

# TC-780

## Professional Two-way Radio

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.

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





# TC-780

Professional 130.3MHz 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, stun/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



## Recommended Applications

- Police
- Security
- Firefighting
- Government

## Accessories

### Standard Accessories

Antenna Strap RO04 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



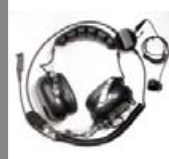
Remote speaker microphone  
SM08N1  
Received only earpiece with  
transparent acoustic tube  
(remote speaker MIC used only)  
ESS08  
Received only earbud(remote  
speaker MIC used only)  
ESS07



Noise-canceling remote  
speaker microphone  
(350-390MHz)(440-470MHz)  
SM13N4  
Water resistant remote  
speaker microphone(IP56)  
SM13N5



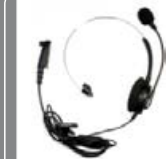
Light weight,  
throat-vibrating earpiece  
ELN02  
Ear canal bone  
induction earpiece  
EBN01



Heavy duty, noise-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)



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

## 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)	>10 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;

## Transmitter

RF Power Output	5W/2W/1W (UHF/VHF)
Modulation	16K0F3E/11K0F3E
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 μV
Selectivity	70/60 dB
Intermodulation	65 dB
Spurious Response Rejection	70 dB
S/N	45/40 dB
Rated Audio Power Output	0.8W
Rated Audio Distortion	5%



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