# **KEEP PERSONNEL AND COMMUNITIES SAFER**

## **APX MISSION-CRITICAL P25 COMMUNICATIONS**



# THE BEST OF WHAT WE DO

People count on you to get the job done no matter if you are a police officer or a firefighter. You may be serving in the military or work for a federal agency. You may be inspecting bridges or clearing blocked sewers. Whatever you do, there's no room for error. Your job is mission critical.

APX<sup>™</sup> 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 N next generation radio lineup 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 OUR 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. Our rugged portable and mobile radio designs are built to last - day in and day out.



## 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, background noise suppression and 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 within an APX radio provides a hardened, tamper-resistant design for storing encryption keys.



## **MADE FOR THE MISSION**

#### APX RADIOS ARE INTUITIVE AND EASY TO USE

A distinctive "T-grip" shape allows devices to be securely 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. Displays are easy to read, day and night, and placed just where you need them — or leave the display off 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 that use user has fallen or is involved in a collision, provide a Bluetooth<sup>®</sup> 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.





# **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 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. Cyber-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. Available with SRX enhancement package.









All-band portable radio for fire and

#### **APX 8500**

rescue teams.

UNLIMITED MOBILITY. MAXIMUM CONNECTIVITY All-band mobile radio available in high power and mid power versions.

#### **APX 8000** UNLIMITED MOBILITY. UNCOMPROMISING PERFORMANCE.

All-band portable radio for first responders.

# **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. Our rugged designs protect portable radios against drops, water and dust, while keeping mobile radios intact during vehicle impacts. Because when your life is on the line every day, you can't afford to carry an ordinary radio.



RELIABLE RESPONSIVE. **READY FOR THE** EXTREMES. Single-band portable



RFLIABLE RESPONSIVE **READY FOR** ANYTHING. Single-band



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 Corning<sup>®</sup> 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 1500 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 is simple to use and is certified for reliable P25 communication on P25 compliant radio networks.

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 900 ESSENTIAL

COMMUNICATION. EXCEPTIONAL SERVICE. Dual-knob, single-band portable radio.



APX 1500 SIMPLE. EASY-INSTALL. MISSION-CRITICAL. Single-band mobile radio.



#### **02 CONTROL HEAD**

#### **EXTREME USABILITY**

The O2 control head provides rugged simplicity for efficient and confident communication. Extreme controls with an easy-to-read color display and a built-in 7.5 watt speaker provides clear visual and audible user experiences. Available in high-impact green or black.





## **APX CONTROL HEADS**\*

Dedicated volume and channel knobs for quick control



Programmable menu buttons



Programmable menu buttons

Integrated controls for siren and lights, PA and gunlock or DTMF keypad

#### **E5 CONTROL HEAD**

#### **UNMATCHED READABILTY. OPTIMIZED USABILITY.**

A bright color display and intelligent lighting makes the E5 easy to read under any condition while the optimized tactility and button placement reduces inadvertent actuations.



#### INTEGRATED MULTI-FUNCTIONALITY

The 07 is a sophisticated control head with a color display and built-in keypad. It can integrate your radio vehicle control into a single ergonomic interface and supports dual radio installations.

# MEET APX N

#### THE BEST IN WHAT WE DO, EVOLVED.

Our APX N line of P25 radios gives you the next-generation capabilities you need with the core functionality you expect - rugged, secure, intuitive mission-critical communications.

Built on the rugged APX framework, APX N radios are ready to work where you work. All models are IP68 rated and tested to military standards with large screens and easy to navigate menus. Sleek lines, easy to hold, and intentionally designed for easy operation with intuitive interfaces, large controls, programmable buttons and ViQi voice control.

Loud and clear audio with background noise suppression keeps teams communicating in chaotic environments. Radios work reliably across a variety of P25 channels and can even switch to SmartConnect when out of coverage. And, you can keep your entire fleet up-to-date and secure by batch programming over WiFi, without taking them out of service.

APX N - an industry-leading combination of durability and performance to keep your teams safer and more efficient. Engineered for today and ready for what's next in mission-critical communications and your wider public-safety ecosystem.

