

APX™ 3000 P25 PORTABLE RADIO

Covert Communication Without Compromise



APX 3000
Model 1

Whether you're an undercover officer or in special operations, you need to communicate securely while blending into the surroundings. You want to connect instantly while controlling your radio covertly – from a backpack, a bag or beneath clothing. You depend on continuous coverage in buildings, on streets and in hard-to reach places. That's why the high-powered APX 3000 P25 portable radio is the perfect addition to your team.

The APX 3000 P25 TDMA capable radio helps personnel stay inconspicuous and in contact while it stays out of sight. From its slim, lightweight design to its Mission Critical Wireless accessories, it assures high security, excellent flexibility and easy modularity.

DESIGNED TO BE DISCREET

We designed the APX 3000 for covert operations by removing traditional elements – the keypad, display, speaker and microphone – to create a slim, compact radio that operates via accessories. So if the connection with the accessory is ever lost, the radio's communications won't compromise the mission. To further minimize discovery, we downplayed lights and eliminated the audio output to make sure officers are never given away. We developed a number of covert accessories for the APX 3000 – from a three-wire surveillance earpiece to a Mission Critical Wireless Covert Audio Accessory kit with wireless earbud headphone options that look just like commercial devices. Now your undercover teams can head out and not look the same.

MOTOROLA SOLUTIONS



BLEND INTO YOUR SURROUNDINGS

The high-powered APX 3000 lets your officers and agents communicate discreetly without attracting interest or creating a distraction. A wide variety of Mission Critical Wireless accessories lets them choose how to wear the radio – on a belt, in a backpack, bag or purse, on your body, or carried by a team member up to 30 feet away. The comfortable, covert surveillance earpiece is ideal for suited personnel on protective detail. While the Mission Critical Wireless Bluetooth® earbud headphones look as if an undercover officer is simply talking on the phone or listening to music. A flexible antenna option can be attached to the body and hidden under clothes. And an optional Mission Critical Wireless push-to-talk pod makes it easy to communicate wirelessly with the radio wherever it is concealed.

STAY SAFE, IN TOUCH AND INCONSPICUOUS

The APX 3000 is ideal for improving situational awareness and enhancing safety. Quick secure touch pairing lets your team pair accessories with the radio while suiting up, in the van or on the go. Applications like GPS tracking and man down (fall alert) track their location in real-time and send an alert if an operative is in trouble. And because it's forward and backward compatible with all Motorola mission critical radio systems, you can trust voice communications to be interoperable with existing devices and systems.



CHOOSE HOW TO COMMUNICATE COVERTLY

- Radio ships standard with a 3-wire surveillance kit (black or beige)
- Optional Mission Critical Wireless Covert Audio Accessory kit includes:
  - 2-wire earbud headphones (black and white)
  - Single-wire earbud headphones (black)
  - 3.5mm adapter that lets you connect to any off-the-shelf headphones
- Optional flexible antenna attaches to the body under clothing

FEATURES AND BENEFITS:

- Available in 700/800 MHz, VHF, UHF R1 and UHF R2 frequency bands
- Trunking standards supported:
  - Clear or digital encrypted ASTRO®25 Trunked Operation
  - Capable of SmartZone®, SmartZone Omnilink, SmartNet®
- ASTRO 25 Integrated Voice & Data Software Key
- Analog MDC-1200 and Digital APCO P25
- Conventional System Configurations Narrow and Wide Bandwidth Digital Receiver
- (6.25 kHz equiv / 12.5 kHz / 20 kHz / 25 kHz)[1]
- Embedded digital signaling (ASTRO & ASTRO 25)
- Intelligent Priority Scan
- User-programmable Voice Announcement
- Instant Recall
- Meets Applicable MIL-STD-810C, D, E, F and G
- IP67 standard[2]
- Customer Programming Software (CPS)[5]
  - Supports USB communications
  - Built-in FLASHport™ support
- Full portfolio of accessories including IMPRES batteries, chargers, wired and wireless audio accessories[3]
- Mission Critical Wireless Bluetooth[4]
- Integrated GPS/GLONASS for outdoor location tracking

OPTIONAL FEATURES:

- Enhanced Encryption capability Programming Over Project 25
- Man Down / Fall Alert

[1] Per the FCC Narrowbanding rules, new products (APX 3000, UHF R1) submitted for FCC certification after January 1, 2011 are restricted from being granted certification at 25KHz for United States - State & Local Markets only.

