



QUANTUN ELECTRONICS LLC

QUANTUN QM-2100

Main Features

Use Time-Division Multiple-Access (TDMA)

Digital Technology doubles the number of channels on a single licensed 12.5 KHZ channel in compliance with the DMR digital protocol.

Remote Control Head (Optional)

The control head of the mobile can be separated from the main body for easy installation and use.

Dot Matrix LCD

Allows for text messaging in digital mode and has a display for call monitoring and other features.

Key Pad Mic Optional

Channels

1000 Channels, 250 Zones / 16 Channel per zone. Each Channel can be programmed on Analog / Digital Protocol. Channels are dual mode, allowing for a smooth transition from Analogue to Digital. 136-174 MHZ (VHF), 400-470 MHZ.

Channel Annunciation

The radio will announce the channel selected for operation.

Emergency Alarm

Support 32 Digital Emergency Systems and 4 Analog Emergency Systems.

Contact / Channel Import & Export

You can convert and import/export the configurations between different models by this feature.

Bluetooth (optional)

Bluetooth Operation can be selected to use with Bluetooth headset, earpiece and Bluetooth PTT.

GPS (optional)

The radio offers GPS function, it can report its GPS data, and other information by preset intervals, by detection of manually, or by polling, etc. The Radio can save its GPS information for later reading by CPS too.

Voice and Text Messages

The radio can send a voice or Text message to others as a notice, a memo, a message, etc. Recording and play back of the messages can be done.

Superior Digital Voice

The QM-2100 adopts AMBE+2 as its vocoder. This vocoder uses advanced narrow band voice encode/decode algorithm technology. While the AMBE+2 Voice compression algorithm has been traditionally reserved for use in satellite systems, this highly efficient voice compression algorithm has recently become available for use in radio applications.

The QM-2100 uses forward error correction (FEC), while transmitting, allowing the receiving radios to recover the original voice, even under high bit error environments. This avoids the noise heard on analog radios.

VOX

Allows for hands free communications of the radio when the appropriate VOX accessory is attached.

Multi-Communication Operational

Versatile calling. It supports Private Call, Group Call and All Call in Digital Mode. Data service has an easy to use interface.

Signaling

The radio comes with various signaling options. Built in CTCSS/DCS signaling in Analogue mode & DTMF, MDC1200, 2 Tone and 5 tones.

Software Upgradeable

Allows the user to add or delete functions to keep the radio up to date with current and future software upgrades.

Military Specifications

Constructed for protection against shock and vibration to maintain a high level of durability.

Other Features included

- Lone Worker
- Digital Encryption
- Voice auto record
- Dual Priority Scan
- Microphone Menu Operation
- DMR Monitoring
- Kill / Revive
- 8-programmable Long / short keys
- One touch / Quick Menu
- Power Up Zone / Home Zone
- Power On / Write / Read / Configuration File
- Password.



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FC CE IC

General Specifications	
Power Supply	13.8V DC \pm 20%
Frequencies - Full Bandsplit	400 - 470MHz 136-174MHz
Number of Channels	1000 Channels
Maximum number of Zones	250 Zones
Maximum number of Channels Per Zone	16
Channel Spacing	12.5/25kHz
Operating Temperature	-30°C~ +60°C
Dimensions: H x W x D(mm)	
With the remote header	46 X 160 X 175
Weight: (gm) Radio only	1315g
Not including installation	
Transmitter Specifications	
Frequency Stability(-30°C to 60°C, 25°C Ref)	1.0 ppm
Power Output	10W(L)/25W(M)/45W(UHF)/50W(VHF)(H)
Modulation Limiting	\pm 2.5kHz@12.5kHz/ \pm 5kHz@25kHz
FM Hum & Noise	-40dB@12.5kHz / -45dB@25kHz
Conducted/Radiated Emission	-36dBm < 1GHz, -30dBm > 1GHz
Adjacent Channel Power	-60dB@12.5kHz / -70dB@25kHz
FM Modulation Mode	12.5KHz: 11K0F3E/25kHz:16K0F3E
4FSK Digital Mode	12.5KHz (data only) : 7K60FXD 12.5KHz (data+voice) : 7K60FXE
4FSK Modulation Accuracy	5% @25°C, 10% @extreme temperature
Audio Response (300-3000Hz)	+1 ~ -3 dB
Digital Protocol	ETSI TS 102 361-1,-2,-3
Audio Distortion	3%
Vocoder	AMBE + 2™
Ext. Microphone Connector	DB15
Receiver Specifications	
Analog Sensitivity	.35 μ V/-116dBm(20 dB SINAD) .28 μ V/-118dBm(12 dB SINAD)
Digital Sensitivity	.3 μ V /-117.4dBm (BER 5%) .7 μ V /-110dBm (BER 1%)
Intermodulation	TIA603 70dB; ETSI:65dB
Adjacent Channel Selectivity	TIA603 70dB; TESI:70dB @25KHz TIA603 60dB; TESI:60dB @12.5KHz
Spurious Rejection	TIA603C:70dB; ETSI:70dB
Blocking	84 dB
Rated/MAX Audio	2000mW / 3000mW
Audio Distortion @ Rated Audio	3%
Audio Response (300-3000Hz)	+1 ~ -3 dB
Conducted Spurious Emission	-57dBm<1 GHz, -47dBm>1GHz ETS 300 086



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