

# FCC PART 15C TEST REPORT No. I19N01990-BLE

for

TCL Communication Ltd.

**MOVETIME FAMILY WATCH** 

MT40A

with

**Hardware Version: PIO** 

**Software Version: V1.0** 

FCC ID: 2ACCJB112

Issued Date: 2019-11-05

**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:**

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# **REPORT HISTORY**

Report Number	Revision	Description	Issue Date
I19N01990-BLE	Rev.0	1st edition	2019-11-05



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# 1. Test Laboratory

### 1.1. Testing Location

Location: Shenzhen Academy of Information and Communications Technology
Address: Building G, Shenzhen International Innovation Center, No.1006

Shennan Road, Futian District, Shenzhen, Guangdong Province, China

Postal Code: 518026

Telephone: +86(0)755-33322000 Fax: +86(0)755-33322001

#### 1.2. <u>Testing Environment</u>

Normal Temperature:  $15-35^{\circ}$ C Relative Humidity: 20-75%

### 1.3. Project data

Testing Start Date: 2019-09-17
Testing End Date: 2019-11-04

# 1.4. Signature

An Ran

(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.

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# 2.2. Manufacturer Information

Company Name: TCL Communication Ltd.

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

### 3.1. About EUT

Description MOVETIME FAMILY WATCH

Model Name MT40A

Market Name MOVETIME FAMILY WATCH

Frequency Range 2400MHz~2483.5MHz

Type of Modulation GFSK Number of Channels 40

Antenna Type Integrated
Antenna Gain -8.0 dBi

Power Supply 3.8V DC by Battery

FCC ID 2ACCJB112

Condition of EUT as received No abnormality in appearance

Note: Components list, please refer to documents of the manufacturer.

### 3.2. Internal Identification of EUT

EUT ID*	IMEI	<b>HW Version</b>	SW Version	<b>Receive Date</b>
EUT1	352213110000018	PIO	V1.0	2019-09-16

<sup>\*</sup>EUT ID: is used to identify the test sample in the lab internally.

#### 3.3. Internal Identification of AE

AE ID*	Description	Mode	Manufacturer
AE1	Charger	/	/
AE2	Battery	ZWD602531V	ZWD

<sup>\*</sup>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 MOVETIME FAMILY WATCH with integrated antenna.

It consists of normal options: travel charger, USB cable and the Watch.

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

Samples undergoing test were selected by the client.



# 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;	2018
	15.247 Operation within the bands 902-928MHz,	
	2400-2483.5 MHz, and 5725-5850 MHz	
ANSI C63.10	American National Standard of Procedures for Compliance	2013
	Testing of Unlicensed Wireless Devices	



# 5. Test Results

# 5.1. Summary of Test Results

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

See ANNEX A for details.

### 5.2. Statements

SAICT has evaluated the test cases requested by the applicant/manufacturer as listed in section 5.1 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2.

# 5.3. Terms used in the result table

Terms used in Verdict column

Р	Pass
NA	Not Available
F	Fail

#### Abbreviations

AC	Alternating Current	
AFH	Adaptive Frequency Hopping	
BW	Band Width	
E.I.R.P.	equivalent isotropic radiated power	
ISM Industrial, Scientific and Medical		
R&TTE Radio and Telecommunications Terminal Equipment		
RF	F Radio Frequency	
Tx	Transmitter	



# 5.4. Laboratory Environment

### Semi-anechoic chamber did not exceed following limits along the EMC testing

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 15 %, 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 did not exceed following limits along the EMC testing

Temperature	Min. = 15 °C, Max. = 35 °C	
Relative humidity	Min. =20 %, Max. = 75 %	
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-10000MHz>90 dB	
Electrical insulation	> 2MΩ	
Ground system resistance	< 4 Ω	

# Fully-anechoic chamber did not exceed following limits along the EMC testing

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 15 %, 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



# 6. Test Facilities Utilized

# **Conducted test system**

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibratio n Period
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	2020-01-16	1 year
2	Test Receiver	ESCI	100702	Rohde & Schwarz	2020-06-19	1 year
3	LISN	ENV216	102067	Rohde & Schwarz	2020-07-17	1 year

# Radiated emission test system

	Radiated emission test system						
NO.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period	
1	Loop Antenna	HLA6120	35779	TESEQ	2020-04-25	3 years	
2	BiLog Antenna	3142E	00224831	ETS-Lindgren	2021-05-17	3 years	
3	Horn Antenna	3117	00066577	ETS-Lindgren	2022-04-02	3 years	
4	Test Receiver	ESR7	101676	Rohde & Schwarz	2019-11-28	1 year	
5	Spectrum Analyser	FSV40	101192	Rohde & Schwarz	2020-05-19	1 year	
6	Chamber	FACT3-2.0	1285	ETS-Lindgren	2020-07-20	3 years	
7	Antenna	QSH-SL-18- 26-S-20	17013	Q-par	2020-01-15	3 years	
8	Antenna	QSH-SL-26- 40-K-20	17014	Q-par	2020-01-11	3 years	