# **APX NEXT SERIES** ALL-BAND P25 SMART RADIOS

MISSION-CRITICAL PERFORMANCE ENSURES YOUR LIFELINE IS THERE WHEN YOU NEED IT. NATURAL INTERFACES—FROM LARGE TOUCH SCREENS TO VOICE CONTROLS—KEEP YOUR EYES UP AND YOUR ATTENTION WHERE IT MATTERS. AND NEW APPLICATIONS AND SERVICES, LIKE SMARTCONNECT AND VIQI, BRING NEW INTELLIGENCE TO THE FIELD.

Our APX NEXT Series reduces configuration time and update cycles from months to minutes. Devices can be provisioned and updated in the cloud, and new capabilities —like video, data analytics, and Al applications—can be added as your needs evolve.

The APX NEXT Series brings usability and performance advancements to every aspect of the radio experience. Interfaces are streamlined. Workflows are accelerated. Mission-critical reliability is ensured. And the focus that keeps critical personnel safe and effective, is protected.



APX NEXT PROTECT YOUR FOCUS

All-band portable radio for first responders.



APX NEXT XE FOCUSED IN THE EXTREME All-band radio with exaggerated knobs

and controls.



OTORO

APX NEXT XN OUTPERFORM THE UNEXPECTED

All-band radio certified to NFPA 1802 for firefighters.



#### FOCUSED. FORWARD.

The APX N70 gives frontline public safety personnel the missioncritical communications and real-time information they need to respond quickly and safely.

It's inherently rugged with a toughened touch screen display and superior impact resistance. Intuitive interfaces and large controls ensure reliable eyes-up operation in extreme conditions.

Whatever the environment, hear and be heard with the loudest and clearest audio possible. HDR mic inputs reproduce voices with uncompromising clarity.

The APX N70 works reliably across a variety of frequencies, modes and protocols. Multiple hardware encryption algorithms keep communications secure, while optional functionality including LTE and smart apps helps add actionable intelligence in the field.



# APX N50 SINGLE-BAND P25 PORTABLE RADIO

#### SIMPLE. RELIABLE. SECURE.

The APX N50 is a slim yet tough pick-up-and-go radio that's designed to give first responders, public-safety support and administrative staff secure communications they can rely on in the field to stay connected and collaborative, whenever wherever.

ViQi Basic Voice Control and intuitive interfaces make it simple to use on the go. Advanced speakers and HDR mics combined with leading APX audio algorithms automatically filter background noise and adjust volume levels to the environment, keeping hands free and eyes up.

Connect to accessories and other devices via Bluetooth or even switch between LMR coverage and Wi-Fi with SmartConnect. Hardware encryption algorithms, batch radio programming tools, and a portfolio of services keep communications secure and up-to-date.



BROCHURE | APX P25 COMMUNICATIONS





# APX N30 SINGLE-BAND P25 PORTABLE RADIO

#### EASY. EFFICIENT. ESSENTIAL.

Seamless communication from a sleek radio. Easy to use and simple to manage. The APX N30 single-band P25 portable radio connects your teams to reliable P25 radio networks with all the essential features they need and nothing that they don't. The radio solution for mobile workers in public works, government services, and other municipal roles looking for APX performance in a pared down, cost effective package.

Easy to carry and tough enough for use in harsh environments. ViQi Basic Voice Control, large controls and display make it simple to use on the go. And with loud and clear audio, crucial messages get through, even in noisy environments. With SmartConnect, automatically switch between radio coverage and Wi-Fi connections to keep teams moving.







# **APX RADIO ACCESSORIES**

## OUR ACCESSORY LINEUP IS FOCUSED ON DURABILITY AND FLEXIBILITY TO KEEP YOU SAFER IN MISSION CRITICAL MOMENTS.

Get the most out of your APX radio by extending its power and reliability with resilient APX accessories. They are the only accessories tested and certified for use with APX radios. Our accessories endure rigorous testing to last longer and help keep you safer. There's simply no substitute for Motorola APX accessories.



