

FCC - TEST REPORT

Report Number : **60.790.18.051.01R02** Date of Issue : January 15, 2019

Model : Door Lock, Glass Lock, Plunger Lock

Product Type : Digital Lock

Applicant : Mobile Technologies Inc.

Address : 1050 NE 67th Ave, Hillsboro, OR 97124

Production Facility : PS Gmbh

Address : Melisau 1255, Autria, 6863 Egg.

Test Result : Positive Negative

Total pages including Appendices : 35

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2 Description of Equipment Under Test

Description of the Equipment Under Test

Product:	Digital Lock
Model no.:	Door Lock, Glass Lock, Plunger Lock
FCC ID:	2AA2X-1500011824
Rating:	3V DC (CR 123A battery)
Frequency:	2405MHz-2480MHz (Tx and Rx)
Antenna gain:	0 dBi
Number of operated channel:	16
Modulation:	O-QPSK

3 Summary of Test Standards

Test Standards
FCC Part 15 Subpart C 10-1-17 Edition Federal Communications Commission, PART 15 — Radio Frequency Devices, Subpart C — Unintentional Radiators

All the tests were performed using the procedures from ANSI C63.4(2014) and ANSI C63.10 (2013).

4 Details about the Test Laboratory

Site 1

Company name: TÜV SÜD Hong Kong Ltd.
3/F, West Wing, Lakeside 2,
10 Science Park West Avenue,
Science Park, Shatin, Hong Kong

Site 2

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13 Zhiheng Wisdomland Business Park,
Nantou Checkpoint Road 2,
Shenzhen 518052, P.R.China
FCC Registration Number: 502708

Emission Tests	
Test Item	Test Site
FCC Part 15 Subpart C	
FCC Title 47 Part 15.205, 15.209 & 15.247(d) Spurious Radiated Emission	Site 2
FCC Title 47 Part 15.207 Conduct Emission	NA
FCC Title 47 Part 15.247(a)(1) 6dB & 99% Bandwidth	Site 2
FCC Title 47 Part 15.247(b) Peak Output Power	Site 2
FCC Title 47 Part 2.1051 & 15.247(d) Spurious Emissions at Antenna Terminals	Site 2
FCC Title 47 Part 15.247(d) 100kHz Bandwidth of band edges	Site 2
FCC Title 47 Part 15.247(e) Power Spectral Density	Site 2
FCC Title 47 Part 15.203 & 15.247(b) Antenna Requirement	Site 2

4.1 Test Equipment Site List

Radiated emission Test – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	101269	2019-7-6
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100398	2019-7-6
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	707	2019-6-28
Horn Antenna	Rohde & Schwarz	HF907	102294	2019-6-28
Wideband Horn Antenna	Q-PAR	QWH-SL-18-40-K-SG	12827	2019-7-12
Pre-amplifier	Rohde & Schwarz	SCU 18	102230	2019-7-6
Signal Generator	Rohde & Schwarz	SMY01	839369/005	2019-7-6
Attenuator	Agilent	8491A	MY39264334	2019-7-6
3m Semi-anechoic chamber	TDK	9X6X6	----	2020-7-7
Test software	Rohde & Schwarz	EMC32	Version 9.15.00	N/A

Conducted Emission Test – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	101782	2019-7-6
LISN	Rohde & Schwarz	ENV4200	100249	2019-7-6
LISN	Rohde & Schwarz	ENV432	101318	2019-7-6
LISN	Rohde & Schwarz	ENV216	100326	2019-7-6
ISN	Rohde & Schwarz	ENY81	100177	2019-7-6
ISN	Rohde & Schwarz	ENY81-CA6	101664	2019-7-6
High Voltage Probe	Rohde & Schwarz	TK9420(VT9420)	9420-584	2019-6-30
RF Current Probe	Rohde & Schwarz	EZ-17	100816	2019-6-30
Attenuator	Shanghai Huaxiang	TS2-26-3	080928189	2019-7-6
Test software	Rohde & Schwarz	EMC32	Version9.15.00	N/A

20dB & 99% Bandwidth, Peak Output Power, Spurious Emissions at Antenna Terminals, 100kHz Bandwidth of band edges, Power Spectral Density – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Signal Generator	Rohde & Schwarz	SMB100A	108272	2019-7-6
Signal Analyzer	Rohde & Schwarz	FSV40	101030	2019-7-6
Vector Signal Generator	Rohde & Schwarz	SMU 200A	105324	2019-7-6
RF Switch Module	Rohde & Schwarz	OSP120/OSP-B157	101226/100851	2019-7-6

4.2 Measurement System Uncertainty

Measurement System Uncertainty Emissions

System Measurement Uncertainty	
Items	Extended Uncertainty
Uncertainty for Radiated Emission in 3m chamber 9kHz-30MHz	4.46dB
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.91dB; Vertical: 4.89dB;
Uncertainty for Radiated Emission in 3m chamber 1000MHz-25000MHz	Horizontal: 4.80dB; Vertical: 4.79dB;
Uncertainty for Conducted Emission at AC Power Line 150kHz-30MHz	3.21dB
Uncertainty for frequency test	0.6×10^{-7}

5 Summary of Test Results

Emission Tests				
FCC Part 15 Subpart C				
Test Condition	Pages	Test Result		
		Pass	Fail	N/A
FCC Title 47 Part 15.205, 15.209 & 15.247(d) Spurious Radiated Emission	10-14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.207 Conduct Emission (1)	NIL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.247(a)(2) 6dB & 99% Bandwidth	16-18	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.247(b) Peak Output Power	19-21	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 2.1051 & 15.247(d) Spurious Emissions at Antenna Terminals	22-27	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.247(d) 100kHz Bandwidth of band edges	28-29	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.247(e) Power Spectral Density	30-32	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.203 & 15.247(b) Antenna Requirement	33	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remark:

(1) Conducted Emission testing is not applicable for battery operating device.

6 General Remarks

Remarks

Client informs that the **Glass Lock and Plunger Lock** have the same technical construction including circuit diagram and electrical construction, with **Digital Lock, Door Lock**. The difference lies only in the outlook/color, PCB Layout, components, component layout and mechanical construction of the different models. (Client's conformation letter shown at appendix A)

EMC tests were performed on all three models, only the Door Lock's data was shown on this report, which is the worst case.

This submittal(s) (test report) is intended for **FCC ID: 2AA2X-1500011824**, complies with Section 15.203, 15.205, 15.207, 15.209, 15.247 of the FCC Part 15, Subpart C rules for the DTS grant

The TX and RX range is 2405MHz-2480MHz.

SUMMARY:

- All tests according to the regulations cited on page 8 were

■ - Performed

□ - **Not** Performed

- The Equipment Under Test

■ - **Fulfills** the general approval requirements.

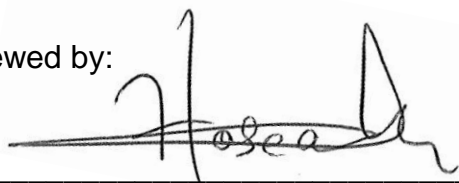
□ - **Does not** fulfill the general approval requirements.

Sample Received Date: October 10, 2018

Testing Start Date: October 16, 2018

Testing End Date: January 7, 2019

Reviewed by:



Hosea CHAN
EMC Project Engineer

Prepared by:



Eric LI
EMC Senior Project Engineer

7 Emission Test Results

7.1 Spurious Radiated Emission

EUT: Door Lock
 Op Condition: Operated, TX Mode
 (Low channel is the worst case)
 Test Specification: FCC15.205, 15.209 & 15.247(d)
 Comment: 3V DC
 Remark: 9kHz to 1GHz

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dB μ V/m	Limit dB μ V/m	Margin dB	Detector PK/QP/AV	Ant. Polarity H/V	Corr. (dB)
46.597778	16.28	40.00	23.72	Peak	H	-25.3
108.031111	11.73	43.50	31.77	Peak	H	-27.5
943.201111	29.25	46.00	16.75	Peak	H	-15.2
111.480000	13.71	43.50	29.79	Peak	V	-27.8
374.026667	15.34	46.00	30.66	Peak	V	-24.7
943.308889	29.08	46.00	16.92	Peak	V	-15.2

Remark:

- As the measured peak value not exceeded the Quasi peak limit, Quasi peak value no need to be measured.

