6. Test Facilities Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSQ26	200136	Rohde & Schwarz	1 year	2019-11-21
2	LISN	ESH3-Z5	825562/028	Rohde & Schwarz	1 year	2019-08-22
3	Test Receiver	ESCI	100766	Rohde & Schwarz	1 year	2019-04-16
4	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESU26	100376	Rohde & Schwarz	1 year	2019-11-27
2	BiLog Antenna	VULB9163	9163-482	Schwarzbeck	1 year	2019-09-21
3	Dual-Ridge Waveguide Horn Antenna	3117	00139065	ETS-Lindgren	1 year	2019-11-15
4	Dual-Ridge Waveguide Horn Antenna	3116	2663	ETS-Lindgren	3 years	2020-05-31
5	Vector Signal Analyzer	FSV40	101047	Rohde & Schwarz	1 year	2019-07-27

7. Measurement Uncertainty

7.1. Peak Output Power - Conducted

Measurement Uncertainty:

Measurement Uncertainty(k=2)	0.66dB

7.2. Frequency Band Edges

Measurement Uncertainty:

Measurement Uncertainty(k=2)	0.66dB

7.3. Transmitter Spurious Emission - Conducted

Measurement Uncertainty:

FrequencyRange	Uncertainty(k=2)
30 MHz ~ 8 GHz	1.22dB
8 GHz ~ 12.75 GHz	1.51dB
12.7GHz ~ 26 GHz	1.51dB

7.4. Transmitter Spurious Emission - Radiated

Measurement Uncertainty:

FrequencyRange	Uncertainty(k=2)
＜1 GHz	5.40dB
＞ 1 GHz	4.32dB

7.5. 6dB Bandwidth

Measurement Uncertainty:

Measurement Uncertainty(k=2)	61.936Hz

7.6. Maximum Power Spectral Density Level

Measurement Uncertainty:

Measurement Uncertainty(k=2)	0.66dB

7.7. AC Powerline Conducted Emission

Measurement Uncertainty:

Measurement Uncertainty(k=2)	3.10dB

ANNEX A: Detailed Test Results

A.1. Measurement Method

A.1.1. Conducted Measurements

The measurement is made according to ANSI C63.10.

1). Connect the EUT to the test system correctly.

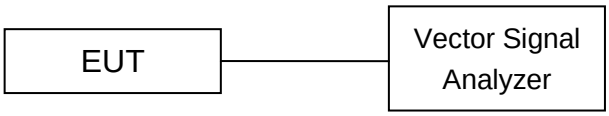
2). Set the EUT to the required work mode (Transmitter, receiver or transmitter & receiver).

3). Set the EUT to the required channel.

4). Set the EUT hopping mode (hopping or hopping off).

5). Set the spectrum analyzer to start measurement.

6). Record the values. Vector Signal Analyzer



A.1.2. Radiated Emission Measurements

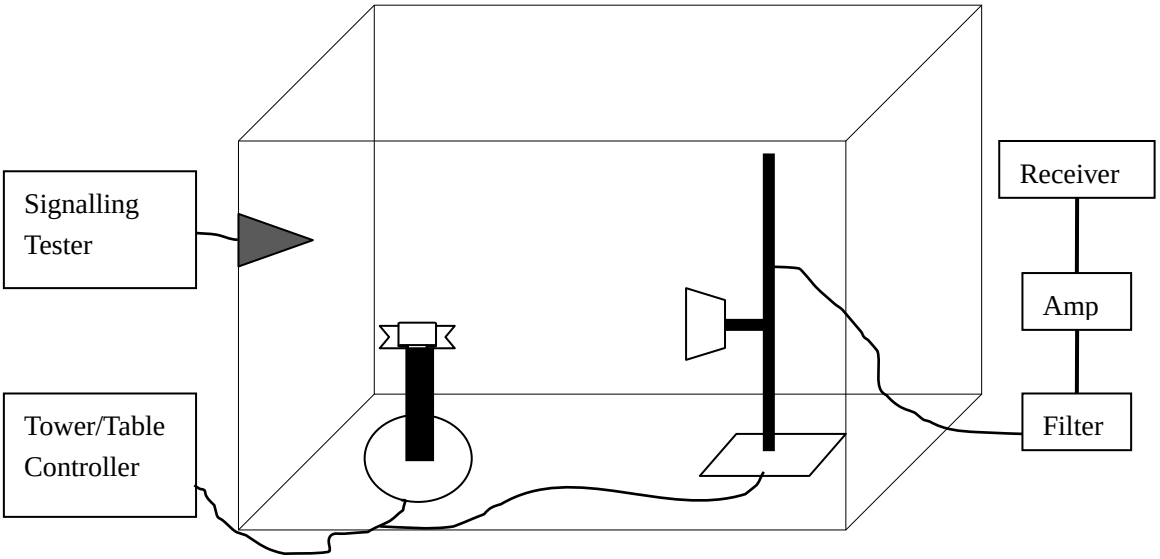
The measurement is made according to ANSI C63.10.

The radiated emission test is performed in semi-anechoic chamber. The distance from the EUT to the reference point of measurement antenna is 3m. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result.

In the case of radiated emission, the used settings are as follows,

Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;

Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 1MHz;



A.2. Peak Output Power - Conducted

Method of Measurement:See ANSI C63.10-clause 11.9.1.1

a) Set the RBW = 1 MHz.
b) Set VBW = 3 MHz.
c) Set span = 3 MHz.
d) Sweep time = auto couple.
e) Detector = peak.
f) Trace mode = max hold.
g) Allow trace to fully stabilize.
h) Use peak marker function to determine the peak amplitude level.

Measurement Limit:

Standard	Limit (dBm)
FCC Part 15.247(b)(1)	< 30

Measurement Results:

For GFSK

Channel No.	Frequency (MHz)	Peak Conducted Output Power (dBm)	Conclusion
0	2402	-0.94	P
19	2440	-0.08	P
39	2480	-1.68	P

Conclusion: PASS

A.3. Frequency Band Edges - Conducted

Method of Measurement:See ANSI C63.10-clause6.10.4

Connect the spectrum analyzer to the EUT using an appropriate RF cable connected to the EUT output.Configure the spectrum analyzer settings as described below.

a) Set Span = 8MHz
b) Sweep Time:Auto
c) Set the RBW=100 kHz
c)Set the VBW= 300 kHz
d)Detector: Peak
e) Trace: Max hold

Observe the stored trace and measure the amplitude deltabetween the peak of the fundamental and the peak of the band-edge emission. This is not anabsolute field strength measurement; it is only a relative measurement to determine the amount bywhich the emission drops at the band edge relative to the highest fundamental emission level.

Measurement Limit:

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d)	<-20

Measurement Result:

For GFSK

Channel No.	Frequency (MHz)	Hopping	Band Edge Power (dBc)		Conclusion
0	2402	Hopping OFF	Fig.1	-53.39	P
39	2480	Hopping OFF	Fig.2	-55.38	P

Conclusion: PASS

Test graphs as below

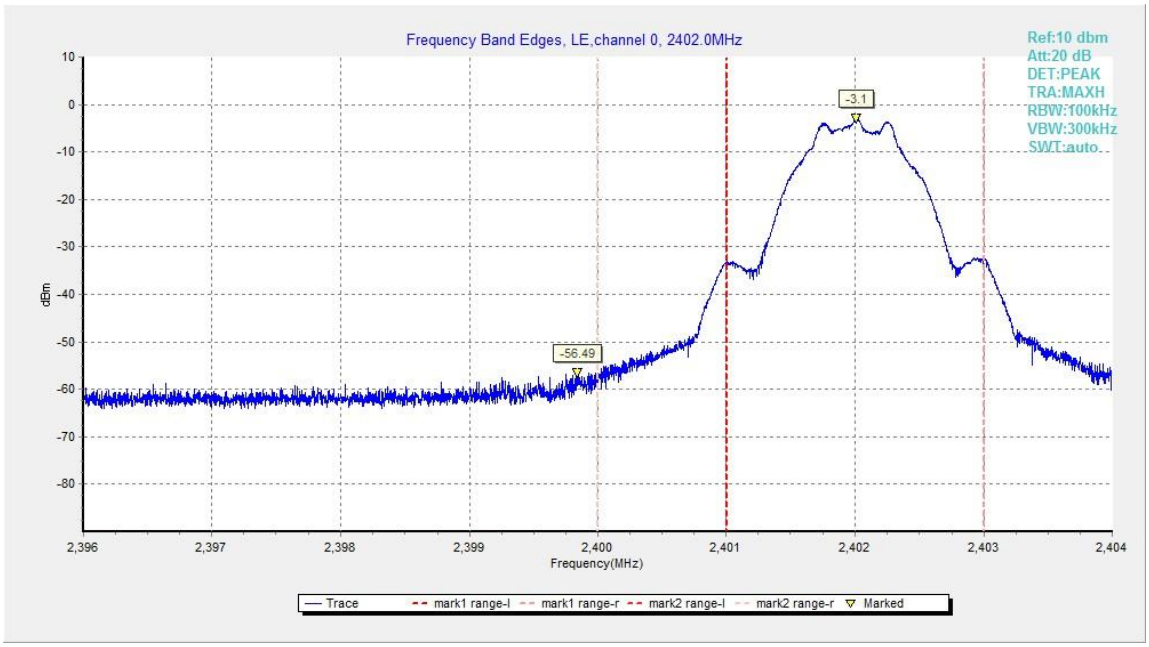


Fig.1. Frequency Band Edges: GFSK, 2402 MHz**,** Hopping Off

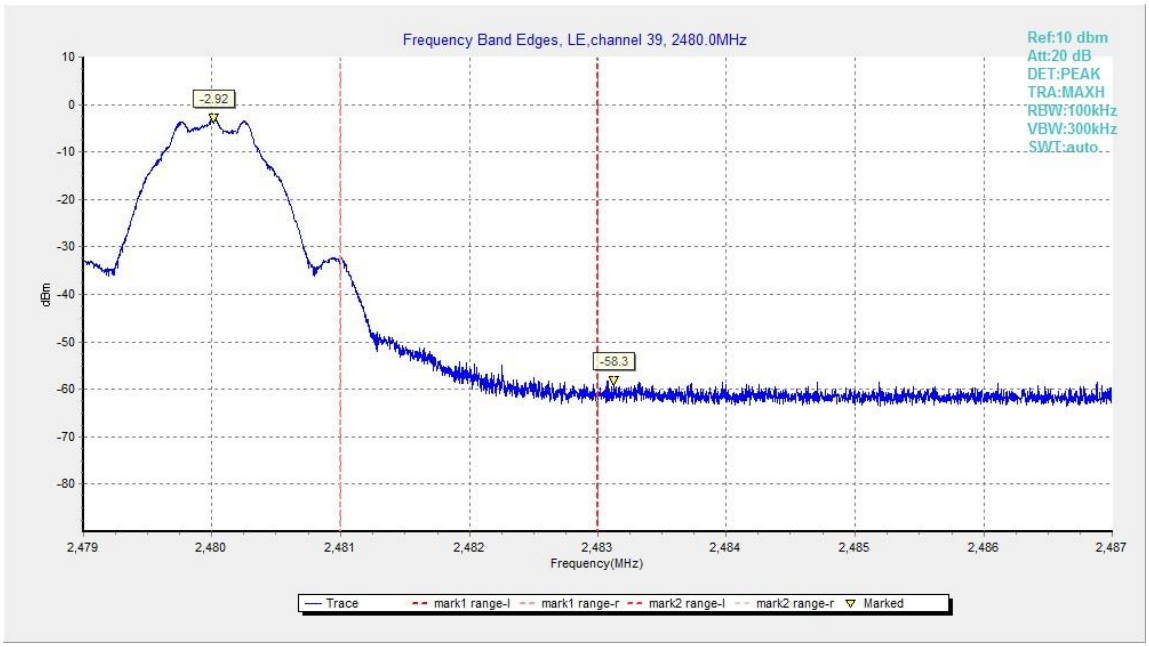


Fig.2. Frequency Band Edges: GFSK, 2480 MHz, Hopping Off

A.4. Transmitter Spurious Emission-Conducted

Method of Measurement:See ANSI C63.10-clause 11.11.2 and clause 11.11.3

Measurement Procedure – Reference Level

1. Set the RBW = 100 kHz.
2. Set the VBW = 300 kHz.
3. Set the span to ≥1.5 times the DTS bandwidth.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the maximum PSDlevel.Next, determine the power in 100 kHz band segments outside of the authorized frequency bandusing the following measurement:

Measurement Procedure - Unwanted Emissions

1. Set RBW = 100 kHz.
2. Set VBW = 300 kHz.
3. Set span to encompass the spectrum to be examined.
4. Detector = peak.
5. Trace Mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize (this may take some time, depending on the extent of thespan).

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band(excluding restricted frequency bands) is attenuated by at least the minimum requirementsspecified above.

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247 (d)	20dB below peak output power in 100 kHz bandwidth

Measurement Results:

For GFSK

Channel No.	Frequency (MHz)	Frequency Range	Test Results	Conclusion
0	2402	Center Frequency	Fig.3	P
		30 MHz ~ 1 GHz	Fig.4	P
		1 GHz ~ 3 GHz	Fig.5	P
		3 GHz ~ 10 GHz	Fig.6	P
		10GHz ~ 26 GHz	Fig.7	P
19	2440	Center Frequency	Fig.8	P
		30 MHz ~ 1 GHz	Fig.9	P
		1 GHz ~ 3 GHz	Fig.10	P
		3 GHz ~ 10 GHz	Fig.11	P
		10GHz ~ 26 GHz	Fig.12	P
39	2480	Center Frequency	Fig.13	P
		30 MHz ~ 1 GHz	Fig.14	P
		1 GHz ~ 3GHz	Fig.15	P
		3 GHz ~ 10 GHz	Fig.16	P
		10 GHz ~ 26 GHz	Fig.17	P

