APEX-1000
Two Way Digital Radio

Key Features:

- Dual Mode (Analogue + Digital)

- Superior Digital Voice

- Versatile Calls and Data Service

- Wide Band Frequencies

- IP65 Compliant

APEX-1000 is tough and a cost effective solution that will help you to empower your business communications.

From Your Two Way Radio Communications Experts

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Key Features

Dual Modes (Digital + Analogue)
APEX-1000 can operate in digital or analogue mode. Its analogue mode is compatible with the prevalent analogue system, ensuring a smooth analogue-to-digital transition.
Digital mode adopts TDMA technology which decreases the equivalent Transmit time in half which lets the battery last longer. The two time slots for each frequency doubles the number of channels available allowing other applications such as a single frequency repeater and pseudo trunking.

Superior Digital Voice
APEX-1000 adopts AMBE+2 as its vocoder. This vocoder uses advanced narrow band voice encode/decode algorithm technology. While the AMBE+2 Voice Compression algorithm has been traditionally reserved for use in satellite systems, this highly efficient voice compression algorithm has recently become available for use in radio applications.
The APEX-1000 adopts forwarder error correction(FEC) while transmitting allowing the receiving radios to recover the original voice even under high bit error environments. This avoids the noise heard in the analogue mode. Sounds clear over the full communication range.

Versatile Calls and Data Service
Practical data service with easy to use interface.The APEX-1000 adopts the standard ETSI DMR protocol and therefore can realise many different calls and data service, for a myriad of practical applications. For instance, by adopting the uniform addressing method, 16 colour codes, and 2 time slots, the user can have over half billion combinations. Thus it can solve the cross talking trouble when too many people share one frequency. By the group addressing method, the user can easily call a unique person, a group of people, several groups of people, or even all people on the channel. The APEX-1000 supports ANI, missed calls, messages, PATCS, OACSU, OVCM etc.

Wide Band Frequencies
Full Band design helps to use in the most application area.
UHF: 400-470 MHZ

IP65 & MIL810F Compliant
APEX-1000 are IP65 compliant and meets MIL810 C/D/E/F allowing the radio to be used reliability in harsh environments.

One Touch
APEX-1000 supports One Touch feature where you can use it to send Text Message or make a call or even make a special service easily.

Scan
APEX-1000 supports versatile scan lists to scan the activities on the channels you preset, no matter analogue or digital channels.

Versatile Password
APEX-1000 supports versatile passwords such as radio power up password and radio program password to protect your radio from unwanted intrusion.

Software Upgradable
With this feature, your dealer can upgrade your radio with new feature to meet the future requirements.

Specifications

General

Power Supply	7.5V DC± 20%
Frequencies-Full Bandsplit	400~470MHz
Number of Channels	32 Channels
Maximum number of Zones	2 Zones
Maximum number of Channels Per Zone	16
Channel Spacing	12.5/25kHz
Operating Temperature	-30°C~+60°C
Dimensions: HxWxD (mm) with Standard Li-in Battery (1700mAH)	113.5x54x34.5
Weight: (g) with Standard Li-ion battery	275g
Average Battery Life 5/5/90 Cycle with Standard Li-ion battery	14h Digital Mode 11h Analogue Mode

Transmitter

Frequency Stability (-30°C to 60°C, 25°C Ref)	1.00ppm
Power Output	1W(L), 4(H)
Modulation Limiting	±2.5 kHZ @ 12.5 kHZ
FM Hum & Noise	-40dB
Conducted/Radiated Emission	-36dBm<1GHz, -30dBm>1Ghz
Adjacent Channel Power	-60dB
Adjacent Transient Channel Power	-50dB
FM Modulation Mode	2.5KHz :11K0F3E
4FSK Digital Mode	12.5KHz (data+only) : 7K60FXD
	12.5Khz (data+voice) : 7K60FXE
4FSK Modulation Accuracy	5%@25°C, 10%@extreme temperature
Nonactive Slot Power	-57dBm
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 2-pin

Receiver

Analogue Sensitivity	0.65µV/-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	TIA603C: 65dB; ETSI: 70dB
Spurious Rejection	TIA603C: 75dB; ETSI: 70dB
Blocking	84dB
Rated Audio	1000mW
Audio Distortion @ Rated Audio	3%
Audio Response (300-3000Hz)	+1~-3dB
Conducted Spurious Emission	-57dBm<1GHz, -47dBm>1GHz ETS30086

*All specifications are subject to change without notice

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