



**Homeland
Security**

Science and Technology

Office for Interoperability and Compatibility

Project 25 Compliance Assessment Bulletin

Project 25 Compliance Assessment Program

Supplier's Declaration of Compliance and Summary
Test Report Requirements for Base Station Repeater

P25-CAB-SDOC-STR_BSRPTR-REQ

August 2018

Notice of Disclaimer and Limitation of Liability

The Project 25 Compliance Assessment Program (P25 CAP) provides equipment purchasers with demonstrated evidence of a product's compliance with a select group of requirements within the suite of P25 standards. The test procedures used to validate these requirements are also part of the P25 suite of standards. Although successful tests will demonstrate P25 compliance for the specific requirements tested, the conclusions drawn from these tests do not apply to every environment or individual user's needs. P25 CAP-mandated tests only demonstrate product compliance with the test procedures listed in the Supplier's Declaration of Compliance and, therefore, only attest to a product's compliance with specific requirements within the P25 Standard.

Revision History

Version	Date	Description
Draft	05/03/2018	Create document combining SDOC and STR requirements for subscriber unit
V1.0	08/02/2018	Final version

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1 Introduction

The Department of Homeland Security (DHS) Office for Interoperability and Compatibility (OIC) Project 25 Compliance Assessment Program (P25 CAP) is a voluntary program that allows P25 equipment suppliers to formally demonstrate their products' compliance with a select group of requirements within the suite of P25 standards. The purpose of the program is to provide emergency response agencies with evidence that the communications equipment they are purchasing meet P25 standards for performance, conformance and interoperability.

The program requires test laboratories to demonstrate their competence through a rigorous and objective assessment process. Such a process promotes the user community's confidence in, and acceptance of, test results from DHS-recognized laboratories. All equipment suppliers that participate in the P25 CAP must use DHS-recognized laboratories to conduct performance, conformance and interoperability tests on their products. P25 equipment suppliers will release Summary Test Report (STR) and Supplier's Declaration of Compliance (SDOC) documents based on the Detailed Test Report (DTR) from the DHS-recognized laboratory(s) that performed the product testing. This documentation will serve to increase the public's confidence in the performance, conformance and interoperability of P25 equipment.

Performance, conformance and interoperability issues are likely to occur in all communications technologies and especially in ones like P25 with protocols that constantly adapt to changing user requirements. Users should seek to address such problems with the supplier first, then with TIA TR8.25, and then within the P25 CAP and, notably, before product launch and deployment. Further, the declaration of compliance-related documents developed by program participants will provide useful technical information about the equipment.

SAFECOM grant guidance¹ states that agencies using grant funds to purchase P25 equipment are strongly encouraged to obtain the P25 CAP SDOC and STR documents as verification that the equipment to be purchased falls within accordance with P25 CAP. P25 equipment that is posted on the P25 CAP Approved (Grant Eligible) Equipment page² of the P25 CAP website shall be considered P25 CAP Compliant equipment.

2 Scope

P25 base station repeater vendors must submit SDOCs and STRs to P25 CAP in order for the vendor's P25 equipment to be posted on the P25 CAP Approved (Grant Eligible) Equipment webpage. P25 CAP has developed SDOC and STR templates to be used for the submission of the SDOC and STR. This document provides guidance on how to use these templates.

¹ See 2017 SAFECOM Grant Guidance on Emergency Communications, Land Mobile Radio, pages 42-45. <https://www.dhs.gov/publication/funding-documents>

² See <https://www.dhs.gov/science-and-technology/approved-grant-eligible-equipment>

3 Effective Date

This Compliance Assessment Bulletin (CAB) becomes effective on August 2, 2018.

4 Normative References

- [1] Base Station Repeater SDOC Template 20180425³
- [2] Base Station Repeater STR Template 20180425⁴
- [3] P25-CAB-CAI_TEST_REQ-v3⁵ (also known as the 2016 Test Requirements CAB)
- [4] P25-CAB-CAI_TEST_REQ-TDMA_170720⁶ (also known as the 2017 Test Requirements CAB)

5 Supplier's Declaration of Compliance (SDOC) Format and Submittal Procedures

The SDOC document format has been modified from previous formats. The SDOC template has been developed to support both the 2016 Test Requirements CAB and the 2017 Test Requirements CAB. The vendor submitting the SDOC shall identify whether the equipment was tested under the 2016 Test Requirements CAB or the 2017 Test Requirements CAB.

When an SDOC is identified as tested under the 2016 Test Requirements CAB, the sections and test cases that apply for the 2017 Test Requirements CAB will be noted as 'not applicable.' If a base station repeater product is 'performance' tested to the 2017 CAB and 'interoperability' tested to the 2016 CAB, the product is submitted as a 2016 SDOC/STR since the interoperability testing is based on the 2016 CAB. If a base station repeater product is 'performance' tested to the 2016 CAB and 'interoperability' tested to the 2017 CAB, the product is submitted as a 2016 SDOC/STR since the performance testing is based on the 2016 CAB. Once the equipment has been tested against all the requirements and test cases in the 2017 CAB, the equipment SDOC can be submitted as a 2017 SDOC/STR.

For every equipment model submitted to P25 CAP, vendors will submit two SDOCs: one in Microsoft Word format (.docx) and one in the Adobe Acrobat Portable Document Format (.pdf). The SDOC template is based on Microsoft Word. The SDOC document will be subject to a 508 accessibility review and will be downloadable from the P25 CAP webpage.

If test case results for posted equipment are corrected or updated, the equipment vendor will re-submit an updated SDOC.

If updated equipment software is released by a vendor and the vendors impacted by this update have determined the new software does not impact the previously submitted test case results, the vendor is requested to email P25 CAP with the following information: (1) the updated software version identifier,

³ A Microsoft Word SDOC template will be made available upon request by emailing P25CAP@hq.dhs.gov.

⁴ A Microsoft Excel STR template will be made available upon request by emailing P25CAP@hq.dhs.gov.

⁵ https://www.dhs.gov/sites/default/files/publications/P25-CAB-CAI_TEST_REQ-v3-508.pdf

⁶ https://www.dhs.gov/sites/default/files/publications/P25-CAB-CAI_TEST_REQ-TDMA_170720-508.pdf

and (2) a statement explaining that the updated software version does not impact the previously submitted test case results for the equipment.

For equipment software updates as in the case explained above, P25 CAP will take the following action: on the P25 CAP publication page for the affected equipment, P25 CAP will add an informational note stating the current software version identifier for the equipment.

In order to track software version history, the vendor is requested to submit an updated STR when software is updated. This action will maintain the software version history.

P25 CAP has developed a SDOC template for the subscriber equipment and a separate SDOC template for the base station repeater equipment. The requirements and test cases defined by the Test Requirement CABs are different between the subscriber and base station repeater. Softcopy SDOC templates are available from P25 CAP. Please send requests to P25CAP@hq.dhs.gov.

6 SDOC - Top of First Page

The information at the top of the SDOC’s first page is NOT part of the first page header. This information is part of the first page’s body text and must be part of the body text to meet 508 accessibility requirements. This same information does appear in the page header space in subsequent pages of the SDOC.

Figure 1. Information at the top of the first page

<p>Project 25 Compliance Assessment Program SDOC - [VENDOR_NAME] - [BASE STATION REPEATER_MODEL_NAME] Month, Day, Year [Date submitted or resubmitted to P25 CAP]</p>
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The vendor shall enter the Vendor’s name and the Base Station Repeater Model Name.

The vendor shall enter the date (Month, Day, Year) the SDOC is submitted or resubmitted to P25 CAP. The document is submitted via the P25CAP@hq.dhs.gov email.

7 Base Station Repeater Product Information

The vendor will enter model name, tested software versions and hardware/software options.

If the vendor issues a new version of software that is determined by engineering analysis not to impact the results of the previous test case results, P25 CAP requests that the vendor send that information (Model Name of equipment, software version identifier and attestation that software version does not impact the previous test case results) to P25CAP@hq.dhs.gov. P25 CAP will add the software version identifier to the P25 CAP publication webpage for the equipment named in the email. More than one model name can be included in the email. The SDOC will not be updated for these types of software updates.

Table 1. Base Station Repeater Product Information

Base Station Repeater Info	Detail
Model Name:	[Model Name]

Base Station Repeater Info	Detail
Tested Software Versions:	[XX.A]
Hardware/Software Options:	[Examples: Frequency Bands, P25 Conventional, P25 Trunking, P25 TDMA Trunking, AES-256 Encryption]

8 Test Requirements CAB Identification

The SDOC template was developed to support both the 2016 Test Requirements CAB and the 2017 Test Requirements CAB. Vendors must check one of the boxes to indicate which Test Requirements CAB, 2016 or 2017, was used for SDOC submittal.

Table 2. Test Requirements CAB Identification

check one	P25 CAP Test Requirement CAB	Details
	P25-CAB-CAI_TEST_REQ – August 2016 ⁷	Adds conventional interoperability testing to the March 2010 P25 CAP Test Requirements
	P25-CAB-CAI_TEST_REQ – July 2017 ⁸	Includes August 2016 P25 CAP Test Requirements; Adds TDMA performance and interoperability testing and trunked supplementary data testing

If the 2016 CAB was used for testing, the vendor shall add the full filename of that CAB in the space provided in footnote number 7. If the 2017 CAB was used for testing, the vendor shall add the full name of that CAB in the space provided in footnote number 8. The filename of the Test Requirements CAB used for testing is being requested as the Test Requirements CAB documents have had updates since they were originally published and the version information is captured in the filename.

9 Summary Test Report (STR) Identifier

The STR Identifier is a naming convention for the STR document that includes the test case results for the equipment named in the SDOC. The base station repeater STR Identifier format is simple: STR - [VENDOR_NAME] - BASE STATION REPEATER. The STR Identifier is found in the vendor's base station repeater STR, General Info tab, row seven. There is only one base station repeater STR per vendor. The STR for the product named in the SDOC is available upon request. Requests for STRs are sent to P25CAP@hq.dhs.gov. Please include the base station repeater 'Vendor Name' in the email.