ENERGY



AUDIO



MOBILE





CARRY

COVERT

## **APX PORTABLE RADIOS**

		SMART	ALL-BAND	SINGLE	RAND
		APX NEXT Series	ALL-DAND APX 8000 Series	APX N70	APX 6000 Series & SRX 2200
FREQUENCY BANDS					
VHF	136-174 MHz	(Y)	(Y)	**	(Y)
UHF Range 1	380-470 MHz	(Y)	(Y)	**	(Y)
UHF Range 2	450-512 MHz	(Y)	(Y)	**	(Y)
700/800 MHz	762-870 MHz	(Y)	(Y)	Y	(Y)
300 MHz	896-902, 935-941MHz	-	-	-	-
3/900 MHz	851-870 and 935-940 MHz bands	- Y	-	-	-
All-Band Number of Channels	VHF, UHF R1, UHF R2, 700/800 simultaneously Max number of channels programmable	<u> </u>	Y 3000	- 1000 (3000)	- 1000 (3000)
		3000	3000	1000 (3000)	1000 (3000)
OPERATION MODES		N.	М	N.	
Analog Conventional	FM analog non-trunked communications SmartNet, SmartZone, QCII	Y	Y	Y (MA)	Y
Analog Trunking Digital P25 Phase I	FDMA, Conventional and Trunking	(Y) (Y)	(Y) (Y)	(Y) (Y)	(Y) (Y)
ligital P25 Phase II	TDMA, conventional and mulking	(Y)	(Y)	(Y)	(Y)
nteroperability	0	(Y)	(Y)	(Y)	(Y)
3600 & 9600)	Automatic switching between P25 Phase I and II				
/&D	Integrated Voice and Data	Y	Y	Y	Y
NVIRONMENTAL					
ngress 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	(IP68: 2 m, 4 hr)	APX 6000XE & SRX 2200 - IP68: 2 m, 4 hr APX 6000 - IP68: 2 m, 2 hr
)elta-T Testing	Differential temperature sealing test	Y	APX 8000HXE & XE - Y APX 8000H & 8000 - (Y)	(Y)	APX 6000XE & SRX 2200 - APX 6000 - (Y)
łazLoc	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)	(Class I, Div 1 & 2)
NFPA 1802	NFPA 1802 Certification	APX NEXT XN - Y	-	-	-
VDIO					
	Dynamic optimization of noise suppression	Y	Y	(Y)	(Y)
lumber of	Support for multi-mic noise suppression	3	3	2 (3)	2 (3)
licrophones utput Power	Maximum rated audio power	3 W	3 W	.5/1 (3/5) W	500 mW (3 W)
	Waximum fated addio power	3 W	5 W	.3/1 (3/3) W	500 1100 (5 00)
ECURITY, SAFETY					
lgorithms	Supported encryption algorithms	(256-bit AES, ADP, DES, DES-XL, DES-OFB, DVP-XL)	(256-bit AES, ADP, DES, DES-XL, DES-OFB, DVP-XL)	DES-OFB, DVP-XL)	DES-OFB, DVP-XL)
Aultikey	Number of programmable keys	128	128	64	64
lethod	Encryption implementation	Hardware	Hardware	Hardware	Hardware
ncryption Standards	Level of encryption offered	FIPS 140-3 Level 3, FIPS 197	FIPS 140-3 Level 3, FIPS 197	FIPS 140-3 Level 3, FIPS 197	FIPS 140-3 Level 3, FIPS 19
ver-the-Air Rekeying	Remote update of encryption keys	(Y)	(Y)	(Y)	(Y)
ONNECTIVITY					
roadband	Broadband network support	LTE, WiFi	(WiFi)	(LTE, WiFi)	(WiFi)
martConnect	Seamlessly switch between P25 and broadband	(via LTE or WiFi)	(via WiFi)	(via LTE or WiFi)	(via WiFi)
luetooth	Secure personal area network, for wireless	5.0 NFC hardware ready	4.0 MPP	5.0 NFC hardware ready	4.0 MPP
	accessories Data offload to external modem via WiFi	,	(Y)	,	(Y)
		-	(1)	-	(1)
OCATION-TRACKIN					
PS/GLONASS	Receiver for radio location-tracking	Y	Y	Y	Y
	Automated reasonable to shanges in radio				
	Automated responses to changes in radio location	-	(Y)	-	(Y)
eofence		- (Y)	(Y) -	- (Y)	(Y) -
eofence martLocate	location			- (Y) (Y)	
eofence martLocate martMapping	Iocation Route location data over broadband	(Y)			-
ieofence imartLocate imartMapping DTHER FEATURES	Iocation Route location data over broadband	(Y)			-
ieofence imartLocate imartMapping ITHER FEATURES i'Qi Virtual Partner i'Qi Voice Control	location Route location data over broadband Mapping app to locate other radios	(Y) (Y) (Y) (Y)	-	(Y) (Y) (Y)	-
ieofence imartLocate imartMapping ITHER FEATURES iQi Virtual Partner iQi Voice Control imartMessaging	location Route location data over broadband Mapping app to locate other radios Database query using virtual assistant Operate radio using spoken commands Multimedia messaging	(Y) (Y) (Y) (Y) (Y)	- - - - - - -	(Y) (Y) (Y) (Y)	- - - - - -
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## **APX PORTABLE RADIOS**

