

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

Test Item Description	
Manufacturer	<i>Harris Corp</i>
Manufacturer Contact	<i>David Prather 434-455-6742</i>
Product Name	<i>Harris Unity XG-100P portable subscriber</i>
Installed Options	<i>XGPR02A firmware</i>
Installed Vocoder	<i>Enhanced Full Rate with system improvements</i>

Test Description
<i>P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance</i>
<i>P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Performance</i>
<i>P25-CAB-CAI_TEST_REQ - March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability</i>

Laboratory Information (Performance)	
P25 CAP Laboratory Code	<i>Harris Corp P25CAP081017</i>
Date(s) of Test	<i>May 30, 2014</i>
Date of Issue	<i>May 30, 2014</i>

Laboratory Information	
P25 CAP Laboratory Code	<i>Harris Corp P25CAP081017</i>
Date(s) of Test	<i>September 9, 2013</i>
Date of Issue	<i>May 1, 2014</i>

Laboratory Information	
P25 CAP Laboratory Code	<i>EF Johnson Technologies P25CAP081010</i>
Date(s) of Test	<i>August 8, 2013</i>
Date of Issue	<i>September 5, 2013</i>

Laboratory Information	
P25 CAP Laboratory Code	<i>Timco Engineering P25CAPTIMCO081016</i>
Date(s) of Test	<i>October 18, 2013; October 18, 2013</i>
Date of Issue	<i>October 22, 2013; October 23, 2013</i>

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

Informative References	
Date	Title
<i>March 2010</i>	<i>P25-CAB-CAI_TEST_REQ</i>

Other Devices Tested with Harris Unity XG-100P		
Manufacturer	Product Name, Definition, and unique ID	Installed Options
<i>Harris</i>	<i>MASTR V Subsystem Serial #s: 8529055, 8527186, 8527187, 8527188, 8090080, 8529054, 8527183, 8527184, 8527185</i>	<i>SR10A</i>
<i>EF Johnson Technologies</i>	<i>3800 Trunking Repeater Base Station</i>	<i>Rel 1.1.1-5</i>
<i>Tait</i>	<i>TN9400</i>	<i>V 1.40</i>
<i>Tait/Cassidian</i>	<i>Tait Cassidian P25 Core Network</i>	<i>EADS P25V11_06 E22</i>

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

Performance Testing

P25-CAB-CAI_TEST_REQ – March 2010 , Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance		DTR-P25CAP081017-2140530H Unity XG-100P	
RECEIVER TESTS- VHF, UHF, 700MHz, & 800MHz (P25 Conventional Mode)			
Test Case	Description	Requirement	Results
2.1.4	Reference Sensitivity	≤ -116 dBm	P1
2.1.5	Faded Reference Sensitivity (8 & 100 km/h)	≤ -108 dBm	P1
2.1.6	Signal Delay Spread Capability	≥ 50 us	P1
2.1.7	Adjacent Channel Rejection	≥ 60 dB	P1
2.1.8	Co-Channel Rejection	≤ 9 dB	P
2.1.9	Spurious Response Rejection	≥ 70 dB	P
2.1.10	Intermodulation Rejection	≥ 70 dB	P
2.1.11	Signal Displacement Bandwidth	≥ 1000 Hz	P
2.1.17	Late Entry Unsilence Delay (No talk group or encryption)	≤ 125 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-P25CAP081017-2140530H Unity XG-100P	
TRANSMITTER TESTS- 800MHz (P25 Conventional Mode)			
Test Case	Description	Requirement	Results
2.2.8	Unwanted Emissions: Adjacent Power Ratio	≥ 67 dB	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	$2544 < f_{dev} \leq 3111$ Hz	P
	Low Level Signal Deviation	$848 < f_{dev} \leq 1037$ Hz	P
2.2.16	Modulation Fidelity	$\leq 5\%$	P
2.2.18	Transient Frequency Behavior		
	Time Interval $t_1 = 20$ ms	$ \Delta f \leq 12.5$ KHz	P2
	Time Interval $t_2 = 50$ ms	$ \Delta f \leq 6.25$ KHz	P
	Time Interval $t_3 = 10$ ms	$ \Delta f \leq 12.5$ KHz	P2

