



# Office for **I**nteroperability and **C**ompatibility

## **Project 25 Compliance Assessment Bulletin**

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Project 25

Compliance Assessment Program

Summary Test Report Requirements

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**P25-CAB-STR\_REQ**

September 2009

## Notice of Disclaimer and Limitation of Liability

The Project 25 Compliance Assessment Program (P25 CAP) provides equipment purchasers 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. While successful tests will demonstrate P25 compliance for the specific requirements tested, the conclusions drawn from these tests do not apply to every environment or need that individual users may have. 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
First draft	August 29, 2008	Draft released for review.
Release	October 8, 2008	Final release version approved on October 8, 2008 P25 CAP GB meeting.
Draft	December 16, 2008	Reference update and variable text recognition modification.
Release	February 4, 2009	Final release version approved on February 4, 2009, P25 CAP GB meeting.
Draft	May 8, 2009	Specifying test results by test type rather than equipment type, addition of conformance test case example, addition of vocoder identification and OMB PRA information.
Release	June 23, 2009	Final release version approved on June 23, 2009 during P25 CAP Governing Board meeting.
Release	September 18, 2009	Updated disclaimer language and added model class definition.

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## **1 Introduction**

The 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 interoperates, conforms to P25 standards, and meets P25 performance requirements.

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 recognized laboratories. All equipment suppliers that participate in the P25 CAP must use DHS-recognized laboratories to test their products. P25 equipment suppliers will release Summary Test Reports and Suppliers Declarations of Compliance (SDOCs) based on testing from laboratories recognized by the U.S. Department of Homeland Security (DHS). This documentation will assure the public that P25 equipment complies with established standards.

Performance, conformance, and interoperability issues are likely to occur in all communications technologies and especially in ones such as P25 where protocols constantly adapt to changing user requirements. Such problems should be resolved 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.

The P25 CAP will provide the more than 60,000 emergency response agencies nationwide with a consistent and tractable perspective of P25 product compliance. It will also provide a means of verifying that Federal grant dollars are being invested in standardized solutions and equipment that promote interoperability.

### **1.1 Scope**

This Compliance Assessment Bulletin (CAB) will identify uniform format requirements for use in preparation of STRs. These STRs are submitted to the Responder Knowledge Base (RKB) (<http://www.rkb.us>) Web site for DHS Office for Interoperability and Compatibility review and approval.

### **1.2 Effective Date**

This Compliance Assessment Bulletin becomes effective on November 18<sup>th</sup>, 2009.

### 1.3 Conventions

Throughout this CAB and its annex, underlined and italicized text represents variable content.

### 1.4 Normative References

None

### 1.5 Informative References

- [1] NIST Handbook 153: Laboratory Recognition Process for Project 25 Compliance Assessment, Current Revision
- [2] Charter for the Project 25 Compliance Assessment Program, Current Revision
- [3] P25 Baseline Test Requirements CABs, Current Revisions

## 2 Summary Test Report Information and Format Requirements

This portion of the CAB describes each major element or section of the STR document in a separate subsection.

### 2.1 STR File Format

All STRs submitted to DHS for review and posting will use Adobe Acrobat's Portable Document Format (.pdf). Additionally, STRs submitted must be compliant with all posted RKB<sup>1</sup> requirements, such as Section 508<sup>2</sup> compliance.

### 2.2 STR Naming Convention

In order to provide for easy document management and traceability, all STRs will use a common naming convention, detailed as follows:

STR-<Manufacturer Unique Identifier>-<Manufacturer STR Document #>

The Manufacturer Unique Identifier is selected by the manufacturer that is issuing the STR, and must be unique so as not be confused with another manufacturer's STRs. Additionally, the Manufacturer STR Document # is a number that is chosen by the manufacturer issuing the STR. This number is unique to other STRs issued by that same manufacturer. Here is an example:

STR-LMR-123456

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<sup>1</sup> <http://www.rkb.us>

