



# FCC Test Report

**FCC ID** : UIDTG3482P2  
**Equipment** : Telephony Gateway  
**Brand Name** : ARRIS  
**Model Name** : TG3482P2  
**Applicant** : ARRIS  
3871 Lakefield Drive, #300 Suwanee, GA 30024  
**Manufacturer** : ARRIS  
3871 Lakefield Drive, #300 Suwanee, GA 30024  
**Standard** : 47 CFR FCC Part 15.407

This report was evaluated for permissive change. The product was received on Jul. 12, 2018, and testing was started from Jul. 12, 2018 and completed on Jul. 12, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Allen Lin

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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### History of this test report

Report No.	Version	Description	Issued Date
FR832312-02AN	01	Initial issue of report	Jul. 30, 2018



### Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.407(a)	Maximum Conducted Output Power	PASS	-
3.2	15.407(b)	Unwanted Emissions	PASS	-

Reviewed by: Sam Tsai

Report Producer: Debby Hung



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5250-5350	a, n (HT20), ac (VHT20)	5260-5320	52-64 [4]
5470-5725		5500-5700	100-140 [11]
Straddle 5725		5720	144 [1]
5725-5850		5745-5825	149-165 [5]
5250-5350	n (HT40), ac (VHT40)	5270-5310	54-62 [2]
5470-5725		5510-5670	102-134 [5]
Straddle 5725		5710	142 [1]
5725-5850		5755-5795	151-159 [2]
5250-5350	ac (VHT80)	5290	58 [1]
5470-5725		5530-5610	106-122 [2]
Straddle 5725		5690	138 [1]
5725-5850		5775	155 [1]
5150-5350	ac (VHT160)	5250	50 [1]
5470-5725		5570	114 [1]

#### < Non-Beamforming - 8TX >

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11a	20	8TX
5.47-5.725GHz	802.11a	20	8TX
5.725-5.85GHz	802.11a	20	8TX
5.25-5.35GHz	802.11ac VHT20	20	8TX
5.47-5.725GHz	802.11ac VHT20	20	8TX
5.725-5.85GHz	802.11ac VHT20	20	8TX
5.25-5.35GHz	802.11ac VHT40	40	8TX
5.47-5.725GHz	802.11ac VHT40	40	8TX
5.725-5.85GHz	802.11ac VHT40	40	8TX
5.25-5.35GHz	802.11ac VHT80	80	8TX
5.47-5.725GHz	802.11ac VHT80	80	8TX
5.725-5.85GHz	802.11ac VHT80	80	8TX
5.15-5.25GHz	802.11ac VHT160	160	8TX
5.25-5.35GHz	802.11ac VHT160	160	8TX
5.47-5.725GHz	802.11ac VHT160	160	8TX



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Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11ac VHT20-BF	20	8TX
5.47-5.725GHz	802.11ac VHT20-BF	20	8TX
5.725-5.85GHz	802.11ac VHT20-BF	20	8TX
5.25-5.35GHz	802.11ac VHT40-BF	40	8TX
5.47-5.725GHz	802.11ac VHT40-BF	40	8TX
5.725-5.85GHz	802.11ac VHT40-BF	40	8TX
5.25-5.35GHz	802.11ac VHT80-BF	80	8TX
5.47-5.725GHz	802.11ac VHT80-BF	80	8TX
5.725-5.85GHz	802.11ac VHT80-BF	80	8TX
5.15-5.25GHz	802.11ac VHT160-BF	160	8TX
5.25-5.35GHz	802.11ac VHT160-BF	160	8TX
5.47-5.725GHz	802.11ac VHT160-BF	160	8TX

Note:

- ◆ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ◆ VHT20, VHT40, VHT80 and VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ◆ BWch is the nominal channel bandwidth.



### 1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	Airgain	XB6	PIFA antenna	I-PEX
2	Airgain	XB6	PIFA antenna	I-PEX
3	Airgain	XB6	PIFA antenna	I-PEX
4	Airgain	XB6	PIFA antenna	I-PEX
5	Airgain	XB6	PIFA antenna	I-PEX
6	Airgain	XB6	PIFA antenna	I-PEX
7	Airgain	XB6	PIFA antenna	I-PEX
8	Airgain	XB6	PIFA antenna	I-PEX

Ant.	Port	Peak Gain (dBi)	Composite Gain (dBi)
1	3	2.8	5.8
2	4	3.4	5.8
3	5	2.7	5.8
4	6	3.4	5.8
5	1	4.0	5.8
6	7	3.9	5.8
7	8	3.7	5.8
8	2	3.4	5.8

Note 1: The EUT has eight antennas.

**For 5 GHz function:**

For IEEE 802.11a/n/ac mode (8TX/8RX)

Ant. 1 ~ Ant. 8 could transmit/receive simultaneously.

Note 2:

- The Signals support CDD and correlated, and transmits simultaneously in multiple channels in single or multiple frequency bands.
- If all antennas have the same gain,  $G_{ANT}$ :  
Directional gain =  $G_{ANT} + 10 \log(N_{ANT}/N_{SS})$  dBi, where  $N_{SS}$  = the number of independent spatial streams of data and  $G_{ANT}$  is the antenna gain in dBi. (This formula can also be applied when antennas have different gains if the highest antenna gain is substituted for  $G_{ANT}$ .)
- For power measurements on IEEE 802.11 devices,  
Array Gain = 0 dB (i.e., no array gain) for  $N_{ANT} \leq 4$ ;  
Array Gain = 0 dB (i.e., no array gain) for channel widths  $\geq 40$  MHz for any  $N_{ANT}$ ;  
Array Gain =  $5 \log(N_{ANT}/N_{SS})$  dB or 3 dB, whichever is less, for 20-MHz channel widths with  $N_{ANT} \geq 5$ .

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From AC Mains		
EUT Function	<input type="checkbox"/> Outdoor	<input checked="" type="checkbox"/> Indoor	
	<input type="checkbox"/> Fixed P2P	<input type="checkbox"/> Client	
Beamforming Function	<input checked="" type="checkbox"/> With beamforming	<input type="checkbox"/> Without beamforming	
Weather Band	<input checked="" type="checkbox"/> With 5600~5650MHz	<input type="checkbox"/> Without 5600~5650MHz	
Type of EUT			
<input checked="" type="checkbox"/>	Stand-alone		
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.:	...	
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.:	...	
<input type="checkbox"/>	Other:		

1.1.4 Mode Test Duty Cycle

< Beamforming - 8TX >

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ac VHT80-BF	0.925	0.339	4.653m	300
802.11ac VHT160-BF	0.937	0.283	4.856m	300

1.1.5 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR832312-01AN

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Updated 5210MHz、5290MHz、5530MHz and 5250MHz for beamforming mode conducted Output power	Maximum Conducted Output Power and Unwanted Emissions was evaluated.



## 1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2013
- ◆ KDB 789033 D02 v02r01
- ◆ KDB 662911 D01 v02r01

## 1.3 Testing Location Information

Testing Location				
<input checked="" type="checkbox"/>	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)		
		TEL : 886-3-327-3456	FAX : 886-3-327-0973	
Test site Designation No. TW1190 with FCC.				
<input type="checkbox"/>	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)		
		TEL : 886-3-656-9065	FAX : 886-3-656-9085	
Test site Designation No. TW0006 with FCC.				

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated	03CH02-HY	Andy	23.4°C / 54.8%	12/Jul/2018
RF Conducted	TH06-HY	Tim Chen	22.3°C / 62%	12/Jul/2018

## 1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%



## 2 Test Configuration of EUT

### 2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

### 2.2 Test Channel Mode


Test Software	cmd
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#### < Beamforming - 8TX >

Mode	PowerSetting
802.11ac VHT80-BF_Nss1,(MCS0)_8TX	-
5210MHz	18,18
5290MHz	15,15
5530MHz	13,13
802.11ac VHT160-BF_Nss1,(MCS0)_8TX	-
5250MHz Straddle 5.15-5.25GHz	15,15

### 2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	Maximum Conducted Output Power
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
1	AC mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	Y Plane
	
Worst Planes of EUT	V

### 2.4 Accessories

Accessories				
Power Cord	Cable	1.65 meter, Non-Shielded cable	In/Out door	indoor

Reminder: Regarding to more detail and other information, please refer to user manual.