Table 3. STR Identifier

Summary Test Report (STR) Identifier:	[STR Identifier is found in Vendor's base station repeater STR, General Info tab, row seven]
---------------------------------------	--

⁷ The following version of the 2016 CAB was used for testing [Insert the filename of the Test Requirements CAB document that was used for testing, including the version information].

⁸ The following version of the 2017 CAB was used for testing [Insert the filename of the Test Requirements CAB document that was used for testing, including the version information].

10 Contact Information

The vendor shall enter all the contact information. It is important to provide the contact information for a person who is familiar with P25 CAP and not 'info@company.com' type contacts.

Table 4. Contact Information

Vendor Info	Details
Vendor Name:	
Vendor Website URL:	
P25 CAP Contact Name:	
P25 CAP Contact Phone:	
P25 CAP Contact Email:	

11 SDOC - Page Headings After the First Page

This information at the top of the first page also appears in the page header space (not body text as in the first page) in subsequent pages of the SDOC. The header information found in the first page must be reentered for the second page. All subsequent pages will have the same information that was entered for the page two header.

Figure 2. Information at the top of the SDOC pages after the first page

Project 25 Compliance Assessment Program SDOC - [VENDOR_NAME] - [BASE STATION REPEATER_MODEL_NAME] Month, Day, Year [Date submitted or resubmitted to P25 CAP]

The vendor shall enter the Vendor's name and the Base Station Repeater Model Name.

The vendor shall enter the date (Month, Day, Year) the SDOC is submitted or resubmitted to P25 CAP via the P25CAP@hq.dhs.gov email.

12 Base Station Repeater Performance Test Sections

There are three performance test sections in the SDOC: Conventional Performance, Trunked Performance FDMA and Trunked Performance TDMA. Each performance test section has an opening paragraph that states all requirements within that test section were passed except for the requirements that are identified as either Unsupported or Failed. When an SDOC is identified as tested under the 2016 Test Requirements CAB, the Trunked Performance TDMA test section should include a note stating 'Not Applicable.'

Each test section provides a listing of the receiver and transmitter performance requirements. If any of the performance requirements is not supported by the vendor or fails, a note is provided at the end of each performance test section stating which requirements did not pass.

If multiple requirements were not supported, the multiple unsupported requirements can be listed in a sentence, separated by commas. Requirements that failed are listed in a separate sentence. See below for examples:

Examples for Unsupported or Failed Requirements notes:

1. Equipment only supports Conventional operation. All requirements for Trunked Performance - FDMA and Trunked Performance - TDMA are unsupported.
2. Receiver Reference Sensitivity failed.
3. 2016 SDOC - Trunked Performance TDMA testing not applicable.

13 Base Station Repeater Interoperability Test Sections

There are four base station repeater interoperability test sections in the SDOC: Conventional Interoperability - Repeat, Conventional Interoperability - Dispatch Monitoring Console - Repeat, Trunked Interoperability - FDMA, and Trunked Interoperability - TDMA. Each interoperability test section has an opening paragraph that states all test cases within that test section were passed except for the test cases that are identified as either Unsupported or Failed.

Each test section provides a listing of the interoperability test cases included in that section. If any of the test cases are not supported by the vendor or fail testing, an explanatory note is provided at the end of each interoperability test section stating such. If multiple test cases were not supported or failed, the multiple unsupported test cases can be listed in a sentence, separated by commas. Test cases that failed are listed in a sentence separate from the test cases that are unsupported.

Test cases that passed but require specific, sometimes optional, capabilities are also identified with an explanatory note.

Individual test cases that were not fully verified for rule of three testing shall be noted. This situation occurs when the SDOC equipment, and the representative equipment used during interoperability testing, do not support all the same test cases. The SDOC equipment must be tested with representative equipment from at least one vendor to indicate a passed test case result. If equipment is only tested with representative equipment from one or two vendors, the test case result shall also have an explanatory note. The note should state 'Test Case(s) not verified for rule of three due to operational limitations of the representative equipment used for interoperability testing.' The test case results impacted by limitations of the representative equipment shall be listed.

When an SDOC is identified as tested under the 2016 Test Requirements CAB, the Trunked Interoperability FDMA and Trunked Interoperability TDMA test sections should include a note that states '2016 SDOC - Trunked FDMA supplementary data test cases and the Trunked Interoperability TDMA test section are not applicable.'

See examples below:

Unsupported or Failed Test Cases

1. Conventional Message Update, Status Update, Status Query, Radio Unit Monitor test cases are unsupported.
2. Test Cases not verified for rule of three due to operational limitations of the representative equipment used for interoperability testing - Conventional Call Alert, Radio Check.
3. 2016 SDOC - Trunked FDMA supplementary data test cases and the Trunked Interoperability TDMA test section are not applicable.

Optional Capabilities Required to Pass Test Cases

1. DTMF keypad and ID display capability are required for unit to unit call test cases.
2. AES-256 encryption is required for the encryption test case.

14 Vendor's Representative Signature with Date

The SDOC is signed and dated by the vendor's P25 representative. The vendor's representative is also asked to print their name. The date is the date the vendor's representative name is signed.

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

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

15 Summary Test Report (STR) Format and Submittal Procedures

The STR document format has been modified from previous formats. The submittal procedure has also changed because of the document modifications.

The STR template has been developed to support both the 2016 Test Requirements CAB and the 2017 Test Requirements CAB. The vendor submitting the STR shall identify whether the equipment was tested under the 2016 or the 2017 Test Requirements CAB. The STR clearly indicates which test sections and, in some cases, which test cases within a test section are not included in the 2016 Test Requirements CAB.

There will be a subscriber STR per vendor and a base station repeater STR per vendor. If a vendor offers one or more subscriber products, test results for all the subscriber products from that vendor will be in a single subscriber STR. If a vendor offers one or more base station repeater products, test results for all the base station repeater products from that vendor will be in a single base station repeater STR. If the vendor offers subscriber products and base station repeater products, the vendor will submit two STRs: one for the subscribers and one for the base station repeaters.

The STR is based on the Microsoft Excel format (.xlsx). The STR spreadsheet includes three types of worksheet tabs: the General Info tab, the Models & Software tab, and one or more Model Name tabs. There will be a separate Model Name tab for each different equipment model covered by the STR. For example, if there are five distinct equipment models, then there will be five Model Name tabs.

P25 equipment vendors are requested to provide P25 CAP with an updated STR anytime there is a correction or update to the STR document.

Since the STRs will not undergo a 508 accessibility review, they will not be downloadable from the P25 CAP webpage. Anyone can request a softcopy of a P25 CAP approved STR by sending that request via email to P25CAP@hq.dhs.gov. Please include the base station repeater 'Vendor Name' in the email.

P25 CAP will provide a STR template for the base station repeater equipment and a separate template for the subscriber equipment. The test cases defined by the Test Requirement CAB are different between the subscriber and base station repeater. The templates for the STR are available from P25 CAP. Vendors can request a softcopy of the STR templates by sending an email to P25CAP@hq.dhs.gov.

16 STR - General Info Worksheet Tab

The General Info tab consists of a heading with key information, a table that includes the STR Identifier, STR template version, which Test Requirements CAB was used, Contact information, STR Revision History table and P25 Test Lab information.

References to the STR template will be made by row number of the STR General Info tab.

16.1 STR Header Info

The STR Header provides key information: the name of the base station repeater vendor, which CAB was used for the STR, and the date the STR was submitted to P25 CAP.

Table 5. STR Header Information

row	Details
2	<i>Project 25 Compliance Assessment Program</i>
3	SUMMARY TEST REPORT (STR) for [Vendor Name] Base Station Repeater
4	STR Submitted based on [2016 or 2017] CAB <i>(choose one)</i>
5	[Month, Day, Year] <i>(date submitted or resubmitted to P25 CAP)</i>

Row 3: Add Vendor Name.

Row 4: Pick either the 2016 CAB version or 2017 CAB version and remove the unused year.

Row 5: Add the month, day, year the STR is submitted to P25 CAP.

16.2 STR Identifier Table

The STR Identifier table includes the STR Identifier, the STR template version and the CAB version that is used for STR submittal.

Table 6. STR Identifier

row	Item	Details
7	Summary Test Report Identifier	STR - [VENDOR_NAME] - BASE STATION REPEATER
8	STR Template Version	Base station repeater STR Template 20180425
9	2016 CAB Title	P25-CAB-CAI_TEST_REQ – August 2016
10	2016 CAB Filename	[Insert the complete filename of the 2016 Test Requirements CAB document that was used for STR submittal]
11	2107 CAB Title	P25-CAB-CAI_TEST_REQ – July 2017
12	2017 CAB Filename	[Insert the complete filename of the 2017 Test Requirements CAB document that was used for STR submittal]

Row 7: Under the Details column, add Vendor Name to complete the STR Identifier.

Row 10: Under the Details column, insert the filename of the 2016 Test Requirements CAB document that was used for STR submittal. The Test Requirements CABs have been updated since they were originally released. The complete filename captures the version information.

Row 12: Under the Details column, insert the filename of the 2017 Test Requirements CAB document that was used for STR submittal. The Test Requirements CABs have been updated since they were originally released. The complete filename captures the version information.

16.3 Contact Information Table

The Contact Information Table is for the vendor to include the following: Company Name, Company Website URL, P25 CAP Contact Name, P25 CAP Contact Phone Number and P25 CAP Contact Email.

Table 7. Contact Information

row	Contact Information	Details
15	Company Name:	
16	Company Website URL:	
17	P25 CAP Contact Name:	
18	P25 CAP Contact Phone Number:	
19	P25 CAP Contact Email:	

Row 15: Under the Details column, add the name of the company submitting the STR.