Conclusion: PASS

Test graphs as below

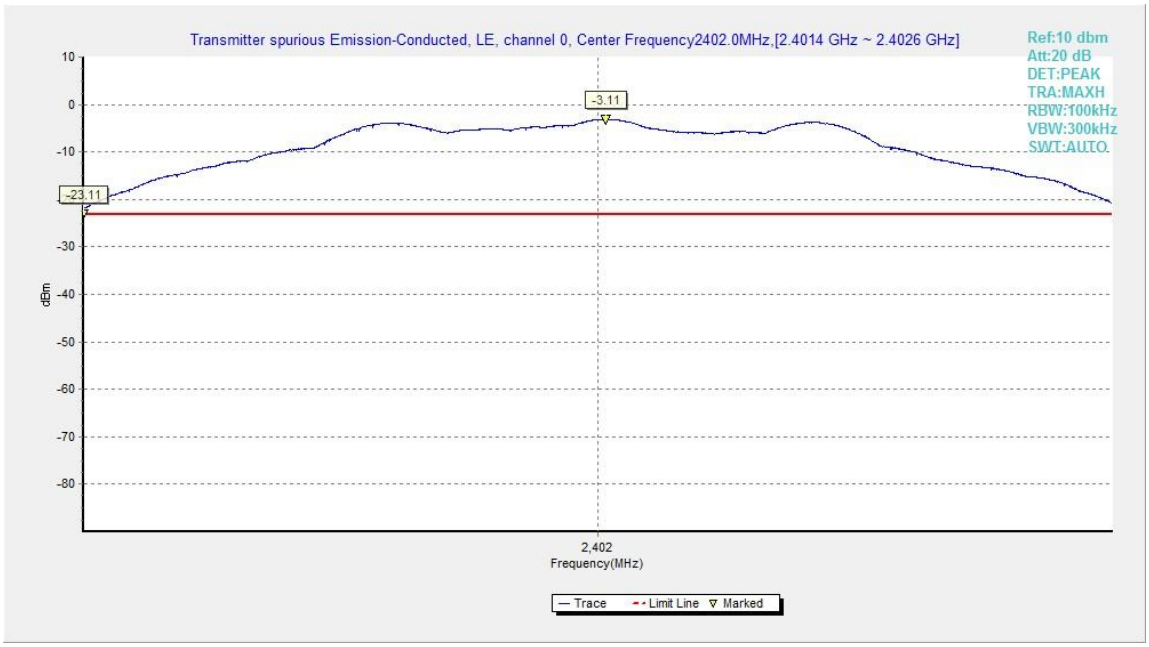


Fig.3. Transmitter Spurious Emission -Conducted: GFSK,2402MHz

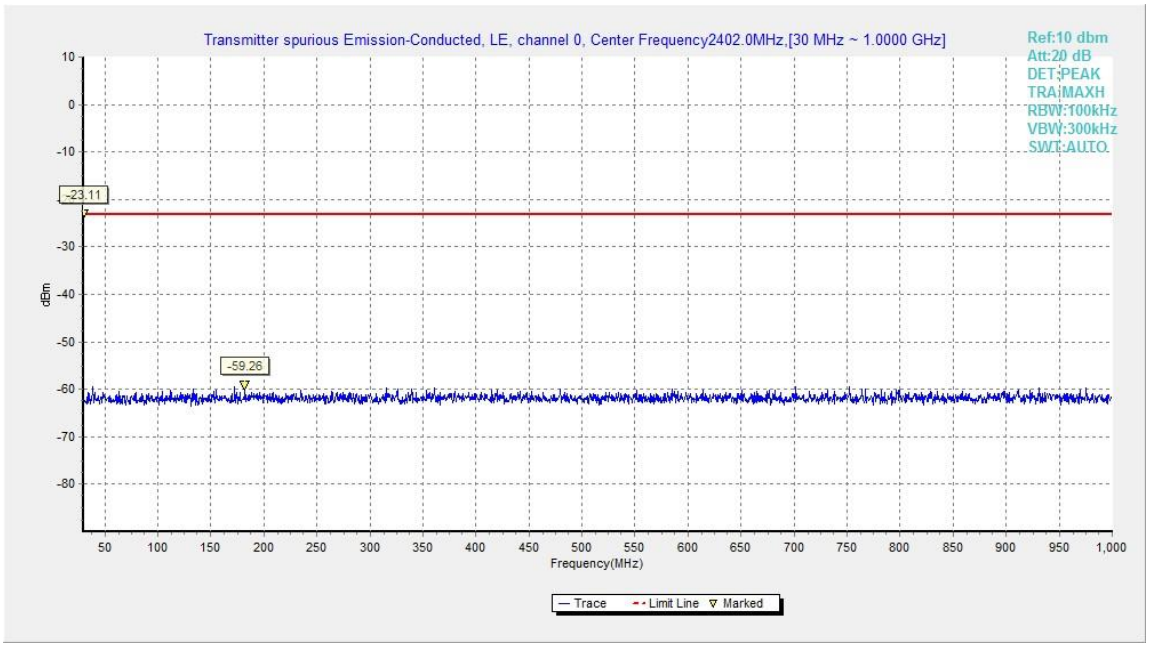


Fig.4. Transmitter Spurious Emission -Conducted: GFSK, 2402 MHz, 30MHz - 1GHz

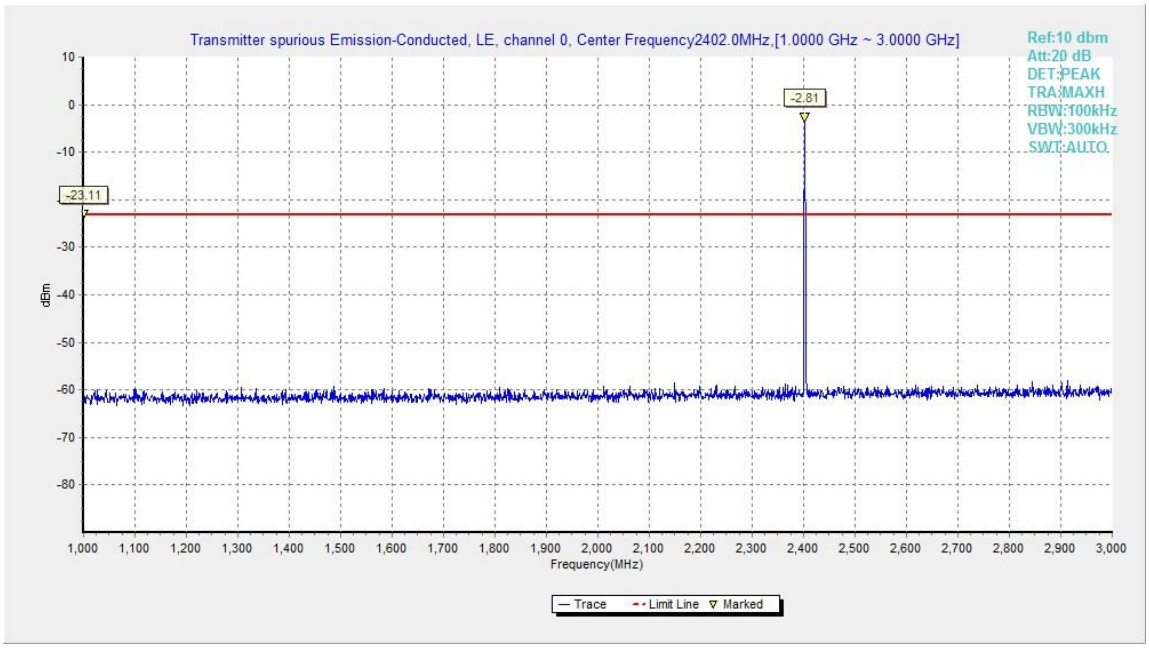


Fig.5. Transmitter Spurious Emission -Conducted: GFSK, 2402 MHz,1GHz - 3GHz

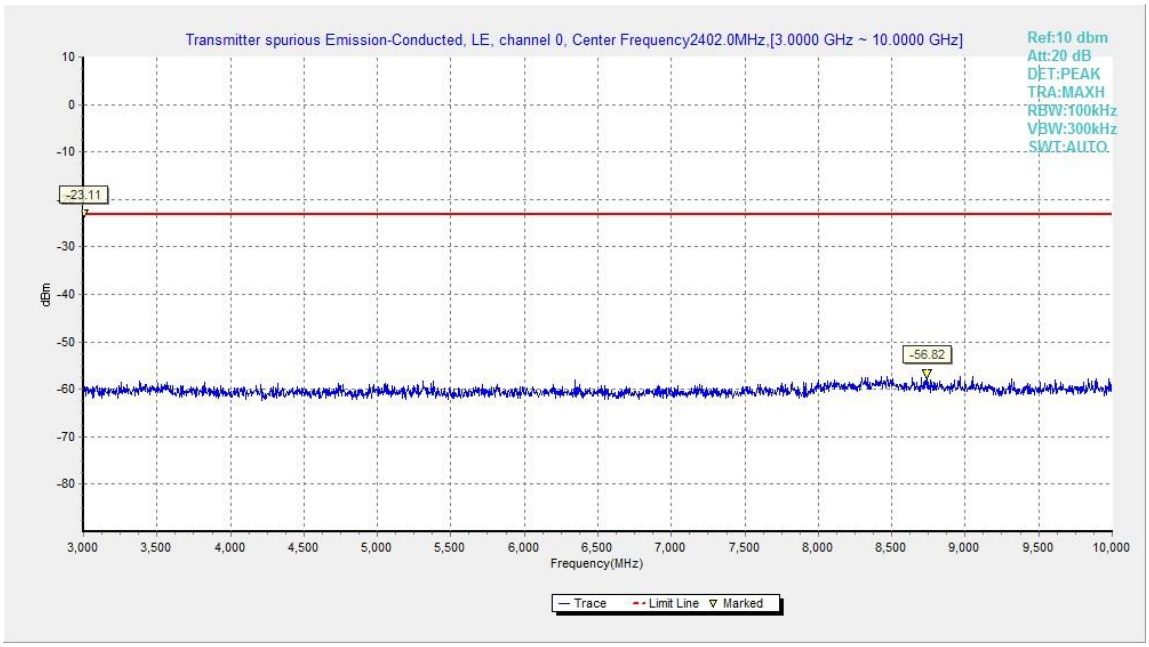


Fig.6. Transmitter Spurious Emission -Conducted: GFSK, 2402 MHz,3GHz - 10GHz

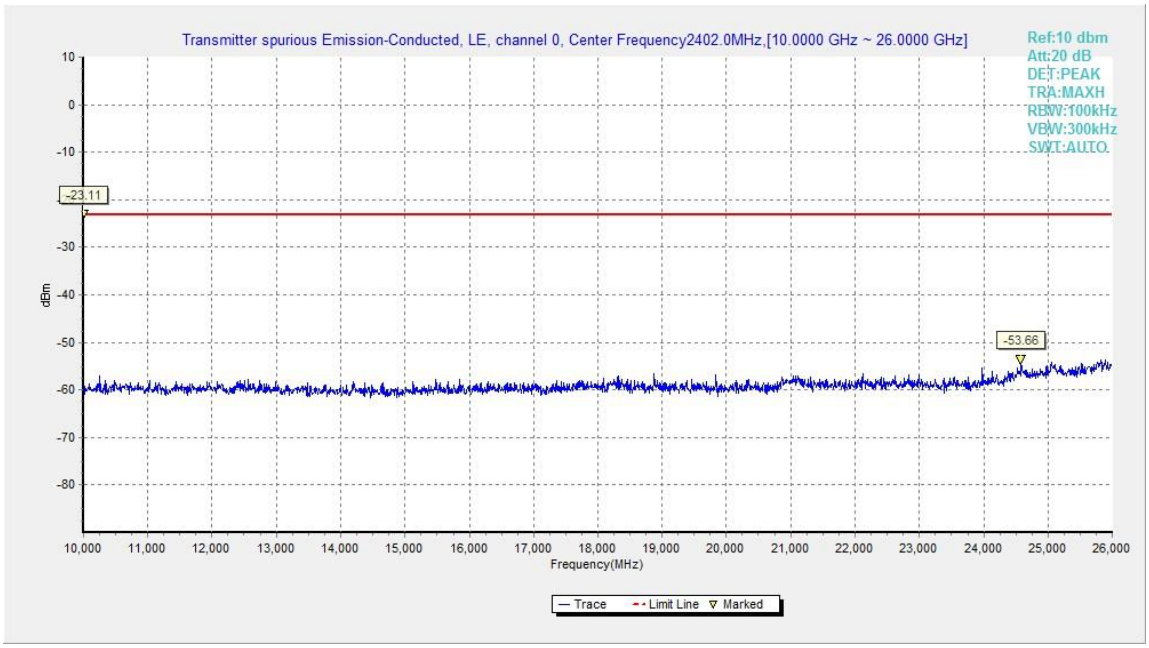


Fig.7. Transmitter Spurious Emission -Conducted: GFSK, 2402 MHz,10GHz - 26GHz

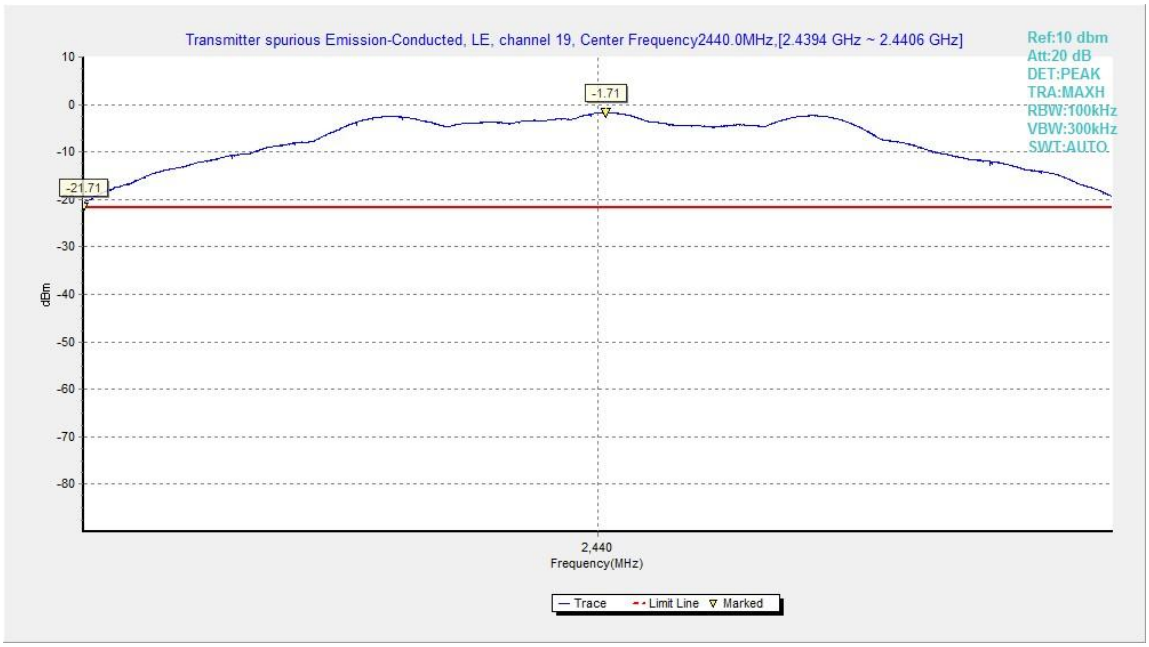


Fig.8. Transmitter Spurious Emission -Conducted: GFSK, 2440MHz

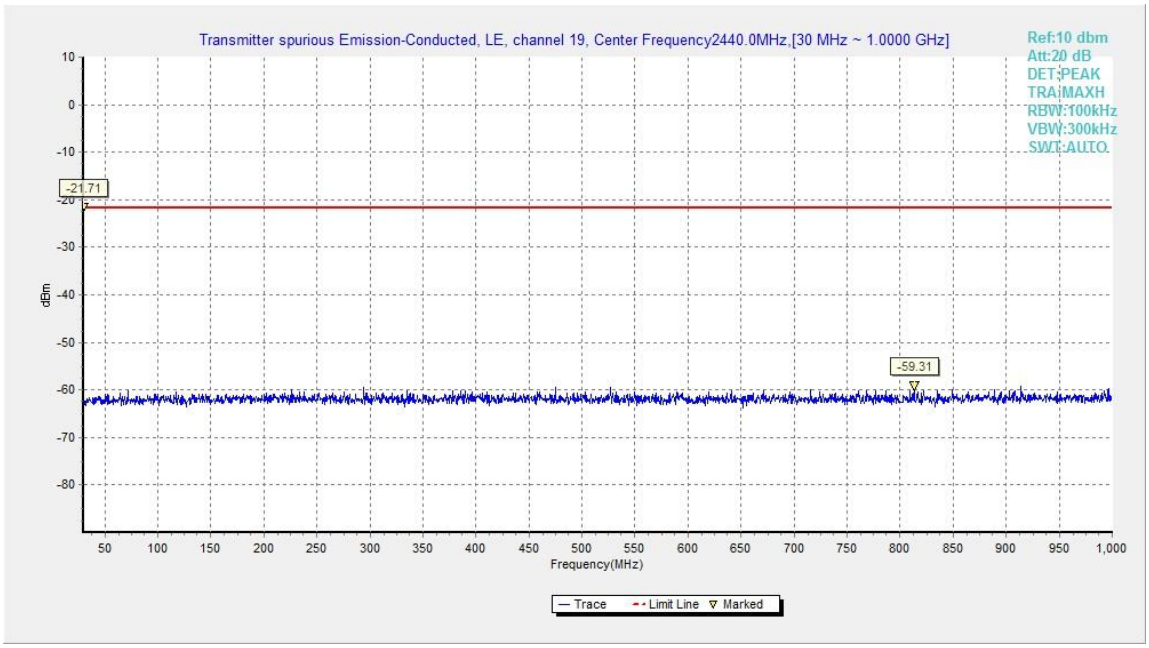


Fig.9. Transmitter Spurious Emission -Conducted: GFSK, 2440 MHz, 30MHz - 1GHz

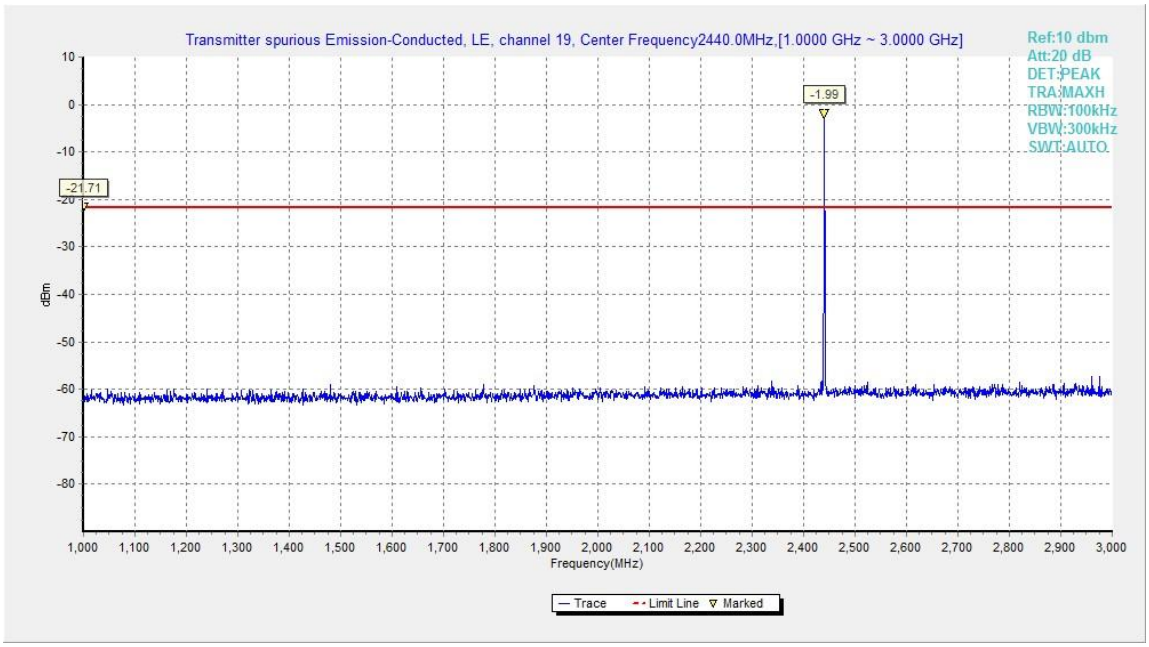


Fig.10. Transmitter Spurious Emission -Conducted: GFSK, 2440 MHz, 1GHz – 3GHz

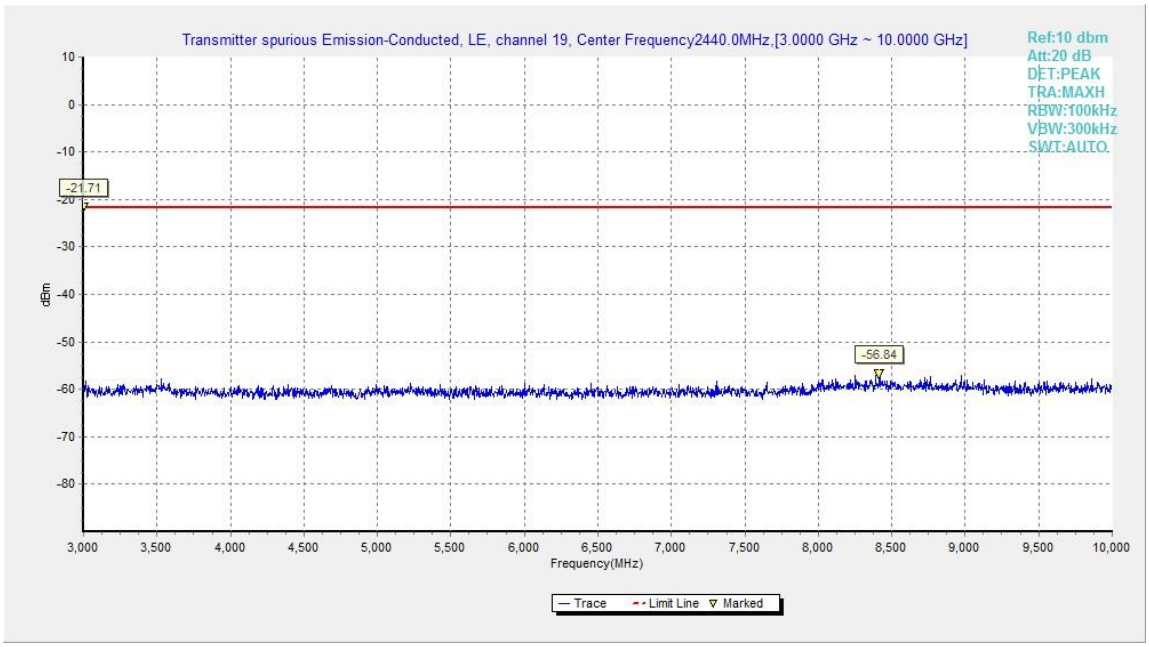


Fig.11. Transmitter Spurious Emission -Conducted: GFSK, 2440 MHz, 3GHz – 10GHz

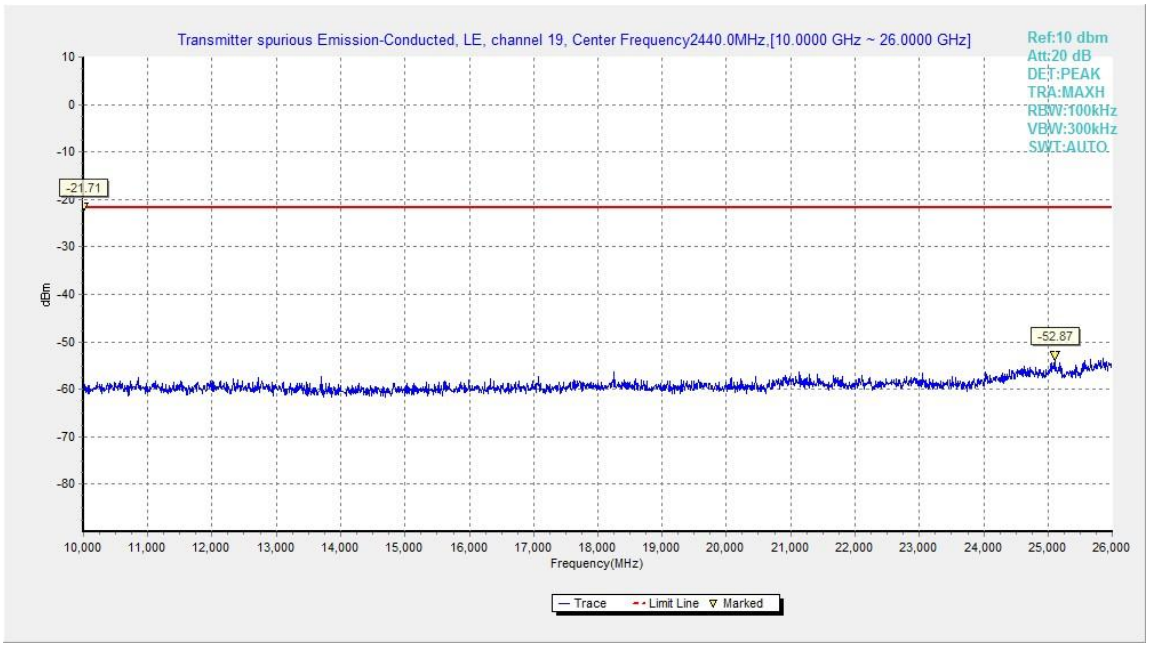


Fig.12. Transmitter Spurious Emission -Conducted: GFSK, 2440 MHz, 10GHz – 26GHz

