

Project 25 Compliance Assessment Program

Summary Test Report

Daniels Electronics UR-4E460-00-000

STR-Daniels-100001

Test Item Description	
Manufacturer	Daniels Electronics Ltd.
Manufacturer Contact	Allison McLennan
Product Name	MT-4E Receiver UR-4E460-00-000 (450-470 MHz)
Installed Options:	Hardware 50164.3 50154.3 50149.3 50037.1
	Firmware 2.1.1.D.S1.4
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	May 6, 2009 to May 16, 2009
Date(s) of Issue	May 16, 2009

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-P25CAP81016-3008UT8	
RECEIVER TESTS (450 – 470 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 Unsilence Delay		
	No Talk Group or Encryption	≤ 125 ms	P
	Talk Group Only	≤ 370 ms	P
	Encryption Only	≤ 370 ms	N/A2
	Both (on clear or encrypted channel)	≤ 460 ms	N/A2
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	$2544 \text{ Hz} \leq f_{dev} \leq 3111 \text{ Hz}$	
	Low Level Signal Deviation	$848 \text{ Hz} \leq f_{dev} \leq 1037 \text{ Hz}$	
2.2.16	Modulation Fidelity	$\leq 10\%$ (Class B)	N/A1
2.2.18	Transient Frequency Behavior		N/A1
	Time Interval t1 = 10.0 ms	$\{\Delta f\} \leq 12.5 \text{ kHz}$	
	Time Interval t2 = 25.0 ms	$\{\Delta f\} \leq 6.25 \text{ kHz}$	
	Time Interval t3 = 10.0 ms	$\{\Delta f\} \leq 12.5 \text{ kHz}$	

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: UR-4E460 is a modular receiver and therefore P25-CAB-CAI_TEST_REQ –March 2010, Section 2.2.1.1 Transmitter tests are not applicable and not supported by this module. N/A2: Encryption Only and Both test cases not applicable as tested device not equipped for Encryption.

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OMB NO: 1640-0015

EXPIRATION DATE: 04/30/2012

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