Row 16: Under the Details column, add the company’s website URL.

Row 17: Under the Details column, add the contact name with regards to the STR. This is very important for future follow-ups.

Row 18: Under the Details column, add the contact’s phone number.

Row 19: Under the Details column, add the contact’s email address.

16.4 Summary Test Report Revision History

P25 CAP requests that each time the STR is updated, the STR revision table is updated with the date and a short description of what was changed. P25 CAP requests that the revised STR be sent to P25 CAP.

Table 8. STR Revision History

row	Revision Date	STR Content Changes
23	[date submitted to P25 CAP]	Initial submission
24	[date resubmitted to P25 CAP]	
25	[add more rows if needed]	

Row 23: Under Revision Date, add the date of the initial STR submission.

Row 24: Under Revision Date, add the date for a resubmission of the STR.

Row 24: Under STR Content Changes, add a description of the changes.

Row 25: Under Revision Date, add the date of the next resubmission of the STR.

Row 25: Under STR Content Changes, add a description of the changes.

16.5 P25 CAP Test Laboratory Information

P25 CAP Test Laboratory name and code are provided for every P25 Test Laboratory that provided testing for any of the test cases found in the STR. There is typically more than one P25 Test Laboratory involved. The table below shall be added for every test lab involved with the P25 CAP testing of the equipment included on the STR.

Table 9. P25 CAP Test Laboratory Information

row	Laboratory [1]	Details
29	P25 CAP Test Laboratory Name:	
30	P25 CAP Test Laboratory Code:	

Row 29: Under Details, add the name of the accredited P25 CAP test laboratory involved with the P25 CAP testing.

Row 30: Under Details, add the assigned P25 CAP test laboratory code. If a laboratory code has not been assigned by P25 CAP, please request a laboratory code via email to P25CAP@hq.dhs.gov.

17 STR - Models & Software Worksheet Tab

The Models & Software Worksheet includes all the model class information, the software release information for the model class equipment, the representative equipment used for interoperability testing and the software release information for the representative equipment.

References to the STR template will be made by row number of the STR Models & Software tab.

17.1 Interoperability Model Class Heading

Model Classes are defined to allow equipment that is representative of all the equipment models within a model class to be used for interoperability testing. The vendor shall provide the Vendor's Name and the Vendor's Name for the Model Class. If the vendor has more than one model class, Table 11 (Interoperability Model Class Heading) can be duplicated with Table 12 (Interoperability Model Class Table) for additional model classes.

Table 10. Interoperability Model Class Heading

row	Description
2	[Name of Base Station Repeater Vendor] Interoperability Model Class: [Vendor_Name for Model Class] Base Station Repeater

Row 2: Add the name of the base station repeater vendor and the name of the base station repeater model class.

17.2 Interoperability Model Class Table

In general, a model class is a group of products such that if each were tested for interoperability, all the products in the model class would have the same test case results. But, due to the wide range of P25 features and product offerings in a vendor's equipment portfolio, there could be some variation in test case results due to what features and options have been equipped in the product. The hardware and software option variations of certain models within the model class may impact the test case results of those certain models. Table rows can be added if there is more than one model name.

Table 11. Interoperability Model Class Table

row	Model Names	Equipment Type	Tested Software Versions	Software Version Updates	Software Options/Frequency Bands/Hardware Options
4	[Model_Name1]	[Base Station Repeater]	[Tested Software Version]	[Software Version Updates]	[Software Options], [List Frequency Bands Supported], [Hardware Options]

Row 4: In their respective columns, the vendor shall provide the Model Names for the equipment in the model class, the Equipment Type, the Tested Software Versions, Software Version Updates, Frequency Bands supported by the model, and all Software Options and Hardware Options that must be included to meet the model’s stated test case results.

17.3 Representative Equipment Tables

Interoperability testing requires ‘representative equipment’ in order to perform the interoperability test cases. Representative equipment is competitive equipment. P25 CAP ‘Rule of Three’ testing requires equipment from at least three vendors. The representative equipment models used for testing represent the test case results of the vendor’s model class and of the competitive vendor’s model class.

17.3.1 Representative Conventional Subscriber Unit Products Tested with the Conventional Base Station Repeater for Interoperability - Repeat Mode

At a minimum, Representative Conventional Subscriber Products from three vendors shall be tested with a representative base station repeater model from the model class described in section 17.1 and section 17.2. Table rows can be added if there are more than three vendor names.

Table 12. Representative Conventional Subscriber Products - Repeat Mode

row	Subscriber Vendor	Model	Tested Software Versions	Software Version Updates	Model Class
15	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model’s test results, see the model class table(s) on the ‘Models & Software’ tab of this vendor’s subscriber STR.
16	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model’s test results, see the model class table(s) on the ‘Models & Software’ tab of this vendor’s subscriber STR.
17	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model’s test results, see the model class table(s) on the ‘Models & Software’ tab of this vendor’s subscriber STR.

Rows 15-17: The vendor shall provide the Vendor Name, Model Name, Tested Software Versions and Software Version Updates for the representative subscribers used for testing in their respective columns.

17.3.2 Representative Conventional Subscriber Unit Products Tested with the Conventional Base Station Repeater for Interoperability - FNE Dispatch Monitoring Console - Repeat Mode

At a minimum, Representative Conventional Subscriber Products with FNE Dispatch Monitoring Console from three vendors shall be tested with a representative base station repeater model from the model class described in section 17.1 and section 17.2. Table rows can be added if there are more than three vendor names.

Table 13. Representative Conventional Subscriber Products - FNE Dispatch Monitoring Console - Repeat Mode

row	Subscriber Vendor	Model	Tested Software Versions	Software Version Updates	Model Class
23	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model's test results, see the model class table(s) on the 'Models & Software' tab of this vendor's subscriber STR.
24	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model's test results, see the model class table(s) on the 'Models & Software' tab of this vendor's subscriber STR.
25	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model's test results, see the model class table(s) on the 'Models & Software' tab of this vendor's subscriber STR.

Rows 23-25: The vendor shall provide the Vendor Name, Model Name, Tested Software Versions and Software Version Updates for the representative subscribers used for testing in their respective columns.

17.3.3 Representative Trunking Subscriber Unit Products Tested with the Trunking Base Station Repeater for Interoperability - FDMA

At a minimum, Representative Trunked Subscriber Products from three vendors shall be tested with a representative base station repeater model from the model class described in section 17.1 and section 17.2. Table rows can be added if there are more than three vendor names.

Table 14. Representative Trunked Subscriber Products - FDMA

Row	Subscriber Vendor	Model	Tested Software Versions	Software Version Updates	Model Class
30	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model's test results, see the model class table(s) on the 'Models & Software' tab of this vendor's subscriber STR.
31	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model's test results, see the model class table(s) on the 'Models & Software' tab of this vendor's subscriber STR.
32	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model's test results, see the model class table(s) on the 'Models & Software' tab of this vendor's subscriber STR.

Rows 30-32: The vendor shall provide the Vendor Name, Model Name, Tested Software Versions and Software Version Updates for the representative subscribers used for testing in their respective columns.

17.3.4 Representative Trunking Subscriber Unit Products Tested with the Trunking Base Station Repeater for Interoperability - TDMA

At a minimum, Representative Trunked Subscriber Products from three vendors shall be tested with a representative base station repeater model from the model class described in section 17.1 and section 17.2. Table rows can be added if there are more than three vendor names.

Table 15. Representative Trunked Subscriber Products - TDMA

row	Subscriber Vendor	Model	Tested Software Versions	Software Version Updates	Model Class
37	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model's test results, see the model class table(s) on the 'Models & Software' tab of this vendor's subscriber STR.
38	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model's test results, see the model class table(s) on the 'Models & Software' tab of this vendor's subscriber STR.
39	[Vendor_Name]	[Model Name]	[Tested Software Version]	[Software Version Updates]	For information on additional models and/or software versions covered by this representative model's test results, see the model class table(s) on the 'Models & Software' tab of this vendor's subscriber STR.

Rows 37-39: The vendor shall provide the Vendor Name, Model Name, Tested Software Versions and Software Version Updates for the representative subscribers used for testing in their respective columns.

18 STR - Model Name Worksheet Tab

The third type of worksheet in the STR is the Model Name worksheet. The vendor will determine which base station repeater products will have a distinct Model Name and therefore a distinct Model Name worksheet tab. Each Model Name will have its own worksheet tab. The Model Name worksheet tab can be copied for additional worksheets for additional Model Names. Each worksheet tab will be labelled with its Model Name.

References to the Model Name worksheet of the STR template will be made by row number of the STR Model Name worksheet tab.

18.1 Product Under Test Table

The vendor will state the Model Name for the equipment. The Vendor will state any hardware capability/options or software options that must be installed to support the reported test case results contained within the Model Name Worksheet.

Table 16. Product Under Test Table

row	Product Info	Details
4	Model_Name:	[Model Name] <i>(Each Model Name must have its own 'Model_Name' tab, i.e., its own Excel worksheet. Label the Spreadsheet TAB with the 'Model_Name'. Each 'Model_Name' has its own SDOC.)</i>
5	Hardware Capability/Options:	[Examples: Transmitter Power; Frequency Bands]
6	Software Options:	[Examples: P25 Conventional, P25 Trunked, P25 TDMA Trunked, AES-256 Encryption]

Row 4: Under the Details column, the vendor shall add the model name for the worksheet tab. This model name shall also be used for titling the worksheet tab.

Row 5: Under the Details column, the vendor shall add all hardware options that impact the passage of any of the test requirements or test cases. The option naming should use generic names such as shown in the examples.

Row 6: Under the Details column, the vendor shall add all software options that impact the passage of any of the test requirements or test cases. The option naming should use generic names such as shown in the examples.

