Project 25 Compliance Assessment Program

SUMMARY TEST REPORT (STR)

PRODUCT NAME

STR–SUPPLIER_NAME_ABBREVIATION–PRODUCT_NAME_ABBREVIATION–MMDDYYYY

SUPPLIER

Supplier Info	Detail
Name:	Wokytoky LMR Equipment
Contact:	Ted Zed – (xxx) xxx-xxxx

PRODUCT

Product Info	Detail
Product Name:	Wokytoky ABC2000M78 700/800 MHz Mobile Subscriber SN C87TJD8NX2-O (See table, Model Class: Wokytoky ABC Subscriber for a listing of compliance equivalent model-family products.)[1]
Installed Hardware Options:	Trunking, Encryption
Installed Software Options:	Trunking, Encryption
Installed Vocoder:	AMBE+2

TESTS

Description
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Performance
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.3.1 – Project 25 Phase 1 Common Air Interface Conventional Direct Mode Subscriber Unit Interoperability
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Conventional Repeat Mode Subscriber Unit Interoperability
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.3.3 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability

LABORATORY INFORMATION

Laboratory	Details
P25 CAP Laboratory Code:	P25CAP081001
Date(s) of Test:	OCT 5, 2016 to OCT 9, 2016

[1] If necessary, follow the product name with a reference to a Model Class table near the end of the report.

Laboratory	Details
Detailed Test Report:	DTR-P25CAP081001-34330
Date of Issue:	OCT 19, 2016 (Product)

Laboratory	Details
P25 CAP Laboratory Code:	P25CAP081002
Date(s) of Test:	OCT 12, 2016 to OCT 16, 2016
Detailed Test Report:	DTR-P25CAP081002-IC66120
Date of Issue:	OCT 26, 2016 (Product)

Laboratory	Details
P25 CAP Laboratory Code:	P25CAP081003
Date(s) of Test:	OCT 19, 2016 to OCT 23, 2016
Detailed Test Report:	DTR-P25CAP081003-IC66120
Date of Issue:	NOV 2, 2016 (Product)

NORMATIVE REFERENCES

Date	Title
June 2016	P25-CAB-CAI_TEST_REQ

RECEIVER PERFORMANCE TESTING (700 MHZ, 800 MHZ)[2] – CONVENTIONAL

Test Identification	Detailed Test Report Identification
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance	DTR-P25CAP081001-34330

Test Case	Description	Requirement	Results
3.1.4	Reference Sensitivity – C4FM	≤ -116 dBm (Class A)[3]	P
3.1.4	Reference Sensitivity – Standard Simulcast	≤ -116 dBm (Class A)[3]	P

[2] This example is for 700/800 MHz frequency band. Throughout the report, remember to insert the appropriate frequency band in this space. Include multiple tables if necessary and appropriate. For example, to present test results for a multi-band radio, include tables for VHF, UHF and 700/800 MHz bands. Also, see Footnotes 4 and 5.
[3] The example given here is for Class A Portable equipment; ensure that you use the appropriate value for Class B and/or Mobile or Base Station equipment as specified in TIA-102.CAAB.

Test Case	Description	Requirement	Results
3.1.5	Faded Reference Sensitivity – C4FM	≤ -108 dBm (Class A)[3]	P
3.1.5	Faded Reference Sensitivity – Standard Simulcast	≤ -108 dBm (Class A)[3]	P
3.1.6	Signal Delay Spread Capability – C4FM	≥ 50 µs	P
3.1.6	Signal Delay Spread Capability – Standard Simulcast	≥ 50 µs	P
3.1.7.1	Adjacent Channel Rejection – C4FM	≥ 60 µs (Class A)[3]	P
3.1.7.1	Adjacent Channel Rejection – Standard Simulcast	≥ 60 µs (Class A)[3]	P
3.1.7.2	Offset Adjacent Channel Rejection – C4FM	≥ 47 µs (Class A)[3]	P
3.1.7.2	Offset Adjacent Channel Rejection – Standard Simulcast	≥ 47 µs (Class A)[3]	P
3.1.8	Co-Channel Rejection	≤ 9 dB	P
3.1.9	Spurious Response Rejection	≥ 70 dB (Class A)[3]	P
3.1.10	Intermodulation Rejection	≥ 70 dB (Class A)[3]	P
3.1.11	Signal Displacement Bandwidth	≥ 1000 Hz	P
3.1.17	Late Entry Unsquelch Delay: No Talk Group or Encryption	≤ 125 ms	P
3.1.17	Late Entry Unsquelch Delay: Talk Group Only, Unencrypted Transmission	≤ 370 ms	P
3.1.17	Late Entry Unsquelch Delay: Encryption Only, Encrypted Transmission	≤ 370 ms	P
3.1.17	Late Entry Unsquelch Delay: Encryption Only, Unencrypted Transmission	≤ 370 ms	P
3.1.17	Late Entry Unsquelch Delay: Both Talk Group and Encryption, Encrypted Transmission	≤ 460 ms	P
3.1.17	Late Entry Unsquelch Delay: Both Talk Group and Encryption, Unencrypted Transmission	≤ 460 ms	P
3.1.18	Receiver Throughput Delay	≤ 125 ms	P

TRANSMITTER PERFORMANCE TESTING (700 MHZ, 800 MHZ) – CONVENTIONAL

Test Identification	Detailed Test Report Identification
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance	DTR-P25CAP081001-34330