## 2.5 Support Equipment

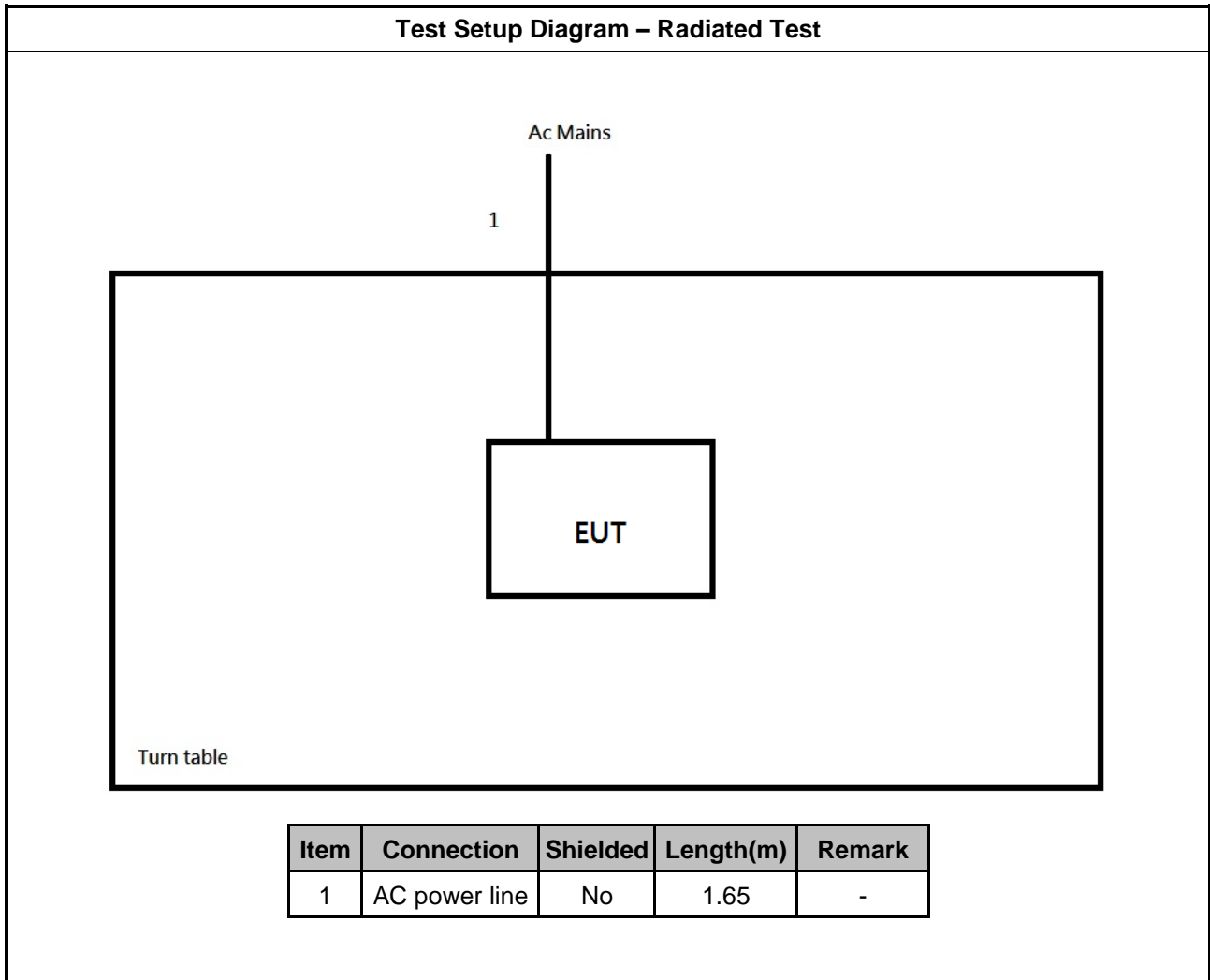
Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Client	-	-	-
2	Notebook	DELL	E5530	DoC

Note: Support equipment No.1 was provided by customer.

Support Equipment – Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DOC
2	Adapter for NB	DELL	HA65NM130	DoC
3	Notebook	DELL	E5410	DoC
4.	Adapter for NB	DELL	HA65NM130	DoC
5.	Client	-	-	-

Note: Support equipment No.5 was provided by customer.

## 2.6 Test Setup Diagram



### 3 Transmitter Test Result

#### 3.1 Maximum Conducted Output Power

##### 3.1.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
<b>UNII Devices</b>	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none"> <li>▪ Outdoor AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>. e.i.r.p. at any elevation angle above 30 degrees <math>\leq 125</math>mW [21dBm]</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Indoor AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math></li> </ul>
	<ul style="list-style-type: none"> <li>▪ Point-to-point AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 23)</math>.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Mobile or Portable Client: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 250 mW. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 24 - (G_{TX} - 6)</math>.</li> </ul>
<input checked="" type="checkbox"/> For the 5.25-5.35 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$ .	
<input checked="" type="checkbox"/> For the 5.47-5.725 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$ .	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> <li>▪ Point-to-multipoint systems (P2M): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Point-to-point systems (P2P): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W.</li> </ul>
$P_{Out}$ = maximum conducted output power in dBm, $G_{TX}$ = the maximum transmitting antenna directional gain in dBi.	

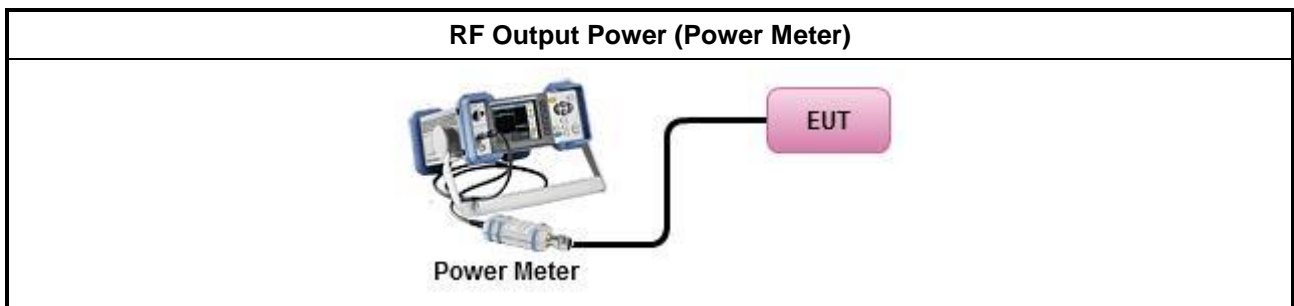
### 3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.1.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>Maximum Conducted Output Power</li> </ul>	
<ul style="list-style-type: none"> <li>Duty cycle <math>\geq 98\%</math> <ul style="list-style-type: none"> <li><input type="checkbox"/> Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).</li> </ul> </li> <li>Duty cycle <math>&lt; 98\%</math> <ul style="list-style-type: none"> <li><input type="checkbox"/> Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)</li> </ul> </li> <li>Wideband RF power meter and average over on/off periods with duty factor                             <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Refer as KDB 789033, clause E Method PM (using an RF average power meter).</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>For conducted measurement.                             <ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.</li> <li>If multiple transmit chains, EIRP calculation could be following as methods:  <math>P_{total} = P_1 + P_2 + \dots + P_n</math>                      (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = P_{total} + DG</math> </li> </ul> </li> </ul>	

### 3.1.4 Test Setup



### 3.1.5 Test Result of Maximum Conducted Output Power

Refer as Appendix A

### 3.2 Unwanted Emissions

#### 3.2.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.85 GHz	5.650-5700 GHz: e.i.r.p. -27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).



