

# TC-610

## Professional Two-way Radio

Harsh, noisy and dusty working conditions in mega-project and construction sites may lower your efficiency and productivity by smudging the radio or shadowing the talk. HYT TC-610 portable radio is the option customized for users in these industries, as its superior dust & water protection performance helps to seal out dust and water, and thus prolong radio life.

- Dust/Water Protection Class IP66
- Powerful Audio and Wide Communication Range
- Reliable Mechanical Design
- Innovative Industrial Design





# TC-610

## Professional Two-way Radio

### Super Features

#### Dust/Water Protection Class IP66

In harsh, noisy and dusty working conditions such as construction sites and engineering sites, your radio is apt to be smudged. The TC-610 portable radios are IP66-rated and have excellent dust/water protection performance. The IP66 protection allows you to wash off mud and dust on your radio. A water jet (40mm  $\varnothing$ ) from a nozzle, which is projected from any direction against your radio for up to one minute, must not have any harmful effect. Your radio could be dried to operate normally after you wash it.

#### Powerful Audio and Wide Communication Range

Superior audio quality is the premise for your team to work efficiently in noise environments. A powerful speaker with size of 45mm  $\varnothing$  (36mm  $\varnothing$  speaker for common radios) ensures clear and crisp sound, even in noisy environments. You can also use high transmit power for wide communication coverage.

#### Reliable Mechanical Design

Battery latch is apt to become loose after long time use, and even occasionally causes your radio to shut off automatically. All these will affect your working efficiency. HYT proprietary battery latch mechanism is applied to TC-610 radios. It delivers secure connection between battery and radio, no matter how long the radio has been in use.

#### Innovative Industrial Design

The TC-610 abandons conventional black body, and employs fashionable yellow rubber housing, making the radio more comfortable to handle.

• IP66 water protection ensures the radio to be protected against a water jet for one minute. The diameter of the water jet is 40 mm.

## Main Features and Functions

### High/Low Power Switchable

By simple pressing one button, users can switch to low power when communicating within limited range coverage or switch to high power when further distance is required. High transmit power optimizes range coverage while low transmit power conserves battery consumption, all at the user's control.

### Programmable 12.5kHz / 25kHz Channel Spacing

The feature enables flexibility and easy migration of channel spacing requirements when the need arises, with no need to buy new radios.

### Monitor

Allows users to monitor the activity on the current channel. The feature is especially helpful for receiving a weak signal.

### Battery Save

The Battery Save feature is automatically activated once no activity on the channel and no operation performed, for extended operation time.

### Low Battery Alert

Alert users to recharge the battery should the battery level run low.

### Busy Channel Lockout

A channel already in use is not available to other users.

### Time-out Timer

The feature allows for more efficient use of channels by limiting the amount of time of each transmission.

### PC Programmable

You are able to customize the features of each radio for each user.

### Wired Clone

Easily copy the features of one radio to another.

### CTCSS/CDCSS

Set up workgroups/users with unique CDCSS/CTCSS to prevent unwanted conversations on the same frequency. ▶

### Selectable Squelch Level (0-9)

Helps minimize interference from undesired weak signals and helps weak signals be heard.

### Channel Scan

The channel scan feature enables the radio to continuously scan each channel in the scan list for activity. Simply press a side function button to activate scanning. When activity is detected on a channel the scan process will stop and you will hear the transmission.

### Voice Operated Transmit (VOX)

Enjoy the convenience of hands-free operation when used with optional accessories.

## Recommended Applications

- Construction sites
- Hotel
- Manufacturing
- Property management
- Ports
- Warehousing

## Accessories

### Standard Accessories

U/V Antenna    MCU Charger CH10A03    Belt Clip BC12    Li-ion Battery (1200mAh) BL1204  
Switching Power Adapter (different P/N for different countries and areas)    Strap RO03

### Optional Accessories

 Ni-MH Battery (1300mAh) BH1303 Li-ion Battery (2000mAh) BL2001	 MCU Rapid-rate Multi-unit Charger for Li-ion/Ni-MH Batteries MCA02	 Six-unit Switching Power PS7002 Vehicle Adapter for Charger CHV09	 Lightweight Single-muff Headset with in-line PTT & VOX ECM12
 Water Resistant Remote Speaker Microphone (IP56) SM13M1 Noise-cancelling Remote Speaker Microphone (350-390MHz) SM13M2 Remote Speaker Microphone SM08M3 Receive-only Earpiece with Transparent Acoustic Tube (for use with remote speaker microphone) ESS08 Receive-only Earbud (for use with remote speaker microphone) ESS07	 Behind-the-head, Noise-cancelling Headset ECM14 Heavy Weight Noise-cancelling Headset ECM13	 Light Weight, Throat-vibrating Earpiece ELM01 Ear Canal Bone Induction Earpiece EBM01	 Earpiece with on-MIC PTT & VOX & Transparent Acoustic Tube EAM12 2-Wire Surveillance Earpiece with VOX & Transparent Acoustic Tube (black) EAM13 3-Wire Surveillance Earpiece with Transparent Acoustic Tube (black/beige) EAM16 / EAM15
 2-wire Earpiece with Wireless Receiver and Neck Loop (Beige) EWM03	 D-earset with Boom Microphone & in-line PTT & VOX EHM16 D-earset with in-line PTT & Microphone & VOX EHM15	 Universal Chest Pack (Nylon)(Black) LCBN13 Leather Carrying Case (non-swivel) LCBN56	 Earbud with in-line PTT & VOX ESM11 Earbud with on-MIC PTT & VOX ESM12



## Applicable MIL-STD-810C/D/E/F

Applicable MIL-STD	810C		810D		810E		810F	
	Methods	Procedures	Methods	Procedures	Methods	Procedures	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: 400-420 440-470 420-450 450-470 420-470 470-490
Channel Capacity	16
Channel Spacing(KHz)	25 /12.5
Operating Voltage(V)	7.4
Battery	1200mAh (Li-ion)
Battery Life (5-5-90 Duty Cycle)	More than 9 hours
1200mAh Li-Ion battery	More than 9 hours
1300mAh Ni-MH battery	More than 14 hours
2000mAh Li-Ion battery	
Frequency Stability(ppm)	± 2.5
Operating Temperature(°C)	-20~+55
Antenna Impedance(Ω)	50
Dimensions (H×W×D)(with battery, without antenna)(mm)	119×55×33
Weight (with antenna & battery)(g)	270

## Transmitter

RF Power Output	5W/2W(VHF) 5W/2W(UHF)
Modulation	F3E
Spurious and Harmonics	-36dBm<1GHz -30dBm>1GHz
FM Noise	40/35dB
Audio Distortion	≤5 %

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

## Receiver

Sensitivity	0.25/0.28 μ V
Selectivity	70/60dB
Intermodulation	≥65dB
Spurious Response Rejection	≥70dB
S/N	45/40dB
Rated Audio Power Output	800mW
Rated Audio Distortion	≤5%



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