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

P25-CAB-CAI_TEST_REQ – March 2010 , Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance		DTR-P25CAP081017-2140530H Unity XG-100P		
TRANSMITTER TESTS- 700MHz (P25 Conventional Mode)				
Test Case	Description	Requirement	Results	
2.2.8	Unwanted Emissions: Adjacent Power Ratio			
	Freq Offset (KHz)	Measurement BW (KHz)	ACPR (dB)	
	9.375	6.25	≥ 40	P
	15.625	6.25	≥ 60	P
	21.875	6.25	≥ 60	P
	37.5	25	≥ 60	P
	62.5	25	≥ 65	P
	87.5	25	≥ 65	P
	150	100	≥ 65	P
	250	100	≥ 65	P
	350	100	≥ 65	P
	>400 KHz to 12 MHz	30 (s)	≥ 75	P
	12 MHz to paired receive band	30 (s)	≥ 75	P
In paired receive band	30 (s)	≥ 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 < f _{dev} ≤ 3111Hz	P	
	Low Level Signal Deviation	848 < f _{dev} ≤ 1037Hz	P	
2.2.16	Modulation Fidelity	≤ 5%	P	
2.2.18	Transient Frequency Behavior			
	Time Interval t ₁ = 20 ms	Δf ≤ 12.5 KHz	P2	
	Time Interval t ₂ = 50 ms	Δf ≤ 6.25 KHz	P	
	Time Interval t ₃ = 10 ms	Δf ≤ 12.5 KHz	P2	

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

P25-CAB-CAI_TEST_REQ – March 2010 , Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance		DTR-P25CAP081017-2140530H Unity XG-100P	
TRANSMITTER TESTS- UHF (P25 Conventional Mode)			
Test Case	Description	Requirement	Results
2.2.8	<i>Unwanted Emissions: Adjacent Power Ratio</i>	≥ 67 dB	<i>P</i>
2.2.12	<i>Transmitter Power and Encoder Attack Time</i>		
	<i>Transmitter Attack Time</i>	≤ 50 ms	<i>P</i>
	<i>Encoder Attack Time</i>	≤ 100 ms	<i>P</i>
2.2.14	<i>Transmitter Throughput Delay</i>	≤ 125 ms	<i>P</i>
2.2.15	<i>Frequency Deviation for C4FM</i>		
	<i>High level Signal Deviation</i>	$2544 < f_{dev} \leq 3111$ Hz	<i>P</i>
	<i>Low Level Signal Deviation</i>	$848 < f_{dev} \leq 1037$ Hz	<i>P</i>
2.2.16	<i>Modulation Fidelity</i>	$\leq 5\%$	<i>P</i>
2.2.18	<i>Transient Frequency Behavior</i>		
	<i>Time Interval $t_1 = 10$ ms</i>	$ \Delta f \leq 12.5$ KHz	<i>P2</i>
	<i>Time Interval $t_2 = 25$ ms</i>	$ \Delta f \leq 6.25$ KHz	<i>P</i>
	<i>Time Interval $t_3 = 10$ ms</i>	$ \Delta f \leq 12.5$ KHz	<i>P2</i>

P25-CAB-CAI_TEST_REQ – March 2010 , Section 2.1.1.1 – Project 25 Phase 1 Common Air Interface Conventional Subscriber Unit Performance		DTR-P25CAP081017-2140530H Unity XG-100P	
TRANSMITTER TESTS- VHF (P25 Conventional Mode)			
Test Case	Description	Requirement	Results
2.2.8	<i>Unwanted Emissions: Adjacent Power Ratio</i>	≥ 67 dB	<i>P</i>
2.2.12	<i>Transmitter Power and Encoder Attack Time</i>		
	<i>Transmitter Attack Time</i>	≤ 50 ms	<i>P</i>
	<i>Encoder Attack Time</i>	≤ 100 ms	<i>P</i>
2.2.14	<i>Transmitter Throughput Delay</i>	≤ 125 ms	<i>P</i>
2.2.15	<i>Frequency Deviation for C4FM</i>		
	<i>High level Signal Deviation</i>	$2544 < f_{dev} \leq 3111$ Hz	<i>P</i>
	<i>Low Level Signal Deviation</i>	$848 < f_{dev} \leq 1037$ Hz	<i>P</i>
2.2.16	<i>Modulation Fidelity</i>	$\leq 5\%$	<i>P</i>
2.2.18	<i>Transient Frequency Behavior</i>		
	<i>Time Interval $t_1 = 5$ ms</i>	$ \Delta f \leq 12.5$ KHz	<i>P2</i>
	<i>Time Interval $t_2 = 20$ ms</i>	$ \Delta f \leq 6.25$ KHz	<i>P</i>
	<i>Time Interval $t_3 = 5$ ms</i>	$ \Delta f \leq 12.5$ KHz	<i>P2</i>

