

7.4.5. Test Result

Product	Fides-Link2	Temperature	20°C
Test Engineer	Fran	Relative Humidity	56%
Test Site	SR6	Test Date	2025/1/2

AIR:

Test Mode	Channel No.	Frequency (MHz)	Average Power (dBm)	Power Limit (dBm)
5.8GHz_Ant 1	CH01	5735	22.23	< 30
	CH02	5760	23.25	< 30
	CH03	5785	23.63	< 30
	CH04	5810	23.53	< 30
	CH05	5835	23.43	< 30
5.8GHz_Ant 2	CH01	5735	23.02	< 30
	CH02	5760	22.67	< 30
	CH03	5785	23.95	< 30
	CH04	5810	23.94	< 30
	CH05	5835	23.58	< 30

Note1: Average Power =Reading value on power meter + cable loss.

GND:

Test Mode	Channel No.	Frequency (MHz)	Average Power (dBm)	Power Limit (dBm)
5.8GHz_Ant 1	CH01	5735	22.19	< 30
	CH02	5760	23.21	< 30
	CH03	5785	23.31	< 30
	CH04	5810	23.43	< 30
	CH05	5835	23.36	< 30

Note1: Average Power =Reading value on power meter + cable loss.

7.5. Transmit Power Control

7.5.1. Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

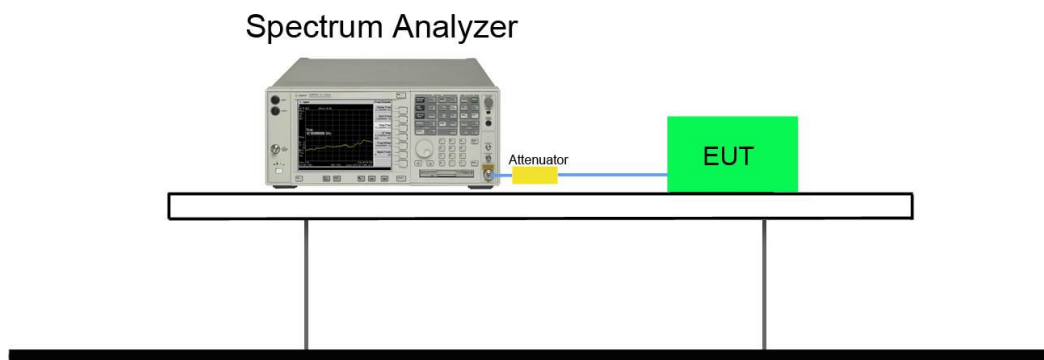
7.5.2. Test Procedure Used

KDB 789033 D02v02r01 - Section E) 3) b) Method PM-G

7.5.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

7.5.4. Test Setup



7.5.5. Test Result

A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

7.6. Power Spectral Density Measurement

7.6.1. Test Limit

For FCC Power Spectral Density Limit

For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

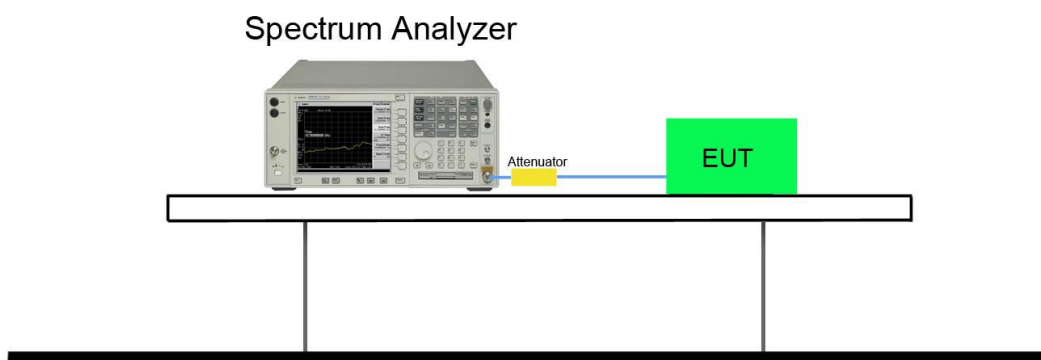
7.6.2. Test Procedure Used

KDB 789033 D02v02r01 - Section F

7.6.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz,
4. RBW = 100 kHz
5. VBW = 3MHz
6. Number of sweep points $\geq 2 \times (\text{span} / \text{RBW})$
7. Detector = power averaging (Average)
8. Sweep time = auto
9. Trigger = free run
10. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
11. Add $10 \cdot \log(1/x)$, 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). For example, add $10 \cdot \log(1/0.25) = 6 \text{ dB}$ if the duty cycle is 25 percent.
12. When the measurement bandwidth of Maximum PSD is specified in 500 kHz, add a constant factor $10 \cdot \log(500\text{kHz}/100\text{kHz}) = 7 \text{ dB}$ to the measured result

7.6.4. Test Setup



7.6.5. Test Result

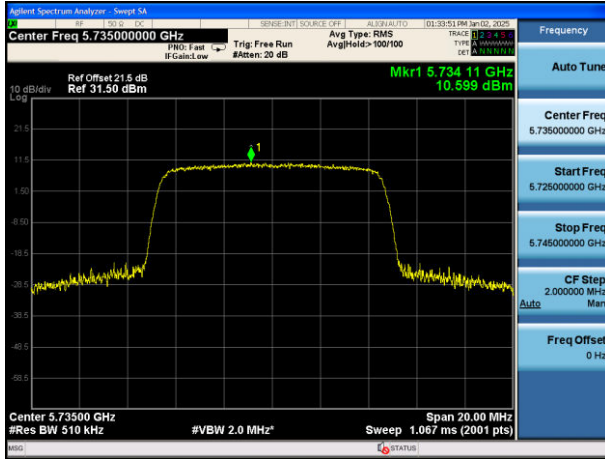
Product	Fides-Link2	Temperature	20°C
Test Engineer	Fran	Relative Humidity	56%
Test Site	SR6	Test Date	2025/1/2

Test Mode	Ch. No.	Freq. (MHz)	Average PSD (dBm/510KHz)	Duty Cycle (%)	Total PSD (dBm/510kHz)	Limit (dBm/500kHz)	Result
5.8GHz_Ant 1	CH01	5735	10.599	100.00%	10.599	≤ 30	Pass
	CH02	5760	10.706	100.00%	10.706	≤ 30	Pass
	CH03	5785	11.199	100.00%	11.199	≤ 30	Pass
	CH04	5810	10.904	100.00%	10.904	≤ 30	Pass
	CH05	5835	10.710	100.00%	10.710	≤ 30	Pass
5.8GHz_Ant 2	CH01	5735	10.480	100.00%	10.480	≤ 30	Pass
	CH02	5760	9.980	100.00%	9.980	≤ 30	Pass
	CH03	5785	9.993	100.00%	9.993	≤ 30	Pass
	CH04	5810	9.884	100.00%	9.884	≤ 30	Pass
	CH05	5835	9.350	100.00%	9.350	≤ 30	Pass

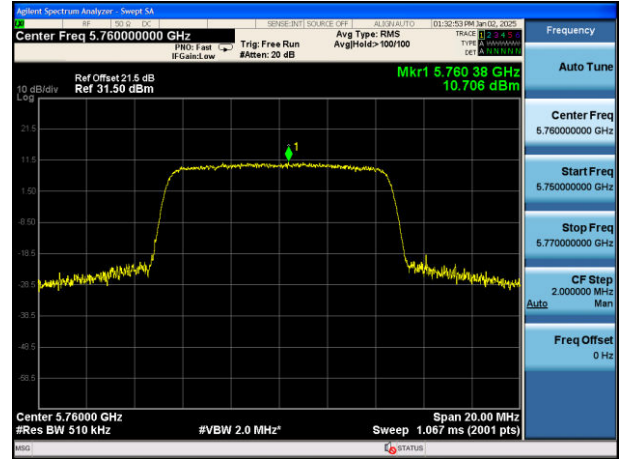
Note: Total PSD= Average PSD + + 10*log (1/Duty Cycle).