### **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. Measurement Uncertainty

Test Name	Uncertainty		
RF Output Power - Conducted	±1.32dB		
2.Power Spectral Density - Conducted	±2.32	2dB	
3.Occupied channel bandwidth - Conducted	±66l	Hz	
	30MHz≶f≶1GHz	±1.41dB	
47	1GHz≤f≤7GHz	±1.92dB	
4 Transmitter Spurious Emission - Conducted	7GHz≤f≤13GHz	±2.31dB	
	13GHz≤f≤26GHz	±2.61dB	
	9kHz≤f≤30MHz	±1.94dB	
F. Transmitter Spurious Emission Badistad	30MHz≤f≤1GHz	±5.12dB	
Transmitter Spurious Emission - Radiated	1GHz≤f≤18GHz	±5.05dB	
	18GHz≤f≤40GHz	±4.68dB	
6. AC Power line Conducted Emission	150kHz≤f≤30MHz	±3.00dB	



# **ANNEX A: Detailed Test Results**

# A.0 Antenna requirement

#### **Measurement Limit:**

Standard	Requirement			
	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			
FCC CRF Part	connector is prohibited. This requirement does not apply to carrier current devices			
15.203	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 -8.0 dBi.

The RF transmitter uses an integrate antenna without connector.



# A.1 Maximum Peak Output Power

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

Use the following spectrum analyzer settings:

- 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 47 CRF Part 15.247(b)	< 30	

#### **Measurement Results:**

Mode	Frequency (MHz)	Peak Conducted Output Power(dBm)	Conclusion
	2402(CH0)	4.48	Р
GFSK	2440(CH19)	5.83	Р
	2480(CH39)	5.01	Р



# A.2 Peak Power Spectral Density

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

#### **Measurement Limit:**

Standard	Limit
FCC 47 CRF Part 15.247(e)	< 8 dBm/3 kHz

#### **Measurement Results:**

Mode	Frequency (MHz)	Peak Power Spectral Density (dBm)		Conclusion
	2402(CH0)	Fig.1	-11.18	Р
GFSK	2440(CH19)	Fig.2	-9.85	Р
	2480(CH39)	Fig.3	-10.65	Р

See below for test graphs.

**Conclusion: PASS** 

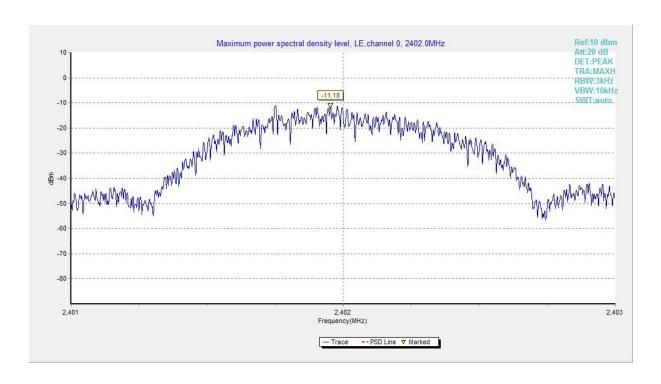


Fig.1 Power Spectral Density (Ch 0)



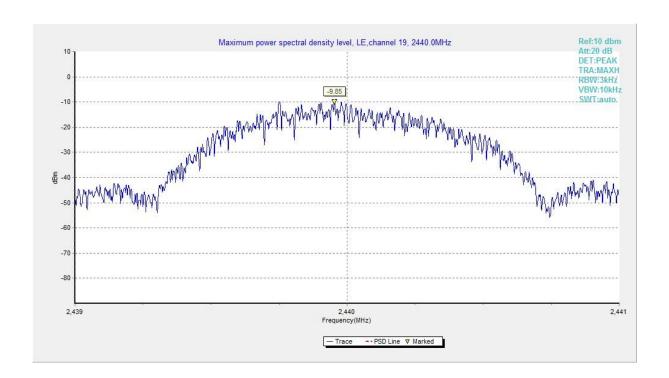


Fig.2 Power Spectral Density (Ch 19)

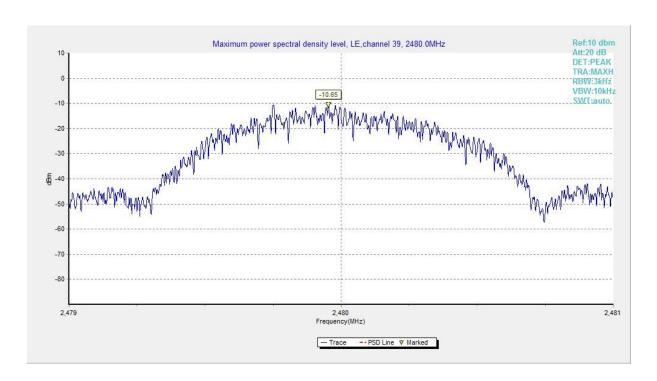


Fig.3 Power Spectral Density (Ch 39)



#### 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
	2402(CH0)	Fig.4	664.00	Р
GFSK	2440(CH19)	Fig.5	664.00	Р
	2480(CH39)	Fig.6	663.50	Р

See below for test graphs.

