



TEST REPORT

No. I21N00755-BLE

TCL Communication Ltd.

Tablet

Model Name: 9317X

with

Hardware Version: PIO

Software Version: EN1

FCC ID: 2ACCJB150

Issued Date: 2021-03-14

Designation Number: CN1210

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

Test Laboratory:

Shenzhen Academy of Information and Communications Technology

Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518000.

Tel: +86(0)755-33322000, Fax: +86(0)755-33322001

Email: yewu@caict.ac.cn, website: www.cszit.com



CONTENTS

1. SUMMARY OF TEST REPORT.....	3
1.1. TEST ITEMS.....	3
1.2. TEST STANDARDS	3
1.3. TEST RESULT	3
1.4. TESTING LOCATION	3
1.5. PROJECT DATA	3
1.6. SIGNATURE	3
2. CLIENT INFORMATION.....	4
2.1. APPLICANT INFORMATION	4
2.2. MANUFACTURER INFORMATION	4
3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	5
3.1. ABOUT EUT	5
3.2. INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	5
3.3. INTERNAL IDENTIFICATION OF AE USED DURING THE TEST.....	5
3.4. GENERAL DESCRIPTION.....	6
4. REFERENCE DOCUMENTS	7
4.1. DOCUMENTS SUPPLIED BY APPLICANT	7
4.2. REFERENCE DOCUMENTS FOR TESTING.....	7
5. TEST RESULTS	8
5.1. TESTING ENVIRONMENT.....	8
5.2. TEST RESULTS	8
5.3. STATEMENTS.....	8
6. TEST EQUIPMENTS UTILIZED	9
7. LABORATORY ENVIRONMENT	10
8. MEASUREMENT UNCERTAINTY	11
ANNEX A: DETAILED TEST RESULTS.....	12
A.0 ANTENNA REQUIREMENT	12
A.1 MAXIMUM PEAK OUTPUT POWER	13
A.2 PEAK POWER SPECTRAL DENSITY	14
A.3 6dB BANDWIDTH.....	16
A.4 BAND EDGES COMPLIANCE	18
A.5 TRANSMITTER SPURIOUS EMISSION - CONDUCTED	20
A.6 TRANSMITTER SPURIOUS EMISSION - RADIATED	26
A.7 AC POWER LINE CONDUCTED EMISSION	33



1. Summary of Test Report

1.1. Test Items

Description	Tablet
Model Name	9317X
Applicant's name	TCL Communication Ltd.
Manufacturer's Name	TCL Communication Ltd.

1.2. Test Standards

FCC Part15-2019; ANSI C63.10-2013

1.3. Test Result

Pass

Please refer to 5.2 Test Results.

1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China

1.5. Project data

Testing Start Date:	2021-01-29
Testing End Date:	2021-02-10

1.6. Signature

Lin Kanfeng
(Prepared this test report)

Tang Weisheng
(Reviewed this test report)

Zhang Bojun
(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact Person: Gong Zhizhou
E-Mail: zhizhou.gong@tcl.com
Telephone: 0086-755-36611722
Fax: /

2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact Person: Gong Zhizhou
E-Mail: zhizhou.gong@tcl.com
Telephone: 0086-755-36611722
Fax: /



3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Tablet
Model Name	9317X
Frequency Range	2400MHz~2483.5MHz
Type of Modulation	GFSK
Number of Channels	40
Antenna Type	Integrated
Antenna Gain	-0.8 dBi
Power Supply	3.8V DC by Battery
FCC ID	2ACCJB150
Condition of EUT as received	No abnormality in appearance

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version	Receive Date
UT06aa	DC9BD64608B5221	PIO	EN1	2021-01-29
UT01aa	DC9BD64608B5128	PIO	EN1	2021-01-29

*EUT ID: is used to identify the test sample in the lab internally.

*UT06aa is used for Conduction test; UT01aa is used for Radiation test and AC Power line Conducted Emission test.

3.3. Internal Identification of AE used during the test

AE ID*	Description	SN
AE1	Battery	CAC2580038C7
AE2	Battery	CAC2580046CA
AE3	Charger	CBA0058AGAC7
AE4	Charger	CBA0058AGAC5

AE1

Model	TLp025F7
Manufacturer	VEKEN
Capacity	2580mAh
Nominal Voltage	3.8v

AE2

Model	TLp025FA
Manufacturer	Tianmao
Capacity	2580mAh
Nominal Voltage	3.8v

AE3

Model	UC11US
Manufacturer	CHENYANG



AE4

Model UC11US

Manufacturer PUAN

*AE ID: is used to identify the test sample in the lab internally.

3.4. General Description

The Equipment under Test (EUT) is a model of Tablet with integrated antenna and battery. It consists of normal options: Lithium Battery and Charger.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

9317X is a variant product of 9317G, test results were from the initial model, the initial model report number is I21N00294-BLE.



4. Reference Documents

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part15	FCC CFR 47, Part 15, Subpart C: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.247 Operation within the bands 902-928MHz, 2400-2483.5 MHz, and 5725-5850 MHz	2019
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013

5. Test Results

5.1. Testing Environment

Normal Temperature: 15~35°C

Relative Humidity: 20~75%

5.2. Test Results

No	Test cases	Sub-clause of Part 15C	Verdict
0	Antenna Requirement	15.203	P
1	Maximum Peak Output Power	15.247 (b)	P
2	Peak Power Spectral Density	15.247 (e)	P
3	6dB Bandwidth	15.247 (a)	P
4	Band Edges Compliance	15.247 (d)	P
5	Transmitter Spurious Emission - Conducted	15.247 (d)	P
6	Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	P
7	AC Power line Conducted Emission	15.107, 15.207	P

See **ANNEX A** for details.

5.3. Statements

SAICT has evaluated the test cases requested by the applicant/manufacture as listed in section 5.2 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2.

6. Test Equipments Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Date	Calibration Period
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	2022-01-14	1 year
2	Power Sensor	U2021XA	MY55430013	Agilent	2022-01-14	1 year
3	Data Acquisition	U2531A	TW55443507	Agilent	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Date	Calibration Period
1	LISN	ESH2-Z5	100196	R&S	2022-01-01	1 year
2	Test Receiver	ESCI	100701	R&S	2021-08-05	1 year
3	Loop Antenna	HLA6120	35779	TESEQ	2022-05-01	3 year
4	BiLog Antenna	VULB9163	9163 329	Schwarzbeck	2024-02-15	3 year
5	Horn Antenna	3117	00066585	ETS-Lindgren	2022-03-04	3 year
6	Test Receiver	ESR7	101675	R&S	2021-07-17	1 year
7	Spectrum Analyzer	FSP 40	100378	R&S	2021-12-11	1 year
8	Chamber	FACT5-2.0	4166	ETS-Lindgren	2021-05-12	3 year
9	Antenna	QSH-SL-1 8-26-S-20	17013	Q-par	2024-01-13	3 year
10	Antenna	QSH-SL-2 6-40-K-20	17014	Q-par	2024-01-09	3 year

Test software

No.	Equipment	Manufacturer	Version
1	TechMgr Software	CAICT	2.1.1
2	EMC32	Rohde & Schwarz	8.53.0
3	EMC32	Rohde & Schwarz	10.01.00

EUT is engineering software provided by the customer to control the transmitting signal. The EUT was programmed to be in continuously transmitting mode.

Anechoic chamber

Fully anechoic chamber by ETS-Lindgren

7. Laboratory Environment

Semi-anechoic chamber

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω
Normalised site attenuation (NSA)	< ±4 dB, 3 m distance, from 30 to 1000 MHz

Shielded room

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-1000MHz>90 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω

Fully-anechoic chamber

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω
Voltage Standing Wave Ratio (VSWR)	≤ 6 dB, from 1 to 18 GHz, 3 m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

8. Measurement Uncertainty

Test Name	Uncertainty ($k=2$)	
1. RF Output Power - Conducted	1.32dB	
2. Power Spectral Density - Conducted	2.32dB	
3. Occupied channel bandwidth - Conducted	66Hz	
4. Transmitter Spurious Emission - Conducted	$30\text{MHz} \leq f < 1\text{GHz}$	1.41dB
	$1\text{GHz} \leq f < 7\text{GHz}$	1.92dB
	$7\text{GHz} \leq f < 13\text{GHz}$	2.31dB
	$13\text{GHz} \leq f \leq 26\text{GHz}$	2.61dB
5. Transmitter Spurious Emission - Radiated	$9\text{kHz} \leq f < 30\text{MHz}$	1.70dB
	$30\text{MHz} \leq f < 1\text{GHz}$	4.90dB
	$1\text{GHz} \leq f < 18\text{GHz}$	4.60dB
	$18\text{GHz} \leq f \leq 40\text{GHz}$	4.10dB
6. AC Power line Conducted Emission	$150\text{kHz} \leq f \leq 30\text{MHz}$	3.00dB



ANNEX A: Detailed Test Results

A.0 Antenna requirement

Measurement Limit:

Standard	Requirement
FCC CRF Part 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

Conclusion: The Directional gains of antenna used for transmitting is -0.8dBi. The RF transmitter uses an integrate antenna without connector.



A.1 Maximum Peak Output Power

Method of Measurement: See ANSI C63.10-clause 11.9.1.3

The maximum peak conducted output power may be measured using a broadband peak RF power meter.

Measurement Limit:

Standard	Limit (dBm)	E.I.R.P Limit (dBm)
FCC CRF Part 15.247 (b)	< 30	< 36

Measurement Results:

LE-1M

Mode	Frequency (MHz)	Peak Conducted Output Power (dBm)	E.I.R.P (dBm)	Conclusion
GFSK	2402 (CH0)	5.89	5.09	P
	2440 (CH19)	5.85	5.05	P
	2480 (CH39)	5.78	4.98	P

Conclusion: Pass



A.2 Peak Power Spectral Density

Method of Measurement: See ANSI C63.10-clause 11.10.2

Measurement Limit:

Standard	Limit
FCC CRF Part 15.247 (e)	< 8 dBm/3 kHz

Measurement Results:

Mode	Frequency (MHz)	Peak Power Spectral Density (dBm)	Conclusion
LE-1M	2402 (CH0)	Fig.1	P
	2440 (CH19)	Fig.2	P
	2480 (CH39)	Fig.3	P

See below for test graphs.

