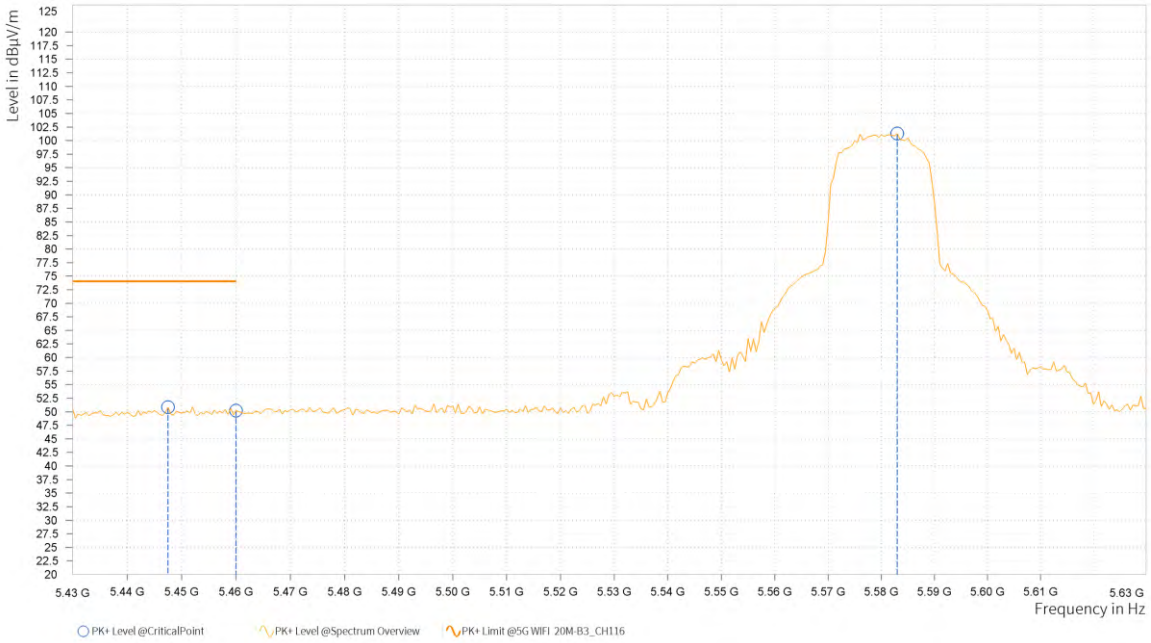
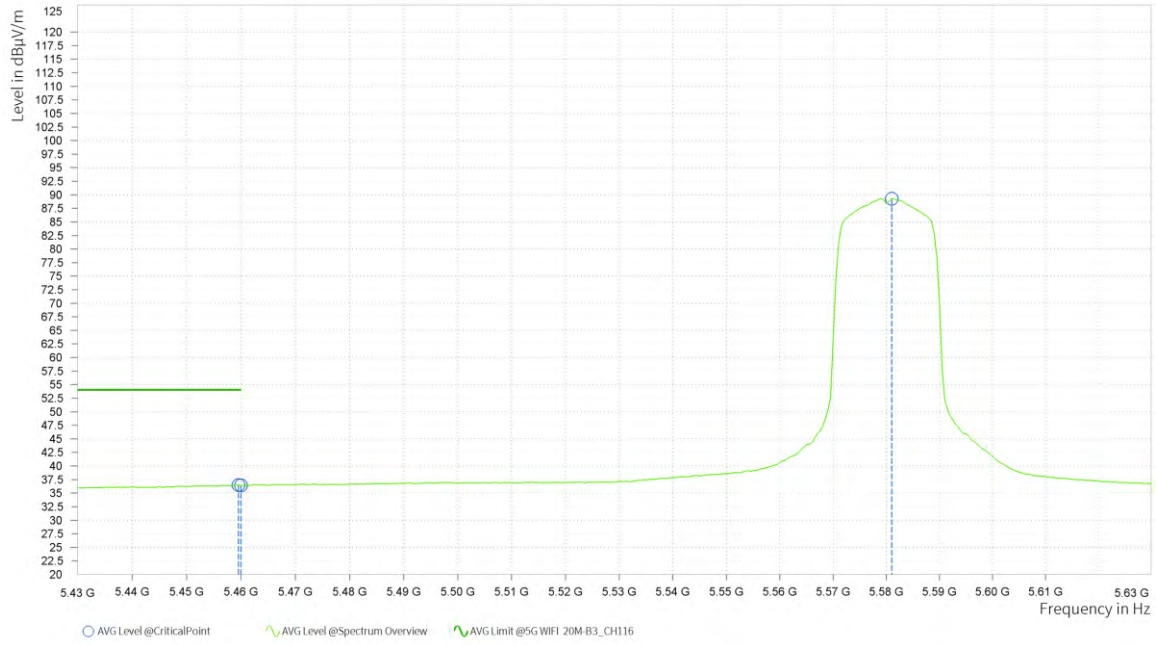
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
9	5,457.000	35.83	54.00	18.17	11.12	H	281.8	2.00
9	5,460.000	35.74	54.00	18.26	11.12	H	119.3	2.00
9	5,581.500	81.72			11.21	H	5	1.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
9	5,447.500	50.85	74.00	23.15	11.12	V	4.9	1.00
9	5,460.000	50.23	74.00	23.77	11.12	V	163	1.00
9	5,583.000	101.29			11.22	V	4.9	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
9	5,459.500	36.49	54.00	17.51	11.12	V	245.5	1.00
9	5,460.000	36.43	54.00	17.57	11.12	V	245.5	1.00
9	5,581.000	89.29			11.21	V	5	1.00



REMARKS:

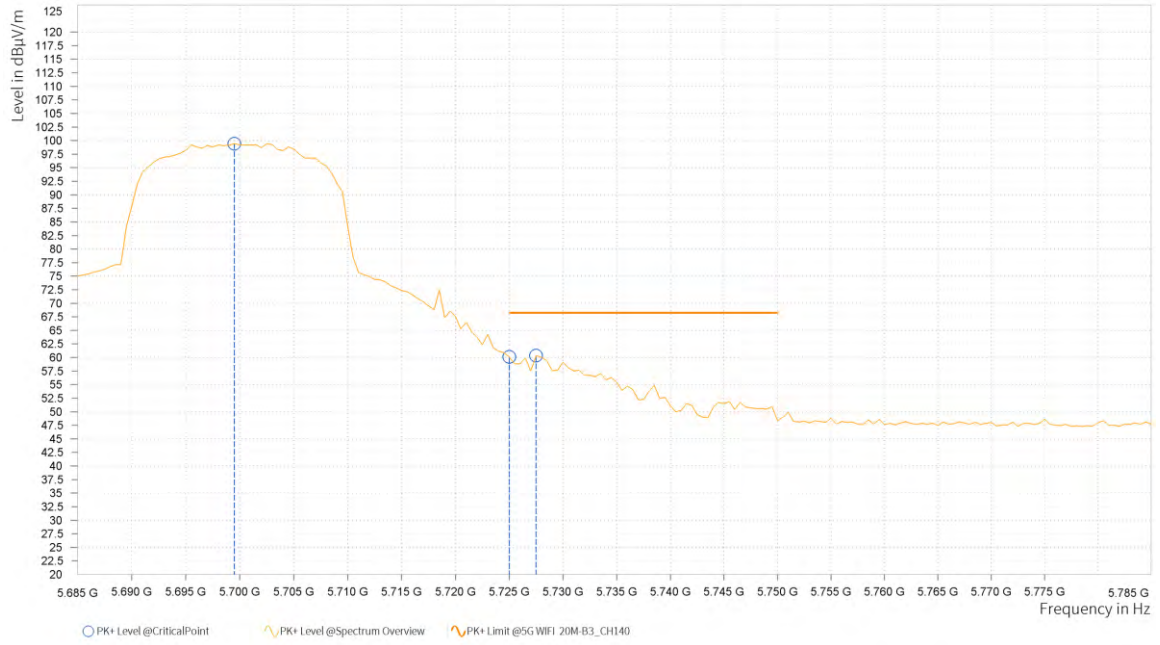
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5580MHz: Fundamental frequency.
4. #: Out of restricted band.

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
10	5,699.000	95.95			11.64	H	4.9	1.00
10	5,725.000	54.68	68.20	13.52	11.70	H	359.1	1.00
10	5,727.000	55.26	68.20	12.94	11.70	H	4.9	1.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
10	5,699.500	99.44			11.64	V	359	1.00
10	5,725.000	60.10	68.20	8.10	11.70	V	5.6	1.00
10	5,727.500	60.36	68.20	7.84	11.70	V	359	1.00



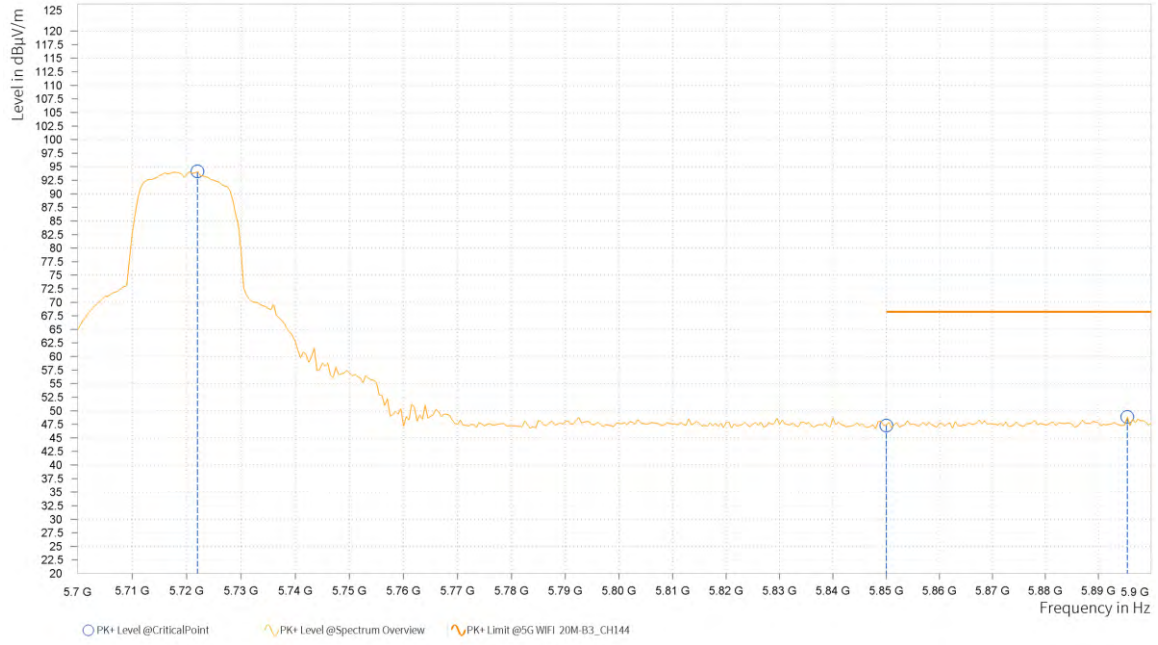
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5700MHz: Fundamental frequency.
4. #: Out of restricted band.

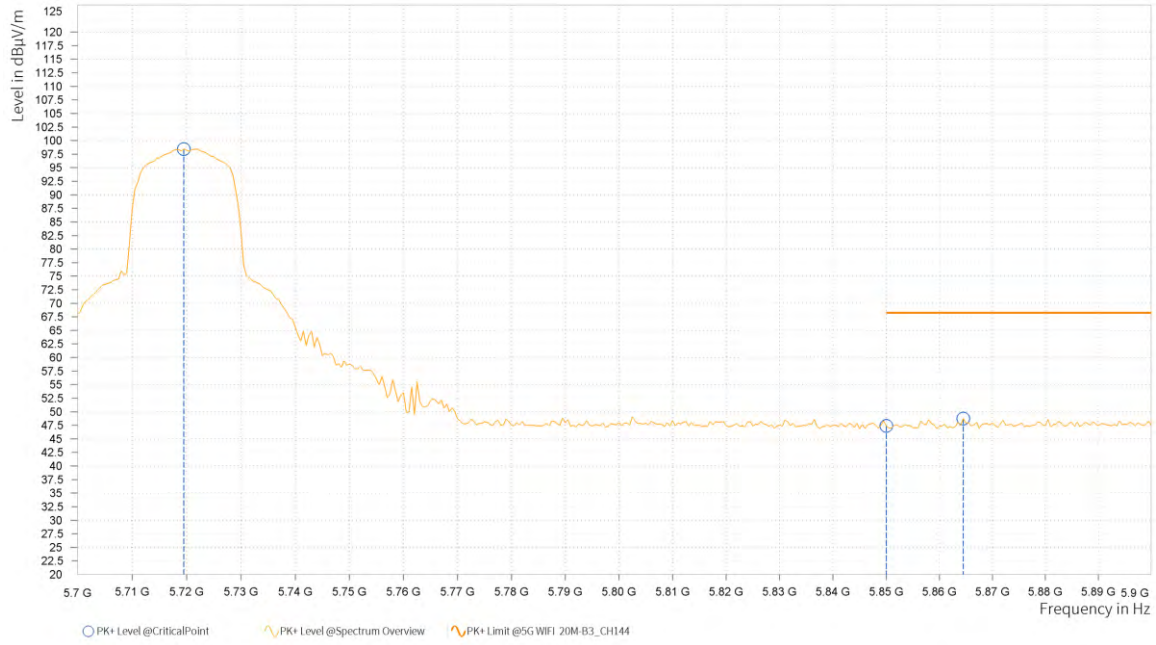
CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
11	5,722.000	94.12			11.69	H	5	1.00
11	5,850.000	47.29	68.20	20.91	11.98	H	279.4	2.00
11	5,895.500	48.84	68.20	19.36	12.13	H	330.5	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
11	5,719.500	98.45			11.68	V	328.1	1.00
11	5,850.000	47.40	68.20	20.80	11.98	V	163	1.00
11	5,864.500	48.75	68.20	19.45	12.03	V	359.1	1.00



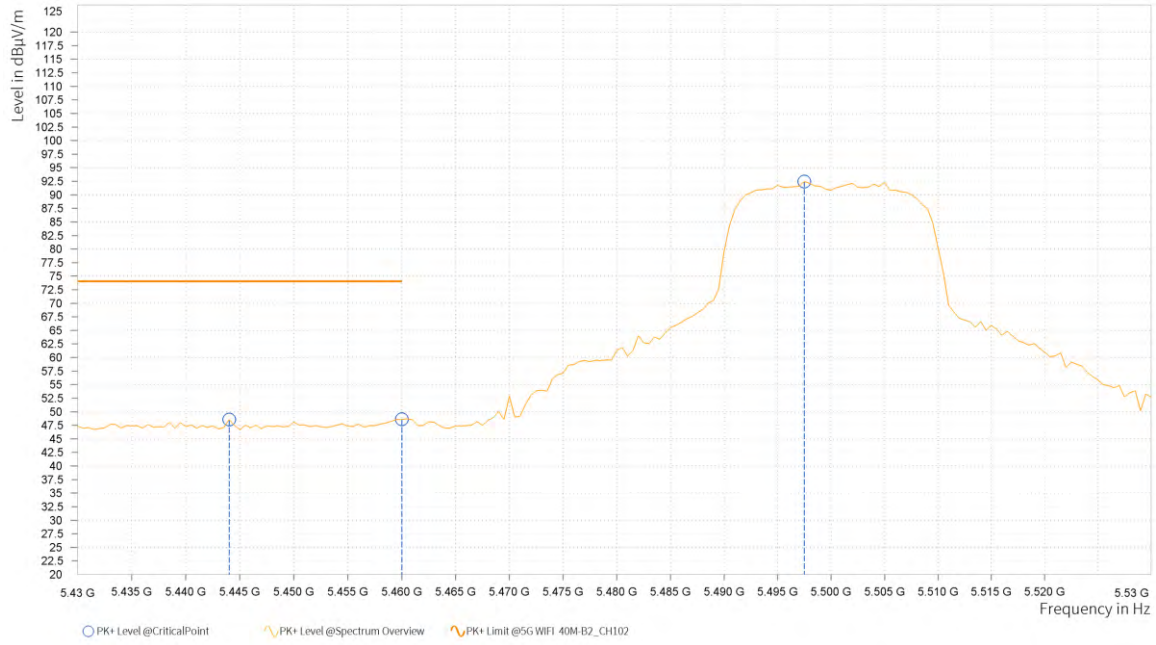
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5720MHz: Fundamental frequency.
4. #: Out of restricted band.

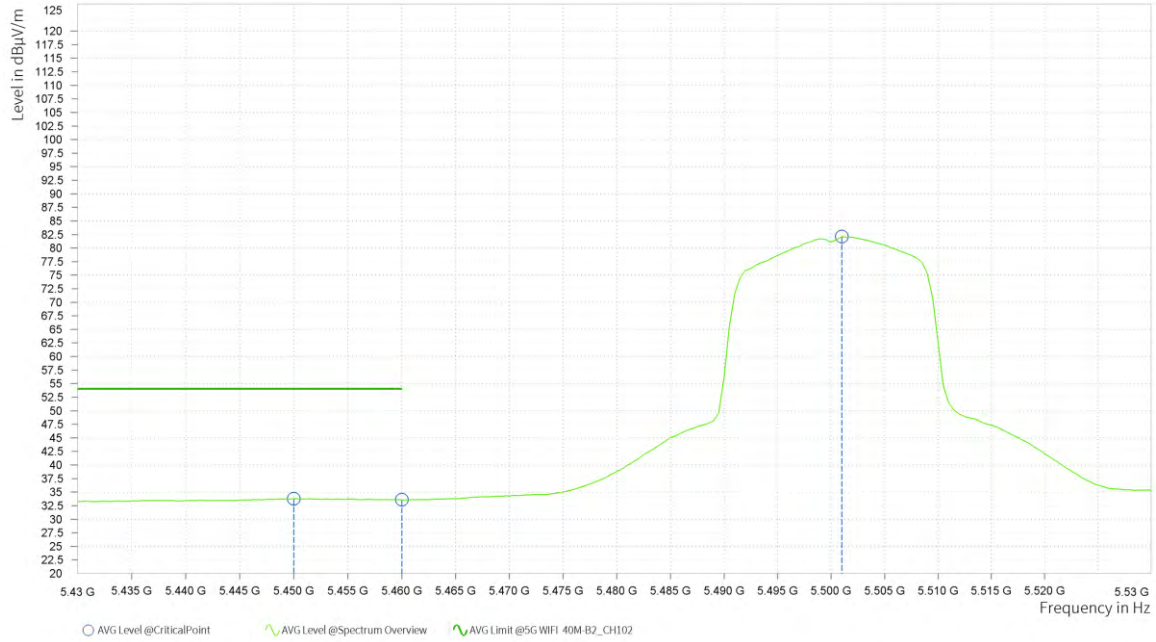
802.11n (40MHz)			
CHANNEL	TX Channel 102	**DETECTOR**	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	**FUNCTION**	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

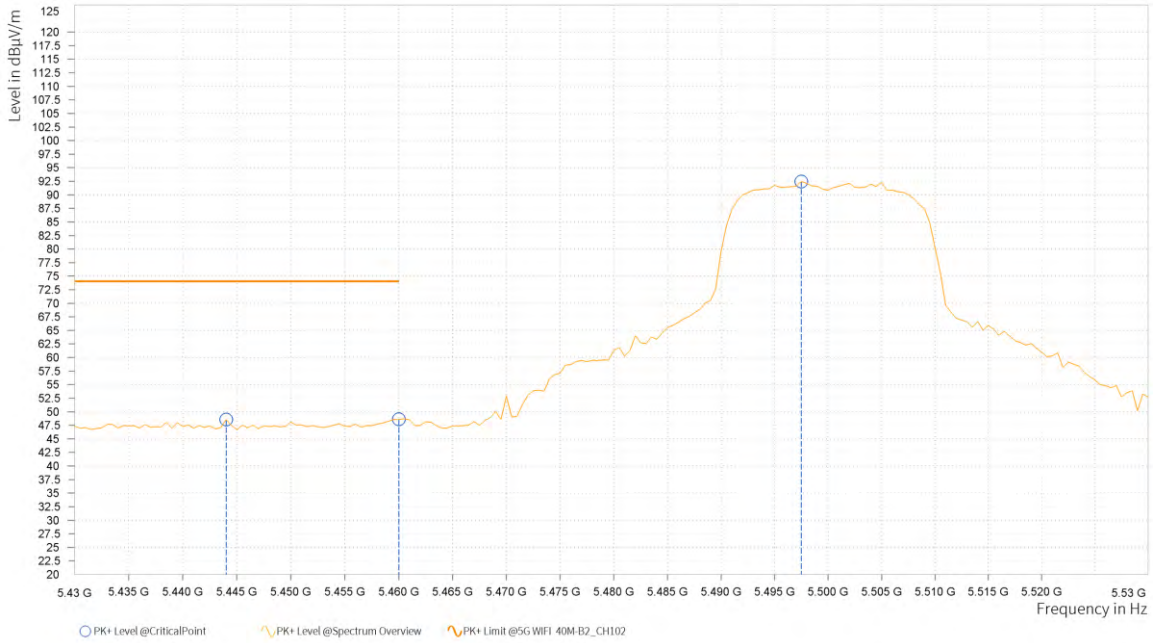
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,444.000	48.54	74.00	25.46	11.13	H	268.7	2.00
5	5,460.000	48.60	74.00	25.40	11.12	H	282.6	1.00
5	5,497.500	92.45			11.10	H	282.6	1.00



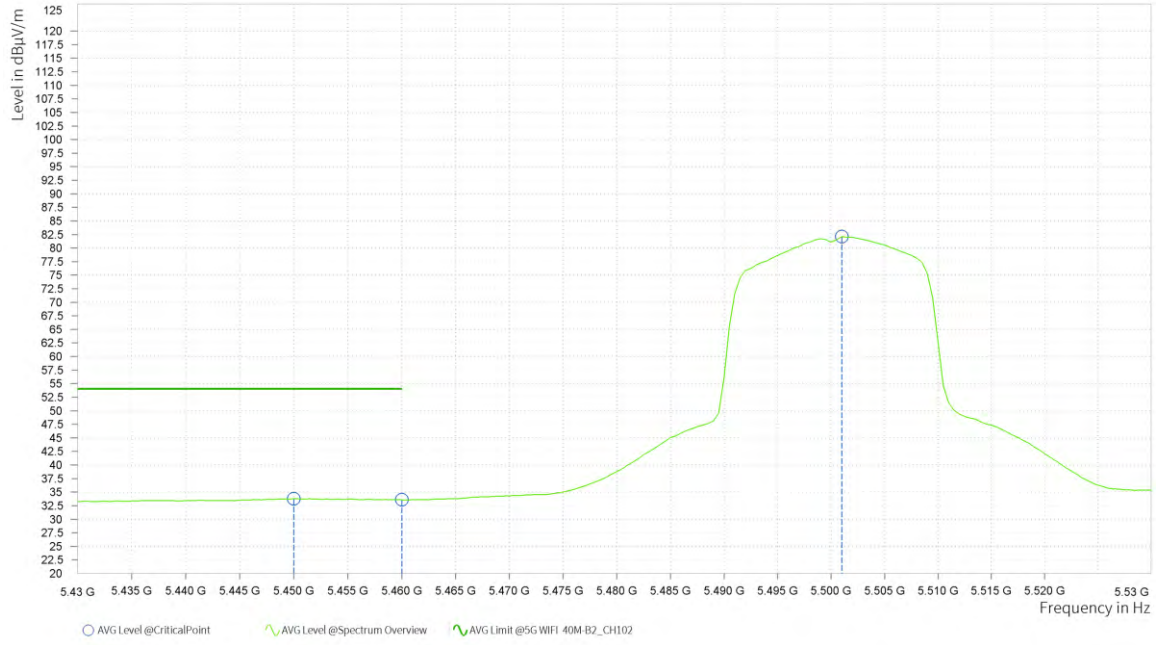
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,450.000	33.78	54.00	20.22	11.12	H	292.1	1.00
5	5,460.000	33.58	54.00	20.42	11.12	H	72.7	2.00
5	5,501.000	82.10			11.09	H	194.1	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,444.000	48.54	74.00	25.46	11.13	H	268.7	2.00
5	5,460.000	48.60	74.00	25.40	11.12	H	282.6	1.00
5	5,497.500	92.45			11.10	H	282.6	1.00



ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,450.000	33.78	54.00	20.22	11.12	H	292.1	1.00
5	5,460.000	33.58	54.00	20.42	11.12	H	72.7	2.00
5	5,501.000	82.10			11.09	H	194.1	1.00



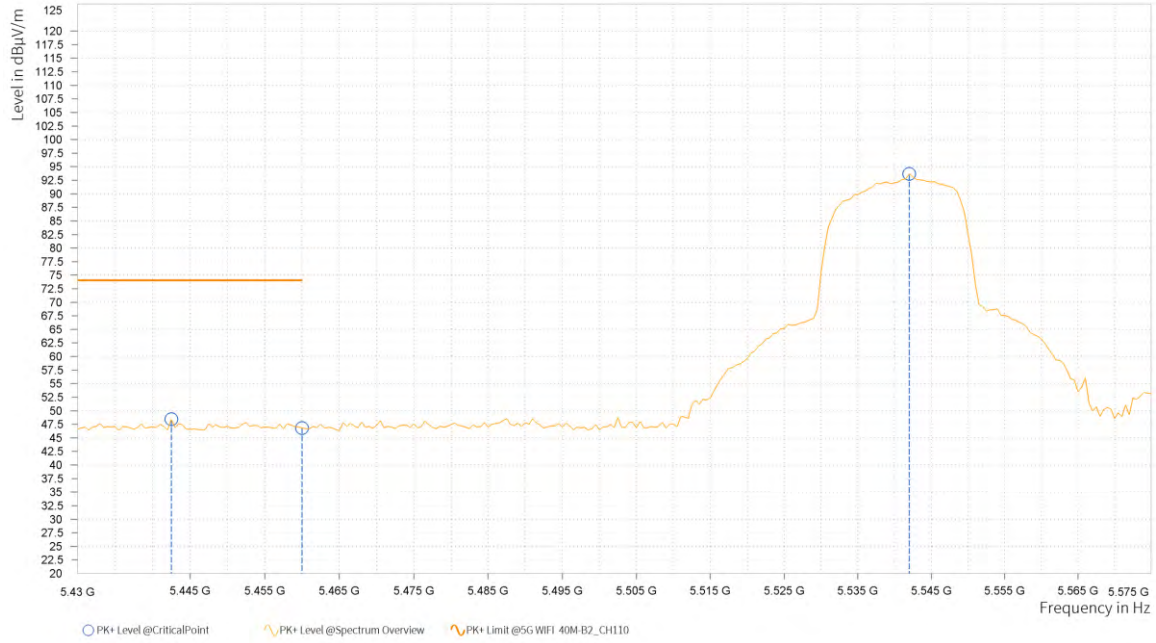
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5510MHz: Fundamental frequency.
4. #: Out of restricted band.

CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

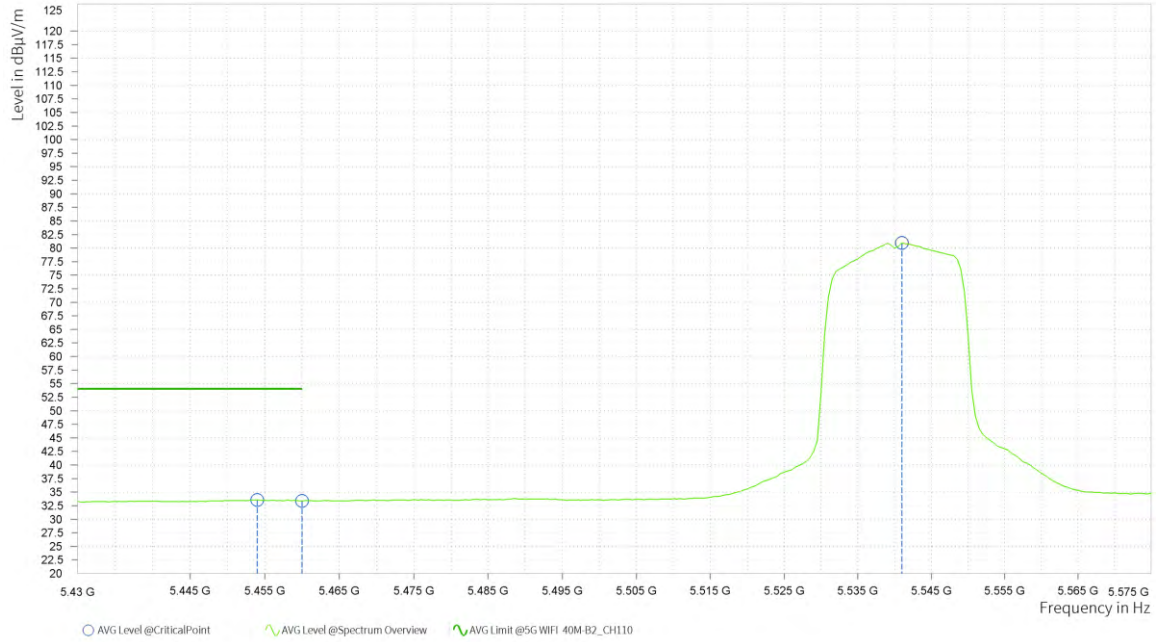
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	5,442.500	48.45	74.00	25.55	11.13	H	170.6	2.00
6	5,460.000	46.83	74.00	27.17	11.12	H	2.3	2.00
6	5,542.000	93.67			11.12	H	190.6	1.00

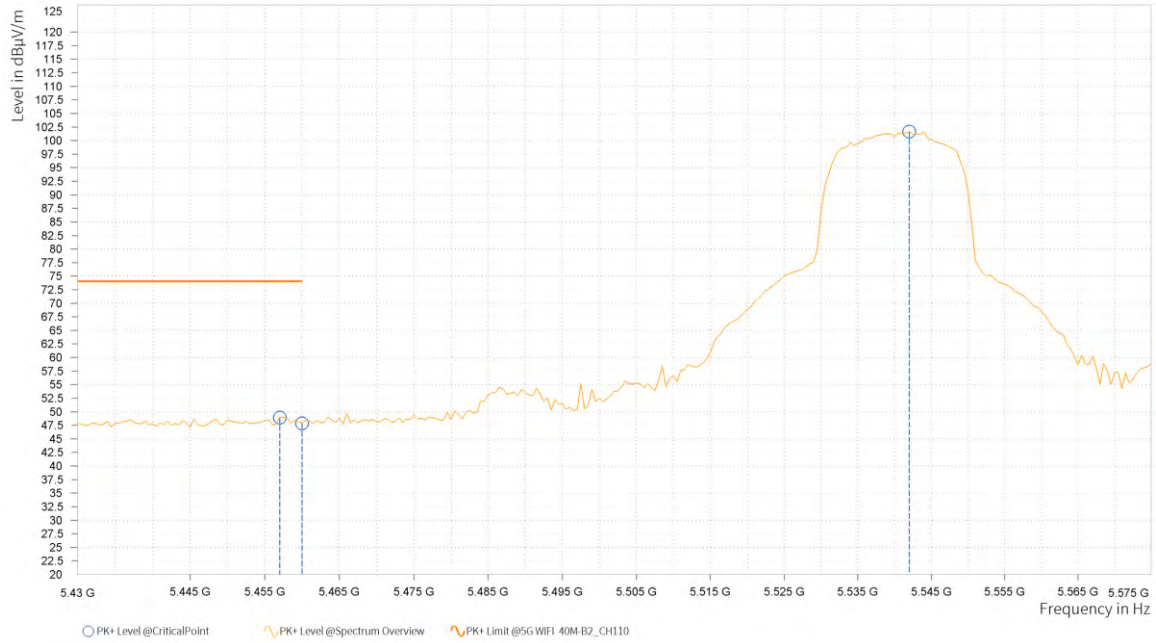


ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

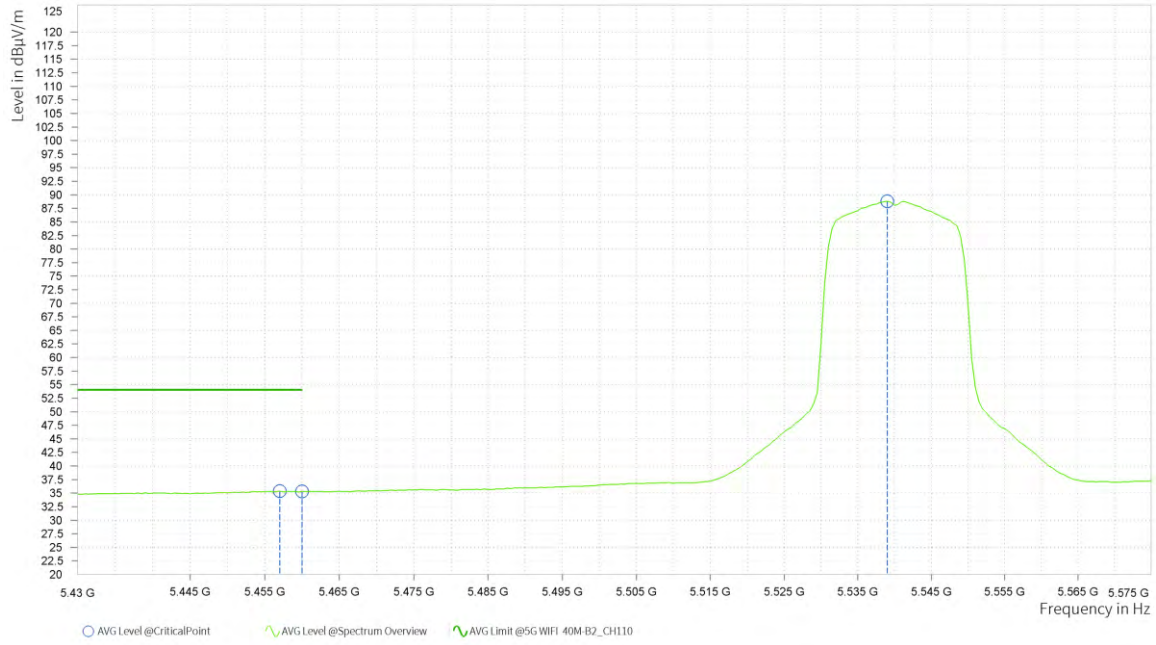
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	5,454.000	33.55	54.00	20.45	11.12	H	289.7	1.00
6	5,460.000	33.37	54.00	20.63	11.12	H	289.7	1.00
6	5,541.000	80.94			11.12	H	191.7	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	5,457.000	48.93	74.00	25.07	11.12	V	4.9	1.00
6	5,460.000	47.89	74.00	26.11	11.12	V	1	1.00
6	5,542.000	101.68			11.12	V	4.9	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	5,457.000	35.36	54.00	18.64	11.12	V	269.5	1.00
6	5,460.000	35.32	54.00	18.68	11.12	V	269.5	1.00
6	5,539.000	88.83			11.11	V	359	1.00



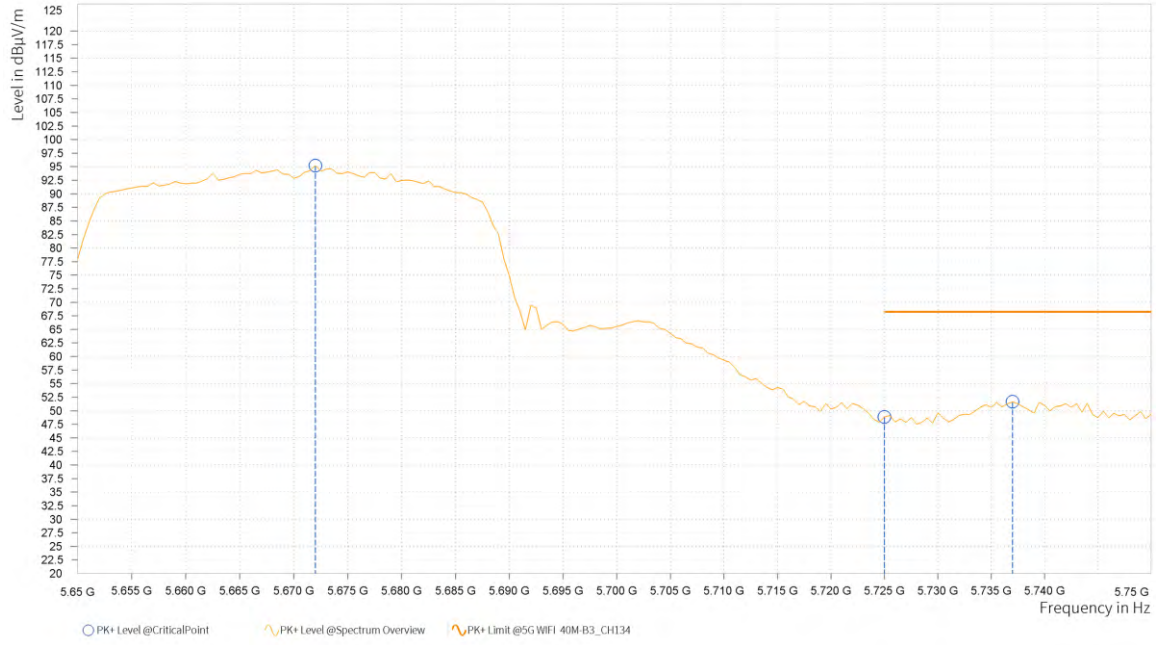
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5500MHz: Fundamental frequency.
4. #: Out of restricted band.

CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
7	5,672.000	95.22			11.53	H	67.8	2.00
7	5,725.000	48.85	68.20	19.35	11.70	H	4.9	1.00
7	5,737.000	51.65	68.20	16.55	11.72	H	4.9	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	5,454.000	33.55	54.00	20.45	11.12	H	289.7	1.00
6	5,460.000	33.37	54.00	20.63	11.12	H	289.7	1.00
6	5,541.000	80.94			11.12	H	191.7	1.00

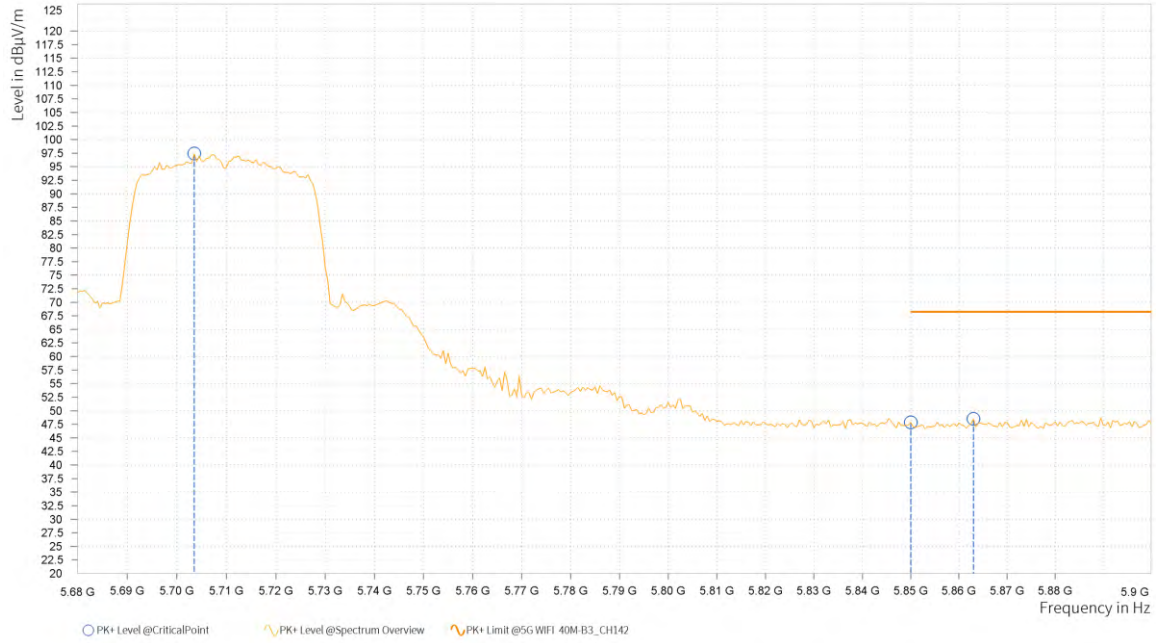
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5670MHz: Fundamental frequency.
4. #: Out of restricted band.

CHANNEL	TX Channel 142	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
8	5,703.500	97.42			11.65	V	359	1.00
8	5,850.000	47.87	68.20	20.33	11.98	V	167	2.00
8	5,863.000	48.49	68.20	19.71	12.02	V	130.8	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
8	5,703.500	97.42			11.65	V	359	1.00
8	5,850.000	47.87	68.20	20.33	11.98	V	167	2.00
8	5,863.000	48.49	68.20	19.71	12.02	V	130.8	1.00

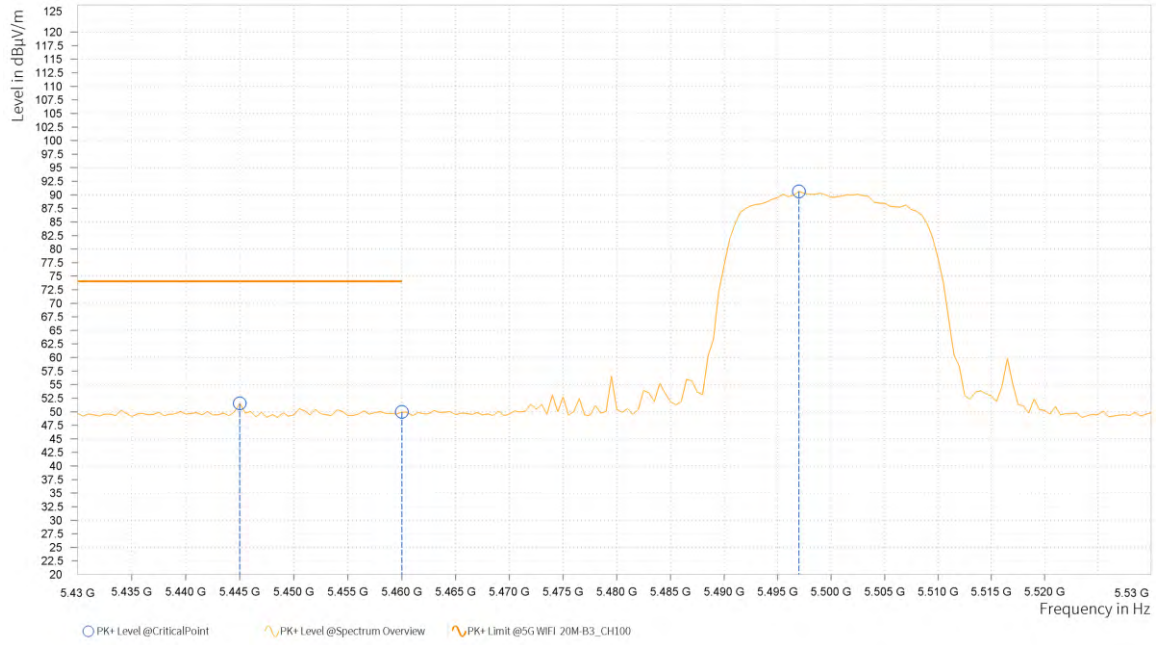
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5710MHz: Fundamental frequency.
4. #: Out of restricted band.

