Report On

Application for Grant of Equipment Authorization of the
Nextivity Inc.
Cel-Fi DUO RAINIER Smart Cellular Signal Booster

FCC Part 15 Subpart E §15.407
RSS-247 Issue 1 May 2015

Report No. SD72116210-0416C **May 2016**

REPORT ON	EMC Evaluation of the Nextivity Inc. Cel-Fi DUO RAINIER Smart Cellular Signal Booster
TEST REPORT NUMBER	SD72116210-0416C
TEST REPORT DATE	May 2016
PREPARED FOR	Nextivity Inc. 11230 World Trade Drive, Suite 250 San Diego, CA 92128
CONTACT PERSON	CK Li Sr. Principal Engineer, Regulatory CLi@NextivityInc.com (858) 829-1692
PREPARED BY	Ferdie S. Custodio **Name** Authorized Signatory Title: EMC/Senior Wireless Test Engineer
APPROVED BY	Chip R. Fleury **Name** Authorized Signatory Title: West Coast EMC Manager
DATED	May 05, 2016

TÜV SÜD AMERICA INC 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone: 858 678 1400 FAX: 858 546 0364

Revision History

SD72116210-0416C Nextivity Inc. M/N D32-2/12/66 Cel-Fi DUO RAINIER Smart Cellular Signal Booster					
DATE	OLD REVISION	NEW REVISION	REASON	PAGES AFFECTED	APPROVED BY
05/05/16	Initial Release				Chip Fleury

CONTENTS

SECTION 1

REPORT SUMMARY

Radio Testing of the
Nextivity Inc.
Cel-Fi DUO RAINIER Smart Cellular Signal Booster

1.1 INTRODUCTION

The information contained in this report is intended to show verification of the Nextivity Inc. Smart Cellular Signal Booster to the requirements of FCC Part 15 Subpart E §15.407 and RSS-247 Issue 1 May 2015.

Objective	To perform Radio Testing to determine the Equipment Under Test's (EUT's) compliance with the Test Specification, for the series of tests carried out.
Manufacturer	Nextivity Inc.
Model Number(s)	D32-2/12/66
FCC ID Number	YETD32-21266NU and YETD32-21266CU
IC Number	9298A-D3221266NU and 9298A-D3221266CU
Serial Number(s)	296546000509 (NU) and 297546000285 (CU)
Number of Samples Tested	2
Test Specification/Issue/Date	• FCC Part 15 Subpart E §15.407 (October 1, 2015). • RSS-247 - Digital Transmission Systems (DTSs) Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) (Issue 1, May 2015). • RSS-Gen - General Requirements for Compliance of Radio Apparatus (Issue 4, November 2014). • KDB KDB789033 D02 General UNII Test Procedures New Rules v01r01 (Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (UNII) Devices - Part 15, Subpart E) January 08, 2016.
Start of Test	May 02, 2016
Finish of Test	May 03, 2016
Name of Engineer(s)	Xiaoying Zhang Ferdinand Custodio
Related Document(s)	• SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report.docx (issued by TÜV SÜD America San Diego April 2016). • Supporting documents for EUT certification are separate exhibits.

1.2 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out in accordance with FCC Part 15 Subpart E §15.407 with cross-reference to the corresponding IC RSS standard is shown below.

Operation in the UNII 1 and UNII 3 Bands (New Rules)					
Section	**Spec Clause**	**RSS**	**Test Description**	**Result**	**Comments**
2.1	§15.407(a)	RSS-Gen 8.8	Conducted Emissions	Compliant*	
2.2	§15.403(i)		26 dB Bandwidth	As Reported	
2.3		RSS-Gen 6.6	99% Emission Bandwidth	As Reported	
2.4	§15.407(e)	RSS-247 6.2.4(1)	Minimum 6dB Bandwidth	Compliant*	
2.5	§15.407(a) (1), (a)(2) and (a)(3)	RSS-247 6.2.4(1)	Maximum Conducted Output Power	Compliant*	
2.6	§15.407(a) (1), (a)(2) and (a)(3)	RSS-247 6.2.3(1)	Maximum Power Spectral Density (PSD)	Compliant*	
2.7	§15.407(b)(1),(4) and (7) / 15.209	RSS-247 6.2.4(2)	Unwanted Emissions Measurement	Compliant**	
2.8	§15.407(b)(1),(4) and (7)	RSS-247 6.2.4(2)	Band-Edge Measurements	Compliant*	
-	§15.407(g)		Frequency Stability	N/A	

*Compliant** *A variant of the EUT was previously approved under FCC IDs YETD32-21366NU and YETD32-21366CU under Model Number D32-2/13/66. The EUT is identical with this model with the exception of LTE Band 12 support. All antenna conducted port measurement for BT LE were from this variant and covered under test report SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report.docx.*

*Compliant*** *Same as above with the addition of cabinet spurious emissions verification of the EUT (variant of FCC IDs YETD32-21366NU and YETD32-21366CU with LTE Band 12 support).*

N/A *Manufacturer declaration that the emission is maintained within the band of operation. RSS-247 does not require Frequency Stability test (U-NII bands).*

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1.3 PRODUCT INFORMATION

1.3.1 Technical Description

The Equipment Under Test (EUT) is a Nextivity Inc. Cel-Fi DUO RAINIER Smart Cellular Signal Booster. The EUT is a WCDMA/LTE Signal Booster to improve voice and data cellular performance for indoor residential, small business and small enterprise environments. RAINER consists of two separate units: the Network Unit (NU), and the Coverage Unit (CU). The NU transmits and receives Cellular signals from the base station and operates similar to a cellular handset. The CU transmits and receives signals with the cellular handset and operates on frequencies similar to the cellular base station. The NU and CU are connected wirelessly over a full-duplex wireless link in the UNII band using a mixed OFDM and muxed cellular signal over a 30 or 40 MHz channel in each direction. The CU also includes Bluetooth LE connectivity. With the use of smart phone application, it allows user to register the product, update software, and capture/display details metrics of the system. NU does not support Bluetooth LE. The UNII 5GHz function of the EUT was verified in this test report.

1.3.2 EUT General Description

EUT Description	Smart Cellular Signal Booster
Model Name	Cel-Fi DUO RAINIER
Model Number(s)	D32-2/12/66

Frequency Range

NU:

5190 MHz to 5240 MHz	UNII 1 30MHz
5190 MHz to 5230 MHz	UNII 1 40MHz
5260 MHz to 5310 MHz	UNII 2A 30MHz
5270 MHz to 5310 MHz	UNII 2A 40MHz

CU:

5525 MHz to 5700 MHz	UNII 2C 30MHz
5525 MHz to 5700 MHz	UNII 2C 40MHz
5745 MHz to 5825 MHz	UNII 3 30MHz
5755 MHz to 5825 MHz	UNII 3 40MHz

Channels Verified (UNII 2A)

30MHz Bandwidth:

Low Channel 5260 MHz	Channel 52
Mid Channel 5300 MHz	Channel 60
High Channel 5310 MHz	Channel 62

40MHz Bandwidth:

Low Channel 5270 MHz	Channel 54
Mid Channel 5300 MHz	Channel 60
High Channel 5310 MHz	Channel 62

Channels Verified (UNII 1)

30MHz Bandwidth:

Low Channel 5190 MHz	Channel 38
Mid Channel 5220 MHz	Channel 44
High Channel 5240 MHz	Channel 48

40MHz Bandwidth:

Low Channel 5190 MHz	Channel 38
Mid Channel 5220 MHz	Channel 44
High Channel 5230 MHz	Channel 46

Channels Verified (UNII 2C)

30MHz and 40MHz Bandwidth:

Low Channel 5525 MHz	Channel 105
Mid Channel 5600 MHz	Channel 120
High Channel 5700 MHz	Channel 140

Channels Verified (UNII 3)

30MHz Bandwidth:

Low Channel 5745 MHz	Channel 149
Mid Channel 5785 MHz	Channel 157
High Channel 5825 MHz	Channel 165

40MHz Bandwidth:

Low Channel 5745 MHz	Channel 151
Mid Channel 5785 MHz	Channel 157
High Channel 5825 MHz	Channel 165

Rated Voltage	12V DC via external AC/DC adapter
Mode Verified	UNII 1, UNII 2A, UNII 2C and UNII 3
Capability	LTE (Band 2, 12 and 4)/UNII and BT LE
Primary Unit (EUT)	☐ Production ☒ Pre-Production ☐ Engineering
Antenna Type	PCB Monopole
Manufacturer	Nextivity Inc.
Antenna Model	N/A
Antenna Gain	NU: 1 dBi CU: 0 dBi

1.3.3 Maximum Conducted Output Power

Mode	Frequency Range (MHz)	Output Power (dBm)	Output Power (W)
UNII 1	5190 - 5250	22.56	0.18
UNII 2A	5260 - 5310	22.68	0.19
UNI 2C	5525 - 5725	22.18	0.17
UNII 3	5735 --5825	22.16	0.16

1.4 EUT TEST CONFIGURATION

1.4.1 Test Configuration Description

Test Configuration	Description
A	UNII Low Band. 90dB attenuator is connected between URX of CU and UTX of NU. Output is monitored from UTX port of NU.
B	UNII High Band. 90dB attenuator is connected between URX of NU and UTX of CU. Output is monitored from UTX port of CU.
C	Radiated test setup. Radiated test sample used for this test. Normal wireless link between NU and CU established.

1.4.2 EUT Exercise Software

Manufacturer provided a configuration software (ConformanceTest.exe) running from a support laptop where both EUT are connected via USB.

1.4.1 Support Equipment and I/O cables

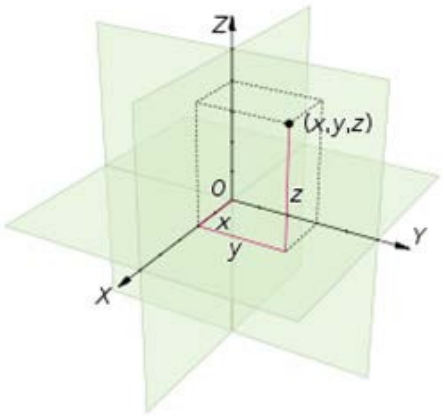
Manufacturer	Equipment/Cable	Description
Hon-Kwang	AC/DC Adapter (EUT)	M/N HK-AB-120A250-US P/N 290N025-001, 12VDC 2.5A
Hon-Kwang	I.T.E Power Supply (2X)	Model HK-AX-120A167-US S/N: FB0000101 and FB0000075
-	Support USB cable	1.75 meters, shielded Type A to Micro B connector
Nextivity	Support USB cable	Custom 1.0 meter shielded USB Type A to DB9 for the Shielded Test Enclosure
Sony	Support Laptop	M/N PCG-31311L S/N 27545534 3006488
Sony	Support Laptop AC Adapter	M/N PCGA-AC19V9 S/N 147839091 0023259
Mini-Circuits	Support Coaxial SMA Fixed Attenuator (x)	M/N VAT-30W2 30dB DC-6GHz
Agilent	11dB Step Attenuator	M/N 8494B Frequency Range DC - 18GHz S/N 2812A17193
Agilent	110dB Step Attenuator	M/N 8496B Frequency Range DC - 18GHz S/N MY42143874
Ramsey	Support Shielded Test Enclosure	M/N STE3300 S/N 3042 with custom USB cable and AC/DC Adapter

1.4.2 Worst Case Configuration

Worst-case configuration used in this test report per Transmitter Conducted Output Power (Section 2.1 of this test report). This is for single channel verification, otherwise all three channels (Low, Mid and High) are verified:

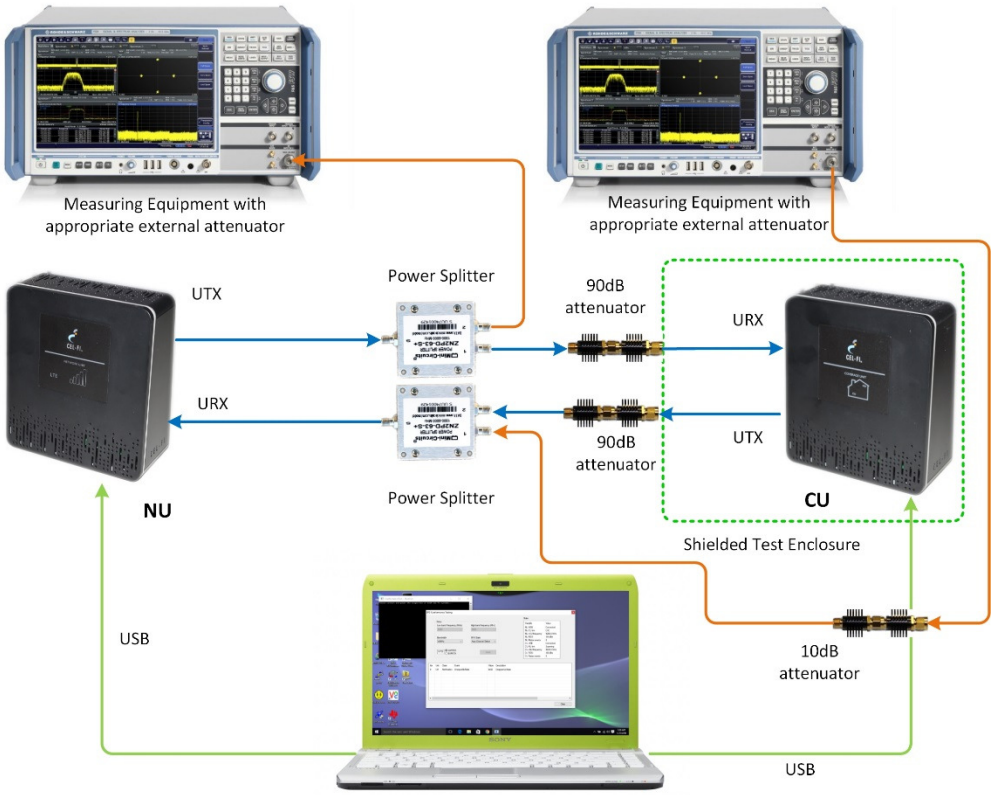
Mode	Channel	Bandwidth
UNII 1	48 (High Channel)	30MHz
UNII 2A	52 (Low Channel)	30MHz
UNII 2C	140 (High Channel)	40MHz
UNII 3	165 (High Channel)	40MHz

EUT is a mobile device. Final installation position is unknown at the time of verification. For radiated measurements X, Y and Z orientations were verified. No major variation in emissions observed between the three (3) orientations. Verifications performed using "Z" configuration.



