

### **802.11n HT20 UNII-2C ANT1**

#### **Lowest Channel (5 500 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
5 459.81 <sup>1)</sup>	H	43.06	34.25	-23.43	-	53.88	74.00	20.12
10 349.63	H	60.35	37.08	-47.96	-	49.47	68.20	18.73
16 420.55	H	57.24	42.33	-44.79	-	54.78	68.20	13.42
<b>Average Data</b>								
5 459.81 <sup>1)</sup>	H	35.82	34.25	-23.43	0.32	46.96	54.00	7.04

#### **Middle Channel (5 600 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 390.02 <sup>1)</sup>	V	58.66	37.89	-47.65	-	48.90	74.00	25.10
16 917.56	V	56.10	42.87	-44.50	-	54.47	68.20	13.73
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

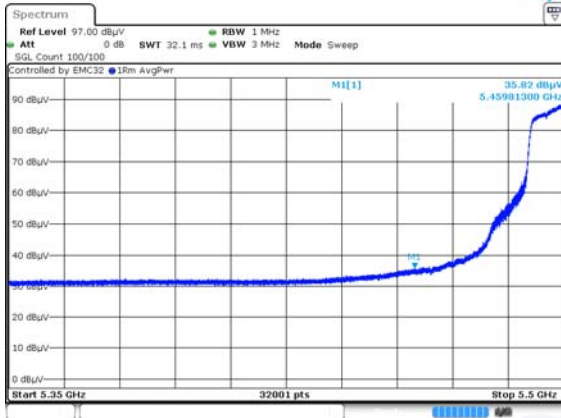
#### **Highest Channel (5 700 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
5 725.19	H	47.85	34.71	-22.97		59.59	68.20	8.61
11 423.08 <sup>1)</sup>	V	58.34	37.92	-47.65		48.61	74.00	25.39
16 950.63	V	56.63	42.92	-44.50		55.05	68.20	13.15
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT20 UNII-2C ANT1**

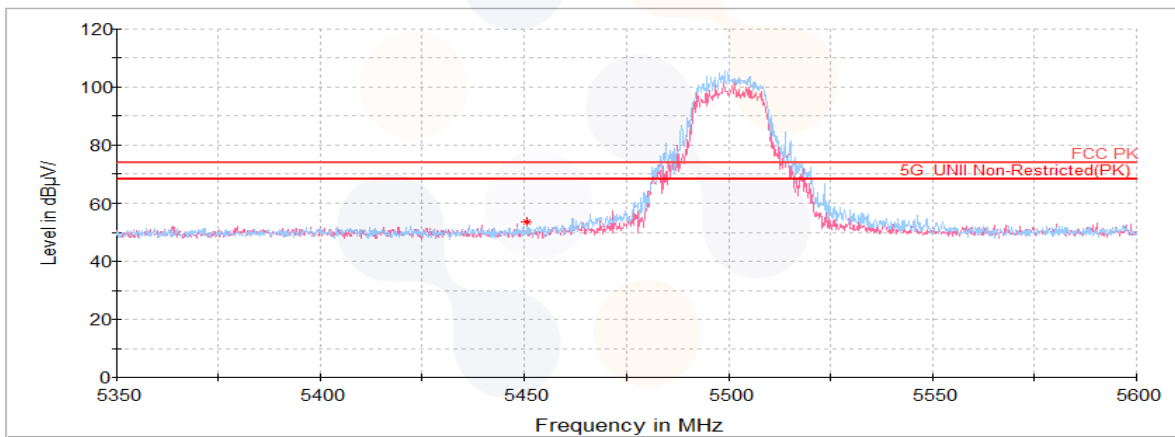
**Lowest Channel (5 500 MHz)**

**Average data**



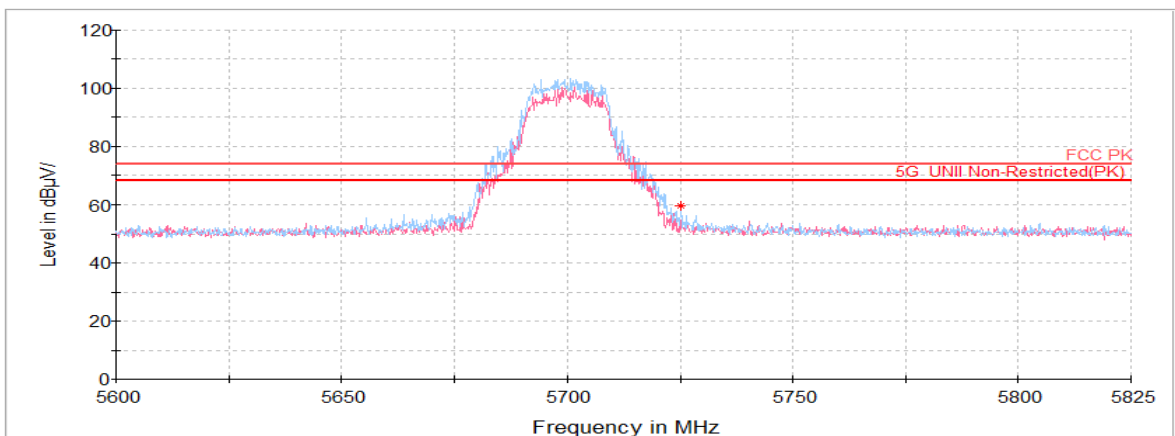
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**Horizontal/Vertical for Band-edge**



**Highest Channel (5 700 MHz)**

**Horizontal/Vertical for Band-edge**



### **802.11n HT20 UNII-2C ANT2**

#### **Lowest Channel (5 500 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
5 459.90 <sup>1)</sup>	H	43.08	34.25	-23.43	-	53.90	74.00	20.10
10 994.70 <sup>1)</sup>	V	58.70	37.50	-47.69	-	48.51	74.00	25.49
16 549.92	H	55.67	42.28	-44.49	-	53.46	68.20	14.74
<b>Average Data</b>								
5 459.90 <sup>1)</sup>	H	35.56	34.25	-23.43	0.32	46.70	54.00	7.30

#### **Middle Channel (5 600 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 335.39 <sup>1)</sup>	H	58.50	37.84	-47.66	-	48.68	74.00	25.32
16 785.67	H	55.15	42.66	-44.50	-	53.31	68.20	14.89
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

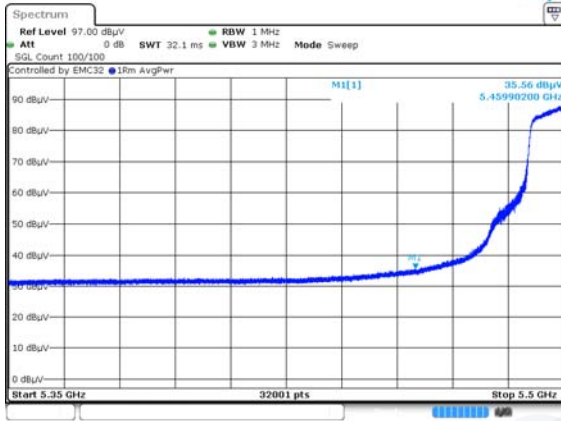
#### **Highest Channel (5 700 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
5 727.59	H	47.81	34.71	-22.96	-	59.56	68.20	8.64
11 361.98 <sup>1)</sup>	V	58.22	37.86	-47.65	-	48.43	74.00	25.57
17 016.75	H	56.09	41.68	-44.54	-	53.23	68.20	14.97
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT20 UNII-2C ANT2**

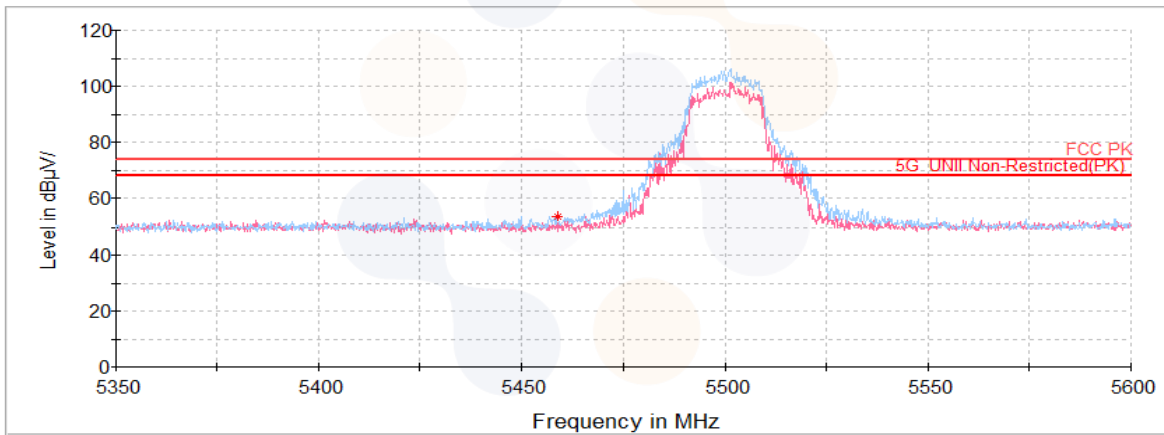
**Lowest Channel (5 500 MHz)**

**Average data**



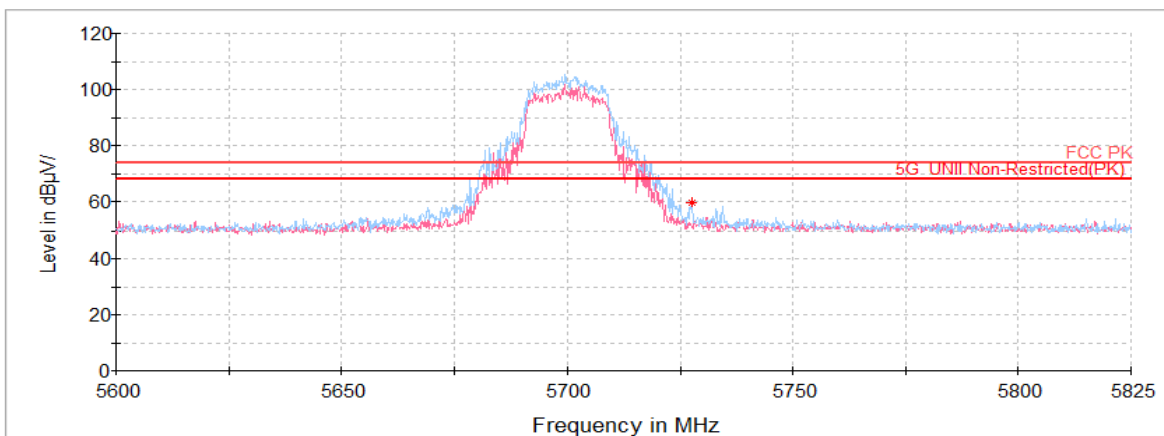
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**Horizontal/Vertical for Band-edge**



**Highest Channel (5 700 MHz)**

**Horizontal/Vertical for Band-edge**



### 802.11n HT20 UNII-2C 2TX MIMO

#### Lowest Channel (5 500 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 459.81 <sup>1)</sup>	H	43.85	34.25	-23.43	-	54.67	74.00	19.33
10 998.30 <sup>1)</sup>	H	58.19	37.50	-47.69	-	48.00	74.00	26.00
16 575.08	V	55.70	42.32	-44.49	-	53.53	68.20	14.67
<b>Average Data</b>								
5 459.81 <sup>1)</sup>	H	37.50	34.25	-23.43	0.31	48.63	54.00	5.37

#### Middle Channel (5 600 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 208.17 <sup>1)</sup>	V	57.86	37.71	-47.67	-	47.90	74.00	26.10
16 756.92	H	55.24	42.61	-44.49	-	53.36	68.20	14.84
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

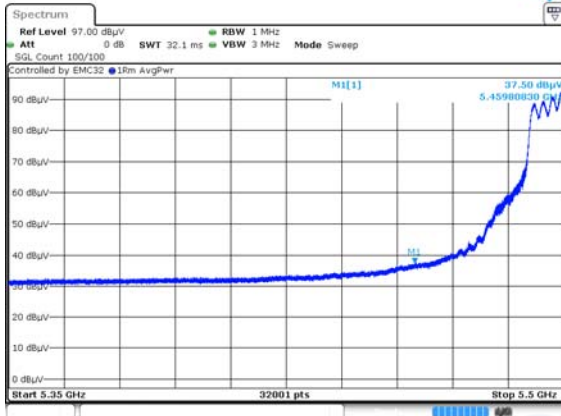
#### Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 733.95	H	47.12	34.72	-22.94	-	58.90	68.20	9.30
11 388.58 <sup>1)</sup>	H	57.95	37.89	-47.65	-	48.19	74.00	25.81
17 113.78	H	55.25	41.59	-44.71	-	52.13	68.20	16.07
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT20 UNII-2C 2TX MIMO**

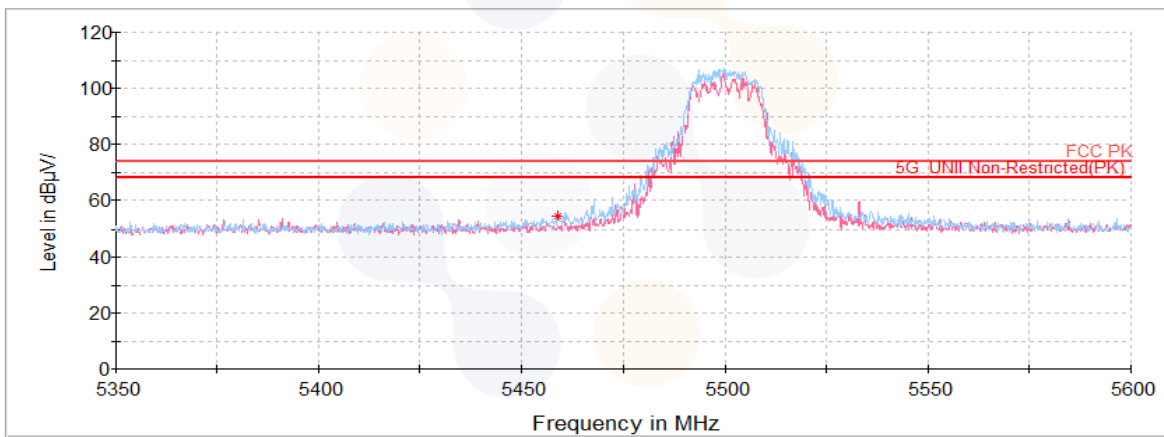
**Lowest Channel (5 500 MHz)**

**Average data**



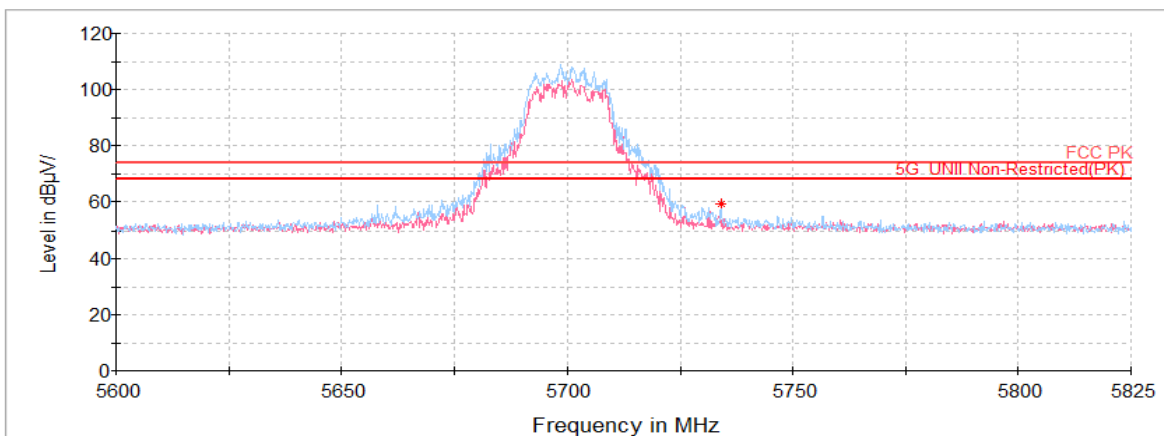
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**Horizontal/Vertical for Band-edge**



**Highest Channel (5 700 MHz)**

**Horizontal/Vertical for Band-edge**



### 802.11n HT40 UNII-2C ANT1

#### Lowest Channel (5 510 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 459.99 <sup>1)</sup>	H	43.41	34.25	-23.43	-	54.23	74.00	19.77
11 214.28 <sup>1)</sup>	V	59.13	37.71	-47.67	-	49.17	74.00	24.83
16 565.02	V	57.77	42.30	-44.49	-	55.58	68.20	12.62
<b>Average Data</b>								
5 459.99 <sup>1)</sup>	H	34.93	34.25	-23.43	0.62	46.37	54.00	7.63

#### Middle Channel (5 590 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
11 404.39 <sup>1)</sup>	V	59.88	37.90	-47.65	-	50.13	74.00	23.87
16 827.00	V	55.88	42.72	-44.50	-	54.10	68.20	14.10
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

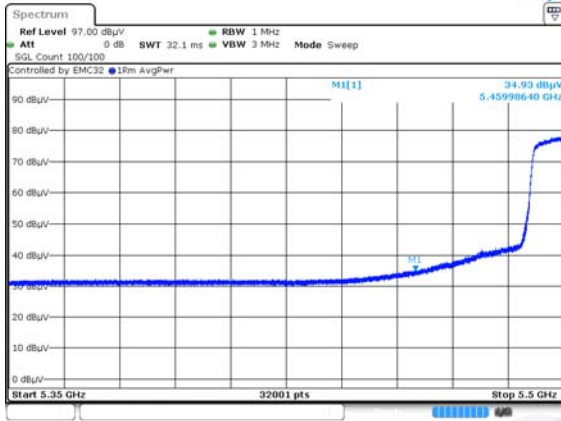
#### Highest Channel (5 670 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 730.69	H	42.44	34.72	-22.95	-	54.21	68.20	13.99
11 352.28 <sup>1)</sup>	H	59.03	37.85	-47.65	-	49.23	74.00	24.77
16 938.77	V	55.76	42.90	-44.50	-	54.16	68.20	14.04
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT40 UNII-2C ANT1**

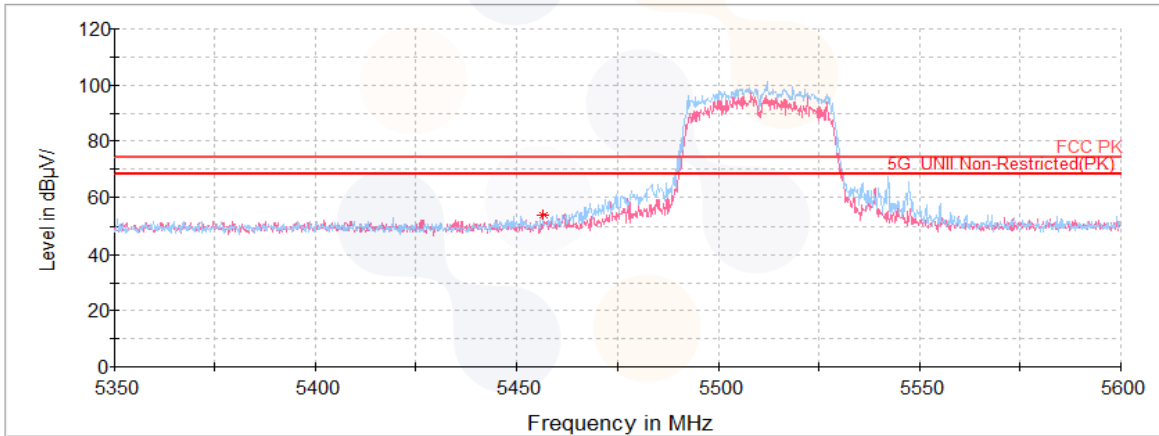
**Lowest Channel (5 510 MHz)**

**Average data**



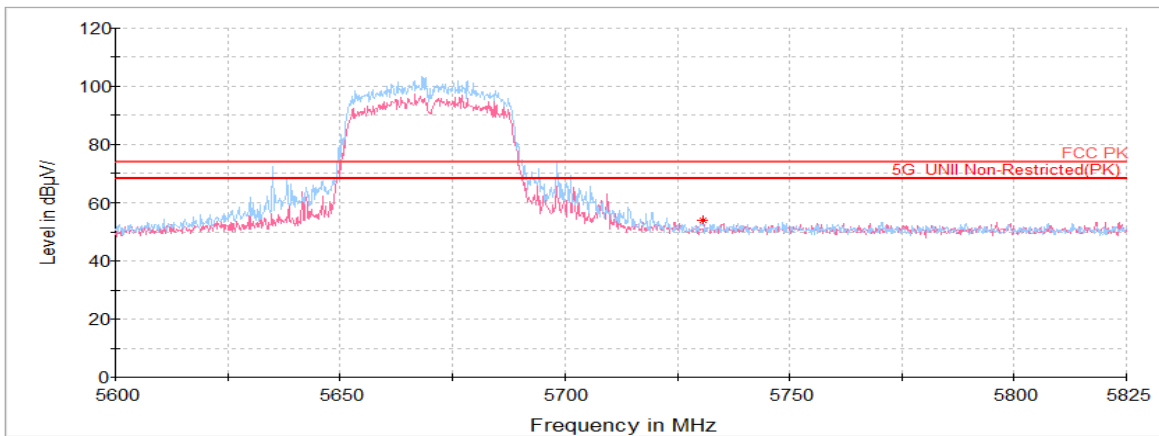
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**Horizontal/Vertical for Band-edge**



**Highest Channel (5 670 MHz)**

**Horizontal/Vertical for Band-edge**





### **802.11n HT40 UNII-2C ANT2**

#### **Lowest Channel (5 510 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 459.57 <sup>1)</sup>	H	43.23	34.25	-23.43	-	54.05	74.00	19.95
11 018.78 <sup>1)</sup>	V	57.70	37.52	-47.69	-	47.53	74.00	26.47
16 590.53	V	56.24	42.34	-44.49	-	54.09	68.20	14.11
<b>Average Data</b>								
5 459.57 <sup>1)</sup>	H	37.28	34.25	-23.43	0.62	48.72	54.00	5.28

#### **Middle Channel (5 590 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
11 185.53 <sup>1)</sup>	H	57.99	37.69	-47.67	-	48.01	74.00	25.99
16 763.75	V	55.99	42.62	-44.50	-	54.11	68.20	14.09
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

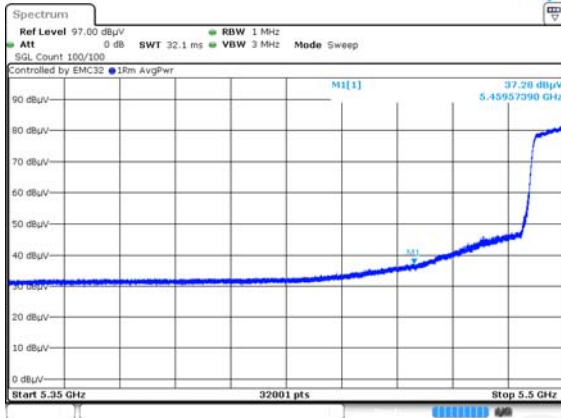
#### **Highest Channel (5 670 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 726.56	H	43.63	34.71	-22.96	-	55.38	68.20	12.82
11 341.86 <sup>1)</sup>	H	58.73	37.84	-47.65	-	48.92	74.00	25.08
16 989.44	V	55.27	42.98	-44.51	-	53.74	68.20	14.46
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT40 UNII-2C ANT2**