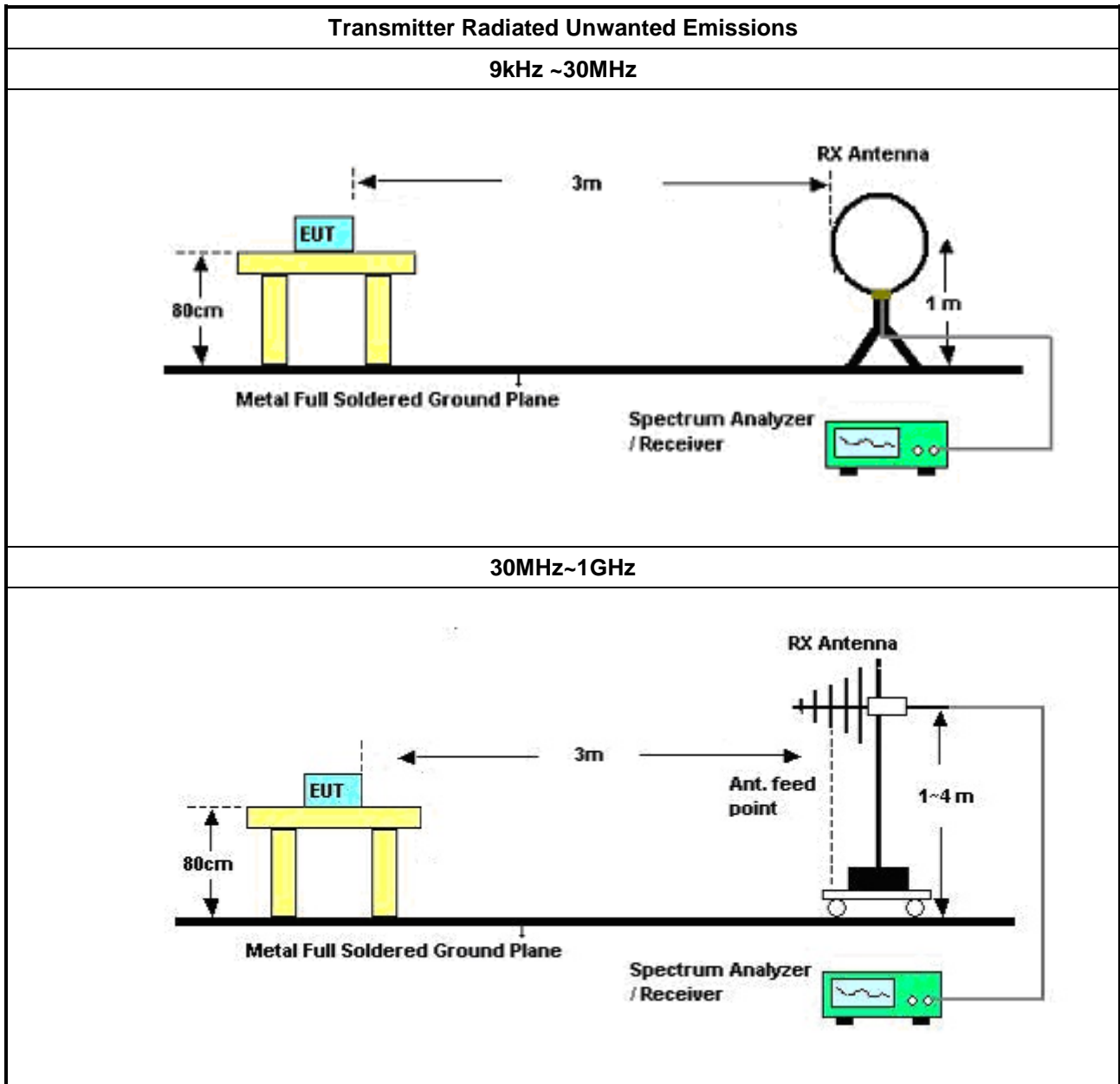
### 3.2.2 Measuring Instruments

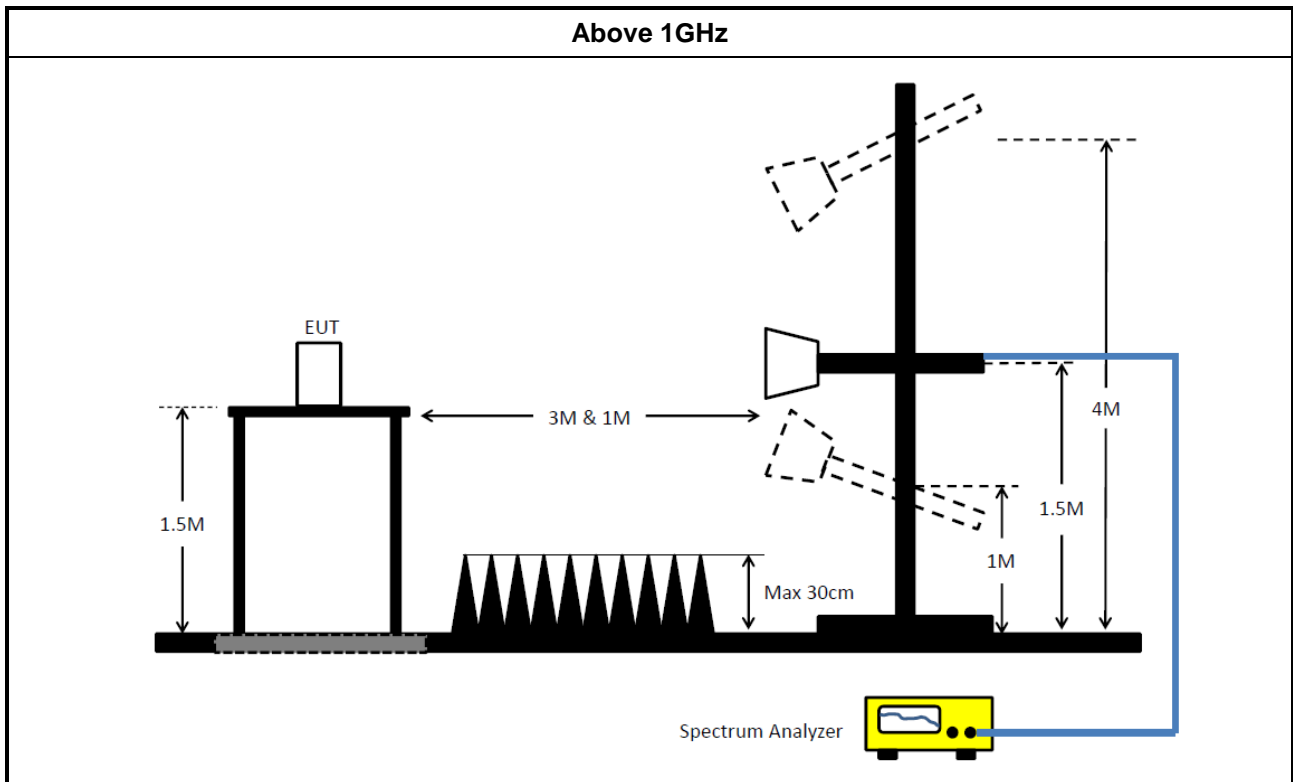
Refer a test equipment and calibration data table in this test report.

### 3.2.3 Test Procedures

Test Method									
<ul style="list-style-type: none"> <li>▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).</li> </ul>									
<ul style="list-style-type: none"> <li>▪ The average emission levels shall be measured in [duty cycle <math>\geq</math> 98 or duty factor].</li> </ul>									
<ul style="list-style-type: none"> <li>▪ For the transmitter unwanted emissions shall be measured using following options below:               <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;"></td> <td> <ul style="list-style-type: none"> <li>▪ Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.</li> </ul> </td> </tr> <tr> <td></td> <td> <ul style="list-style-type: none"> <li>▪ Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.</li> </ul> </td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.</td> </tr> </table> </li> </ul>			<ul style="list-style-type: none"> <li>▪ Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.</li> </ul>		<ul style="list-style-type: none"> <li>▪ Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.</li> </ul>	<input checked="" type="checkbox"/>	Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.	<input checked="" type="checkbox"/>	Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.
	<ul style="list-style-type: none"> <li>▪ Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.</li> </ul>								
	<ul style="list-style-type: none"> <li>▪ Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.</li> </ul>								
<input checked="" type="checkbox"/>	Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.								
<input checked="" type="checkbox"/>	Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.								
<ul style="list-style-type: none"> <li>▪ For radiated measurement.               <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;"></td> <td> <ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li> </ul> </td> </tr> <tr> <td></td> <td> <ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> </ul> </td> </tr> <tr> <td></td> <td> <ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul> </td> </tr> </table> </li> </ul>			<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li> </ul>		<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> </ul>		<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul>		
	<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li> </ul>								
	<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> </ul>								
	<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul>								
<ul style="list-style-type: none"> <li>▪ The any unwanted emissions level shall not exceed the fundamental emission level.</li> </ul>									
<ul style="list-style-type: none"> <li>▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.</li> </ul>									

### 3.2.4 Test Setup





### 3.2.5 Transmitter Unwanted Emissions (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

### 3.2.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix B



### 3.3 Test Equipment and Calibration Data

#### Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	20/Oct/2017	19/Oct/2018
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz 3m	27/Oct/2017	26/Oct/2018
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	27/Jul/2018	02/Jul/2019
Microwave Preampfier	Agilent	8449B	3008A02373	1GHz ~ 26.5GHz	28/Sep/2017	27/Sep/2018
Spectrum Analyzer	Rohde & Schwarz	FSP40	100593	9KHz - 40GHz	12/Dec/2017	11/Dec/2018
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100354	9kHz ~ 2.75GHz	08/Dec/2017	07/Dec/2018
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz ~ 1GHz	19/Jan/2018	18/Jan/2019
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	19/Jan/2018	18/Jan/2019
Bilog Antenna	SCHAFFNER	CBL 6112B	2723	30MHz ~ 1GHz	09/Sep/2017	08/Sep/2018
Preampfier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	31/Aug/2017	30/Aug/2018
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	29/Mar/2018	28/Mar/2019
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	12/Mar/2018	11/Mar/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 01543	1GHz ~ 18GHz	11/May/2018	10/May/2019



Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	29/Dec/2017	28/Dec/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10710/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10712/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10713/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
2Way Divider	Microwave	MVE8546	TH01-DV-01	1MHz~6MHz	23/Jan/2018	22/Jan/2019
2Way Divider	Microwave	MVE8546	TH01-DV-03	1MHz~6MHz	23/Jan/2018	22/Jan/2019
4Way Divider	Solvang Technology	MVE8547	TH01-DV-04	1MHz~6MHz	23/Jan/2018	22/Jan/2019



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ac VHT80-BF_Nss1,(MCS0)_8TX	26.13	0.41020	31.93	1.55955
802.11ac VHT160-BF_Nss1,(MCS0)_8TX	18.31	0.06776	24.11	0.25763
5.25-5.35GHz	-	-	-	-
802.11ac VHT80-BF_Nss1,(MCS0)_8TX	22.73	0.18750	28.53	0.71285
802.11ac VHT160-BF_Nss1,(MCS0)_8TX	19.13	0.08185	24.93	0.31117
5.47-5.725GHz	-	-	-	-
802.11ac VHT80-BF_Nss1,(MCS0)_8TX	22.83	0.19187	28.63	0.72946