Test Case 2.2.8[4] – Unwanted Emissions: Adjacent Channel Power Ratio

Test Case	Offset from Center Frequency (KHz)	Measurement Bandwidth (KHz)	ACPR (dB)	Results
3.2.8.2	9.375	6.25	≥ 40	P
3.2.8.2	15.625	6.25	≥ 60	P
3.2.8.2	21.875	6.25	≥ 60	P
3.2.8.2	37.5	25	≥ 60	P
3.2.8.2	62.5	25	≥ 65	P
3.2.8.2	87.5	25	≥ 65	P
3.2.8.2	150	100	≥ 65	P
3.2.8.2	250	100	≥ 65	P
3.2.8.2	350	100	≥ 65	P
3.2.8.2	> 400 KHz to 12 MHz	30 (s)	≥ 75	P
3.2.8.2	12 MHz to paired receive band	30 (s)	≥ 75	P
3.2.8.2	In paired receive band	30 (s)	≥ 100	P

Test Case	Description	Requirement	Results
3.2.8.1[5]	Unwanted Emissions: Adjacent Channel Power Ratio	≥ 67 dB	P
3.2.12	Transmitter Attack Time	≤ 50 ms	P
3.2.12	Encoder Attack Time	≤ 100 ms	P
3.2.14	Transmitter Throughput Delay	≤ 125 ms	P

[4] For 700 MHz, use a separate table to handle Test Case 2.2.8. Use of a separate table supports the 1:1 row-to-column ratio required for Section 508 compliance. Also, see Footnotes 2 and 5.
[5] For 700 MHz, remove this row and use a separate table to handle Test Case 2.2.8. Also see Footnotes 2 and 4. Use of a separate table supports the 1:1 row-to-column ratio required for Section 508 compliance.

Test Case	Description	Requirement	Results
3.2.15	Frequency Deviation for C4FM: High-Level Signal Deviation	$2544 < f_{dev} \leq 3111$ Hz	P
3.2.15	Frequency Deviation for C4FM: Low-Level Signal Deviation	$848 < f_{dev} \leq 1037$ Hz	P
3.2.16	Modulation Fidelity – C4FM	≤ 5% (Class A)[3]	P
3.2.16	Modulation Fidelity – CQPSK	≤ 5% (Class A)[3]	P
3.2.16	Modulation Fidelity – Standard Simulcast	≤ 5% (Class A)[3]	P
3.2.18	Transient Frequency Behavior: Time Interval t_1 = 20 ms[6]	$\lvert\Delta f\rvert \leq 12.5$ Hz	P
3.2.18	Transient Frequency Behavior: Time Interval t_2 = 50 ms	$\lvert\Delta f\rvert \leq 6.25$ Hz	P
3.2.18	Transient Frequency Behavior: Time Interval t_3 = 10 ms[6]	$\lvert\Delta f\rvert \leq 12.5$ Hz	P

RECEIVER PERFORMANCE TESTING (700 MHZ, 800 MHZ) – TRUNKED

Test Identification	Detailed Test Report Identification
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Performance	DTR-P25CAP081001-34330

Test Case	Description	Requirement	Results
3.1.4	Reference Sensitivity – C4FM	≤ -116 dBm (Class A)[3]	P
3.1.4	Reference Sensitivity – Standard Simulcast	≤ -116 dBm (Class A)[3]	P
3.1.5	Faded Reference Sensitivity – C4FM	≤ -108 dBm (Class A)[3]	P
3.1.5	Faded Reference Sensitivity – Standard Simulcast	≤ -108 dBm (Class A)[3]	P

[6] 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 t_1 and t_3, may be greater than ±12.5 kHz. Although the corresponding plot of frequency versus time during t1 and t3 shall be recorded in the Detailed Test Report's data, in the Summary Test Report the reported result should be "NR1," "NR2," etc., as appropriate, or may optionally be reported as "P" or "F" as if the transmitter's output power rating were greater than 6 watts. The elaborative comment (see the Comments table on page 23) shall include the first sentence of this Footnote verbatim ("In accordance with the guidance... ±12.5 kHz.").

Test Case	Description	Requirement	Results
3.1.6	Signal Delay Spread Capability – C4FM	≥ 50 µs	P
3.1.6	Signal Delay Spread Capability – Standard Simulcast	≥ 50 µs	P
3.1.7.1	Adjacent Channel Rejection – C4FM	≥ 60 µs (Class A)[3]	P
3.1.7.1	Adjacent Channel Rejection – Standard Simulcast	≥ 60 µs (Class A)[3]	P
3.1.7.2	Offset Adjacent Channel Rejection – C4FM	≥ 47 µs (Class A)[3]	P
3.1.7.2	Offset Adjacent Channel Rejection – Standard Simulcast	≥ 47 µs (Class A)[3]	P
3.1.8	Co-Channel Rejection	≤ 9 dB	P
3.1.9	Spurious Response Rejection	≥ 70 dB (Class A)[3]	P
3.1.10	Intermodulation Rejection	≥ 70 dB (Class A)[3]	P
3.1.11	Signal Displacement Bandwidth	≥ 1000 Hz	P

TRANSMITTER PERFORMANCE TESTING (700 MHZ, 800 MHZ) – TRUNKED

Test Identification	Detailed Test Report Identification
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Performance	DTR-P25CAP081001-34330

