Project 25 Compliance Assessment Program SUMMARY TEST REPORT (STR) for Motorola Solutions Subscribers STR Submitted based on 2018 CAB

Submitted to P25 CAP for review and approval August 5,2024

P25 CAP Approved August 23, 2024

Summary Test Report Identifier	STR - Motorola Solutions - SUBSCRIBER		
STR Template Version	Subscriber STR Template 20181204		
STR Template version	(Incorporates TIA-102.CABA-A revisions; removes 2016 CAB		
2018 CAB	P25-CAB-CAI_TEST_REQ – October 2018		
2018 CAB Filename	P25-CAB-CAI_TEST_REQ-TDMA_170720 20181029_v3-508c_0		

Submitter Information	Details		
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SUMMARY TEST REPORT REVISION HISTORY

Revision Date	STR Content Changes
29-Jun-18	Initial submission
26-Sep-18	Added APX8000H, APX8000HXE by similarity to APX8000
	* Added VX-P949 portable by similarity to APX900
	* 2.2.18.4.1 edit - changed "P" to "U4" - Harris informed Motorola of
	a typo in their DTR; functionality is not supported by the
	representative base station repeater.
	* The publication of TIA-102.CABA-A eliminates the need for "P7" in
	the Test Case Result Notations and Definitions. "P7" is thus deleted
7-Nov-18	and "P7" occurrences replaced with "P" in 2.2.8.4.1 and 2.4.14.4.1.

	Interoperability updates to reflect testing on EF Johnson
16-Nov-18	infrastructure per 2017 CAB 8-9 Nov 2018.
	* Updated Motorola Solutions System Release to 2019.2.
	* Updated subscriber software versions and test report number for
	listed devices.
	* Added APX NEXT (new subscriber product).
	* TDMA interoperability cell corrections (e.g., "P6" designations
	updated to "P" confirming testing on three representative base
	station repeaters).
	* Corrected entries in 2.2.13 through 2.2.21 (FDMA 2017 CAB tests)
22-Oct-19	which were blank on some tabs.
	* Updated Motorola Solutions System Release to 2020.2. with
	R21.42.00
21-Jul-20	* Updated subscriber software versions for listed devices.
	* Added APX NEXT XE by similarity to APX NEXT
11/19/2020, 12/7/20	* Updated subscriber software versions for listed devices (R21.60.00)
30-Mar-21	* Added APX NEXTi (International) by similarity to APX NEXT
	* Updated APX900 in to include encryption in SDoC and STR,
	* Updated APX1000i by similarity,
27-Aug-21	* Added APX 1500 to include encryption.
	* Added APX N70
	* Added APX N30
	* Updated subscriber test reports #'s &software versions for listed
1-Dec-22	devices.
7-Dec-22	*Corrected N70 and N30 to show N/A for UHF&VHF frequencies
20-Dec-22	*Added APX N50
	*Added UHF frequencies for APXN30, APXN50, APXN70
5-Aug-24	*Updated subscriber test reports #'s & software versions for listed
	devices.

P25 CAP TEST LABORATORY INFORMATION

Laboratory [1]	Details
P25 CAP Test Laboratory Name:	Motorola Performance CAI Subscriber Compliance Laboratory
P25 CAP Test Laboratory Code:	P25CAP081014

Laboratory [2]	Details
P25 CAP Test Laboratory Name:	Motorola Solutions, Inc. CAP Interoperability Testing Lab
P25 CAP Test Laboratory Code:	P25CAP081012

Laboratory [3]	Details
P25 CAP Test Laboratory Name:	Compliance Testing LLC (Infrastructure used Motorola Solutions)
P25 CAP Test Laboratory Code:	P25CAP081011

Laboratory [4]	Details
P25 CAP Test Laboratory Name:	Harris Corporation Public Safety & Professional Communications
P25 CAP Test Laboratory Code:	P25CAP081017

Laboratory [5]	Details
P25 CAP Test Laboratory Name:	EF Johnson Technologies
P25 CAP Test Laboratory Code:	P25CAP081010

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Purpose: The Department of Homeland Security (DHS) is requesting this information from you as a designated point of contact for a vendor/supplier participating in DHS' P25 Compliance Assessment Program (CAP). P25 CAP provides public safety agencies with evidence that equipment they purchase is tested against and compliant with standards for performance, conformance, and interoperability. The contact information provided to DHS will be used by DHS to contact the vendor/supplier. The information will also be placed on the P25 CAP website as part of an equipment vendor/supplier's profile and will be available to public safety agencies and others who view that profile.

Disclosure: Furnishing point-of-contact information and participating in P25 CAP is voluntary. However, failure to provide point of contact information may be the basis for denying a vendor/supplier participation in P25 CAP.

