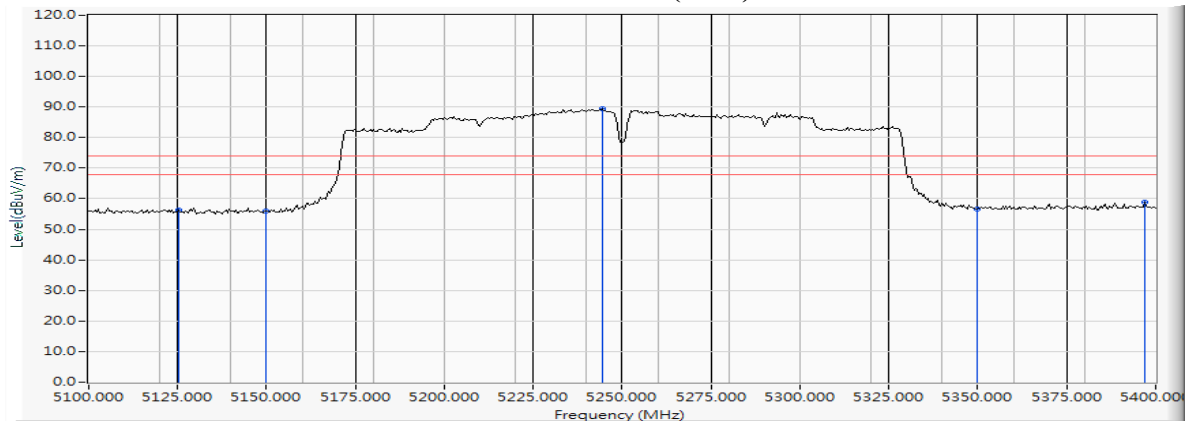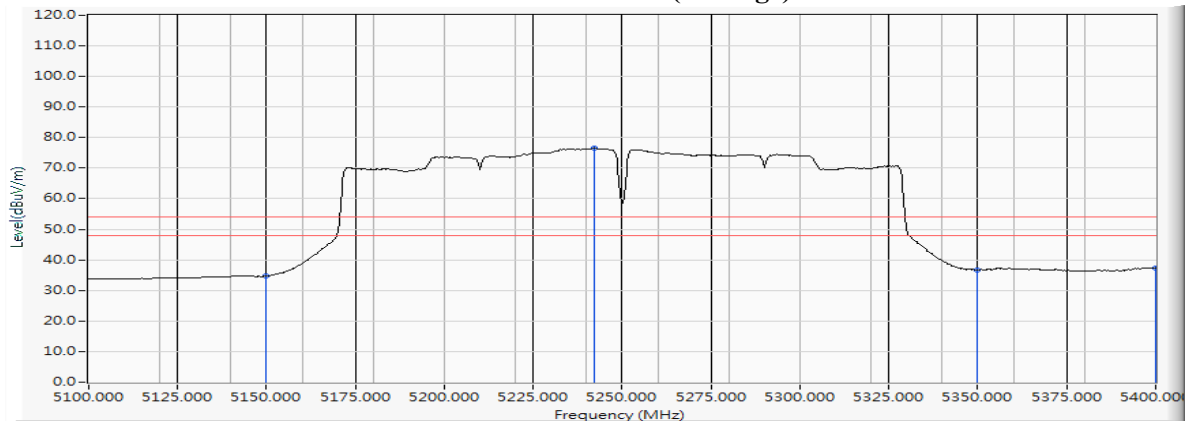Product : Intel® Wireless-AC 9560

Test Item : Band Edge Data

Test Date : 2018/12/27

Test Mode : Mode 3 MIMO: Transmit (802.11ac-160BW_130Mbps) -Channel 50 (5250MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
50 (Peak)	5125.217	15.185	41.089	56.275	74.00	54.00	Pass
50 (Peak)	5150.000	15.307	40.618	55.925	74.00	54.00	Pass
50 (Peak)	5244.348	15.649	73.718	89.367	--	--	--
50 (Peak)	5350.000	15.912	40.790	56.702	74.00	54.00	Pass
50 (Peak)	5396.957	16.025	42.707	58.732	74.00	54.00	Pass
50 (Average)	5150.000	15.307	19.437	34.744	74.00	54.00	Pass
50 (Average)	5242.200	15.640	60.970	76.610	--	--	--
50 (Average)	5350.000	15.912	20.835	36.747	74.00	54.00	Pass
50 (Average)	5400.000	16.028	21.324	37.352	74.00	54.00	Pass

Figure Channel 50:   **Horizontal (Peak)**

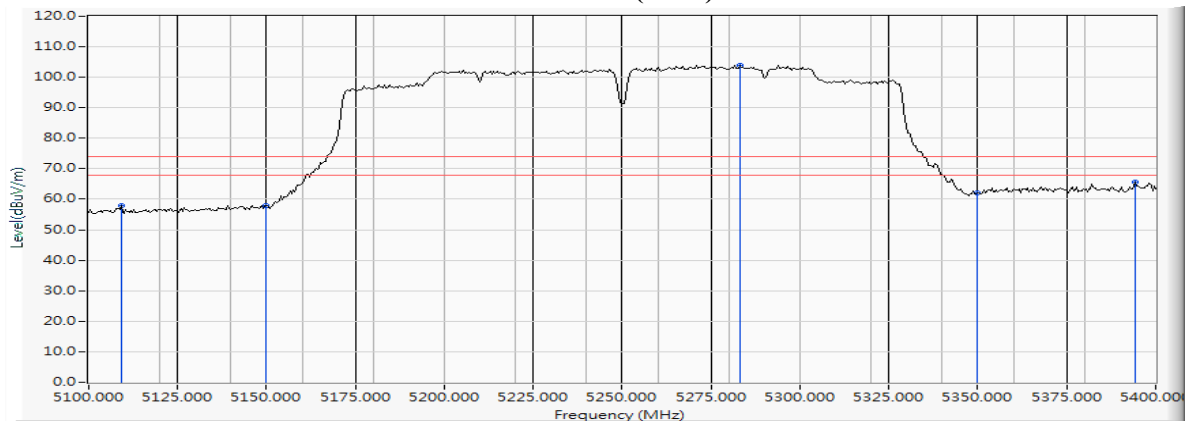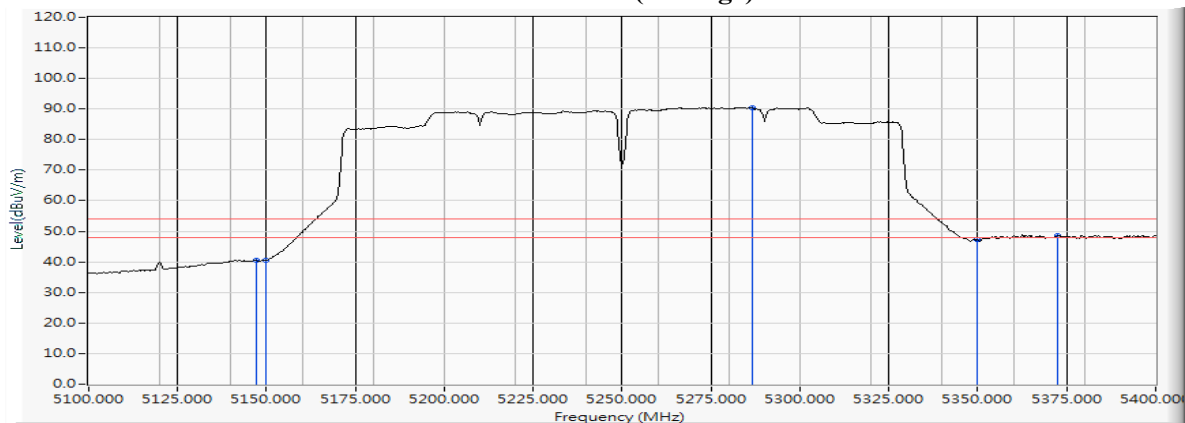**Figure Channel 50:**   **Horizontal (Average)**

Note:
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9560

Test Item : Band Edge Data

Test Date : 2018/12/27

Test Mode : Mode 3 MIMO: Transmit (802.11ac-160BW_130Mbps) -Channel 50 (5250MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
50 (Peak)	5109.130	15.123	42.907	58.030	74.00	54.00	Pass
50 (Peak)	5150.000	15.307	42.717	58.024	74.00	54.00	Pass
50 (Peak)	5283.043	15.753	88.231	103.985	--	--	--
50 (Peak)	5350.000	15.912	46.053	61.965	74.00	54.00	Pass
50 (Peak)	5394.348	16.023	49.640	65.663	74.00	54.00	Pass
50 (Average)	5147.100	15.291	25.213	40.503	74.00	54.00	Pass
50 (Average)	5150.000	15.307	25.171	40.478	74.00	54.00	Pass
50 (Average)	5286.600	15.763	74.727	90.490	--	--	--
50 (Average)	5350.000	15.912	31.407	47.319	74.00	54.00	Pass
50 (Average)	5372.400	15.979	32.624	48.604	74.00	54.00	Pass

