

9. SPURIOUS EMISSION

9.1. Test Procedure

<p>Radiated measurement</p> <ol style="list-style-type: none"> (1) The EUT is placed in accordance with ANSI C63.10. (2) The EUT is activated as to simulate an wort datarate. (3) To find out the maximum emission of the configuration of the EUT System, the position of the cables are changed, then preliminary radiated measurement are performed using the spectrum analyzer ,the broad band antenna and the horn antenna. (4) The spectrums are scanned from 30MHz to 1GHz, and collect the highest emissions on the spectrum analyzer (*1) relative to the limits in the whole range. In the frequency above 1GHz, it is performed using the spectrum analyzer (*1) and the horn antenna. (5) The highest emissions are measured at the specified distance using the test receiver (*2) and the broad band antenna or the tuned dipole. In the frequency above 1GHz, the measurements are performed by Bore-sight method using the spectrum analyzer (*3) and the horn antenna (*4). <p>Conducted measurement</p> <ol style="list-style-type: none"> (1) Connect the EUT RF output port to the spectrum analyzer (*5) via calibrated coaxial cable and suitable attenuator (if necessary). (2) The EUT is activated as to simulate an wort data rate. 															
<p>[Note]</p> <p>(*1) Spectrum Analyzer Set Up Conditions (Pre-measurement)</p> <p style="margin-left: 40px;">Frequency range : 30MHz – 1GHz / 1GHz – Upper frequency of measurement range</p> <p style="margin-left: 40px;">Resolution bandwidth : 100kHz / 1MHz</p> <p style="margin-left: 40px;">Detector function : Peak</p> <p>(*2) Test Receiver Set Up Conditions</p> <p style="margin-left: 40px;">Detector function : Quasi – Peak</p> <p style="margin-left: 40px;">IF bandwidth : 120kHz (6dB Bandwidth)</p> <hr/> <p>(*3) Peak measurement Set Up Conditions</p> <p style="margin-left: 40px;">Resolution bandwidth : 1MHz (Impulse Bandwidth)</p> <p style="margin-left: 40px;">Video bandwidth : 3 x RBW</p> <p style="margin-left: 40px;">Detector function : Peak</p> <p style="margin-left: 40px;">Trace : Max Hold</p> <p style="margin-left: 40px;">Average measurement Set Up Conditions</p> <p style="margin-left: 80px;">Resolution bandwidth : 1MHz (Impulse Bandwidth)</p> <p style="margin-left: 80px;">Video bandwidth : 3MHz</p> <p style="margin-left: 80px;">Detector function : RMS</p> <p style="margin-left: 80px;">Trace : Trace Average 100 times</p> <hr/> <p>(*4) Cover Area of Horn Antenna (3dB Beamwidth)</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Frequency [GHz]</th> <th>Cover Area [m] at distance 3m</th> <th>Cover Area [m] at distance 1m</th> </tr> </thead> <tbody> <tr> <td>1.0-6.0</td> <td>1.89</td> <td>-</td> </tr> <tr> <td>5.8-12.4</td> <td>0.63</td> <td>0.21</td> </tr> <tr> <td>12.4-40.0</td> <td>0.47</td> <td>0.16</td> </tr> </tbody> </table> <hr/> <p>(*5) Spectrum Analyzer Set Up Conditions</p> <p style="margin-left: 40px;">Frequency range : 9kHz – 150kHz / 150kHz – 30MHz</p> <p style="margin-left: 40px;">Resolution bandwidth : 300Hz / 10kHz (6dB Bandwidth)</p> <p style="margin-left: 40px;">Video bandwidth : 3 x RBW</p> <p style="margin-left: 40px;">Detector function : Peak</p>				Frequency [GHz]	Cover Area [m] at distance 3m	Cover Area [m] at distance 1m	1.0-6.0	1.89	-	5.8-12.4	0.63	0.21	12.4-40.0	0.47	0.16
Frequency [GHz]	Cover Area [m] at distance 3m	Cover Area [m] at distance 1m													
1.0-6.0	1.89	-													
5.8-12.4	0.63	0.21													
12.4-40.0	0.47	0.16													

9.2. Test Software List

KEC No.	Software Name	Version	Manufacture
TF-059	TEPTO Radiated emission automatic measurement	2.6.0164	TSJ
TF-110	Junction sheet	1.6J	KEC



9.3. Test Results

30-1000MHz

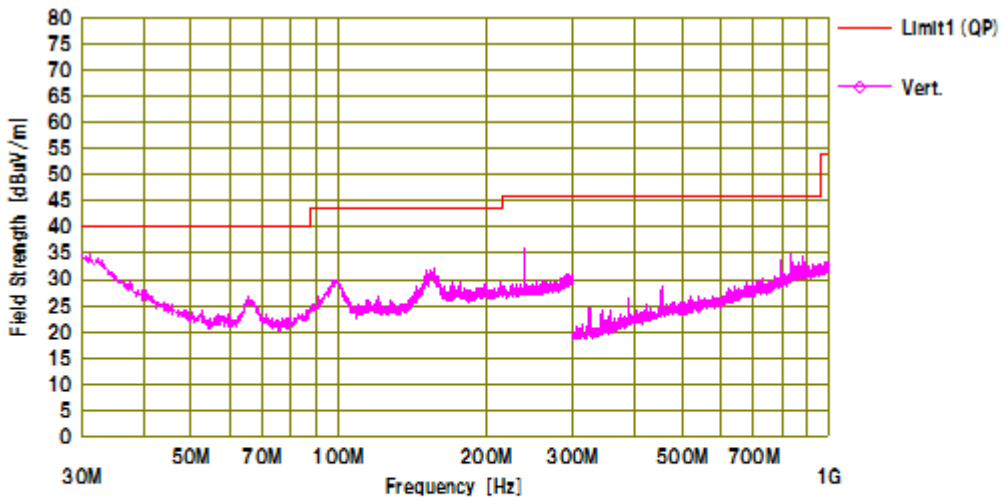
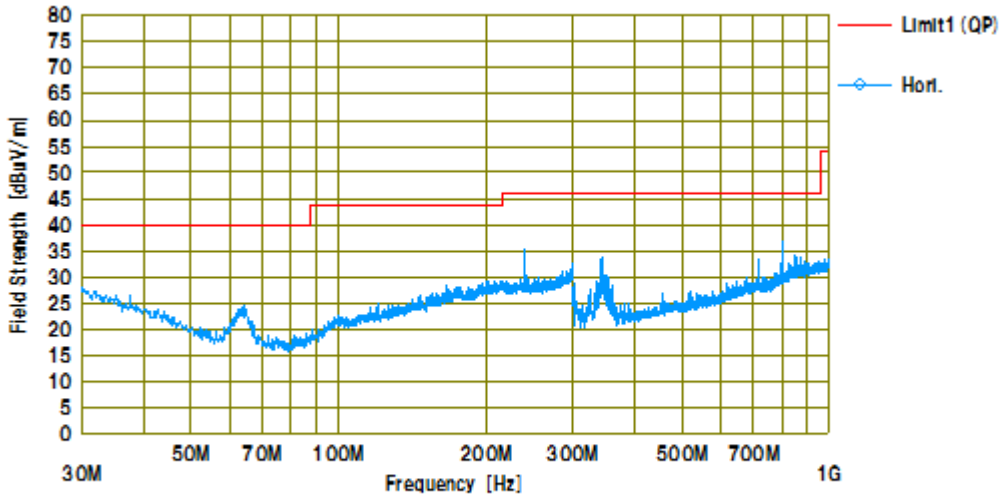
11n-HT40 5755MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)			
30.00	25.1	<0.0	5.4	30.5	40.0	9.5
65.30	13.8	7.5	7.7	21.5	40.0	18.5
99.60	17.5	<0.0	10.5	28.0	43.5	15.5
154.37	22.8	<0.0	3.0	25.8	43.5	17.7
240.00	25.3	1.9	1.6	27.2	46.0	18.8
344.12	17.6	12.5	<0.0	30.1	46.0	15.9
720.00	24.9	1.9	<0.0	26.8	46.0	19.2
798.75	25.7	<0.0	<0.0	<25.7	46.0	>20.3