**Conclusion: PASS** 

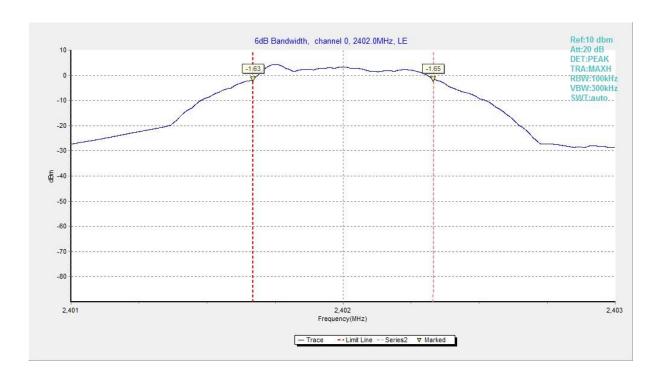


Fig.4 6dB Bandwidth (Ch 0)



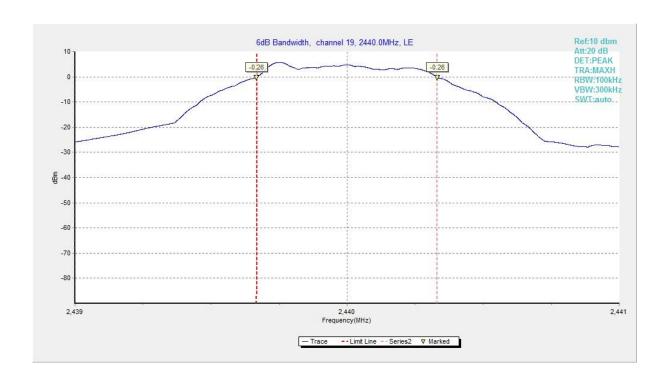


Fig.5 6dB Bandwidth (Ch 19)

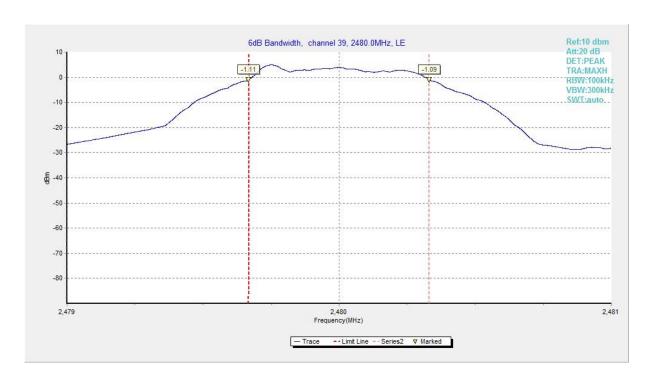


Fig.6 6dB Bandwidth (Ch 39)



# A.4 Band Edges Compliance

#### **Measurement Limit:**

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

#### **Measurement Result:**

Mode	Frequency (MHz)	Test Results		Conclusion
GFSK	2402(CH0)	Fig.7	-58.57	Р
	2480(CH39)	Fig.8	-64.15	Р

See below for test graphs.



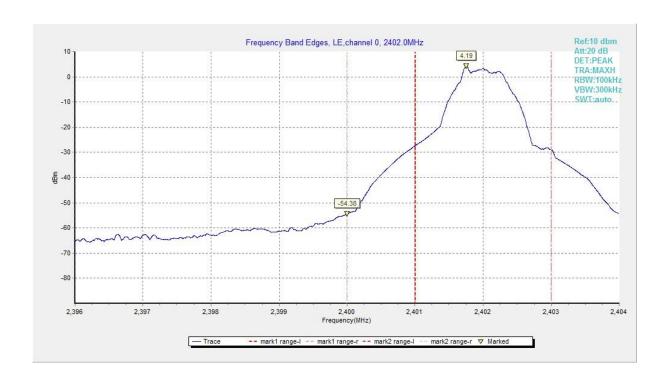


Fig.7 Band Edges (Ch 0)

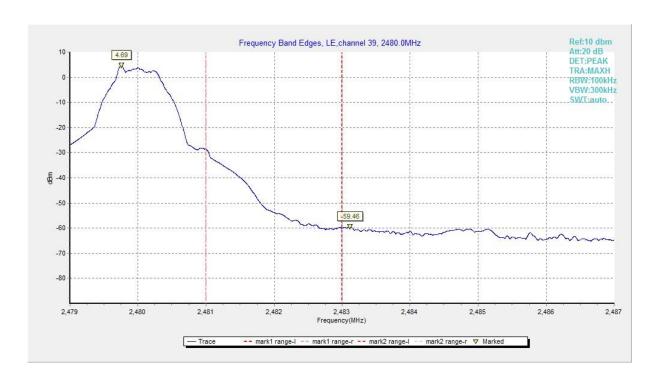


Fig.8 Band Edges (Ch 39)



# A.5 Transmitter Spurious Emission - Conducted

#### **Measurement Limit:**

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

#### **Measurement Results:**

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

See below for test graphs.

