

# TC-780

Professional  
Two-way Radio



UK100623A

- Safety Assurance
- Selective Expansion Function
- Powerful Audio Output
- Compact & Light Weight

## Recommended Applications

- Police
- Firefighting
- Security
- Government

## Accessories

Standard Accessories	Antenna	Strap RC04	Belt clip BC08 (compatible with BL1703)	MCU rapid-rate charger (for Li-Ion/Ni-MH Batteries) CH10L07
	Li-Ion battery(1700mAh) BL1703		Switching power adapter(100-240V) PS1009 (for use with different power cords in different countries and areas)	

**Optional Accessories**

 Earbud with in-line PTT ESN05	 Earbud with on-MIC PTT ESN06	 Neck 2-wire earpiece with wireless earphone and neck loop EWN03	 Earpiece with on-MIC PTT & transparent acoustic tube EAN04	 Remote speaker microphone SM08N1 Received only earpiece with transparent acoustic tube (remote speaker MIC used only) ESS08 Received only earbud(remote speaker MIC used only) ESS07	 Noise-canceling remote speaker microphone (350-390MHz/440-470MHz) SM13N4 Water resistant remote speaker microphone(IP56) SM13N5
 Light weight, throat-vibrating earpiece ELN02	 Ear canal bone induction earpiece EBN01	 Heavy duty, noise-canceling headset ECN08	 Behind-the-head, noise-canceling headset EHN09	 D-earset with boom microphone & in-line PTT EHN08	 D-earset with in-line PTT & microphone EHN07
 Light-weight, single-muff headset with in-line PTT ECN07	 3-wire surveillance earpiece with transparent acoustic tube EAN06 (Beige)	 3-wire surveillance earpiece with transparent acoustic tube EAN02 (black)	 2-wire surveillance earpiece with transparent acoustic tube EAN07 (black)	 Universal chest pack (nylon)(black) LCBN13	 Leather carrying case (swivel) LCBY22
 Six-unit switching power (for use with different power cords in different countries and areas) PS7002	 Vehicle adapter for charger CHV03	 MCU rapid-rate multi-unit charger for Li-Ion/Ni-MH batteries MCA03	 Ni-MH battery (1800mAh) BH1801	 Li-Ion battery (2100mAh) BL2102	 Antenna Belt clip BC09 (compatible with BH1801&BL2102) Programming cable (COM port) PC18 Programming cable (USB to serial port) PC25

## Applicable Military Standards 810C/D/E/F

Applicable MIL-STD	810C Methods Procedures	810D Methods Procedures	810E Methods Procedures	810F Methods Procedures
Low Pressure	500.1 1	500.2 1,2	500.3 1,2	500.4 1
High Temperature	501.1 1,2	501.2 1,2	501.3 1,2	501.4 1,2
Low Temperature	502.1 1	502.2 1,2	502.3 1,2	502.4 1,2
Temp. Shock	503.1 1	503.2 1	503.3 1	503.4 1
Solar Radiation	505.1 1	505.2 1	505.3 1	505.4 1,2
Rain	506.1 2	506.2 2	506.3 1,2	506.4 1,2
Humidity	507.1 2	507.2 2,3	507.3 2,3	507.4 1
Salt Fog	509.1 1	509.2 1	509.3 1	509.4 1
Dust	510.1 1	510.2 1	510.3 1	510.4 1
Vibration	514.2 8,10	514.3 1	514.4 1	514.5 1
Shock	516.2 1,2,5	516.3 1,4	516.4 1,4	516.5 1,4

## General

Frequency Range (MHz)	UHF: 350-390/400-470/450-520 VHF: 136-174
Channel Capacity	256
Channel Spacing (kHz)	25/20/12.5
Operating Voltage (v)	7.4
Battery	1700mAh Li-Ion Battery
Battery Life (5-5-90 Duty Cycle)	About 12 Hours
Frequency Stability (ppm)	± 2.5
Operating Temperature (°C)	-30~+60
Antenna Impedance (Ω)	50
Dimensions (H×W×D)(with battery, with out antenna) (mm)	126*54*35
Weight (with antenna & battery) (g)	360

## Transmitter

RF Power Output	5W/2W/1W (UHF/VHF)
Modulation	16K Φ F3E/11K Φ F3E
Spurious and Harmonics	-36dBm<1GHz -30dBm>1GHz
FM Noise	≥ 45/40 dB
Audio Distortion	≤ 5%

All Specifications are tested according to TIA/EIA-603, and subject to change without notice due to continuous development.

