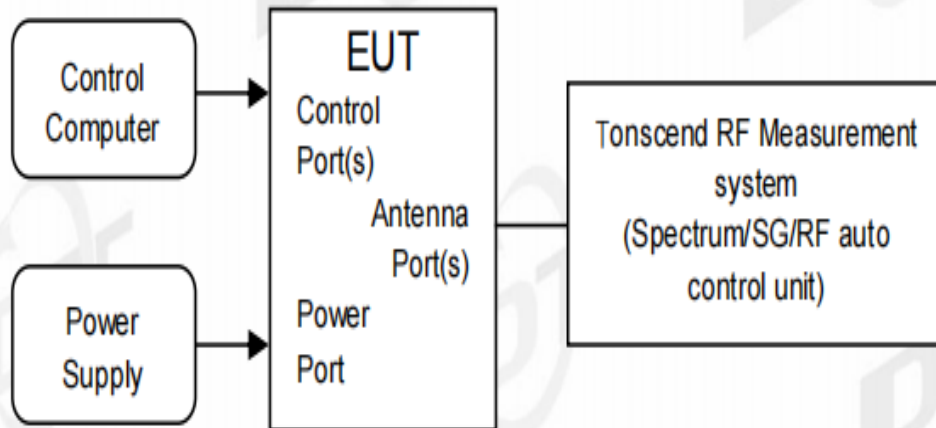


10. RF Conducted Spurious Emissions

10.1. Block diagram of test setup



10.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

10.3. Test procedure

- (1) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (2) Establish a reference level by using the following procedure:

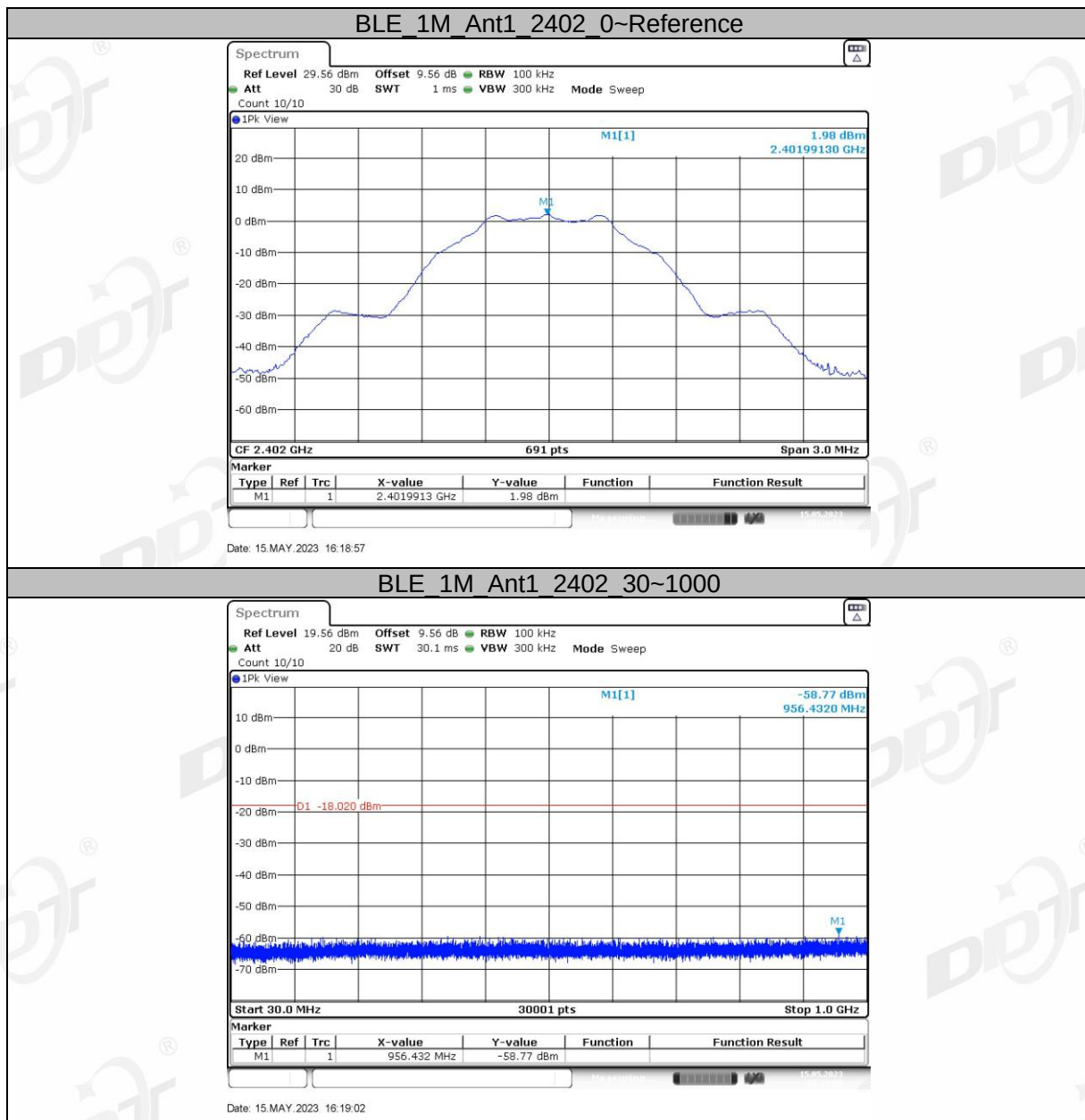
RBW:	100 kHz
VBW:	300 kHz
Span	Encompass frequency range to be measured
Detector Mode:	Peak
Sweep time:	Auto
Trace mode	Max hold

- (3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.
- (4) Then mark the maximum amplitude of all unwanted emissions outside of the authorized frequency band.

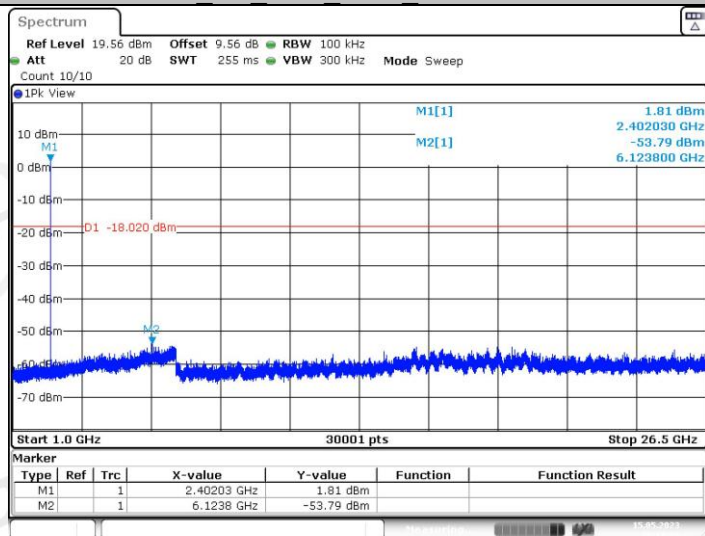
10.4. Test result

Mode	Frequency (MHz)	Verdict
BLE_1M	2402	Pass
	2440	Pass
	2480	Pass
BLE_2M	2402	Pass
	2440	Pass
	2480	Pass

