

RF Exposure Report

Project Number: 3562408

Report Number: 3562408EMC03

Revision Level: 0

Client: Continental

Equipment Under Test: Wireless Modem Module

Model Name: CASAN


Applicable Standards: Part 2, Part 22(H), Part 24(E)

RSS-132, Issue 3: 2013, RSS-133 Issue 6: 2013,

Report issued on: 11 September 2014


Test Result: Compliant

Tested by:



Jeremy O. Pickens, Senior EMC Engineer

Reviewed by:



David Schramm, EMC Manager

Remarks:

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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1 Summary of Test Results

Basic Standards		Test Result
Emissions Testing		
Radiated Power: ERP		Reported

1.1 Modifications Required to Compliance

None

2 General Information

2.1 Client Information

Name: Continental Automotive System, Inc..
 Address: 21440 West Lake Cook Road
 City, State, Zip, Country: Deer Park, IL 60010, USA

2.2 Test Laboratory

Name: SGS North America, Inc.
 Address: 620 Old Peachtree Road NW, Suite 100
 City, State, Zip, Country: Suwanee, GA 30024, USA

2.3 General Information of EUT

Type of Product: Wireless Modem Module
 Model Number: CASAN
 FCC ID: LHJ-CASAN
 S/N: Z00J09NM
 IMEI Number: 004401810082251

Rated Voltage: 10.2 - 13.8 Vdc,
 Test Voltage: 12 Vdc

Tx Frequency Range: 824.7– 848.31 MHz (CDMA 850)
 1851.25– 1908.75 MHz (CDMA 1900)

FCC Classification: PCS Licensed Transmitter PCB
 Type: Pre Production

Sample Received Date: 24 July 2014
 Dates of testing: 25 Aug - 05 Sept 2014

2.4 Operating Modes and Conditions

For this assessment, the EUT’s maximum power including the maximum tolerance was considered.

3 RF Exposure

3.1 Test Result

Test Description	Product Specific Standard	Test Result
RF Exposure	FCC Part 1.1310	Compliant

3.2 Test Method

Using the maximum power (including tune-up tolerances), the power density was calculated. Maximum antenna gain was assumed for this exercise.

3.3 Test Site

SGS EMC Laboratory, Suwanee, GA

3.4 Test Equipment

None

3.5 Test Data

Band of Operation			Maximum + Tolerance Conducted Power, dBm		Antenna Gain	Cable Loss
Type	Band	Range, MHz	dBm	mW		
CDMA	BC0	824-849	26.0	398	6.0	1.0
CDMA	BC1	1850-1910	26.0	398	6.0	1.0
LTE	Band 4	1710-1755	25.0	316	6.0	1.0
LTE	Band 13	777-787	25.0	316	6.0	1.0

Band of Operation			Radiated Power, dBm		Average EIRP	Distance (R)	Power Density $EIRP_{Avg}/(4\pi R^2)$	FCC / IC Limit	Verdict
Type	Band	Range, MHz	dBm	mW	mW	cm	mW/cm ²		
CDMA	BC0	824-849	31.0	1259	1259	20	0.250	0.57	Pass
CDMA	BC1	1850-1910	31.0	1259	1259	20	0.250	1.00	Pass
LTE	Band 4	1710-1755	30.0	1000	1000	20	0.199	1.00	Pass
LTE	Band 13	777-787	30.0	1000	1000	20	0.199	0.52	Pass

Simultaneous Operation			Radiated Power, dBm		Average EIRP	Distance (R)	Power Density $EIRP_{Avg}/(4\pi R^2)$	FCC / IC Limit	Verdict
Type	Band	Freq MHz	dBm	mW	mW	cm	mW/cm ²		
CDMA+LTE	BC0 + Band 13	787	33.5	2259	2259	20	0.449	0.52	Pass
CDMA+LTE	BC0 + Band 4	849	33.5	2259	2259	20	0.449	0.57	Pass
CDMA+LTE	BC1 + Band 4	1710	33.5	2259	2259	20	0.449	1.00	Pass
CDMA+LTE	BC1 + Band 13	787	33.5	2259	2259	20	0.449	0.52	Pass

4 Revision History

Revision Level	Description of changes	Revision Date
0	Initial release	11 SEP 2014