Project 25 Compliance Assessment Program

Summary Test Report

TP9100 series Portable Radio

STR-TAI-TP9100-20111221

Test Item Description	
Manufacturer	Tait Radio Communications
Manufacturer Contact	Scott Quintavalle – (281) 829- 3300
Product Name	Tait Radio Communications TP9100 Series Portable Radio
Installed Options	Hardware options TPAB1 136-174 MHz, TPAH4 380-420 MHz, TPAH5 400-470MHz, TPAH6 450-530 MHz, TPAK5 762-870 MHz ; Firmware version 7.7
Installed Vocoder	Baseline with System Improvements

Test Description
P25-CAB-CAI_TEST-REQ – March 2010, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance, Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Performance and Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability.

Laboratory Information	
P25 CAP Laboratory Code	P25CAP081015, Tait Electronics Ltd Teltest Laboratories. P25CAP081016, Timco Engineering Incorporated.
Date(s) of Test **Date of Issue**	2 June 2009 to 18 August 2009: DTR P25CAP081015-2986 20 August 2009
Date(s) of Test **Date of Issue**	9 June 2009 to 11 September 2009: DTR P25CAP081015-2988 25 September 2009
Date(s) of Test **Date of Issue**	6 Ooctober 2009 to 10 November 2011: DTR P25CAP081015-2995A 13 December 2011
Date(s) of Test **Date of Issue**	26 November 2009 to 17 December 2009: DTR P25CAP081015-2998 21 December 2009
Date(s) of Test **Date of Issue**	26 November 2009 to 17 December 2009: DTR P25CAP081015-3000 13 January 2010
Date(s) of Test **Date of Issue**	10 November 2011: DTR TIMCO081016-TP9100 2509UT11 21 November 2011
Date(s) of Test **Date of Issue**	10 November 2011: DTR P25CAP081015-3313 22 November 2011
Date(s) of Test **Date of Issue**	10 November 2011: DTR TIMCO081016-TP/TM9100 2834UT11 21 November 2011

Informative References	
Date	**Title**
March 2010	P25-CAB-CAI_TEST_REQ

Other Devices Tested with Tait Radio Communications TPAB1		
Manufacturer and Point of Contact	**Product Name and Definition**	**Installed Options**
Tait Radio Communications Scott Quintavalle – (281) 829- 3300	Taitnet P25 Infrastructure Base Station/Repeater	**Hardware:** TBAH0 **Software:** 3.35
	EADS COR P25	**Software** v11_5
Motorola Inc Julie Jagoda - (847) 576-2022	Astro 25 Version 7.11 Base Station/Repeater	Release 7.11
PowerTrunk Inc. Lorena Martin – (212) 222 4971	PowerTrunk25 Base Station/Repeater	Ver. 9.4.52

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance		**DTR-P25CAP081015-2986** **DTR-P25CAP081015-2988** **DTR-P25CAP081015-2995A** **DTR-P25CAP081015-2998** **DTR-P25CAP081015-3000**	
RECEIVER TESTS 136-174 MHz, 380-420 MHz, 400-470 MHz, 450-530 MHz, 762-870 MHz.			
Test Case	**Description**	**Requirement**	**Results**
2.1.4	**Reference Sensitivity**	**≤ -116 dBm (Class A)**	P1
2.1.5	**Faded Reference Sensitivity**	**≤ -108 dBm (Class A)**	P1
2.1.6	**Signal Delay Spread Capability**	**≥ 50 µs**	P1
2.1.7	**Adjacent Channel Rejection**	**≥ 60 dB (Class A)**	P1
2.1.8	**Co-Channel Rejection**	**≤ 9 dB**	P
2.1.9	**Spurious Response Rejection**	**≥ 70 dB (Class A)**	P
2.1.10	**Intermodulation Rejection**	**≥ 70 dB (Class A)**	P
2.1.11	**Signal Displacement Bandwidth**	**≥ 1000 Hz**	P
2.1.17	**Late Entry Unsquelch Delay**		
	No Talk Group or Encryption	**≤ 125 ms**	P
	Talk Group Only	**≤ 370 ms**	P
	Encryption Only	**≤ 370 ms**	P
	Both (on clear or encrypted channel)	**≤ 460 ms**	P
2.1.18	**Receiver Throughput Delay**	**≤ 125 ms**	P