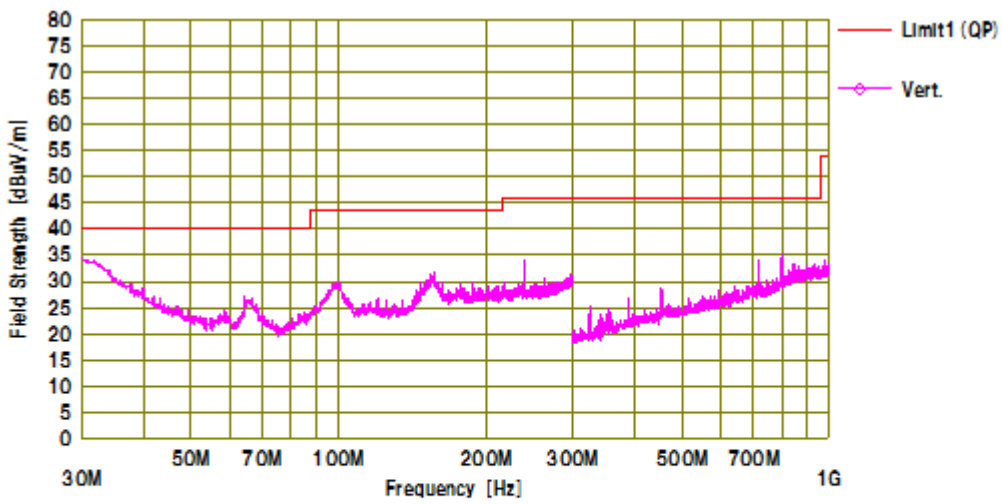
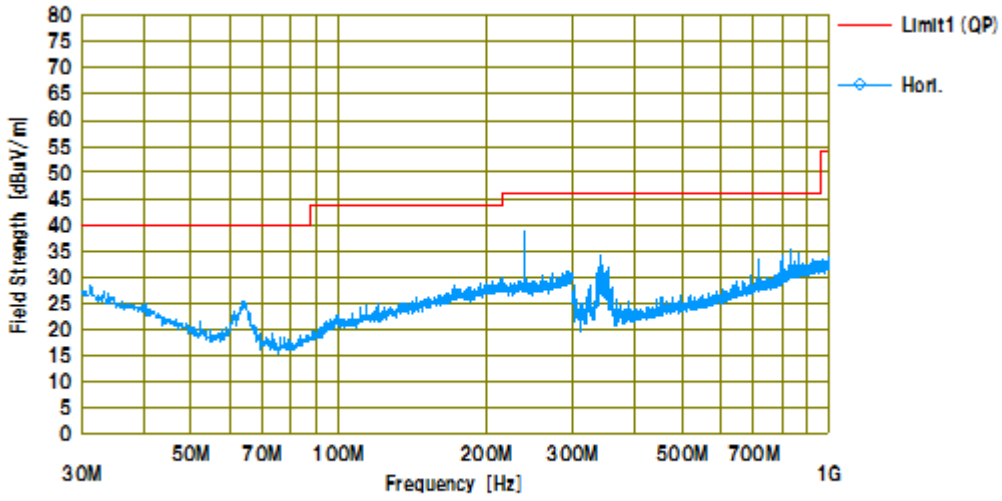
Test Results in Graph

X Axis



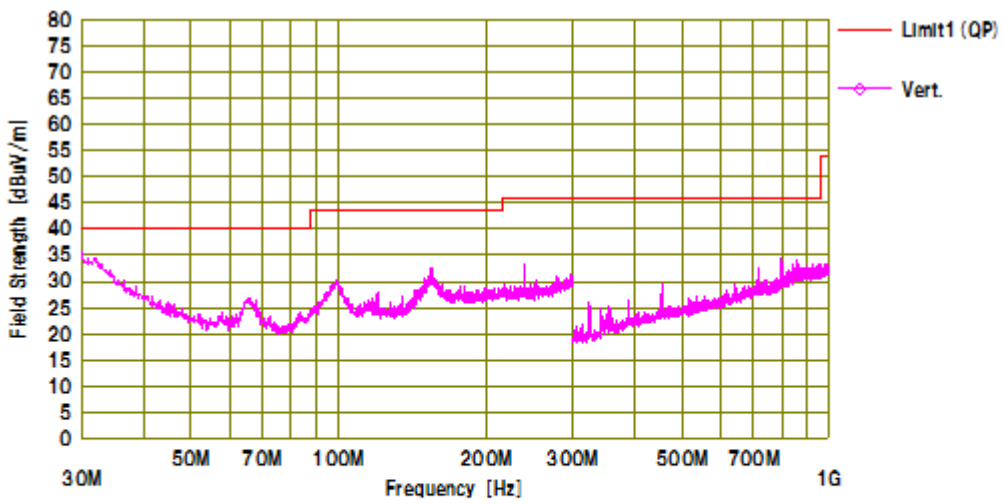
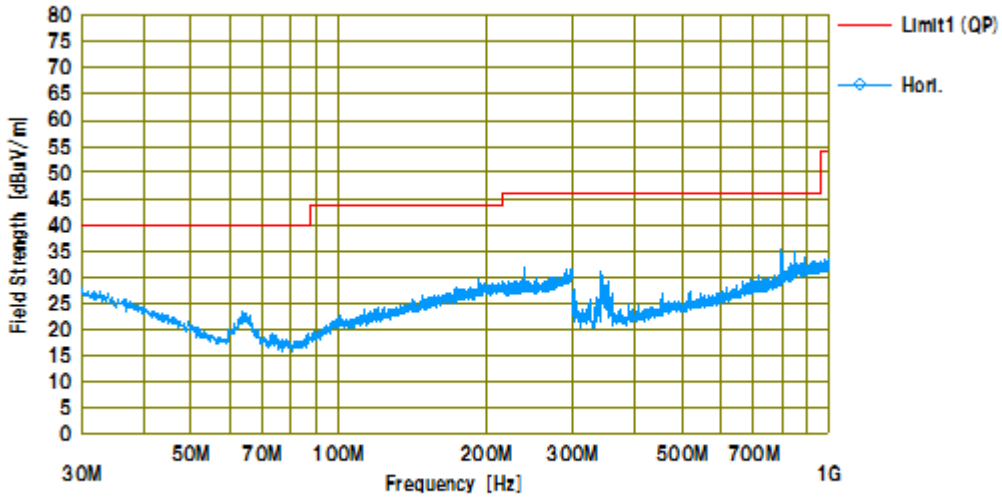


Y Axis





Z Axis



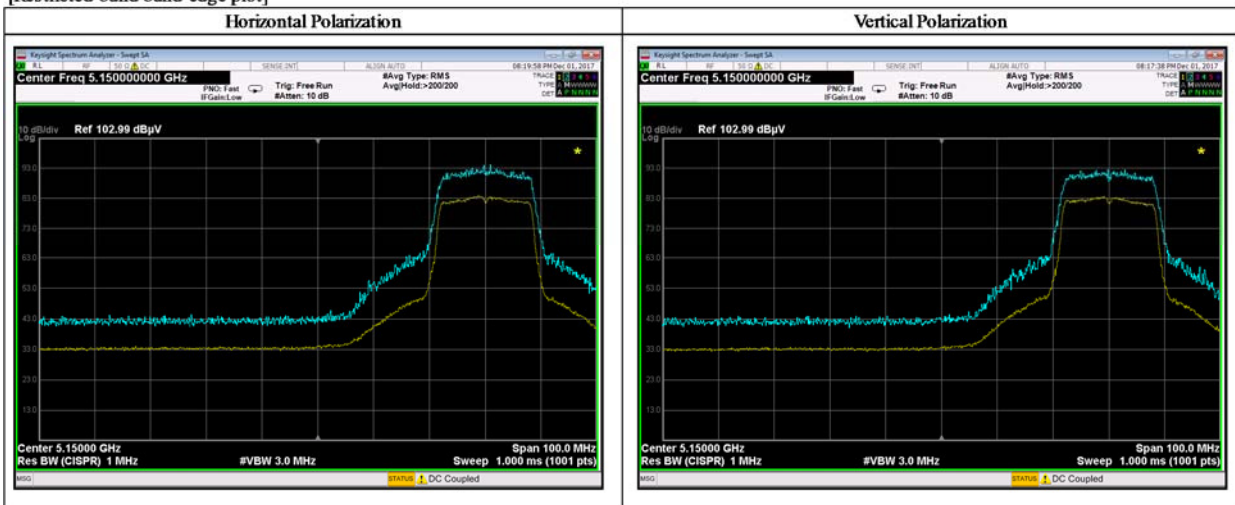


Above 1GHz

11a 5180MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3453.00	-1.5	50.5	50.2	-	49.0	68.2	19.2
5150.00	10.6	46.5	46.4	-	57.1	74.0	16.9
10360.00	-1.6	52.3	50.9	-	50.7	68.2	17.5
15540.00	2.6	54.2	52.6	-	56.8	74.0	17.2
Measurement with the Average Detector							
5150.00	10.6	34.8	34.3	1.6	47.0	54.0	7.0
15540.00	2.6	42.5	41.2	1.6	46.7	54.0	7.3

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

Yellow trace : Average Detector

11a 5220MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBµV/m)	Limit (dBµV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBµV)	Vertical Polarization (dBµV)				
Measurement with the Peak Detector							
3480.00	-1.4	50.6	51.2	-	49.8	68.2	18.4
10440.00	-1.6	52.4	51.4	-	50.8	68.2	17.4
15660.00	2.8	53.2	54.1	-	56.9	74.0	17.1
Measurement with the Average Detector							
15660.00	2.8	41.6	41.7	1.6	46.1	54.0	7.9