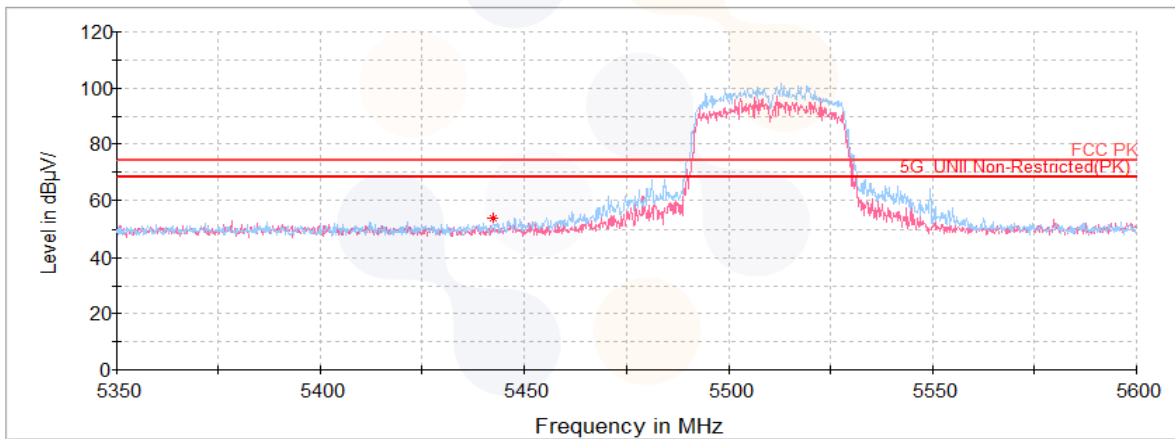
**Lowest Channel (5 510 MHz)**

**Average data**



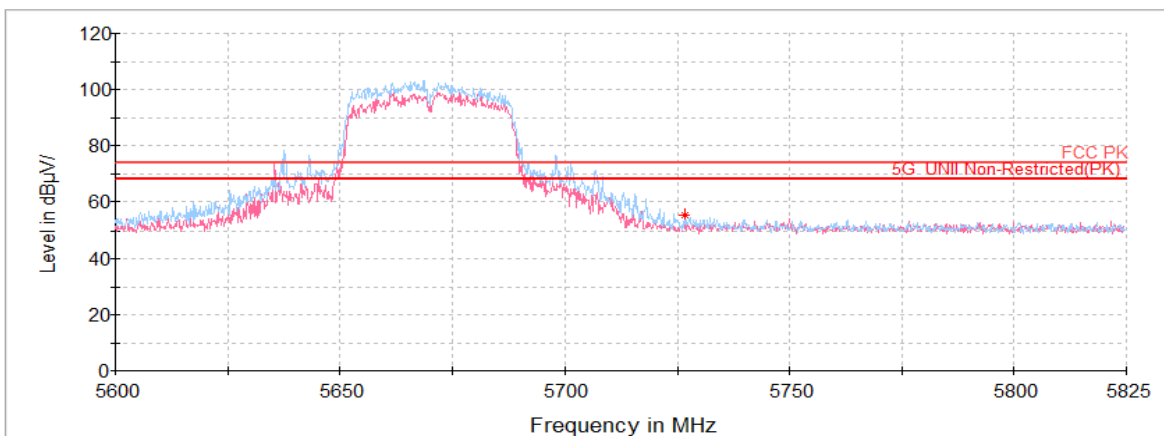
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**Horizontal/Vertical for Band-edge**



**Highest Channel (5 670 MHz)**

**Horizontal/Vertical for Band-edge**



### 802.11n HT40 UNII-2C 2TX MIMO

#### Lowest Channel (5 510 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 458.43 <sup>1)</sup>	H	44.99	34.25	-23.43	-	55.81	74.00	18.19
11 154.63 <sup>1)</sup>	H	57.11	37.65	-47.67	-	47.09	74.00	26.91
15 549.06 <sup>1)</sup>	H	56.46	40.34	-46.82	-	49.98	74.00	24.02
<b>Average Data</b>								
5 458.43 <sup>1)</sup>	H	40.30	34.25	-23.43	0.61	51.73	54.00	2.27

#### Middle Channel (5 590 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
11 185.53 <sup>1)</sup>	H	58.00	37.69	-47.67	-	48.02	74.00	25.98
16 742.91	H	55.98	42.59	-44.49	-	54.08	68.20	14.12
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

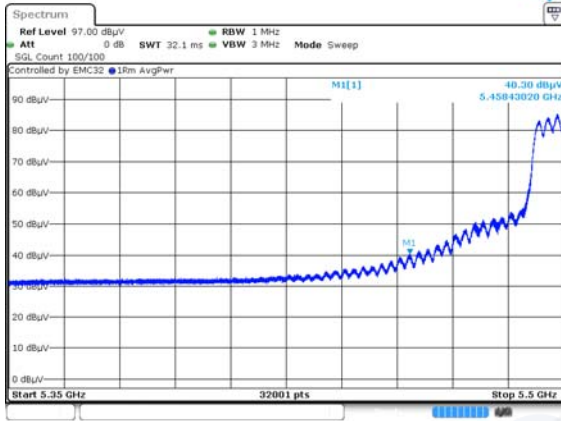
#### Highest Channel (5 670 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 726.91	V	43.90	34.71	-22.96	-	55.65	68.20	12.55
11 343.30 <sup>1)</sup>	V	58.03	37.84	-47.65	-	48.22	74.00	25.78
17 078.56	V	55.36	41.62	-44.65	-	52.33	68.20	15.87
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT40 UNII-2C 2TX MIMO**

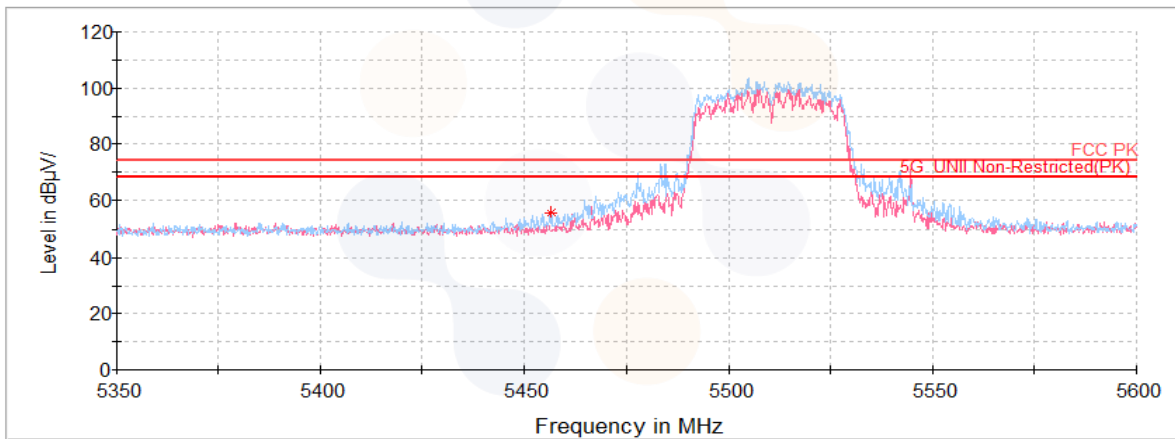
**Lowest Channel (5 510 MHz)**

**Average data**



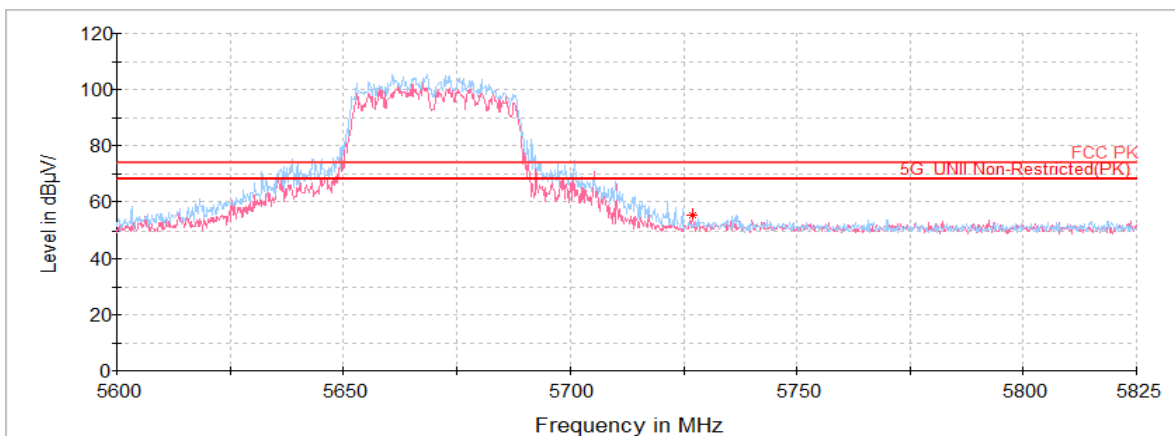
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**Horizontal/Vertical for Band-edge**



**Highest Channel (5 670 MHz)**

**Horizontal/Vertical for Band-edge**



### **802.11ac VHT20 UNII-2C ANT1**

#### **Lowest Channel (5 500 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 459.96 <sup>1)</sup>	H	42.21	34.25	-23.43	-	53.03	74.00	20.97
11 208.17 <sup>1)</sup>	V	58.41	37.71	-47.67	-	48.45	74.00	25.55
16 559.98	V	56.23	42.30	-44.49	-	54.04	68.20	14.16
<b>Average Data</b>								
5 459.96 <sup>1)</sup>	H	35.17	34.25	-23.43	0.32	46.31	54.00	7.69

#### **Middle Channel (5 600 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 199.19 <sup>1)</sup>	H	58.17	37.70	-47.67	-	48.20	74.00	25.80
16 774.53	H	56.55	42.64	-44.50	-	54.69	68.20	13.51
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

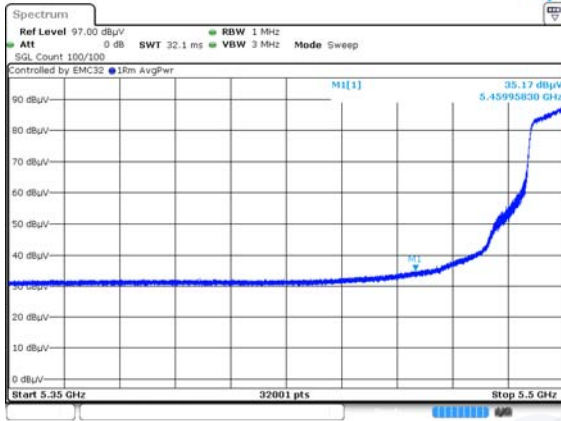
#### **Highest Channel (5 700 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 738.77	H	43.47	34.73	-22.92	-	55.28	68.20	12.92
11 206.38 <sup>1)</sup>	H	60.17	37.71	-47.67	-	50.21	74.00	23.79
17 010.64	V	57.21	41.69	-44.53	-	54.37	68.20	13.83
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT20 UNII-2C ANT1**

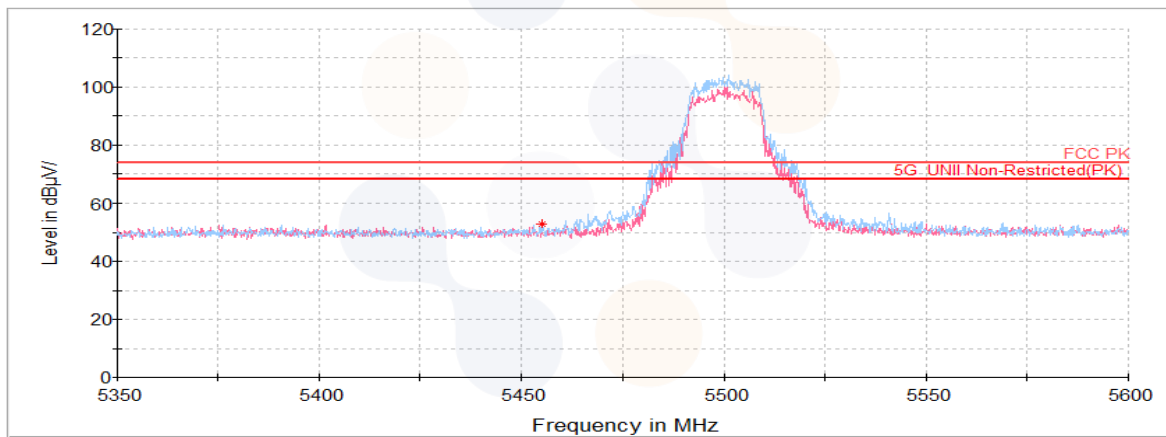
**Lowest Channel (5 500 MHz)**

**Average data**



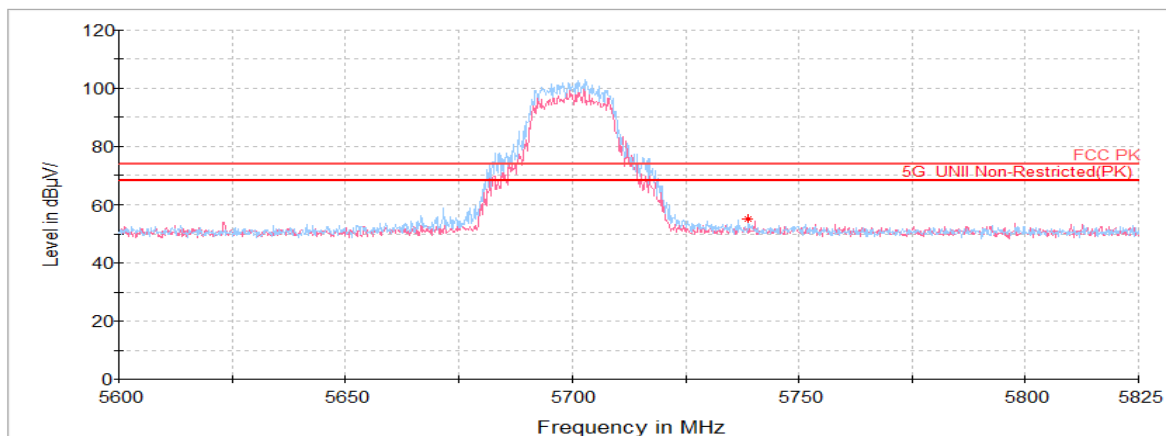
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**Horizontal/Vertical for Band-edge**



**Highest Channel (5 700 MHz)**

**Horizontal/Vertical for Band-edge**



### 802.11ac VHT20 UNII-2C ANT2

#### Lowest Channel (5 500 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ N/m))	(dB( $\mu$ N/m))	(dB)
<b>Peak data</b>								
5 458.67 <sup>1)</sup>	H	42.85	34.25	-23.43	-	53.67	74.00	20.33
11 015.55 <sup>1)</sup>	V	57.92	37.52	-47.69	-	47.75	74.00	26.25
16 557.47	H	55.60	42.29	-44.49	-	53.40	68.20	14.80
<b>Average Data</b>								
5 458.67 <sup>1)</sup>	H	35.38	34.25	-23.43	0.32	46.52	54.00	7.48

#### Middle Channel (5 600 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ N/m))	(dB( $\mu$ N/m))	(dB)
<b>Peak data</b>								
8 655.17	V	61.85	35.49	-49.58	-	47.76	68.20	20.44
11 216.80 <sup>1)</sup>	V	58.00	37.72	-47.67	-	48.05	74.00	25.95
16 817.30	H	55.76	42.71	-44.50	-	53.97	68.20	14.23
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

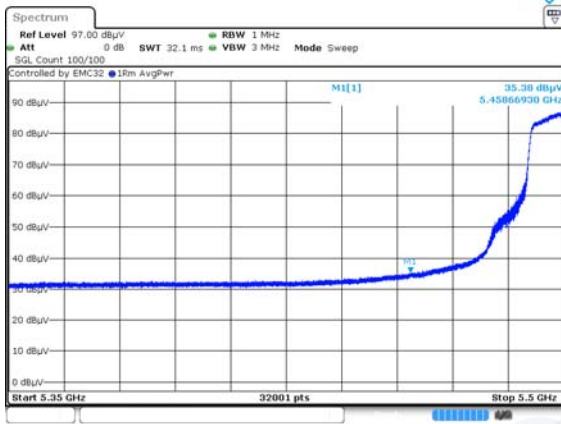
#### Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ N/m))	(dB( $\mu$ N/m))	(dB)
<b>Peak data</b>								
5 737.05	H	43.61	34.73	-22.93	-	55.41	68.20	12.79
11 400.80 <sup>1)</sup>	V	58.64	37.90	-47.65	-	48.89	74.00	25.11
17 076.77	V	55.36	41.62	-44.65	-	52.33	68.20	15.87
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT20 UNII-2C ANT2**

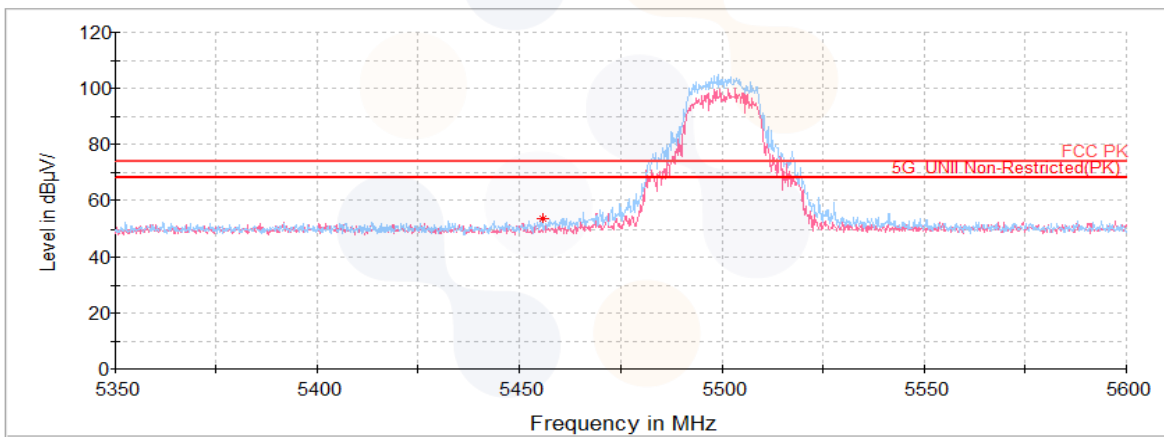
**Lowest Channel (5 500 MHz)**

**Average data**



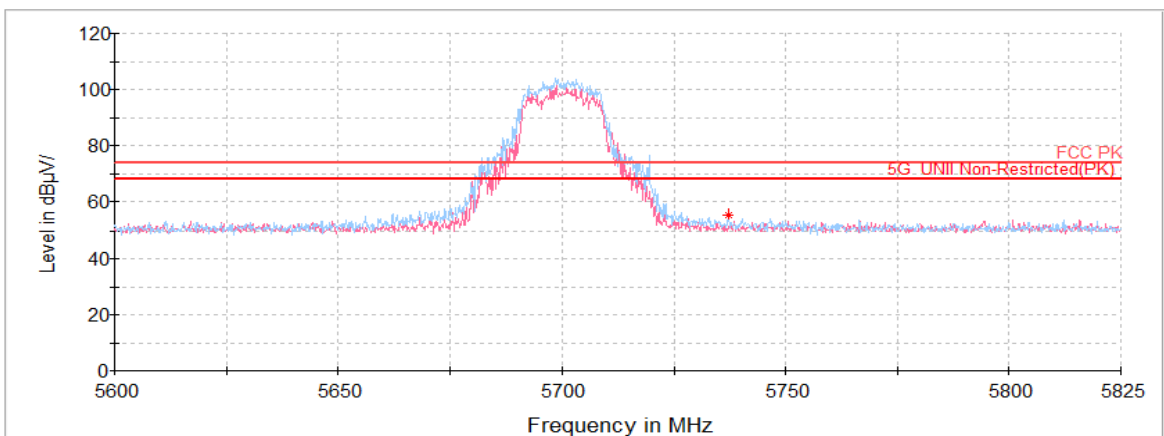
Blank

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 700 MHz)**

**Horizontal/Vertical for Band-edge**





### 802.11ac VHT20 UNII-2C 2TX MIMO

#### Lowest Channel (5 500 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 459.89 <sup>1)</sup>	H	44.35	34.25	-23.43	-	55.17	74.00	18.83
10 971.70 <sup>1)</sup>	V	58.40	37.48	-47.70	-	48.18	74.00	25.82
16 563.22	H	55.73	42.30	-44.49	-	53.54	68.20	14.66
<b>Average Data</b>								
5 459.89 <sup>1)</sup>	H	37.21	34.25	-23.43	0.58	48.61	54.00	5.39

#### Middle Channel (5 600 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 206.38 <sup>1)</sup>	H	58.42	37.71	-47.67	-	48.46	74.00	25.54
16 782.08	H	55.47	42.65	-44.50	-	53.62	68.20	14.58
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

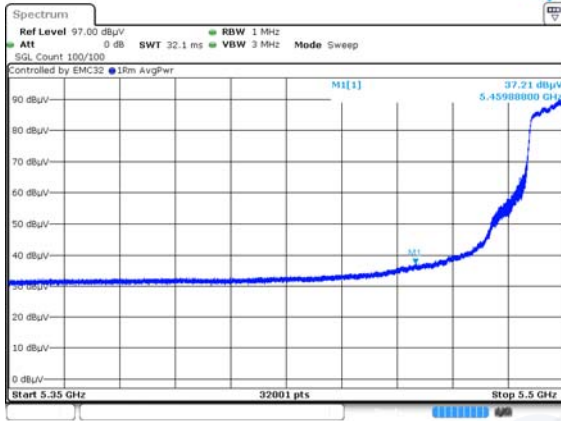
#### Highest Channel (5 700 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 731.03	H	45.15	34.72	-22.95	-	56.92	68.20	11.28
11 409.42 <sup>1)</sup>	H	58.00	37.91	-47.65	-	48.26	74.00	25.74
17 129.23	H	55.25	41.57	-44.74	-	52.08	68.20	16.12
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT20 UNII-2C 2TX MIMO**

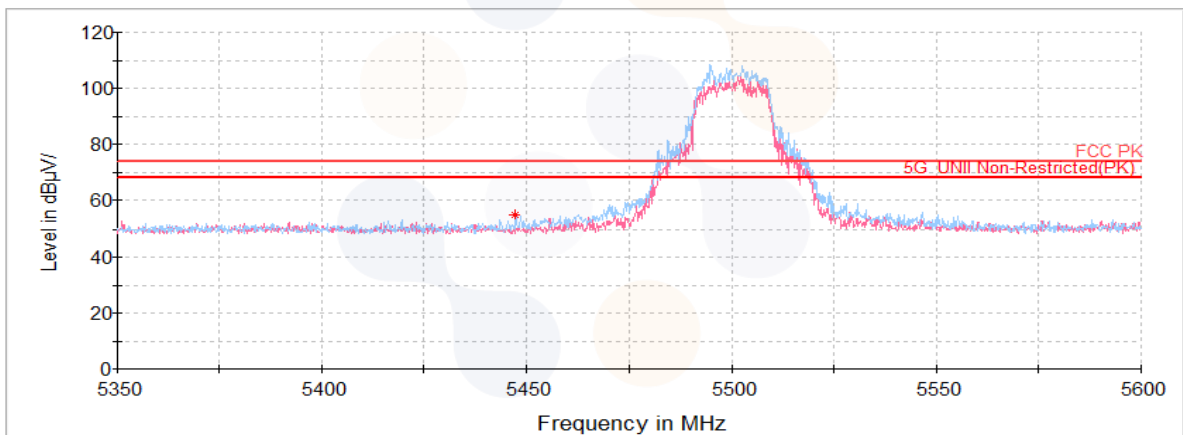
**Lowest Channel (5 500 MHz)**

**Average data**



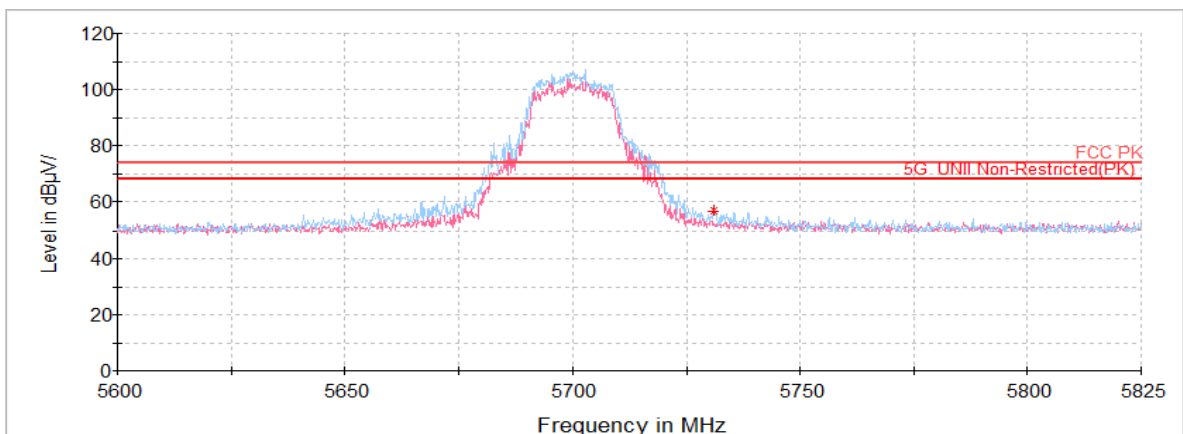
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**Horizontal/Vertical for Band-edge**