Conclusion: PASS

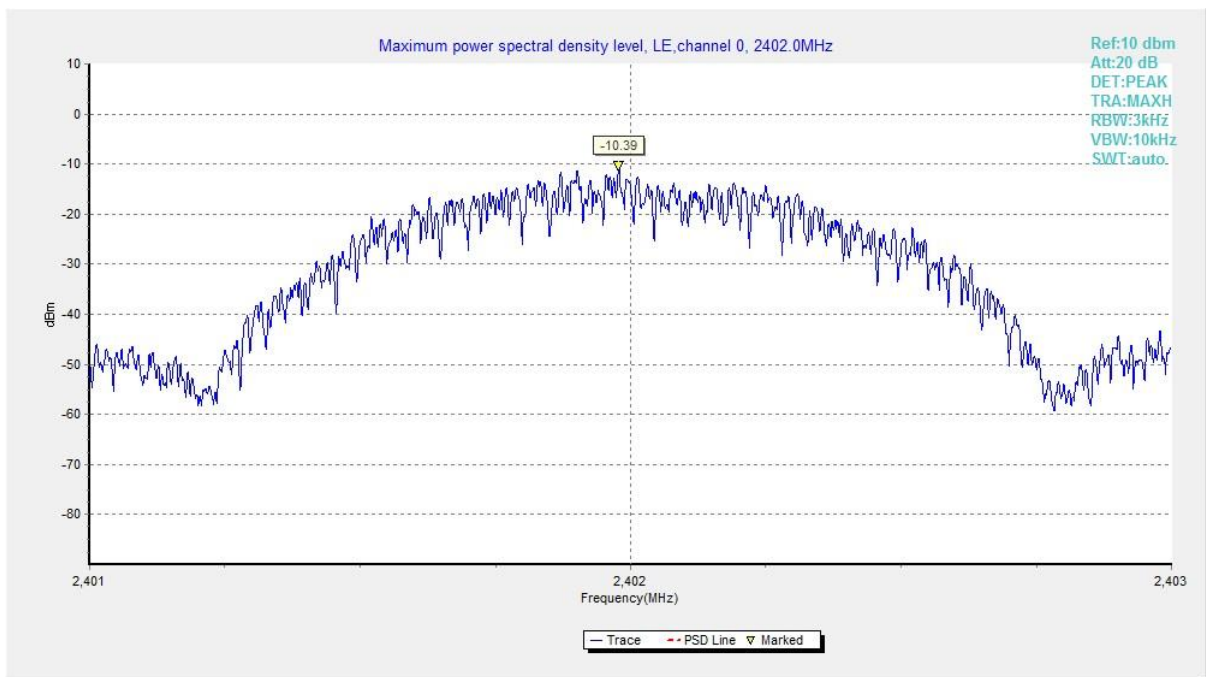


Fig.1 Power Spectral Density (Ch 0), LE 1M

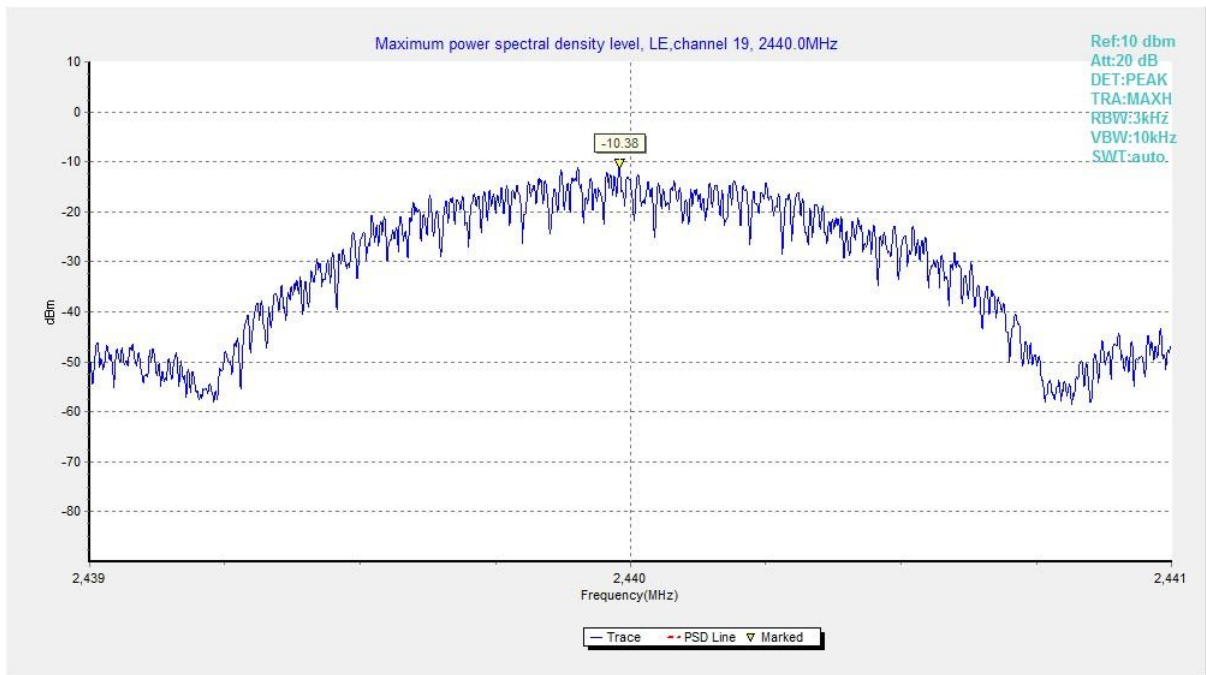


Fig.2 Power Spectral Density (Ch 19), LE 1M

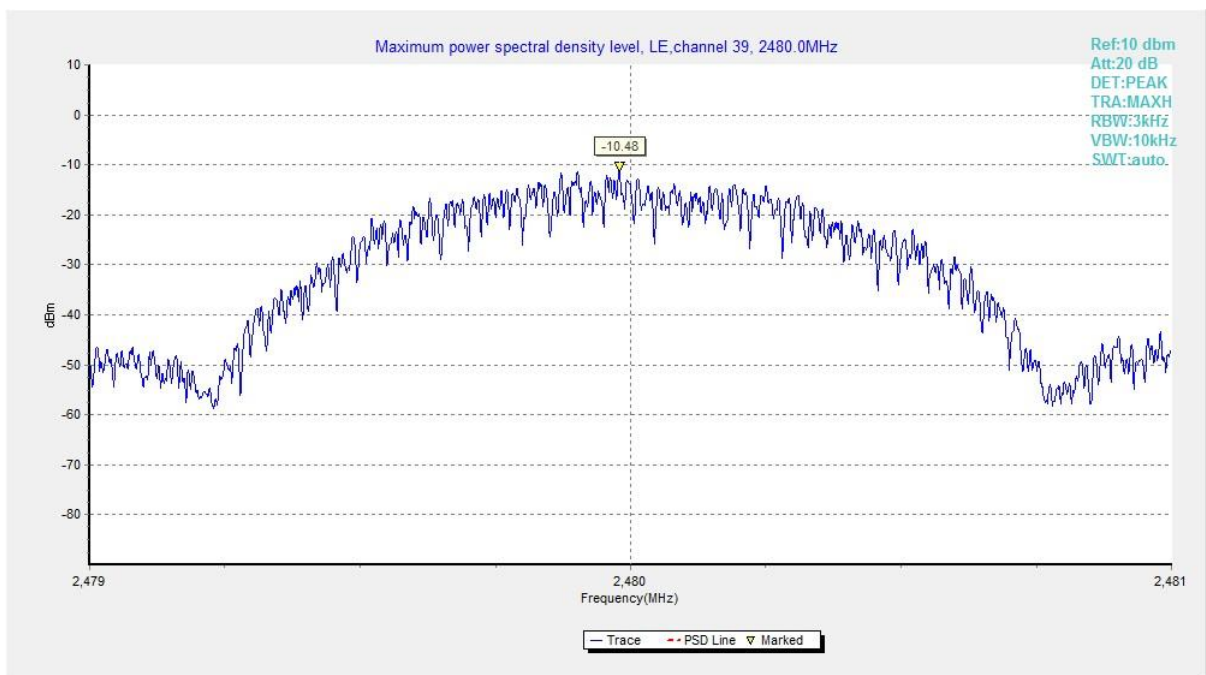


Fig.3 Power Spectral Density (Ch 39), LE 1M

A.3 6dB Bandwidth

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

Measurement Result:

Mode	Frequency (MHz)	Test Results (kHz)		Conclusion
LE-1M	2402 (CH0)	Fig.4	704.50	P
	2440 (CH19)	Fig.5	704.00	P
	2480 (CH39)	Fig.6	700.00	P

See below for test graphs.

