

Data sheet

APX 4000XH Portable Radio

Ensuring safe communication,
no matter the element



Mining and Petrochemical personnel are faced with extreme temperatures and challenging conditions in everyday operations and require an adaptable two-way radio to instantly transmit voice and data communications and collaborate with work partners in real-time.

The APX 4000XH is a purpose-built P25 two-way portable radio delivering loud, clear audio that significantly reduces background noise to ensure the message gets through the first time, in noisy environments. Given that the APX 4000XH is intended for use in extreme operating environments, its purpose-built design has been subjected to extreme testing to simulate harsh usage in field. This unbeatable offering seamlessly connects workers while increasing operational efficiency and employee productivity.

Loud And Clear

The APX 4000XH leverages the leading attributes of the APX family of P25 TDMA portables like the 2-microphone design. Built to reduce background noise, you can speak and hear clearly over heavy equipment, diesel engines and drilling activities.

- New magnetic speaker grill has reduced magnetic force to deflect metallic dust and fibers from impacting audio quality.
- Dual microphone locates voice and cancels out ambient noise.
- Extreme Audio Profile reduces background noise and improves voice clarity.
- Equipped with the latest AMBE digital voice vocoder.

Hazloc Safe

A compact P25 Phase 2 capable portable, the APX 4000XH is built tough –inside and out to withstand harsh environments and tested to the US military standard MIL-STD Rated G. The skeleton design also helps protect the core from shock/impact and submersion.

- Highest hazardous classification rating offered on APX portfolio: CSA -157, IECEx.
- With the bright orange HAZLOC safe standard housing, this radio is easy to identify in hazardous conditions.
- Simplified, 2 knob controls provide easy access to channel switching and volume control when using gloves.
- Enhanced T-grip design provides better grip and control.



Features

RF BANDS

800/900 Mhz

9600 Baud Digital APCO P25 Phase 1 FDMA and Phase 2 TDMA Trunking

3600 Baud SmartNet®, SmartZone®, SmartZone, Omnilink Trunking

Digital APCO 25, Conventional, Analog MDC 1200, Quick Call II System Configurations

Narrow and Wide Bandwidth Digital receiver (6.25 kHz equivalent/25/20/12.5 KHz)

OPTIONAL FEATURES

GPS Outdoor Location

Mission-Critical Geofence

Multi-key for 128 Keys and Multi-algorithm Programming Over Project 25 (OTAP)

Digital Tone Signaling

Site Selectable

P25 Authentication

Man Down / Fall Alert Sensor

STANDARD FEATURES

CSA -157, IECEX

IP68 (2m/4hr), Mil Std 512.X Delta - T

M3 – Orange Housing Standard

0.5 W High Audio Speaker with 2-mic Noise Canceling Technology

ASTRO 25 Integrated Voice & Data

ADP Software

Voice Announcements

ISSI 8000 Roaming

Radio Profiles, Dynamic Zone

Intelligent Lighting

Single-Key ADP Encryption

RF BANDS

Utilizes Windows 7 and 8 Customer Programming Software (CPS) with Radio Management

Typical performance specifications

RF BANDS

Frequency

Audio output

851-870 MHz
935-940 MHz

Analog Sensitivity

500mW

Digital Sensitivity

1% BER 0.335uV
5% BER 0.232uV

Selectivity

25k -76dB
12.5k -67dB

Intermodulation

12.5k -75dB

Spurious Rejection

12.5k -75dB

FM Hum and Noise

12.5k -46dB

Audio Distortion

12.5k 1.20%

TRANSMITTER SPECIFICATIONS

Frequency Range/Bandsplits	800 MHz	806-824, 851-870 MHz
	900 MHz	896-901, 935-940 MHz

Channel Spacing	800 MHz	25/12.5 kHz
	900 MHz	12.5 kHz

Maximum Frequency Separation	Full Bandsplit	
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Rated RF Output Power Adj	800 MHz	1-3 Watts Max
	900 MHz	1-2.5 Watts Max

Frequency Stability (-30°C to +60°C; +25°C Ref.)	±0.00010 %
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Modulation Limiting	800 MHz	±5 kHz / ±4 kHz / ±2.5 kHz
	900 MHz	±2.5 kHz

Emissions (Conducted and Radiated)	-75 dB
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Audio Response	+1, -3 dB
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FM Hum & Noise	25 kHz	-51 dB
	12.5 kHz	-45 dB

Audio Distortion	25 kHz	1.00%
	12.5 kHz	



PORTABLE MILITARY STANDARDS 810 C, D, E, F, & G

	MIL-STD 810C		MIL-STD 810D		MIL-STD 810E		MIL-STD 810F		MIL-STD 810G	
	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.5	II
High Temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Basic Hot	501.5	I/A1, II/A2
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1	502.5	I/C3, II/C1
Temperature Shock	503.1	I	503.2	I/A1C3	503.3	I/A1C3	503.4	I	503.5	I/C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I/A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.5	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	1 Proc	507.5	II/Aggravated
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	1 Proc	509.5	1 Proc
Blowing Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Blowing Sand	1 Proc	1 Proc	510.2	II	510.3	II	510.4	II	510.5	II
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.6	I/24
Shock	516.2	I, III, V	516.3	I, V, VI	516.4	I, V, VI	516.5	I, V, VI	516.6	I, V, VI
Shock (Drop)	516.2	II	516.2	IV	516.4	IV	516.5	IV	516.6	IV

DIMENSIONS OF THE RADIO WITHOUT BATTERY

	LENGTH	WIDTH PTT BUTTON	DEPTH PTT BUTTON	WIDTH TOP	DEPTH TOP	WEIGHT
Inches	5.86	2.60	1.29	2.93	1.39	11.04oz
Millimeter	148.8		32.8	74.4	35.2	313g

Note. APX 4000XH radio models are CSA intrinsically safe, when properly equipped with battery NNTN8750A for, Division 1, Class, Groups A, B, C, D, Class, Groups E, F, G, Class III. For more details on all CSA approved accessories refer to APX4000XH CSA manual.





