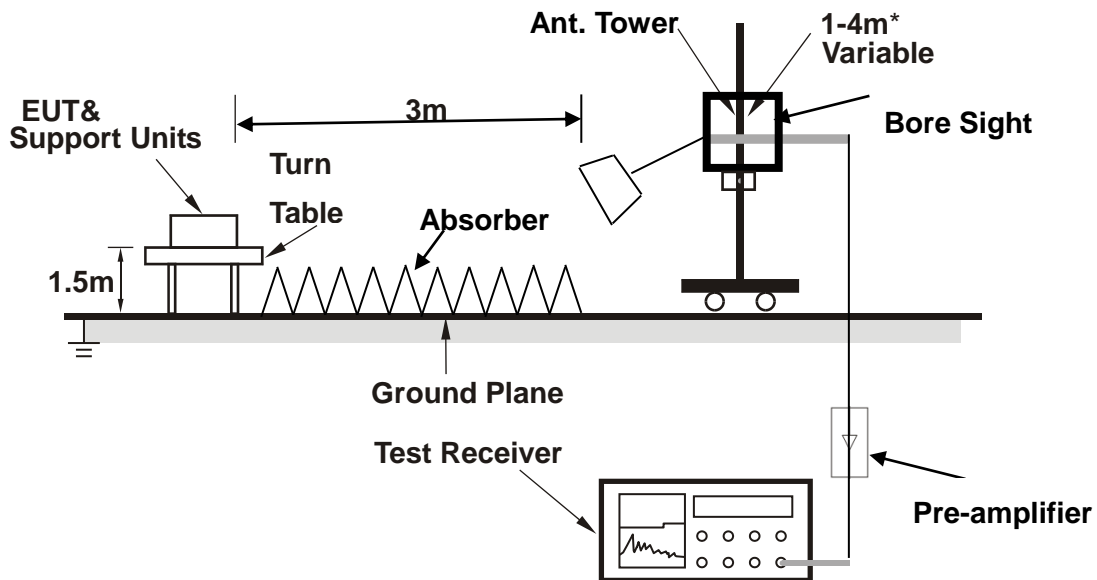




<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna

Depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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

3.2.6 EUT OPERATING CONDITIONS

- Set the EUT under full load condition and placed them on a testing table.
- Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.
- The necessary accessories enable the EUT in full functions.



3.2.7 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

BELOW 1GHz WORST-CASE DATA:

30 MHz – 1GHz data:

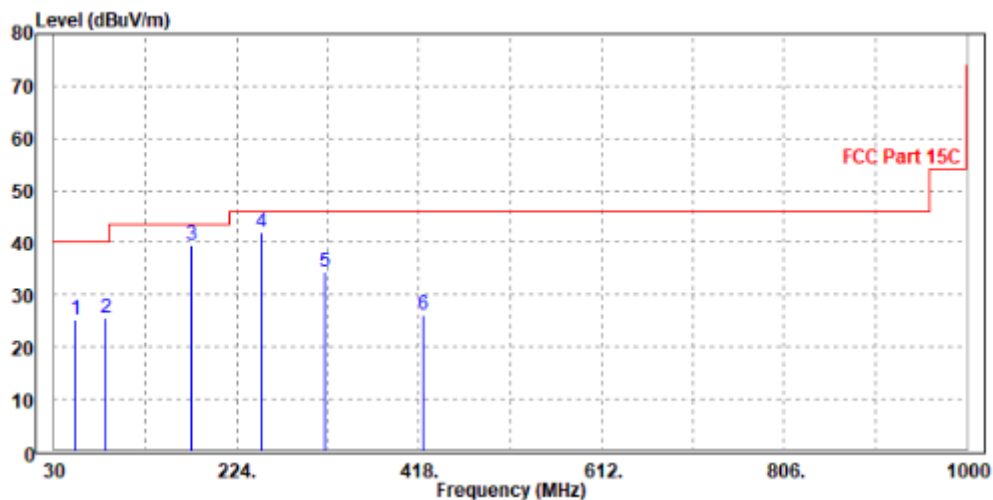
802.11n (20MHz):

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M											
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK	
52.31	25.28	51.89	40	-14.72	9.97	0.41	36.99	100	0	QP	
84.32	25.49	53.72	40	-14.51	8.22	0.5	36.95	100	0	QP	
175.5	39.56	63.99	43.5	-3.94	11.29	0.7	36.42	100	0	QP	
250.19	42.08	64.02	46	-3.92	13.5	0.83	36.27	100	0	QP	
318.09	34.37	55.32	46	-11.63	14.4	0.94	36.29	100	0	QP	
422.85	26.2	44.93	46	-19.8	16.63	1.11	36.47	100	0	QP	

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.





