KEEP PERSONNEL AND COMMUNITIES SAFER

APX MISSION-CRITICAL P25 COMMUNICATIONS

MOTOROLA *SOLUTIONS*

THE BEST OF WHAT WE DO

Whether you're a state trooper, firefighter, law enforcement officer or highway maintenance technician, people count on you to get the job done. There's no room for error. This is mission critical.

APX™ radios exist for this purpose. They're designed to be reliable and to optimize your communications, specifically in extreme environments and during life-threatening situations.

Even with the widest portfolio in the industry, APX continues to evolve. The latest APX NEXT smart radio series delivers revolutionary new capabilities to keep you safer and more effective.
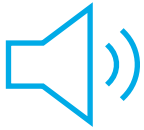
WE'VE PUT EVERYTHING WE'VE LEARNED OVER THE LAST 90 YEARS INTO APX. THAT'S WHY IT REPRESENTS THE VERY BEST OF THE MOTOROLA SOLUTIONS PORTFOLIO. THERE IS NO BETTER.

OUTLAST AND OUTPERFORM

RELIABLE COMMUNICATIONS ARE NON-NEGOTIABLE

APX two-way radios are designed for extreme durability, so you can count on them to work under the toughest conditions. From the rugged aluminum endoskeleton of our portable radios to the steel encasement of our mobile radios, APX is built to last.

HEAR AND BE HEARD

CLEAR COMMUNICATION CAN MAKE A DIFFERENCE

The APX family is designed to help you hear and be heard with unparalleled clarity, so you're confident your message will always get through. Multiple microphones and adaptive windporting technology minimize noise from wind, crowds and sirens. And the loud and clear speaker ensures you can hear over background sounds.

KEEP INFORMATION PROTECTED
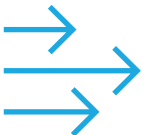
EVERYDAY, SECURITY IS BEING PUT TO THE TEST

With the APX family, you can be sure that your calls stay private, secure, and confidential. APX supports multiple types of standard and custom encryption. The MACE hardware encryption module equipped within an APX radio provides a hardened tamper-resistant chassis for storing encryption keys.

MADE FOR THE MISSION

APX RADIOS ARE INTUITIVE AND EASY TO USE FOR YOUR MISSION

A distinctive "T-grip" shape allows devices to be easily held with gloved hands or in wet environments. Positive action controls minimize the risk of accidental operation, while extreme ergonomic models are designed for specialized conditions. Easy to read displays, day and night, placed just where you need them for 'at-a-glance' status, or no display for covert operations.

INTELLIGENCE IN ACTION

AN ECOSYSTEM OF CONNECTIVITY HELPS TO KEEP YOU SAFE

APX radios can prioritize emergency calls, send a signal automatically when they sense "man down" or a collision, provide a Bluetooth® beacon to find missing personnel, and automate responses to specific events or when detecting a geofence. And upon recognizing poor signal quality, APX radios can route voice and data over broadband.

Pressure-tested tempered glass display

Motorola
APX 8000
All Band Radio

WiFi | BT | Loc

Shock-absorbing aluminum alloy endoskeleton

Water-tight seal

APX NEXT SERIES
ALL-BAND P25 SMART RADIO

IN PUBLIC SAFETY, FOCUS IS YOUR GREATEST RESOURCE. PROTECT THAT FOCUS WITH APX NEXT – OUR REVOLUTIONARY NEW SMART RADIOS.

The APX NEXT™ series is our next step in advancing the lifeline. Designed to military standards for extreme ruggedness, the touchscreen works with or without gloves, in rain, dirt, and snow. High Dynamic Range mics and high-power speakers deliver our best audio ever, while SmartConnect keeps you connected beyond your P25 system. The result is a radio that works when you need it, without pause, distraction or doubt.

The APX NEXT series is designed for effortless usability when everything is on the line. Intuitive knobs and buttons can be distinguished by touch. A mission-critical touchscreen makes it fast and easy to operate your radio. The ViQi virtual assistant understands natural language voice commands, giving you eyes-up awareness. Every interaction is simple, fast and logical. You stay focused on what matters: your mission and your safety.