<sup>2</sup> <http://www.section508.gov>

### 2.3 P25 CAP Letterhead, Title, Device, and Report Number

The first page of the STR begins with the P25 CAP letterhead, followed by the STR title, device under test, and report identification number, each in a separate row. Figure 1 illustrates this:

Figure 1 First Page P25 CAP Letterhead, Title, Device Under Test, and Report Number

**Project 25 Compliance Assessment Program**  
Summary Test Report  
Wokytoky Portable 25  
STR-LMR-123456

Each page following the first page in the STR carries the P25 CAP letterhead, title, device under test, and report identification number as a header. The font size of the P25 CAP letterhead, title, device under test, and report identification number is proportionally smaller. The layout of these elements is the same as on the first page, as exemplified in Figure 2.

Figure 2 P25 CAP Letterhead, Title, Device Under Test, and Report Number

**Project 25 Compliance Assessment Program**  
Summary Test Report  
Wokytoky Portable 25  
STR-LMR-123456

Each page of the STR includes the current page number and total number of pages (Page # of #) in the bottom right-hand corner.

Figure 3 Page Count

Page 1 of 6

### 2.4 Test Item Description

A description of the device under test appears at the top of the document, just below the letterhead, device name, and report identification number. The description includes the name of the manufacturer, manufacturer contact, product name, installed options, and vocoder type (if a vocoder is included in the product). The vocoder identification will be one of the following: Baseline, Baseline with System Improvements, Enhanced Full Rate, Enhanced Full Rate with System Improvements, or Not Applicable. Figure 4 demonstrates how this information may be arranged.



Figure 4 Device Under Test Description

Device Under Test Description <sup>3</sup>	
Manufacturer	<u>LMR Equipment Corporation</u>
Manufacturer Contact	<u>Ima Manufacturer – (303) 555-1212</u>
Product Name	<u>Wokytoky Portable 25</u>
Installed Options	<u>LMR Equipment Corp. Version 4.3</u>
Installed Vocoder	<u>Enhanced Full Rate</u>

## 2.5 Test Description

Immediately following the description of the device under test will be a table listing the test(s) that were run on the device. The names of the tests listed will follow the guidance in the Reference sections of the appropriate Baseline Testing Requirements CAB for the tested interface.

Figure 5 Test Description

Test Description
<u>P25-CAB-CAI TEST_REQ – February 2009, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance</u>
<u>P25-CAB-CAI TEST_REQ – February 2009, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Interoperability</u>

## 2.6 Laboratory Information

Laboratory information for the device under test appears following the test description(s). As exemplified in Figure 6, the table includes the P25 CAP laboratory code(s) assigned by DHS based on the recognition process, the date of the test (this may be a single date, two or more dates, or a date range), and the date the test report was issued. If multiple laboratories were involved in testing the specified product, this table will be reproduced with each laboratory’s relevant information.

Figure 6 Laboratory Information

Laboratory Information	
P25 CAP Laboratory Code	<u>P25CAP081001</u>
Date(s) of Test	<u>May 1, 2009 to May 15, 2009</u>
Date of Issue	<u>May 22, 2009</u>

## 2.7 References

The laboratory information section will be followed by a list of references that note appropriate P25 CAP CABs. Each CAB identifies the P25 CAP tests that encompass conformance test procedures, measurement methods, performance recommendations, and interoperability test procedures. Figure 7 is an example of an appropriate informative reference.

<sup>3</sup> Note that the product name and installed options listed in this table must be identical with the identifiers used in the accompanying Supplier’s Declaration of Compliance.

Figure 7 Informative References

Informative References	
Date	Title
<u>Feb 2009</u>	<u>P25-CAB-CAI TEST REQ</u>

## 2.8 Other Devices Tested

After providing references, a list of other devices that were also tested will be presented (when applicable). This section is especially appropriate when performing interoperability tests. For each device listed, the manufacturer, product name, definition<sup>4</sup> and unique identification (e.g., serial number and/or Media Access Control (MAC) address), and installed options will be given. In the title of the matrix, the product under test will be listed.