Spurious Radiated Emission

EUT: Door Lock
 Op Condition: Operated, TX Mode (2405MHz)
 Test Specification: FCC15.205, 15.209 & 15.247(d)
 Comment: 3V DC
 Remark: 1GHz to 25GHz

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dBµV/m	Limit dBµV/m	Margin dB	Detector PK/QP/AV	Ant. Polarity H/V	Corr. (dB)
1251.937500	29.93	54.00	-24.07	Peak	H	-11.8
1785.500000	30.19	54.00	-23.81	Peak	H	-9.8
4810.781250	39.90	54.00	-14.10	Peak	H	3.8
7525.781250	41.77	54.00	-12.23	Peak	H	9.7
9885.468750	43.79	54.00	-10.21	Peak	H	9.5
1252.312500	31.32	54.00	-22.68	Peak	V	-11.8
1798.000000	26.52	54.00	-27.48	Peak	V	-9.8
4809.843750	38.39	54.00	-15.61	Peak	V	3.8
7510.781250	42.06	54.00	-11.94	Peak	V	9.5
10610.625000	41.92	54.00	-12.08	Peak	V	10.3

Remark:

- 1.As the measured peak value not exceeded the average limit, average value no need to be measured.

Spurious Radiated Emission

EUT: Door Lock
 Op Condition: Operated, TX Mode (2445MHz)
 Test Specification: FCC15.205, 15.209 & 15.247(d)
 Comment: 3V DC
 Remark: 1GHz to 25GHz

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dB μ V/m	Limit dB μ V/m	Margin dB	Detector PK/QP/AV	Ant. Polarity H/V	Corr. (dB)
1253.812500	29.58	54.00	-24.42	Peak	H	-11.8
1774.562500	28.29	54.00	-25.71	Peak	H	-9.9
4889.062500	39.13	54.00	-14.87	Peak	H	3.9
7614.375000	43.01	54.00	-10.99	Peak	H	9.8
17581.875000	50.29	54.00	-3.71	Peak	H	22.7
1248.500000	30.49	54.00	-23.51	Peak	V	-11.9
1785.750000	26.97	54.00	-27.03	Peak	V	-9.8
4890.937500	38.63	54.00	-15.37	Peak	V	3.9
7522.031250	41.42	54.00	-12.58	Peak	V	9.6
17899.218750	50.77	54.00	-3.23	Peak	V	22.6

Remark:

1.As the measured peak value not exceeded the average limit, average value no need to be measured.

Spurious Radiated Emission

EUT: Door Lock
 Op Condition: Operated, TX Mode (2480MHz)
 Test Specification: FCC15.205, 15.209 & 15.247(d)
 Comment: 3V DC
 Remark: 1GHz to 25GHz

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Result dB μ V/m	Limit dB μ V/m	Margin dB	Detector PK/QP/AV	Ant. Polarity H/V	Corr. (dB)
1247.312500	28.74	54.00	-25.26	Peak	H	-11.9
1770.750000	28.10	54.00	-25.90	Peak	H	-9.9
4960.781250	39.18	54.00	-14.82	Peak	H	4.3
7558.593750	41.86	54.00	-12.14	Peak	H	10.1
17219.062500	49.79	54.00	-4.21	Peak	H	21.6
1256.562500	32.95	54.00	-21.05	Peak	V	-11.7
1797.187500	28.66	54.00	-25.34	Peak	V	-9.8
4953.750000	38.35	54.00	-15.65	Peak	V	4.3
7623.750000	42.58	54.00	-11.42	Peak	V	9.8
9511.875000	42.20	54.00	-11.80	Peak	V	9.8

Remark:

- 1.As the measured peak value not exceeded the average limit, average value no need to be measured.

Spurious Radiated Emission

EUT: Door Lock
 Op Condition: Operated, TX Mode (2405 and 2480)
 Test Specification: FCC15.247
 Comment: 3V DC, Radiated Bandedge

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Channel	Frequency MHz	Result dB μ V/m	Limit dB μ V/m	Margin dB	Detector PK /AV	Ant. Polarity H/V	Corr. (dB)
2405	2400.00	44.45	74	-29.55	Peak	H	-5.5
2405	2400.00	35.77	54	-18.23	Average	H	-5.5
2405	2400.00	46.16	74	-27.84	Peak	V	-5.5
2405	2400.00	38.57	54	-15.43	Average	V	-5.5
2480	2483.50	49.81	74	-24.19	Peak	H	-4.8
2480	2483.50	41.42	54	-12.58	Average	H	-4.8
2480	2483.50	47.77	74	-26.23	Peak	V	-4.8
2480	2483.50	36.35	54	-17.65	Average	V	-4.8

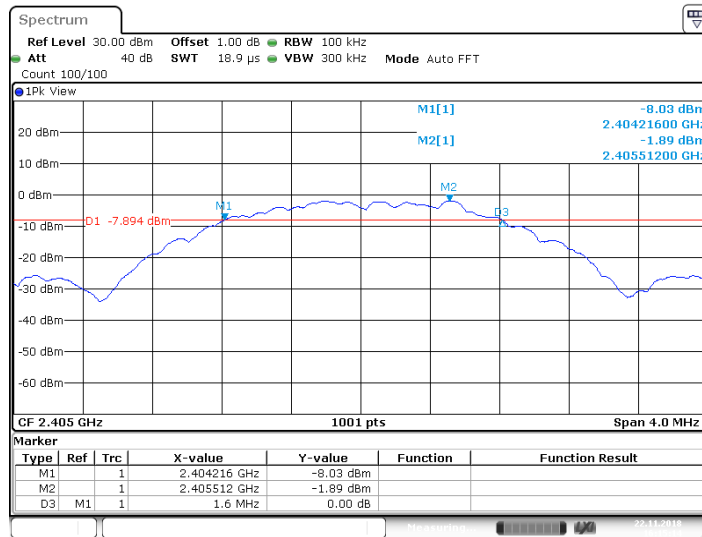
7.2 Conducted Emission at AC Power line

Conducted Emission testing is not applicable for this EUT as it is a battery operating device.

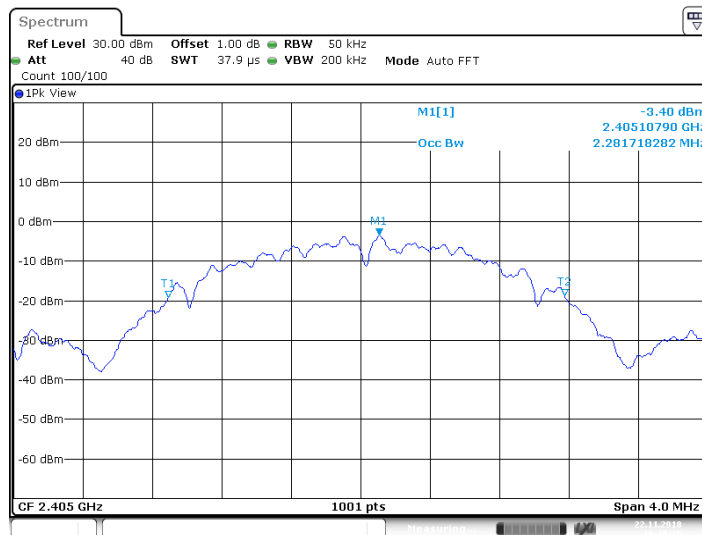
7.3 6dB & 99% Bandwidth

EUT: Door Lock
 Op Condition: Operated, TX Mode (2405MHz)
 Test Specification: FCC15.247(a)(2), 6dB Bandwidth & 99% Bandwidth
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



Date: 22 NOV 2018 16:15:14



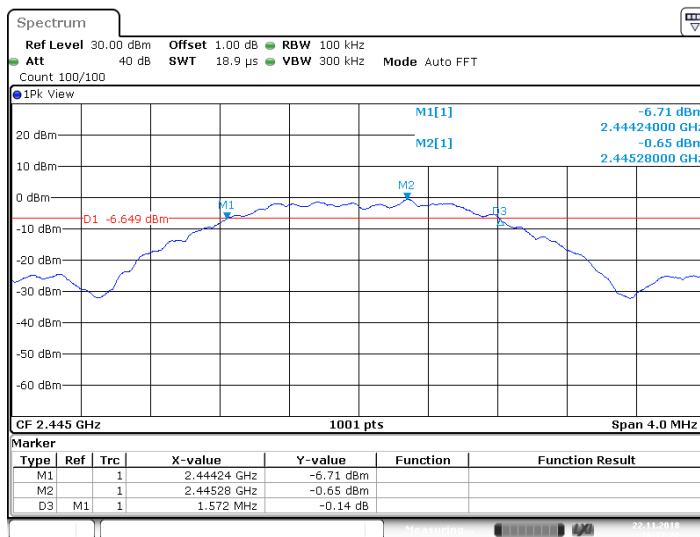
Date: 22 NOV 2018 16:15:25

Bandwidth	Measured Value	Limit
6dB bandwidth	1.600MHz	> 0.5MHz
99% OCB	2.282MHz	NA

