

PTC680

Multi-mode Advanced Radio



Convergence solution

The PTC680 combines a mission-critical TETRA radio with LTE technology and the benefits of an Android-based smartphone in a single device. This convergent solution provides seamless communication.

Comfortable operation

The 325g lightweight and manageable PTC680 is also easy to operate with gloves with just one hand and has a large touch screen.

Resilience

Thanks to IP68 and MIL-STD-810 G, the PTC680 is protected against dust and moisture and particularly robust for use in harsh environments.

Clear audio quality

The dual microphone with noise cancellation and powerful speech recognition filters out unnecessary ambient noise for a clear audio quality.

Control with the Smart MDM

With the Hytera Mobile Device Management (MDM) client, you can track device activity and transfer apps and updates wirelessly to your modern radio fleet. This saves you time maintaining the radios.

Technical Data PTC680

Standard Functions and Frequency Ranges	
TETRA	350 – 470 MHz
LTE	FDD-LTE: B1/B2/B3/B4/B5/B7/B8/B20/B26/B28 TDD-LTE: B38/B39/B40/B41 3GPP LTE
CDMA	CDMA 1 x RTT BC0 CDMA2000 1 x EV-DO BC0
GSM	850 / 900 / 1800 / 1900 MHz
Wi-Fi	802.11 b/g/n, 2.4 GHz
NFC	13.56 MHz
Bluetooth	V4.2, BDR/EDR/BLE
Positioning System	GPS/BDS/GLONASS/Galileo/QZSS
Sensors	Accelerometer, Proximity Sensor, Ambient Light Sensor, 3-axis sensor+- Gyroscope, Barometer, Geomagnetic sensor
Operating System	Android 7.0

General Specifications	
Dimensions (H x W x D)	140 x 60 x 29.1mm
Weight (with antenna & battery)	about 325 g
CPU	Qualcomm 8-core, 1.8 GHz
Memory (Broadband)	RAM: 3 GB / ROM: 32 GB eMMC Expandable to 128 GB with MicroSD card
Memory (Narrowband)	Expandable to 16 GB with MicroSD card
Ports	20 Pin Heavy duty accessory port
Top Display	0.92", 128 x 88 Pixel
Main Display	3.6", 280 x 720 pixels, Capacitive touch screen, Gloves Compatible
Front Camera	5 MP, Fixed Focus
Rear Camera	13 MP, Auto Focus
Operating Voltage	7.7 V

Battery	
Standard battery	2400 mAh (Lithium-polymer battery)
Optional battery	4000 mAh (Lithium-polymer battery)
Battery life	Standard Battery: 14 h (12 h voice (5:5:90) + 2 h video) Optional Battery: 20 h (18 h voice (5:5:90) + 2 h video)

Transmitter	
Channel spacing	25 kHz
Transmitting power	1 W (Class 4) 1,8 W (Class 3L)
RX sensitivity	Static ≤ -116 dBm (typ -117 dBm) Dynamic ≤ 106 dBm (typ -109 dBm)
Intermodulation	≥ 65 dB
Blocking	84 dBm
Suppression of spurious response	≥ 70 dB
Frequency stability	± 0.5 ppm
Antenna impedance	50 Ω
Audio power output	2 W
Audio distortion	≤ 3%
Microphone	NRR: 30 dB (static), 20 dB (non static) AEC: > 60 dB

Environmental Conditions	
Protection against dust & moisture	IEC 60529, IP68 (2m, 4h) IEC60529, IP66
Humidity	≤ +65 °C, 95% RH per MIL-STD-810 G
Shock and vibration resistance	MIL-STD-810 G
Operating temperature range	-20 °C to +60 °C
Storage temperature range	-30 °C to +80 °C

Supported Formats	
Supported video formats	3GPP (.3gp), MPEG-4 (.mp4), Quick-Time (.mov), WEBM (.webm), Windows Media (.asf,.wmv), RealMedia (.rmvb, .rm), MPEG-PS (.mpg, .mpeg), MPEG-TS (.ts), AVI (.avi), Matroska (.mkv)
Supported image formats	JPEG (.jpg), GIF (.gif), PNG (.png), BMP (.bmp)
Supported audio formats	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)

All technical information was determined at the factory and in accordance with the corresponding standards. Subject to change on the basis of continuous development.



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Encryption features are optional and have to be configured separately; they are also subject to German and European export regulations.

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