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Port 5 (dBm)	Port 6 (dBm)	Port 7 (dBm)	Port 8 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ac VHT80-BF_Nss1,(MCS0)_8TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	5.80	16.60	16.84	16.77	17.92	16.57	18.05	16.98	16.75	26.13	30.00	31.93	36.00
5290MHz_TnomVnom	Pass	5.80	13.19	13.60	13.33	13.66	13.85	14.26	13.22	14.34	22.73	24.00	28.53	30.00
5530MHz_TnomVnom	Pass	5.80	12.61	13.95	13.03	13.63	14.94	14.49	14.16	13.11	22.83	24.00	28.63	30.00
802.11ac VHT160-BF_Nss1,(MCS0)_8TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz_TnomVnom	Pass	5.80	9.23	8.43	8.42	11.13	8.78	9.77	8.59	9.15	18.31	30.00	24.11	36.00
5250MHz Straddle 5.25-5.35GHz_TnomVnom	Pass	5.80	9.30	10.07	9.71	11.32	10.22	10.37	9.39	10.05	19.13	24.00	24.93	30.00

DG = Directional Gain; Port X = Port X output power







Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80-BF_Nss1,(MCS0)_8TX	Pass	AV	5.149995G	53.81	54.00	-0.19	4.90	3	Vertical	343	2.17	-
802.11ac VHT160-BF_Nss1,(MCS0)_8TX	Pass	AV	5.350005G	53.38	54.00	-0.62	6.68	3	Vertical	346	1.65	-
5.25-5.35GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80-BF_Nss1,(MCS0)_8TX	Pass	AV	5.350005G	53.33	54.00	-0.67	6.68	3	Vertical	351	1.19	-
5.47-5.725GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80-BF_Nss1,(MCS0)_8TX	Pass	AV	5.459995G	53.52	54.00	-0.48	6.83	3	Vertical	348	2.23	-



Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11ac VHT80-BF_Nss1,(MCS0)_8TX	-	-	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	AV	5.149995G	53.81	54.00	-0.19	4.90	3	Vertical	343	2.17	-
5210MHz	Pass	AV	5.185G	94.33	Inf	-Inf	4.95	3	Vertical	343	2.17	-
5210MHz	Pass	AV	5.37G	45.47	54.00	-8.53	5.21	3	Vertical	343	2.17	-
5210MHz	Pass	PK	5.147G	68.00	74.00	-6.00	4.90	3	Vertical	343	2.17	-
5210MHz	Pass	PK	5.231G	109.92	Inf	-Inf	5.01	3	Vertical	343	2.17	-
5210MHz	Pass	PK	5.374G	59.24	74.00	-14.76	5.21	3	Vertical	343	2.17	-
5210MHz	Pass	AV	5.149G	48.02	54.00	-5.98	6.40	3	Horizontal	91	1.65	-
5210MHz	Pass	AV	5.214G	92.52	Inf	-Inf	6.49	3	Horizontal	91	1.65	-
5210MHz	Pass	AV	5.418G	45.28	54.00	-8.72	6.77	3	Horizontal	91	1.65	-
5210MHz	Pass	PK	5.149G	59.69	74.00	-14.31	6.40	3	Horizontal	91	1.65	-
5210MHz	Pass	PK	5.215G	102.17	Inf	-Inf	6.49	3	Horizontal	91	1.65	-
5210MHz	Pass	PK	5.428G	57.43	74.00	-16.57	6.79	3	Horizontal	91	1.65	-
5210MHz	Pass	AV	10.41992G	44.41	54.00	-9.59	9.29	3	Vertical	121	1.25	-
5210MHz	Pass	PK	10.41528G	55.48	74.00	-18.52	9.28	3	Vertical	121	1.25	-
5210MHz	Pass	AV	10.41998G	46.18	54.00	-7.82	9.29	3	Horizontal	116	1.72	-
5210MHz	Pass	PK	10.41846G	56.93	74.00	-17.07	9.29	3	Horizontal	116	1.72	-
5290MHz	Pass	AV	5.071G	45.20	54.00	-8.80	6.29	3	Vertical	351	1.19	-
5290MHz	Pass	AV	5.277G	95.74	Inf	-Inf	6.58	3	Vertical	351	1.19	-
5290MHz	Pass	AV	5.350005G	53.33	54.00	-0.67	6.68	3	Vertical	351	1.19	-
5290MHz	Pass	PK	5.138G	57.77	74.00	-16.23	6.38	3	Vertical	351	1.19	-
5290MHz	Pass	PK	5.271G	105.95	Inf	-Inf	6.57	3	Vertical	351	1.19	-
5290MHz	Pass	PK	5.352G	65.40	74.00	-8.60	6.68	3	Vertical	351	1.19	-
5290MHz	Pass	PK	5.527G	58.42	68.20	-9.78	6.94	3	Vertical	351	1.19	-
5290MHz	Pass	AV	5.081G	44.96	54.00	-9.04	6.31	3	Horizontal	208	1.38	-
5290MHz	Pass	AV	5.283G	93.58	Inf	-Inf	6.59	3	Horizontal	208	1.38	-
5290MHz	Pass	AV	5.350005G	50.63	54.00	-3.37	6.68	3	Horizontal	208	1.38	-
5290MHz	Pass	PK	5.108G	57.96	74.00	-16.04	6.34	3	Horizontal	208	1.38	-
5290MHz	Pass	PK	5.259G	105.79	Inf	-Inf	6.55	3	Horizontal	208	1.38	-
5290MHz	Pass	PK	5.36G	61.51	74.00	-12.49	6.69	3	Horizontal	208	1.38	-
5290MHz	Pass	PK	5.523G	57.41	68.20	-10.79	6.94	3	Horizontal	208	1.38	-
5290MHz	Pass	AV	10.57804G	45.13	54.00	-8.87	15.65	3	Vertical	223	1.10	-
5290MHz	Pass	PK	10.57786G	56.56	74.00	-17.44	15.64	3	Vertical	223	1.10	-
5290MHz	Pass	AV	10.57628G	46.15	54.00	-7.85	15.64	3	Horizontal	78	1.87	-
5290MHz	Pass	PK	10.57928G	57.35	74.00	-16.65	15.65	3	Horizontal	78	1.87	-
5530MHz	Pass	AV	5.459995G	53.52	54.00	-0.48	6.83	3	Vertical	348	2.23	-
5530MHz	Pass	AV	5.529G	97.01	Inf	-Inf	6.95	3	Vertical	348	2.23	-
5530MHz	Pass	PK	5.305G	58.20	68.20	-10.00	6.61	3	Vertical	348	2.23	-
5530MHz	Pass	PK	5.457G	66.15	74.00	-7.85	6.82	3	Vertical	348	2.23	-
5530MHz	Pass	PK	5.465G	67.47	68.20	-0.73	6.84	3	Vertical	348	2.23	-
5530MHz	Pass	PK	5.498G	109.43	Inf	-Inf	6.88	3	Vertical	348	2.23	-
5530MHz	Pass	PK	5.749G	58.67	68.20	-9.53	7.48	3	Vertical	348	2.23	-
5530MHz	Pass	AV	5.459995G	49.31	54.00	-4.69	6.83	3	Horizontal	132	1.37	-
5530MHz	Pass	AV	5.532G	91.30	Inf	-Inf	6.96	3	Horizontal	132	1.37	-
5530MHz	Pass	PK	5.284G	57.62	68.20	-10.58	6.59	3	Horizontal	132	1.37	-
5530MHz	Pass	PK	5.459G	61.97	74.00	-12.03	6.83	3	Horizontal	132	1.37	-
5530MHz	Pass	PK	5.469G	62.04	68.20	-6.16	6.84	3	Horizontal	132	1.37	-
5530MHz	Pass	PK	5.507G	106.42	Inf	-Inf	6.90	3	Horizontal	132	1.37	-