Ant 1

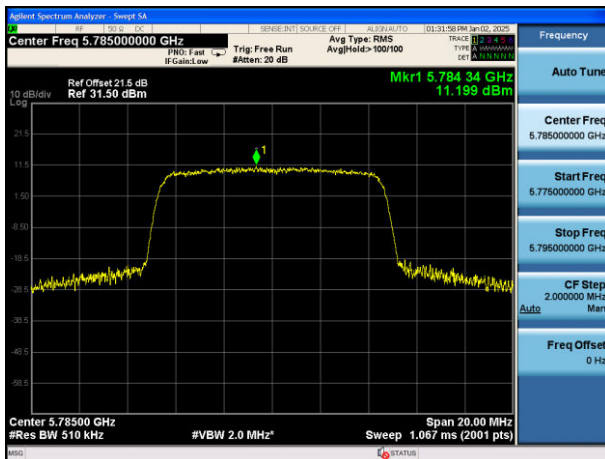
CH01 (5735MHz)



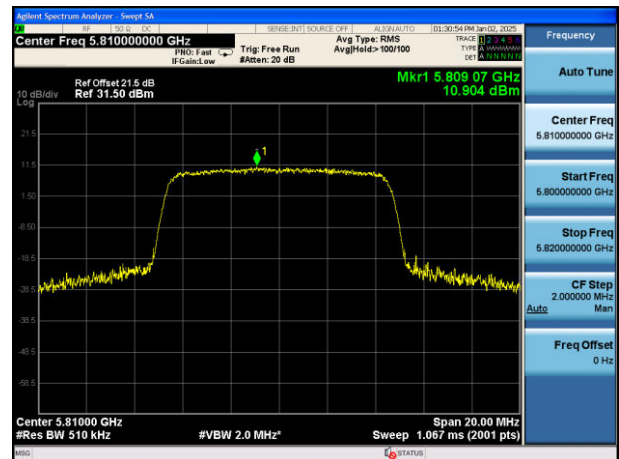
CH02 (5760MHz)



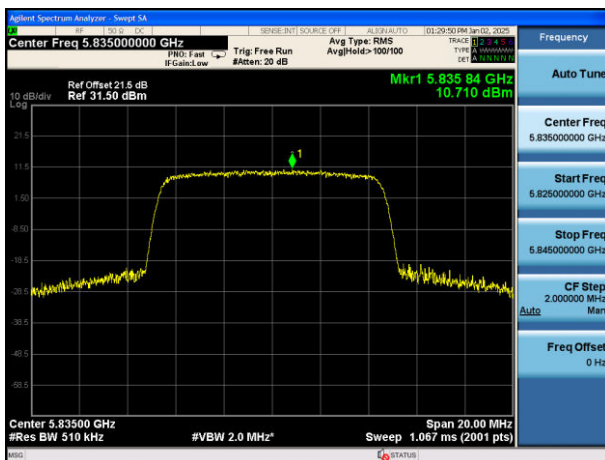
CH03 (5785MHz)



CH04 (5810MHz)

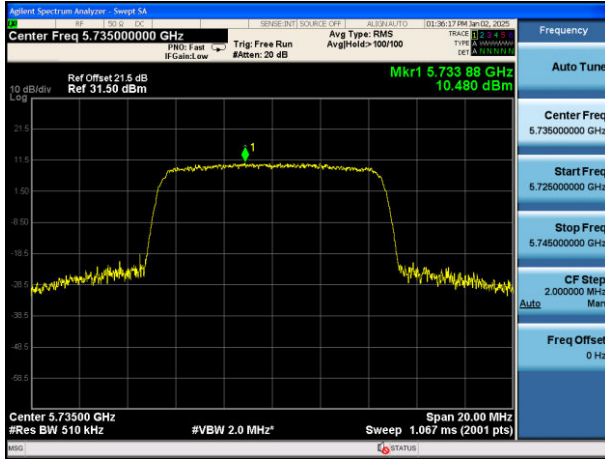


CH05 (5835MHz)

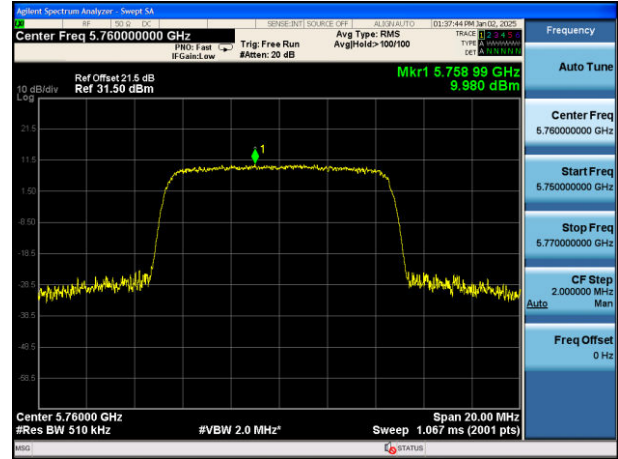


Ant 2

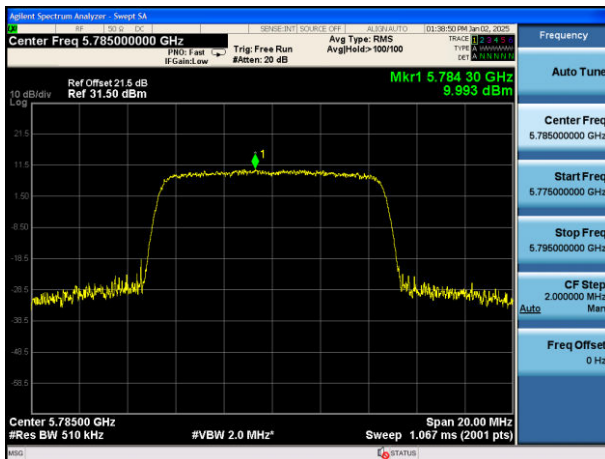
CH01 (5735MHz)



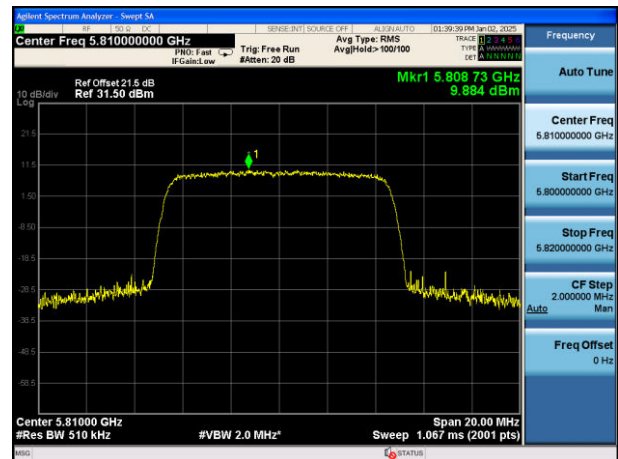
CH02 (5760MHz)



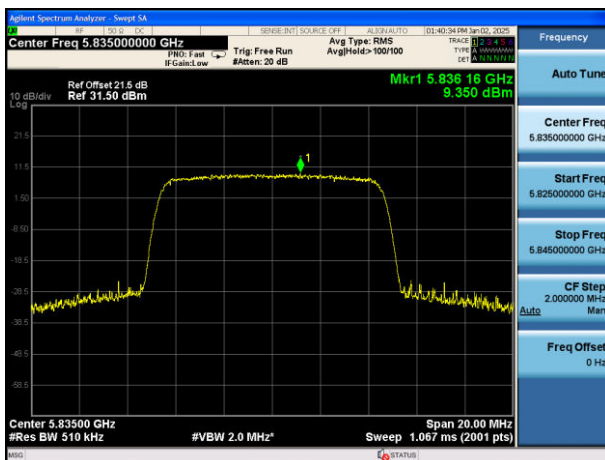
CH03 (5785MHz)



