

# CS720

## DMR Two-way Radio



CS720 adopts the latest digital technologies, which results in a high quality product which is easy to use and very cost effective.



### Key Features:

#### Standard

- IP67 Color LCD DMR Radio
- 2,000 Channels, 250 Zones, 160 Channels / zone
- One Chanel Dual Modes
- Voice Text Message
- Recording & Play back

#### Optional

##### ■ Bluetooth

The Radio can choose Bluetooth version to use Bluetooth headset, Bluetooth PTT, or even use Bluetooth programming.

##### ■ GPS

The Radio can choose GPS, it can report its GPS and other information by preset periodic time, by distance changed, by manual, by inquiry etc. The Radio can save its GPS information for later reading by CPS too.

##### ■ Man-Down

The Radio can choose Man-down sensor to protect the end user.

##### ■ Vibration

The Radio can choose vibration motor to remind the user silently.

## Features

### ■ IP67 & Meeting with MIL810F

IP67 & MIL810F compliant allows the radio to be used in the harsh environment. 1.8 inch 160\*128 Color LCD allows the radio has a better show & operation Interface.

### ■ One Channel Dual Modes

The Radio can receive digital or analog signal in a same channel automatically, and revert to talk in the same digital or analog mode. This feature enables a mixed application among digital groups and analog groups, ensuring a smooth analog-to-digital transition.

### ■ Wide Band Frequencies

400~512MHz UHF Band.

### ■ Voice Text Message

The Radio can send a voice message to others as a notice, a memo, a message, etc.

### ■ Customizing

The customer could give his idea to his dealer for the manufacture to add its great idea in his radio by software upgarding. Some unique new features list as,

- **DMR Monitor**
- **Per Channel ID**
- **Group Call Alert**
- **TX Contact not Include**
- **Same ID Decode**
- **Internal/External Mic Gain**

## Other Features

- **Lone Worker**
- **Digital / Analog Emergency**
- **Digital Encryption**
- **Voice Auto Record**
- **Channel Voice Annunciation**
- **Contact / Channel Import & Export**
- **CTCSS / DCS Encode & Decode**
- **DTMF / MDC1200 / 2Tone / 5Tone Encode & Decode**
- **One Touch / Quick Menu**
- **Dual priority Scan**
- **VOX**
- **Kill/Revive**
- **Power Up Zone / Home Zone**
- **Frequency Display**
- **6-Programmable Long / Short Key**
- **Power On / Write / Read / Configuration File Password**

## GPS Specifications

Sensitivity	Tracking: -164dBm Cold Start: -147dBm
Acquisition Time	Host Start(Open shy): 1s (typical) Host Start(Indoor): <30s (typical) Cold Start(Open shy): 33s (typical) w/o AGPS <15s(typical) with AGPS
Position Accuracy	2.5m(typical)
Max. Altitude	<18,000m
Max. Velocity	<515m/s

## Specifications

### General

Power Supply	7.4V DC
Frequencies-Full Bandsplit	400~512MHz
Number of Channels	2000 Channels
Maximum number of Zones	250 Zones
Maximum number of Channels Per Zone	160
Channel Spacing	12.5/25kHz
Operating Temperature	-30°C~+60°C
Dimensions : HxWxD (mm)	
With Standard Li-ion battery (2000mAh)	130.5X56X36
Weight: (g)	
With Standard Li-ion battery	About 330g
Average Battery Life 5/5/90 Cycle	
With Standard Li-ion battery	16h D Mode/12h A Mode

### Transmitter

Frequency Stability (-30°C to 60°C, 25°C Ref)	1.0 ppm
Power Output	1W(L), 4W(H)
Modulation Limiting	±2.5kHz@12.5kHz/±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~ -3dB
Digital Protocol	ETSI TS 102 361-1,-2,-3
Audio Distortion	<3%
Vocoder	AMBE+2™
Ext. Microphone Connector	Compatible with MOTO XPR7550

### Receiver

Analog Sensitivity	0.35µV/-116dBm (20dB SINAD) 0.22µV/-120dBm (12dB SINAD)
Digital Sensitivity	0.3µV/-117.4dBm (BER 5%) 0.7µV/-110dBm (BER 1%)
Intermodulation	TIA603 70dB; ETSI 65dB
Adjacent Channel Selectivity	TIA603 70dB; ETSI:65dB@25kHz TIA603 60dB;ETSI 60dB@12.5kHz
Spurious Rejection	TIA603:75dB; ETSI:70dB
Blocking	84dB
Rated Audio/MAX Audio	750mW/1000mW
Audio Distortion@Rated Audio	3%
Audio Response (300-3000Hz)	+1~ -3dB
Conducted Spurious Emission	-57dBm<1GHz,-47dBm>1GHz ETS300086