Project 25 Compliance Assessment Program

Summary Test Report

Codan Radio Communications VR-4E150-00-000

STR-Codan-100008

Test Item Description		
Manufacturer	Codan Radio Communications	
Manufacturer Contact	Mike Cyr	
Product Name	MT 4E Receiver VR-4E150-00-000 (136-174 MHz)	
Installed Options	**Software**	50149.6 50171.3 50172.5 50181.1
	Firmware	2.7.35.D.S4
Installed Vocoder	Enhanced Full Rate	

Test Description
P25-CAB-CAI_TEST_REQ – March 2010, Section 2.2.1.1 – Project 25 Phase 1 Common Air Interface Performance Conventional Mode Operation Base Station/Repeaters

Laboratory Information	
P25 CAP Laboratory Code	P25CAP081016
Date(s) of Test	March 21, 2013
Date(s) of Issue	March 21, 2013

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

P25-CAB-CAI_TEST_REQ – March 2010, Section 2.2.1.1 – Project 25 Phase 1 Common Air Interface Performance Conventional Mode Operation Base Station/Repeaters		DTR: TIMCO081016 VR-4E150-00-000 392UT13P25	
RECEIVER TESTS (136 - 174 MHz)			
Test Case	**Description**	**Requirement**	**Results**
2.1.4	Reference Sensitivity	≤ -113 dBm (Class B)	P
2.1.5	Faded Reference Sensitivity	≤ -105 dBm (Class B)	P
2.1.7	Adjacent Channel Rejection	≥ 60 dB (Class B)	P
2.1.8	Co-Channel Rejection	≤ 9 dB	P
2.1.9	Spurious Response Rejection	≥ 70 dB (Class B)	P
2.1.10	Intermodulation Rejection	≥ 70 dB (Class B)	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
TX TESTS (N/A)			
Test Case	**Description**	**Requirement**	**Results**
2.2.8	Unwanted Emissions: Adjacent Channel Power Ratio	≤ 67 dB	N/A1
2.2.14	Transmitter Throughput Delay	≤ 125 ms	N/A1
2.2.15	Frequency Deviation for C4FM		N/A1
	High Level signal Deviation	2544 Hz < f_{dev} ≤ 3111 Hz	
	Low Level Signal Deviation	848 Hz < f_{dev} ≤ 1037 Hz	
2.2.16	Modulation Fidelity	≤ 10 % (Class B)	N/A1
2.2.18	Transient Frequency Behavior		N/A1
	Time Interval t1 = 5.0 ms	|Δf| ≤ 12.5 kHz	
	Time Interval t2 = 20.0 ms	|Δf| ≤ 6.25 kHz	
	Time Interval t3 = 5.0 ms	|Δf| ≤ 12.5 kHz	

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
N/A1: VR-4E150 is a modular receiver and therefore P25-CAB-CAI_TEST_REQ –March 2010 Transmitter tests are not applicable and not supported by this module.

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EXPIRATION DATE: 07/31/2015

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