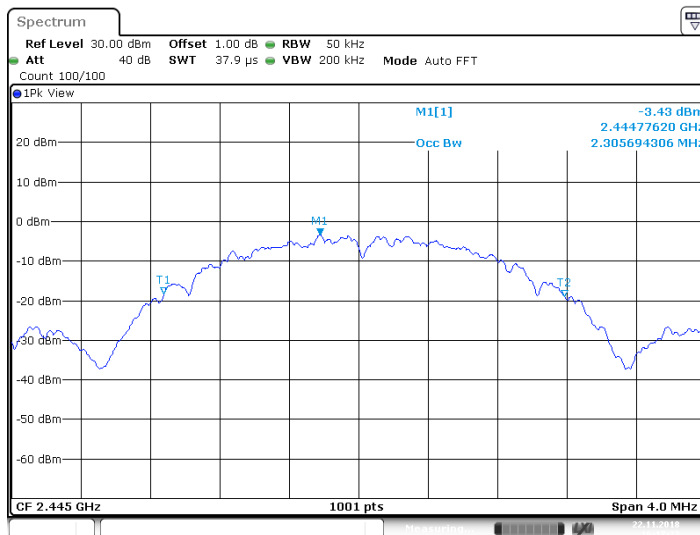
6dB & 99% Bandwidth

EUT: Door Lock
 Op Condition: Operated, TX Mode (2445MHz)
 Test Specification: FCC15.247(a)(2), 6dB Bandwidth & 99% Bandwidth
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



Date: 22 NOV 2018 16:17:23



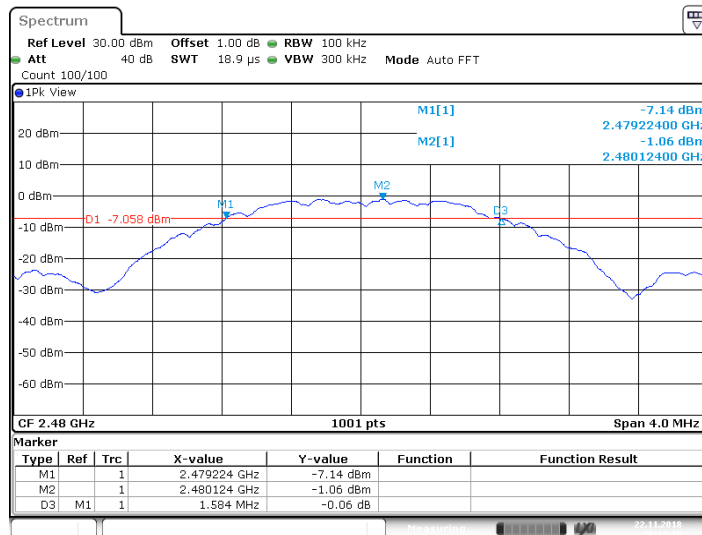
Date: 22 NOV 2018 16:17:34

Bandwidth	Measured Value	Limit
6dB bandwidth	1.572 MHz	> 0.5 MHz
99% OCB	2.306 MHz	NA

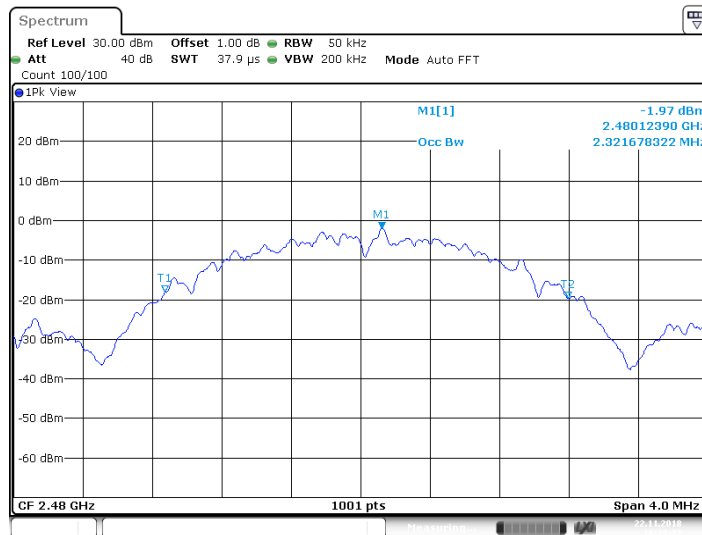
6dB & 99% Bandwidth

EUT: Door Lock
 Op Condition: Operated, TX Mode (2480MHz)
 Test Specification: FCC15.247(a)(2), 6dB Bandwidth & 99% Bandwidth
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



Date: 22 NOV 2018 16:19:10



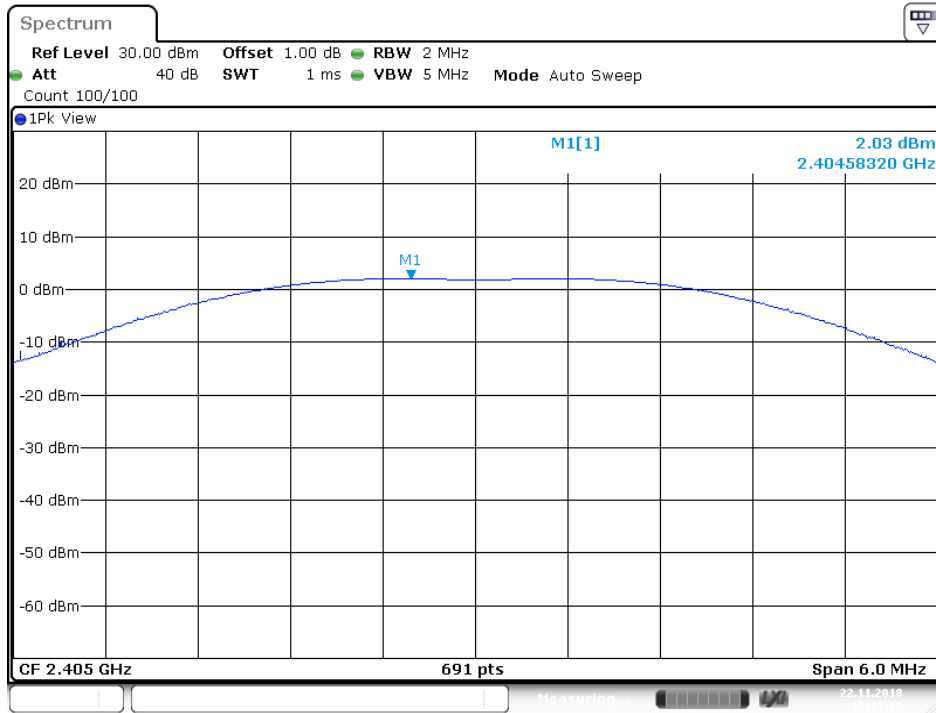
Date: 22 NOV 2018 16:19:22

Bandwidth	Measured Value	Limit
6dB bandwidth	1.584 MHz	> 0.5 MHz
99% OCB	2.322 MHz	NA

7.4 Peak Output Power

EUT: Door Lock
 Op Condition: Operated, TX Mode (2405MHz)
 Test Specification: FCC15.247(b)
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



