

## VHF / UHF Digital Handheld Radio



# DM-330V / DM-330U



Digital / Analogue  
Mode switchable



Emergency alarm



High voice compatibility



Digital voice encryption



GPS(Optional)

Robust and compact structure;  
Dual Mode (Digital / Analog)

## TDMA / Double-Slot Working Mode

### Main features:

- High capacity Li-ion battery packs ( $\geq 2300\text{mAh}$ ), operating to 17 hours under 5/5/90 duty cycle in digital mode.
- TDMA working mode
- Dual Mode (Digital / Analog)
- Digital / Analog mode switching on same frequency (Unique)
- Maximum output audio to be 1000mW
- 16-bit digital voice encryption
- GPS (Optional)
- With DVIS-AMBE+2 vocoder (100% compatible with MOTO)



### Technical parameters

#### General specification

Model	DM-330	
Items	UHF	VHF
Channel Zone	16	
Total channel capacity (512)	256 (Analog)	
	256 (Digital)	
Frequency range	400 - 480MHz	136 - 174MHz
Antenna impedance	50Ω	
Dimension(HxWxD)	120x 53 x 38 mm	
Weight (W/battery)	300g	
Li-ion battery	2300mAh	
Rated voltage	DC: 7.4V	
Battery: The average battery life under 5/5/90 duty cycle, and using carrier squelch and TX high power. 2300mAh li-ion battery      Analog: 12.6hours / Digital: 17.5hours		

Note: The battery working life may have little difference.

Battery capacity maybe change without notice, but the list is standard specification.

#### Receiver

Frequency	400 - 480MHz	136 - 174MHz
Channel Spacing	12.5kHz / 25kHz	
Frequency stability (-20°C, +60°C, +25°C)	+ / - 1.5ppm	
Analogue sensitivity (12 dB SINAD)	0.3uV / 0.25uV	
Digital sensitivity (5% BER)	0.25uV / 0.20uV	
Intermodulation	65dB	
Adjacent channel selectivity	60dB@12.5kHz / 65dB@25kHz	
Spurious rejection	65dB	
Rated audio	800mw	
Audio distortion @rated audio	3%	
FM hum & noise	-40dB@12.5kHz / -45dB@25kHz	
Audio response	+1, -3dB	
Conducted/ radiated emission	-57dBm	

#### Transmitter

Frequency	400 - 480MHz	136 - 174MHz
Channel Spacing	12.5kHz / 25kHz	
Frequency stability (-30°C, +60°C, +25°C)	+ / - 1.5ppm	
Low Power	1W	2 W
High Power	4.5 W	5 W
Modulation restriction	±2.5kHz@12.5kHz/±5.0kHz@25kHz	
FM hum & noise	-40dB@12.5kHz/-45dB@25kHz	
Conducted/radiated emission	-36dBm<1GHz/-30dBm>1GHz	
Adjacent channel selectivity	-60dB@12.5kHz/-65dB@25kHz	
Audio Response	+1, -3dB	
Audio Distortion	3%	
FM modulation	12.5kHz: 11K0F3E 25kHz: 16K0F3E	
4FSK digital modulation	12.5kHz data: 7K60F1D and 7K60FXD 12.5kHz audio: 7K60F1E and 7K60FXE 12.5kHz data and audio :7K60F1W	
Digital vocoder	AMBE+2™	
Digital agreement	ETSI-TS102 361-1, -2, -3	

#### GPS (Optional)

Precisely and standard designed for a long-term positioning (95% value > could find 5 satellites @ rated -130dBm signal strength)	
TTFF (time to fist fix) cold start	< 1 min
TTFF(time to fist fix) warm start	< 10 s
Horizontal position accuracy	< 10 ms

#### Accessories & Optional



AC Adaptor



Charger



Li-ion battery



Antenna



Belt Clip



Tie



Power supply for car charger(Optional)

#### Main Features:

- TOT
- Scan
- High / Low Power
- Volume Control
- Low Power Alert
- Man Down (Optional)

#### Digital Features:

- Remote Kill
- Remote Revive
- Private Call
- Group Call
- General Call
- No-address Call
- Remote Monitor
- Remote Detection
- Call Prompt
- Emergency Alarm
- Voice encryption
- GPS (Optional)

#### Analog Features:

- CTCSS
- DCS
- Squelch Setting
- Busy Channel Lockout
- Narrow/Wide Band
- Scrambler (Optional)
- Compandor(optional)

## Double-slot working chart for TDMA

### TR-6000DM Repeater

(With speaker microphone, TR-6000DM can be used as base station / dispatching console separately in digital mode.)



### TR-5000DM Mobile Repeater

(With speaker microphone, TR-5000DM can be used as base station / dispatching console separately in digital mode.)



Duplexer

### Advantages of TDMA technology:

1. Time Slot 1 and Time Slot 2 of DMR Handheld terminals with TDMA technology can relay and work with repeater simultaneously.
2. Benefiting from the TDMA technology, the radio allows two slots to work on the same channel and frequency non-interferingly. (This doubles availability of spectrum resource).