Test Case 2.2.8[4] – Unwanted Emissions: Adjacent Channel Power Ratio

Test Case	Offset from Center Frequency (KHz)	Measurement Bandwidth (KHz)	ACPR (dB)	Results
3.2.8.2	9.375	6.25	≥ 40	P
3.2.8.2	15.625	6.25	≥ 60	P
3.2.8.2	21.875	6.25	≥ 60	P
3.2.8.2	37.5	25	≥ 60	P
3.2.8.2	62.5	25	≥ 65	P
3.2.8.2	87.5	25	≥ 65	P
3.2.8.2	150	100	≥ 65	P
3.2.8.2	250	100	≥ 65	P
3.2.8.2	350	100	≥ 65	P

Test Case	Offset from Center Frequency (KHz)	Measurement Bandwidth (KHz)	ACPR (dB)	Results
3.2.8.2	> 400 KHz to 12 MHz	30 (s)	≥ 75	P
3.2.8.2	12 MHz to paired receive band	30 (s)	≥ 75	P
3.2.8.2	In paired receive band	30 (s)	≥ 100	P

Test Case	Description	Requirement	Results
3.2.8.1[5]	Unwanted Emissions: Adjacent Channel Power Ratio	≥ 67 dB	P
3.2.12	Transmitter Attack Time	≤ 50 ms	P
3.2.12	Encoder Attack Time	≤ 100 ms	P
3.2.14	Transmitter Throughput Delay	≤ 125 ms	P
3.2.15	Frequency Deviation for C4FM: High-Level Signal Deviation	$2544 < f_{dev} \leq 3111$ Hz	P
3.2.15	Frequency Deviation for C4FM: Low-Level Signal Deviation	$848 < f_{dev} \leq 1037$ Hz	P
3.2.16	Modulation Fidelity – C4FM	≤ 5% (Class A)[3]	P
3.2.16	Modulation Fidelity – CQPSK	≤ 5% (Class A)[3]	P
3.2.16	Modulation Fidelity – Standard Simulcast	≤ 5% (Class A)[3]	P
3.2.18	Transient Frequency Behavior: Time Interval t_1 = 20 ms[6]	$\lvert\Delta f\rvert \leq 12.5$ Hz	P
3.2.18	Transient Frequency Behavior: Time Interval t_2 = 50 ms	$\lvert\Delta f\rvert \leq 6.25$ Hz	P
3.2.18	Transient Frequency Behavior: Time Interval t_3 = 10 ms[6]	$\lvert\Delta f\rvert \leq 12.5$ Hz	P

OTHER DEVICES TESTED FOR INTEROPERABILITY

Other devices tested with PRODUCT NAME HERE.

Supplier and Contact	Product Name, Definition,[7] Unique ID	Installed Hardware Options	Installed Software Options
Wokytoky LMR Equipment Ted Zed (xxx) xxx-xxxx	SkyNet SN2000T Trunk System SN 100577008 (See table, Model Class: Wokytoky SkyNet Trunk System for a listing of compliance equivalent model-family products.)	Option A15 Option B12	Release 5.10 Release 5.11 Release 5.12
AirTalky John Doe (xxx) xxx-xxxx	AT1000T Trunk System SN AFE0014	1.5 ACMv1	ERCv3
Speak Systems Jane Smith (xxx) xxx-xxxx	SS4T Trunk System SN 0011234	Option 4 Option 7	Option Av14
Wokytoky LMR Equipment Ted Zed (xxx) xxx-xxxx	SkyNet SN100R Repeater SN 100578008	Package 3	R04.9
AirTalky John Doe (xxx) xxx-xxxx	AT100R Repeater SN AFE0347	Setup 5 with trunking	ERDv7.3
Speak Systems Jane Smith (xxx) xxx-xxxx	SS4R Repeater SN 0021758	Package 2 with encryption	Package 4v2
AirTalky John Doe (xxx) xxx-xxxx	AT10C Console SN AFE0449	Option 1	EREv9.5

[7] If necessary, identify the Model Class table to reference for Installed Options.

Supplier and Contact	Product Name, Definition,[7] Unique ID	Installed Hardware Options	Installed Software Options
Wokytoky LMR Equipment Ted Zed (xxx) xxx-xxxx	DEF3500P78 700/800 MHz Portable SN 100576908 (See table, Model Class: Wokytoky DEF Subscriber for a listing of compliance equivalent model-family products.)	Trunking, Encryption	Firmware: R1 thru R4
ClearWavier Fred Jones (xxx) xxx-xxxx	CWX7300P 700/800 MHz Portable SN 018362985	7300CWXPd98jd	7300CWXPx2tt
AirVine Karen Wu (xxx) xxx-xxxx	AV100P 700/800 MHz Portable SN AV100000122	100AVPH007a5y	100AVPS028ca1g
TalkAbout Cab Calloday (xxx) xxx-xxxx	TA9000M 700/800 MHz Mobile SN TA300037894	9000TAFJH333	9000TAFJS333
Frank Systems Lesslee Ismore (xxx) xxx-xxxx	FS2000P 700/800 MHz Portable SN FS100008837	2000FS0089fu	2000FSPS085ig7

INTEROPERABILITY TESTING (700 MHZ, 800 MHZ) – CONVENTIONAL: DIRECT MODE

Test Identification	Product
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.3.1 – Project 25 Phase 1 Common Air Interface Conventional Direct Mode Subscriber Unit Interoperability	SUBSCRIBER PRODUCT NAME HERE

