

### Office for Interoperability and Compatibility

### **Project 25 Compliance Assessment Bulletin**

Project 25

**Compliance Assessment Program** 

**Summary Test Report Requirements** 

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,	Reference update and variable text recognition modification.
	2008	
Release	February 4,	Final release version approved on February 4, 2009, P25 CAP GB
	2009	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,	Updated disclaimer language and added model class definition.
	2009	

#### P25-CAB-STR\_REQ – September 2009

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

#### 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
P25-CAB-CAI_TEST_REQ - February 2009, Section 2.1.1.1 - Project 25 Phase 1 Common Air Interface Conventional Subscriber
<u>Unit Performance</u>
P25-CAB-CAI_TEST_REQ - February 2009, Section 2.1.1.1 - Project 25 Phase 1 Common Air Interface Conventional Subscriber
<u>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	P25CAP081001		
Date(s) of Test	May 1, 2009 to May 15, 2009		
Date of Issue	May 22, 2009		

#### 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>&</sup>lt;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			
Feb 2009	P25-CAB-CAI TEST REQ			

#### 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 LMR Equipment Corporation Wokytoky					
Manufacturer	Product Name, Definition, and	Installed Options			
Wandiacturer	Unique ID				
IMP Equipment Corneration	Wokytoky 25 Portable	Hardware:	wt25pH0002011b		
LMR Equipment Corporation	MAC Address AFE0014	<u>Software:</u>	<u>wt25pS0003045a</u>		
AirTalky	<u>Talkover Portable</u>	1.5 ACMv1, ERCv3			
All Tulky	<u>SN 0011234</u>				
Speak Systems	SS5100 Portable	N/A			
Speak Systems	<u>SN SS5100-1324</u>				
ClearWaiver	CW-5400 Portable	<u>Hardware:</u>	5400ph35		
<u>Clear waiver</u>	<u>SN 9A5400</u>	<u>Software:</u>	<u>5400ps398q</u>		
AirVine	AV100 Portable	<u>Hardware:</u>	<u>100AVPH007a5y</u>		
All Ville	SN AV100000122	<u>Software:</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>&</sup>lt;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** 

P25-CAB-CAI TEST REQ – February 2009, Section				
2.1.1.1 – Project 25 Phase 1 Common Air Interface		DTR- <u>P25CAP081001</u> - <u>55123</u>		
Conventional Sub	oscriber Unit Performance			
	<u>RECEIVE</u>	<u>R</u> TESTS		
Test Case	Description	Requirement	Results	
<u>2.1.4</u>	Reference Sensitivity	<u>≤ -116 dBm (Class A)</u>	<u>P</u>	
<u>2.1.5</u>	Faded Reference Sensitivity	≤ -108 dBm (Class A)	<u>P</u>	
P25-CAB-CAI TES	T REQ – February 2009, Section			
2.1.1.1 - Project 2	<u> 25 Phase 1 Common Air Interface</u>	DTR- <u>P25CAP081002</u> - <u>34333</u>		
Conventional Subscriber Unit Performance				
	<u>TRANSMIT</u>	TER TESTS		
Test Case	Description	Requirement	Results	
	Transmitter Power and Encoder			
2 2 12	<u>Attack Time</u>			
<u>2.2.12</u>	<u>Transmitter Attack Time</u>	≤ 50 ms (Class A)	<u>P</u>	
<u>Encoder Attack Time</u>		≤ 100 ms (Class A)	<u>P</u>	
<u>2.2.14</u>	Transmitter Throughput Delay	<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** 

P25-CAB-ISSI TEST REQ – February 2009, Section				
2.1.2.1 - Project 25 Scope 1 Inter-RF Sub-System		DTR- <u>P25CAP081001</u> - <u>55123</u>		
Interface RFSS Voice Services Conformance				
Test Case	Description	Results		
4.1	SU Registration – Successful (SU	D		
<u>4.1</u>	<u>Presence Confirmed)</u>	<u>P</u>		
4.2	SU Registration – Successful (SU	Р		
4.2	Presence Not Confirmed)	<u></u>		
<u>4.3</u>	SU Registration – Unsuccessful	<u>P</u>		
4.5	(Target RFSS is not Home to the SU)	<u>-</u>		
4.4	SU Registration – Unsuccessful	P		
<del>-1.1</del>	(Denied by Home RFSS)	<u>-</u>		
	SU Registration – Unsuccessful (SU			
<u>4.5</u>	Presence Conformation Not	<u>P</u>		
	Required)			

