



RELIABILITY MEETS P25 PORTABILITY

APX™ 1000 PROJECT 25 PORTABLE RADIO

If you are racing to respond to an electrical outage or monitor a highway construction build, you need a radio that keeps you connected, instantly and continuously no matter the situation, background noise, weather, or duration. You expect a reliable radio where every word is heard and every message understood when it counts most.

Public safety, utilities, and government service users require a P25 radio that can stand up to the toughest tasks while keeping them connected to surrounding agencies and first responders. The APX 1000 is engineered to give you the capabilities you need at the budget you can afford. It combines uncompromising durability, simplified controls and excellent audio quality in a compact P25 TDMA capable portable radio.

EVERYTHING YOU WANT IN A RADIO, FOR LESS

With the APX 1000, you pay for only the functionality you need at the level you can afford without giving up the exceptional quality and reliability you expect from APX. The APX 1000 provides you with a radio that meets and fits your budget needs.

MISSION READY VOICE TECHNOLOGY

The APX 1000 is P25 TDMA capable for twice the voice capacity so you can add more users without adding more frequencies or infrastructure. And it's backwards and forwards compatible with all Motorola mission critical radio systems, so you can interoperate with surrounding agencies and first responders with confidence.

POWER UP WITH APX 1000 ACCESSORIES

- Designed, tested and certified for optimum performance with your radio
- Complete portfolio of remote speaker microphones, headsets
- High-powered IMPRES™ batteries that have a slim design to fit the compact radio size

APX 1000 PROJECT 25 PORTABLE RADIO

FEATURES AND BENEFITS

- Available in 700/800 MHz and UHF R1 bands
- Trunking standards supported:
 - Clear or digital ASTRO® 25 Trunked Operation
 - Analog MDC-1200 and Digital APCO P25 Conventional System Configurations
- Narrow and wide bandwidth digital receiver (6.25 kHz equivalent / 12.5 kHz / 30 kHz / 25 kHz)¹
- Embedded digital signaling (ASTRO and ASTRO 25)
- Available in models 1.5, 2 and 3
- Lightbar with Intelligent Lighting
- Radio Profiles
- Unified Call List
- User programmable Voice Announcement
- Meets Applicable MIL-STD-810C, D, E, F and G

- Meets IP54 Environmental Specifications
- Superior Audio Features:
 - 0.5 W high audio speaker
 - 2-mic noise canceling technology
- Utilizes Windows 7 Customer Programming Software (CPS)
 - Supports USB communications
 - Built in FLASHport™ support
- Full portfolio of accessories including IMPRES batteries, chargers and audio devices²

OPTIONAL FEATURES

- Radio Packet Data
- Programming over Project 25
- P25 Link Layer Authentication



TRANSMITTER - TYPICAL PERFORMANCE SPECIFICATIONS

		700/800	UHF Range 1
Frequency Range/Bandsplits	700 MHz 800 MHz	763-776, 793-806 MHz 806-824, 851-870 MHz	380-470 MHz
Channel Spacing		25/12.5 kHz	25/12.5 kHz
Maximum Frequency Separation		Full Bandsplit	Full Bandsplit
Rated RF Output Power Adj ³		1-3 Watts Max	1-5 Watts Max
Frequency Stability ³ (-30°C to +60°C; +25°C Ref.)		±0.00010 %	±0.00010 %
Modulation Limiting ³		±5 kHz / ±4 kHz / ±2.5 kHz	±5 kHz / ±4 kHz / ±2.5 kHz
Emissions (Conducted and Radiated) ³		-75 dB	-75 dB
Audio Response ³		+1, -3 dB	+1, -3 dB
FM Hum and Noise	25 kHz 12.5 kHz	-47 dB -45 dB	-47 dB -45 dB
Audio Distortion ³	25 kHz 12.5 kHz	1.00%	1.00%

BATTERIES FOR APX 1000

BATTERY CAPACITY / TYPE	DIMENSIONS (H X W X D)	WEIGHT	BATTERY PART NUMBER	BATTERY CAPACITY
Li-Ion IMPRES 1900 mAh IP54	114.5 x 55.04 x 17.85	150 grams	NNTN8128A	1900 mAh
Li-Ion IMPRES 2300 mAh IP54 Non-FM	114.5 x 55.04 x 23.15	160 grams	PMNN4424AR	2300 mAh
Li-Ion IMPRES 2700 mAh IP54 Non-FM	114.5 x 55.04 x 23.15	160 grams	PMNN4448AR	2700 mAh

¹ Per the FCC Narrowbanding rules, new products (APX 1000 UHFR1) submitted for FCC certification after January 1, 2011 are restricted from being granted certification at 25 KHz for United States - State and Local Markets only.