		SINGLE-BAND					
		APX N50	APX 4000XH	APX 4000	APX 3000	APX N30	APX 900
FREQUENCY BANDS		0.0		80	0.0	0.0	0.0
VHF UHF Range 1	136-174 MHz 380-470 MHz	(Y) **	-	(Y) (Y)	(Y) (Y)	(Y) **	(Y) (Y)
UHF Range 2	450-512 MHz	**	-	(Y)	(Y)	**	(T) (Y)
700/800 MHz	762-870 MHz	(Y)	-	(Y)	(Y)	(Y)	(Y)
900 MHz	896-902, 935-941MHz	-	-	(Y)	-	-	(Y)
8/900 MHz	851-870 and 935-940 MHz bands	-	Y	-	-	-	-
All-Band	VHF, UHF R1, UHF R2, 700/800 simultaneously	-	-	-	-	-	-
Number of Channels	Max number of channels programmable	512 (1000)	512 (1000)	512 (1000)	512	512	512
OPERATION MODES		Y.	V		X	V	V
Analog Conventional Analog Trunking	FM analog non-trunked communications SmartNet, SmartZone, QCII	Y (Y)	Y (Y)	Y (Y)	Y (Y)	Y (Y)	Y (Y)
Digital P25 Phase I	FDMA, Conventional and Trunking	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
Digital P25 Phase II	TDMA Trunking	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
Interoperability (3600 & 9600)	Automatic switching between P25 Phase I and II	(Y)	(Y)	(Y)	(Y)	-	-
IV&D	Integrated Voice and Data	Y	Y	Y	Y	Y	Y
ENVIRONMENTAL							
Ingress Protection	Sealing against dust and water	IP68: 2 m, 2 hr	IP68: 2 m. 2 hr	IP67	IP67	IP68: 2 m. 2 hr	IP68: 2 m, 2 hr
0		11 00. 2 11, 2 11	11 00. 2 111, 2 111		11 07	11 00. 2 111, 2 111	11 00. 2 111, 2 111
Delta-T Testing	Differential temperature sealing test	-	-	(Y)	-	-	
HazLoc	Hazardous location certification	(Class I, Div 1 & 2)	CSA 157	(Class I, Div 1 & 2)	-	(Class I, Div 1 & 2)	(Class I, Div 1 & 2)
NFPA 1802	NFPA 1802 Certification	-	-	-	-	-	
AUDIO							
	Dynamic optimization of noise suppression	(Y)	-				
Number of	Support for multi-mic noise suppression	2 (3)	2	2	_	2	1
Microphones Output Power	Maximum rated audio power	.5/1 (1/3) W	500 mW	500 mW		.5/1 W	500 mW
		.3/1 (1/3) W	300 1110	300 11100	-	.5/1 🗤	300 1117
SECURITY, SAFETY							
Algorithms	Supported encryption algorithms	(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)	(256-bit AES, ADP)	(256-bit AES SW, ADP)
Multikey	Number of programmable keys	48	48	48	48	48	48
Method	Encryption implementation	Hardware	Hardware	Hardware	Hardware	Software	Software
Encryption Standards	Level of encryption offered	FIPS 140-3 Level 3 FIPS 197	FIPS 140-3 Level 3, FIPS 197	FIPS 140-3 Level 3, FIPS 197	FIPS 140-3 Level 3, FIPS 197	FIPS 140-3 Level 1 FIPS 197	FIPS 140-3 Level 1 FIPS 197
Over-the-Air Rekeying	Remote update of encryption keys	(Y)	-	-	(Y)	-	-
CONNECTIVITY							
Broadband	Broadband network support	(WiFi)	-	-	-	(WiFi)	-
SmartConnect	Seamlessly switch between P25 and broadband	(via WiFi)	-	-	-	(via WiFi)	-
Bluetooth	Secure personal area network, for wireless accessories	4.2	2.1	2.1	2.1	4.2	4.0 LE
Data Modem Tethering	Data offload to external modem via WiFi	(Y)	-	-	-	(Y)	-
LOCATION-TRACKIN	G						
GPS/GLONASS	Receiver for radio location-tracking	Y	Y		Y	Y	Y
Mission-Critical Geofence				Y	T		
Georence	Automated responses to changes in radio location	(Y)	(Y)	Y (Y)	(Y)	(Y)	-
SmartLocate	Automated responses to changes in radio location Route location data over broadband	(Y)	(Y) -				-
				(Y)	(Y)	(Y)	
SmartLocate SmartMapping	Route location data over broadband	-	-	(Y) -	(Y) -	(Y) -	
SmartLocate	Route location data over broadband	-	-	(Y) -	(Y) -	(Y) -	
SmartLocate SmartMapping OTHER FEATURES	Route location data over broadband Mapping app to locate other radios	-	-	(Y) - -	(Y) - -	(Y) - -	
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Voice Control SmartMessaging	Route location data over broadband Mapping app to locate other radios Database query using virtual assistant Operate radio using spoken commands Multimedia messaging	- (Basic)	- - - -	(Y) - - - - -	(Y) - - - - - - -	(Y) - - (Basic) -	
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Voice Control SmartMessaging RFID	Route location data over broadband Mapping app to locate other radios Database query using virtual assistant Operate radio using spoken commands Multimedia messaging Embedded wireless inventory tracking tag	- - (Basic) - -	- - - - - -	(Y) - - - - - (Y)	(Y) - - - - - - - - - - -	(Y) - - (Basic) - -	- - - (Y)