10.5. Test graphs

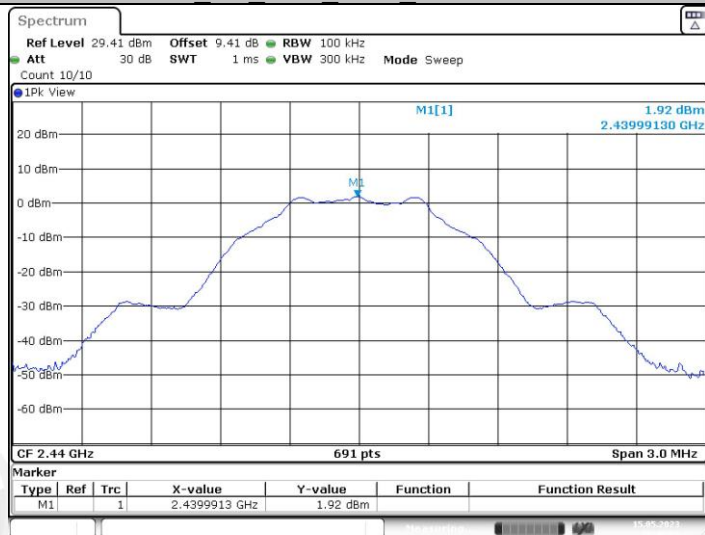


BLE 1M Ant1 2402 1000~26500



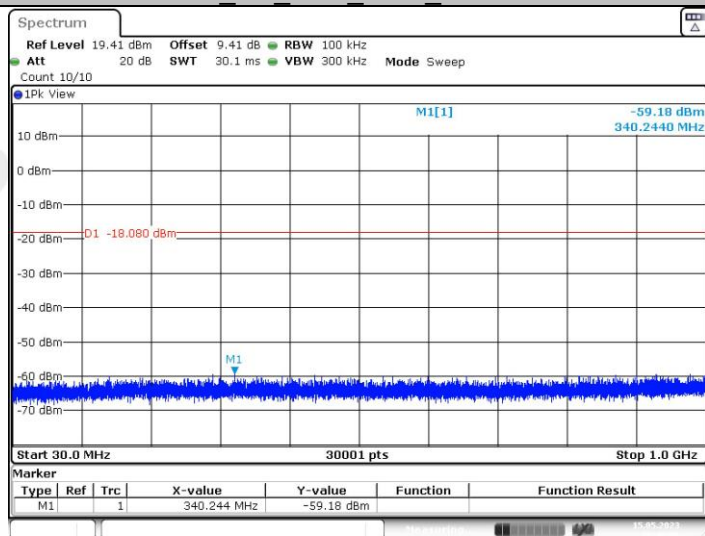
Date: 15 MAY 2023 16:19:24

BLE 1M Ant1 2440 0~Reference



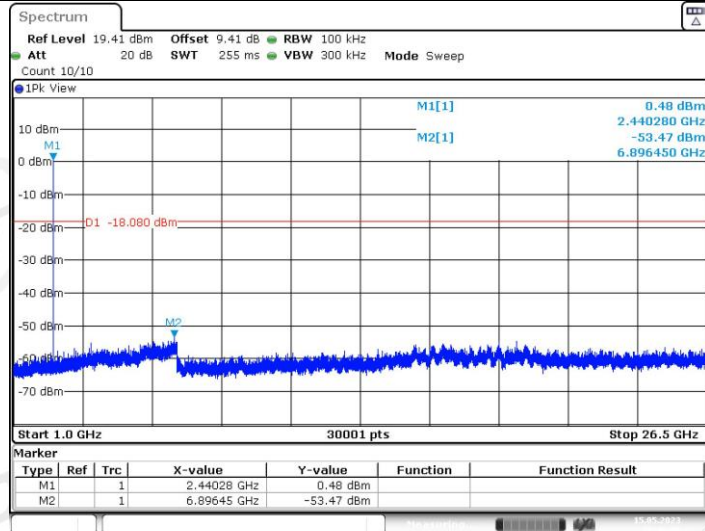
Date: 15 MAY 2023 16:46:03

BLE 1M Ant1 2440 30~1000



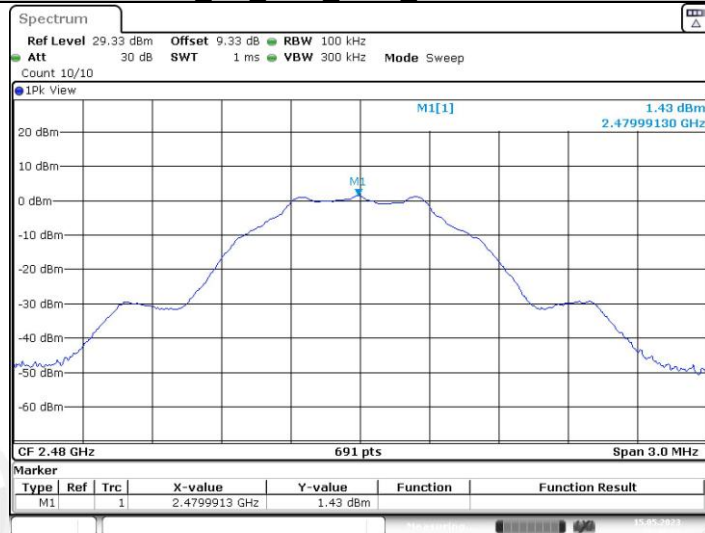
Date: 15 MAY 2023 16:46:08

BLE 1M Ant1 2440 1000~26500



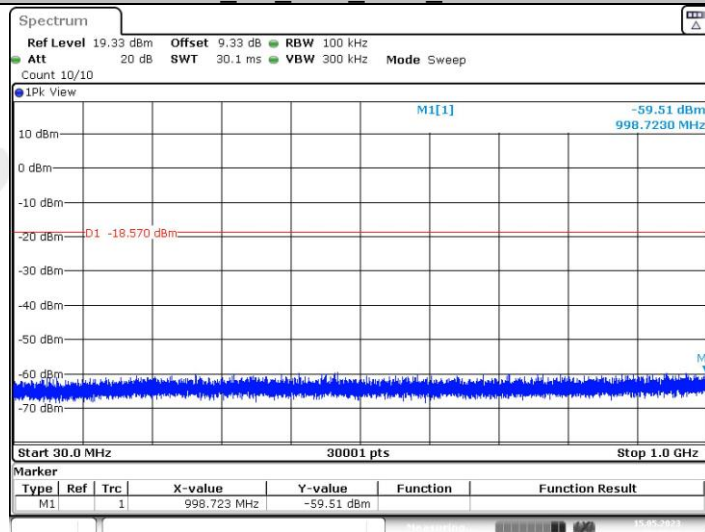
Date: 15 MAY 2023 16:46:30

BLE 1M Ant1 2480 0~Reference



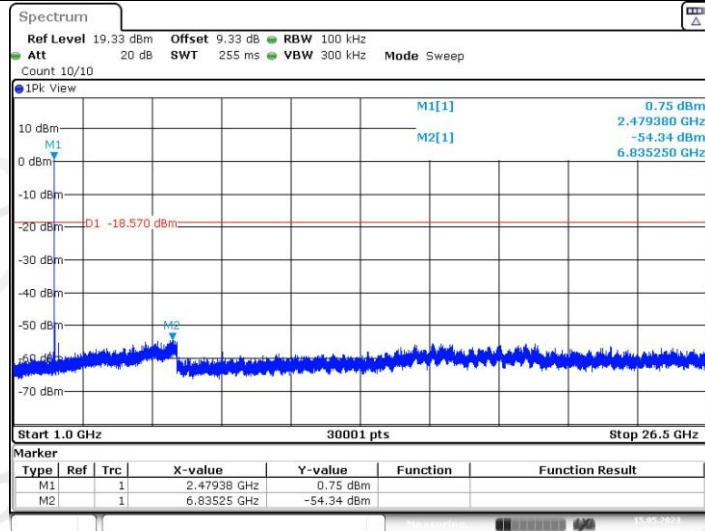
Date: 15 MAY 2023 16:48:29

BLE 1M Ant1 2480 30~1000



Date: 15 MAY 2023 16:48:34

BLE 1M Ant1 2480 1000~26500



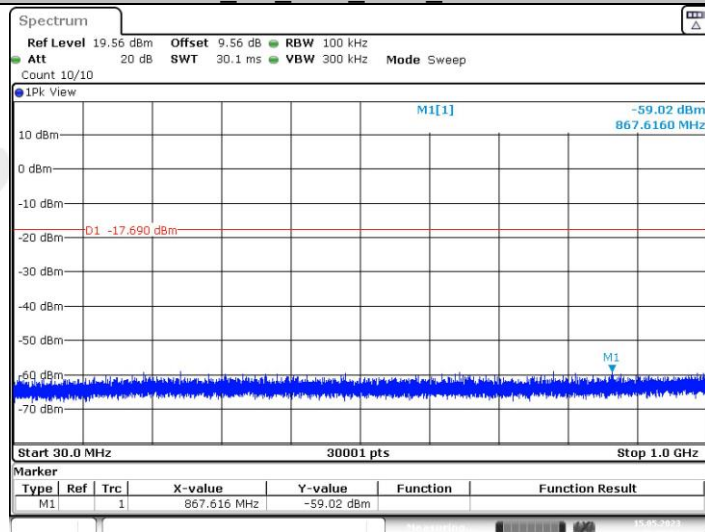
Date: 15 MAY 2023 16:48:56

BLE 2M Ant1 2402 0~Reference



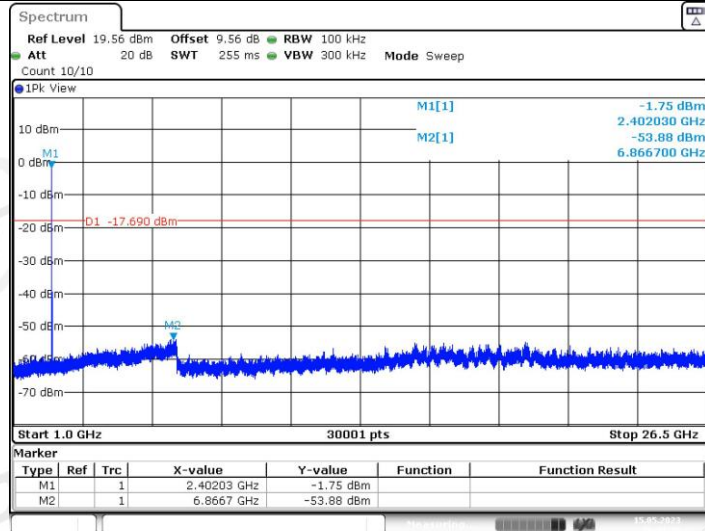
Date: 15 MAY 2023 16:50:53

BLE 2M Ant1 2402 30~1000



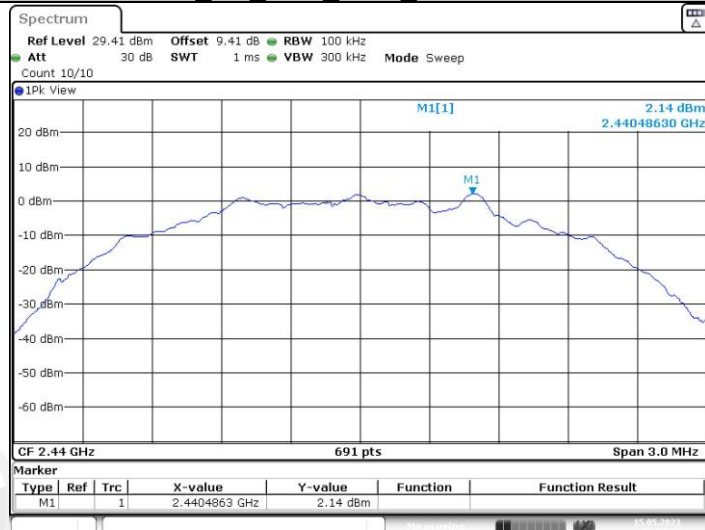
Date: 15 MAY 2023 16:50:58

BLE 2M Ant1 2402 1000~26500



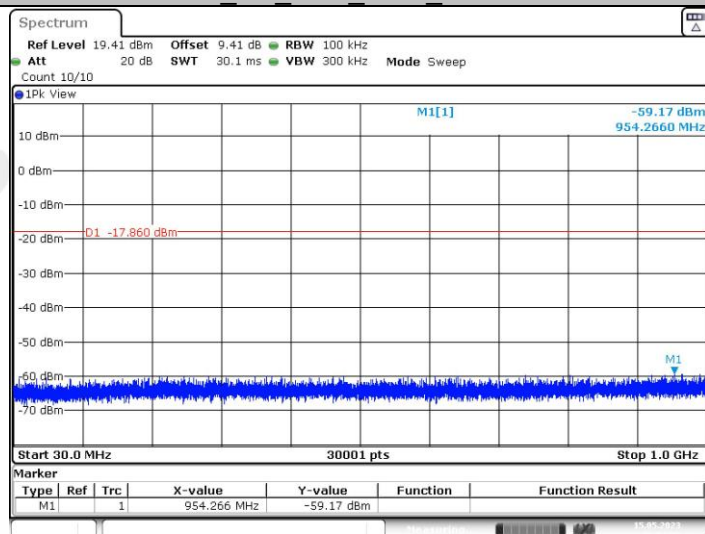
Date: 15 MAY 2023 16:51:20

BLE 2M Ant1 2440 0~Reference



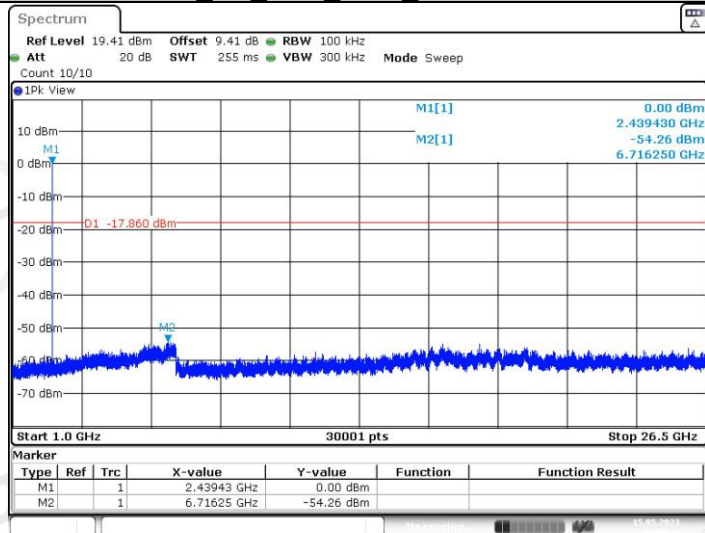