CH04 (5810MHz)



CH05 (5835MHz)



7.7. Radiated Spurious Emission Measurement

7.7.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [V/m]	Measured Distance [Meters]
0.009 – 0.490	2400/F (kHz)	300
0.490 – 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.7.2. Test Procedure Used

KDB 789033 D02v02r01 – Section G

7.7.3. Test Setting

Peak Measurements above 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 120 kHz
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Average Measurements above 1GHz (Method AD)

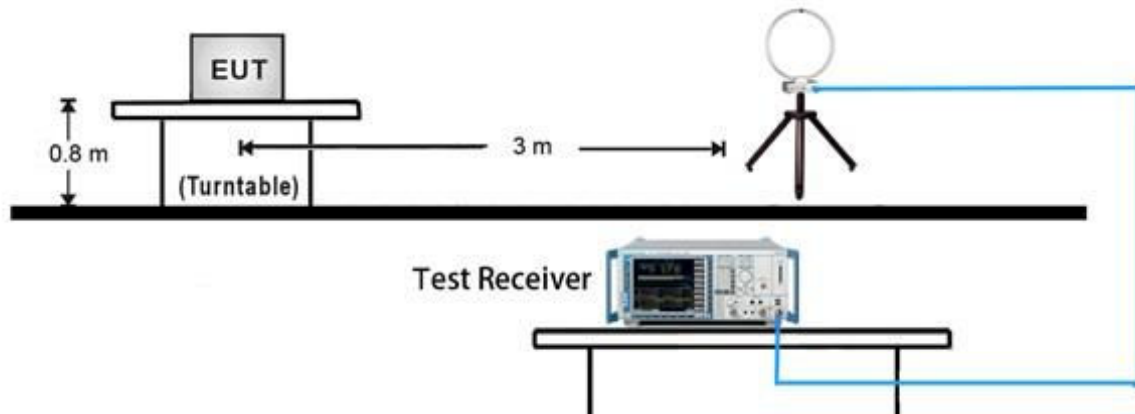
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (Average)
5. Number of measurement points = 1001 (Number of points must be $> 2 \times \text{span/RBW}$)
6. Sweep time = auto
7. Trace was averaged over at 100 sweeps

Quasi-Peak & Average Measurements below 30MHz

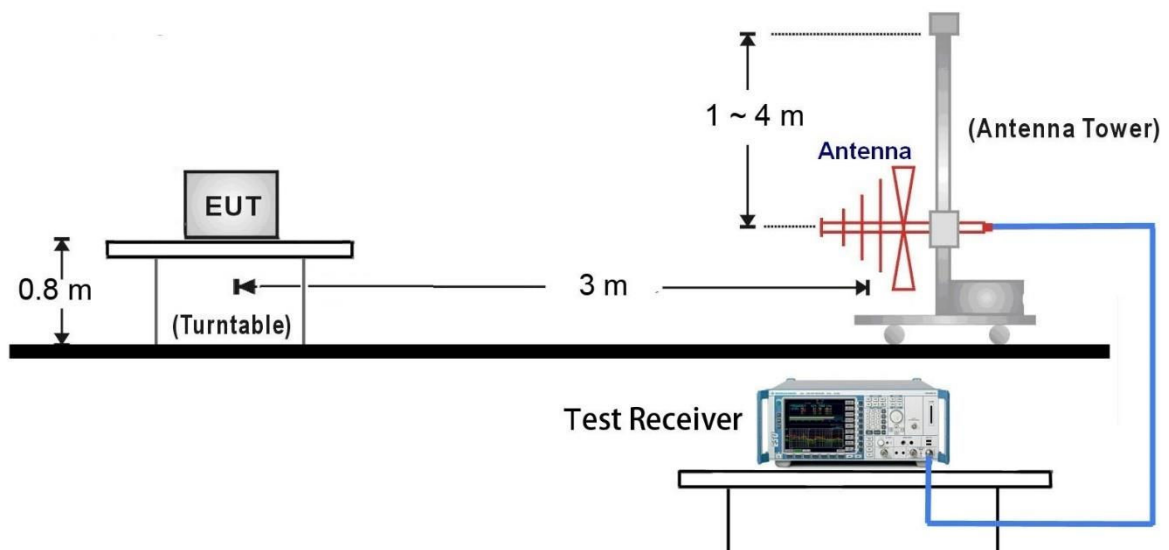
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 200Hz for 9kHz to 150kHz frequency; RBW = 9kHz for 0.15MHz to 30MHz frequency
4. Detector = CISPR quasi-peak or power average (Average)
5. Sweep time = auto couple
6. Trace was allowed to stabilize

7.7.4. Test Setup

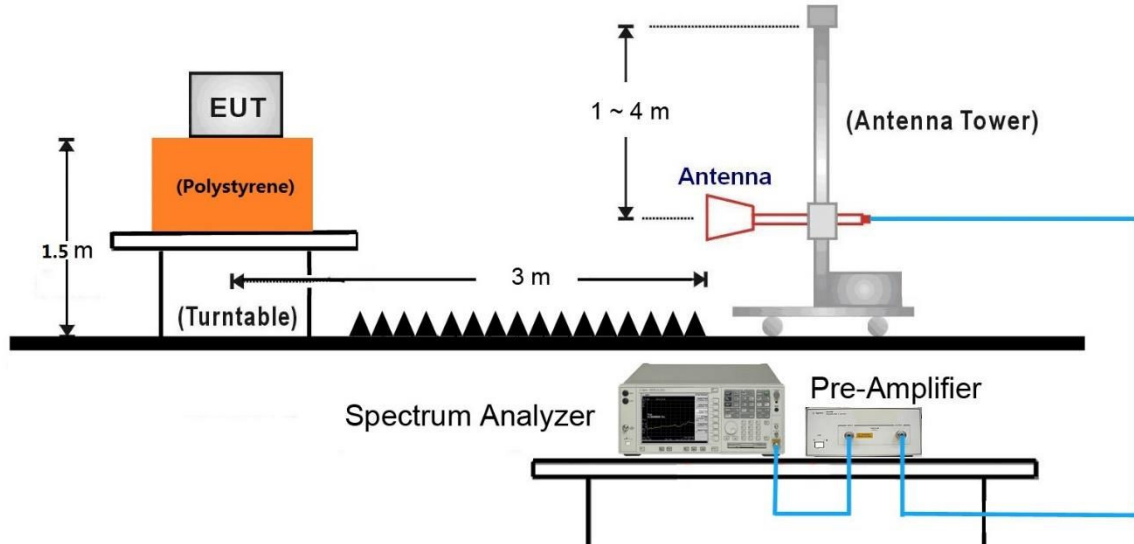
9kHz ~ 30MHz Test Setup:



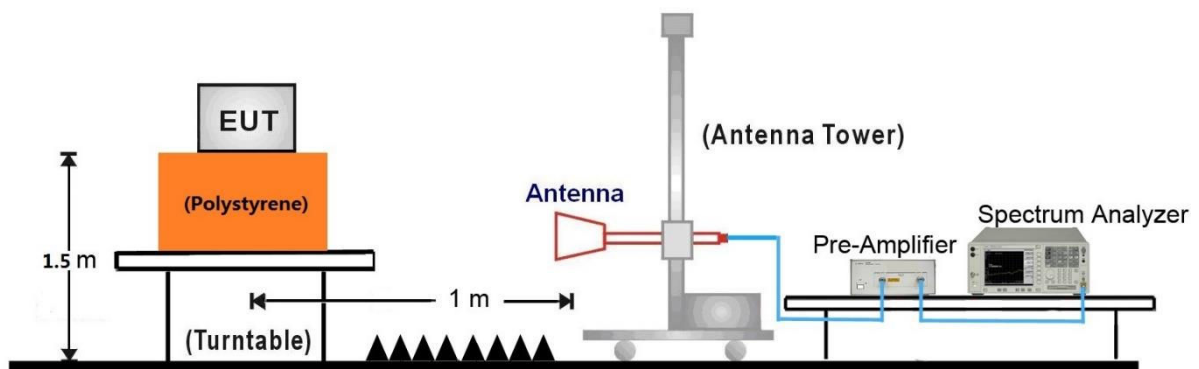
30MHz ~ 1GHz Test Setup:



1GHz ~18GHz Test Setup:

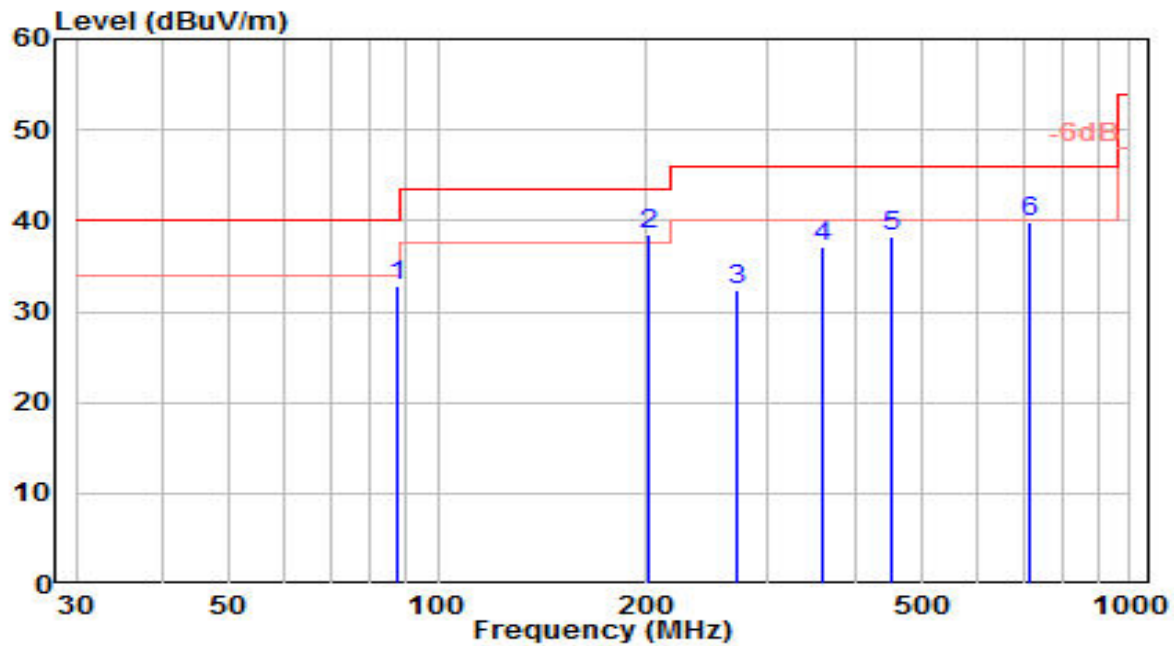


18GHz ~40GHz Test Setup:



7.7.5. Test Result

EUT	Fides-Link2	Date of Test	2024-12-20
Factor	VULB 9162	Temp. / Humidity	22°C /60%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 1_5785MHz	Test Voltage	AC 120V/60Hz

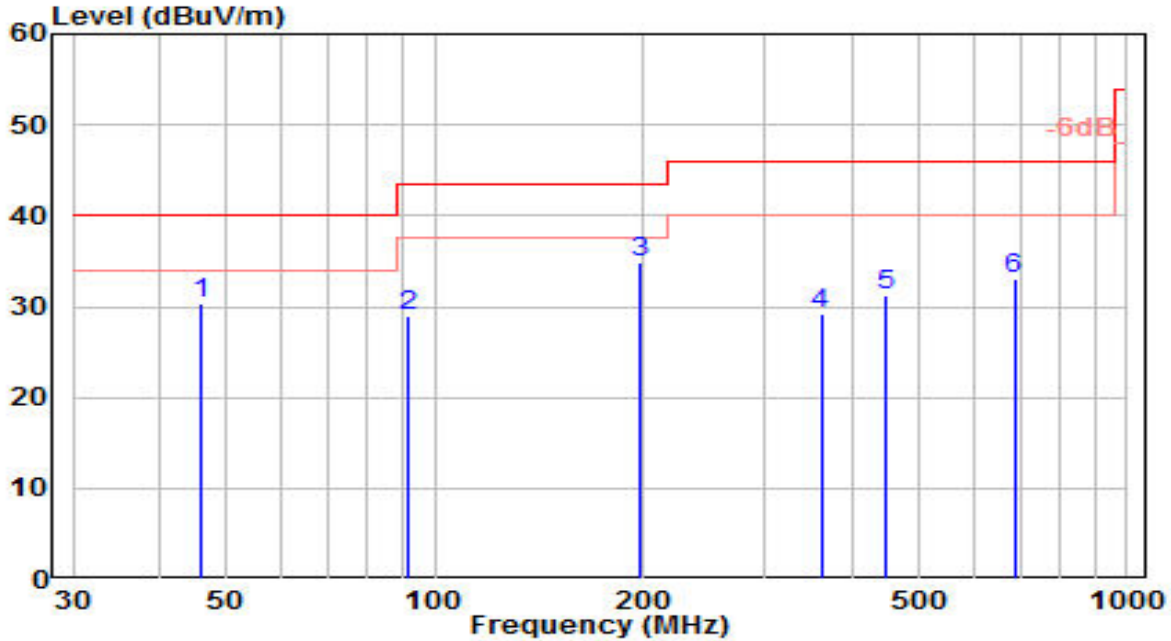


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	87.293	16.55	16.32	32.88	-7.12	40.00	150	355	QP
2	* 201.287	19.91	18.53	38.43	-5.07	43.50	150	285	QP
3	271.559	11.78	20.51	32.29	-13.71	46.00	100	215	QP
4	358.662	13.93	23.12	37.06	-8.94	46.00	100	350	QP
5	451.536	13.91	24.34	38.24	-7.76	46.00	100	355	QP
6	718.526	10.91	29.03	39.94	-6.06	46.00	100	215	QP

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-20
Factor	VULB 9162	Temp. / Humidity	22°C /60%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 1_5785MHz	Test Voltage	AC 120V/60Hz

