Project 25 Compliance Assessment Program
SDOC – L3HARRIS – MASTR V
November 7, 2019

BASE STATION REPEATER PRODUCT INFORMATION

Base Station Repeater Info	Detail
Model Name:	MASTR V
Tested Software Versions:	System Release SR10A.4, SR10A.2, SR10A.1, SR10A, PR9D, PR9C, PR9B
Hardware Capabilities/Options & Software Options:	Hardware Options: 800 MHz, 700 MHz, UHF 494-512 MHz, UHF 470-494 MHz, UHF 450-470 MHz, UHF 403-430 MHz, UHF 380-400 MHz, VHF 150-174 MHz Software Options: P25 Conventional, P25 Trunked

Test case results and updated software versions for this model can be found in the Summary Test Report identified below.

TEST REQUIREMENTS CAB IDENTIFICATION

This product was tested according to the P25 CAP Test Requirements Compliance Assessment Bulletin (CAB) indicated by the checked box.

check one	P25 CAP Test Requirement CAB	Details
	P25-CAB-CAI_TEST_REQ – July 2017	Includes August 2016 P25 CAP Test Requirements; Adds TDMA performance and interoperability testing and trunked supplementary data testing
X	**P25-CAB-CAI_TEST_REQ – October 2018**	Includes all July 2017 P25 CAP Test Requirements; Adds minor updates to conventional interoperability testing due to TIA standard update

SUMMARY TEST REPORT IDENTIFIER[1]

Summary Test Report (STR) Identifier:	STR – L3HARRIS – BASE STATION REPEATER

CONTACT INFORMATION

Company Info	Details
Company Name:	L3Harris Technologies (Communication Systems Segment, PSPC Sector)
Company Website URL:	http://www.harris.com/what-we-do/public-safety-and-professional-communications
P25 CAP Contact Name:	David Prather
P25 CAP Contact Phone:	(434) 455-6742

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[1] The Summary Test Report for this product is available upon request. Please send your STR request to P25CAP@hq.dhs.gov and include the base station repeater 'Vendor Name'.

Company Info	Details
P25 CAP Contact Email:	David.Prather@L3Harris.com

CONVENTIONAL PERFORMANCE

The Base Station Repeater product has been tested for Conventional Performance. All requirements were passed except for those requirements identified below under Unsupported or Failed Requirements.

P25 CAP Conventional Performance Testing Coverage
Receiver Tests: Reference Sensitivity, Faded Reference Sensitivity, Adjacent Channel Rejection, Offset Adjacent Channel Rejection, Co-Channel Rejection, Spurious Response Rejection, Intermodulation Rejection, Signal Displacement Bandwidth, Late Entry Unsquelch Delay, and Receiver Throughput Delay.
Transmitter Tests: Unwanted Emissions (Adjacent Channel Power Ratio), Transmitter Throughput Delay, Frequency Deviation for C4FM, and Modulation Fidelity, Transient Frequency Behavior.

Unsupported or Failed Requirements
1. Equipment is not equipped with an audio output. All requirements for Receiver Throughput Delay are not supported.
2. Equipment is not equipped with an audio input. All requirements for Transmitter Throughput Delay are not supported.

TRUNKING PERFORMANCE - FDMA

The Base Station Repeater product has been tested for Trunking Performance - FDMA. All requirements were passed except for those requirements identified below under Unsupported or Failed Requirements.

P25 CAP FDMA Trunking Performance Testing Coverage
Receiver Tests: Reference Sensitivity, Faded Reference Sensitivity, Adjacent Channel Rejection, Offset Adjacent Channel Rejection, Co-Channel Rejection, Spurious Response Rejection, Intermodulation Rejection, and Signal Displacement Bandwidth.
Transmitter Tests: Unwanted Emissions (Adjacent Channel Power Ratio), Transmitter Throughput Delay, Frequency Deviation for C4FM, and Modulation Fidelity, Transient Frequency Behavior.
Trunked Tests: Time to Grant

Unsupported or Failed Requirements
1. Equipment is not equipped with an audio input. All requirements for Transmitter Throughput Delay are not supported.
2. 45ms trunking control channel slot times not supported.
3. Double and triple TSBK for OSPs not supported.

TRUNKING PERFORMANCE - TDMA

The Base Station Repeater product has been tested for Trunking Performance - TDMA. All requirements were passed except for those requirements identified below under Unsupported or Failed Requirements.

P25 CAP TDMA Trunking Performance Testing Coverage
Receiver Tests: Reference Sensitivity, Faded Reference Sensitivity, Adjacent Channel Rejection, Offset Adjacent Channel Rejection, Co-Channel Rejection, Spurious Response Rejection, Intermodulation Rejection, and Signal Displacement Bandwidth.
Transmitter Tests: Unwanted Emissions (Adjacent Channel Power Ratio), Modulation Fidelity, and Symbol Rate Accuracy.