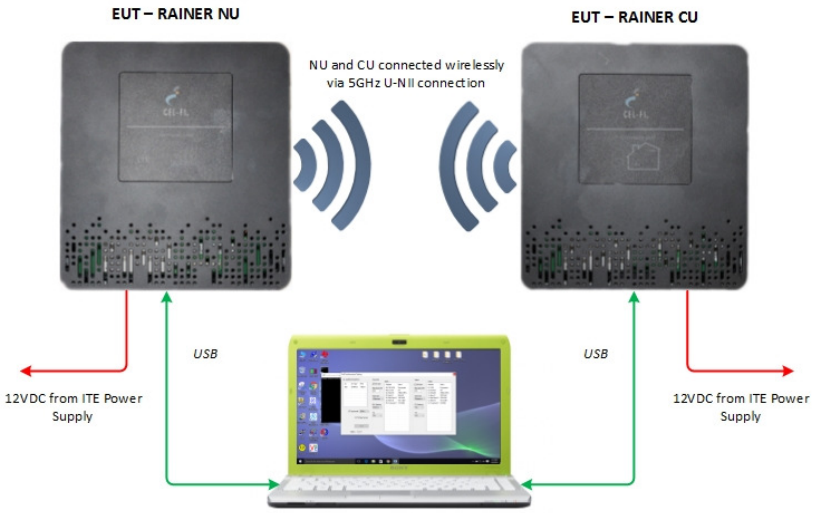
1.4.3 Simplified Test Configuration Diagram

Test Configuration "A" **Test Configuration "B"**



Support Laptop connected to both EUT via USB and running Nextivity UNII Conformance Test

Test Configuration "C"



Support Laptop connected to EUT via USB and running Nextivity ConformanceTest.exe

1.5 DEVIATIONS FROM THE STANDARD

No deviations from the applicable test standards or test plan were made during testing.

1.6 MODIFICATION RECORD

Description of Modification	Modification Fitted By	Description of Modification
Serial Number 296546000509 (NU) and 297546000285 (CU)		
N/A		N/A

The table above details modifications made to the EUT during the test programme. The modifications incorporated during each test (if relevant) are recorded on the appropriate test pages.

1.7 TEST METHODOLOGY

All measurements contained in this report were conducted with ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz and KDB KDB789033 D02 General UNII Test Procedures New Rules v01r01 (Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E) January 08, 2016.

For conducted and radiated emissions the equipment under test (EUT) was configured to measure its highest possible emission level. This level was based on the maximized cable configuration from exploratory testing per ANSI C63.4-2014. The test modes were adapted according to the Operating Instructions provided by the manufacturer/client.

1.8 TEST FACILITY LOCATION

1.8.1 TÜV SÜD America Inc. (Mira Mesa)

10040 Mesa Rim Road, San Diego, CA 92121-2912 (32.901268,-117.177681). Phone: 858 678 1400 FAX: 858-546 0364

1.8.2 TÜV SÜD America Inc. (Rancho Bernardo)

16530 Via Esprillo, San Diego, CA 92127-1708 (33.018644,-117.092409). Phone: 858 942 5542 Fax: 858 546 0364.

1.9 TEST FACILITY REGISTRATION

1.9.1 FCC – Registration No.: US1146

TUV SUD America Inc. (San Diego), is an accredited test facility with the site description report on file and has met all the requirements specified in §2.948 of the FCC rules. The acceptance letter from the FCC is maintained in our files and the Registration is US1146.

1.9.2 Innovation, Science and Economic Development Canada (IC) Registration No.: 3067A

The 10m Semi-anechoic chamber of TUV SUD America Inc. (San Diego) has been registered by Certification and Engineering Bureau of Innovation, Science and Economic Development Canada for radio equipment testing with Registration No. 3067A.

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SECTION 2

TEST DETAILS

Radio Testing of the
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2.1 CONDUCTED EMISSIONS

2.1.1 Specification Reference

FCC 47 CFR Part 15, 15.207(a)
RSS-Gen, Clause 7.2.4

2.1.2 Standard Applicable

An intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN).

Frequency of emission (MHz)	Conducted limit (dBµV)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

**Decreases with the logarithm of the frequency.*

2.1.3 Equipment Under Test and Modification State

Please refer to SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report.docx for serial number/s and test configuration used.

2.1.4 Date of Test/Initial of test personnel who performed the test

January 18, 2016/XYZ

2.1.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.1.6 Environmental Conditions/Test Location

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility.

Ambient Temperature	22.5°C
Relative Humidity	52.6.%
ATM Pressure	99.9 kPa

2.1.7 Additional Observations

- Test results presented here is from SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report.docx (issued by TÜV SÜD America San Diego April 2016). See Section 1.2 for more details.
- Measurement was done using EMC32 V8.53 automated software. Reported level is the actual level with all the correction factors factored in. Correction Factor column is for informational purposes only. See Section 2.1.8 for sample computation.

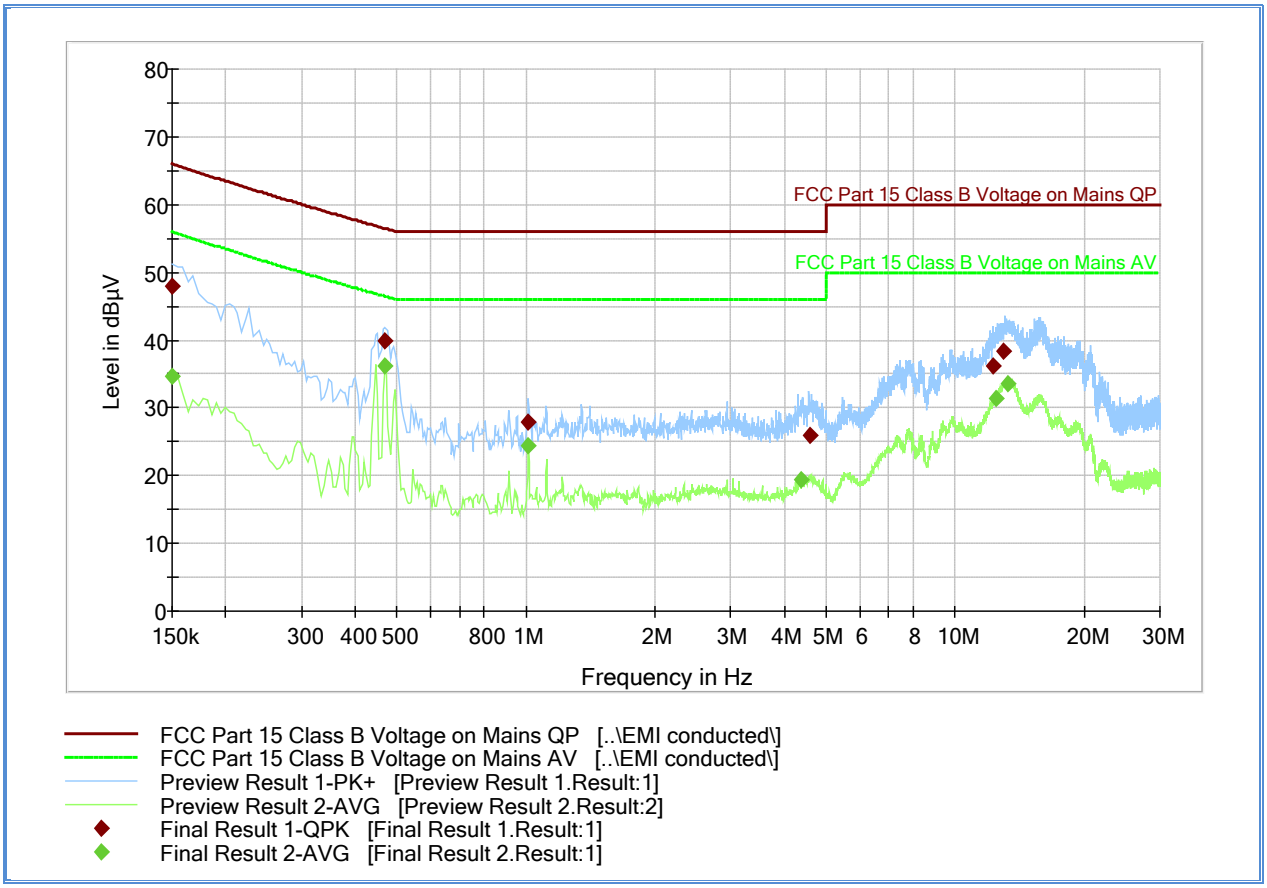
2.1.8 Sample Computation (Conducted Emission – Quasi Peak)

Measuring equipment raw measurement (dbµV) @ 150kHz			5.5
Correction Factor (dB)	Asset# 8607 (20 dB attenuator)	19.9	20.7
	Asset# 1177 (cable)	0.15	
	Asset# 1176 (cable)	0.35	
	Asset# 7568 (LISN)	0.30	
Reported QuasiPeak Final Measurement (dbµV) @ 150kHz			26.2

2.1.9 Test Results

Compliant. See attached plots and tables.

2.1.10 Test Results - Conducted Emissions Line 1 – Hot (NU)



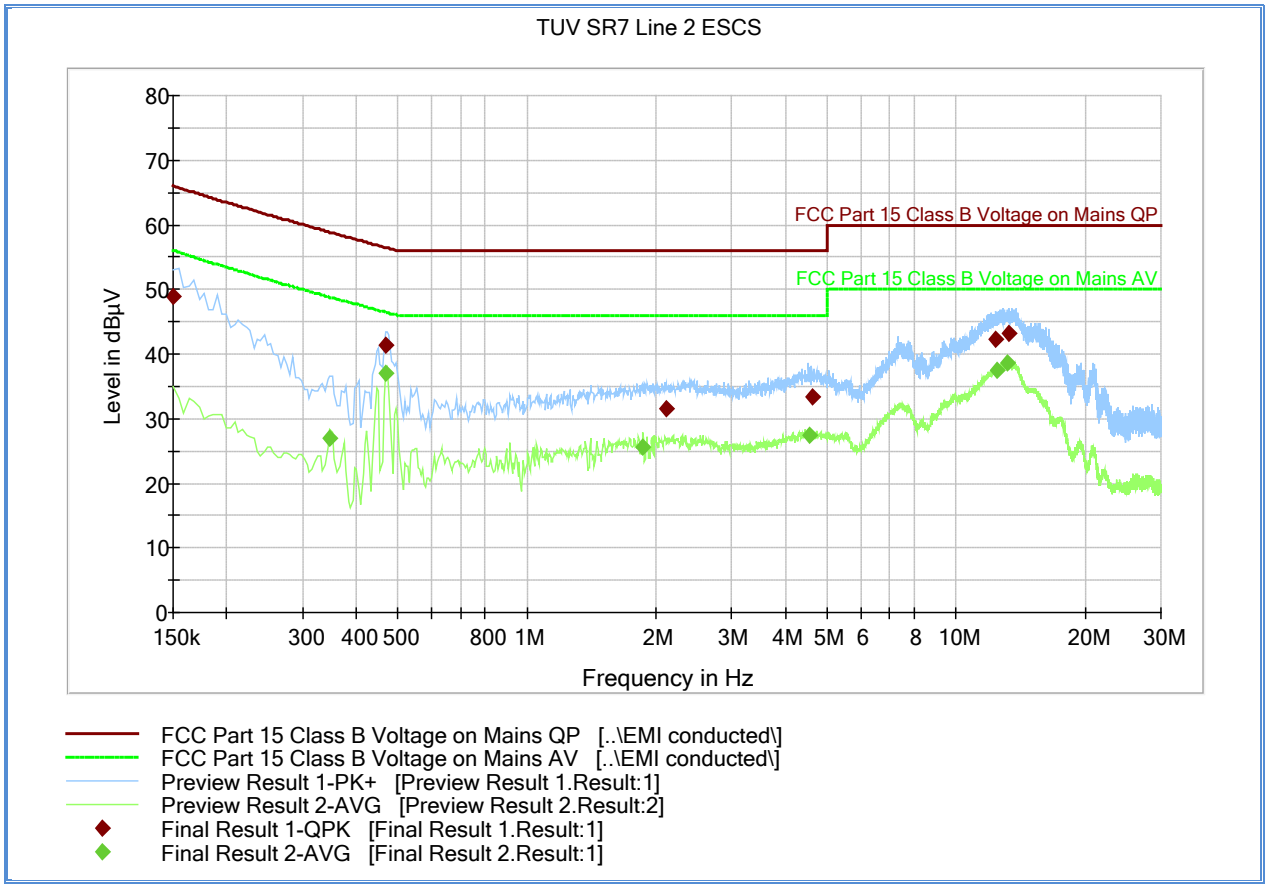
Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV)
0.150000	47.9	1000.0	9.000	Off	L1	20.1	18.1	66.0
0.469500	40.0	1000.0	9.000	Off	L1	20.1	16.5	56.5
1.014000	28.0	1000.0	9.000	Off	L1	20.2	28.0	56.0
4.609500	25.9	1000.0	9.000	Off	L1	20.5	30.1	56.0
12.246000	36.2	1000.0	9.000	Off	L1	20.6	23.8	60.0
12.997500	38.4	1000.0	9.000	Off	L1	20.6	21.6	60.0