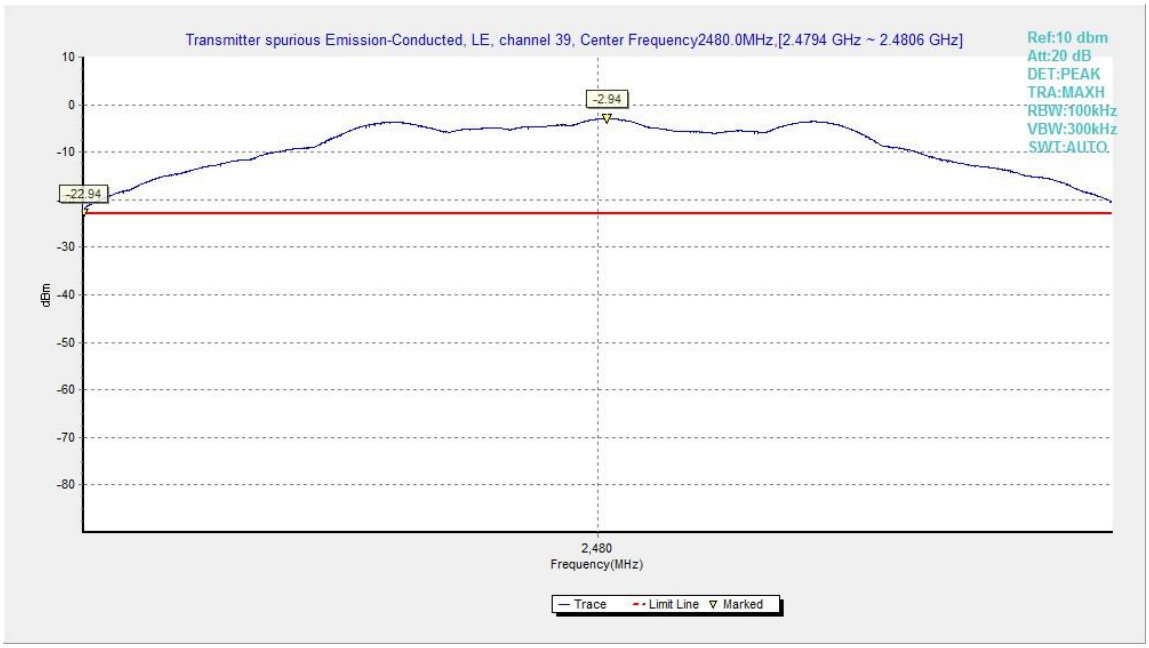


Fig.13. Transmitter Spurious Emission -Conducted: GFSK, 2480 MHz

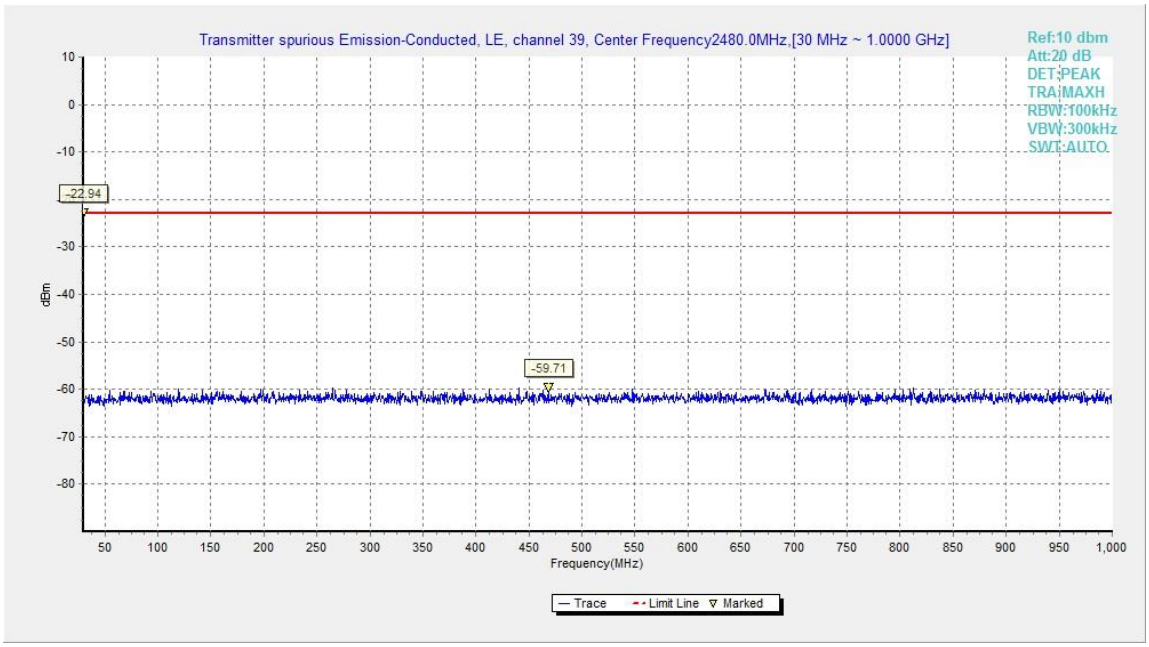


Fig.14. Transmitter Spurious Emission -Conducted: GFSK, 2480 MHz, 30MHz - 1GHz

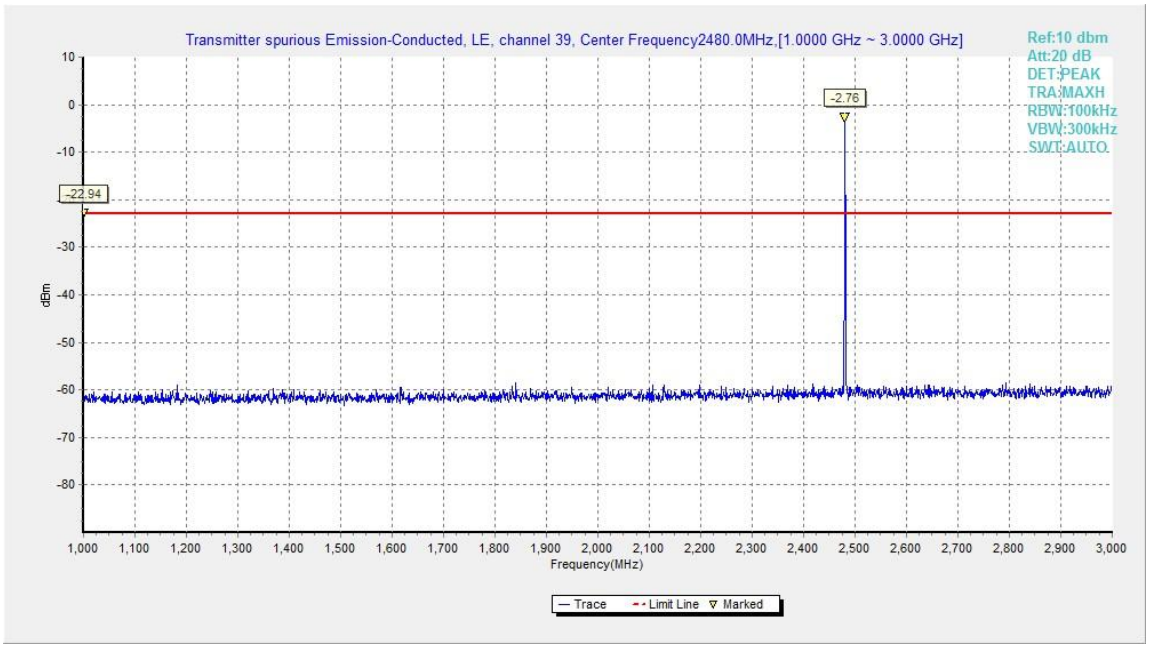


Fig.15. Transmitter Spurious Emission -Conducted: GFSK, 2480 MHz, 1GHz - 3GHz

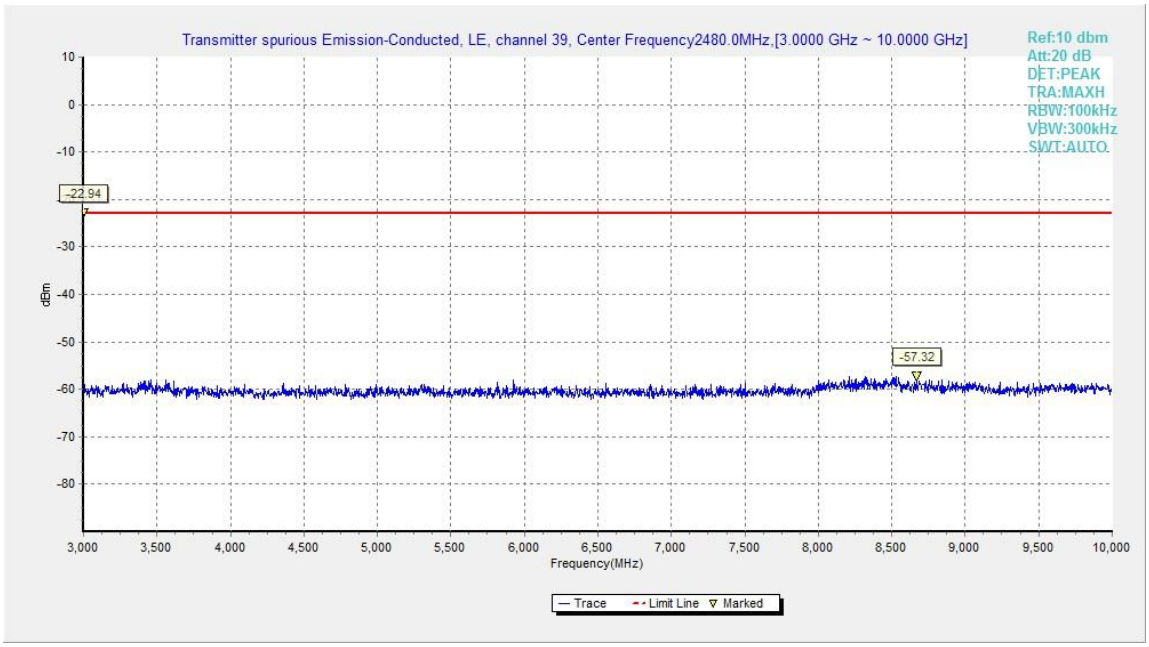


Fig.16. Transmitter Spurious Emission -Conducted:GFSK, 2480 MHz,3GHz - 10GHz

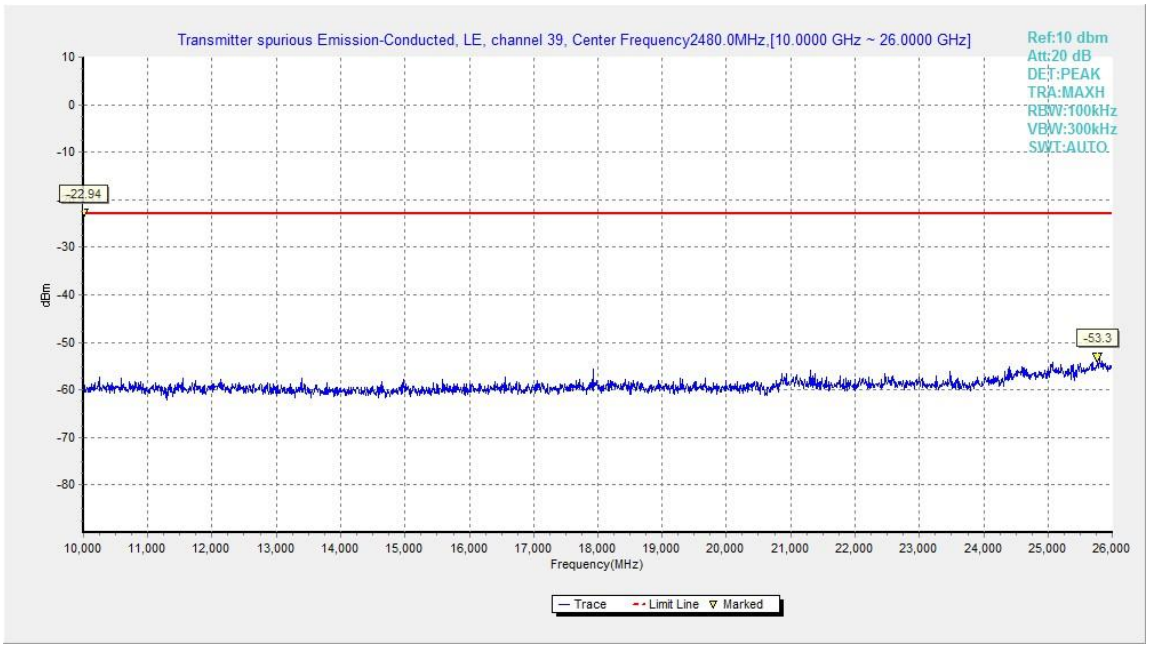


Fig.17. Transmitter Spurious Emission -Conducted: GFSK, 2480 MHz, 10GHz - 26GHz

A.5. Transmitter Spurious Emission - Radiated

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

The measurement is made according to ANSI C63.10

Limit in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Test Condition

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/1MHz	15
4000-18000	1MHz/1MHz	40
18000-26500	1MHz/1MHz	20

Measurement Results:

A "reference path loss" is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss.
The measurement results are obtained as described below:

Result=P_{Mea}+A_{Rpl}

For GFSK

Frequency	Frequency Range	Test Results	Conclusion