Routine Uses: The information will be used by and disclosed to S&T personnel for the purpose stated above. DHS follows approved routine uses described in the associated published system of records notice [DHS/ALL-002 Department of Homeland Security (DHS) Mailing and Other Lists System] and the published privacy impact assessment [DHS/ALL/PIA-006 DHS General Contact Lists], which you can find at www.dhs.gov/privacy.

Motorola Solutions Interoperability Model Class: APX Subscriber Unit

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Model Names	Subscriber Type	Tested Software Versions*	Software Version Updates**	Software Options/Frequency bands/Hardware Options
APX 900	portable	R24.00.00	R33.04.00	Full Display; Full DTMF Keypad; VHF (136-174MHz); UHF-R1 (380- 480MHz); UHF-R2 (450-520MHz); 700MHz (764-776, 794-806, 806- 824, 851-870 MHz) ; 800MHz (89-902, 935-940MHz); 900MHz (866-901 MHz 935-940 MHz); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption
APX 1000i	portable	R24.00.00	R33.04.00	Full Display; Full Keypad; VHF (136-174MHz); UHF-R1 (380- 470MHz); UHF-R2 (470-520MHz); 700MHz(764-776 MHz, 794-806 MHz); 800MHz (806-824 MHz, 851-870 MHz); 900MHz (896-901 MHz 935-940 MHz); P25 Conventional, P25 Trunked, P25 TDMA Trunked, AE5-256 Encryption
APX 1000	portable	R17.03.00	NTR (Cancelled)	Full Display; Full Keypad; VHF (136-174MHz); UHF-R1 (380- 470MHz); UHF-R2 (470-520MHz); 700MHz(764-776 MHz, 794-806 MHz); 800MHz (806-824 MHz, 851-870 MHz); 900MHz (896-901 MHz 935-940 MHz); P25 Conventional, P25 Trunked, P25 TDMA Trunked
APX 1500	mobile	R25.00.00	R33.04.00	Full Display; VHF (136-174MH2); UHF-R2 (380-470MH2); UHF-R2 (450-520MH2); 700MH2 (764-776, 794-806 MH2); 800MH2 (806- 824, 851-870 MH2); P25 Conventional, P25 Trunked, P25 TDMA Trunked, AE5-256 Encryption
APX 2000, APX 2000XE	portable	R23.05.00	R33.04.00	Full Display; Full DTMF Keypad; VHF (136-174MHz); UHF-R1 (380- 470MHz); UHF-R2 (450-520MHz); 700MHz (763-776, 793-806 MHz); 800MHz (806-825, 851-870 MHz); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption
APX 2500, APX 2500 BN	mobile	R28.30.00	R33.04.00	Full Display; VHF (136-174MH2); UHF-R1 (380-470MH2); UHF-R2 (450-520MH2); 700MH2 (764-776, 794-806 MH2); 800MH2 (806- 824, 851-870 MH2); 900MH2 (896-902, 935-940 MH2) P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption
APX 3000	portable	R24.00.00	R33.04.00	Full Display; Full DTMF Keypad; YHF (136-174MHz); UHF-R1 (380- 470MHz); UHF-R2 (450-520MHz); 700MHz (764-775; 793-806 MHz); 800MHz(806-824; 851-870 MHz); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption
APX 4000, APX 4000XE, APX 4000Li	portable	R23.05.00	R33.04.00	Full Display; Full Keypad; VHF (136-174MHz); UHF-R1 (380- 470MHz); UHF-R2 (470-520MHz); 700MHz (764-776 MHz 794-806 MHz); 800MHz (806-824 MHz 851-870 MHz); 900MHz (896-901 MHz 935-940 MHz); P25 Conventional, P25 Trunked, P25 TDMA Trunked, AES-256 Encryption
APX 4500, APX 4500BN	mobile	R28.30.00	R33.04.00	Full Display; VHF (136-174MHz); UHF-R1 (380-470MHz); UHF-R2 (450-520MHz); 700MHz (764-776, 794-806 MHz); 800MHz (806- 824, 851-870 MHz); 900MHz (896-902, 935-940 MHz) P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption
APX 5000	portable	R32.25.00	R33.04.00	Full Display; Full DTMF Keypad; VHF (136-174MHz); UHF-R1 (380- 470MHz); UHF-R2 (450-520MHz); 700MHz (764-776; 794-806 MHz); 800MHz(806-825; 851-870 MHz); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AE5-256 Encryption