APX NEXT
DESIGNED FOR FIRST RESPONDERS

APX NEXT XE
DESIGNED FOR FIRE AND RESCUE TEAMS

APX NEXT mission-critical apps bring new intelligence to the field. ViQi enables natural language database queries, rapidly delivering vital information to the front line. And as part of our unique, end-to-end public safety ecosystem, new capabilities can be added seamlessly as your needs evolve.

The APX NEXT series gives you back time. A cloud-based provisioning system allows radio managers to prepare radios even before they arrive, while remote updating keeps them in the field, with zero touch and zero downtime, and a range of services helps you manage your operation. With the APX NEXT series, your ownership experience is streamlined, so your valuable resources stay focused and ready.

APX 8000 SERIES
ALL-BAND P25 PORTABLE AND MOBILE RADIOS

CHAOS DOESN'T STOP AT BORDERS. CRIMINALS DON'T RESPECT BOUNDARIES. SO YOUR COMMUNICATIONS SHOULDN'T BE LIMITED TO LOCAL FREQUENCIES.

With multi-mode access to all four major P25 bands, APX 8000 series radios know no limits when it comes to interoperability. You can work seamlessly with virtually any agency on any P25 system—and all from a single radio. Stay connected further with the high-power configuration of the APX 8500 mobile. And if that isn't enough – APX 8000 series radios can reroute your P25 communication over available broadband networks and keep you connected when outside of P25 coverage.

Whether you're frantically yelling for backup or quietly whispering for assistance, you still need that message to get through. The APX 8000 Adaptive Audio Engine dynamically adjusts the radio's audio response to deliver optimal clarity. Wind is filtered out and background noise is wiped away. Quiet audio is boosted and feedback howl is suppressed.

Security is more important than ever. Criminals are testing you on the streets and over the air. Fight back with the entire toolbox. Supporting simultaneous multi-protocol encryption and certified to FIPS 140-2 level 3, the APX 8000 series radios keep your critical communications absolutely iron-tight.

APX 8000HXE
360 DEGREES OF SAFETY

All-band HazLoc portable radio for fire and rescue teams.

APX 8000H
360 DEGREES OF PROTECTION

All-band HazLoc portable radio for first responders and military teams.

APX 8000XE
UNLIMITED MOBILITY. EXTREME PERFORMANCE.

All-band portable radio for fire and rescue teams.

APX 8000
UNLIMITED MOBILITY. UNCOMPROMISING PERFORMANCE.

All-band portable radio for first responders.

APX 8500
UNLIMITED MOBILITY. MAXIMUM CONNECTIVITY

All-band mobile radio available in high power and mid power versions.

APX 6000 SERIES
SINGLE-BAND P25 PORTABLE AND MOBILE RADIOS

THE APX 6000 IS BUILT ON DECADES OF PUBLIC SAFETY EXPERIENCE TO DELIVER EFFORTLESS COMMUNICATION WHEN YOU NEED IT THE MOST.

For a single-band radio, the APX 6000 series does not lack in features. From ergonomics to audio quality, these radios are designed to outperform.

A non-slip T-grip shape sets the portable radio firmly in your hands while optimized placement of button and knobs offer immediate access to radio controls. Need to find the emergency button? Simply slide your hand down the portable radio antenna or reach for the top right corner of the mobile.

The APX 6000 picks up your speech from any direction and then the innovative APX Adaptive Audio Engine applies exactly the right amount of processing: enough to remove background noise, but not enough to degrade speech quality. Dynamically adjusting its algorithms as external conditions change, the APX 6000 automatically gives you the best audio that's possible.

Out on the streets, APX 6000 series radios are ready to take all the abuse you can throw at them. A rugged aluminum endoskeleton protects portable radios against drops, water and dust, while the steel shell helps mobile radios survive impacts. Because when your life is on the line every day, you can't afford to carry an ordinary radio.

APX 6000XE
RELIABLE. RESPONSIVE. READY FOR THE EXTREMES.

Single-band portable radio for fire and rescue teams.

APX 6000
RELIABLE. RESPONSIVE. READY FOR ANYTHING.

Single-band portable radio for first responders.