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance		**DTR-P25CAP081015-2986**	
TRANSMITTER TESTS 136-174 MHz			
Test Case	**Description**	**Requirement**	**Results**
2.2.8	**Unwanted Emissions: Adjacent Channel Power Ratio**	**≥67dB**	P
2.2.12	**Transmitter Power and Encoder Attack Time**		
	Transmitter Attack Time	**≤ 50 ms**	P
	Encoder Attack Time	**≤ 100 ms**	P
2.2.14	**Transmitter Throughput Delay**	**≤ 125 ms**	P
2.2.15	**Frequency Deviation for C4FM**		
	High-Level Signal Deviation	**$2544 \leq f_{dev} \leq 3111$ Hz**	P
	Low-Level Signal Deviation	**$848 \leq f_{dev} \leq 1037$ Hz**	P
2.2.16	**Modulation Fidelity**	**≤ 5% (Class A)**	P
2.2.18	**Transient Frequency Behavior**		
	Time Interval t_1 = 5 ms	**$\lvert\Delta f\rvert \leq 12.5$ kHz**	P
	Time Interval t_2 = 20 ms	**$\lvert\Delta f\rvert \leq 6.25$ kHz**	P
	Time Interval t_3 = 5 ms	**$\lvert\Delta f\rvert \leq 12.5$ kHz**	P

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance		**DTR-P25CAP081015-2988** **DTR-P25CAP081015-2998** **DTR-P25CAP081015-3000**	
TRANSMITTER TESTS 380-420 MHz, 400-470 MHz, 450-530 MHz.			
Test Case	**Description**	**Requirement**	**Results**
2.2.8	**Unwanted Emissions: Adjacent Channel Power Ratio**	**≥67dB**	P
2.2.12	**Transmitter Power and Encoder Attack Time**		
	Transmitter Attack Time	**≤ 50 ms**	P
	Encoder Attack Time	**≤ 100 ms**	P
2.2.14	**Transmitter Throughput Delay**	**≤ 125 ms**	P
2.2.15	**Frequency Deviation for C4FM**		
	High-Level Signal Deviation	**$2544 \leq f_{dev} \leq 3111$ Hz**	P
	Low-Level Signal Deviation	**$848 \leq f_{dev} \leq 1037$ Hz**	P
2.2.16	**Modulation Fidelity**	**≤ 5% (Class A)**	P
2.2.18	**Transient Frequency Behavior**		
	Time Interval t_1 = 10 ms	**$\lvert\Delta f\rvert \leq 12.5$ kHz**	P
	Time Interval t_2 = 25 ms	**$\lvert\Delta f\rvert \leq 6.25$ kHz**	P
	Time Interval t_3 = 10 ms	**$\lvert\Delta f\rvert \leq 12.5$ kHz**	P

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance		**DTR-P25CAP081015-2995A**	
TRANSMITTER TESTS 762-870 MHz – 700 MHz band			
Test Case	**Description**	**Requirement**	**Results**
2.2.8	**Unwanted Emissions: Non-Spurious Adjacent Channel Power Ratio**		
	Offset from centre frequency (kHz)	**ACPR (dB)**	
	9.375	**40**	P
	15.625, 21.875, 37.5	**60**	P
	62.5, 87.5, 150, 250, 350	**65**	P
	>400 kHz to 12 MHz, 12 MHz to paired RX Band	**75**	P
	In the paired RX Band	**100**	P
2.2.12	**Transmitter Power and Encoder Attack Time**		
	Transmitter Attack Time	**≤ 50 ms**	P
	Encoder Attack Time	**≤ 100 ms**	P
2.2.14	**Transmitter Throughput Delay**	**≤ 125 ms**	P
2.2.15	**Frequency Deviation for C4FM**		
	High-Level Signal Deviation	**$2544 \leq f_{dev} \leq 3111$ Hz**	P
	Low-Level Signal Deviation	**$848 \leq f_{dev} \leq 1037$ Hz**	P
2.2.16	**Modulation Fidelity**	**≤ 5% (Class A)**	P
2.2.18	**Transient Frequency Behavior**		
	Time Interval t_1 = 20 ms	**$\lvert\Delta f\rvert \leq 12.5$ kHz**	P
	Time Interval t_2 = 50 ms	**$\lvert\Delta f\rvert \leq 6.25$ kHz**	P
	Time Interval t_3 = 10 ms	**$\lvert\Delta f\rvert \leq 12.5$ kHz**	P