APX 5500, APX 5500BN	mobile	R28.30.00	R33.04.00	Full Display; Full DTMF Keypad; VHF (136-174MH2); UHF-R1 (380- 470MH2); UHF-R2 (450-520MH2); 700MH2 (764-776; 794-806 MH2); 800MH2(806-825; 851-870 MH2); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption
APX 6000 BN, APX 6000XE BN, APX 6000Li BN	portable	R32.25.00	R33.04.00	Full DTMF keypad; VHF (136-174MHz); UHF-R1 (380-470MHz); UHF-R2 (450-520MHz); 700MHz (764-776, 794-806 MHz); 800MHz (806-824, 851-870 MHz); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption
APX 6500, APX 6500LI, APX 6500BN	mobile	28.30.00	R33.04.00	Full DTMF Keypad; VHF (136-174MH2); UHF-R1 (380-470MH2); UHF-R2 (450-520MH2); 700MH2 (764-776MH2); 800MH2 (851-870 MH2); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES- 256 Encryption
APX 7000, APX 7000XE	portable	R16.01.00	NTR (Cancelled)	Full Display; Full DTMF Keypad; VHF (136-174MH2); UHF-R1 (380- 470 MH2); UHF-R2 (450-520 MH2); 700MH2 (763-776, 793-806 MH2); 800MH2 (806-824, 851-870 MH2); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption Full Display, Full DTMF Keypad; VHF (136-174MH2); UHF-R1 (380-
APX 7500	mobile	R16.20.00	NTR (Cancelled)	470MHz); UHF-R2 (450-520MHz); 700MHz (764-776, 794-806 MHz); 800MHz(806-824, 851-870 MHz); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption Full Display; Full Keypad; VHF (136-174MHz); UHF-R1 (380-
APX 8000, APX 8000XE, APX 8000H, APX 8000HXE	portable	R33.02.00	R33.04.00	 Full Display, Full Repper, Viii (130-1498), 2014 (130-1478), 2014 AOMH2; Viii Fez (450-5204H2); 2004H2; (294-806 HH2); 800MH2 (806-825, 851-870 MH2); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption Full Touch Display; Full Touch Display Keypad; VHF (136-174MH2);
APX NEXT, APX NEXT XE, APX NEXTI, APX NEXT XN	portable	R32.02.00	R33.04.00	UHF-R1 (380-470MHz); UHF-R2 (450-520MHz); 700MHz (762-776, 792-806 MHz); 800MHz (806-825, 851-870 MHz); 725 Conventional, P25 Trunked, P25 TDMA Trunked, AES-256 Encryption
APXN70	portable	R33.20.00	R33.04.00	Full Touch Display; Full Touch Display Keypad; 700/800 MHz bandsplit (762-776, 792-806, 806-825, 851-870 MHz); UHF-R1 (380-470MHz); UHF-R2 (450-520MHz), P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption
APXN50	portable	R32.30.00	R33.04.00	Touch Display with Keypad; 700/800 MHz bandsplit (762-776, 792- 806, 806-825, 851-870 MHz); UHF-R1 (380-470MHz); UHF-R2 (450- 520MHz), P25 Conventional, P25 Trunking, P25 TDMA Trunking, AE5-256 Encryption
APXN30	portable	R32.30.00	R33.04.00	Touch Display with Keypad; 700/800 MHz bandsplit (762-776, 792- 806, 806-825, 851-870 MHz); UHF-R1 (380-470MHz); UHF-R2 (450- 520MHz), P25 Conventional, P25 Trunking, P25 TDMA Trunking, AE5-256 Encryption
APX8500 (mid power, high power)	mobile	R33.03.00	R33.04.00	Full Display; Full DTMF Keypad; VHF (136-174MH2); UHF-R1 (380- 470MH2); UHF-R2 (450-520MH2); 700MH2 (794-806, 794- 806MH2); 800MH2 (806-824, 851-870MH2); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption
ATS 2500p	portable	R19.20.00	NTR (Cancelled)	Full Display; Full Keypad; VHF (136-174MHz); UHF-R1 (380- 435MHz); UHF-R2 (435-524MHz); 700MHz; 800MHz P25 Conventional, P25 Trunked, P25 TDMA Trunked
VX-P949	portable	R24.00.00	R33.04.00	Full Display; Full Keypad; VHF (136-174MHz); UHF-R1 (380- 480MHz); UHF-R2 (450-520MHz); P25 Conventional, P25 Trunked