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

P25-CAB-CAI_TEST_REQ – March 2010 , Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Performance		DTR-P25CAP081017-2140530H Unity XG-100P	
RECEIVER TESTS- VHF, UHF, 700MHz, & 800MHz (P25 Trunked Mode)			
Test Case	Description	Requirement	Results
2.1.4	Reference Sensitivity	≤ -116 dBm	P1
2.1.5	Faded Reference Sensitivity (8 & 100 km/h)	≤ -108 dBm	P1
2.1.6	Signal Delay Spread Capability	≥ 50 us	P1
2.1.7	Adjacent Channel Rejection	≥ 60 dB	P1
2.1.8	Co-Channel Rejection	≤ 9 dB	P
2.1.9	Spurious Response Rejection	≥ 70 dB	P
2.1.10	Intermodulation Rejection	≥ 70 dB	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 Trunked Subscriber Unit Performance		DTR-P25CAP081017-2140530H Unity XG-100P	
TRANSMITTER TESTS- 800MHz (P25 Trunked Mode)			
Test Case	Description	Requirement	Results
2.2.8	Unwanted Emissions: Adjacent Power Ratio	≥ 67 dB	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	$2544 < f_{dev} \leq 3111$ Hz	P
	Low Level Signal Deviation	$848 < f_{dev} \leq 1037$ Hz	P
2.2.16	Modulation Fidelity	$\leq 5\%$	P
2.2.18	Transient Frequency Behavior		
	Time Interval $t_1 = 20$ ms	$ \Delta f \leq 12.5$ KHz	P2
	Time Interval $t_2 = 50$ ms	$ \Delta f \leq 6.25$ KHz	P
	Time Interval $t_3 = 10$ ms	$ \Delta f \leq 12.5$ KHz	P2

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

P25-CAB-CAI_TEST_REQ – March 2010 , Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Performance		DTR-P25CAP081017-2140530H Unity XG-100P		
TRANSMITTER TESTS- 700MHz (P25 Trunked Mode)				
Test Case	Description	Requirement	Results	
2.2.8	<i>Unwanted Emissions: Adjacent Power Ratio</i>			
	<i>Freq Offset (KHz)</i>	<i>Measurement BW (KHz)</i>	<i>ACPR (dB)</i>	
	9.375	6.25	≥ 40	P
	15.625	6.25	≥ 60	P
	21.875	6.25	≥ 60	P
	37.5	25	≥ 60	P
	62.5	25	≥ 65	P
	87.5	25	≥ 65	P
	150	100	≥ 65	P
	250	100	≥ 65	P
	350	100	≥ 65	P
	>400 KHz to 12 MHz	30 (s)	≥ 75	P
	12 MHz to paired receive band	30 (s)	≥ 75	P
In paired receive band	30 (s)	≥ 100	P	
2.2.12	<i>Transmitter Power and Encoder Attack Time</i>			
	<i>Transmitter Attack Time</i>	<i>Encoder Attack Time</i>	≤ 50 ms ≤ 100 ms	P P
2.2.14	<i>Transmitter Throughput Delay</i>	≤ 125 ms	P	
2.2.15	<i>Frequency Deviation for C4FM</i>			
	<i>High level Signal Deviation</i>	<i>Low Level Signal Deviation</i>	$2544 < f_{dev} \leq 3111\text{Hz}$ $848 < f_{dev} \leq 1037\text{Hz}$	P P
2.2.16	<i>Modulation Fidelity</i>	≤ 5%	P	
2.2.18	<i>Transient Frequency Behavior</i>			
	<i>Time Interval t₁ = 20 ms</i>	<i>Time Interval t₂ = 50 ms</i>	$ \Delta f \leq 12.5 \text{ KHz}$ $ \Delta f \leq 6.25 \text{ KHz}$	P2 P
	<i>Time Interval t₃ = 10 ms</i>		$ \Delta f \leq 12.5 \text{ KHz}$	P2