Figure 8 Other Devices Tested

Other Devices Tested with <u>LMR Equipment Corporation Wokytoky</u>			
Manufacturer	Product Name, Definition, and Unique ID	Installed Options	
<u>LMR Equipment Corporation</u>	<u>Wokytoky 25 Portable</u> <u>MAC Address AFE0014</u>	<u>Hardware:</u> <u>Software:</u>	<u>wt25pH0002011b</u> <u>wt25pS0003045q</u>
<u>AirTalky</u>	<u>Talkover Portable</u> <u>SN 0011234</u>	<u>1.5 ACMv1, ERCv3</u>	
<u>Speak Systems</u>	<u>SS5100 Portable</u> <u>SN SS5100-1324</u>	<u>N/A</u>	
<u>ClearWaiver</u>	<u>CW-5400 Portable</u> <u>SN 9A5400</u>	<u>Hardware:</u> <u>Software:</u>	<u>5400ph35</u> <u>5400ps398q</u>
<u>AirVine</u>	<u>AV100 Portable</u> <u>SN AV100000122</u>	<u>Hardware:</u> <u>Software:</u>	<u>100AVPH007a5y</u> <u>100AVPS028ca1q</u>

## 3 Test Cases and Results Requirements

Following these sections, the test cases and results will be presented. If multiple types of tests were run on the device, the tests will be listed in the order that they are presented in the applicable CAB. If multiple interfaces are tested on the device, the order that the interface test results are presented will be as follows: Common Air Interface (CAI), Inter RF Sub-System Interface (ISSI), Console Sub-System Interface, and Fixed Station Interface.

Each test type will report the applicable test cases, their descriptions, the Detailed Test Report identification number,<sup>5</sup> and the results of each test case for the item under test. Annexes A and B provide several comprehensive examples.

To identify the standards that included the necessary test cases:

<sup>4</sup> In this context, the definition of a product will indicate whether or not it is portable, mobile, base station, repeater, RFSS, etc.

<sup>5</sup> The Detailed Test Report identification number format is DTR-<P25 CAP laboratory code>-<P25 CAP laboratory document identification #>

1. Refer to the CABs that are applicable to the type of equipment under test.
2. Use the standards listed in the CABs to identify the necessary test cases for the tests.

### 3.1 Performance

Figure 9 provides an abbreviated example for presenting test case results for performance tests.

Figure 9 Performance Test Case Results Example

<b><u>P25-CAB-CAI TEST REQ – February 2009, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance</u></b>		<b>DTR-<u>P25CAP081001-55123</u></b>	
<b><u>RECEIVER TESTS</u></b>			
<b>Test Case</b>	<b>Description</b>	<b>Requirement</b>	<b>Results</b>
<u>2.1.4</u>	<u>Reference Sensitivity</u>	<u>≤ -116 dBm (Class A)</u>	<u>P</u>
<u>2.1.5</u>	<u>Faded Reference Sensitivity</u>	<u>≤ -108 dBm (Class A)</u>	<u>P</u>
<b><u>P25-CAB-CAI TEST REQ – February 2009, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance</u></b>		<b>DTR-<u>P25CAP081002-34333</u></b>	
<b><u>TRANSMITTER TESTS</u></b>			
<b>Test Case</b>	<b>Description</b>	<b>Requirement</b>	<b>Results</b>
<u>2.2.12</u>	<u>Transmitter Power and Encoder Attack Time</u>		
	<u>Transmitter Attack Time</u>	<u>≤ 50 ms (Class A)</u>	<u>P</u>
	<u>Encoder Attack Time</u>	<u>≤ 100 ms (Class A)</u>	<u>P</u>
<u>2.2.14</u>	<u>Transmitter Throughput Delay</u>	<u>≤ 125 ms (Class A)</u>	<u>P</u>

### 3.2 Conformance

Figure 10 provides an abbreviated example for presenting test case results for conformance tests.