Average

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin - Ave (dB)	Limit - Ave (dBµV)
0.150000	34.6	1000.0	9.000	Off	L1	20.1	21.4	56.0
0.469500	36.3	1000.0	9.000	Off	L1	20.1	10.2	46.5
1.014000	24.4	1000.0	9.000	Off	L1	20.2	21.6	46.0
4.366500	19.5	1000.0	9.000	Off	L1	20.4	26.5	46.0
12.408000	31.4	1000.0	9.000	Off	L1	20.6	18.6	50.0
13.263000	33.7	1000.0	9.000	Off	L1	20.6	16.3	50.0

2.1.11 FCC Conducted Emissions Line 2 – Neutral (NU)



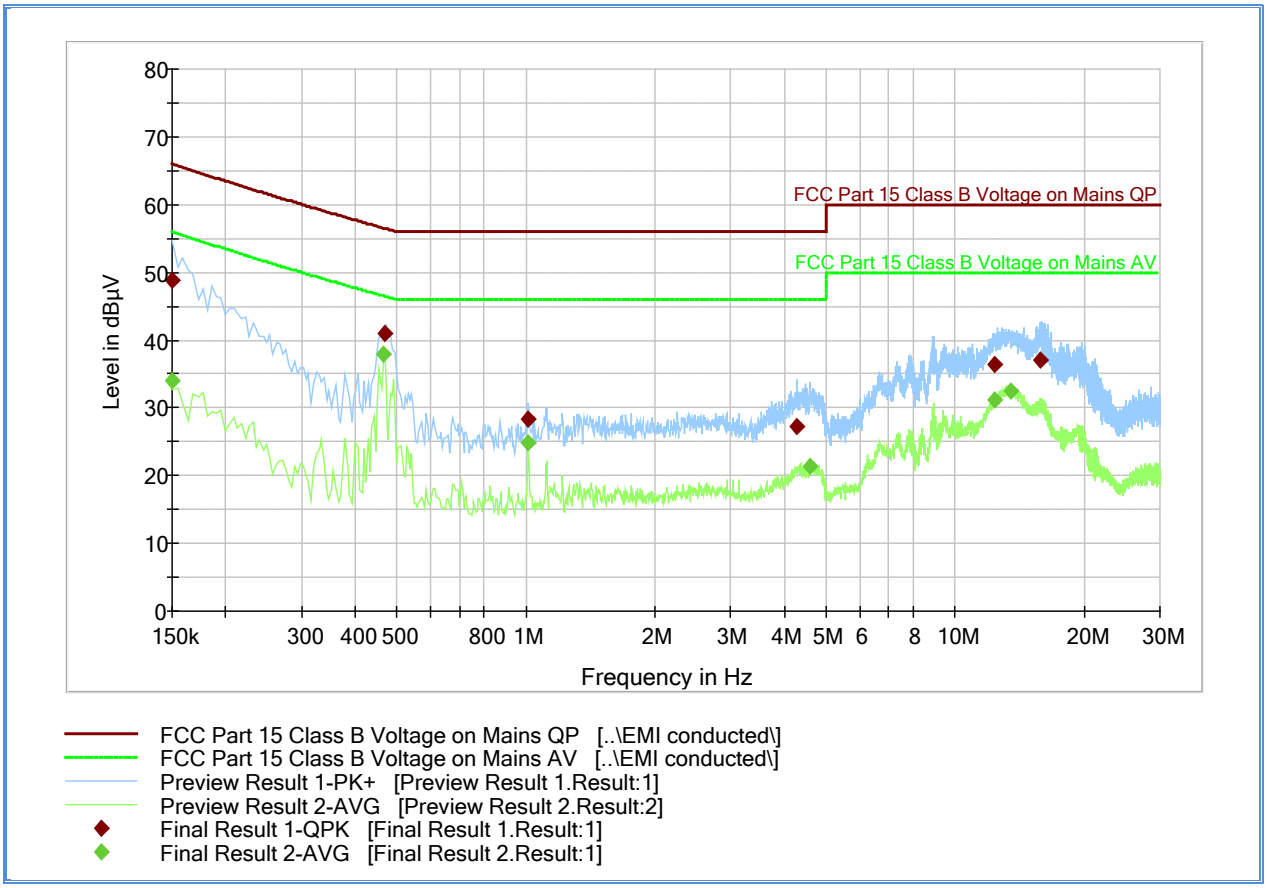
Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV)
0.150000	49.0	1000.0	9.000	Off	N	20.1	17.0	66.0
0.469500	41.5	1000.0	9.000	Off	N	20.1	15.0	56.5
2.107500	31.5	1000.0	9.000	Off	N	20.3	24.5	56.0
4.623000	33.4	1000.0	9.000	Off	N	20.4	22.6	56.0
12.358500	42.4	1000.0	9.000	Off	N	20.7	17.6	60.0
13.281000	43.2	1000.0	9.000	Off	N	20.6	16.8	60.0

Average

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin - Ave (dB)	Limit - Ave (dBµV)
0.348000	26.9	1000.0	9.000	Off	N	20.2	21.9	48.8
0.469500	37.1	1000.0	9.000	Off	N	20.1	9.4	46.5
1.860000	25.7	1000.0	9.000	Off	N	20.2	20.3	46.0
4.537500	27.5	1000.0	9.000	Off	N	20.4	18.5	46.0
12.435000	37.5	1000.0	9.000	Off	N	20.7	12.5	50.0
13.177500	38.5	1000.0	9.000	Off	N	20.6	11.5	50.0

2.1.12 Test Results - Conducted Emissions Line 1 – Hot (CU)



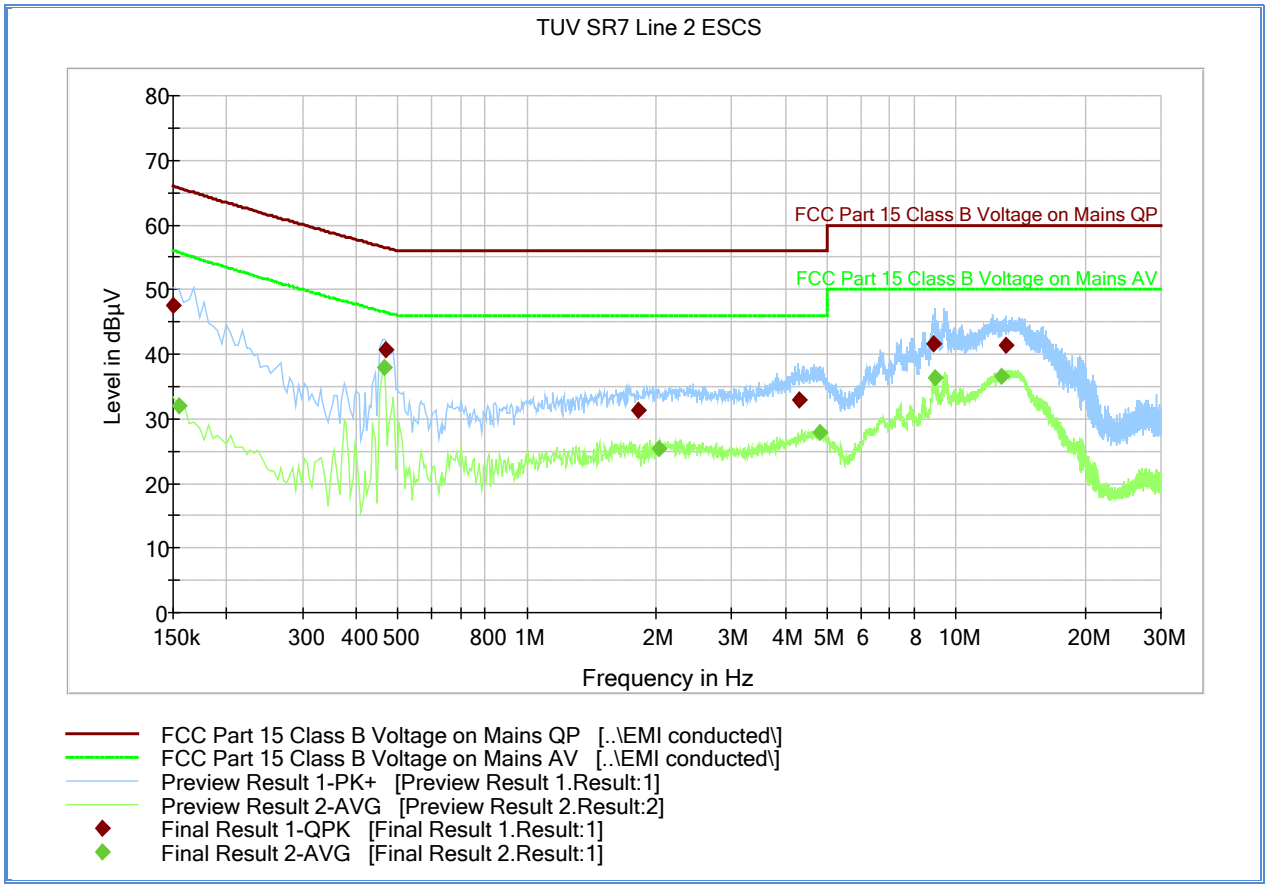
Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV)
0.150000	48.9	1000.0	9.000	Off	L1	20.1	17.1	66.0
0.469500	40.9	1000.0	9.000	Off	L1	20.1	15.6	56.5
1.014000	28.3	1000.0	9.000	Off	L1	20.2	27.7	56.0
4.285500	27.2	1000.0	9.000	Off	L1	20.4	28.8	56.0
12.363000	36.4	1000.0	9.000	Off	L1	20.6	23.6	60.0
15.841500	37.1	1000.0	9.000	Off	L1	20.6	22.9	60.0

Average

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin - Ave (dB)	Limit - Ave (dBµV)
0.150000	33.9	1000.0	9.000	Off	L1	20.1	22.1	56.0
0.465000	37.8	1000.0	9.000	Off	L1	20.1	8.7	46.5
1.014000	24.9	1000.0	9.000	Off	L1	20.2	21.1	46.0
4.582500	21.3	1000.0	9.000	Off	L1	20.4	24.7	46.0
12.403500	31.3	1000.0	9.000	Off	L1	20.6	18.7	50.0
13.452000	32.4	1000.0	9.000	Off	L1	20.6	17.6	50.0

2.1.13 FCC Conducted Emissions Line 2 – Neutral (CU)



Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV)
0.150000	47.4	1000.0	9.000	Off	N	20.1	18.6	66.0
0.469500	40.8	1000.0	9.000	Off	N	20.1	15.7	56.5
1.819500	31.2	1000.0	9.000	Off	N	20.2	24.8	56.0
4.312500	32.9	1000.0	9.000	Off	N	20.4	23.1	56.0
8.875500	41.6	1000.0	9.000	Off	N	20.5	18.4	60.0
13.101000	41.4	1000.0	9.000	Off	N	20.6	18.6	60.0

Average

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin - Ave (dB)	Limit - Ave (dBµV)
0.154500	32.0	1000.0	9.000	Off	N	20.0	23.7	55.7
0.465000	37.8	1000.0	9.000	Off	N	20.1	8.7	46.5
2.031000	25.4	1000.0	9.000	Off	N	20.1	20.6	46.0
4.803000	27.8	1000.0	9.000	Off	N	20.5	18.2	46.0
8.938500	36.2	1000.0	9.000	Off	N	20.5	13.8	50.0
12.741000	36.6	1000.0	9.000	Off	N	20.7	13.4	50.0

2.2 26 DB BANDWIDTH

2.2.1 Specification Reference

FCC 47 CFR Part 15, Clause 15.403

2.2.2 Standard Applicable

(i) Emission bandwidth. For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Determination of the emissions bandwidth is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

2.2.3 Test Methodology

Section II (C) (1) of KDB789033 D02 General UNII Test Procedures New Rules v01r01

2.2.4 Equipment Under Test and Modification State

Please refer to SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report for serial number/s and test configuration used.

2.2.5 Date of Test/Initial of test personnel who performed the test

March 18 and 21, 2016/XYZ

2.2.6 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.2.7 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	25.7 - 26.0°C
Relative Humidity	46.9 - 47.0%
ATM Pressure	98.9 - 99.3kPa

2.2.8 Additional Observations

- Test results presented here is from SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report.docx (issued by TÜV SÜD America San Diego April 2016). See Section 1.2 for more details.
- This is a conducted test.
- Test methodology is per Section II (C) (1) of KDB789033 D02 General UNII Test Procedures New Rules v01r01 (January 8, 2016).
- Span is wide enough to capture the channel transmission.
- RBW is 1% of EBW.
- VBW > RBW.
- Detector is peak. Trace is max hold.
- Sweep time is set to Auto.
- "n dB down" (26dB) marker function of the spectrum analyzer was used for this test.