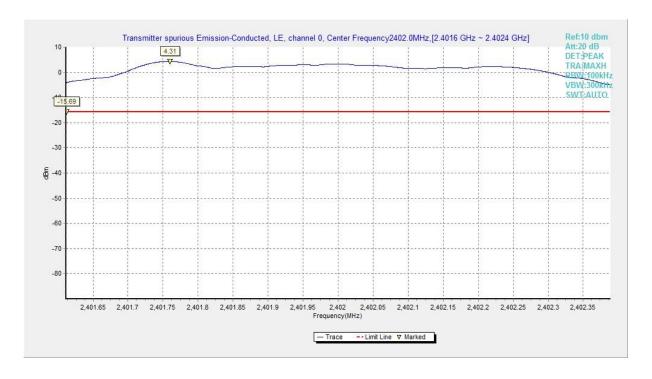


Fig.9 Conducted Spurious Emission (Ch0, Center Frequency)



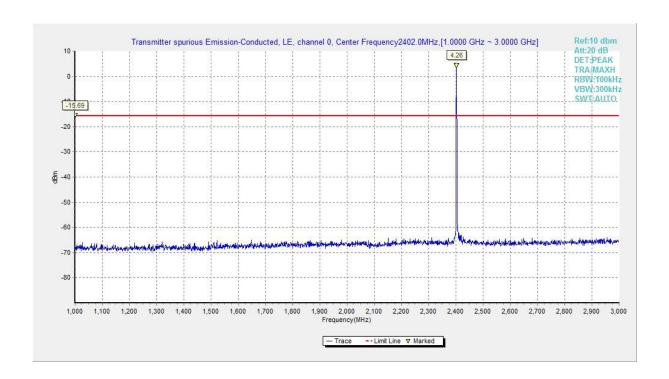


Fig.10 Conducted Spurious Emission (Ch0, 1 GHz-3 GHz)

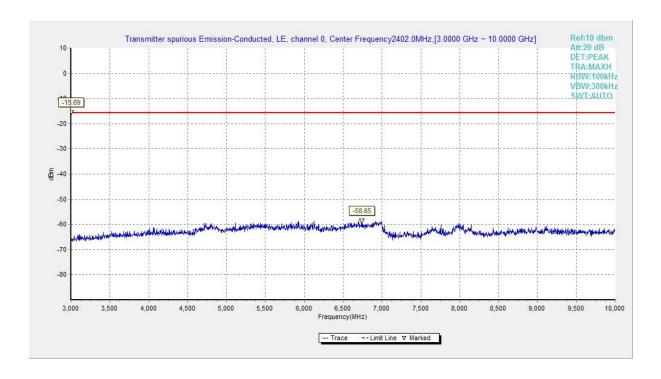


Fig.11 Conducted Spurious Emission (Ch0, 3 GHz-10 GHz)





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

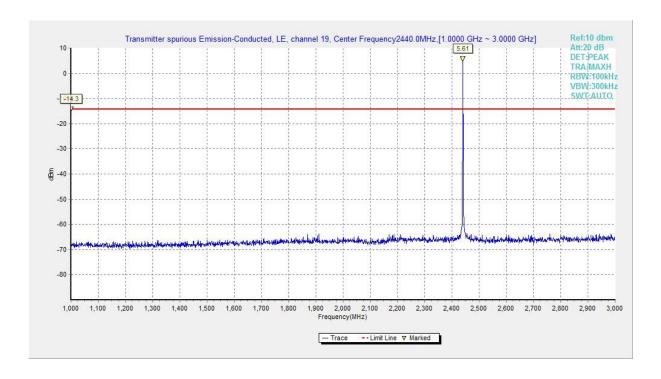


Fig.13 Conducted Spurious Emission (Ch19, 1 GHz-3 GHz)



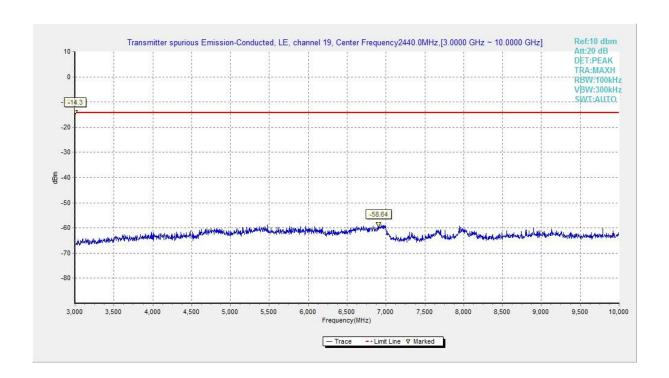


Fig.14 Conducted Spurious Emission (Ch19, 3 GHz-10 GHz)

