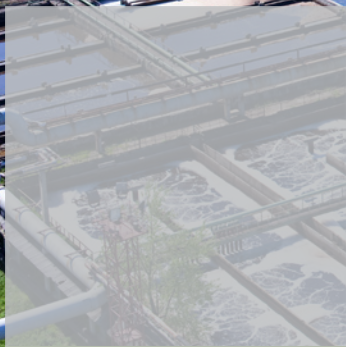# X1 Series

Executive Digital Portable Radio

- Slim Design for User Comfort and Covert Applications
- Built-in GPS, Bluetooth, and Man-Down Features

X1p   X1e

DMR
DIGITAL MOBILE RADIO ASSOCIATION

RATED
IP67

www.hytera.us

X1 Series

The X1 Series is built to the DMR Standard and is rich in features for both voice and data communication. The design is approved to rigorous IP67 and MIL-STD 810 testing. The Hytera-patented pseudo-trunking maximizes channel usage. Key features such as man down, vibration, a dedicated emergency button, and the large color display make this an ideal solution for mission critical communications. The radio's slim size enables a user to carry it covertly in a pocket or belt clip. The X1 Series also comes standard with a GPS chip that allows the radio to integrate with Hytera SmartDispatch or other 3rd party GPS dispatching software.
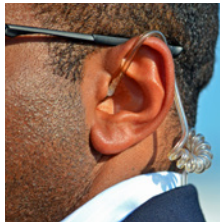
Applications

Security	Business	Public Safety	Utilities	Manufacturing	Forestry

Product Features

- **Ease of Use**
  Easy to use with the rugged body as thin as 18mm, professional wireless headsets or collar microphone, palm controller and flexible antenna.

- **Rugged & Reliable**
  Complies with MIL-STD-810 C/D/E/F/G standards and passes HALT (Highly Accelerated Life Test).

- **Large Color Display**
  X1p has a 1.8" TFT LCD display (65536 colors), allowing good visibility even in strong sunlight and the ability to view 4 lines of status messages.

- **Advanced Signaling**
  Supports multiple advanced analog signaling modes, including HDC1200, 2-Tone and 5-Tone, providing better integration into existing analog radio fleets.

- **Secure Communication**
  Besides the encryption inherent to digital technology, The X1 Series radios provide enhanced encryption capabilities (such as 256-bit dynamic encryption and Advanced Encryption Standard , AES encryption algorithm).

- **Dual Mode: Analog & Digital**
  Dual mode (analog & digital) operation ensures a smooth analog to digital migration.

- **Versatile Voice Calls**
  The intelligent signaling of the X1 Series radios support various voice call types, including Private Call, Group Call , All Call and Emergency Call.

- **Bluetooth**
  X1 Series Radios can connect to Bluetooth to earpieces using the Hytera wireless PTT Accessory.

- **Expansion Ports**
  This allows third parties to develop accessory and applications via front and rear port of the mobile.

- **GPS Positioning**
  Supports viewing of GPS positioning information and sending of GPS text message.

- **Vibration**
  Vibration alerts the user of voice calls and text messages.

- **Software Upgradeable**
  Upgradeable software enables new features without buying a new radio; X1 Series radios can also be switched into DMR trunking modes with corresponding trunking license applied in the same hardware.

- **IP67 Protection**
  The Ingress Protection reaches IP67 (6: Totally protected against dust; 7: Protected against the effects of immersion up to 1m for 30 minutes). It's the highest IP level for land-based wireless radio application.

Accessories

Included
- Li-Ion Battery
- MCU Rapid-rate Charger
- Power Adapter
- Antenna

See website for full list

Optional

| Detachable Earpiece with Transparent Acoustic Tube EHN22 | Carrying Case Belt Clip PCN005 | Programming Cable (USB Port) PC45 | Wireless Push To Talk POA47 |

Specifications

General

Frequency Range		VHF: 136 - 174MHz ; UHF1: 400 - 470MHz UHF2: 450-520MHz ; UHF3: 350 - 400MHz UHF5: 806-941MHz (only for DMR Trunking)	
Channel Capacity	X1e	32	
	X1p	1024	
Zone Capacity (each with a maximum of 16 channels)	X1e	3	
	X1p	64	
Channel Spacing		25 / 20 / 12.5KHz	
Operating Voltage		7.4V (rated)	
Battery		1800mAh (Li-Ion)	
Battery Life (5-5-90 Duty Cycle, High TX Power)	Analog	Approx. 11hrs	
	Digital	Approx. 15hrs	
Frequency Stability		±0.5ppm	
Antenna Impedance		50 Ω	
Dimensions (HxWxD)	X1e	4.7 x 2.24 x 1.02 inches	
	X1p	4.7 x 2.24 x 0.91 inches	
Weight	X1e	9.17 oz	
	X1p	9.88 oz	
LCD (X1p)		160 x 128 pixels, 65536 colors,1.8in, 4 rows	
FCC ID		See website for full list	
Industry Canada ID		See website for full list	

Environmental Specs

Operating Temperature	-22°F ~ +140°F
Storage Temperature	-40° F~ +185° F
ESD	IEC 61000 - 4 - 2 (level 4) ±8kV(contact) ; ±15kV (air)
American Military Standard	MIL-STD-810 C/D/E/F/G
Dust & Water Intrusion	IP67 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

TTFF (Time To First Fix) Cold Start	<1 minute
TTFF (Time To First Fix) Hot Start	<10 seconds
Horizontal Accuracy	<10 meters

Transmitter

RF Power Output	VHF: Low 1W - High 5W ; UHF1,2,3: Low 1W - High 4W ; UHF5: Low 1W - High 3W
FM Modulation (Analog Emissions Designator)	11K φF3E @ 12.5KHz ; 14KφF3E @ 20KHz ; 16KφF3E @ 25KHz
4FSK Digital Modulation (Digital Emissions Designator)	12.5KHz Data Only: 7K6φFXD 12.5KHz Data & Voice: 7K6φFXW
Conducted/Radiated Emission	-36dBm<1GHz -30dBm>1GHz
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	+1 ~ -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE++ or SELP
Digital Protocol	ETSI-TS102 361-1, 2&3

Receiver

Sensitivity	Analog	0.3 μ V (12dB SINAD) ; 0.22 μ V (Typical) (12dB SINAD); 0.4 μ V (20dB SINAD)
	Digital	0.3 μ V/BER5%
Selectivity TIA-603 ETSI		60dB @ 12.5KHz / 75dB @ 20/25KHz 60dB @ 12.5KHz / 70dB @ 20/25KHz
Intermodulation TIA-603 ETSI		70dB @ 12.5/20/25KHz 65dB @ 12.5/20/25KHz
Spurious Response Rejection TIA-603 ETSI		70dB @ 12.5/20/25KHz 70dB @ 12.5/20/25KHz
Blocking TIA-603 ETSI		80dB 84dB
S/N		40dB @ 12.5KHz ; 43dB @ 20KHz ; 45dB @ 25KHz
Rated Audio Power Output		0.5W
Rated Audio Distortion		≤3%
Audio Response		+1 ~ -3dB
Conducted Spurious Emission		< -57dBm

Your Local Dealer

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