802.11ac (20MHz)			
CHANNEL	TX Channel 100	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

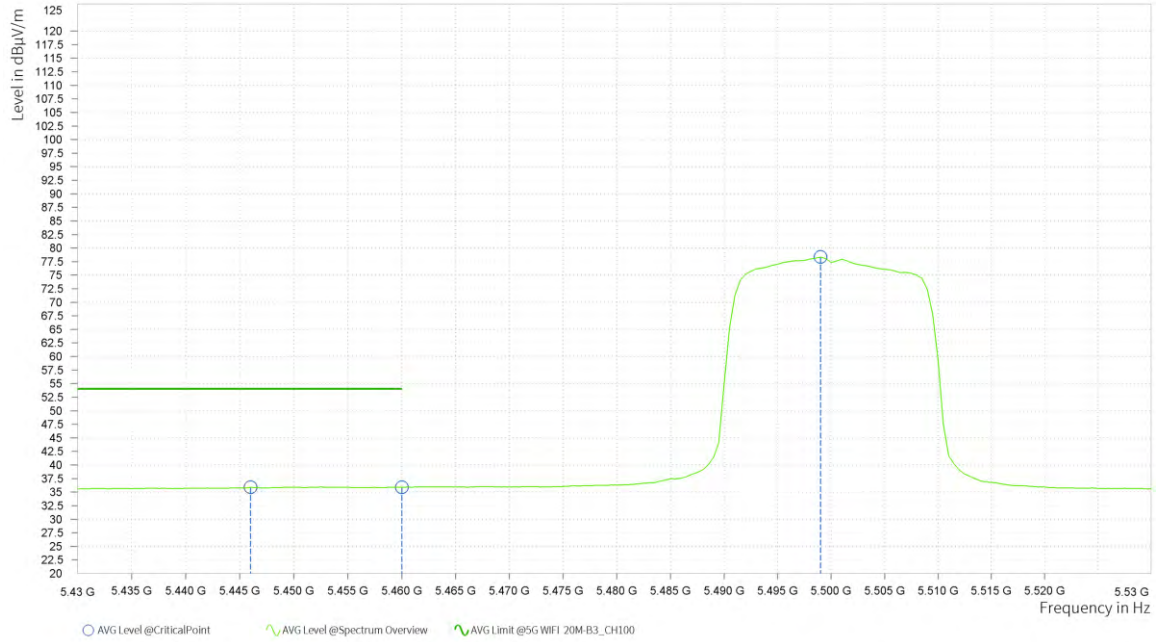
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
8	5,445.000	51.55	74.00	22.45	11.13	H	275.9	2.00
8	5,460.000	49.95	74.00	24.05	11.12	H	353.8	1.00
8	5,497.000	90.64			11.10	H	97.8	2.00



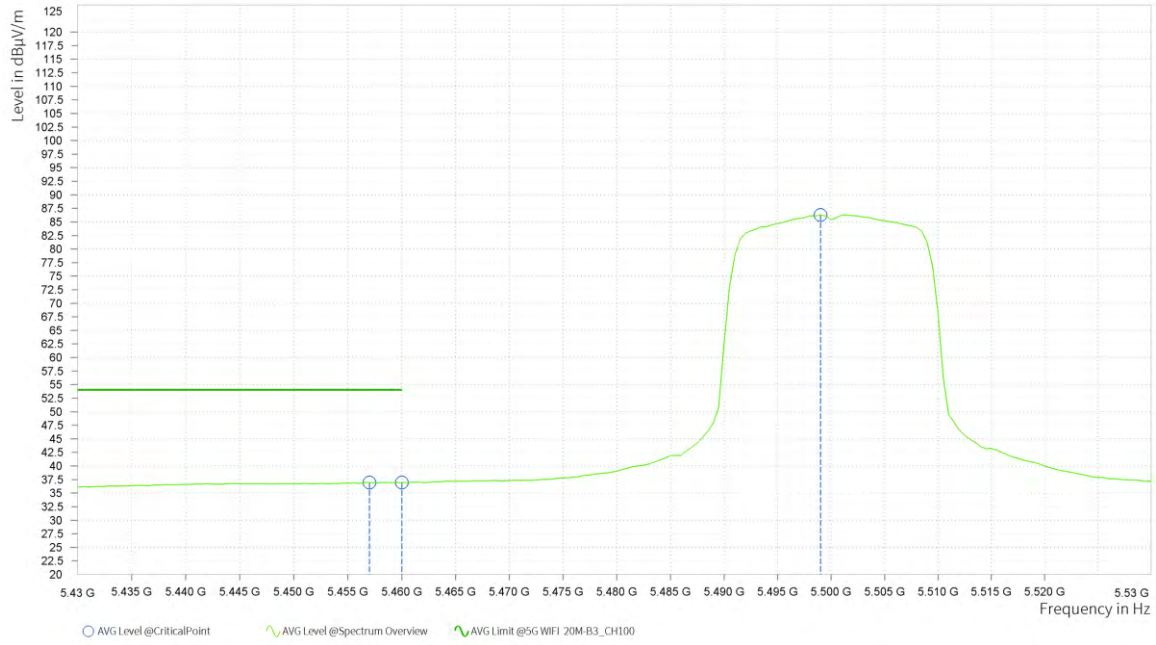
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
8	5,446.000	35.88	54.00	18.12	11.12	H	84.1	1.00
8	5,460.000	35.89	54.00	18.11	11.12	H	84.1	1.00
8	5,499.000	78.34			11.10	H	355.1	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
8	5,447.000	50.78	74.00	23.22	11.12	V	1	2.00
8	5,460.000	49.80	74.00	24.20	11.12	V	3.8	1.00
8	5,502.500	99.16			11.09	V	3.8	1.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
8	5,457.000	36.96	54.00	17.04	11.12	V	263.5	1.00
8	5,460.000	36.98	54.00	17.02	11.12	V	263.5	1.00
8	5,499.000	86.30			11.10	V	5	1.00



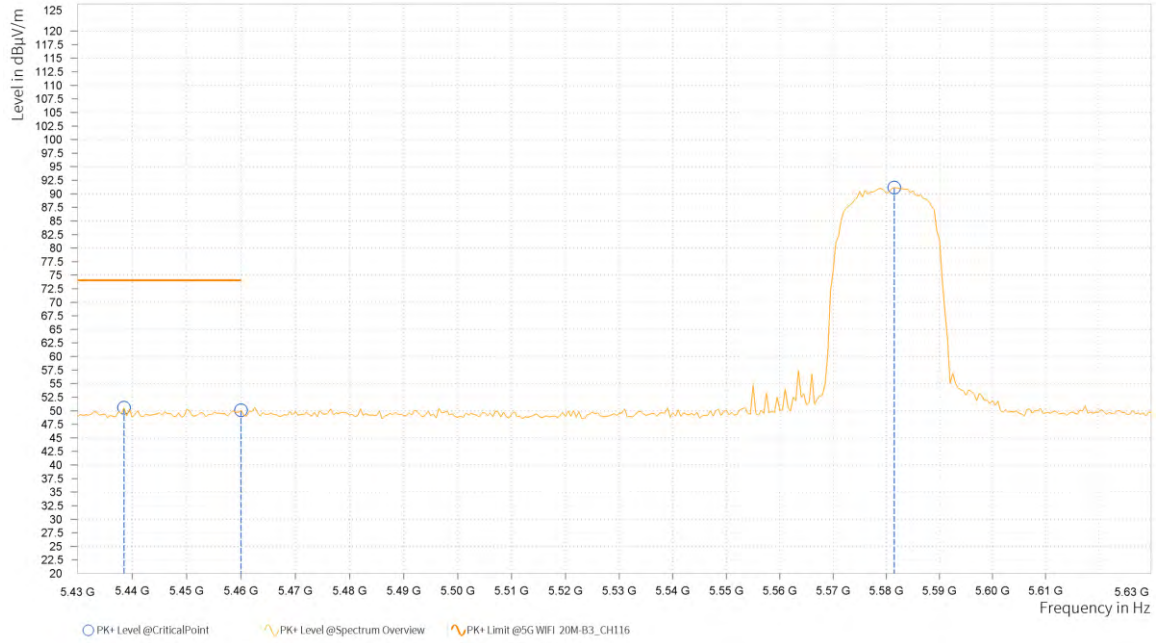
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5500MHz: Fundamental frequency.
4. #: Out of restricted band.

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

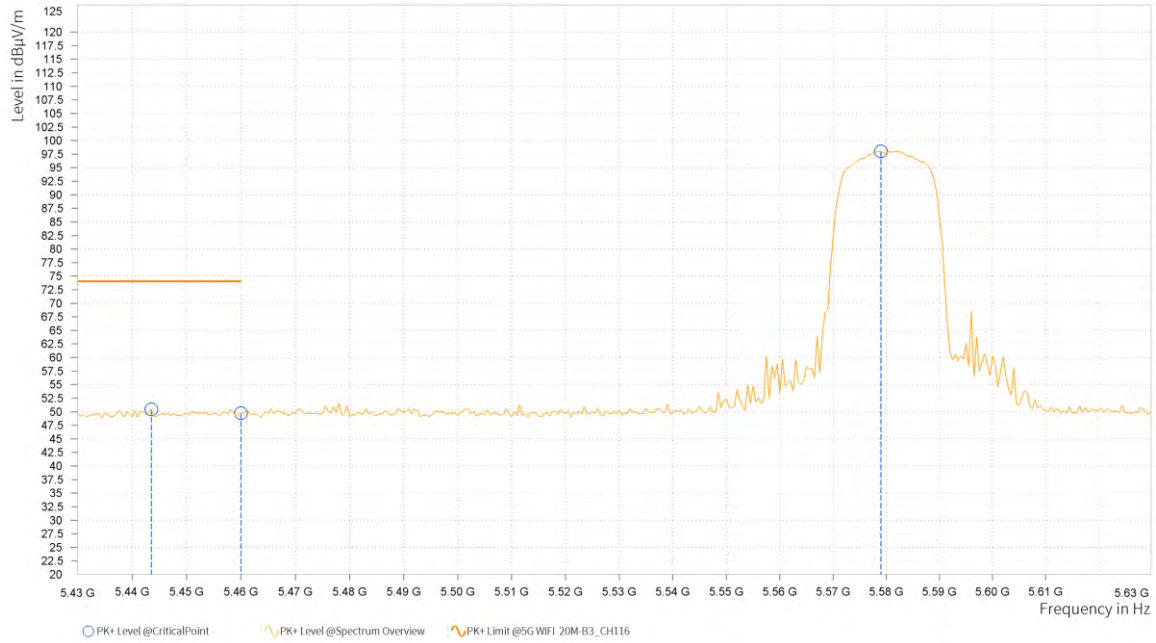
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
9	5,438.500	50.57	74.00	23.43	11.13	H	10.6	2.00
9	5,460.000	50.07	74.00	23.93	11.12	H	10.6	2.00
9	5,581.500	91.13			11.21	H	4.3	1.00



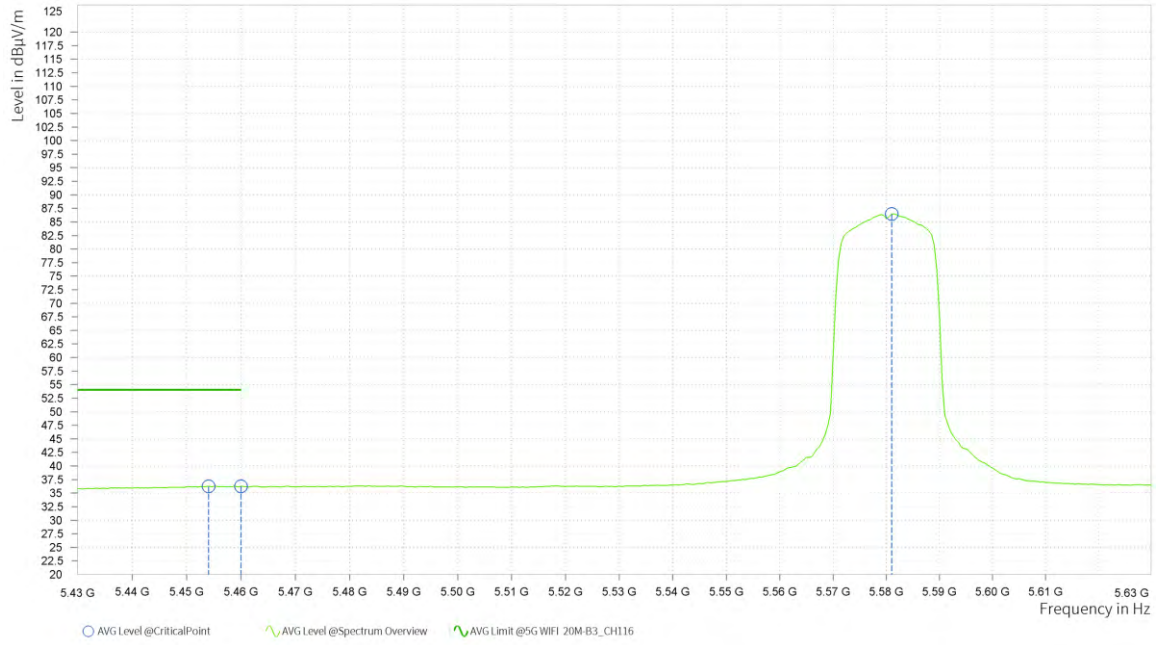
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
9	5,455.500	35.82	54.00	18.18	11.12	H	274.6	2.00
9	5,460.000	35.70	54.00	18.30	11.12	H	161	2.00
9	5,581.000	79.02			11.21	H	4.2	1.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
9	5,443.500	50.45	74.00	23.55	11.13	V	1	1.00
9	5,460.000	49.71	74.00	24.29	11.12	V	359	1.00
9	5,579.000	98.01			11.21	V	4.9	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
9	5,454.000	36.27	54.00	17.73	11.12	V	268.2	1.00
9	5,460.000	36.28	54.00	17.72	11.12	V	268.2	1.00
9	5,581.000	86.46			11.21	V	4.9	1.00



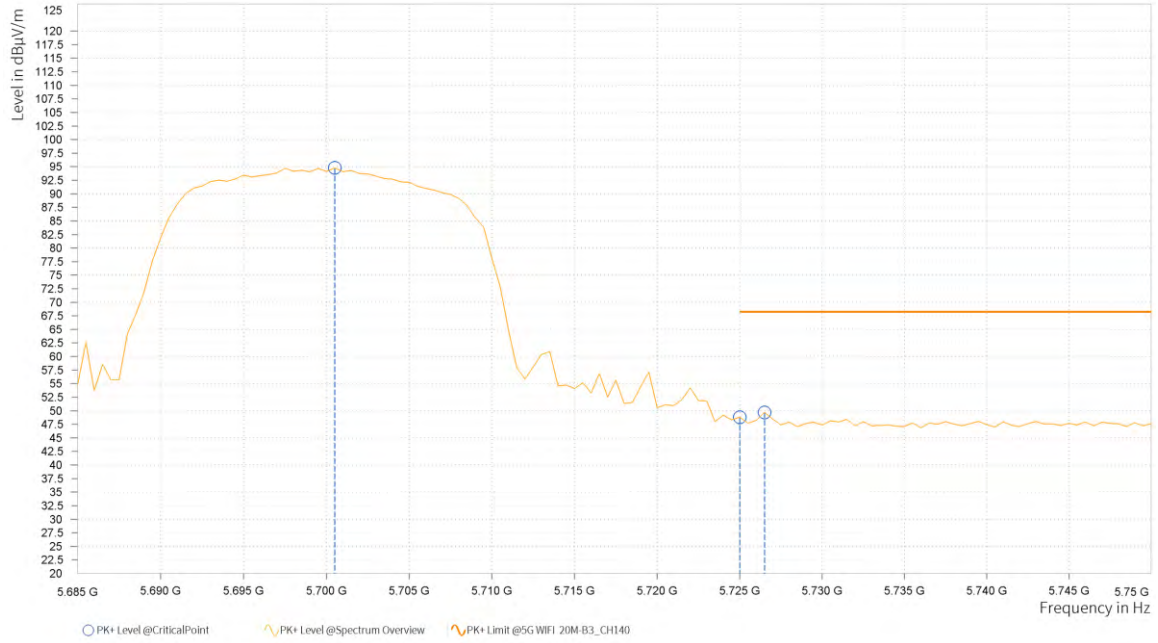
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5580MHz: Fundamental frequency.
4. #: Out of restricted band.

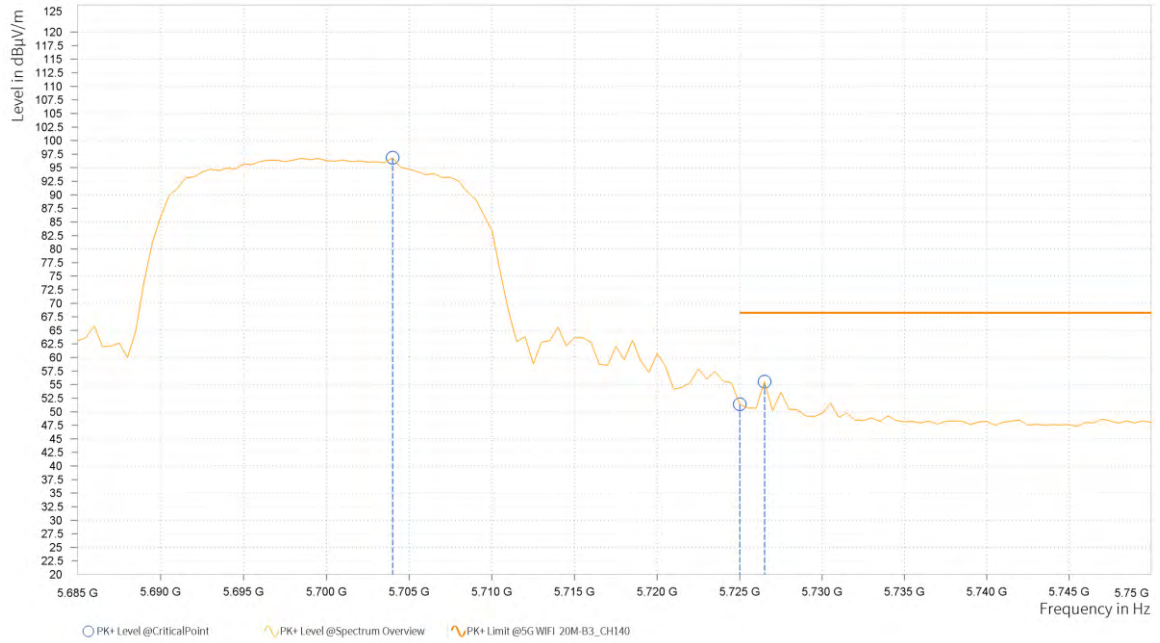
CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
10	5,700.500	94.77			11.65	H	91.8	2.00
10	5,725.000	48.80	68.20	19.40	11.70	H	91.8	2.00
10	5,726.500	49.70	68.20	18.50	11.70	H	91.8	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
10	5,704.000	96.84			11.65	V	4.8	1.00
10	5,725.000	51.40	68.20	16.80	11.70	V	351.7	1.00
10	5,726.500	55.57	68.20	12.63	11.70	V	359.1	1.00



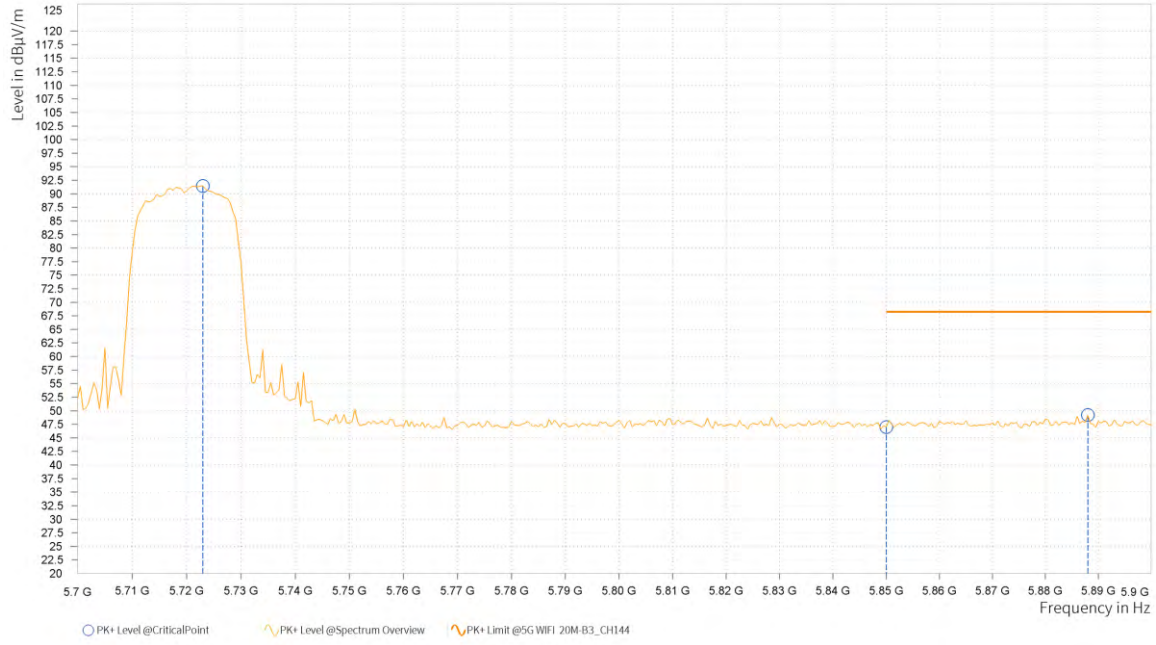
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5700MHz: Fundamental frequency.
4. #: Out of restricted band.

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

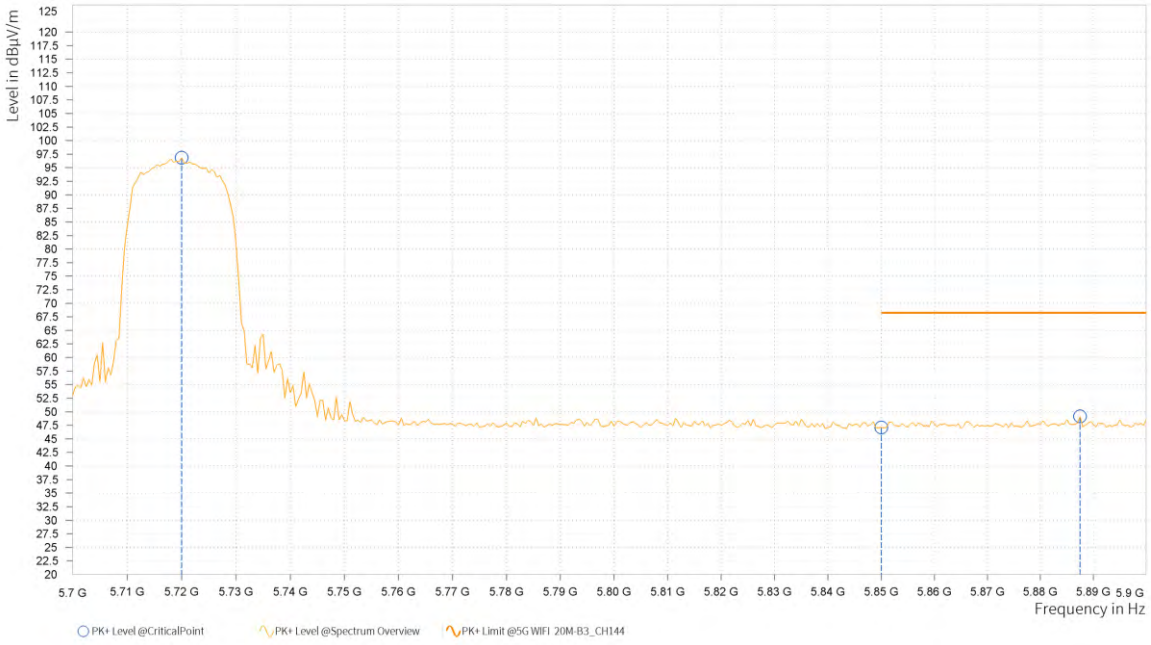
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
11	5,723.000	91.42			11.69	H	90.5	2.00
11	5,850.000	47.00	68.20	21.20	11.98	H	90.5	2.00
11	5,888.000	49.18	68.20	19.02	12.10	H	1	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
11	5,720.000	96.81			11.69	V	355.3	1.00
11	5,850.000	47.10	68.20	21.10	11.98	V	359	2.00
11	5,887.500	49.14	68.20	19.06	12.10	V	280.2	1.00



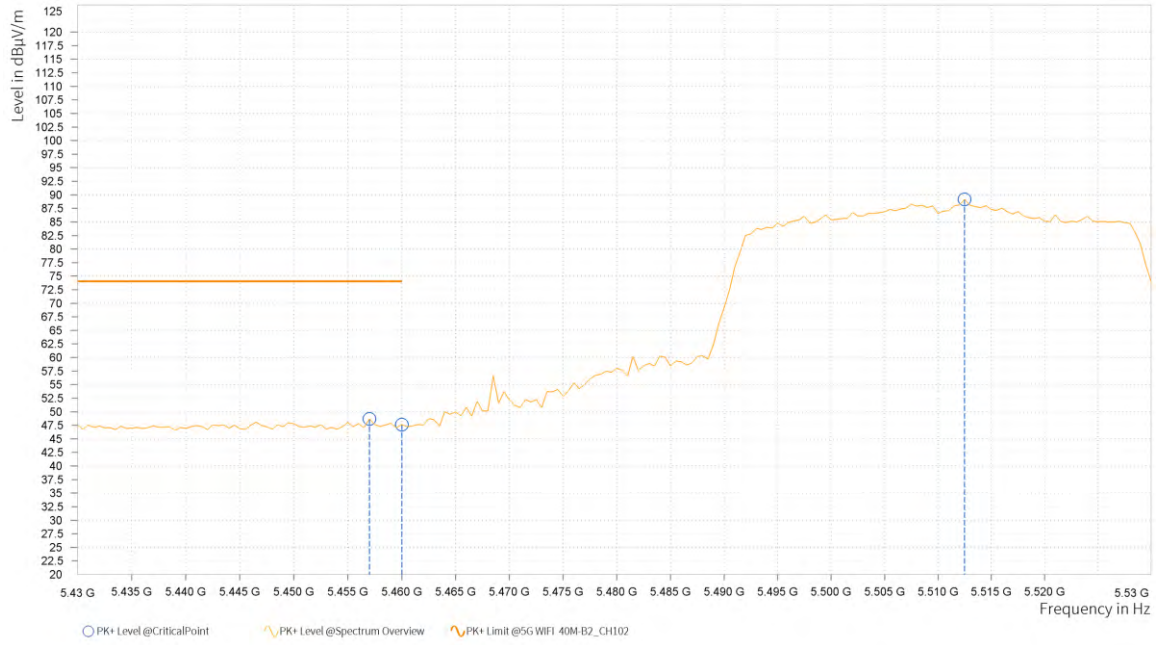
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5720MHz: Fundamental frequency.
4. #: Out of restricted band.