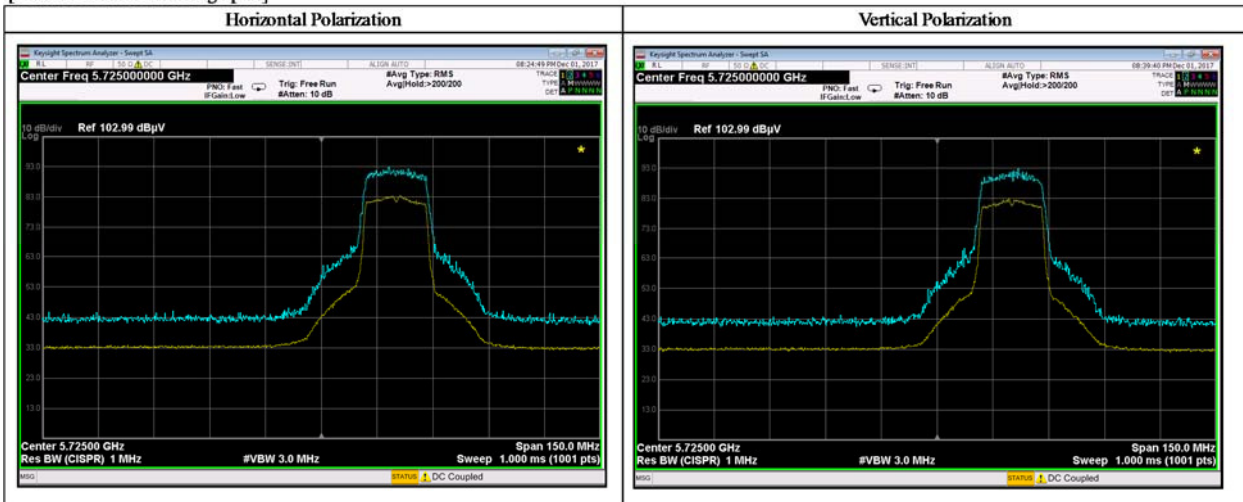
11a 5240MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBµV/m)	Limit (dBµV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBµV)	Vertical Polarization (dBµV)				
Measurement with the Peak Detector							
3493.00	-1.4	50.7	50.7	-	49.3	68.2	18.9
10480.00	-1.5	50.7	50.4	-	49.2	68.2	19.0
15720.00	2.8	52.4	51.8	-	55.2	74.0	18.8
Measurement with the Average Detector							
15720.00	2.8	41.9	41.7	1.6	46.3	54.0	7.7

11a 5745MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBµV/m)	Limit (dBµV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBµV)	Vertical Polarization (dBµV)				
Measurement with the Peak Detector							
3830.00	-0.8	50.4	50.1	-	49.6	74.0	24.4
5650.00	11.2	46.1	46.0	-	57.3	68.2	10.9
5700.00	11.2	46.7	46.3	-	57.9	105.2	47.3
5715.00	11.2	47.5	46.1	-	58.7	109.4	50.7
5720.00	11.2	49.3	49.2	-	60.5	110.8	50.3
5725.00	11.2	59.8	58.6	-	71.0	122.2	51.2
11490.00	-0.4	50.2	51.0	-	50.6	74.0	23.4
17235.00	4.4	54.5	53.2	-	58.9	68.2	9.3
Measurement with the Average Detector							
3830.00	-0.8	43.4	43.3	-	42.6	54.0	11.4
11490.00	-0.4	38.3	38.7	1.6	39.9	54.0	14.1

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

Yellow trace : Average Detector



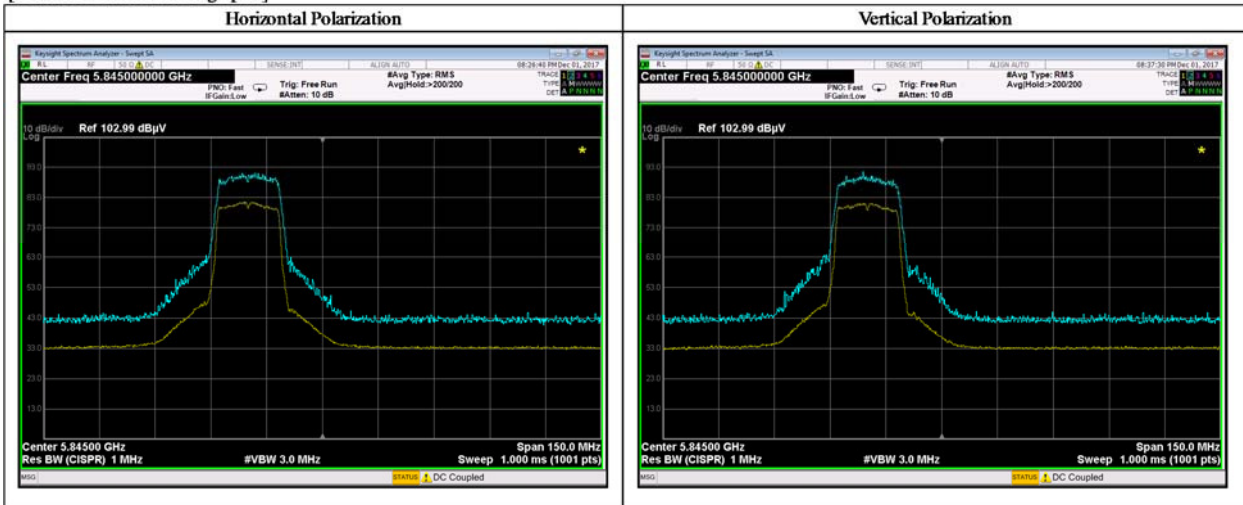
11a 5785MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBµV/m)	Limit (dBµV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBµV)	Vertical Polarization (dBµV)				
Measurement with the Peak Detector							
3857.00	-0.8	49.3	50.2	-	49.4	74.0	24.6
11570.00	-0.3	50.9	50.1	-	50.6	74.0	23.4
17355.00	4.7	53.4	52.6	-	58.1	68.2	10.1
Measurement with the Average Detector							
3857.00	-0.8	41.1	42.0	-	41.2	54.0	12.8
11570.00	-0.3	39.5	39.7	1.6	41.0	54.0	13.0

11a 5825MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBµV/m)	Limit (dBµV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBµV)	Vertical Polarization (dBµV)				
Measurement with the Peak Detector							
3883.00	-0.7	51.2	49.0	-	50.5	74.0	23.5
5850.00	11.4	46.3	46.5	-	57.9	122.2	64.3
5855.00	11.4	46.1	45.9	-	57.5	110.8	53.3
5860.00	11.4	46.1	46.0	-	57.5	109.4	51.9
5875.00	11.4	45.8	45.9	-	57.3	105.2	47.9
5925.00	11.6	46.0	45.7	-	57.6	68.2	10.6
11650.00	-0.3	51.0	50.8	-	50.7	74.0	23.3
17475.00	5.0	53.5	52.5	-	58.5	68.2	9.7
Measurement with the Average Detector							
3883.00	-0.7	45.0	42.6	-	44.3	54.0	9.7
11650.00	-0.3	39.2	39.5	1.6	40.8	54.0	13.2

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

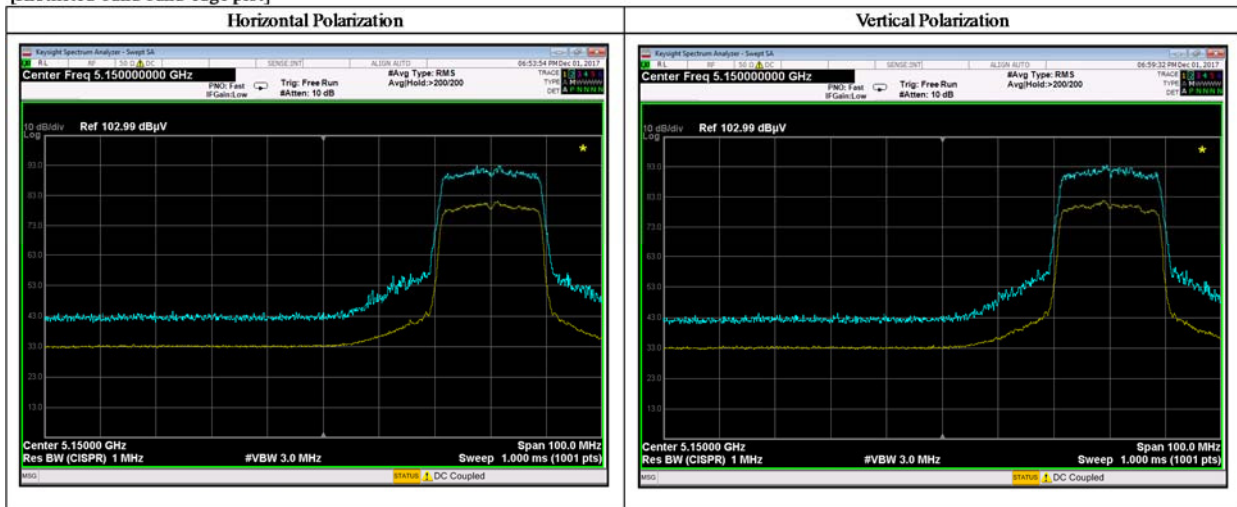
Yellow trace : Average Detector



11n-HT20 5180MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3453.00	-1.5	50.7	50.5	-	49.2	68.2	19.0
5150.00	10.6	46.0	46.3	-	56.9	74.0	17.1
10360.00	-1.6	57.6	56.0	-	56.0	68.2	12.2
15450.00	2.6	48.9	48.8	-	51.5	74.0	22.5
Measurement with the Average Detector							
5150.00	10.6	33.8	34.0	3.1	47.7	54.0	6.3
15450.00	2.6	36.7	36.9	3.1	42.6	54.0	11.4

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

Yellow trace : Average Detector



11n- HT20 5220MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3480.00	-1.4	50.8	50.1	-	49.4	68.2	18.8
10440.00	-1.6	53.3	53.0	-	51.7	68.2	16.5
15660.00	2.8	49.6	49.8	-	52.6	74.0	21.4
Measurement with the Average Detector							
15660.00	2.8	38.8	37.7	3.1	44.7	54.0	9.3

