

Project 25 Compliance Assessment Program
SDOC – Radio Activity, S.R.L. – BASE STATION REPEATER KA-160
08, 21, 2018

BASE STATION REPEATER PRODUCT INFORMATION

Base Station Repeater Info	Detail
Model Name:	KA-160
Tested Software Versions:	1.6.31
Hardware Capabilities/Options & Software Options:	VHF Band (136-174 MHz); Conventional Repeater Mode, 1 W – 25 W Power Output

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 – August 2016¹	Adds conventional interoperability testing to the March 2010 P25 CAP Test Requirements
X	P25-CAB-CAI_TEST_REQ – July 2017²	Includes August 2016 P25 CAP Test Requirements; Adds TDMA performance and interoperability testing and trunked supplementary data testing

SUMMARY TEST REPORT IDENTIFIER³

Summary Test Report (STR) Identifier:	STR - Radio Activity, S.R.L. - BASE STATION REPEATER
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CONTACT INFORMATION

Company Info	Details
Company Name:	Radio Activity, S.R.L.
Company Website URL:	http://www.radioactivity-tlc.com/
P25 CAP Contact Name:	Mauro Campidoglio
P25 CAP Contact Phone:	+39 0236 514 205
P25 CAP Contact Email:	tech@radioactivity-tlc.it

¹ The following version of the 2016 CAB was used for testing – n/a

² The following version of the 2017 CAB was used for testing “P25-CAB-CAI_TEST_REQ-v3-508 20180405.docx”

³ 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’.

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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.

Transmitter Tests: Unwanted Emissions (Adjacent Channel Power Ratio), Frequency Deviation for C4FM, and Modulation Fidelity, Transient Frequency Behavior.

Unsupported or Failed Requirements

1. Unsupported - Late Entry Unsquench Delay, Receiver Throughput Delay, and Transmitter Throughput Delay. These tests are intended only for devices which handle audio, and have been removed from the scope of testing, above. The Manufacturer states the device does not handle audio I/O.
2. Class B Passes (per standards) - Spurious Response Rejection – Class B pass (≥ 70 dB, < 90 dB), Intermodulation Rejection - Class B pass (≥ 70 dB, < 80 dB), Modulation Fidelity for C4FM - Class B pass ($> 5\%$, $\leq 10\%$)

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. Failed – Call Alert, Radio Check, Status Update, Status Query, Radio Unit Monitor.
2. The failures listed above were in relation to Product 3 on the STR. The Base Station's software configuration and air interface was examined thoroughly and found to operate correctly. It is possible that the Vendor of Product 3 may have used a non-standard implementation of several Supplementary Data features, which the Repeater Under Test does not recognize.

Optional Product Capabilities Required to Pass Test Cases

1. None

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SIGNATURE AND DATE

2018-08-21

Date Signed

Vendor's Authorized Representative Signature

Mauro Campidoglio

Vendor's Authorized Representative Printed Name

DISCLAIMER

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BURDEN STATEMENT

OMB NO: 6040-0015 (additional questions are pending OMB approval)

EXPIRATION DATE: 6/30/2019 (additional questions are pending OMB approval)

An agency may not conduct or sponsor information collection and a person is not required to respond to this information collection unless it displays a current valid Office of Management and Budget control number and expiration date. The control number for this collection is 6040-0015 and this form will expire on 06/30/2019 (additional questions are pending OMB approval). The estimated average time to complete this form is 60 minutes per respondent. If you have any comments regarding the burden estimate, you can write to the U.S. Department of Homeland Security, Science and Technology Directorate, Washington, D.C. 20528.

DHS FORM 10044 – June 2009