18.2 Test Case Result Notations and Definitions

Test case notations and definitions are primarily used to indicate whether a requirement or test case result passed, failed or is unsupported by the vendor.

As noted above, although products may reuse the same software release, products may not all have the same capability to pass some test cases. If there is a test case that requires a particular hardware capability or option, or a particular software option to pass a test case, the vendor will indicate that with a test case notation/definition that defines what is required to pass the test case.

Vendors are allowed to add notations/definitions as needed. P25 CAP will review any additional notations/definitions.

Table 17. Test Case Results Notations and Defintions

row	Notation	Test Case Result Definition
10	P (Pass)	Product Under Test Passed the test case
11	P1	Functionality requires AES 256 encryption
12	P2	Interoperability verified with only one representative subscriber
13	P3	Interoperability verified with only two representative subscribers
14	U (Unsupported)	Test examines functionality the Product Under Test does not support
15	U1	37.5 millisecond slot times is not supported
16	U2	45 millisecond slot times is not supported
17	U3	Functionality is not supported by base station repeater
18	U4	Functionality is not supported by the representative subscriber tested with the base station repeater under test
19	E (Exception)	DHS OIC Approved Test Case Exception
20	E1	In accordance with the guidance given in TIA 102.CAAB-D §3.2.18, if the transmitter carrier output power rating is 6 watts or less, the mean frequency difference during t1 and t3 may be greater than ± 12.5 kHz.
21	F (Fail)	Product Under Test Failed the test case

18.3 Conventional Base Station Repeater Performance

The conventional performance test case results section of the Model Name worksheet is introduced by the banner shown below. It is noted that the test cases for the 2016 and the 2017 CAB are identical for this test section. The vendor states the DTR Identifier for the conventional performance testing.

Table 18. Banner for Conventional Base Station Repeater Performance

row	Conventional Base Station Repeater Performance (2017 CAB)	Conventional Base Station Repeater Performance (2016 CAB)
25	P25 CAP Test Identification	P25 CAP Test Identification
26	P25-CAB-CAI_TEST_REQ – July 2017, Section 2.2.1.1 - Conventional Base Station Repeater Performance	P25-CAB-CAI_TEST_REQ – August 2016, Section 2.2.1.1 - Conventional Mode Operations
27	Detailed Test Report Identification	Detailed Test Report Identification
28	[DTR-P25CAPxxxxxx]	[DTR-P25CAPxxxxxx]

Row 28: Under the ‘Conventional Base Station Repeater Performance (2017 CAB)’ column, record the DTR Identifier for the test section if the vendor is submitting the STR according to the 2017 CAB. Note that a DTR Identifier from previous testing may be recorded if testing cases have not changed.

Row 28: Under the ‘Conventional Base Station Repeater Performance (2016 CAB)’ column, record the DTR Identifier for the test section if the vendor is submitting the STR according to the 2016 CAB. Note that a DTR Identifier from previous testing may be recorded if testing cases have not changed.

18.3.1 Conventional Base Station Repeater Receiver Test Case Results

The table below is used to capture the test case results for this test section. If the equipment model only supports a single frequency band or two or three frequency bands, state the test case results for the frequency bands that are supported. The worksheet **content** of the unsupported frequency bands can be deleted. Please do not delete the **cells** within the worksheet.

Table 19. Conventional Base Station Repeater Receiver Tests

row	Test Case	Test Case Description	Requirement	VHF Result	UHF-L Result	UHF-H Result	700 Result	800 Result
33	3.1.4	Reference Sensitivity – C4FM	≤ -116 dBm	P	P	P	P	P
34	3.1.5	Faded Reference Sensitivity – C4FM	≤ -108 dBm	P	P	P	P	P
35	3.1.7.1	Adjacent Channel Rejection – C4FM	≥ 60 dB	P	P	P	P	P

row	Test Case	Test Case Description	Requirement	VHF Result	UHF-L Result	UHF-H Result	700 Result	800 Result
36	3.1.7.2	Offset Adjacent Channel Rejection – C4FM	≥ 47 dB	P	P	P	P	P
37	3.1.8	Co-Channel Rejection	≤ 9 dB	P	P	P	P	P
38	3.1.9	Spurious Response Rejection	≥ 90 dB	P	P	P	P	P
39	3.1.10	Intermodulation Rejection	≥ 80 dB	P	P	P	P	P
41	3.1.11	Signal Displacement Bandwidth	≥ 1000 Hz	P	P	P	P	P
41	3.1.17	Late Entry Unsilence Delay: No Talk Group or Encryption	≤ 125 ms	P	P	P	P	P
42	3.1.18	Receiver Throughput Delay	≤ 125 ms	P	P	P	P	P

Rows 33-42: The vendor shall record the test case results for the frequency band tested. The test case results for base station repeater models that support one or multiple frequency bands can be recorded in one table.

18.3.2 Conventional Base Station Repeater Transmitter Test Case Results

The table below is used to capture the test case results for this test section. If the equipment model only supports a single frequency band or two or three frequency bands, state the test case results for the frequency bands that are supported. The worksheet **content** of the unsupported frequency bands can be deleted. Please do not delete the **cells** within the worksheet.

Table 20. Conventional Base Station Repeater Transmitter Tests

row	Test Case	Test Case Description	Requirement	VHF Result	UHF-L Result	UHF-H Result	700 Result	800 Result
45	3.2.8	Unwanted Emissions: Adjacent Channel Power Ratio*	≥ 67 dB (non-700MHz)	P	P	P	P	P
46	3.2.14	Transmitter Throughput Delay	≤ 125 ms	P	P	P	P	P
47	3.2.15	Frequency Deviation for C4FM: High-Level Signal Deviation	$2544 < f_{dev} \leq 3111$ Hz	P	P	P	P	P
48	3.2.15	Frequency Deviation for C4FM: Low-Level Signal Deviation	$848 < f_{dev} \leq 1037$ Hz	P	P	P	P	P
49	3.2.16	Modulation Fidelity – C4FM	$\leq 5\%$	P	P	P	P	P
50	3.2.18	Transient Frequency Behavior: Time Interval [see t1 value in cell]	$ \Delta f \leq 12.5$ kHz	[t1=5ms] P or E1	[t1=10ms] P or E1	[t1=10ms] P or E1	[t1=20ms] P or E1	[t1=20ms] P or E1

row	Test Case	Test Case Description	Requirement	VHF Result	UHF-L Result	UHF-H Result	700 Result	800 Result
51	3.2.18	Transient Frequency Behavior: Time Interval [see t2 value in cell]	$ \Delta f \leq 6.25 \text{ kHz}$	[t2=20ms] <i>P</i>	[t2=25ms] <i>P</i>	[t2=25ms] <i>P</i>	[t2=50ms] <i>P</i>	[t2=50ms] <i>P</i>
52	3.2.18	Transient Frequency Behavior: Time Interval [see t3 value in cell]	$ \Delta f \leq 12.5 \text{ kHz}$	[t3=5ms] <i>P or E1</i>	[t3=10ms] <i>P or E1</i>	[t3=10ms] <i>P or E1</i>	[t3=10ms] <i>P or E1</i>	[t3=10ms] <i>P or E1</i>

*700MHz Adjacent Channel Power Ratio test is passed based on test results submitted for FCC equipment authorization.

Rows 45-52: The vendor shall record the test case results for the frequency band tested. The test case results for base station repeater models that support one or multiple frequency bands can be recorded in one table.

18.4 Trunked Base Station Repeater Performance - FDMA

The trunked performance test case results section of the Model Name worksheet is introduced by the banner shown below. It is noted that the test cases for the 2016 and the 2017 CAB are identical for this test section. The vendor states the DTR Identifier for the trunked performance testing.

Table 21. Banner for Trunked Base Station Repeater Performance - FDMA

row	Trunked Base Station Repeater Performance - FDMA (2017 CAB)	Trunked Base Station Repeater Performance (2016 CAB)
57	P25 CAP Test Identification	P25 CAP Test Identification
58	P25-CAB-CAI_TEST_REQ – July 2017, Section 2.2.1.2 - Trunked Base Station Repeater Performance - FDMA	P25-CAB-CAI_TEST_REQ – August 2016, Section 2.2.1.2 - Trunked Mode Operations
59	Detailed Test Report Identification	Detailed Test Report Identification
60	[DTR-P25CAPxxxxxx]	[DTR-P25CAPxxxxxx]

Row 60: Under the ‘Trunked Base Station Repeater Performance (2017 CAB)’ column, record the DTR Identifier for the test section if the vendor is submitting the STR according to the 2017 CAB. Note that a DTR Identifier from previous testing may be recorded if testing cases have not changed.

Row 60: Under the ‘Trunked Base Station Repeater Performance (2016 CAB)’ column, record the DTR Identifier for the test section if the vendor is submitting the STR according to the 2016 CAB. Note that a DTR Identifier from previous testing may be recorded if testing cases have not changed.

18.4.1 Trunked Base Station Repeater Receiver Test Case Results - FDMA

The table below is used to capture the test case results for this test section. If the equipment model only supports a single frequency band or two or three frequency bands, state the test case results for the frequency bands that are supported. The worksheet **content** of the unsupported frequency bands can be deleted. Please do not deleted the **cells** within the worksheet.

Table 22. Trunked Base Station Repeater Receiver Tests - FDMA

row	Test Case	Test Case Description	Requirement	VHF Result	UHF-L Result	UHF-H Result	700 Result	800 Result
65	3.1.4	Reference Sensitivity – C4FM	≤ -116 dBm	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
66	3.1.5	Faded Reference Sensitivity – C4FM	≤ -108 dBm	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
67	3.1.7.1	Adjacent Channel Rejection – C4FM	≥ 60 dB	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
68	3.1.7.2	Offset Adjacent Channel Rejection – C4FM	≥ 47 dB	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
69	3.1.8	Co-Channel Rejection	≤ 9 dB	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
70	3.1.9	Spurious Response Rejection	≥ 90 dB	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
71	3.1.10	Intermodulation Rejection	≥ 80 dB	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
72	3.1.11	Signal Displacement Bandwidth	≥ 1000 Hz	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>

Rows 65-72: The vendor shall record the test case results for the frequency band tested. The test case results for base station repeater models that support one or multiple frequency bands can be recorded in one table.