Conclusion: PASS

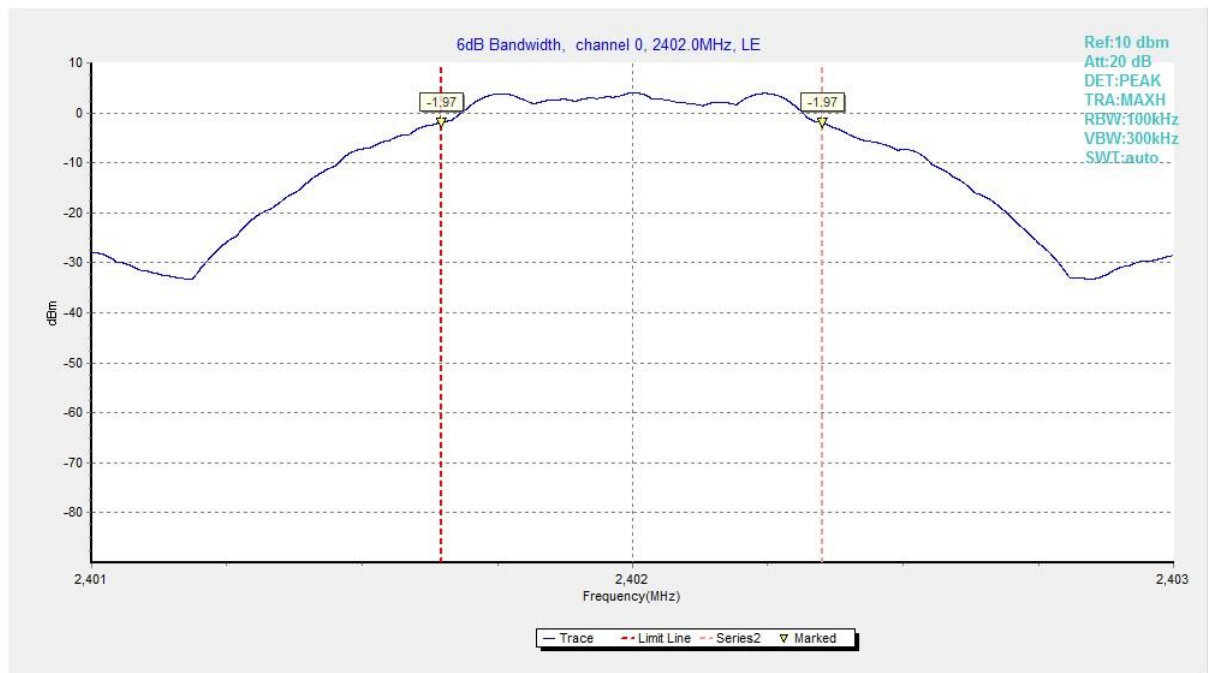


Fig.4 6dB Bandwidth (Ch 0), LE 1M

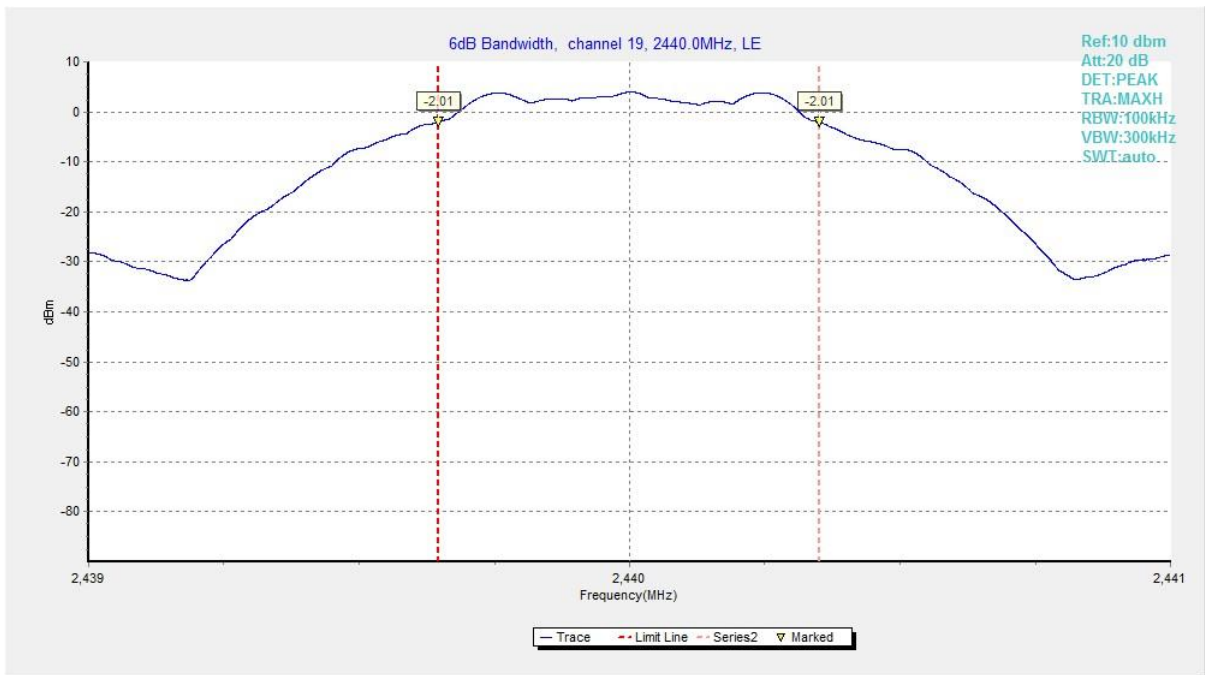


Fig.5 6dB Bandwidth (Ch 19), LE 1M

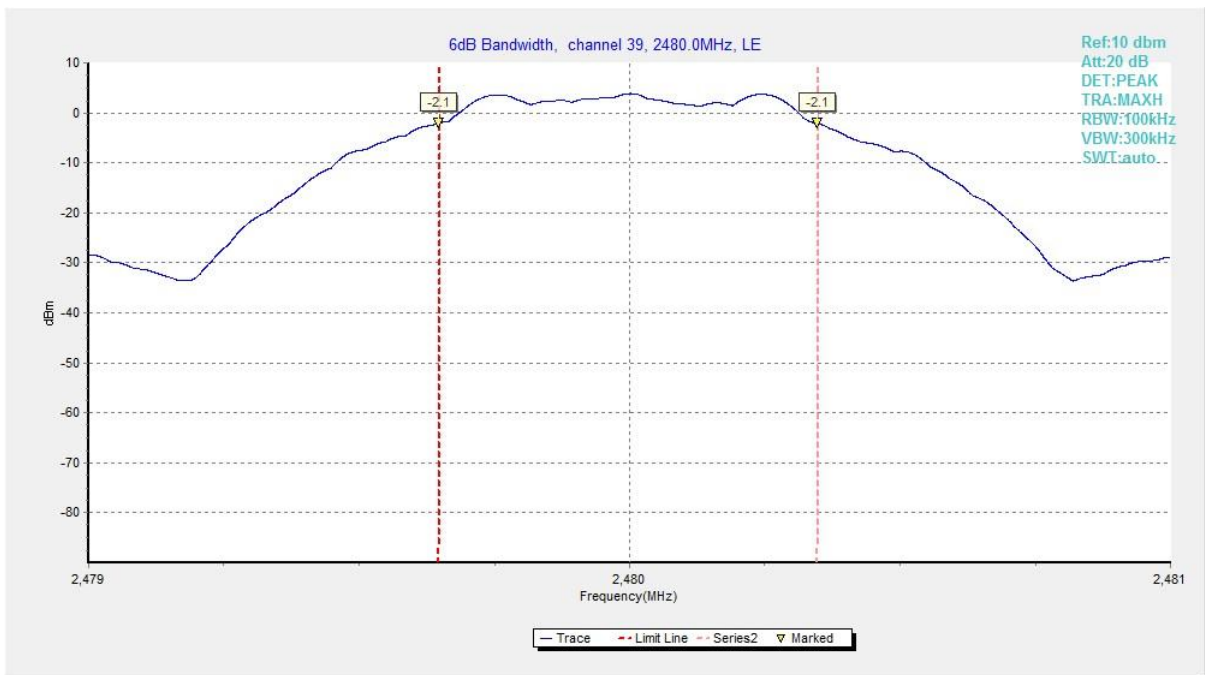


Fig.6 6dB Bandwidth (Ch 39), LE 1M

A.4 Band Edges Compliance

Measurement Limit:

Standard	Limit (dB)
FCC 47 CFR Part 15.247 (d)	> 20

Measurement Result:

Mode	Frequency (MHz)	Test Results (dB)		Conclusion
LE-1M	2402 (CH0)	Fig.7	58.76	P
	2480 (CH39)	Fig.8	64.02	P

See below for test graphs.

Conclusion: Pass

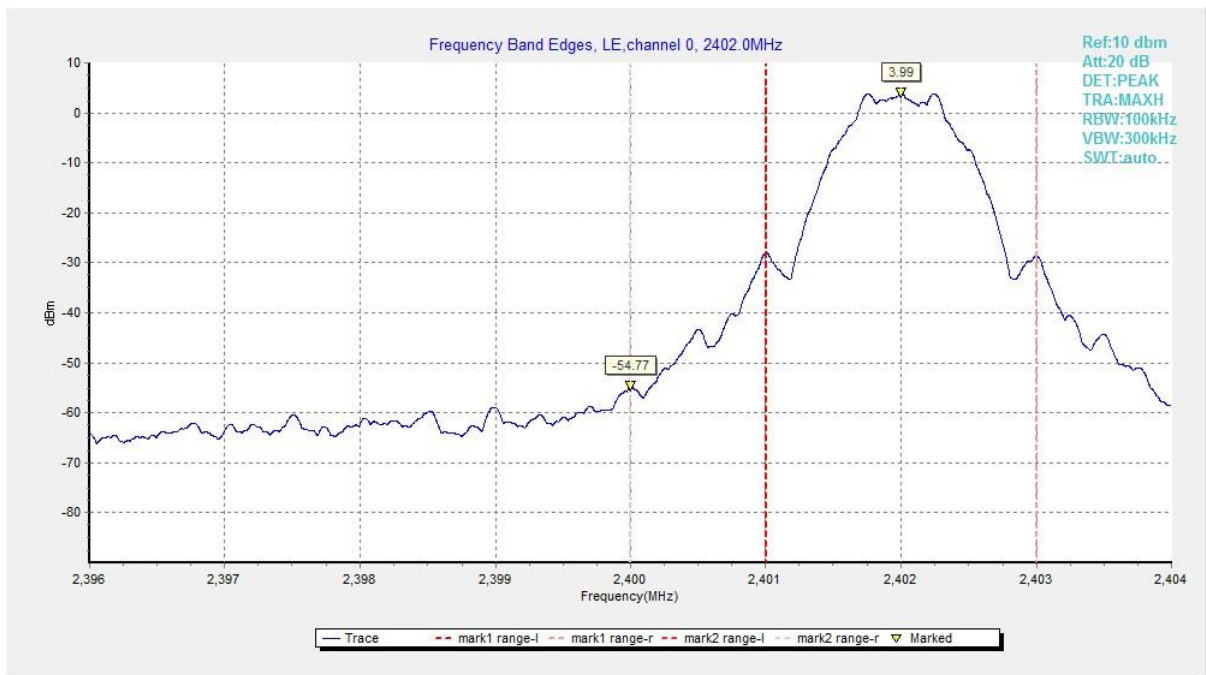


Fig.7 Band Edges (Ch 0), LE 1M

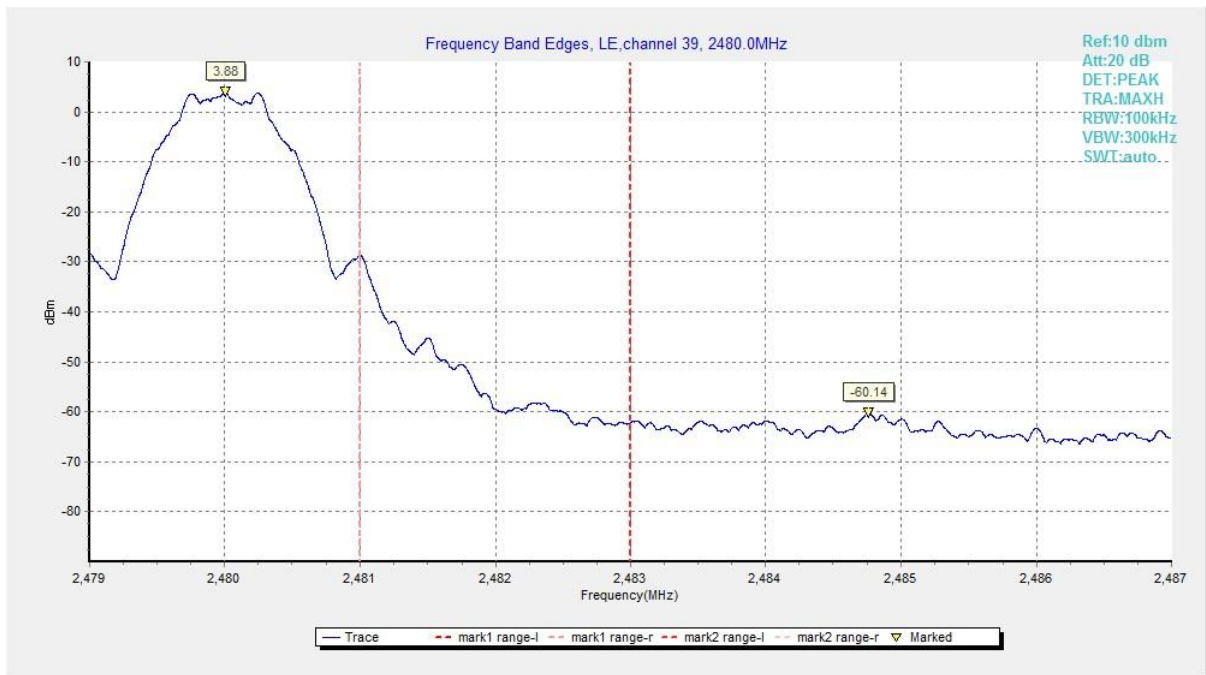


Fig.8 Band Edges (Ch 39), LE 1M

A.5 Transmitter Spurious Emission - Conducted

Measurement Limit:

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

Measurement Results:

MODE	Channel	Frequency Range	Test Results	Conclusion
LE-1M	0	2.402 GHz	Fig.9	P
		1 GHz ~ 3 GHz	Fig.10	P
		3 GHz ~ 10 GHz	Fig.11	P
	19	2.440 GHz	Fig.12	P
		1 GHz ~ 3 GHz	Fig.13	P
		3 GHz ~ 10 GHz	Fig.14	P
	39	2.480 GHz	Fig.15	P
		1 GHz ~ 3 GHz	Fig.16	P
		3 GHz ~ 10 GHz	Fig.17	P
	All channels	30 MHz ~ 1 GHz	Fig.18	P
		10 GHz ~ 26 GHz	Fig.19	P

See below for test graphs.