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

P25-CAB-CAI_TEST_REQ –March 2010 , Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Performance		DTR-P25CAP081017-2140530H Unity XG-100P	
TRANSMITTER TESTS- UHF (P25 Trunked Mode)			
Test Case	Description	Requirement	Results
2.2.8	<i>Unwanted Emissions: Adjacent Power Ratio</i>	$\geq 67 \text{ dB}$	<i>P</i>
2.2.12	<i>Transmitter Power and Encoder Attack Time</i>		
	<i>Transmitter Attack Time</i>	$\leq 50 \text{ ms}$	<i>P</i>
	<i>Encoder Attack Time</i>	$\leq 100 \text{ ms}$	<i>P</i>
2.2.14	<i>Transmitter Throughput Delay</i>	$\leq 125 \text{ ms}$	<i>P</i>
2.2.15	<i>Frequency Deviation for C4FM</i>		
	<i>High level Signal Deviation</i>	$2544 < f_{\text{dev}} \leq 3111\text{Hz}$	<i>P</i>
	<i>Low Level Signal Deviation</i>	$848 < f_{\text{dev}} \leq 1037\text{Hz}$	<i>P</i>
2.2.16	<i>Modulation Fidelity</i>	$\leq 5\%$	<i>P</i>
2.2.18	<i>Transient Frequency Behavior</i>		
	<i>Time Interval $t_1 = 10 \text{ ms}$</i>	$ \Delta f \leq 12.5 \text{ KHz}$	<i>P2</i>
	<i>Time Interval $t_2 = 25 \text{ ms}$</i>	$ \Delta f \leq 6.25 \text{ KHz}$	<i>P</i>
	<i>Time Interval $t_3 = 10 \text{ ms}$</i>	$ \Delta f \leq 12.5 \text{ KHz}$	<i>P2</i>

P25-CAB-CAI_TEST_REQ –March 2010 , Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Performance		DTR-P25CAP081017-2140530H Unity XG-100P	
TRANSMITTER TESTS- VHF (P25 Trunked Mode)			
Test Case	Description	Requirement	Results
2.2.8	<i>Unwanted Emissions: Adjacent Power Ratio</i>	$\geq 67 \text{ dB}$	<i>P</i>
2.2.12	<i>Transmitter Power and Encoder Attack Time</i>		
	<i>Transmitter Attack Time</i>	$\leq 50 \text{ ms}$	<i>P</i>
	<i>Encoder Attack Time</i>	$\leq 100 \text{ ms}$	<i>P</i>
2.2.14	<i>Transmitter Throughput Delay</i>	$\leq 125 \text{ ms}$	<i>P</i>
2.2.15	<i>Frequency Deviation for C4FM</i>		
	<i>High level Signal Deviation</i>	$2544 < f_{\text{dev}} \leq 3111\text{Hz}$	<i>P</i>
	<i>Low Level Signal Deviation</i>	$848 < f_{\text{dev}} \leq 1037\text{Hz}$	<i>P</i>
2.2.16	<i>Modulation Fidelity</i>	$\leq 5\%$	<i>P</i>
2.2.18	<i>Transient Frequency Behavior</i>		
	<i>Time Interval $t_1 = 5 \text{ ms}$</i>	$ \Delta f \leq 12.5 \text{ KHz}$	<i>P2</i>
	<i>Time Interval $t_2 = 20 \text{ ms}$</i>	$ \Delta f \leq 6.25 \text{ KHz}$	<i>P</i>
	<i>Time Interval $t_3 = 5 \text{ ms}$</i>	$ \Delta f \leq 12.5 \text{ KHz}$	<i>P2</i>

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

Trunking Performance Testing

P25-CAB-CAI_TEST_REQ – March 2010 , Section 2.1.1.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Performance		DTR-P25CAP081017-2140530H Unity XG-100P	
Trunked Subscriber Tests VHF, UHF, 700MHz, & 800MHz			
Test Case	Description	Requirement	Results
2.3.1	<i>Trunking Control Channel Slot Times (37.5-ms slot*)</i>		
	<i>Encode Attack Time</i>	4.15 ms max 2.00 ms min	<i>P</i>
	<i>RF Power Attack Time</i>	4.15 ms max 0.00 ms min	<i>P</i>
	<i>RF Power Turn Off Time</i>	1.57 ms max	<i>P</i>
2.3.2	<i>Trunking Request Time (37.5-ms slot*)</i>	≤ 160 ms	<i>P</i>
2.3.3	<i>Trunking Voice Access Time</i>	≤ 400 ms	<i>P</i>
2.3.5	<i>Transmitter Time to Key on a Traffic Channel</i>	Short Channel Form	
	<i>RF transmitter time to key on a working channel</i>	≤ 150.0 ms	<i>P</i>
	<i>Encoder transmit time</i>	≤ 150.0 ms	<i>P</i>

** Harris base station and subscriber unit products operate with 37.5 ms ISP slot times, and do not support 45 ms ISP slot times.*