SRX 2200
RELIABLE. RESPONSIVE. READY FOR ACTION.

Single-band portable radio for military teams.

APX 6500
RELIABLE. RESPONSIVE. READY FOR THE STREETS.

Single-band mobile radio.

APX 3000 AND APX 4000 SERIES
SINGLE-BAND P25 PORTABLE AND MOBILE RADIOS

P25 RELIABILITY AND PERFORMANCE WITH SOME OF OUR MOST POPULAR FEATURES.

You need P25 technology and you need the legendary reliability and performance of an APX radio, but you may not need all the features of a high-tier radio. The APX 4000 and 3000 series radios seamlessly connect agencies and departments throughout your city for fast, interoperable communications.

Built on a rugged, reliable platform, the APX 4000 is engineered to survive in the real world, with a screen made from tough Gorilla Glass. Equipped with dual microphones, noise cancellation and powerful audio processing the APX 4000 delivers great audio in noisy conditions.

With no display or speaker, the APX 3000 is designed to be used with earpieces and remote PTT buttons for covert operations.

But we know its not just about the audio and reliability, which is why we also included advanced features - like hardware-based encryption, Mission-Critical Bluetooth, GPS location-tracking and IMPRES smart battery support.

APX 4000XH
BUILT SAFE. INSIDE AND OUT.

Single-band HazLoc portable radio for Canada.

APX 4000
BETTER EQUIPPED FOR CLOSER COLLABORATION.

Single-band portable radio for first responders.

APX 3000
STAY SAFE, CONNECTED AND DISCREET

Specialized covert radio for undercover teams.

APX 4500
BETTER EQUIPPED FOR CLOSER CONNECTIVITY.

Single-band mobile radio.

APX 900 AND APX 1000 SERIES
SINGLE-BAND P25 PORTABLE AND MOBILE RADIOS

P25 CONNECTIVITY. EXCEPTIONAL PRICE.

From city festivals to natural disasters, seamless communication is critical to coordinating effective and safe responses. The APX 900 and APX 1000 series radios are simple to use and are certified for reliable P25 communication on P25 compliant radio networks.

The APX 1000 comes with a simplified feature set that's easily accessible through the one-knob user interface; it's a radio that your teams will quickly master.

The APX 900 provides additional ruggedness and complies with P25 encryption algorithms, so you can collaborate confidently and securely between agencies.

The APX 1500 mobile radio provides rugged simplicity with built-in loud and clear speaker, full color display and single knob controls. This self-contained dash-mount configuration is easy to install in most vehicles.

APX 1000
SIMPLE. EASY. MISSION-CRITICAL.

Single-knob, single-band portable radio.

APX 900
ESSENTIAL COMMUNICATION. EXCEPTIONAL SERVICE.

Dual-knob, single-band portable radio.

APX 1500
SIMPLE. EASY-INSTALL. MISSION-CRITICAL.

Single-band mobile radio.

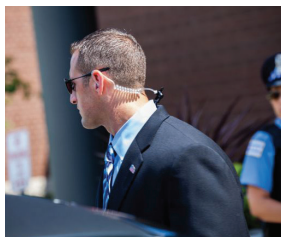# APX ACCESSORIES

ENERGY

AUDIO

CARRY

MOBILE

COVERT

APX CONTROL HEADS

MOBILE RADIOS ARE IDEAL FOR MANY APPLICATIONS, FROM A SIMPLE IN-CAR INSTALLATION, TO A WEATHERPROOF MOTORCYCLE MOUNT, TO A MULTI-HEAD FIRE TRUCK SYSTEM, TO A DESKTOP DISPATCH POSITION. WHATEVER YOU NEED, OUR PORTFOLIO OF CONTROL HEADS HELPS YOU GET THE MOST FROM YOUR RADIO.

INTEGRATED MULTI-FUNCTIONALITY
The O7 is a sophisticated control head with a color display and built-in keypad. It can integrate with your vehicle controls for a single ergonomic interface.

BEST-IN-CLASS READABILITY
The E5 control head has a bright hi-res display combined with intelligent use of colors to provide all the information you need at-a-glance, day or night.