Conclusion: Pass

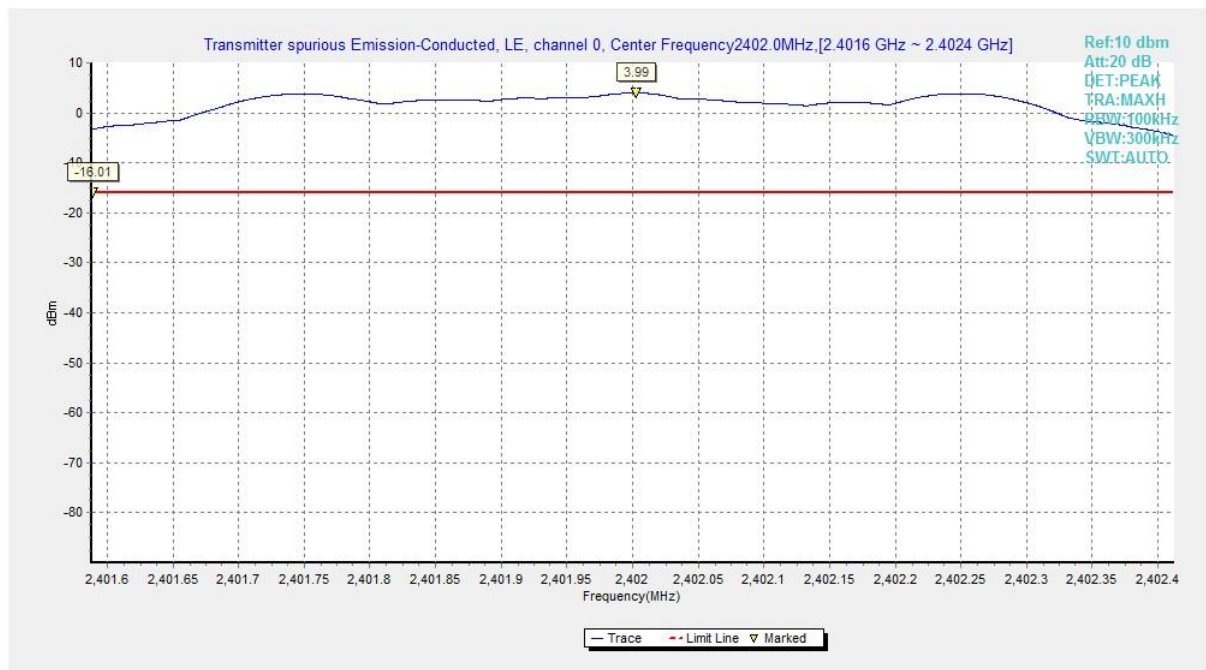


Fig.9 Conducted Spurious Emission (Ch0, Center Frequency), LE 1M

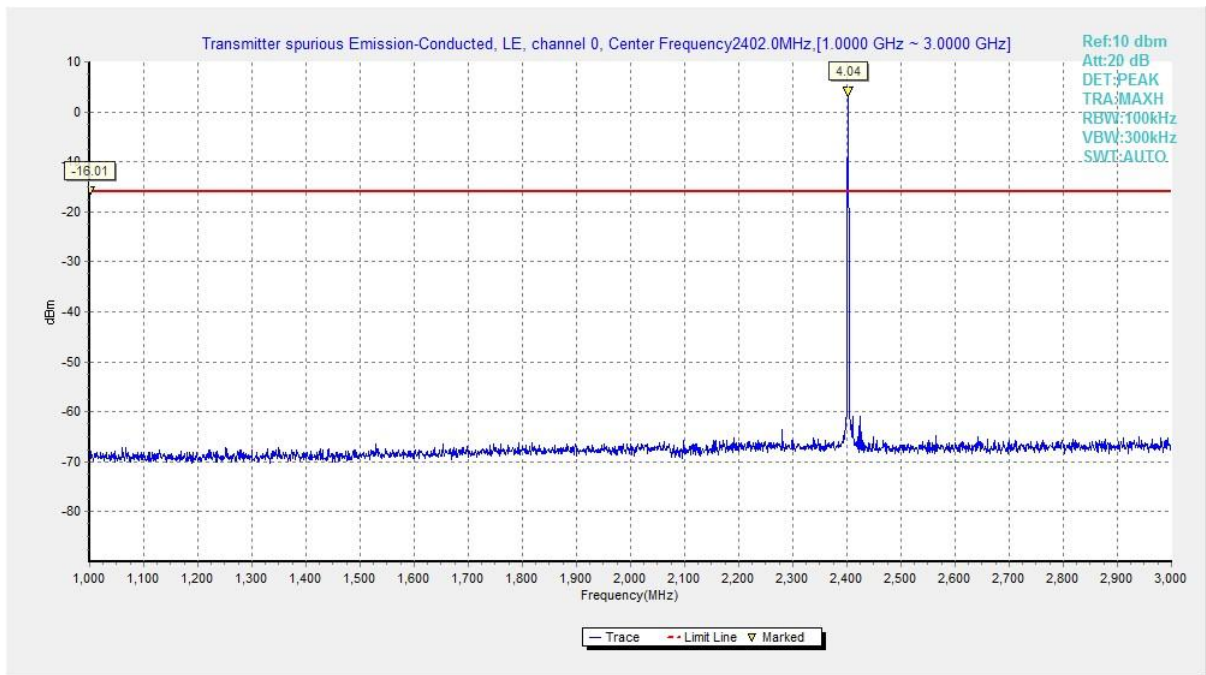


Fig.10 Conducted Spurious Emission (Ch0, 1 GHz-3 GHz), LE 1M

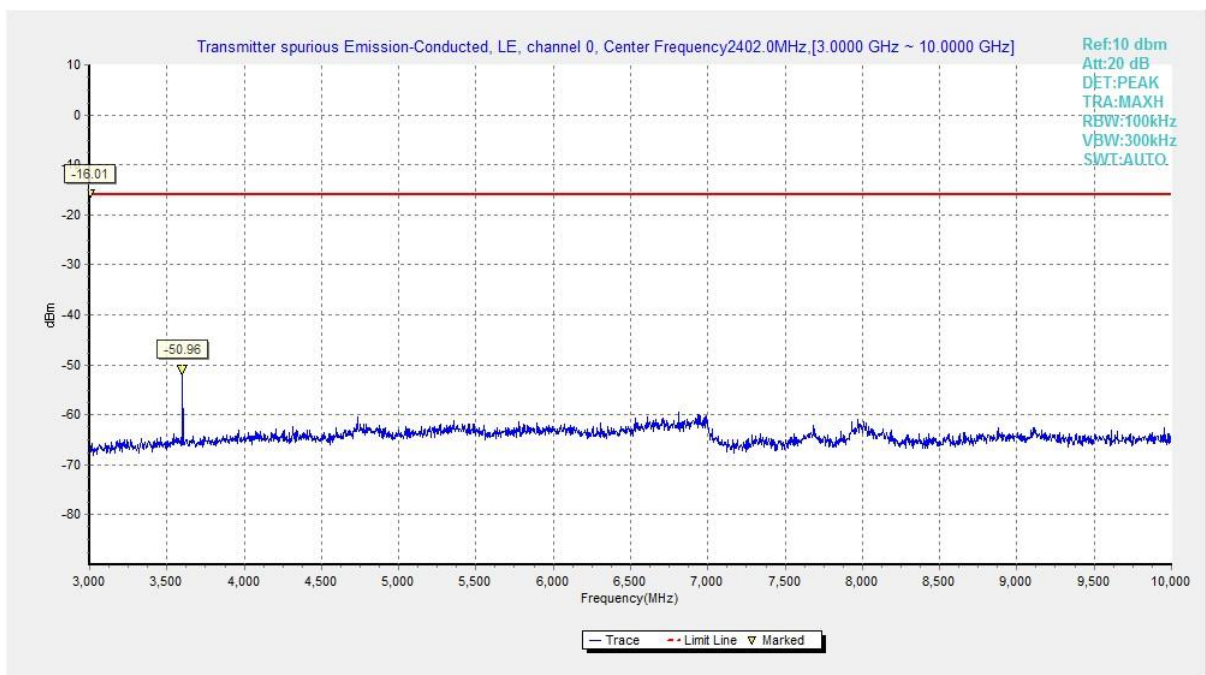


Fig.11 Conducted Spurious Emission (Ch0, 3 GHz-10 GHz), LE 1M

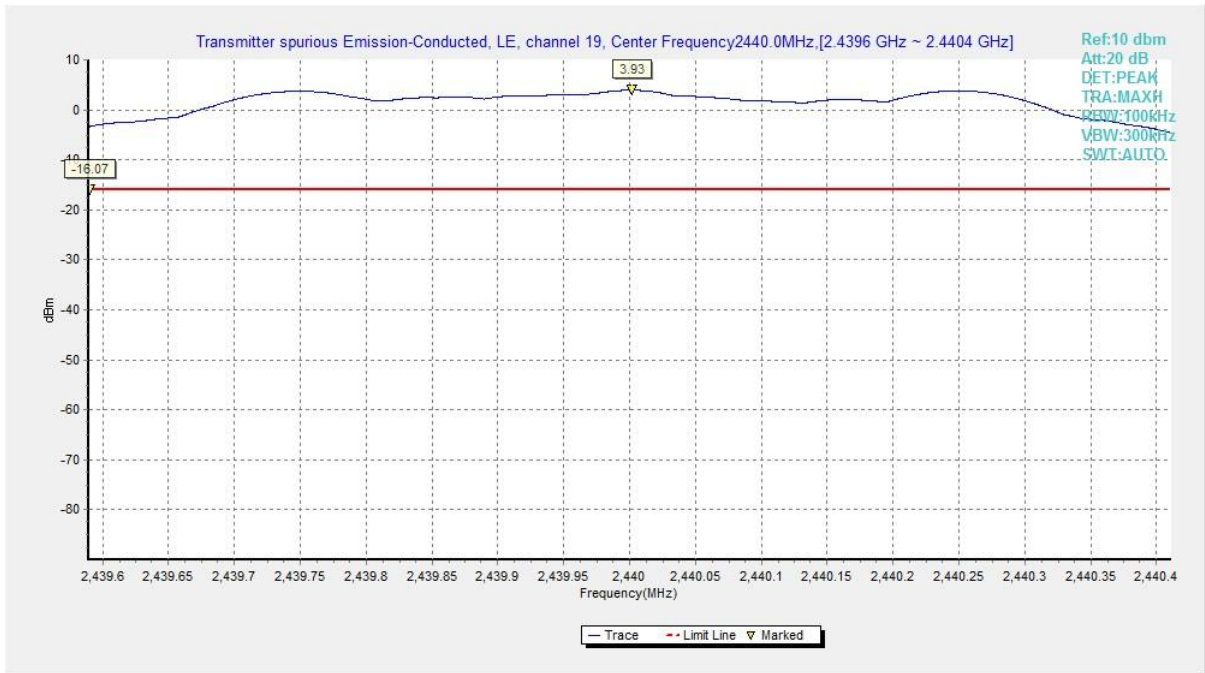


Fig.12 Conducted Spurious Emission (Ch19, Center Frequency), LE 1M

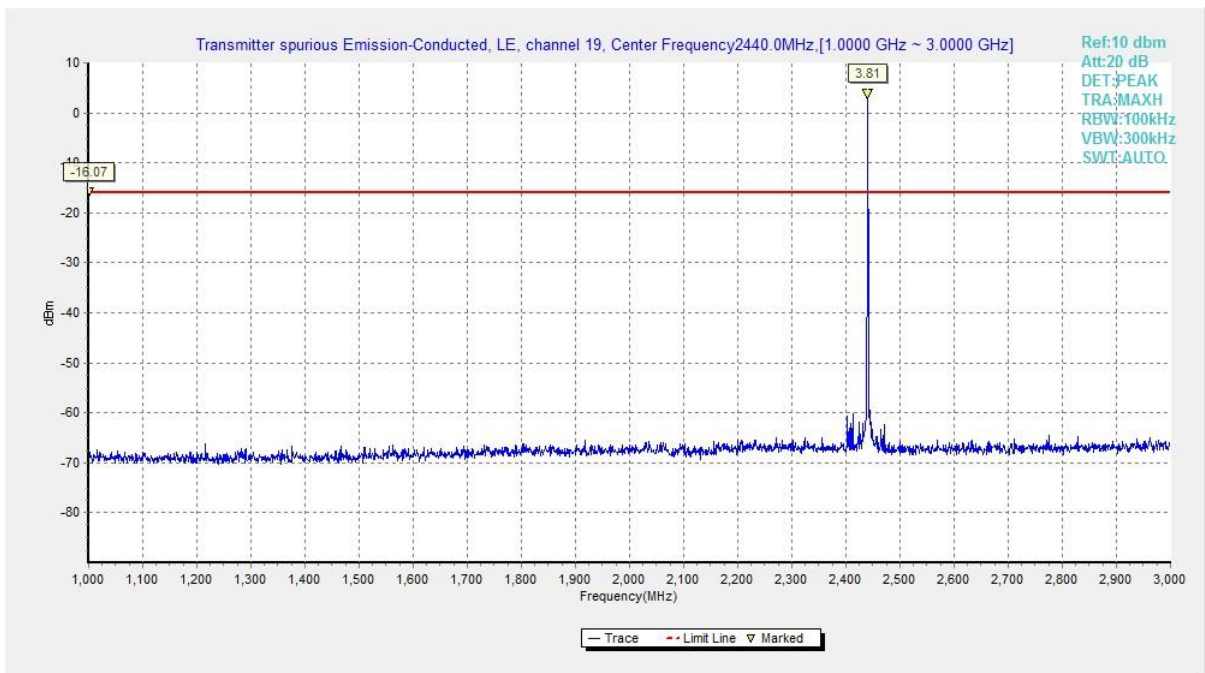


Fig.13 Conducted Spurious Emission (Ch19, 1 GHz-3 GHz), LE 1M

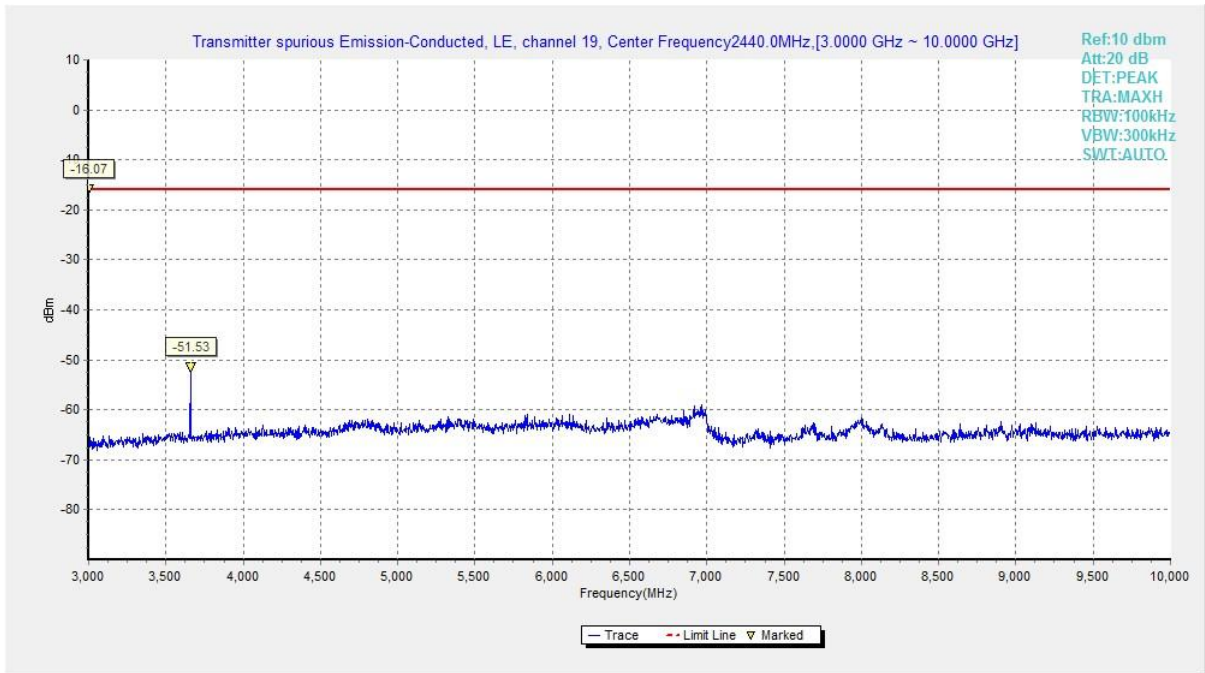


Fig.14 Conducted Spurious Emission (Ch19, 3 GHz-10 GHz), LE 1M

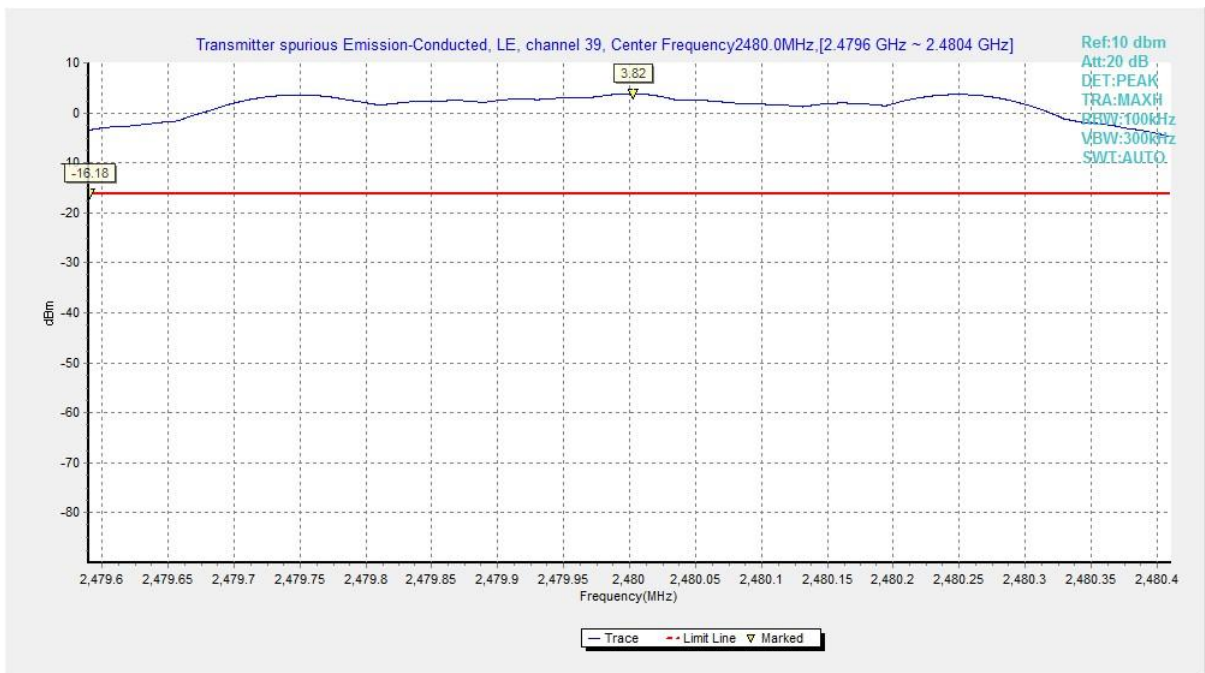


Fig.15 Conducted Spurious Emission (Ch39, Center Frequency), LE 1M

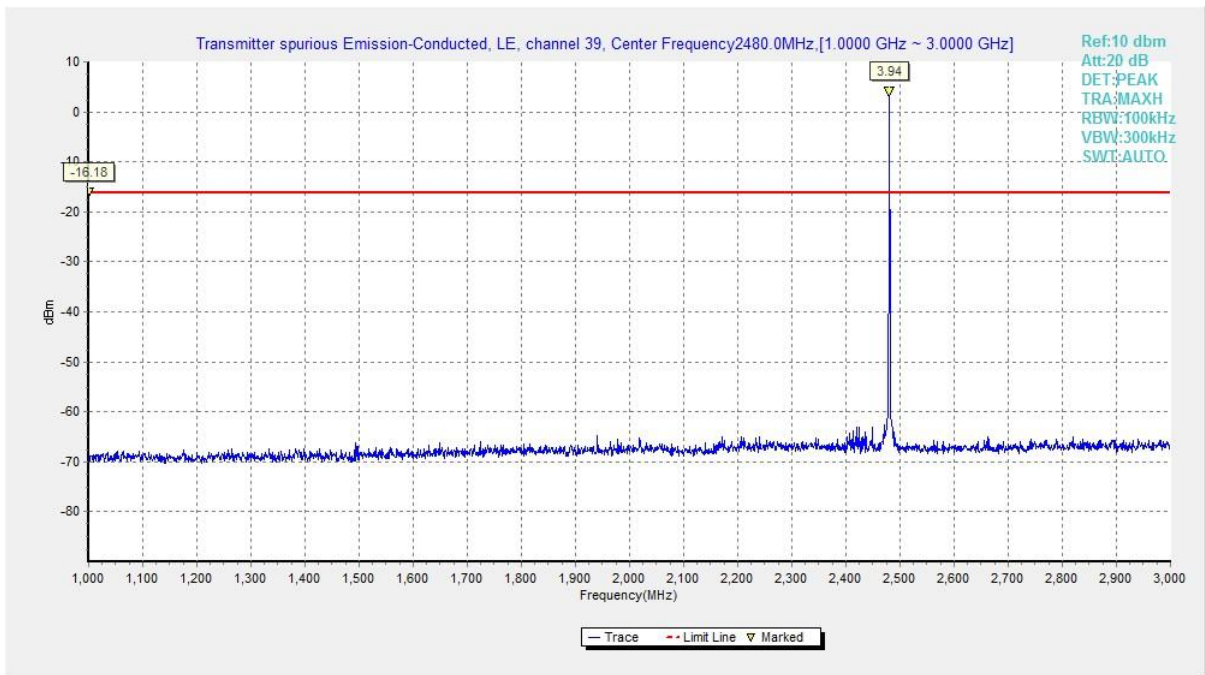


Fig.16 Conducted Spurious Emission (Ch39, 1 GHz-3 GHz), LE 1M

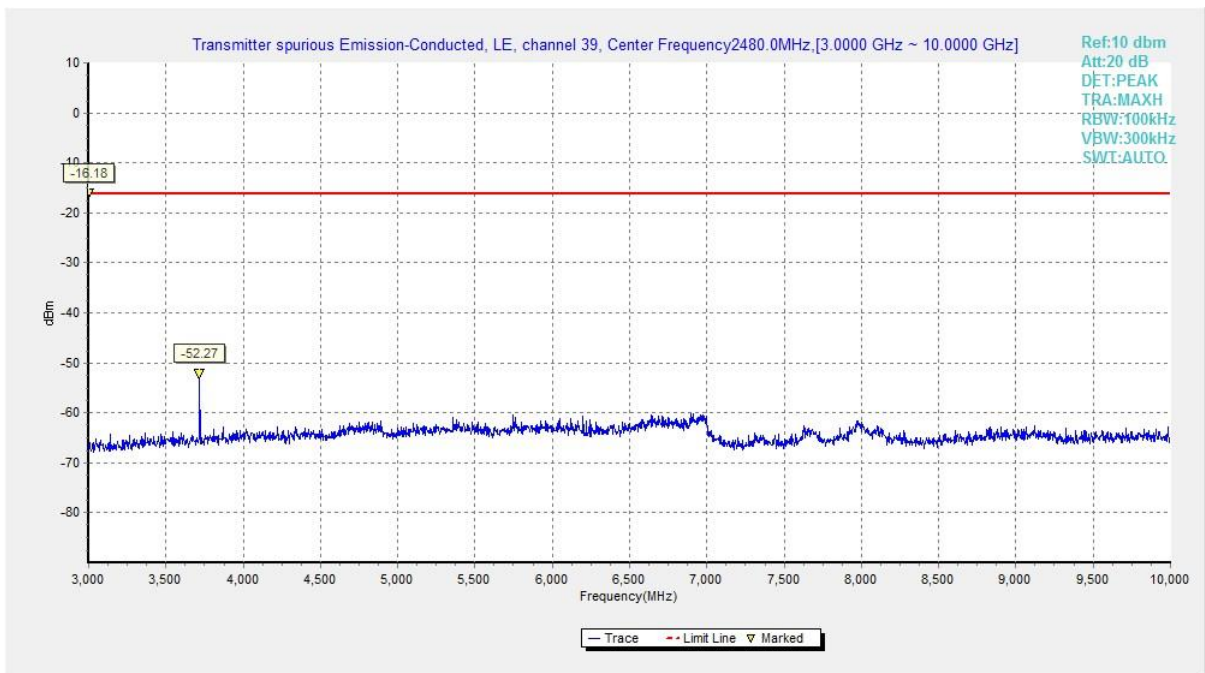


Fig.17 Conducted Spurious Emission (Ch39, 3 GHz-10 GHz), LE 1M

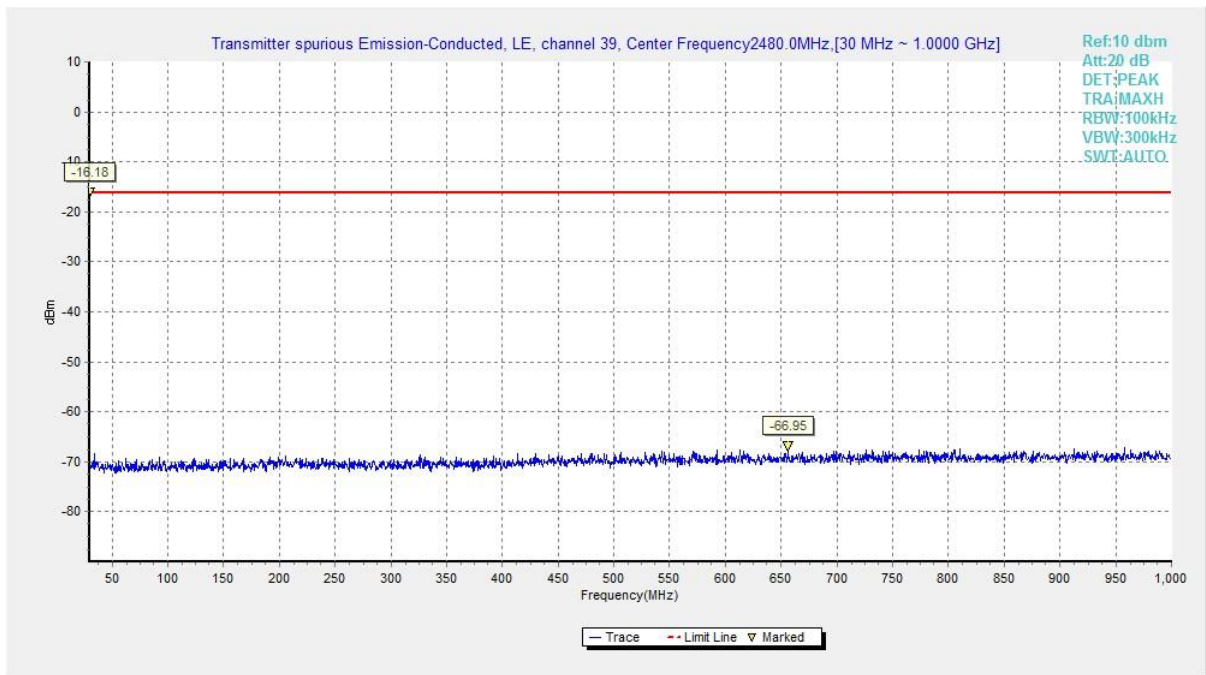


Fig.18 Conducted Spurious Emission (All channels, 30 MHz-1 GHz), LE 1M

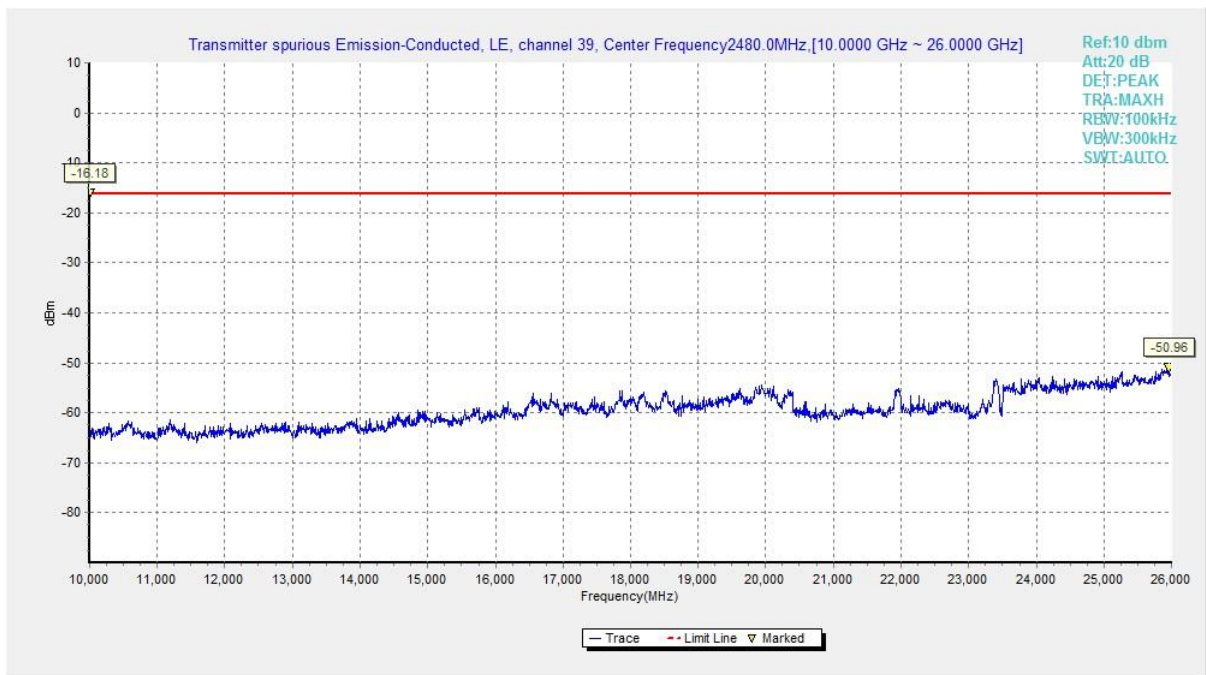


Fig.19 Conducted Spurious Emission (All channels, 10 GHz-26 GHz), LE 1M

A.6 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)).

Limit in restricted band:

Frequency of emission (MHz)	Field strength ($\mu\text{V}/\text{m}$)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