Product	Detailed Test Report Identification
Wokytoky DEF3500P78 Portable	DTR-P25CAP081002-IC32430
ClearWaivier CWX7300P Portable	DTR-P25CAP081002-IC55430
AirVine AV100P Portable	DTR-P25CAP081002-IC66430
TalkAbout TA3000M Mobile	DTR-P25CAP081002-IC77430
Frank Systems FS2000P Portable	DTR-P25CAP081002-IC88430

Test Case	Description	DEF3500P78 Portable	CWX7300P Portable	AV100P Portable	TA3000M Mobile	FS2000P Portable
2.2.1	**Matching NAC Operation and SU Unaddressed Voice Call**					
2.2.1.4.1	Test Case 1 – Unaddressed Voice Call	P	P	P	P	P
2.2.2	**Matching NAC Operation and SU Routine Group Voice Call**					
2.2.2.4.1	Test Case 1 – Routine Group Voice Call	P	P	P	P	P
2.2.3	**Monitor Mode – SU Group Voice Call**					
2.2.3.4.1	Test Case 1 – Receiving Group Call	P	P	P	P	P
2.2.8	**Accept Any NAC in Normal and Selective Squelch Mode – SU Group Voice Call**					
2.2.8.4.1	Test Case 1 – Receiving Group Call with Receive NAC $F7E under Normal and Selective Squelch Modes	P	P	P	P	P
2.2.4	**Emergency Call**					
2.2.4.4.1	Test Case 1 – Emergency Call	P	P	P	P	P
2.2.5	**Unit-to-Unit Voice Call**					
2.2.5.4.1	Test Case 1 – Initiate Unit-to-Unit Call from SU 1	P	P	P	P	P
2.2.5.4.2	Test Case 2 – Initiate Unit-to-Unit Call from SU 5	P	P	P	P	P
2.2.6	**Unit-to-Unit Voice Call – Receiving Units also in Monitor Mode**					
2.2.6.4.1	Test Case 1 – Initiate Unit-to-Unit Call from SU 1	P	P	P	P	P
2.2.6.4.2	Test Case 2 – Initiate Unit-to-Unit Call from SU 5	P	P	P	P	P
2.2.7	**Encryption**					
2.2.7.4.1	Test Case 1 – Call Privacy for Encrypted Call	P	P	P	P	P
2.3.1	**Call Alert**					
2.3.1.4.1	Test Case 1 – Call Alert (SU 1 to SU 5)	P	P	P	P	P
2.3.1.4.2	Test Case 2 – Call Alert (SU 5 to SU 1)	P	P	P	P	P

Test Case	Description	DEF3500P78 Portable	CWX7300P Portable	AV100P Portable	TA3000M Mobile	FS2000P Portable
2.3.2	**Radio Check**					
2.3.2.4.1	Test Case 1 – Radio Check (SU 1 to SU 5)	P	P	P	P	P
2.3.2.4.2	Test Case 2 – Radio Check (SU 5 to SU 1)	P	P	P	P	P
2.3.3	**Message Update**					
2.3.3.4.1	Test Case 1 – Message Update (SU 1 to SU 5)	P	P	P	P	P
2.3.3.4.2	Test Case 2 – Message Update (SU 5 to SU 1)	P	P	P	P	P
2.3.4	**Status Update**					
2.3.4.4.1	Test Case 1 – Status Update (SU 1 to SU 5)	P	P	P	P	P
2.3.4.4.2	Test Case 2 – Status Update (SU 5 to SU 1)	P	P	P	P	P
2.3.5	**Status Query**					
2.3.5.4.1	Test Case 1 – Status Query (SU 1 to SU 5)	P	P	P	P	P
2.3.5.4.2	Test Case 2 – Status Query (SU 5 to SU 1)	P	P	P	P	P
2.3.6	**Radio Unit Monitor**					
2.3.6.4.1	Test Case 1 – Radio Unit Monitor Initiated by SU 1 – Group Call	P	P	P	P	P
2.3.6.4.2	Test Case 2 – Radio Unit Monitor Initiated by SU 5 – Group Call	P	P	P	P	P
2.3.6.4.3	Test Case 3 – Radio Unit Monitor Initiated by SU 1 – Unit-to-Unit Call	P	P	P	P	P
2.3.6.4.4	Test Case 4 – Radio Unit Monitor Initiated by SU 5 – Unit-to-Unit Call	P	P	P	P	P

INTEROPERABILITY TESTING (700 MHZ, 800 MHZ) – CONVENTIONAL: REPEAT MODE (SU-TO-FNE-TO-SU)

Test Identification	Product
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Conventional Repeat Mode Subscriber Unit Interoperability	SUBSCRIBER PRODUCT NAME HERE

Product	Detailed Test Report Identification
Wokytoky SkyNet SN100R Repeater	DTR-P25CAP081003-IC66129
AirTalky AT100R Repeater	DTR-P25CAP081003-IC48129
Speak Systems SS4R Repeater	DTR-P25CAP081003-IC58129
Wokytoky DEF3500P78 Portable	DTR-P25CAP081003-IC32430
ClearWaivier CWX7300P Portable	DTR-P25CAP081003-IC55430
AirVine AV100P Portable	DTR-P25CAP081003-IC66430
TalkAbout TA3000M Mobile	DTR-P25CAP081003-IC77430
Frank Systems FS2000P Portable	DTR-P25CAP081003-IC88430