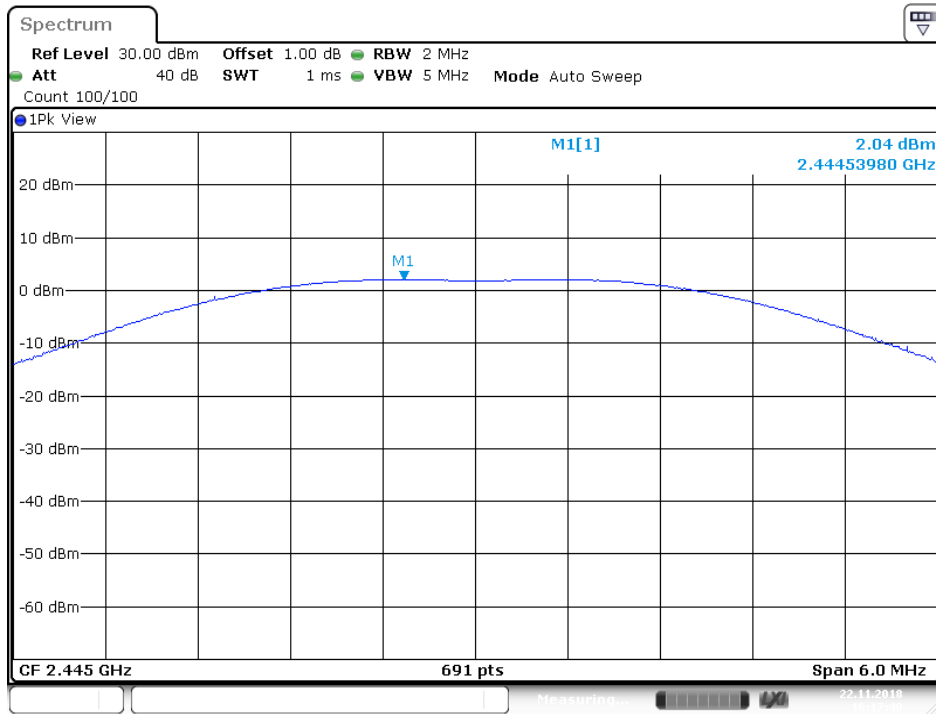
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Conducted Output Power	Limit
2.03 dBm	< 30dBm

Peak Output Power

EUT: Door Lock
 Op Condition: Operated, TX Mode (2445MHz)
 Test Specification: FCC15.247(b)
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



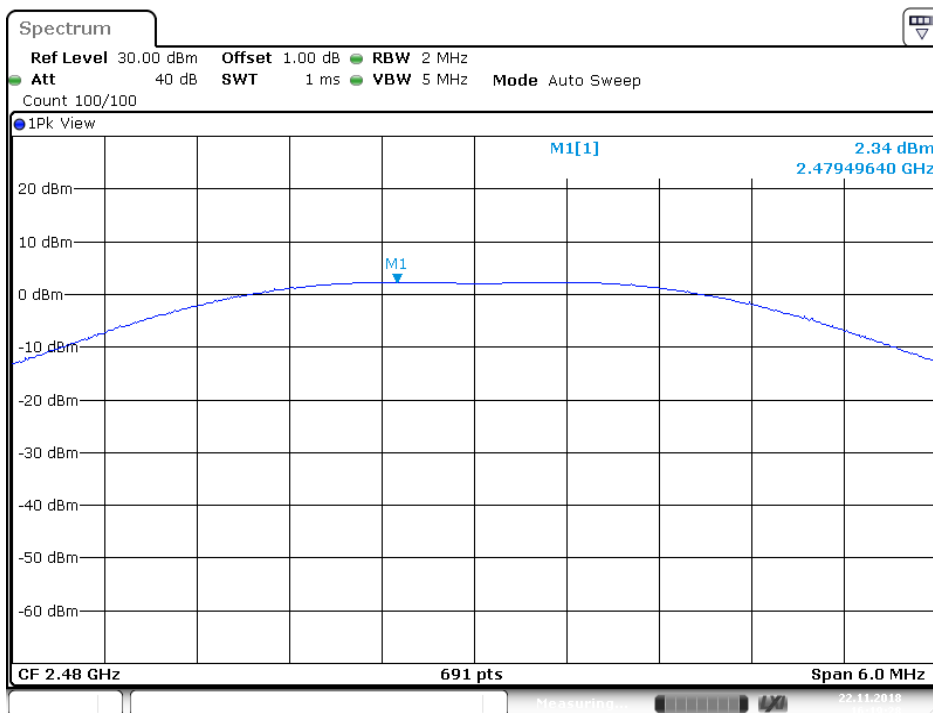
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Conducted Output Power	Limit
2.04 dBm	< 30dBm

Peak Output Power

EUT: Door Lock
 Op Condition: Operated, TX Mode (2480MHz)
 Test Specification: FCC15.247(b)
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



Date: 22.NOV.2018 16:19:28

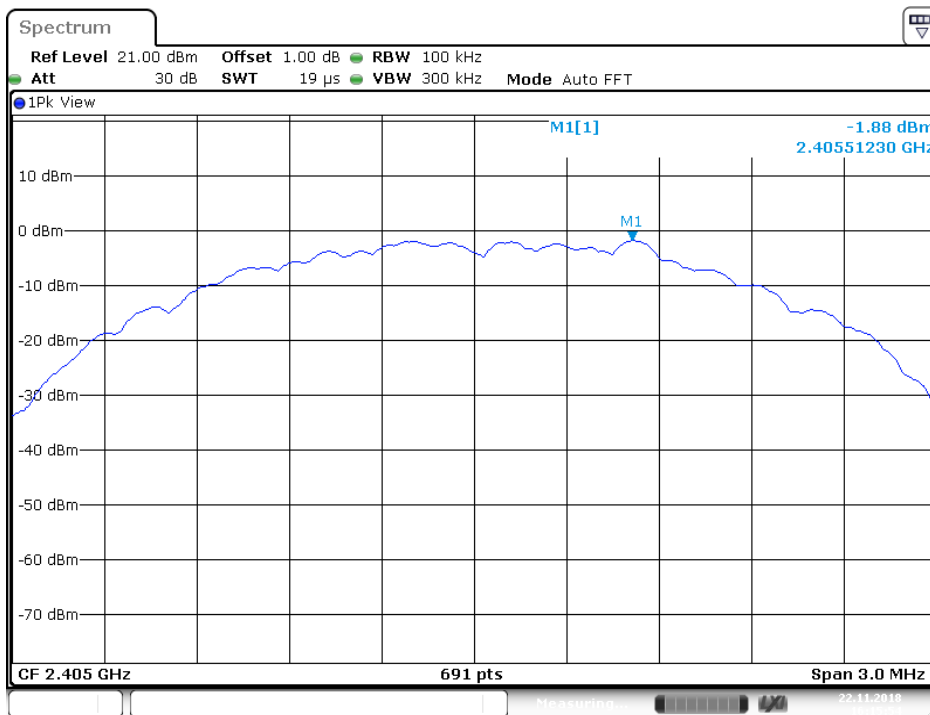
Conducted Output Power	Limit
2.34 dBm	< 30dBm

7.5 Spurious Emissions at Antenna Terminals

EUT: Door Lock
 Op Condition: Operated, TX Mode (2405MHz)
 Test Specification: FCC2.1051 & 15.247(d)
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Channel	FreqRange	RefLevel	Result	Limit	Verdict
2405	Reference	-1.88	-1.88	---	PASS
2405	30~1000	-1.88	-66.06	-21.88	PASS
2405	1000~26500	-1.88	-52.92	-21.88	PASS

