

4.1.8 Test Results (Mode 2)

Above 1GHz Data:

BT-LE 1M

Channel	TX Channel 0	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	55.0 PK	74.0	-19.0	3.41 H	1	56.9	-1.9
2	2390.00	44.3 AV	54.0	-9.7	3.41 H	1	46.2	-1.9
3	*2402.00	98.4 PK			3.41 H	1	100.3	-1.9
4	*2402.00	97.6 AV			3.41 H	1	99.5	-1.9
5	4804.00	38.8 PK	74.0	-35.2	1.07 H	118	35.9	2.9
6	4804.00	28.4 AV	54.0	-25.6	1.07 H	118	25.5	2.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	54.6 PK	74.0	-19.4	1.14 V	37	56.5	-1.9
2	2390.00	44.1 AV	54.0	-9.9	1.14 V	37	46.0	-1.9
3	*2402.00	107.0 PK			1.14 V	37	108.9	-1.9
4	*2402.00	106.3 AV			1.14 V	37	108.2	-1.9
5	4804.00	39.5 PK	74.0	-34.5	2.28 V	183	36.6	2.9
6	4804.00	28.0 AV	54.0	-26.0	2.28 V	183	25.1	2.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 19	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	97.7 PK			3.42 H	14	99.7	-2.0
2	*2440.00	97.2 AV			3.42 H	14	99.2	-2.0
3	4880.00	38.5 PK	74.0	-35.5	1.03 H	128	35.7	2.8
4	4880.00	28.0 AV	54.0	-26.0	1.03 H	128	25.2	2.8
5	7320.00	43.7 PK	74.0	-30.3	1.70 H	194	34.8	8.9
6	7320.00	32.7 AV	54.0	-21.3	1.70 H	194	23.8	8.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	106.6 PK			1.28 V	39	108.6	-2.0
2	*2440.00	105.8 AV			1.28 V	39	107.8	-2.0
3	4880.00	40.1 PK	74.0	-33.9	2.25 V	194	37.3	2.8
4	4880.00	28.6 AV	54.0	-25.4	2.25 V	194	25.8	2.8
5	7320.00	42.8 PK	74.0	-31.2	1.69 V	44	33.9	8.9
6	7320.00	32.0 AV	54.0	-22.0	1.69 V	44	23.1	8.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 39	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	97.9 PK			3.23 H	2	99.8	-1.9
2	*2480.00	97.1 AV			3.23 H	2	99.0	-1.9
3	2483.50	53.8 PK	74.0	-20.2	3.23 H	2	55.7	-1.9
4	2483.50	43.8 AV	54.0	-10.2	3.23 H	2	45.7	-1.9
5	4960.00	38.9 PK	74.0	-35.1	1.02 H	116	36.1	2.8
6	4960.00	28.5 AV	54.0	-25.5	1.02 H	116	25.7	2.8
7	7440.00	44.3 PK	74.0	-29.7	1.74 H	196	35.3	9.0
8	7440.00	33.0 AV	54.0	-21.0	1.74 H	196	24.0	9.0

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	107.1 PK			1.29 V	42	109.0	-1.9
2	*2480.00	106.2 AV			1.29 V	42	108.1	-1.9
3	2483.50	53.4 PK	74.0	-20.6	1.29 V	42	55.3	-1.9
4	2483.50	43.4 AV	54.0	-10.6	1.29 V	42	45.3	-1.9
5	4960.00	39.6 PK	74.0	-34.4	2.23 V	199	36.8	2.8
6	4960.00	28.3 AV	54.0	-25.7	2.23 V	199	25.5	2.8
7	7440.00	43.1 PK	74.0	-30.9	1.66 V	55	34.1	9.0
8	7440.00	32.5 AV	54.0	-21.5	1.66 V	55	23.5	9.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

BT-LE 2M

Channel	TX Channel 1	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	54.8 PK	74.0	-19.2	3.39 H	358	56.7	-1.9
2	2390.00	43.6 AV	54.0	-10.4	3.39 H	358	45.5	-1.9
3	*2404.00	99.5 PK			3.39 H	358	101.4	-1.9
4	*2404.00	96.4 AV			3.39 H	358	98.3	-1.9
5	4808.00	38.9 PK	74.0	-35.1	1.02 H	104	36.0	2.9
6	4808.00	28.4 AV	54.0	-25.6	1.02 H	104	25.5	2.9

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	54.9 PK	74.0	-19.1	1.16 V	35	56.8	-1.9
2	2390.00	43.5 AV	54.0	-10.5	1.16 V	35	45.4	-1.9
3	*2404.00	106.4 PK			1.16 V	35	108.3	-1.9
4	*2404.00	103.9 AV			1.16 V	35	105.8	-1.9
5	4808.00	39.7 PK	74.0	-34.3	2.18 V	190	36.8	2.9
6	4808.00	28.2 AV	54.0	-25.8	2.18 V	190	25.3	2.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 19	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	99.1 PK			3.37 H	2	101.1	-2.0
2	*2440.00	96.1 AV			3.37 H	2	98.1	-2.0
3	4880.00	38.4 PK	74.0	-35.6	1.01 H	130	35.6	2.8
4	4880.00	28.1 AV	54.0	-25.9	1.01 H	130	25.3	2.8
5	7320.00	43.6 PK	74.0	-30.4	1.76 H	188	34.7	8.9
6	7320.00	32.5 AV	54.0	-21.5	1.76 H	188	23.6	8.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2440.00	107.2 PK			1.00 V	35	109.2	-2.0
2	*2440.00	104.4 AV			1.00 V	35	106.4	-2.0
3	4880.00	40.2 PK	74.0	-33.8	2.21 V	201	37.4	2.8
4	4880.00	29.0 AV	54.0	-25.0	2.21 V	201	26.2	2.8
5	7320.00	42.3 PK	74.0	-31.7	1.71 V	65	33.4	8.9
6	7320.00	31.8 AV	54.0	-22.2	1.71 V	65	22.9	8.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 38	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 25GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2478.00	99.0 PK			3.22 H	357	100.9	-1.9
2	*2478.00	96.2 AV			3.22 H	357	98.1	-1.9
3	2483.50	54.1 PK	74.0	-19.9	3.22 H	357	56.0	-1.9
4	2483.50	42.6 AV	54.0	-11.4	3.22 H	357	44.5	-1.9
5	4956.00	39.2 PK	74.0	-34.8	1.06 H	119	36.4	2.8
6	4956.00	28.9 AV	54.0	-25.1	1.06 H	119	26.1	2.8
7	7434.00	44.7 PK	74.0	-29.3	1.70 H	204	35.7	9.0
8	7434.00	33.4 AV	54.0	-20.6	1.70 H	204	24.4	9.0