Figure Channel 50:   **Vertical (Peak)**

Figure Channel 50:   **Vertical (Average)**
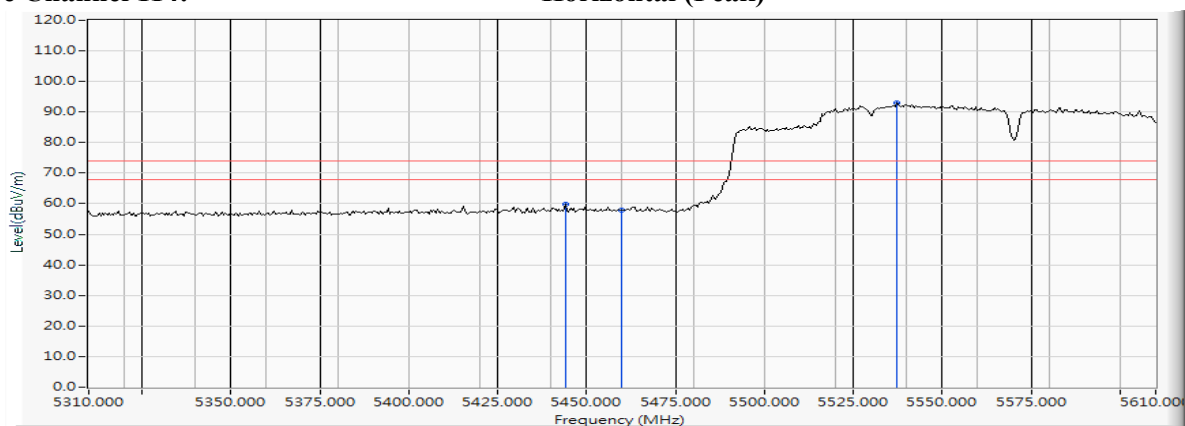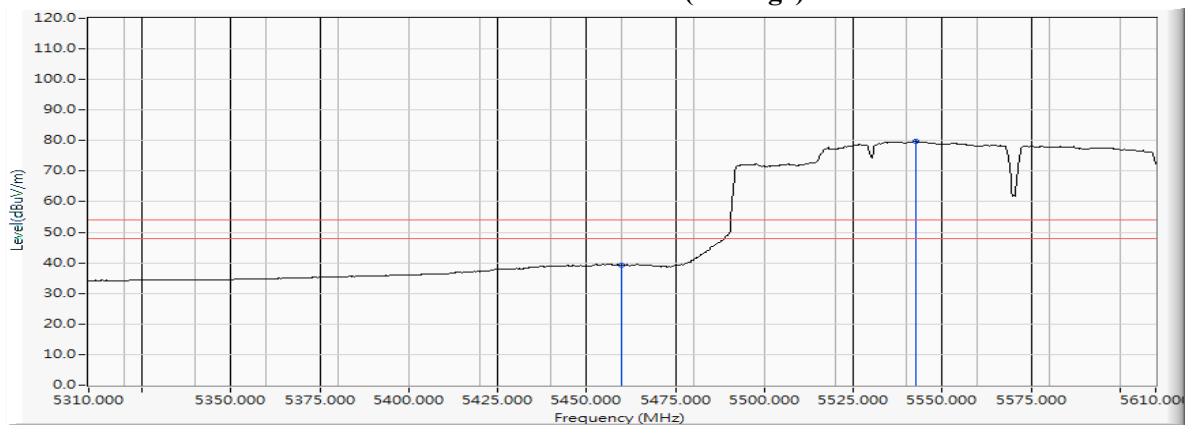

Note:
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection

Product   :   Intel® Wireless-AC 9560

Test Item   :   Band Edge Data

Test Date   :   2018/12/27

Test Mode   :   Mode 3 MIMO: Transmit (802.11ac-160BW_130Mbps) -Channel 114 (5570MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
114 (Peak)	5443.913	16.137	43.591	59.728	74.00	54.00	Pass
114 (Peak)	5460.000	16.185	41.673	57.858	74.00	54.00	Pass
114 (Peak)	5537.391	16.316	76.682	92.998	--	--	--
114 (Average)	5460.000	16.185	23.013	39.198	74.00	54.00	Pass
114 (Average)	5542.500	16.320	63.419	79.739	--	--	--

Figure Channel 114:   **Horizontal (Peak)**

Figure Channel 114:   **Horizontal (Average)**
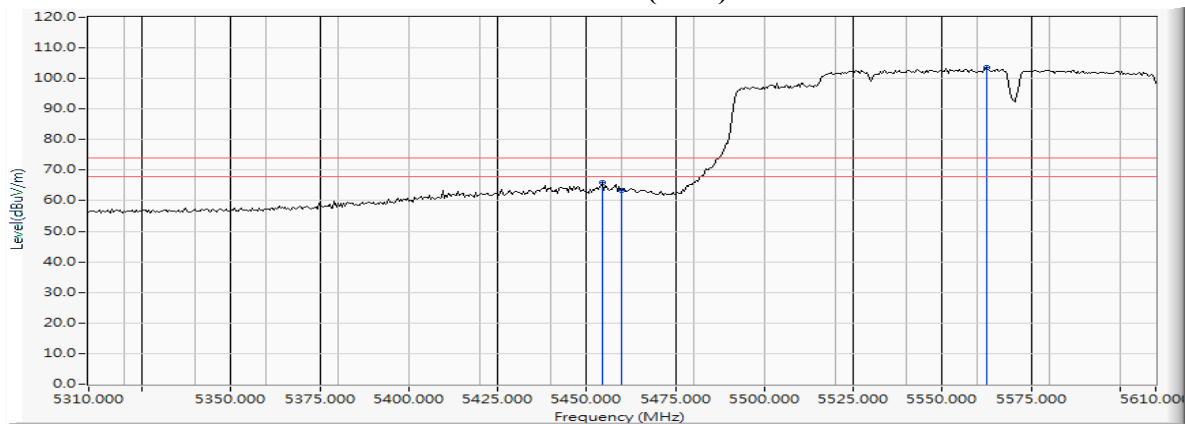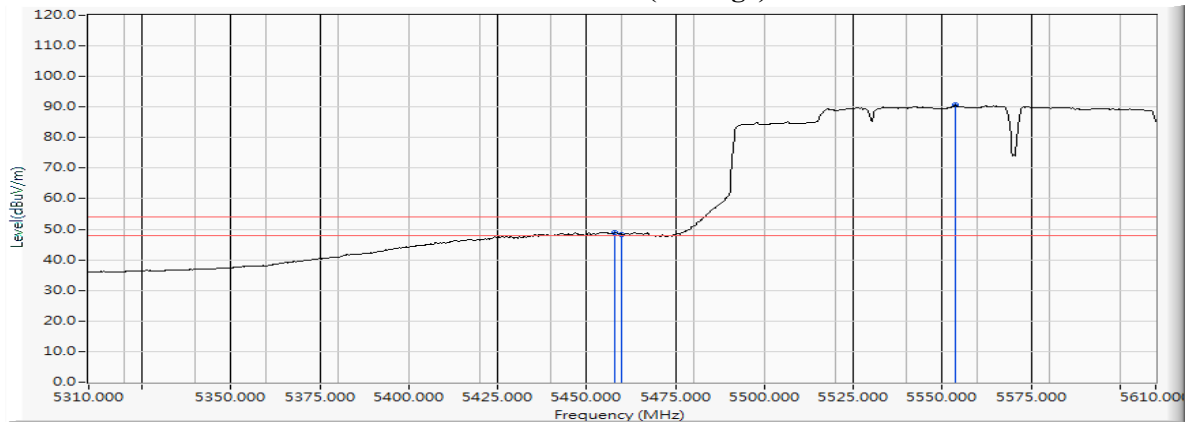

Note:
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Intel® Wireless-AC 9560

Test Item : Band Edge Data

Test Date : 2018/12/27

Test Mode : Mode 3 MIMO: Transmit (802.11ac-160BW_130Mbps) -Channel 114 (5570MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
114 (Peak)	5454.348	16.172	49.644	65.816	74.00	54.00	Pass
114 (Peak)	5460.000	16.185	47.339	63.524	74.00	54.00	Pass
114 (Peak)	5562.609	16.325	87.114	103.439	--	--	--
114 (Average)	5457.900	16.182	32.677	48.859	74.00	54.00	Pass
114 (Average)	5460.000	16.185	32.183	48.368	74.00	54.00	Pass
114 (Average)	5553.600	16.325	74.279	90.604	--	--	--

Figure Channel 114:   **Vertical (Peak)**

Figure Channel 114:   **Vertical (Average)**

Note:
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection
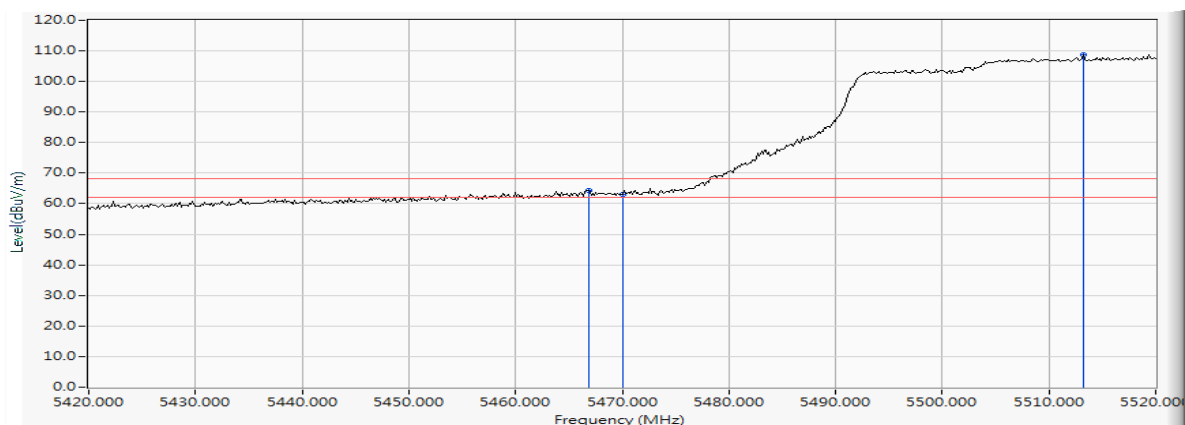
Product : Intel® Wireless-AC 9560
Test Item : Band Edge Data
Test Date : 2018/12/27
Test Mode : Mode 3 MIMO: Transmit (802.11ac-80BW_65Mbps) -Channel 106 (5530MHz)

RF Radiated Measurement:

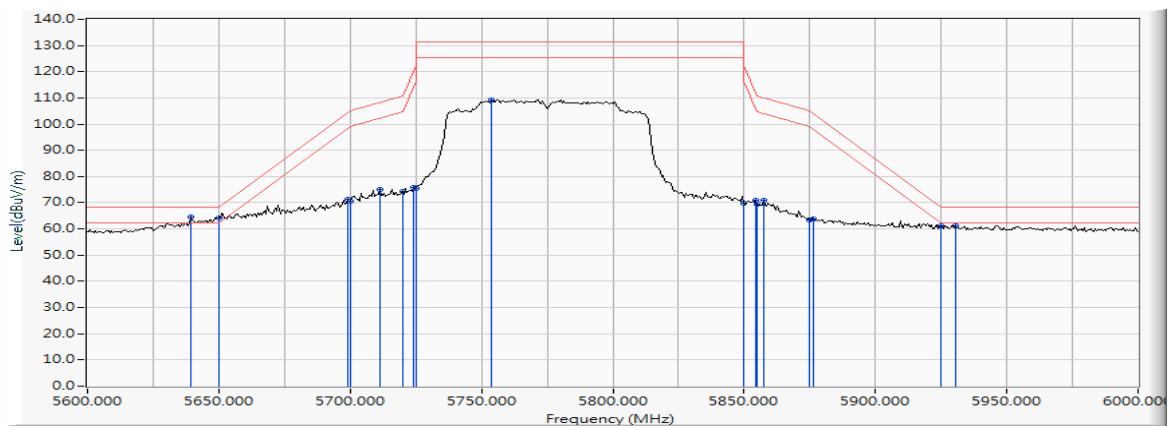|	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV /m)	Result
Horizontal	5454.203	16.171	43.063	59.234	-8.986	68.220	Pass
Horizontal	5470.000	16.200	41.357	57.557	-10.663	68.220	Pass
Horizontal	5519.565	16.291	78.960	95.251	--	--	--
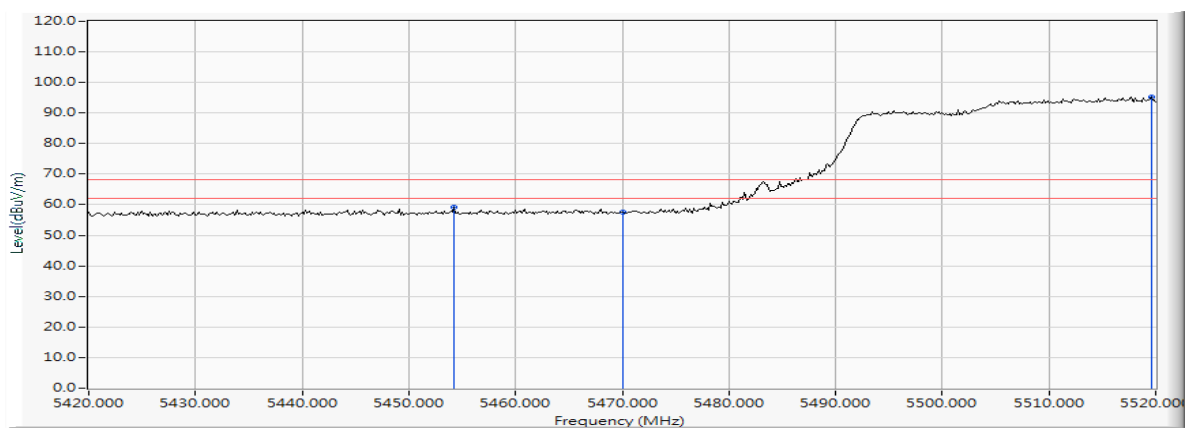
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5466.812	16.195	48.207	64.402	-3.818	68.220	Pass
Vertical	5470.000	16.200	46.792	62.992	-5.228	68.220	Pass
Vertical	5513.188	16.280	92.459	108.739	--	--	--

Product : Intel® Wireless-AC 9560

Test Item : Band Edge Data

Test Date : 2018/12/27

Test Mode : Mode 3 MIMO: Transmit (802.11ac-80BW_65Mbps) -Channel 155 (5775MHz)
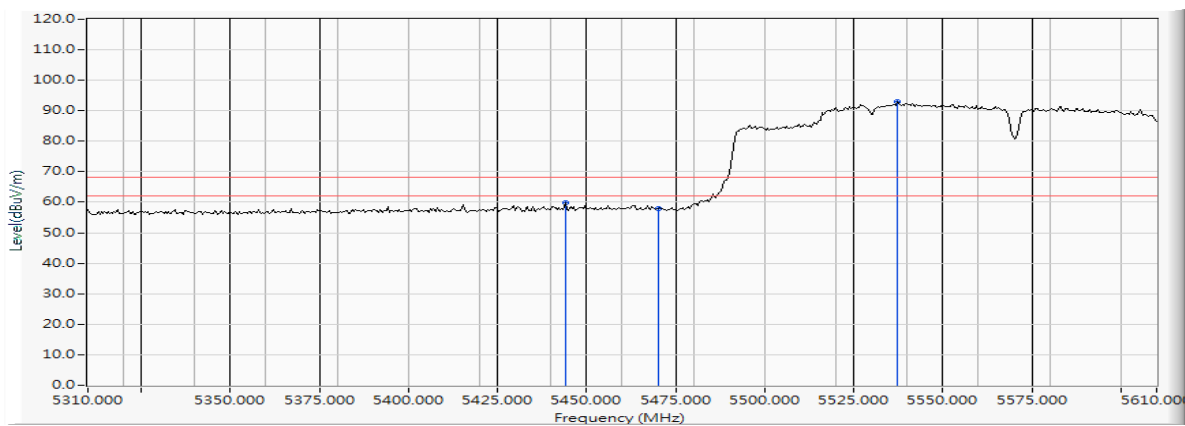
RF Radiated Measurement:

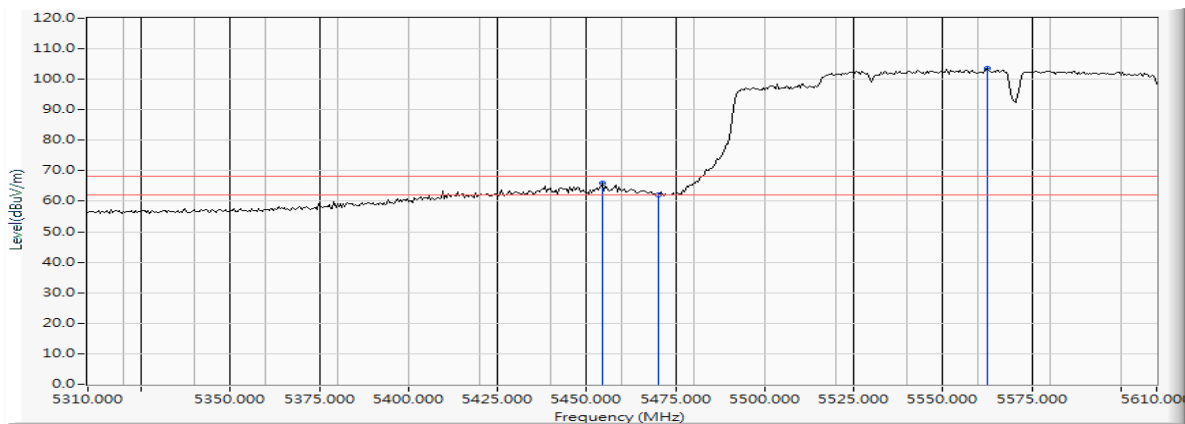|	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV /m)	Result
Horizontal	5639.420	16.418	42.685	59.103	-9.117	68.220	Pass
Horizontal	5650.000	16.447	41.575	58.022	-10.198	68.220	Pass
Horizontal	5697.391	16.499	47.704	64.202	-39.068	103.270	Pass
Horizontal	5700.000	16.502	46.782	63.284	-41.916	105.200	Pass
Horizontal	5718.261	16.532	49.601	66.133	-44.180	110.313	Pass
Horizontal	5720.000	16.535	49.524	66.059	-44.741	110.800	Pass
Horizontal	5723.478	16.541	49.841	66.382	-52.348	118.730	Pass
Horizontal	5725.000	16.544	49.761	66.305	-55.895	122.200	Pass
Horizontal	5757.101	16.579	82.397	98.976	--	--	--
Horizontal	5850.000	16.748	44.623	61.371	-60.829	122.200	Pass
Horizontal	5853.913	16.755	46.060	62.816	-50.462	113.278	Pass
Horizontal	5855.000	16.758	45.496	62.254	-48.546	110.800	Pass
Horizontal	5856.232	16.761	45.762	62.523	-47.932	110.455	Pass
Horizontal	5875.000	16.807	43.281	60.089	-45.111	105.200	Pass
Horizontal	5918.841	16.904	43.778	60.682	-12.076	72.758	Pass
Horizontal	5925.000	16.920	41.834	58.754	-9.446	68.200	Pass
Horizontal	5931.594	16.926	42.953	59.880	-8.320	68.200	Pass
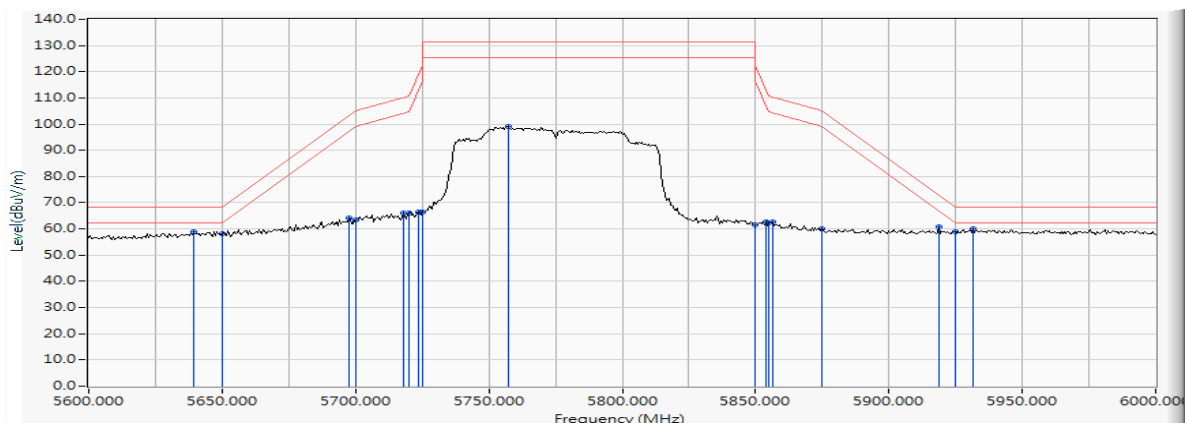
Product : Intel® Wireless-AC 9560