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Voice Control SmartMessaging RFID Voice Announcement	Route location data over broadband Mapping app to locate other radios Database query using virtual assistant Operate radio using spoken commands Multimedia messaging Embedded wireless inventory tracking tag Audio announcement of change in radio status	- - (Basic) - - Y	- - - - - - - - - - - - - -	(Y) - - - - - (Y) Y	(Y) - - - - - - - - - - - - - - - -	(Y) - - (Basic) - - - Y	- - - (Y) Y
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Voice Control SmartMessaging RFID Voice Announcement	Route location data over broadband Mapping app to locate other radios Database query using virtual assistant Operate radio using spoken commands Multimedia messaging Embedded wireless inventory tracking tag	- - (Basic) - -	- - - - - -	(Y) - - - - - (Y)	(Y) - - - - - - - - - - -	(Y) - - (Basic) - -	- - - (Y)
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Voice Control SmartMessaging RFID Voice Announcement Intelligent Lighting Instant Recall	Route location data over broadband Mapping app to locate other radios Database query using virtual assistant Operate radio using spoken commands Multimedia messaging Embedded wireless inventory tracking tag Audio announcement of change in radio status Programmable display backlight color alert	- - (Basic) - - - Y Y	- - - - - - - - - - - - - - - - - - -	(Y) - - - - - (Y) Y Y	(Y) - - - - - - - - - - - - - - - - - - -	(Y) - - (Basic) - - - Y Y	- - - (Y) Y
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Voice Control SmartMessaging RFID Voice Announcement Intelligent Lighting Instant Recall Man Down/Fall Alert	Route location data over broadband Mapping app to locate other radios Database query using virtual assistant Operate radio using spoken commands Multimedia messaging Embedded wireless inventory tracking tag Audio announcement of change in radio status Programmable display backlight color alert Replay of last received call	- - (Basic) - - - Y Y Y Y	- - - - - - - - - - - - - - - - - - -	(Y) - - - - - - - - - - - - - - - - - - -	(Y) - - - - - - - - - - - - - - - - - - -	(Y) - - (Basic) - - Y Y Y Y	- - - (Y) Y - Y
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Voice Control SmartMessaging RFID Voice Announcement Intelligent Lighting Instant Recall Man Down/Fall Alert IMPRES / IMPRES 2	Route location data over broadband Mapping app to locate other radios Database query using virtual assistant Operate radio using spoken commands Multimedia messaging Embedded wireless inventory tracking tag Audio announcement of change in radio status Programmable display backlight color alert Replay of last received call Programmable response to movement & orientation	- - (Basic) - - Y Y Y Y Y (Y)	- - - - - - - - - - - - - - - - - - -	(Y) - - - - - - - - - - - - - - - - - - -	(Y) - - - - - - - - - - - - - - - - - - -	(Y) - - (Basic) - - Y Y Y Y (Y)	- - - (Y) - Y - Y
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Voice Control SmartMessaging RFID Voice Announcement Intelligent Lighting Instant Recall Man Down/Fall Alert IMPRES / IMPRES 2 DISPLAY & KEYPAD 4.5: Touchscreen and to	Route location data over broadband         Mapping app to locate other radios         Database query using virtual assistant         Operate radio using spoken commands         Multimedia messaging         Embedded wireless inventory tracking tag         Audio announcement of change in radio status         Programmable display backlight color alert         Replay of last received call         Programmable response to movement & orientation         Intelligent battery and charging technology,         CONFIGURATION MODELS         op display	- - (Basic) - - Y Y Y Y Y (Y)	- - - - - - - - - - - - - - - - - - -	(Y) - - - - - - - - - - - - - - - - - - -	(Y) - - - - - - - - - - - - - - - - - - -	(Y) - - (Basic) - - Y Y Y Y (Y)	- - - (Y) - Y - Y