SRX 2200	portable	R32.25.00	R33.04.00	Full Display; Full DTMF Keypad; VHF (136-174MHz); UHF-R1 (380- 470MHz); 700MHz (763-776, 793-806MHz); 800MHz (851-870, 806-824, 851-870MHz); P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption
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* Software versions used during P25 CAP testing.

Motorola Solutions Performance Model Class: APX Portable Performance Class 1

Model Names	Subscriber Type	Tested Software Versions*	Software Version Updates**	Software Options/Frequency bands/Hardware Options
APX 900, VX-P949	portable	R24.00.00	R33.04.00	
APX 1000, APX 1000i	portable	R24.00.00	R33.04.00	
ATS 2500p	portable	R28.30.00	R33.04.00	
APX 2000, APX 2000XE	portable	R23.05.00	R33.04.00	
APX 3000	portable	R24.00.00	R33.04.00	

* Software versions used during P25 CAP testing.

Motorola Solutions Performance Model Class: APX Portable Performance Class 2

Model Names	Subscriber Type	Tested Software Versions*	Software Version Updates**	Software Options/Frequency bands/Hardware Options
APX 4000, Li, XE	portable	R23.05.00	R33.04.00	
APX 5000	portable	R32.25.00	R33.04.00	
APX 6000 BN/AN, XE, Li	portable	R32.25.00	R33.04.00	
APX 7000, APX 7000XE, Li	portable	R16.01.00	R16.01.00	Cancelled
APX 8000, APX 8000XE, APX 8000H, APX 8000HXE	portable	R33.02.00	R33.04.00	
APX NEXT, APX NEXT XE, APX NEXTI	portable	R32.02.00	R33.04.00	
APXN70	portable	R33.20.00	R33.04.00	
APXN50	portable	R32.30.00	R33.04.00	
APXN30	portable	R32.30.00	R33.04.00	
SRX 2200	portable	R32.25.00	R33.04.00	

* Software versions used during P25 CAP testing.

Motorola Solutions Performance Model Class: APX Mobile Performance Class 1

Model Names	Subscriber Type	Tested Software Versions*	Software Version Updates**	Software Options/Frequency bands/Hardware Options
APX 1500	mobile	R25.00.00	R33.04.00	
APX 2500	mobile	R28.30.00	R33.04.00	
APX 4500, APX 4500BN	mobile	R28.30.00	R33.04.00	
APX 5500	mobile	R28.30.00	R33.04.00	
APX 6500, APX 6500Li, APX6500 BN	mobile	R28.30.00	R33.04.00	
APX 7500	mobile	R16.20.00	R16.20.01	Cancelled
APX 8500 (mid/high power)	mobile	R33.03.00	R33.04.00	

Software versions used during P25 CAP testing.
 Software version updates that have been determined by engineering analysis to have no impact on the test case results.

Representative Conventional Subscriber Unit Products tested with the Subscriber Unit for Conventional Interoperability

- Direct Mode [This table applies to both the 2016 or 2017 CAB]

Model	Tested Software Versions*	Software Version Updates**	Model Class
APX 8000	R17.02.00	R21.42.00	
VP900	8.20.5		
XL-200P	XLPR05D		
	APX 8000 VP900	APX 8000 R17.02.00 VP900 8.20.5 XL-200P XLPR05D	APX 8000 R17.02.00 R21.42.00 VP900 8.20.5 XL-200P XLPR05D

* Software versions used during P25 CAP testing. ** Software version updates that have been determined by engineering analysis to have no impact on the test case results.

Representative Conventional Base Station Repeater Products tested with the Subscriber Unit for Conventional Interoperability

- Repeat Mode [This table applies to both the 2016 or 2017 CAB]

Base Station Repeater Vendor	Model	Tested Software Versions*	Software Version Updates**	Model Class
Motorola Solutions	GTR8000	System Release 7.17	System Release 2020.2	
EF Johnson Technologies	ATLAS System: 4500 repeater	17.2.0 System Suite		
Harris Corporation	MASTR V	R02E01		

Representative Conventional Base Station Repeater Products tested with the Subscriber Unit for Conventional Interoperability

- FNE Dispatch Monitoring Console - Repeat Mode [This table applies to both the 2016 or 2017 CAB]

Base Station Repeater Vendor	Model	Tested Software Versions*	Software Version Updates**	Model Class
Motorola Solutions	GTR8000	System Release 2019.2	System Release 2020.2	
EF Johnson Technologies	ATLAS System: 4500 repeater	17.2.0 System Suite		
Harris Corporation	MASTR V	R02E01		

Representative Trunked Base Station Repeater Products tested with the Subscriber Unit for Trunked Interoperability

- FDMA [This table applies to both the 2016 or 2017 CAB] Base Station Repeater Vendor Software Version Updates** Model Class Model Tested Software Versions* Motorola Solutions GTR8000 System Release 7.17 System Release 2020.2

EF Johnson Technologies	ATLAS System: 4500 repeater	System Release 3.1-RC1	System Release 17.2.0	
Harris Corporation	MASTR V	FNE System Version SR10A.2 firmware R15A28.01		

Representative Trunked Base Station Repeater Products tested with the Subscriber Unit for Trunked Interoperability - TDMA [This table applies to only the 2017 CAB]

Base Station Repeater Vendor	Model	Tested Software Versions*	Software Version Updates**	Model Class
Motorola Solutions	GTR8000	System Release 7.17	System Release 2020.2	
Harris Corporation	MASTR V	FNE System Version SR10A.2 firmware R15A28.01		
EF Johnson Technologies	ATLAS System: 4500 repeater	2.1.0-4		