RSE TX above 1GHz Result

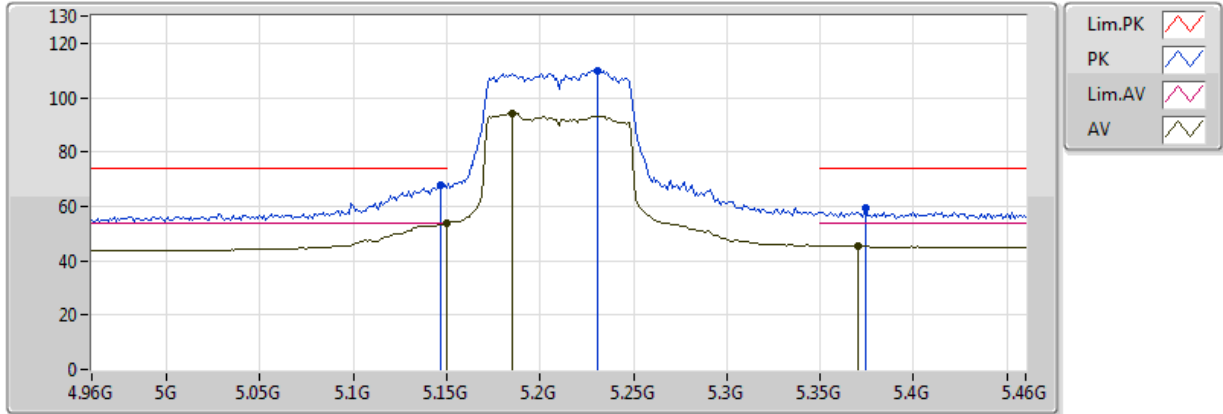
Appendix B

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5530MHz	Pass	PK	5.763G	58.47	68.20	-9.73	7.52	3	Horizontal	132	1.37	-
5530MHz	Pass	AV	11.05908G	45.74	54.00	-8.26	16.18	3	Vertical	93	2.21	-
5530MHz	Pass	PK	11.0647G	56.60	74.00	-17.40	16.18	3	Vertical	93	2.21	-
5530MHz	Pass	AV	11.059G	46.78	54.00	-7.22	16.18	3	Horizontal	284	2.42	-
5530MHz	Pass	PK	11.0554G	57.45	74.00	-16.55	16.19	3	Horizontal	284	2.42	-
802.11ac VHT160-BF_Nss1,(MCS0)_8TX	-	-	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	AV	5.149995G	50.96	54.00	-3.04	6.40	3	Vertical	346	1.65	-
5250MHz Straddle 5.15-5.25GHz	Pass	AV	5.2608G	96.39	Inf	-Inf	6.56	3	Vertical	346	1.65	-
5250MHz Straddle 5.15-5.25GHz	Pass	AV	5.350005G	53.38	54.00	-0.62	6.68	3	Vertical	346	1.65	-
5250MHz Straddle 5.15-5.25GHz	Pass	PK	5.148G	63.55	74.00	-10.45	6.40	3	Vertical	346	1.65	-
5250MHz Straddle 5.15-5.25GHz	Pass	PK	5.2608G	111.76	Inf	-Inf	6.56	3	Vertical	346	1.65	-
5250MHz Straddle 5.15-5.25GHz	Pass	PK	5.3544G	65.73	74.00	-8.27	6.68	3	Vertical	346	1.65	-
5250MHz Straddle 5.15-5.25GHz	Pass	PK	5.478G	59.38	68.20	-8.82	6.85	3	Vertical	346	1.65	-
5250MHz Straddle 5.15-5.25GHz	Pass	AV	5.149995G	49.39	54.00	-4.61	6.40	3	Horizontal	68	1.74	-
5250MHz Straddle 5.15-5.25GHz	Pass	AV	5.262G	93.89	Inf	-Inf	6.56	3	Horizontal	68	1.74	-
5250MHz Straddle 5.15-5.25GHz	Pass	AV	5.3508G	49.06	54.00	-4.94	6.68	3	Horizontal	68	1.74	-
5250MHz Straddle 5.15-5.25GHz	Pass	PK	5.1432G	62.58	74.00	-11.42	6.39	3	Horizontal	68	1.74	-
5250MHz Straddle 5.15-5.25GHz	Pass	PK	5.2608G	109.89	Inf	-Inf	6.56	3	Horizontal	68	1.74	-
5250MHz Straddle 5.15-5.25GHz	Pass	PK	5.3592G	62.38	74.00	-11.62	6.69	3	Horizontal	68	1.74	-
5250MHz Straddle 5.15-5.25GHz	Pass	PK	5.49G	58.06	68.20	-10.14	6.86	3	Horizontal	68	1.74	-
5250MHz Straddle 5.15-5.25GHz	Pass	AV	10.49972G	45.33	54.00	-8.67	15.53	3	Vertical	341	2.45	-
5250MHz Straddle 5.15-5.25GHz	Pass	PK	10.5039G	56.25	74.00	-17.75	15.54	3	Vertical	341	2.45	-
5250MHz Straddle 5.15-5.25GHz	Pass	AV	10.49956G	46.21	54.00	-7.79	15.53	3	Horizontal	354	1.90	-
5250MHz Straddle 5.15-5.25GHz	Pass	PK	10.50146G	57.20	74.00	-16.80	15.54	3	Horizontal	354	1.90	-

### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5210MHz\_TX

29/06/2018

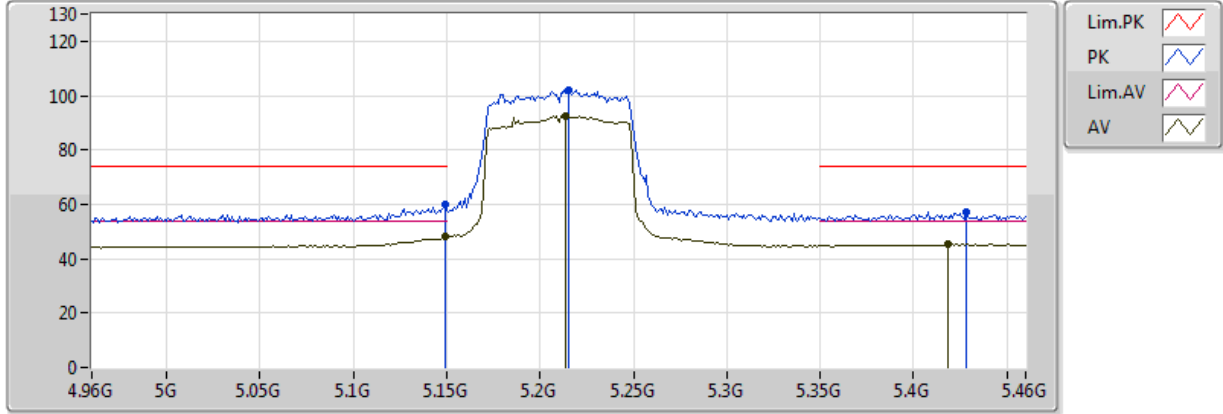


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.149995G	53.81	54.00	-0.19	4.90	3	Vertical	343	2.17	-
AV	5.185G	94.33	Inf	-Inf	4.95	3	Vertical	343	2.17	-
AV	5.37G	45.47	54.00	-8.53	5.21	3	Vertical	343	2.17	-
PK	5.147G	68.00	74.00	-6.00	4.90	3	Vertical	343	2.17	-
PK	5.231G	109.92	Inf	-Inf	5.01	3	Vertical	343	2.17	-
PK	5.374G	59.24	74.00	-14.76	5.21	3	Vertical	343	2.17	-

### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5210MHz\_TX

29/06/2018

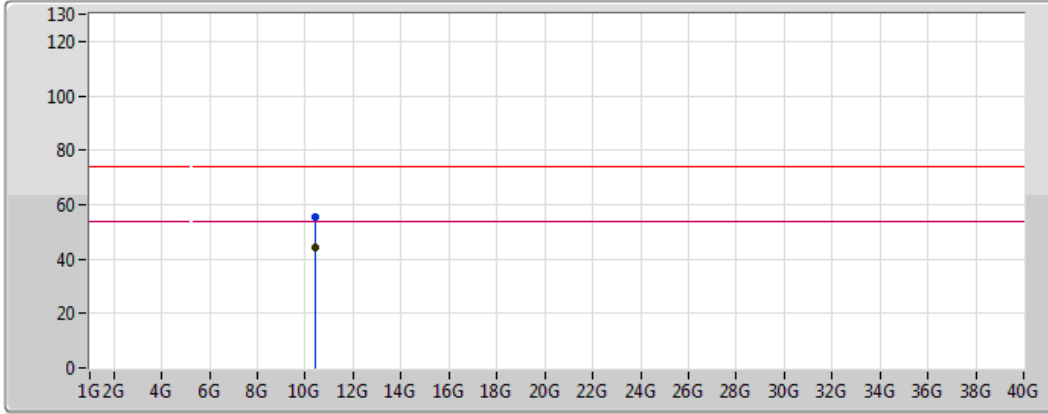






Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.149G	48.02	54.00	-5.98	6.40	3	Horizontal	91	1.65	-
AV	5.214G	92.52	Inf	-Inf	6.49	3	Horizontal	91	1.65	-
AV	5.418G	45.28	54.00	-8.72	6.77	3	Horizontal	91	1.65	-
PK	5.149G	59.69	74.00	-14.31	6.40	3	Horizontal	91	1.65	-
PK	5.215G	102.17	Inf	-Inf	6.49	3	Horizontal	91	1.65	-
PK	5.428G	57.43	74.00	-16.57	6.79	3	Horizontal	91	1.65	-

### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5210MHz\_TX

29/06/2018



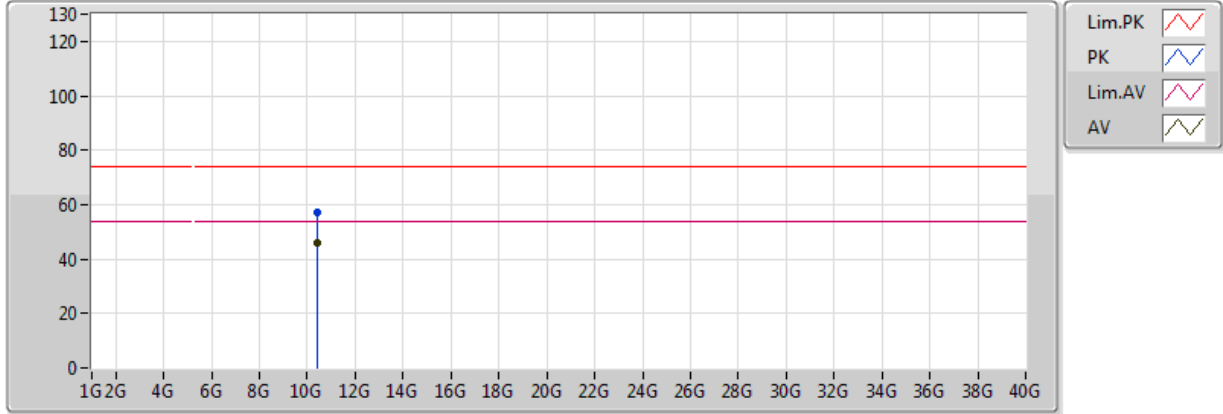
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PK	
Lim.AV	
AV	

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	10.41992G	44.41	54.00	-9.59	9.29	3	Vertical	121	1.25	-
PK	10.41528G	55.48	74.00	-18.52	9.28	3	Vertical	121	1.25	-

### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5210MHz\_TX

29/06/2018

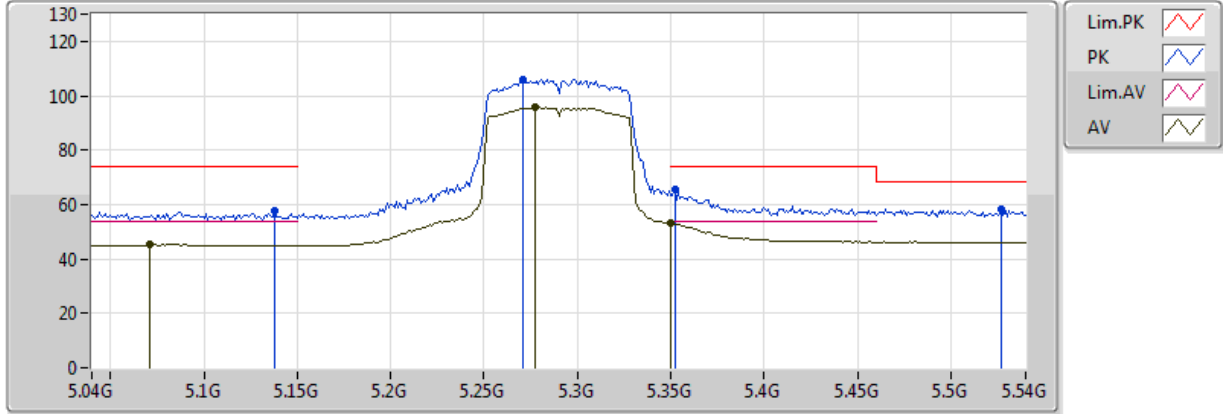


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	10.41998G	46.18	54.00	-7.82	9.29	3	Horizontal	116	1.72	-
PK	10.41846G	56.93	74.00	-17.07	9.29	3	Horizontal	116	1.72	-

### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5290MHz\_TX

27/06/2018



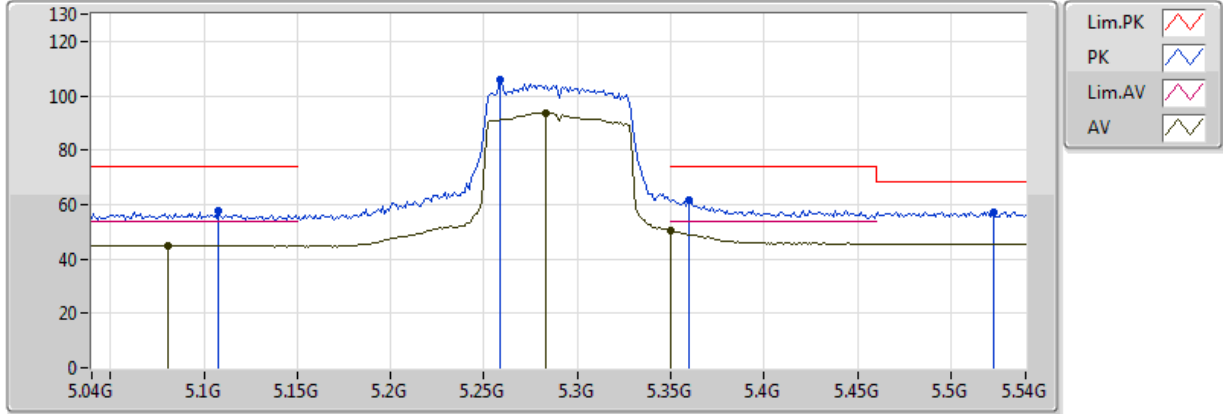
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.071G	45.20	54.00	-8.80	6.29	3	Vertical	351	1.19	-
AV	5.277G	95.74	Inf	-Inf	6.58	3	Vertical	351	1.19	-
AV	5.350005G	53.33	54.00	-0.67	6.68	3	Vertical	351	1.19	-
PK	5.138G	57.77	74.00	-16.23	6.38	3	Vertical	351	1.19	-
PK	5.271G	105.95	Inf	-Inf	6.57	3	Vertical	351	1.19	-
PK	5.352G	65.40	74.00	-8.60	6.68	3	Vertical	351	1.19	-
PK	5.527G	58.42	68.20	-9.78	6.94	3	Vertical	351	1.19	-



### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5290MHz\_TX

27/06/2018

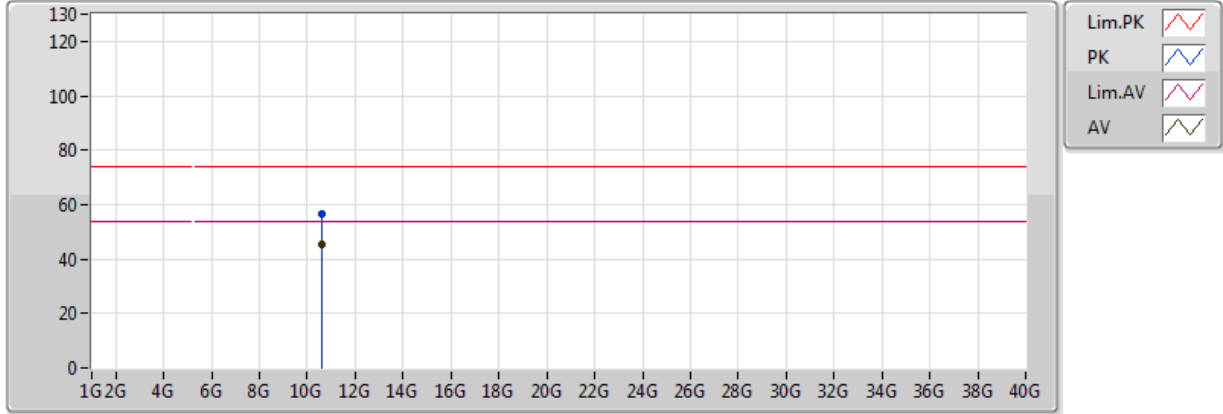


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.081G	44.96	54.00	-9.04	6.31	3	Horizontal	208	1.38	-
AV	5.283G	93.58	Inf	-Inf	6.59	3	Horizontal	208	1.38	-
AV	5.350005G	50.63	54.00	-3.37	6.68	3	Horizontal	208	1.38	-
PK	5.108G	57.96	74.00	-16.04	6.34	3	Horizontal	208	1.38	-
PK	5.259G	105.79	Inf	-Inf	6.55	3	Horizontal	208	1.38	-
PK	5.36G	61.51	74.00	-12.49	6.69	3	Horizontal	208	1.38	-
PK	5.523G	57.41	68.20	-10.79	6.94	3	Horizontal	208	1.38	-

### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5290MHz\_TX

27/06/2018

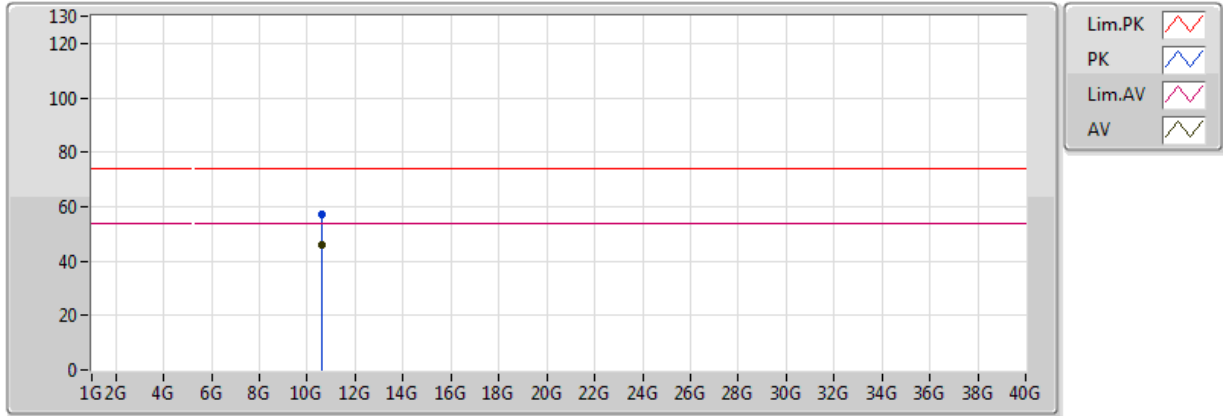


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	10.57804G	45.13	54.00	-8.87	15.65	3	Vertical	223	1.10	-
PK	10.57786G	56.56	74.00	-17.44	15.64	3	Vertical	223	1.10	-

### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5290MHz\_TX

27/06/2018

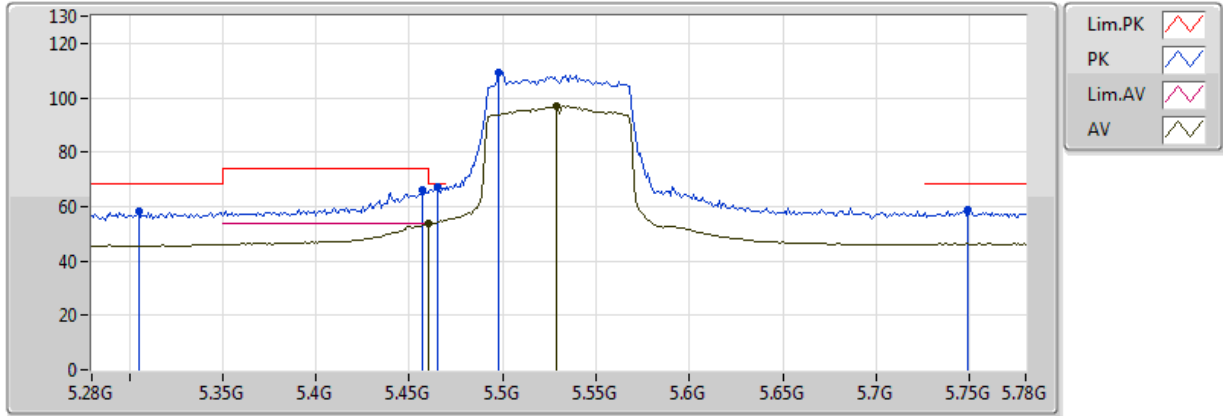


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	10.57628G	46.15	54.00	-7.85	15.64	3	Horizontal	78	1.87	-
PK	10.57928G	57.35	74.00	-16.65	15.65	3	Horizontal	78	1.87	-

### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5530MHz\_TX

27/06/2018

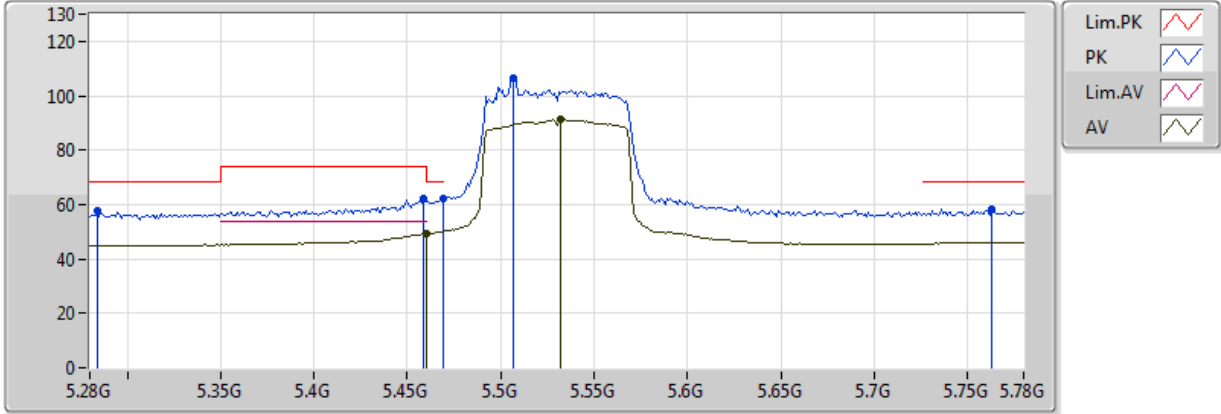


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.459995G	53.52	54.00	-0.48	6.83	3	Vertical	348	2.23	-
AV	5.529G	97.01	Inf	-Inf	6.95	3	Vertical	348	2.23	-
PK	5.305G	58.20	68.20	-10.00	6.61	3	Vertical	348	2.23	-
PK	5.457G	66.15	74.00	-7.85	6.82	3	Vertical	348	2.23	-
PK	5.465G	67.47	68.20	-0.73	6.84	3	Vertical	348	2.23	-
PK	5.498G	109.43	Inf	-Inf	6.88	3	Vertical	348	2.23	-
PK	5.749G	58.67	68.20	-9.53	7.48	3	Vertical	348	2.23	-

### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5530MHz\_TX

27/06/2018

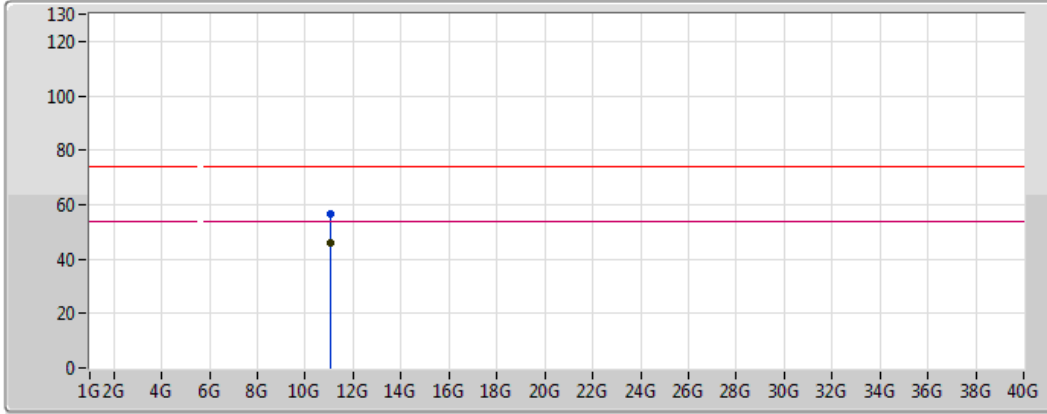






Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.459995G	49.31	54.00	-4.69	6.83	3	Horizontal	132	1.37	-
AV	5.532G	91.30	Inf	-Inf	6.96	3	Horizontal	132	1.37	-
PK	5.284G	57.62	68.20	-10.58	6.59	3	Horizontal	132	1.37	-
PK	5.459G	61.97	74.00	-12.03	6.83	3	Horizontal	132	1.37	-
PK	5.469G	62.04	68.20	-6.16	6.84	3	Horizontal	132	1.37	-
PK	5.507G	106.42	Inf	-Inf	6.90	3	Horizontal	132	1.37	-
PK	5.763G	58.47	68.20	-9.73	7.52	3	Horizontal	132	1.37	-

### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5530MHz\_TX

27/06/2018



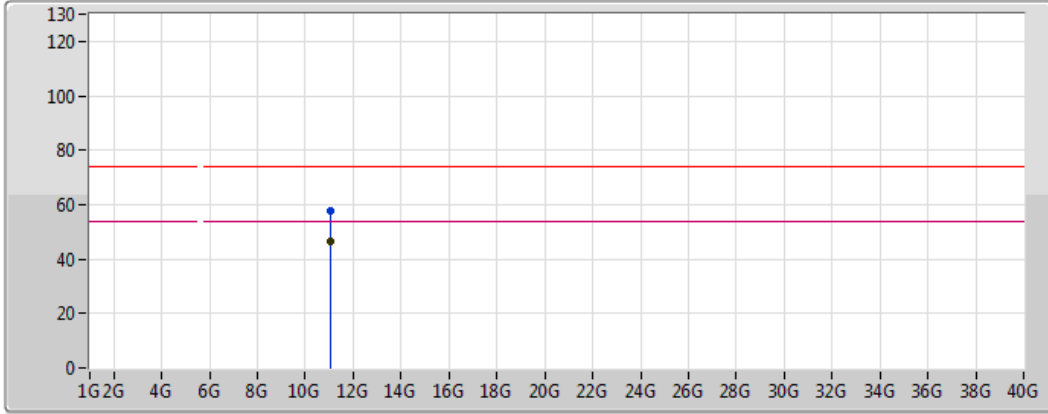
Lim.PK	
PK	
Lim.AV	
AV	




Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.05908G	45.74	54.00	-8.26	16.18	3	Vertical	93	2.21	-
PK	11.0647G	56.60	74.00	-17.40	16.18	3	Vertical	93	2.21	-