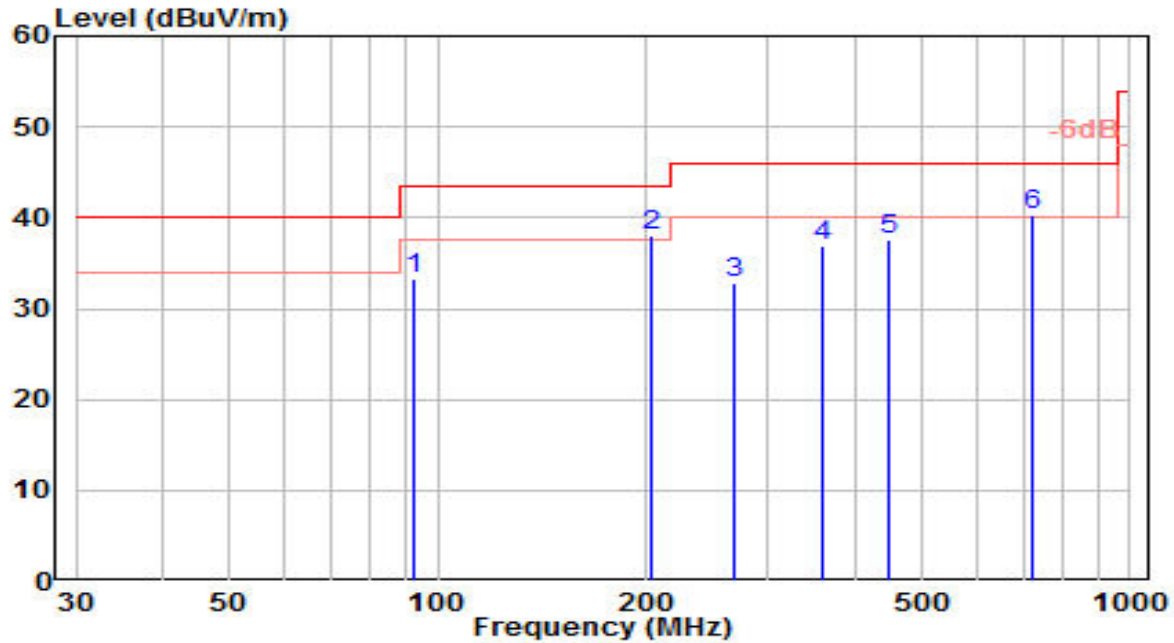


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	45.805	9.23	21.05	30.28	-9.72	40.00	100	145	QP
2	91.301	11.52	17.38	28.90	-14.60	43.50	150	60	QP
3	* 197.296	16.32	18.44	34.77	-8.73	43.50	150	250	QP
4	361.247	6.05	23.17	29.22	-16.78	46.00	150	70	QP
5	447.664	6.86	24.28	31.13	-14.87	46.00	100	235	QP
6	687.204	4.92	28.19	33.11	-12.89	46.00	100	310	QP

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-20
Factor	VULB 9162	Temp. / Humidity	22°C /60%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 2_5785MHz	Test Voltage	AC 120V/60Hz

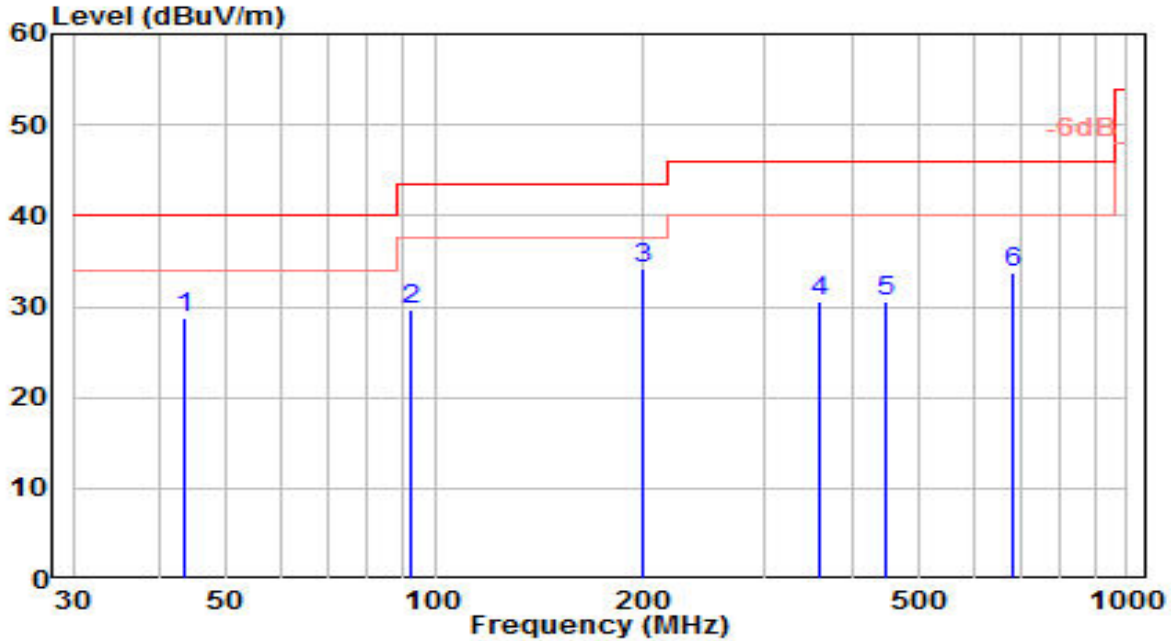


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	92.730	15.75	17.63	33.38	-10.12	43.50	150	355	QP
2	* 203.315	19.55	18.47	38.02	-5.48	43.50	150	285	QP
3	268.804	12.40	20.49	32.89	-13.11	46.00	100	215	QP
4	359.501	13.76	23.14	36.90	-9.10	46.00	100	350	QP
5	449.523	13.30	24.30	37.59	-8.41	46.00	100	355	QP
6	721.420	11.27	29.08	40.35	-5.65	46.00	100	215	QP

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-20
Factor	VULB 9162	Temp. / Humidity	22°C /60%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 2_5785MHz	Test Voltage	AC 120V/60Hz

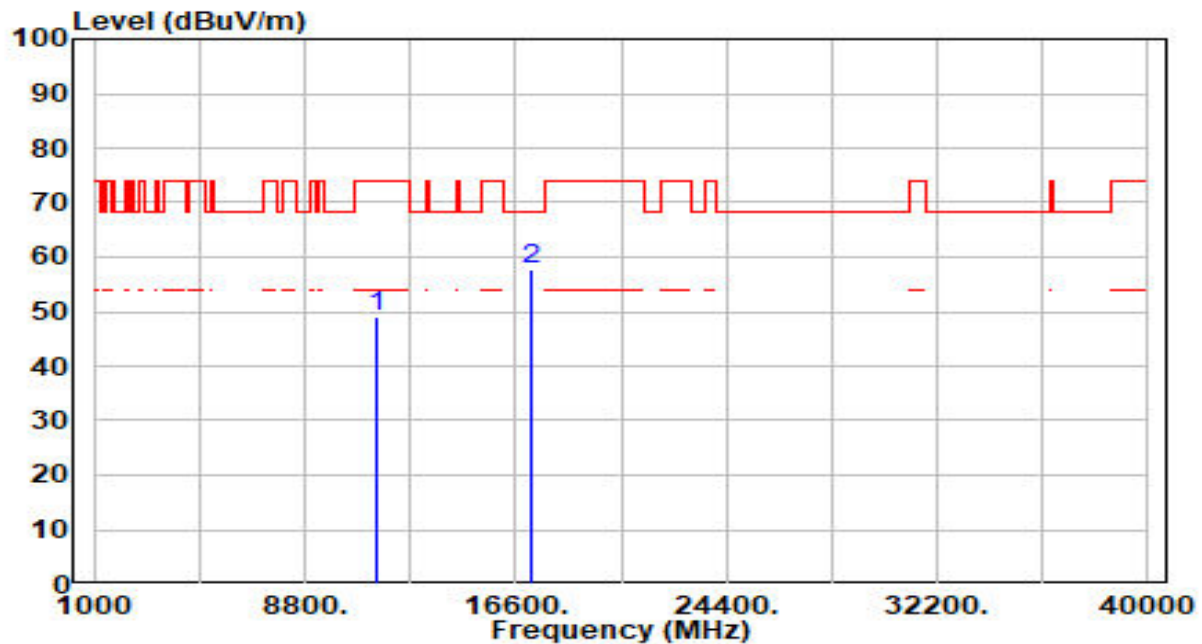


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	43.468	8.07	20.73	28.80	-11.20	40.00	100	145	QP
2	92.565	12.02	17.60	29.61	-13.89	43.50	150	60	QP
3	* 200.055	15.70	18.56	34.25	-9.25	43.50	150	250	QP
4	360.318	7.40	23.15	30.55	-15.45	46.00	150	70	QP
5	449.853	6.32	24.30	30.62	-15.38	46.00	100	235	QP
6	684.458	5.58	28.08	33.66	-12.34	46.00	100	310	QP