11n-HT20 5240MHz

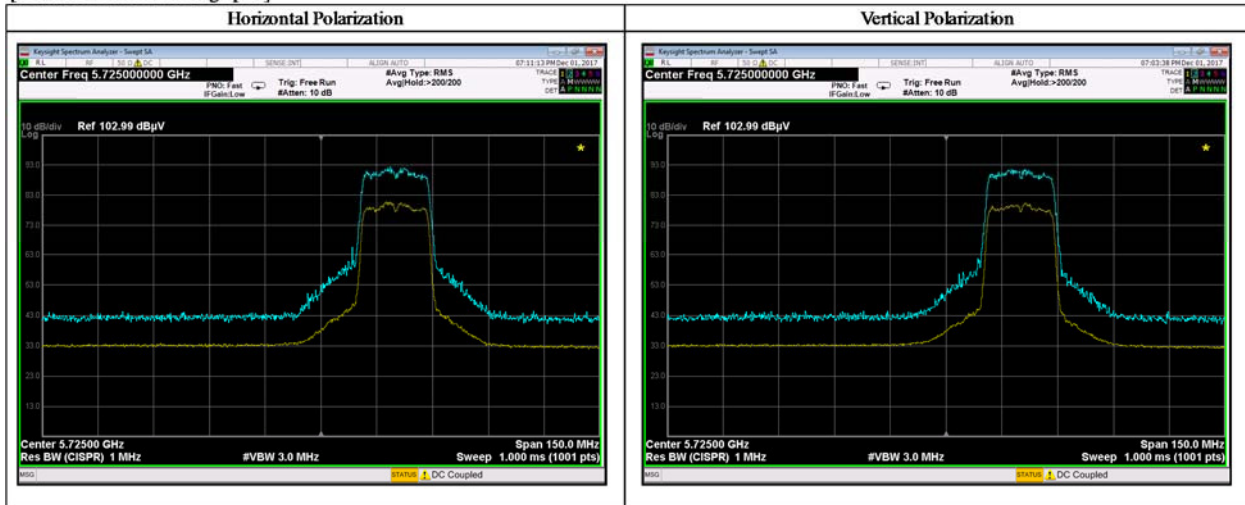
Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3493.00	-1.4	50.4	49.9	-	49.0	68.2	19.2
10480.00	-1.5	51.7	51.0	-	50.2	68.2	18.0
15720.00	2.8	48.9	49.5	-	52.3	74.0	21.7
Measurement with the Average Detector							
15720.00	2.8	37.5	37.4	3.1	43.4	54.0	10.6



11n-HT20 5745MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
5650.00	11.2	45.7	46.1	-	57.3	68.2	10.9
5700.00	11.2	45.7	46.0	-	57.2	105.2	48.0
5715.00	11.2	47.2	46.5	-	58.4	109.4	51.0
5720.00	11.2	50.0	49.2	-	61.2	110.8	49.6
5725.00	11.2	57.5	54.3	-	68.7	122.2	53.5
11490.00	-0.4	46.6	48.1	-	47.7	74.0	26.3
17235.00	4.4	50.4	50.2	-	54.8	68.2	13.4
Measurement with the Average Detector							
11490.00	-0.4	36.7	36.9	3.1	39.6	54.0	14.4

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

Yellow trace : Average Detector



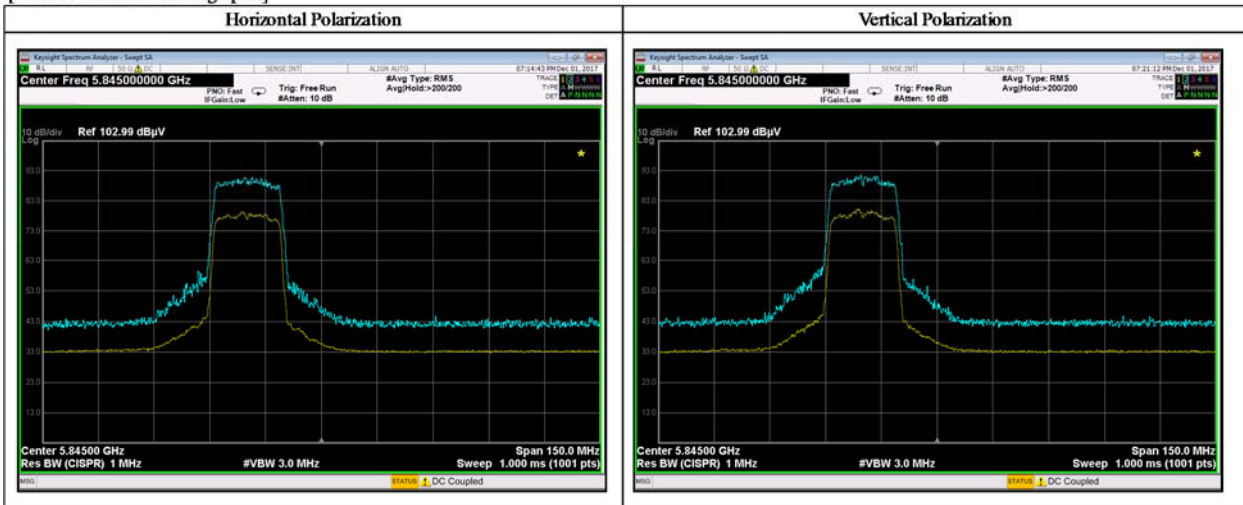
11n-HT20 5785MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBµV/m)	Limit (dBµV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBµV)	Vertical Polarization (dBµV)				
Measurement with the Peak Detector							
3857.00	-0.8	50.7	49.9	-	49.9	74.0	24.1
11570.00	-0.3	47.3	47.6	-	47.3	74.0	26.7
17355.00	4.7	50.9	47.5	-	55.6	68.2	12.6
Measurement with the Average Detector							
3857.00	-0.8	43.8	42.8	-	43.0	54.0	11.0
11570.00	-0.3	36.8	36.9	3.1	39.7	54.0	14.3

11n-HT20 5825MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBµV/m)	Limit (dBµV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBµV)	Vertical Polarization (dBµV)				
Measurement with the Peak Detector							
3883.00	-0.7	50.7	49.3	-	50.0	74.0	24.0
5850.00	11.4	46.3	46.7	-	58.1	122.2	64.1
5855.00	11.4	46.0	45.4	-	57.4	110.8	53.4
5860.00	11.4	45.7	45.7	-	57.1	109.4	52.3
5875.00	11.4	45.9	45.6	-	57.3	105.2	47.9
5925.00	11.6	45.8	45.6	-	57.4	68.2	10.8
11650.00	-0.3	49.0	48.1	-	48.7	74.0	25.3
17475.00	5.0	49.4	45.4	-	54.4	68.2	13.8
Measurement with the Average Detector							
3883.00	-0.7	44.0	41.5	-	43.3	54.0	10.7
11650.00	-0.3	37.5	37.4	3.1	40.3	54.0	13.7

[Restricted-band band-edge plot]



[Note]

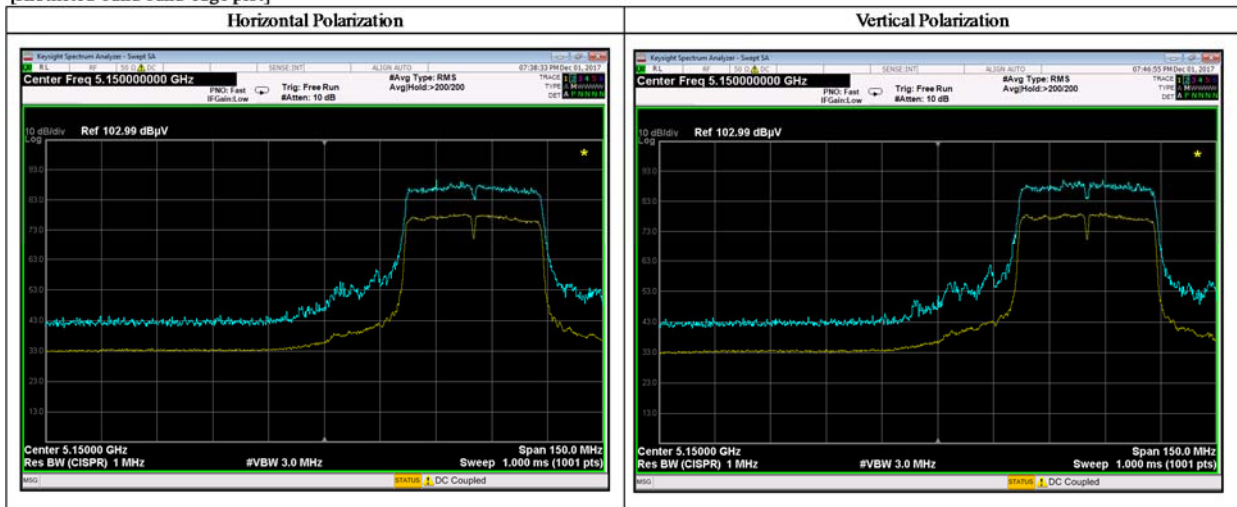
Blue trace : Peak Detector

Yellow trace : Average Detector

11n-HT40 5190MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3460.00	-1.5	50.9	50.7	-	49.4	68.2	18.8
5150.00	10.6	51.8	52.5	-	63.1	74.0	10.9
10380.00	-1.7	54.0	53.8	-	52.3	68.2	15.9
15570.00	2.6	48.1	47.3	-	50.7	74.0	23.3
Measurement with the Average Detector							
5150.00	10.6	35.0	34.4	5.4	51.0	54.0	3.0
15570.00	2.6	34.9	34.0	5.4	42.9	54.0	11.1