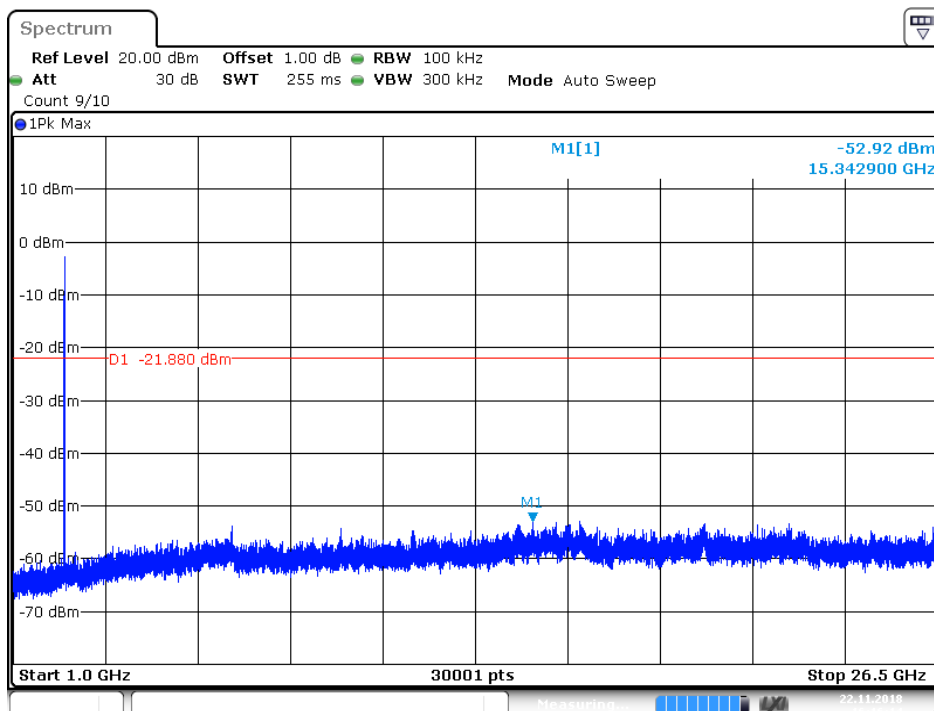
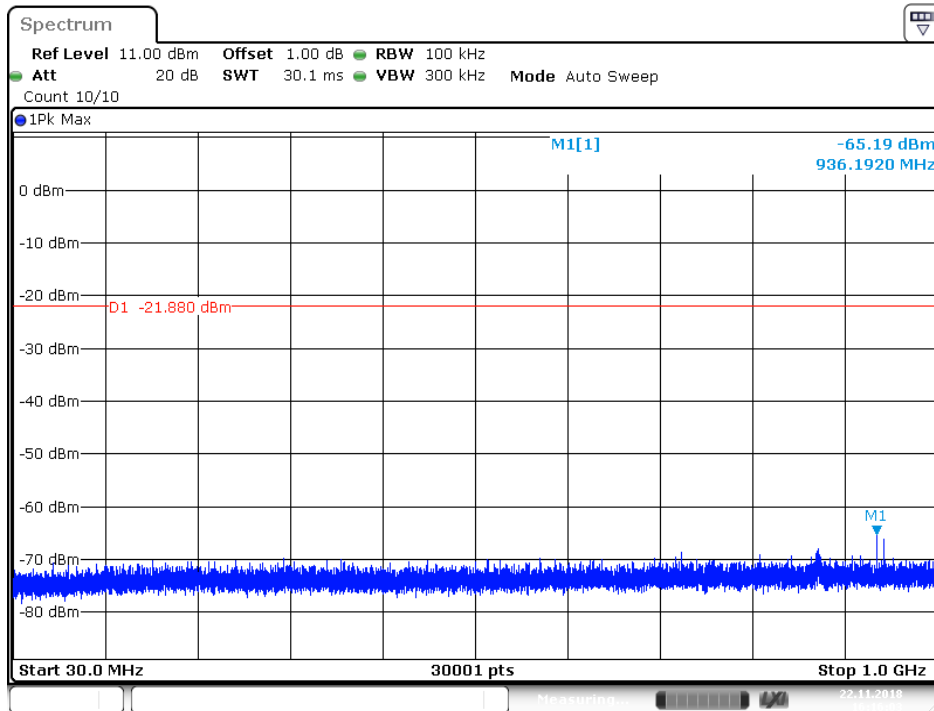


Date: 22.NOV.2018 16:15:55

Spurious Emissions at Antenna Terminals

EUT: Door Lock
 Op Condition: Operated, TX Mode (2405MHz)
 Test Specification: FCC2.1051 & 15.247(d)
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

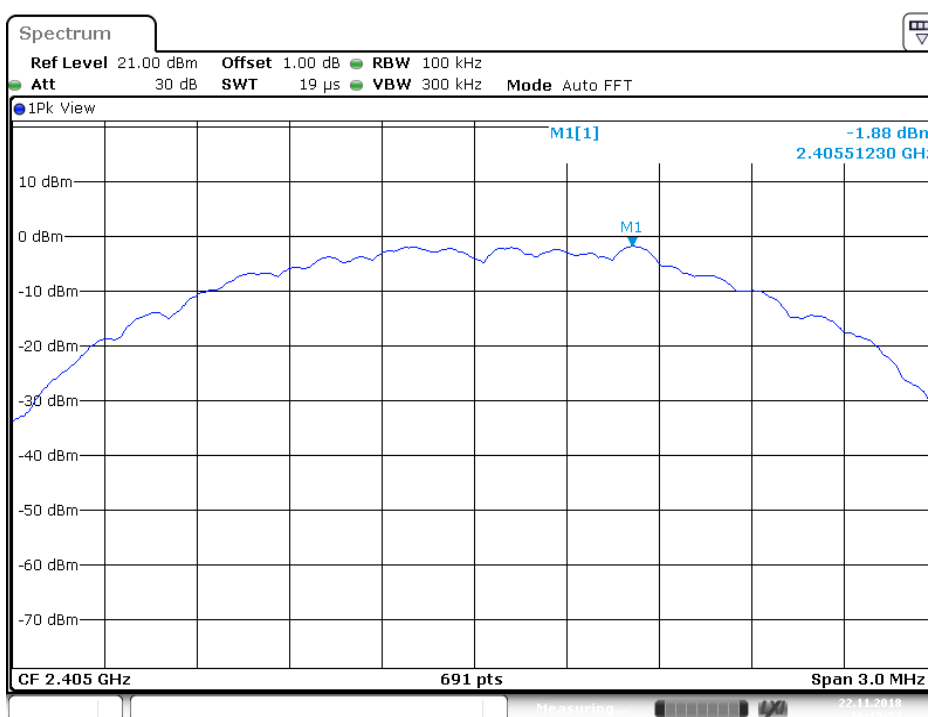


Spurious Emissions at Antenna Terminals

EUT: Door Lock
 Op Condition: Operated, TX Mode (2445MHz)
 Test Specification: FCC2.1051 & 15.247(d)
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Channel	FreqRange	RefLevel	Result	Limit	Verdict
2445	Reference	-0.69	-0.69	-0.69	PASS
2445	30~1000	-0.69	-67.13	-0.69	PASS
2445	1000~26500	-0.69	-53.12	-0.69	PASS