Date: 15 MAY 2023 16:52:49

BLE 2M Ant1 2440 30~1000



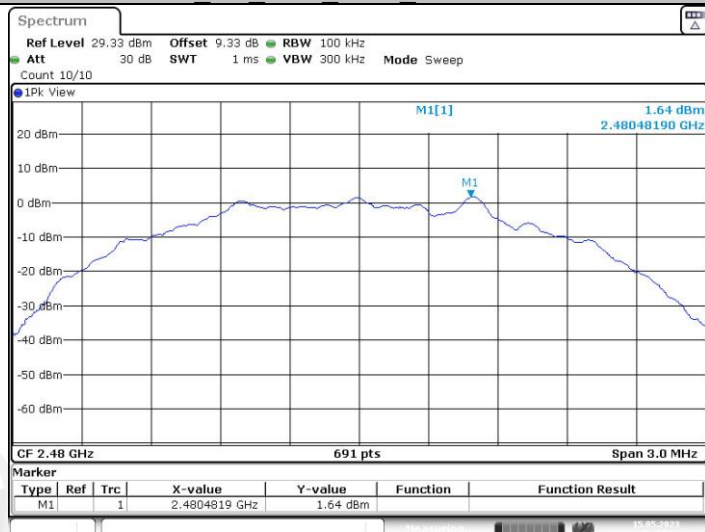
Date: 15 MAY 2023 16:52:54

BLE 2M Ant1 2440 1000~26500



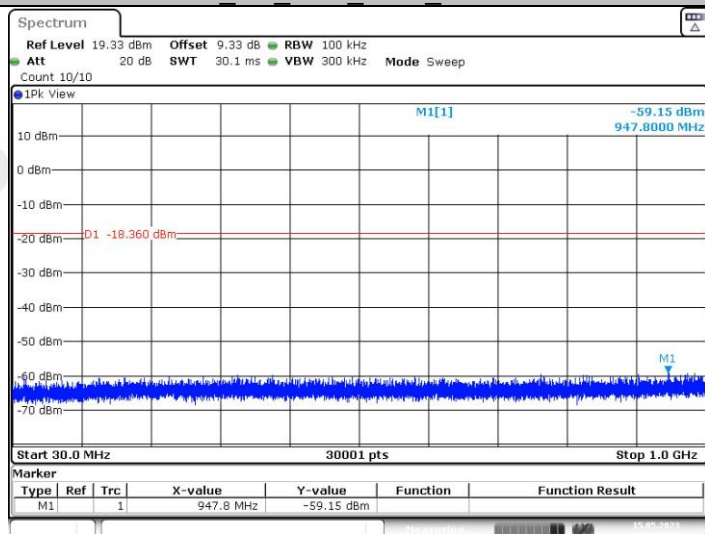
Date: 15 MAY 2023 16:53:16

BLE 2M Ant1 2480 0~Reference

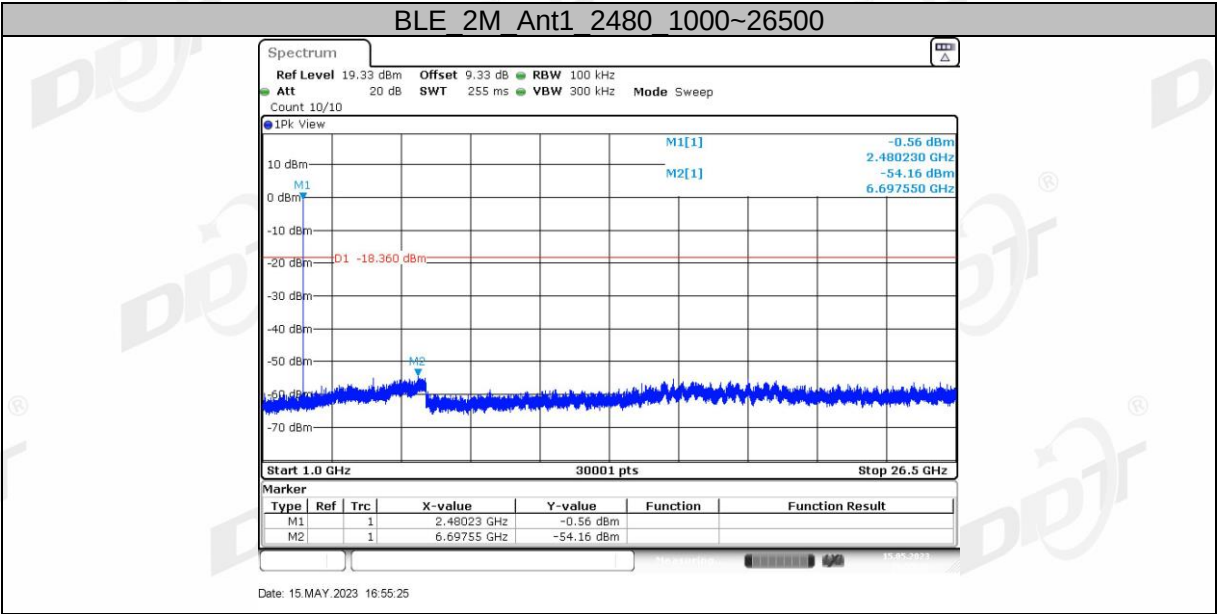


Date: 15 MAY 2023 16:54:59

BLE 2M Ant1 2480 30~1000

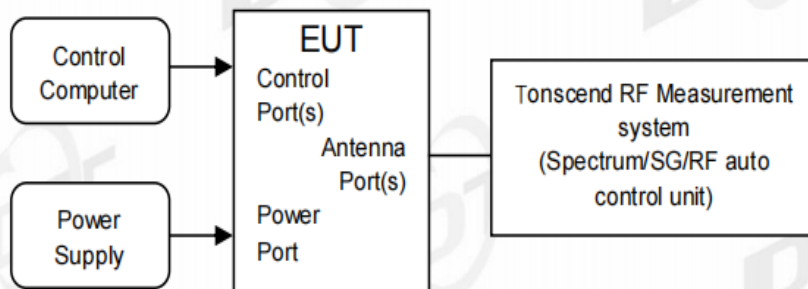


Date: 15 MAY 2023 16:55:03



11. Duty Cycle

11.1. Block diagram of test setup



11.2. Limit

Just for Report.

11.3. Test procedure

- (1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, The cable loss and attenuator loss have been put into spectrum analyzer as amplitude offset.
- (2) set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the middle hopping channel.

Resolution BW: 10 MHz.

Video BW: 10 MHz.

Span: Zero span.

Detector: Peak.

Trace Mode: Max Hold.

Sweep: Video Trigger

- (3) When the trace is complete, measure the sending time of 1 burst and the duty cycle of 1 burst cycle.
- (4) Calculate dwell time follow below formula:
Duty cycle= Pulse's on time / Burst cycle.