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

Yellow trace : Average Detector



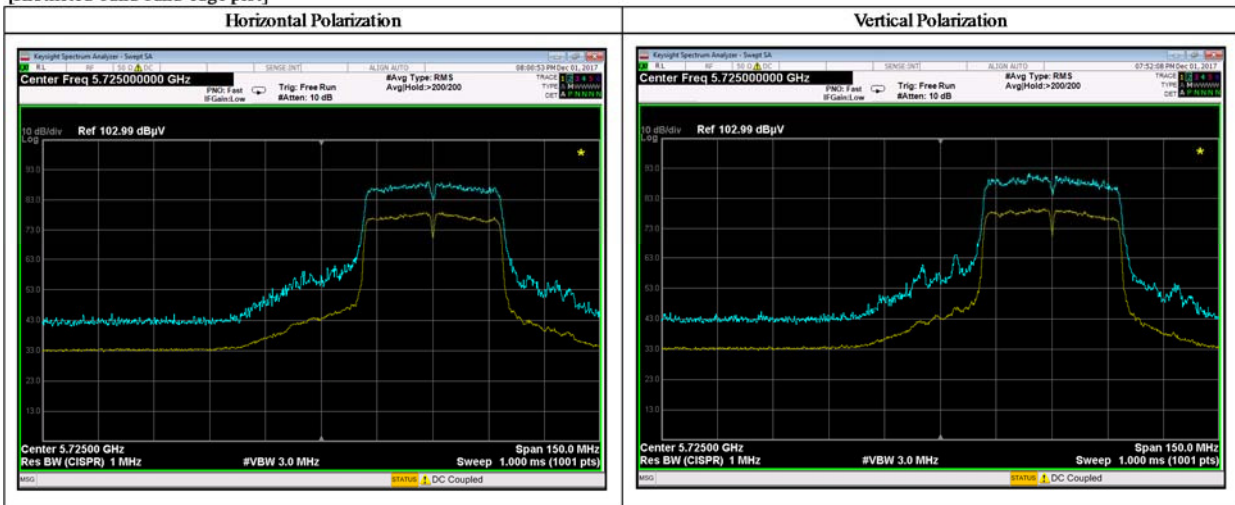
11n-HT40 5230MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3487.00	-1.4	50.7	50.0	-	49.3	68.2	18.9
10460.00	-1.6	52.9	50.7	-	51.3	68.2	16.9
15690.00	2.8	49.1	47.0	-	51.9	74.0	22.1
Measurement with the Average Detector							
15690.00	2.8	36.5	36.1	2.0	41.3	54.0	12.7

11n-HT40 5755MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3837.00	-0.8	50.4	50.1	-	49.6	74.0	24.4
5650.00	11.2	45.7	45.4	-	56.9	68.2	11.3
5700.00	11.2	47.7	48.5	-	59.7	105.2	45.5
5715.00	11.2	56.2	56.4	-	67.6	109.4	41.8
5720.00	11.2	61.8	59.3	-	73.0	110.8	37.8
5725.00	11.2	59.2	58.2	-	70.4	122.2	51.8
11510.00	-0.4	45.4	46.8	-	46.4	74.0	27.6
17265.00	4.5	49.8	46.4	-	54.3	68.2	13.9
Measurement with the Average Detector							
3837.00	-0.8	44.6	41.8	-	43.8	54.0	10.2
11510.00	-0.4	35.6	36.2	2.0	37.8	54.0	16.2

[Restricted-band band-edge plot]



[Note]

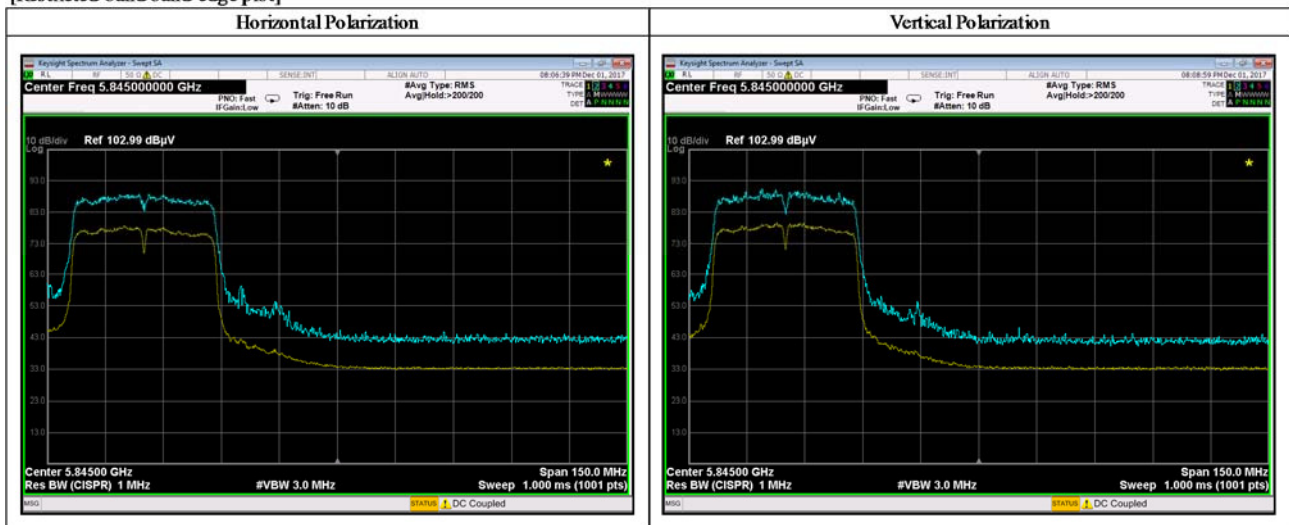
Blue trace : Peak Detector

Yellow trace : Average Detector

11n-HT40 5795MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3863.00	-0.7	50.9	49.9	-	50.2	74.0	23.8
5850.00	11.4	46.7	46.8	-	58.2	122.2	64.0
5855.00	11.4	45.8	45.5	-	57.2	110.8	53.6
5860.00	11.4	44.7	45.1	-	56.5	109.4	52.9
5875.00	11.4	45.6	45.0	-	57.0	105.2	48.2
5925.00	11.6	45.5	45.2	-	57.1	68.2	11.1
11590.00	-0.3	45.9	46.1	-	45.8	74.0	28.2
17385.00	4.8	49.2	47.5	-	54.0	68.2	14.2
Measurement with the Average Detector							
3863.00	-0.7	45.2	41.7	-	44.5	54.0	9.5
11590.00	-0.3	35.9	36.0	2.0	37.7	54.0	16.3

[Restricted-band band-edge plot]



[Note]

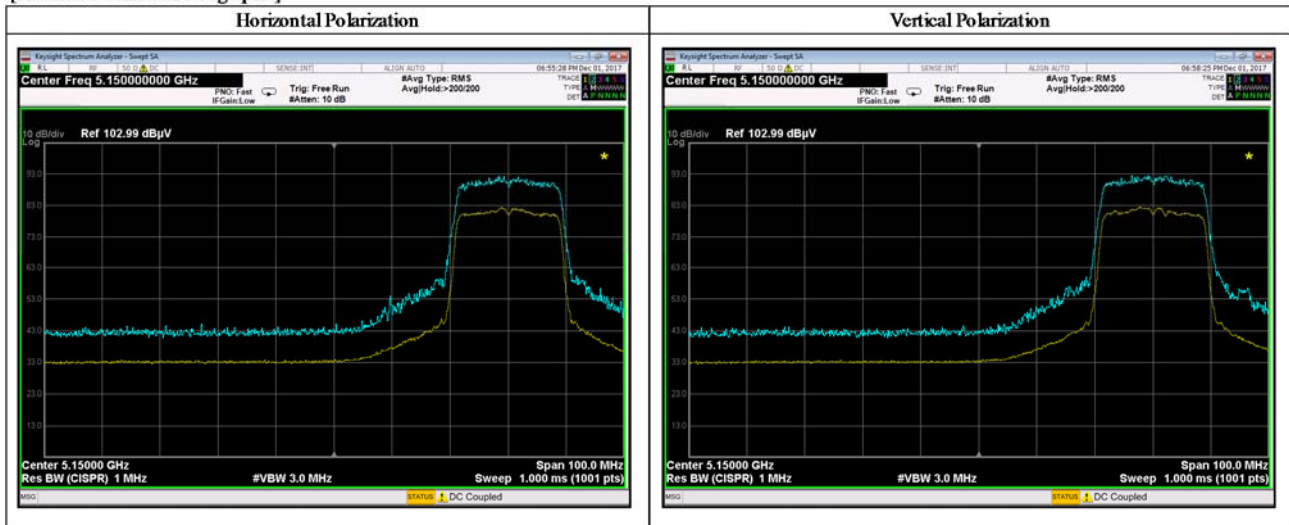
Blue trace : Peak Detector

Yellow trace : Average Detector

11ac-HT20 5180MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3453.00	-1.5	51.0	50.1	-	49.5	68.2	18.7
5150.00	10.6	46.4	46.6	-	57.2	74.0	16.8
10360.00	-1.6	56.1	56.0	-	54.5	68.2	13.7
15540.00	2.6	49.2	50.6	-	53.2	74.0	20.8
Measurement with the Average Detector							
5150.00	10.6	34.2	34.4	1.9	46.9	54.0	7.1
15540.00	2.6	39.5	39.6	1.9	44.1	54.0	9.9