#### 3.3 Interoperability

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

Figure 11 Interoperability Test Case Results Example

P25-CAB-CAI_TEST_REQ - February 2009, Section 2.1.3.2 - Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability		<u>DTR-</u> <u>P25CAP081001</u> <u>-55123</u>	<u>DTR-</u> P25CAP081002 -34333	<u>DTR-</u> P25CAP081002 -34333	<u>DTR-</u> P25CAP081001- <u>5513</u>	<u>DTR-</u> <u>P25CAP081001-</u> <u>55123</u>
Wokytoky 25 Po	<u>ortable</u>	Wokytoky Skynet	<u>A7100</u>	<u>SS5100</u>	<u>CW-5400</u>	<u>AV100</u>
Test Case Description		Result				
<u>2.2.1</u>	2.2.1 Full Registration					
2.2.1.4.1	<u>Test Case 1 - Valid Registration</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>
2.2.1.4.2	Test Case 2 – Denied or Refused Registration	<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 P25-CAB-CAI_TEST_REQ Feb 2009, 2.1.3.2			
Model Class Name Product Name, Definit		on, Unique ID	Installed Options	
Skynet Model Class T1000	Skynet Mobile T1100		<u>Hardware:</u>	wt25pH0002011b
Skyllet Wiodel Class 11000	<u>SN 1100ABBF</u>		<u>Software:</u>	<u>wt25pS0003045a</u>
	Skynet Mobile T1105		<u>Hardware:</u>	wt25pH0002011b
	<u>SN 1105ACCD</u>		<u>Software:</u>	<u>wt25pS0003045a</u>
Skynet Model Class T2000 Skynet Portable T211.			1.1 GCM v4	
Skynet Portable T2125			1.2 GCM v9	
	Skynet Portable T2135		1.3 GCM v6	

#### 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	
No Test Performed	
Test Does Not Apply to the Test Object	N/A
Test Object Meets Requirements	P (Pass)
Test Object Does Not Meet Requirements	F (Fail)
Test Object is Not Conclusive	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

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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

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

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

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

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

# Summary Test Report Wokytoky Portable 25 STR-<u>LMR</u>-123456

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

## Summary Test Report <u>Wokytoky Portable 25</u> STR-<u>LMR</u>-<u>123456</u>

P25-CAB-CAI_TEST_REQ - February 2009, Section			
2.1.1.1 – Project 25 Phase 1 Common Air Interface		DTR- <u>P25CAP081001</u> - <u>55123</u>	
Conventional Subscriber Unit Performance			
	<u>TRANSMIT</u>	TER TESTS	
Test Case	Description	Requirement	Results
	Transmitter Power and Encoder		
2 1 11	<u>Attack Time</u>		
<u>2.1.11</u>	<u>Transmitter Attack Time</u>	≤ 50 ms (Class A)	<u>P</u>
	<u>Encoder Attack Time</u>	<u>≤ 100 ms (Class A)</u>	<u>P</u>
<u>2.1.14</u>	<u>Transmitter Throughput Delay</u>	<u>≤ 125 ms (Class A)</u>	<u>P</u>
	Frequency Deviation for C4FM		
<u>2.1.15</u>	High Level Signal Deviation	<u>2544 ≤ f<sub>dev</sub> ≤ 3111 Hz (Class A)</u>	<u>P</u>
	Low Level Signal Deviation	<u>848 ≤ f<sub>dev</sub> ≤ 1037 Hz (Class A)</u>	<u>P</u>
<u>2.1.16</u>	Modulation Fidelity	<u>≤ 5% (Class A)</u>	<u>P</u>
	Transient Frequency Behavior		
<u>2.1.18</u>	<u>Time Interval t<sub>1</sub> = 5 ms</u>	<u> Δf  ≤ 12.5 kHz</u>	<u>P</u>
2.1.10	<u>Time Interval t<sub>2</sub> = 20 ms</u>	<u> Δf  ≤ 6.25 kHz</u>	<u>P</u>
	<u>Time Interval t₃ = 5 ms</u>	<u> Δf  ≤ 12.5 kHz</u>	<u>P</u>