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance		**DTR-P25CAP081015-2995A**	
TRANSMITTER TESTS 762-870 MHz – 800 MHz band			
Test Case	**Description**	**Requirement**	**Results**
2.2.8	**Unwanted Emissions: Adjacent Channel Power Ratio**	**≥67dB**	P
2.2.12	**Transmitter Power and Encoder Attack Time**		
	Transmitter Attack Time	**≤ 50 ms**	P
	Encoder Attack Time	**≤ 100 ms**	P
2.2.14	**Transmitter Throughput Delay**	**≤ 125 ms**	P
2.2.15	**Frequency Deviation for C4FM**		
	High-Level Signal Deviation	**2544 ≤ f_{dev} ≤ 3111 Hz**	P
	Low-Level Signal Deviation	**848 ≤ f_{dev} ≤ 1037 Hz**	P
2.2.16	**Modulation Fidelity**	**≤ 5% (Class A)**	P
2.2.18	**Transient Frequency Behavior**		
	Time Interval t_1 = 20 ms	**|Δf| ≤ 12.5 kHz**	P
	Time Interval t_2 = 50 ms	**|Δf| ≤ 6.25 kHz**	P
	Time Interval t_3 = 10 ms	**|Δf| ≤ 12.5 kHz**	P

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunking Mode Subscriber Unit Performance		**DTR-P25CAP081015-2986** **DTR-P25CAP081015-2988** **DTR-P25CAP081015-2995A** **DTR-P25CAP081015-2998** **DTR-P25CAP081015-3000**	
RECEIVER TESTS 136-174 MHz, 380-420 MHz, 400-470 MHz, 450-530 MHz, 762-870 MHz.			
Test Case	**Description**	**Requirement**	**Results**
2.1.4	**Reference Sensitivity**	**≤ -116 dBm (Class A)**	P1
2.1.5	**Faded Reference Sensitivity**	**≤ -108 dBm (Class A)**	P1
2.1.6	**Signal Delay Spread Capability**	**≥ 50 µs**	P1
2.1.7	**Adjacent Channel Rejection**	**≥ 60 dB (Class A)**	P1
2.1.8	**Co-Channel Rejection**	**≤ 9 dB**	P
2.1.9	**Spurious Response Rejection**	**≥ 70 dB (Class A)**	P
2.1.10	**Intermodulation Rejection**	**≥ 70 dB (Class A)**	P
2.1.11	**Signal Displacement Bandwidth**	**≥ 1000 Hz**	P

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunking Mode Subscriber Unit Performance		**DTR-P25CAP081015-2986**	
TRANSMITTER TESTS 136-174 MHz			
Test Case	**Description**	**Requirement**	**Results**
2.2.8	**Unwanted Emissions: Adjacent Channel Power Ratio**	**≥67dB**	P
2.2.12	**Transmitter Power and Encoder Attack Time**		
	Transmitter Attack Time	**≤ 50 ms**	P
	Encoder Attack Time	**≤ 100 ms**	P
2.2.14	**Transmitter Throughput Delay**	**≤ 125 ms**	P
2.2.15	**Frequency Deviation for C4FM**		
	High-Level Signal Deviation	**2544 ≤ f_{dev} ≤ 3111 Hz**	P
	Low-Level Signal Deviation	**848 ≤ f_{dev} ≤ 1037 Hz**	P
2.2.16	**Modulation Fidelity**	**≤ 5% (Class A)**	P
2.2.18	**Transient Frequency Behavior**		
	Time Interval t_1 = 5 ms	**|Δf| ≤ 12.5 kHz**	P
	Time Interval t_2 = 20 ms	**|Δf| ≤ 6.25 kHz**	P
	Time Interval t_3 = 5 ms	**|Δf| ≤ 12.5 kHz**	P