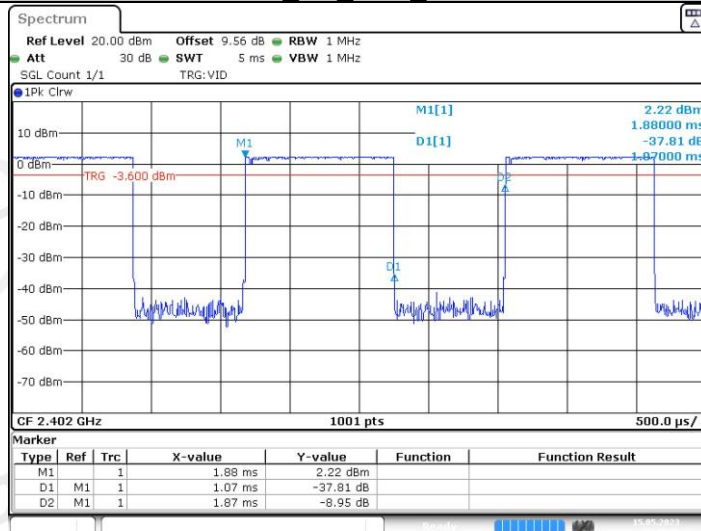
11.4. Test result

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
BLE_1M	Ant1	2402	0.38	0.63	60.32	2.20
		2440	0.38	0.63	60.32	2.20
		2480	0.38	0.63	60.32	2.20
BLE_2M	Ant1	2402	1.07	1.87	57.22	2.42
		2440	1.07	1.87	57.22	2.42
		2480	1.07	1.87	57.22	2.42

11.5. Test graphs

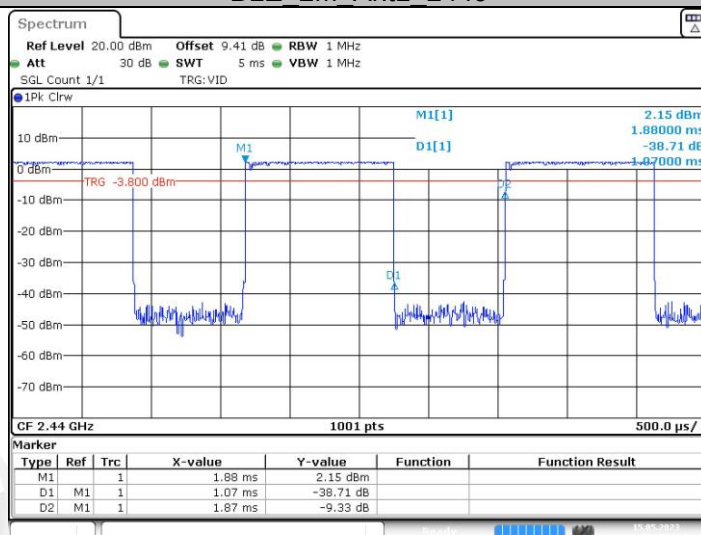


BLE 2M Ant1 2402



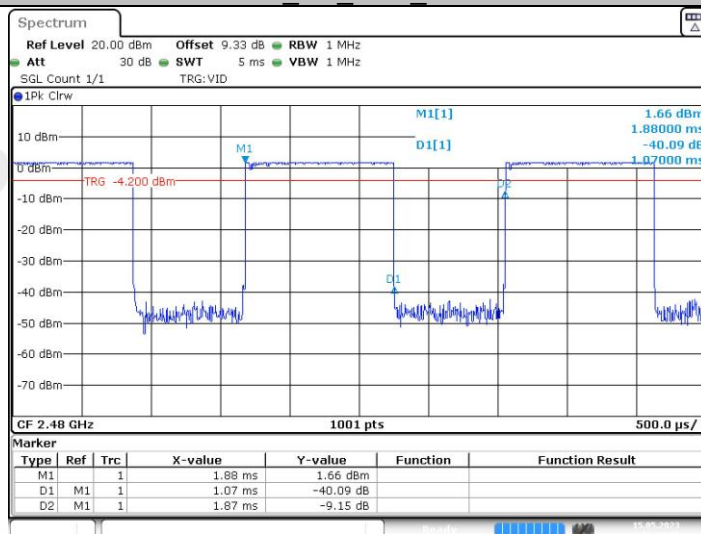
Date: 15.MAY.2023 16:49:32

BLE 2M Ant1 2440



Date: 15.MAY.2023 16:51:45

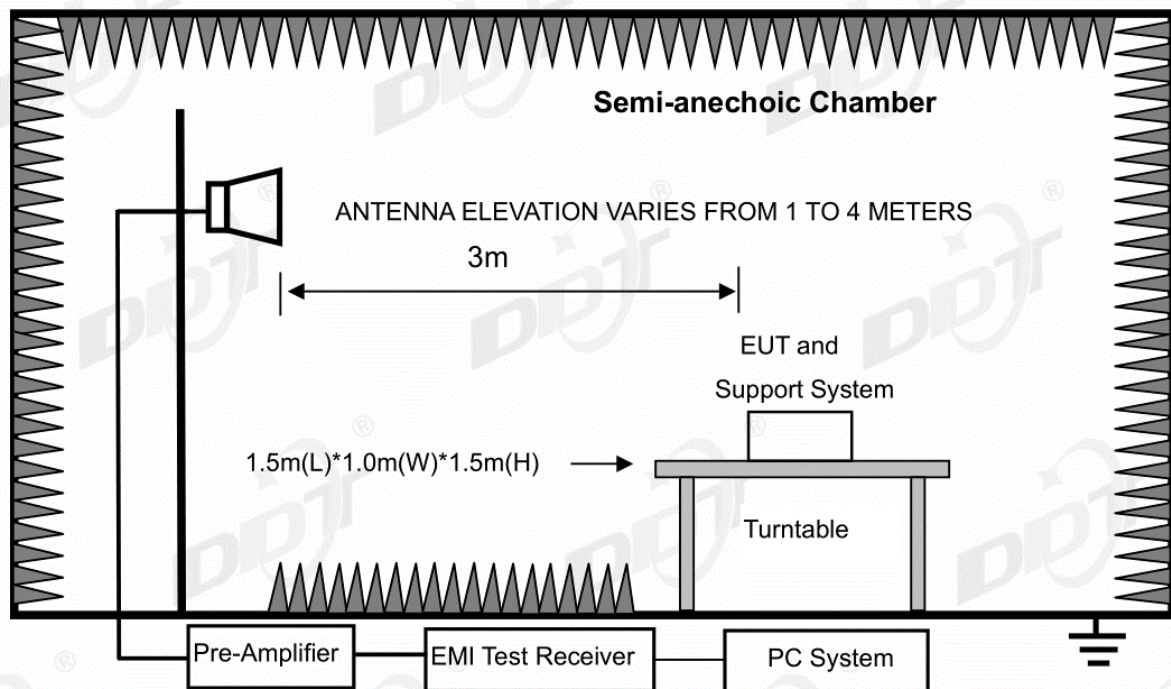
BLE 2M Ant1 2480



Date: 15.MAY.2023 16:53:38

12. Emissions in Restricted Frequency Bands

12.1. Block diagram of test setup



12.2. Limit

All restriction band should comply with 15.209 and RSS-Gen section 8.9 limits, other emission should be at least 20 dB below the fundamental.

12.3. Test procedure

Same with clause 9.3 except change investigated frequency range from 2310 MHz to 2410 MHz and 2475 MHz to 2500 MHz.

Remark: All restriction band have been tested, and only the worst case is shown in report.

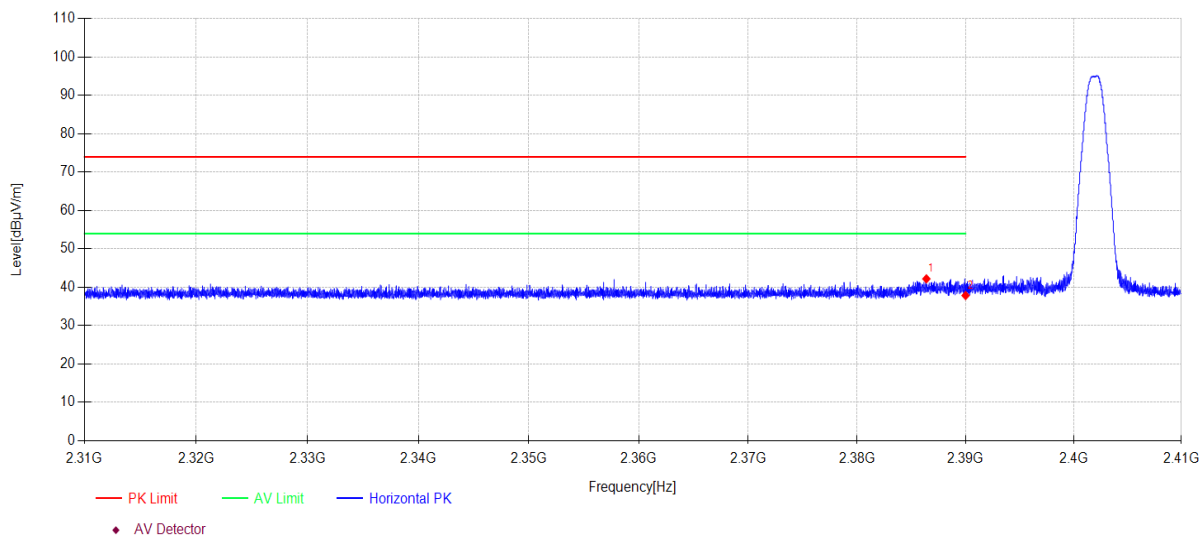
12.4. Test result

Pass. (See below detailed test result)

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-05-19 **Tested By:** Bairong
EUT: LCD Smart Projector **Model Number:** XMM2101
Test Mode: TX Mode **Power Supply:** AC 120V/60Hz
Condition: Temp:23.5°C;Humi:66.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23042304-2E XMM2101\FCC ABOVE 1G\25
Memo: BLE 1M 2402