Test Item : Band Edge Data

Test Date : 2018/12/27

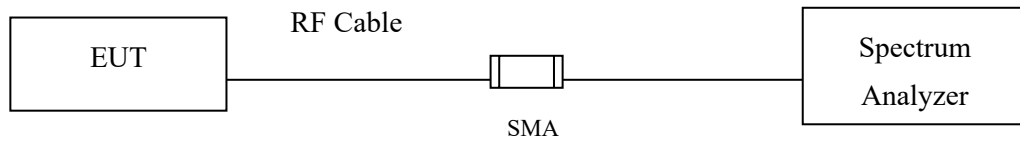Test Mode : Mode 3 MIMO: Transmit (802.11ac-80BW_65Mbps) -Channel 155 (5775MHz)

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV /m)	Result
Vertical	5639.420	16.418	48.093	64.511	-3.709	68.220	Pass
Vertical	5650.000	16.447	47.584	64.031	-4.189	68.220	Pass
Vertical	5699.130	16.500	54.718	71.219	-33.338	104.557	Pass
Vertical	5700.000	16.502	54.096	70.598	-34.602	105.200	Pass
Vertical	5711.304	16.518	58.713	75.231	-33.134	108.365	Pass
Vertical	5720.000	16.535	57.706	74.241	-36.559	110.800	Pass
Vertical	5724.058	16.543	59.268	75.810	-44.242	120.052	Pass
Vertical	5725.000	16.544	58.999	75.543	-46.657	122.200	Pass
Vertical	5753.623	16.573	92.716	109.290	--	--	--
Vertical	5850.000	16.748	53.213	69.961	-52.239	122.200	Pass
Vertical	5854.493	16.757	54.137	70.894	-41.062	111.956	Pass
Vertical	5855.000	16.758	52.644	69.402	-41.398	110.800	Pass
Vertical	5857.391	16.764	54.027	70.791	-39.340	110.131	Pass
Vertical	5875.000	16.807	46.468	63.276	-41.924	105.200	Pass
Vertical	5876.522	16.812	47.114	63.926	-40.148	104.074	Pass
Vertical	5925.000	16.920	44.154	61.074	-7.126	68.200	Pass
Vertical	5930.435	16.926	44.395	61.320	-6.880	68.200	Pass

Product : Intel® Wireless-AC 9560
Test Item : Band Edge Data
Test Date : 2018/12/27
Test Mode : Mode 3 MIMO: Transmit (802.11ac-80BW_65Mbps) -Channel 114 (5570MHz)

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Horizontal	5443.913	16.137	43.591	59.728	-8.492	68.220	Pass
Horizontal	5470.000	16.200	41.653	57.853	-10.367	68.220	Pass
Horizontal	5537.391	16.316	76.682	92.998	--	--	--

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Measure Level (dBμV /m)	Margin (dB)	Limit (dBμV /m)	Result
Vertical	5454.348	16.172	49.644	65.816	-2.404	68.220	Pass
Vertical	5470.000	16.200	45.946	62.146	-6.074	68.220	Pass
Vertical	5562.609	16.325	87.114	103.439	--	--	--

5. Duty Cycle

5.1. Test Setup

```
┌──────────┐      RF Cable               ┌──────────┐
│          │                   ┌──┐      │ Spectrum │
│   EUT    │───────────────────┤  ├──────│          │
│          │                   └──┘      │ Analyzer │
└──────────┘                    SMA      └──────────┘
```

5.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to U-NII test procedure of KDB789033 for compliance to FCC 47CFR 15.407 requirements.

5.3. Uncertainty

$\pm$ 2.31msec

5.4. Test Result of Duty Cycle

Product	:	Intel® Wireless-AC 9560
Test Item	:	Duty Cycle
Test Mode	:	Transmit-SISO A

Duty Cycle Formula:

Duty Cycle = Ton / (Ton + Toff)

Duty Factor = 10 Log (1/Duty Cycle)

Results:

5GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11a	2.0600	2.0800	99.04	0.04
802.11n20	37.1000	37.1500	99.87	0.01
802.11n40	17.9600	18.0800	99.34	0.03
802.11ac20	49.6232	49.7232	99.80	0.01
802.11ac40	23.9250	24.0750	99.38	0.03
802.11ac80	11.0450	11.1250	99.28	0.03
802.11ac160	5.5650	5.5850	99.64	0.02

DEKRA
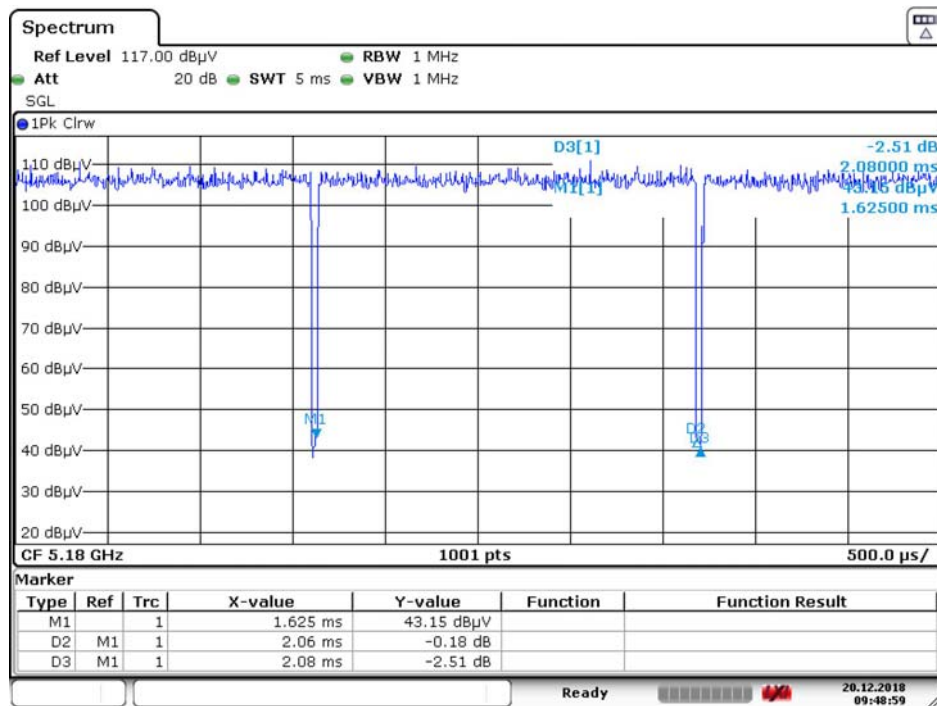
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Date: 20.DEC.2018 09:49:00

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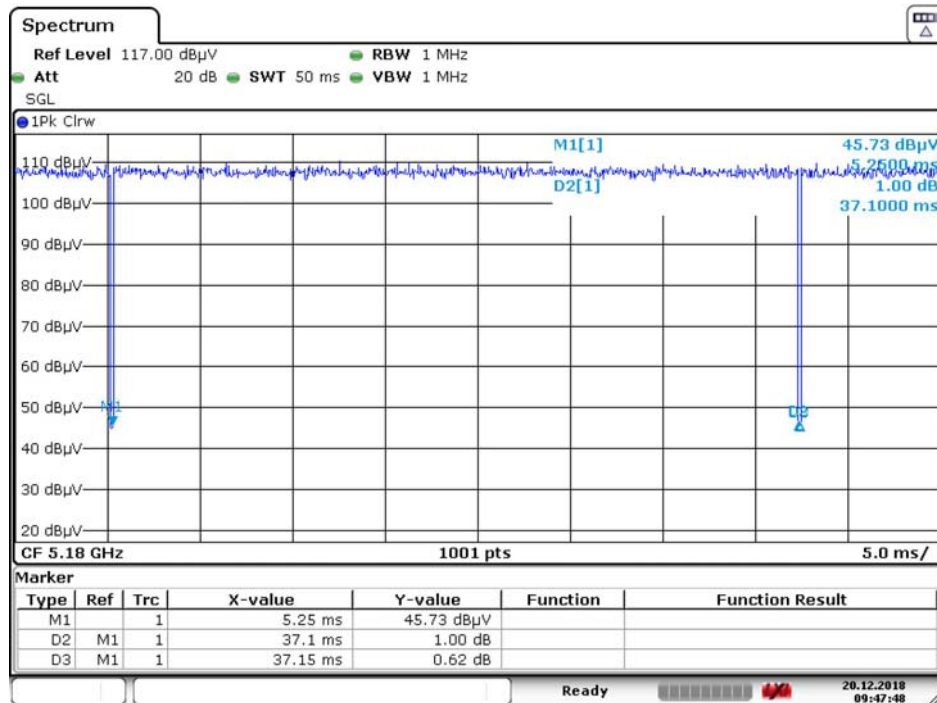
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802.11n40