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

Yellow trace : Average Detector



11ac-HT20 5220MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dB μ V/m)	Limit (dB μ V/m)	Margin for Limit (dB)
		Horizontal Polarization (dB μ V)	Vertical Polarization (dB μ V)				
Measurement with the Peak Detector							
3480.00	-1.4	50.2	49.4	-	48.8	68.2	19.4
10440.00	-1.6	53.8	53.0	-	52.2	68.2	16.0
15660.00	2.8	51.6	51.0	-	54.4	74.0	19.6
Measurement with the Average Detector							
15660.00	2.8	39.8	38.3	1.9	44.5	54.0	9.5

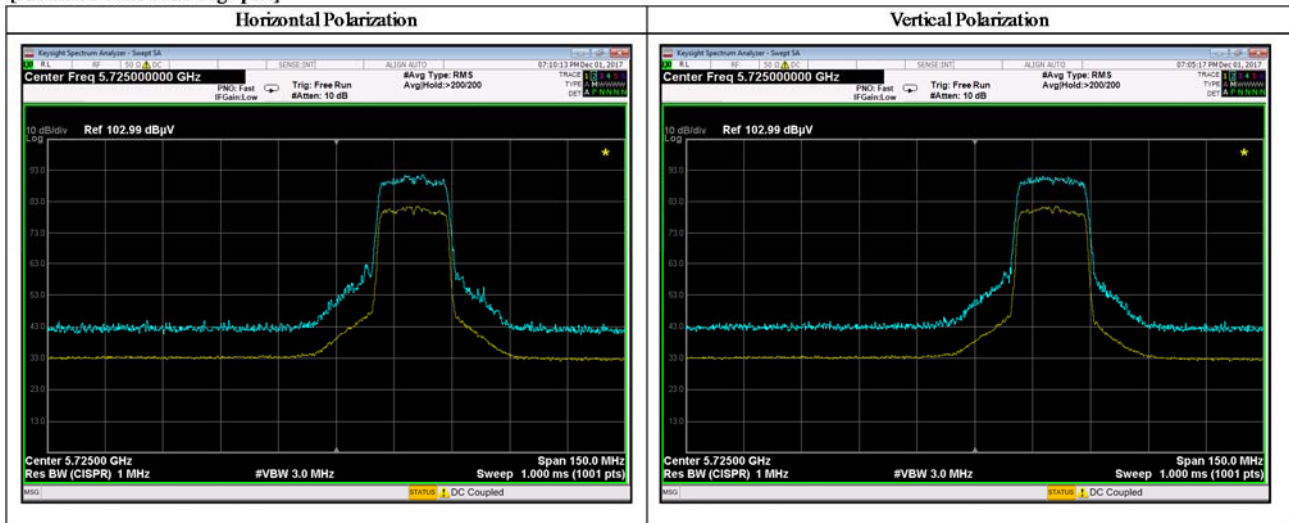
11ac-HT20 5240MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dB μ V/m)	Limit (dB μ V/m)	Margin for Limit (dB)
		Horizontal Polarization (dB μ V)	Vertical Polarization (dB μ V)				
Measurement with the Peak Detector							
3493.00	-1.4	51.0	49.9	-	49.6	68.2	18.6
10480.00	-1.5	53.1	52.8	-	51.6	68.2	16.6
15720.00	2.8	49.6	51.1	-	53.9	74.0	20.1
Measurement with the Average Detector							
15720.00	2.8	38.4	38.5	1.9	43.2	54.0	10.8

11ac-HT20 5745MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3830.00	-0.8	51.3	50.9	-	50.5	74.0	23.5
5650.00	11.2	45.6	46.1	-	57.3	68.2	10.9
5700.00	11.2	46.7	46.7	-	57.9	105.2	47.3
5715.00	11.2	46.7	46.3	-	57.9	109.4	51.5
5720.00	11.2	48.7	47.5	-	59.9	110.8	50.9
5725.00	11.2	55.5	53.5	-	66.7	122.2	55.5
11490.00	-0.4	46.7	47.9	-	47.5	74.0	26.5
17235.00	4.4	50.4	49.6	-	54.8	68.2	13.4
Measurement with the Average Detector							
3830.00	-0.8	44.7	43.5	-	43.9	54.0	10.1
11490.00	-0.4	36.6	37.2	1.9	38.7	54.0	15.3

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

Yellow trace : Average Detector



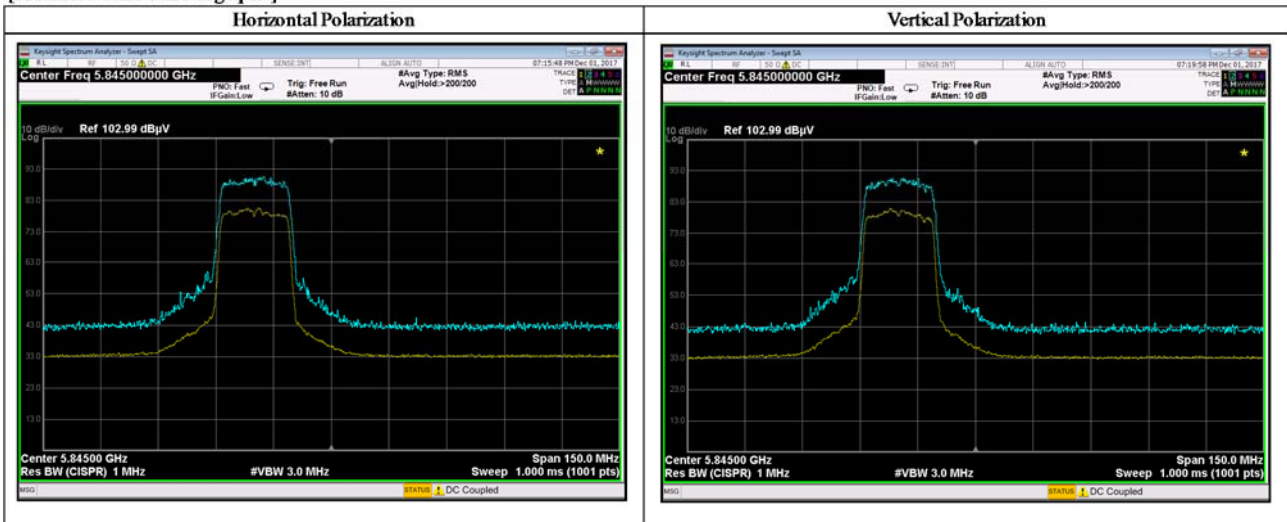
11ac-HT20 5785MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3857.00	-0.8	50.4	49.8	-	49.6	74.0	24.4
11570.00	-0.3	48.8	47.5	-	48.5	74.0	25.5
17355.00	4.7	50.2	47.5	-	54.9	68.2	13.3
Measurement with the Average Detector							
3857.00	-0.8	44.1	42.9	-	43.3	54.0	10.7
11570.00	-0.3	37.5	38.2	1.9	39.8	54.0	14.2

11ac-HT20 5825MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3883.00	-0.7	50.8	49.3	-	50.1	74.0	23.9
5850.00	11.4	47.3	46.2	-	58.7	122.2	63.5
5855.00	11.4	45.8	45.9	-	57.3	110.8	53.5
5860.00	11.4	46.0	46.0	-	57.4	109.4	52.0
5875.00	11.4	45.8	45.8	-	57.2	105.2	48.0
5925.00	11.6	46.0	45.9	-	57.6	68.2	10.6
11650.00	-0.3	49.0	48.4	-	48.7	74.0	25.3
17475.00	5.0	48.1	44.7	-	53.1	68.2	15.1
Measurement with the Average Detector							
3883.00	-0.7	44.3	41.5	-	43.6	54.0	10.4
11650.00	-0.3	38.7	38.1	1.9	40.3	54.0	13.7