802.11ac (40MHz)			
CHANNEL	TX Channel 102	**DETECTOR**	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	**FUNCTION**	Average (AV)

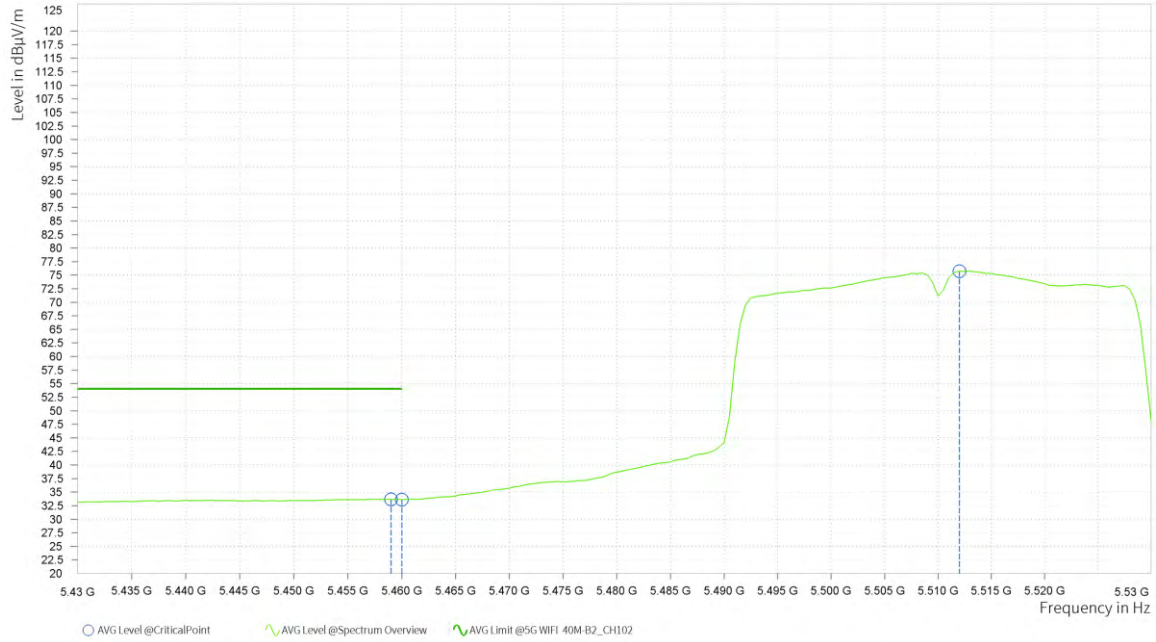
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,457.000	48.71	74.00	25.29	11.12	H	305.3	1.00
5	5,460.000	47.64	74.00	26.36	11.12	H	355	2.00
5	5,512.500	89.17			11.09	H	201.4	1.00

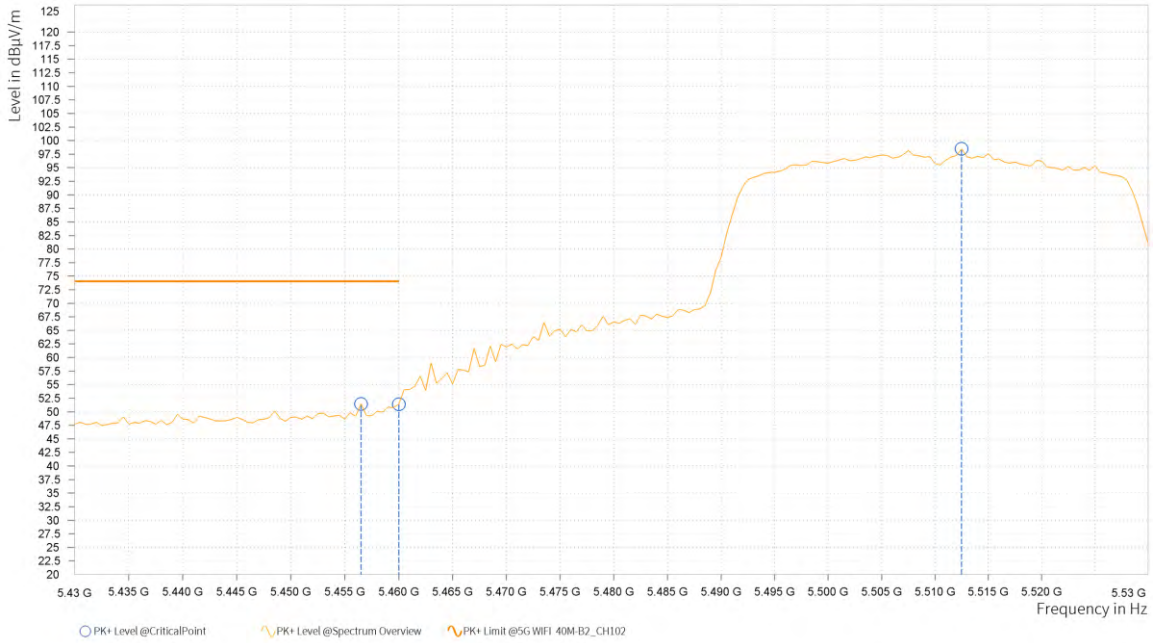


ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

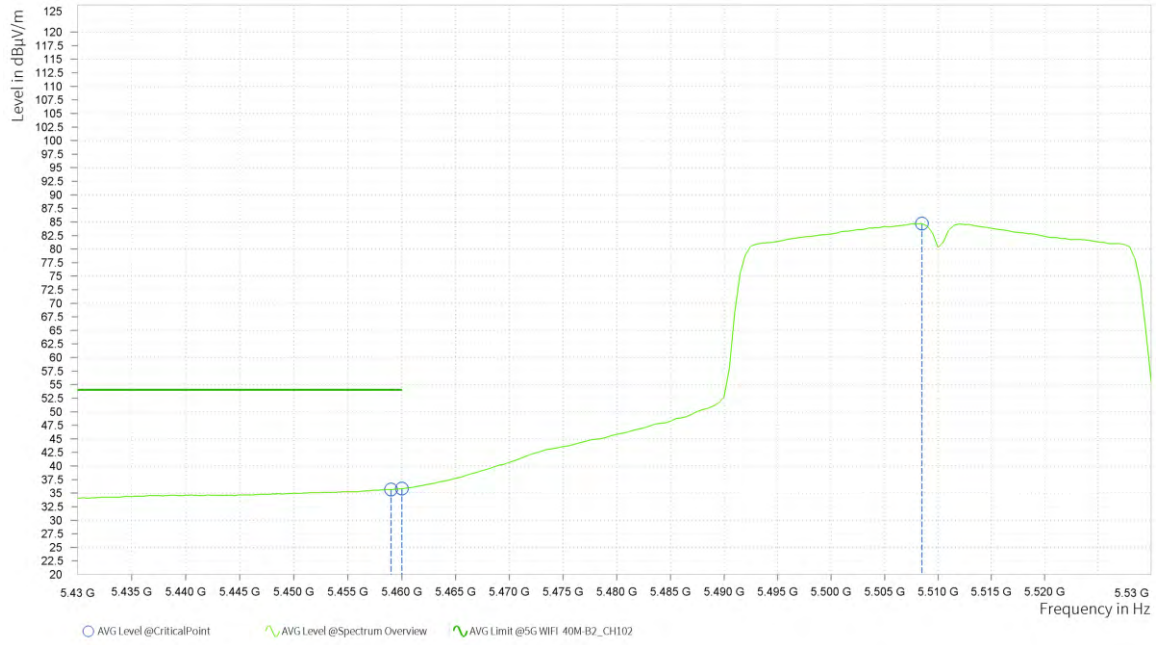
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,459.000	33.69	54.00	20.31	11.12	H	304.1	1.00
5	5,460.000	33.62	54.00	20.38	11.12	H	304.1	1.00
5	5,512.000	75.74			11.09	H	201.3	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,456.500	51.47	74.00	22.53	11.12	V	359.1	1.00
5	5,460.000	51.37	74.00	22.63	11.12	V	4.2	1.00
5	5,512.500	98.48			11.09	V	4.2	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,459.000	35.64	54.00	18.36	11.12	V	359	1.00
5	5,460.000	35.82	54.00	18.18	11.12	V	4.9	1.00
5	5,508.500	84.69			11.09	V	4.9	1.00



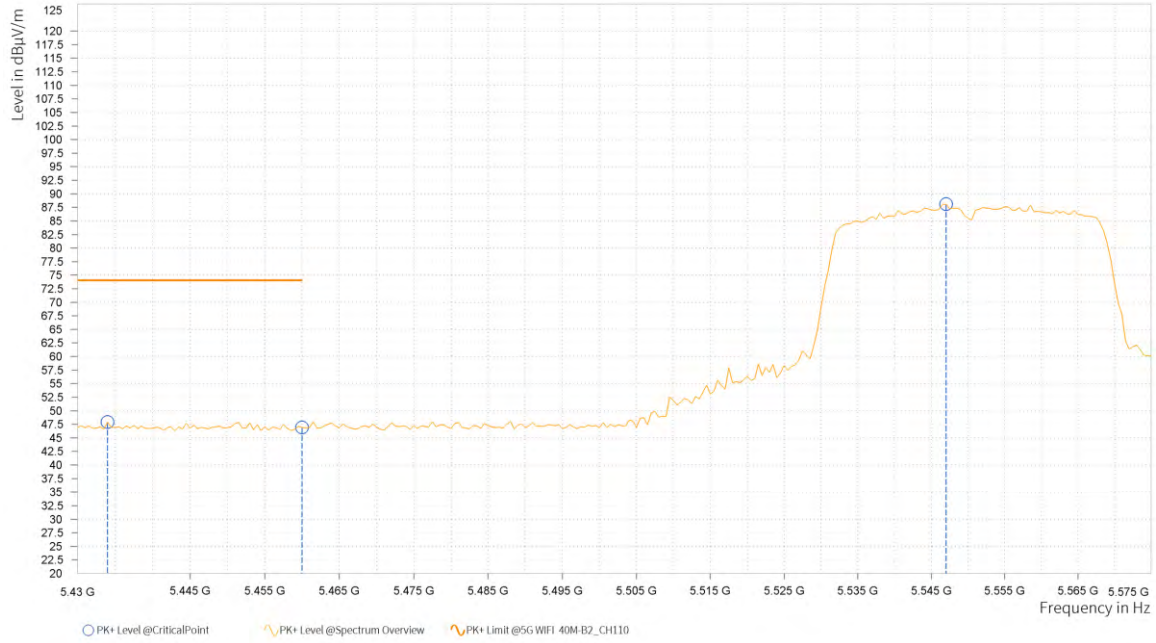
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5510MHz: Fundamental frequency.
4. #: Out of restricted band.

CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

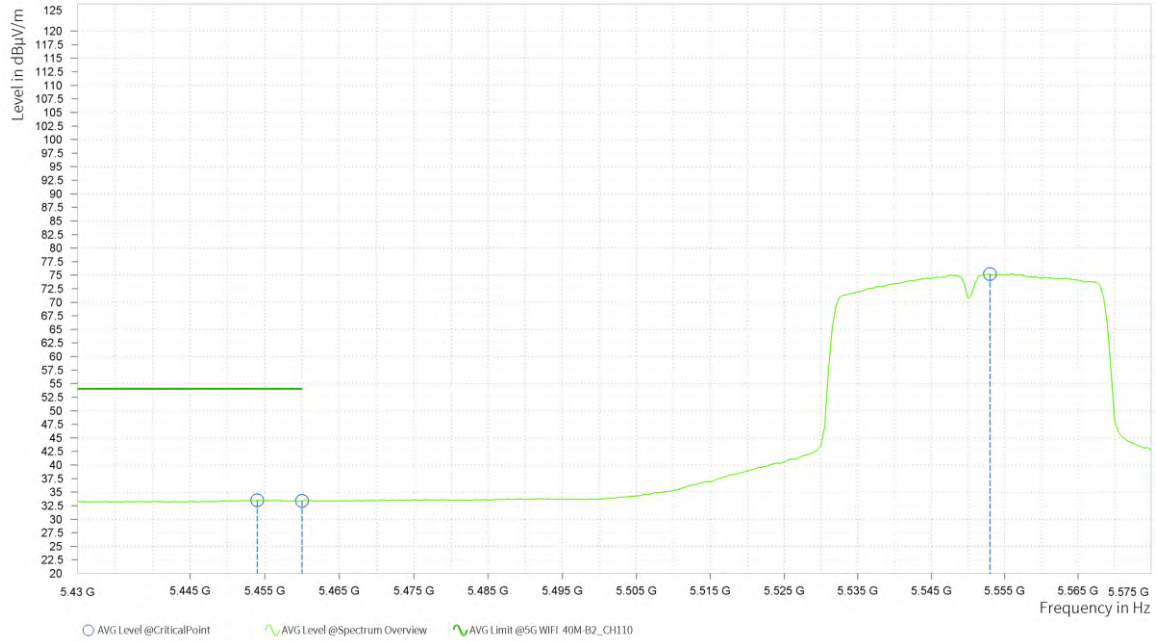
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	5,434.000	47.92	74.00	26.08	11.13	H	359	2.00
6	5,460.000	46.91	74.00	27.09	11.12	H	261.5	2.00
6	5,547.000	88.08			11.12	H	4.9	1.00

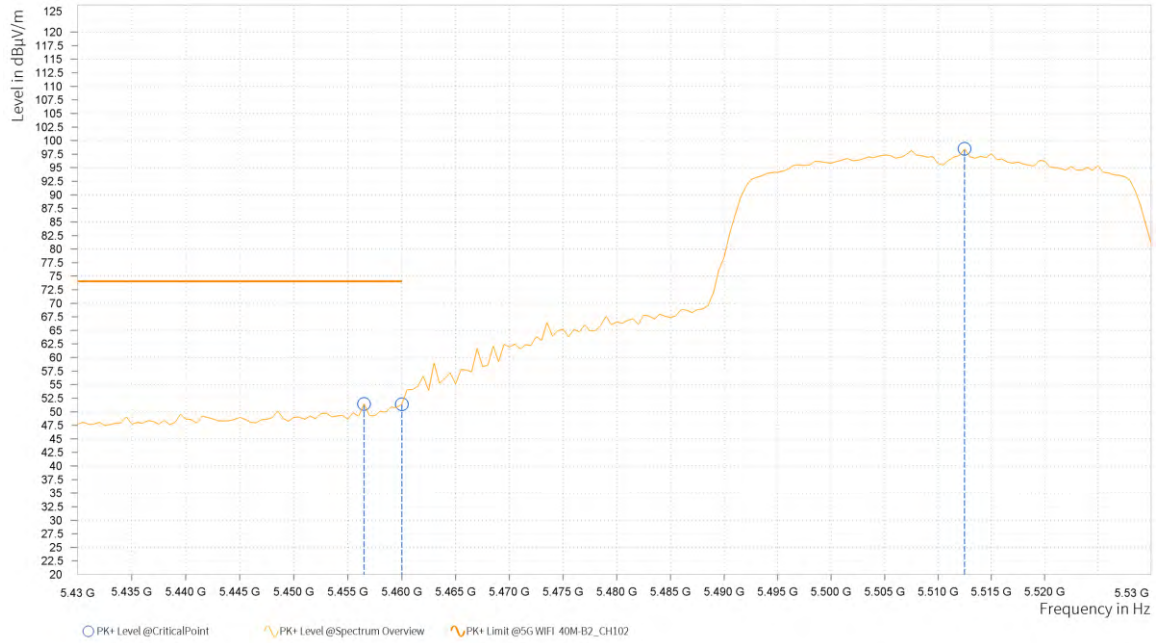


ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

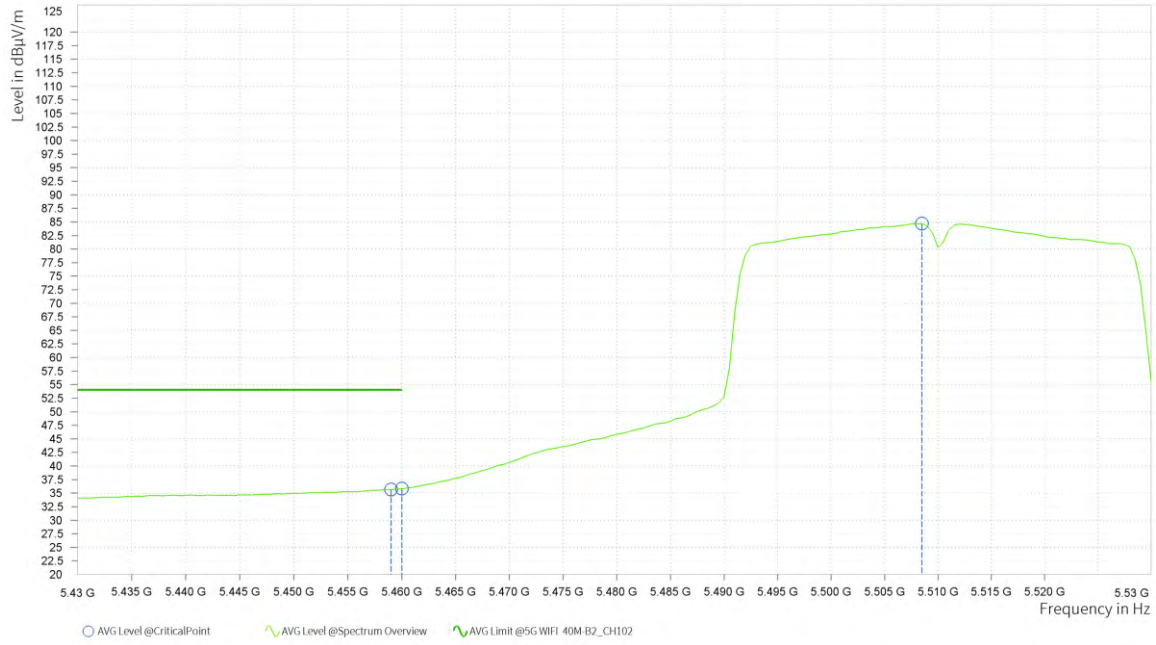
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	5,454.000	33.49	54.00	20.51	11.12	H	87	2.00
6	5,460.000	33.39	54.00	20.61	11.12	H	87	2.00
6	5,553.000	75.18			11.13	H	4.9	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,456.500	51.47	74.00	22.53	11.12	V	359.1	1.00
5	5,460.000	51.37	74.00	22.63	11.12	V	4.2	1.00
5	5,512.500	98.48			11.09	V	4.2	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,459.000	35.64	54.00	18.36	11.12	V	359	1.00
5	5,460.000	35.82	54.00	18.18	11.12	V	4.9	1.00
5	5,508.500	84.69			11.09	V	4.9	1.00



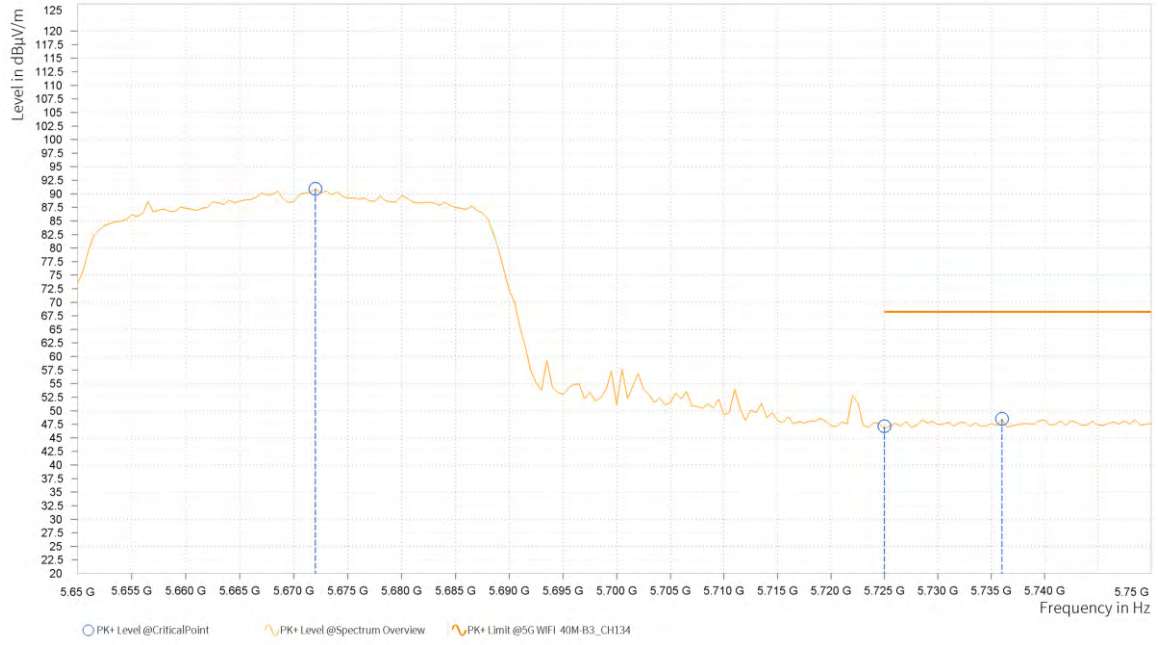
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5500MHz: Fundamental frequency.
4. #: Out of restricted band.

CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
7	5,672.000	90.94			11.53	H	4.9	1.00
7	5,725.000	47.14	68.20	21.06	11.70	H	0.9	2.00
7	5,736.000	48.48	68.20	19.72	11.72	H	4.9	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
7	5,663.500	95.50			11.50	V	4.9	1.00
7	5,725.000	48.40	68.20	19.80	11.70	V	355	2.00
7	5,725.500	50.67	68.20	17.53	11.70	V	359	1.00

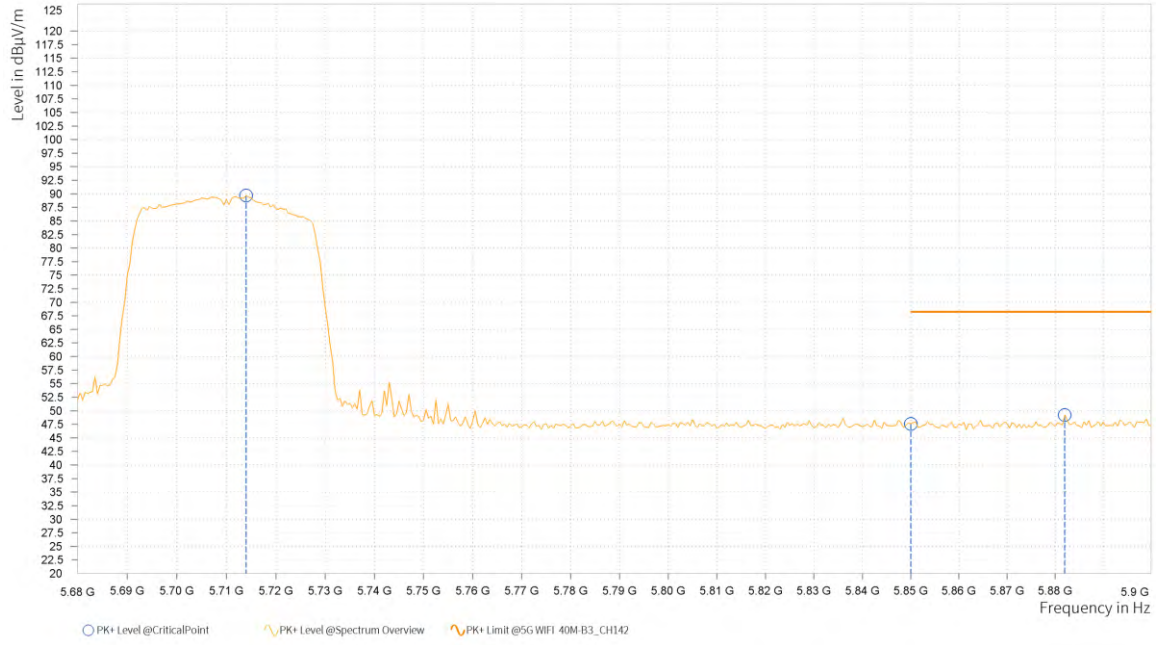
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5670MHz: Fundamental frequency.
4. #: Out of restricted band.

CHANNEL	TX Channel 142	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

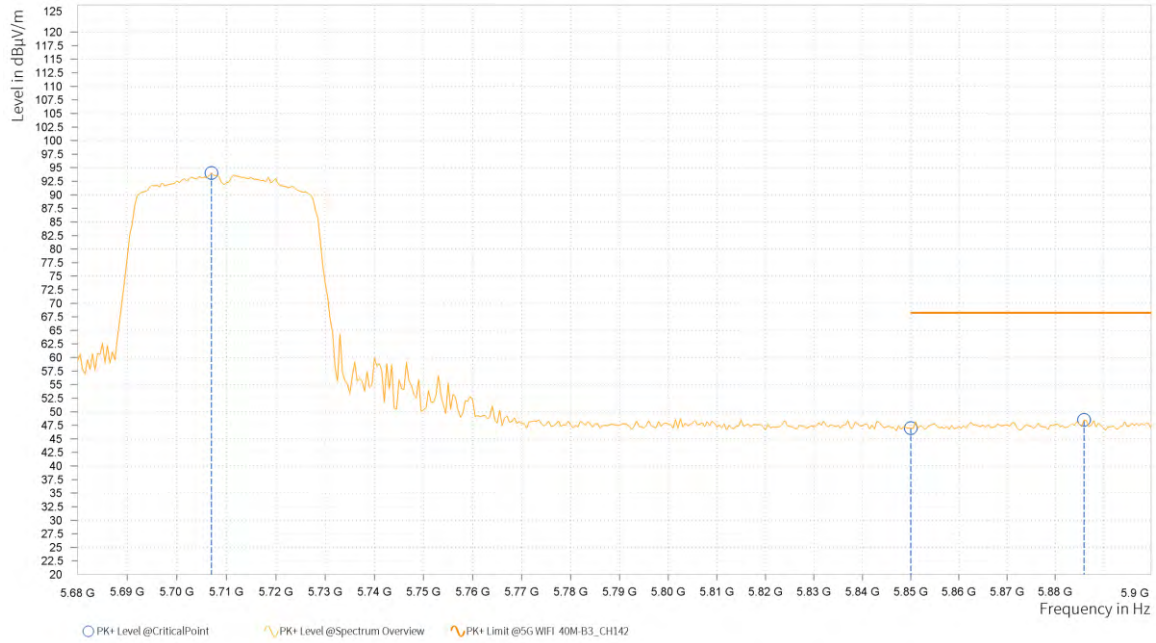
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
8	5,714.000	89.71			11.67	H	77.4	2.00
8	5,850.000	47.59	68.20	20.61	11.98	H	274.2	1.00
8	5,882.000	49.24	68.20	18.96	12.08	H	0.9	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
8	5,707.000	94.00			11.66	V	1	1.00
8	5,850.000	47.00	68.20	21.20	11.98	V	359	1.00
8	5,886.000	48.49	68.20	19.71	12.10	V	259.1	2.00



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5710MHz: Fundamental frequency.
4. #: Out of restricted band.

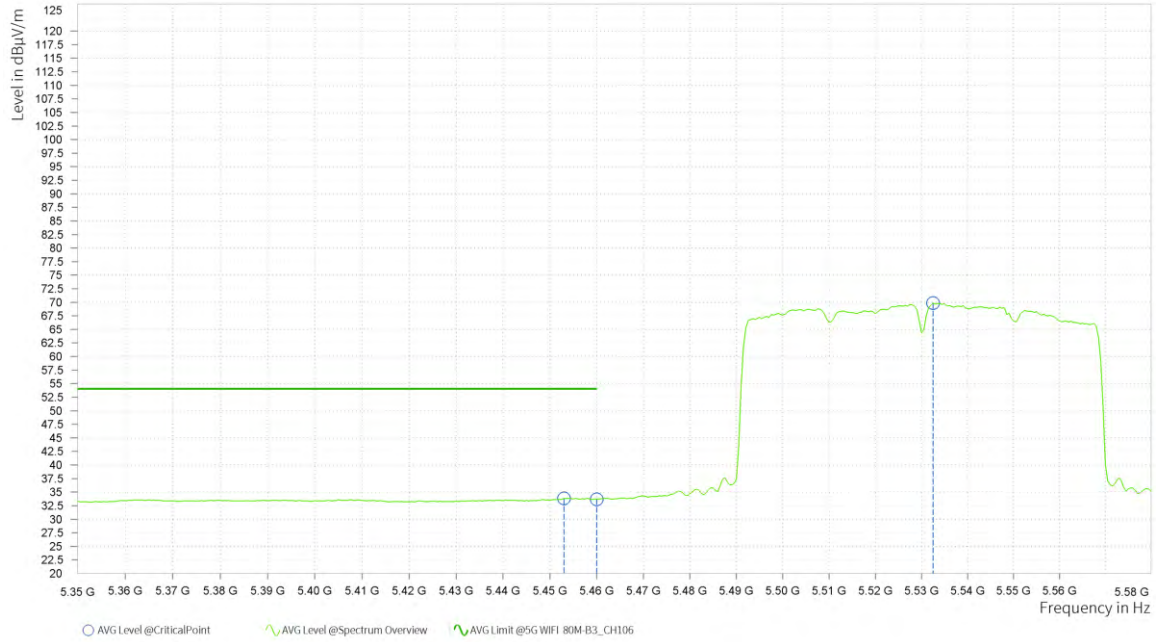
802.11ac (80MHz)			
CHANNEL	TX Channel 106	**DETECTOR**	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	**FUNCTION**	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,438.500	48.73	74.00	25.27	11.13	H	150.4	2.00
3	5,460.000	47.15	74.00	26.85	11.12	H	0.9	2.00
3	5,543.500	85.02			11.12	H	209.7	1.00

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,453.000	33.84	54.00	20.16	11.12	H	208.4	1.00
3	5,460.000	33.70	54.00	20.30	11.12	H	355.8	2.00
3	5,532.500	69.85			11.11	H	208.4	1.00

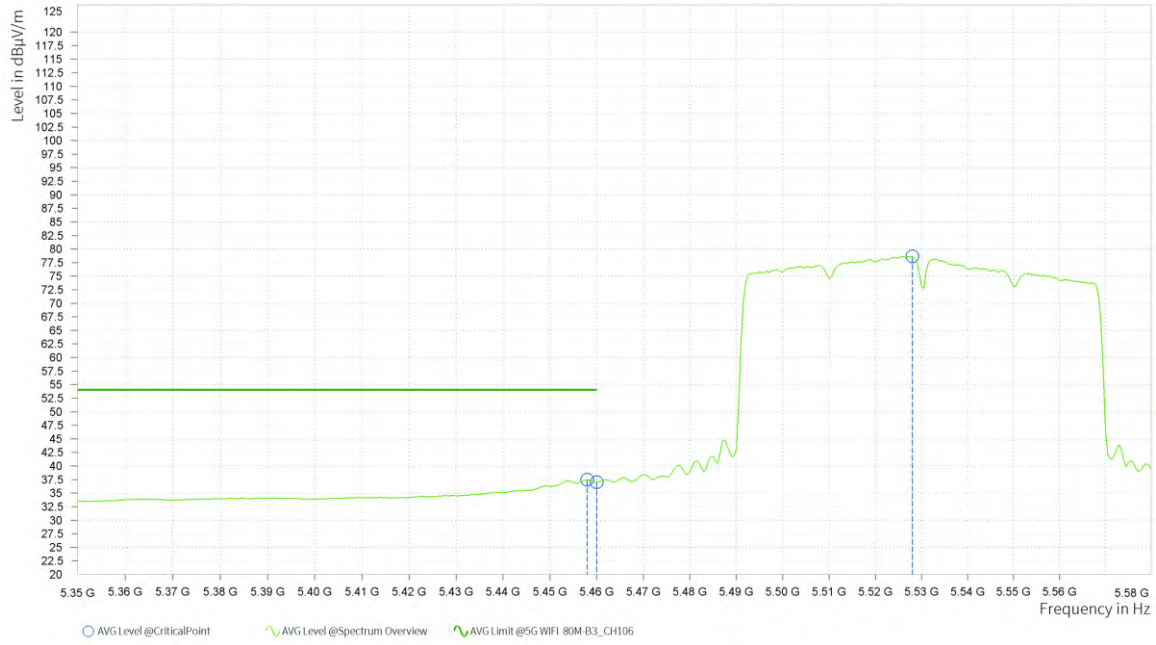


ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,455.000	56.43	74.00	17.57	11.12	V	4.9	1.00
3	5,460.000	53.65	74.00	20.35	11.12	V	316	1.00
3	5,523.500	93.53			11.10	V	4.9	1.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	5,458.000	37.47	54.00	16.53	11.12	V	4.9	1.00
3	5,460.000	36.99	54.00	17.01	11.12	V	4.9	1.00
3	5,528.000	78.64			11.10	V	4.9	1.00



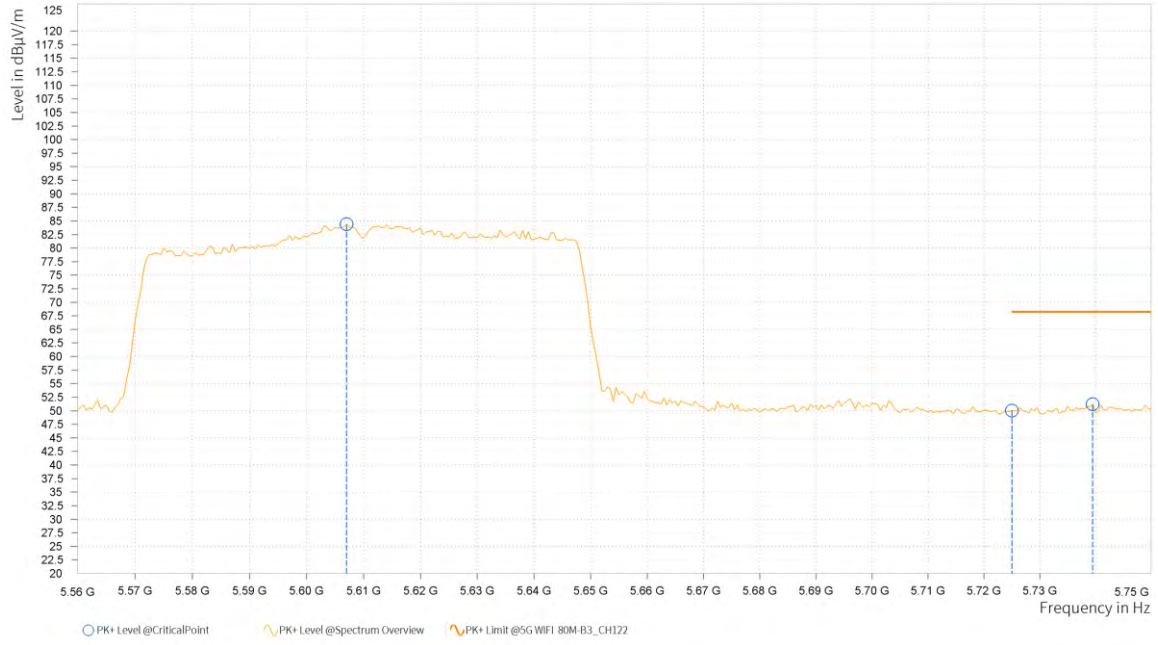
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5530MHz: Fundamental frequency.
4. #: Out of restricted band.

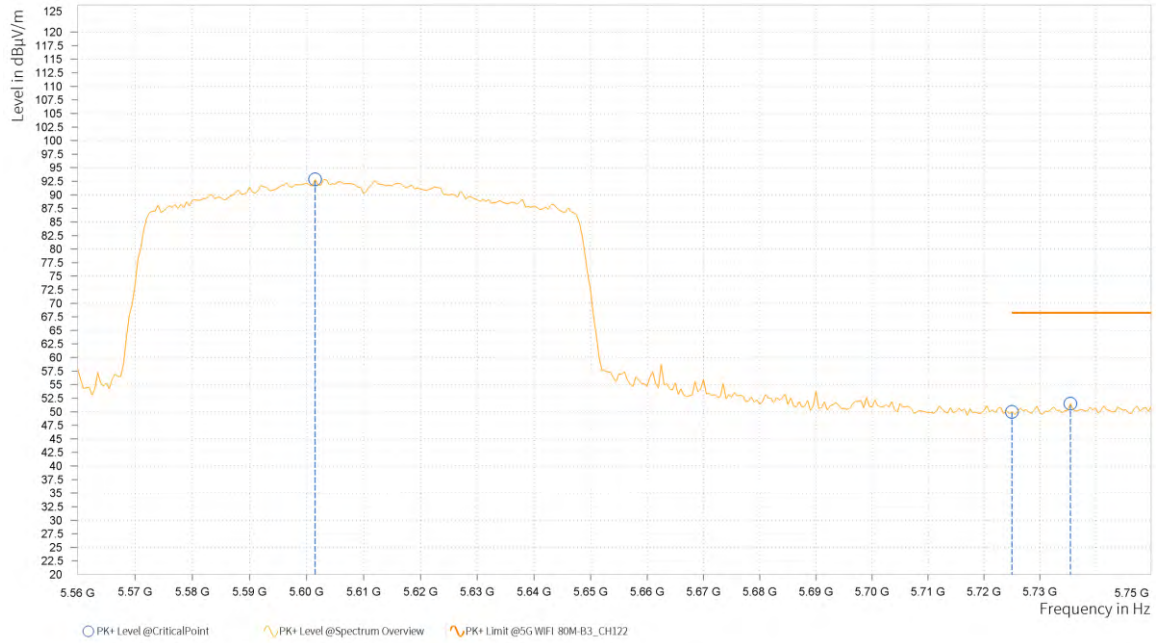
CHANNEL	TX Channel 122	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,607.000	84.40			11.29	H	4.9	1.00
4	5,725.000	50.06	68.20	18.14	11.70	H	4.9	1.00
4	5,739.500	51.19	68.20	17.01	11.72	H	359	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	5,601.500	92.85			11.27	V	4.9	1.00
4	5,725.000	50.00	68.20	18.20	11.70	V	359	2.00
4	5,735.500	51.51	68.20	16.69	11.71	V	103.3	1.00



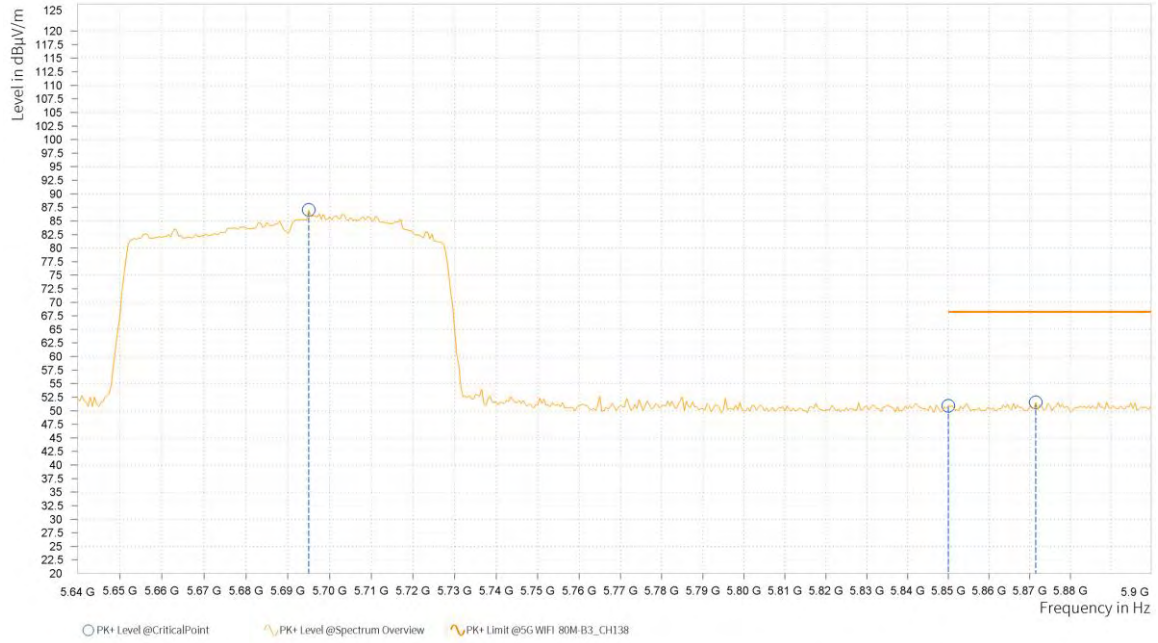
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5610MHz: Fundamental frequency.
4. #: Out of restricted band.

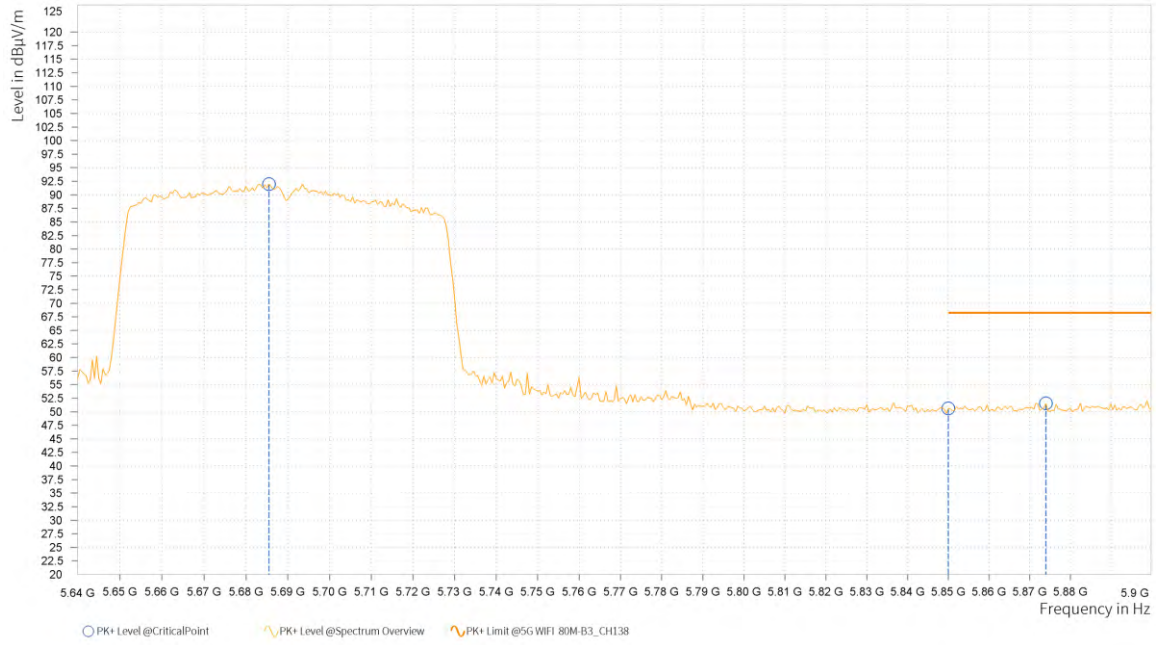
CHANNEL	TX Channel 138	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,695.000	87.07			11.63	H	4.9	1.00
5	5,850.000	50.90	68.20	17.30	11.98	H	4.9	1.00
5	5,871.500	51.58	68.20	16.62	12.05	H	319.6	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,685.500	92.00			11.59	V	359.1	1.00
5	5,850.000	50.62	68.20	17.58	11.98	V	359.1	1.00
5	5,874.000	51.56	68.20	16.64	12.06	V	212	1.00



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5690MHz: Fundamental frequency.
4. #: Out of restricted band.