EXTREME USABILITY
The O2 control head provides rugged simplicity for efficient and confident communication.

HANDHELD FLEXIBILITY
The O3 corded control head fits all your mobile controls in your hand. With the O3 your radio controls are never out of reach.

APX PORTABLE RADIOS

		SMART	ALL-BAND	SINGLE-BAND	SINGLE-BAND			SINGLE-BAND	
		APX NEXT Series	APX 8000 Series	APX 6000 Series & SRX 2200	APX 4000XH	APX 4000	APX 3000	APX 1000	APX 900
FREQUENCY BANDS									
VHF	136-174 MHz	(Y)	(Y)	(Y)	-	(Y)	(Y)	(Y)	(Y)
UHF Range 1	380-470 MHz	(Y)	(Y)	(Y)	-	(Y)	(Y)	(Y)	(Y)
UHF Range 2	450-512 MHz	(Y)	(Y)	(Y)	-	(Y)	(Y)	(Y)	(Y)
700/800 MHz	762-870 MHz	(Y)	(Y)	(Y)	-	(Y)	(Y)	(Y)	(Y)
900 MHz	896-902, 935-941MHz	-	-	-	-	(Y)	-	(Y)	(Y)
8/900 MHz	851-870 and 935-940 MHz bands	-	-	-	Y	-	-	-	-
All-Band	VHF, UHF R1, UHF R2, 700/800 simultaneously	Y	Y	-	-	-	-	-	-
Number of Channels	Max number of channels programmable	3000	3000	1000 (3000)	512 (1000)	512 (1000)	512	512	512
OPERATION MODES									
Analog Conventional	FM analog non-trunked communications	Y	Y	Y	Y	Y	Y	-	-
Analog Trunking	SmartNet, SmartZone, QCII	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	-	-
Digital P25 Phase I	FDMA, Conventional and Trunking	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
Digital P25 Phase II	TDMA Trunking	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
Dynamic Dual Mode	Automatic switching between P25 Phase I and II	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
IV&D	Integrated Voice and Data	Y	Y	Y	Y	Y	Y	Y	Y
ENVIRONMENTAL									
Ingress Protection	Sealing against dust and water	IP68: 2 m, 4 hr	APX 8000HXE & XE - IP68: 2 m, 4 hr / APX 8000H & 8000 - IP68: 2 m, 2 hr	APX 6000XE & SRX 2200 - IP68: 2 m, 4 hr / APX 6000 - IP68: 2 m, 2 hr	IP68: 2 m, 2 hr	IP67	IP67	IP54	IP68: 2 m, 2 hr
Delta-T Testing	Differential temperature sealing test	Y	APX 8000HXE & XE - Y / APX 8000H & 8000 - (Y)	APX 6000XE & SRX 2200 - Y / APX 6000 - (Y)	-	(Y)	-	-	-
HazLoc	Hazardous location certification	(Class I, Div 2)	APX 8000HXE & H - Class I, Div 1 & 2 / APX 8000XE, (8000) - Class I, Div 2	Class I, Div 1 & 2	CSA 157	(Class I, Div 1 & 2)	-	(Class I, Div 1 & 2)	(Class I, Div 1 & 2)
AUDIO									
Adaptive Audio Engine	Dynamic optimization of noise suppression	Y	Y	(Y)	-	-	-	-	-
Number of Microphones	Support for multi-mic noise suppression	3	3	3	2	2	-	2	1
Output Power	Maximum rated audio power	3 W	3 W	500 mW (3 W)	500 mW	500 mW	-	500 mW	500 mW
SECURITY, SAFETY									