2.2.9 Summary Test Results (as reported)

UNII 1 30MHz -26dB Bandwidth (NU)		
Channel	**Frequency (MHz)**	**-26dB Bandwidth (MHz)**
38	5190	30.54
44	5220	30.39
48	5240	30.68
UNII 1 40MHz -26dB Bandwidth (NU)		
Channel	**Frequency (MHz)**	**-26dB Bandwidth (MHz)**
38	5190	38.35
44	5220	38.49
46	5230	38.35
UNII 2A 30MHz -26dB Bandwidth (NU)		
Channel	**Frequency (MHz)**	**-26dB Bandwidth (MHz)**
52	5260	30.54
60	5300	31.11
62	5310	30.54
UNII 2A 40MHz -26dB Bandwidth (NU)		
Channel	**Frequency (MHz)**	**-26dB Bandwidth (MHz)**
54	5270	38.49
60	5300	38.35
62	5310	38.49

UNII 2C 30MHz -26dB Bandwidth (CU)		
Channel	**Frequency (MHz)**	**-26dB Bandwidth (MHz)**
105	5525	30.54
120	5600	30.54
140	5700	30.39
UNII 2C 40MHz -26dB Bandwidth (CU)		
Channel	**Frequency (MHz)**	**-26dB Bandwidth (MHz)**
105	5525	39.80
120	5600	38.35
140	5700	38.35
UNII 3 30MHz -26dB Bandwidth (CU)		
Channel	**Frequency (MHz)**	**-26dB Bandwidth (MHz)**
149	5745	30.54
157	5785	30.54
165	5825	30.54
UNII 3 40MHz -26dB Bandwidth (CU)		
Channel	**Frequency (MHz)**	**-26dB Bandwidth (MHz)**
151	5755	38.35
157	5785	38.35
165	5825	38.35

2.2.10 Test Plots

Date: 18.MAR.2016 15:05:33

UNII 1 30MHz Bandwidth Middle Channel 5220 MHz

Date: 18.MAR.2016 15:04:31

UNII 1 40MHz Bandwidth Mid Channel 5220 MHz

Date: 18.MAR.2016 15:18:35

UNII 2A 30MHz Bandwidth Middle Channel 5300 MHz

Date: 18.MAR.2016 15:20:17

UNII 2A 40MHz Bandwidth Middle Channel 5300 MHz

Date: 21.MAR.2016 13:56:02

UNII 2C 30MHz Bandwidth Middle Channel 5600 MHz

Date: 21.MAR.2016 14:00:21

UNII 2C 40MHz Bandwidth Middle Channel 5600 MHz

Date: 21.MAR.2016 15:22:09

UNII 3 30MHz Bandwidth Middle Channel 5785 MHz

Date: 21.MAR.2016 15:20:00

UNII 3 40MHz Bandwidth Middle Channel 5785 MHz

2.3 99% EMISSION BANDWIDTH

2.3.1 Specification Reference

RSS-Gen, Clause 6.6

2.3.2 Standard Applicable

When an occupied bandwidth value is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99% emission bandwidth, as calculated or measured.
The transmitter shall be operated at its maximum carrier power measured under normal test conditions. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used given that a peak or peak hold may produce a wider bandwidth than actual.
The trace data points are recovered and directly summed in linear terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points. This frequency is recorded. The span between the two recorded frequencies is the occupied bandwidth.

2.3.3 Equipment Under Test and Modification State

Please refer to SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report for serial number/s and test configuration used.

2.3.4 Date of Test/Initial of test personnel who performed the test

March 18 and 21, 2016/XYZ

2.3.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.3.6 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	25.7 - 26.0°C
Relative Humidity	46.9 - 47.0%
ATM Pressure	98.9 - 99.3kPa

2.3.7 Additional Observations

- Test results presented here is from SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report.docx (issued by TÜV SÜD America San Diego April 2016). See Section 1.2 for more details.
- This is a conducted test.
- The path loss was measured and entered as a level offset.
- Test methodology is per Section II (D) of KDB789033 D02 General UNII Test Procedures New Rules v01r01 (January 8, 2016).
- Span is wide enough to capture the channel transmission.
- RBW is 1% of the Emission Bandwidth.
- VBW is ≥ 3x RBW.
- Sweep is auto.
- Detector is peak.
- The Channel Bandwidth measurement function of the spectrum analyzer was used for this test.

2.3.8 Summary Test Results (as reported)

UNII 1 30MHz 99% Bandwidth (NU)		
Channel	**Frequency (MHz)**	**99% Bandwidth (MHz)**
38	5190	28.94
44	5220	28.94
48	5240	28.94
UNII 1 40MHz 99% Bandwidth (NU)		
Channel	**Frequency (MHz)**	**99% Bandwidth (MHz)**
38	5190	36.32
44	5220	36.32
46	5230	36.32
UNII 2A 30MHz 99% Bandwidth (NU)		
Channel	**Frequency (MHz)**	**99% Bandwidth (MHz)**
52	5260	28.94
60	5300	29.09
62	5310	28.94
UNII 2A 40MHz 99% Bandwidth (NU)		
Channel	**Frequency (MHz)**	**99% Bandwidth (MHz)**
54	5270	36.18
60	5300	36.47
62	5310	36.18

UNII 2C 30MHz 99% Bandwidth (CU)		
Channel	**Frequency (MHz)**	**99% Bandwidth (MHz)**
105	5525	28.94
120	5600	28.94
140	5700	28.94
UNII 2C 40MHz 99% Bandwidth (CU)		
Channel	**Frequency (MHz)**	**99% Bandwidth (MHz)**
105	5525	36.18
120	5600	36.18
140	5700	36.18
UNII 3 30MHz 99% Bandwidth (CU)		
Channel	**Frequency (MHz)**	**99% Bandwidth (MHz)**
149	5745	28.94
157	5785	28.94
165	5825	28.94
UNII 3 40MHz 99% Bandwidth (CU)		
Channel	**Frequency (MHz)**	**99% Bandwidth (MHz)**
151	5755	36.32
157	5785	36.18
165	5825	36.32

2.3.9 Test Plots

Date: 18.MAR.2016 15:05:56

UNII 1 30MHz Bandwidth Middle Channel 5220 MHz

Date: 18.MAR.2016 15:04:04

UNII 1 40MHz Bandwidth Mid Channel 5220 MHz

Date: 18.MAR.2016 15:19:01

UNII 2A 30MHz Bandwidth Middle Channel 5300 MHz

Date: 18.MAR.2016 15:19:51

UNII 2A 40MHz Bandwidth Middle Channel 5300 MHz

Date: 21.MAR.2016 13:57:00

UNII 2C 30MHz Bandwidth Middle Channel 5600 MHz

Date: 21.MAR.2016 13:59:47

UNII 2C 40MHz Bandwidth Middle Channel 5600 MHz

Date: 21.MAR.2016 15:21:43

UNII 3 30MHz Bandwidth Middle Channel 5785 MHz

Date: 21.MAR.2016 15:20:38

UNII 3 40MHz Bandwidth Middle Channel 5785 MHz

2.4 MINIMUM 6DB BANDWIDTH

2.4.1 Specification Reference

FCC 47 CFR Part 152, Clause 15.407(e) and RSS-247, Clause 6.2.4(1)

2.4.2 Standard Applicable

(e) Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of UNII devices shall be at least 500 kHz.

2.4.3 Test Methodology

Section II (C) (2) of KDB789033 D02 General UNII Test Procedures New Rules v01r01

2.4.4 Equipment Under Test and Modification State

Please refer to SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report for serial number/s and test configuration used.

2.4.5 Date of Test/Initial of test personnel who performed the test

February 08, 12 and 16, 2016/XYZ

2.4.6 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.4.7 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	26.7 - 29.0°C
Relative Humidity	21.4 - 26.8%
ATM Pressure	98.9 - 99.5kPa

2.4.8 Additional Observations

- Test results presented here is from SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report.docx (issued by TÜV SÜD America San Diego April 2016). See Section 1.2 for more details.
- This is a conducted test.
- The path loss was measured and entered as a level offset.
- Span is wide enough to capture the channel transmission.
- RBW is 100kHz.
- VBW is ≥ 3X RBW.
- Sweep is auto.
- Detector is Peak.
- Trace mode is Max Hold.

2.4.9 Summary Test Results (as reported)

UNII 1 30MHz 6dB Bandwidth (NU)		
Channel	**Frequency (MHz)**	**-6dB Bandwidth (MHz)**
38	5190	28.90
44	5220	28.94
48	5240	28.97
UNII 1 40MHz 6dB Bandwidth (NU)		
Channel	**Frequency (MHz)**	**-6dB Bandwidth (MHz)**
38	5190	38.35
44	5220	38.35
46	5230	38.35
UNII 2A 30MHz 6dB Bandwidth (NU)		
Channel	**Frequency (MHz)**	**-6dB Bandwidth (MHz)**
52	5260	28.94
60	5300	29.09
62	5310	29.09
UNII 2A 40MHz 6dB Bandwidth (NU)		
Channel	**Frequency (MHz)**	**-6dB Bandwidth (MHz)**
54	5270	38.35
60	5300	38.35
62	5310	38.36

UNII 2C 30MHz 6dB Bandwidth (CU)		
Channel	**Frequency (MHz)**	**-6dB Bandwidth (MHz)**
105	5525	29.23
120	5600	29.38
140	5700	29.38
UNII 2C 40MHz 6dB Bandwidth (CU)		
Channel	**Frequency (MHz)**	**-6dB Bandwidth (MHz)**
105	5525	38.21
120	5600	38.35
140	5700	38.35
UNII 3 30MHz 6dB Bandwidth (CU)		
Channel	**Frequency (MHz)**	**-6dB Bandwidth (MHz)**
149	5745	29.32
157	5785	29.38
165	5825	29.38
UNII 3 40MHz 6dB Bandwidth (CU)		
Channel	**Frequency (MHz)**	**-6dB Bandwidth (MHz)**
151	5755	38.35
157	5785	38.35
165	5825	38.35

2.4.10 Test Plots

Date: 12.FEB.2016 13:36:26

UNII 1 30MHz Bandwidth Middle Channel 5220 MHz

Date: 12.FEB.2016 11:54:42

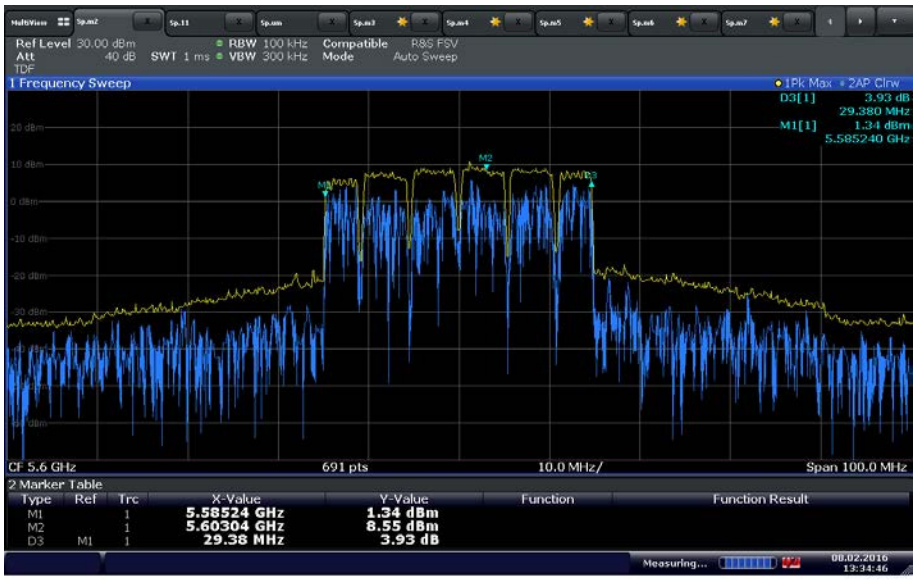
UNII 1 40MHz Bandwidth Mid Channel 5220 MHz

Date: 12.FEB.2016 14:15:29

UNII 2A 30MHz Bandwidth Middle Channel 5300 MHz

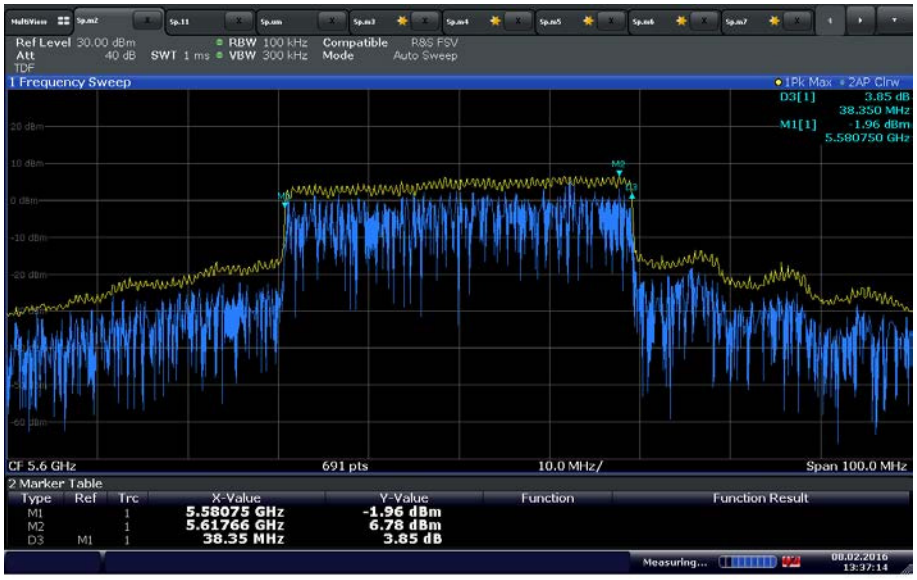
Date: 12.FEB.2016 14:31:54

UNII 2A 40MHz Bandwidth Middle Channel 5300 MHz



Date: 8.FEB.2016 13:34:46

UNII 2C 30MHz Bandwidth Middle Channel 5600 MHz



Date: 8.FEB.2016 13:37:14

UNII 2C 40MHz Bandwidth Middle Channel 5600 MHz

UNII 3 30MHz Bandwidth Middle Channel 5785 MHz

UNII 3 40MHz Bandwidth Middle Channel 5785 MHz

2.5 MAXIMUM CONDUCTED OUTPUT POWER

2.5.1 Specification Reference

FCC 47 CFR Part 15, Clause 15.407(a) and RSS-247, Clause 6.2.4(1)

2.5.2 Standard Applicable

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point UNII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the UNII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

2.5.3 Test Methodology

Section II (E)(2)(b) Method SA-1 of KDB789033 D02 General UNII Test Procedures New Rules v01r01

2.5.1 Equipment Under Test and Modification State

Please refer to SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report for serial number/s and test configuration used.