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2478.00	107.5 PK			1.05 V	36	109.4	-1.9
2	*2478.00	104.5 AV			1.05 V	36	106.4	-1.9
3	2483.50	53.8 PK	74.0	-20.2	1.05 V	36	55.7	-1.9
4	2483.50	45.7 AV	54.0	-8.3	1.05 V	36	47.6	-1.9
5	4956.00	39.3 PK	74.0	-34.7	2.22 V	185	36.5	2.8
6	4956.00	28.0 AV	54.0	-26.0	2.22 V	185	25.2	2.8
7	7434.00	43.2 PK	74.0	-30.8	1.65 V	53	34.2	9.0
8	7434.00	32.7 AV	54.0	-21.3	1.65 V	53	23.7	9.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Below 1GHz Data:

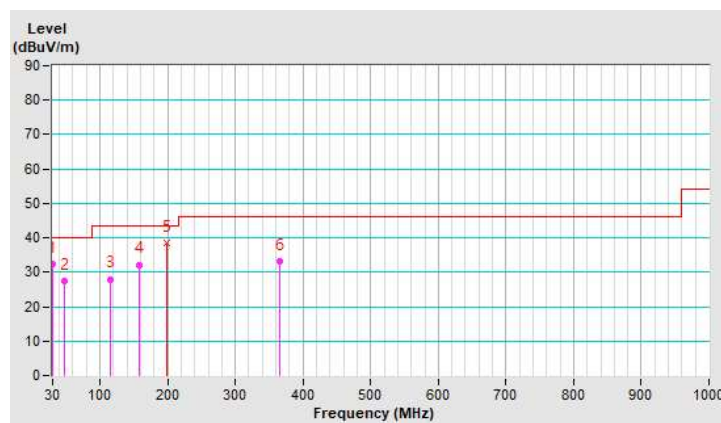
BT-LE 1M

Channel	TX Channel 0	Detector Function	Quasi-Peak (QP)
Frequency Range	9kHz ~ 1GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.41	32.3 QP	40.0	-7.7	2.00 H	106	41.1	-8.8
2	47.76	27.5 QP	40.0	-12.5	1.50 H	353	35.1	-7.6
3	115.27	28.0 QP	43.5	-15.5	1.00 H	294	37.5	-9.5
4	158.23	32.2 QP	43.5	-11.3	2.00 H	314	39.0	-6.8
5	199.46	38.4 QP	43.5	-5.1	1.00 H	352	48.5	-10.1
6	365.94	33.1 QP	46.0	-12.9	1.00 H	177	37.0	-3.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

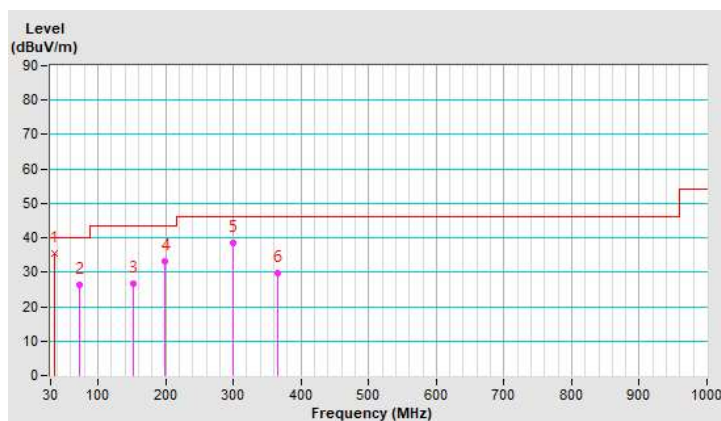


Channel	TX Channel 0	Detector Function	Quasi-Peak (QP)
Frequency Range	9kHz ~ 1GHz		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBUV)	Correction Factor (dB/m)
1	34.92	35.4 QP	40.0	-4.6	1.50 V	212	44.0	-8.6
2	72.01	26.2 QP	40.0	-13.8	2.00 V	195	36.6	-10.4
3	152.38	26.6 QP	43.5	-16.9	1.00 V	0	33.5	-6.9
4	199.75	33.1 QP	43.5	-10.4	1.50 V	228	43.2	-10.1
5	299.44	38.6 QP	46.0	-7.4	2.00 V	282	44.5	-5.9
6	365.28	29.8 QP	46.0	-16.2	1.50 V	164	33.7	-3.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	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.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 19, 2020	Mar. 18, 2021
50 ohms Terminator	50	3	Oct. 23, 2019	Oct. 22, 2020
RF Cable	5D-FB	COCCAB-001	Sep. 27, 2019	Sep. 26, 2020
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 29, 2020	Aug. 28, 2021
Software BVADT	BVADT_Cond_V7.3.7.4	NA	NA	NA

Note:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
3. Tested Date: Sep. 08, 2020

4.2.3 Test Procedures

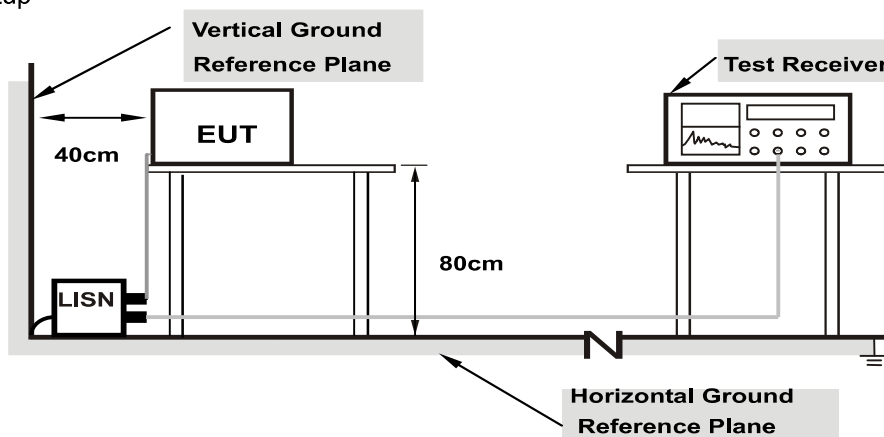
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

