



QUANTUN ELECTRONICS LLC

QUANTUN QP-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.

Dual Mode Operation

Operates in both Digital & Analogue mode. Allows for easy migration from Analogue to Digital, providing clearer voice communications in digital mode throughout the coverage area.

Multi-Communication Operational

Versatile calling. It supports Private Call, Group Call and All Call in Digital Mode.

Alphanumeric Keypad & Display

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

Signaling

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

Tri-color LED

The tri-color LED allows for notification of TX & RX status, as well as calling and scanning.

Battery

40% longer battery duration in digital mode.

Emergency Alarm

In case of an emergency, an alarm will be transmitted from the radio when the alarm button is pressed.

Software Upgradeable

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

Man Down (optional)

When this feature is activated the radio will enter an alarm mode if the radio remains in a horizontal position for a certain amount of time. The amount of time can be customized and pre-set by the user.

VOX

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

PC Tuning

Simplifies maintenance of the radio and tuning of the radio by allowing both to be done via a PC.

1000 channels Digital Mode

Each Channel can be programmed with several options on a per channel basis. Range 136-174 MHZ (VHF) / 400-470 MHZ (UHF).

Water Resistance & Dust Protection

The radio meets IP-65 for ingress protection.

Channel Annunciation

The radio will announce the channel selected for operation.

Powerful Audio Output

A 1W rated audio output ensures clear audio even in noisy environments.

Military Specifications

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



QUANTUN QP-2100



IP65

FC CE IC

General Specifications	
Power Supply	7.5V 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 Standard Li-ion battery (2000mAh)	113.5 X 54 X 34.5
Weight: (gm)	
With Standard Li-ion battery	285g
Average Battery Life 5/5/90 Cycle:	
With Standard Li-ion battery	16h Digital Mode/12h Analog Mode
Transmitter Specifications	
Frequency Stability(-30°C to 60°C, 25°C Ref)	1.0 ppm
Power Output	1W(L),4W(UHF)/5W(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
Adjacent Transient Channel Power	-50dB
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	Compatible with MOTO 2-pin
Receiver Specifications	
Analog Sensitivity	.35 μ V/-116dBm(20 dB SINAD) .22 μ V/-120dBm(12 dB SINAD)
Digital Sensitivity	.22 μ V /-120dBm (BER 5%) .25 μ V /-118dBm (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	750mW / 1000mW
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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