**Highest Channel (5 700 MHz)**

**Horizontal/Vertical for Band-edge**



### 802.11ac VHT40 UNII-2C ANT1

#### Lowest Channel (5 510 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 459.41 <sup>1)</sup>	H	45.85	34.25	-23.43	-	56.67	74.00	17.33
11 219.31 <sup>1)</sup>	H	58.25	37.72	-47.67	-	48.30	74.00	25.70
16 588.73	H	57.06	42.34	-44.49	-	54.91	68.20	13.29
<b>Average Data</b>								
5 459.41 <sup>1)</sup>	H	36.68	34.25	-23.43	0.61	48.11	54.00	5.89

#### Middle Channel (5 590 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
11 223.63 <sup>1)</sup>	H	58.21	37.72	-47.67	-	48.26	74.00	25.74
16 775.97	H	55.83	42.64	-44.50	-	53.97	68.20	14.23
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

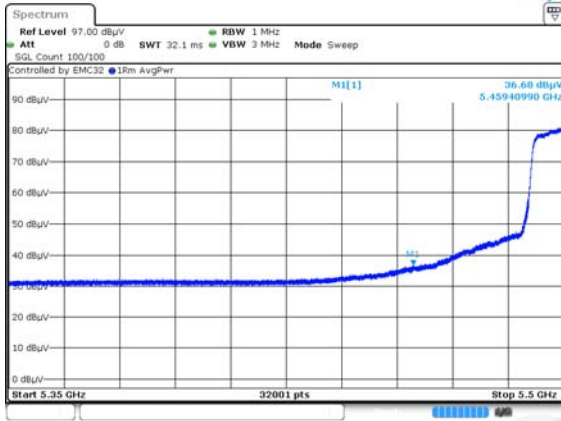
#### Highest Channel (5 670 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 732.41	H	41.55	34.72	-22.94	-	53.33	68.20	14.87
11 408.34 <sup>1)</sup>	H	58.28	37.91	-47.65	-	48.54	74.00	25.46
16 976.14	H	55.92	42.96	-44.50	-	54.38	68.20	13.82
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT40 UNII-2C ANT1**

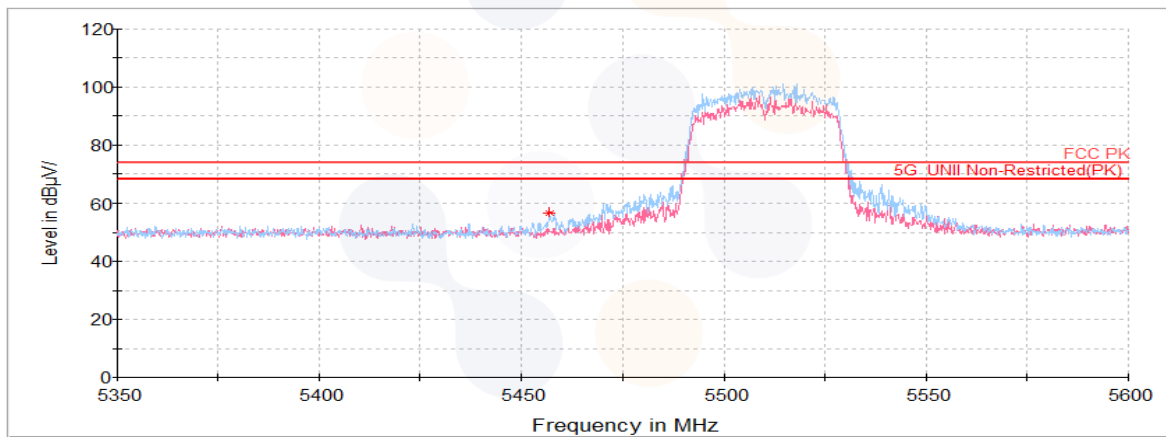
**Lowest Channel (5 510 MHz)**

**Average data**



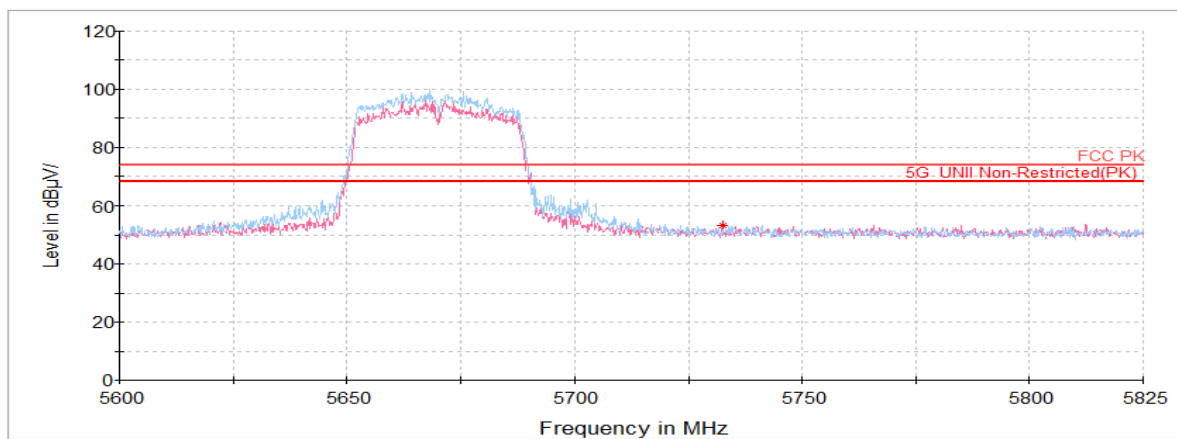
Blank

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 670 MHz)**

**Horizontal/Vertical for Band-edge**



### 802.11ac VHT40 UNII-2C ANT2

#### Lowest Channel (5 510 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 458.89 <sup>1)</sup>	H	46.06	34.25	-23.43	-	56.88	74.00	17.12
10 986.80 <sup>1)</sup>	V	58.52	37.49	-47.69	-	48.32	74.00	25.68
16 472.30	V	56.20	42.44	-44.59	-	54.05	68.20	14.15
<b>Average Data</b>								
5 458.89 <sup>1)</sup>	H	37.45	34.25	-23.43	0.61	48.88	54.00	5.12

#### Middle Channel (5 590 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 059.75 <sup>1)</sup>	V	58.03	37.56	-47.68	-	47.91	74.00	26.09
16 795.02	H	55.52	42.67	-44.50	-	53.69	68.20	14.51
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

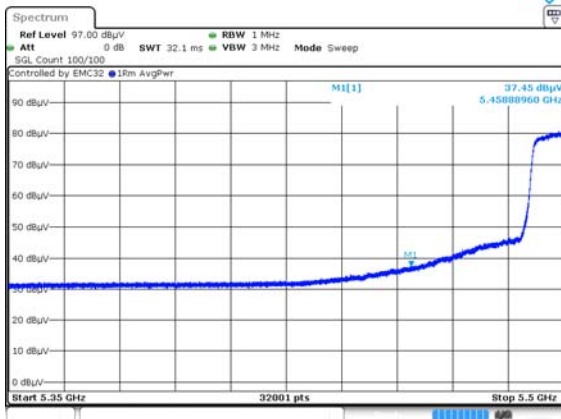
#### Highest Channel (5 670 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 727.94	H	42.58	34.71	-22.96	-	54.33	68.20	13.87
11 353.00 <sup>1)</sup>	H	58.91	37.85	-47.65	-	49.11	74.00	24.89
17 145.77	V	55.58	41.55	-44.77	-	52.36	68.20	15.84
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT40 UNII-2C ANT2**

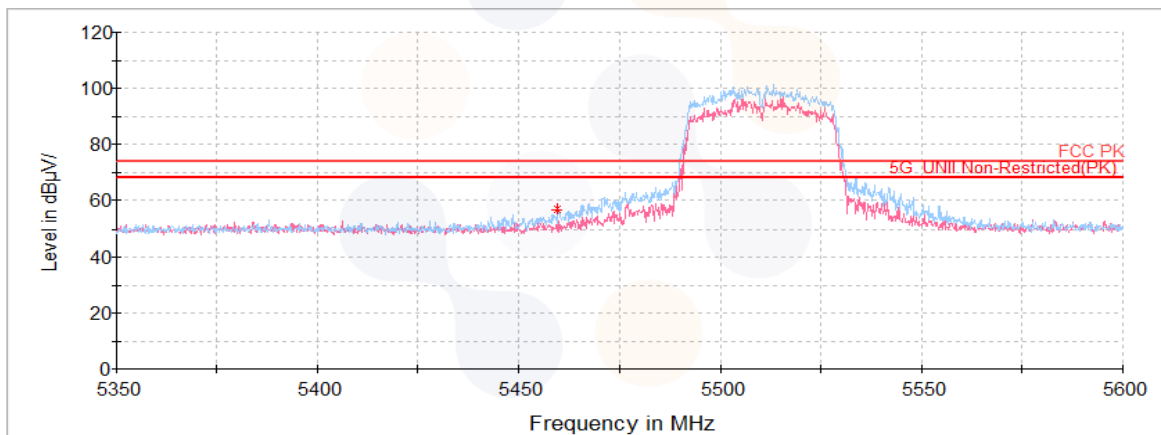
**Lowest Channel (5 510 MHz)**

**Average data**



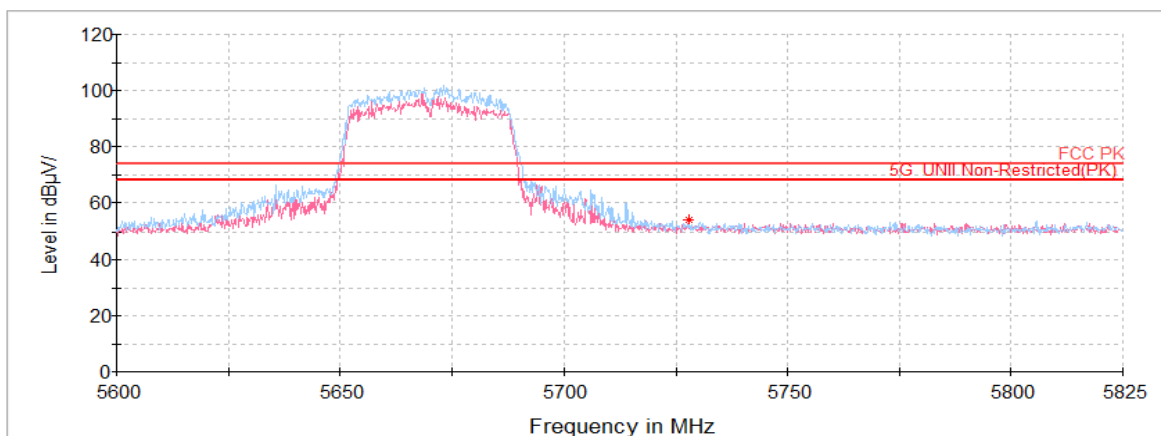
Blank

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 670 MHz)**

**Horizontal/Vertical for Band-edge**



### 802.11ac VHT40 UNII-2C 2TX MIMO

#### Lowest Channel (5 510 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 459.19 <sup>1)</sup>	H	46.42	34.25	-23.43	-	57.24	74.00	16.76
11 086.70 <sup>1)</sup>	H	57.43	37.59	-47.68	-	47.34	74.00	26.66
16 568.97	V	55.33	42.31	-44.49	-	53.15	68.20	15.05
<b>Average Data</b>								
5 459.19 <sup>1)</sup>	H	39.70	34.25	-23.43	1.07	51.59	54.00	2.41

#### Middle Channel (5 590 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 213.20 <sup>1)</sup>	V	58.57	37.71	-47.67		48.61	74.00	25.39
16 771.30	V	55.09	42.63	-44.50		53.22	68.20	14.98
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

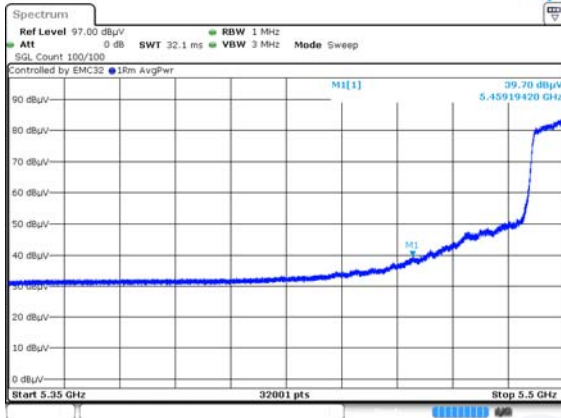
#### Highest Channel (5 670 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 748.91	H	42.00	34.75	-22.89		53.86	68.20	14.34
11 358.39 <sup>1)</sup>	V	59.32	37.86	-47.65		49.53	74.00	24.47
17 106.59	H	55.65	41.59	-44.70		52.54	68.20	15.66
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT40 UNII-2C 2TX MIMO**

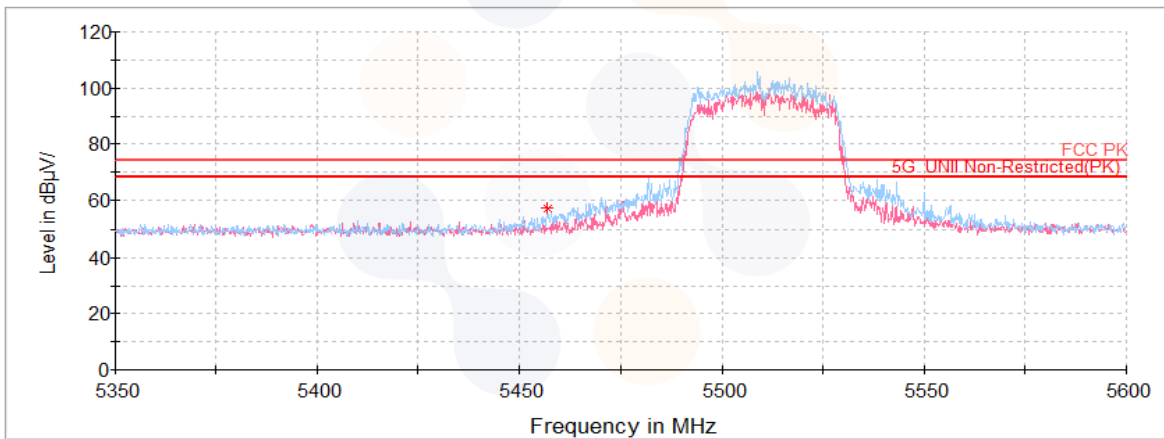
**Lowest Channel (5 510 MHz)**

**Average data**



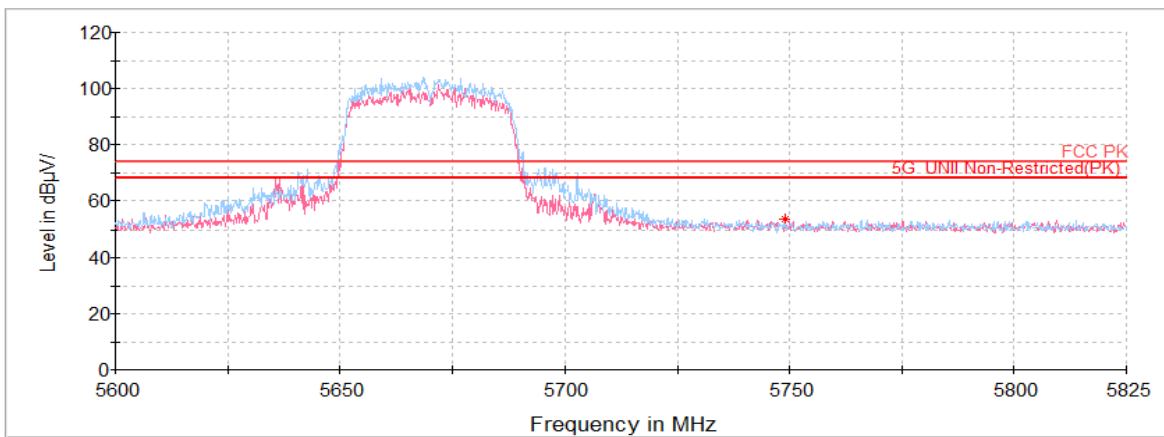
Blank

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 670 MHz)**

**Horizontal/Vertical for Band-edge**





### 802.11ac VHT80 UNII-2C ANT1

#### Lowest Channel (5 530 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 459.21 <sup>1)</sup>	H	46.69	34.25	-23.43	-	57.51	74.00	16.49
11 280.05 <sup>1)</sup>	H	59.40	37.78	-47.66	-	49.52	74.00	24.48
16 549.56	H	57.29	42.28	-44.49	-	55.08	68.20	13.12
<b>Average Data</b>								
5 459.21 <sup>1)</sup>	H	39.17	34.25	-23.43	1.14	51.13	54.00	2.87

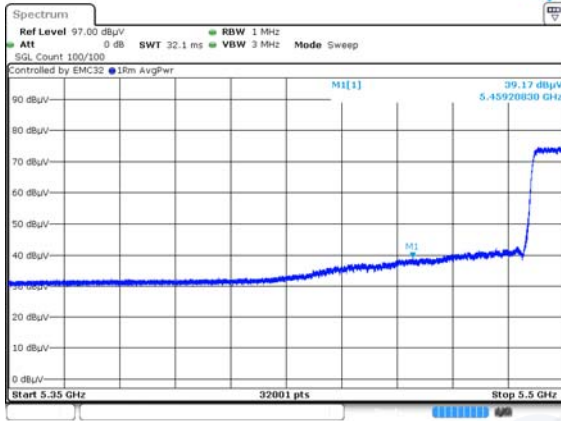
#### Highest Channel (5 610 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 734.64	H	41.50	34.72	-22.93	-	53.29	68.20	14.91
11 328.92 <sup>1)</sup>	V	59.13	37.83	-47.66	-	49.30	74.00	24.70
16 800.41	V	55.90	42.68	-44.50	-	54.08	68.20	14.12
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT80 UNII-2C ANT1**

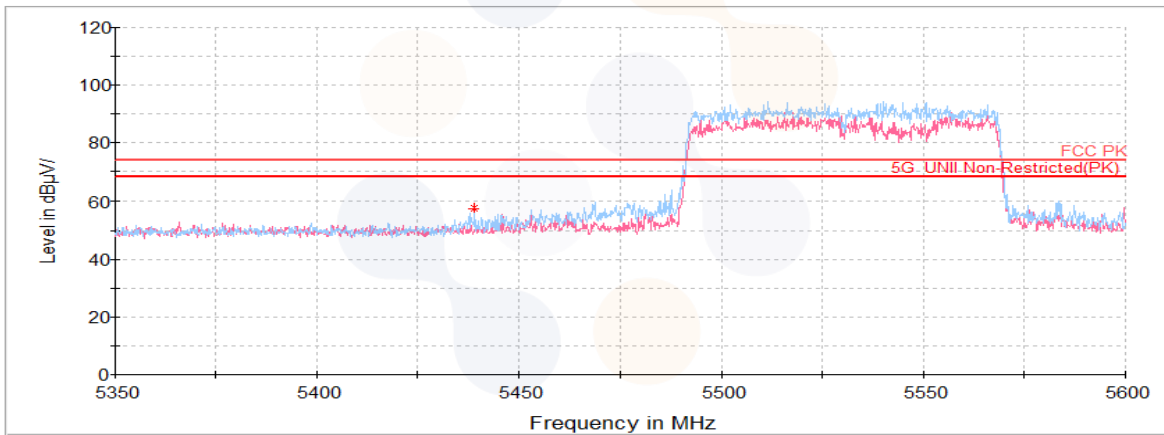
**Lowest Channel (5 530 MHz)**

**Average data**



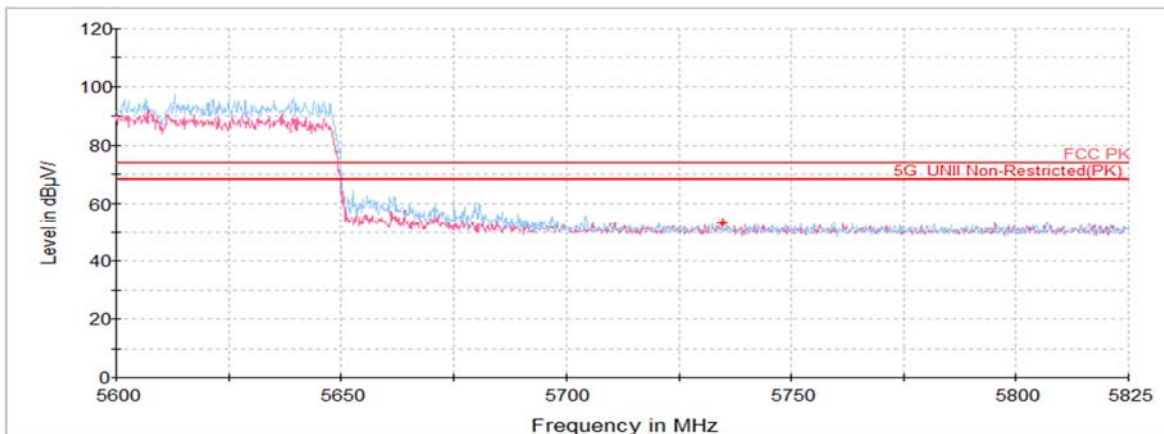
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**Horizontal/Vertical for Band-edge**



**Highest Channel (5 610MHz)**

**Horizontal/Vertical for Band-edge**



### 802.11ac VHT80 UNII-2C ANT2

#### Lowest Channel (5 530 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 459.10 <sup>1</sup> )	H	47.85	34.25	-23.43	-	58.67	74.00	15.33
11 000.81 <sup>1</sup> )	V	57.84	37.50	-47.69	-	47.65	74.00	26.35
16 621.44	V	57.30	42.39	-44.49	-	55.20	68.20	13.00
<b>Average Data</b>								
5 459.10 <sup>1</sup> )	H	39.20	34.25	-23.43	1.14	51.16	54.00	2.84