Note: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16953	9.92	34.41	7.28	44.33	17.20	64.98	54.98	-20.65	-37.78
2	0.25938	9.94	23.59	0.31	33.53	10.25	61.45	51.45	-27.92	-41.20
3	0.43516	9.95	22.72	4.53	32.67	14.48	57.15	47.15	-24.48	-32.67
4	16.46484	10.81	28.37	26.96	39.18	37.77	60.00	50.00	-20.82	-12.23
5	21.16797	11.05	35.32	35.19	46.37	46.24	60.00	50.00	-13.63	-3.76
6	25.87109	11.18	32.69	32.58	43.87	43.76	60.00	50.00	-16.13	-6.24

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

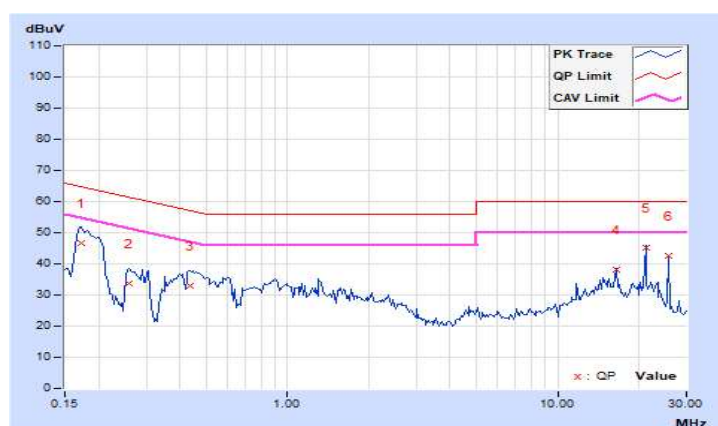


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17344	9.92	36.86	11.07	46.78	20.99	64.79	54.79	-18.01	-33.80
2	0.25938	9.94	23.81	0.59	33.75	10.53	61.45	51.45	-27.70	-40.92
3	0.43516	9.95	23.12	4.81	33.07	14.76	57.15	47.15	-24.08	-32.39
4	16.46484	10.62	27.38	26.43	38.00	37.05	60.00	50.00	-22.00	-12.95
5	21.16797	10.78	34.28	34.14	45.06	44.92	60.00	50.00	-14.94	-5.08
6	25.87109	10.86	31.59	31.45	42.45	42.31	60.00	50.00	-17.55	-7.69

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

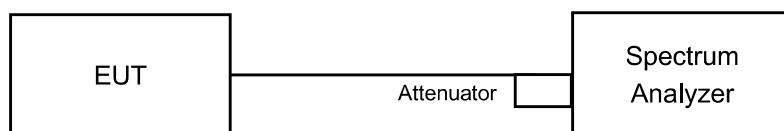


4.3 6dB Bandwidth Measurement

4.3.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

- Set resolution bandwidth (RBW) = 100kHz
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

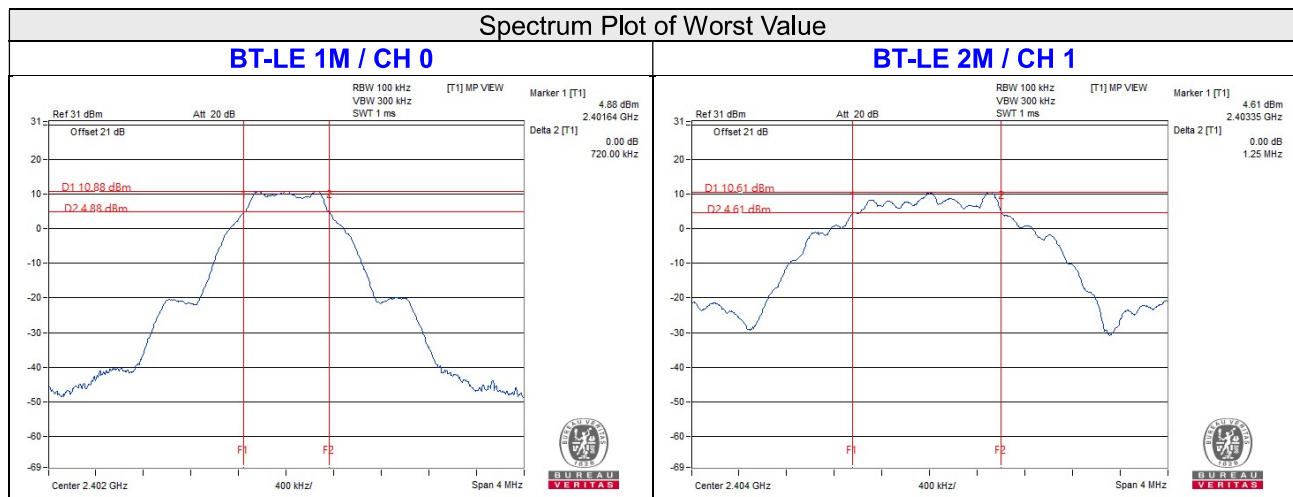
4.3.7 Test Results

BT-LE 1M

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
0	2402	0.72	0.5	Pass
19	2440	0.72	0.5	Pass
39	2480	0.72	0.5	Pass

BT-LE 2M

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2404	1.25	0.5	Pass
19	2440	1.25	0.5	Pass
38	2478	1.25	0.5	Pass

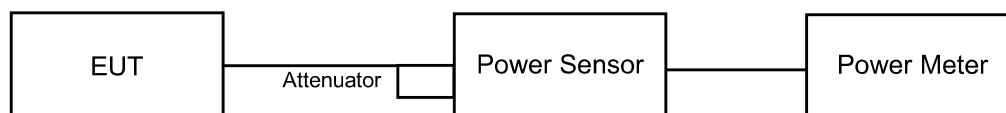


4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

Average power sensor was 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.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

4.4.7 Test Results

FOR PEAK POWER

BT-LE 1M

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
0	2402	15.101	11.79	30	Pass
19	2440	13.9	11.43	30	Pass
39	2480	14.588	11.64	30	Pass

BT-LE 2M

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	2404	14.962	11.75	30	Pass
19	2440	14.06	11.48	30	Pass
38	2478	14.521	11.62	30	Pass

FOR AVERAGE POWER

BT-LE 1M

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
0	2402	13.836	11.41
19	2440	13.614	11.34
39	2480	13.213	11.21

BT-LE 2M

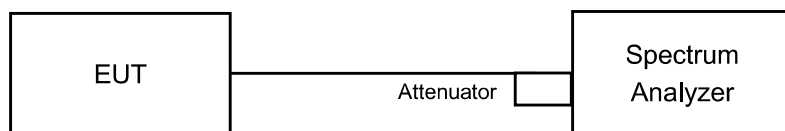
Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2404	13.836	11.41
19	2440	13.183	11.20
38	2478	13.74	11.38

4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm in any 3 kHz.