Test Case	Description	SN100R Repeater	AT100R Repeater	SS4R Repeater	DEF3500P78 Portable	CWX7300P Portable	AV100P Portable	TA3000M Mobile	FS2000P Portable
2.4.1	**Matching NAC Operation and SU Unaddressed Voice Call**								
2.4.1.4.1	Test Case 1 – Matching NAC operation – Unaddressed Voice Call	P	P	P	P	P	P	P	P
2.4.2	**Matching NAC Operation – SU Routine Group Call Mode**								
2.4.2.4.1	Test Case 1 – Matching NAC – SU Routine Group Call Mode	P	P	P	P	P	P	P	P
2.4.3	**Transmit NAC Independent of Receive NAC – SU Unaddressed Voice Call**								
2.4.3.4.1	Test Case 1 – Independent NAC Operation – SU Unaddressed Voice Call	P	P	P	P	P	P	P	P

Test Case	Description	SN100R Repeater	AT100R Repeater	SS4R Repeater	DEF3500P78 Portable	CWX7300P Portable	AV100P Portable	TA3000M Mobile	FS2000P Portable
2.4.4	**Transmit NAC Independent of Receive NAC – SU Routine Group Call**								
2.4.4.4.1	Test Case 1 – Independent NAC Operation – SU Routine Group Call	P	P	P	P	P	P	P	P
2.4.5	**Any NAC ($F7F) Operation – SU Unaddressed Voice Call**								
2.4.5.4.1	Test Case 1 – NAC $F7F Operation – SU Unaddressed Voice Call	P	P	P	P	P	P	P	P
2.4.6	**Any NAC ($F7F) Operation – SU Routine Group Call**								
2.4.6.4.1	Test Case 1 – NAC $F7F Operation – SU Routine Group Call	P	P	P	P	P	P	P	P
2.4.7	**Any NAC ($F7F) Operation with Fixed Transmit NAC – SU Group Call**								
2.4.7.4.1	Test Case 1 – NAC $F7F Operation – SU Group Call	P	P	P	P	P	P	P	P
2.4.8	**Emergency Call**								
2.4.8.4.1	Test Case 1 – Emergency Call	P	P	P	P	P	P	P	P
2.4.9	**Monitor Mode – SU Group Call**								
2.4.9.4.1	Test Case 1 – Monitor Mode – Receiving Group Call	P	P	P	P	P	P	P	P
2.4.10	**Unit-to-Unit Voice Call**								
2.4.10.4.1	Test Case 1 – Initiate Unit-to-Unit Call from SU 1	P	P	P	P	P	P	P	P
2.4.10.4.2	Test Case 2 – Initiate Unit-to-Unit Call from SU 5	P	P	P	P	P	P	P	P
2.4.10.4.3	Test Case 3 – Initiate Unit-to-Unit Call from SU 1, No Co-Channel Interference Suppression	P	P	P	P	P	P	P	P
2.4.10.4.4	Test Case 4 – Initiate Unit-to-Unit Call from SU 5, No Co-Channel Interference Suppression	P	P	P	P	P	P	P	P

Test Case	Description	SN100R Repeater	AT100R Repeater	SS4R Repeater	DEF3500P78 Portable	CWX7300P Portable	AV100P Portable	TA3000M Mobile	FS2000P Portable
2.4.11	**Unit-to-Unit Voice Call Co-Channel Interference Suppression by FNE**								
2.4.11.4.1	Test Case 1 – Initiate Unit-to-Unit Call from SU 1	P	P	P	P	P	P	P	P
2.4.11.4.2	Test Case 2 – Initiate Unit-to-Unit Call from SU 5	P	P	P	P	P	P	P	P
2.4.12	**Unit-to-Unit Voice Call – Receiving Units Also in Monitor Mode**								
2.4.12.4.1	Test Case 1 – Initiate Unit-to-Unit Call from SU 1	P	P	P	P	P	P	P	P
2.4.12.4.2	Test Case 2 – Initiate Unit-to-Unit Call from SU 5	P	P	P	P	P	P	P	P
2.4.13	**Encryption**								
2.4.13.4.1	Test Case 1 – Call Privacy for Encrypted Call	P	P	P	P	P	P	P	P
2.4.14	**Accept Any NAC in Normal and Selective Squelch Mode – SU Group Call**								
2.4.14.4.1	Test Case 1 – Receiving group Call with receive NAC $F7F under Normal and Selective Squelch Modes	P	P	P	P	P	P	P	P
2.5.1	**Call Alert**								
2.5.1.4.1	Test Case 1 – Initiate Call Alert Request from SU 1	P	P	P	P	P	P	P	P
2.5.1.4.2	Test Case 2 – Initiate Call Alert Request from SU 5	P	P	P	P	P	P	P	P
2.5.2	**Radio Check**								P
2.5.2.4.1	Test Case 1 – Initiate Radio Check from SU 1	P	P	P	P	P	P	P	P
2.5.2.4.2	Test Case 2 – Initiate Radio Check from SU 5	P	P	P	P	P	P	P	P
2.5.3	**Message Update**								