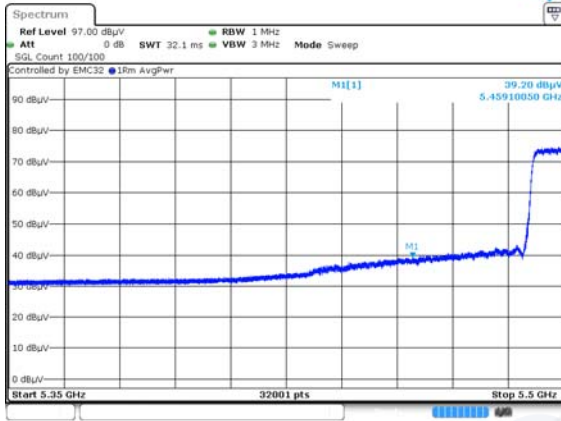
#### Highest Channel (5 610 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 728.28	H	42.07	34.71	-22.96	-	53.82	68.20	14.38
11 230.09 <sup>1</sup> )	V	57.60	37.73	-47.67	-	47.66	74.00	26.34
16 803.64	V	55.95	42.69	-44.50	-	54.14	68.20	14.06
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT80 UNII-2C ANT2**

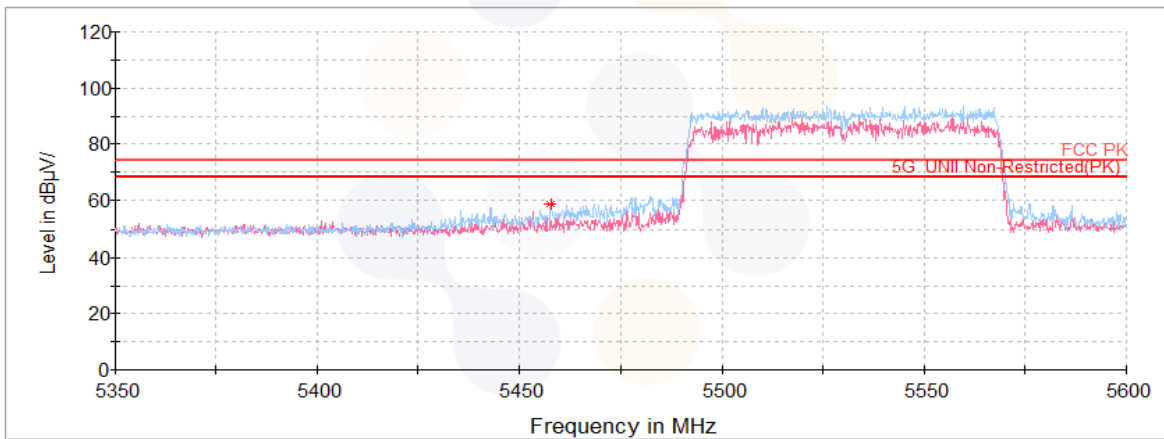
**Lowest Channel (5 530 MHz)**

**Average data**



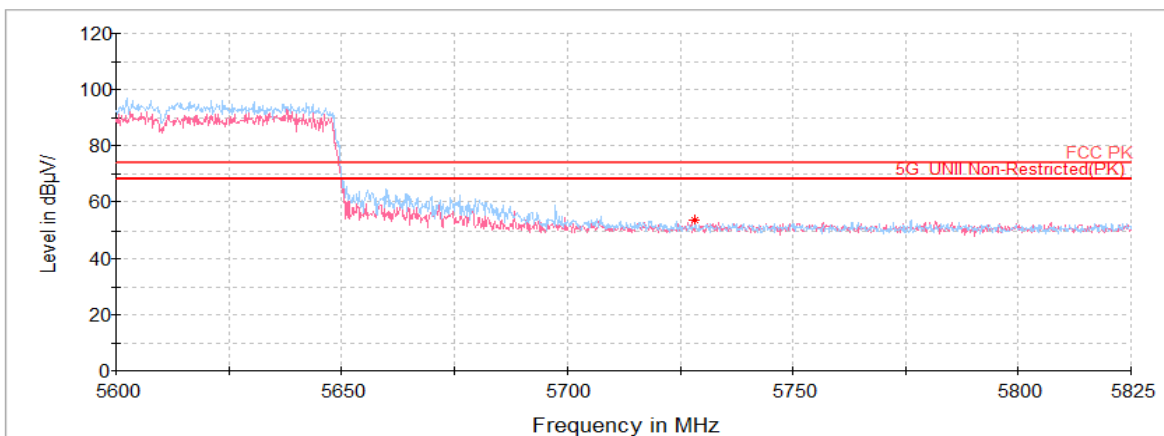
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**Horizontal/Vertical for Band-edge**



**Highest Channel (5 610MHz)**

**Horizontal/Vertical for Band-edge**



**802.11ac VHT80 UNII-2C 2TX MIMO**

**Lowest Channel (5 530 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 458.89 <sup>1)</sup>	H	48.08	34.25	-23.43	-	58.90	74.00	15.10
11 068.38 <sup>1)</sup>	H	57.89	37.57	-47.68	-	47.78	74.00	26.22
16 674.98	V	56.20	42.48	-44.49	-	54.19	68.20	14.01
<b>Average Data</b>								
5 458.89 <sup>1)</sup>	H	38.17	34.25	-23.43	1.81	50.80	54.00	3.20

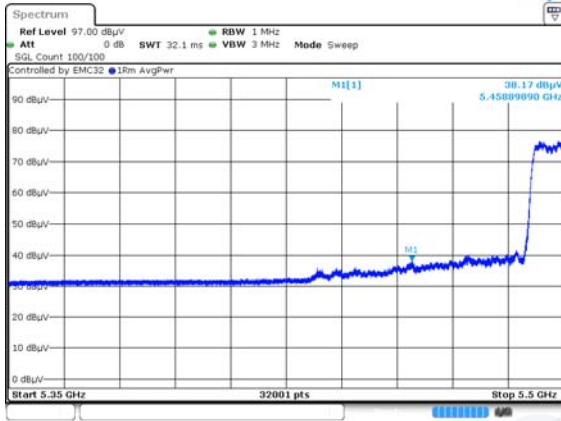
**Highest Channel (5 610 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 765.75	H	41.35	34.78	-22.83	-	53.30	68.20	14.90
11 222.55 <sup>1)</sup>	V	58.53	37.72	-47.67	-	48.58	74.00	25.42
16 838.86	H	55.25	42.74	-44.50	-	53.49	68.20	14.71
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT80 UNII-2C 2TX MIMO**

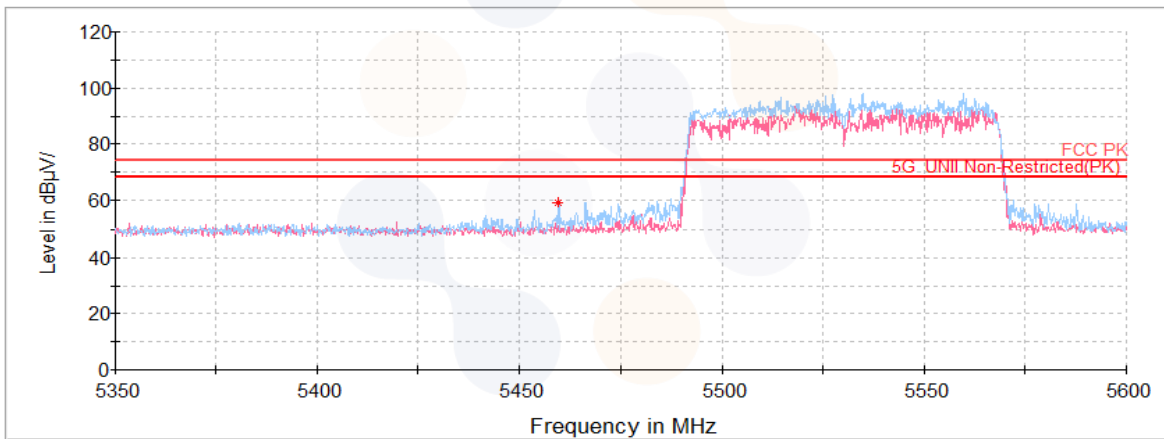
**Lowest Channel (5 530 MHz)**

**Average data**



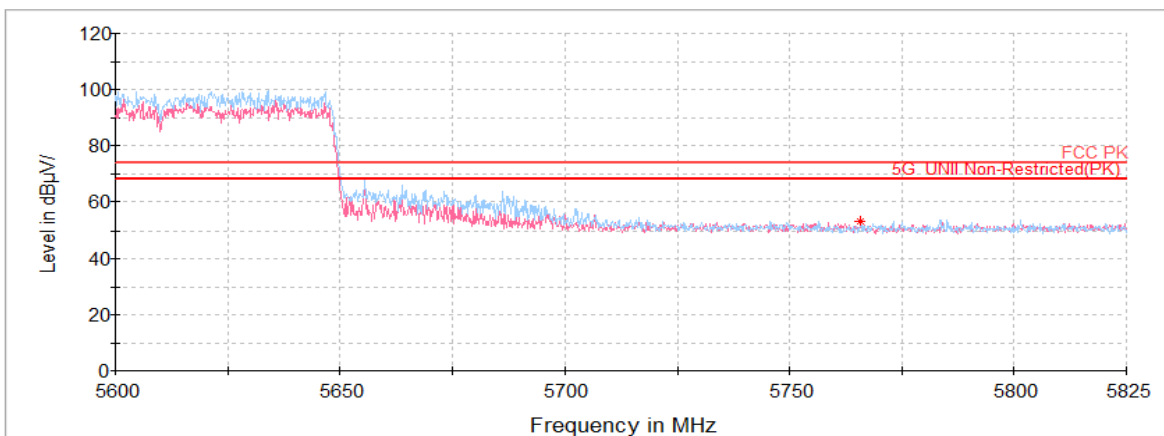
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**Horizontal/Vertical for Band-edge**



**Highest Channel (5 610MHz)**

**Horizontal/Vertical for Band-edge**

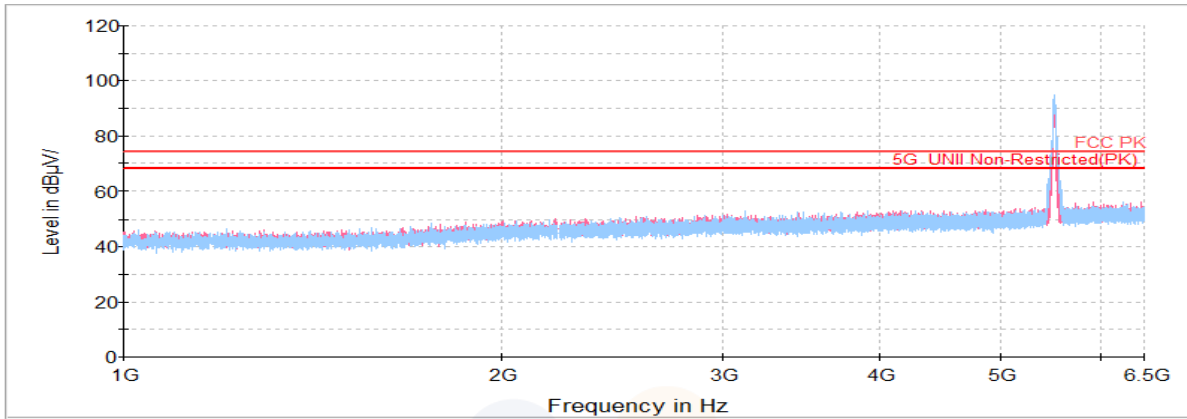


**Plot of Harmonics and Spurious Emissions**

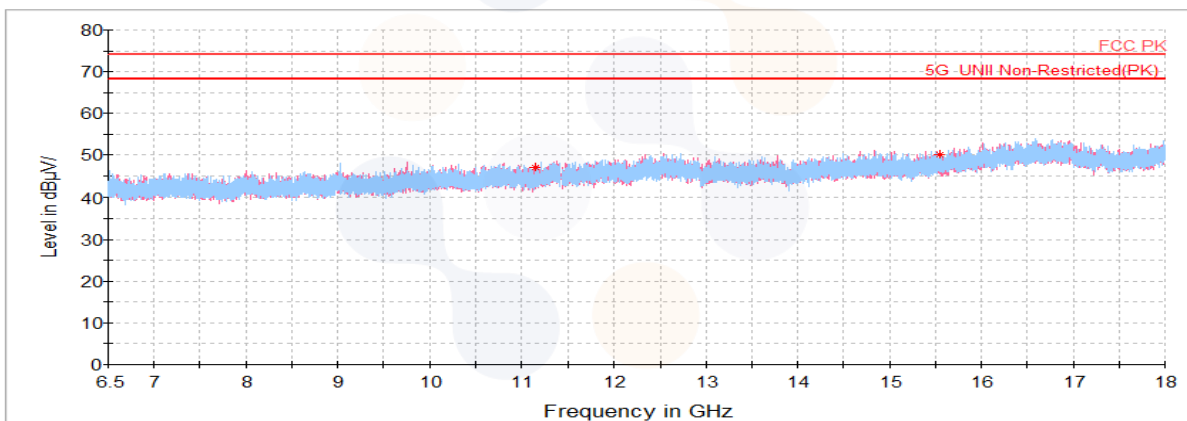
In order to simplify the report, attached plots were only the lowest margin condition

**802.11n HT40\_UNII-2C\_2TX MIMO\_ Lowest Channel (5 510 MHz)**

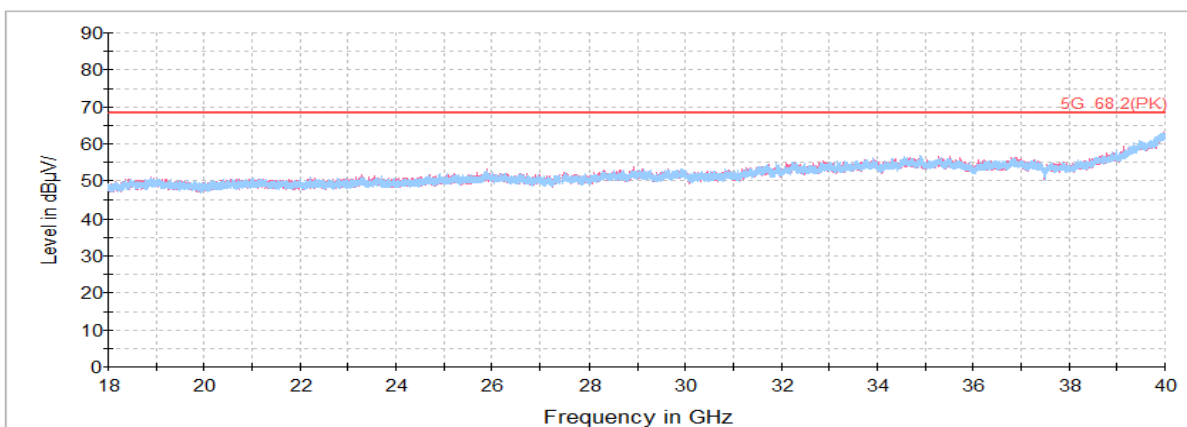
**Horizontal/Vertical for 1 GHz ~ 6.5 GHz**



**Horizontal/Vertical for 6.5 GHz ~ 18 GHz**



**Horizontal/Vertical for 18 GHz ~ 40 GHz**



## Straddle Channel

### ANT 1

#### 802.11a (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 340.06 <sup>1)</sup>	H	59.74	37.84	-47.65	-	49.93	74.00	24.07
17 151.88	H	55.99	41.55	-44.78	-	52.76	68.20	15.44
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### 802.11n HT20 (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 375.64 <sup>1)</sup>	H	58.41	37.88	-47.65	-	48.64	74.00	25.36
17 166.25	V	56.30	41.53	-44.81	-	53.02	68.20	15.18
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### 802.11n HT40 (5 710 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 374.92 <sup>1)</sup>	V	59.54	37.87	-47.65	-	49.76	74.00	24.24
17 118.09	H	56.15	41.58	-44.72	-	53.01	68.20	15.19
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### 802.11ac VHT20 (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 689.38 <sup>1)</sup>	V	59.32	38.15	-47.72	-	49.75	74.00	24.25
17 146.13	H	56.65	41.55	-44.77	-	53.43	68.20	14.77
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								



**802.11ac VHT40 (5 710 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 394.33 <sup>1)</sup>	H	58.66	37.89	-47.65	-	48.90	74.00	25.10
17 281.61	H	56.33	41.42	-45.02	-	52.73	68.20	15.47
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT80 (5 690 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 359.47 <sup>1)</sup>	V	59.87	37.86	-47.65	-	50.08	74.00	23.92
16 996.27	H	56.07	42.99	-44.51	-	54.55	68.20	13.65
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

## ANT 2

### 802.11a (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 399.72 <sup>1)</sup>	V	59.15	37.90	-47.65	-	49.40	74.00	24.60
17 077.48	H	57.07	41.62	-44.65	-	54.04	68.20	14.16
<b>Average Data-</b>								
No spurious emissions were detected within 20 dB of the limit.								

### 802.11n HT20 (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 375.28 <sup>1)</sup>	V	58.89	37.88	-47.65	-	49.12	74.00	24.88
17 137.14	V	55.79	41.56	-44.76	-	52.59	68.20	15.61
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

### 802.11n HT40 (5 710 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 507.17 <sup>1)</sup>	H	57.54	38.01	-47.64	-	47.91	74.00	26.09
17 143.25	H	55.19	41.56	-44.77	-	51.98	68.20	16.22
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

### 802.11ac VHT20 (5 720 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 370.25 <sup>1)</sup>	V	59.66	37.87	-47.65	-	49.88	74.00	24.12
17 197.88	H	56.30	41.50	-44.87	-	52.93	68.20	15.27
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT40 (5 710 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 377.44 <sup>1)</sup>	H	58.14	37.88	-47.65	-	48.37	74.00	25.63
17 150.08	H	55.73	41.55	-44.78	-	52.50	68.20	15.70
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT80 (5 690 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 368.81 <sup>1)</sup>	H	59.97	37.87	-47.65	-	50.19	74.00	23.81
16 958.17	H	56.75	42.93	-44.50	-	55.18	68.20	13.02
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**MIMO**

**802.11a (5 720 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 385.34 <sup>1)</sup>	H	60.41	37.89	-47.65	-	50.65	74.00	23.35
17 113.78	H	55.78	41.59	-44.71	-	52.66	68.20	15.54
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT20 (5 720 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 350.84 <sup>1)</sup>	V	59.57	37.85	-47.65	-	49.77	74.00	24.23
17 169.48	H	55.02	41.53	-44.82	-	51.73	68.20	16.47
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT40 (5 710 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 396.13 <sup>1)</sup>	H	58.56	37.90	-47.65	-	48.81	74.00	25.19
17 136.78	V	55.94	41.56	-44.76	-	52.74	68.20	15.46
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT20 (5 720 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 429.19 <sup>1)</sup>	V	57.50	37.93	-47.65	-	47.78	74.00	26.22
17 186.02	V	55.24	41.51	-44.85	-	51.90	68.20	16.30
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT40 (5 710 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 409.42 <sup>1)</sup>	H	57.81	37.91	-47.65	-	48.07	74.00	25.93
17 120.25	V	54.59	41.58	-44.73	-	51.44	68.20	16.76
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT80 (5 690 MHz)**

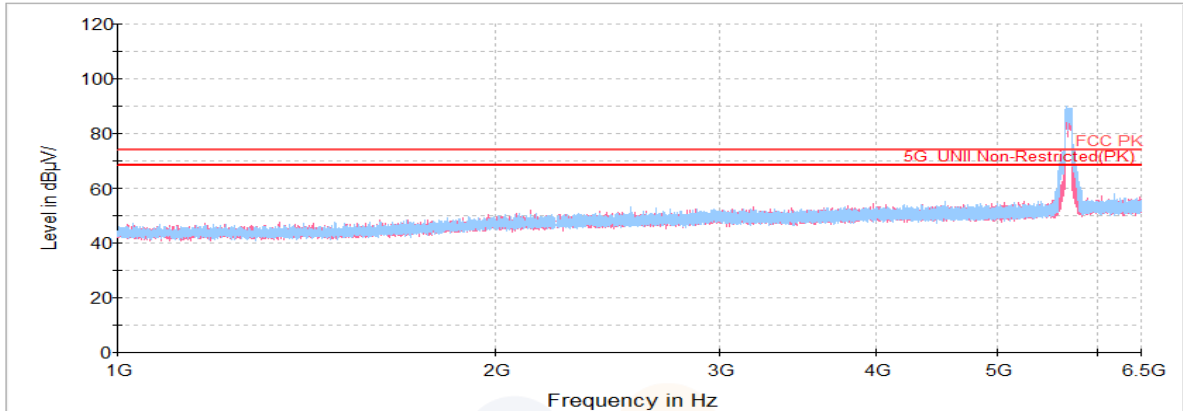
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 405.47 <sup>1)</sup>	V	58.89	37.91	-47.65	-	49.15	74.00	24.85
17 140.02	H	57.51	41.56	-44.76	-	54.31	68.20	13.89
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**Plot of Harmonics and Spurious Emissions**

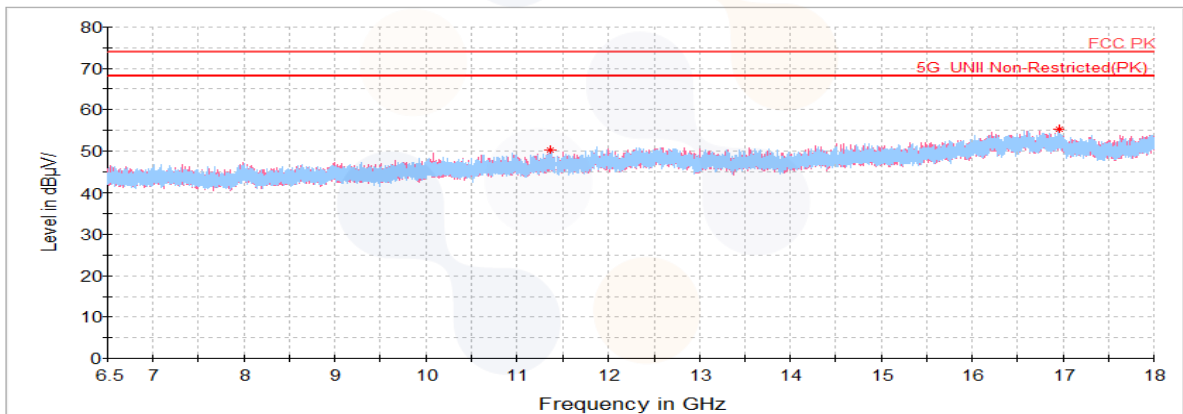
In order to simplify the report, attached plots were only the lowest margin condition

**802.11ac VHT80\_Straddle Channel (5 690 MHz)\_ANT2**

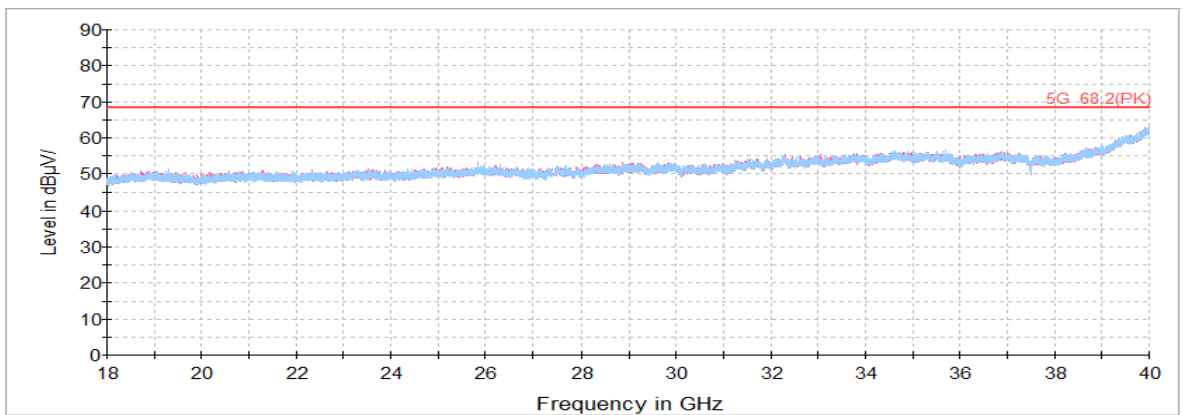
**Horizontal/Vertical for 1 GHz ~ 6.5 GHz**