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

- Set analyzer center frequency to DTS channel center frequency.
- Set the span to 1.5 times the DTS bandwidth.
- Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- Set the VBW $\geq 3 \times \text{RBW}$.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level within the RBW.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

Same as Item 4.3.6.

4.5.7 Test Results

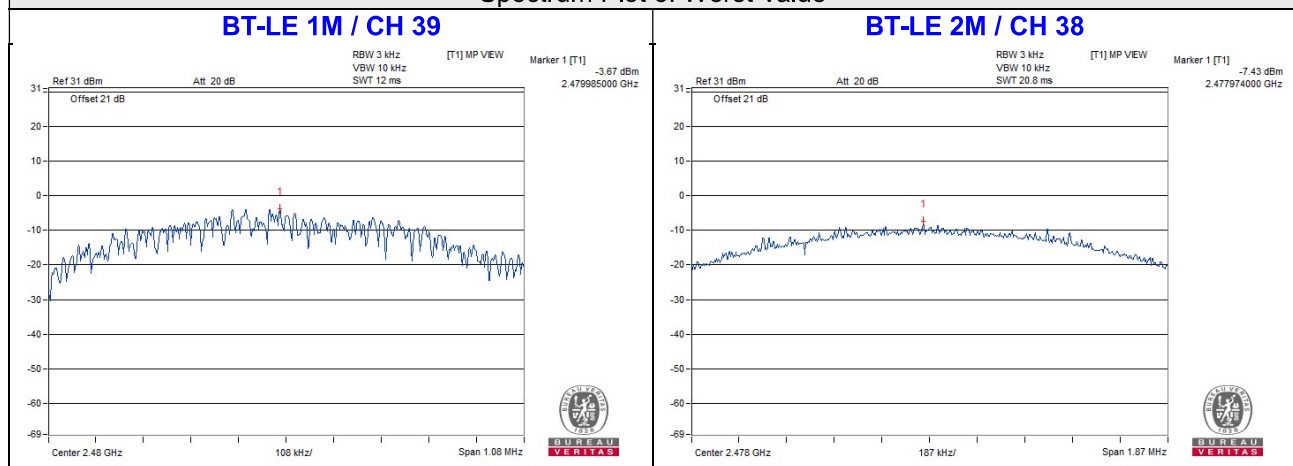
BT-LE 1M

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
0	2402	-3.81	8	Pass
19	2440	-3.76	8	Pass
39	2480	-3.67	8	Pass

BT-LE 2M

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2404	-7.67	8	Pass
19	2440	-7.67	8	Pass
38	2478	-7.43	8	Pass

Spectrum Plot of Worst Value

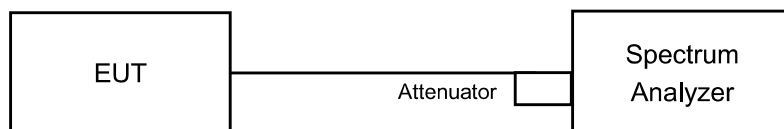


4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

Below 20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

1. Set RBW = 100 kHz.
2. Set VBW $\geq$ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

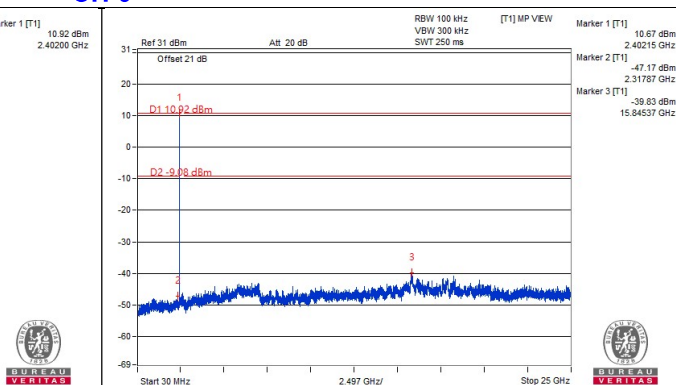
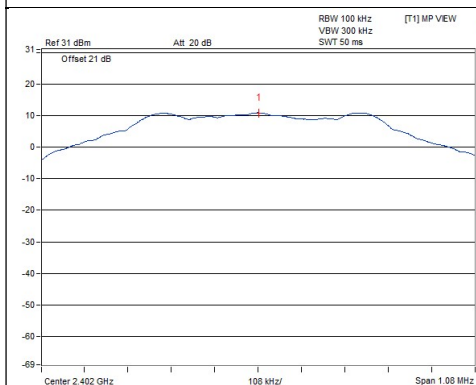
The software provided by client enabled the EUT to transmit and receive data at lowest and highest channel frequencies individually.

4.6.7 Test Results

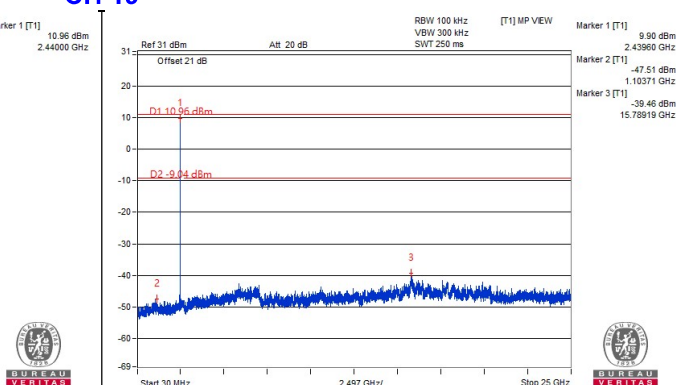
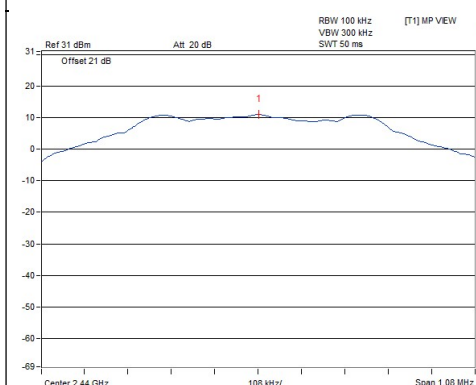
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