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

Trunking Interoperability Testing

P25-CAB-CAI_Test_REQ- March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability		DTRP25CAP-081017-1120312H13	DTR-P25CAP-081010-13090501-Harris XG-25P	DTR-TIMCO081016 TAIT/TN9400/HARRIS	DTR-TIMCO081016 Tait/Cassidian/Harris
Harris Model Class: XGP Software		Harris MASTR V SR10A	EF Johnson 3800 Ref 1.1.1-5	Tait N9400 Ver 1.40	Tait Cassidian P25 Core Network EADS P25V11_06.E22
Test Case	Description				
2.2.1	Full registration				
2.2.1.4.1	Test case 1 - Valid registration				
	Home operation	P	P	P	P
	Inter-System operation	N1	N1	N1	N1
	Inter-WACN operation	N1	N1	N1	N1
2.2.1.4.2	Test case 2 - Denied or refused registration				
	Home operation	P	P	P	P
	Inter-System operation	N1	N1	N1	N1
	Inter-WACN operation	N1	N1	N1	N1
2.2.1.4.3	Test case 3 - Unverified registration				
	Home operation	P	P	P	P
	Inter-System operation	N1	N1	N1	N1
	Inter-WACN operation	N1	N1	N1	N1
2.2.2	Group Voice Call				
2.2.2.4.1	Test case 1 - Group call granted				
	Home operation	P	P	P	P
	Inter-System operation	N1	N1	N1	N1
	Inter-WACN operation	N1	N1	N1	N1
2.2.2.4.2	Test case 2 - Group call denied				
	Home operation	P	P	P	P
	Inter-System operation	N1	N1	N1	N1
	Inter-WACN operation	N1	N1	N1	N1

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

P25-CAB-CAI_Test_REQ- March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability		DTRP25CAP-081017-1120312H13	DTR-P25CAP-081010-13090501-Harris XG-25P	DTR-TIMCO081016 TAIT/TN9400/HARRIS	DTR-TIMCO081016 Tait/Cassidian/Harris
Harris Model Class: XGP Software		Harris MASTR V SR10A	EF Johnson 3800 Rel 1.1.1-5	Tait N9400 Ver 1.40	Tait Cassidian P25 Core Network EADS P25V11_06 E22
Test Case	Description				
2.2.2.4.3	Test case 3 - Group call request queued				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.3	Unit-to-Unit Voice Call				
2.2.3.4.1	Test case 1 – Unit-to-Unit call with target availability check				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.3.4.2	Test case 2 – Unit-to-Unit call with target availability check denied by target				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.3.4.3	Test case 3 – Unit-to-Unit call queued with target availability check – traffic channel assignment after target availability check				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

P25-CAB-CAI_Test_REQ- March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability		DTRP25CAP-081017-1120312H13	DTR-P25CAP-081010-13090501-Harris XG-25P	DTR-TIMCO081016 TAIT/TN9400/HARRIS	DTR-TIMCO081016 Tait/Cassidian/Harris
Harris Model Class: XGP Software		Harris MASTR V SR10A	EF Johnson 3800 Rel 1.1.1-5	Tait N9400 Ver 1.40	Tait Cassidian P25 Core Network EADS P25V11_06 E22
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				
	<i>Home operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.3.4.5	Test case 5 – Unit-to-Unit call without target availability check				
	<i>Home operation</i>	<i>P</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.3.4.6	Test case 6 – Unit-to-Unit call queued without target availability check				
	<i>Home operation</i>	<i>P</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.3.4.7	Test case 7 – Unit-to-Unit call denied				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.4	Broadcast Voice Call				
2.2.4.4.1	Test case 1 - Broadcast voice call				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

P25-CAB-CAI_Test_REQ- March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability		DTRP25CAP-081017-1120312H13	DTR-P25CAP-081010-13090501-Harris XG-25P	DTR-TIMCO081016 TAIT/TN9400/HARRIS	DTR-TIMCO081016 Tait/Cassidian/Harris
Harris Model Class: XGP Software		Harris MASTR V SR10A	EF Johnson 3800 Rel 1.1.1-5	Tait N9400 Ver 1.40	Tait Cassidian P25 Core Network EADS P25V11_06 E22
Test Case	Description				
2.2.5	Affiliation				
2.2.5.4.1	<i>Test case 1 - Radio permitted to affiliate with new group</i>				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.5.4.2	<i>Test case 2 - Radio denied affiliation to new group</i>				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.6	Announcement Group Call				
2.2.6.4.1	<i>Test case 1 - Collection of talk groups receive call</i>				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.7	Emergency Alarm				
2.2.7.4.1	<i>Test case 1 - Emergency alarm</i>				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