Figure 10 Conformance Test Case Results Example

<b><u>P25-CAB-ISSI TEST REQ – February 2009, Section 2.1.2.1 – Project 25 Scope 1 Inter-RF Sub-System Interface RFSS Voice Services Conformance</u></b>		<b>DTR-<u>P25CAP081001-55123</u></b>	
<b>Test Case</b>	<b>Description</b>	<b>Results</b>	
<u>4.1</u>	<u>SU Registration – Successful (SU Presence Confirmed)</u>	<u>P</u>	
<u>4.2</u>	<u>SU Registration – Successful (SU Presence Not Confirmed)</u>	<u>P</u>	
<u>4.3</u>	<u>SU Registration – Unsuccessful (Target RFSS is not Home to the SU)</u>	<u>P</u>	
<u>4.4</u>	<u>SU Registration – Unsuccessful (Denied by Home RFSS)</u>	<u>P</u>	
<u>4.5</u>	<u>SU Registration – Unsuccessful (SU Presence Conformation Not Required)</u>	<u>P</u>	

### 3.3 Interoperability

Figure 11 provides an abbreviated example for presenting test case results for interoperability tests.

Figure 11 Interoperability Test Case Results Example

<b><u>P25-CAB-CAI TEST REQ – February 2009, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability</u></b>		<u>DTR- P25CAP081001 -55123</u>	<u>DTR- P25CAP081002 -34333</u>	<u>DTR- P25CAP081002 -34333</u>	<u>DTR- P25CAP081001- 5513</u>	<u>DTR- P25CAP081001- 55123</u>
<u>Wokytoky 25 Portable</u>		<u>Wokytoky Skynet</u>	<u>AT100</u>	<u>SS5100</u>	<u>CW-5400</u>	<u>AV100</u>
<b>Test Case</b>	<b>Description</b>	<b>Result</b>				
<b><u>2.2.1</u></b>	<b><u>Full Registration</u></b>					
<b><u>2.2.1.4.1</u></b>	<b><u>Test Case 1 - Valid Registration</u></b>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>
<b><u>2.2.1.4.2</u></b>	<b><u>Test Case 2 – Denied or Refused Registration</u></b>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>

### 3.4 Model Class Definition

A manufacturer may issue a Summary Test Report for representative equipment that is the test article for a model class. This means the equipment that the manufacturer has determined, through engineering analysis or internal functional testing, to be functionally equivalent to a particular test article.

If a model class is used to report the results of a test or set of tests, a model class definition table will be presented. If a model class is defined and used for an entire Summary Test Report, a single model class definition can be used, else the model class definition will follow the test case(s) and results they are applicable to.

Figure 12 serves as an example of a model class definition. Each model class will be presented with a name chosen by the manufacturer, and each piece of equipment that is represented by the model class will be listed. In the example below, model class Skynet Model Class T1000 has two mobile radios, where each mobile radio is listed with the appropriate information.

Figure 12 Model Class Definition Example

Model Class Definition		Applied to <u>P25-CAB-CAI TEST REQ Feb 2009, 2.1.3.2</u>	
Model Class Name	Product Name, Definition, Unique ID	Installed Options	
<u>Skynet Model Class T1000</u>	<u>Skynet Mobile T1100</u> <u>SN 1100ABBF</u>	<u>Hardware:</u> <u>Software:</u>	<u>wt25pH0002011b</u> <u>wt25pS0003045a</u>
	<u>Skynet Mobile T1105</u> <u>SN 1105ACCD</u>	<u>Hardware:</u> <u>Software:</u>	<u>wt25pH0002011b</u> <u>wt25pS0003045a</u>
<u>Skynet Model Class T2000</u>	<u>Skynet Portable T2115</u>	<u>1.1 GCM v4</u>	
	<u>Skynet Portable T2125</u>	<u>1.2 GCM v9</u>	
	<u>Skynet Portable T2135</u>	<u>1.3 GCM v6</u>	

### 3.5 Results Definitions and Comments

Following the presentation of the test cases with results, list the result definitions used in the report. Figure 13 serves as an example.