BT-LE 1M

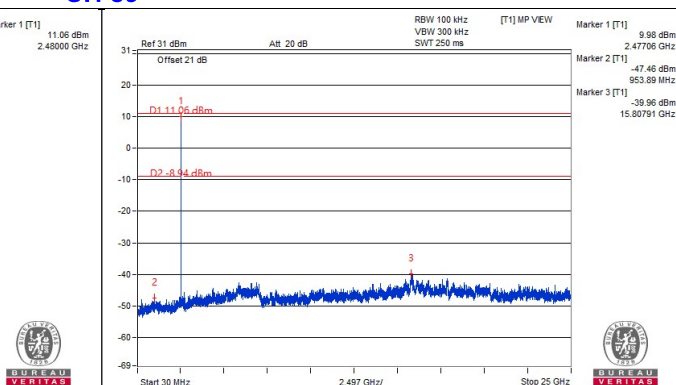
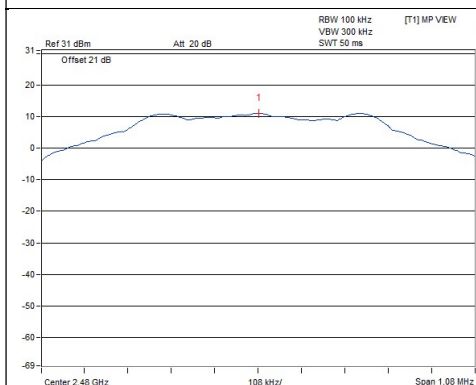
CH 0



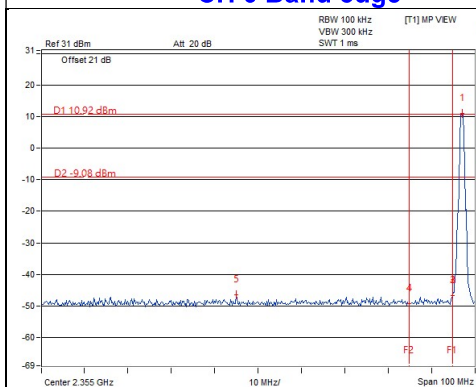
CH 19



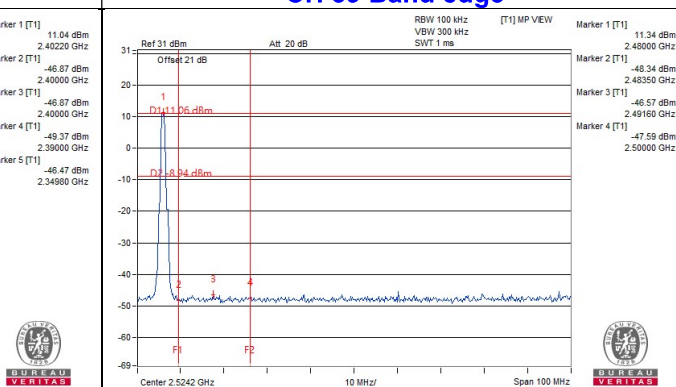
CH 39



CH 0 Band edge

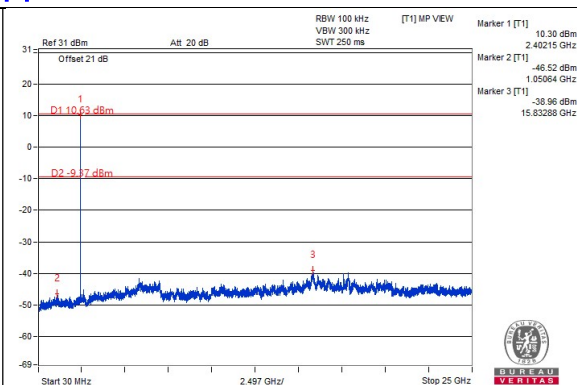
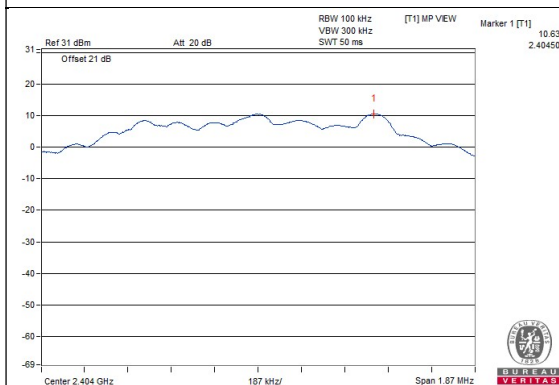


CH 39 Band edge

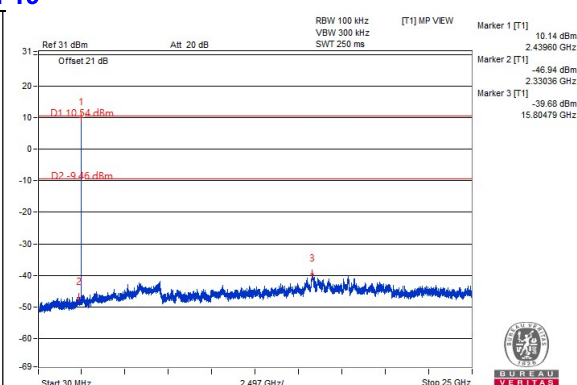
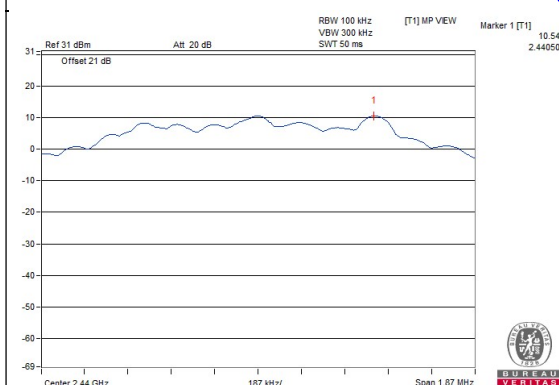