Power	2.38GHz~2.4GHz---L	Fig.18	P
Power	2.45GHz~2.5GHz---H	Fig.19	P

GFSK 2402MHz–Average

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2386.000	46.18	2.9	32.0	11.30	54.0	7.8	H	155	6
2387.300	46.20	2.9	32.0	11.34	54.0	7.8	H	155	48
4804.000	33.45	-32.9	34.5	31.80	54.0	20.6	H	155	92
7206.000	37.08	-31.6	36.1	32.61	54.0	16.9	H	155	48
9608.000	41.10	-30.0	37.0	34.15	54.0	12.9	H	155	68
12010.000	42.31	-29.8	39.3	32.84	54.0	11.7	H	155	92

GFSK 2440MHz–Average

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2436.500	46.32	2.9	32.0	11.42	54.0	7.7	H	155	175
2443.200	46.45	2.9	32.2	11.37	54.0	7.6	H	155	5
4882.000	33.06	-32.7	34.5	31.27	54.0	20.9	H	155	26
7323.000	38.37	-31.9	36.1	34.21	54.0	15.6	H	155	355
9764.000	39.21	-30.6	37.2	32.58	54.0	14.8	H	155	6
12205.000	44.17	-29.4	39.2	34.38	54.0	9.8	H	155	12

GFSK 2480MHz–Average

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.500	46.35	2.9	32.8	10.66	54.0	7.7	H	155	175
2499.700	46.31	2.9	32.3	11.06	54.0	7.7	H	155	194
4960.000	33.74	-33.4	34.5	32.61	54.0	20.3	H	155	215
7440.000	37.41	-31.8	36.0	33.15	54.0	16.6	H	155	196
9920.000	42.18	-29.9	37.4	34.71	54.0	11.8	H	155	241
12400.000	43.47	-29.5	39.1	33.85	54.0	10.5	H	155	259

