MOTOROLA *SOLUTIONS*

RELIABILITY MEETS P25 PORTABILITY

APX™ 1000 PROJECT 25 PORTABLE RADIO

If you are racing to respond to an electrical outage or monitor highway construction, 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.

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.

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.

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.

APX 1000 PROJECT 25 PORTABLE RADIO

FEATURES AND BENEFITS

- Available in 700/800 MHz, 900 MHz, VHF, UHF R1 and UHF R2 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 / 20 kHz / 25 kHz)***
- 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
- Software Key

- Superior Audio Features:
  - 0.5 W high audio speaker
  - 2-mic noise canceling technology
- Utilizes Windows XP, Vista and Windows 7 and 8 Customer Programming Software (CPS)**
  - Supports USB communications
  - Built in FLASHport™ support
- Full portfolio of accessories including IMPRES batteries, chargers and audio devices****
- ASTRO 25 Integrated Voice & Data
- Integrated GPS/GLONASS for outdoor location tracking

OPTIONAL FEATURES

- Programming Over Project 25
- Radio Authentication

*Two Knob Model Available for 900 MHz band only
**CPS version R12.00.00 and greater ordered after June 2014 will only support Windows 7 and 8
***Per the FCC Narrowbanding rules, new products (APX7000 UHFR1 with UHFR2 combination) submitted for FCC certification after January 1, 2011 are restricted from being granted certification at 25KHz for United States - State & Local Markets only.
****Chargers and batteries for the APX 1000 radios will interoperate with APX 4000 radios.

TRANSMITTER - TYPICAL PERFORMANCE SPECIFICATIONS

		VHF	UHF Range 1	UHF Range 2	700/800 MHz	900 MHz
Frequency Range/Bandsplits		136-174 MHz	380-470 MHz	450-520 MHz	764-776 MHz 794-806 MHz 806-824 MHz 851-870 MHz	896-901 MHz 935-940 MHz 2-knob available
Channel Spacing		25/12.5 kHz	25/12.5 kHz	25/12.5 kHz	25/12.5 kHz	12.5 kHz
Maximum Frequency Separation		Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
Rated RF Output Power Adj[5]		1-5 Watts Max	1-5 Watts	1-5 Watts Max	1-2.5 Watts 1-3 Watts	1-2.5 Watts
Frequency Stability[5] (-30°C to +60°C; +25°C Ref.)		±0.00010 %	±0.00010 %	±0.00010 %	±0.00010 %	±0.00010 %
Modulation Limiting[5]		±5 kHz / ±4 kHz / ±2.5 kHz	±5 kHz / ±4 kHz / ±2.5 kHz	±5 kHz / ±4 kHz / ±2.5 kHz	±5 kHz / ±4 kHz / ±2.5 kHz	±2.5 kHz
Emissions (Conducted and Radiated)[3]		−75 dB	−75 dB	−75 dB	−75 dB	−75 dB
Audio Response[5]		+1, −3 dB	+1, −3 dB	+1, −3 dB	+1, −3 dB	+1, −3 dB
FM Hum and Noise	25 kHz 12.5 kHz	−47 dB −45 dB	−47 dB −45 dB	−47 dB −45 dB	−47 dB −45 dB	-45dB
Audio Distortion[5]		1.00%	1.00%	1.00%	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	NNTN8128B	1900 mAh
Li-Ion IMPRES 2300 mAh IP54	114.5 x 55.04 x 23.15	160 grams	PMNN4424AR	2300 mAh
Li-Ion IMPRES 2700 mAh IP54	114.5 x 55.04 x 23.15	160 grams	PMNN4448AR	2700 mAh
(Dual Knob) Battery Li-Ion			NNTN8560A	2300 mAh UL Battery

*Standard shipping battery

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, 1 menu line x 3 menus, White backlight		
Keypad	Backlight keypad 3 soft keys	Backlight keypad, 3 soft keys, 4 direction navigation key, Home and Data buttons	Backlight keypad, 3 soft keys, 4 direction navigation key, 4x3 keypad, Home and Data buttons
Channel Capacity	512		
FLASHport Memory	64 MB		
VHF (136-174 MHz)	H84KDD9PW5AN	H84KDF9PW6AN	H84KDH9PW7AN
UHF Range 1 (380-470 MHz)	H84QDD9PW5AN	H84QDF9PW6AN	H84QDH9PW7AN
UHF Range 2 (450-520 MHz)	H84SDD9PW5AN	H84SDF9PW6AN	H84SDH9PW7AN
700/800 MHz (763-870 MHz)	H84UCD9PW5AN	H84UCF9PW6AN	H84UCH9PW7AN
900 MHz (896-940 MHz)		H84WCF9PW6AN	
Buttons and Switches	Large PTT button • Multi-function knob • Orange emergency button • 3 programmable side buttons		

TRANSMITTER CERTIFICATION

VHF (136-174 MHz)	AZ489FT3834
UHF Range 1 (380-470 MHz)	AZ489FT4917
UHF Range 2 (450-520 MHz)	AZ489FT4920
700/800 MHz (764-869 MHz)	AZ489FT7057
900 MHz (896- 901, 935-940 MHz)	AZ489FT5861

FCC EMISSION DESIGNATORS

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

POWER SUPPLY

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

RECEIVER - TYPICAL PERFORMANCE SPECIFICATIONS

		VHF	UHF Range 1	UHF Range 2	700/800 MHz	900 MHz
Frequency Range/Bandsplits		136-174 MHz	380-470 MHz	450-520 MHz	763-776 MHz 851-870 MHz	935-940 MHz
Channel Spacing		25/12.5 kHz	25/12.5 kHz	25/12.5 kHz	25/12.5 kHz	12.5 kHz
Maximum Frequency Separation		Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
Audio Output Power at Rated[4]		500mW	500mW	500mW	500mW	500mW
Frequency Stability[4] (−30°C to +60°C; +25°C Ref.)		±0.00010 %	±0.00010 %	±0.00010 %	±0.00010 %	±0.00010 %
Analog Sensitivity[3] Digital Sensitivity[4]	12 dB SINAD 1% BER (800 MHz) 5% BER	0.216µV 0.277µV 0.188µV	0.234µV 0.307µV 0.207µV	0.234µV 0.307µV 0.207µV	0.250µV 0.400µV 0.250µV	0.236µV 0.33µV 0.222µV
Selectivity[5]	25 kHz channel 12.5 kHz channel	-76 dB -70 dB	-76 dB -67 dB	-76 dB -67 dB	-76 dB -67 dB	-67 dB
Intermodulation		-79.5 dB	-77 dB	-77 dB	-75 dB	-75 dB
Spurious Rejection		-79.3 dB	-80.3 dB	-80.3 dB	-76.6 dB	-80 dB
FM Hum and Noise	25 kHz 12.5 kHz	-51 dB -45 dB	-50 dB -45 dB	-50 dB -45 dB	-53 dB -47 dB	-47 dB
Audio Distortion[3]		1.00%	1.00%	1.00%	1.00%	1.00%

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	516.3	I, VI	516.4	I, VI	516.5	I, VI	516.6	I, 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	1.35	34.2
Width Top	2.56	65
Depth Top	1.46	37
Weight of the Radios Without Battery	8.47 oz	240 g

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature[6]	-30ºC / +60ºC
Storage Temperature[6]	-40ºC / +85ºC
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

[3] Measured conductively in analog mode per TIA / EIA 603 under nominal conditions.

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

[5] Measured in the analog mode per TIA / EIA 603 under nominal conditions.

[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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