BT-LE 2M

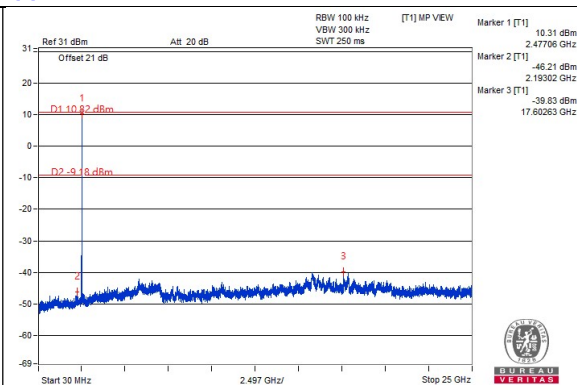
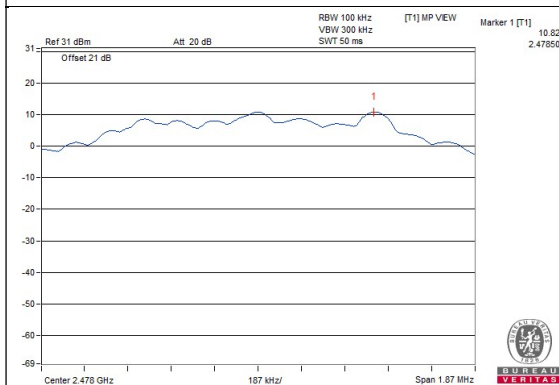
CH 1