Test Case	Description	SN100R Repeater	AT100R Repeater	SS4R Repeater	DEF3500P78 Portable	CWX7300P Portable	AV100P Portable	TA3000M Mobile	FS2000P Portable
2.5.3.4.1	Test Case 1 – Message Update Initiated by SU 1	P	P	P	P	P	P	P	P
2.5.3.4.2	Test Case 2 – Message Update Initiated by SU 5	P	P	P	P	P	P	P	P
2.5.3.4.3	Test Case 3 – SU 1 to Group Message Update	P	P	P	P	P	P	P	P
2.5.3.4.4	Test Case 4 – SU 5 to Group Message Update	P	P	P	P	P	P	P	P
2.5.4	**Status Update**								
2.5.4.4.1	Test Case 1 – Status Update Initiated by SU 1	P	P	P	P	P	P	P	P
2.5.4.4.2	Test Case 2 – Status Update Initiated by SU 5	P	P	P	P	P	P	P	P
2.5.4.4.3	Test Case 3 – SU to Talk Group Status Update Initiated by SU 1	P	P	P	P	P	P	P	P
2.5.4.4.4	Test Case 4 – SU to Talk Group Status Update Initiated by SU 5	P	P	P	P	P	P	P	P
2.5.5	**Status Query**								
2.5.5.4.1	Test Case 1 – Status Query Initiated by SU 1	P	P	P	P	P	P	P	P
2.5.5.4.2	Test Case 2 – Status Query Initiated by SU 5	P	P	P	P	P	P	P	P
2.5.6	**Radio Unit Monitor**								
2.5.6.4.1	Test Case 1 – Radio Unit Monitor Initiated by SU 1 – Group Call	P	P	P	P	P	P	P	P
2.5.6.4.2	Test Case 2 – Radio Unit Monitor Initiated by SU 5 – Group Call	P	P	P	P	P	P	P	P
2.5.6.4.3	Test Case 3 – Radio Unit Monitor Initiated by SU 1 – Unit-to-Unit Call	P	P	P	P	P	P	P	P
2.5.6.4.4	Test Case 4 – Radio Unit Monitor Initiated by SU 5 – Unit-to-Unit Call	P	P	P	P	P	P	P	P

INTEROPERABILITY TESTING (700 MHZ, 800 MHZ) – CONVENTIONAL FNE INCLUDES DISPATCH AND OTHER MONITORING CONSOLES (REPEAT MODE (SU-TO-FNE-TO-SU) OR DIRECT MODE)

Test Identification	Product
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Conventional Repeat Mode Subscriber Unit Interoperability	SUBSCRIBER PRODUCT NAME HERE

Product	Detailed Test Report Identification
AirTalky AT10C Console	DTR-P25CAP081003-ICON45
Wokytoky SkyNet Repeater	DTR-P25CAP081003-IC66129
AirTalky AT100R Repeater	DTR-P25CAP081003-IC48129
Speak Systems SS4R Repeater	DTR-P25CAP081003-IC58129
Wokytoky DEF3500P78 Portable	DTR-P25CAP081003-IC32430
ClearWaivier CWX7300P Portable	DTR-P25CAP081003-IC55430
AirVine AV100P Portable	DTR-P25CAP081003-IC66430
TalkAbout TA3000M Mobile	DTR-P25CAP081003-IC77430

Test Case	Description	AT10C Console	SN100R Repeater	AT100R Repeater	SS4R Repeater	DEF3500P78 Portable	CWX7300P Portable	TA3000M Mobile
2.6.1	**Unaddressed Voice Call**							
2.6.1.4.1	Test Case 1 – Unaddressed Voice Call	P	P	P	P	P	P	P
2.6.2	**Routine Group Call**							
2.6.2.4.1	Test Case 1 – Routine Group Call	P	P	P	P	P	P	P
2.6.3	**Emergency Call**							
2.6.3.4.1	Test Case 1 – Emergency Call from SU	P	P	P	P	P	P	P
2.6.3.4.2	Test Case 2 – Emergency Call from DMC	P	P	P	P	P	P	P
2.6.4	**All Call (System-Wide Call)**							
2.6.4.4.1	Initiate System-Wide Call to Collection of Talk Groups	P	P	P	P	P	P	P
2.6.5	**Unit-to-Unit Voice Call**							
2.6.5.4.1	Test Case 1 – Initiate Unit-to-Unit Call from DMC	P	P	P	P	P	P	P

Test Case	Description	AT10C Console	SN100R Repeater	AT100R Repeater	SS4R Repeater	DEF3500P78 Portable	CWX7300P Portable	TA3000M Mobile
2.6.5.4.2	Test Case 2 – Initiate Unit-to-Unit Call from SU 1	P	P	P	P	P	P	P
2.6.6	**Encryption**							
2.6.6.4.1	Test Case 1 – Call Privacy for Encrypted Call	P	P	P	P	P	P	P
2.7.1	**Emergency Alarm to Dispatch and/or other Monitoring Console**							
2.7.1.4.1	Test Case 1 – Emergency Alarm	P	P	P	P	P	P	P
2.7.2	**Call Alert**							
2.7.2.4.1	Test Case 1 – Initiate Call Alert Request from DMC	P	P	P	P	P	P	P
2.7.2.4.2	Test Case 2 – Initiate Call Alert Request from SU 1	P	P	P	P	P	P	P
2.7.3	**Radio Check**							
2.7.3.4.1	Test Case 1 – Initiate Radio Check from DMC	P	P	P	P	P	P	P
2.7.4	**Radio Unit Inhibit**							
2.7.4.4.1	Test Case 1 – Radio Unit Inhibit from DMC	P	P	P	P	P	P	P
2.7.5	**Radio Unit Uninhibit**							
2.7.5.4.1	Test Case 1 – Radio Unit Uninhibit from DMC	P	P	P	P	P	P	P
2.7.6	**Message Update**							
2.7.6.4.1	Test Case 1 – Message Update from DMC	P	P	P	P	P	P	P
2.7.6.4.2	Test Case 2 – DMC to Group Message Update	P	P	P	P	P	P	P
2.7.6.4.3	Test Case 3 – SU 1 to DMC Message Update	P	P	P	P	P	P	P
2.7.6.4.4	Test Case 4 – SU 1 to Group Message Update	P	P	P	P	P	P	P
2.7.7	**Status Update**							

