speaker Microphone  
SM26N1-P



Programming Cable  
PC156



Receive-only Earbud  
ES-01



Receive-only  
Swivel Earset  
EH-02



C-Earset  
EHS24



4,000 mAh Li-Poly Battery  
BP4005



Charger (1A)  
CH10L29



Multi-unit Charger  
MCA25



Nylon Carry Case  
NCN029

## Specifications

### Wireless Data Communication

TETRA	350-475MHz
LTE	3GPP LTE
	FDD-LTE: B1/B2/B3/B4/B5/B7/B8/B20/B26/B28
	TDD-LTE: B34/B38/B39/B40/B41
CDMA	CDMA 1xRTT BC0 CDMA2000 1xEV-DO BC0
WCDMA	B1/B2/B4/B5/B8
TD-SCDMA	B34/B39
GSM	850/900/1800/1900MHz
WLAN	802.11 a/b/g/n/ac, 2.4GHz/5GHz
NFC (Optional)	13.56MHz
Positioning	GPS/BDS/GLONASS/Galileo/QZSS/A-GPS Position performance for open zone : TTFF (Cold boot)< 1minute Horizontal accuracy<5m( 95% probable at -130dBm)

### Transceiver

Channel Spacing	25kHz
TX Power	3W(Class 3)
	1.8W(Class 3L)
	1W(Class 4)
RX Sensitivity	Static: ≤-116dBm(-118dBm typ.)
Audio Output	2W

### Video and Imaging

Video File Types	3GPP(.3gp),MPEG-4(.mp4), QuickTime(.mov), WEBM(.webm), Windows Media(.asf,.wmv), RealMedia(.rmvb,.rm), MPEG-PS(.mpg,.mpeg), MPEG-TS(.ts), AVI(.avi), Matroska(.mkv)
Image File Types	JPEG(.jpg), GIF(.gif), PNG(.png), BMP(.bmp)
Video Recording Quality	Front Camera:
	1080P HD up to 30 frames per second(fps)
	Rear Camera:
	1080P HD up to 30 frames per second(fps)

## General Specifications

Dimensions (H x W x D)	140 x 60 x 29.1mm
Weight (with antenna & battery)	325±5g
AP Processor	8-core, 1.8GHz
Operating System	Android 10
Google Certification	Google Mobile Services
Memory	RAM: 3GB; ROM: 32GB eMMC Supports up to 256GB with Micro SD card
Ports	13PIN Accessory/Charging Port
Top Screen	0.92" 128x88 Color: black & white
Main Screen	3.6" 1280x720, Capacitive, Touch Screen, Gloves Proofed, Passive Stylus
Card Slots	2 Nano SIM cards 1 Micro SD card 1 Encryption card for Narrowband
Front Camera	8MP, Fixed Focus
Rear Camera	13MP, Auto Focus
Sensors	Proximity Sensor Ambient Light Sensor 6-axis sensor (accelerometer + gyroscope) Magnetometer Accelerometer

## Audio

File Types	MP3(.mp3), WAV(.wav), 3GPP(.3gp), MPEG-4(.mp4,.m4a), ATDS raw AAC(.aac), MPEG-TS(.ts), FLAC(.flac), MIDI(.midi, .xmf, .mxmf), RTTTL/RTX(.rtttl, .rtx), OTA(.ota), iMelody(.imy), Ogg(.ogg), Matroska(.mka), QCELP(.qcp), RealMedia(.ra), Windows Media(.wma), AC3(.ac3)
------------	--

## Environment

Dust and Water Proofing	IEC60529- IP68 (2m, 4h) IEC60529-IP66
Shock and Vibration	MIL-STD-810G
ESD	IEC 61000-4-2 (Level 4), ±8 kV (Contact), ±15 kV (Air)
Operating Temperature	-20°C ~ +60°C
Storage Temperature	-30°C ~ +80°C
Humidity	MIL-STD 810G, ≤ +65°C, 95%RH

## Battery

Standard	2400 mAh Li-polymer, 7.7V(Rated)
Optional High Capacity	4000 mAh, 7.7V(Rated)



### Hytera Communications Corporation Limited

Stock Code: 002583.SZ

Address: Hytera Tower, Shenzhen Hi-Tech Industrial Park North,  
Beihuan RD.9108#, Nanshan District, Shenzhen, P.R.C.

Tel: +86-755-2697 2999 Fax: +86-755-8613 7139 Post: 518057

Https://www.hytera.com marketing@hytera.com



Hytera retains right to change the product design and specification. Should any printing mistake occur, Hytera doesn't bear relevant responsibility. Little difference between real product and product indicated by printing materials will occur by printing reason.

HYT, Hytera are registered trademarks of Hytera Communications Corp., Ltd.  
© 2023 Hytera Communications Corp., Ltd. All Rights Reserved.