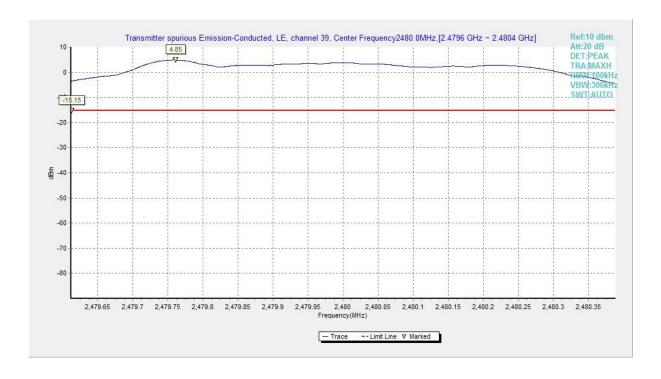


Fig.15 Conducted Spurious Emission (Ch39, Center Frequency)



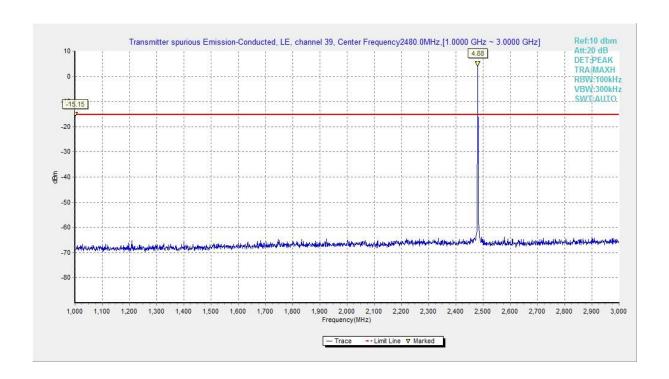


Fig.16 Conducted Spurious Emission (Ch39, 1 GHz-3 GHz)

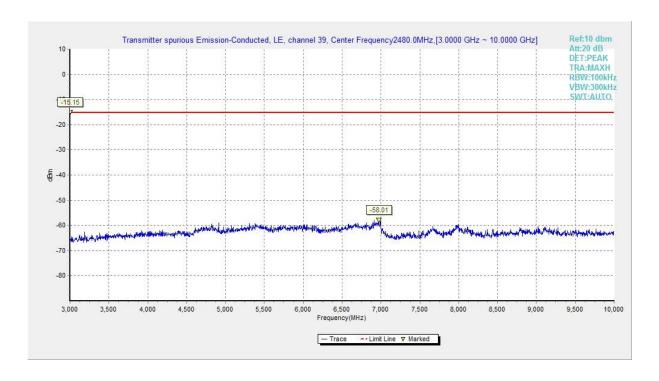


Fig.17 Conducted Spurious Emission (Ch39, 3 GHz-10 GHz)



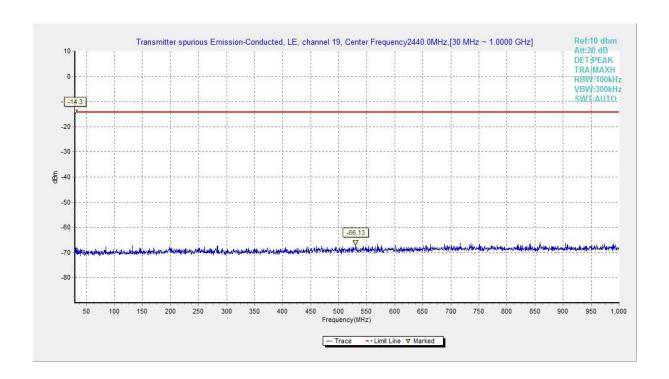


Fig.18 Conducted Spurious Emission (All channels, 30 MHz-1 GHz)

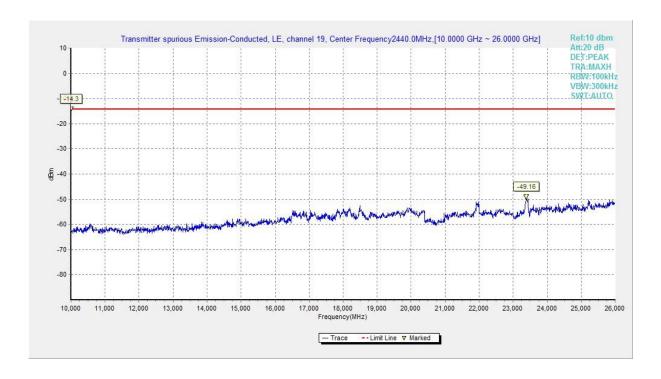


Fig.19 Conducted Spurious Emission (All channels, 10 GHz-26 GHz)



# 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	Field etropath(u\//m)	Measurement
(MHz)	Field strength(µV/m)	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	RBW/VBW	Sweep Time(s)
(MHz)		
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
	0	1 GHz ~3 GHz	Fig.20	Р
	0	3 GHz ~18 GHz	Fig.21	Р
	10	1 GHz ~3 GHz	Fig.22	Р
	19 	3 GHz ~18 GHz	Fig.23	Р
		1 GHz ~3 GHz	Fig.24	Р
GFSK		3 GHz ~18 GHz	Fig.25	Р
Re	Restricted Band(CH0)	2.38 GHz ~ 2.45 GHz	Fig.26	Р
	Restricted Band(CH39)	2.45 GHz ~ 2.5 GHz	Fig.27	Р
		9 kHz ~30 MHz	Fig.28	Р
	All channels	All channels 30 MHz ~1 GHz	Fig.29	Р
		1 GHz ~18 GHz	Fig.30	Р

