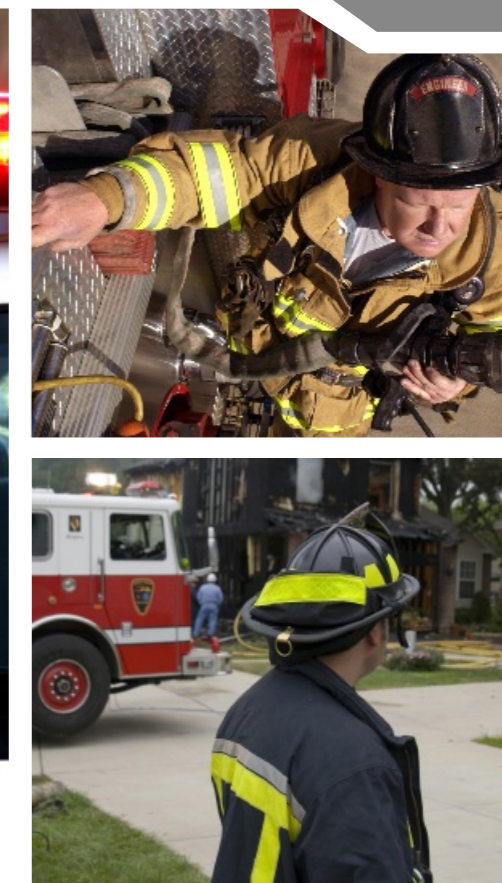


# TC-780

Professional  
Two-way Radio



- Wide Band Coverage
- Powerful Audio Output
- Multiple Safety Assurance
- Build-in Scrambler

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Hytera Communications Corporation Limited

### 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)	VHF: 136-174 UHF: 350-390/400-470
Channel Capacity	256
Channel Spacing (KHz)	25/20/12.5
Operating Voltage (v)	7.4 +/- 15%
Battery	1700mAh Li-ion Battery
Battery Life (5-5-90 Duty Cycle)	Low power High power
with 1700mAh Li-ion battery	13 hours 10 hours
with 2100mAh Li-ion battery	16 hours 13 hours
with 1800mAh Ni-MH battery	14 hours 11 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*35mm, 360g; with 1700mAh Li-ion battery 126*54*39mm, 375g; with 2100mAh Li-ion battery 126*54*39mm, 450g;
Material of Front Case	PC (EXL9330)+PC (2405)

### 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 (25/12.5KHz)
Audio Distortion	≤3%
Modulation limiting	+2.5 @ 12.5KHz; +4.0 @ 20KHz; +5.0 @ 25KHz
Adjacent Channel Selectivity	70/60dB (25/12.5KHz)
Audio response(300-3000Hz)	+1 to -3 dB

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 (25/12.5KHz)
Selectivity	70/60 dB
Intermodulation	65 dB
Spurious Response Rejection	70 dB
S/N	45/40 dB (25/12.5KHz)
Rated Audio Power Output	0.8W
Rated Audio Distortion	≤ 5%
Audio Response(300-3000Hz)	+1 to -3 dB
Conducted Spurious Emission	-57dBm<1GHz -47dBm>1GHz EN300 086



Hytera  
Respond & Achieve

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VELL0201

### Recommended Applications

- Police
- Security
- Firefighting
- 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 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



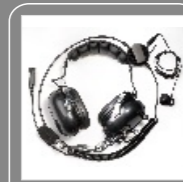
Remote speaker microphone SM08N1  
Received only earpiece with transparent acoustic tube (remote speaker MIC used only) ESS08  
Received only earbud (remote speaker MIC used only) ESS07



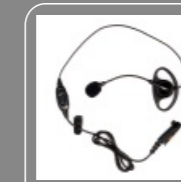
Noise-cancelling remote speaker microphone (350-390MHz/440-470MHz) SM13N4  
Water resistant remote speaker microphone (PS6) SM13N5



Light weight, throat-vibrating earpiece ELN02  
Ear canal bone induction earpiece EBN01