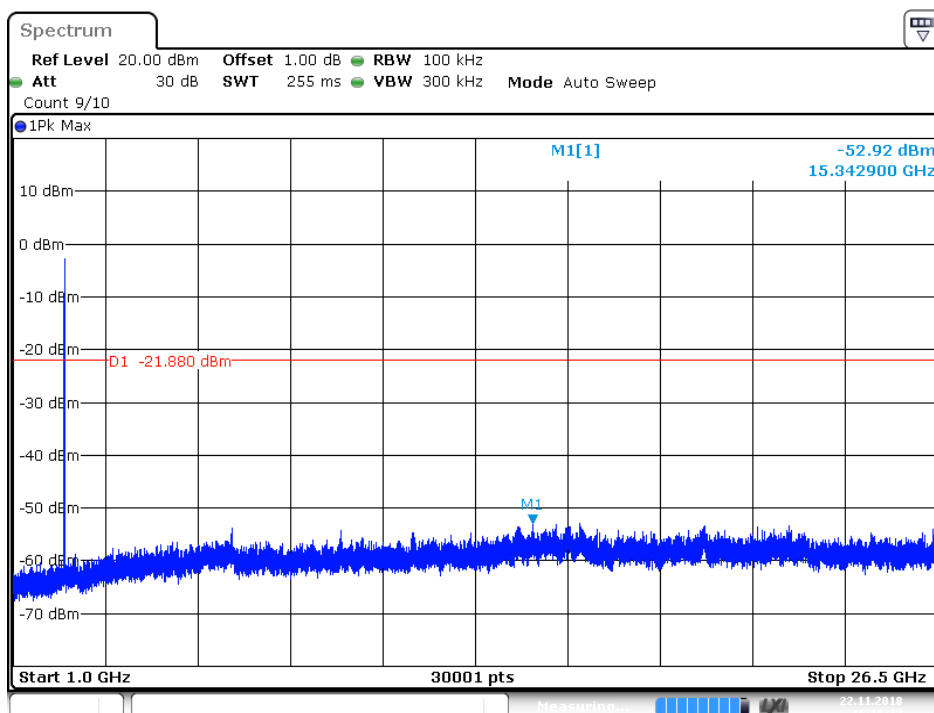
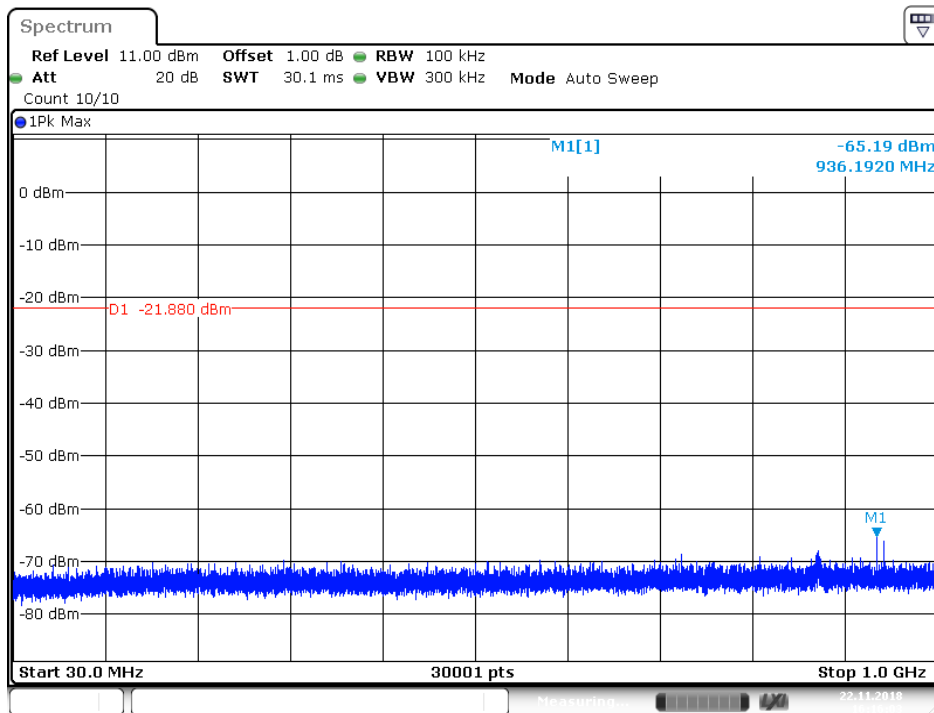


Date: 22.NOV.2018 16:15:55

Spurious Emissions at Antenna Terminals

EUT: Door Lock
 Op Condition: Operated, TX Mode (2445MHz)
 Test Specification: FCC2.1051 & 15.247(d)
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

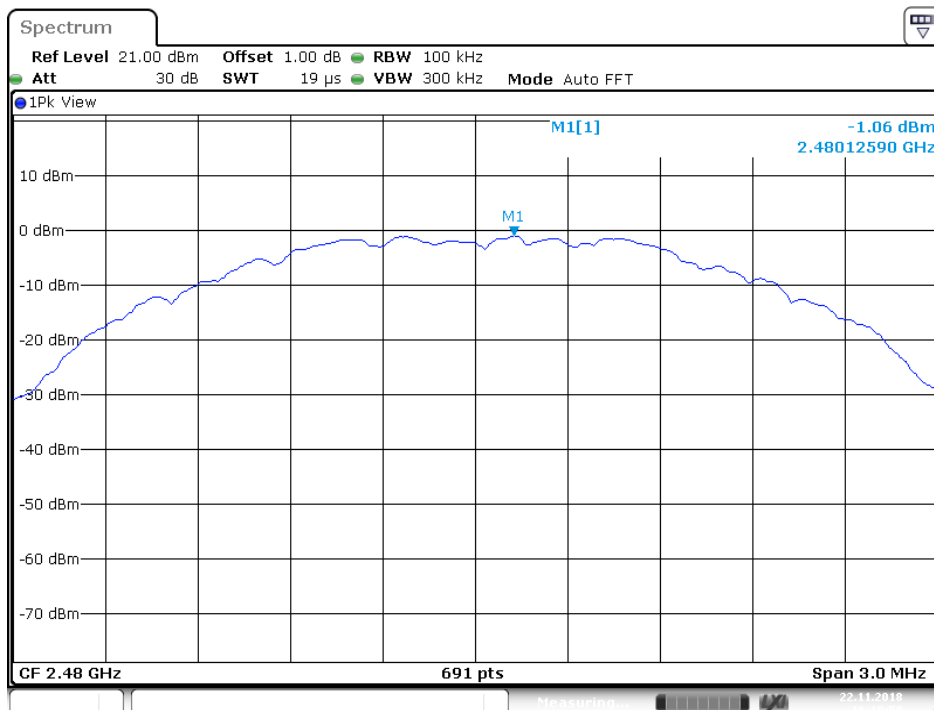


Spurious Emissions at Antenna Terminals

EUT: Door Lock
 Op Condition: Operated, TX Mode (2480MHz)
 Test Specification: FCC2.1051 & 15.247(d)
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Channel	FreqRange	RefLevel	Result	Limit	Verdict
2480	Reference	-1.06	-1.06	-1.06	PASS
2480	30~1000	-1.06	-64.53	-1.06	PASS
2480	1000~26500	-1.06	-49.15	-1.06	PASS

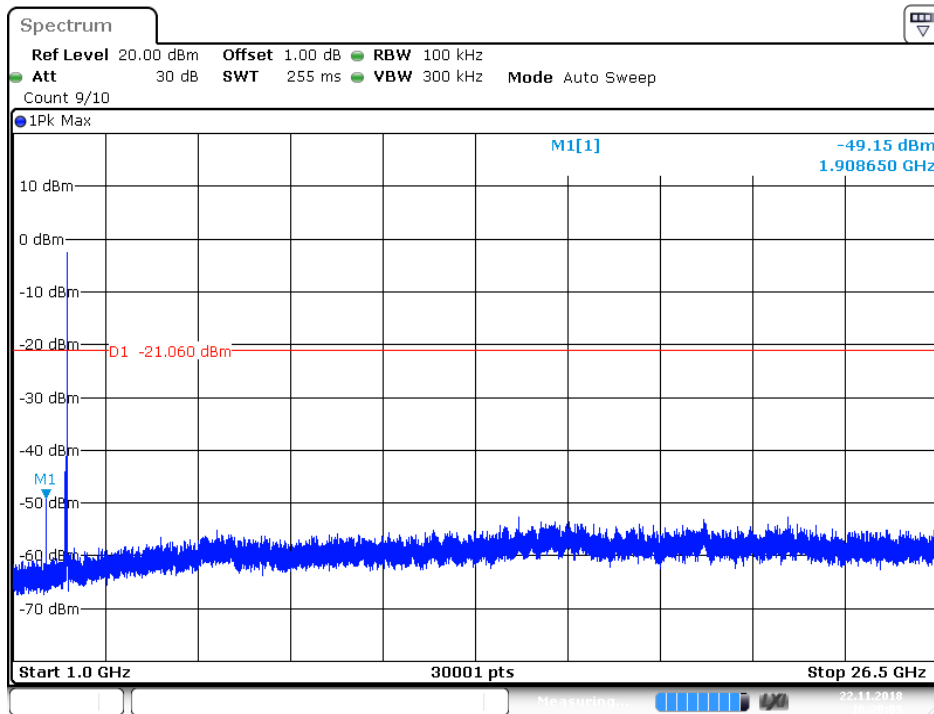
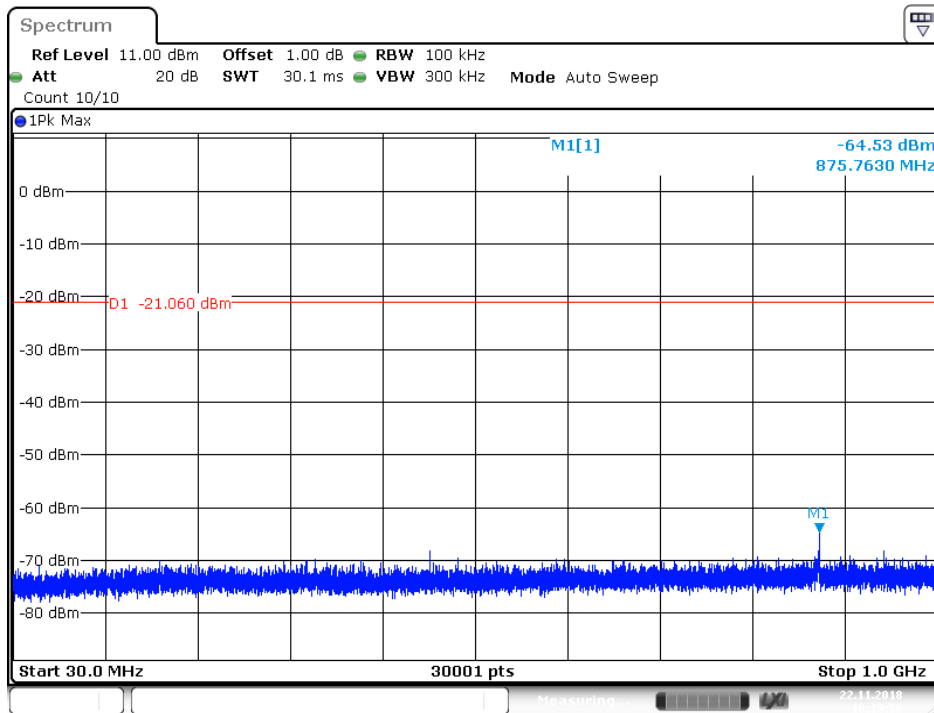