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	120kHz/300kHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

Note: According to the performance evaluation, the radiated emission margin of EUT is over 20dB in the band from 9kHz to 30MHz. Therefore, the measurement starts from 30MHz to tenth harmonic. The measurement results include the horizontal polarization and vertical polarization measurements.



Measurement Results:

Mode	Channel	Frequency Range	Test Results	Conclusion
LE-1M	0	1 GHz ~ 18 GHz	Fig.20	P
	19	9 kHz ~ 30 MHz	Fig.21	P
		30 MHz ~ 1 GHz	Fig.22	P
		1 GHz ~ 18 GHz	Fig.23	P
		18 GHz ~ 26.5 GHz	Fig.24	P
	39	1 GHz ~ 18 GHz	Fig.25	P
	Restricted Band(CH0)	2.38 GHz ~ 2.45 GHz	Fig.26	P
	Restricted Band(CH39)	2.45 GHz ~ 2.5 GHz	Fig.27	P

See below for test graphs.

Conclusion: Pass

LE-1M

GFSK CH0 (1-18GHz)

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB)
4945.500000	46.59	74.00	27.41	V	13.7
6212.500000	51.32	74.00	22.68	H	18.7
7292.762500	47.43	74.00	26.57	V	5.3
13585.187500	46.43	74.00	27.57	H	12.3
15676.875000	47.25	74.00	26.75	H	14.1
17269.375000	48.79	74.00	25.21	H	16.9

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB)
5071.500000	37.93	54.00	16.07	H	14.5
6191.500000	40.68	54.00	13.32	H	18.9
7292.762500	40.33	54.00	13.67	V	5.3
13453.500000	35.69	54.00	18.31	V	12.6
15671.187500	37.44	54.00	16.56	V	14.1
17331.062500	38.99	54.00	15.01	H	16.9