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-22
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /60%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 1_5735MHz	Test Voltage	AC 120V/60Hz

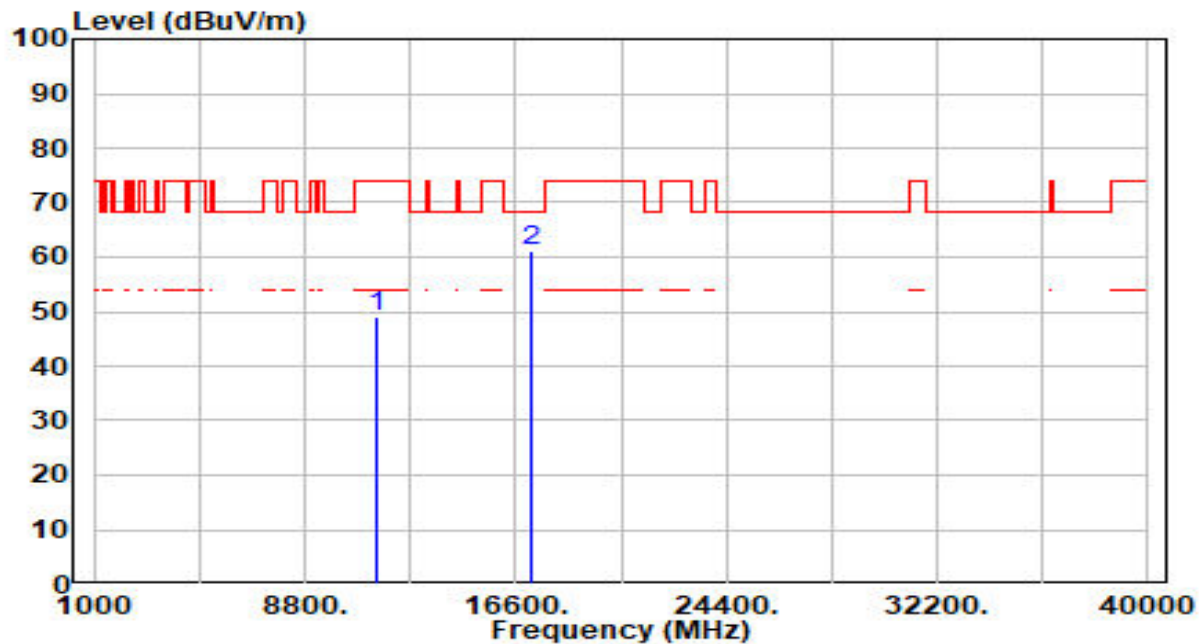


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	11470.000	29.28	19.79	49.07	-24.93	74.00	300	237	Peak
2	* 17205.000	32.20	25.54	57.74	-10.46	68.20	300	38	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-22
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /60%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 1_5735MHz	Test Voltage	AC 120V/60Hz

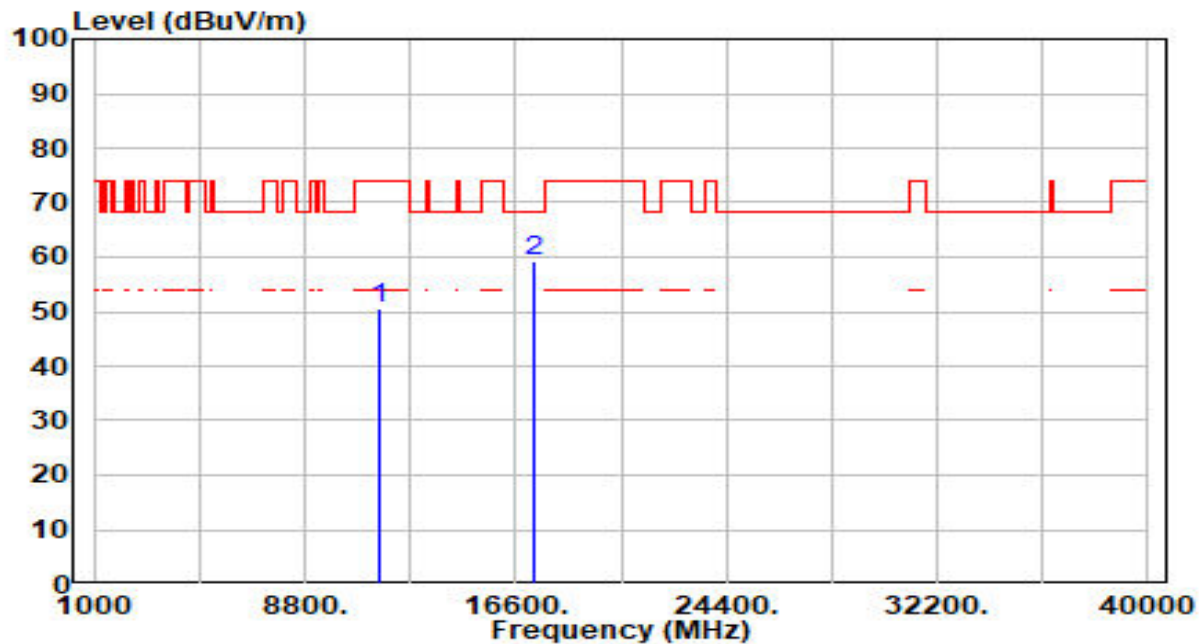


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	11470.000	29.42	19.79	49.21	-24.79	74.00	300	280	Peak
2	* 17205.000	35.50	25.54	61.04	-7.16	68.20	300	337	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-22
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /60%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 1_5760MHz	Test Voltage	AC 120V/60Hz

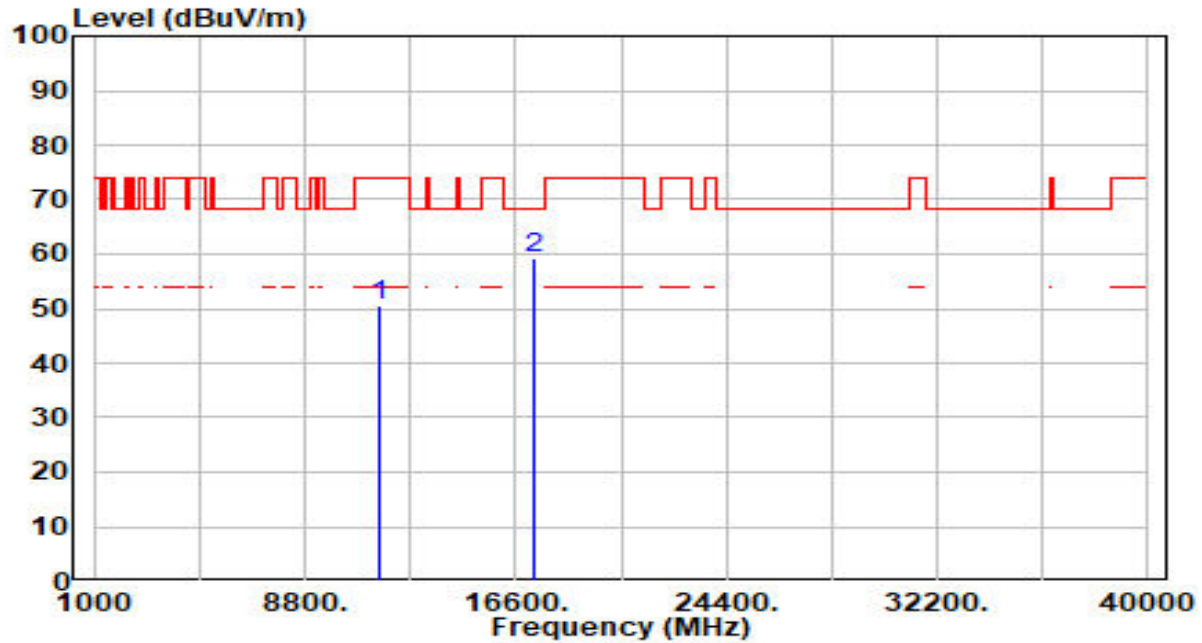


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	11520.000	30.62	19.81	50.43	-23.57	74.00	300	250	Peak
2	* 17280.000	33.23	26.10	59.33	-8.87	68.20	300	13	Peak