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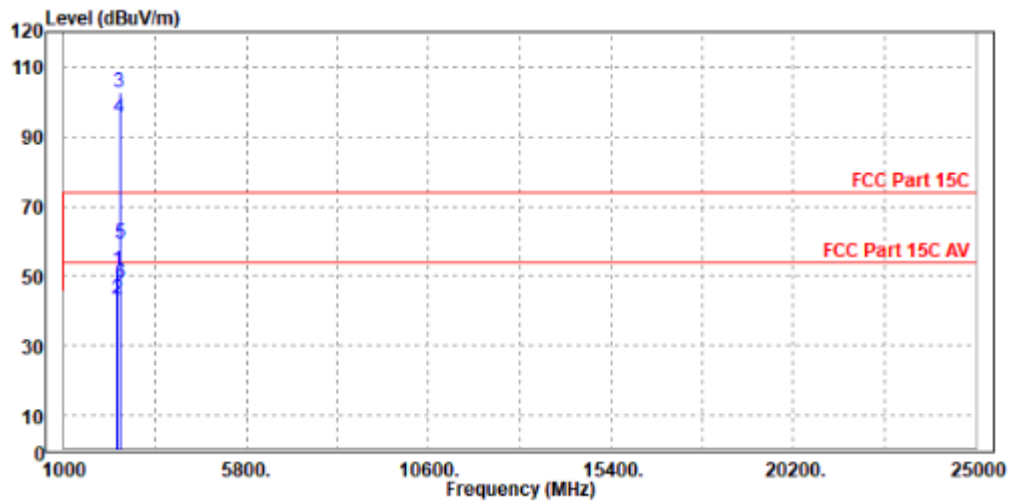
Test Report No.: W7L-P23030005RF02

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
41.64	25.5	50.34	40	-14.5	11.97	0.37	37.18	200	0	QP
84.32	23.97	52.39	40	-16.03	8.03	0.5	36.95	200	0	QP
174.53	34.56	59.17	43.5	-8.94	11.12	0.7	36.43	200	0	QP
253.1	33.78	56.52	46	-12.22	12.69	0.84	36.27	200	0	QP
318.09	32.27	53.2	46	-13.73	14.42	0.94	36.29	200	0	QP
413.15	23.58	42.47	46	-22.42	16.47	1.09	36.45	200	0	QP

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.





ABOVE 1GHz WORST-CASE DATA:

Note: 1. For radiated emissions testing , the full testing range of different modes have been scanned , only the worst case harmonic data is reported in the sheet.

2. All other emissions were greater than 20dB below the limit was not recorded

802.11b:

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.26	60.3	74	-21.74	31.75	6.18	45.97	105	195	Peak
2390	44.29	52.33	54	-9.71	31.75	6.18	45.97	105	195	Average
2412	105.63	113.56	/	/	31.82	6.21	45.96	105	195	Peak
2412	103.73	111.66	/	/	31.82	6.21	45.96	105	195	Average
2483.5	53.91	61.48	74	-20.09	32.05	6.31	45.93	105	195	Peak
2483.5	44.12	51.69	54	-9.88	32.05	6.31	45.93	105	195	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.66	58.31	74	-23.34	32.14	6.18	45.97	110	145	Peak
2390	42.55	50.2	54	-11.45	32.14	6.18	45.97	110	145	Average
2412	101.64	109.2	/	/	32.19	6.21	45.96	110	145	Peak
2412	99.92	107.48	/	/	32.19	6.21	45.96	110	145	Average
2483.5	51.15	58.41	74	-22.85	32.36	6.31	45.93	110	145	Peak
2483.5	42.65	49.91	54	-11.35	32.36	6.31	45.93	110	145	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2412MHz: Fundamental frequency.



CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	53.19	61.23	74	-20.81	31.75	6.18	45.97	105	195	Peak
2390	43.91	51.95	54	-10.09	31.75	6.18	45.97	105	195	Average
2437	105.51	113.32	/	/	31.9	6.24	45.95	105	195	Peak
2437	104.06	111.87	/	/	31.9	6.24	45.95	105	195	Average
2483.5	52.48	60.05	74	-21.52	32.05	6.31	45.93	105	195	Peak
2483.5	44.65	52.22	54	-9.35	32.05	6.31	45.93	105	195	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.19	59.84	74	-21.81	32.14	6.18	45.97	110	145	Peak
2390	44.51	52.16	54	-9.49	32.14	6.18	45.97	110	145	Average
2437	102.39	109.85	/	/	32.25	6.24	45.95	110	145	Peak
2437	100.67	108.13	/	/	32.25	6.24	45.95	110	145	Average
2483.5	53.32	60.58	74	-20.68	32.36	6.31	45.93	110	145	Peak
2483.5	44.62	51.88	54	-9.38	32.36	6.31	45.93	110	145	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2437MHz: Fundamental frequency.



CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.25	60.29	74	-21.75	31.75	6.18	45.97	103	195	Peak
2390	43.46	51.5	54	-10.54	31.75	6.18	45.97	103	195	Average
2462	105.56	113.24	/	/	31.98	6.28	45.94	103	195	Peak
2462	103.58	111.26	/	/	31.98	6.28	45.94	103	195	Average
2483.5	53.98	61.55	74	-20.02	32.05	6.31	45.93	103	195	Peak
2483.5	46.09	53.66	54	-7.91	32.05	6.31	45.93	103	195	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.43	60.08	74	-21.57	32.14	6.18	45.97	103	145	Peak
2390	44.02	51.67	54	-9.98	32.14	6.18	45.97	103	145	Average
2462	102.89	110.24	/	/	32.31	6.28	45.94	103	145	Peak
2462	101.08	108.43	/	/	32.31	6.28	45.94	103	145	Average
2483.5	52.93	60.19	74	-21.07	32.36	6.31	45.93	103	145	Peak
2483.5	45.09	52.35	54	-8.91	32.36	6.31	45.93	103	145	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2462MHz: Fundamental frequency.



802.11g

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	64.42	72.46	74	-9.58	31.75	6.18	45.97	100	195	Peak
2390	50.72	58.76	54	-3.28	31.75	6.18	45.97	100	195	Average
2412	106.39	114.32	/	/	31.82	6.21	45.96	100	195	Peak
2412	98.31	106.24	/	/	31.82	6.21	45.96	100	195	Average
2483.5	54	61.57	74	-20	32.05	6.31	45.93	100	195	Peak
2483.5	45.55	53.12	54	-8.45	32.05	6.31	45.93	100	195	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	61.36	69.01	74	-12.64	32.14	6.18	45.97	110	145	Peak
2390	48.25	55.9	54	-5.75	32.14	6.18	45.97	110	145	Average
2412	102.98	110.54	/	/	32.19	6.21	45.96	110	145	Peak
2412	95.25	102.81	/	/	32.19	6.21	45.96	110	145	Average
2483.5	53.09	60.35	74	-20.91	32.36	6.31	45.93	110	145	Peak
2483.5	44.55	51.81	54	-9.45	32.36	6.31	45.93	110	145	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2412MHz: Fundamental frequency.



CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	53.59	61.63	74	-20.41	31.75	6.18	45.97	100	195	Peak
2390	44.13	52.17	54	-9.87	31.75	6.18	45.97	100	195	Average
2437	106.79	114.6	/	/	31.9	6.24	45.95	100	195	Peak
2437	98.99	106.8	/	/	31.9	6.24	45.95	100	195	Average
2483.5	54.69	62.26	74	-19.31	32.05	6.31	45.93	100	195	Peak
2483.5	44.81	52.38	54	-9.19	32.05	6.31	45.93	100	195	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.72	60.37	74	-21.28	32.14	6.18	45.97	110	145	Peak
2390	43.97	51.62	54	-10.03	32.14	6.18	45.97	110	145	Average
2437	104.16	111.62	/	/	32.25	6.24	45.95	110	145	Peak
2437	96.05	103.51	/	/	32.25	6.24	45.95	110	145	Average
2483.5	53.01	60.27	74	-20.99	32.36	6.31	45.93	110	145	Peak
2483.5	45.38	52.64	54	-8.62	32.36	6.31	45.93	110	145	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2437MHz: Fundamental frequency.



CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.47	60.51	74	-21.53	31.75	6.18	45.97	100	195	Peak
2390	43.9	51.94	54	-10.1	31.75	6.18	45.97	100	195	Average
2462	106.09	113.77	/	/	31.98	6.28	45.94	100	195	Peak
2462	98.35	106.03	/	/	31.98	6.28	45.94	100	195	Average
2483.5	64.77	72.34	74	-9.23	32.05	6.31	45.93	100	195	Peak
2483.5	50.8	58.37	54	-3.2	32.05	6.31	45.93	100	195	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.36	60.01	74	-21.64	32.14	6.18	45.97	103	145	Peak
2390	44.22	51.87	54	-9.78	32.14	6.18	45.97	103	145	Average
2462	102.59	109.94	/	/	32.31	6.28	45.94	103	145	Peak
2462	95.01	102.36	/	/	32.31	6.28	45.94	103	145	Average
2483.5	62.21	69.47	74	-11.79	32.36	6.31	45.93	103	145	Peak
2483.5	49.2	56.46	54	-4.8	32.36	6.31	45.93	103	145	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2462MHz: Fundamental frequency.



