

## Specifications

### General

Frequency	VHF: 136-174MHz UHF2: 450-520MHz UHF1: 400-470MHz UHF3: 350-400MHz UHF4: 300-360MHz
Channel Capacity	1024
Channel Space	12.5/20/25KHz
Dimensions(H*W*D)	60*174*190mm
Weight	1500g
LCD	2.8 inch HD TFT LCD 240x320 pixels, 262K colors
Operating Voltage	DC13.6V±15%
Current Drain	<9A (45W) <7A (25W) <5A (5W)

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### Transmitter

Frequency Stability	0.5ppm
RF Max. Power Output	UHF: 45W/25W VHF: 50W/25W
Digital Modulation	7K60FXD(Data Only) /7K60FXW(Data and Voice)
FM Modulation	16K @ F3E@25KHz /14K @ F3E@20KHz / 11K @ F3E@12.5KHz
4FSK Modulation Accuracy	5%
4FSK BER	0%
4FSK and Magnitude Error	5%/1%
Adjacent Channel Power	70dB@25/20KHz / 60dB@12.5KHz
Conducted and Radiated Emission	-36dBm <1GHz / -30dBm >1GHz
Transmission Deviation limits	5KHz@25KHz / 4KHz@20KHz /2.5KHz@12.5KHz
Audio Distortion	3%
Hum and Noise	48dB@25KHz / 46dB@20KHz /43dB@12.5KHz
Audio Response	+1 ~ -3dB

### Receiver

Digital Sensitivity	-120dBm / BER 5% -116dBm / BER 1%
Digital Dynamic Faded Sensitivity (100KM/H & 8KM/H Rayleigh Fading)	-104dBm
Analog Sensitivity	-120dBm / 12dB SINAD
Intermodulation	75dB (TIA603) / 70dB(ETSI)
Blocking	95dB (TIA603 & ETSI)
Spurious Response Rejection	75dB (TIA603 & ETSI)
Adjacent Channel Selectivity	75dB@25 KHz (TIA603) 70dB@25 KHz (ETSI) 70dB@20KHz (TIA603 & ETSI) 65dB@12.5KHz (TIA603) 60dB@12.5 KHz (ETSI)
Conducted Spurious Emission	-57dBm
Rated Audio Power Output	7W(Internal@20ohm load) 15W(External@8ohm load)
Rated Audio Distortion	3%
Hum and Noise	48dB @25KHz / 46dB@20KHz / 43dB@12.5KHz
Audio Response	+1 ~ -3dB
Digital Vocoder Type	AMBE++
Digital Protocol	ETSI-TS102 361 -1, -2, -3, -4

### Reliability

Operating Temperature	-30 ~ +60 C
Storage Temperature	-40 ~ +85 C
Dust & Water Intrusion	IP54
Humidity	MIL-STD-810 C/D/E/F/G Standard
Shock&Vibration	MIL-STD-810 C/D/E/F/G Standard
ESD	IEC 61000-4-2(level 4) ±8KV(Contact) , ±15KV(Air)

### GPS&GLONASS

TIFF Cold Start	60s
TIFF Hot Start	10s
Horizontal Positioning Accuracy	10m

### Standard Accessories :



Pictures above are for reference only and may vary from actual products.

FC CE RoHS



## DMR Mobile Radio EM8100

- ◆ Full Duplex Communications
- ◆ 2.8" HD TFT LCD Display
- ◆ IP54 and MIL-STD-810 Standard Compliance
- ◆ DMR Tier II Conventional and DMR Tier III Trunking





## Advantage Features

### 2.8" HD TFF LCD Display

Adopts 2.8" HD TFT LCD display for a good visibility.



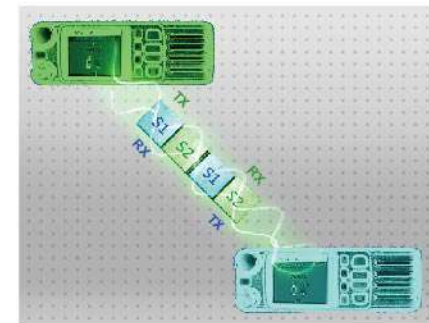
### Built-in Bluetooth(Optional)

Equipped Bluetooth inside radio, ensuring the expanding applications, such as BT accessories, BT wireless programming and other applications.



### Full-duplex calling (Optional)

Full duplex calling allows for natural and intuitive communications without push-to-talk.



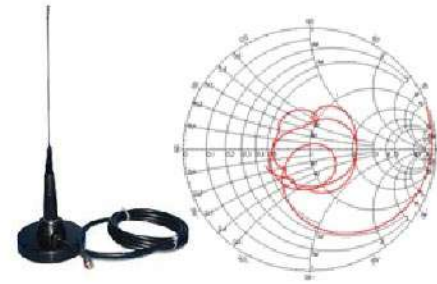
### DMR Tier III Support

Supports DMR Tier III just by software upgrade and makes the radio application more rich and more advanced.



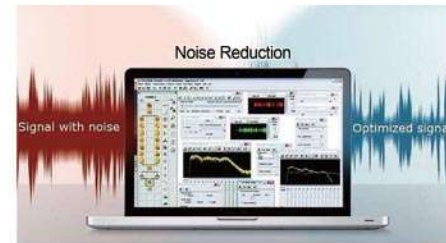
### Innovative Auto-protecting Technology

This feature ensures the radio work normally, when the loader is not matching (abnormal SWR and unmatched current, etc).



### Built-in Noise Reduction Function(Optional)

Featured with advanced noise reduction which makes the noise suppression be up to 25dB.



### Built-in GPS (Optional)

Supports to track position information and the GPS data.



### Rich API Support

Rich API supports the user or third party to develop supplemental applications.



## Advantage Features

### IP54 and MIL-STD-810 Standards Compliance

EM8100 is in accordance with the MIL-STD-810 and IP54(IEC60529) high reliability standards, ensuring outstanding performance even in harsh environment.



### Remote Mount Control Head

The remote mount control head can be mounted on the dashboard without the radio chassis while the space is limited in motorcycle and vehicle.



## Main Functions

### DMR Conventional

#### Radio Function

- › Direct/Repeat Mode
- › Scan
- › Bluetooth 4.0
- › RMO Pseudo Trunk
- › TDMA Direct Mode
- › Ignition
- › Multi-site Roaming
- › Easy Trunk
- › VOX
- › Time&Date Display

#### Voice Service

- › Group Call
- › Private Call
- › All Call
- › Emergency Call
- › Broadcast Call
- › Phone call
- › One Touch Call
- › Public Address Call

#### Data Service

- › Text Messaging
- › Status Messaging
- › Clone

#### Supplementary Service

- › Call Alert
- › Radio Check
- › Remote Monitor
- › Radio Enable/Disable /Kill

#### Safety Function

- › DMRA Encryption(ARC4, DES&AES)
- › Transmit Interrupt
- › Lone Worker

#### Location Service (optional)

- › GPS
- › Beidou
- › GLONASS

### Analog Conventional Signaling

- › CTCSS&CDCSS
- › 2-Tone
- › 5-Tone

### DMR Tier III and MPT Trunking (Software Licensed)

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## Optional Accessories

Keypad Microphone EMKA011	Desktop Microphone EMDA011	Telephone Style Handset EMTA011	Bluetooth Headset EEWB03E	Wireless PTT EPTTB01	Vehicle Remote Control Head Mount kit ERC01	Motorcycle Remote Control Head Mount kit ERC02
Programming Cable EPC02	Smart Power EEPS01	Mobile Antenna EAM434401	GPS Antenna EAM1157501			

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