### Summary Test Report Wokytoky Portable 25 STR-LMR-123456

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

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: 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.
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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**OMB NO:** 1640-0015

**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

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

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

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

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

Informative References		
Date	Title	
Feb 2009	P25-CAB-CAI TEST REQ	
May 2009	P25-CAB-ISSI TEST REQ	

#### Summary Test Report

#### Skynet Trunked Radio System

#### STR-<u>LMR</u>-<u>123456</u>

Other Devices Tested with <u>LMR Equipment Corporation Skynet Trunked Radio System</u>				
Manufacturer	Product Name, Definition, and	Installed Options		
Wallulacturei	Unique ID	Installed Options		
IMP Equipment Corneration	Wokytoky 25 Portable	Hardware: wt25pH000202		
LMR Equipment Corporation	MAC Address AFE0014	<u>Software:</u>	wt25pS0003045a	
AirTalky	<u>Talkover Portable</u>	1.5 ACMv1, ERCv3		
All Tulky	<u>SN 0011234</u>			
Snagk Systams	SS5100 Portable	NI/A		
<u>Speak Systems</u>	SN SS5100-1324	<u>N/A</u>		
ClearWaiver	<u>CW-5400 Portable</u>	<u>Hardware:</u> <u>5400ph35</u>		
<u>Cieur waiver</u>	<u>SN 9A5400</u>	<u>Software:</u>	<u>5400ps398q</u>	
AirVine	<u>AV100 Portable</u>	<u>Hardware:</u>	<u>100AVPH007a5y</u>	
All ville	<u>SN AV100000122</u>	<u>Software:</u>	<u>100AVPS028ca1g</u>	

## Summary Test Report <u>Skynet Trunked Radio System</u> STR-<u>LMR</u>-<u>123456</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>DTR-</u> P25CAP081001 -55123	<u>DTR-</u> P25CAP081002 -34333	<u>DTR-</u> P25CAP081002 -34333	<u>DTR-</u> <u>P25CAP081001-</u> <u>5513</u>	<u>DTR-</u> <u>P25CAP081001-</u> <u>55123</u>
Skynet Trunked Radio System		Wokytoky Skynet	<u>A7100</u>	<u>SS5100</u>	<u>CW-5400</u>	<u>AV100</u>
Test Case	Description	Result				
<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>
2.2.1.4.2	<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>
2.2.1.4.3	<u>Test Case 3 – Unverified Registration</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>N/A2</u>
2.2.2 Group Voice Call						
<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>

## Summary Test Report <u>Skynet Trunked Radio System</u> STR-<u>LMR</u>-<u>123456</u>

P25-CAB-ISSI TE	ST REQ – February 2009, Section	
2.1.2.1 – Project 25 Scope 1 Inter-RF Sub-System		DTR- <u>P25CAP081001</u> - <u>55123</u>
Interface RFSS V	oice Services Conformance	
Test Case Description		Results
4.1	SU Registration – Successful (SU	0
<u>4.1</u>	Presence Confirmed)	<u>P</u>
4.2	SU Registration – Successful (SU	P
4.2	<u>Presence Not Confirmed)</u>	<u>-</u>
<u>4.3</u>	SU Registration – Unsuccessful	P
<u>715</u>	(Target RFSS is not Home to the SU)	<u>-</u>
4.4	SU Registration – Unsuccessful	Р
4.4	(Denied by Home RFSS)	<u>-</u>
	<u>SU Registration – Unsuccessful (SU</u>	
<u>4.5</u>	Presence Conformation Not	<u>P</u>
	<u>Required)</u>	

#### 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	P (Pass)
Test Object Does Not Meet Requirements	F (Fail)
Test Object is Not Conclusive	I (Inconclusive)

Comments
N1: Add information for a "Note" here.
N2: Add information for a second "Note" note here.
N/A1: Infrastructure does not support this mode of operation.
N/A2: Infrastructure does not support this mode of operation.
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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**OMB NO:** 1640-0015

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

#### **Burden Statement**

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