Leading-edge accessories

To maintain CSA system certification, it is critical you use Motorola certified batteries and accessories with your APX 4000XH

INC remote speaker microphone

Unleash the power of Motorola's Industrial Noise Canceling (INC) Remote Speaker Microphone (RSM) and be heard in loud environments. An innovative dual-microphone design suppresses background noise so you can hear and be heard. Plus, a large 1-watt speaker delivers the loudest, clearest audio available – up to 25% more than MOTOTRBO RSMs – so you can hear above very high level noise

INC REMOTE SPEAKER MICROPHONE

NNTN8382

IMPRES™ INC Remote Speaker Microphone, IP57 Submersible.



NNTN8383

IMPRES INC Remote Speaker Microphone with threaded 3.5mm audio jack.



IMPRES REMOTE SPEAKER MICROPHONES

PMMN4050

IMPRES Remote Speaker Microphone with 3.5 mm audio jack (IP54).



PMMN4067

IMPRES Remote Speaker Microphone with volume toggle switch, emergency button and Windporting (IP64).



RECEIVE-ONLY EARPIECES FOR INC RSM

RLN5313

Receive-only one wire earpiece with clear acoustic tube, black.



BDN6781

Receive-only one wire earbud, black.

EARPIECE FOR RSMS WITH NON THREADED JACKS

RLN4941

Receive-only earpiece with translucent tube and rubber eartip. Compatible with PMMN4050 and PMMN4062.



HEAVY DUTY HEADSETS

PMLN8264	Receive only hard hat headset with 3.5mm plug (CSA) Note: replacement for RMN4054B	
NNTN8380	Peltor Heavy Duty Headset with helmet attachment and noise-cancelling boom microphone, 26dB noise reduction rating. Requires NNTN8378 or PMLN6368 PTT adapter. Helmet not included	
PMLN5275	Behind-the-head Heavy Duty Headset with 24dB noise reduction rating. This dual-muff headset includes flexible noise-canceling boom microphone with a push-to-talk switch located on the earcup. Can be worn with or without a helmet.	
NNTN8379	Peltor Heavy Duty Headset with helmet attachment and noise-cancelling boom microphone, 24dB noise reduction rating. Requires NNTN8378 or PMLN6368 PTT adapter. Helmet not included.	
NNTN8378	Peltor Push-to-Talk Adapter, rugged and easy to operate with heavy gloves.	
PMLN6368	Peltor Push-To-Talk Adapter, small.	

IMPRES battery management

With the unique IMPRES Battery Data Reader or IMPRES Battery Fleet Management systems, you can efficiently manage batteries with real-time data. This easy-to-use software application shows you if there is enough capacity for a full shift, alerts you to low capacity batteries, prevents downtime and eliminates throwing batteries out prematurely.

IMPRES BATTERY MANAGEMENT

NNTN7676	IMPRES Battery Management Software (download).	
HKVN4036	Entitlement ID, each ID is for up to 20 PCs.	
NNTN7677	Charger Interface Unit for each Multi-Unit Charger.	
NNTN8045	Charger Interface Unit for each Single-Unit Charger.	



IMPRES batteries and chargers

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IMPRES BATTERIES AND CHARGERS		
NNTN8750	IMPRES 2000 mAh Li-Ion battery.	
WPLN4232	IMPRES Single-Unit Charger.	
WPLN4219	IMPRES Multi-Unit Charger with 6 displays.	
WPLN4212	IMPRES Multi-Unit Charger with 1 display.	
NNTN7616	IMPRES Single-Unit Rapid Rate Vehicular Charger.	
NNTN8525	Travel Charger with voltage regulated vehicular charger adapter, custom charger base, mounting bracket, and coil cord.	
NNTN8169	Insert for NNTN1873/WPLN4111 XTS Single-Unit Charger.	
NNTN8170	Insert for WPLN4108/4130 XTS Multi-Unit Charger (6 per pack).	

IMPRES data reader

IMPRES Battery Data Reader enables easy and instantaneous read-out of information that is stored in the battery to facilitate battery management. The Battery Reader is a standalone tool that is ideal for a technician's workbench to enable quick, individual battery analysis, while IMPRES Battery Management allows simultaneous analysis of an entire fleet of batteries. Laptop not included.



NNTN7392



Carry accessories

Swivel belt loop cases have a metal d-ring to help keep the case secure in high activity situations.

CARRY ACCESSORIES

PMLN7327 2.5 inch hard leather carry case with swivel belt loop for full keypad radio.

PMLN5610 2.5 inch replacement leather swivel belt loop.



PMLN4651 2 inch hard plastic belt clip.



PMLN6086 2.5 inch hard plastic belt clip.



MISCELLANEOUS

PMAF4020 Whip Antenna 800-900 MHz.



0104067J27 Accessory Connector Dust Cover Assembly.

To learn more, visit: www.motorolasolutions.com/apx4000xh



Motorola Solutions, Inc. 500 West Monroe Street, Chicago, IL 60661 U.S.A. motorolasolutions.com

Availability note (for example: Not available in Canada. Only available in Australia. Available in Europe.)

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