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

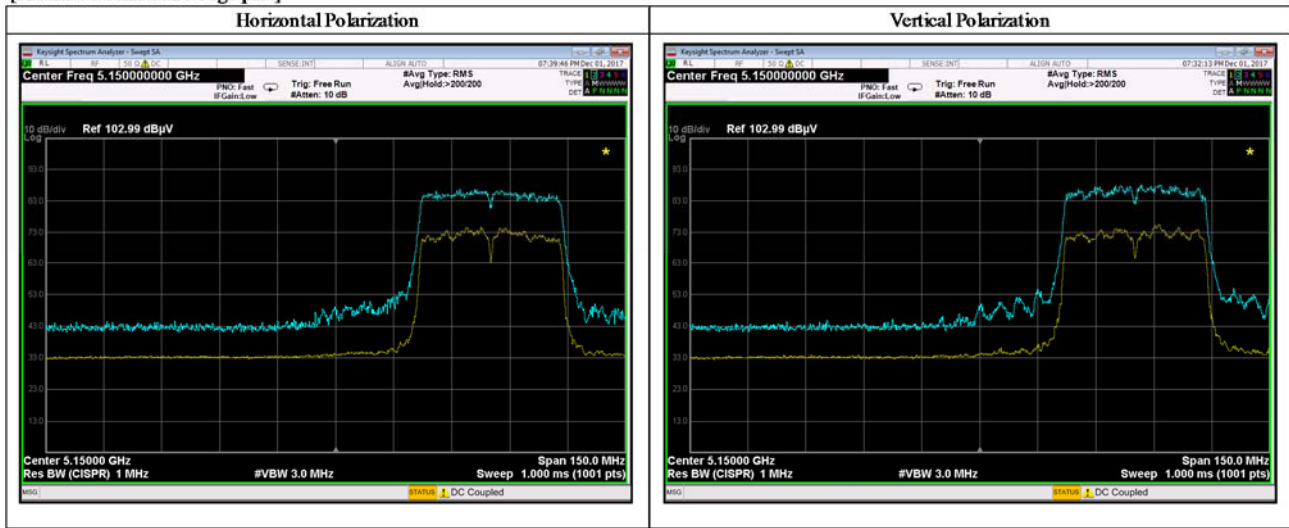
Yellow trace : Average Detector



11ac-HT40 5190MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3460.00	-1.5	50.9	50.7	-	49.4	68.2	18.8
5150.00	10.6	51.8	52.5	-	63.1	74.0	10.9
10380.00	-1.7	54.0	53.8	-	52.3	68.2	15.9
15570.00	2.6	48.1	47.3	-	50.7	74.0	23.3
Measurement with the Average Detector							
5150.00	10.6	35.0	34.4	5.4	51.0	54.0	3.0
15570.00	2.6	34.9	34.0	5.4	42.9	54.0	11.1

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

Yellow trace : Average Detector

11ac-HT40 5230MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3487.00	-1.4	51.2	49.3	-	49.8	68.2	18.4
10460.00	-1.6	51.4	51.0	-	49.8	68.2	18.4
15690.00	2.8	47.8	47.8	-	50.6	74.0	23.4
Measurement with the Average Detector							
15690.00	2.8	34.6	34.3	5.4	42.8	54.0	11.2

11ac-HT40 5755MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3837.00	-0.8	50.2	50.5	-	49.7	74.0	24.3
5650.00	11.2	45.3	46.0	-	57.2	68.2	11.0
5700.00	11.2	47.1	46.7	-	58.3	105.2	46.9
5715.00	11.2	50.2	49.1	-	61.4	109.4	48.0
5720.00	11.2	54.7	54.0	-	65.9	110.8	44.9
5725.00	11.2	55.3	56.6	-	67.8	122.2	54.4
11510.00	-0.4	44.8	46.8	-	46.4	74.0	27.6
17265.00	4.5	49.3	46.7	-	53.8	68.2	14.4
Measurement with the Average Detector							
3837.00	-0.8	43.9	43.4	-	43.1	54.0	10.9
11510.00	-0.4	34.5	34.9	5.4	39.9	54.0	14.1

[Restricted-band band-edge plot]



[Note]

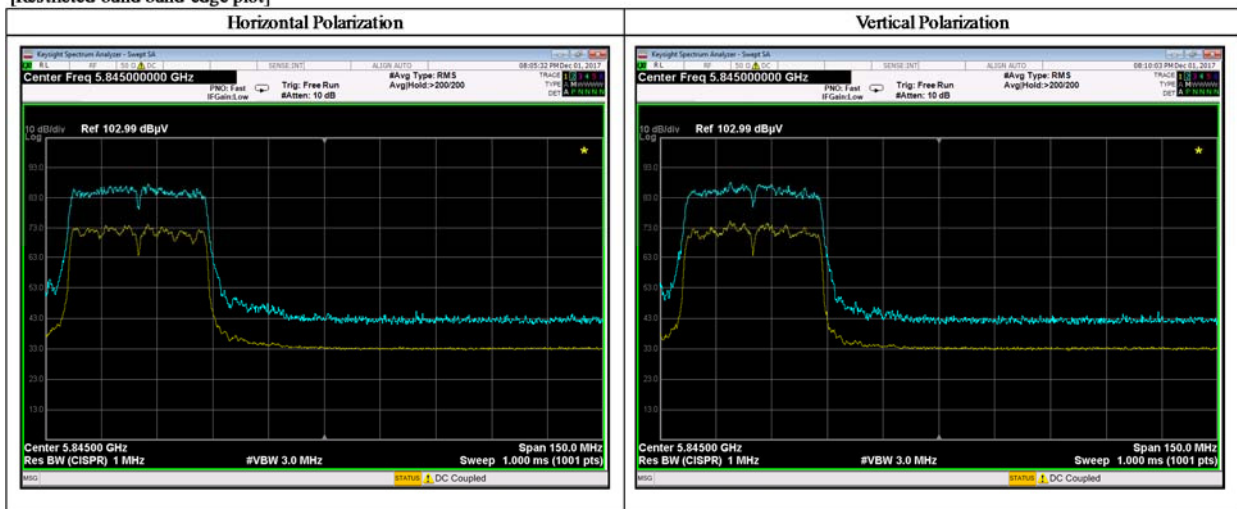
Blue trace : Peak Detector

Yellow trace : Average Detector

11ac-HT40 5795MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3863.00	-0.7	51.3	51.2	-	50.6	74.0	23.4
5850.00	11.4	48.2	45.6	-	59.6	122.2	62.6
5855.00	11.4	45.5	45.1	-	56.9	110.8	53.9
5860.00	11.4	45.2	45.1	-	56.6	109.4	52.8
5875.00	11.4	45.4	45.3	-	56.8	105.2	48.4
5925.00	11.6	45.5	45.2	-	57.1	68.2	11.1
11590.00	-0.3	45.1	47.2	-	46.9	74.0	27.1
17385.00	4.8	49.2	47.3	-	54.0	68.2	14.2
Measurement with the Average Detector							
3863.00	-0.7	45.0	43.6	-	44.3	54.0	9.7
11590.00	-0.3	34.6	36.0	5.4	41.1	54.0	12.9

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

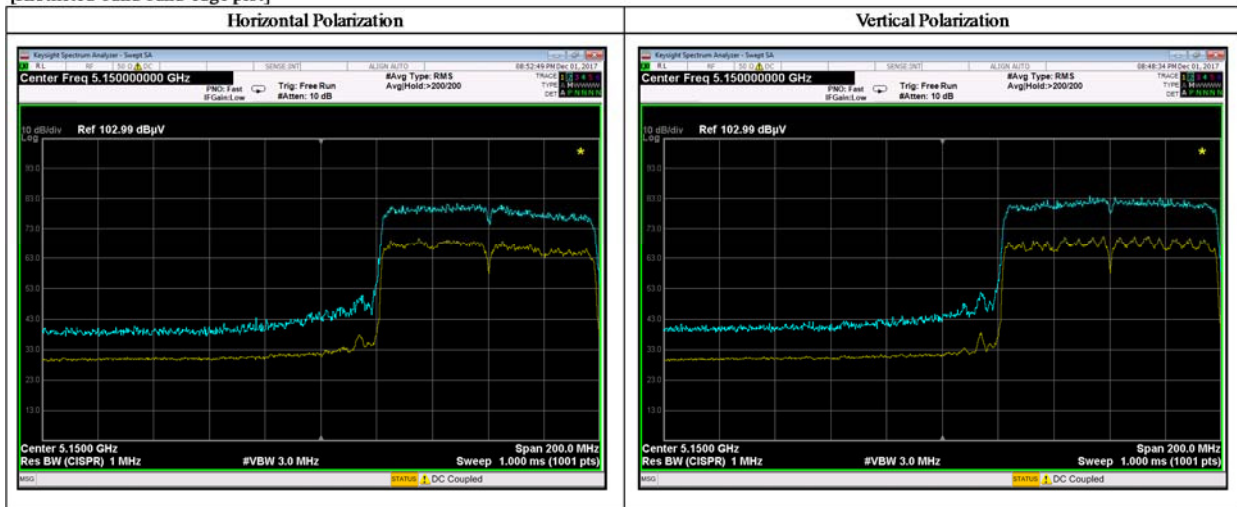
Yellow trace : Average Detector



11ac-HT80 5210MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dB μ V/m)	Limit (dB μ V/m)	Margin for Limit (dB)
		Horizontal Polarization (dB μ V)	Vertical Polarization (dB μ V)				
Measurement with the Peak Detector							
3473.00	-1.5	51.2	50.0	-	49.7	68.2	18.5
5150.00	12.7	46.2	47.0	-	59.7	74.0	14.3
10420.00	-1.6	48.7	45.5	-	47.1	68.2	21.1
15630.00	2.6	43.3	42.5	-	45.9	74.0	28.1
Measurement with the Average Detector							
5150.00	12.7	32.0	32.3	5.0	50.0	54.0	4.0
15630.00	2.6	32.7	32.5	5.0	40.3	54.0	13.7

