

General Specification

Frequency Range	UHF:350-390MHz 400-480MHz VHF:136-174MHz (A720T/Ex)only
Channel Capacity	32CH/1600CH
Channel Spacing	25 kHz/12.5 kHz
Operation Temperature	-25 °C ~ +60 °C
Frequency Stability	±1.5 ppm
Operation Voltage	7.2VDC
Antenna Impedance	50Ω
Microphone Impedance	2.2KΩ
Battery Life (5-5-90 duty cycle)	Li-ion DC7.2V 2400mAh
Dimension(height*width*thickness)	A720T(Ex):125.9mm x 53.9mm x 31.8mm A780T(Ex):125.9mm x 53.9mm x 34mm
Weight	305g (with battery and antenna)

Transmitter

Sensitivity Analog	25K ≤ 0.22uV/12dB SINAD 12.5K ≤ 0.25uV/12dB SINAD
Digital	0.22uV (BER 5%)
SNR (Signal-To-Noise Ratio)	25K ≥ 45 dB 12.5K ≥ 40 dB
Adjacent Channel Selectivity	25K ≥ 70 dB 12.5K ≥ 65 dB
Intermodulation	25K ≥ 65 dB 12.5K ≥ 65 dB
Spurious Response Rejection	≥ 70dB
Audio Output Power	≥ 1000 mW
Rated Audio Distortion	≤ 5%

Receiver

RF Power	< 3.5W rated 2.5W
FM Modulation	25kHz: 16KPF3E 12.5kHz: 8KPF3E
4FSK Digital Modulation	12.5kHz data 7K60FXD 12.5 kHz data and voice 7K60FXW
Digital Vocorder Type	AMBE+2TM
Digital Protocol	ETSI-TS102 361-1, -2
Harmonic	≥ 70 dB
Rated Audio Distortion	≤ -45 dB @ 25kHz ≤ -40 dB @ 12.5kHz
Audio distortion	≤ 5%
Max. Frequency Deviation	5 kHz @ 25kHz 2.5 kHz @ 12.5kHz

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

Standard Accessories



Charger
BC-780A



Li-ion battery
AB-L2478Ex 2400mAh



Belt clip



Antenna



Hand strap

Optional Accessories: Multi AC adapter, Earphone, Programming cable.



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Dealer Area

ABELL®



A720T(Ex)/A780T(Ex)

Intrinsically Safe DMR Two Way Radio

- ◆ Gas, dust, dual explosive-proof
- ◆ IP67 dustproof and waterproof
- ◆ DMR two slots, digital & analog dual mode
- ◆ Diversified remote emergency alarm
- ◆ Produced complying to intrinsically safe standards



Reference No.: CNEX 19-20224

Explosion-proof Certification

Manufacturer: ABELL INDUSTRIES LTD. LTD.
 1/F, Block 4, Zhongxing Industrial City, Zhongxing Industrial City, Shenzhen

Product Name: Explosion-proof digital two-way radio
 Model: A720T
 Certificate No.: CNEX 19-20224
 Product Standard: GB 3836.1-2014
 Final Approval No.: A720T-08-00

After reviewing the product drawings, technical documents and sample design location, the following standards are met:
 GB 3836.1-2014: Explosion-proof design of electrical equipment in hazardous areas
 GB 3836.2-2014: Explosion-proof design of electrical equipment in hazardous areas

GB 3836.2-2014: Explosion-proof design of electrical equipment in hazardous areas
 GB 3836.2-2014: Explosion-proof design of electrical equipment in hazardous areas

Note:
 1. The battery used for the product is not included in the scope of the certification.
 2. The product is not suitable for use in explosive atmospheres.
 3. The product is not suitable for use in explosive atmospheres.
 4. The product is not suitable for use in explosive atmospheres.

Director of the Factory

Director of the Factory



Intrinsically Safe standard:

Comply to the standard EX ib IIB T4, the radio can be used at the sites with inflammable gas, also at the sites with high level dust. A720T(Ex) is the dual explosive proof radio for both gas and dust, which fits for use in various fields, like firefighting, chemical, petroleum, and natural gas etc.

High interference:

A720T(Ex) use the AFC discrete VCO design, which leads the discrete receive channel in narrowband, maintain the high level anti-interference parameters. Support the use in the complex electromagnetic environment.

High performance explosive safe battery:

2400 mAh high performance Li-ion battery cell originated from Panasonic, with super strict explosive proof circuit, maintains both the safety and longer use time, the maximum standby time is up to 60 hours.

Crystal clear voice:

Comply to ETSI DMR digital standard, with the digital noise reduction, and digital audio encryption technology, the radio provides crystal clear and loud voice, even at the noisy sites or with the weak signal received.

Harsh IP proof level:

Adopt the IP67 dustproof and waterproof design, the radio is submersible at the depth of 1 meter up to 30 minutes, function well. The wonderful sealing ensures the board inside un-eroded in the harsh usage cases.

Certificate complied:

Intrinsically safe CNEX192542X
 IP67 dustproof and waterproof
 FCC
 CE