18.4.2 Trunked Base Station Repeater Transmitter Test Case Results - FDMA

The table below is used to capture the test case results for this test section. If the equipment model only supports a single frequency band or two or three frequency bands, state the test case results for the frequency bands that are supported. The worksheet **content** of the unsupported frequency bands can be deleted. Please do not deleted the **cells** within the worksheet.

Table 23. Trunked Base Station Repeater Transmitter Tests - FDMA

row	Test Case	Test Case Description	Requirement	VHF Result	UHF-L Result	UHF-H Result	700 Result	800 Result
75	3.2.8	Unwanted Emissions: Adjacent Channel Power Ratio*	≥ 67 dB (non-700MHz)	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
76	3.2.14	Transmitter Throughput Delay	≤ 125 ms	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
77	3.2.15	Frequency Deviation for C4FM: High-Level Signal Deviation	$2544 < f_{dev} \leq 3111$ Hz	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>

row	Test Case	Test Case Description	Requirement	VHF Result	UHF-L Result	UHF-H Result	700 Result	800 Result
78	3.2.15	Frequency Deviation for C4FM: Low-Level Signal Deviation	$848 < f_{dev} \leq 1037$ Hz	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
79	3.2.16	Modulation Fidelity – C4FM	$\leq 5\%$	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
80	3.2.18	Transient Frequency Behavior: Time Interval [see t1 value in cell]	$ \Delta f \leq 12.5$ kHz	[t1=5ms] <i>P or E1</i>	[t1=10ms] <i>P or E1</i>	[t1=10ms] <i>P or E1</i>	[t1=20ms] <i>P or E1</i>	[t1=20ms] <i>P or E1</i>
81	3.2.18	Transient Frequency Behavior: Time Interval [see t2 value in cell]	$ \Delta f \leq 6.25$ kHz	[t2=20ms] <i>P</i>	[t2=25ms] <i>P</i>	[t2=25ms] <i>P</i>	[t2=50ms] <i>P</i>	[t2=50ms] <i>P</i>
82	3.2.18	Transient Frequency Behavior: Time Interval [see t3 value in cell]	$ \Delta f \leq 12.5$ kHz	[t3=5ms] <i>P or E1</i>	[t3=10ms] <i>P or E1</i>	[t3=10ms] <i>P or E1</i>	[t3=10ms] <i>P or E1</i>	[t3=10ms] <i>P or E1</i>

Rows 75-82: The vendor shall record the test case results for the frequency band tested. The test case results for base station repeater models that support one or multiple frequency bands can be recorded in one table.

18.4.3 Trunked Base Station Repeater Trunked Test Case Results - FDMA

The table below is used to capture the test case results for this test section. These test cases are independent of frequency band. Any frequency band may be used for these test cases.

Table 24. Trunked Base Station Repeater Trunked Tests - FDMA

row	Test Case	Test Case Description	Requirement	Result
86	3.3.4	Time to Grant		
87	3.3.4	Non-Simulcast time to grant limits - 37.5 ms ISP and single OSP TSBK	≤ 337.5 ms	<i>P</i>
88	3.3.4	Non-Simulcast time to grant limits - 37.5 ms ISP and double OSP TSBK	≤ 354 ms	<i>P</i>
89	3.3.4	Non-Simulcast time to grant limits - 37.5 ms ISP and triple OSP TSBK	≤ 366.5 ms	<i>P</i>
90	3.3.4	Non-Simulcast time to grant limits - 45 ms ISP and single OSP TSBK	≤ 345 ms	<i>P</i>
91	3.3.4	Non-Simulcast time to grant limits - 45 ms ISP and double OSP TSBK	≤ 361.5 ms	<i>P</i>
92	3.3.4	Non-Simulcast time to grant limits - 45 ms ISP and triple OSP TSBK	≤ 374 ms	<i>P</i>
93	3.3.4	Simulcast time to grant limits - 37.5 ms ISP and single OSP TSBK	≤ 487.5 ms	<i>P</i>
94	3.3.4	Simulcast time to grant limits - 37.5 ms ISP and double OSP TSBK	≤ 504 ms	<i>P</i>
95	3.3.4	Simulcast time to grant limits - 37.5 ms ISP and triple OSP TSBK	≤ 516.5 ms	<i>P</i>
96	3.3.4	Simulcast time to grant limits - 45 ms ISP and single OSP TSBK	≤ 495 ms	<i>P</i>

row	Test Case	Test Case Description	Requirement	Result
97	3.3.4	Simulcast time to grant limits - 45 ms ISP and double OSP TSBK	≤ 511.5 ms	P
98	3.3.4	Simulcast time to grant limits - 45 ms ISP and triple OSP TSBK	≤ 524 ms	P

Rows 86-98: The vendor shall record the test case results.

18.5 Trunked Base Station Repeater Performance - TDMA

The trunked performance test case results section of the Model Name worksheet is introduced by the banner shown below. It is noted that these test cases only for the 2017 CAB. The vendor states the DTR Identifier for the trunked performance testing.

Table 25. Banner for Conventional Base Station Repeater Performance - TDMA

row	Trunked Base Station Repeater Performance - TDMA (2017 CAB only)
102	Test Identification
103	P25-CAB-CAI_TEST_REQ –July 2017, Section 2.2.1.3 - Trunked Base Station Repeater Performance - TDMA
104	Detailed Test Report Identification
105	[DTR-P25CAPxxxxxx]

Row 105: Under the ‘Trunked Base Station Repeater Performance - TDMA (2017 CAB only)’ column, record the DTR Identifier for the test section if the vendor is submitting the STR according to the 2017 CAB. This section is only utilized for the 2017 CAB.

18.5.1 Trunked Base Station Repeater Receiver Test Case Results - TDMA

The table below is used to capture the test case results for this test section. If the equipment model only supports a single frequency band or two or three frequency bands, state the test case results for the frequency bands that are supported. The worksheet **content** of the unsupported frequency bands can be deleted. Please do not deleted the **cells** within the worksheet.

Table 26. Trunked Base Station Repeater Receiver Tests - TDMA

row	Test Case	Test Case Description	Requirement	VHF Result	UHF-L Result	UHF-H Result	700 Result	800 Result
110	3.1.4	Reference Sensitivity - HCPM	≤ -116 dBm	P	P	P	P	P
111	3.1.5	Faded Reference Sensitivity - HCPM	≤ -108 dBm	P	P	P	P	P
112	3.1.7.1	Adjacent Channel Rejection - HCPM	≥ 60 dB	P	P	P	P	P
113	3.1.7.2	Offset Adjacent Channel Rejection - HCPM	≥ 47 dB	P	P	P	P	P
114	3.1.8	Co-Channel Rejection	≤ 9 dB	P	P	P	P	P
115	3.1.9	Spurious Response Rejection	≥ 90 dB	P	P	P	P	P
116	3.1.10	Intermodulation Rejection	≥ 80 dB	P	P	P	P	P
117	3.1.11	Signal Displacement Bandwidth	≥ 1000 Hz	P	P	P	P	P

Rows 110-117: The vendor shall record the test case results for the frequency band tested. The test case results for base station repeater models that support one or multiple frequency bands can be recorded in one table.

18.5.2 Trunked Base Station Repeater Transmitter Test Case Results - TDMA

The table below is used to capture the test case results for this test section. If the equipment model only supports a single frequency band or two or three frequency bands, state the test case results for the frequency bands that are supported. The worksheet **content** of the unsupported frequency bands can be deleted. Please do not delete the **cells** within the worksheet.

Table 27. Trunked Base Station Repeater Transmitter Tests - TDMA

row	Test Case	Test Case Description	Requirement	VHF Result	UHF-L Result	UHF-H Result	700 Result	800 Result
120	3.2.8	Unwanted Emissions: Adjacent Channel Power Ratio*	≥ 65 dB (non-700MHz)	P	P	P	P	P
121	3.2.13	Modulation Fidelity	≤ 5%	P	P	P	P	P
122	3.2.14	Symbol Rate Accuracy	Not to exceed 10 parts per million	P	P	P	P	P

Rows 120-122: The vendor shall record the test case results for the frequency band tested. The test case results for base station repeater models that support one or multiple frequency bands can be recorded in one table.

18.6 Conventional Base Station Repeater Interoperability - Repeat Mode

The conventional interoperability (repeat mode) test case results section of the Model Name worksheet is introduced by the banner shown below. It is noted that while the test cases for these test sections are identical, the 2016 CAB calls out the test cases in a specific table (Table 15) within section 2.2.3.1 of the 2016 CAB, while the 2017 CAB has the same test cases called out within a single section 2.2.3.1 of the 2017 CAB. These test sections include test cases that must be passed to be compliant with the P25 CAP Minimum Features Requirements CAB. These features are noted in the test case results table.

Table 28. Banner for Conventional Base Station Repeater - Repeat Mode Interoperability Testing

row	Conventional Base Station Repeater Interoperability - Repeat Mode (2017 CAB)	Conventional Base Station Repeater Interoperability - Repeat Mode (2016 CAB)
127	CAB Test Section Identification	CAB Test Section Identification
128	P25-CAB-CAI_TEST_REQ – July 2017, Section 2.2.3.1 - Conventional Base Station Repeater Interoperability - Repeat Mode	P25-CAB-CAI_TEST_REQ – August 2016, Section 2.2.3.1 - [Table 15] -- Conventional Interoperability Tests - Repeat Mode

18.6.1 Representative Conventional Subscriber Unit Products Tested with the Conventional Base Station Repeater for Interoperability - Repeat Mode

Interoperability testing requires that the vendor test against equipment from three representative equipment vendors. The vendor states the representative subscriber vendor name and the model name of the equipment from the representative subscriber vendor. Each of the representative products is given a Product No. that correlates to the 'Product [x] Result' column in the test case results table directly below the representative equipment table.

