

**Project 25 Compliance Assessment Program**  
**SDOC - LEONARDO - ECOS-D RBS4000H**  
**January 15, 2020 [Date submitted or resubmitted to P25 CAP]**

**BASE STATION REPEATER PRODUCT INFORMATION**

<b>Base Station Repeater Info</b>	<b>Detail</b>
Model Name:	ECOS-D RBS4000H
Tested Software Versions:	3.69.1.25 rtx.bat / 11.22core.bat
Hardware Capabilities/Options & Software Options:	No Software Options, 136-174 MHz, No Hardware Options

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.

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

**SUMMARY TEST REPORT IDENTIFIER<sup>1</sup>**

Summary Test Report (STR) Identifier:	STR - LEONARDO - BASE STATION REPEATER
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**CONTACT INFORMATION**

<b>Company Info</b>	<b>Details</b>
Company Name:	Leonardo Security and Information Systems
Company Website URL:	www.leonardocompany-us.com
P25 CAP Contact Name:	Jim Collum
P25 CAP Contact Phone:	(913) 620-4956
P25 CAP Contact Email:	jim.collum@leonardocompany-us.com

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

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**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 Unsilence 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. Receiver Late Entry Unsilence Delay and Receiver Throughput Delay tests do not apply since the fixed station does not provide an audio (analog) output. Functionality is not supported by the base station repeater.
2. Transmitter Throughput Delay test does not apply since the fixed station does not provide an audio (analog) input. Functionality is not supported by the base station repeater.

Optional Product Capabilities Required to Pass Test Cases

1. [Example: 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. Message Update – Test Case 3 & Status Update – Test Case 3 are not supported by the base station repeater.
2. Status Query – Test Case 1, Radio Unit Monitor - Test Case 1 & Test Case 3 are not supported by the representative subscriber units tested with the base station repeater under test

Optional Product Capabilities Required to Pass Test Cases

1. None

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**SIGNATURE AND DATE**

January 13, 2020  
Date Signed

  
Vendor's Authorized Representative Signature

Jim Collum  
Vendor's Authorized Representative Printed Name

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