### 802.11ac VHT80-BF\_Nss1,(MCS0)\_8TX

### 5530MHz\_TX

27/06/2018



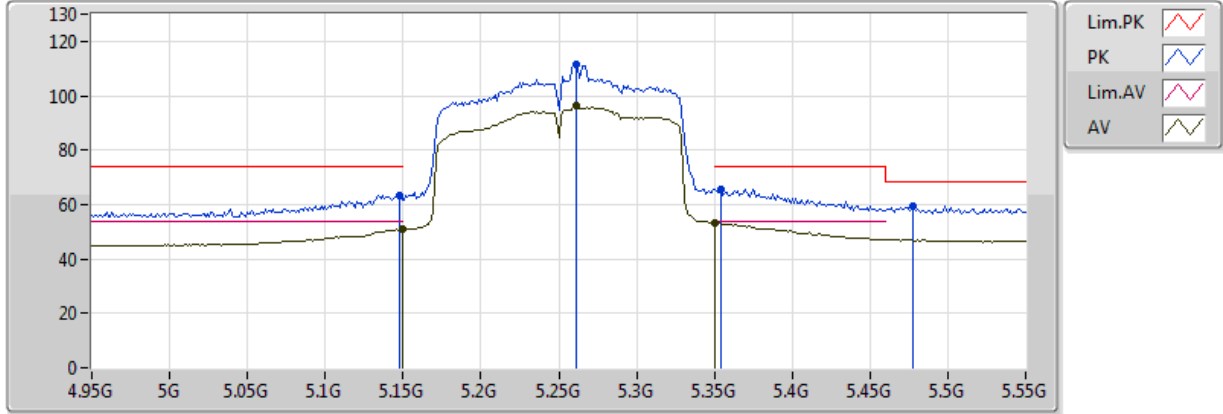
Lim.PK	
PK	
Lim.AV	
AV	

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	11.059G	46.78	54.00	-7.22	16.18	3	Horizontal	284	2.42	-
PK	11.0554G	57.45	74.00	-16.55	16.19	3	Horizontal	284	2.42	-

### 802.11ac VHT160-BF\_Nss1,(MCS0)\_8TX

### 5250MHz Straddle 5.15-5.25GHz\_TX

27/06/2018



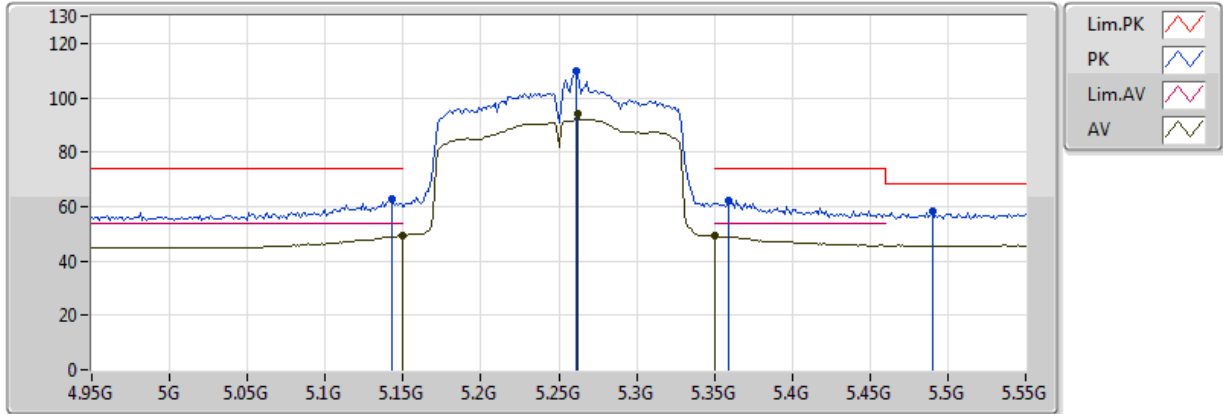
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.149995G	50.96	54.00	-3.04	6.40	3	Vertical	346	1.65	-
AV	5.2608G	96.39	Inf	-Inf	6.56	3	Vertical	346	1.65	-
AV	5.350005G	53.38	54.00	-0.62	6.68	3	Vertical	346	1.65	-
PK	5.148G	63.55	74.00	-10.45	6.40	3	Vertical	346	1.65	-
PK	5.2608G	111.76	Inf	-Inf	6.56	3	Vertical	346	1.65	-
PK	5.3544G	65.73	74.00	-8.27	6.68	3	Vertical	346	1.65	-
PK	5.478G	59.38	68.20	-8.82	6.85	3	Vertical	346	1.65	-



### 802.11ac VHT160-BF\_Nss1,(MCS0)\_8TX

### 5250MHz Straddle 5.15-5.25GHz\_TX

27/06/2018

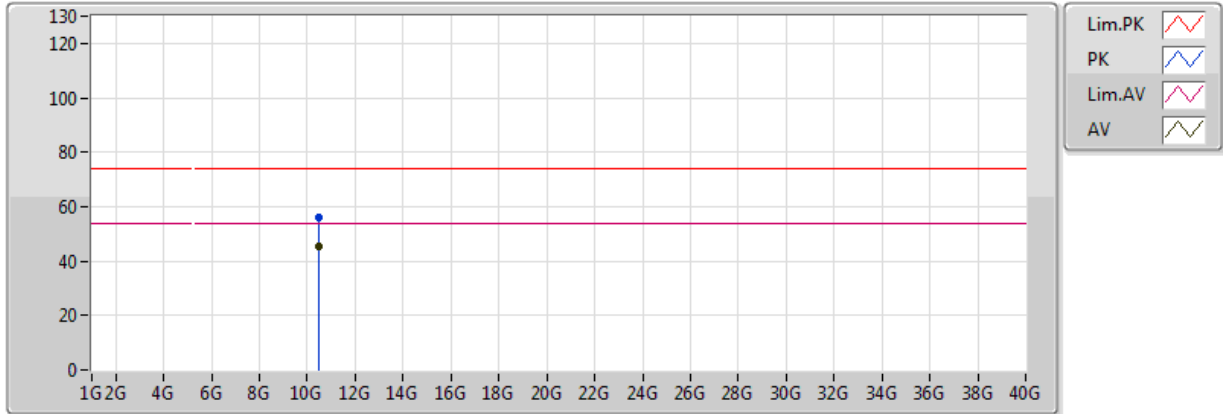


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	5.149995G	49.39	54.00	-4.61	6.40	3	Horizontal	68	1.74	-
AV	5.262G	93.89	Inf	-Inf	6.56	3	Horizontal	68	1.74	-
AV	5.3508G	49.06	54.00	-4.94	6.68	3	Horizontal	68	1.74	-
PK	5.1432G	62.58	74.00	-11.42	6.39	3	Horizontal	68	1.74	-
PK	5.2608G	109.89	Inf	-Inf	6.56	3	Horizontal	68	1.74	-
PK	5.3592G	62.38	74.00	-11.62	6.69	3	Horizontal	68	1.74	-
PK	5.49G	58.06	68.20	-10.14	6.86	3	Horizontal	68	1.74	-

### 802.11ac VHT160-BF\_Nss1,(MCS0)\_8TX

### 5250MHz Straddle 5.15-5.25GHz\_TX

27/06/2018

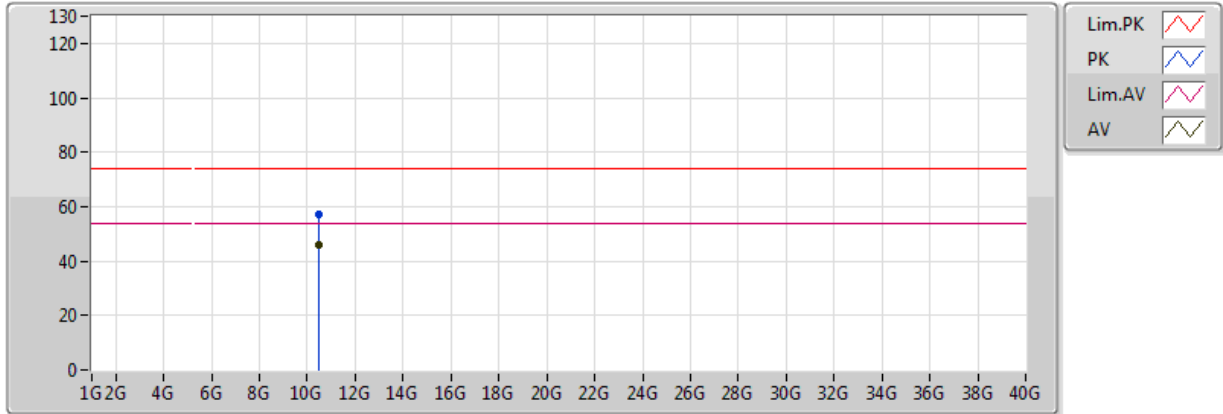


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	10.49972G	45.33	54.00	-8.67	15.53	3	Vertical	341	2.45	-
PK	10.5039G	56.25	74.00	-17.75	15.54	3	Vertical	341	2.45	-

### 802.11ac VHT160-BF\_Nss1,(MCS0)\_8TX

### 5250MHz Straddle 5.15-5.25GHz\_TX

27/06/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	10.49956G	46.21	54.00	-7.79	15.53	3	Horizontal	354	1.90	-
PK	10.50146G	57.20	74.00	-16.80	15.54	3	Horizontal	354	1.90	-