Figure 13 Test Case Result Definitions

Test Case Result Definitions	
<b>No Test Performed</b>	---
<b>Test Does Not Apply to the Test Object</b>	N/A
<b>Test Object Meets Requirements</b>	P (Pass)
<b>Test Object Does Not Meet Requirements</b>	F (Fail)
<b>Test Object is Not Conclusive</b>	I (Inconclusive)

Finally, provide notated comments to elaborate on test case results where necessary. The following are conventional examples based on the examples listed in Figure 13.

Figure 14 Test Case Result Comments

Comments
N1: Add information for a "Note" here.
N2: Add information for a second "Note" note here
N/A1: Add note here for a "Not Applicable" test.
N/A2: Add note here for a second "Not Applicable" test.
P1: Add note here for a "Pass" verdict that requires elaboration.
P2: Add note here for a second "Pass" verdict that requires elaboration.
I1: Add note here for an "Inconclusive" verdict that requires elaboration.
F1: Add note here for a "Fail" verdict that requires elaboration.

### 3.6 DHS Disclaimer and Paperwork Reduction Act Information

After the test results, the DHS disclaimer and White House Office of Management and Budget's Paperwork Reduction Act information for this document will be presented as follows:

The information contained herein has been provided by the manufacturer of the product with permission to make the information publically available. The Department of Homeland Security (DHS) is making this information available as a public service; however, DHS IS PROVIDING THE INFORMATION "AS IS." DHS MAKES NO EXPRESS OR IMPLIED WARRANTIES AND SPECIFICALLY, DHS MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING THE ACCURACY OR USE OF THIS INFORMATION. Reference to any specific commercial products, processes, or services by trade name, trademark, manufacturer, or otherwise does not constitute an endorsement by or a recommendation from DHS.

**OMB NO:** 1640-0015

**EXPIRATION DATE:** 04/30/2012

#### **Burden Statement**

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 an expiration date. The control number for this collection is 1640-0015 and this form will expire on 04/30/2012. 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 Department of Homeland Security, Science and Technology Directorate, Washington, DC 20528.

DHS FORM 10056 – June 2009

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**Annex A – Performance Summary Test Report Example**  
**Project 25 Compliance Assessment Program**  
**Summary Test Report**  
**Wokytoky Portable 25**  
**STR-LMR-123456**

<b>Test Item Description</b>	
<b>Manufacturer</b>	<u>LMR Equipment Corporation</u>
<b>Manufacturer Contact</b>	<u>Ima Manufacturer - (303) 555-1212</u>
<b>Product Name</b>	<u>Wokytoky Portable 25</u>
<b>Installed Options</b>	<u>LMR Equipment Corp. Version 4.3</u>
<b>Installed Vocoder</b>	<u>Enhanced Full Rate</u>

<b>Test Description</b>
<u>P25-CAB-CAI TEST REQ – February 2009, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance</u>

<b>Laboratory Information</b>	
<b>P25 CAP Laboratory Code</b>	<u>P25CAP081001</u>
<b>Date(s) of Test</b>	<u>May 1, 2009 to May 15, 2009</u>
<b>Date of Issue</b>	<u>May 22, 2009</u>

<b>Informative References</b>	
<b>Date</b>	<b>Title</b>
<u>Feb 2009</u>	<u>P25-CAB-CAI TEST REQ</u>