GFSK 2402MHz–Peak

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2386.104	59.90	2.9	32.0	25.02	74.0	14.1	H	155	0
2387.042	61.07	2.9	32.0	26.20	74.0	12.9	H	155	44
4803.750	40.82	-32.9	34.5	39.17	74.0	33.2	V	155	88
7206.000	42.33	-31.6	36.1	37.86	74.0	31.7	V	155	44
9608.250	46.77	-30.0	37.0	39.82	74.0	27.2	V	155	66
12009.750	47.66	-29.8	39.3	38.18	74.0	26.3	H	155	88

GFSK 2440MHz–Peak

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2330.000	48.42	-27.7	31.3	44.84	74.0	25.6	H	155	176
2746.832	50.61	-26.6	33.0	44.18	74.0	23.4	H	155	0
4881.750	39.89	-32.7	34.5	38.11	74.0	34.1	V	155	22
7323.000	43.85	-31.9	36.1	39.69	74.0	30.2	V	155	352
9764.250	44.94	-30.6	37.2	38.31	74.0	29.1	V	155	0
12204.750	48.30	-29.4	39.2	38.51	74.0	25.7	V	155	0

GFSK 2480MHz–Peak

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2484.980	60.16	2.9	32.7	24.51	74.0	13.8	V	155	176
2492.320	60.13	2.9	32.5	24.67	74.0	13.9	H	155	198
4959.750	41.16	-33.4	34.5	40.03	74.0	32.8	V	155	220
7440.000	43.02	-31.8	36.0	38.76	74.0	31.0	H	155	198
9920.250	48.04	-29.9	37.4	40.57	74.0	26.0	H	155	242
12399.750	47.34	-29.5	39.1	37.71	74.0	26.7	V	155	264

Conclusion: PASS

Test graphs as below:

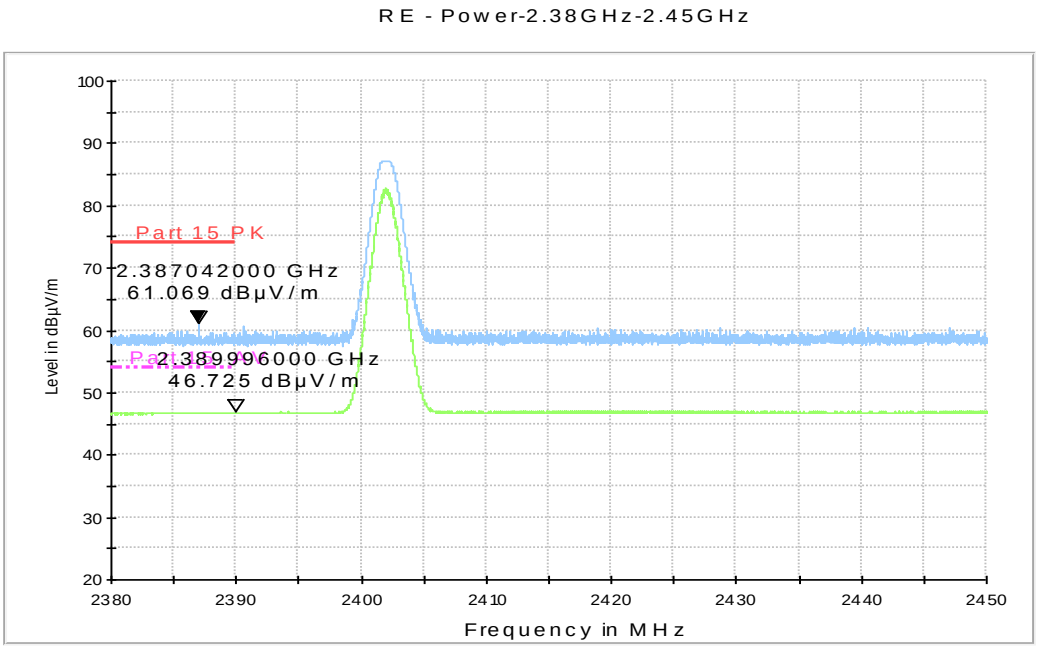


Fig.18. Transmitter Spurious Emission -Radiated (Power): GFSK low channel

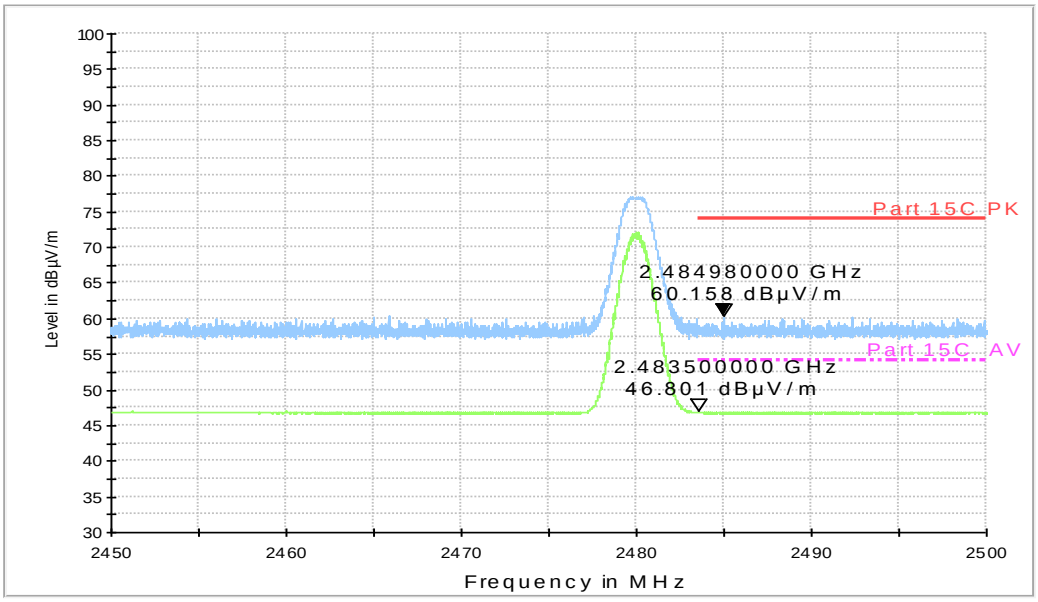


Fig.19. Transmitter Spurious Emission -Radiated (Power): GFSK high channel

A.6. 6dB Bandwidth

Method of Measurement:

The measurement is made according to ANSI C63.10 clause11.8.1
1.Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) = 300 kHz.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247(a)(2)	>= 500KHz

Measurement Results:

For GFSK

Channel No.	Frequency (MHz)	6dB Bandwidth (kHz)		Conclusion
0	2402	Fig.20	675.50	P
19	2440	Fig.21	671.50	P
39	2480	Fig.22	676.00	P

Conclusion: PASS

Test graphs as below:

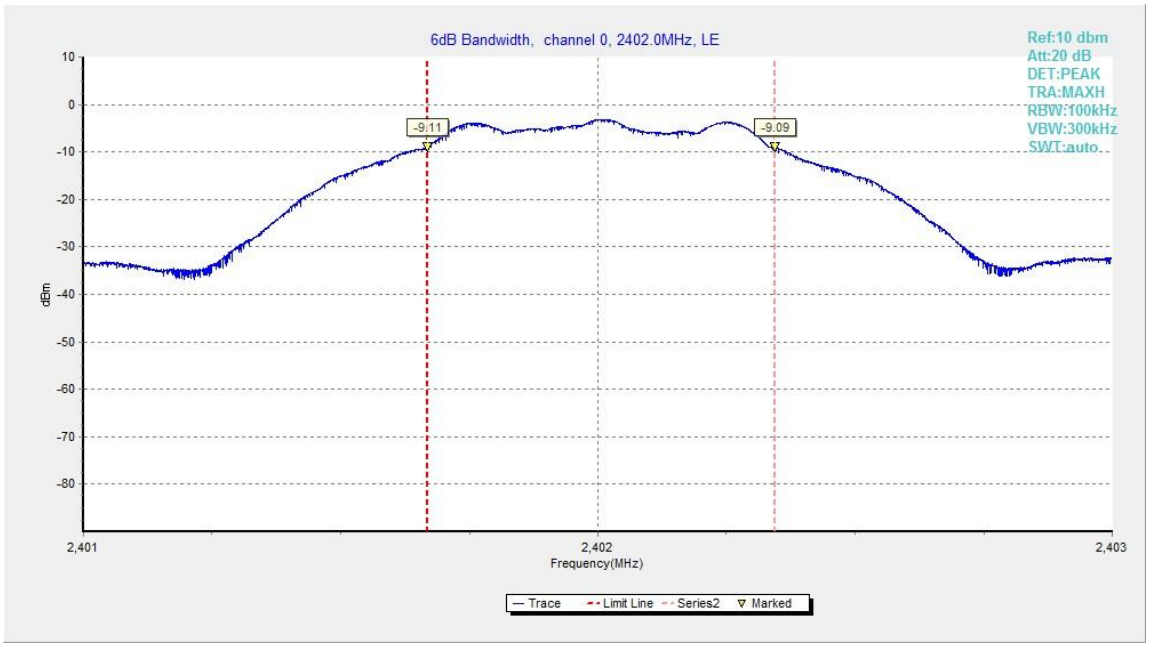


Fig.20. 6dB Bandwidth: GFSK, 2402 MHz

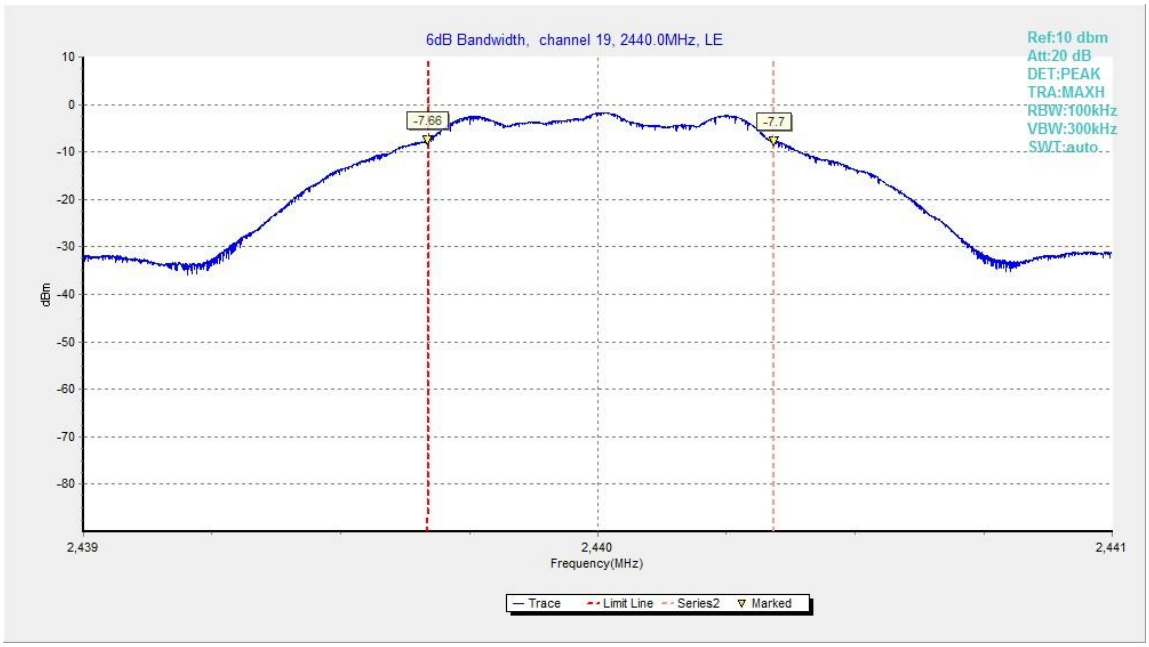


Fig.21. 6dB Bandwidth: GFSK, 2440 MHz

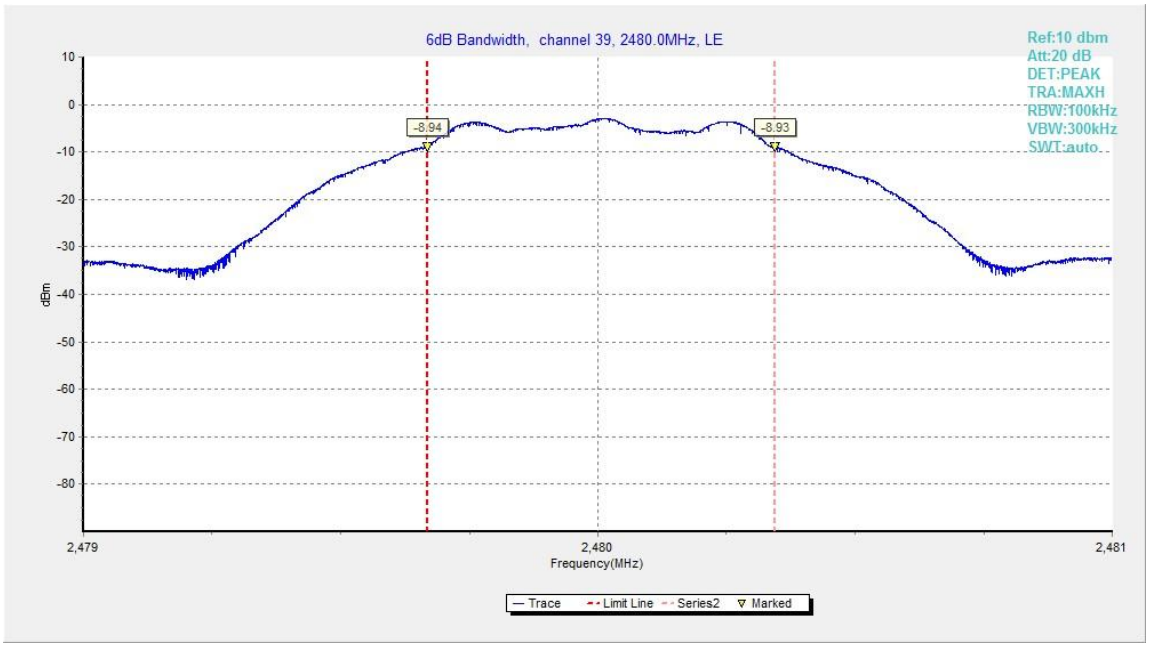


Fig.22. 6dB Bandwidth: GFSK, 2480 MHz

A.7. Maximum Power Spectral Density Level

Method of Measurement:

The measurement is made according to ANSI C63.10 clause 11.10.2

1. Set the RBW = 3 kHz.
2. Set the VBW =10 kHz.
3. Set the span to 2 times the DTS bandwidth.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the maximum amplitude level within the RBW.

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247(e)	<=8.0dBm/3kHz

Measurement Results:

For GFSK

Channel No.	Frequency (MHz)	Maximum Power Spectral Density Level(dBm/3kHz)		Conclusion
0	2402	Fig.23	-18.26	P
19	2440	Fig.24	-16.82	P
39	2480	Fig.25	-18.05	P

Test graphs as below:

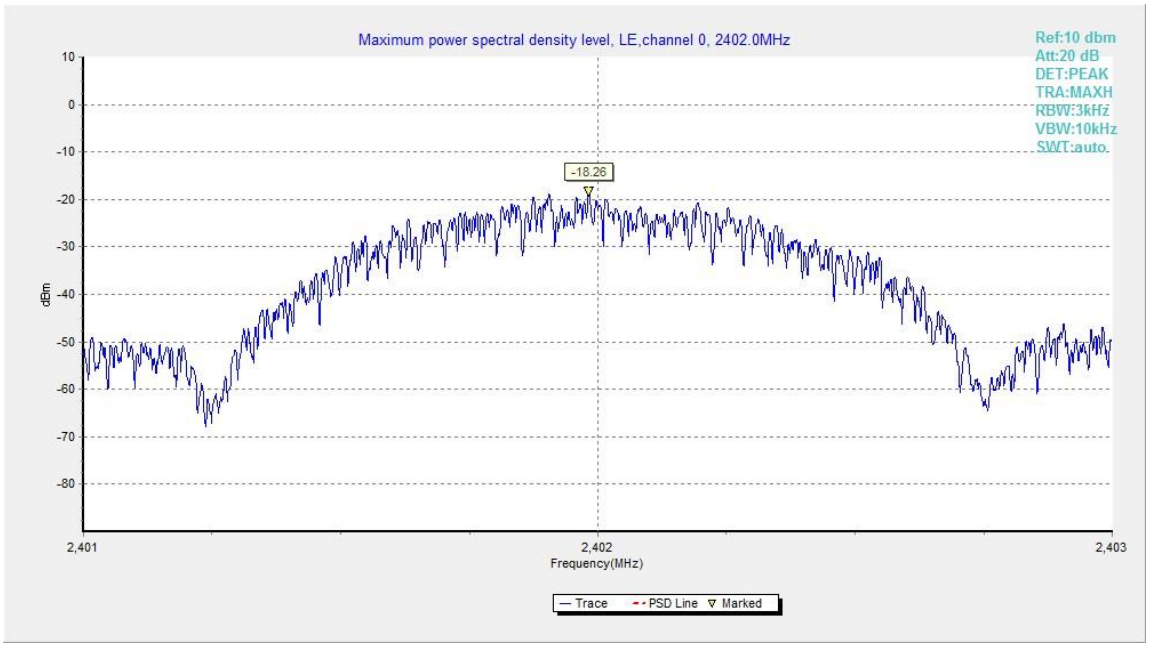


Fig.23. Maximum Power Spectral Density Level Function: GFSK, 2402 MHz

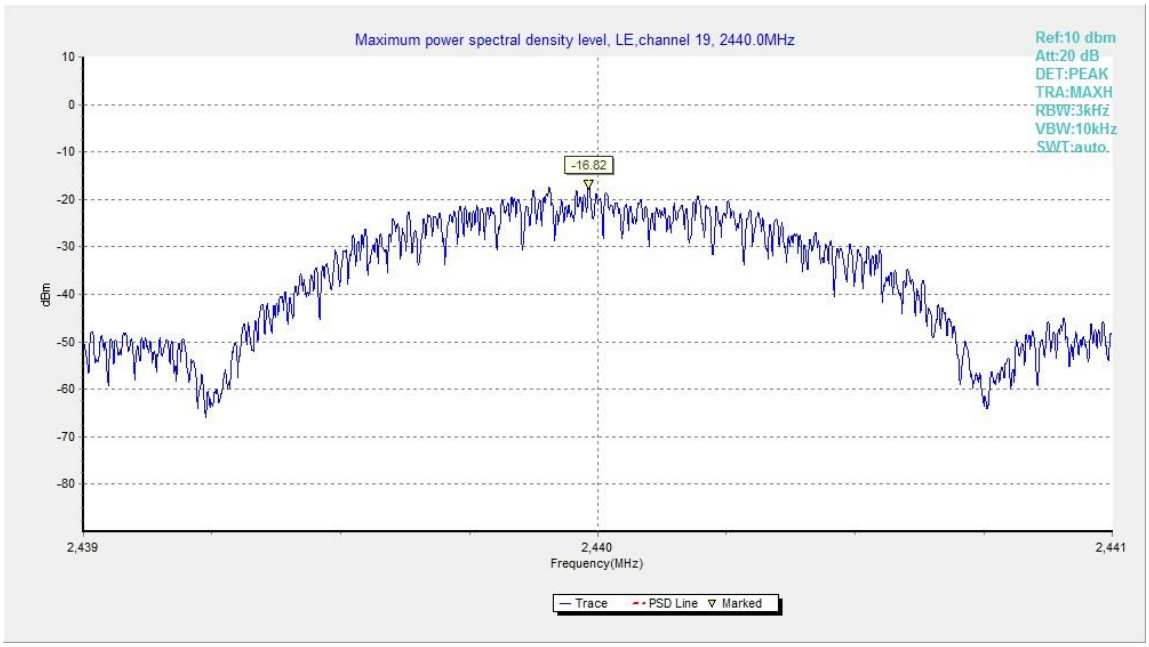


Fig.24. Maximum Power Spectral Density Level Function: GFSK, 2440 MHz

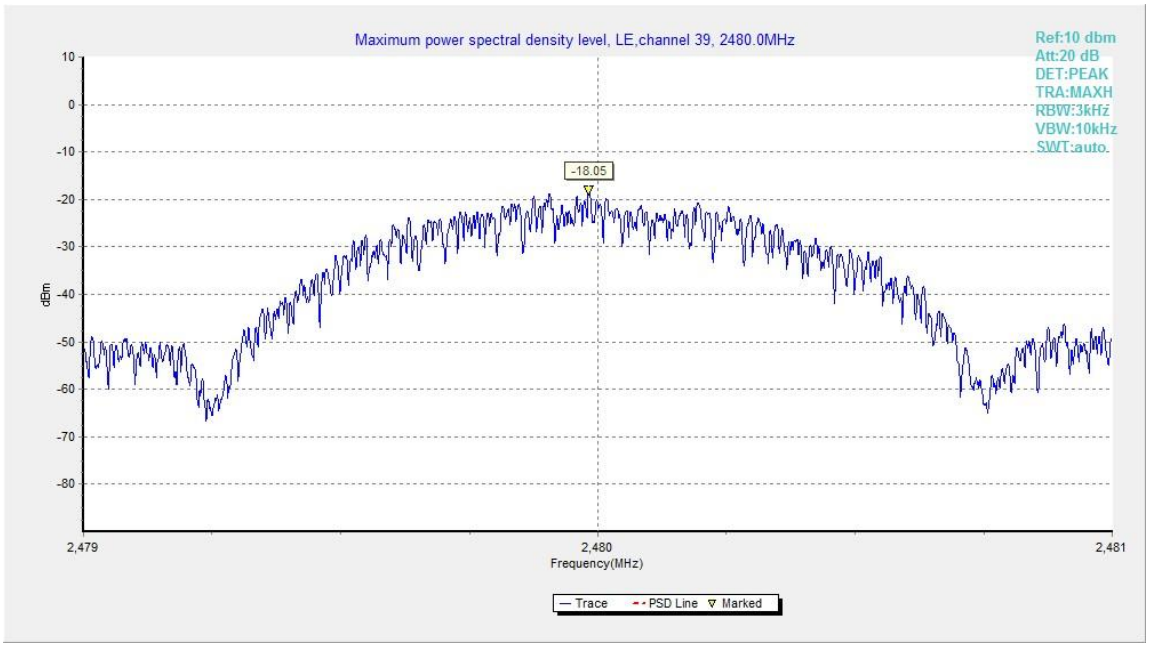


Fig.25. Maximum Power Spectral Density Level Function: GFSK, 2480 MHz

A.8. AC Powerline Conducted Emission

Method of Measurement:See ANSI C63.10-clause 6.2

1. the one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.
2. If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.
3. The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.
4. If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.
5. If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the ac conducted emissions from a device that operates between 150 kHz and 30 MHz a non-detachable antenna may be replaced with a dummy load for the measurements within the fundamental emission band of the transmitter, but only for those measurements.36 Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

Test Condition

Voltage（V）	Frequency（Hz）
120	60

Measurement Result and limit:

Bluetooth (Quasi-peak Limit)

Frequency range(MHz)	Quasi-peak Limit (dBμV)	Conclusion
0.15 to 0.5	66 to 56	P
0.5 to 5	56	
5 to 30	60	
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.		