Note:

- "*", means this data is the worst emission level.
- C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
- Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-22
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /60%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 1_5760MHz	Test Voltage	AC 120V/60Hz

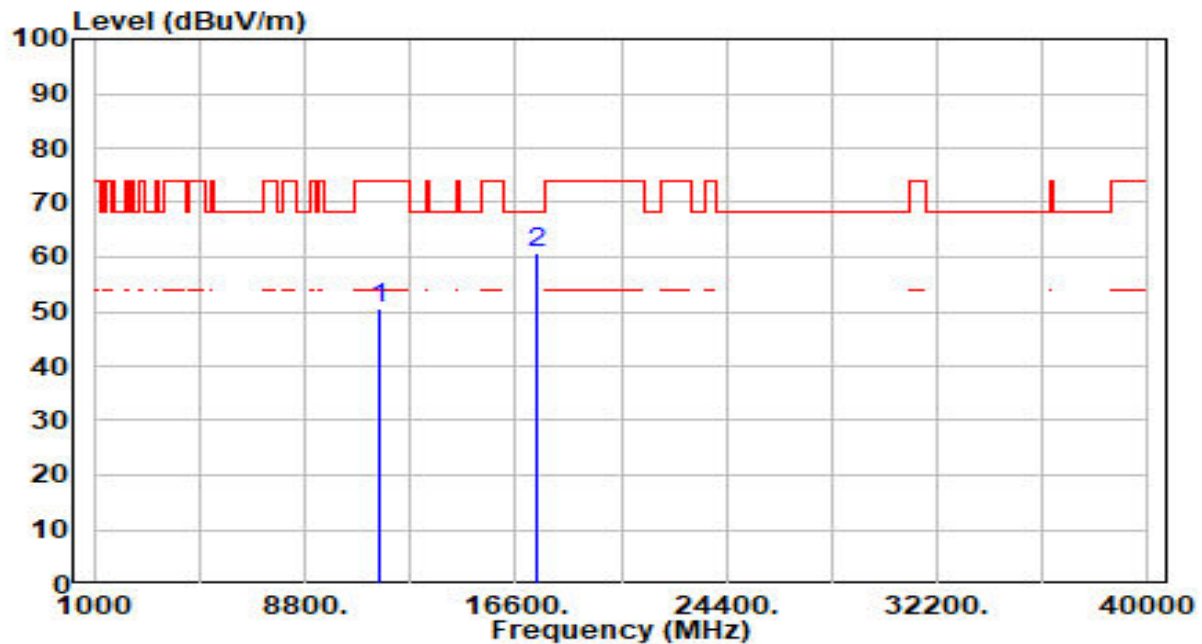


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	11520.000	30.63	19.81	50.44	-23.56	74.00	300	358	Peak
2	* 17280.000	32.96	26.10	59.06	-9.14	68.20	300	14	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-22
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /60%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 1_5785MHz	Test Voltage	AC 120V/60Hz

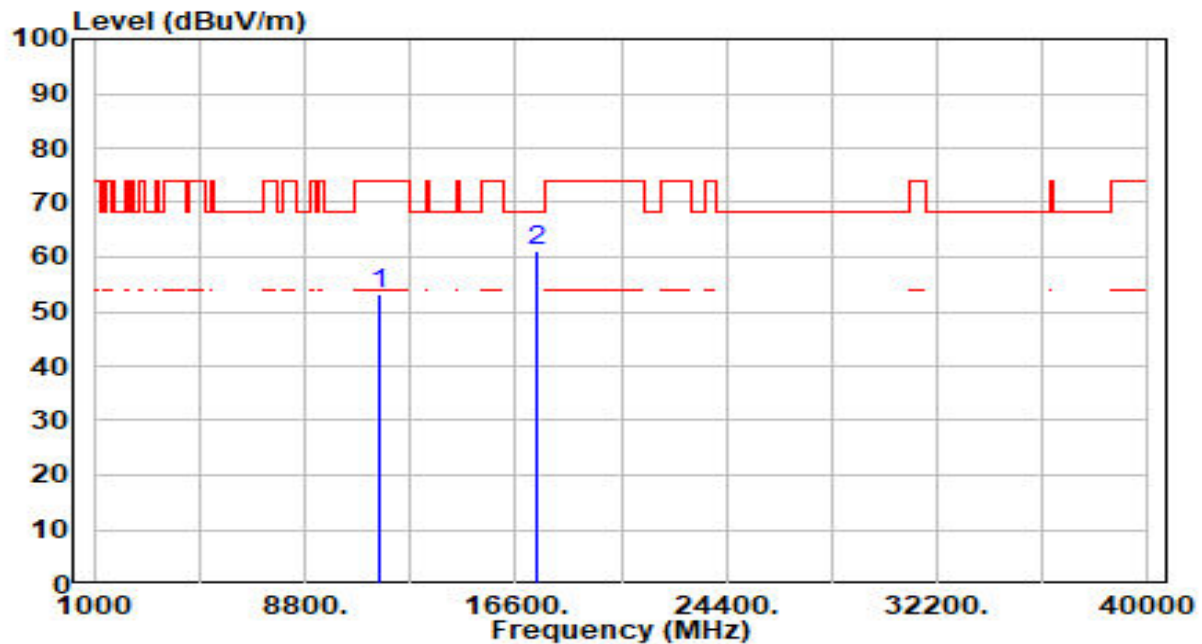


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	11570.000	30.71	19.72	50.43	-23.57	74.00	300	115	Peak
2	* 17355.000	34.28	26.65	60.93	-7.27	68.20	300	207	Peak

Note:

- "*", means this data is the worst emission level.
- C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
- Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-22
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /60%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 1_5785MHz	Test Voltage	AC 120V/60Hz