2.5.1 Date of Test/Initial of test personnel who performed the test

February 02, 04 and 16, 2016 / XYZ

2.5.2 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.5.3 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	22.7 - 29.0°C
Relative Humidity	21.5 - 29.1%
ATM Pressure	98.9 - 100.1kPa

2.5.4 Additional Observations

- Test results presented here is from SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report.docx (issued by TÜV SÜD America San Diego April 2016). See Section 1.2 for more details.
- This is a conducted test.
- Test methodology is per Section E(2)(b) Method SA-1 of KDB789033 D02 General UNII Test Procedures New Rules v01r01 (January 8, 2016). All conditions under this Section were satisfied.
- RBW is 1MHz while VBW is ≥ 3 MHz
- Detector is RMS
- Trace was averaged >100 times.
- The path loss was measured and entered as a level offset.
- The spectrum analyser band power function was used for this test.
- Only Middle Channel test plots presented as the representative configuration.

2.5.5 Test Results

UNII 1 30MHz Bandwidth (NU)				
Channel	**Frequency (MHz)**	**Average Power (dBm)**	**Average Power (W)**	**Margin from 24dBm limit (dB)**
38	5190	21.15	0.13	2.85
44	5220	21.46	0.14	2.54
48	**5240**	**22.56**	**0.18**	**1.44**
UNII 1 40MHz Bandwidth (NU)				
Channel	**Frequency (MHz)**	**Average Power (dBm)**	**Average Power (W)**	**Margin from 24dBm limit (dB)**
38	5190	21.45	0.14	2.55
44	5220	21.36	0.14	2.64
46	5230	21.62	0.15	2.38

UNII 2A 30MHz Bandwidth (NU)				
Channel	**Frequency (MHz)**	**Average Power (dBm)**	**Average Power (W)**	**Margin from 24dBm limit (dB)**
52	**5260**	**22.68**	**0.19**	**1.32**
60	5300	22.07	0.16	1.93
62	5310	20.48	0.11	3.52
UNII 2A 40MHz Bandwidth (NU)				
Channel	**Frequency (MHz)**	**Average Power (dBm)**	**Average Power (W)**	**Margin from 24dBm limit (dB)**
54	5270	22.50	0.18	1.5
60	5300	22.48	0.18	1.52
62	5310	20.16	0.10	3.84

UNII 2C 30MHz Bandwidth (CU)				
Channel	**Frequency (MHz)**	**Average Power (dBm)**	**Average Power (W)**	**Margin from 24dBm limit (dB)**
105	5525	21.20	0.13	2.8
120	5600	21.44	0.14	2.56
140	5700	21.94	0.16	2.06
UNII 2C 40MHz Bandwidth (CU)				
Channel	**Frequency (MHz)**	**Average Power (dBm)**	**Average Power (W)**	**Margin from 24dBm limit (dB)**
105	5525	21.21	0.13	2.79
120	5600	21.58	0.14	2.42
140	**5700**	**22.18**	**0.17**	**1.82**
UNII 3 30MHz Bandwidth (CU)				
Channel	**Frequency (MHz)**	**Average Power (dBm)**	**Average Power (W)**	**Margin from 30dBm limit (dB)**
149	5745	21.32	0.14	8.68
157	5785	21.87	0.15	8.13
165	5825	21.82	0.15	8.18
UNII 3 40MHz Bandwidth (CU)				
Channel	**Frequency (MHz)**	**Average Power (dBm)**	**Average Power (W)**	**Margin from 30dBm limit (dB)**
151	5755	20.19	0.10	9.81
157	5785	22.02	0.16	7.98
165	**5825**	**22.16**	**0.16**	**7.84**

2.5.6 Sample Test Plots

UNII 1 30MHz Bandwidth Middle Channel 5220 MHz

UNII 1 40MHz Bandwidth Mid Channel 5220 MHz

UNII 2A 30MHz Bandwidth Middle Channel 5300 MHz

UNII 2A 40MHz Bandwidth Middle Channel 5300 MHz

Date: 4.FEB.2016 14:52:52

UNII 2C 30MHz Bandwidth Middle Channel 5600 MHz

Date: 4.FEB.2016 14:56:53

UNII 2C 40MHz Bandwidth Middle Channel 5600 MHz

UNII 3 30MHz Bandwidth Middle Channel 5785 MHz

UNII 3 40MHz Bandwidth Middle Channel 5785 MHz

2.6 MAXIMUM POWER SPECTRAL DENSITY (PSD)

2.6.1 Specification Reference

FCC 47 CFR Part 15, Clause 15.407(a)(1), (a)(2) and (a)(3)
RSS-247, Clause 6.2.4(1)

2.6.2 Standard Applicable

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point UNII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the UNII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

2.6.3 Test Methodology

Section II (F) PSD of KDB789033 D02 General UNII Test Procedures New Rules v01r01

2.6.4 Equipment Under Test and Modification State

Please refer to SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report for serial number/s and test configuration used.

2.6.5 Date of Test/Initial of test personnel who performed the test

February 05, 08, 09 and 16, 2016 / XYZ

2.6.6 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.6.7 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	23.0 - 29.0°C
Relative Humidity	21.5 - 29.1%
ATM Pressure	98.9 - 100.1kPa

2.6.8 Additional Observations

- Test results presented here is from SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report.docx (issued by TÜV SÜD America San Diego April 2016). See Section 1.2 for more details.
- This is a conducted test as per Section II (F) PSD of KDB789033 D02 General UNII Test Procedures New Rules v01r01 (January 8, 2016). All conditions under this Section were satisfied.
- The path loss was measured and entered as a level offset.
- Only Middle Channel test plots presented as the representative configuration.
- RBW for UNII 1, UNII 2A and UNII 2C is 1MHz while 500 kHz for UNII 3.

2.6.9 Test Results

UNII 1 30MHz Bandwidth (NU)				
Channel	**Frequency (MHz)**	**Maximum PSD (dBm)**	**Limit (dB)**	**Margin (dB)**
38	5190	8.38	11	2.62
44	5220	9.22	11	1.78
48	5240	6.80	11	4.2
UNII 1 40MHz Bandwidth (NU)				
Channel	**Frequency (MHz)**	**Maximum PSD (dBm)**	**Limit (dB)**	**Margin (dB)**
38	5190	5.14	11	5.86
44	5220	6.34	11	4.66
46	5230	7.04	11	3.96
UNII 2A 30MHz Bandwidth (NU)				
Channel	**Frequency (MHz)**	**Maximum PSD (dBm)**	**Limit (dB)**	**Margin (dB)**
52	5260	5.89	11	5.11
60	5300	5.90	11	5.1
62	5310	5.92	11	5.08

UNII 2A 40MHz Bandwidth (NU)				
Channel	**Frequency (MHz)**	**Maximum PSD (dBm)**	**Limit (dB)**	**Margin (dB)**
54	5270	6.62	11	4.38
60	5300	3.78	11	7.22
62	5310	2.46	11	8.54

UNII 2C 30MHz Bandwidth (CU)				
Channel	**Frequency (MHz)**	**Maximum PSD (dBm/MHz)**	**Limit (dB/MHz)**	**Margin (dB)**
105	5525	8.88	11	2.12
120	5600	9.10	11	1.9
140	5700	9.27	11	1.73
UNII 2C 40MHz Bandwidth (CU)				
Channel	**Frequency (MHz)**	**Maximum PSD (dBm/MHz)**	**Limit (dB/MHz)**	**Margin (dB)**
105	5525	7.56	11	3.44
120	5600	7.85	11	3.15
140	5700	7.52	11	3.48
UNII 3 30MHz Bandwidth (CU)				
Channel	**Frequency (MHz)**	**Maximum PSD (dBm/MHz)**	**Limit (dB/MHz)**	**Margin (dB)**
149	5745	7.21	30	22.79
157	5785	6.84	30	23.16
165	5825	6.91	30	23.09
UNII 3 40MHz Bandwidth (CU)				
Channel	**Frequency (MHz)**	**Maximum PSD (dBm/MHz)**	**Limit (dB/MHz)**	**Margin (dB)**
151	5755	5.84	30	24.16
157	5785	4.93	30	25.07
165	5825	5.86	30	24.14

2.6.10 Test Plots

Date: 8.FEB.2016 15:38:09

UNII 1 30MHz Bandwidth Middle Channel 5220 MHz

Date: 8.FEB.2016 15:41:58

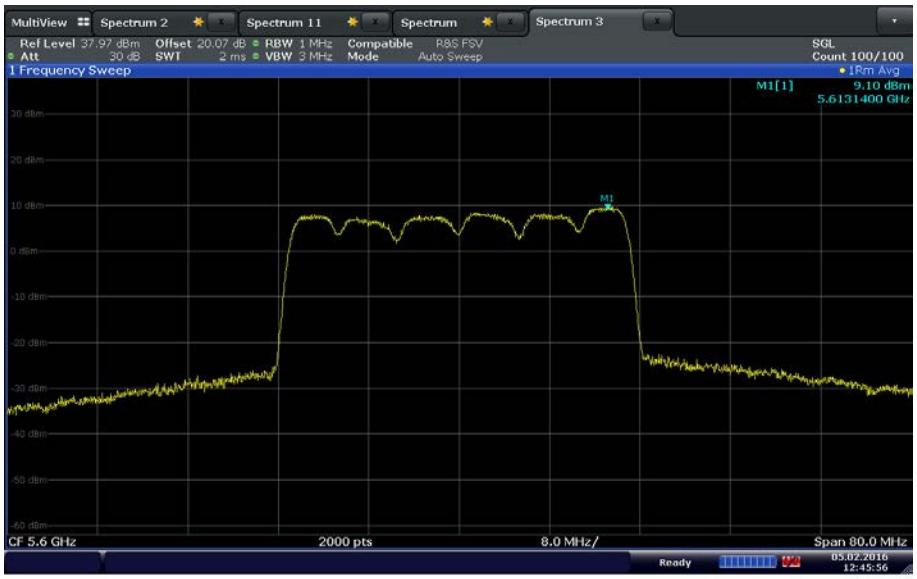
UNII 1 40MHz Bandwidth Mid Channel 5220 MHz