**Horizontal/Vertical for 6.5 GHz ~ 18 GHz**



**Horizontal/Vertical for 18 GHz ~ 40 GHz**



### 802.11a UNII-3 ANT1

#### Lowest Channel (5 745 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 716.25	H	44.85	34.69	-23.00	-	56.54	109.75	53.21
11 424.16 <sup>1)</sup>	H	58.82	37.92	-47.65	-	49.09	74.00	24.91
17 245.67	V	55.56	41.45	-44.95	-	52.06	68.20	16.14
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 498.91 <sup>1)</sup>	V	59.31	38.00	-47.64	-	49.67	74.00	24.33
17 310.72	H	56.83	41.39	-45.07	-	53.15	68.20	15.05
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

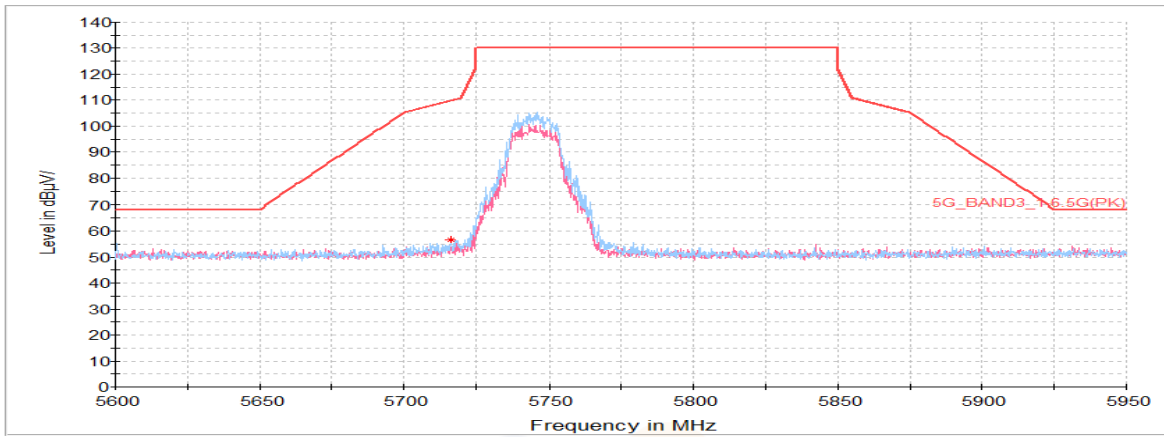
#### Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 853.75	H	45.05	34.94	-22.80	-	57.19	113.65	56.46
9 277.61	V	61.20	36.03	-48.99	-	48.24	68.20	19.96
11 639.06 <sup>1)</sup>	H	58.37	38.11	-47.70	-	48.78	74.00	25.22
17 417.09	H	55.93	41.28	-45.27	-	51.94	68.20	16.26
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

### 802.11a UNII-3 ANT1

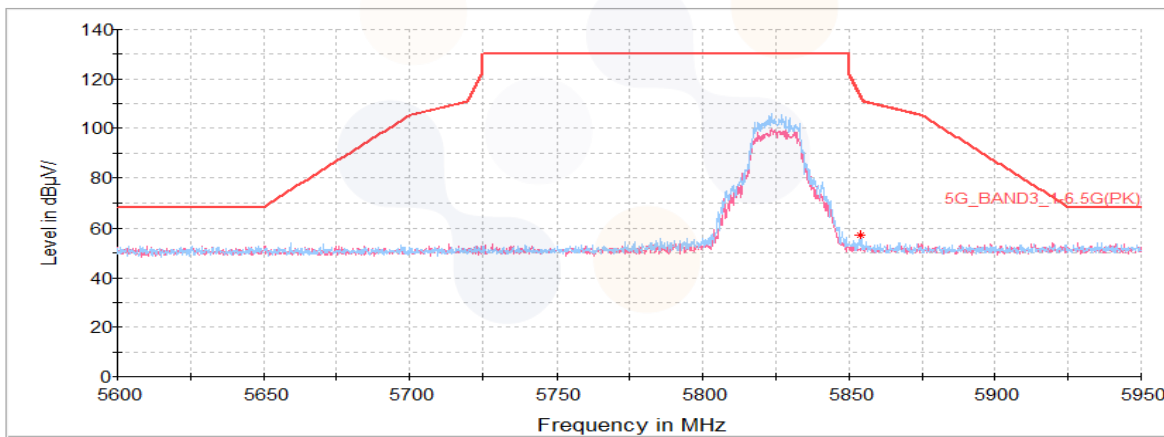
#### Lowest Channel (5 745 MHz)

##### Horizontal/Vertical for Band-edge



#### Highest Channel (5 825 MHz)

##### Horizontal/Vertical for Band-edge





### 802.11a UNII-3 ANT2

#### Lowest Channel (5 745 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 710.06	H	46.12	34.68	-23.02	-	57.78	108.02	50.24
11 448.95 <sup>1)</sup>	H	58.19	37.95	-47.64	-	48.50	74.00	25.50
12 903.70	V	60.83	39.12	-48.00	-	51.95	68.20	16.25
17 311.44	H	56.96	41.39	-45.07	-	53.28	68.20	14.92
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 515.44 <sup>1)</sup>	V	58.78	38.01	-47.65	-	49.14	74.00	24.86
17 319.34	H	56.22	41.38	-45.09	-	52.51	68.20	15.69
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

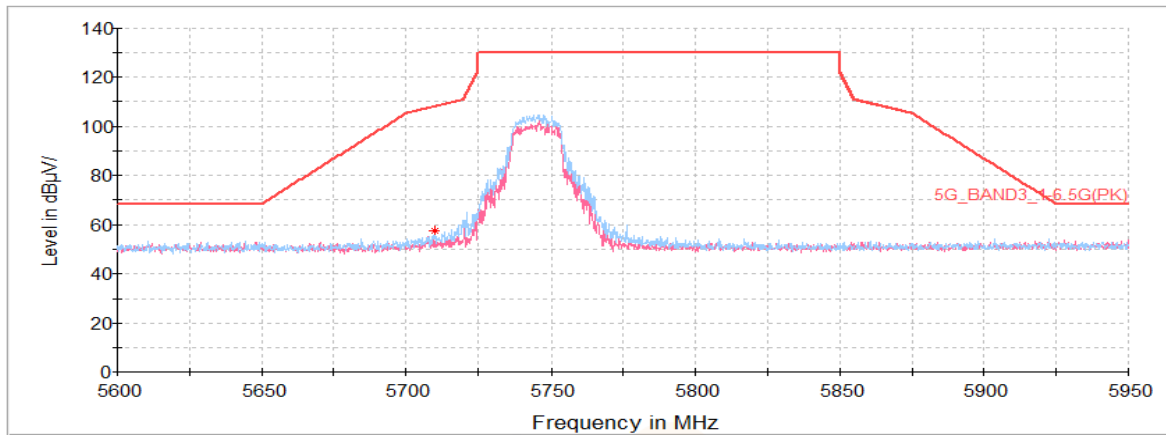
#### Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 856.84	V	44.11	34.94	-22.80	-	56.25	110.28	54.04
11 639.06 <sup>1)</sup>	V	57.90	38.11	-47.70	-	48.31	74.00	25.69
14 708.13	V	60.14	39.89	-47.48	-	52.55	68.20	15.65
17 325.81	V	57.17	41.37	-45.10	-	53.44	68.20	14.76
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

### 802.11a UNII-3 ANT2

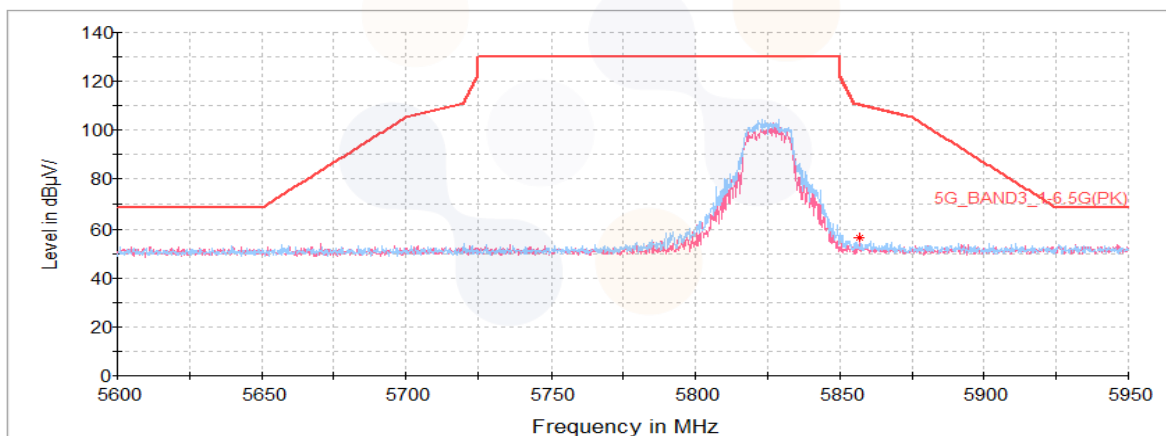
#### Lowest Channel (5 745 MHz)

##### Horizontal/Vertical for Band-edge



#### Highest Channel (5 825 MHz)

##### Horizontal/Vertical for Band-edge



### 802.11a UNII-3 2TX MIMO

#### Lowest Channel (5 745 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 717.63	H	50.79	34.69	-22.99	-	62.49	110.14	47.65
11 505.02 <sup>1)</sup>	H	58.22	38.00	-47.64	-	48.58	74.00	25.42
17 340.19	V	56.85	41.36	-45.13	-	53.08	68.20	15.12
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 572.22 <sup>1)</sup>	H	59.80	38.06	-47.67	-	50.19	74.00	23.81
17 367.14	H	56.50	41.33	-45.18	-	52.65	68.20	15.55
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

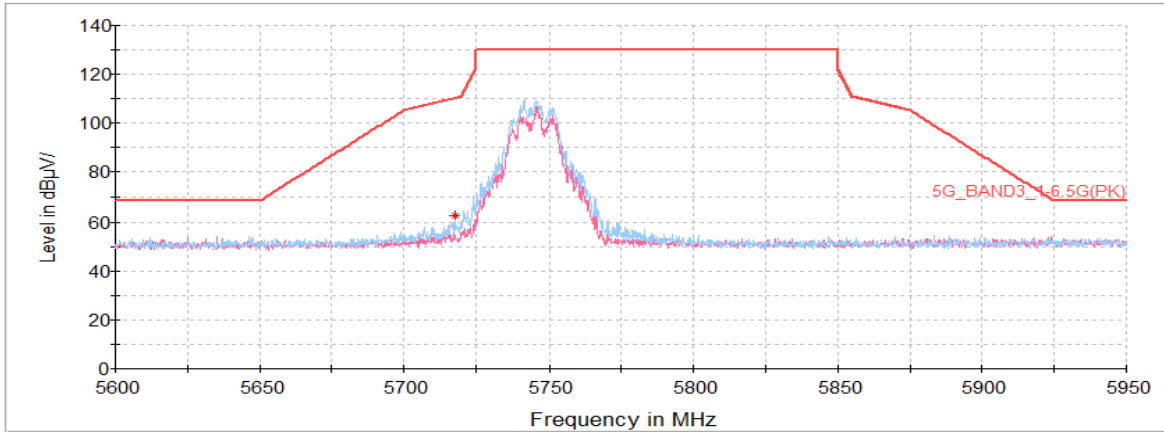
#### Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 862.86	H	45.82	34.95	-22.81	-	57.96	108.60	50.64
11 635.11 <sup>1)</sup>	H	58.23	38.11	-47.70	-	48.64	74.00	25.36
17 469.20	H	55.78	41.23	-45.36	-	51.65	68.20	16.55
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

### 802.11a UNII-3 2TX MIMO

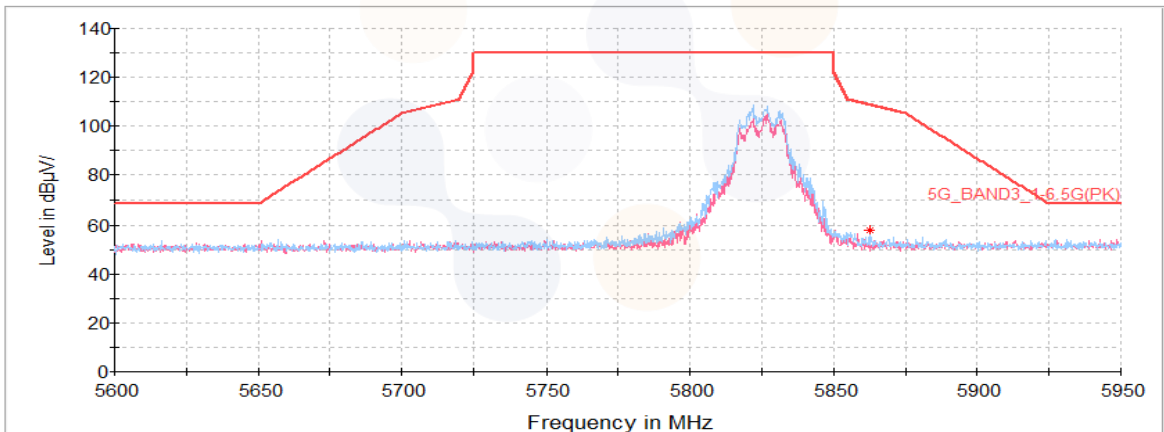
#### Lowest Channel (5 745 MHz)

Horizontal/Vertical for Band-edge



#### Highest Channel (5 825 MHz)

Horizontal/Vertical for Band-edge



### 802.11n HT20 UNII-3 ANT1

#### Lowest Channel (5 745 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 718.14	H	48.83	34.69	-22.99	-	60.53	110.28	49.75
11 378.16 <sup>1)</sup>	V	58.55	37.88	-47.65	-	48.78	74.00	25.22
17 140.38	H	55.66	41.56	-44.76	-	52.46	68.20	15.74
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 547.78 <sup>1)</sup>	V	57.72	38.04	-47.66	-	48.10	74.00	25.90
17 301.73	H	56.27	41.40	-45.06	-	52.61	68.20	15.59
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

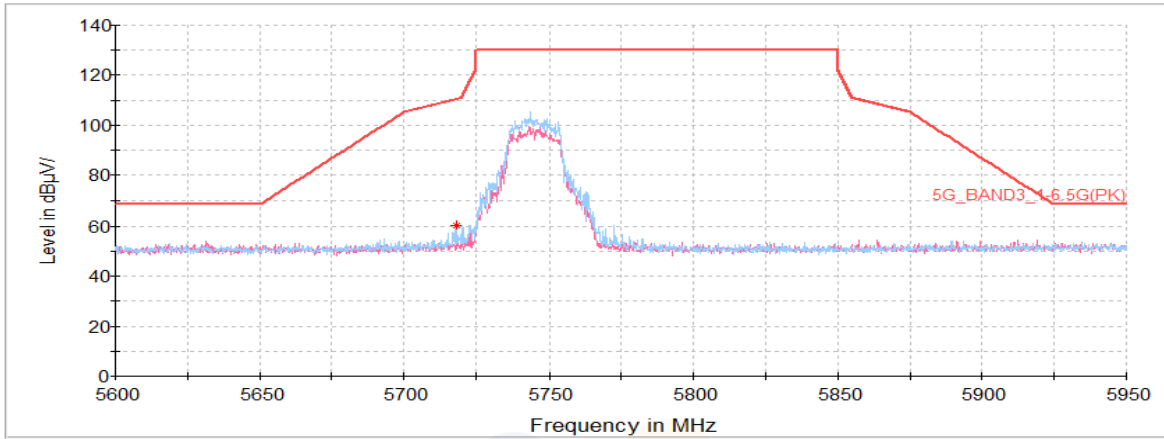
#### Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 854.95	H	48.06	34.94	-22.80	-	60.20	110.91	50.71
11 643.73 <sup>1)</sup>	V	58.61	38.11	-47.70	-	49.02	74.00	24.98
17 345.58	H	56.34	41.35	-45.14	-	52.55	68.20	15.65
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT20 UNII-3 ANT1**

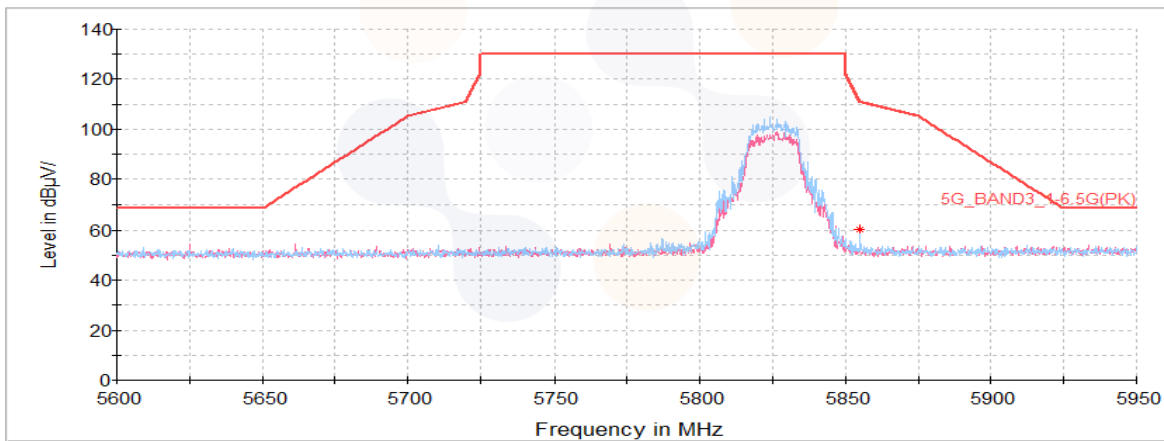
**Lowest Channel (5 745 MHz)**

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 825 MHz)**

**Horizontal/Vertical for Band-edge**



### 802.11n HT20 UNII-3 ANT2

#### Lowest Channel (5 745 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 718.14	H	51.94	34.69	-22.99	-	63.64	110.28	46.64
11 370.25 <sup>1)</sup>	H	59.40	37.87	-47.65	-	49.62	74.00	24.38
17 271.55	V	55.47	41.43	-45.00	-	51.90	68.20	16.30
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
11 574.38 <sup>1)</sup>	V	57.80	38.06	-47.67	-	48.19	74.00	25.81
17 334.44	V	55.85	41.37	-45.12	-	52.10	68.20	16.10
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

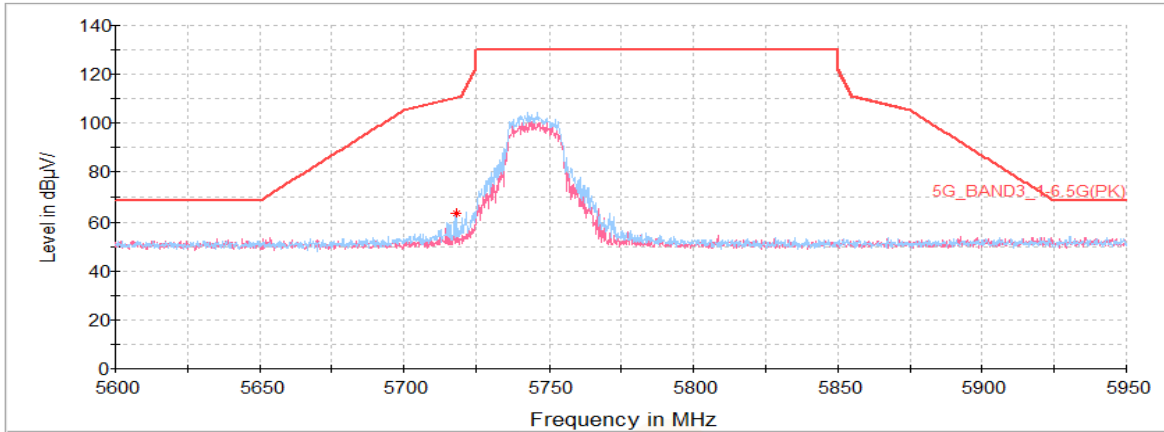
#### Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 891.05	V	42.70	35.00	-22.85	-	54.85	93.33	38.48
11 642.66 <sup>1)</sup>	H	58.56	38.11	-47.70	-	48.97	74.00	25.03
17 474.59	H	55.49	41.23	-45.37	-	51.35	68.20	16.85
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT20 UNII-3 ANT2**

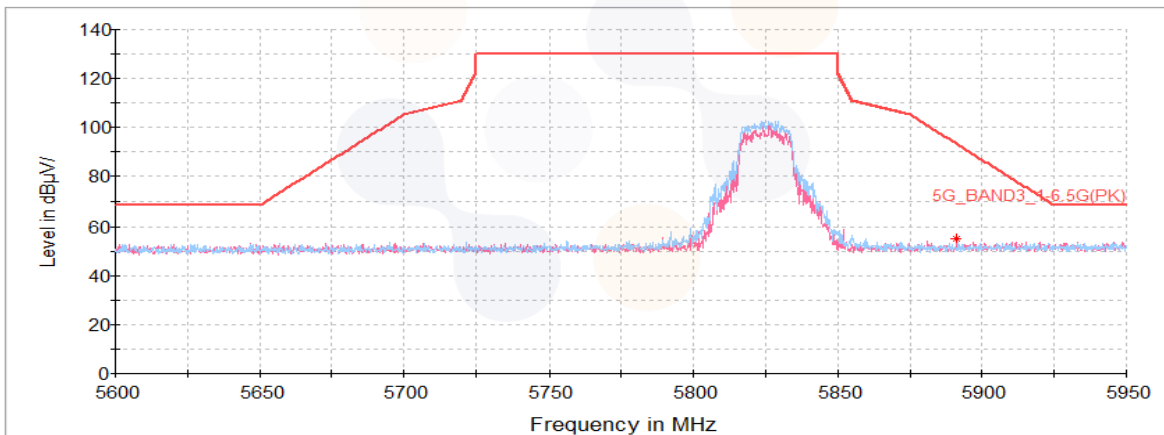
**Lowest Channel (5 745 MHz)**

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 825 MHz)**

**Horizontal/Vertical for Band-edge**





### 802.11n HT20 UNII-3 2TX MIMO

#### Lowest Channel (5 745 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 719.17	H	56.39	34.69	-22.99	-	68.09	110.57	42.48
11 501.78 <sup>1)</sup>	H	57.85	38.00	-47.64	-	48.21	74.00	25.79
17 261.13	V	55.32	41.44	-44.98	-	51.78	68.20	16.42
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 576.17 <sup>1)</sup>	H	58.05	38.06	-47.67	-	48.44	74.00	25.56
17 304.97	V	55.97	41.40	-45.06	-	52.31	68.20	15.89
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

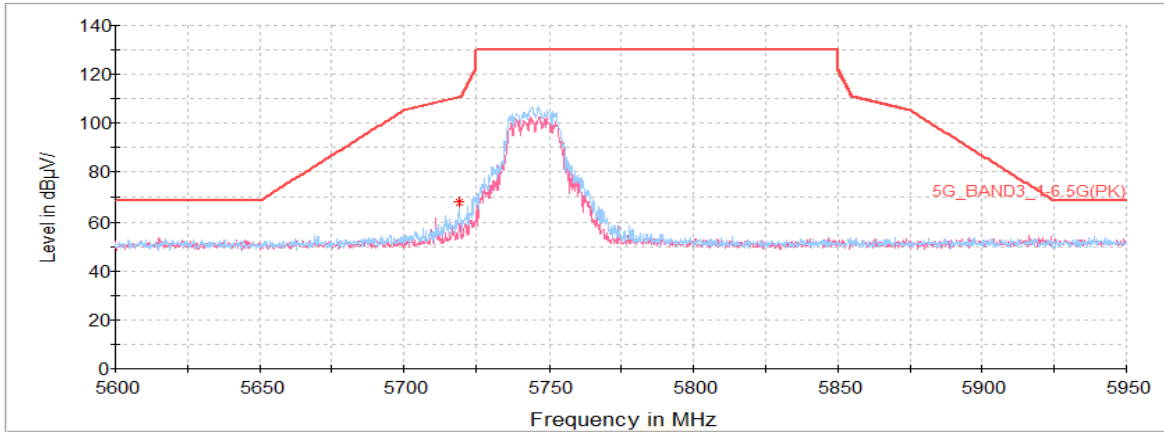
#### Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 885.03	V	42.77	34.99	-22.84	-	54.92	97.78	42.85
11 637.63 <sup>1)</sup>	H	58.02	38.11	-47.70	-	48.43	74.00	25.57
17 486.09	H	57.33	41.21	-45.39	-	53.15	68.20	15.05
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT20 UNII-3 2TX MIMO**