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2386.38	51.08	3.78	27.47	-40.13	42.20	74.00	31.80	PK	Horizontal
2	2390.00	46.72	3.78	27.48	-40.13	37.85	74.00	36.15	PK	Horizontal

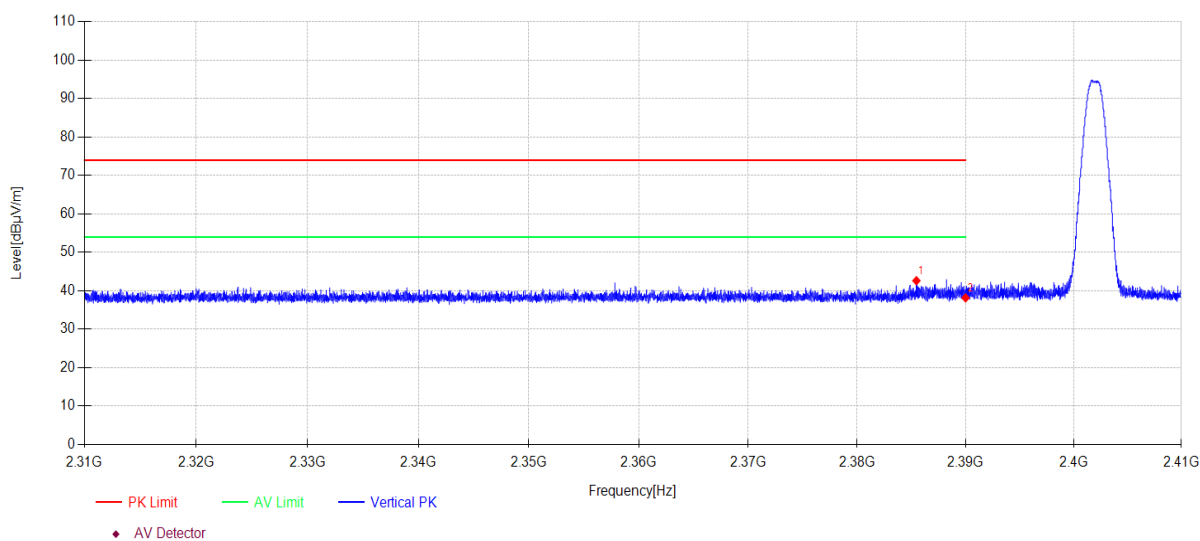
Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-05-19 **Tested By:** Bairong
EUT: LCD Smart Projector **Model Number:** XMM2101
Test Mode: TX Mode **Power Supply:** AC 120V/60Hz
Condition: Temp:23.5°C;Humi:66.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23042304-2E XMM2101\FCC ABOVE 1G\26
Memo: BLE 1M 2402

Test Graph



Suspected Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2385.46	51.50	3.78	27.47	-40.12	42.63	74.00	31.37	PK	Vertical
2	2390.00	47.03	3.78	27.48	-40.13	38.16	74.00	35.84	PK	Vertical

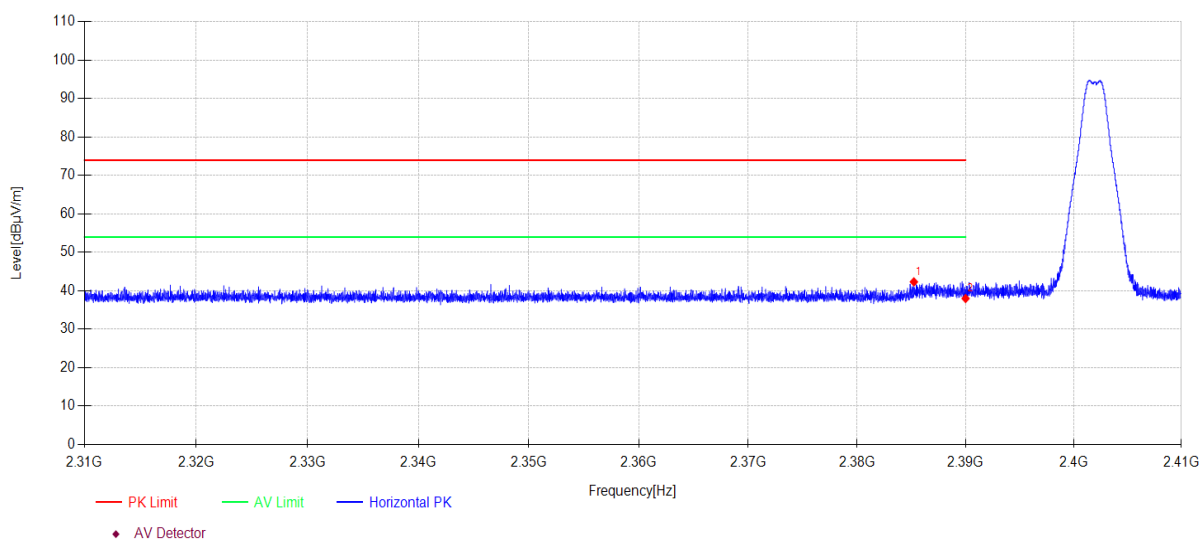
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-05-19 **Tested By:** Bairong
EUT: LCD Smart Projector **Model Number:** XMM2101
Test Mode: TX Mode **Power Supply:** AC 120V/60Hz
Condition: Temp:23.5°C;Humi:66.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23042304-2E XMM2101\FCC ABOVE 1G\27
Memo: BLE 2M 2402

Test Graph



Suspected Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2385.23	51.20	3.78	27.47	-40.12	42.33	74.00	31.67	PK	Horizontal
2	2390.00	46.87	3.78	27.48	-40.13	38.00	74.00	36.00	PK	Horizontal

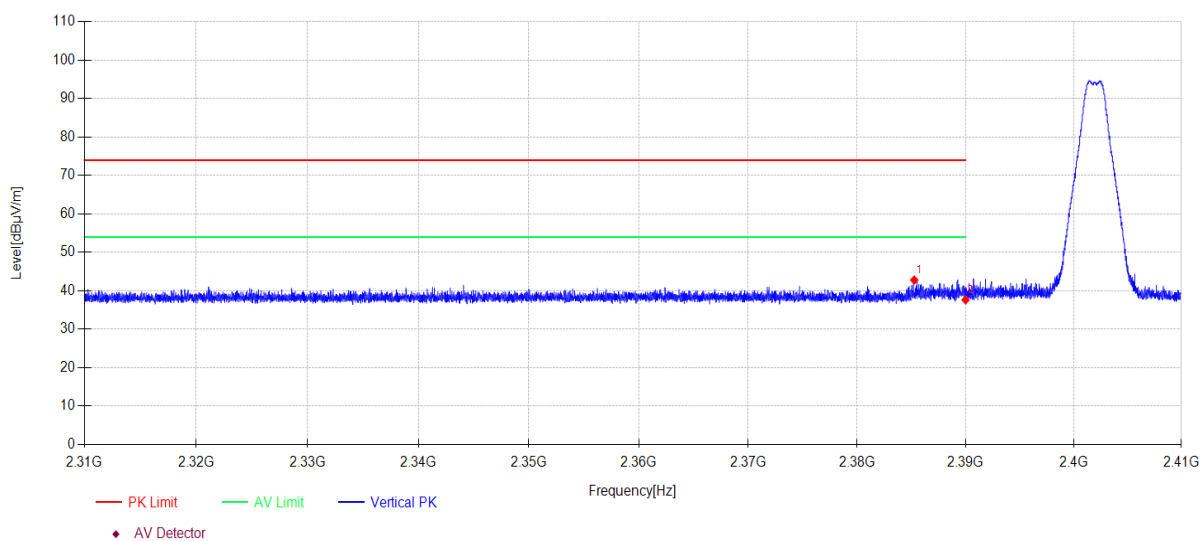
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-05-19 **Tested By:** Bairong
EUT: LCD Smart Projector **Model Number:** XMM2101
Test Mode: TX Mode **Power Supply:** AC 120V/60Hz
Condition: Temp:23.5°C;Humi:66.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23042304-2E XMM2101\FCC ABOVE 1G\28
Memo: BLE 2M 2402

Test Graph



Suspected Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2385.26	51.68	3.78	27.47	-40.12	42.81	74.00	31.19	PK	Vertical
2	2390.00	46.52	3.78	27.48	-40.13	37.65	74.00	36.35	PK	Vertical

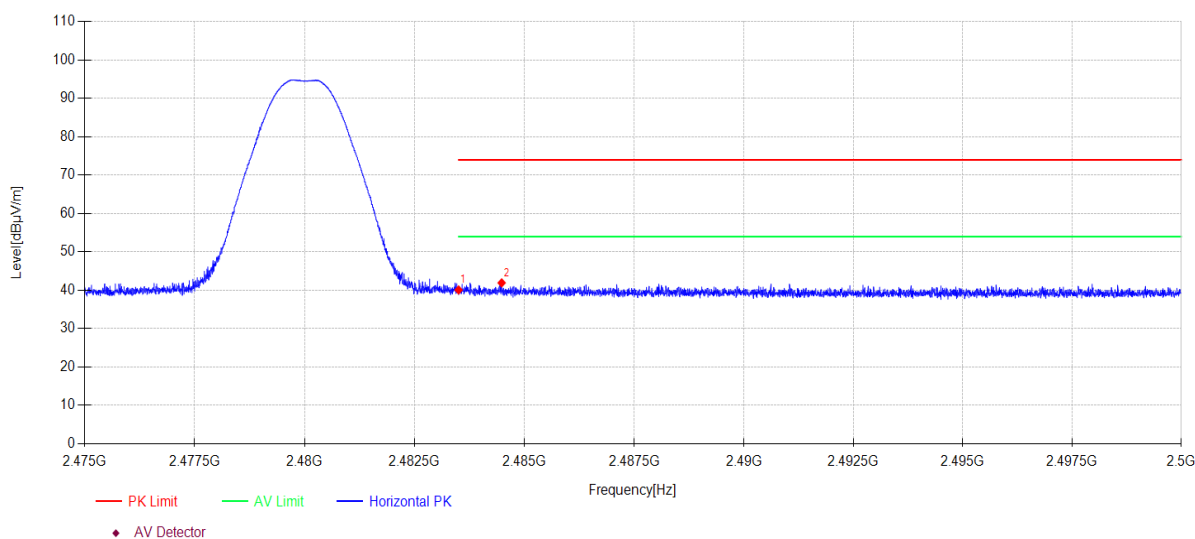
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-05-19 **Tested By:** Bairong
EUT: LCD Smart Projector **Model Number:** XMM2101
Test Mode: TX Mode **Power Supply:** AC 120V/60Hz
Condition: Temp:23.5°C;Humi:66.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23042304-2E XMM2101\FCC ABOVE 1G\35
Memo: BLE 1M 2480