Algorithms	Supported encryption algorithms	(256-bit AES, ADP, DES, DES-XL, DVP-XL)	(256-bit AES, ADP, DES, DES-XL, DES-OFB, DVP-XL)	(256-bit AES, ADP, DES, DES-XL, DES-OFB, DVP-XL)	ADP	(256-bit AES, ADP)	(256-bit AES, ADP, DES, DES-XL, DES-OFB, DVP-XL)	(ADP)	(256-bit AES SW, ADP)
Multikey	Number of programmable keys	128	128	64	1	48	48	8	8
Method	Encryption implementation	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Software	Software
Encryption Standards	Level of encryption offered	FIPS 140-2 Level 3 FIPS 197	FIPS 140-2 Level 3, FIPS 197	FIPS 140-2 Level 3, FIPS 197	FIPS 140-2 Level 3, FIPS 197	FIPS 140-2 Level 3, FIPS 197	FIPS 140-2 Level 3, FIPS 197	FIPS 140-2 Level 1 FIPS 197	FIPS 140-2 Level 1 FIPS 197
Over-the-Air Rekeying	Remote update of encryption keys	(Y)	(Y)	(Y)	-	-	(Y)	-	-
CONNECTIVITY									
Broadband	Broadband network support	LTE, WiFi	(WiFi)	(WiFi)	-	-	-	-	-
SmartConnect	Seamlessly switch between P25 and broadband	(via LTE)	(via WiFi)	(via WiFi)	-	-	-	-	-
Bluetooth	Secure personal area network, for wireless accessories	5.0	4.0 MPP	4.0 MPP	2.1	2.1	2.1	-	4.0 LE
Data Modem Tethering	Data offload to external modem via WiFi	-	(Y)	(Y)	-	-	-	-	-
LOCATION-TRACKING									
GPS/GLONASS	Receiver for radio location-tracking	Y	Y	Y	Y	Y	Y	Y	Y
Mission-Critical Geofence	Automated responses to changes in radio location	-	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	-
SmartLocate	Route location data over broadband	Y	-	-	-	-	-	-	-
SmartMapping	Mapping app to locate other radios	(Y)	-	-	-	-	-	-	-
OTHER FEATURES									
ViQi Virtual Partner	Database query using virtual assistant	(Y)	(Y)	(Y)	-	-	-	-	-
ViQi Voice Control	Operate radio using spoken commands	(Y)	-	-	-	-	-	-	-
SmartMessaging	Multimedia messaging	(Y)	-	-	-	-	-	-	-
RFID	Embedded wireless inventory tracking tag	-	(Y)	(Y)	-	(Y)	-	(Y)	(Y)
Voice Announcement	Audio announcement of change in radio status	Y	Y	Y	Y	Y	Y	Y	Y
Intelligent Lighting	Programmable display backlight color alert	Y	Y	Y	Y	Y	Y	Y	-
Instant Recall	Replay of last received call	-	Y	Y	Y	Y	Y	Y	Y
Man Down	Programmable response to movement & orientation	Y	(Y)	(Y)	(Y)	(Y)	(Y)	-	-
IMPRES / IMPRES 2	Intelligent battery and charging technology,	N/Y	Y/Y	Y/Y	Y/N	Y/N	Y/N	Y/N	Y/N
DISPLAY & KEYPAD CONFIGURATION MODELS									
4.5: Touchscreen and top display		Y	-	-	-	-	-	-	-
3.5: Front display, full keypad, top display		-	(Y)	(Y)	-	-	-	-	-
2.5: Front display, limited keypad, top display		-	(Y)	(Y)	-	-	-	-	-
1.5: Top display only		-	(Y)	(Y)	-	-	-	-	-
3: Front display, full keypad		-	-	-	Y	(Y)	-	(Y)	(Y)
2: Front display, limited keypad		-	-	-	-	(Y)	(Y)	(Y)	(Y)
1: No display or keypad		-	-	-	-	-	Y	-	-