RADIATED EMISSION
BELOW 1GHz WORST-CASE DATA

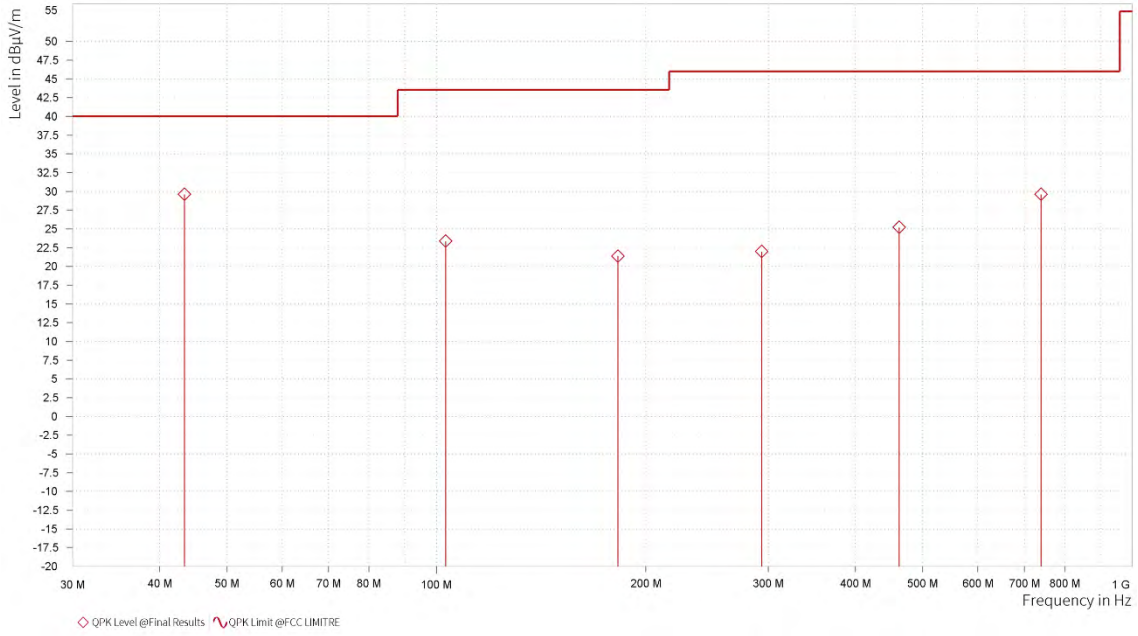
Band 3 802.11a			
CHANNEL	TX Channel 140	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	43.435	29.59	40.00	10.41	-3.96	H	158.6	2.00	120.000
1	103.090	23.35	43.50	20.15	-5.86	H	359	1.00	120.000
1	182.387	21.36	43.50	22.14	-7.37	H	203.8	1.00	120.000
1	293.258	21.97	46.00	24.03	-1.24	H	355.7	2.00	120.000
1	462.475	25.20	46.00	20.80	2.74	H	5	1.00	120.000
1	739.846	29.59	46.00	16.41	4.62	H	0.9	2.00	120.000

REMARKS:

1. Emission level (dBuV/m) = Read level (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Limit value- Emission level.



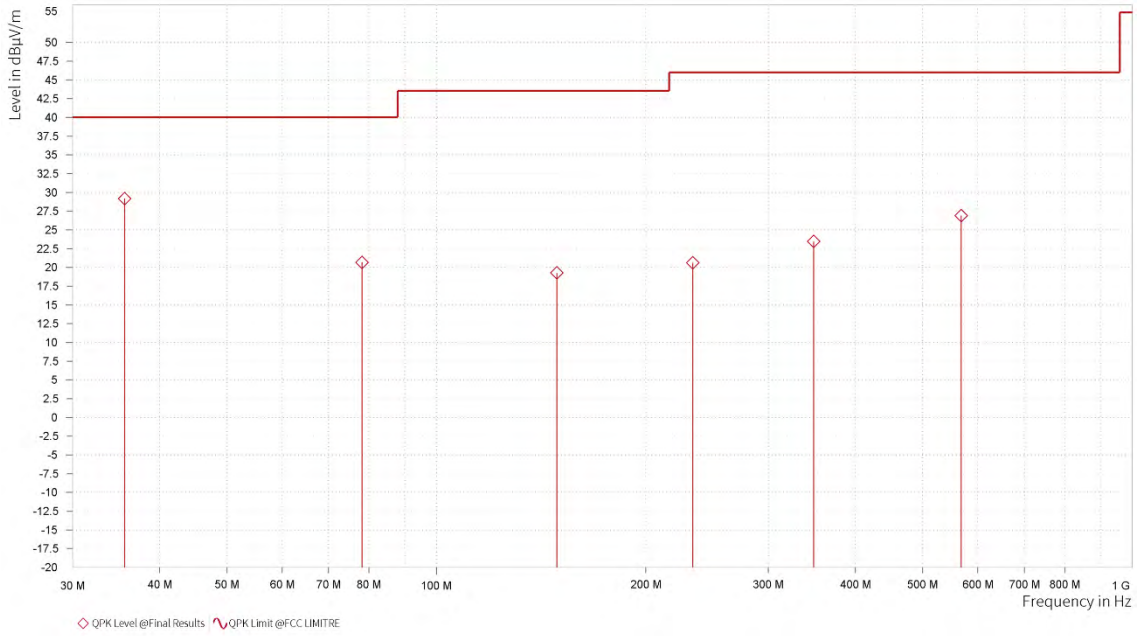
CHANNEL	Channel 140	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	35.626	29.17	40.00	10.83	-7.98	V	0.9	2.00	120.000
1	78.209	20.65	40.00	19.35	-11.36	V	359	2.00	120.000
1	148.971	19.24	43.50	24.26	-8.67	V	1	1.00	120.000
1	233.506	20.62	46.00	25.38	-4.05	V	0.9	2.00	120.000
1	348.548	23.44	46.00	22.56	0.73	V	359	1.00	120.000
1	567.962	26.89	46.00	19.11	1.92	V	0.9	2.00	120.000

REMARKS:

1. Emission level (dBuV/m) = Read level (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Limit value- Emission level.



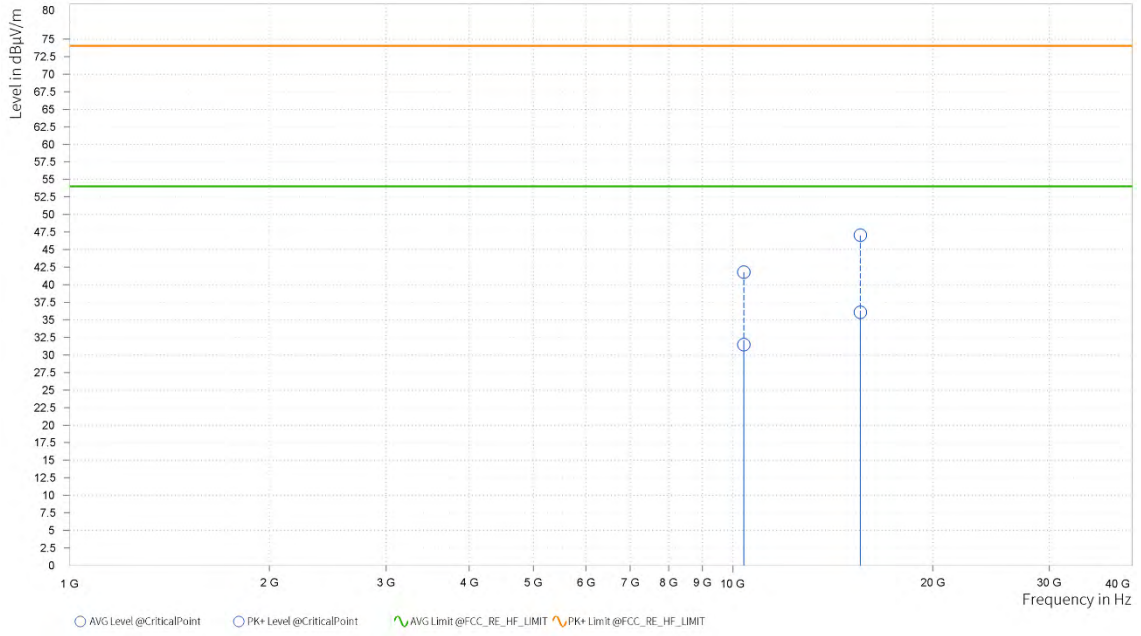
ABOVE 1GHz WORST-CASE DATA

Note: For higher frequency, the emission is too low to be detected.

Band 1 802.ac 40(MHz)			
CHANNEL	TX Channel 38	**DETECTOR**	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	**FUNCTION**	Average (AV)

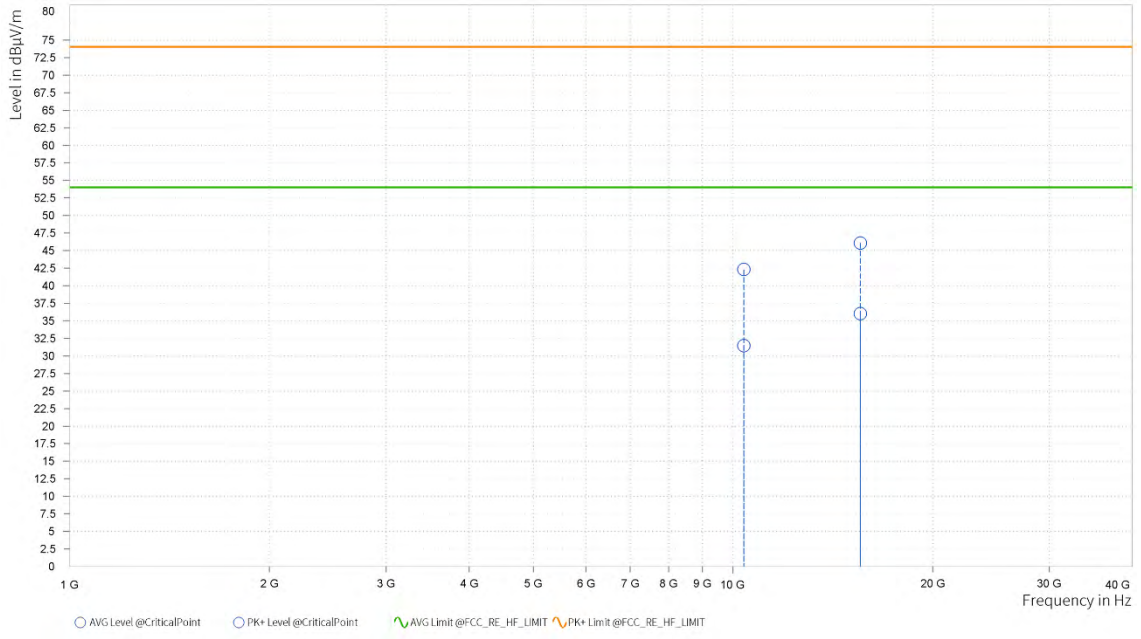
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	10,380.000	41.78	74.00	32.22	31.46	54.00	22.54	4.68	H	71.4	2.00
2	15,570.000	47.04	74.00	26.96	36.06	54.00	17.94	9.33	H	0.9	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	10,380.000	42.32	74.00	31.68	31.47	54.00	22.53	4.68	V	92.4	1.00
2	15,570.000	46.10	74.00	27.90	36.02	54.00	17.98	9.33	V	359	1.00



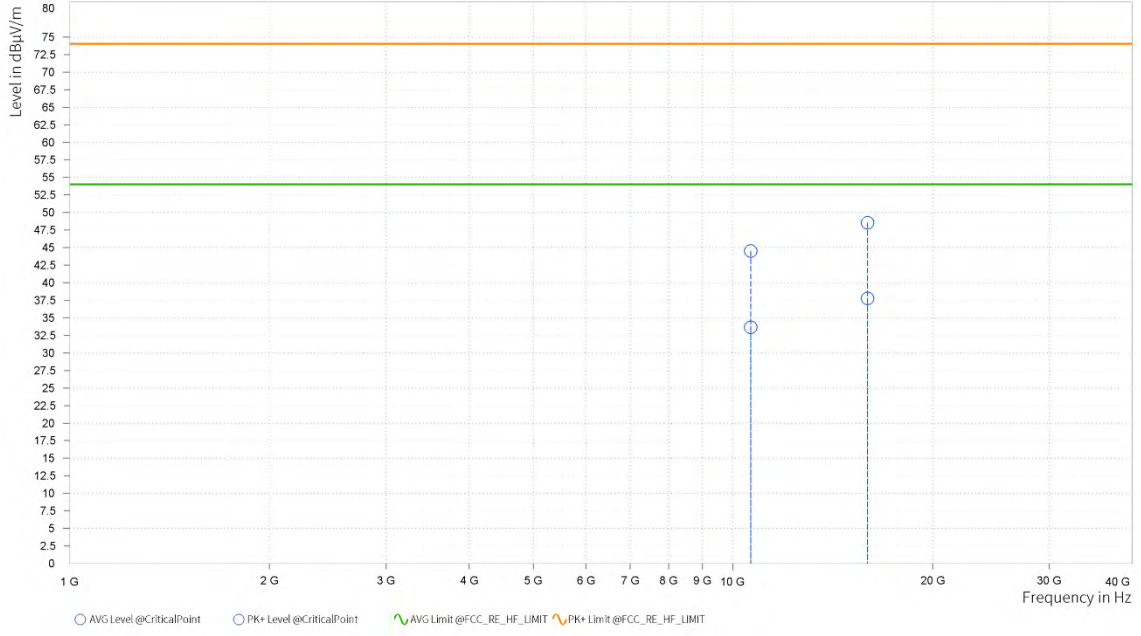
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5210MHz: Fundamental frequency.

Band 2 802.11a			
CHANNEL	TX Channel 64	**DETECTOR**	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	**FUNCTION**	Average (AV)

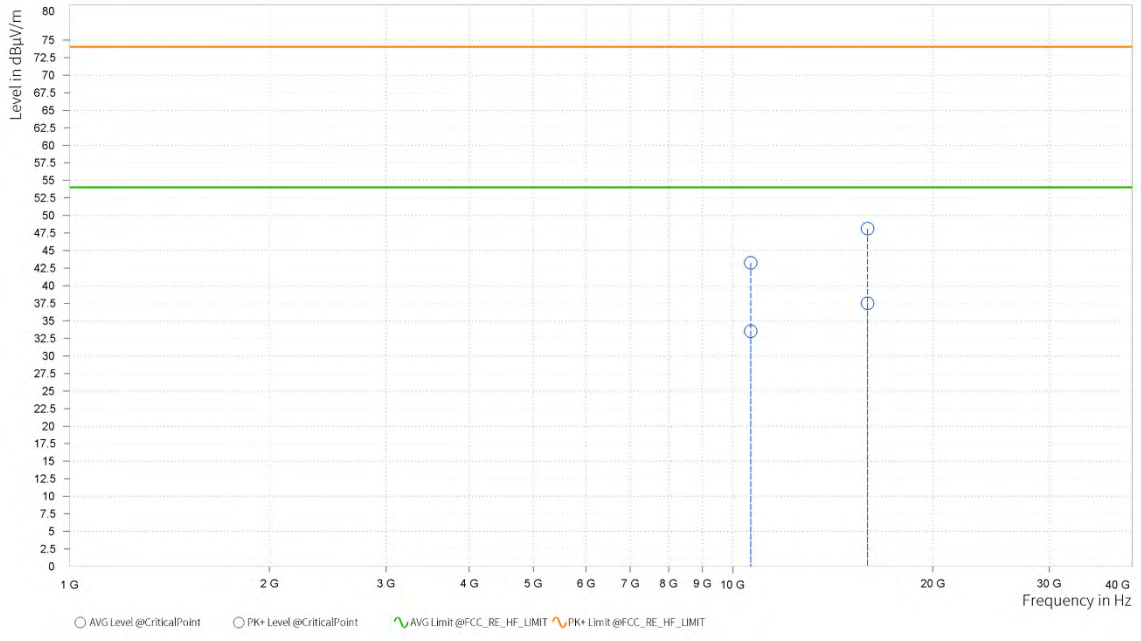
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	10,640.000	44.52	74.00	29.48	33.67	54.00	20.33	5.42	H	359.1	1.00
2	15,960.000	48.54	74.00	25.46	37.76	54.00	16.24	10.73	H	267.5	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	10,640.000	43.28	74.00	30.72	33.52	54.00	20.48	5.42	V	0.9	2.00
2	15,960.000	48.13	74.00	25.87	37.52	54.00	16.48	10.73	V	289.7	1.00



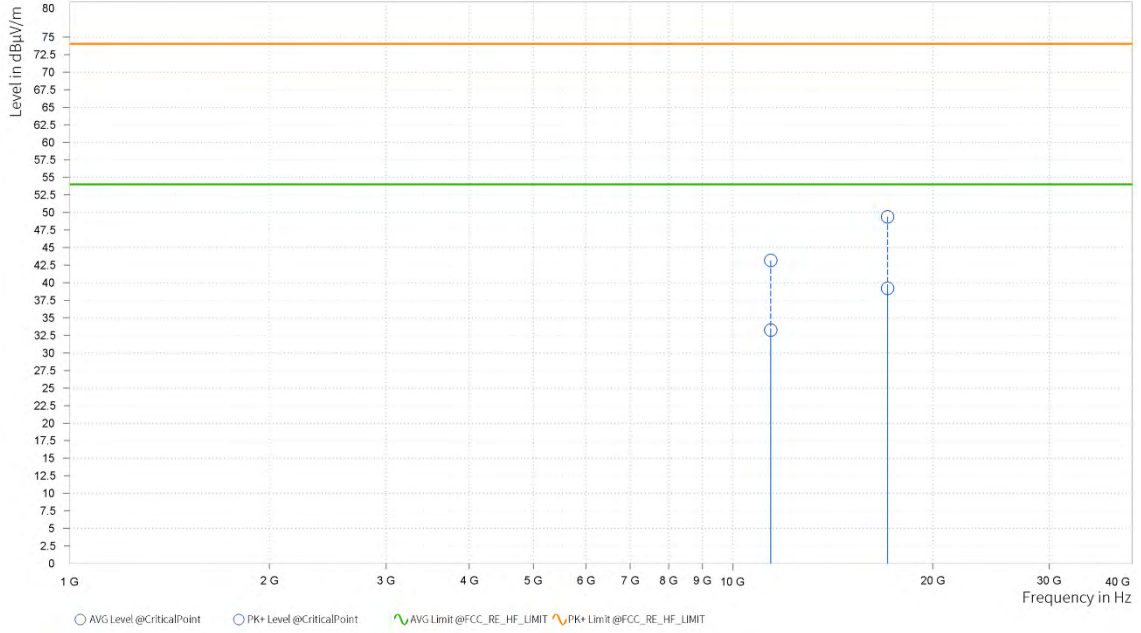
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5290MHz: Fundamental frequency.

Band 3 802.a			
CHANNEL	TX Channel 140	**DETECTOR**	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	**FUNCTION**	Average (AV)

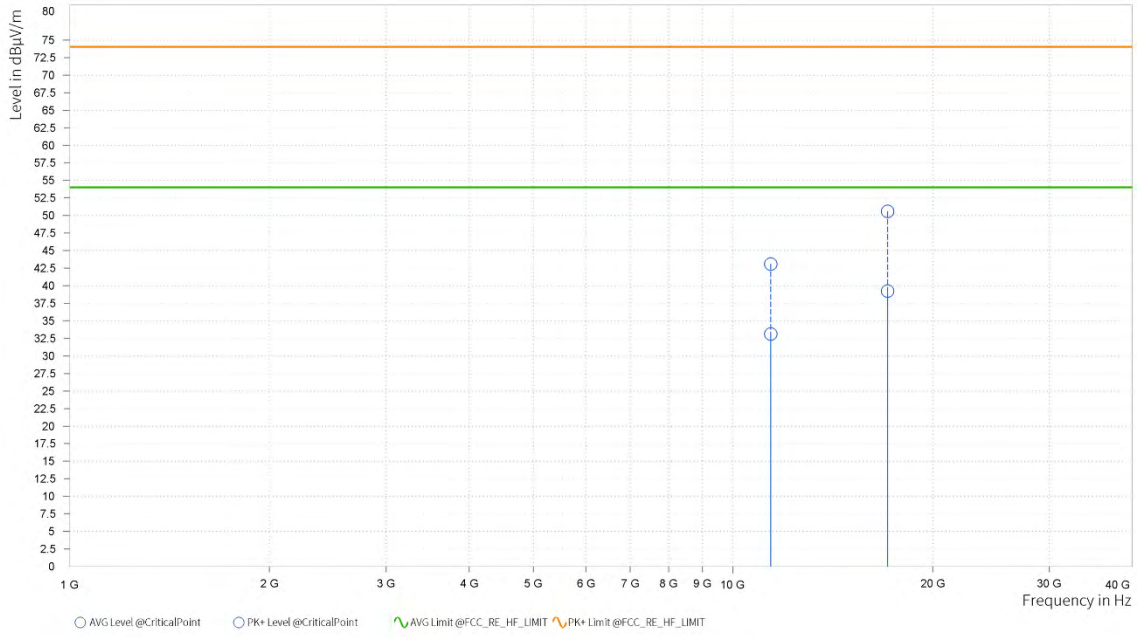
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	11,400.000	43.16	74.00	30.84	33.24	54.00	20.76	5.99	H	1	2.00
2	17,100.000	49.39	74.00	24.61	39.19	54.00	14.81	13.54	H	70.2	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	11,400.000	43.10	74.00	30.90	33.13	54.00	20.87	5.99	V	162.3	2.00
2	17,100.000	50.59	74.00	23.41	39.22	54.00	14.78	13.54	V	1.8	2.00



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5530MHz: Fundamental frequency.
4. #: Out of restricted band.

3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE:

1 The lower limit shall apply at the transition frequencies.

2 The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3 All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR3	102749	Mar.28,24	Mar.27,26
ELEKTRA test software	Rohde&Schwarz	ELEKTRA	NA	N/A	N/A
LISN network	Rohde&Schwarz	ENV216	102640	Mar.28,24	Mar.27,26
CABLE	Rohde&Schwarz	W61.01	N/A	Apr.27,24	Apr.26,25
CABLE	Rohde&Schwarz	W601	N/A	Apr.27,24	Apr.26,25

NOTE:

1. The test was performed in CE shielded room.
2. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

3.2.3 TEST PROCEDURES

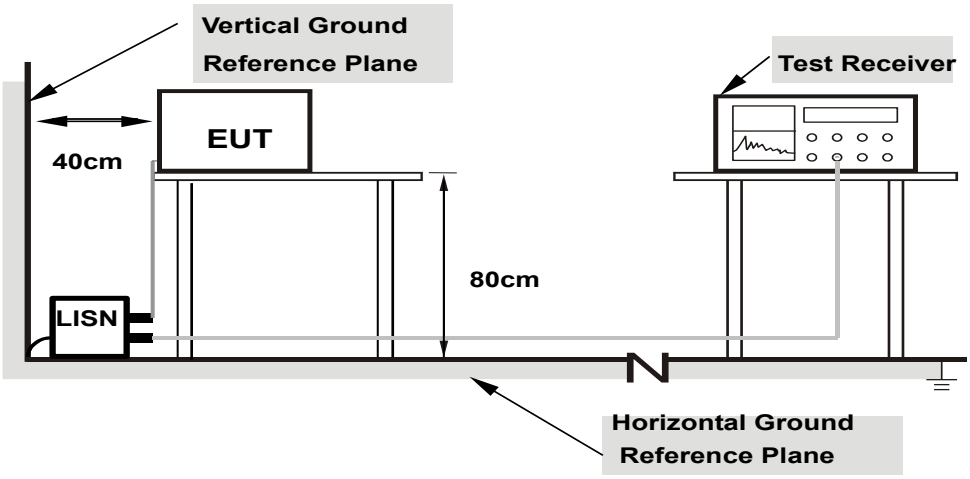
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

3.2.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.7.