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.50	48.70	3.88	27.73	-40.23	40.08	74.00	33.92	PK	Horizontal
2	2484.48	50.55	3.88	27.74	-40.23	41.94	74.00	32.06	PK	Horizontal

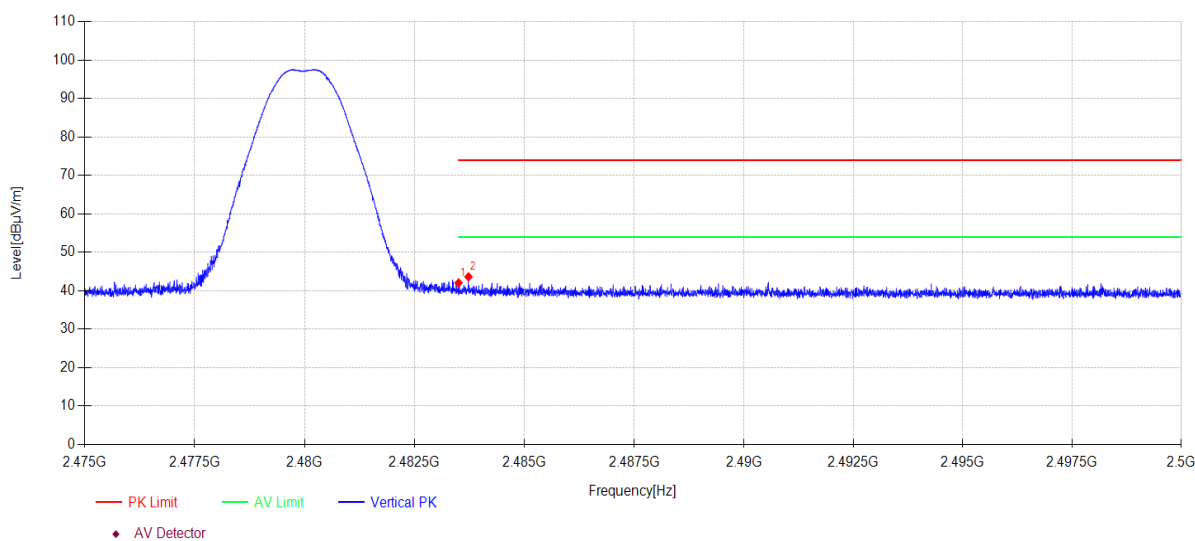
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-05-19 **Tested By:** Bairong
EUT: LCD Smart Projector **Model Number:** XMM2101
Test Mode: TX Mode **Power Supply:** AC 120V/60Hz
Condition: Temp:23.5°C;Humi:66.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23042304-2E XMM2101\FCC ABOVE 1G\36
Memo: BLE 1M 2480

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.50	50.69	3.88	27.73	-40.23	42.07	74.00	31.93	PK	Vertical
2	2483.73	52.27	3.88	27.73	-40.23	43.65	74.00	30.35	PK	Vertical

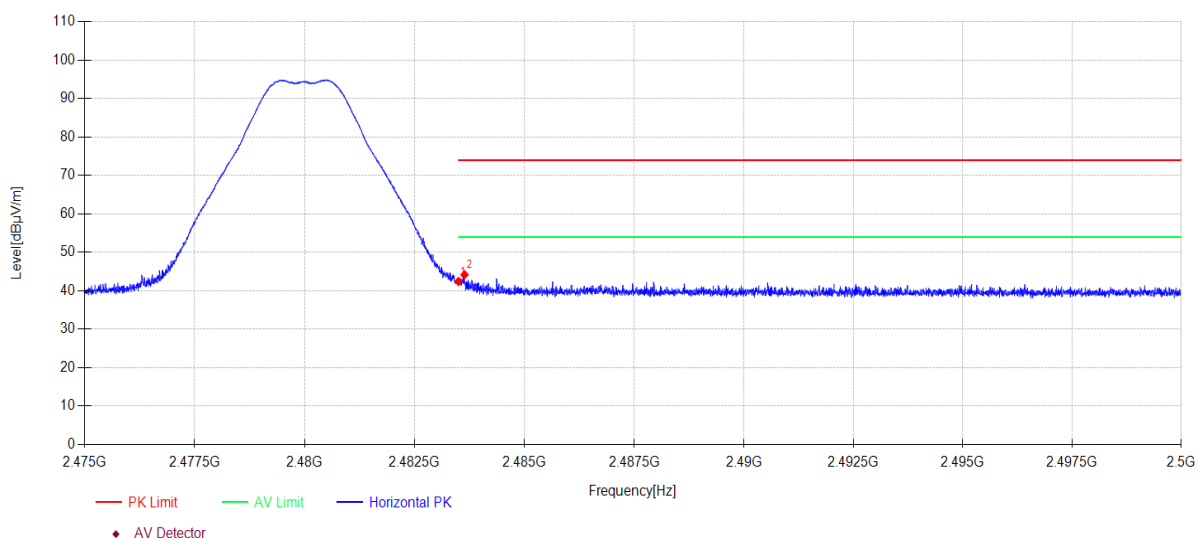
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-05-19 **Tested By:** Bairong
EUT: LCD Smart Projector **Model Number:** XMM2101
Test Mode: TX Mode **Power Supply:** AC 120V/60Hz
Condition: Temp:23.5°C;Humi:66.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23042304-2E XMM2101\FCC ABOVE 1G\37
Memo: BLE 2M 2480

Test Graph



Suspected Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.50	51.02	3.88	27.73	-40.23	42.40	74.00	31.60	PK	Horizontal
2	2483.64	52.82	3.88	27.73	-40.23	44.20	74.00	29.80	PK	Horizontal

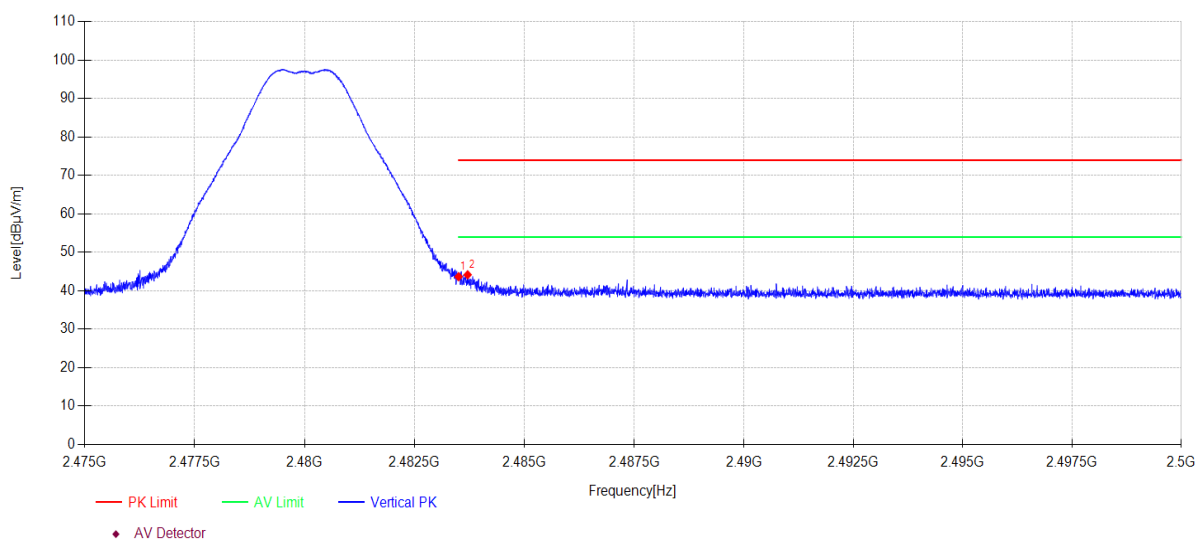
Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-05-19 **Tested By:** Bairong
EUT: LCD Smart Projector **Model Number:** XMM2101
Test Mode: TX Mode **Power Supply:** AC 120V/60Hz
Condition: Temp:23.5°C;Humi:66.7% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23042304-2E XMM2101\FCC ABOVE 1G\38
Memo: BLE 2M 2480