The DTR Identifier is stated for each of the three representative subscriber vendors. Table rows can be added if there are more than three vendor names.

Table 29. Representative Conventional Subscriber Unit Products Tested with the Conventional Base Station Repeater for Interoperability - Repeat Mode

Row	Subscriber Vendor	Model Name	Product No.	Detailed Test Report Identifier
132	[Vendor_Name]	[Model Name]	1	[DTR-P25CAPxxxxxx]
133	[Vendor_Name]	[Model Name]	2	[DTR-P25CAPxxxxxx]
134	[Vendor_Name]	[Model Name]	3	[DTR-P25CAPxxxxxx]

Rows 132-134: In their respective columns, the vendor shall provide the Subscriber Vendor name and the Model Names for the representative equipment that was tested. The DTR Identifier that corresponds to the tested representative equipment shall be recorded in the 'Detailed Test Report Identifier' column. Each representative product shall be numbered in the Product No. column. This product number corresponds to the 'Product (x) Result' column found in the Test Case Results table that follows this table.

18.6.2 Conventional Base Station Repeater Interoperability Test Case Results - Repeat Mode

The table below is used to capture the test case results for this test section. These test cases are independent of frequency band. Any frequency band may be used for these test cases. Please note the correspondence between the numbers in the column cells labelled 'Product No.' and the multiple column cells labeled 'Product [x] Result.' For clarity, 'Product No. 1' of the representative products table corresponds with 'Product 1 Results' of the test case results table; 'Product No. 2' corresponds with 'Product 2 Results'; 'Product No. 3' corresponds with 'Product 3 Results'; and so on. Table columns can be added if there are more than three vendor names.

As part of the P25 CAP Minimum Feature Requirement, Test Cases 2.4.1, 2.4.2 and 2.4.9 must have a Passed test case result.

Table 30. Conventional Base Station Repeater Interoperability Tests - Repeat Mode

row	Test Case	Description	Product 1 Result	Product 2 Result	Product 3 Result
140	2.4.1**	Matching NAC Operation and SU Unaddressed Voice Call **			
141	2.4.1.4.1	Test Case 1 – Matching NAC operation – Unaddressed Voice Call			
142	2.4.2**	Matching NAC Operation – SU Routine Group Call Mode **			
143	2.4.2.4.1	Test Case 1 – Matching NAC – SU Routine Group Call Mode			
144	2.4.3	Transmit NAC Independent of Receive NAC – SU Unaddressed Voice Call			
145	2.4.3.4.1	Test Case 1 – Independent NAC Operation – SU Unaddressed Voice Call			
146	2.4.4	Transmit NAC Independent of Receive NAC – SU Routine Group Call			
147	2.4.4.4.1	Test Case 1 – Independent NAC Operation – SU Routine Group Call			
148	2.4.5	Any NAC (\$F7F) Operation – SU Unaddressed Voice Call			
149	2.4.5.4.1	Test Case 1 – NAC \$F7F Operation – SU Unaddressed Voice Call			
150	2.4.6	Any NAC (\$F7F) Operation – SU Routine Group Call			
151	2.4.6.4.1	Test Case 1 – NAC \$F7F Operation – SU Routine Group Call			
152	2.4.7	Any NAC (\$F7E) Operation with Fixed Transmit NAC – SU Group Call			
153	2.4.7.4.1	Test Case 1 – NAC \$F7E Operation – SU Group Call			
154	2.4.8	Emergency Call			

row	Test Case	Description	Product 1 Result	Product 2 Result	Product 3 Result
155	2.4.8.4.1	Test Case 1 – Emergency Call			
156	2.4.9**	Monitor Mode – SU Group Call **			
157	2.4.9.4.1	Test Case 1 – Monitor Mode – Receiving Group Call			
158	2.4.10	Unit-to-Unit Voice Call			
159	2.4.10.4.1	Test Case 1 – Initiate Unit-to-Unit Call from SU 1			
160	2.4.10.4.3	Test Case 3 – Initiate Unit-to-Unit Call from SU 1, No Co-Channel Interference Suppression			
161	2.4.11	Unit-to-Unit Voice Call Co-Channel Interference Suppression by FNE			
162	2.4.11.4.1	Test Case 1 – Initiate Unit-to-Unit Call from SU 1			
163	2.4.12	Unit-to-Unit Voice Call – Receiving Units Also in Monitor Mode			
164	2.4.12.4.1	Test Case 1 – Initiate Unit-to-Unit Call from SU 1			
165	2.4.13	Encryption			
166	2.4.13.4.1	Test Case 1 – Call Privacy for Encrypted Call			
167	2.4.14	Accept Any NAC in Normal and Selective Squelch Mode – SU Group Call			
168	2.4.14.4.1	Test Case 1 – Receiving group Call with receive NAC \$F7F under Normal and Selective Squelch Modes			
169	2.5.1	Call Alert			
170	2.5.1.4.1	Test Case 1 – Initiate Call Alert Request from SU 1			
171	2.5.2	Radio Check			
172	2.5.2.4.1	Test Case 1 – Initiate Radio Check from SU 1			
173	2.5.3	Message Update			
174	2.5.3.4.1	Test Case 1 – Message Update Initiated by SU 1			
175	2.5.3.4.3	Test Case 3 – SU 1 to Group Message Update			
176	2.5.4	Status Update			
177	2.5.4.4.1	Test Case 1 – Status Update Initiated by SU 1			
178	2.5.4.4.3	Test Case 3 – SU to Talk Group Status Update Initiated by SU 1			
179	2.5.5	Status Query			
180	2.5.5.4.1	Test Case 1 – Status Query Initiated by SU 1			

row	Test Case	Description	Product 1 Result	Product 2 Result	Product 3 Result
181	2.5.6	Radio Unit Monitor			
182	2.5.6.4.1	Test Case 1 – Radio Unit Monitor Initiated by SU 1 – Group Call			
183	2.5.6.4.3	Test Case 3 – Radio Unit Monitor Initiated by SU 1 – Unit-to-Unit Call			

** P25 CAP Minimum Feature Requirement - Test Case Result must be a Pass (P)

Rows 140-183: In their respective columns, the vendor shall provide test case results for the representative products from a minimum of three different vendors. More ‘Product Result’ columns may be added if more representative products are tested.

18.7 Conventional Base Station Repeater Interoperability - FNE Dispatch Monitoring Console - Repeat Mode

The conventional interoperability (FNE dispatch repeat mode) test case results section of the Model Name worksheet is introduced by the banner shown below. It is noted that while the test cases for these test sections are identical, the 2016 CAB calls out the test cases in a specific table (Table 16) within section 2.2.3.1 of the 2016 CAB, while the 2017 CAB has the same test cases called out within a single section 2.2.3.2 of the 2017 CAB.

Table 31. Banner for Conventional Base Station Repeater Interoperability - FNE Dispatch Monitoring Console - Repeat Mode Testing

row	Conventional Base Station Repeater Interoperability - FNE Dispatch Monitoring Console - Repeat Mode (2017 CAB)	Conventional Base Station Repeater Interoperability - FNE Dispatch Monitoring Console - Repeat Mode (2016 CAB)
189	CAB Test Section Identification	CAB Test Section Identification
190	P25-CAB-CAI_TEST_REQ – July 2017, Section 2.2.3.2 - Conventional Base Station Repeater Interoperability - FNE Dispatch Monitoring Console - Repeat Mode	P25-CAB-CAI_TEST_REQ – August 2016, Section 2.2.3.1 - [Table 16] - Conventional Interoperability Tests - FNE Includes Dispatch Consoles Mode

18.7.1 Representative Conventional Subscriber Unit Products Tested with the Conventional Base Station Repeater for Interoperability - FNE Dispatch Monitoring Console - Repeat Mode

Interoperability testing requires that the vendor test against equipment from three representative equipment vendors. The vendor states the representative subscriber vendor name and the model name of the equipment from the representative subscriber vendor. Each of the representative products is given a Product No. that correlates to the ‘Product [x] Result’ column in the test case results table directly below the representative equipment table.

The DTR Identifier is stated for each of the three representative subscriber vendors. Table rows can be added if there are more than three vendor names.

Table 32. Representative Conventional Subscriber Unit Products Tested with the Conventional Base Station Repeater for Interoperability - FNE Dispatch Monitoring Console - Repeat Mode

row	Subscriber Vendor	Model Name	Product No.	Detailed Test Report Identifier
194	[Vendor_Name]	[Model Name]	1	[DTR-P25CAPxxxxxx]
195	[Vendor_Name]	[Model Name]	2	[DTR-P25CAPxxxxxx]
196	[Vendor_Name]	[Model Name]	3	[DTR-P25CAPxxxxxx]

Rows 194-196: In their respective columns, the vendor shall provide the Subscriber Vendor name and the Model Names for the representative equipment that was tested. The DTR Identifier that corresponds to the tested representative equipment shall be recorded in the ‘Detailed Test Report Identifier’ column. Each representative product shall be numbered in the Product No. column. This product number corresponds to the ‘Product (x) Result’ column found in the Test Case Results table that follows this table.

18.7.2 Conventional Base Station Repeater Interoperability Test Case Results - FNE Dispatch Monitoring Console - Repeat Mode

The table below is used to capture the test case results for this test section. These test cases are independent of frequency band. Any frequency band may be used for these test cases. Please note the correspondence between the numbers in the column cells labelled ‘Product No.’ and the multiple column cells labeled ‘Product [x] Result.’ For clarity, ‘Product No. 1’ of the representative products table corresponds with ‘Product 1 Results’ of the test case results table; ‘Product No. 2’ corresponds with ‘Product 2 Results’; ‘Product No. 3’ corresponds with ‘Product 3 Results’; and so on. Table columns can be added if there are more than three vendor names.