802.11n (20MHz)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	66.28	74.32	74	-7.72	31.75	6.18	45.97	100	195	Peak
2390	50.68	58.72	54	-3.32	31.75	6.18	45.97	100	195	Average
2412	105.47	113.4	/	/	31.82	6.21	45.96	100	195	Peak
2412	97.17	105.1	/	/	31.82	6.21	45.96	100	195	Average
2483.5	54.94	62.51	74	-19.06	32.05	6.31	45.93	100	195	Peak
2483.5	44.98	52.55	54	-9.02	32.05	6.31	45.93	100	195	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	60.29	67.94	74	-13.71	32.14	6.18	45.97	103	145	Peak
2390	47.6	55.25	54	-6.4	32.14	6.18	45.97	103	145	Average
2412	102.29	109.85	/	/	32.19	6.21	45.96	103	145	Peak
2412	93.48	101.04	/	/	32.19	6.21	45.96	103	145	Average
2483.5	54.43	61.69	74	-19.57	32.36	6.31	45.93	103	145	Peak
2483.5	44.94	52.2	54	-9.06	32.36	6.31	45.93	103	145	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2412MHz: Fundamental frequency.



CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.67	60.71	74	-21.33	31.75	6.18	45.97	100	195	Peak
2390	44.12	52.16	54	-9.88	31.75	6.18	45.97	100	195	Average
2437	106.88	114.69	/	/	31.9	6.24	45.95	100	195	Peak
2437	98.74	106.55	/	/	31.9	6.24	45.95	100	195	Average
2483.5	54.52	62.09	74	-19.48	32.05	6.31	45.93	100	195	Peak
2483.5	45.13	52.7	54	-8.87	32.05	6.31	45.93	100	195	Average

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	52.57	60.22	74	-21.43	32.14	6.18	45.97	103	145	Peak
2390	44.43	52.08	54	-9.57	32.14	6.18	45.97	103	145	Average
2437	103.82	111.28	/	/	32.25	6.24	45.95	103	145	Peak
2437	95.86	103.32	/	/	32.25	6.24	45.95	103	145	Average
2483.5	52.87	60.13	74	-21.13	32.36	6.31	45.93	103	145	Peak
2483.5	44.65	51.91	54	-9.35	32.36	6.31	45.93	103	145	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2437MHz: Fundamental frequency.



CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.56	59.6	74	-22.44	31.75	6.18	45.97	100	200	Peak
2390	42.98	51.02	54	-11.02	31.75	6.18	45.97	100	200	Average
2462	104.26	111.94	/	/	31.98	6.28	45.94	100	200	Peak
2462	97.66	105.34	/	/	31.98	6.28	45.94	100	200	Average
2483.5	64.34	71.91	74	-9.66	32.05	6.31	45.93	100	200	Peak
2483.5	50.47	58.04	54	-3.53	32.05	6.31	45.93	100	200	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	51.72	59.37	74	-22.28	32.14	6.18	45.97	100	170	Peak
2390	43.15	50.8	54	-10.85	32.14	6.18	45.97	100	170	Average
2462	102.48	109.83	/	/	32.31	6.28	45.94	100	170	Peak
2462	95.41	102.76	/	/	32.31	6.28	45.94	100	170	Average
2483.5	59.27	66.53	74	-14.73	32.36	6.31	45.93	100	170	Peak
2483.5	47.8	55.06	54	-6.2	32.36	6.31	45.93	100	170	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2462MHz: Fundamental frequency.



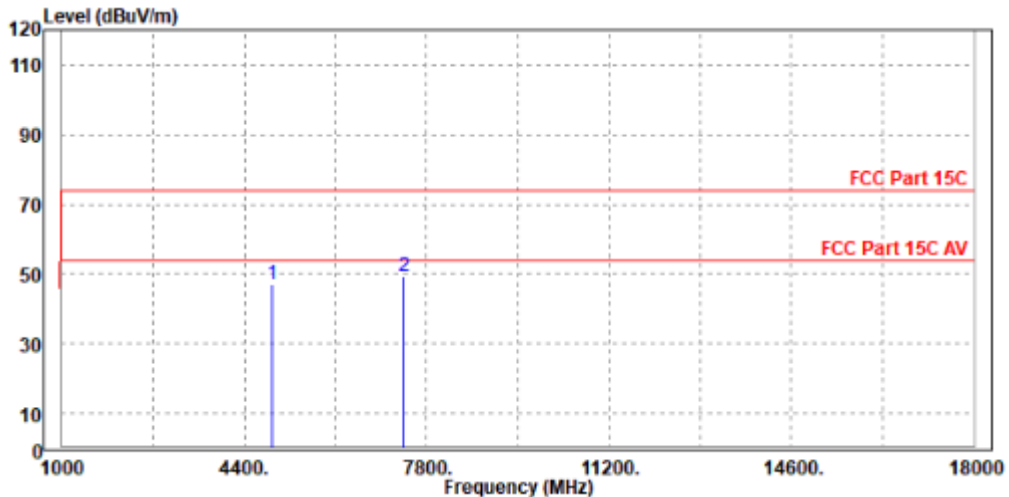
BUREAU VERITAS Test Report No.: W7L-P23030005RF02

