



DP810Ex

Intrinsically Safe DMR Portable Radio

Kirisun intrinsically safe DMR portable radio DP810Ex is specially designed for operating safely in hazardous environments, providing more safety and reliability for workers who need to operate in hazardous environments containing explosive gases and combustible dust.



DP810Ex

Key Features and Benefits

● Reliability in hazardous environment

DP810Ex complies with MIL-STD-810 C/D/E/F/G standards. IP68 rating for water and dust protection, Shockproof, waterproof, fall proof and dust proof. It's designed to meet stringent International safety standard ATEX directive. Even if your hazardous and terrible work environment is full of gases, vapours, mists and dusts, it can also be operated normally.

● Enhanced Safety

Kirisun DP810Ex ensure your safety with Built-in Man-down, GPS and Lone Worker functions, as well as a dedicated emergency button, which could be easily triggered in case of any accident, to send an alarm and initiate a voice call to a pre-programmed work fellow or group immediately.

● High-Capacity and Safe Design Battery

2100mAh battery supplied in the standard package, operates up to 15-18 hours in 5-5-90 mode. The battery circuitry is fully encapsulated to prevent damaged by high temperature and humidity.

● High Quality Audio

Super volume (up to 130 decibels) ensures listening and speaking clearly in a noisy environment, to satisfy well communication in heavy equipment, engines, trucks and factories.

● Easy to Use

Ergonomically designed and easy to use, it features customizable buttons and an intuitive user interface. The infinite knob and large PTT buttons allow users to use while wearing gloves.

● GPS Location

Integrated GPS enables real time tracking of your mobile team members.

● Encryption for Communication Security

It provides basic and enhanced encryption capability, including ARC4 and enhanced AES/DES up to 256 digit-encryption algorithm. It ensures secure communication on voice call and data transfer among team members.

● Vibration

Vibration alert reminds reception of message and call in noisy environment. Support call alert vibration, incoming call vibration, incoming SMS vibration, emergency alarm vibration.

● Transmit Interrupt

Enables users to interrupt another radio call to deliver critical communication exactly when and where it's needed.

● Rich Signaling

Multiple advanced analog signaling, including MDC1200, DTMF, 2-Tone and 5-Tone, providing higher expansion capacity in current communication systems.

● Dual-slot Pseudo Trunk

This feature can improve frequency efficiency by allocating free slot to a member and helps you to communicate timely in emergency.

● DMR TierIII and MPT Working Mode(Optional)

It supports DMR Tier3 and MPT1327 working mode easily by license control.

All specifications are subject to change without notice due to continuous development.



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Specifications

General	
Frequency Range	UHF: 400-470MHz
Channel Capacity	1024
Zone Capacity	248
Channel Spacing	Analog 12.5kHz/20kHz/25kHz
	Digital 12.5kHz
Operating Voltage	7.5V DC±20%
Battery	2100mAh
Battery Life	Analog: 15 hours@2100mAh
(5-5-90 Duty Cycle, High TX Power)	Digital: 18 hours @2100mAh
Frequency Stability	±0.5 ppm
Antenna Impedance	50Ω
Dimensions(H-W-D)	143mmx56mmx43mm
(with standard battery, without antenna)	
Weight(with standard battery)	385g(2100mAh)
LCD Display	1.8inch, 5 rows 65535 color
ATEX	II 2G Ex ib IIC T4, II 2DEx ib IIIC T120°C IP5X

Receiver	
Sensitivity Analog	≤-120dBm@12dB SINAD
Digital	≤-119dBm@5% BER
Selectivity TIA-603 ETSI Analog	≥60dB@12.5kHz, ≥70dB@20&25kHz
Digital	≥60dB
Spurious Response Rejection	70dB@12.5/20/25kHz(TIA-603)
TIA-603 ETSI	70dB@12.5/20/25kHz(ETSI)
Hum and Noise	40dB@12.5KHz, 43dB@20KHz, 45dB@25KHz
Rated Audio Power Output	≥0.5W
Rated Audio Distortion	≤5%
Audio Response	+1 ~ -3dB
Conducted Spurious Emission	<-57dBm

Transmitter	
RF Power Output	Typical 1W (±1.5dB)
FM Modulation	11KΦF3E@12.5kHz; 14KΦF3E@20kHz; 16KΦF3E@25kHz
4FSK Digital Modulation	7K6ΦF1D/7K6ΦFXD @Data; 7K6ΦF1E/7K6ΦFXE @Data;
	7K6ΦF1W@Data and Voice
Modulation Limiting	±2.5kHz@12.5kHz, ±4.0kHz@20kHz, ±5.0kHz@25kHz
FM Hum & Noise	-40dB@12.5kHz, -43dB@20kHz, -45dB@25kHz
Adjacent Channel Power	60dB@12.5kHz, 70dB@20/25kHz
Audio Response	300-3kHz, +1 ~ -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE+2™
Digital Protocol	ETSI-TS102 361-1,-2,-3,-4

Environment Specifications	
Operating Temperature	-20°C~ +50°C
Storage Temperature	-40°C ~ +85°C
ESD	IEC610000-4-2(Level4), ±4kV(Contact) ±8kV(air)
American Military Standard	MIL-STD-810-C/D/E/F/G
Dust & Water Protection	IP68 Standard
Humidity	Per MIL-STD-810 C/D/E/F/G Standard
Shock & Vibration	Per MIL-STD-810 C/D/E/F/G Standard

GPS	
Accuracy specs are for long-term tracking (5 satellites visible at nominal -130dBm)	
TTFF(Time To First Fix) Cold Start	<1 minute
TTFF(Time To First Fix) Hot Start	10 seconds
Horizontal Accuracy	10m

FC CE ISO9001: 2015 Accredited Designer & Manufacturer