Bluetooth (Average Limit)

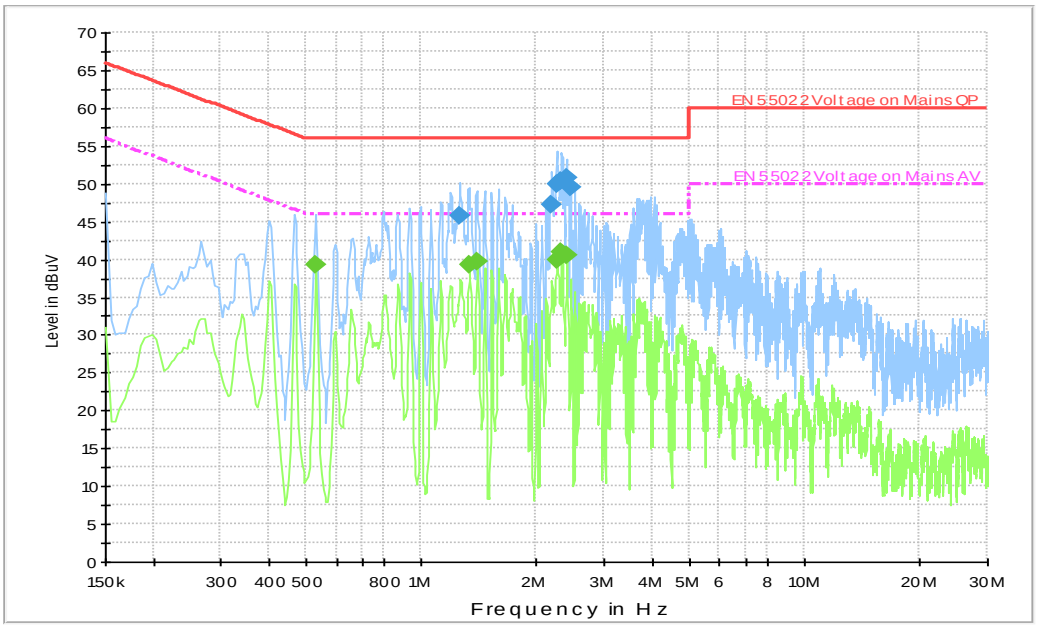
Frequency range (MHz)	Average Limit (dBμV)	Conclusion
0.15 to 0.5	56 to 46	P
0.5 to 5	46	
5 to 30	50	
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.		

The measurement is made according to ANSI C63.10

Conclusion: PASS

Test graphs as below:

Traffic:



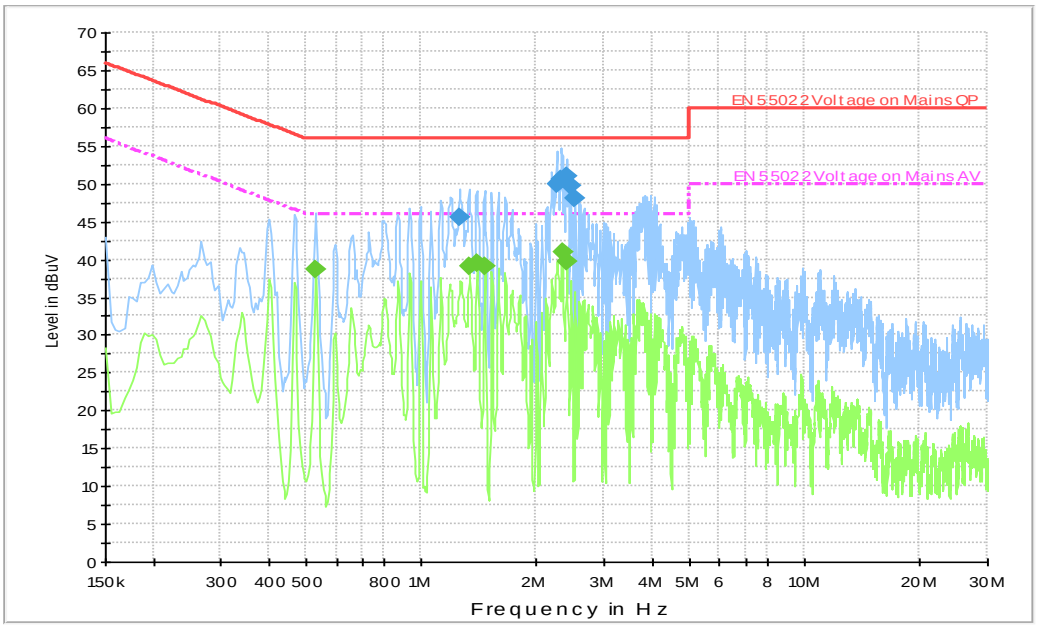
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.261500	45.8	2000.0	9.000	GND	L1	10.4	10.2	56.0
2.188500	47.3	2000.0	9.000	GND	L1	10.4	8.7	56.0
2.256000	49.9	2000.0	9.000	GND	L1	10.4	6.1	56.0
2.323500	50.4	2000.0	9.000	GND	L1	10.4	5.6	56.0
2.391000	50.7	2000.0	9.000	GND	L1	10.4	5.3	56.0
2.458500	49.6	2000.0	9.000	GND	L1	10.4	6.4	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.532500	39.4	2000.0	9.000	GND	N	10.3	6.6	46.0
1.338000	39.2	2000.0	9.000	GND	N	10.3	6.8	46.0
1.401000	39.7	2000.0	9.000	GND	N	10.4	6.3	46.0
2.265000	39.8	2000.0	9.000	GND	L1	10.4	6.2	46.0
2.328000	41.0	2000.0	9.000	GND	L1	10.4	5.0	46.0
2.395500	40.5	2000.0	9.000	GND	L1	10.4	5.5	46.0

Idle:



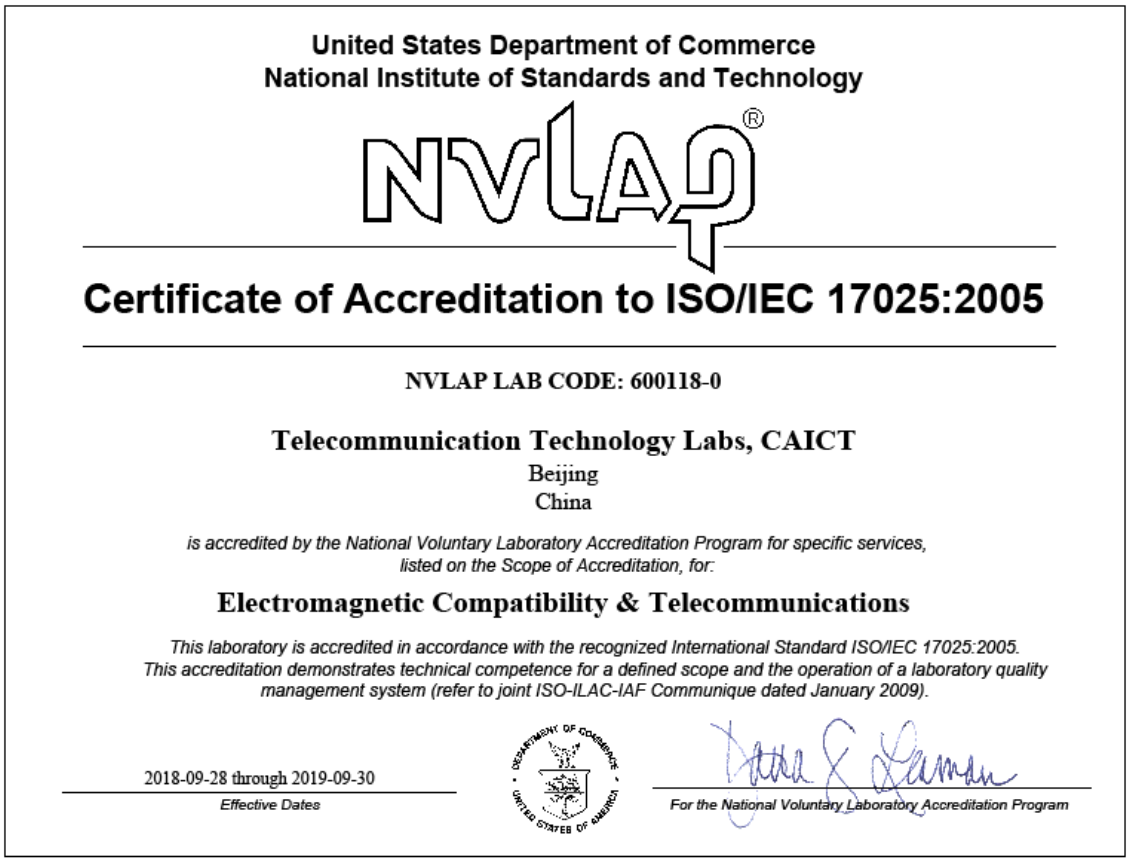
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.261500	45.5	2000.0	9.000	GND	L1	10.4	10.5	56.0
2.256000	50.0	2000.0	9.000	GND	L1	10.4	6.0	56.0
2.323500	50.6	2000.0	9.000	GND	L1	10.4	5.4	56.0
2.395500	51.0	2000.0	9.000	GND	L1	10.4	5.0	56.0
2.454000	49.8	2000.0	9.000	GND	L1	10.4	6.2	56.0
2.517000	48.0	2000.0	9.000	GND	L1	10.4	8.0	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.532500	38.7	2000.0	9.000	GND	N	10.3	7.3	46.0
1.338000	39.0	2000.0	9.000	GND	N	10.3	7.0	46.0
1.401000	39.5	2000.0	9.000	GND	N	10.4	6.5	46.0
1.464000	39.0	2000.0	9.000	GND	N	10.4	7.0	46.0
2.332500	41.0	2000.0	9.000	GND	L1	10.4	5.0	46.0
2.395500	39.8	2000.0	9.000	GND	L1	10.4	6.2	46.0

ANNEX E: Accreditation Certificate



United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT
Beijing
China

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2018-09-28 through 2019-09-30
Effective Dates

For the National Voluntary Laboratory Accreditation Program

*****END OF REPORT*****