[2] Radios meet industry standards (IPx7) for submersion.

[3] Chargers and batteries for the APX 3000 radios do not interoperate with APX 6000, 7000 and 8000 series radios.

[4] Compatible with BT 2.1 HSP, PAN, DUN and SPP BT Profiles.

[5] CPS version R12.00.00 and greater ordered after June 2014 will only support Windows 7 and 8.

ACCESSORY BUNDLES FOR APX 3000



STANDARD CONFIGURATION INCLUDES:
1 IMPRES 3-Wire Surveillance Kit (black - PMLN6123 or beige - PMLN6124)



MISSION CRITICAL WIRELESS COVERT AUDIO ACCESSORY KIT (NNTN8296) INCLUDES: One black 2-wire earbud headphones, One white 2-wire earbud headphones, One black single-wire earbud headphones, 3.5mm adapter to connect to any consumer off-the-shelf headphones

MISSION CRITICAL WIRELESS COVERT KIT IS AVAILABLE AS THE FOLLOWING BUNDLES:

1. Enhanced Bundle includes: Mission Critical Wireless Covert Audio Accessory Kit, one Mission Critical Wireless push-to-talk pod and one Remote Control Unit
2. Extra Life Bundle includes: Mission Critical Wireless Covert Audio Accessory Kit and two Mission Critical Wireless push-to-talk pods to power the earbud headphones
3. Basic Bundle includes: Mission Critical Wireless Covert Audio Accessory Kit and Mission Critical Wireless push-to-talk pod to power the earbud headphones

BATTERIES FOR APX 3000

BATTERY CAPACITY / TYPE	DIMENSIONS (HXWXD)	WEIGHT	BATTERY PART NUMBER
IMPRES Li-Ion IP67, 1300 mAh	114.5 x 55.04 x 13.80 mm	106 grams	NNTN8305AR
IMPRES Li-Ion IP67, 2000 mAh	114.5 x 55.04 x 17.85 mm	150 grams	NNTN8128BR
IMPRES Li-Ion IP67, 2350 mAh	114.5 x 55.04 x 23.15 mm	160 grams	PMNN4424AR
IP54, Li-Ion IMPRES, 2800 mAh	114.5 x 55.04 x 23.15 mm	160 grams	PMNN4448AR

RADIO MODELS

MODEL 1	
Channel Capacity	512
FLASHport Memory	64 MB
700/800 MHz (763-870 MHz)	H59UCD9PW4AN
VHF (136-174 MHz)	H59KGD9PW4AN
UHF Range 1 (380-470 MHz)	H59QDD9PW4AN
UHF Range 2 (450-520 MHz)	H59SDD9PW4AN
Buttons	3 programmable side buttons, 1 programmable top button
TRANSMITTER CERTIFICATION	
700/800 (764-869 MHz)	AZ489FT5860
VHF (136-174 MHz)	AZ489FT3830
UHF Range 1	AZ489FT4911
UHF Range 2	AZ489FT4912
FCC EMISSIONS DESIGNATORS	
FCC Emissions Designators	11K0F3E, 16K0F3E, 8K10F1D, 8K10F1E, 8K10F1W, 20K0F1E
POWER SUPPLY	
Power Supply	Two rechargeable IMPRES Li-Ion 1300 mAh Ultra Slim Battery standard, with alternate battery options available.

Optional Flexible Antennas



VHF FLEXI ANTENNA



700/800 MHz - PMAF4006



UHF (380-520MHz) - PMAE4080

CHARGERS FOR APX 3000

WPLN4232	IMPRES Multi-Unit Charger with 6 displays
WPLN4219	IMPRES Multi-Unit Charger with 1 display
WPLN4212	IMPRES Multi-Unit Charger - no displays
NNTN8169	Battery Insert for XTS Single Unit Chargers (WPLN4111/NTN1873)
NNTN8170	Battery Insert for XTS Multi-Unit Chargers (WPLN4108/WPLN4130)