Test Case	Description	AT10C Console	SN100R Repeater	AT100R Repeater	SS4R Repeater	DEF3500P78 Portable	CWX7300P Portable	TA3000M Mobile
2.7.7.4.1	Test Case 1 – Status Update from SU 1 to DMC	P	P	P	P	P	P	P
2.7.7.4.2	Test Case 2 – Talk Group Status Update Initiated by SU 1	P	P	P	P	P	P	P
2.7.8	**Status Query**							
2.7.8.4.1	Test Case 1 – Status Query Initiated by DMC	P	P	P	P	P	P	P
2.7.9	**Radio Unit Monitor**							
2.7.9.4.1	Test Case 1 – Radio Unit Monitor Initiated by DMC – Group Call	P	P	P	P	P	P	P
2.7.9.4.2	Test Case 2 – Radio Unit Monitor Initiated by DMC – Unit-to-Unit Call	P	P	P	P	P	P	P

INTEROPERABILITY TESTING (700 MHZ, 800 MHZ) – TRUNKED

Test Identification	Product
P25-CAB-CAI_TEST_REQ – August 2016, Section 2.1.3.3 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability	SUBSCRIBER PRODUCT NAME HERE

Product	Detailed Test Report Identification
Wokytoky SkyNet SN2000T Trunked Base Station	DTR-P25CAP081003-IC55120
AirTalky AT1000T Trunked Base Station	DTR-P25CAP081003-IC33430
Speak Systems SS4T Trunked Base Station	DTR-P25CAP081003-IC44430
AirVine AV100P Portable	DTR-P25CAP081002-IC66430
TalkAbout TA3000M Mobile	DTR-P25CAP081002-IC77430

Test Case	Description	SN2000T Trunking	AT1000T Trunking	SS4T Trunking	AV100P Portable	TA3000M Mobile
2.2.1	**Full Registration**					

Test Case	Description	SN2000T Trunking	AT1000T Trunking	SS4T Trunking	AV100P Portable	TA3000M Mobile
2.2.1.4.1	Test Case 1 – Valid Registration	P	P	P	P	P
2.2.1.4.2	Test Case 2 – Denied or Refused Registration	P	P	P	P	P
2.2.1.4.3	Test Case 3 – Unverified Registration	P	P	P	P	P
2.2.2	**Group Voice Call**					
2.2.2.4.1	Test Case 1 – Group Call Granted	P	P	P	P	P
2.2.2.4.2	Test Case 2 – Group Call Denied	P	P	P	P	P
2.2.2.4.3	Test Case 3 – Group Call Request Queued	P	P	P	P	P
2.2.3	**Unit-to-Unit Voice Call**					
2.2.3.4.1	Test Case 1 – Unit-to-Unit Call with Target Availability Check	P	P	P	P	P
2.2.3.4.2	Unit-to-Unit Call with Target Availability Test Case 2 – Check Denied by Target	P	P	P	P	P
2.2.3.4.3	Test Case 3 – Unit-to-Unit Call Queued with Target Availability Check – Traffic Channel Assignment After Target Availability Check	P	P	P	P	P
2.2.3.4.4	Test Case 4 – Unit-to-Unit Call Queued with Target Availability Check – Traffic Channel Assignment Before Target Availability Check	U	U	U	U	U
2.2.3.4.5	Test Case 5 – Unit-to-Unit Call without Target Availability Check	U	U	U	U	U
2.2.3.4.6	Test Case 6 – Unit-to-Unit Call Queued without Target Availability Check	P	P	P	P	P
2.2.3.4.7	Test Case 7 – Unit-to-Unit Call Denied	P	P	P	P	P
2.2.4	**Broadcast Voice Call**					
2.2.4.4.1	Test Case 1 – Broadcast Voice Call	P	P	P	P	P
2.2.5	**Affiliation**					
2.2.5.4.1	Test Case 1 – Radio Permitted to Affiliate with New Group	P	P	P	P	P

Test Case	Description	SN2000T Trunking	AT1000T Trunking	SS4T Trunking	AV100P Portable	TA3000M Mobile
2.2.5.4.2	Test Case 2 – Radio Denied Affiliation to New Group	P	P	P	P	P
2.2.6	**Announcement Group Call**					
2.2.6.4.1	Test Case 1 – Collection of Talk Groups Receive Call	P	P	P	P	P
2.2.7	**Emergency Alarm**					
2.2.7.4.1	Test Case 1 – Emergency Alarm[5]	P	P	P	P	P
2.2.8	**Emergency Group Call**					
2.2.8.4.1	Test Case 1 – Emergency Call[5]	P	P	P	P	P
2.2.10	**Encryption**					
2.2.10.4.1	Test Case 1 – Call Privacy for Encrypted Call[5]	P	P	P	P	P
2.2.11	**Intra-Location Registration Area Roaming**					
2.2.11.4.1	Test Case 1 – Idle Radio	P	P	P	P	P