## Receiver

Sensitivity	0.25/0.35 μ V
Selectivity	70/60 dB
Intermodulation	65 dB
Spurious Response Rejection	70 dB
S/N	45/40 dB
Rated Audio Power Output	0.8 W
Rated Audio Distortion	≤ 5%



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Hytera Communications Corporation Limited

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Address:HYT Tower, Hi-Tech Industrial Park North, Beihuan RD., Nanshan District,Shenzhen, China

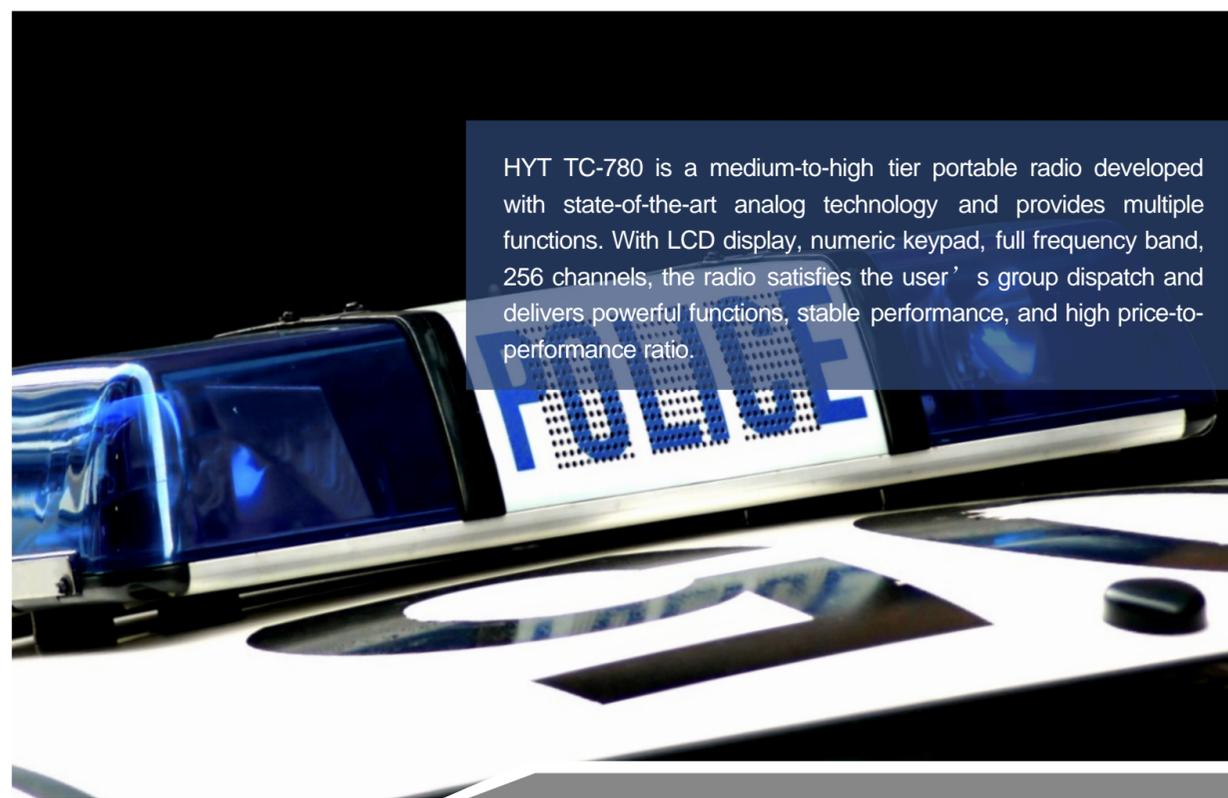
Tel : +86-755-2697 2999 Fax : +86-755-8613 7139 Post : 518057

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Your Local Dealer

HYT TC-780 is a medium-to-high tier portable radio developed with state-of-the-art analog technology and provides multiple functions. With LCD display, numeric keypad, full frequency band, 256 channels, the radio satisfies the user's group dispatch and delivers powerful functions, stable performance, and high price-to-performance ratio.



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Professional Two-way Radio

## Super Features

### Wide Band Coverage

Allows users the flexibility to select their frequency for use in their respective work environment.