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunking Mode Subscriber Unit Performance		**DTR-P25CAP081015-2988** **DTR-P25CAP081015-2998** **DTR-P25CAP081015-3000**	
TRANSMITTER TESTS 380-420 MHz, 400-470 MHz, 450-530 MHz.			
Test Case	**Description**	**Requirement**	**Results**
2.2.8	**Unwanted Emissions: Adjacent Channel Power Ratio**	**≥67dB**	P
2.2.12	**Transmitter Power and Encoder Attack Time**		
	Transmitter Attack Time	**≤ 50 ms**	P
	Encoder Attack Time	**≤ 100 ms**	P
2.2.14	**Transmitter Throughput Delay**	**≤ 125 ms**	P
2.2.15	**Frequency Deviation for C4FM**		
	High-Level Signal Deviation	**2544 ≤ f_{dev} ≤ 3111 Hz**	P
	Low-Level Signal Deviation	**848 ≤ f_{dev} ≤ 1037 Hz**	P
2.2.16	**Modulation Fidelity**	**≤ 5% (Class A)**	P
2.2.18	**Transient Frequency Behavior**		
	Time Interval t_1 = 10 ms	**|Δf| ≤ 12.5 kHz**	P
	Time Interval t_2 = 25 ms	**|Δf| ≤ 6.25 kHz**	P
	Time Interval t_3 = 10 ms	**|Δf| ≤ 12.5 kHz**	P

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunking Mode Subscriber Unit Performance		**DTR-P25CAP081015-2995A**	
TRANSMITTER TESTS 762-870 MHz – 700 MHz band			
Test Case	**Description**	**Requirement**	**Results**
2.2.8	**Unwanted Emissions: Non-Spurious Adjacent Channel Power Ratio**		
	Offset from centre frequency (kHz)	**ACPR (dB)**	
	9.375	**40**	P
	15.625, 21.875, 37.5	**60**	P
	62.5, 87.5, 150, 250, 350	**65**	P
	>400 kHz to 12 MHz, 12 MHz to paired RX Band	**75**	P
	In the paired RX Band	**100**	P
2.2.12	**Transmitter Power and Encoder Attack Time**		
	Transmitter Attack Time	**≤ 50 ms**	P
	Encoder Attack Time	**≤ 100 ms**	P
2.2.14	**Transmitter Throughput Delay**	**≤ 125 ms**	P
2.2.15	**Frequency Deviation for C4FM**		
	High-Level Signal Deviation	**$2544 \leq f_{dev} \leq 3111$ Hz**	P
	Low-Level Signal Deviation	**$848 \leq f_{dev} \leq 1037$ Hz**	P
2.2.16	**Modulation Fidelity**	**≤ 5% (Class A)**	P
2.2.18	**Transient Frequency Behavior**		
	Time Interval t_1 = 20 ms	**$\lvert\Delta f\rvert \leq 12.5$ kHz**	P
	Time Interval t_2 = 50 ms	**$\lvert\Delta f\rvert \leq 6.25$ kHz**	P
	Time Interval t_3 = 10 ms	**$\lvert\Delta f\rvert \leq 12.5$ kHz**	P

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunking Mode Subscriber Unit Performance		**DTR-P25CAP081015-2995A**	
TRANSMITTER TESTS 762-870 MHz – 800 MHz band			
Test Case	**Description**	**Requirement**	**Results**
2.2.8	**Unwanted Emissions: Adjacent Channel Power Ratio**	**≥67dB**	P
2.2.12	**Transmitter Power and Encoder Attack Time**		
	Transmitter Attack Time	**≤ 50 ms**	P
	Encoder Attack Time	**≤ 100 ms**	P
2.2.14	**Transmitter Throughput Delay**	**≤ 125 ms**	P
2.2.15	**Frequency Deviation for C4FM**		
	High-Level Signal Deviation	**$2544 \leq f_{dev} \leq 3111$ Hz**	P
	Low-Level Signal Deviation	**$848 \leq f_{dev} \leq 1037$ Hz**	P
2.2.16	**Modulation Fidelity**	**≤ 5% (Class A)**	P
2.2.18	**Transient Frequency Behavior**		
	Time Interval t_1 = 20 ms	**$\lvert\Delta f\rvert \leq 12.5$ kHz**	P
	Time Interval t_2 = 50 ms	**$\lvert\Delta f\rvert \leq 6.25$ kHz**	P
	Time Interval t_3 = 10 ms	**$\lvert\Delta f\rvert \leq 12.5$ kHz**	P