Date: 9.FEB.2016 09:53:15

UNII 2A 30MHz Bandwidth Middle Channel 5300 MHz

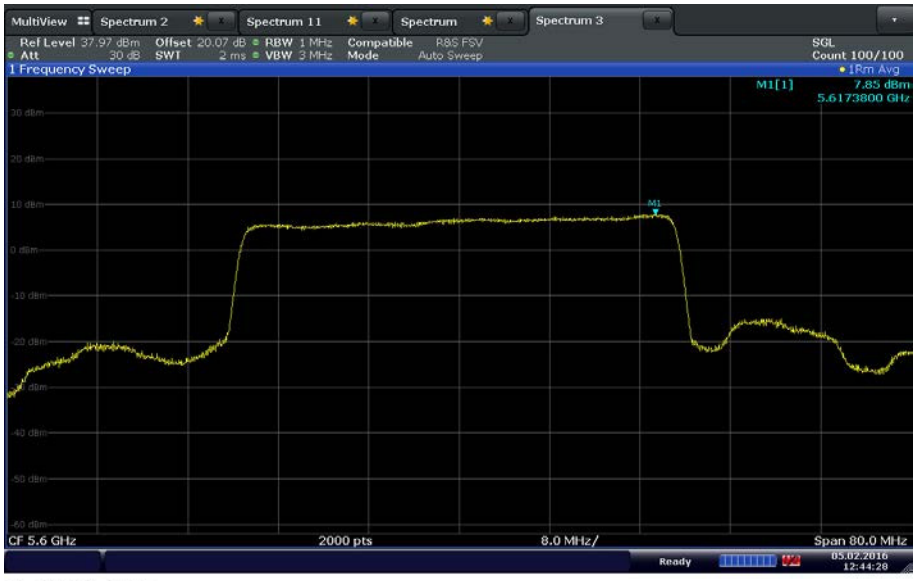
Date: 9.FEB.2016 09:54:53

UNII 2A 40MHz Bandwidth Middle Channel 5300 MHz



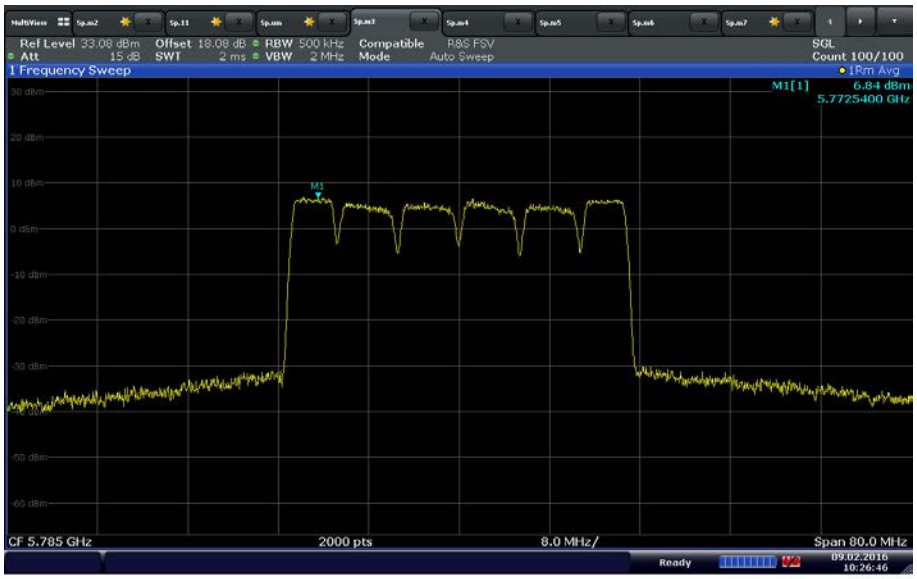
Date: 5.FEB.2016 12:45:57

UNII 2C 30MHz Bandwidth Middle Channel 5600 MHz



Date: 5.FEB.2016 12:44:29

UNII 2C 40MHz Bandwidth Middle Channel 5600 MHz



Date: 9.FEB.2016 10:26:46

UNII 3 30MHz Bandwidth Middle Channel 5785 MHz

Date: 9.FEB.2016 10:30:18

UNII 3 40MHz Bandwidth Middle Channel 5785 MHz

2.7 UNWANTED EMISSIONS MEASUREMENT

2.7.1 Specification Reference

FCC 47 CFR Part 15, Clause 15.407(b)
FCC 47 CFR Part 15.209
RSS-247, Clause 6.2.4(2)

2.7.2 Standard Applicable

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25–5.35 GHz band: All emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47–5.725 GHz band: All emissions outside of the 5.47–5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

2.7.3 Test Methodology

Section II (G) Unwanted Emission Measurement of KDB789033 D02 General UNII Test Procedures New Rules v01r01

2.7.4 Equipment Under Test and Modification State

Serial No: 296546000509 (NU) and 297546000285 (CU) / Test Configuration C only, A and B were used for original filing. Please refer to SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report for serial number/s of units used in test configuration A and B.

2.7.5 Date of Test/Initial of test personnel who performed the test

February 05, 06, 16 and 21, 2016 / XYZ (original filing)
May 02, 2016 / FSC (radiated emissions verification of LTE B12 variant)

2.7.6 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.7.7 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	23.0 - 25.3 °C
Relative Humidity	21.5 – 38.8 %
ATM Pressure	98.9 – 99.9 kPa

2.7.8 Additional Observations

- This is an antenna-port conducted measurement test plus radiated cabinet emissions measurements.
- Antenna conducted port test results presented here is from SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report.docx (issued by TÜV SÜD America San Diego April 2016). See Section 1.2 for more details.
- Low, Middle and High channels were verified. Only Middle Channel test plots presented as the representative configuration.
- Sweep time is set to auto.
- The path loss was measured and entered as a level offset.
- The field strength limit of 15.209 is first converted to dBm (EIRP) using the formula under Section G(2)(d) of KDB789033 D02 General UNII Test Procedures New Rules v01r01. Prescans were performed against this limit. If Peak complies with the limit, no Average evaluation will be performed.
- Any emissions that is not in the restricted band will be evaluated to -27dBm/MHz (UNII 1, 2A, 2C) and -17dBm/MHz (UNII 3) limit. -27dBm limit line was set as the worst case.
- Radiated measurement was done using EMC32 automated software. Reported level is the actual level with all the correction factors factored in. Correction Factor column is for informational purposes only. See Section 2.7.9 for sample computation.

2.7.9 Sample Computation (Radiated Emission)

Measuring equipment raw measurement (dbµV) @ 30 MHz			24.4
Correction Factor (dB)	Asset# 1066 (cable)	0.3	-12.6
	Asset# 1172 (cable)	0.3	
	Asset# 1016 (preamplifier)	-30.7	
	Asset# 1175(cable)	0.3	
	Asset# 1002 (antenna)	17.2	
Reported QuasiPeak Final Measurement (dbµV/m) @ 30MHz			**11.8**

2.7.10 Test Results

See attached plots.

2.7.11 Test Plots

Date: 6.FEB.2016 11:17:13

UNII 1 30MHz Bandwidth Middle Channel 5220 MHz Below 1GHz

Date: 6.FEB.2016 11:16:27

UNII 1 30MHz Bandwidth Middle Channel 5220 MHz Above 1GHz

Date: 6.FEB.2016 11:06:38

UNII 1 40MHz Bandwidth Mid Channel 5220 MHz Below 1GHz

Date: 6.FEB.2016 11:07:50

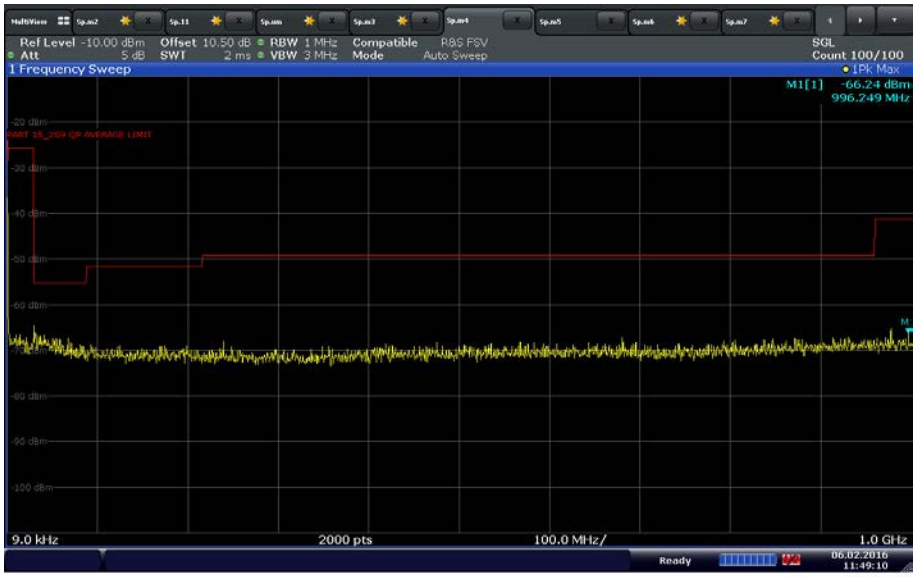
UNII 1 40MHz Bandwidth Mid Channel 5220 MHz Above 1GHz

Date: 6.FEB.2016 11:52:02

UNII 2A 30MHz Bandwidth Middle Channel 5300 MHz Below 1GHz

Date: 6.FEB.2016 11:50:58

UNII 2A 30MHz Bandwidth Middle Channel 5300 MHz Above 1GHz



Date: 6.FEB.2016 11:49:10

UNII 2A 40MHz Bandwidth Middle Channel 5300 MHz Below 1GHz

Date: 6.FEB.2016 11:48:18

UNII 2A 40MHz Bandwidth Middle Channel 5300 MHz Above 1GHz

Date: 5.FEB.2016 14:57:37

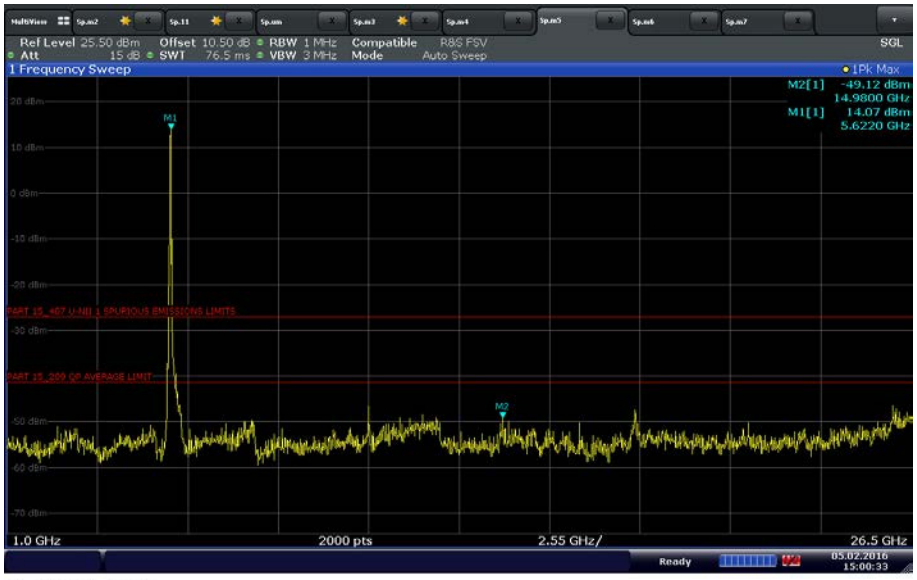
UNII 2C 30MHz Bandwidth Middle Channel 5600 MHz Below 1GHz