Unsupported or Failed Requirements
1. None.

CONVENTIONAL REPEAT MODE INTEROPERABILITY

The Base Station Repeater product has been tested for Conventional Repeat Mode Interoperability. All test cases were passed except for those cases identified below under Unsupported or Failed Test Cases. Test cases that passed but require specific, sometimes optional, product capabilities are also identified below.

P25 CAP Repeat Mode Interoperability Testing Coverage
Network Access Code (NAC) Operation, Group Voice Call, Emergency Call, Unit-to-Unit Voice Call, Encryption, Call Alert, Radio Check, Message Update, Status Update, Status Query, and Radio Unit Monitor.

Unsupported or Failed Test Cases
1. Call Alert, Radio Check, Message Update, Status Update, Status Query, and Radio Unit Monitor are not supported.

Optional Product Capabilities Required to Pass Test Cases
1. MASTRV P25 Conventional System Software

CONVENTIONAL REPEAT MODE with DISPATCH MONITORING CONSOLE INTEROPERABILITY

The Base Station Repeater product has been tested for Conventional Repeat Mode with Dispatch Monitoring Console Interoperability. All test cases were passed except for those test cases identified below under Unsupported or Failed Test Cases. Test cases that passed but require specific, sometimes optional, product capabilities are also identified below.

P25 CAP Repeat Mode Interoperability Testing Coverage
Group Voice Call, Emergency Call, All Call, Unit-to-Unit Voice Call, Encryption, Emergency Alarm, Call Alert, Radio Check, Radio Unit Inhibit/Uninhibit, Message Update, Status Update, Status Query, and Radio Unit Monitor.

Unsupported or Failed Test Cases
1. All Call (System-Wide Call), Call Alert, Radio Check, Radio Unit Inhibit/Uninhibit, Status Query, and Radio Unit Monitor are not supported.
2. Message Update and Status Update are supported only for the SU-to-DMC test cases. All other test cases for Message Update and Status Update are not supported.

Optional Product Capabilities Required to Pass Test Cases
1. MASTRV P25 Conventional System Software

TRUNKED BASE STATION REPEATER INTEROPERABILITY – FDMA

The Base Station Repeater product has been tested for Trunked Interoperability - FDMA. All test cases were passed except for those test cases identified below under Unsupported or Failed Test Cases. Test cases that passed but require specific, sometimes optional, product capabilities are also identified below.

P25 CAP FDMA Trunked Interoperability Testing Coverage
Full Registration, Group Voice Call, Unit to Unit Voice Call, Broadcast Voice Call, Affiliation, Announcement Group Call, Emergency Alarm, Emergency Group Call, Encryption, Intra-Location Registration Area Roaming, Deregistration, System Call, Call Alert, Short Message, Status Query, Status Update, Radio Unit Monitoring, Radio Unit Disable/Re-Enable, and Radio Check.

Unsupported or Failed Test Cases
1. Unit-to-unit call queued with target availability check – traffic channel assignment before target availability check, System Call, and Status Query are not supported.
2. Inter-WACN Roaming Operational Mode is not supported.

Optional Product Capabilities Required to Pass Test Cases
1. MASTRV P25 Trunked System Software

TRUNKED BASE STATION REPEATER INTEROPERABILITY – TDMA

The Base Station Repeater product has been tested for Trunked Interoperability - TDMA. All test cases were passed except for those test cases identified below under Unsupported or Failed Test Cases. Test cases that passed but require specific, sometimes optional, product capabilities are also identified below.

P25 CAP TDMA Trunked Interoperability Testing Coverage

Registration, Group Voice Call, Unit-to-Unit Voice Call, Broadcast Call, Announcement Group Call, Emergency Group Call, Encryption Group Call, System Call, Radio Unit Monitoring, and Transmitting Subscriber Forced Preemption.

Unsupported or Failed Test Cases

1. Unit-to-unit call queued with target availability check – traffic channel assignment before target availability check, System Call, and Transmitting Subscriber Forced Preemption test case 1: TDMA SU Forced Audio Preemption are not supported.
2. Inter-WACN Roaming Operational Mode not supported.

Optional Product Capabilities Required to Pass Test Cases

1. MASTRV P25 Trunked System Software

SIGNATURE AND DATE

November 7, 2019   _____

           Date Signed   Vendor's Authorized Representative <u>Signature</u>

_____David Prather_____

                    Vendor's Authorized Representative <u>Printed Name</u>

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