Worst case harmonic:
802.11n (20MHz)

CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

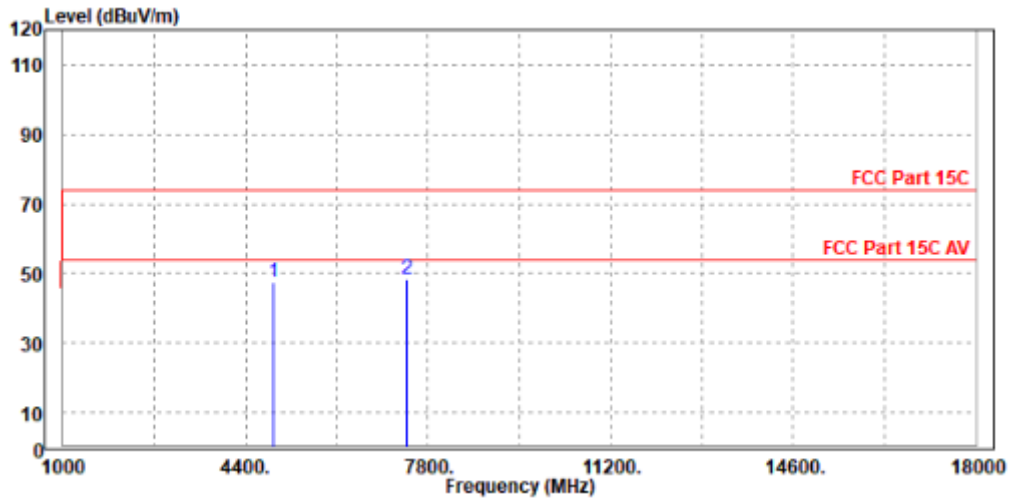
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	4927.000	47.05	48.31	74.00	-26.95	-1.26	Peak	Horizontal
2 PP	7386.000	49.17	47.24	74.00	-24.83	1.93	Peak	Horizontal





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit	Over		Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	4924.000	47.39	48.45	74.00	-26.61	-1.06	Peak	Vertical
2 PP	7392.000	48.54	46.57	74.00	-25.46	1.97	Peak	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 2462MHz: Fundamental frequency.
3. For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.



BELOW 1GHz WORST-CASE DATA:

30 MHz – 1GHz data:

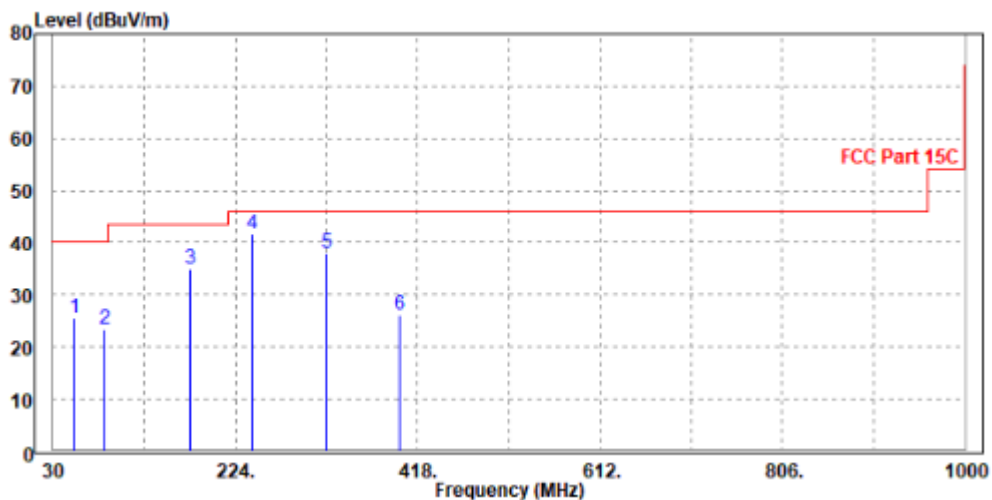
BT-LE_2M

CHANNEL	TX Channel 39	ODETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
52.31	25.41	52.02	40	-14.59	9.97	0.41	36.99	112	34	QP
84.32	23.31	51.54	40	-16.69	8.22	0.5	36.95	176	148	QP
175.5	34.94	59.37	43.5	-8.56	11.29	0.7	36.42	169	117	QP
242.43	41.81	64.1	46	-4.19	13.17	0.82	36.28	105	198	QP
321	37.92	58.81	46	-8.08	14.46	0.94	36.29	141	229	QP
398.6	26.24	45.42	46	-19.76	16.17	1.07	36.42	119	268	QP