Date: 5.FEB.2016 14:56:47

UNII 2C 30MHz Bandwidth Middle Channel 5600 MHz Above 1GHz

Date: 5.FEB.2016 15:01:02

UNII 2C 40MHz Bandwidth Middle Channel 5600 MHz Below 1GHz



Date: 5.FEB.2016 15:00:33

UNII 2C 40MHz Bandwidth Middle Channel 5600 MHz Above 1GHz

Date: 5.FEB.2016 15:56:07

UNII 3 30MHz Bandwidth Middle Channel 5785 MHz Below 1GHz

Date: 5.FEB.2016 15:54:54

UNII 3 30MHz Bandwidth Middle Channel 5785 MHz Above 1GHz

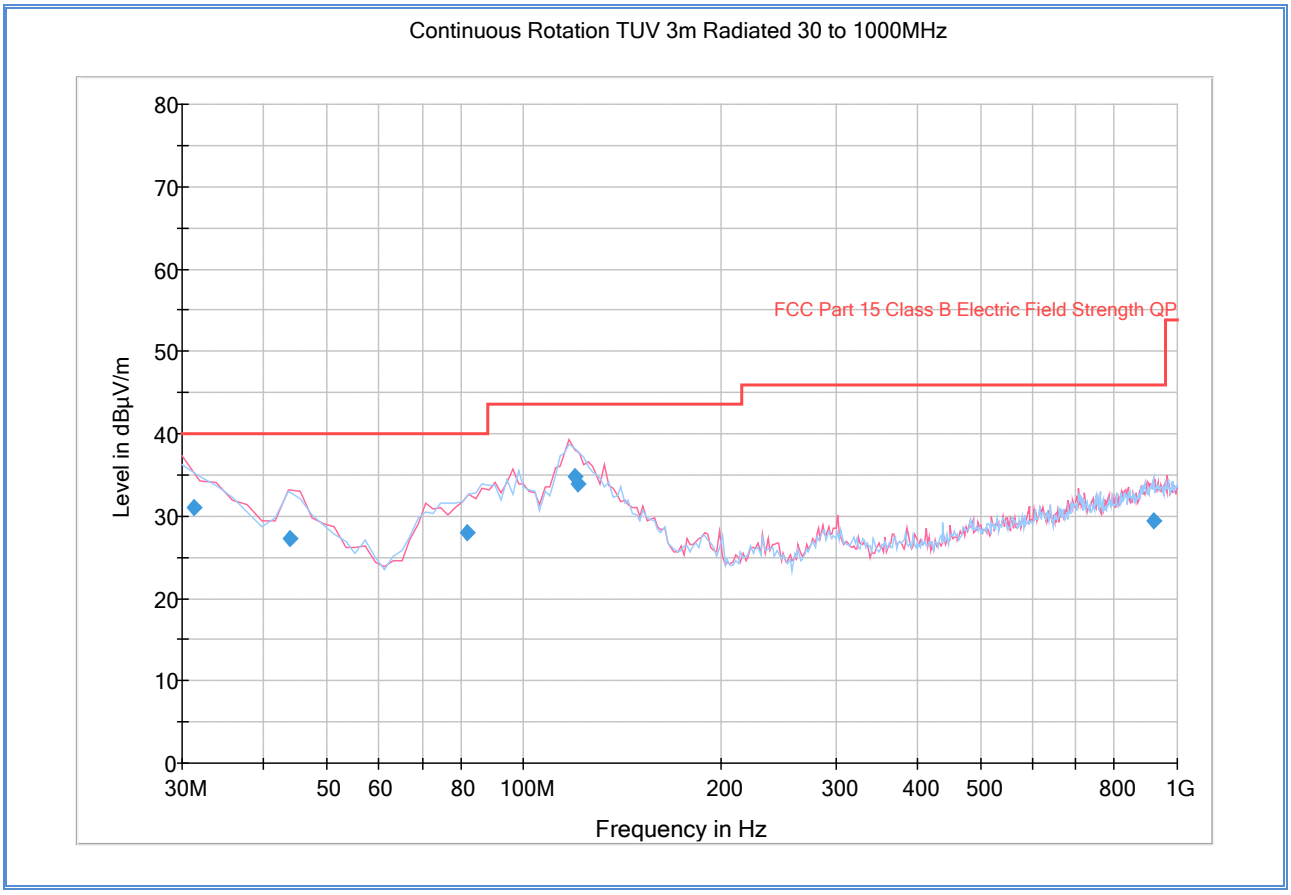
Date: 5.FEB.2016 15:52:48

UNII 3 40MHz Bandwidth Middle Channel 5785 MHz Below 1GHz

Date: 5.FEB.2016 15:51:55

UNII 3 40MHz Bandwidth Middle Channel 5785 MHz Below 1GHz

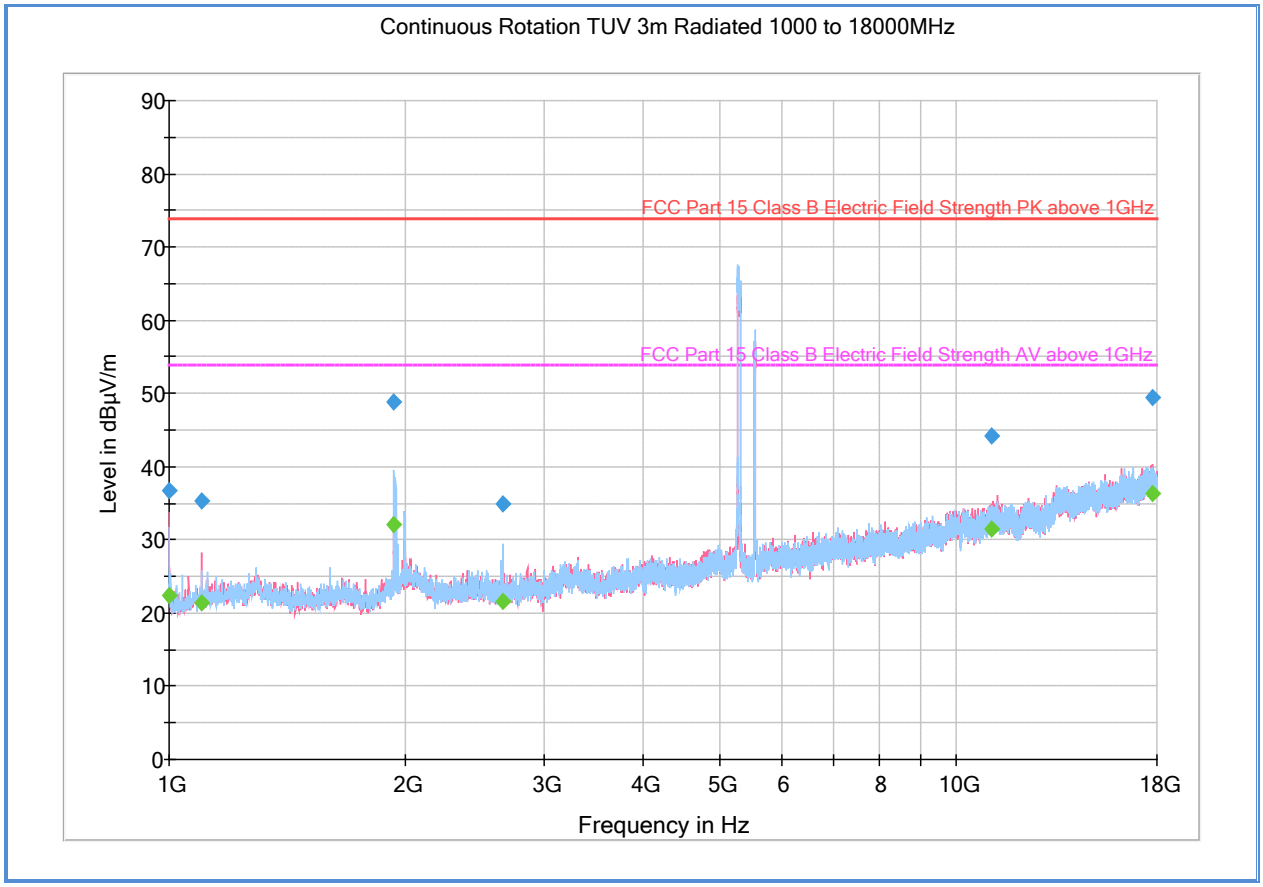
2.7.12 Test Results Below 1GHz (Representative Cabinet Spurious Emissions)



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
31.320000	31.0	1000.0	120.000	115.0	V	18.0	-6.6	9.0	40.0
43.967214	27.3	1000.0	120.000	100.0	V	298.0	-12.6	12.7	40.0
82.028858	27.9	1000.0	120.000	100.0	H	138.0	-16.3	12.1	40.0
119.594950	34.8	1000.0	120.000	100.0	V	87.0	-15.2	8.7	43.5
120.986613	34.0	1000.0	120.000	110.0	H	3.0	-15.3	9.5	43.5
920.996713	29.5	1000.0	120.000	265.0	H	308.0	6.4	16.5	46.0

2.7.13 Test Results Above 1GHz (Representative Cabinet Spurious Emissions)



Peak Data

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1000.500000	36.7	1000.0	1000.000	204.3	V	236.0	-11.2	37.2	73.9
1099.133333	35.4	1000.0	1000.000	196.5	V	23.0	-10.4	38.5	73.9
1931.966667	48.8	1000.0	1000.000	268.3	H	23.0	-6.5	25.1	73.9
2653.200000	35.0	1000.0	1000.000	397.6	H	117.0	-6.5	38.9	73.9
11087.83333	44.3	1000.0	1000.000	397.6	V	289.0	9.4	29.6	73.9
17783.76666	49.4	1000.0	1000.000	99.7	V	0.0	16.6	24.5	73.9

Average Data

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1000.500000	22.5	1000.0	1000.000	204.3	V	236.0	-11.2	31.4	53.9
1099.133333	21.4	1000.0	1000.000	196.5	V	23.0	-10.4	32.5	53.9
1931.966667	32.1	1000.0	1000.000	268.3	H	23.0	-6.5	21.8	53.9
2653.200000	21.6	1000.0	1000.000	397.6	H	117.0	-6.5	32.3	53.9
11087.83333	31.5	1000.0	1000.000	397.6	V	289.0	9.4	22.4	53.9
17783.76666	36.4	1000.0	1000.000	99.7	V	0.0	16.6	17.5	53.9

Test Notes: No significant emissions observed above 18GHz. Only the worst case configuration presented.

2.8 BAND-EDGE MEASUREMENTS

2.8.1 Specification Reference

FCC 47 CFR Part 15, Clause 15.407(b)
RSS-247, Clause 6.2.4(2)

2.8.2 Standard Applicable

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25–5.35 GHz band: All emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47–5.725 GHz band: All emissions outside of the 5.47–5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

2.8.3 Test Methodology

Section II (G)(3)(d)(ii) Band Edge Measurement of KDB789033 D02 General UNII Test Procedures New Rules v01r01

2.8.4 Equipment Under Test and Modification State

Please refer to SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report for serial number/s and test configuration used.

2.8.5 Date of Test/Initial of test personnel who performed the test

February 26 and March 18, 2016 / XYZ

2.8.6 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.8.7 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	23.0 - 25.7°C
Relative Humidity	21.5 - 47.0%
ATM Pressure	98.9 - 100kPa

2.8.8 Additional Observations

- Test results presented here is from SD72112724-0116F FCC Part 15.407 Subpart E RSS247 Test Report.docx (issued by TÜV SÜD America San Diego April 2016). See Section 1.2 for more details.
- This is a conducted test using Integration Method as per Section II (G)(3)(d)(ii) Band Edge Measurement of KDB789033 D02 General UNII Test Procedures New Rules v01r01.
- RBW=100 kHz
- VBW=300 kHz
- Sweep time=Auto
- Trace Mode=max hold
- Detector is Peak for Peak measurements and RMS for Average measurements.
- Sweep time is set to auto.
- The path loss was measured and entered as a level offset.
- Integration performed across 1MHz bandwidth.

2.8.9 Test Results

UNII 1 30MHz Lower Band Edge 5150MHz (Peak Measurement) @5190MHz

Lower band edge calculation:

- 5150 MHz (in the restricted band)
- Limit is -27dBm EIRP
- Use the following formula as per Section Section G(2)d)(III) of KDB789033 D02 General UNII Test

- Procedures New Rules v01r01:

  E(dBµV/m) = EIRP (dBm) + 95.2
  = (-33.77 dBm + 1 dBi antenna gain) + 95.2
  = 62.43 dBµV/m @ 3 meters (Complies with 74 dBµV/m limit)

UNII 1 30MHz Lower Band Edge 5150MHz (Average Measurement) @5190MHz

Lower band edge calculation:

- 5150 MHz (in the restricted band)
- Use the following formula as per Section Section G(2)d)(III) of KDB789033 D02 General UNII Test Procedures New Rules v01r01:

  E(dBµV/m) = EIRP (dBm) + 95.2
  = (-44.22 dBm + 1 dBi antenna gain) + 95.2
  = 51.98 dBµV/m @ 3 meters (Complies with 54 dBµV/m limit)

UNII 1 40MHz Lower Band Edge 5150MHz (Peak Measurement) @5190MHz

Lower band edge calculation:

- 5150 MHz (in the restricted band)
- Limit is -27dBm EIRP
- Use the following formula as per Section Section G(2)d)(III) of KDB789033 D02 General UNII Test Procedures New Rules v01r01:

E(dBµV/m) = EIRP (dBm) + 95.2
= (-33.21 dBm + 1 dBi antenna gain) + 95.2
= 62.99 dBµV/m @ 3 meters (Complies with 74 dBµV/m limit)

UNII 1 40MHz Lower Band Edge 5150MHz (Average Measurement) @5190MHz

Lower band edge calculation:

- 5150 MHz (in the restricted band)
- Use the following formula as per Section Section G(2)d)(III) of KDB789033 D02 General UNII Test Procedures New Rules v01r01:

E(dBµV/m) = EIRP (dBm) + 95.2
= (-45.67 dBm + 1 dBi antenna gain) + 95.2
= 50.53 dBµV/m @ 3 meters (Complies with 54 dBµV/m limit)

UNII 2A 30MHz Upper Band Edge 5350MHz (Peak Measurement) @ 5310 MHz

Upper band edge calculation (5350 MHz):

- 5350 MHz (in the restricted bands)
- Limit is -27dBm EIRP
- Use the following formula as per Section Section G(2)D)(III) of KDB789033 D02 General UNII Test Procedures New Rules v01r01:

E(dBµV/m) = EIRP (dBm) + 95.2
= (-33.32 dBm + 1 dBi antenna gain) + 95.2
= 62.88 dBµV/m @ 3 meters (Complies with 74 dBµV/m limit)

UNII 2A 30MHz Upper Band Edge 5350MHz (Average Measurement) @ 5310 MHz

Upper band edge calculation (5350 MHz):

- 5350 MHz (in the restricted bands)
- Limit is -27dBm EIRP
- Use the following formula as per Section Section G(2)D)(III) of KDB789033 D02 General UNII Test Procedures New Rules v01r01:

E(dBµV/m) = EIRP (dBm) + 95.2
= (-43.35 dBm + 1 dBi antenna gain) + 95.2
= 52.85 dBµV/m @ 3 meters (Complies with 54 dBµV/m limit)

UNII 2A 40MHz Upper Band Edge 5350MHz (Peak Measurement) @ 5310 MHz

Upper band edge calculation (5350 MHz):

- 5350 MHz (in the restricted bands)
- Limit is -27dBm EIRP
- Use the following formula as per Section Section G(2)D)(III) of KDB789033 D02 General UNII Test Procedures New Rules v01r01:

E(dBµV/m) = EIRP (dBm) + 95.2
= (-31.16 dBm + 1 dBi antenna gain) + 95.2
= 65.04 dBµV/m @ 3 meters (Complies with 74 dBµV/m limit)

UNII 2A 40MHz Upper Band Edge 5350MHz (Average Measurement) @ 5310 MHz

Upper band edge calculation (5350 MHz):

- 5350 MHz (in the restricted bands)
- Limit is -27dBm EIRP
- Use the following formula as per Section Section G(2)D)(III) of KDB789033 D02 General UNII Test Procedures New Rules v01r01:

E(dBµV/m) = EIRP (dBm) + 95.2
= (-42.6 dBm + 1 dBi antenna gain) + 95.2
= 53.6 dBµV/m @ 3 meters (Complies with 54 dBµV/m limit)

UNII 2C 30MHz Lower Band Edge 5470MHz (Peak Measurement) @ 5525 MHz

Lower band edge calculation:

- 5470 MHz (not in the restricted bands)
- Limit is -27dBm EIRP
- Calculation @ 5470 MHz:

Integrated average measurement @ 5525 MHz	= -42.74 dBm
EIRP @ 5525 MHz	= -42.7 + 0 dBi (antenna gain)
	= -42.7 dBm
Margin of compliance	= -15.7dB (compliant)

UNII 2C 40MHz Lower Band Edge 5470MHz (Peak Measurement) @ 5525MHz

Lower band edge calculation:

- 5470 MHz (not in the restricted bands)
- Limit is -27dBm EIRP
- Calculation @ 5470 MHz:

Integrated average measurement @ 5725 MHz	= -41.94 dBm
EIRP @ 5725 MHz	= -41.94 + 0 dBi (antenna gain)
	= -41.94 dBm
Margin of compliance	= -14.94dB (compliant)