Date: 22 NOV 2018 16:19:50

Spurious Emissions at Antenna Terminals

EUT: Door Lock
 Op Condition: Operated, TX Mode (2480MHz)
 Test Specification: FCC2.1051 & 15.247(d)
 Comment: 3V DC

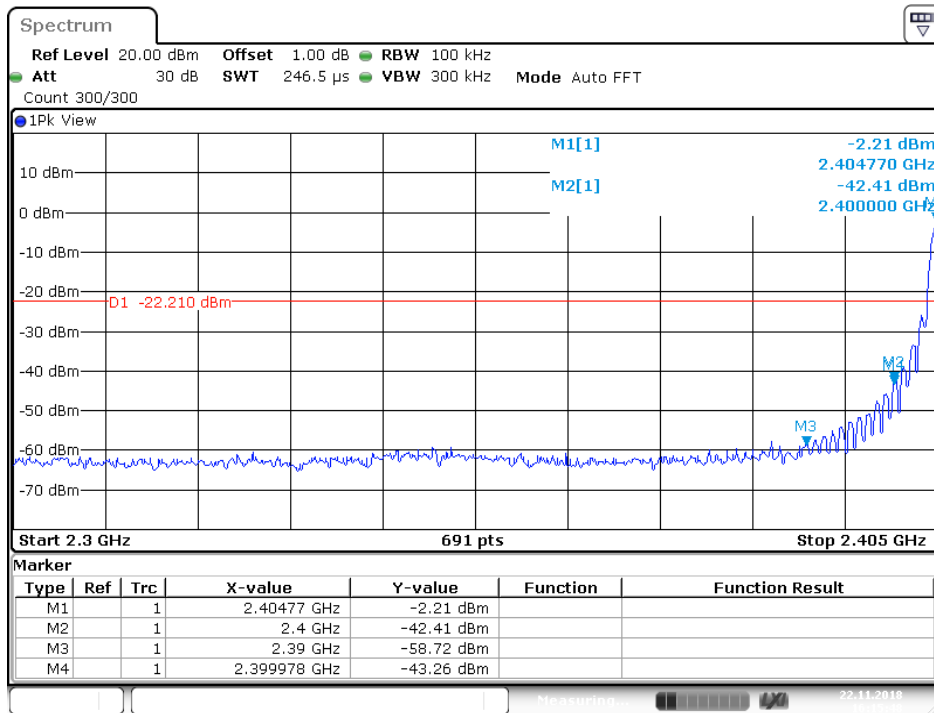
Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



7.6 100kHz Bandwidth of band edges

EUT: Door Lock
 Op Condition: Operated, TX Mode (2405MHz)
 Test Specification: FCC15.247(d), Conducted
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



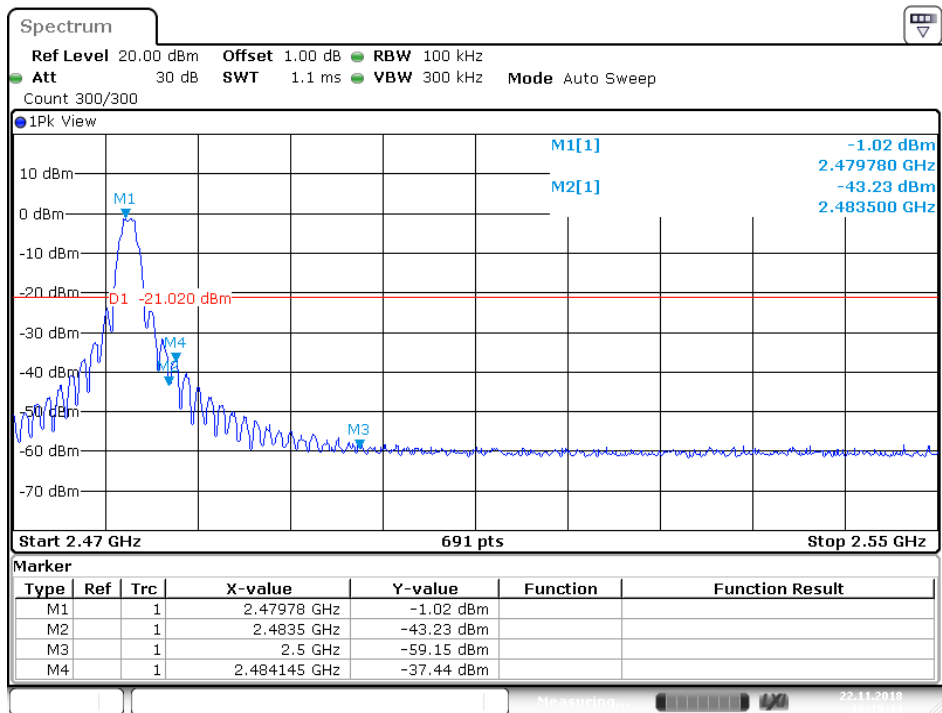
Date: 22.NOV.2018 16:15:48

Band edges	Limit
40.20 dB	> 20dB

100kHz Bandwidth of band edges

EUT: Door Lock
 Op Condition: Operated, TX Mode (2480MHz)
 Test Specification: FCC15.247(d), Conducted
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



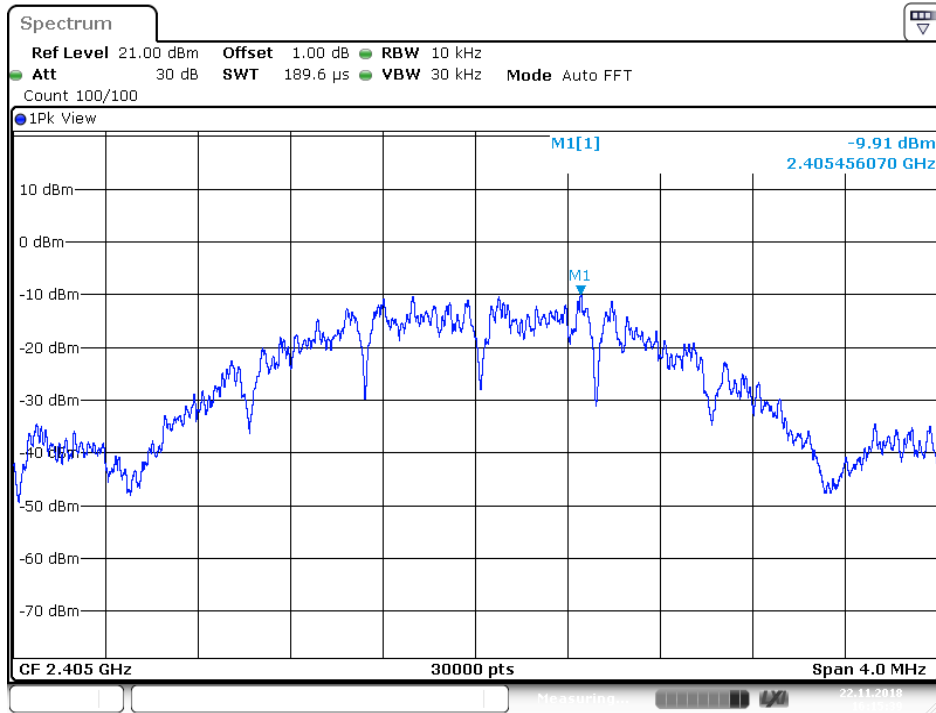
Date: 22.NOV.2018 16:19:44

Band edges	Limit
42.21 dB	> 20dB

7.7 Power Spectral Density

EUT: Door Lock
 Op Condition: Operated, TX Mode (2405MHz)
 Test Specification: FCC15.247(e)
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