Test Graph



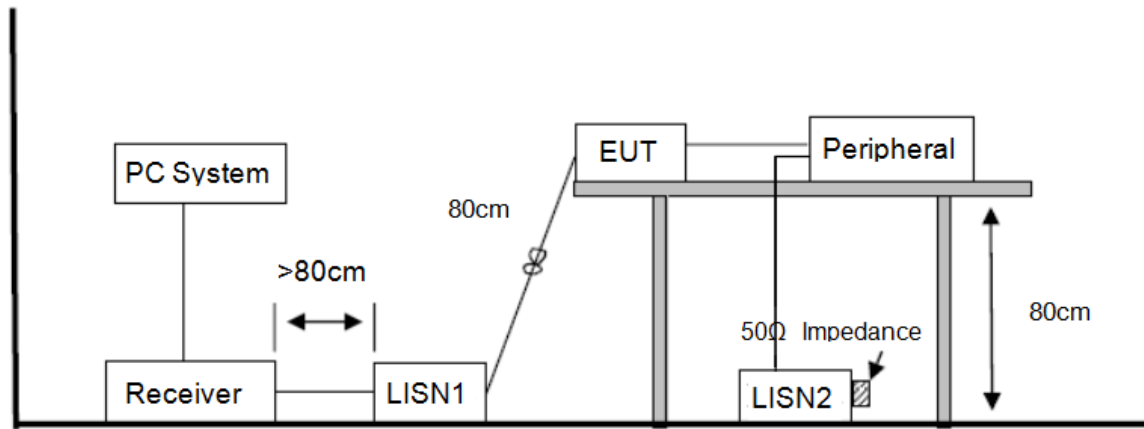
Suspected Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.50	52.30	3.88	27.73	-40.23	43.68	74.00	30.32	PK	Vertical
2	2483.71	52.79	3.88	27.73	-40.23	44.17	74.00	29.83	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

13. Power Line Conducted Emission

13.1. Block diagram of test setup



13.2. Power line conducted emission limits

Frequency	Quasi-Peak Level dB(μ V)	Average Level dB(μ V)
150 kHz ~ 500 kHz	66 ~ 56*	56 ~ 46*
500 kHz ~ 5 MHz	56	46
5 MHz ~ 30 MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

13.3. Test procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80 cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.4 and test equipment setup as described in clause 13.1 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were

recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 kHz.

13.4. Test result

Pass. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.

Note2: “----” means Peak detection; “-----” means Average detection.

Note3: Pre-test AC conducted emission at both voltage AC 120V/60Hz and AC 240V/50Hz, recorded worse case.

TR-4-E-010 Conducted Emission Test Result

Test Site : DDT 1# Shield Room

D:\2023 CE report data\Q23042304-2E\1.EM6

Test Date : 2023-05-16

Tested By : Liaowanrong

EUT : LCD Smart Projector

Model Number : XMM2101

Power Supply : AC 120V/60Hz

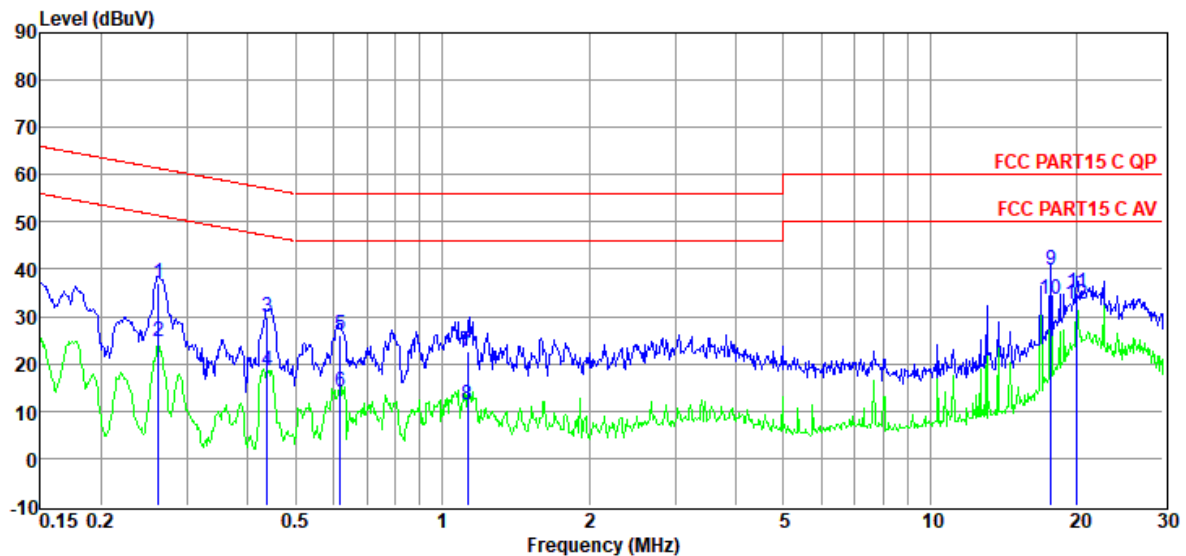
Test Mode : TX

Condition : TEMP:23.1°C, RH:52.1%, BP:101.1kPa LISN

: 2022 1# ENV216/LINE

Memo : BLE 1M

Data: 6



Item	Freq.	Read Level	LISN Factor	Cable Loss	Pulse Limiter Factor	Result Level	Limit Line	Over Limit	Detector	Phase
(Mark)	(MHz)	(dBμV)	(dB)	(dB)	(dB)	(dBμV)	(dBμV)	(dB)		
1	0.26	17.54	9.77	0.01	9.91	37.23	61.38	-24.15	QP	LINE
2	0.26	4.92	9.77	0.01	9.91	24.61	51.38	-26.77	Average	LINE
3	0.44	10.13	9.71	0.01	9.92	29.77	57.11	-27.34	QP	LINE
4	0.44	-1.15	9.71	0.01	9.92	18.49	47.11	-28.62	Average	LINE
5	0.62	6.45	9.64	0.01	9.92	26.02	56.00	-29.98	QP	LINE
6	0.62	-5.65	9.64	0.01	9.92	13.92	46.00	-32.08	Average	LINE
7	1.13	3.15	9.52	0.02	9.91	22.60	56.00	-33.40	QP	LINE
8	1.13	-8.16	9.52	0.02	9.91	11.29	46.00	-34.71	Average	LINE
9	17.66	20.13	9.63	0.13	9.94	39.83	60.00	-20.17	QP	LINE
10	17.66	14.02	9.63	0.13	9.94	33.72	50.00	-16.28	Average	LINE
11	19.95	15.49	9.50	0.14	9.94	35.07	60.00	-24.93	QP	LINE
12	19.95	12.87	9.50	0.14	9.94	32.45	50.00	-17.55	Average	LINE

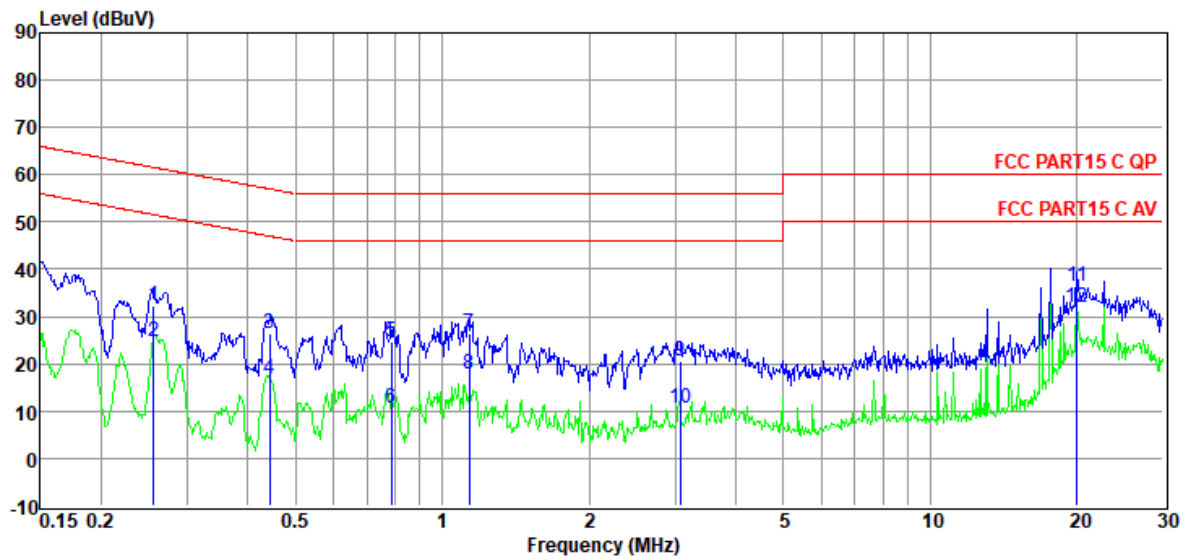
Note:

1. Result Level = Read Level + LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site : DDT 1# Shield Room **D:\2023 CE report data\Q23042304-2E\1.EM6**
Test Date : 2023-05-16 **Tested By** : Liaowanrong
EUT : LCD Smart Projector **Model Number** : XMM2101
Power Supply : AC 120V/60Hz **Test Mode** : TX
Condition : TEMP:23.1°C, RH:52.1%, BP:101.1kPa **LISN** : 2022 1# ENV216/NEUTRAL
Memo : BLE 1M

Data: 8



Item	Freq.	Read Level	LISN Factor	Cable Loss	Pulse Limiter Factor	Result Level	Limit Line	Over Limit	Detector	Phase
(Mark)	(MHz)	(dBμV)	(dB)	(dB)	(dB)	(dBμV)	(dBμV)	(dB)		
1	0.26	12.37	9.82	0.01	9.91	32.11	61.56	-29.45	QP	NEUTRAL
2	0.26	5.03	9.82	0.01	9.91	24.77	51.56	-26.79	Average	NEUTRAL
3	0.44	7.01	9.64	0.01	9.92	26.58	57.02	-30.44	QP	NEUTRAL
4	0.44	-2.89	9.64	0.01	9.92	16.68	47.02	-30.34	Average	NEUTRAL
5	0.79	4.83	9.77	0.02	9.92	24.54	56.00	-31.46	QP	NEUTRAL
6	0.79	-9.15	9.77	0.02	9.92	10.56	46.00	-35.44	Average	NEUTRAL
7	1.14	6.72	9.70	0.02	9.91	26.35	56.00	-29.65	QP	NEUTRAL
8	1.14	-1.96	9.70	0.02	9.91	17.67	46.00	-28.33	Average	NEUTRAL
9	3.07	0.94	9.70	0.04	9.91	20.59	56.00	-35.41	QP	NEUTRAL
10	3.07	-9.15	9.70	0.04	9.91	10.50	46.00	-35.50	Average	NEUTRAL
11	19.95	16.48	9.80	0.14	9.94	36.36	60.00	-23.64	QP	NEUTRAL
12	19.95	11.96	9.80	0.14	9.94	31.84	50.00	-18.16	Average	NEUTRAL