**Project 25 Compliance Assessment Program**

Summary Test Report

Wokytoky Portable 25

STR-LMR-123456

<b><u>P25-CAB-CAI TEST REQ – February 2009, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance</u></b>		<b>DTR-<u>P25CAP081001-55123</u></b>	
<b><u>RECEIVER TESTS</u></b>			
<b>Test Case</b>	<b>Description</b>	<b>Requirement</b>	<b>Results</b>
<b><u>2.1.4</u></b>	<u>Reference Sensitivity</u>	<u>≤ -116 dBm (Class A)</u>	<u>P</u>
<b><u>2.1.5</u></b>	<u>Faded Reference Sensitivity</u>	<u>≤ -108 dBm (Class A)</u>	<u>P</u>
<b><u>2.1.6</u></b>	<u>Signal Delay Spread Capability</u>	<u>≥ 50 μs (Class A)</u>	<u>P</u>
<b><u>2.1.7</u></b>	<u>Adjacent Channel Rejection</u>	<u>≥ 60 dB (Class A)</u>	<u>P1</u>
<b><u>2.1.8</u></b>	<u>Co-Channel Rejection</u>	<u>≤ 9 dB (Class A)</u>	<u>P</u>
<b><u>2.1.9</u></b>	<u>Spurious Response Rejection</u>	<u>≥ 70 dB (Class A)</u>	<u>P</u>
<b><u>2.1.10</u></b>	<u>Intermodulation Rejection</u>	<u>≥ 70 dB (Class A)</u>	<u>P</u>
<b><u>2.1.11</u></b>	<u>Signal Displacement Bandwidth</u>	<u>≥ 1000 Hz (Class A)</u>	<u>P</u>
<b><u>2.1.17</u></b>	<u>Late Entry Unsilence Delay</u>		
	<u>No Talk Group or Encryption</u>	<u>≤ 125 ms (Class A)</u>	<u>P</u>
	<u>Talk Group Only</u>	<u>≤ 370 ms (Class A)</u>	<u>P</u>
	<u>Encryption Only</u>	<u>≤ 370 ms (Class A)</u>	<u>P</u>
	<u>Both (on clear of encrypted channel)</u>	<u>≤ 460 ms (Class A)</u>	<u>P</u>
<b><u>2.1.18</u></b>	<u>Receiver Throughput Delay</u>	<u>≤ 125 ms (Class A)</u>	<u>P</u>

**Project 25 Compliance Assessment Program**

Summary Test Report

Wokytoky Portable 25

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<u>P25-CAB-CAI TEST REQ – February 2009, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance</u>		<u>DTR-P25CAP081001-55123</u>	
<b><u>TRANSMITTER TESTS</u></b>			
Test Case	Description	Requirement	Results
<b><u>2.1.11</u></b>	<u>Transmitter Power and Encoder Attack Time</u>		
	<u>Transmitter Attack Time</u>	$\leq 50 \text{ ms (Class A)}$	<u>P</u>
	<u>Encoder Attack Time</u>	$\leq 100 \text{ ms (Class A)}$	<u>P</u>
<b><u>2.1.14</u></b>	<u>Transmitter Throughput Delay</u>	$\leq 125 \text{ ms (Class A)}$	<u>P</u>
<b><u>2.1.15</u></b>	<u>Frequency Deviation for C4FM</u>		
	<u>High Level Signal Deviation</u>	$2544 \leq f_{dev} \leq 3111 \text{ Hz (Class A)}$	<u>P</u>
	<u>Low Level Signal Deviation</u>	$848 \leq f_{dev} \leq 1037 \text{ Hz (Class A)}$	<u>P</u>
<b><u>2.1.16</u></b>	<u>Modulation Fidelity</u>	$\leq 5\% \text{ (Class A)}$	<u>P</u>
<b><u>2.1.18</u></b>	<u>Transient Frequency Behavior</u>		
	<u>Time Interval <math>t_1 = 5 \text{ ms}</math></u>	$ \Delta f  \leq 12.5 \text{ kHz}$	<u>P</u>
	<u>Time Interval <math>t_2 = 20 \text{ ms}</math></u>	$ \Delta f  \leq 6.25 \text{ kHz}$	<u>P</u>
	<u>Time Interval <math>t_3 = 5 \text{ ms}</math></u>	$ \Delta f  \leq 12.5 \text{ kHz}$	<u>P</u>