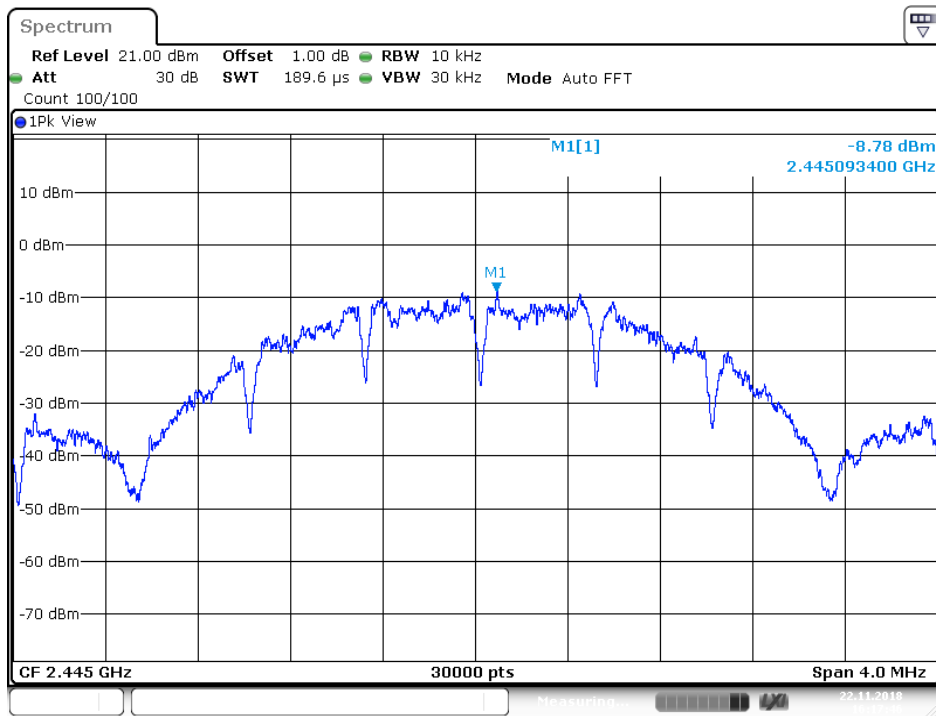


PSD	Limit
-9.91 dBm	< 8 dBm

Power Spectral Density

EUT: Door Lock
 Op Condition: Operated, TX Mode (2445MHz)
 Test Specification: FCC15.247(e)
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



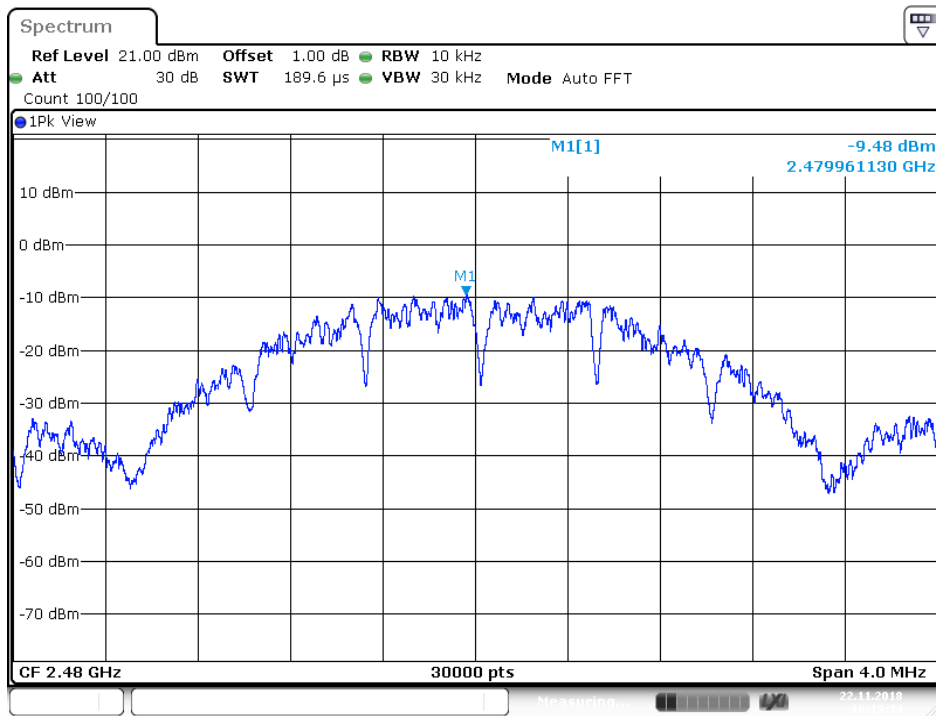
Date: 22.NOV.2018 16:17:47

PSD	Limit
-8.78 dBm	< 8 dBm

Power Spectral Density

EUT: Door Lock
 Op Condition: Operated, TX Mode (2480MHz)
 Test Specification: FCC15.247(e)
 Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed



Date: 22.NOV.2018 16:19:35

PSD	Limit
-9.48 dBm	< 8 dBm

7.8 Antenna Requirement

EUT: Door Lock
Op Condition: Operated, TX Mode
Test Specification: FCC15.203 & 15.247(b)
Comment: 3V DC

Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Limit

For intentional device, according to FCC Title 47 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. And according to FCC Title 47 Part 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.

Antenna Connector Construction

The antenna used in this product is integrated antenna on PCB, and the maximum gain of this antenna is 0.0 dBi.

8 Appendix A - General Product Information

Radiofrequency radiation exposure evaluation

According to KDB 447498 D01v06 section 4.3.1, For frequencies between 100 MHz to 6GHz and test separation distances ≤ 50 mm, the Numeric threshold is determined as:

Step a)

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR

>> The fundamental frequency of the EUT is 2405-2480MHz,
the test separation distance is ≤ 50 mm.
(Manufacturer specified the separation distance is: 20mm)

Step a)

>> Numeric threshold (2405MHz), $\text{mW} / 20\text{mm} \cdot \sqrt{2.402\text{GHz}} \leq 3.0$
Numeric threshold (2405MHz) $\leq 38.713\text{mW}$

>> Numeric threshold (2445MHz), $\text{mW} / 20\text{mm} \cdot \sqrt{2.440\text{GHz}} \leq 3.0$
Numeric threshold (2445MHz) $\leq 38.411\text{mW}$

>> Numeric threshold (2480MHz), $\text{mW} / 20\text{mm} \cdot \sqrt{2.480\text{GHz}} \leq 3.0$
Numeric threshold (2480MHz) $\leq 38.100\text{mW}$

>> The power of EUT measured (2405MHz) is: 2.03dBm = 1.596mW
The power of EUT measured (2445MHz) is: 2.04dBm = 1.600mW
The power of EUT measured (2480MHz) is: 2.34dBm = 1.714mW

Which is smaller than the Numeric threshold.

Therefore, the device is exempt from stand-alone SAR test requirements.

General Product Information

Declaration letter of model difference



Mobile Technologies Inc.
EMPOWERING THE USE OF MOBILE DEVICES

To: TÜV SÜD Hong Kong Limited

Attention: Mr. Edmond Fung

From: Audy Tse

Date: January 21, 2019

Fax No:

Total Page (Cover Included): 1

Project No.:

Subject: **Declaration letter**

We: **Mobile Technologies Inc.**

Officially notify TÜV SÜV Hong Kong Limited that the Door Lock and Plunger Lock have the same technical construction including circuit diagram and electrical construction, with Digital Lock, Glass Lock. The difference lies only in the outlook/color, PCB Layout, components, component layout and mechanical construction of the different models.

Model A: **Door Lock**

Model B: **Plunger Lock**

Model C: **Glass Lock**

Product: **Digital Lock**

Applicant:

Jan 21, 2019

(Date)



(Applicant's authorized signature and company Chop)