### **Worst Case Result**

# GFSK CH0 (1-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
5163.50	41.55	74.00	32.45	Н	-1
7997.00	42.85	74.00	31.15	V	2.8
10169.50	44.35	74.00	29.65	V	5
11700.00	45.70	74.00	28.30	Н	7
14512.50	48.04	74.00	25.96	Н	11.5
17884.50	50.95	74.00	23.05	Н	16.2

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
6410.00	33.70	54.00	20.30	Н	2
8318.50	33.13	54.00	20.87	Н	3.2
10259.00	35.65	54.00	18.35	V	5.2
12504.50	37.12	54.00	16.88	V	8
14539.00	38.42	54.00	15.58	V	11.4
16586.00	41.02	54.00	12.98	Н	14.8



# GFSK CH19 (1-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
7656.50	42.69	74.00	31.31	V	2
8757.50	43.21	74.00	30.79	Н	3.1
10286.50	44.00	74.00	30.00	V	5.1
11705.50	44.67	74.00	29.33	V	6.9
14465.50	47.64	74.00	26.36	Н	11.2
16359.50	49.79	74.00	24.21	V	14.3

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
7871.00	33.42	54.00	20.58	V	2.5
9052.50	34.25	54.00	19.75	Н	3.6
10764.50	35.16	54.00	18.84	Н	5
11971.00	36.97	54.00	17.03	Н	7.2
14879.00	38.44	54.00	15.56	Н	11
16882.00	40.78	54.00	13.22	Н	15

# GFSK CH39 (1-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
6079.00	41.86	74.00	32.14	Н	8.0
7333.50	41.71	74.00	32.29	Н	2
9245.00	42.80	74.00	31.20	Н	3.6
11616.00	44.87	74.00	29.13	Н	6.8
14493.00	47.76	74.00	26.24	Н	11.4
16720.00	50.63	74.00	23.37	Н	14.9

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
6105.50	32.40	54.00	21.60	Н	0.9
7531.50	33.25	54.00	20.75	Н	2
9283.00	33.24	54.00	20.76	Н	3.5
11583.00	36.27	54.00	17.73	Н	6.6
14504.00	38.14	54.00	15.86	Н	11.5
16487.50	40.92	54.00	13.08	Н	14.7



#### 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<sub>Mea</sub> +Cable Loss +Antenna Factor-Gain of the preamplifier.

See below for test graphs.



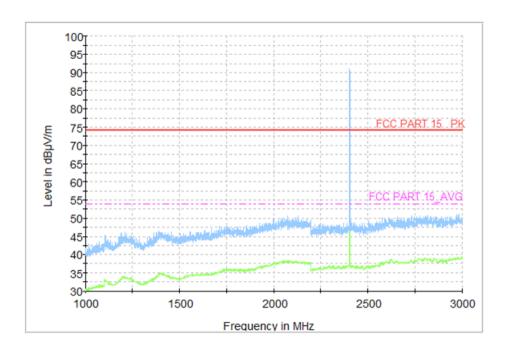


Fig.20 Radiated Spurious Emission (GFSK, Ch0, 1 GHz ~3 GHz)

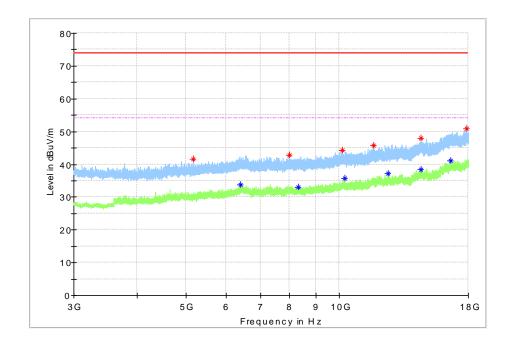


Fig.21 Radiated Spurious Emission (GFSK, Ch0, 3 GHz ~18 GHz)



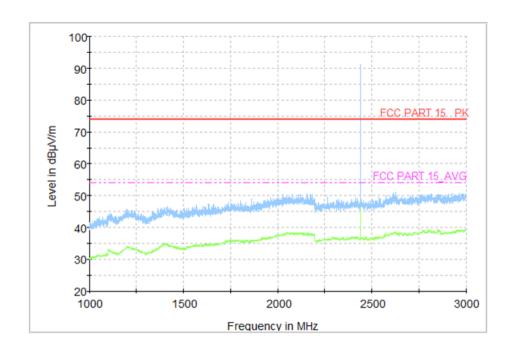


Fig.22 Radiated Spurious Emission (GFSK, Ch19, 1 GHz ~3 GHz)