Date: 20.DEC.2018 09:50:20

802.11ac20
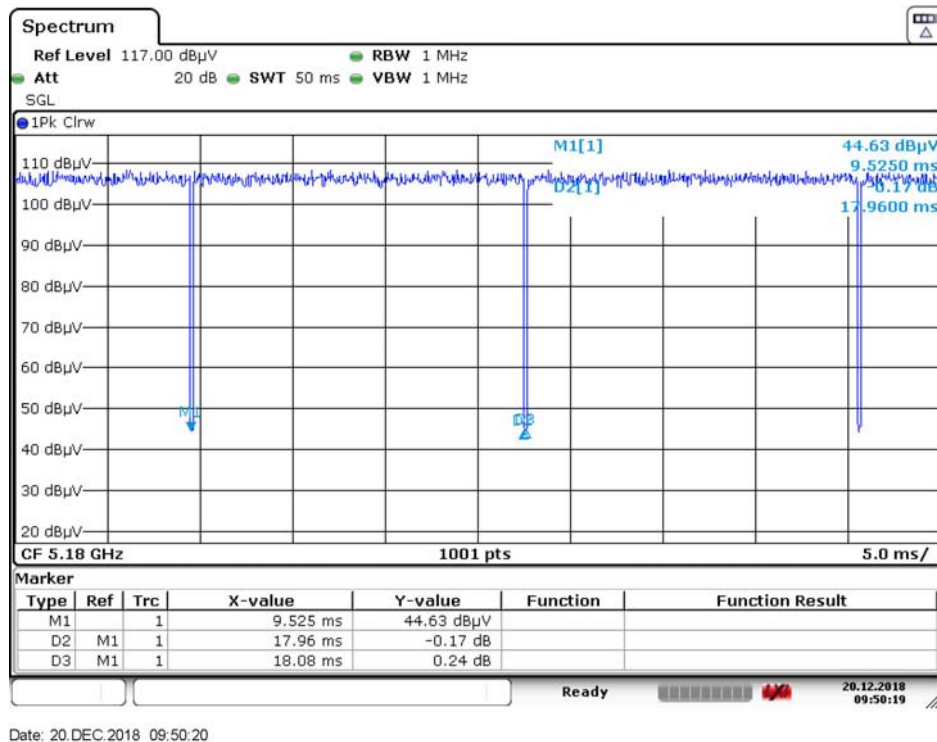
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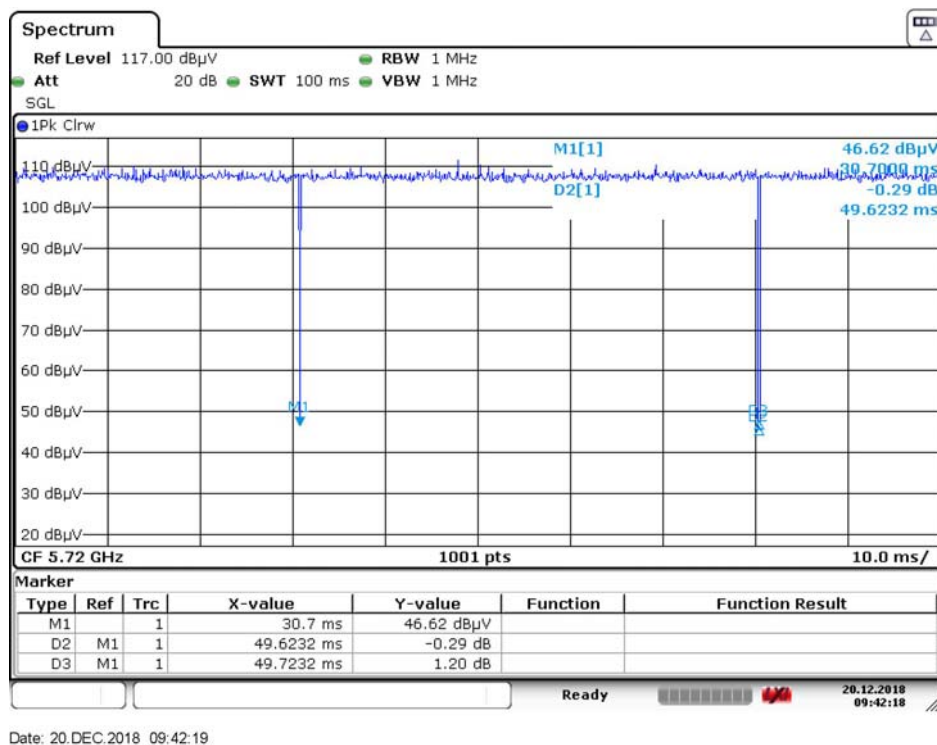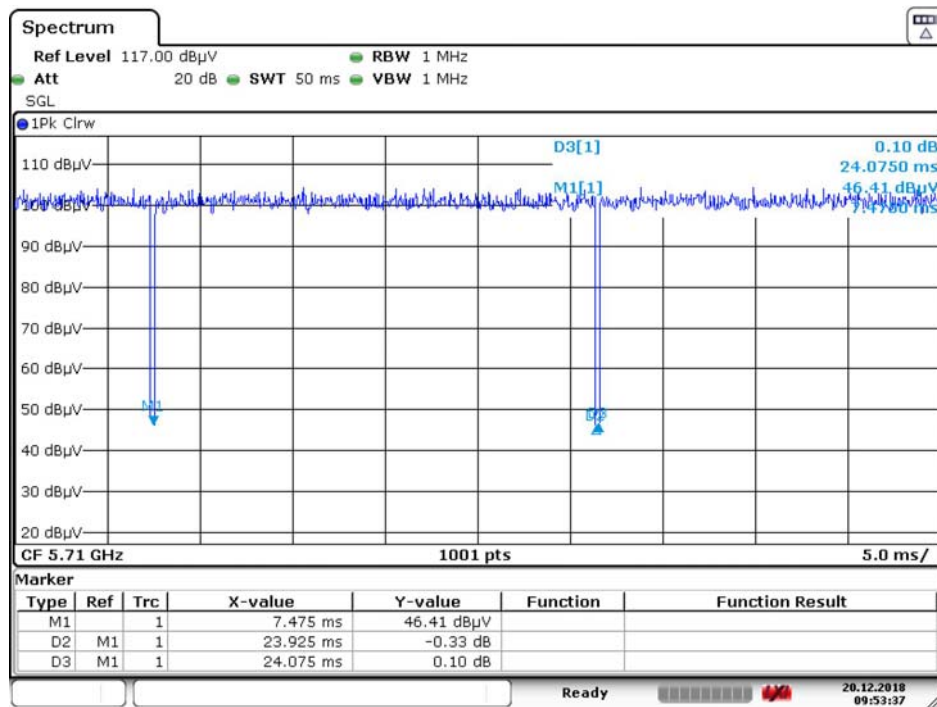
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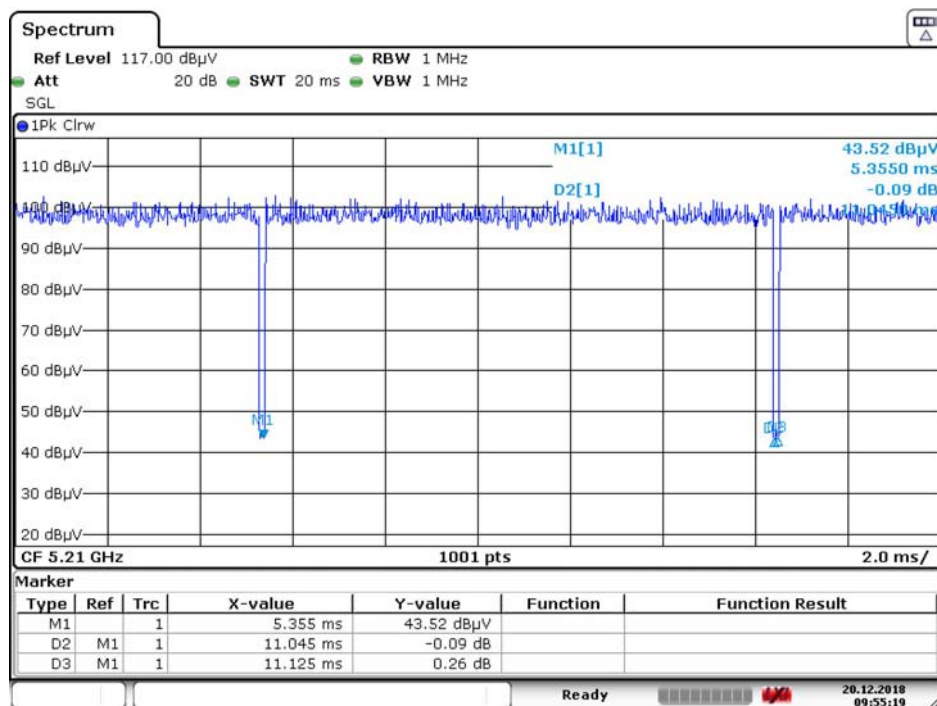
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DEKRA

802.11ac160
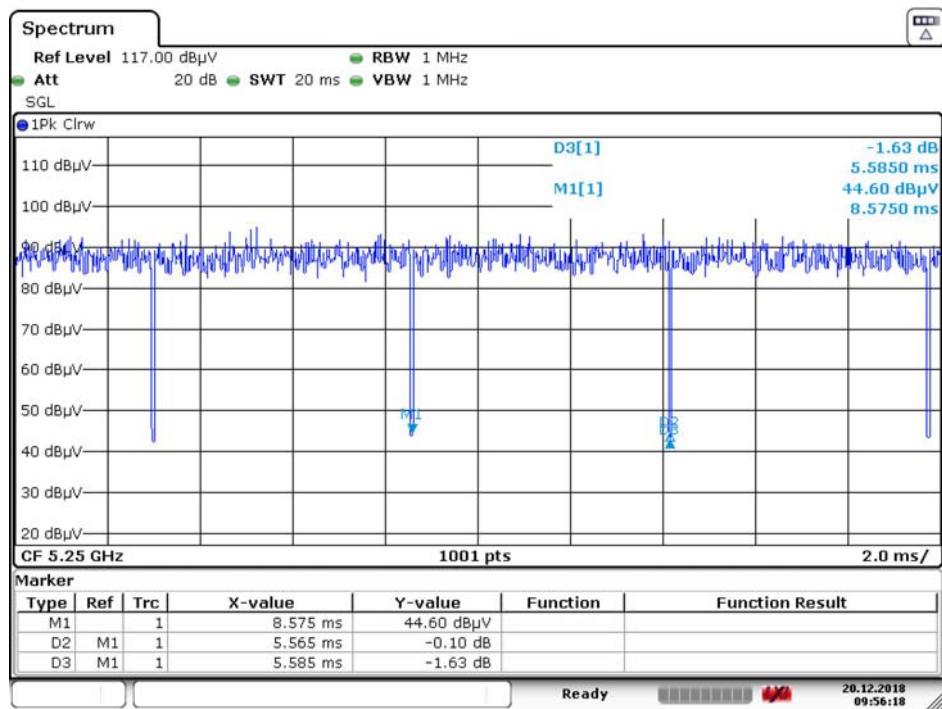
Date: 20.DEC.2018 09:56:18

Product : Intel® Wireless-AC 9560
Test Item : Duty Cycle
Test Mode : Transmit-SISO B

Duty Cycle Formula:

Duty Cycle = Ton / (Ton + Toff)

Duty Factor = 10 Log (1/Duty Cycle)

Results:

5GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11a	2.0800	2.0900	99.52	0.02
802.11n20	37.1300	37.1400	99.97	0.00
802.11n40	17.9400	18.0400	99.45	0.02
802.11ac20	49.5300	49.5400	99.98	0.00
802.11ac40	23.8900	24.0400	99.38	0.03
802.11ac80	11.0500	11.1300	99.28	0.03
802.11ac160	5.5700	5.5900	99.64	0.02

802.11a
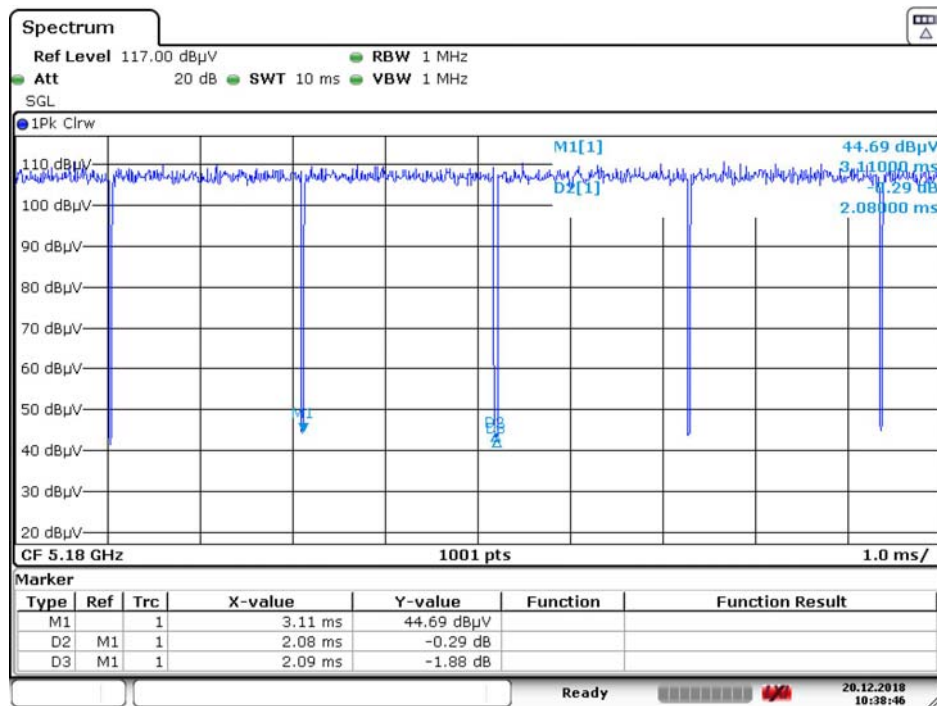
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802.11n20
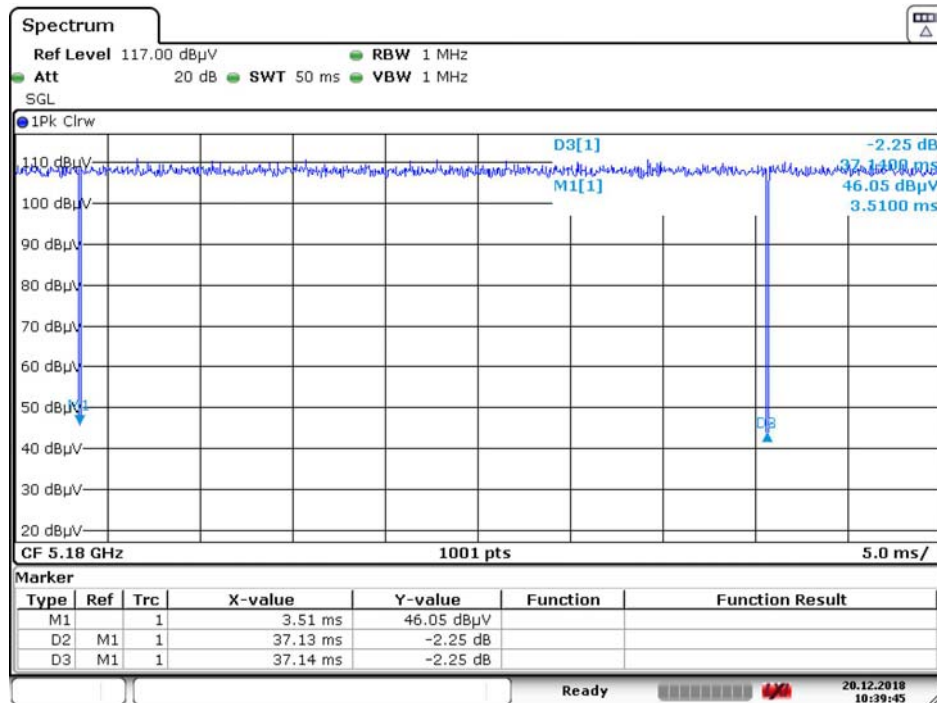
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DEKRA

802.11n40
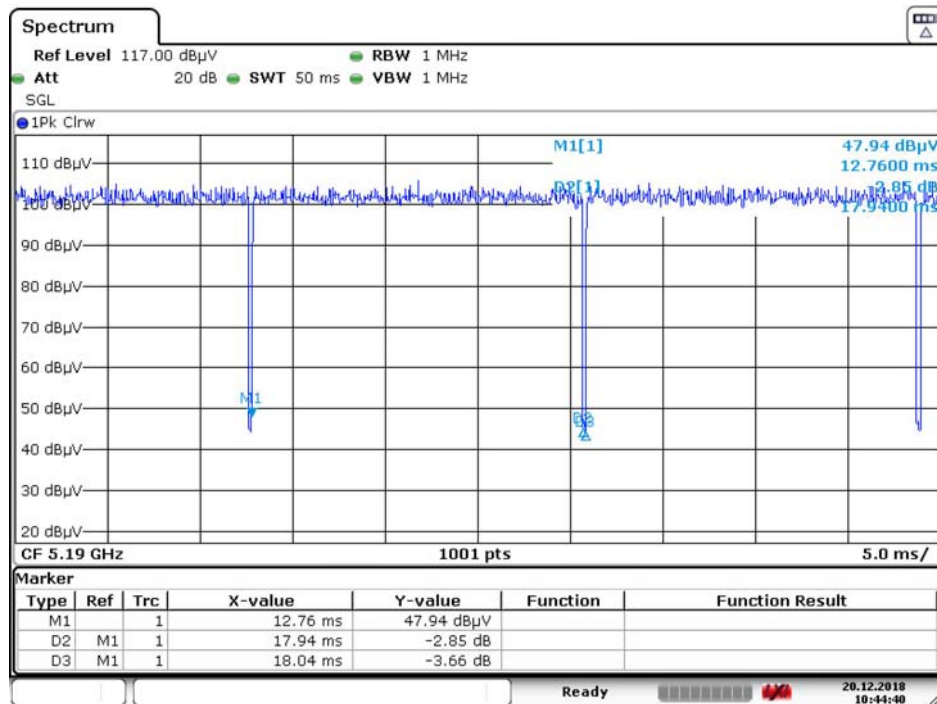
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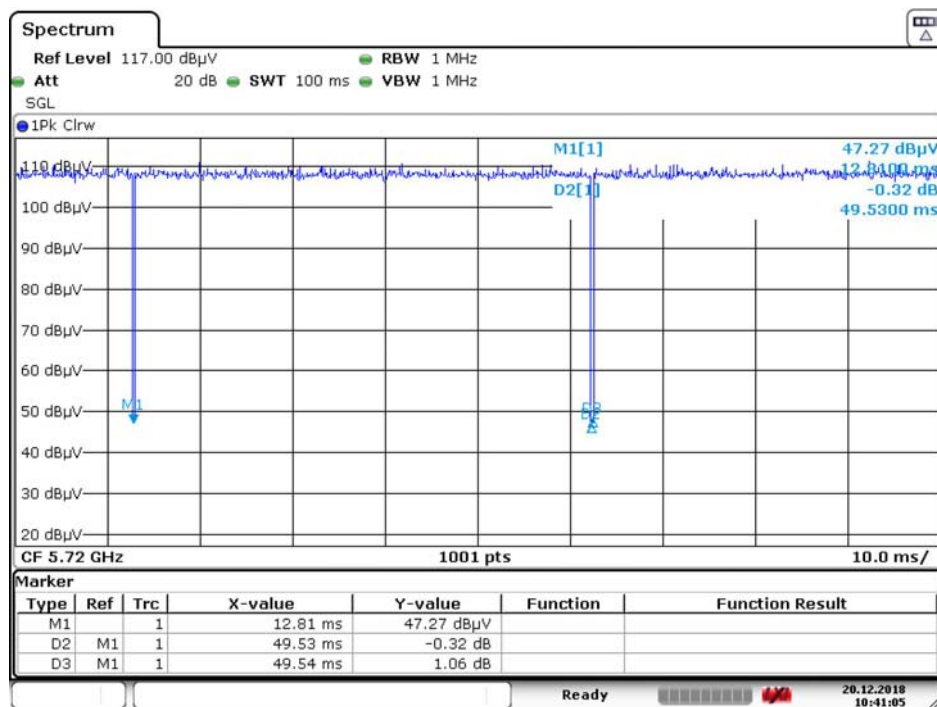
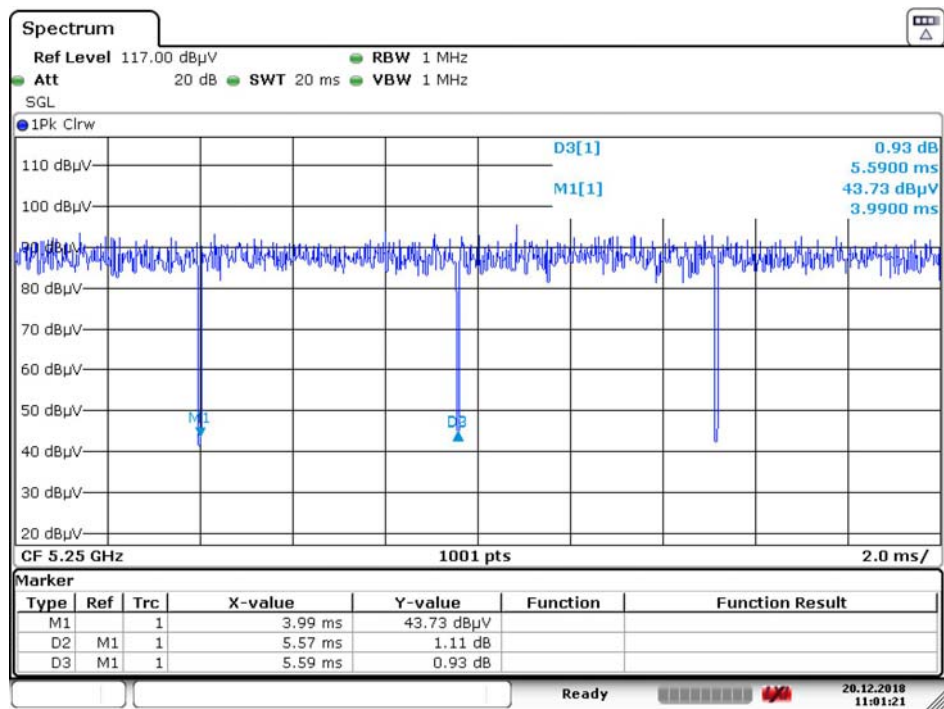Date: 20.DEC.2018 10:41:05