Note:

1. Result Level = Read Level + LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site : DDT 1# Shield Room

D:\2023 CE report data\Q23042304-2E\1.EM6

Test Date : 2023-05-16

Tested By : Liaowanrong

EUT : LCD Smart Projector

Model Number : XMM2101

Power Supply : AC 120V/60Hz

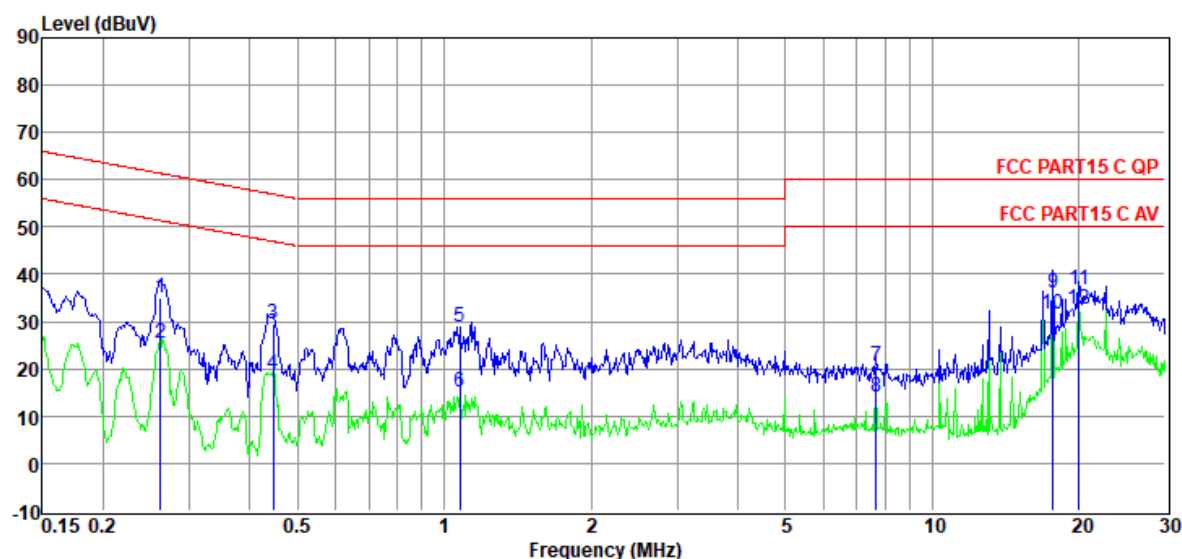
Test Mode : TX

Condition : TEMP:23.1°C, RH:52.1%, BP:101.1kPa LISN

: 2022 1# ENV216/LINE

Memo : BLE 2M

Data: 18



Item	Freq.	Read Level	LISN Factor	Cable Loss	Pulse Limiter Factor	Result Level	Limit Line	Over Limit	Detector	Phase
(Mark)	(MHz)	(dBμV)	(dB)	(dB)	(dB)	(dBμV)	(dBμV)	(dB)		
1	0.26	15.46	9.77	0.01	9.91	35.15	61.38	-26.23	QP	LINE
2	0.26	5.65	9.77	0.01	9.91	25.34	51.38	-26.04	Average	LINE
3	0.45	9.96	9.71	0.01	9.92	29.60	56.93	-27.33	QP	LINE
4	0.45	-0.92	9.71	0.01	9.92	18.72	46.93	-28.21	Average	LINE
5	1.08	9.49	9.51	0.02	9.91	28.93	56.00	-27.07	QP	LINE
6	1.08	-4.29	9.51	0.02	9.91	15.15	46.00	-30.85	Average	LINE
7	7.69	0.97	9.57	0.07	9.93	20.54	60.00	-39.46	QP	LINE
8	7.69	-5.44	9.57	0.07	9.93	14.13	50.00	-35.87	Average	LINE
9	17.66	16.24	9.63	0.13	9.94	35.94	60.00	-24.06	QP	LINE
10	17.66	11.98	9.63	0.13	9.94	31.68	50.00	-18.32	Average	LINE
11	19.95	17.26	9.50	0.14	9.94	36.84	60.00	-23.16	QP	LINE
12	19.95	13.05	9.50	0.14	9.94	32.63	50.00	-17.37	Average	LINE

Note:

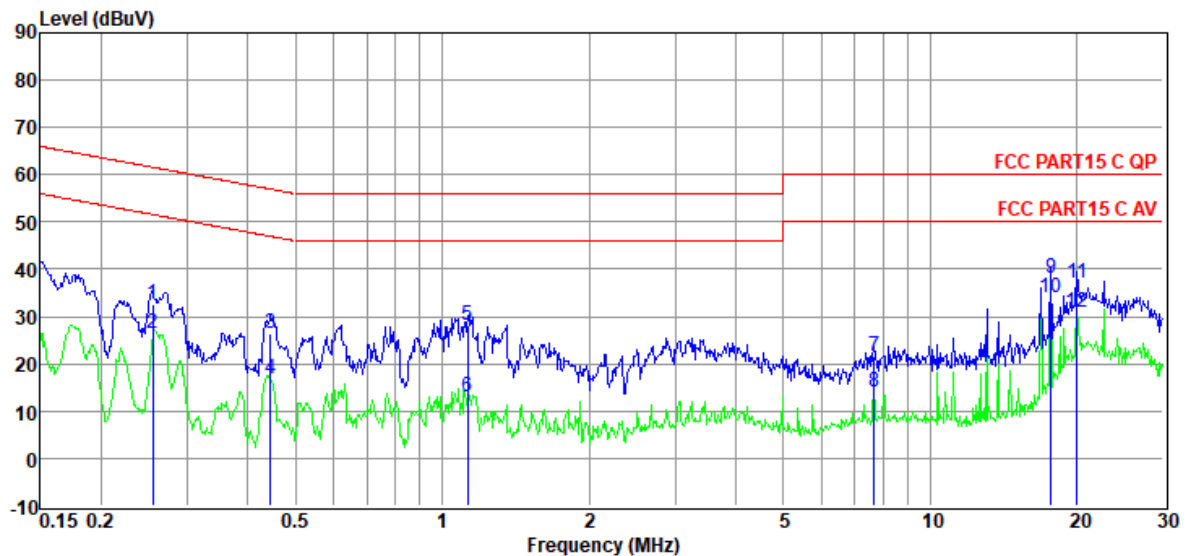
1. Result Level = Read Level + LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site : DDT 1# Shield Room
Test Date : 2023-05-16
EUT : LCD Smart Projector
Power Supply : AC 120V/60Hz
Condition : TEMP:23.1°C, RH:52.1%, BP:101.1kPa
Memo : BLE 2M

D:\2023 CE report data\Q23042304-2E\1.EM6
Tested By : Liaowanrong
Model Number : XMM2101
Test Mode : TX
LISN : 2022 1# ENV216/NEUTRAL

Data: 20



Item	Freq.	Read Level	LISN Factor	Cable Loss	Pulse Limiter Factor	Result Level	Limit Line	Over Limit	Detector	Phase
(Mark)	(MHz)	(dBμV)	(dB)	(dB)	(dB)	(dBμV)	(dBμV)	(dB)		
1	0.25	12.88	9.82	0.01	9.91	32.62	61.60	-28.98	QP	NEUTRAL
2	0.25	6.59	9.82	0.01	9.91	26.33	51.60	-25.27	Average	NEUTRAL
3	0.44	6.87	9.64	0.01	9.92	26.44	56.98	-30.54	QP	NEUTRAL
4	0.44	-2.91	9.64	0.01	9.92	16.66	46.98	-30.32	Average	NEUTRAL
5	1.13	8.61	9.70	0.02	9.91	28.24	56.00	-27.76	QP	NEUTRAL
6	1.13	-6.48	9.70	0.02	9.91	13.15	46.00	-32.85	Average	NEUTRAL
7	7.69	1.88	9.65	0.07	9.93	21.53	60.00	-38.47	QP	NEUTRAL
8	7.69	-5.53	9.65	0.07	9.93	14.12	50.00	-35.88	Average	NEUTRAL
9	17.66	18.37	9.76	0.13	9.94	38.20	60.00	-21.80	QP	NEUTRAL
10	17.66	13.99	9.76	0.13	9.94	33.82	50.00	-16.18	Average	NEUTRAL
11	19.95	17.34	9.80	0.14	9.94	37.22	60.00	-22.78	QP	NEUTRAL
12	19.95	11.07	9.80	0.14	9.94	30.95	50.00	-19.05	Average	NEUTRAL

Note:

1. Result Level = Read Level + LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

14. Antenna Requirements

14.1. Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For intentional device, according to RSS-Gen issue 5 section 6.8.

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

14.2. Result

The product is that no other antennas shall be used except the antennas furnished by the responsible party, the maximum peak gain of the transmit antenna is 3.82 dBi, FPC antenna.

16. Photos of the EUT

Please refer to Appendix I: Photos of the EUT.

END OF REPORT