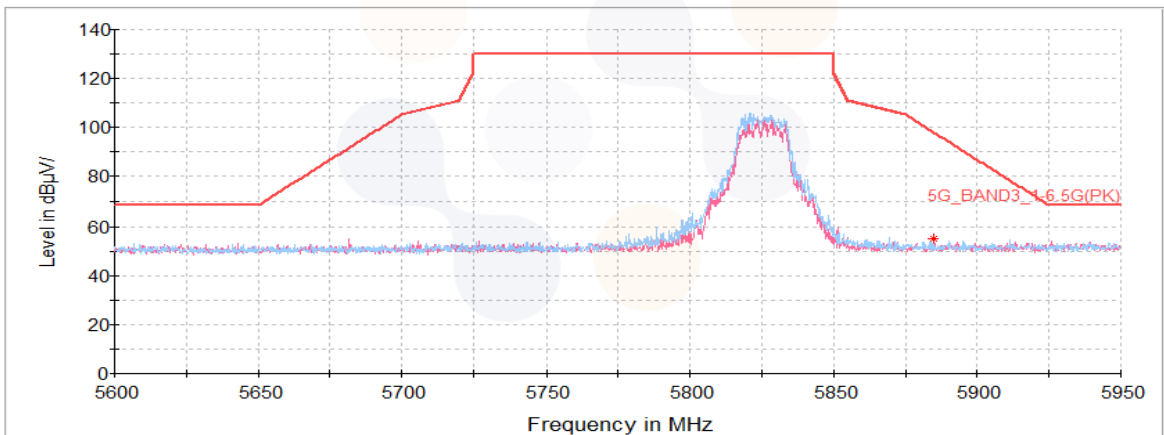
**Lowest Channel (5 745 MHz)**

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 825 MHz)**

**Horizontal/Vertical for Band-edge**



**802.11n HT40 UNII-3 ANT1**

**Lowest Channel (5 755 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 723.64	H	55.80	34.70	-22.97	-	67.53	119.10	51.57
11 740.77 <sup>1)</sup>	V	59.61	38.19	-47.75	-	50.05	74.00	23.95
17 322.94	H	56.92	41.38	-45.10	-	53.20	68.20	15.00
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

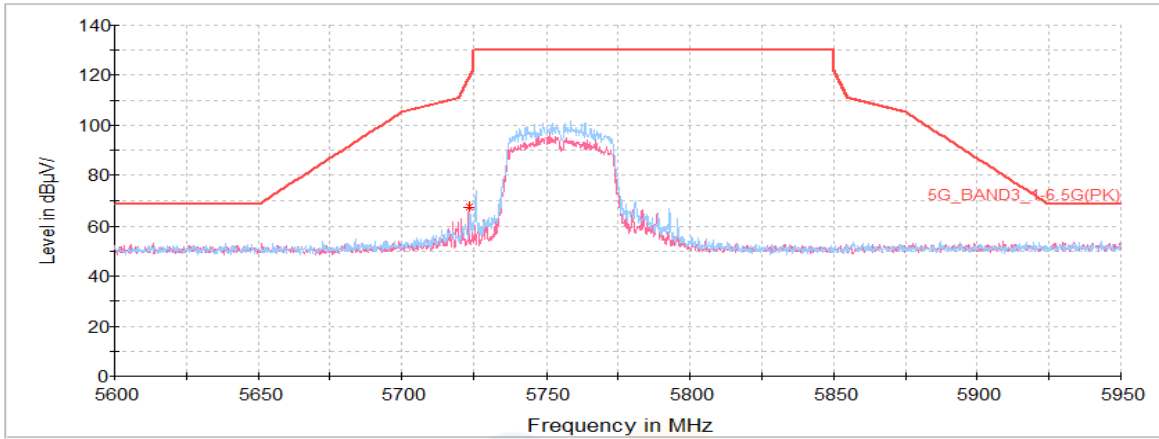
**Highest Channel (5 795 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 885.20	H	41.63	34.99	-22.84	-	53.78	97.65	43.87
11 658.83 <sup>1)</sup>	V	59.13	38.13	-47.71	-	49.55	74.00	24.45
17 304.25	H	56.78	41.40	-45.06	-	53.12	68.20	15.08
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT40 UNII-3 ANT1**

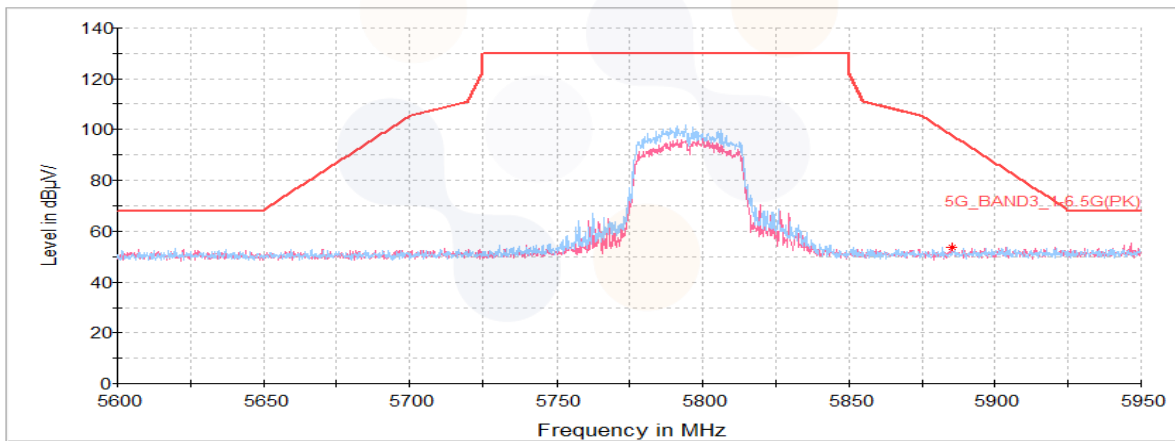
**Lowest Channel (5 755 MHz)**

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 795 MHz)**

**Horizontal/Vertical for Band-edge**



### **802.11n HT40 UNII-3 ANT2**

#### **Lowest Channel (5 755 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 722.95	H	62.74	34.70	-22.97	-	74.47	117.53	43.06
11 539.88 <sup>1)</sup>	V	56.98	38.03	-47.66	-	47.35	74.00	26.65
17 221.23	V	54.92	41.48	-44.91	-	51.49	68.20	16.71
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

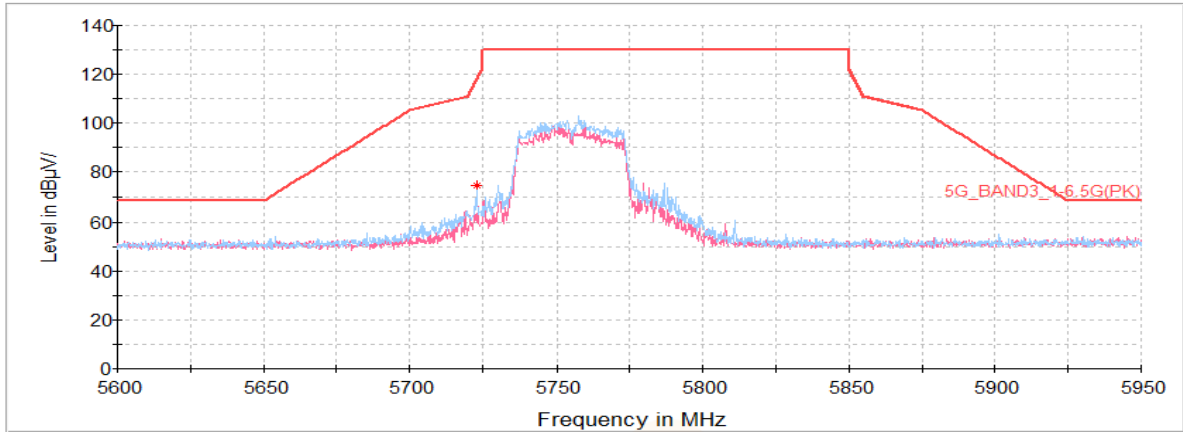
#### **Highest Channel (5 795 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 853.41	V	47.19	34.94	-22.80	-	59.33	114.43	55.10
11 549.22 <sup>1)</sup>	H	58.19	38.04	-47.66	-	48.57	74.00	25.43
17 357.80	V	56.22	41.34	-45.16	-	52.40	68.20	15.80
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT40 UNII-3 2TX ANT2**

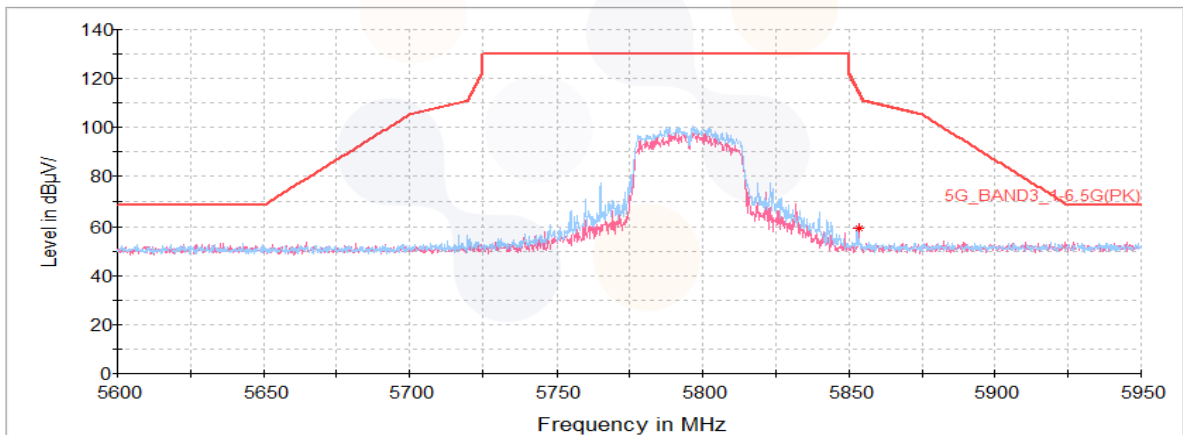
**Lowest Channel (5 755 MHz)**

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 795 MHz)**

**Horizontal/Vertical for Band-edge**



**802.11n HT40 UNII-3 2TX MIMO**

**Lowest Channel (5 755 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 719.86	H	63.66	34.70	-22.98	-	75.38	110.76	35.38
11 522.98 <sup>1)</sup>	H	57.22	38.02	-47.65	-	47.59	74.00	26.41
17 146.13	H	55.52	41.55	-44.77	-	52.30	68.20	15.90
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

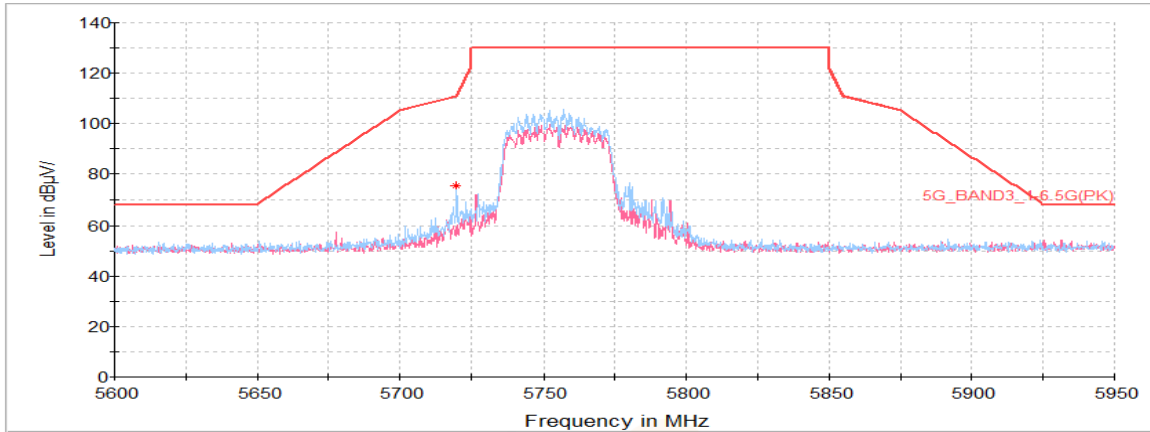
**Highest Channel (5 795 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu V$ ))	(dB)	(dB)	(dB)	(dB( $\mu V/m$ ))	(dB( $\mu V/m$ ))	(dB)
<b>Peak data</b>								
5 884.17	H	41.57	34.99	-22.84	-	53.72	110.76	57.04
11 591.63 <sup>1)</sup>	V	57.00	38.07	-47.68	-	47.39	74.00	26.61
17 344.86	H	55.49	41.36	-45.14	-	51.71	68.20	16.49
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11n HT40 UNII-3 2TX MIMO**

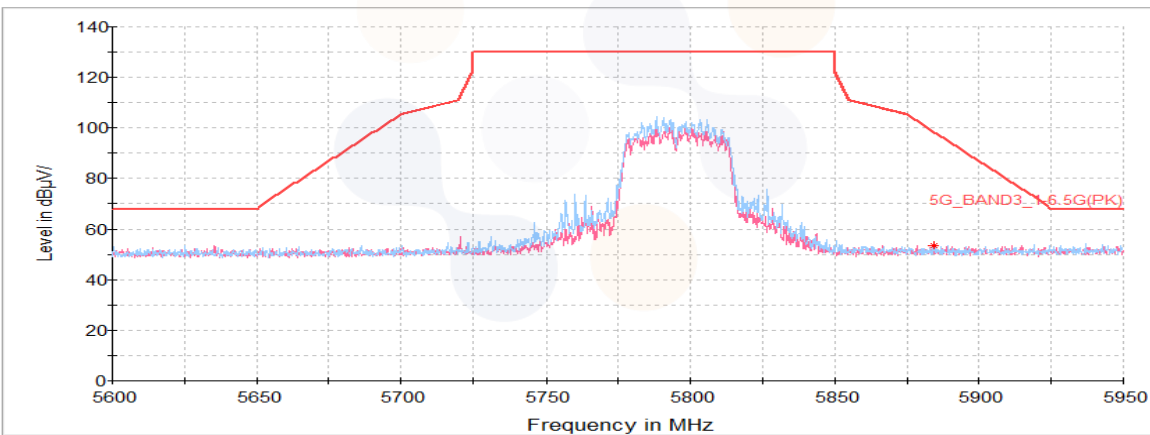
**Lowest Channel (5 755 MHz)**

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 795 MHz)**

**Horizontal/Vertical for Band-edge**





### 802.11ac VHT20 UNII-3 ANT1

#### Lowest Channel (5 745 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 715.05	H	45.52	34.69	-23.00	-	57.21	109.41	52.20
11 534.48 <sup>1)</sup>	H	57.73	38.03	-47.65	-	48.11	74.00	25.89
17 316.47	V	57.40	41.38	-45.08	-	53.70	68.20	14.50
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 371.33 <sup>1)</sup>	H	58.64	37.87	-47.65	-	48.86	74.00	25.14
17 202.19	V	56.03	41.50	-44.87	-	52.66	68.20	15.54
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

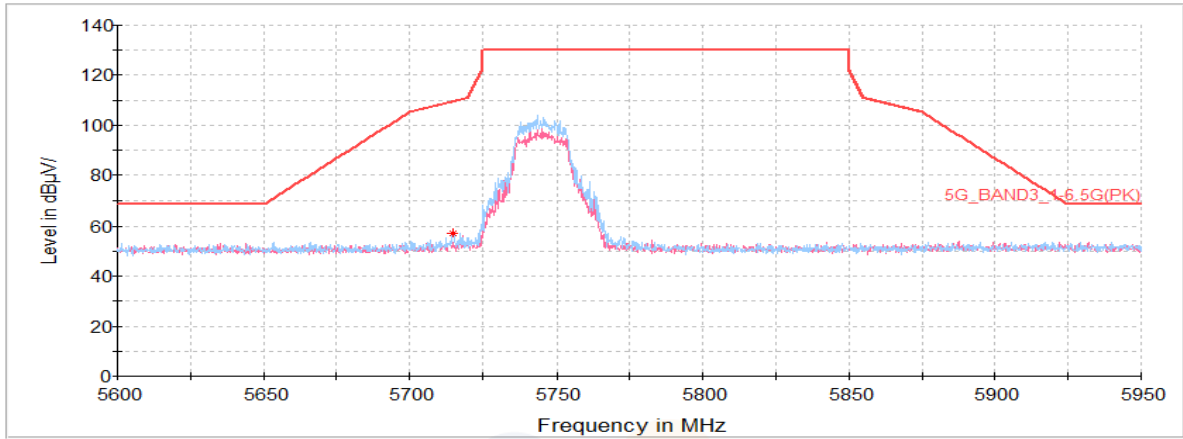
#### Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 854.27	H	43.13	34.94	-22.80	-	55.27	112.47	57.20
11 575.09 <sup>1)</sup>	V	58.85	38.06	-47.67	-	49.24	74.00	24.76
17 295.98	V	56.22	41.40	-45.05	-	52.57	68.20	15.63
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT20 UNII-3 ANT1**

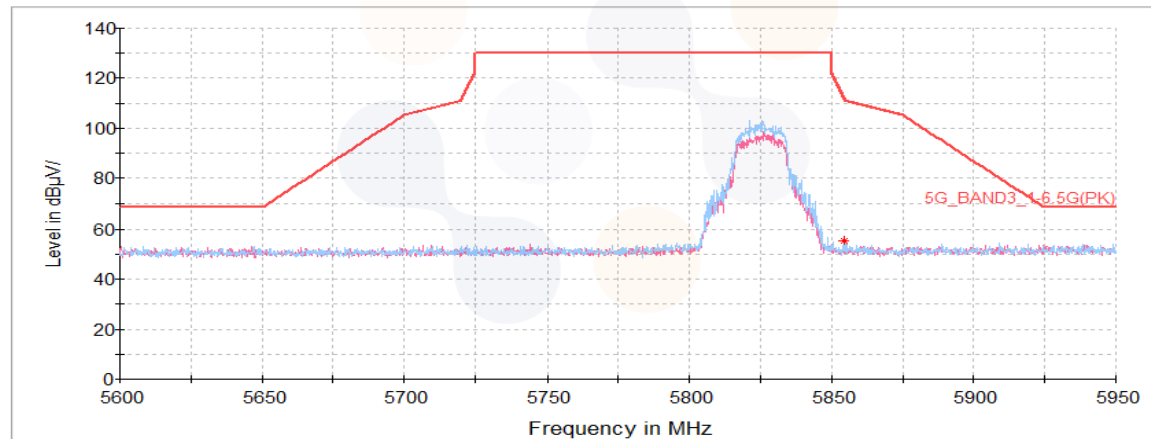
**Lowest Channel (5 745 MHz)**

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 825 MHz)**

**Horizontal/Vertical for Band-edge**



### **802.11ac VHT20 UNII-3 ANT2**

#### **Lowest Channel (5 745 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
5 719.17	V	46.22	34.69	-22.99	-	57.92	110.57	52.65
9 035.39 <sup>1)</sup>	V	61.32	35.74	-48.96	-	48.10	74.00	25.90
11 519.03 <sup>1)</sup>	V	57.90	38.02	-47.65	-	48.27	74.00	25.73
17 280.89	V	55.50	41.42	-45.02	-	51.90	68.20	16.30
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### **Middle Channel (5 785 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
11 566.83 <sup>1)</sup>	V	57.84	38.05	-47.67	-	48.22	74.00	25.78
17 333.36	V	57.15	41.37	-45.11	-	53.41	68.20	14.79
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

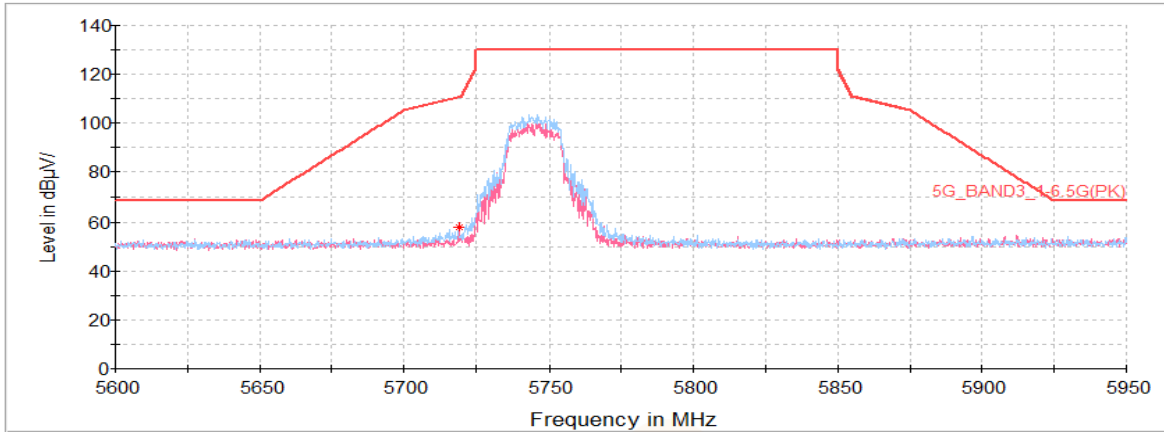
#### **Highest Channel (5 825 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
5 871.11	H	42.15	34.97	-22.82	-	54.30	106.29	51.99
11 664.22 <sup>1)</sup>	V	57.35	38.13	-47.71	-	47.77	74.00	26.23
17 488.61	V	56.09	41.21	-45.40	-	51.90	68.20	16.30
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT20 UNII-3 ANT2**

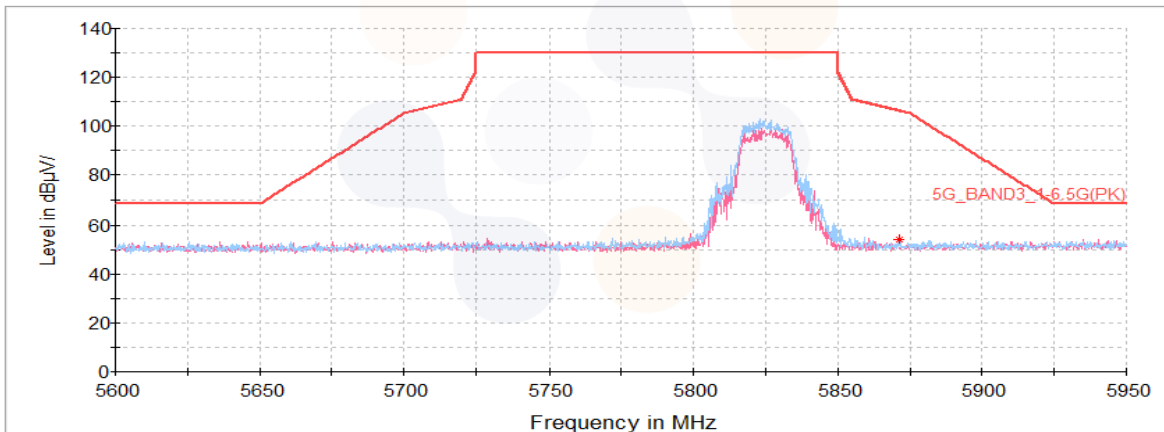
**Lowest Channel (5 745 MHz)**

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 825 MHz)**

**Horizontal/Vertical for Band-edge**



### 802.11ac VHT20 UNII-3 2TX MIMO

#### Lowest Channel (5 745 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 720.20	H	51.57	34.70	-22.98	-	63.29	111.26	47.97
11 546.34 <sup>1)</sup>	H	57.67	38.04	-47.66	-	48.05	74.00	25.95
17 179.91	H	55.90	41.52	-44.83	-	52.59	68.20	15.61
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
11 581.92 <sup>1)</sup>	V	57.23	38.07	-47.68	-	47.62	74.00	26.38
17 302.81	H	55.45	41.40	-45.06	-	51.79	68.20	16.41
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