MODEL CLASS DEFINITIONS – DEVICE UNDER TEST

Model Class: Wokytoky ABC Subscriber

Model Class	Sub-Class	Installed Options
ABC Subscriber	ABC2000M Mobile	See Sub-Class for ABC2000M
ABC Subscriber	ABC2500P Portable	See Sub-Class for ABC2500P

Model Sub-Class: Wokytoky ABC2000MB, ABC2000MU, ABC2000MV, ABC2000M78 Mobile Subscriber

Product Name, Definition, Firmware	Installed Options
ABC2000MB Multiband Mobile Firmware: R1 thru R4	Options: Trunking, Encryption
ABC2000MU UHF Mobile Firmware: R1 thru R4	Options: Trunking, Encryption
ABC2000MV VHF Mobile Firmware: R1 thru R4	Options: Trunking, Encryption

Product Name, Definition, Firmware	Installed Options
ABC2000M78 700/800 MHz Mobile Firmware: R1 thru R4	Options: Trunking, Encryption

Model Sub-Class: Wokytoky ABC2500PMB, ABC2500PU, ABC2500PV, ABC2500P78 Portable Subscriber

Product Name, Definition, Firmware	Installed Options
ABC2500PMB Multiband Portable Firmware: R1 thru R4	Options: Trunking, Encryption
ABC2500PU UHF Portable Firmware: R1 thru R4	Options: Trunking, Encryption
ABC2500PV VHF Portable Firmware: R1 thru R4	Options: Trunking, Encryption
ABC2500P78 700/800 MHz Portable Firmware: R1 thru R4	Options: Trunking, Encryption

MODEL CLASS DEFINITIONS – OTHER DEVICES TESTED FOR INTEROPERABILITY

Other devices tested with PRODUCT NAME HERE.

Model Class: Wokytoky DEF Subscriber

Model Class	Sub-Class	Installed Options
DEF Subscriber	DEF3000M Mobile	See Sub-Class for DEF3000M
DEF Subscriber	DEF3500P Portable	See Sub-Class for DEF3500P

Model Sub-Class: Wokytoky DEF3000MMB, DEF3000MU, DEF3000MV, DEF3000M78 Mobile Subscriber

Product Name, Definition, Firmware	Installed Options
DEF3000MMB Multiband Mobile Firmware: R1 thru R4	Trunking, Encryption
DEF3000MU UHF Mobile Firmware: R1 thru R4	Trunking, Encryption
DEF3000MV VHF Mobile Firmware: R1 thru R4	Options: Trunking, Encryption
DEF3000M78 700/800 MHz Mobile Firmware: R1 thru R4	Options: Trunking, Encryption

Model Sub-Class: Wokytoky DEF3500PMB, DEF3500PU, DEF3500PV, DEF3500P78 Portable Subscriber

Product Name, Definition, Firmware	Installed Options
DEF3500PMB Multiband Mobile Firmware: R1 thru R4	Trunking, Encryption
DEF3500PU UHF Mobile Firmware: R1 thru R4	Trunking, Encryption
DEF3500PV VHF Mobile Firmware: R1 thru R4	Options: Trunking, Encryption
DEF3500P78 700/800 MHz Mobile Firmware: R1 thru R4	Options: Trunking, Encryption

Model Sub-Class: Wokytoky DEF3500PMB Multiband 700/800 MHz, UHF, VHF Portable Subscriber

Product Name, Definition, Firmware	Installed Options
DEF3500PFB Multiband Portable Firmware: R1 thru R4	Trunking, Encryption

Model Class: Wokytoky SkyNet Base Station

Product Name	Installed Options
Wokytoky SkyNet Trunked Base Station	Release 5.10
Wokytoky SkyNet Trunked Base Station	Release 5.11
Wokytoky SkyNet Trunked Base Station	Release 5.12

REPORT KEY

Notation	Test Case Result Definition
---	No Test Performed
U	Test examines functionality the Test Object does not support
P (Pass)	Test Object Meets Requirements
F (Fail)	Test Object Does Not Meet Requirements
I (Inconclusive)	Test Object is Not Conclusive
N/R (No Requirement)	Test object operates at a level for which there is no requirement. For example, see Footnote 6.

Comments
N1: Add information here for a “Note”.
N2: Add information here for a second “Note”.
U1: Add information here for an “Unsupported” test.
U2: Add information here for a second “Unsupported” test.
P1: Add information here for a “Pass” verdict that requires elaboration.
P2: Add information here for a second “Pass” verdict that requires elaboration.
F1: Add information here for a “Fail” verdict that requires elaboration.
F2: Add information here for a second “Fail” verdict that requires elaboration.
I1: Add information here for an “Inconclusive” verdict that requires elaboration.
I2: Add information here for a second “Inconclusive” verdict that requires elaboration.
NR1: 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 t_1 and t_3, may be greater than ±12.5 kHz. Add information here for a “No Requirement” designation.
NR2: 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 t_1 and t_3, may be greater than ±12.5 kHz. Add information here for a second “No Requirement” designation.

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BURDEN STATEMENT

OMB NO: 6040-0015

EXPIRATION DATE: 9/8/2016

An agency may not conduct or sponsor information collection and a person is not required to respond to this information collection unless it displays a current valid Office of Management and Budget control number and expiration date. The control number for this collection is 6040-0015 and this form will expire on 9/8/2016. The estimated average time to complete this form is 60 minutes per respondent. If you have any comments regarding the burden estimate, you can write to the U.S. Department of Homeland Security, Science and Technology Directorate, Washington, DC 20528.

DHS FORM 10056 – June 2009