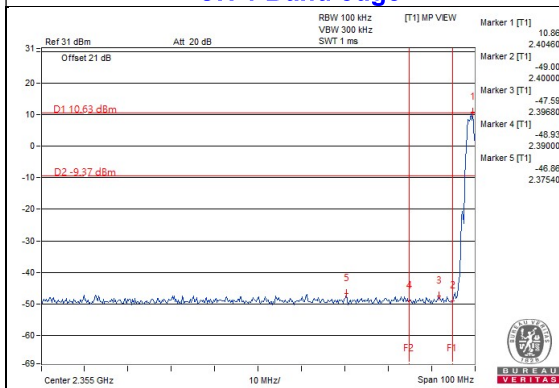
CH 19



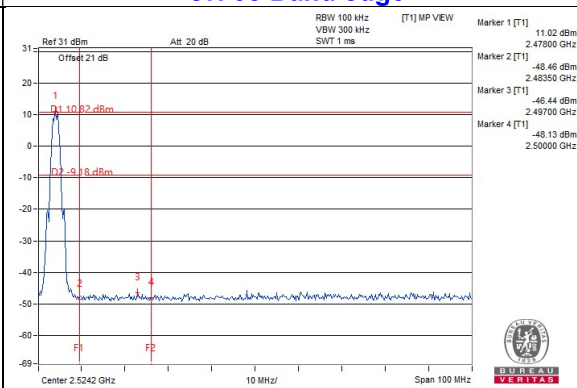
CH 38



CH 1 Band edge



CH 38 Band edge



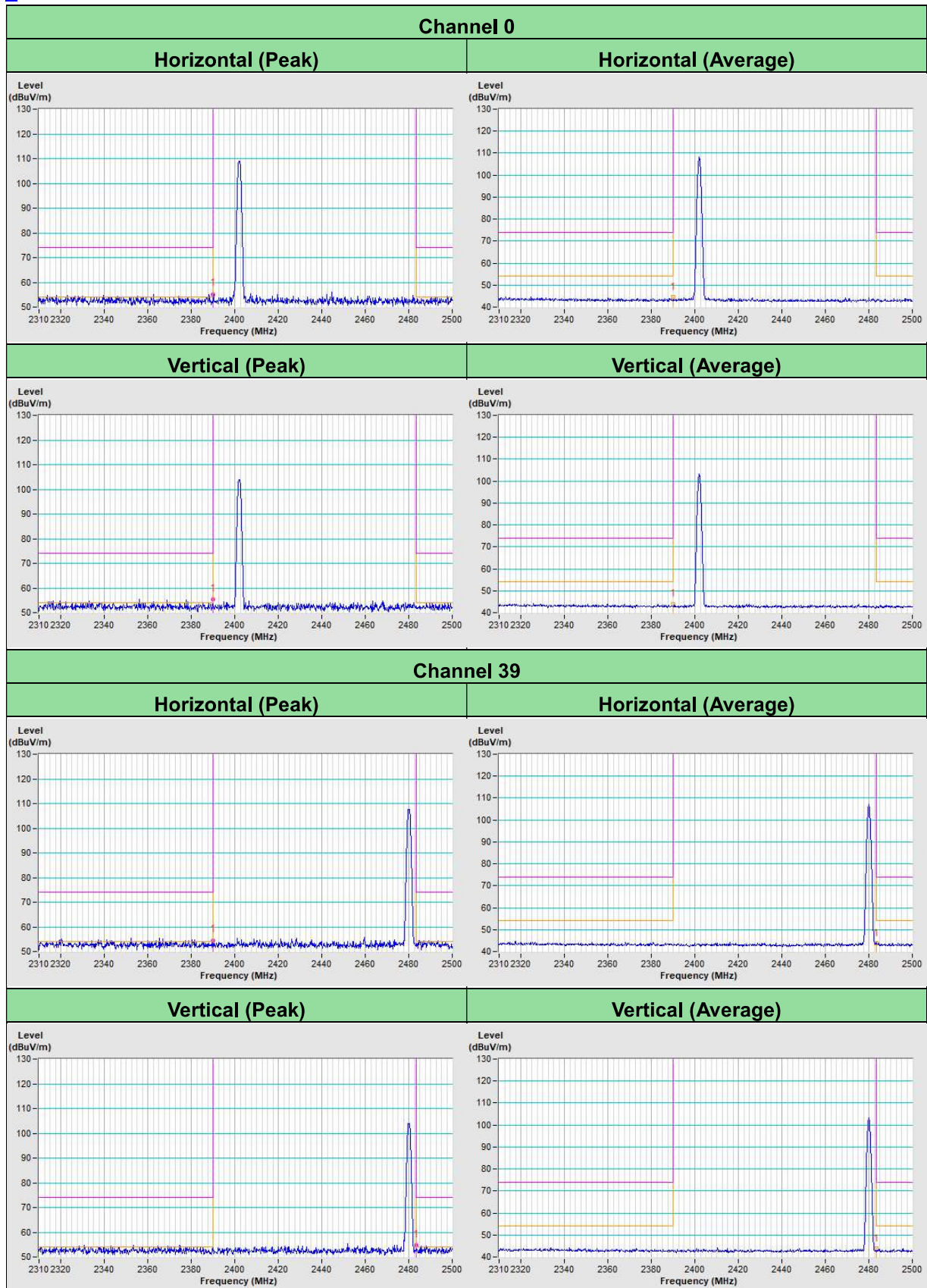
5 Pictures of Test Arrangements

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

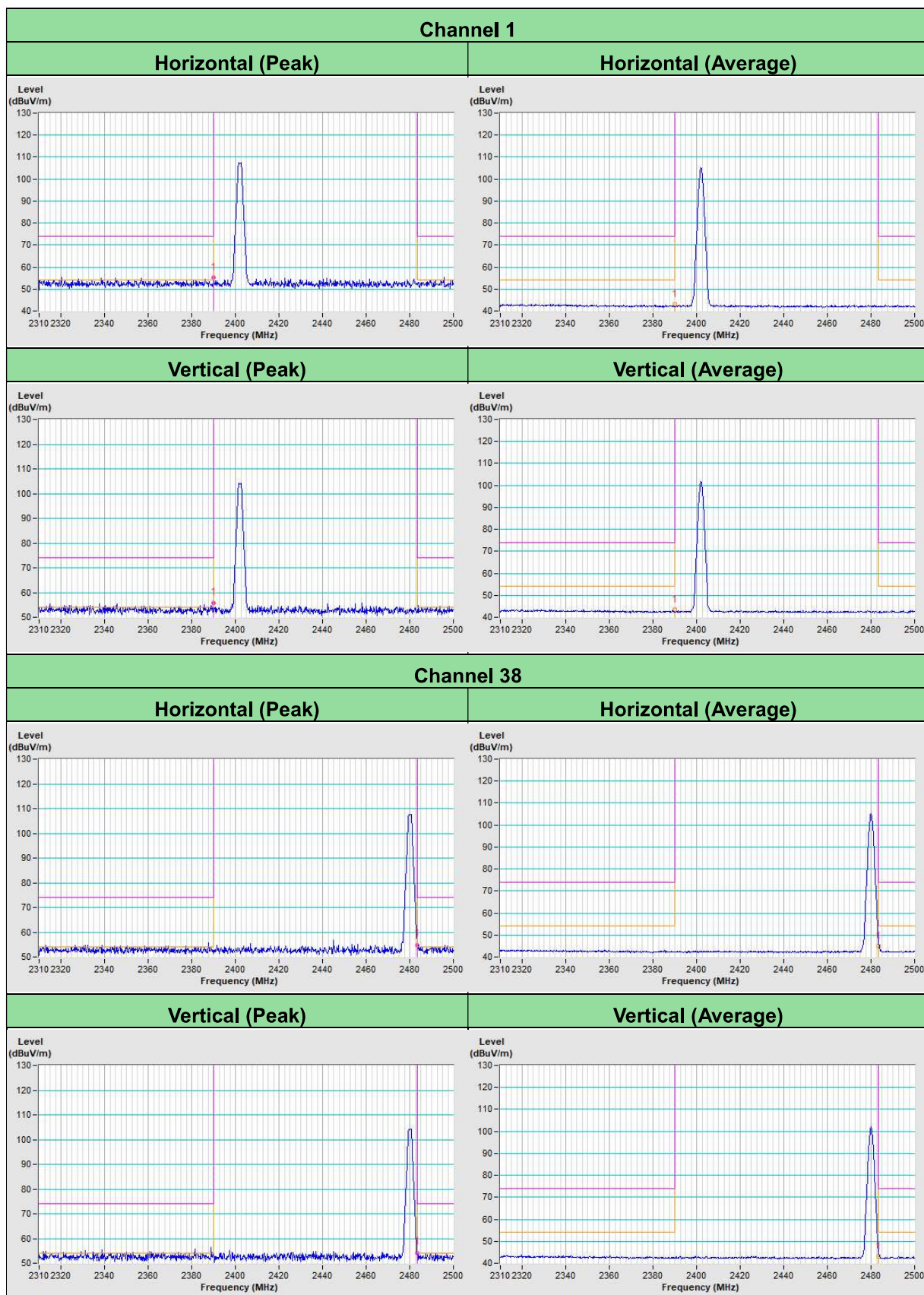
Annex A - Band-Edge Measurement

Test Results (Mode 1)