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunking Mode Subscriber Unit Performance		**DTR-P25CAP081015-2986** **DTR-P25CAP081015-2988** **DTR-P25CAP081015-2995A** **DTR-P25CAP081015-2998** **DTR-P25CAP081015-3000**	
SUBSCRIBER UNIT TESTS 136-174 MHz, 380-420 MHz, 400-470 MHz, 450-530 MHz, 762-870 MHz.			
Test Case	**Description**	**Requirement**	**Results**
2.3.1	**Trunking Control Channel Slot Times, 45 ms Slot**		
	Encode Attack Time	**≤11.65 ms**	P
		≥2.00 ms	P
	RF Power Attack Time	**≤11.65 ms**	P
		≥0.00 ms	P
	RF Power Turn Off Time	**≤1.57 ms**	P
2.3.2	**Trunking Request Time 45 ms Slot**	**≤167.5 ms**	P
2.3.3	**Trunking Voice Access Time**	**450 ms**	P
2.3.5	**Transmitter Time to Key on a Traffic Channel**		
	Transmitter Time to Key on a Traffic Channel	**Short Channel Form ≤150 ms**	P
		Explicit Channel Form ≤171.1 ms	P
	Encoder Transmit Time	**Short Channel Form ≤150 ms**	P
		Explicit Channel Form ≤171.1 ms	P

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability		**TIMCO081016-TP9100 2509UT11**	**DTR-P25CAP081015-3313**	**TIMCO081016-TP/TM9100 2834UT11**
Tait Radio Communications TP9100 136-174 MHz, 380-420 MHz, 400-470 MHz, 450-530 MHz, 762-870 MHz.		Motorola Astro P25	Taitnet/EADS COR P25 Infrastructure	PowerTrunk25
Test Case	**Description**			
2.2.1				
2.2.1.4.1	Test Case 1 – Valid Registration			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.1.4.2	Test Case 2 – Denied or Refused Registration			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.1.4.3	Test Case 3 – Unverified Registration			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.2				
2.2.2.4.1	Test Case 1 – Unit-to-Unit Call Queued without Target Availability Check			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.2.4.2	Test Case 2 – Unit-to-Unit Call Denied			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability		**TIMCO081016-TP9100 2509UT11**	**DTR-P25CAP081015-3313**	**TIMCO081016-TP/TM9100 2834UT11**
Tait Radio Communications TP9100 136-174 MHz, 380-420 MHz, 400-470 MHz, 450-530 MHz, 762-870 MHz.		Motorola Astro P25	Taitnet/EADS COR P25 Infrastructure	PowerTrunk25
Test Case	**Description**			
2.2.2.4.3	Test Case 3 – Group Call Request Queued			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.3				
2.2.3.4.1	Test Case 1 – Unit-to-Unit Call with Target Availability Check			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.3.4.2	Test Case 2 – Unit-to-Unit Call with Target Availability Check Denied by Target			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.3.4.3	Test Case 3 – Unit-to-Unit Call Queued with Target Availability Check - traffic channel assignment after target availability check			
	Home	P	N/A2	N/A3
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability		**TIMCO081016-TP9100 2509UT11**	**DTR-P25CAP081015-3313**	**TIMCO081016-TP/TM9100 2834UT11**
Tait Radio Communications TP9100 136-174 MHz, 380-420 MHz, 400-470 MHz, 450-530 MHz, 762-870 MHz.		Motorola Astro P25	Taitnet/EADS COR P25 Infrastructure	PowerTrunk25
Test Case	**Description**			
2.2.3.4.4	Test Case 4 – Unit-to-Unit Call Queued with Target Availability Check - traffic channel assignment before target availability check			
	Home	N/A1	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.3.4.5	Test Case 5 – Unit-to-Unit Call without Target Availability Check			
	Home	N2	N3	N4
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.3.4.6	Test Case 6 – Unit-to-Unit Call queued without target availability check			
	Home	P	N3	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.3.4.7	Test Case 7 – Unit to Unit call denied			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.4				
2.2.4.4.1	Test Case 1 – Broadcast Voice Call			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability		**TIMCO081016-TP9100 2509UT11**	**DTR-P25CAP081015-3313**	**TIMCO081016-TP/TM9100 2834UT11**
Tait Radio Communications TP9100 136-174 MHz, 380-420 MHz, 400-470 MHz, 450-530 MHz, 762-870 MHz.		Motorola Astro P25	Taitnet/EADS COR P25 Infrastructure	PowerTrunk25
Test Case	**Description**			
2.2.5				
2.2.5.4.1	Test Case 1 – Radio Permitted To Affiliate With New Group			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.5.4.2	Test Case 2 – Radio Denied Affiliation To New Group			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.6				
2.2.6.4.1	Test Case 1 – Collection Of Talk Groups Receive Call			
	Home	P	P	N5
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.7				
2.2.7.4.1	Test Case 1 – Emergency Alarm			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability		**TIMCO081016-TP9100 2509UT11**	**DTR-P25CAP081015-3313**	**TIMCO081016-TP/TM9100 2834UT11**
Tait Radio Communications TP9100 136-174 MHz, 380-420 MHz, 400-470 MHz, 450-530 MHz, 762-870 MHz.		Motorola Astro P25	Taitnet/EADS COR P25 Infrastructure	PowerTrunk25
Test Case	**Description**			
2.2.8				
2.2.8.4.1	Test Case 1 – Emergency Call			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.10				
2.2.10.4.1	Test Case 1 – Call Privacy for Encrypted Call			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1
2.2.11				
2.2.11.4.1	Test Case 1 – Idle Radio			
	Home	P	P	P
	Inter-System Roaming configuration	N1	N1	N1
	Inter-WACN Roaming configuration	N1	N1	N1