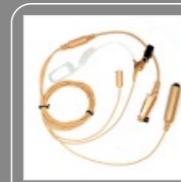
Heavy duty, noise-cancelling headset ECN08  
Behind-the-head, noise-cancelling headset ECN09



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)



Secure 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



Universal chest pack (nylon)(black) LCBN13  
Leather carrying case (swivel) LCBY22



Antenna  
Belt clip BC09 (compatible with BH1801&BL2102)  
Programming cable (COM port) PC18  
Programming cable (USB to serial port) PC25





Staff members in these industries, such as public security, government, wharf, water resource and power, large hotel, logistics and etc, are usually divided into many groups. A radio without LCD and keypad applied in these industries cannot realize individual call and grouping communications management, thus it is inconvenient for the clients. However, all these troubles shall be solved when you choose HYT TC-780. TC-780, as the medium to high tier portable radio with LCD, numeric keypad, wide-band coverage and 256 channels, has integrated cutting-edge analog technology, and shall definitely fulfill your every demand on grouping and dispatching. We believe that HYT TC-780 will bring you the most cost-effective use experience thanks to its powerful functions and reliable performance.

# TC-780

Professional Two-way Radio

## Super Features

- Wide Band Coverage**  
Allow 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.

- Build-in Scrambler**  
The Scrambler feature makes it impossible for an eavesdropper to understand your conversation. TC-780 is your best choice for public security communication and private safety communication.
- Whisper**  
The Whisper feature means that even the quietest message can be transmitted and understood.

**5-Tone and HDC2400™ Signaling**  
5-Tone, taking audio signal as media, is the kind of signaling that is extensively used nowadays. The system including 5-Tone can achieve ANI (Automatic Number Identification), call timer, selectable call (individual call, group call), alert call, status inquiry, stur/unstun, authorization, etc. The HDC2400™ is HYT proprietary signaling, and contributes to the system to achieve features including ANI (Automatic Number Identification), Call Timer, Record, Record Inquiry, Select Call (Individual Call, Group Call, Zone Call and Broadcast), Alert Call (Individual Call, Group Call, Zone Call and Broadcast), Status Inquiry, Safety Check, Kill/Stun/Revive, etc.

**Future Development**  
Expansion Ports Expansion ports are reserved for future development in TC-780.

**Firmware Upgradeable**  
Considering future expansion, TC-780 whole solution utilizes built-in Flash MCU. You can upgrade the radio firmware to include the latest features.

## Unique Features

- High Channel Capacity**  
Maximum 256 channels allow you to assign user-recognizable channel name; flexible grouping (maximum 32 groups) can make team management more effective.
- Battery Strength Indicator**  
The current battery strength is displayed on the LCD.
- High (5W) Transmit Power**  
The strong power can completely secure your long-distance communication.

**Embedded Message & Serial Number**  
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.

**Call List Check**  
There are four types: 1. Contact list; 2. Status List; 3. Missed call list; 4. Received call list.

**Call Forward**  
After decoding is succeeded, radio would transmit a call signaling preset by your dealer.

**Phone**  
Allow you to call a base station or connect with telephone line to call a telephone subscriber.

**Scan**  
Allow the user to monitor activities on different channels. "Dual Priority Scan" and "Nuisance Temporarily Delete" are of options; each scan list may include up to 32 channels.

**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, a defined emergency procedure is activated.



- Safety Check**  
Should the user not respond to a safety check signal received from the dispatch center or an authorized radio, 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 (optional)**  
TC-780 supports a vibrate option. 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 radio provides a Man Down feature. This feature automatically summons assistance when the radio falls over for a predetermined time period.



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

- ### Other Features
- ★ CTCSS/CDCSS
  - ★ Voice Compandor
  - ★ MSK Wireless Clone
  - ★ PC Tuning
  - ★ Authorization Management
  - ★ PTT Key-up Encode/De-Key Encode
  - ★ Battery Save
  - ★ Low Battery Alert
  - ★ Kill/Revive
  - ★ Programmable Function Keys
  - ★ Talkaround
  - ★ Programmable Alert Tone
  - ★ Auto Acknowledgement
  - ★ VOX
  - ★ Password Protection
  - ★ RSSI