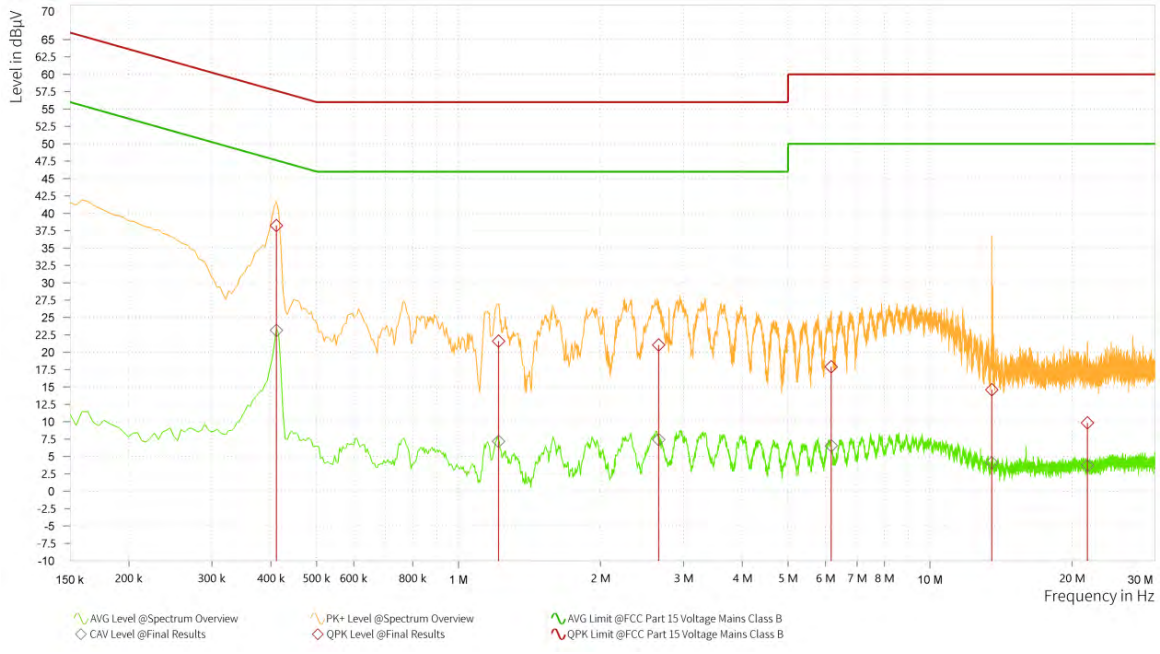
3.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA			
FREQUENCY RANGE	150KHz ~ 30MHz	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak (QP) / Average (AV), 9 kHz
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	26deg. C, 51%RH
TESTED BY	Hanwen Xu		

Rg	Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	CAV Level [dBµV]	CAV: AVG Limit [dBµV]	CAV Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]
1	0.411	38.23	57.63	19.40	23.14	47.63	24.49	11.76	L1	9.000
1	1.217	21.59	56.00	34.41	7.18	46.00	38.82	11.75	L1	9.000
1	2.657	21.04	56.00	34.96	7.41	46.00	38.59	11.77	L1	9.000
1	6.176	17.92	60.00	42.08	6.56	50.00	43.44	11.80	L1	9.000
1	13.520	14.60	60.00	45.40	4.11	50.00	45.89	11.84	L1	9.000
1	21.579	9.83	60.00	50.17	3.70	50.00	46.30	11.88	L1	9.000

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and
3. measurement with the average detector is unnecessary.
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Limit value - Emission level
6. Correction factor = Insertion loss + Cable loss
7. Emission Level = Correction Factor + Reading Value.

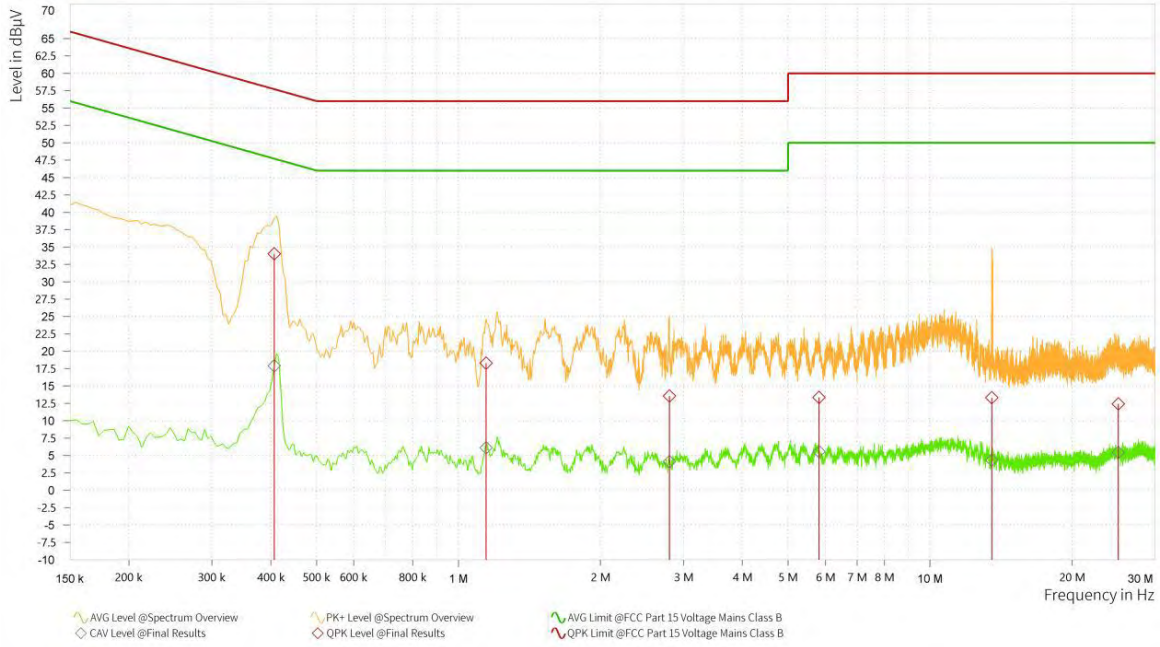


FREQUENCY RANGE	150KHz ~ 30MHz	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak (QP) / Average (AV), 9 kHz
INPUT POWER	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	26deg. C, 51%RH
TESTED BY	Hanwen Xu		

Rg	Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	CAV Level [dBµV]	CAV: AVG Limit [dBµV]	CAV Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]
1	0.407	34.04	57.72	23.68	17.91	47.72	29.81	12.82	N	9.000
1	1.145	18.27	56.00	37.73	6.11	46.00	39.89	12.73	N	9.000
1	2.801	13.55	56.00	42.45	4.09	46.00	41.91	12.74	N	9.000
1	5.816	13.37	60.00	46.63	5.55	50.00	44.45	12.77	N	9.000
1	13.515	13.30	60.00	46.70	4.32	50.00	45.68	12.81	N	9.000
1	25.089	12.41	60.00	47.59	5.42	50.00	44.58	12.87	N	9.000

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and
3. measurement with the average detector is unnecessary.
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Limit value - Emission level
6. Correction factor = Insertion loss + Cable loss
7. Emission Level = Correction Factor + Reading Value.



3.3 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

3.3.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

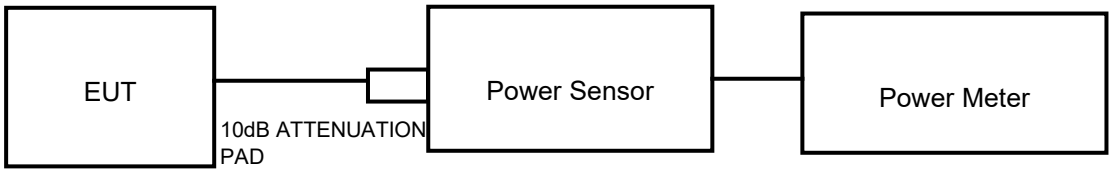
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
	B	Indoor Access Point	1 Watt (30 dBm)
	√	Client devices	250mW (24 dBm)
U-NII-2A	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	√		250mW (24 dBm) or 11 dBm+10 log B*

NOTE: Where B is the 26dB emission bandwidth in MHz.

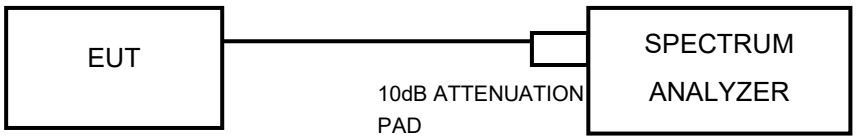
3.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT

802.11a, 802.11n/ac (20MHz), 802.11 n/ac (40MHz), 802.11ac (80MHz) TEST CONFIGURATION



FOR 26dB BANDWIDTH



3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	R&S	ESW 44	101973	Mar.28,24	Mar.27,26
Open Switch and Control Unit	R&S	OSP-B157W8	100836	N/A	N/A
Vector Signal Generator	R&S	SMBV100B	102176	Mar.29,24	Mar.28,26
Signal Generator	R&S	SMB100A03	182185	Mar.29,24	Mar.28,26
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.19,24	Jun.18,26
Hygrothermograph	DELI	20210528	SZ015	Sep.05,24	Sep.04,26
PC	LENOVO	E14	HRSW0024	N/A	N/A
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.27,24	Apr.26,25
Test Software	EMC32	EMC32	N/A	N/A	N/A
Temperature Chamber	votsch	VT4002	58566078100050	May.30,24	May.29,26
Power Meter	R&S	NRX	102380	Mar.28,24	Mar.27,26
Power Meter probe	R&S	NRP6A	102942	Mar.28,24	Mar.27,26

NOTE:

1. The calibration interval of the above test instruments is 12 /24months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in RF Oven room.

3.3.4 TEST PROCEDURE

FOR POWER MEASUREMENT

For 802.11a, 802.11n/ac (20MHz), 802.11 n/ac (40MHz) ,802.11 ac (80MHz)

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

FOR 99 PERCENT OCCUPIED BANDWIDTH

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

FOR 26dB BANDWIDTH

1) Set RBW = approximately 1% of the emission bandwidth.
2) Set the VBW > RBW.
3) Detector = Peak.
4) Trace mode = max hold.
5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

3.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

3.3.7 TEST RESULTS

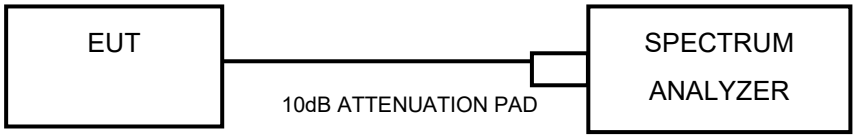
Please Refer to Appendix of this test report.

3.4 MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
		Indoor Access Point	
	√	Client devices	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.4.4 TEST PROCEDURES

Using method SA-2(Band1/2/3)

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission).
7) Record the max value

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.1.7.

3.4.7 TEST RESULTS

Please Refer to Appendix of this test report.

3.5 AUTOMATICALLY DISCONTINUE TRANSMISSION

3.5.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information, or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

3.5.2 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.5.3 TEST RESULT

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving。 The EUT can detect the controlling of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3.6 ANTENNA REQUIREMENTS

3.6.1 STANDARD APPLICABLE

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmits power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.6.2 ANTENNA CONNECTED CONSTRUCTION

An embedded-in antenna design is used.

3.6.3 ANTENNA GAIN

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit and PSD limit

4. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

5. MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

6. Appendix

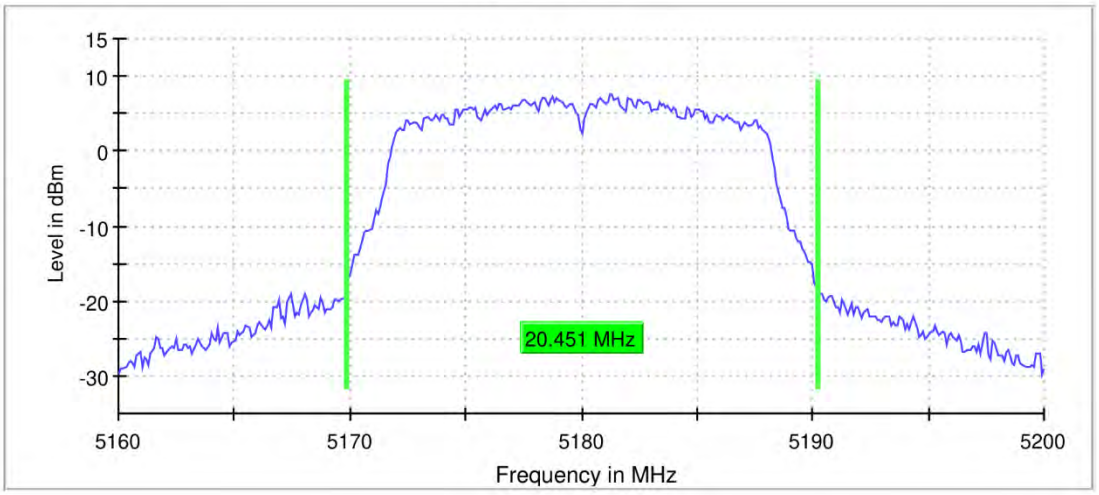
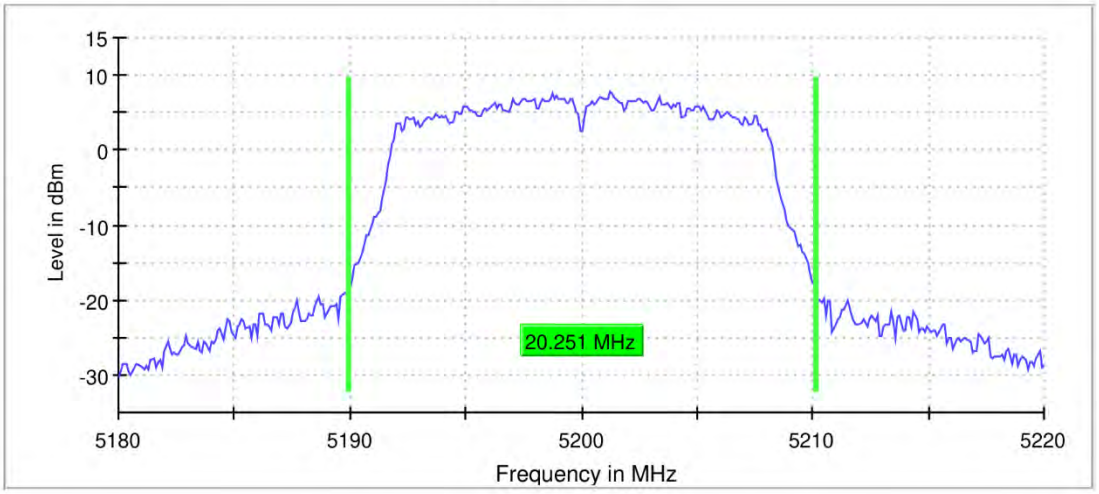
EMISSION BANDWIDTH

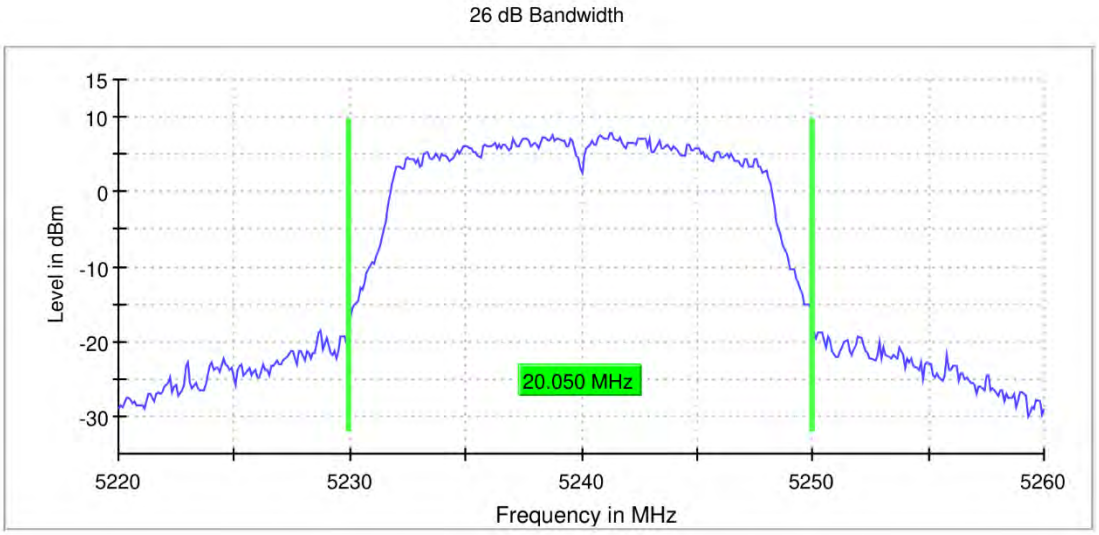
TEST RESULT

TestMode	Antenna	Frequency [MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	ANT8	5180	20.451	5169.825	5190.276	---	---
	ANT8	5200	20.251	5189.925	5210.176	---	---
	ANT8	5240	20.050	5229.925	5249.975	---	---
	ANT8	5260	20.150	5249.925	5270.075	---	---
	ANT8	5300	20.551	5289.724	5310.275	---	---
	ANT8	5320	20.351	5309.825	5330.176	---	---
	ANT8	5500	20.251	5489.825	5510.076	---	---
	ANT8	5580	20.050	5570.025	5590.075	---	---
	ANT8	5700	20.852	5689.925	5710.777	---	---
	ANT8	5720	22.757	5709.825	5732.582	---	---
11N20	ANT8	5180	20.551	5169.724	5190.275	---	---
	ANT8	5200	20.551	5189.724	5210.275	---	---
	ANT8	5240	20.551	5229.724	5250.275	---	---
	ANT8	5260	20.351	5249.825	5270.176	---	---
	ANT8	5300	20.451	5289.825	5310.276	---	---
	ANT8	5320	20.551	5309.724	5330.275	---	---
	ANT8	5500	20.551	5489.724	5510.275	---	---
	ANT8	5580	20.551	5569.724	5590.275	---	---
	ANT8	5700	20.451	5689.724	5710.175	---	---
	ANT8	5720	20.451	5709.825	5730.276	---	---
11N40	ANT8	5190	40.602	5169.699	5210.301	---	---
	ANT8	5230	40.602	5209.699	5250.301	---	---
	ANT8	5270	40.602	5249.699	5290.301	---	---
	ANT8	5310	40.602	5289.549	5330.150	---	---
	ANT8	5510	40.602	5489.699	5530.301	---	---
	ANT8	5550	40.602	5529.699	5570.301	---	---
	ANT8	5670	40.602	5649.699	5690.301	---	---
	ANT8	5710	40.602	5689.699	5730.301	---	---
11AC80	ANT8	5210	82.759	5168.621	5251.379	---	---

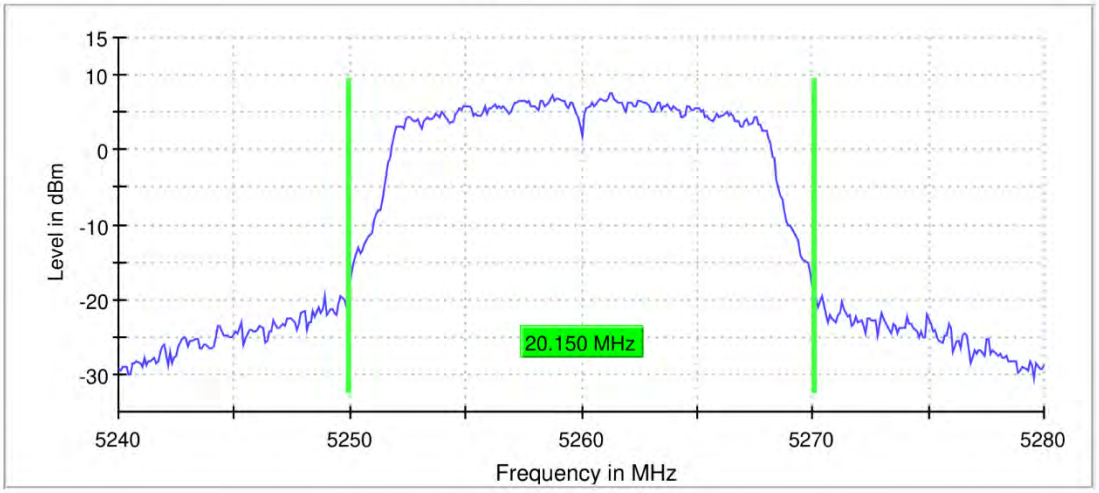
	ANT8	5290	82.759	5248.621	5331.379	---	---
	ANT8	5530	82.759	5488.621	5571.379	---	---
	ANT8	5610	82.759	5568.621	5651.379	---	---
	ANT8	5690	82.759	5648.621	5731.379	---	---

TEST GRAPHS

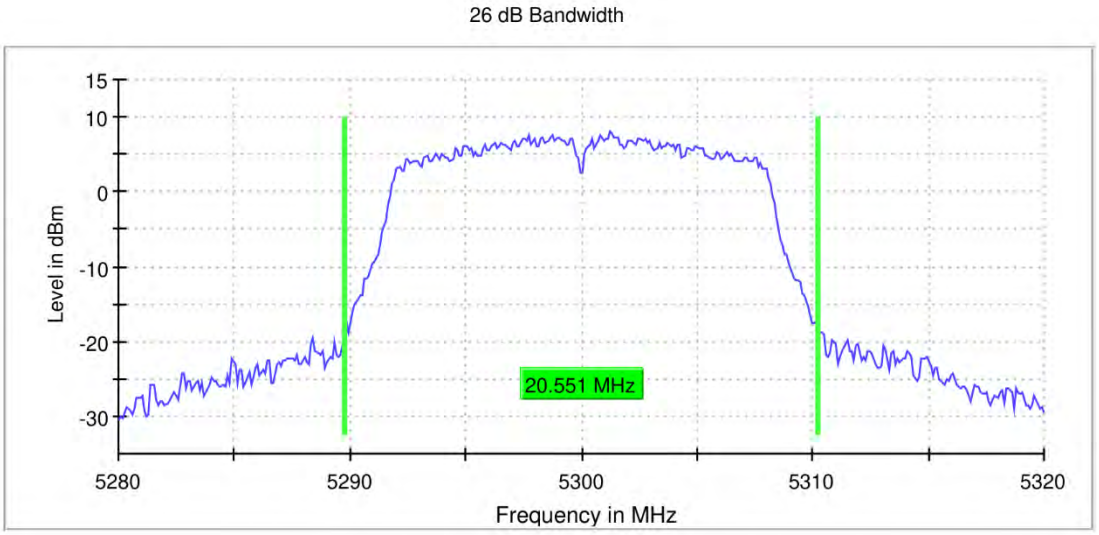
11A_ANT8_5180
26 dB Bandwidth 
11A _ANT8_5200
26 dB Bandwidth 
11A _ANT8_5240