Base Station/Repeater Units Tested		
Manufacturer and Point of Contact	**Product Name and Definition**	**Installed Options**
Tait Radio Communications Scott Quintavelle – (281) 829- 3300	Taitnet P25 Infrastructure Base Station/Repeater	**Hardware:** TBAH0 **Software:** 3.35
	EADS COR P25	**Software** v11_05
Motorola Inc Julie Jagoda - (847) 576-2022	Astro 25 Version 7.11 Base Station/Repeater	Release 7.11
PowerTrunk Inc. Lorena Martin - +1 212 222 4971	PowerTrunk25 Base Station/Repeater	Ver. 9.4.52

Model Class Definition		**Applied to: P25-CAB-CAI_TEST_REQ March 2010 Section 2.1.1.1, 2.1.1.2 and 2.1.3.2.**
Model Class Name	**Product Name, Definition, Unique ID**	**Installed Options**
Tait Model Class TP9100	TPAB1 Portable SN 21056419	**Hardware:** TPAB1 136-174 MHz **Software:** 7.7
	TPAH4 Portable SN 21056443	**Hardware:** TPAH0 380-420 MHz **Software:** 7.7
	TPAH5 Portable SN 21054476	**Hardware:** TPAH0 400-470 MHz **Software:** 7.7
	TPAH6 Portable SN 21033433	**Hardware:** TPAH0 450-530 MHz **Software:** 7.7
	TPAK5 Portable SN 21056441	**Hardware:** TPAK5 762-870 MHz **Software:** 7.7

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 Inconclusive	I (Inconclusive)

Comments
P1: Passes with Standard Modulation only except for TPAK5, which supports LSM.
N1: Inter-System Roaming configuration and Inter-WACN Roaming configuration are not supported by Tait Radio Communications TM9100, Taitnet/EADS COR P25 Infrastructure, PowerTrunk25, and Motorola Astro P25.
N2: Test case 2.2.3.4.5 is not supported by Tait Radio Communications TM9100 and Motorola Astro P25.
N3: Test cases 2.2.3.4.5 and 2.2.3.4.6 are not supported by Tait Radio Communications TM9100 and Taitnet/EADS CORP25 Infrastructure.
N4: Test cases 2.2.3.4.5 is not supported by Tait Radio Communications TM9100 and PowerTrunk25 Infrastructure.
N5: Test cases 2.2.6.4.1 is not supported by PowerTrunk25 Infrastructure.
N/A1: Test case 2.2.3.4.4 is not applicable for Motorola Astro P25, see results of test case 2.2.3.4.3.
N/A2: Test case 2.2.3.4.3 is not applicable for Taitnet/EADS COR P25 Infrastructure; see results of test case 2.2.3.4.4.
N/A3: Test case 2.2.3.4.3 is not applicable for PowerTrunk25 Infrastructure; see results of test case 2.2.3.4.4.

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, REGARDINGTHE 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: 07/31/2015

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 07/31/2015. 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