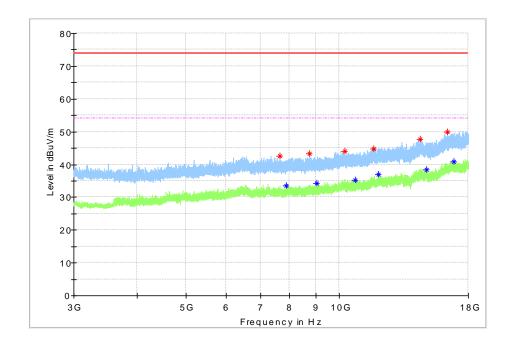


Fig.23 Radiated Spurious Emission (GFSK, Ch19, 3 GHz ~18 GHz)



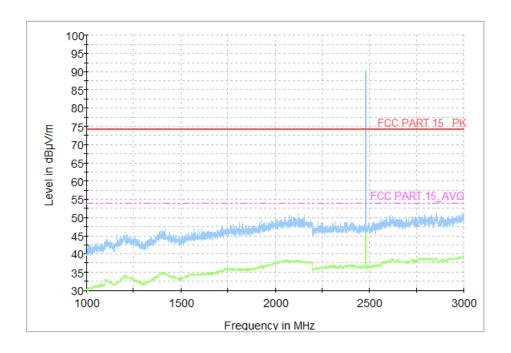


Fig.24 Radiated Spurious Emission (GFSK, Ch39, 1 GHz ~3 GHz)

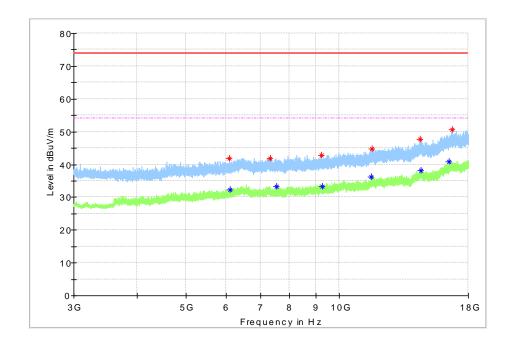


Fig.25 Radiated Spurious Emission (GFSK, Ch39, 3 GHz ~18 GHz)



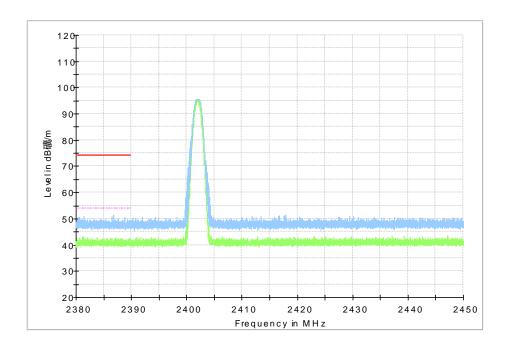


Fig.26 Radiated Band Edges (GFSK, Ch0, 2380GHz~2450GHz)

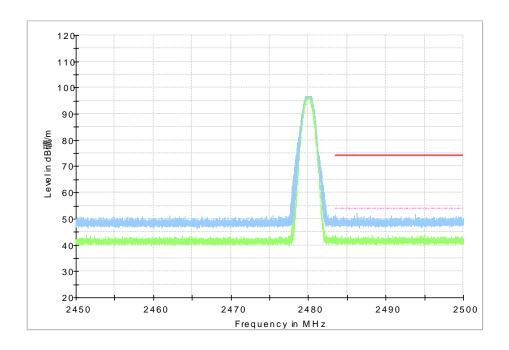


Fig.27 Radiated Band Edges (GFSK, Ch39, 2450GHz~2500GHz)



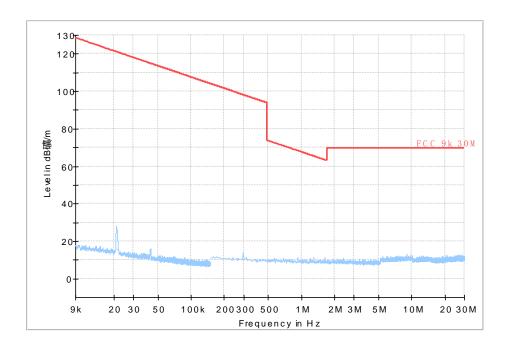


Fig.28 Radiated Spurious Emission (All Channels, 9 kHz-30 MHz)

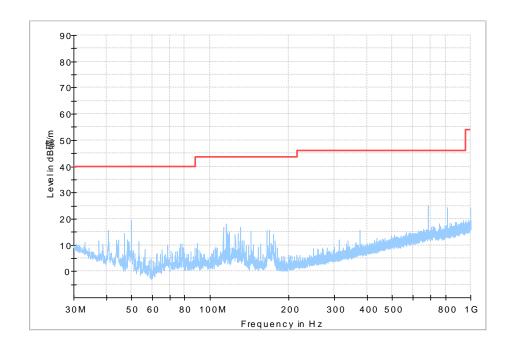


Fig.29 Radiated Spurious Emission (All Channels, 30 MHz-1 GHz)