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

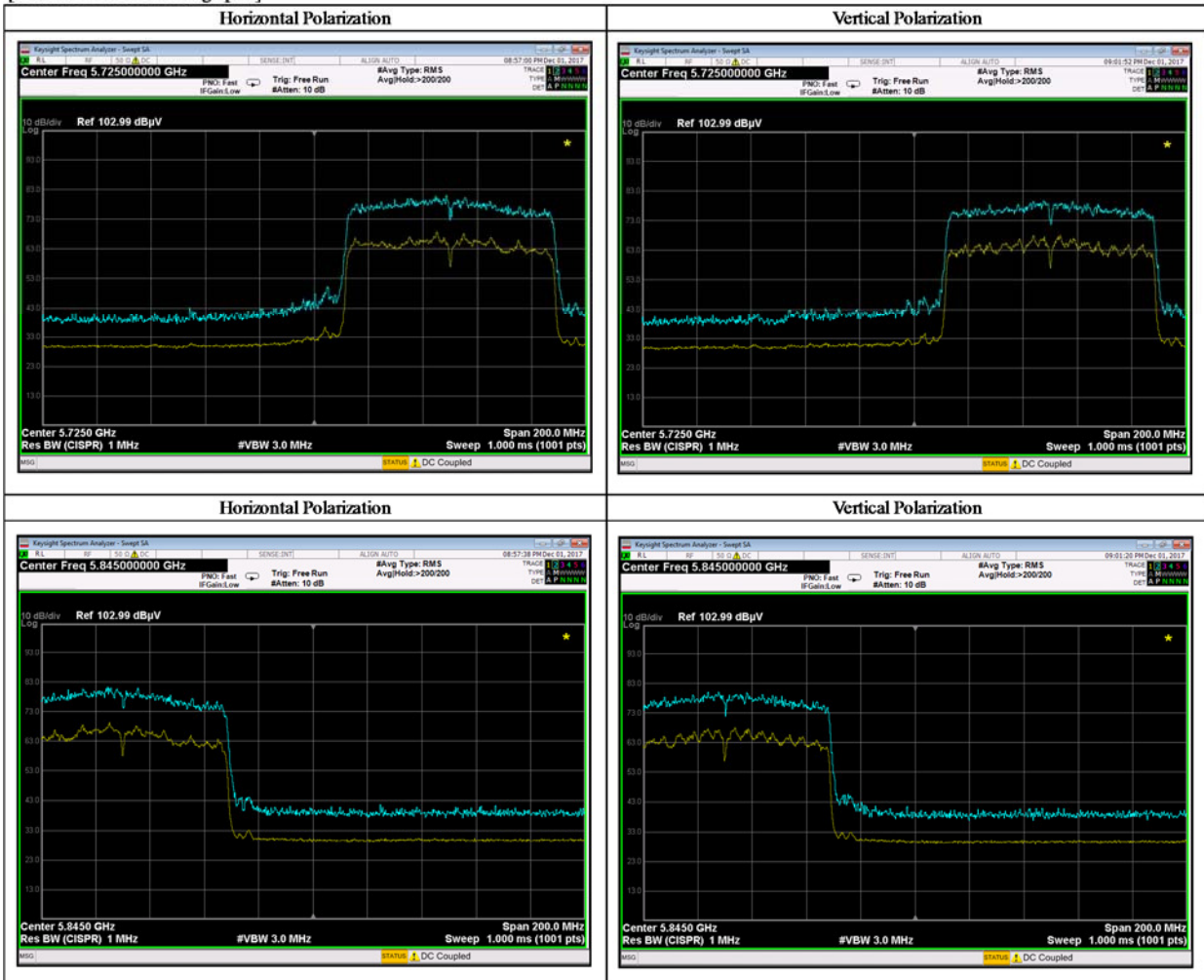
Yellow trace : Average Detector



11ac-HT80 5775MHz

Measured Frequency (MHz)	Correction Factor (dB/m)	Meter Reading		Duty Cycle Factor (dB)	Maximum Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
		Horizontal Polarization (dBμV)	Vertical Polarization (dBμV)				
Measurement with the Peak Detector							
3850.00	-0.9	50.9	50.3	-	50.0	74.0	24.0
5650.00	13.7	42.4	41.8	-	56.1	68.2	12.1
5700.00	13.7	47.5	46.5	-	61.2	105.2	44.0
5715.00	13.7	49.6	48.1	-	63.3	109.4	46.1
5720.00	13.7	50.0	49.3	-	63.7	110.8	47.1
5725.00	13.7	50.9	50.8	-	64.6	122.2	57.6
5850.00	13.9	44.5	43.3	-	58.4	122.2	63.8
5855.00	13.9	41.8	41.6	-	55.7	110.8	55.1
5860.00	13.9	43.5	42.4	-	57.4	109.4	52.0
5875.00	13.9	41.2	41.9	-	55.8	105.2	49.4
5925.00	14.2	42.2	41.8	-	56.4	68.2	11.8
11550.00	-0.3	42.3	42.5	-	42.2	74.0	31.8
17325.00	4.5	42.4	42.2	-	46.9	68.2	21.3
Measurement with the Average Detector							
3850.00	-0.9	44.4	43.5	-	43.5	54.0	10.5
11550.00	-0.3	33.4	33.2	5.0	38.1	54.0	15.9

[Restricted-band band-edge plot]



[Note]

Blue trace : Peak Detector

Yellow trace : Average Detector

**[Note]**

(1) Correction Factor includes the antenna factor, cable loss, attenuator loss and pre-amplifier gain.
 Correction Factor includes the cable loss and attenuator loss.
 Above 1000MHz, the antenna factor includes the cable loss, pre-amplifier gain and attenuator loss (if necessary).

(2) * mark in Measured Frequency : Measured with the tuned dipole antenna.
 no mark in Measured Frequency : Measured with the broadband antenna.

(3) Upper Frequency : Transmitter Frequency (TX): TX < 10GHz
 1GHz 10th harmonic of the TX frequency / Up to 40GHz
 Transmitter Frequency (TX): 10GHz < TX < 30GHz
 10th harmonic of the TX frequency / Up to 100GHz
 Transmitter Frequency (TX): 30GHz ≤ TX
 10th harmonic of the TX frequency / Up to 200GHz

The emissions were checked to the upper frequency, and the lower emissions than the listed emissions in the above tables were omitted.

(4) Measurement Distance : <below 1GHz> 3m 10m
 <above 1GHz> 3m 10m
 <above 18GHz> 1m

(5) Placement height of EUT : <below 1GHz> 0.8m
 <above 1GHz> 1.5m

(6) Bore-sight method setting: horn antenna orientation was center of Turn Table

[Calculation method]

Maximum Field Strength (dBμV/m)

= Meter Reading (at maximum level of Horizontal or Vertical) (dBμV) + Correction Factor (dB/m) +
 Distance factor (*) + Duty Cycle Factor (dB) (Average measurement of above 1GHz) (**)

(*) Applied for Radiated Emission Measurement (above 18GHz) only.

Distance factor : $20 \times \log_{10} (1\text{m} / 3\text{m}) = -9.5\text{dB}$

(**) See page 33.

Tested Date	Environment	
	Temperature	Humidity
21 November 2017	22°C	36 %



Below 30MHz (Conducted measurement)

11a 5745MHz

Measured Frequency (MHz)	Correction Factor (dB)	Meter Reading (dBm)	Ant Gain (dBi)	NANT	EIRP (dBm)	Distance (m)	Ground Bounce (dB)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
2.001	9.87	-86.45	2.00	1	-74.58	30	6.00	6.68	29.54	22.86

11n-HT20 5785MHz

Measured Frequency (MHz)	Correction Factor (dB)	Meter Reading (dBm)	Ant Gain (dBi)	NANT	EIRP (dBm)	Distance (m)	Ground Bounce (dB)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
2.001	9.87	-86.81	2.00	2	-71.93	30	6.00	9.33	29.54	20.21

11n-HT40 5755MHz

Measured Frequency (MHz)	Correction Factor (dB)	Meter Reading (dBm)	Ant Gain (dBi)	NANT	EIRP (dBm)	Distance (m)	Ground Bounce (dB)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
20.000	9.87	-79.44	2.00	2	-64.56	30	6.00	16.70	29.54	12.84

11ac-HT20 5825MHz

Measured Frequency (MHz)	Correction Factor (dB)	Meter Reading (dBm)	Ant Gain (dBi)	NANT	EIRP (dBm)	Distance (m)	Ground Bounce (dB)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
2.001	9.87	-86.58	2.00	2	-71.70	30	6.00	9.56	29.54	19.98

11ac-HT40 5755MHz

Measured Frequency (MHz)	Correction Factor (dB)	Meter Reading (dBm)	Ant Gain (dBi)	NANT	EIRP (dBm)	Distance (m)	Ground Bounce (dB)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
20.000	9.87	-79.78	2.00	2	-64.90	30	6.00	16.36	29.54	13.18

11ac-HT80 5775MHz

Measured Frequency (MHz)	Correction Factor (dB)	Meter Reading (dBm)	Ant Gain (dBi)	NANT	EIRP (dBm)	Distance (m)	Ground Bounce (dB)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin for Limit (dB)
20.000	9.87	-84.18	2.00	2	-69.30	30	6.00	11.96	29.54	17.58

[Note]

- (1) Correction Factor includes the cable loss and attenuator loss.
- (2) See next page figure.
- (3) Antenna gain was determined the maximum antenna gain or 2 dBi, whichever is greater, with reference to KDB789033.

[Calculation method]

$$\text{EIRP (dBm)} = \text{Meter Reading (dBm)} + \text{Correction Factor (dB)} + \text{Antenna Gain (dBi)}$$

$$\text{Field Strength (dB}\mu\text{V/m)} = \text{EIRP (dBm)} - 20 \cdot \log(D) + \text{Ground Bounce (dB)} + 104.8 \text{ (dB}\mu\text{V/m)}$$

Tested Date	Environment	
	Temperature	Humidity
21 November 2017	22°C	36%