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



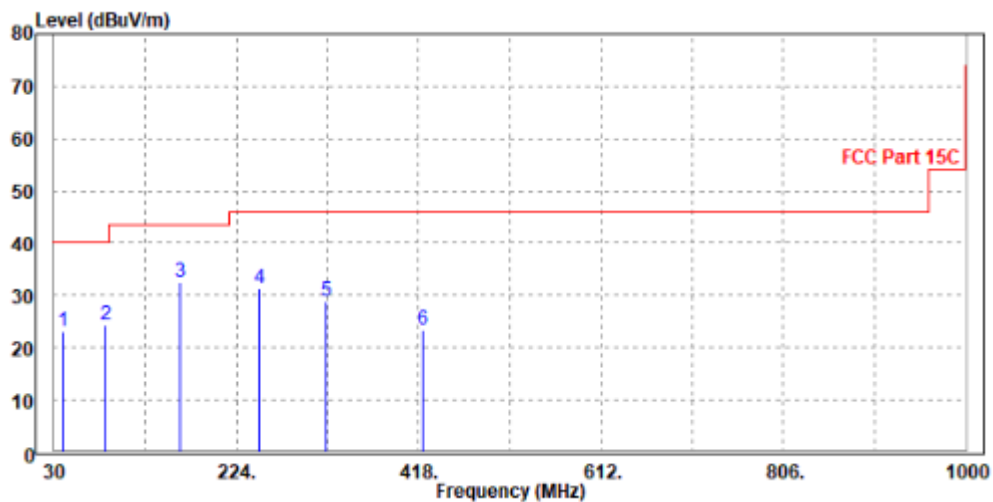


CHANNEL	TX Channel 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
39.7	23.05	47.38	40	-16.95	12.54	0.36	37.23	111	87	QP
84.32	24.2	52.62	40	-15.8	8.03	0.5	36.95	192	287	QP
163.86	32.41	57.26	43.5	-11.09	10.96	0.68	36.49	106	231	QP
248.25	31.32	54.21	46	-14.68	12.56	0.83	36.28	115	142	QP
320.03	28.95	49.84	46	-17.05	14.46	0.94	36.29	144	162	QP
422.85	23.41	42.17	46	-22.59	16.6	1.11	36.47	115	179	QP

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value





ABOVE 1GHz TEST DATA

Note: 1. For radiated emissions testing , the full testing range of different modes have been scanned , only the worst case harmonic data is reported in the sheet.

2. All other emissions were greater than 20dB below the limit was not recorded

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										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.51	57.55	74	-24.49	31.75	6.18	45.97	140	200	Peak
2390	41.71	49.75	54	-12.29	31.75	6.18	45.97	140	200	Average
2402	94.73	102.72	/	/	31.79	6.19	45.97	140	200	Peak
2402	93.95	101.94	/	/	31.79	6.19	45.97	140	200	Average
2483.5	50.25	57.82	74	-23.75	32.05	6.31	45.93	140	200	Peak
2483.5	42.16	49.73	54	-11.84	32.05	6.31	45.93	140	200	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.34	57.99	74	-23.66	32.14	6.18	45.97	100	150	Peak
2390	41.73	49.38	54	-12.27	32.14	6.18	45.97	100	150	Average
2402	91.01	98.63	/	/	32.16	6.19	45.97	100	150	Peak
2402	90.77	98.39	/	/	32.16	6.19	45.97	100	150	Average
2483.5	51.48	58.74	74	-22.52	32.36	6.31	45.93	100	150	Peak
2483.5	42.32	49.58	54	-11.68	32.36	6.31	45.93	100	150	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2402MHz: Fundamental frequency.