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Voice Control SmartMessaging RFID Voice Announcement Intelligent Lighting Instant Recall Man Down/Fall Alert IMPRES / IMPRES 2 DISPLAY & KEYPAD 4.5: Touchscreen and to 3.5: Front display, full k	Route location data over broadband         Mapping app to locate other radios         Database query using virtual assistant         Operate radio using spoken commands         Multimedia messaging         Embedded wireless inventory tracking tag         Audio announcement of change in radio status         Programmable display backlight color alert         Replay of last received call         Programmable response to movement & orientation         Intelligent battery and charging technology,         CONFIGURATION MODELS         op display	- (Basic) - - Y Y Y Y (Y) N/Y	- - - - - - - - - - - - - - - - - - -	(Y) - - - - - - - - - - - - - - - - - - -	(Y) - - - - - - - - - - - - - - - - - - -	(Y) - - (Basic) - - Y Y Y Y (Y) N/Y	- - - (Y) Y - Y - Y/N
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Voice Control SmartMessaging RFID Voice Announcement Intelligent Lighting Instant Recall Man Down/Fall Alert IMPRES / IMPRES 2 DISPLAY & KEYPAD 4.5: Touchscreen and to 3.5: Front display, full k 2.5: Front display, luikt	Route location data over broadband         Mapping app to locate other radios         Database query using virtual assistant         Operate radio using spoken commands         Multimedia messaging         Embedded wireless inventory tracking tag         Audio announcement of change in radio status         Programmable display backlight color alert         Replay of last received call         Programmable response to movement & orientation         Intelligent battery and charging technology,         CONFIGURATION MODELS         op display	- (Basic) - - Y Y Y Y (Y) N/Y - - -	- - - - - - - - - - - - - - - - - - -	(Y) - - - (Y) Y Y Y (Y) Y/N - - - - - - - - - - - - -	(Y) - - - - - - - - - - - - -	(Y) - - (Basic) - - Y Y Y Y (Y) N/Y -	- - - (Y) Y - Y Y/N - - Y/N
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Voice Control SmartMessaging RFID Voice Announcement Intelligent Lighting Instant Recall Man Down/Fall Alert IMPRES / IMPRES 2 DISPLAY & KEYPAD 4.5: Touchscreen and to 3.5: Front display, full k 2.5: Front display, only	Route location data over broadband Mapping app to locate other radios Database query using virtual assistant Operate radio using spoken commands Multimedia messaging Embedded wireless inventory tracking tag Audio announcement of change in radio status Programmable display backlight color alert Replay of last received call Programmable response to movement & orientation Intelligent battery and charging technology, <b>CONFIGURATION MODELS</b> pp display evpad, top display	- - (Basic) - - Y Y Y Y (Y) N/Y - - - - -	- - - - - - - - - - - - - - - - - - -	(Y) - - - (Y) Y Y Y (Y) Y/N - - - - - - - - - - - - -	(Y) 	(Y) - - (Basic) - - Y Y Y Y (Y) N/Y - - - - - - -	- - - (Y) Y - Y - Y/N
SmartLocate SmartMapping OTHER FEATURES ViQi Virtual Partner ViQi Virtual Partner ViQi Voice Control SmartMessaging RFID Voice Announcement Intelligent Lighting Instant Recall Man Down/Fall Alert IMPRES / IMPRES 2 DISPLAY & KEYPAD 4.5: Touchscreen and to 3.5: Front display, full k 2.5: Front display, limito	Route location data over broadband Mapping app to locate other radios Database query using virtual assistant Operate radio using spoken commands Multimedia messaging Embedded wireless inventory tracking tag Audio announcement of change in radio status Programmable display backlight color alert Replay of last received call Programmable response to movement & orientation Intelligent battery and charging technology, <b>CONFIGURATION MODELS</b> pp display ed keypad, top display	- (Basic) - - Y Y Y Y (Y) N/Y - - -	- - - - - - - - - - - - - - - - - - -	(Y) - - - (Y) Y Y Y (Y) Y/N - - - - - - - - - - - - -	(Y) - - - - - - - - - - - - -	(Y) - - (Basic) - - Y Y Y Y (Y) N/Y	- - - (Y) Y - Y Y/N - - Y/N