**GFSK CH19 (1-18GHz)**

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB)
5073.500000	50.92	74.00	23.08	V	14.5
6197.500000	52.49	74.00	21.51	H	18.9
7292.762500	49.05	74.00	24.95	V	5.3
11083.212500	44.90	74.00	29.10	H	8.4
13337.125000	46.35	74.00	27.65	V	12.6
17029.187500	50.15	74.00	23.85	V	16.6

Frequency (MHz)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB)
5304.000000	43.33	54.00	10.67	V	14.9
6165.500000	42.08	54.00	11.92	V	18.7
7292.762500	41.69	54.00	12.31	V	5.3
11079.450000	34.11	54.00	19.89	H	8.4
13381.750000	37.28	54.00	16.72	H	12.6
16960.937500	39.90	54.00	14.10	V	16.4

GFSK CH39 (1-18GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB)
5346.000000	48.95	74.00	25.05	V	15.1
6223.000000	51.77	74.00	22.23	H	18.7
7293.837500	46.62	74.00	27.38	V	5.3
13389.187500	46.99	74.00	27.01	V	12.6
15802.437500	48.17	74.00	25.83	V	14.6
17133.312500	50.48	74.00	23.52	V	17.1

Frequency (MHz)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB)
5304.000000	42.18	54.00	11.82	V	14.9
6198.000000	41.91	54.00	12.09	V	18.9
7292.762500	41.20	54.00	12.80	V	5.3
13429.875000	36.64	54.00	17.36	H	12.6
15808.562500	38.82	54.00	15.18	V	14.7
17141.187500	40.38	54.00	13.62	V	17.1

Note:

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and Antenna Factor, the gain of the preamplifier, the cable loss. P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result = P_{Mea} + Cable Loss + Antenna Factor - Gain of the preamplifier