TRANSMITTER - TYPICAL PERFORMANCE SPECIFICATIONS

		700	800	VHF	UHF RANGE 1	UHF RANGE 2
Frequency Range/Bandsplits		764-775; 793-806 MHz	806-824; 851-870 MHz	136-174 MHz	380-470 MHz	450-520 MHz
Channel Spacing		25/20/12.5 KHz	25/20/12.5 KHz	25/20/12.5 KHz	25/20/12.5 KHz	25/20/12.5 KHz
Maximum Frequency Separation		Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
Rated RF Output Power Adj[1]		1-2.5 Watts	1-3 Watts	1-5 Watts Max	1-5 Watts Max	1-5 Watts Max
Frequency Stability[1] (–30°C to +60°C; +25°C Ref.)		±0.00010 %	±0.00010 %	±0.00010 %	±0.00010 %	±0.00010 %
Modulation Limiting[1]		±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	±5 kHz / ±4 kHz / ±2.5 kHz
Emissions (Conducted and Radiated)[1]		–75 dB	–75 dB	–75 dB	–75 dB	–75 dB
Audio Response[1]		+1, –3 dB	+1, –3 dB	+1, –3 dB	+1, –3 dB	+1, –3 dB
FM Hum & Noise	25 kHz 12.5 kHz	–50 dB –45 dB	–50 dB –45 dB	–51 dB –45 dB	–51 dB –45 dB	–53 dB –47 dB
Audio Distortion[1]	25 kHz 12.5 kHz	1.00%	1.00%	1.00%	1.00%	1.00%

RECEIVER - TYPICAL PERFORMANCE SPECIFICATIONS

		700	800	VHF	UHF RANGE 1	UHF RANGE 2
Frequency Range/Bandsplits		764-775 MHz	851-870 MHz	136-174 MHz	380-470 MHz	450-520 MHz
Channel Spacing		25/20/12.5 KHz	25/20/12.5 KHz	25/20/12.5 KHz	25/20/12.5 KHz	25/20/12.5 KHz
Maximum Frequency Separation		Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
Frequency Stability1 (–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	0.266µV 0.400µV 0.266µV	0.266µV 0.400µV 0.266µV	0.200µV 0.285µV 0.108µV	0.234µV 0.307µV 0.207µV	0.224µV 0.305µV 0.205µV
Selectivity[1]	25 kHz channel 12.5 kHz channel	–76 dB –67 dB	–76 dB –67 dB	–79 dB –70 dB	–77 dB –67 dB	–78 dB –68 dB
Intermodulation		–75 dB	–75 dB	–79 dB	–77 dB	–78 dB
Spurious Rejection		–76.6 dB	–76.6 dB	–78 dB	–80.3 dB	–80.3 dB
FM Hum and Noise	25 kHz 12.5 kHz	–53 dB –47 dB	–53 dB –47 dB	–54 dB –47 dB	–50 dB –45 dB	–51 dB –46 dB
Audio Distortion[1]		1.00%	1.00%	1.00%	1.00%	1.00%

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 RADIOS WITHOUT BATTERY

	INCHES	MILLIMETERS
Length	5.57	141.5
Width Top	2.35	59.8
Depth Top	1.06	27.0
Weight of the radios without battery	6.84 oz	194 g

GPS SPECIFICATIONS

Channels	12
Tracking Sensitivity	–159 dBm
Accuracy5	<10 meters (95%)
Cold Start	<60 seconds (95%)
Hot Start	<10 seconds (95%)
Mode of Operation	Autonomous (Non-Assisted) GPS

ENCRYPTION

Supported Encryption Algorithms	ADP, 256-bit AES, DES, DES-XL, DES-OFB, DVP-XL
Encryption Algorithm Capacity	8
Encryption Keys per Radio	Module capable of storing 1024 keys. Programmable for 128 Common Key Reference (CKR) or 16 Physical Identifier (PID)
Encryption Frame Re-sync Interval	P25 CAI 300 mSec
Encryption Keying	Key Loader
Synchronization	XL – Counter Addressing OFB – Output Feedback
Vector Generator	National Institute of Standards and Technology (NIST) approved random number generator
Encryption Type	Digital
Key Storage	Tamper protected volatile or non-volatile memory
Key Erasure	Tamper detection
Standards	FIPS 140-3 Level 3; FIPS 197

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature[6]	-30°C / +60°C
Storage Temperature[6]	-40°C / +85°C
Humidity	Per MIL-STD
ESD	EC 61000-4-2
Water and Dust Intrusion	IP67
Housing Availability	Black only

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

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

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

[4] Accuracy specs are for long-term tracking (95th percentile values >5 satellites visible at a nominal –130 dBm signal strength).

[5] 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, visit:
www.motorolasolutions.com

MOTOROLA SOLUTIONS

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  - Capable of SmartZone®, SmartZone Omnilink, SmartNet®
- ASTRO 25 Integrated Voice & Data Software Key
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