## **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 896-941 MHz band		(Y)	(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	The second second	V	V	V	
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)
	0) Automatic switching between P25 Phase I and II	(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, ADP)
Algorithm Capacity	Number of simultaneous encryption schemes	8	8	8	(230-bit AE3, AD1 ) 8
Multikey		128	64	48	48
Method	Number of programmable keys	Hardware	Hardware	Hardware	Software
	Encryption implementation				FIPS 140-3 Level 1 FIPS 197
Encryption Standards Over-the-Air Rekeying	Level of encryption offered Remote update of encryption keys	FIPS 140-3 Level 3 FIPS 197 (Y)	FIPS 140-3 Level 3 FIPS 197 (Y)	FIPS 140-3 Level 3 FIPS 197	FIFS 140-3 Level 1 FIFS 19
over the All Hekeying		(1)	(1)		
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
	0				
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 COMPATI	IDILI I T				
		(Y)	(Y)		
07 Enhanced Control Head	IDILITY	(Y) (Y)	(Y) (Y)	-	-
07 Enhanced Control Head E5 Control Head					-
CONTROL HEAD COMPAT 07 Enhanced Control Head E5 Control Head 05 Standard Control Head 03 Handheld Control Head		(Y)	(Y)		

( ) indicates optional feature \*\* indicates future 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, Inc. 500 West Monroe Street, Chicago, II 60661 U.S.A. motorolasolutions.com

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