APX MOBILE RADIOS

		ALL-BAND	SINGLE-BAND	SINGLE-BAND	SINGLE-BAND
		APX 8500	APX 6500	APX 4500	APX 1500
FREQUENCY BANDS					
VHF	Operation in 136-174 MHz band	Y	(Y)	(Y)	(Y)
UHF Range 1	Operation in 380-470 MHz band	Y	(Y)	(Y)	(Y)
UHF Range 2	Operation in 450-512 MHz band	Y	(Y)	(Y)	(Y)
700/800 MHz	Operation in 762-870 MHz band	Y	(Y)	(Y)	(Y)
900 MHz	Operation in 896-941MHz band	-	-	(Y)	-
All-Band	VHF, UHF R1, UHF R2, 700/800 simultaneously	Y	-	-	-
Number of Channels	Max number of channels programmable	3000	1000 (3000)	512 (1000)	512
High-power Version	Availability of 110 W radio variant	(Y)	-	-	-
OPERATION MODES					
Analog Conventional	FM analog non-trunked communications	Y	Y	Y	-
Analog Trunking	SmartNet, SmartZone, QCII	(Y)	(Y)	(Y)	-
Digital P25 Phase I	FDMA, Conventional and Trunking	(Y)	(Y)	(Y)	Y
Digital P25 Phase II	TDMA Trunking	(Y)	(Y)	(Y)	(Y)
Dynamic Dual Mode	Automatic switching between P25 Phase I and II	(Y)	(Y)	(Y)	(Y)
IV&D	Integrated Voice and Data	Y	Y	Y	Y
AUDIO					
Audio Output Power	Maximum rated audio power	7.5 W, 8 Ω 15 W, 3.2 Ω	7.5 W, 8 Ω 15 W, 3.2 Ω	7.5 W, 8 Ω 15 W, 3.2 Ω	7.5 W, 8 Ω 15 W, 3.2 Ω
SECURITY, SAFETY					
Algorithms	Supported encryption algorithms	(256-bit AES, ADP, DES, DVP)	(256-bit AES, ADP, DES, DVP)	(256-bit AES, ADP, DES, DVP)	256-bit AES SW, ADP
Algorithm Capacity	Number of simultaneous encryption schemes	8	8	8	8
Multikey	Number of programmable keys	128	64	8	8
Method	Encryption implementation	Hardware & Software	Hardware & Software	Hardware & Software	Software
Encryption Standards	Level of encryption offered	FIPS 140-2 Level 3 FIPS 197	FIPS 140-2 Level 3 FIPS 197	FIPS 140-2 Level 3 FIPS 197	FIPS 140-2 Level 1 FIPS 197
Over-the-Air Rekeying	Remote update of encryption keys	(Y)	(Y)	-	-
CONNECTIVITY					
WiFi	Local area network support	(Y)	(Y)	(Y)	-
SmartConnect	Seamless switch between P25 and broadband	(tethered, or via WiFi)	(tethered, or via Wi-Fi)	-	-
Data Modem Tethering	Data offload to external modem such as LTE, Wi-Fi or satellite	(Y)	(Y)	(Y)	-
LOCATION-TRACKING					
GPS/GLONASS	Receiver for radio location-tracking	Y	Y	Y	Y
Mission-Critical Geofence	Automated responses to changes in radio location	(Y)	(Y)	(Y)	(Y)
OTHER FEATURES					
ViQi Virtual Partner	Database query using virtual assistant	(Y)	(Y)	-	-
RFID	Embedded wireless inventory tracking tag	(Y)	(Y)	(Y)	(Y)
Voice Announcement	Audio announcement of change in radio status	Y	Y	Y	Y
Instant Recall	Replay of last received call	Y	Y	Y	Y
Intelligent Lighting	Programmable display backlight color alert	(Y)	(Y)	(Y)	-
Impact Detection	Automatic alert to a collision	(Y)	(Y)	(Y)	-
CONTROL HEAD COMPATIBILITY					
O7 Enhanced Control Head		(Y)	(Y)	-	-
E5 Control Head		(Y)	(Y)	-	-
O5 Standard Control Head		(Y)	(Y)	-	-
O3 Handheld Control Head		(Y)	(Y)	-	-
O2 Rugged Control Head (Green/Gray)		(Y)	(Y)	Y	Gray Only

( ) indicates optional feature

ALL THE SUPPORT YOU NEED

MANAGE YOUR APX RADIOS IN THE WAY THAT SUITS YOU BEST

Motorola Solutions offers flexible services consumption options to manage your mission critical communication systems. From hardware repair to preventive maintenance, technical support to programming and provisioning, our services ensure that your radio fleet is fully operational and available for end-users. The services are centrally delivered with the right combination of people, process and tools.

For more information, please visit us on the web at: www.motorolasolutions.com/APX

MOTOROLA SOLUTIONS