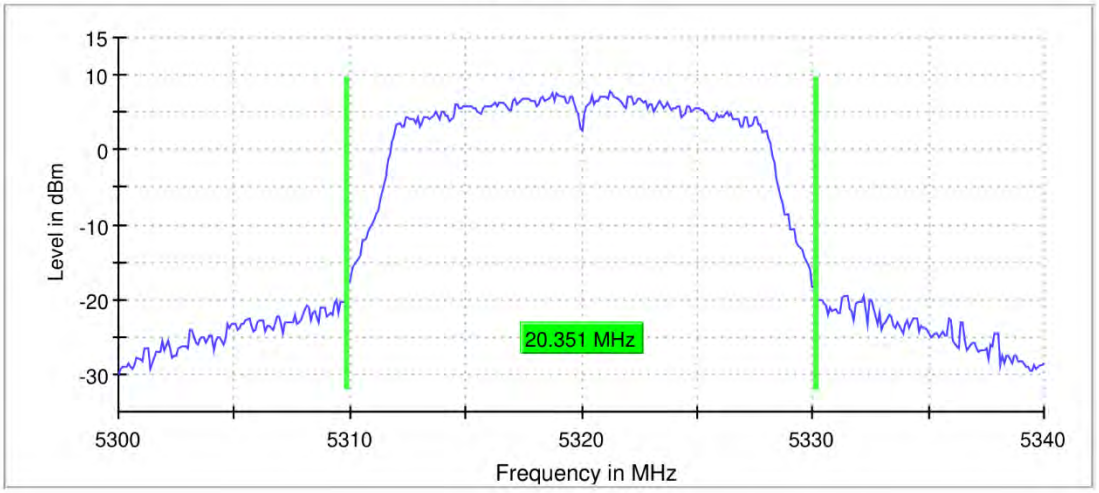
11A _ANT8_5260



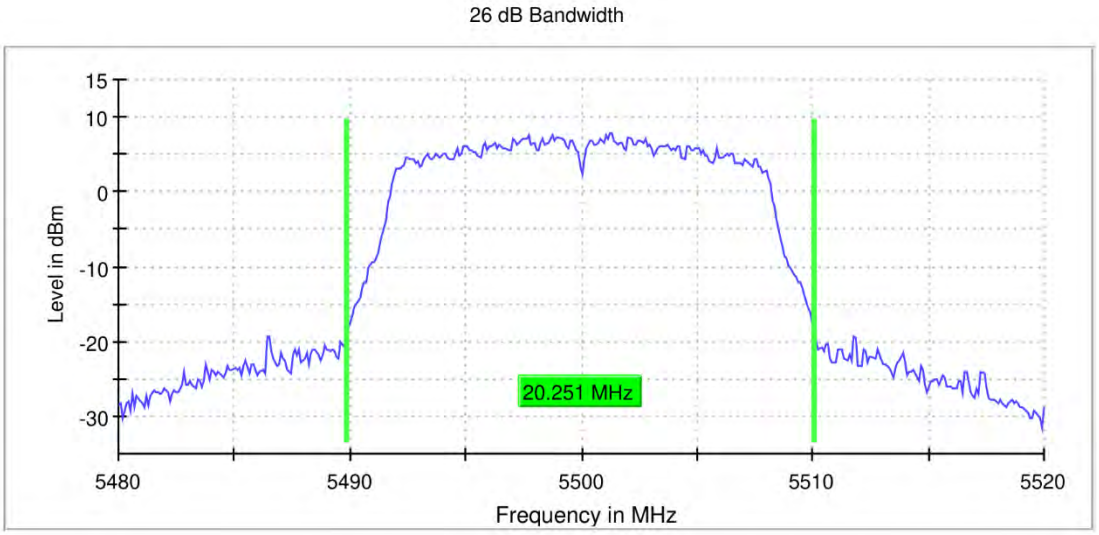
11A _ANT8_5300



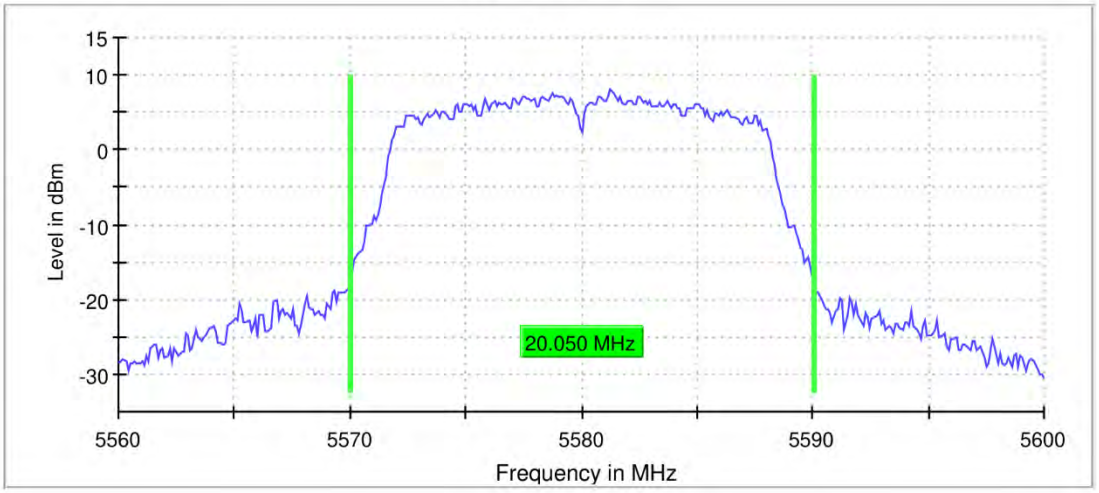
11A _ANT8_5320



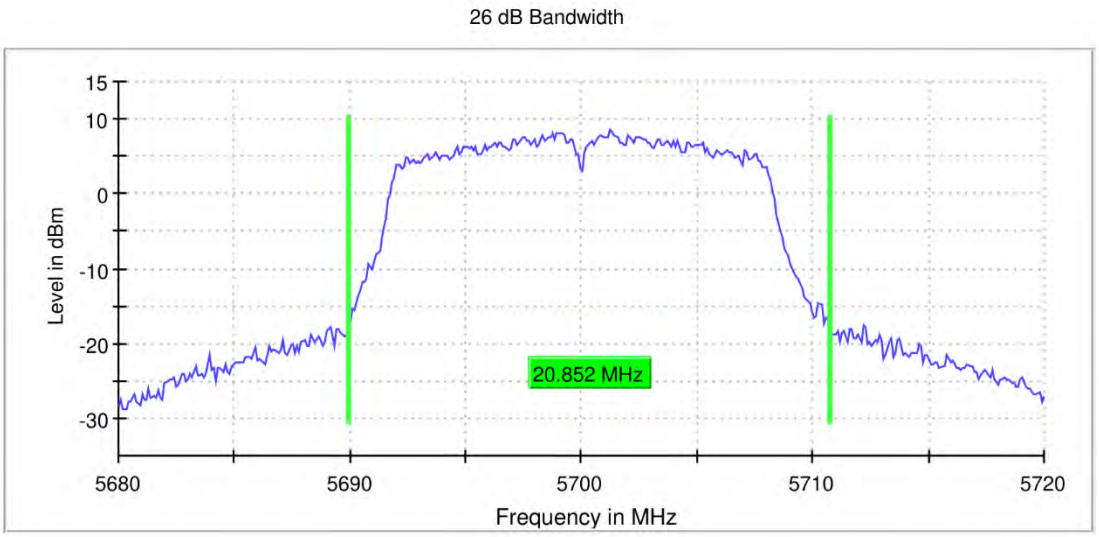
11A _ANT8_5500



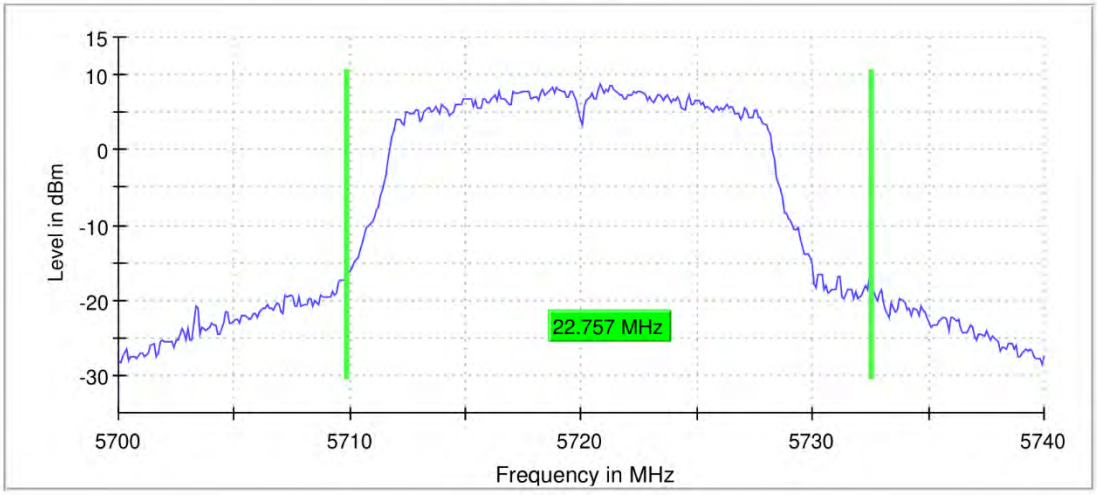
11A _ANT8_5580



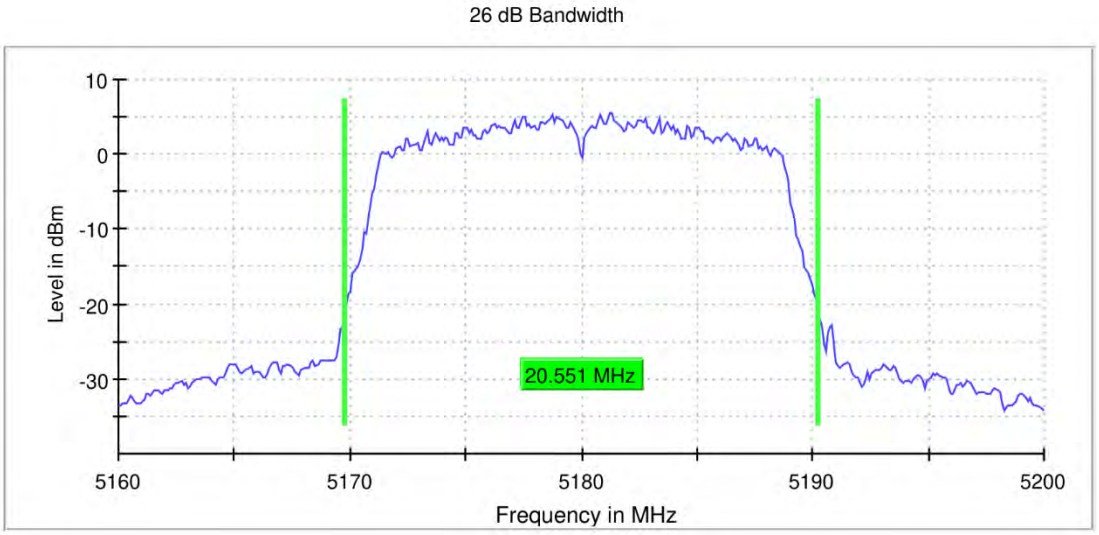
11A _ANT8_5700



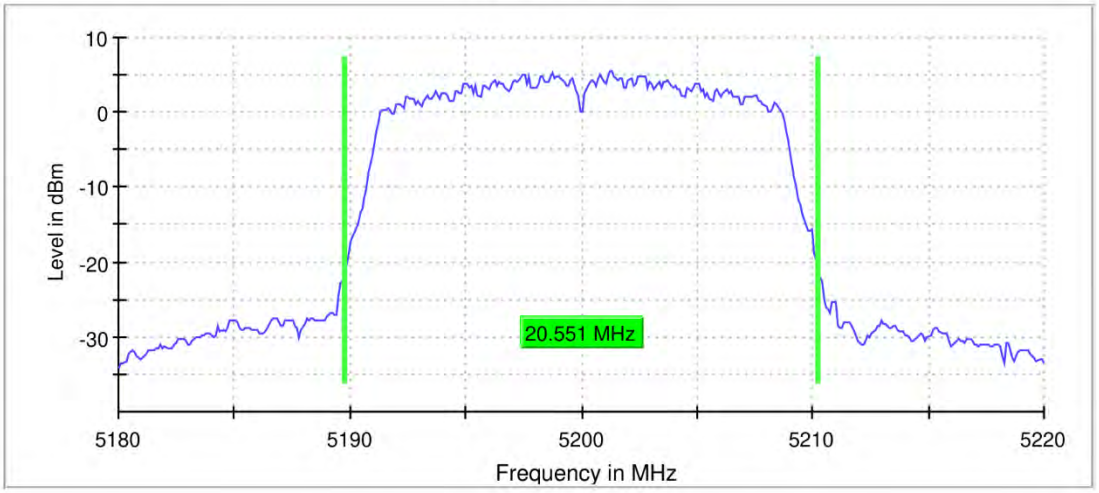
11A _ANT8_5720



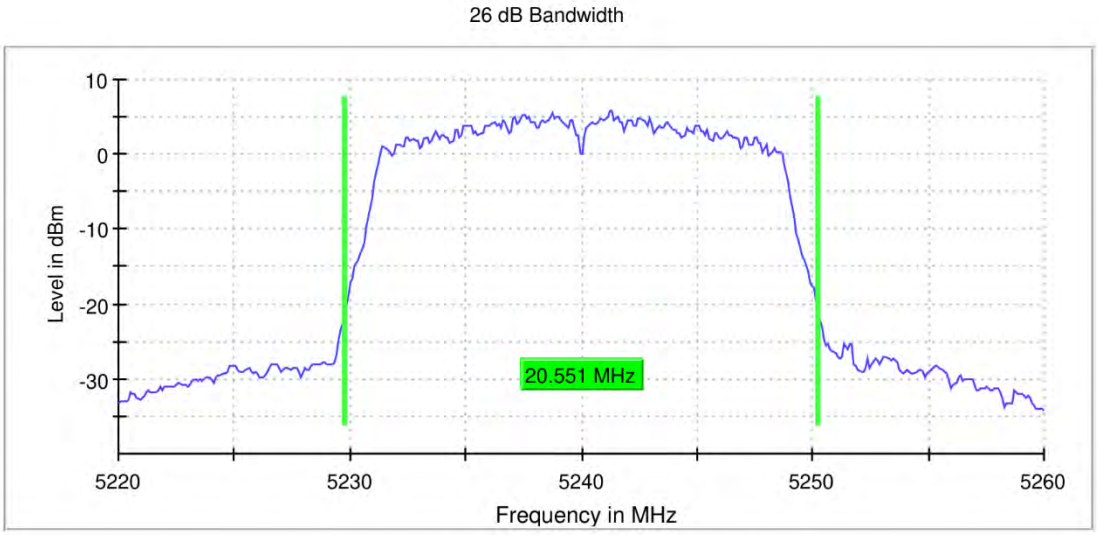
11N20_ANT8_5180



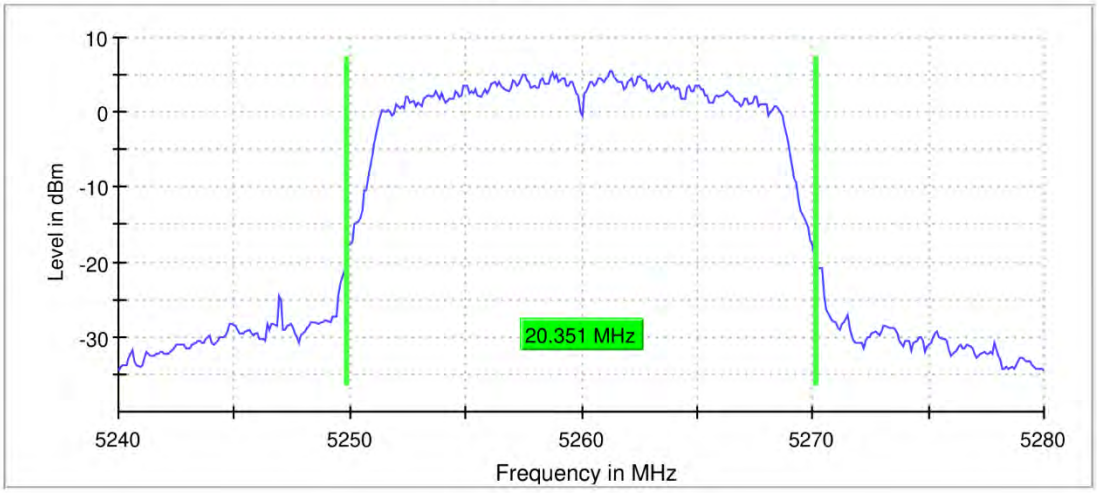
11N20 _ANT8_5200



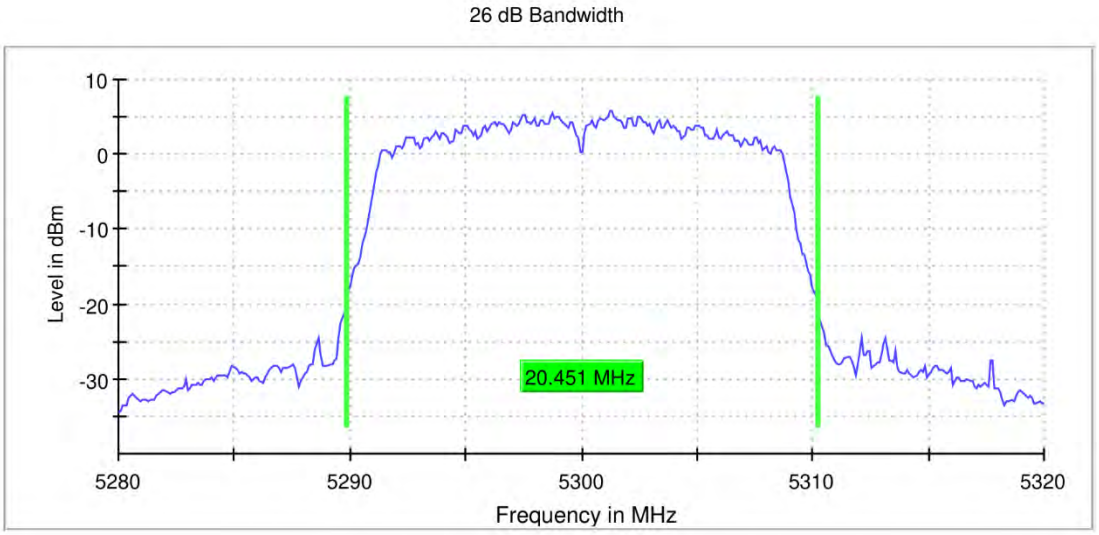
11N20 _ANT8_5240



11N20 _ANT8_5260

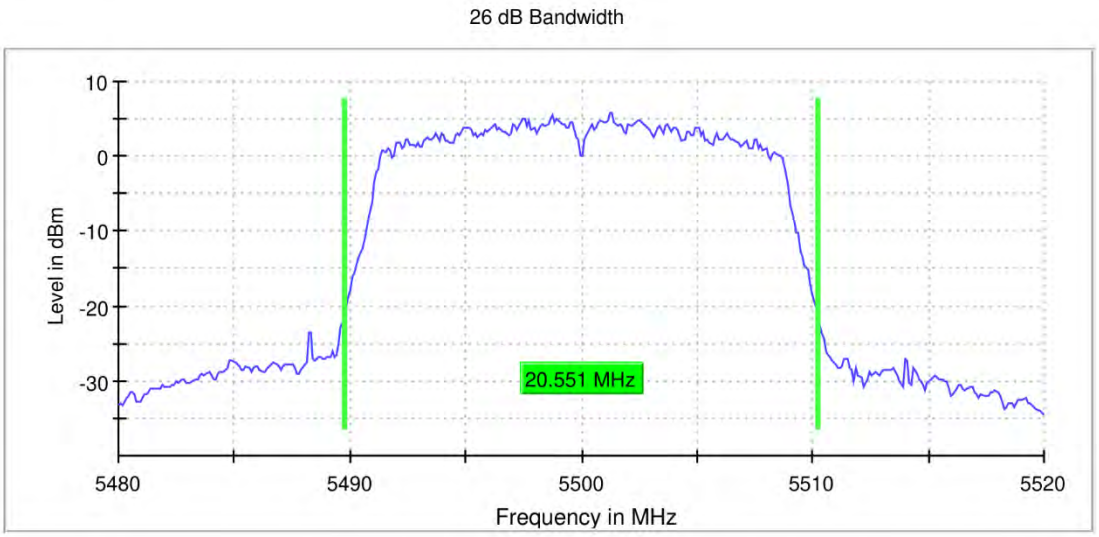


11N20_ANT8_5300

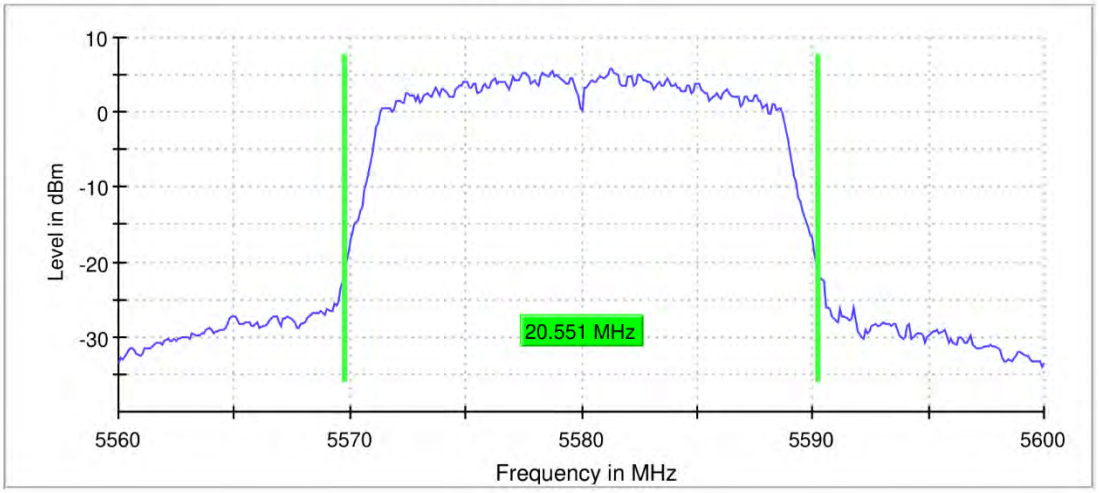


11N20 _ANT8_5320

11N20 _ANT8_5500



11N20_ANT8_5580



11N20_ANT8_5700