P25-CAB-CAI_Test_REQ- March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability		DTRP25CAP-081017-1120312H13	DTR-P25CAP-081010-13090501-Harris XG-25P	DTR-TIMCO081016 TAIT/TN9400/HARRIS	DTR-TIMCO081016 Tait/Cassidian/Harris
Harris Model Class: XGP Software		Harris MASTR V SR10A	EF Johnson 3800 Rel 1.1.1-5	Tait N9400 Ver 1.40	Tait Cassidian P25 Core Network EADS P25V11_06 E22
Test Case	Description				
2.2.8	Emergency Group Call				
2.2.8.4.1	<i>Test case 1 - Emergency call</i>				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.10	Encryption				
2.2.10.4.1	<i>Test case 1 - Call privacy for encrypted call</i>				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
2.2.11	Intra-Location Registration Area Roaming				
2.2.11.4.1	<i>Test case 1 - Idle radio</i>				
	<i>Home operation</i>	<i>P</i>	<i>P</i>	<i>P</i>	<i>P</i>
	<i>Inter-System operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>
	<i>Inter-WACN operation</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>	<i>N1</i>

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

Model Class Definition

Model Class Definition (as of the date of this STR)		Applied to: <i>P25-CAB-CAI_TEST_REQ – March 2010, Section 2.1.3.2 – Project 25 Phase 1 Common Air Interface Trunked Subscriber Unit Interoperability</i>
Model Class Name	Product Name, Definition, Unique ID	Installed Options*
<u>XGP Software</u>	<u>Unity XG-100P</u>	<u>XGP Rxx</u>
	<u>Unity XG-100M</u>	<u>XGP Rxx</u>
	<u>XG-75P 7/8</u>	<u>XGP Rxx</u>
	<u>XG-75PE UHF-H</u>	<u>XGP Rxx</u>
	<u>XG-75P UHF-L</u>	<u>XGP Rxx</u>
	<u>XG-75P UHF-L 100mW</u>	<u>XGP Rxx</u>
	<u>XG-75P VHF</u>	<u>XGP Rxx</u>
	<u>XG-75M/M7300 7/8</u>	<u>XGP Rxx</u>
	<u>XG-75M/M7300 UHF-H</u>	<u>XGP Rxx</u>
	<u>XG-75M/M7300 UHF-L</u>	<u>XGP Rxx</u>
	<u>XG-75M/M7300 VHF 50W</u>	<u>XGP Rxx</u>
	<u>XG-75M/M7300 VHF 110W</u>	<u>XGP Rxx</u>
	<u>XG-25P 7/8</u>	<u>XGP Rxx</u>
	<u>XG-25P UHF-L</u>	<u>XGP Rxx</u>
	<u>XG-25P VHF</u>	<u>XGP Rxx</u>
	<u>XG-25M 7/8</u>	<u>XGP Rxx</u>
	<u>XG-25M UHF-L</u>	<u>XGP Rxx</u>
	<u>XG-25M VHF</u>	<u>XGP Rxx</u>
	<u>P5500 800</u>	<u>XGP Rxx</u>
	<u>P5500 VHF</u>	<u>XGP Rxx</u>
	<u>P5400 800</u>	<u>XGP Rxx</u>
	<u>P5400 UHF-H</u>	<u>XGP Rxx</u>
	<u>P5400 UHF-L</u>	<u>XGP Rxx</u>
	<u>P5400 VHF</u>	<u>XGP Rxx</u>
	<u>P7300 7/8</u>	<u>XGP Rxx</u>
	<u>P7300 UHF-H</u>	<u>XGP Rxx</u>

* Note: In the installed option designation “XGP Rxx”, the “xx” denotes the inclusion of any revision number, indicating that all revisions of XGP software are included in the model class for the associated product.

Project 25 Compliance Assessment Program

Summary Test Report

Harris Unity XG-100P

STR-Harris-XG100P141024

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)
Comments	
P1: Device under test passes requirements for both C4FM and WCQPSK	
P2: Device under test measured $ \Delta f \leq 12.5$ KHz for time intervals t_1 and t_3 , though not a requirement for transmitter carrier output power rating of ≤ 6 watts per TIA-102.CAAB-C section 3.2.18, last paragraph.	
N1: FNE does not support this feature	

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: 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 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