² Chargers and batteries for the APX 1000 radios do not interoperate with other APX radios.

³ Measured in the analog mode per TIA / EIA 603 under nominal conditions.

PRODUCT SPEC SHEET

APX™ 1000 PROJECT 25 PORTABLE RADIO



RADIO MODEL

	MODEL 1.5	MODEL 2	MODEL 3
Display	Full bitmap color LCD display, 3 lines of text x 14 characters, 1 line of icons		
Keypad	Backlight keypad 3 soft keys	Backlight keypad 3 soft keys, 4 direction navigation key, 4x3 keypad, Home and Data buttons	Backlight keypad 3 soft keys, 4 direction navigation key, 4x3 keypad, Home and Data buttons, and full DTMF keypad
Channel Capacity	512		
FLASHport Memory	64 MB		
700/800 MHz (763-870 MHz)	H84UCD9PW5AN	H84UCF9PW6AN	H84UCH9PW7AN
UHF Range 1 (380-470 MHz)	H84QDD9PW5AN	H84QDF9PW6AN	H84QDH9PW7AN
Buttons and Switches	Large PTT button Multi-function knob Orange emergency button 3 programmable side buttons		

TRANSMITTER CERTIFICATION

700/800 (764-869 MHz)	AZ489FT7057
UHF Range 1 (380-470 MHz)	AZ489FT4917

FCC EMISSION DESIGNATORS

FCC Emissions Designators	11K0F3E, 16K0F3E, 8K10F1D, 8K10F1E, 8K10F1W
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POWER SUPPLY

Power Supply	One rechargeable Li-Ion 1900 mAh battery standard, or 2300 and 2700 mAh high cap Li-Ion.
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RECEIVER - TYPICAL PERFORMANCE SPECIFICATIONS

		700/800	UHF Range 1
Frequency Range/Bandsplits	700 MHz 800 MHz	763-776 MHz 851-870 MHz	380-470 MHz
Channel Spacing		25/12.5 kHz	25/12.5 kHz
Maximum Frequency Separation		Full Bandsplit	Full Bandsplit
Audio Output Power at Rated ³		500mW	500mW
Frequency Stability ³ (-30°C to +60°C; +25°C Ref.)		±0.00010 %	±0.00010 %
Analog Sensitivity ⁴	12 dB SINAD	0.250µV	0.234µV
Digital Sensitivity ⁵	1% BER (800 MHz) 5% BER	0.400µV 0.250µV	0.307µV 0.207µV
Selectivity ³	25 kHz channel 12.5 kHz channel	76 dB 67 dB	76 dB 67 dB
Intermodulation		75 dB	0.77 dB
Spurious Rejection		76.6 dB	80.3 dB
FM Hum and Noise	25 kHz 12.5 kHz	-53 dB -47 dB	-50 dB -45 dB
Audio Distortion ³		1.00%	1.00%

³ Measured in the analog mode per TIA / EIA 603 under nominal conditions.

⁴ Measured conductively in analog mode per TIA / EIA 603 under nominal conditions.

⁵ Measured conductively in digital mode per TIA / EIA IS 102.CAAA under nominal conditions.

PRODUCT SPEC SHEET
APX™ 1000 PROJECT 25 PORTABLE RADIO

PORTABLE MILITARY STANDARDS 810 C, D, E, F AND 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 RADIOS WITHOUT BATTERY

	INCHES	MILLIMETERS
Length	5.26	133
Width Push-To-Talk button	2.37	60.2
Depth Push-To-Talk button	1.72	43.6
Width Top	2.56	65
Depth Top	2.13	43
Weight of the Radios Without Battery	8.22 oz	233 g

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature ⁶	-30°C / +60°C
Storage Temperature ⁶	-40°C / +85°C
Humidity	Per MIL-STD
ESD	IEC 801-2 KV
Water and Dust Intrusion	IP54
Housing Availability	Black only

ENCRYPTION

Supported Encryption Algorithms	ADP SW
Key Storage	Tamper protected volatile or non-volatile memory
Key Erasure	Keyboard command

⁶ Temperatures listed are for radio specifications. Battery storage is recommended at 25°C, ±5°C to ensure best performance.

Specifications subject to change without notice. All specifications shown are typical.

Radio meets applicable regulatory requirements.

To learn more about the APX 1000 P25 portable radio contact your Motorola representative or visit motorolasolutions.com/apx1000.

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