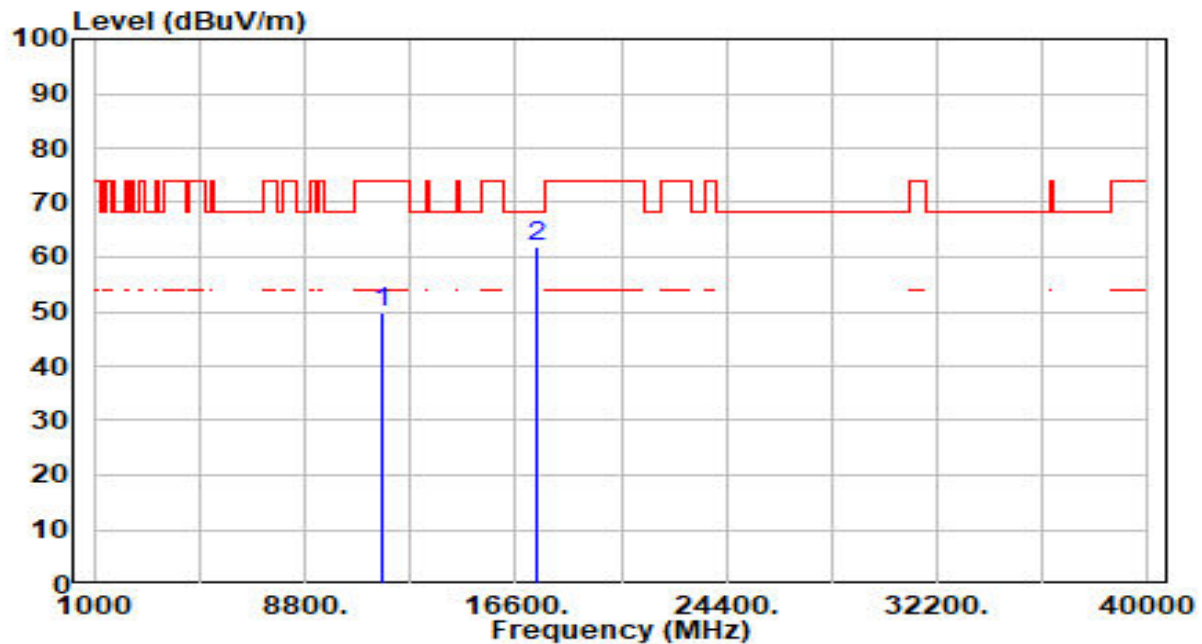


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	11570.000	33.53	19.72	53.25	-20.75	74.00	300	162	Peak
2	* 17355.000	34.42	26.65	61.07	-7.13	68.20	300	106	Peak

Note:

- "*", means this data is the worst emission level.
- C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
- Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-22
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /60%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 1_5810MHz	Test Voltage	AC 120V/60Hz

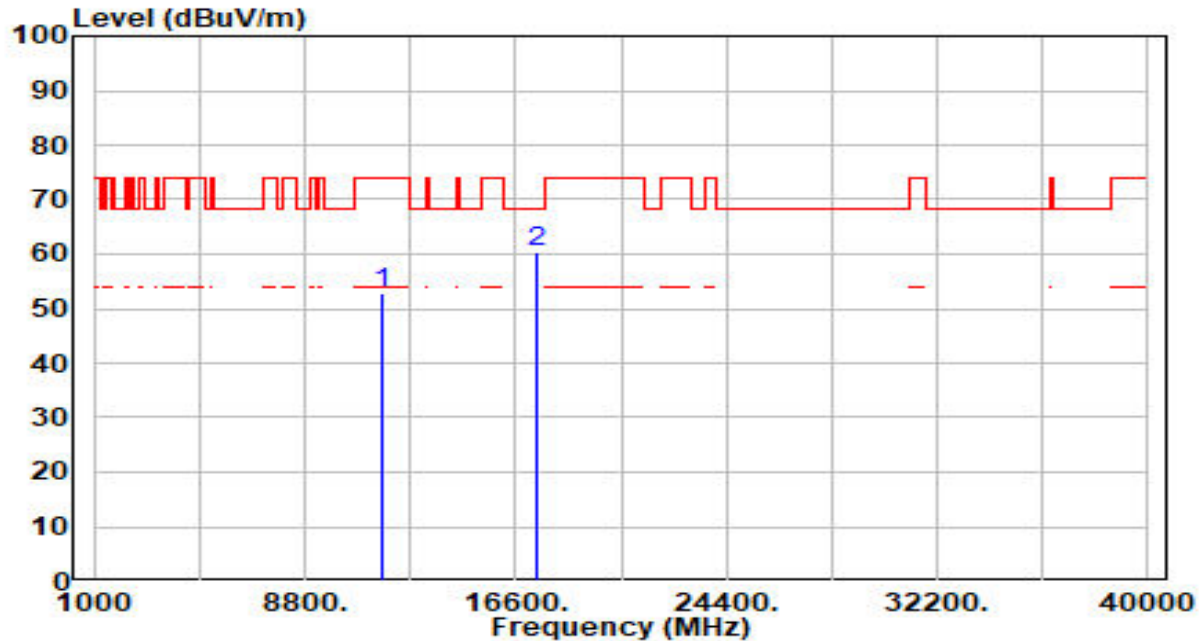


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	11620.000	30.30	19.63	49.92	-24.08	74.00	300	230	Peak
2	* 17430.000	34.72	27.21	61.93	-6.27	68.20	300	152	Peak

Note:

- "*", means this data is the worst emission level.
- C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
- Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-22
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /60%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 1_5810MHz	Test Voltage	AC 120V/60Hz

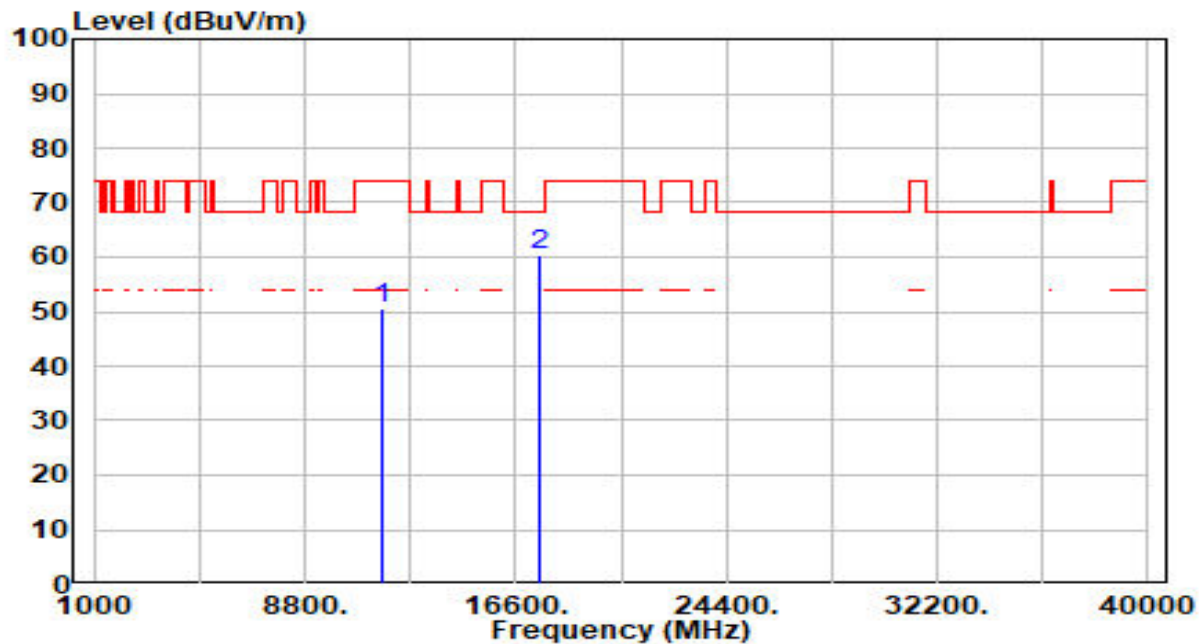


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	11620.000	33.10	19.63	52.73	-21.27	74.00	300	163	Peak
2	* 17430.000	33.07	27.21	60.28	-7.92	68.20	300	174	Peak

Note:

- "*", means this data is the worst emission level.
- C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
- Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Fides-Link2	Date of Test	2024-12-22
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /60%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_Ant 1_5835MHz	Test Voltage	AC 120V/60Hz



No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	11670.000	30.93	19.53	50.46	-23.54	74.00	300	158	Peak
2	* 17505.000	32.43	27.77	60.20	-8.00	68.20	300	165	Peak

Note:

- "*", means this data is the worst emission level.
- C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
- Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- The emission levels of other frequencies are very lower than the limit and not show in test report.