CHANNEL	TX Channel 19	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.29	57.33	74	-24.71	31.75	6.18	45.97	140	200	Peak
2390	40.82	48.86	54	-13.18	31.75	6.18	45.97	140	200	Average
2440	97.13	104.92	/	/	31.91	6.25	45.95	140	200	Peak
2440	96.78	104.57	/	/	31.91	6.25	45.95	140	200	Average
2483.5	50.7	58.27	74	-23.3	32.05	6.31	45.93	140	200	Peak
2483.5	42.03	49.6	54	-11.97	32.05	6.31	45.93	140	200	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.52	57.17	74	-24.48	32.14	6.18	45.97	100	150	Peak
2390	42.06	49.71	54	-11.94	32.14	6.18	45.97	100	150	Average
2440	93.22	100.66	/	/	32.26	6.25	45.95	100	150	Peak
2440	92.83	100.27	/	/	32.26	6.25	45.95	100	150	Average
2483.5	49.53	56.79	74	-24.47	32.36	6.31	45.93	100	150	Peak
2483.5	42.53	49.79	54	-11.47	32.36	6.31	45.93	100	150	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 2440MHz: Fundamental frequency.



CHANNEL	TX Channel 39	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.44	57.48	74	-24.56	31.75	6.18	45.97	140	200	Peak
2390	40.66	48.7	54	-13.34	31.75	6.18	45.97	140	200	Average
2480	96.68	104.27	/	/	32.04	6.3	45.93	140	200	Peak
2480	96.34	103.93	/	/	32.04	6.3	45.93	140	200	Average
2483.5	52.12	59.69	74	-21.88	32.05	6.31	45.93	140	200	Peak
2483.5	41.73	49.3	54	-12.27	32.05	6.31	45.93	140	200	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.88	57.53	74	-24.12	32.14	6.18	45.97	100	150	Peak
2390	40.03	47.68	54	-13.97	32.14	6.18	45.97	100	150	Average
2480	93.35	100.63	/	/	32.35	6.3	45.93	100	150	Peak
2480	92.9	100.18	/	/	32.35	6.3	45.93	100	150	Average
2483.5	52	59.26	74	-22	32.36	6.31	45.93	100	150	Peak
2483.5	41.53	48.79	54	-12.47	32.36	6.31	45.93	100	150	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2480MHz: Fundamental frequency.

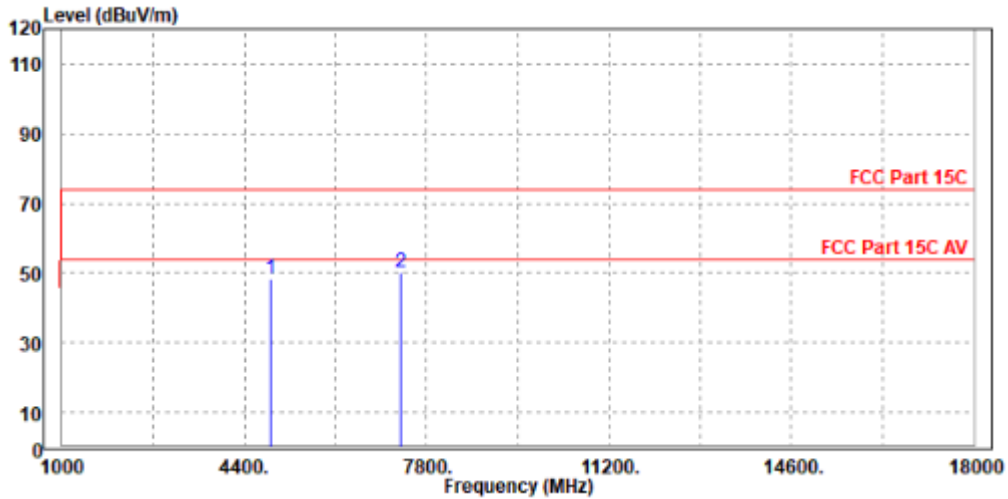


Worst case harmonic:

CHANNEL	TX Channel 19	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

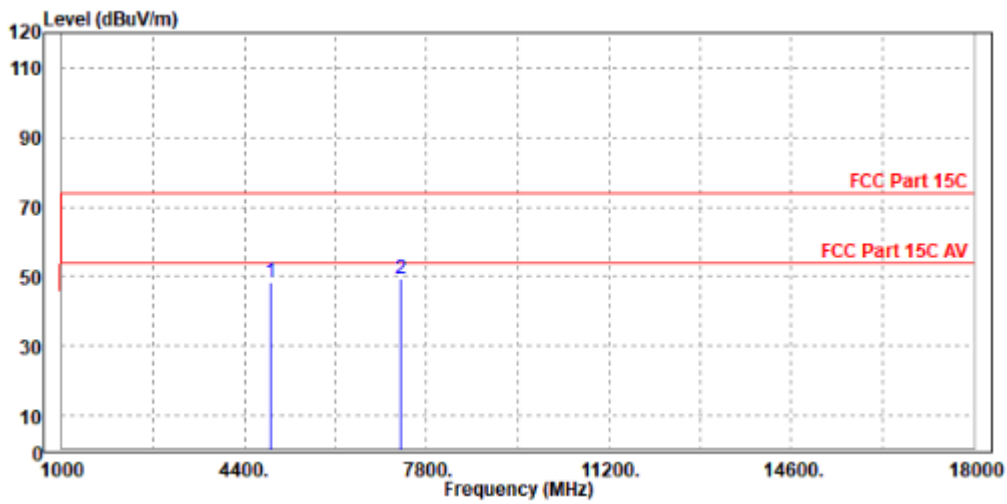
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	4880.000	48.53	49.85	74.00	-25.47	-1.32	Peak	Horizontal
2 PP	7312.000	50.10	48.25	74.00	-23.90	1.85	Peak	Horizontal