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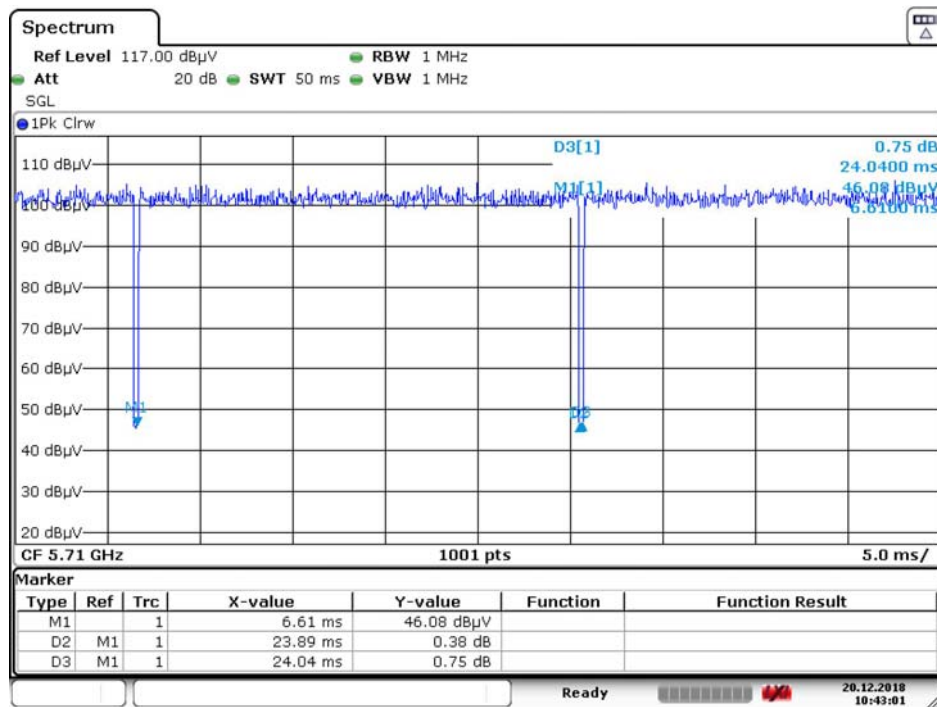
802.11ac40

Date: 20.DEC.2018 10:43:01

802.11ac80
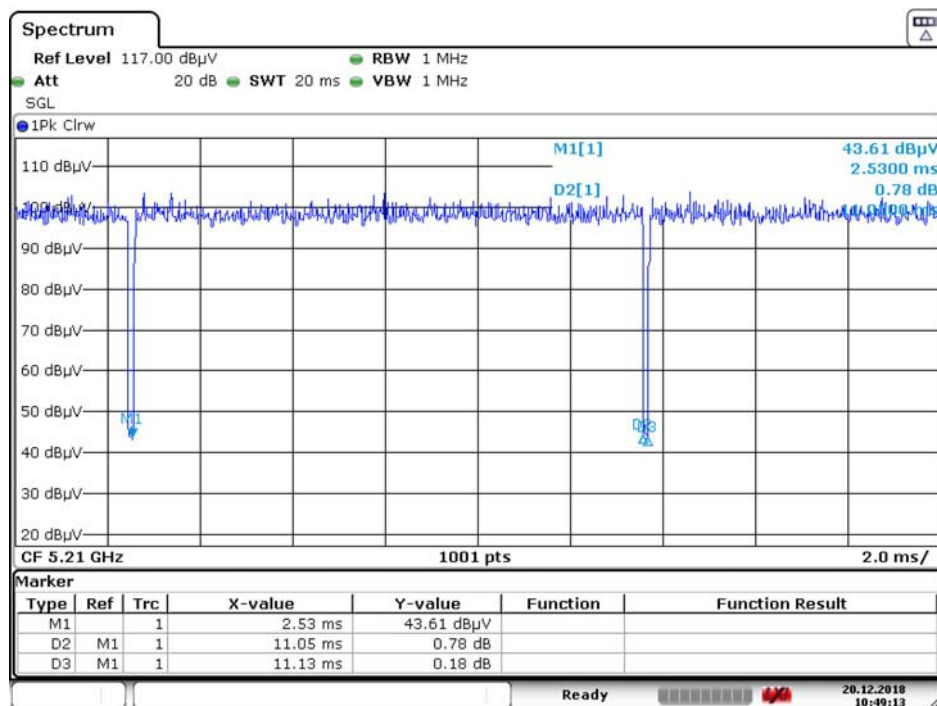
Date: 20.DEC.2018 10:49:14

802.11ac160

Date: 20.DEC.2018 11:01:21

Product : Intel® Wireless-AC 9560
Test Item : Duty Cycle
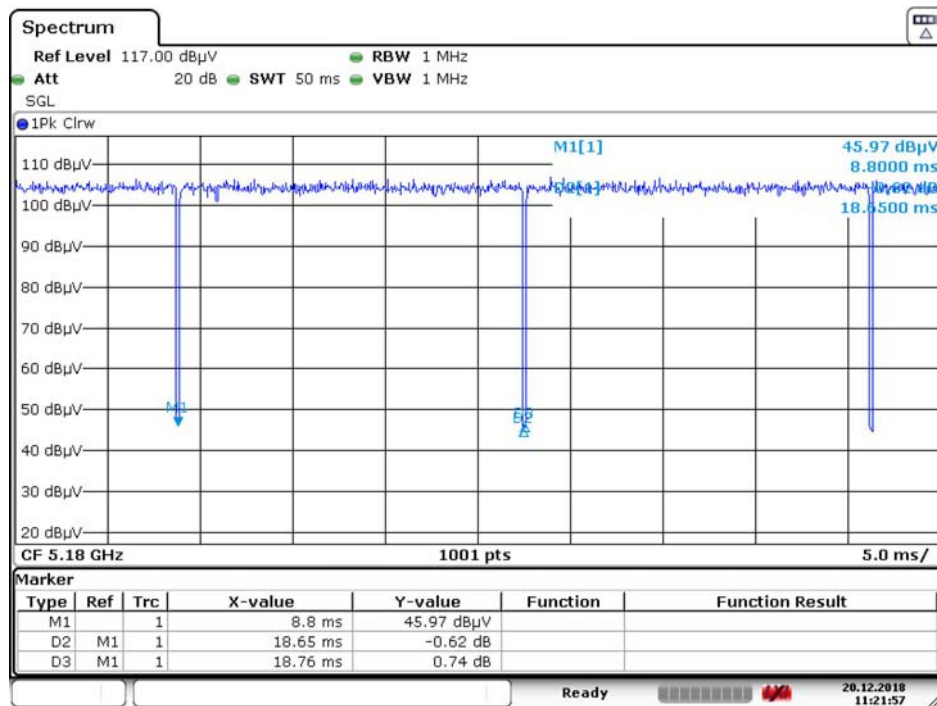Test Mode : Transmit-MIMO

Duty Cycle Formula:

Duty Cycle = Ton / (Ton + Toff)

Duty Factor = 10 Log (1/Duty Cycle)

Results:

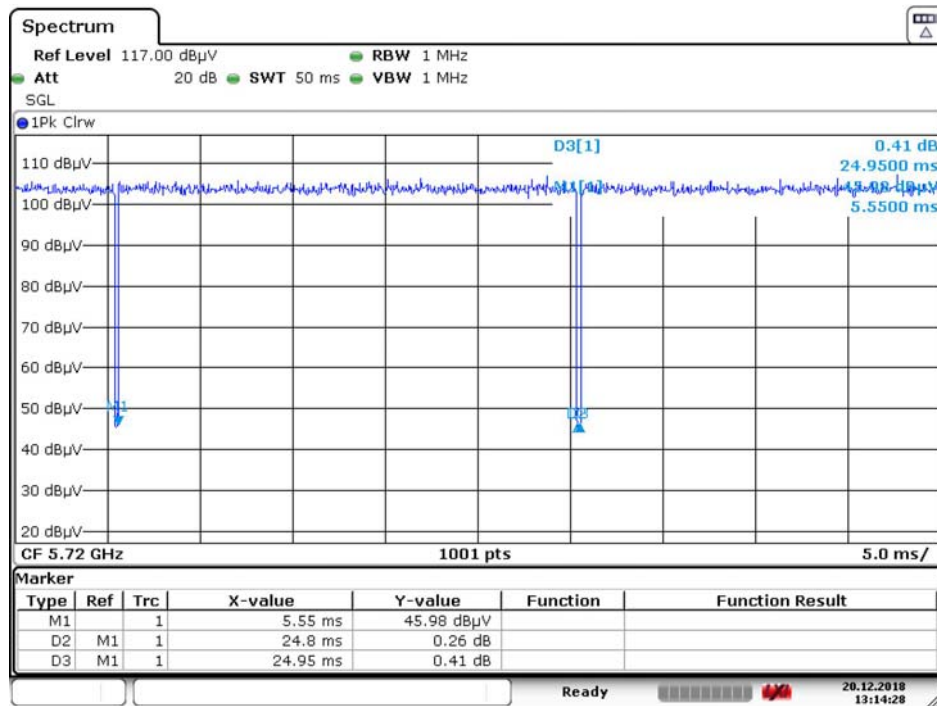| 5GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11n20	18.6500	18.7600	99.41	0.03
802.11n40	9.0000	9.0600	99.34	0.03
802.11ac20	24.8000	24.9500	99.40	0.03
802.11ac40	12.0000	12.0500	99.59	0.02
802.11ac80	5.5600	5.5800	99.64	0.02
802.11ac160	2.7950	2.8250	98.94	0.05