UNII 3 30MHz Upper Band Edge 5850MHz (Peak Measurement) @ 5825 MHz

Lower band edge calculation:

- 5850 MHz (not in the restricted bands)
- Limit is -17dBm EIRP
- Calculation @ 5850 MHz:

Integrated average measurement @ 5850 MHz	= -21.57 dBm
EIRP @ 5850 MHz	= -21.57 + 0 dBi (antenna gain)
	= -21.57 dBm
Margin of compliance	= -4.57 dB (Compliant)

UNII 3 40MHz Upper Band Edge 5850MHz (Peak Measurement) @ 5825 MHz

Lower band edge calculation:

- 5850 MHz (not in the restricted bands)
- Limit is -17dBm EIRP
- Calculation @ 5850 MHz:

Integrated average measurement @ 5850 MHz	= -22.83 dBm
EIRP @ 5850 MHz	= -22.83 + 0 dBi (antenna gain)
	= -22.83 dBm
Margin of compliance	= -5.83 dB (Compliant)

SECTION 3

TEST EQUIPMENT USED

3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

ID Number (SDGE/SDRB)	Test Equipment	Type	Serial Number	Manufacturer	Cal Date	Cal Due Date
Conducted Port Setup						
7582	Signal/Spectrum Analyzer	FSW26	101614	Rhode & Schwarz	10/05/15	10/05/16
7608	Vector Signal Generator	SMBV100A	259021	Rhode & Schwarz	07/29/15	07/29/16
7569	Series Power Meter	N1911A P-	MY45100625	Agilent	06/19/15	06/19/16
7605	50MHz-18GHz Wideband Power Sensor	N1921A	MY51100054	Agilent	04/10/15	04/10/16
8772	10dB Attenuator	606-06-1F4/DR	-	MECA	Verified by 7608 and 7569	
-	Step Attenuator (110dB)	8496B	MY42143874	Agilent	N/A	
-	Step Attenuator (11dB)	8494B	2812A17193	Agilent	N/A	
Radiated Test Setup						
1002	Bilog Antenna	3142C	00058717	ETS-Lindgren	11/06/15	11/06/17
1040	EMI Test Receiver	ESIB40	100292	Rhode & Schwarz	09/29/15	09/29/16
1016	Pre-amplifier	PAM-0202	187	PAM	12/15/15	12/15/16
1051	Double-ridged waveguide horn antenna	3115	9408-4329	EMCO	03/21/16	03/21/17
1049	EMI Test Receiver	ESU	100133	Rhode & Schwarz	03/17/16	03/17/17
8628	Pre-amplifier	QLJ 01182835-JO	8986002	QuinStar Technologies Inc.	01/11/16	01/11/17
Conducted Emissions						
1024	EMI Test Receiver	ESCS 30	847793/001	Rhode & Schwarz	04/10/15	04/10/16
7567	LISN	FCC-LISN-50-25-2-10	120304	Fischer Custom Comm.	07/14/15	07/14/16
7568	LISN	FCC-LISN-50-25-2-10	120305	Fischer Custom Comm.	10/28/15	10/28/16
8822	20dB Attenuator	34-20-34	N/A	MCE / Weinschel	02/20/15	02/20/16
8824	20dB Attenuator	34-20-34	N/A	MCE / Weinschel	02/20/15	02/20/16
Miscellaneous						
	Test Software	EMC32	V8.53	Rhode & Schwarz	N/A	
1072	DC Power Supply	E3610A	KR51311519	Hewlett Packard	Verified by 6752	
6792	Multimeter	3478A	2911A70964	Hewlett Packard	08/14/15	08/14/16
7560	Barometer/Temperature/Humidity Transmitter	iBTHX-W	1240476	Omega	10/19/15	10/19/16

3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:

3.2.1 Conducted Measurements

	Contribution	Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.36	0.21	0.04
2	Cables	Rectangular	0.50	0.29	0.08
3	LISN	Rectangular	0.66	0.38	0.15
4	Attenuator	Rectangular	0.30	0.17	0.03
5	EUT Setup	Rectangular	1.00	0.58	0.33
				Combined Uncertainty (u_c):	0.80
				Coverage Factor (k):	2
				Expanded Uncertainty:	1.59

3.2.2 Radiated Measurements (Below 1GHz)

	Contribution	Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.45	0.26	0.07
2	Cables	Rectangular	0.50	0.29	0.08
3	Preamp	Rectangular	0.50	0.29	0.08
4	Antenna	Rectangular	0.75	0.43	0.19
5	Site	Rectangular	2.70	1.56	2.43
6	EUT Setup	Rectangular	1.00	0.58	0.33
				Combined Uncertainty (u_c):	1.78
				Coverage Factor (k):	2
				Expanded Uncertainty:	3.57

3.2.3 Radiated Emission Measurements (Above 1GHz)

	Contribution	Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.57	0.33	0.11
2	Cables	Rectangular	0.70	0.40	0.16
3	Preamp	Rectangular	0.50	0.29	0.08
4	Antenna	Rectangular	0.37	0.21	0.05
5	Site	Rectangular	2.70	1.56	2.43
6	EUT Setup	Rectangular	1.00	0.58	0.33
				Combined Uncertainty (u_c):	1.78
				Coverage Factor (k):	2
				Expanded Uncertainty:	3.56

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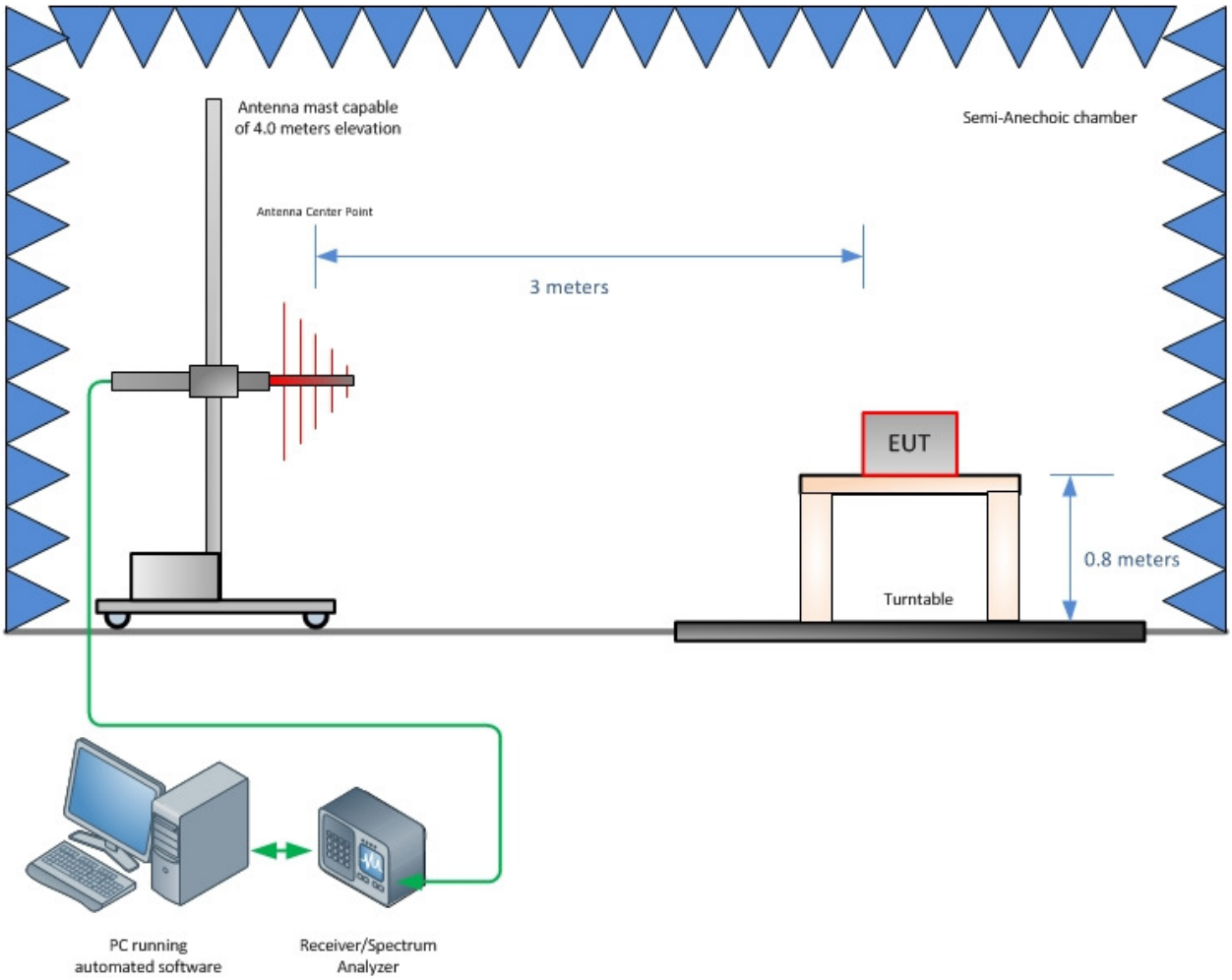
3.2.4 Conducted Antenna Port Measurement

	Contribution	Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.57	0.33	0.11
2	Cables	Rectangular	0.50	0.29	0.08
3	EUT Setup	Rectangular	1.00	0.58	0.33
				Combined Uncertainty (u_c):	0.72
				Coverage Factor (k):	2
				Expanded Uncertainty:	1.45

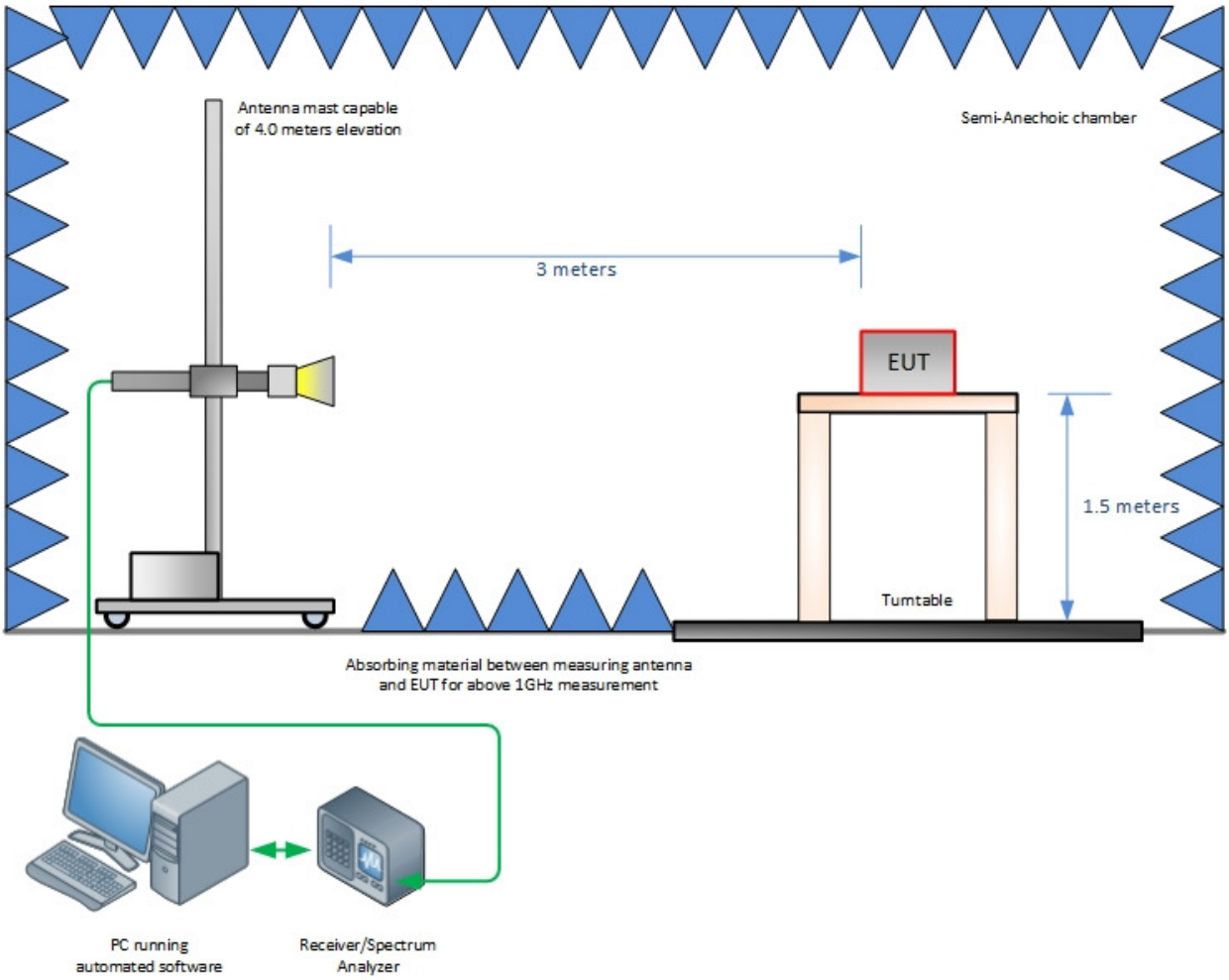
SECTION 4

DIAGRAM OF TEST SETUP

4.1 TEST SETUP DIAGRAM



Radiated Emission Test Setup (Below 1GHz)



Radiated Emission Test Setup (Above 1GHz)

SECTION 5

ACCREDITATION, DISCLAIMERS AND COPYRIGHT

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