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	4888.000	48.42	49.53	74.00	-25.58	-1.11	Peak	Vertical
2	PP 7320.000	49.40	47.47	74.00	-24.60	1.93	Peak	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 2440MHz: Fundamental frequency.
3. For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.



BT-LE_2M

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.92	57.96	74	-24.08	31.75	6.18	45.97	140	200	Peak
2390	41.79	49.83	54	-12.21	31.75	6.18	45.97	140	200	Average
2402	94.52	102.51	/	/	31.79	6.19	45.97	140	200	Peak
2402	94.2	102.19	/	/	31.79	6.19	45.97	140	200	Average
2483.5	51.51	59.08	74	-22.49	32.05	6.31	45.93	140	200	Peak
2483.5	41.58	49.15	54	-12.42	32.05	6.31	45.93	140	200	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.8	57.45	74	-24.2	32.14	6.18	45.97	100	150	Peak
2390	42.1	49.75	54	-11.9	32.14	6.18	45.97	100	150	Average
2402	90.94	98.56	/	/	32.16	6.19	45.97	100	150	Peak
2402	90.43	98.05	/	/	32.16	6.19	45.97	100	150	Average
2483.5	51.56	58.82	74	-22.44	32.36	6.31	45.93	100	150	Peak
2483.5	41.13	48.39	54	-12.87	32.36	6.31	45.93	100	150	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
2. 2402MHz: Fundamental frequency.



CHANNEL	TX Channel 19	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.24	58.28	74	-23.76	31.75	6.18	45.97	140	200	Peak
2390	40.78	48.82	54	-13.22	31.75	6.18	45.97	140	200	Average
2440	95.73	103.52	/	/	31.91	6.25	45.95	140	200	Peak
2440	95.21	103	/	/	31.91	6.25	45.95	140	200	Average
2483.5	50.28	57.85	74	-23.72	32.05	6.31	45.93	140	200	Peak
2483.5	41.64	49.21	54	-12.36	32.05	6.31	45.93	140	200	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	49.84	57.49	74	-24.16	32.14	6.18	45.97	100	150	Peak
2390	41.52	49.17	54	-12.48	32.14	6.18	45.97	100	150	Average
2440	93.16	100.6	/	/	32.26	6.25	45.95	100	150	Peak
2440	91.39	98.83	/	/	32.26	6.25	45.95	100	150	Average
2483.5	50.52	57.78	74	-23.48	32.36	6.31	45.93	100	150	Peak
2483.5	41.69	48.95	54	-12.31	32.36	6.31	45.93	100	150	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2440MHz: Fundamental frequency.



CHANNEL	TX Channel 39	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.42	58.46	74	-23.58	31.75	6.18	45.97	140	200	Peak
2390	41.57	49.61	54	-12.43	31.75	6.18	45.97	140	200	Average
2480	96.64	104.23	/	/	32.04	6.3	45.93	140	200	Peak
2480	94.24	101.83	/	/	32.04	6.3	45.93	140	200	Average
2483.5	51.67	59.24	74	-22.33	32.05	6.31	45.93	140	200	Peak
2483.5	42.88	50.45	54	-11.12	32.05	6.31	45.93	140	200	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2390	50.02	57.67	74	-23.98	32.14	6.18	45.97	100	150	Peak
2390	40.87	48.52	54	-13.13	32.14	6.18	45.97	100	150	Average
2480	94.06	101.34	/	/	32.35	6.3	45.93	100	150	Peak
2480	92.22	99.5	/	/	32.35	6.3	45.93	100	150	Average
2483.5	51.01	58.27	74	-22.99	32.36	6.31	45.93	100	150	Peak
2483.5	43.15	50.41	54	-10.85	32.36	6.31	45.93	100	150	Average

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 2480MHz: Fundamental frequency.