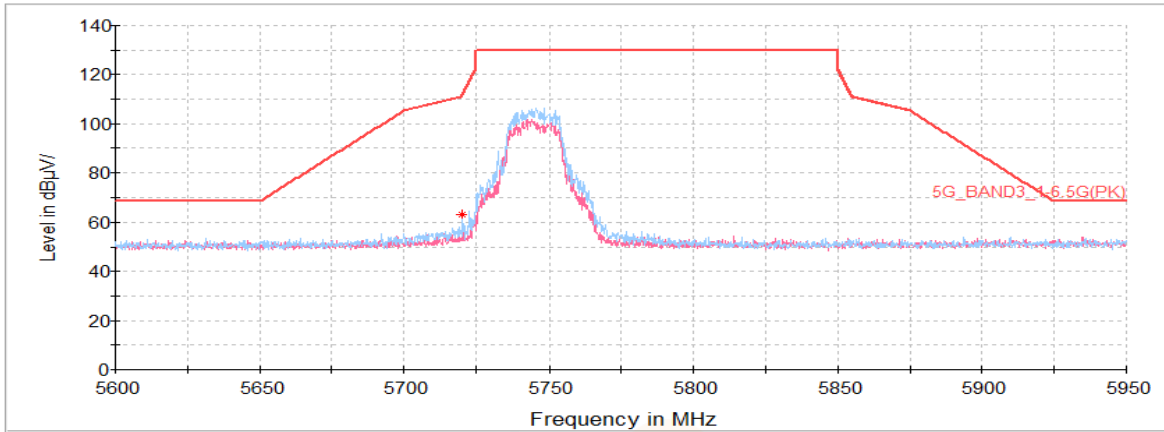
#### Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 853.58	H	48.25	34.94	-22.80	-	60.39	114.04	53.65
11 677.52 <sup>1)</sup>	V	58.39	38.14	-47.72	-	48.81	74.00	25.19
17 485.38	V	55.21	41.21	-45.39	-	51.03	68.20	17.17
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT20 UNII-3 2TX MIMO**

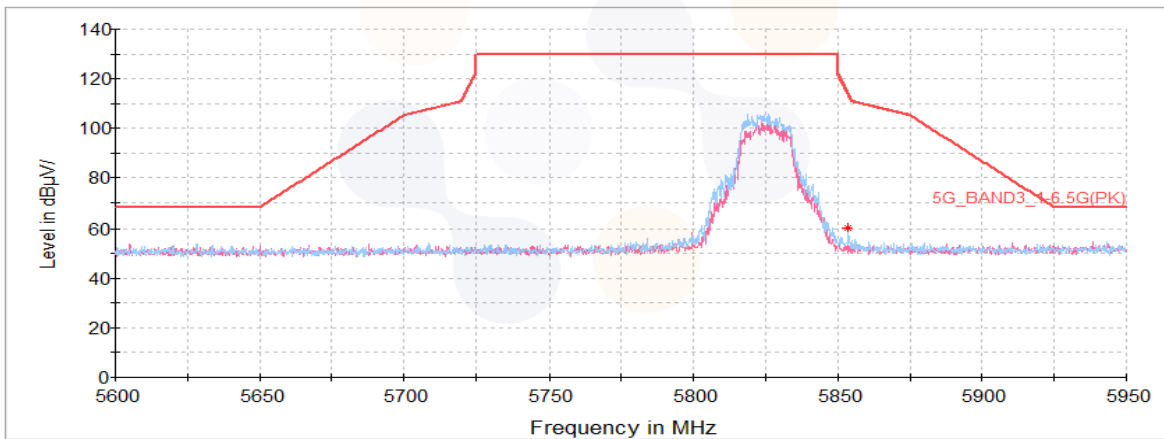
**Lowest Channel (5 745 MHz)**

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 825 MHz)**

**Horizontal/Vertical for Band-edge**



### 802.11ac VHT40 UNII-3 ANT1

#### Lowest Channel (5 755 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 712.64	H	45.69	34.68	-23.01	-	57.36	108.74	51.38
11 377.08 <sup>1)</sup>	V	60.09	37.88	-47.65	-	50.32	74.00	23.68
17 312.52	H	56.25	41.39	-45.08	-	52.56	68.20	15.64
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

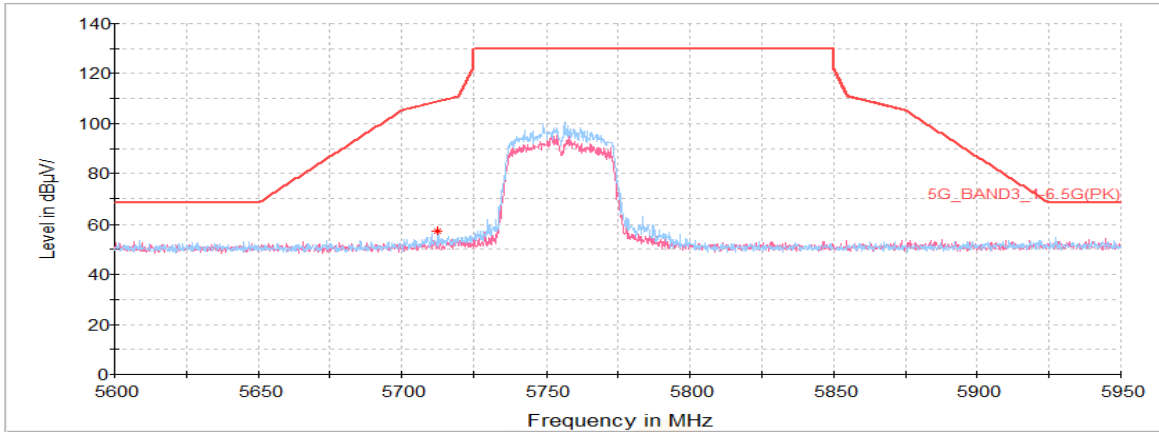
#### Highest Channel (5 795 MHz)

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 898.78	V	42.18	35.02	-22.86	-	54.34	87.60	33.26
11 380.67 <sup>1)</sup>	V	59.15	37.88	-47.65	-	49.38	74.00	24.62
17 267.95	H	56.10	41.43	-44.99	-	52.54	68.20	15.66
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT40 UNII-3 ANT1**

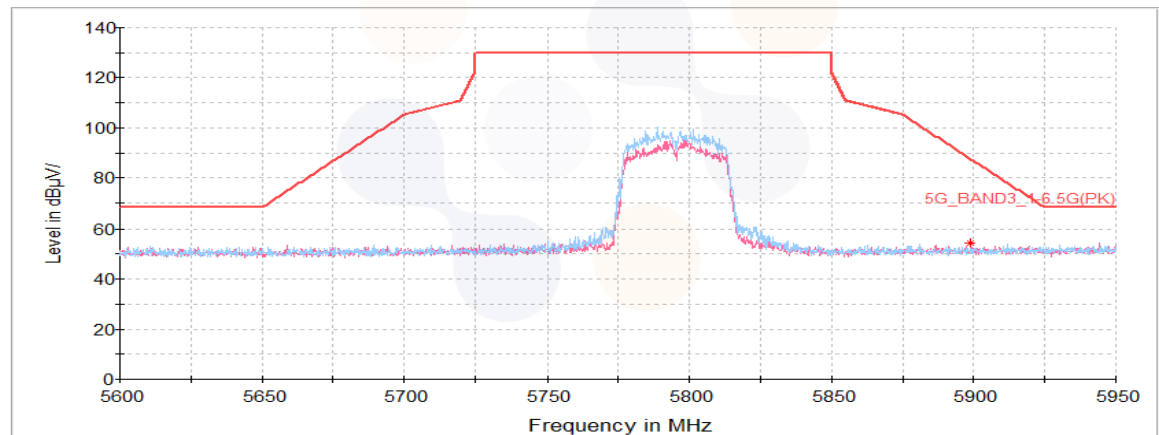
**Lowest Channel (5 755 MHz)**

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 795 MHz)**

**Horizontal/Vertical for Band-edge**





### **802.11ac VHT40 UNII-3 ANT2**

#### **Lowest Channel (5 755 MHz)**

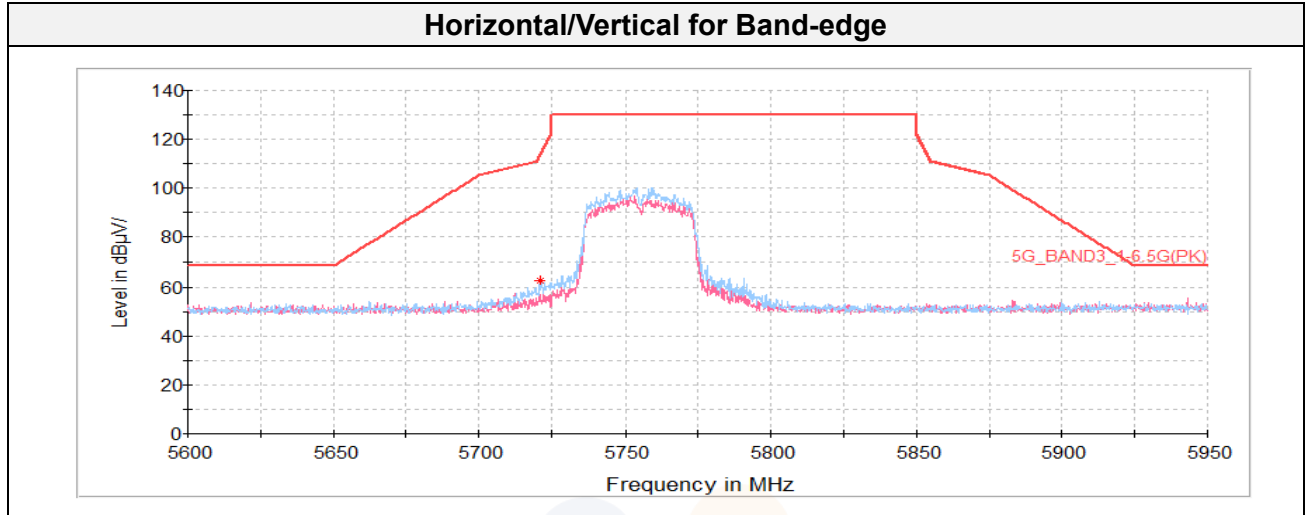
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 721.41	H	50.83	34.70	-22.98	-	62.55	114.01	51.45
11 530.89 <sup>1)</sup>	V	57.90	38.02	-47.65	-	48.27	74.00	25.73
17 244.95	H	55.70	41.46	-44.95	-	52.21	68.20	15.99
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

#### **Highest Channel (5 795 MHz)**

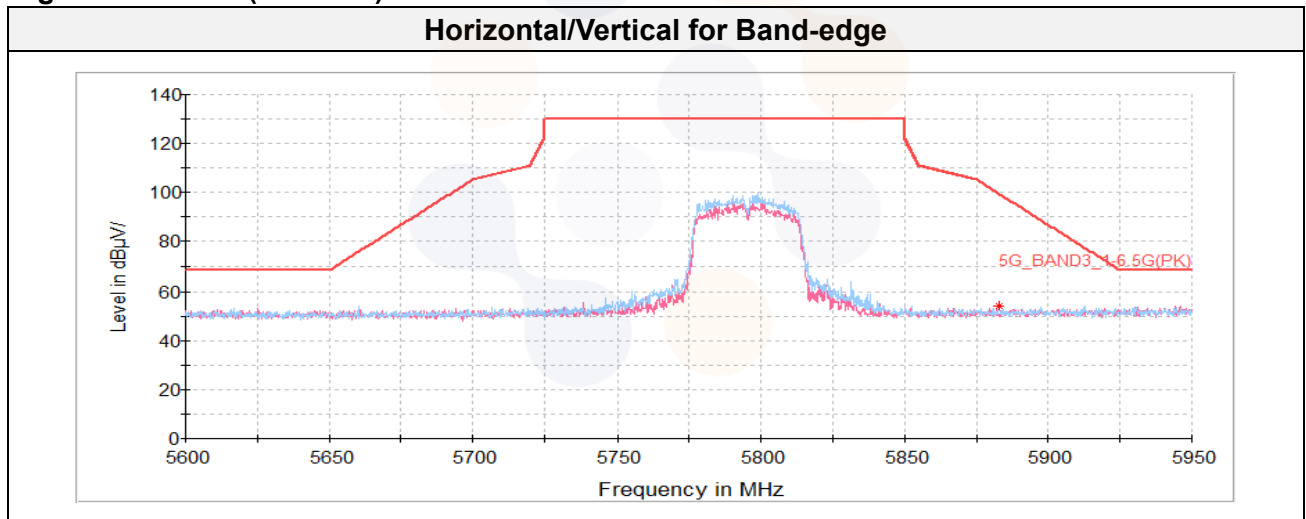
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 882.80	H	41.97	34.99	-22.84	-	54.12	99.43	45.31
11 675.36 <sup>1)</sup>	V	58.40	38.14	-47.72	-	48.82	74.00	25.18
17 348.45	V	55.93	41.35	-45.14	-	52.14	68.20	16.06
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT40 UNII-3 ANT2**

**Lowest Channel (5 755 MHz)**



**Highest Channel (5 795 MHz)**



**802.11ac VHT40 UNII-3 2TX MIMO**

**Lowest Channel (5 755 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 719.17	V	51.65	34.69	-22.99	-	63.35	110.57	47.21
11 535.56 <sup>1)</sup>	V	57.59	38.03	-47.65	-	47.97	74.00	26.03
17 308.20	V	55.81	41.39	-45.07	-	52.13	68.20	16.07
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

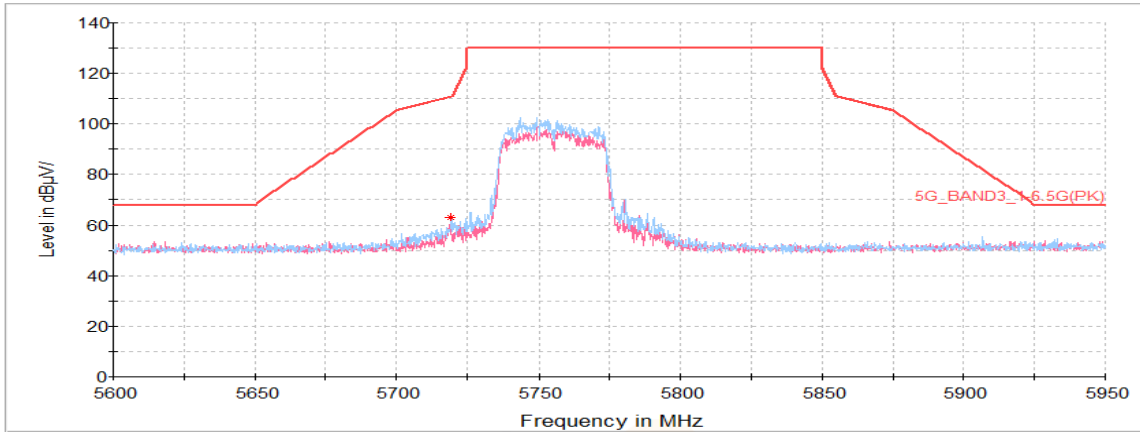
**Highest Channel (5 795 MHz)**

Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB( $\mu$ V))	(dB)	(dB)	(dB)	(dB( $\mu$ V/m))	(dB( $\mu$ V/m))	(dB)
<b>Peak data</b>								
5 870.25	H	41.71	34.97	-22.82	-	53.86	106.53	52.67
11 629.36 <sup>1)</sup>	H	57.66	38.10	-47.70	-	48.06	74.00	25.94
17 350.25	H	56.71	41.35	-45.14	-	52.92	68.20	15.28
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**802.11ac VHT40 UNII-3 2TX MIMO**

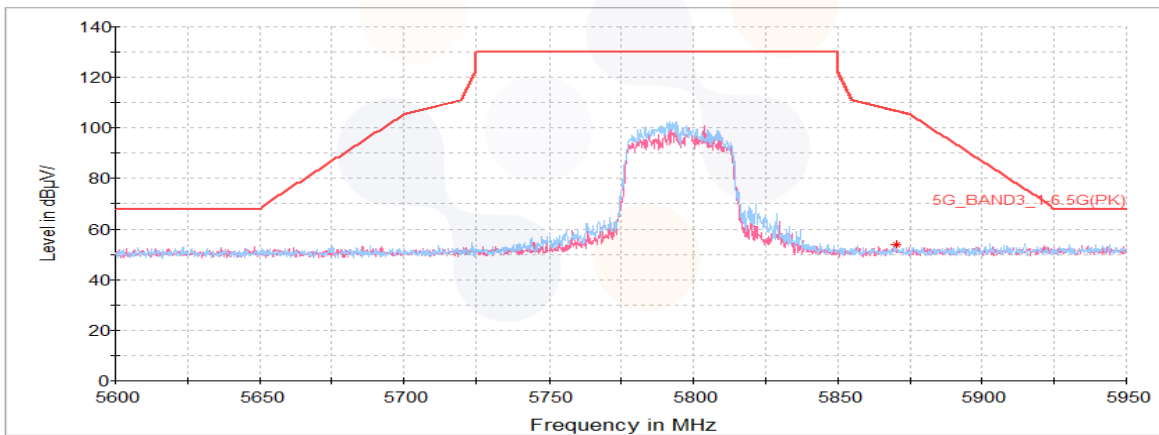
**Lowest Channel (5 755 MHz)**

**Horizontal/Vertical for Band-edge**



**Highest Channel (5 795 MHz)**

**Horizontal/Vertical for Band-edge**

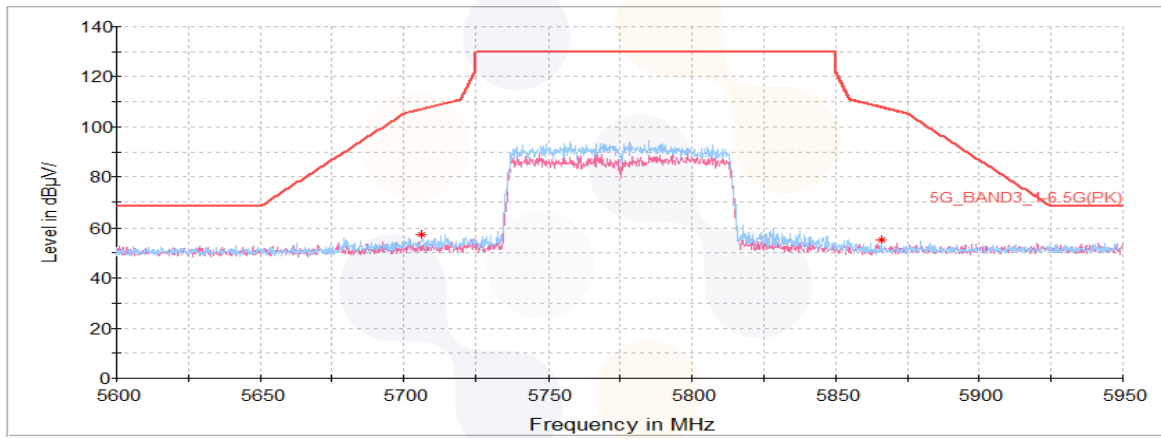


**802.11ac VHT80 UNII-3 ANT1**

**Middle Channel (5 775 MHz)**

Frequency (MHz)	Pol. (V/H)	Reading (dB(μV))	Ant. Factor (dB)	Amp.+Cable (dB)	DCF (dB)	Result (dB(μV/m))	Limit (dB(μV/m))	Margin (dB)
<b>Peak data</b>								
5 706.28	H	45.87	34.67	-23.03	-	57.51	106.96	49.45
5 865.78	H	43.01	34.96	-22.81	-	55.16	107.78	52.62
11 401.16 <sup>1)</sup>	V	58.24	37.90	-47.65	-	48.49	74.00	25.51
17 298.50	H	56.84	41.40	-45.05	-	53.19	68.20	15.01
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**Horizontal/Vertical for Band-edge**

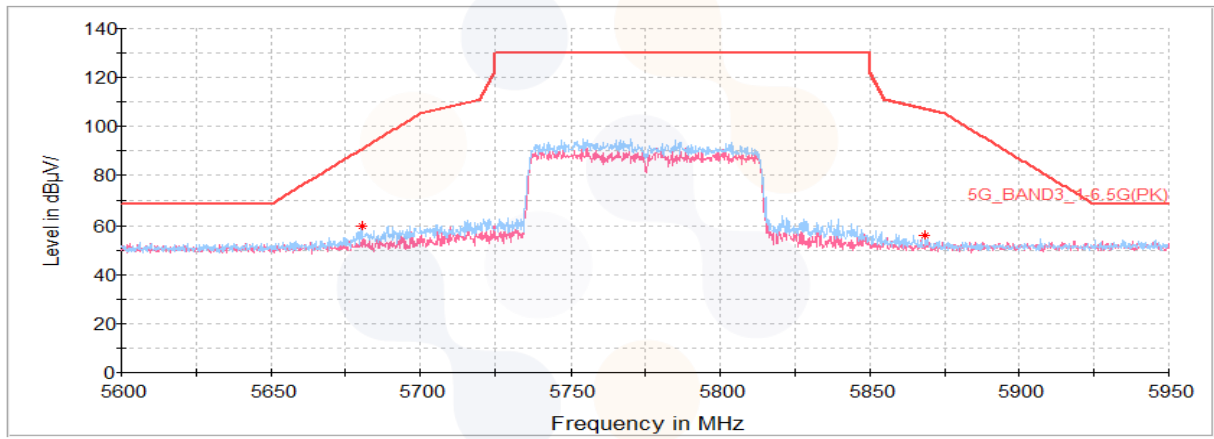


**802.11ac VHT80 UNII-3 ANT2**

**Middle Channel (5 775 MHz)**

Frequency (MHz)	Pol. (V/H)	Reading (dB(μV))	Ant. Factor (dB)	Amp.+Cable (dB)	DCF (dB)	Result (dB(μV/m))	Limit (dB(μV/m))	Margin (dB)
<b>Peak data</b>								
5 680.50	H	48.30	34.62	-23.07	-	59.85	90.77	30.92
5 868.53	H	43.70	34.96	-22.82	-	55.84	107.01	51.18
11 584.80 <sup>1)</sup>	V	57.84	38.07	-47.68	-	48.23	74.00	25.77
17 306.41	V	56.17	41.39	-45.06	-	52.50	68.20	15.70
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**Horizontal/Vertical for Band-edge**



**802.11ac VHT80 UNII-3 2TX MIMO**

**Middle Channel (5 775 MHz)**

Frequency (MHz)	Pol. (V/H)	Reading (dB(μV))	Ant. Factor (dB)	Amp.+Cable (dB)	DCF (dB)	Result (dB(μV/m))	Limit (dB(μV/m))	Margin (dB)
<b>Peak data</b>								
5 721.23	H	51.90	34.70	-22.98	-	63.62	113.61	50.00
5 871.80	H	44.08	34.97	-22.82	-	56.23	106.10	49.87
11 560.72 <sup>1)</sup>	H	58.36	38.05	-47.67	-	48.74	74.00	25.26
17 313.23	V	56.42	41.39	-45.08	-	52.73	68.20	15.47
<b>Average Data</b>								
No spurious emissions were detected within 20 dB of the limit.								

