

# TC-780

## Professional Two-way Radio

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.

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





## **TC-780**

## **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.

#### **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.

### HYT HDC2400<sup>™</sup> and HDC1200 Signalling

The HDC2400<sup>™</sup> 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<sup>™</sup> trunking system and GPS remote speaker microphone.

#### Firmware Upgradeable

Bulid-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.

#### **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<sup>™</sup> 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<sup>™</sup> option board can work hand-in-hand with a controller to realize all functions of SmarTrunk<sup>™</sup> trunking system.









## **Mechanical Features**

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

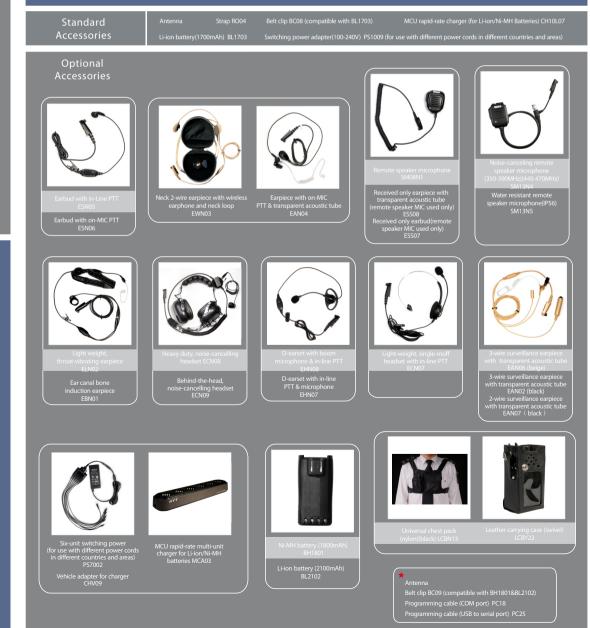
## **Other Features**

- ★ 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

## **Recommended Applications**

- Police
- Security
- Firefighting
  Government

## Accessories



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

Applicable MIL-STD	810C Methods Procedures	810D Methods Procedures	810E Methods Procedures	810F Methods Procedures
High Temperature	501.1 1,2	501.2 1,2	501.3 1,2	501.4 1,2
Temp. Shock	503.1 1	503.2 1	503.3 1	503.4 1
Rain	506.1 2	506.2 2	506.3 1,2	506.4 1,2
Humidity		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
			510.3 1	510.4 1
Vibration	514.2 8,10	514.3 1	514.4 1	514.5 1
			516.4 1,4	516.5 1,4

#### General

Frequency Range (MHz)	UHF: 350-390/400-470 VHF: 136-174
Channel Capacity	256
Channel Spacing (kHz)	25/20/12.5
Operating Voltage 🗤	7.4
Battery	1700mAh Li-ion Battery
Battery Life (5-5-90 Duty Cycle)	About 12 Hours
Frequency Stability (ppm)	± 2.5
Operating Temperature $(\mathbb{C})$	-30~+60
Antenna Impedance (Ω)	50
Dimensions (H $\times$ W $\times$ 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	16KΦF3E/11KΦF3E	
	-36dBm<1GHz	
FM Noise	≥ 45/40 dB	
	≤ 5%	

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Receiver	
Sensitivity	0.25/0.35 μ V
Selectivity	70/60 dB
Intermodulation	
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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