### Powerful Audio Output

HYT's voice compandor audio enhancement and a powerful 1.5W speaker (with a diameter of 40mm) ensure superb clear, crisp sound even in noisy environments.

### Safety Assurance

Safety and security are critical factors for modern organizations. The TC-780's Lone Worker, Safety Check, and Man Down (optional) features are designed to assure your safety in case of emergencies or accidents.

### HYT HDC2400™ and HDC1200 Signalling

The HDC2400™ signalling is exclusive to HYT, and contributes to the system to achieve features including ANI (Automatic Number Identification), Call Timer, Record, Record Inquiry, Individual Call, Group Call, Broadcast, Status Inquiry, Safety Check, Stun/Kill/Revive, etc.

The HDC1200 Signalling is compatible with MDC1200, and allows functions including PTT ID Encode & Decode, Emergency Encode, Radio Check Encode & Decode, Kill & Revive Decode, Individual Call, Group Call, Broadcast, Status Message Encode, and Fixed Message Encode.

### Reserved Expansion Port

Expansion ports are reserved for second development: Patrol Record, Encryption, SmarTrunk™ trunking system and GPS remote speaker microphone.

### Firmware Upgradeable

Build-in Flash MCU allows the radio firmware to be upgraded to include the latest features.

## Main Features

### Power on Self-Test

The radio itself checks radio status automatically when powered on, and emits corresponding alert if an error occurs (e.g. CPU error or EEPROM error), allowing the user to early detect unit faults.

### Soft Power Off

After the radio is power down, it allows some circuits to continue working as you set, and won't be turned off until features including alarm are performed.

### Front Panel Programming

Menu operation and full keypad allow you to easily customize parameters and channel settings.

### LCD Battery Gauge

Indicates battery strength levels for more effective power management.

### 2-Tone Encode & Decode

### High Transmit Power

5W transmit power accommodates wide communication coverage.

### Embedded Message & Serial No.

The radio's memory can store messages including service and programming records, for remarkable ease of maintenance. The feature also makes a unit identifiable by Serial Number.

### Short Message

### Lone Worker

The Lone Worker feature provides added security and safety for individuals who work remotely from their team. Should a user not respond to a regular warning tone then a defined emergency procedure is activated.

### Build-in Scrambler

The Scrambler feature provides enhanced security for your important public safety and private security communications.

### Whisper

The Whisper feature means that even the quietest message can be transmitted and understood.

### Safety Check

Should the user not respond to a safety check signal, a defined emergency procedure is activated.

### Emergency

Press the Emergency key to emit emergency alarm, or send ENI (Emergency Number Identity) / background tone to a pre-defined person or the dispatch center (selectable via programming software).

### Vibrate

The vibrate indication helps in working conditions where quiet operation is required.

### Man Down (optional)

Providing even greater safety for employees in hazardous environments, the TC-780 provides a Man Down optional feature. This feature automatically summons assistance when the radio falls over for a predetermined time period.

### Patrol Record & Digital Encryption/SmarTrunk™ Trunking System (optional)

TC-780 supports patrol record. A patrol system is composed of TC-780 patrol radio, TX-90 patrol point, patrol center, patrol management software and data transmission cable, to send real-time or non-real-time information. With digital encryption, confidential communication is available for TC-780. Also, the SmarTrunk™ option board can work hand-in-hand with a controller to realize all functions of SmarTrunk™ trunking system.



## Mechanical Features

- ★ Reliability and Durability  
The radio uses components of famous brand, and meets strict tests.
- ★ Ergonomic Design
- ★ Laser-etched Nameplate

## Other Features

- ★ DTMF Encode & Decode
- ★ CTCSS/CDCSS
- ★ Voice Compandor
- ★ MSK Wireless Clone
- ★ PC Tuning
- ★ Dual Priority Scan
- ★ Battery Save
- ★ Low Battery Alert
- ★ Kill/Revive
- ★ Programmable Function Keys
- ★ Talk Around
- ★ Channel Alias
- ★ Short Message
- ★ Programmable Alert Tone
- ★ Battery Gauge
- ★ Auto Acknowledgement
- ★ ATIS
- ★ VOX
- ★ Power-on Password and Data Password
- ★ RSSI (Received Signal Strength Indicator)
- ★ Embedded Message & Serial Number