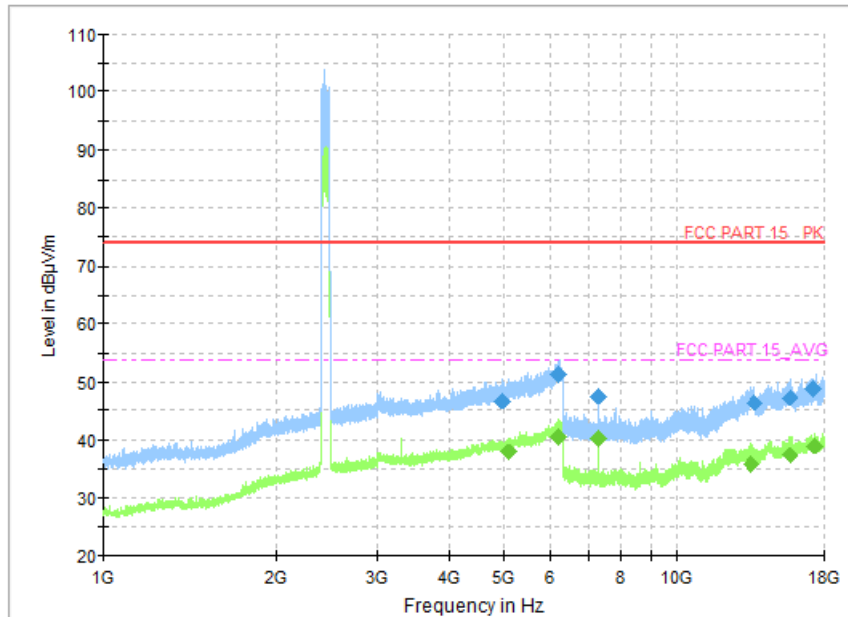


Fig.20 Radiated Spurious Emission (Ch0, 1 GHz - 18 GHz), 1M

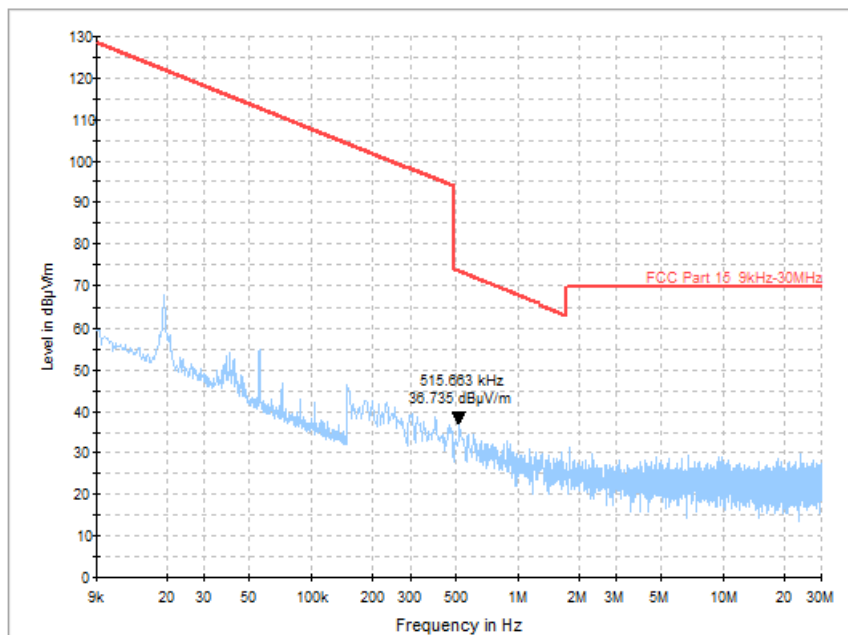


Fig.21 Radiated Spurious Emission (Ch19, 9 kHz - 30 MHz), 1M

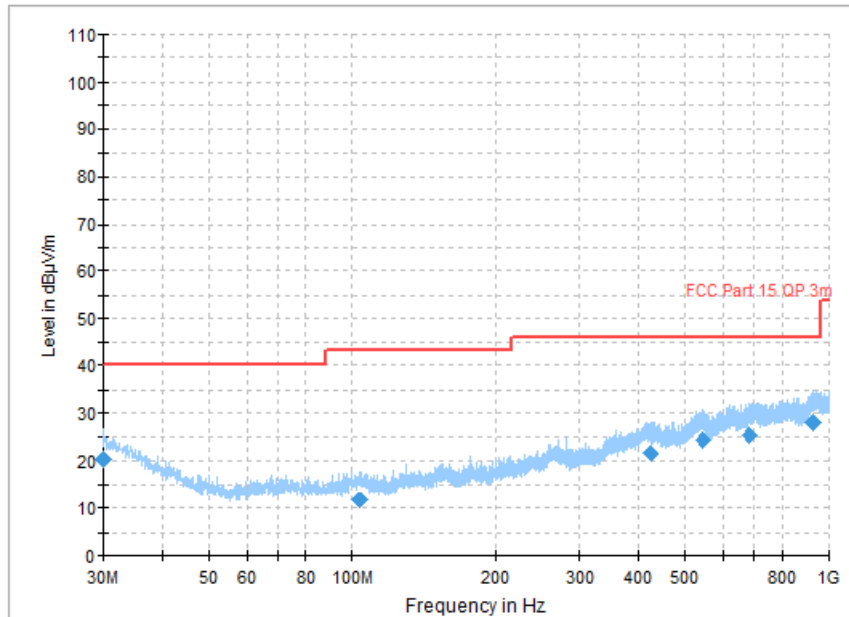


Fig.22 Radiated Spurious Emission (Ch19, 30 MHz - 1 GHz), 1M

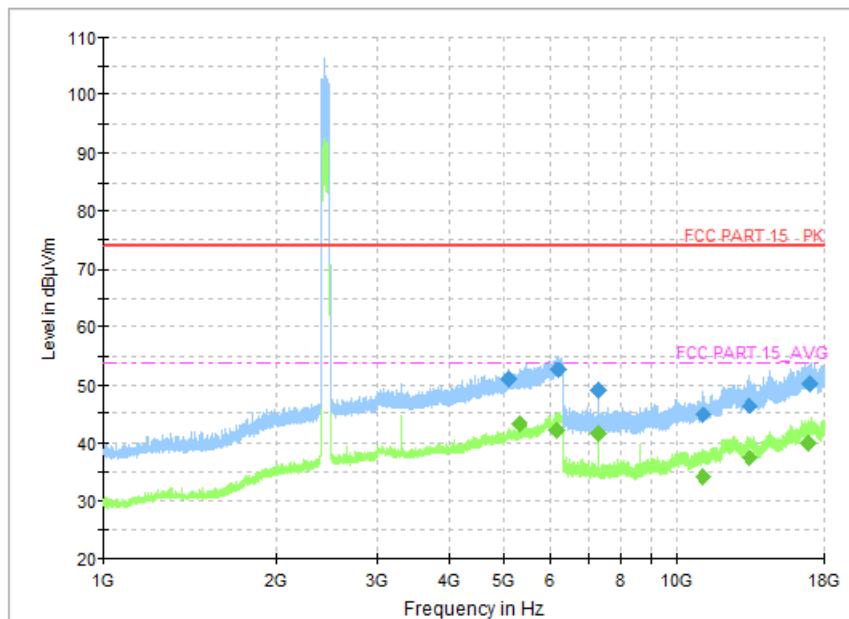


Fig.23 Radiated Spurious Emission (Ch19, 1 GHz - 18 GHz), 1M

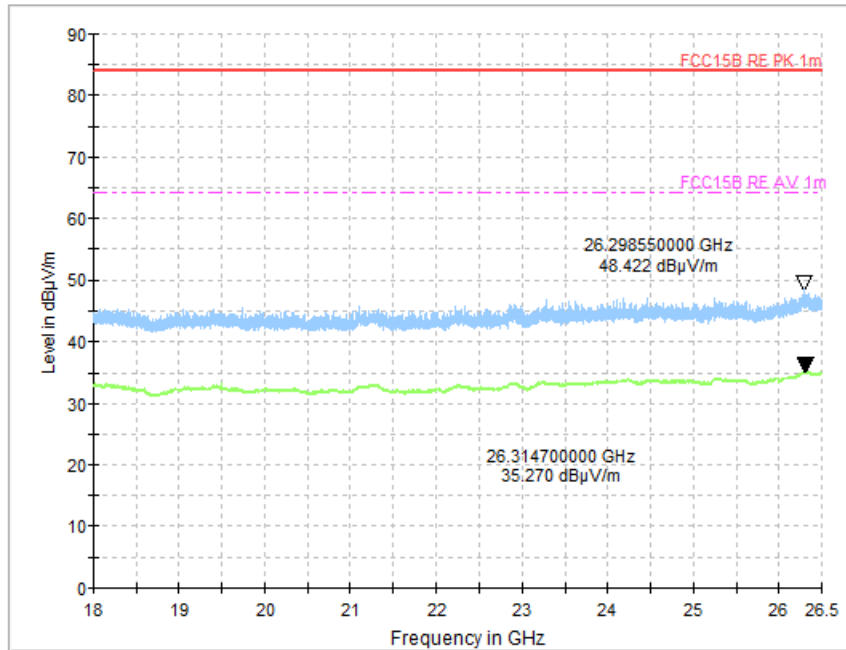


Fig.24 Radiated Spurious Emission (Ch19, 18 GHz - 26.5 GHz), 1M

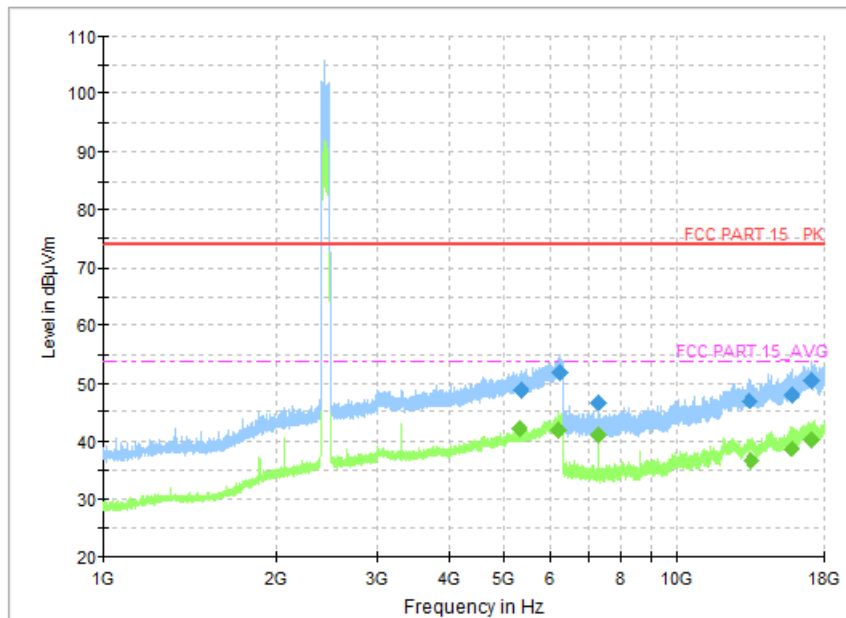


Fig.25 Radiated Spurious Emission (Ch39, 1 GHz - 18 GHz), 1M

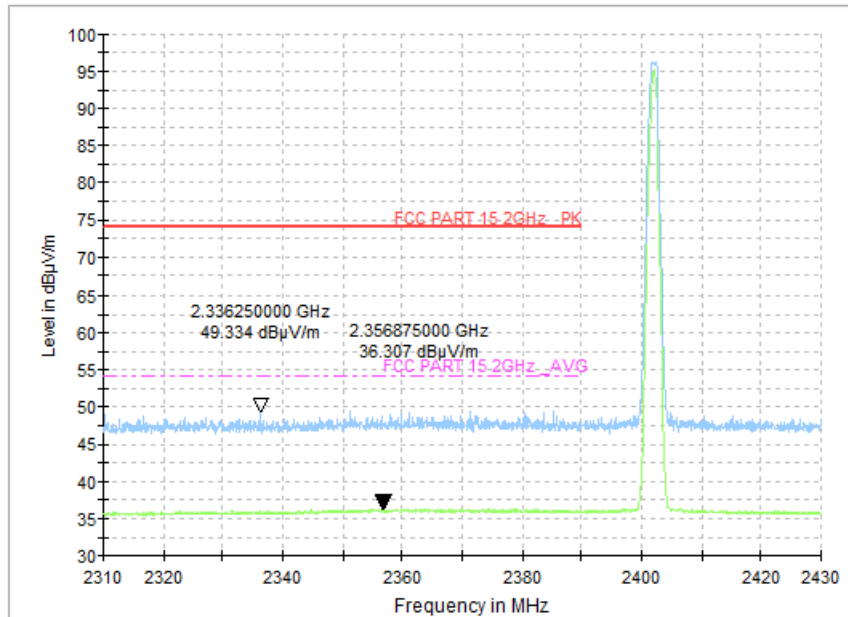


Fig.26 Radiated Band Edges (Ch0, 2380GHz - 2450GHz), 1M

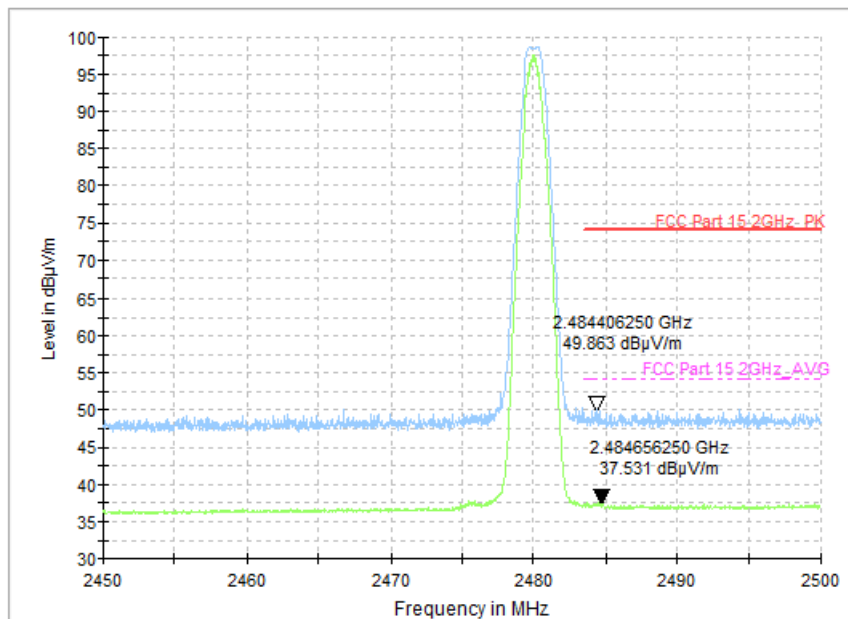


Fig.27 Radiated Band Edges (Ch39, 2450GHz - 2500GHz), 1M

A.7 AC Power line Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

LE-1M

BLE (Quasi-peak Limit) - AE3

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	66 to 56	Fig.28	Fig.29	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.