Table 33. Conventional Base Station Repeater Interoperability Tests - FNE Dispatch Monitoring Console - Repeat Mode

Row	Test Case	Description	Product 1 Result	Product 2 Result	Product 3 Result
202	2.6.1	Unaddressed Voice Call			
203	2.6.1.4.1	Test Case 1 – Unaddressed Voice Call			
204	2.6.2	Routine Group Call			
205	2.6.2.4.1	Test Case 1 – Routine Group Call			
206	2.6.3	Emergency Call			
207	2.6.3.4.1	Test Case 1 – Emergency Call from SU			
208	2.6.3.4.2	Test Case 2 – Emergency Call from DMC			

Row	Test Case	Description	Product 1 Result	Product 2 Result	Product 3 Result
209	2.6.4	All Call (System-Wide Call)			
210	2.6.4.4.1	Initiate System-Wide Call to Collection of Talk Groups			
211	2.6.5	Unit-to-Unit Voice Call			
212	2.6.5.4.1	Test Case 1 – Initiate Unit-to-Unit Call from DMC			
213	2.6.5.4.2	Test Case 2 – Initiate Unit-to-Unit Call from SU 1			
214	2.6.6	Encryption			
215	2.6.6.4.1	Test Case 1 – Call Privacy for Encrypted Call			
216	2.7.1	Emergency Alarm to Dispatch and/or other Monitoring Console			
217	2.7.1.4.1	Test Case 1 – Emergency Alarm			
218	2.7.2	Call Alert			
219	2.7.2.4.1	Test Case 1 – Initiate Call Alert Request from DMC			
220	2.7.2.4.2	Test Case 2 – Initiate Call Alert Request from SU 1			
221	2.7.3	Radio Check			
222	2.7.3.4.1	Test Case 1 – Initiate Radio Check from DMC			
223	2.7.4	Radio Unit Inhibit			
224	2.7.4.4.1	Test Case 1 – Radio Unit Inhibit from DMC			
225	2.7.5	Radio Unit Uninhibit			
226	2.7.5.4.1	Test Case 1 – Radio Unit Uninhibit from DMC			
227	2.7.6	Message Update			
228	2.7.6.4.1	Test Case 1 – Message Update from DMC			
229	2.7.6.4.2	Test Case 2 – DMC to Group Message Update			
230	2.7.6.4.3	Test Case 3 – SU 1 to DMC Message Update			
231	2.7.6.4.4	Test Case 4 – SU 1 to Group Message Update			
232	2.7.7	Status Update			
233	2.7.7.4.1	Test Case 1 – Status Update from SU 1 to DMC			
234	2.7.7.4.2	Test Case 2 – Talk Group Status Update Initiated by SU 1			
235	2.7.8	Status Query			
236	2.7.8.4.1	Test Case 1 – Status Query Initiated by DMC			
237	2.7.9	Radio Unit Monitor			
238	2.7.9.4.1	Test Case 1 – Radio Unit Monitor Initiated by DMC – Group Call			

Row	Test Case	Description	Product 1 Result	Product 2 Result	Product 3 Result
239	2.7.9.4.2	Test Case 2 – Radio Unit Monitor Initiated by DMC – Unit-to-Unit Call			

Rows 202-239: In their respective columns, the vendor shall provide test case results for the representative products from a minimum of three different vendors. More ‘Product Result’ columns may be added if more representative products are tested.

18.8 Trunked Base Station Repeater Interoperability - FDMA

The trunked interoperability (FDMA) test case results section of the Model Name worksheet is introduced by the banner shown below. It is noted that the 2017 CAB adds supplementary test cases to this trunked FDMA interoperability test section. These additional test cases are not applicable to the 2016 CAB. The 2017 CAB supplementary data test cases are noted as being 2017 CAB test cases in the test case results table. If submitting under 2016 CAB testing, leave noted supplementary data test case result cell empty.

Table 34. Banner for Trunked Base Station Repeater Interoperability - FDMA Testing

row	Trunked Base Station Repeater Interoperability - FDMA (2017 CAB)	Trunked Base Station Repeater Interoperability - FDMA (2016 CAB)
243	CAB Test Section Identification	CAB Test Section Identification
244	P25-CAB-CAI_TEST_REQ – July 2017, Section 2.2.3.3 - Trunked Base Station Repeater Interoperability - FDMA (Phase 1)	P25-CAB-CAI_TEST_REQ – August 2016, Section 2.2.3.2 - Trunked Mode Operations

18.8.1 Representative Trunking Subscriber Unit Products Tested with the Trunking Base Station Repeater for Interoperability - FDMA

Interoperability testing requires that the vendor test against equipment from three representative equipment vendors. The vendor states the representative subscriber vendor name and the model name of the equipment from the representative subscriber vendor. Each of the representative products is given a Product No. that correlates to the ‘Product [x] Result’ column in the test case results table directly below the representative equipment table.

The DTR Identifier is stated for each of the three representative subscriber vendors. Table rows can be added if there are more than three vendor names.

Table 35. Representative Trunking Subscriber Unit Products Tested with the Trunking Base Station Repeater for Interoperability - FDMA

row	Subscriber Vendor	Model Name	Product No.	Detailed Test Report Identifier
248	[Vendor_Name]	[Model Name]	1	[DTR-P25CAPxxxxxx]
249	[Vendor_Name]	[Model Name]	2	[DTR-P25CAPxxxxxx]
250	[Vendor_Name]	[Model Name]	3	[DTR-P25CAPxxxxxx]

Rows 248-250: In their respective columns, the vendor shall provide the Subscriber Vendor name and the Model Names for the representative equipment that was tested. The DTR Identifier that corresponds to the tested representative equipment shall be recorded in the ‘Detailed Test Report Identifier’ column. Each representative product shall be numbered in the Product No. column. This product number corresponds to the ‘Product (x) Result’ column found in the Test Case Results table that follows this table.

18.8.2 Trunked Base Station Repeater Interoperability Test Case Results - FDMA

The table below is used to capture the test case results for this test section. These test cases are independent of frequency band. Any frequency band may be used for these test cases. Please note the correspondence between the numbers in the column cells labelled ‘Product No.’ of the representative Products table and the multiple column cells labeled ‘Product [x] Result’ of the Test Case Results table. For clarity, ‘Product No. 1’ of the representative products table corresponds with ‘Product 1 Results’ of the test case results table; ‘Product No. 2’ corresponds with ‘Product 2 Results’; ‘Product No. 3’ corresponds with ‘Product 3 Results’; and so on. Table columns can be added if there are more than three vendor names.

The Test Case Results Table is used for both the 2016 and 2017 CAB. The 2016 CAB included the test cases that were originally included in the 2010 CAB. The 2017 CAB added Supplementary Data test cases.

The following testing applies for the 2016 Test Requirements CAB: Full Registration, Group Voice Call, Unit to Unit Voice Call, Broadcast Voice Call, Affiliation, Announcement Group Call, Emergency Alarm, Emergency Group Call, Encryption, and Intra-location Registration Area Roaming.

The following testing applies for the 2017 Test Requirements CAB: Deregistration, System Call, Call Alert, Short Message, Status Query, Status Update, Radio Unit Monitoring, Radio Unit Disable/Re-enable, and Radio Check.

If testing under the 2016 Test Requirements CAB, leave the 2017 CAB Test Case result table cells empty.

Table 36. Trunked Base Station Repeater Interoperability Tests - FDMA

row	Test Case	Description	Product 1 Home Result	Product 1 Inter-SYS Roaming Result	Product 1 Inter-WACN Roaming Result	Product 2 Home Result	Product 2 Inter-SYS Roaming Result	Product 2 Inter-WACN Roaming Result	Product 3 Home Result	Product 3 Inter-SYS Roaming Result	Product 3 Inter-WACN Roaming Result
257	2.2.1	Full Registration									
258	2.2.1.4.1	Test Case 1 – Valid Registration									
259	2.2.1.4.2	Test Case 2 – Denied or Refused Registration									
260	2.2.1.4.3	Test Case 3 – Unverified Registration									
261	2.2.2	Group Voice Call									
262	2.2.2.4.1	Test Case 1 – Group Call Granted									
263	2.2.2.4.2	Test Case 2 – Group Call Denied									
264	2.2.2.4.3	Test Case 3 – Group Call Request Queued									
265	2.2.3	Unit-to-Unit Voice Call									
266	2.2.3.4.1	Test Case 1 – Unit-to-Unit Call with Target Availability Check									
267	2.2.3.4.2	Test Case 2 - Unit-to-Unit Call with Target Availability Check- Denied by Target									
268	2.2.3.4.3	Test Case 3 – Unit-to-Unit Call Queued with Target Availability Check – Traffic Channel Assignment After Target Availability Check									
269	2.2.3.4.4	Test Case 4 – Unit-to-Unit Call Queued with Target Availability Check – Traffic Channel Assignment Before Target Availability Check									
270	2.2.3.4.5	Test Case 5 – Unit-to-Unit Call without Target Availability Check									