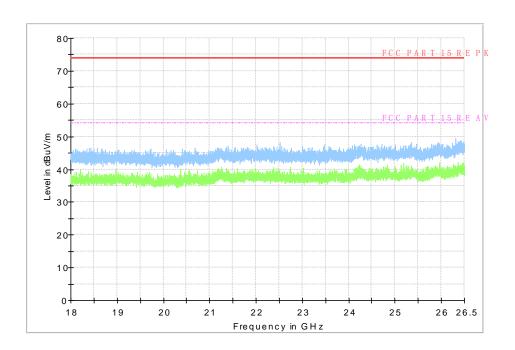


Fig.30 Radiated Spurious Emission (All Channels, 18 GHz-26.5 GHz)



#### A.7 AC Power line Conducted Emission

#### **Test Condition:**

Voltage (V)	Frequency (Hz)
120	60

#### **Measurement Result and limit:**

BLE (Quasi-peak Limit)

Frequency range	Quasi-peak	Result (dBμV)		Conclusion	
(MHz)	Limit (dBμV)	Traffic	ldle	Conclusion	
0.15 to 0.5	66 to 56				
0.5 to 5	56	Fig.31	Fig.32	Р	
5 to 30	60				

NOTE: The limit decreases linearly with the logarithm of the frequency in the range  $0.15 \, \text{MHz}$  to  $0.5 \, \text{MHz}$ .

BLE (Average Limit)

Frequency range	Average-peak	Result (dBμV)		Conclusion	
(MHz)	Limit (dBμV)	Traffic	ldle	Conclusion	
0.15 to 0.5	56 to 46				
0.5 to 5	46	Fig 31	Fig 32	Р	
5 to 30	50				

NOTE: The limit decreases linearly with the logarithm of the frequency in the range  $0.15\,\mathrm{MHz}$  to  $0.5\,\mathrm{MHz}$ .

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

See below for test graphs.



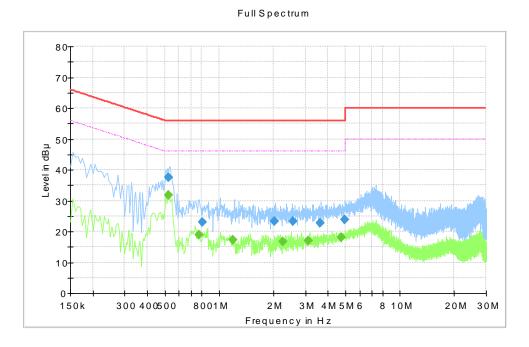


Fig.31 AC Power line Conducted Emission (Traffic)

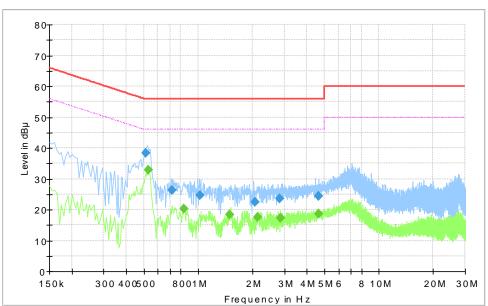
# Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.525	37.64	56.00	18.36	L1	ON	9.6
0.810	23.13	56.00	32.87	N	ON	9.6
2.020	23.16	56.00	32.84	L1	ON	9.7
2.565	23.27	56.00	32.73	L1	ON	9.7
3.605	22.85	56.00	33.15	L1	ON	9.7
4.975	23.93	56.00	32.07	L1	ON	9.7

### **Measurement Results: Average**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.525	31.85	46.00	14.15	L1	ON	9.6
0.775	18.80	46.00	27.20	L1	ON	9.6
1.195	17.19	46.00	28.81	L1	ON	9.7
2.250	16.76	46.00	29.24	L1	ON	9.7
3.110	16.92	46.00	29.08	L1	ON	9.7
4.755	18.03	46.00	27.97	L1	ON	9.7





Full Spectrum

Fig.32 AC Power line Conducted Emission (Idle)

### **Measurement Results: Quasi Peak**

	Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
	0.5150	38.3400	56.0000	17.6600	L1	ON	9.6000
	0.7150	26.3300	56.0000	29.6800	N	ON	9.6000
	1.0250	24.6000	56.0000	31.4000	N	ON	9.7000
	2.0700	22.4300	56.0000	33.5700	L1	ON	9.7000
	2.8150	23.4500	56.0000	32.5500	L1	ON	9.7000
	4.6550	24.2700	56.0000	31.7300	L1	ON	9.7000

### **Measurement Results: Average**

Frequency	Average	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBµV)	(dBµV)	(dB)			(dB)
0.5300	32.8800	46.0000	13.1200	L1	ON	9.6000
0.8300	20.2300	46.0000	25.7700	L1	ON	9.6000
1.5000	18.4900	46.0000	27.5100	L1	ON	9.7000
2.1400	17.6300	46.0000	28.3700	L1	ON	9.7000
2.8500	17.1600	46.0000	28.8400	L1	ON	9.7000
4.6350	18.6800	46.0000	27.3200	L1	ON	9.7000

### \*\*\*END OF REPORT\*\*\*