BT_LE-1M

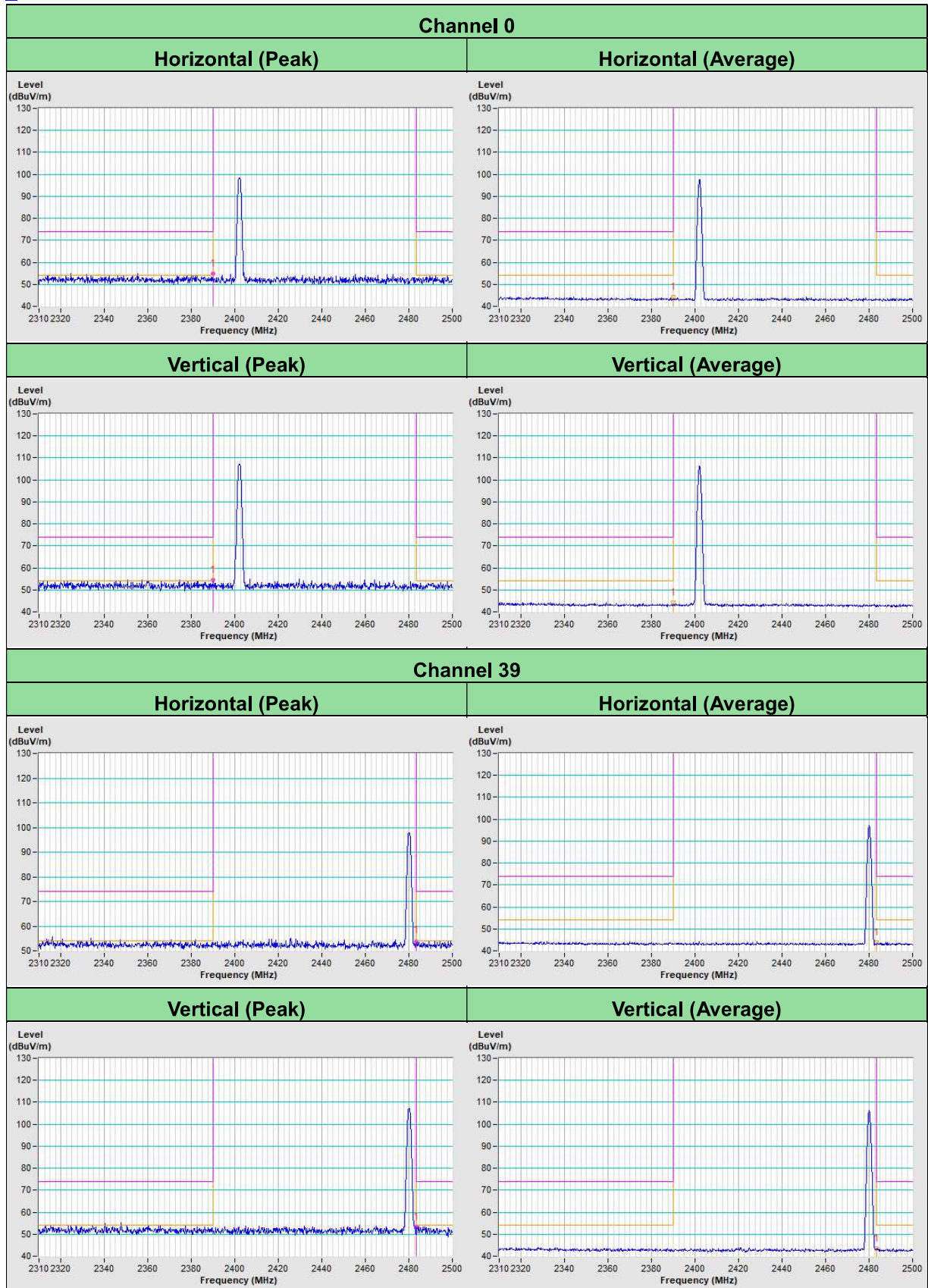


BT_LE-2M

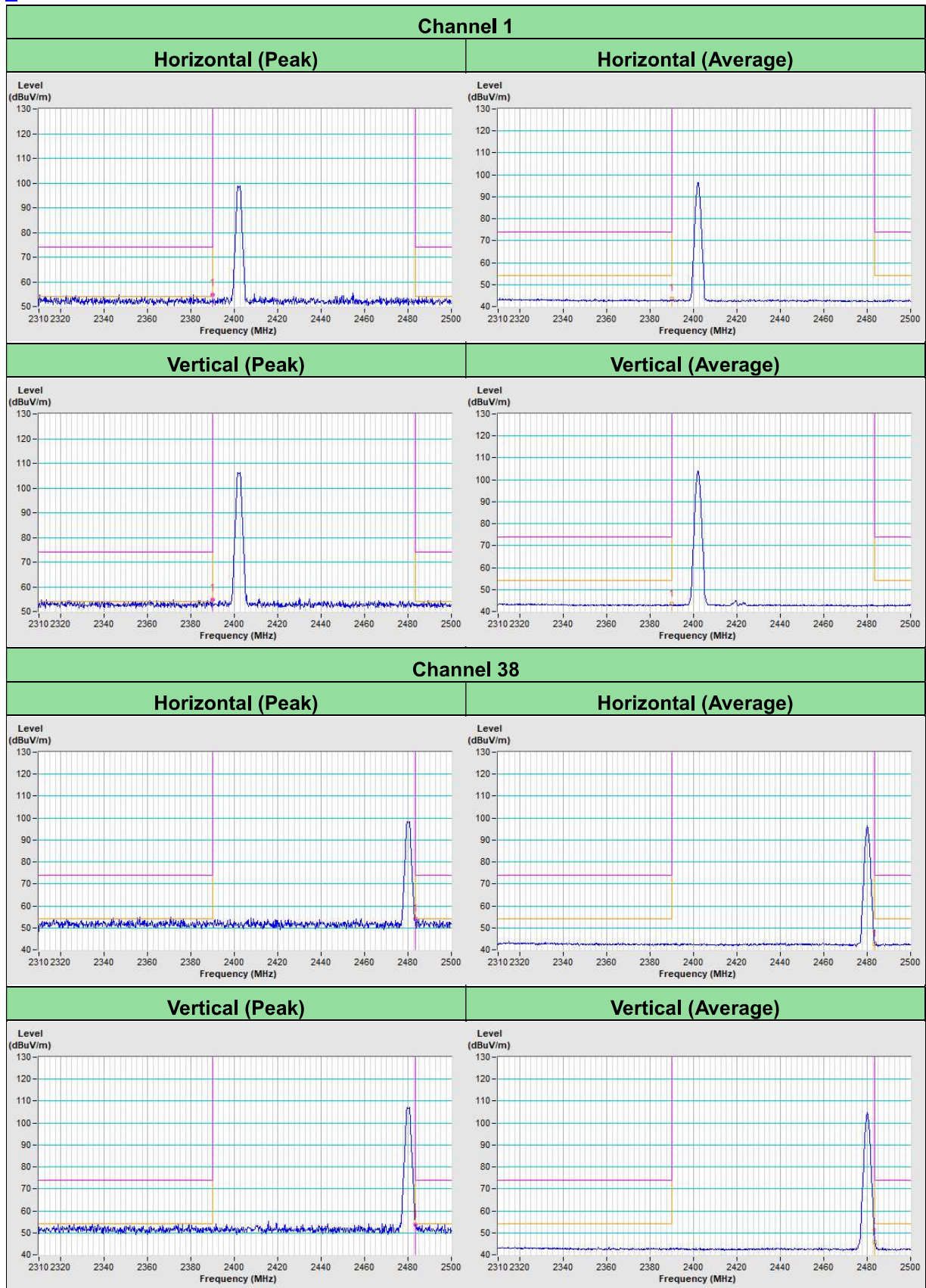


Test Results (Mode 2)

BT_LE-1M



BT_LE-2M



Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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