**Horizontal/Vertical for Band-edge**

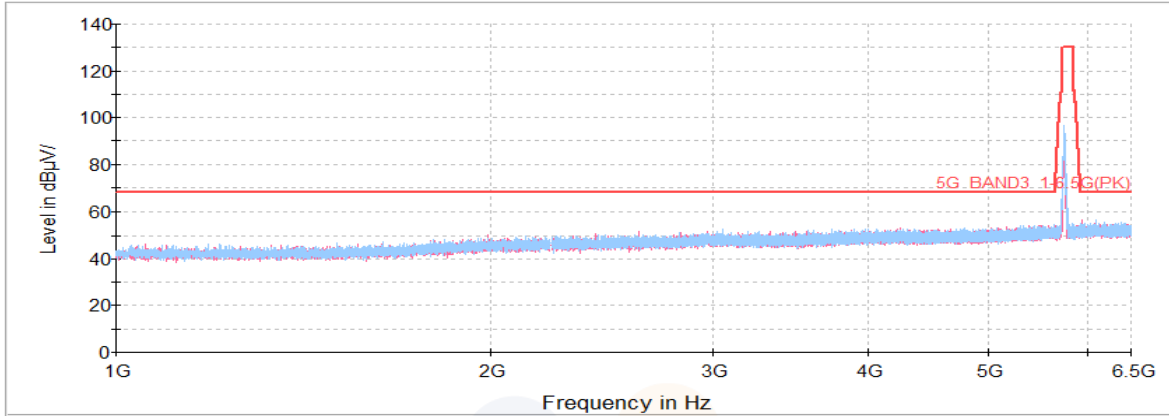


**Plot of Harmonics and Spurious Emissions**

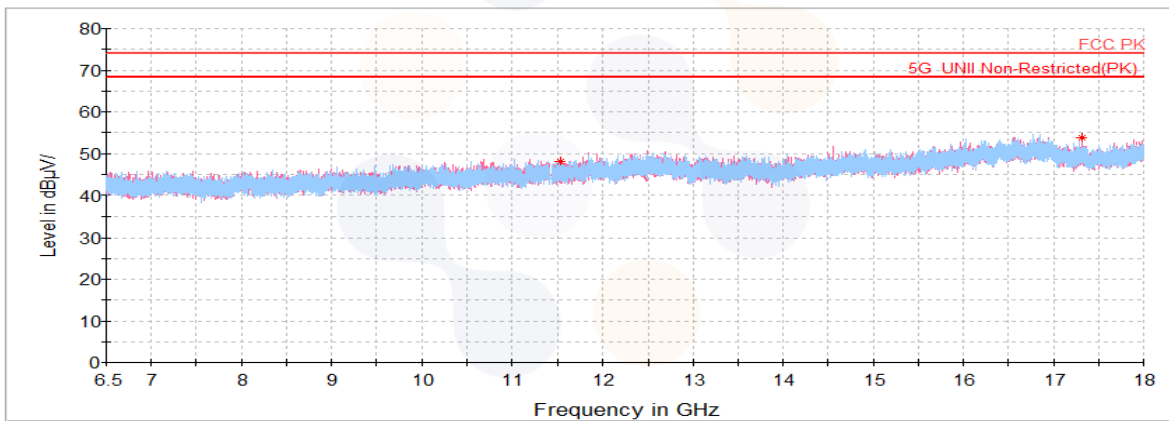
In order to simplify the report, attached plots were only the lowest margin condition

**802.11ac VHT20\_UNII-3\_ANT1\_Low Channel (5 745 MHz)**

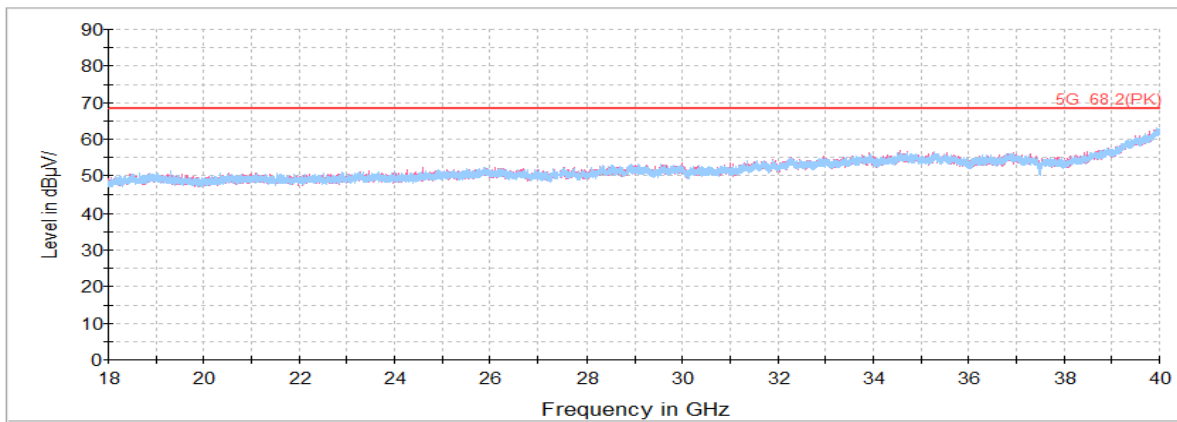
**Horizontal/Vertical for 1 GHz ~ 6.5 GHz**



**Horizontal/Vertical for 6.5 GHz ~ 18 GHz**



**Horizontal/Vertical for 18 GHz ~ 40 GHz**





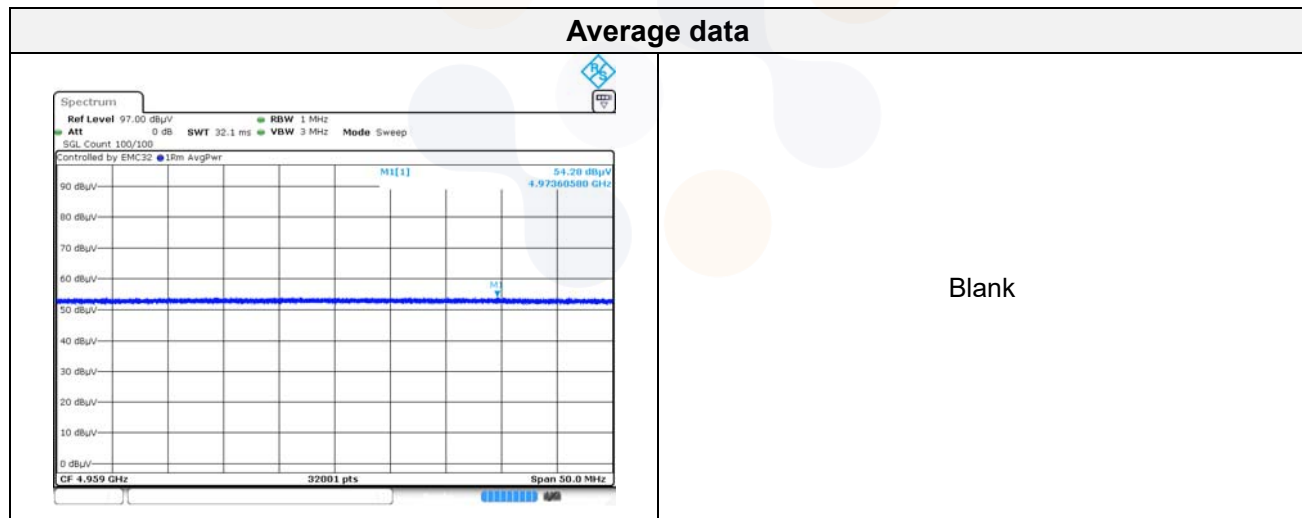
**Spurious Emission for Simultaneous Tx Condition**

Case	Bluetooth	5 GHz ANT2 WLAN
Mode	BLE	n40
Channel	39	38
Frequency	2 480	5 190
Data Rate	2M Bits/s, 37 Packet	MCS0

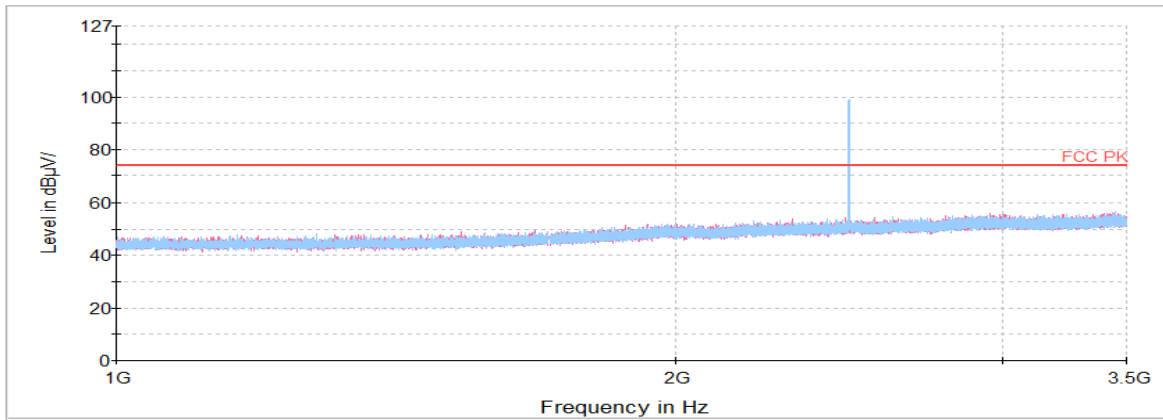
**Notes.**

The lowest margin condition among the channels and modes were selected for test.

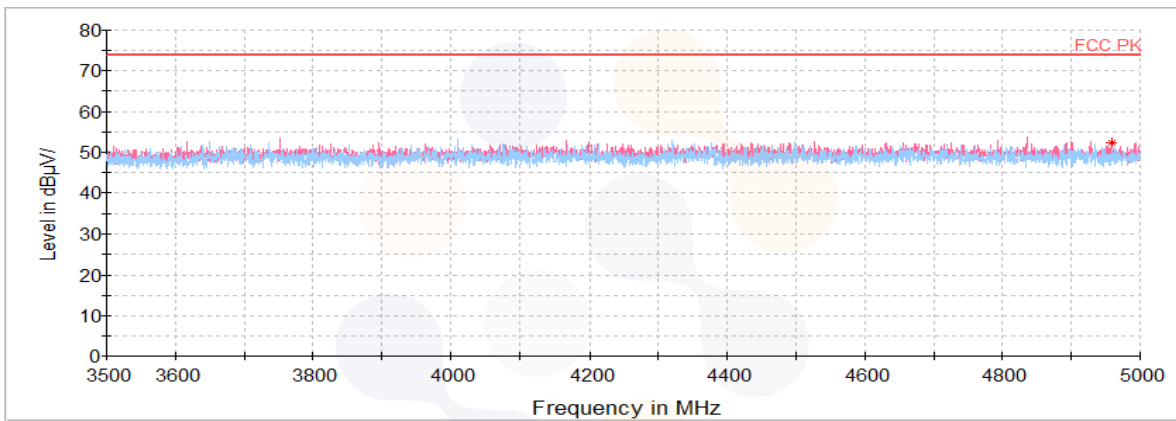
Frequency	Pol.	Reading	Ant. Factor	Amp.+Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
<b>Peak data</b>								
4 973.61 <sup>1)</sup>	V	63.41	33.70	-44.96	-	52.15	74.00	21.85
10 403.89	V	57.35	37.12	-47.92	-	46.55	68.20	21.65
15 557.33 <sup>1)</sup>	V	56.29	40.35	-46.81	-	49.83	74.00	24.17
<b>Average Data</b>								
4 973.61 <sup>1)</sup>	V	54.28	33.70	-44.96	5.06	48.08	54.00	5.92



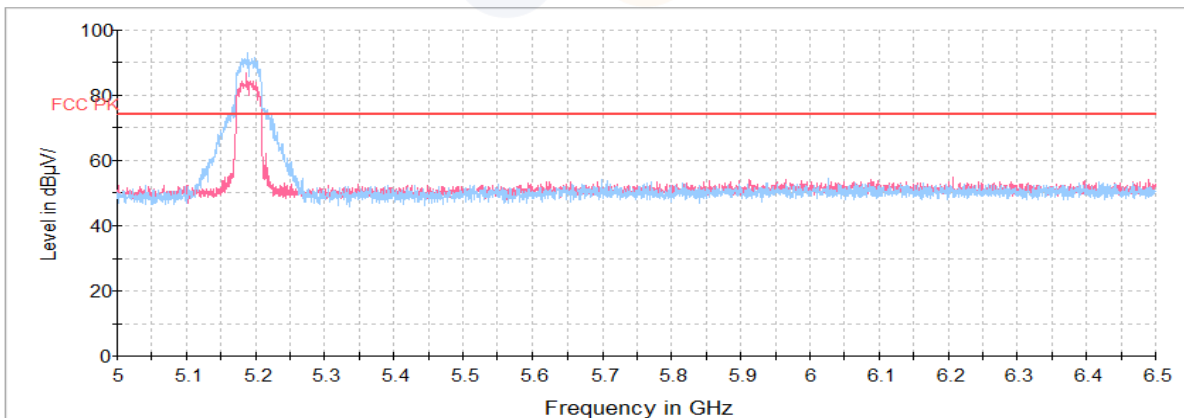
**Horizontal/Vertical for 1 GHz ~ 3.5 GHz**



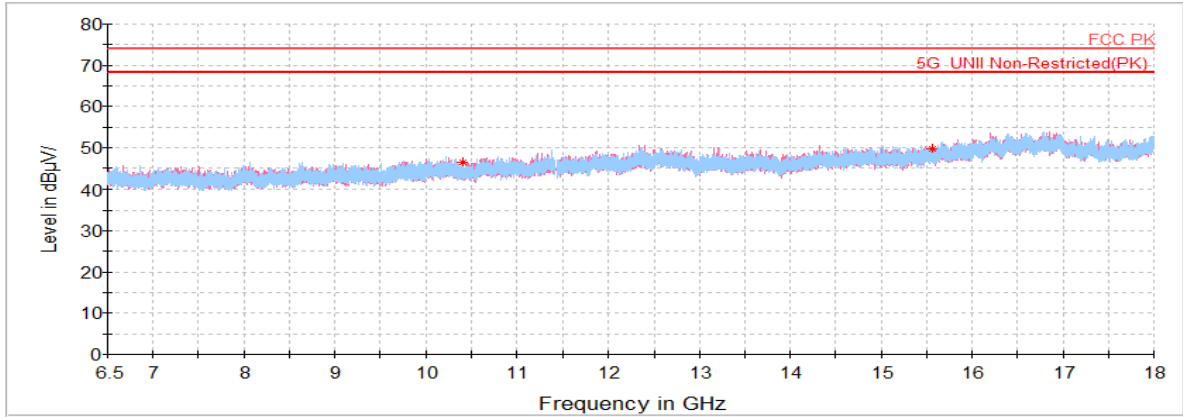
**Horizontal/Vertical for 3.5 GHz ~ 5 GHz**



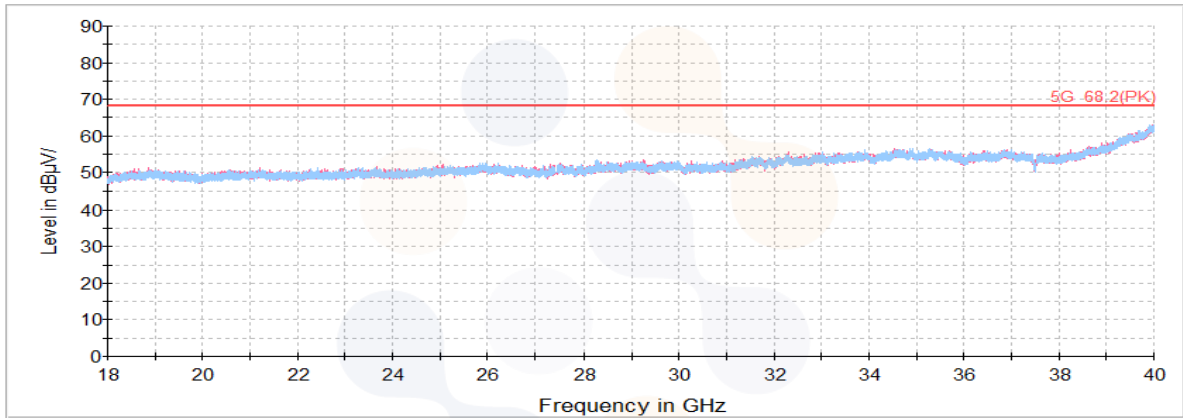
**Horizontal/Vertical for 5 GHz ~ 6.5 GHz**



**Horizontal/Vertical for 6.5 GHz ~ 18 GHz**

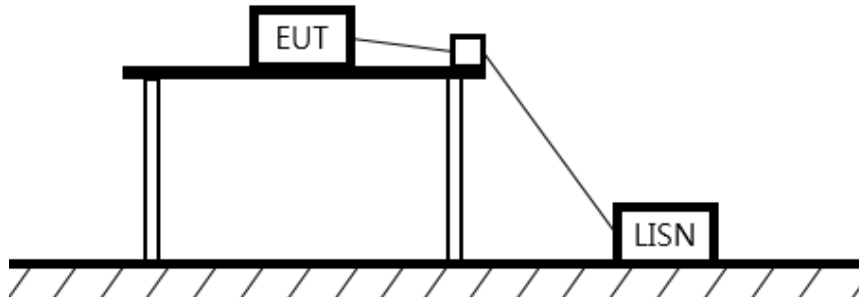


**Horizontal/Vertical for 18 GHz ~ 40 GHz**



## 7.7. AC Conducted emission

### Test setup



### Limit

#### §15.407

According to 15.207(a) and RSS-Gen (8.8), for 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 50uH/50 ohm line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequencies ranges.

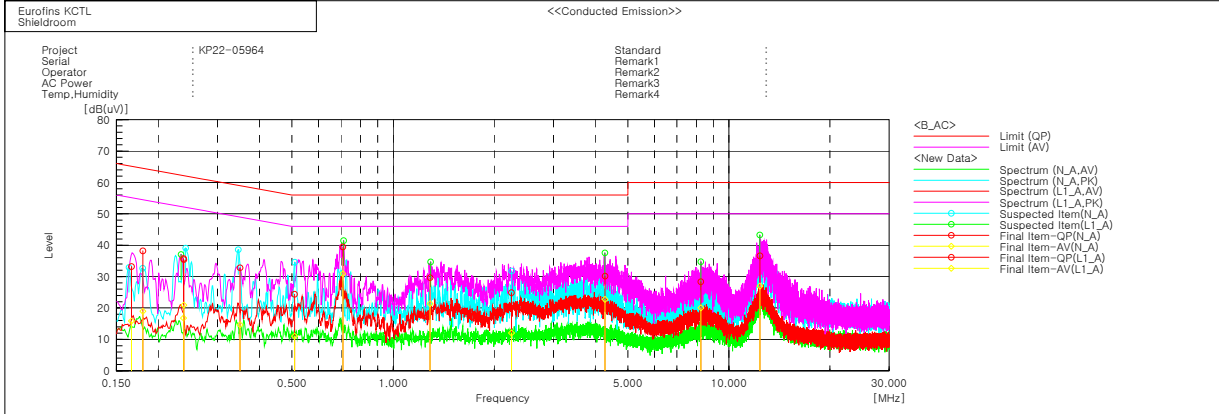
Frequency of Emission (MHz)	Conducted limit (dB $\mu$ V/m)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

### Measurement procedure

1. The EUT was placed on a wooden table of size, 1 m by 1.5 m, raised 80 cm in which is located 40 cm away from the vertical wall and 1.5m away from the side wall of the shielded room.
2. Each current-carrying conductor of the EUT power cord was individually connected through a 50 $\Omega$ /50 $\mu$ H LISN, which is an input transducer to a spectrum analyzer or an EMI/Field Intensity Meter, to the input power source.
3. Exploratory measurements were made to identify the frequency of the emission that had the highest amplitude relative to the limit by operating the EUT in a range of typical modes of operation, cable position, and with a typical system equipment configuration and arrangement. Based on the exploratory tests of the EUT, the one EUT cable configuration and arrangement and mode of operation that had produced the emission with the highest amplitude relative to the limit was selected for the final measurement.
4. The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment is the system) was then performed over the frequency range of 0.15 MHz to 30 MHz.
5. The measurements were made with the detector set to peak amplitude within a bandwidth of 10 kHz or to quasi-peak and average within a bandwidth of 9 kHz. The EUT was in transmitting mode during the measurements.

**Test results**

**Worst case: 802.11a MIMO / UNII-1\_5 240 MHz**



Final Result

--- N_A Phase ---										
No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.16629	23.0	5.6	10.2	33.2	15.8	65.1	55.1	31.9	39.3
2	0.17995	28.0	8.8	10.2	38.2	19.0	64.5	54.5	26.3	35.5
3	0.23759	26.0	7.0	9.8	35.8	16.8	62.2	52.2	26.4	35.4
4	0.35021	22.9	4.8	9.9	32.8	14.7	59.0	49.0	26.2	34.3
5	0.50864	14.4	1.0	10.0	24.4	11.0	56.0	46.0	31.6	35.0
6	2.25162	15.1	2.2	9.8	24.9	12.0	56.0	46.0	31.1	34.0

--- L1_A Phase ---										
No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]
1	0.23841	25.6	11.1	9.8	35.4	20.9	62.2	52.2	26.8	31.3
2	0.7067	29.5	21.0	9.9	39.4	30.9	56.0	46.0	16.6	15.1
3	1.28893	19.9	11.6	9.8	29.7	21.4	56.0	46.0	26.3	24.6
4	4.27872	20.2	12.8	9.9	30.1	22.7	56.0	46.0	25.9	23.3
5	8.25304	18.3	9.9	10.1	28.4	20.0	60.0	50.0	31.6	30.0
6	12.3716	26.2	16.6	10.4	36.6	27.0	60.0	50.0	23.4	23.0

## 8. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Spectrum Analyzer	R&S	FSV30	100810	23.07.12
DC Power Supply	AGILENT	E3632A	KR75304571	23.05.02
Attenuator	API Inmet	40AH2W-10	11	23.05.03
Vector Signal Generator	R&S	SMBV100A	257566	23.07.04
Signal Generator	R&S	SMB100A	176206	23.01.19
Spectrum Analyzer	R&S	FSV40	100989	23.10.14
EMI Test Receiver	R&S	ESC17	100732	23.01.19
Bi-Log Antenna	TESEQ	CBL 6112D	62438	24.08.24
Amplifier	SONOMA INSTRUMENT	310N	284608	23.08.18
Attenuator	KEYSIGHT	8491B-6dB	MY39271060	24.04.27
ISOLATION TRANSFORMER	ONETECH CO., LTD	OT-IT500VA	OTR1-16026	23.03.28
Horn antenna	ETS.lindgren	3117	155787	23.09.29
Horn antenna	ETS.lindgren	3116	00086635	23.05.04
Attenuator	API Inmet	40AH2W-10	12	23.05.03
Amplifier	B&Z Technologies	BZRT-00504000-481055-382525	26299-27735	23.09.19
Amplifier	B&Z Technologies	BZR-0050400-551028-252525	27736	23.09.19
Loop Antenna	R&S	HFH2-Z2	100355	24.08.10
Antenna Mast	Innco Systems	MA4640-XP-ET	-	-
Turn Table	Innco Systems	CO3000	1175/45850319/P	-
Antenna Mast	Innco Systems	MA4000-EP	303	-
Turn Table	Innco Systems	CO3000	1175/45850319/P	-
High Pass Filter	WT	WT-A1699-HS	WT160411002	23.05.03
TWO-LINE V - NETWORK	R&S	ENV216	101358	23.09.29
EMI Test Receiver	R&S	ESC13	100001	23.08.18

**End of test report**