802.11n20

Date: 20.DEC.2018 11:21:58
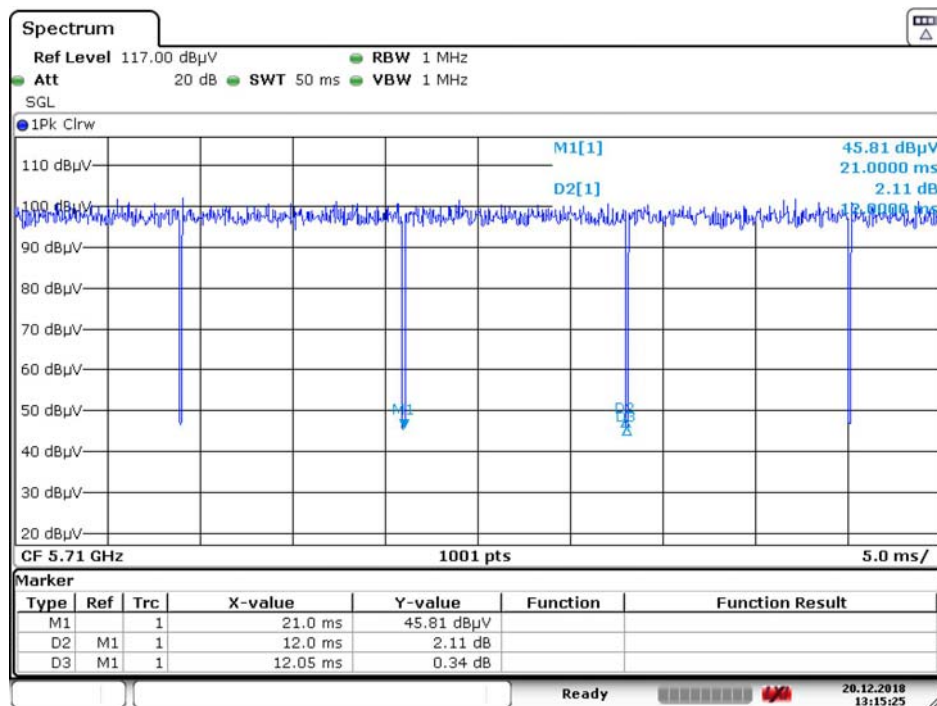
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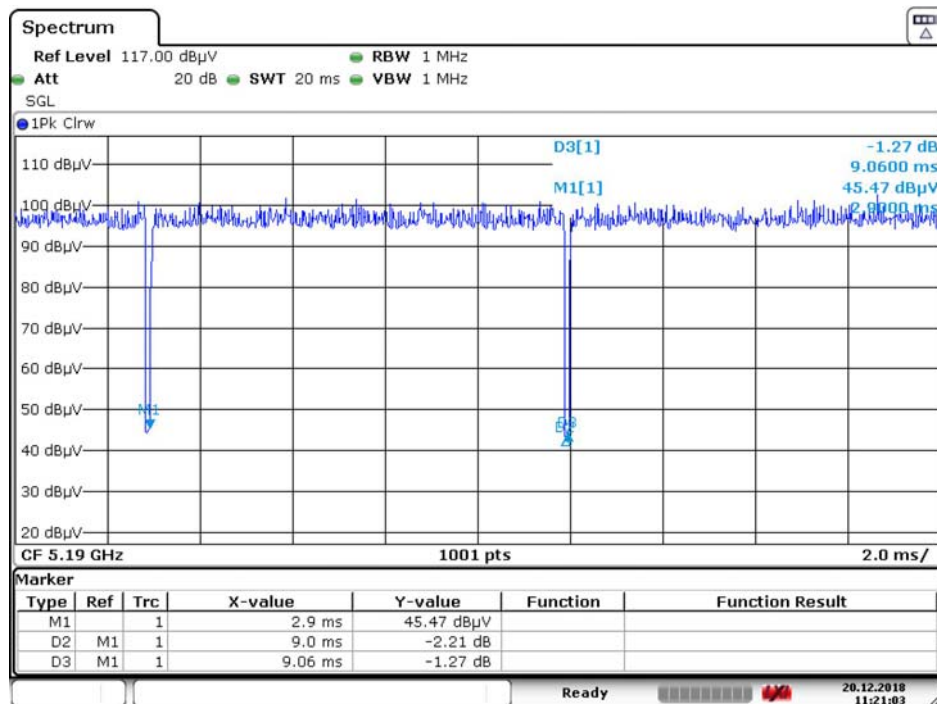
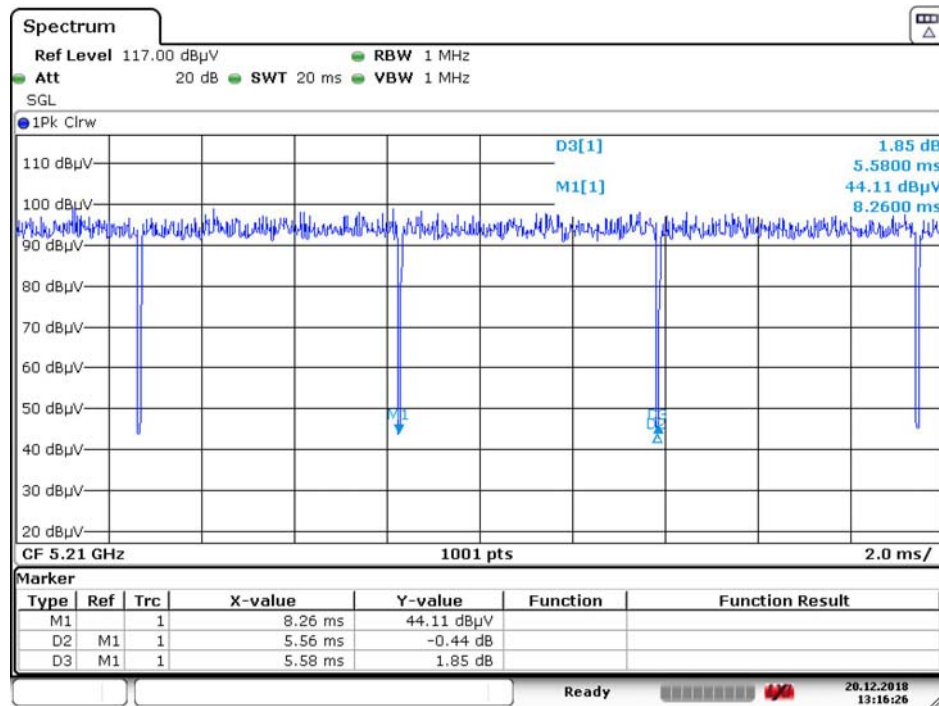Date: 20.DEC.2018 11:21:04

DEKRA

802.11ac20

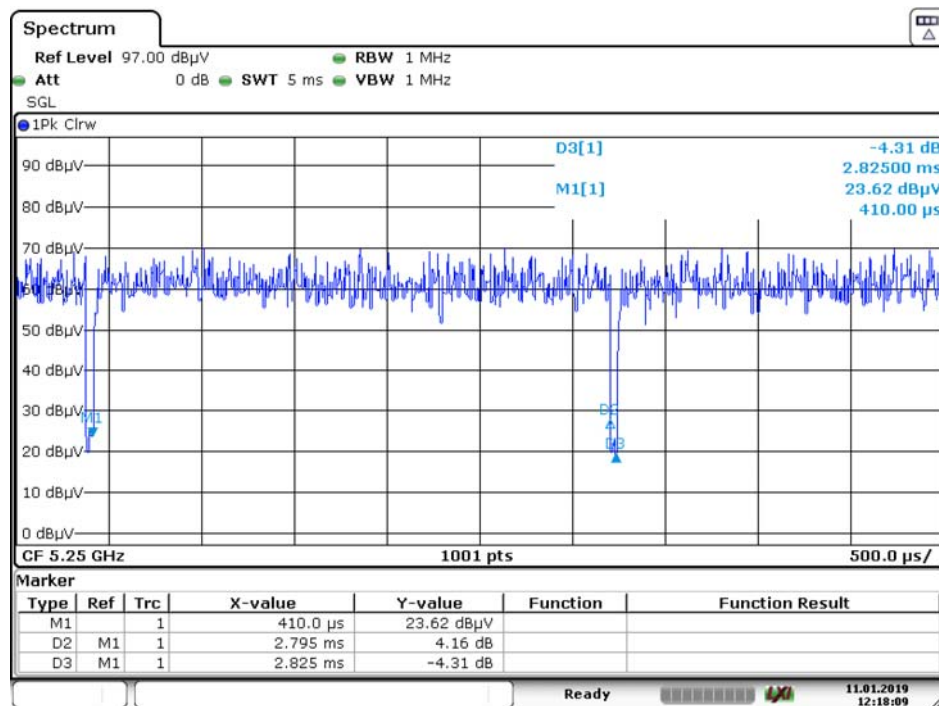Date: 20.DEC.2018 13:14:29

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DEKRA

802.11ac80

Date: 20.DEC.2018 13:16:26

802.11ac160

Date: 11.JAN.2019 12:18:09

6. EMI Reduction Method During Compliance Testing

No modification was made during testing.