**Project 25 Compliance Assessment Program**

Summary Test Report

Wokytoky Portable 25

STR-LMR-123456

Test Case Result Definitions	
No Test Performed	---
Test Does Not Apply to the Test Object	<u>N/A</u>
Test Object Meets Requirements	<u>P (Pass)</u>
Test Object Does Not Meet Requirements	<u>F (Fail)</u>
Test Object is Not Conclusive	<u>I (Inconclusive)</u>

Comments
N1: Add information for a "Note" here.
N2: Add information for a second "Note" note here.
N/A1: Add note here for a "Not Applicable" test.
N/A2: Add note here for a second "Not Applicable" test.
<u>P1: This is a Class B subscriber unit, not Class A. Its 2.1.7 Adjacent Channel Rejection measurement of 50 dB exceeds the Class B requirement.</u>
P2: Add note here for a second "Pass" verdict that requires elaboration.
I1: Add note here for an "Inconclusive" verdict that requires elaboration.
F1: Add note here for a "Fail" verdict that requires elaboration.

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**EXPIRATION DATE:** 04/30/2012

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**Annex B – Multi-Interface Summary Test Report Example**  
**Project 25 Compliance Assessment Program**  
**Summary Test Report**  
**Skynet Trunked Radio System**  
**STR-LMR-123456**

<b>Test Item Description</b>	
<b>Manufacturer</b>	<u>LMR Equipment Corporation</u>
<b>Manufacturer Contact</b>	<u>Ima Manufacturer - (303) 555-1212</u>
<b>Product Name</b>	<u>Skynet Trunked Radio System</u>
<b>Installed Options</b>	<u>LMR Equipment Corp. Version 4.3</u>
<b>Installed Vocoder</b>	<u>Not Applicable</u>

<b>Test Description</b>	
<u>P25-CAB-CAI TEST REQ – February 2009, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Conventional Base Station/Repeater Interoperability</u>	
<u>P25-CAB-ISSI TEST REQ – June 2009, Section 2.1.2.1 – Project 25 Scope 1 Inter-RF Sub-System Interface RFSS Voice Services Conformance</u>	

<b>Laboratory Information</b>	
<b>P25 CAP Laboratory Code</b>	<u>P25CAP081001</u>
<b>Date(s) of Test</b>	<u>May 1, 2009 to May 15, 2009</u>
<b>Date of Issue</b>	<u>May 22, 2009</u>

<b>Laboratory Information</b>	
<b>P25 CAP Laboratory Code</b>	<u>P25CAP081002</u>
<b>Date(s) of Test</b>	<u>May 5, 2009 to May 10, 2009</u>
<b>Date of Issue</b>	<u>May 22, 2009</u>

<b>Informative References</b>	
<b>Date</b>	<b>Title</b>
<u>Feb 2009</u>	<u>P25-CAB-CAI TEST REQ</u>
<u>May 2009</u>	<u>P25-CAB-ISSI TEST REQ</u>

**Project 25 Compliance Assessment Program**

Summary Test Report

Skynet Trunked Radio System

STR-LMR-123456

<b>Other Devices Tested with <u>LMR Equipment Corporation Skynet Trunked Radio System</u></b>			
<b>Manufacturer</b>	<b>Product Name, Definition, and Unique ID</b>	<b>Installed Options</b>	
<u>LMR Equipment Corporation</u>	<u>Wokytoky 25 Portable</u> <u>MAC Address AFE0014</u>	<b><u>Hardware:</u></b> <b><u>Software:</u></b>	<u>wt25pH0002011b</u> <u>wt25pS0003045a</u>
<u>AirTalky</u>	<u>Talkover Portable</u> <u>SN 0011234</u>	<u>1.5 ACMv1, ERCv3</u>	
<u>Speak Systems</u>	<u>SS5100 Portable</u> <u>SN SS5100-1324</u>	<u>N/A</u>	
<u>ClearWaiver</u>	<u>CW-5400 Portable</u> <u>SN 9A5400</u>	<b><u>Hardware:</u></b> <b><u>Software:</u></b>	<u>5400ph35</u> <u>5400ps398a</u>
<u>AirVine</u>	<u>AV100 Portable</u> <u>SN AV100000122</u>	<b><u>Hardware:</u></b> <b><u>Software:</u></b>	<u>100AVPH007a5y</u> <u>100AVPS028ca1q</u>