BLE (Average Limit) - AE3

Frequency range (MHz)	Average-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	56 to 46	Fig.28	Fig.29	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.

BLE (Quasi-peak Limit) - AE4

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	66 to 56	Fig.30	Fig.31	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.

BLE (Average Limit) - AE4

Frequency range (MHz)	Average-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	56 to 46	Fig.30	Fig.31	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.



No. I21N00755-BLE

Note: The measurement results include the L1 and N measurements.

See below for test graphs.

Conclusion: Pass

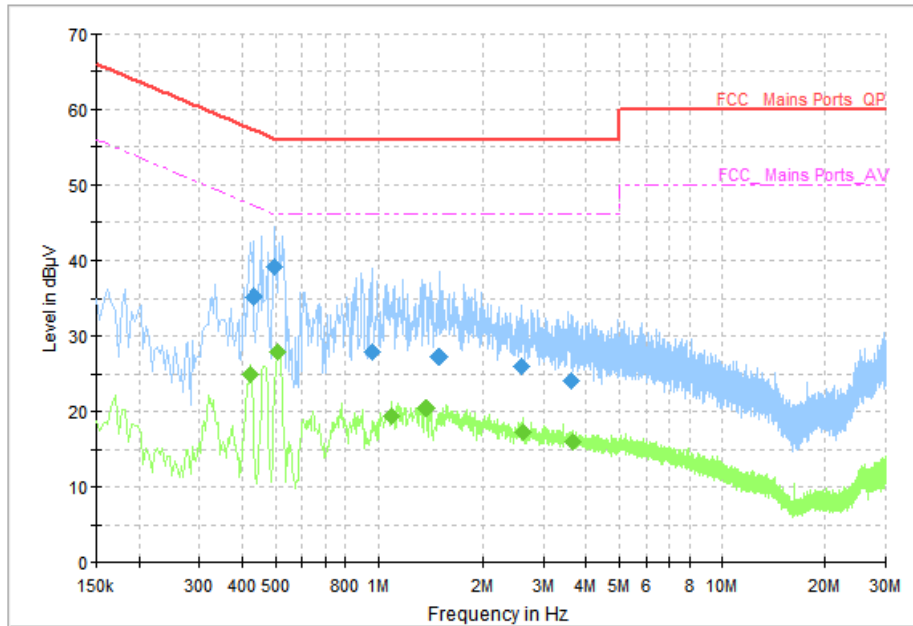


Fig.28 AC Power line Conducted Emission (Traffic, AE3, 120V), 1M

Measurement Results: Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.430000	35.12	57.25	22.13	N	ON	10
0.498000	39.09	56.03	16.95	L1	ON	10
0.958000	28.00	56.00	28.00	L1	ON	10
1.486000	27.36	56.00	28.64	L1	ON	10
2.582000	25.97	56.00	30.03	L1	ON	10
3.626000	24.10	56.00	31.90	N	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.422000	25.02	47.41	22.38	L1	ON	10
0.506000	27.90	46.00	18.10	N	ON	10
1.090000	19.50	46.00	26.50	N	ON	10
1.374000	20.47	46.00	25.53	L1	ON	10
2.622000	17.21	46.00	28.79	N	ON	10
3.666000	16.08	46.00	29.92	L1	ON	10

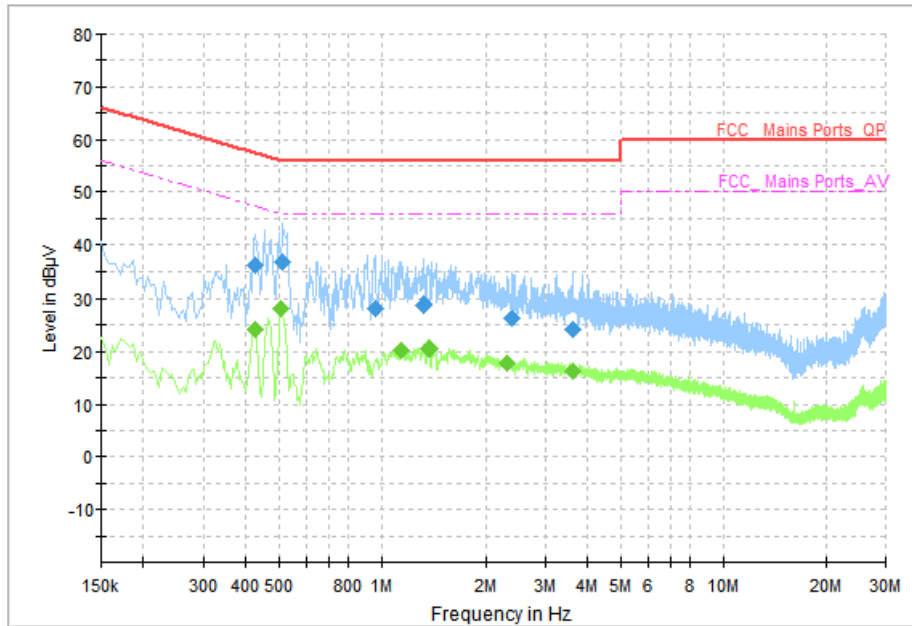


Fig.29 AC Power line Conducted Emission (Idle, AE3, 120V), 1M

Measurement Results: Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.426000	36.08	57.33	21.25	L1	ON	10
0.514000	36.68	56.00	19.32	L1	ON	10
0.958000	28.10	56.00	27.90	L1	ON	10
1.334000	28.72	56.00	27.28	N	ON	10
2.382000	26.33	56.00	29.67	N	ON	10
3.618000	24.36	56.00	31.65	L1	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.426000	24.12	47.33	23.21	N	ON	10
0.506000	28.10	46.00	17.90	L1	ON	10
1.142000	20.17	46.00	25.83	N	ON	10
1.374000	20.42	46.00	25.58	L1	ON	10
2.306000	17.77	46.00	28.23	N	ON	10
3.618000	16.42	46.00	29.58	L1	ON	10

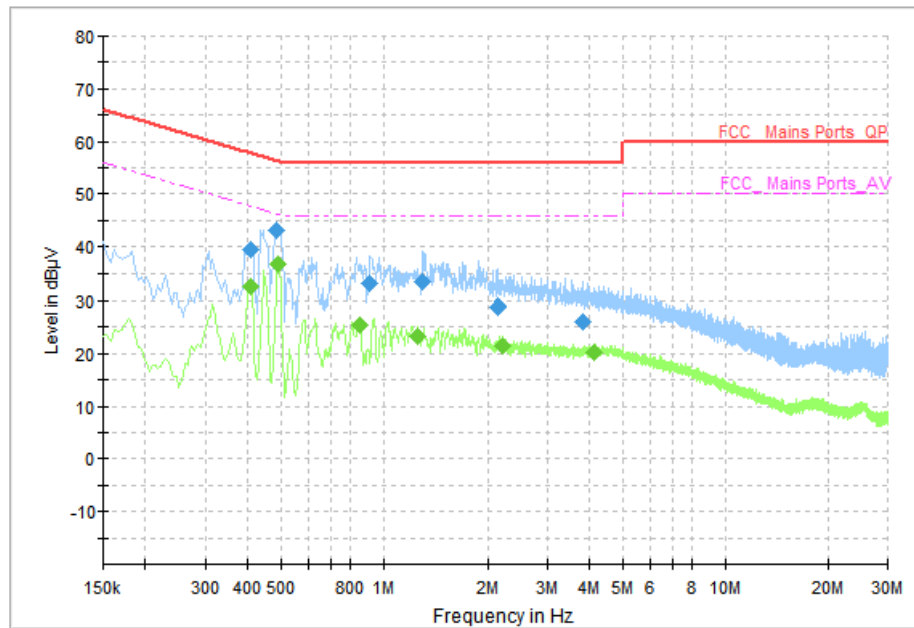


Fig.30 AC Power line Conducted Emission (Traffic, AE4, 120V), 1M

Measurement Results: Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.406000	39.32	57.73	18.41	L1	ON	10
0.486000	42.96	56.24	13.27	L1	ON	10
0.914000	32.90	56.00	23.10	N	ON	10
1.306000	33.49	56.00	22.51	L1	ON	10
2.142000	28.80	56.00	27.20	N	ON	10
3.810000	26.09	56.00	29.91	L1	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.406000	32.37	47.73	15.36	L1	ON	10
0.490000	36.76	46.17	9.41	L1	ON	10
0.854000	25.55	46.00	20.45	L1	ON	10
1.266000	23.29	46.00	22.71	L1	ON	10
2.218000	21.35	46.00	24.65	L1	ON	10
4.122000	20.31	46.00	25.69	L1	ON	10

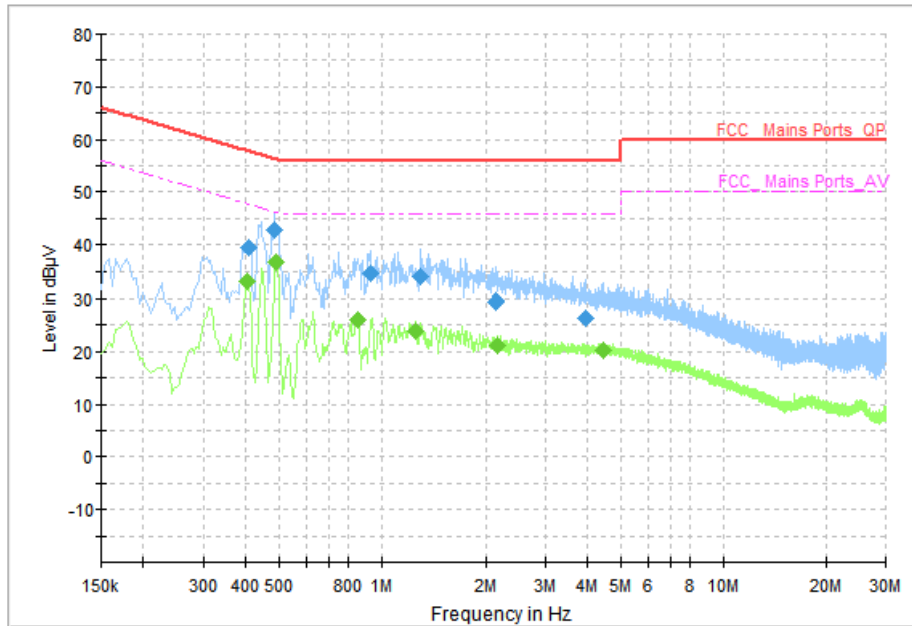


Fig.31 AC Power line Conducted Emission (Idle, AE4, 120V), 1M

Measurement Results: Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.406000	39.53	57.73	18.20	L1	ON	10
0.482000	42.67	56.31	13.63	N	ON	10
0.926000	34.70	56.00	21.30	N	ON	10
1.306000	33.90	56.00	22.10	L1	ON	10
2.134000	29.29	56.00	26.71	L1	ON	10
3.918000	26.22	56.00	29.78	N	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.402000	32.94	47.81	14.87	L1	ON	10
0.490000	36.67	46.17	9.50	N	ON	10
0.850000	26.07	46.00	19.93	L1	ON	10
1.262000	23.96	46.00	22.04	L1	ON	10
2.166000	21.30	46.00	24.70	L1	ON	10
4.454000	20.20	46.00	25.80	L1	ON	10

END OF REPORT