row	Test Case	Description	Product 1 Home Result	Product 1 Inter-SYS Roaming Result	Product 1 Inter-WACN Roaming Result	Product 2 Home Result	Product 2 Inter-SYS Roaming Result	Product 2 Inter-WACN Roaming Result	Product 3 Home Result	Product 3 Inter-SYS Roaming Result	Product 3 Inter-WACN Roaming Result
271	2.2.3.4.6	Test Case 6 – Unit-to-Unit Call Queued without Target Availability Check									
272	2.2.3.4.7	Test Case 7 – Unit-to-Unit Call Denied									
273	2.2.4	Broadcast Voice Call									
274	2.2.4.4.1	Test Case 1 – Broadcast Voice Call									
275	2.2.5	Affiliation									
276	2.2.5.4.1	Test Case 1 – Radio Permitted to Affiliate with New Group									
277	2.2.5.4.2	Test Case 2 – Radio Denied Affiliation to New Group									
278	2.2.6	Announcement Group Call									
279	2.2.6.4.1	Test Case 1 – Collection of Talk Groups Receive Call									
280	2.2.7	Emergency Alarm									
281	2.2.7.4.1	Test Case 1 – Emergency Alarm									
282	2.2.8	Emergency Group Call									
283	2.2.8.4.1	Test Case 1 – Emergency Call									
284	2.2.10	Encryption									
285	2.2.10.4.1	Test Case 1 – Call Privacy for Encrypted Call									
286	2.2.11	Intra-Location Registration Area Roaming									
287	2.2.11.4.1	Test Case 1 – Idle Radio									
288	2.2.13	Deregistration ***									
289	2.2.13.4.1	Test Case 1 – Deregistration									

row	Test Case	Description	Product 1 Home Result	Product 1 Inter-SYS Roaming Result	Product 1 Inter-WACN Roaming Result	Product 2 Home Result	Product 2 Inter-SYS Roaming Result	Product 2 Inter-WACN Roaming Result	Product 3 Home Result	Product 3 Inter-SYS Roaming Result	Product 3 Inter-WACN Roaming Result
290	2.2.14	System Call ***									
291	2.2.14.4.1	Test Case 1 – System Call									
292	2.2.15	Call Alert ***									
293	2.2.15.4.1	Test Case 1 – Call Alert									
294	2.2.16	Short Message ***									
295	2.2.16.4.1	Test Case 1 – Short Message									
296	2.2.17	Status Query ***									
297	2.2.17.4.1	Test Case 1 – Status Query									
298	2.2.18	Status Update ***									
299	2.2.18.4.1	Test Case 1 – Status Update									
300	2.2.19	Radio Unit Monitoring ***									
301	2.2.19.4.1	Test Case 1 – Individual Non-Silent									
302	2.2.19.4.2	Test Case 2 – Individual Silent									
303	2.2.19.4.3	Test Case 3 – Group Non-Silent									
304	2.2.19.4.4	Test Case 4 – Group Silent									
305	2.2.20	Radio Unit Disable/Re-Enable ***									
306	2.2.20.4.1	Test Case 1 – Radio Unit Disable									
307	2.2.20.4.2	Test Case 2 – Radio Unit Re-Enable									
308	2.2.21	Radio Check ***									
309	2.2.21.4.1	Test Case 1 – Radio Check Successful									

*** Leave test case result empty if submitting under the 2016 Test Requirements CAB.

Rows 257-287: These rows apply to the 2016 Test Requirements CAB. In their respective columns, the vendor shall provide test case results of representative products from a minimum of three different vendors. More 'Product Result' columns may be added if more representative

products are tested. If testing under the 2016 Test Requirements CAB, leave the 2017 Test Requirements CAB test case result table cells empty.

Rows 288-309: These rows apply to the 2017 Test Requirements CAB. In their respective columns, the vendor shall provide test case results of representative products from a minimum of three different vendors. More ‘Product Result’ columns may be added if more representative products are tested. If testing under the 2016 Test Requirements CAB, leave the 2017 Test Requirements CAB test case result table cells empty.

18.9 Trunked Base Station Repeater Interoperability - TDMA

The trunked interoperability (TDMA) test case results section of the Model Name worksheet is introduced by the banner shown below. The TDMA test cases are for the TDMA features that involved the assignment of a TDMA channel resource. Features that are supported on the trunked control channel are not retested in this TDMA interoperability test section. If submitting under 2016 CAB testing, leave the TDMA Test Case Results table empty.

Table 37. Banner for Trunked Base Station Repeater Interoperability - TDMA Testing

Row	Trunked Base Station Repeater Interoperability - TDMA (2017 CAB only, leave empty for 2016 CAB)
314	CAB Test Section Identification
315	P25-CAB-CAI_TEST_REQ – July 2017, Section 2.2.3.4 - Trunked Base Station Repeater Interoperability - TDMA (Phase 2)

18.9.1 Representative Trunking Subscriber Unit Products Tested with the Trunking Base Station Repeater for Interoperability - TDMA

Interoperability testing requires that the vendor test against equipment from three representative equipment vendors. The vendor states the representative subscriber vendor name and the model name of the equipment from the representative subscriber vendor. Each of the representative products is given a Product No. that correlates to the ‘Product [x] Result’ column in the test case results table directly below the representative equipment table.

The DTR Identifier is stated for each of the three representative subscriber vendors. Table rows can be added if there are more than three vendor names.

Table 38. Representative Trunking Subscriber Unit Products tested with the Trunking Base Station Repeater for Interoperability - TDMA

row	Subscriber Vendor	Model Name	Product No.	Detailed Test Report Identifier
319	[Vendor_Name]	[Model Name]	1	[DTR-P25CAPxxxxxx]
320	[Vendor_Name]	[Model Name]	2	[DTR-P25CAPxxxxxx]
321	[Vendor_Name]	[Model Name]	3	[DTR-P25CAPxxxxxx]

Rows 319-321: In their respective columns, the vendor shall provide the Subscriber Vendor name and the Model Names for the representative equipment that was tested. The DTR Identifier that corresponds to the tested representative equipment shall be recorded in the ‘Detailed Test Report Identifier’ column. Each representative product shall be numbered in the Product No. column. This product number corresponds to the ‘Product (x) Result’ column found in the Test Case Results table that follows this table.

18.9.2 Trunked Base Station Repeater Interoperability Test Case Results - TDMA

The table below is used to capture the test case results for this test section. These test cases are independent of frequency band. Any frequency band may be used for these test cases. Please note the correspondence between the numbers in the column cells labelled ‘Product No.’ of the Representative Products table and the multiple column cells labeled ‘Product [x] Result’ of the Test Case Results table. For clarity, ‘Product No. 1’ of the Representative Products table corresponds with ‘Product 1 Results’ of the test case results table; ‘Product No. 2’ corresponds with ‘Product 2 Results’; ‘Product No. 3’ corresponds with ‘Product 3 Results’; and so on. Table columns can be added if there are more than three vendor names.

Table 39. Trunked Base Station Repeater Interoperability Tests - TDMA

row	Test Case	Description	Product 1 Home Result	Product 1 Inter-SYS Roaming Result	Product 1 Inter-WACN Roaming Result	Product 2 Home Result	Product 2 Inter-SYS Roaming Result	Product 2 Inter-WACN Roaming Result	Product 3 Home Result	Product 3 Inter-SYS Roaming Result	Product 3 Inter-WACN Roaming Result
327	2.2.1	Full Registration									
328	2.2.1.4.1	Test Case 1 – Valid Registration									
329	2.2.2	Group Voice Call									
330	2.2.2.4.1	Test Case 1 – Group Call Granted									
331	2.2.2.4.3	Test Case 3 – Group Call Request Queued									

row	Test Case	Description	Product 1 Home Result	Product 1 Inter-SYS Roaming Result	Product 1 Inter-WACN Roaming Result	Product 2 Home Result	Product 2 Inter-SYS Roaming Result	Product 2 Inter-WACN Roaming Result	Product 3 Home Result	Product 3 Inter-SYS Roaming Result	Product 3 Inter-WACN Roaming Result
332	2.2.3	Unit-to-Unit Voice Call									
333	2.2.3.4.1	Test Case 1 – Unit-to-Unit Call with Target Availability Check									
334	2.2.3.4.3	Test Case 3 – Unit-to-Unit Call Queued with Target Availability Check – Traffic Channel Assignment After Target Availability Check									
335	2.2.3.4.4	Test Case 4 – Unit-to-Unit Call Queued with Target Availability Check – Traffic Channel Assignment Before Target Availability Check									
336	2.2.3.4.5	Test Case 5 – Unit-to-Unit Call without Target Availability Check									
337	2.2.3.4.6	Test Case 6 – Unit-to-Unit Call Queued without Target Availability Check									
338	2.2.4	Broadcast Voice Call									
339	2.2.4.4.1	Test Case 1 – Broadcast Voice Call									
340	2.2.6	Announcement Group Call									
341	2.2.6.4.1	Test Case 1 – Collection of Talk Groups Receive Call									
342	2.2.8	Emergency Group Call									
343	2.2.8.4.1	Test Case 1 – Emergency Call									
344	2.2.10	Encryption									
345	2.2.10.4.1	Test Case 1 – Call Privacy for Encrypted Call									
346	2.2.14	System Call									
347	2.2.14.4.1	Test Case 1 – System Call									

row	Test Case	Description	Product 1 Home Result	Product 1 Inter-SYS Roaming Result	Product 1 Inter-WACN Roaming Result	Product 2 Home Result	Product 2 Inter-SYS Roaming Result	Product 2 Inter-WACN Roaming Result	Product 3 Home Result	Product 3 Inter-SYS Roaming Result	Product 3 Inter-WACN Roaming Result
348	2.2.19	Radio Unit Monitoring									
349	2.2.19.4.1	Test Case 1 – Individual Non-Silent									
350	2.2.19.4.2	Test Case 2 – Individual Silent									
351	2.2.19.4.3	Test Case 3 – Group Non-Silent									
352	2.2.19.4.4	Test Case 4 – Group Silent									
353	2.2.26	Transmitting Subscriber Forced Preemption									
354	2.2.26.4.1	Test Case 1 – TDMA SU Forced Audio Preemption									
355	2.2.26.4.2	Test Case 2 – TDMA SU Forced Emergency Call Ruthless Preemption									

Rows 327-355: In their respective columns, the vendor shall provide test case results for the representative products from a minimum of three different vendors. More ‘Product Result’ columns may be added if more representative products are tested.