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Summary Test Report

Skynet Trunked Radio System

STR-LMR-123456

<b><u>P25-CAB-CAI TEST REQ – February 2009, Section 2.2.3.2 – Project 25 Phase 1 Common Air Interface Trunked Base Station/Repeater Interoperability</u></b>		<u>DTR- P25CAP081001 -55123</u>	<u>DTR- P25CAP081002 -34333</u>	<u>DTR- P25CAP081002 -34333</u>	<u>DTR- P25CAP081001- 5513</u>	<u>DTR- P25CAP081001- 55123</u>
<u>Skynet Trunked Radio System</u>		<u>Wokytoky Skynet</u>	<u>AT100</u>	<u>SS5100</u>	<u>CW-5400</u>	<u>AV100</u>
<b>Test Case</b>	<b>Description</b>	<b>Result</b>				
<u>2.2.1</u>	<u>Full Registration</u>					
<u>2.2.1.4.1</u>	<u>Test Case 1 - Valid Registration</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>
<u>2.2.1.4.2</u>	<u>Test Case 2 – Denied or Refused Registration</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>N/A1</u>
<u>2.2.1.4.3</u>	<u>Test Case 3 – Unverified Registration</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>N/A2</u>
<u>2.2.2</u>	<u>Group Voice Call</u>					
<u>2.2.2.4.1</u>	<u>Test Case 1 – Group Call Granted</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>
<u>2.2.2.4.2</u>	<u>Test Case 2 – Group Call Denied</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>
<u>2.2.2.4.3</u>	<u>Test Case 3 – Group Call Request Queued</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>

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Summary Test Report

Skynet Trunked Radio System

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<u>P25-CAB-ISSI TEST REQ – February 2009, Section 2.1.2.1 – Project 25 Scope 1 Inter-RF Sub-System Interface RFSS Voice Services Conformance</u>		<u>DTR-P25CAP081001-55123</u>
<b>Test Case</b>	<b>Description</b>	<b>Results</b>
<u>4.1</u>	<u>SU Registration – Successful (SU Presence Confirmed)</u>	<u>P</u>
<u>4.2</u>	<u>SU Registration – Successful (SU Presence Not Confirmed)</u>	<u>P</u>
<u>4.3</u>	<u>SU Registration – Unsuccessful (Target RFSS is not Home to the SU)</u>	<u>P</u>
<u>4.4</u>	<u>SU Registration – Unsuccessful (Denied by Home RFSS)</u>	<u>P</u>
<u>4.5</u>	<u>SU Registration – Unsuccessful (SU Presence Conformation Not Required)</u>	<u>P</u>

**Project 25 Compliance Assessment Program**

Summary Test Report

Skynet Trunked Radio System

STR-LMR-123456

Test Case Result Definitions	
No Test Performed	---
Test Does Not Apply to the Test Object	<u>N/A</u>
Test Object Meets Requirements	<u>P (Pass)</u>
Test Object Does Not Meet Requirements	<u>F (Fail)</u>
Test Object is Not Conclusive	<u>I (Inconclusive)</u>

Comments
N1: Add information for a "Note" here.
N2: Add information for a second "Note" note here.
<u>N/A1: Infrastructure does not support this mode of operation.</u>
<u>N/A2: Infrastructure does not support this mode of operation.</u>
P1: Add note here for a "Pass" verdict that requires elaboration.
P2: Add note here for a second "Pass" verdict that requires elaboration.
I1: Add note here for an "Inconclusive" verdict that requires elaboration.
F1: Add note here for a "Fail" verdict that requires elaboration.

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