

FCC Test Report

Product Name	MOBILE DEVICE 5
Model No.	DC-MD5-01, DC-MD5LT-01
FCC ID.	PXT-DC-MD5-01

Applicant	MobileHelp, LLC
Address	5050 Conference Way N, Suite 125, Boca Raton, FL 33431,
	United States of America

Date of Receipt	Apr. 07, 2020
Issued Date	Jun. 16, 2020
Report No.	2040133R-E3032110140
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.



Test Report

Issued Date: Jun. 16, 2020

Report No.: 2040133R-E3032110140



Product Name	MOBILE DEVICE 5
Applicant	MobileHelp, LLC
Address	5050 Conference Way N, Suite 125, Boca Raton, FL 33431, United States of
	America
Manufacturer	Daviscomms (Malaysia) Sdn Bhd
Model No.	DC-MD5-01, DC-MD5LT-01
FCC ID.	PXT-DC-MD5-01
EUT Rated Voltage	DC 3.7V(Power by Battery)
EUT Test Voltage	DC 3.7V(Power by Battery)
Trade Name	MobileHelp
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C
	ANSI C63.4: 2014, ANSI C63.10: 2013
Test Result	Complied

Documented By :	Peggy (a		
	(Adm. Assistant / Peggy Tu)	_	
Tested By :	Boris H3V		
	(Engineer / Boris Hsu)		
Approved By :	Hand S		
	(Director / Vincent Lin)		



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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	MOBILE DEVICE 5
Trade Name	MobileHelp
Model No.	DC-MD5-01, DC-MD5LT-01
FCC ID.	PXT-DC-MD5-01
Frequency Range	433.92MHz
Type of Modulation	ASK
Number of Channels	1
Antenna Type	FPCB Antenna



1.2. Test Summary

Part 15C Requirement

Requirement – Test Item	Result
Spurious emissions	Pass

Part 22H,Part 24E,Part 27,Part 90 Requirement

Requirement – Test Item	Result
Spurious emissions	Pass



- 1. The EUT is an MOBILE DEVICE 5 ,contains functions on 433.92 transceiver and WWAN module transceiver.
- 2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- 3. These tests were conducted on a sample for the purpose of demonstrating compliance of 433.92 transmitter with Part 15 Subpart C Paragraph 15.231 for spread spectrum devices.
- 4. This device contains the certified FCC ID: PXT-DC-MD5-01 and FCC ID: XMR201807EG91NA, This is a 433.92 transceiver and WWAN Card.
- The consider Co-Location based on KDB 996369 D02 Question 1 and KDB 996369 D04 for Radiated Spurious Emission & SAR testing.
- 6. Since the antenna gain and output power are both smaller than the original certification, the final product complies with the KDB 178919 Section II.B) ERP/EIRP rules.
- 7. The final test results meets all the applicable FCC rules, including FCC Part 15C and Part 22H, Part 24E, Part 27 Part 90.

Test Mode	(1) Select adjacent operating bands.
(Simultaneous Transmit)	Mode1: 433.92 MHz+ LTE Band 5 (848.3 MHz_1.4 MHz BW)
	Mode2: 433.92MHz+ LTE Band 4 (1745MHz+20 MHz BW)
	(2) Select higher power channel from each pair of simultaneous transmission
	Mode3: 433.92 MHz+ LTE Band 5 (848.3 MHz_1.4 MHz BW)
	Mode4: 433.92MHz+ LTE Band 4 (1732.5MHz+10 MHz BW)



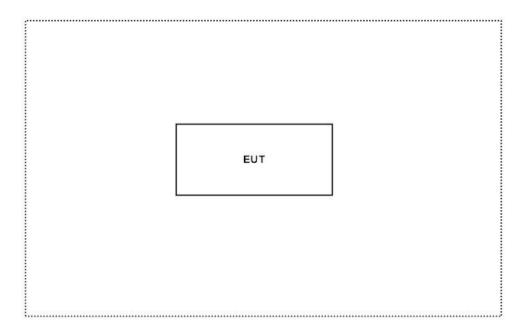
1.4. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
N/A					

Signal Cable Type	Signal Cable Description
	N/A

1.5. Configuration of Tested System



1.6. EUT Exercise Software

- (1) Setup the EUT as shown on 1.5
- (2) Install the battery, Start the 433.92MHz continuous transmission.
- (3) The Communication Analyzer (MT8820C) uses in controlling EUT to transmit continuously.
- (4) Configure the test mode, the test channel, and the data rate.
- (5) Start the continuous transmission.
- (6) Verify that the EUT works properly.



1.7. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual
	Temperature (°C)	10~40 °C	20.3 °C
Radiated Emission	Humidity (%RH)	10~90 %	66 %

USA : FCC Registration Number: TW3023 Canada : IC Registration Number: 4075A

Site Description: Accredited by TAF

Accredited Number: 3023

Test Laboratory: DEKRA Testing and Certification Co., Ltd

Address: No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451,

Taiwan, R.O.C.

Phone number: 886-2-8601-3788
Fax number: 886-2-8601-3789
Email address: info.tw@dekra.com

Website: http://www.dekra.com.tw



1.8. List of Test Item and Equipment

For Radiated measurements /Site3/CB8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
X	Test Receiver	R&S	ESR7	101602	2019/12/16	2020/12/15
X	Signal Analyzer	R&S	FSV40	101869	2019/07/04	2020/07/03
X	Loop Antenna	Teseq	HLA6121	37133	2019/10/15	2021/10/14
X	Bilog Antenna	Schaffner Chase	CBL6112B	2916	2020/01/20	2021/01/19
X	Coaxial Cable	DEKRA	L1907-001C	280280.F141.1000D	2019/07/10	2020/07/09
X	Amplifier	EMCI	EMC001330	980254	2019/08/22	2020/08/21
X	Horn Antenna	ETS-LINDGREN	3117	00228113	2019/05/02	2020/05/01
X	Coaxial Cable	DEKRA	L1907-002C	280280.F141.1000D	2019/07/10	2020/07/09
X	Amplifier	EMCI	EMC05820SE	980362	2019/06/26	2020/06/25
X	Amplifier	EMCI	EMC051845SE	980632	2019/08/08	2020/08/07
X	Horn Antenna	Com-Power	AH-1840	101101	2019/10/31	2020/10/30
X	Amplifier + Cable	EMCI	EMC184045SE	980369	2020/04/15	2021/04/14
	Bilog Antenna	Schaffner Chase	CBL6112B	2925	2020/02/20	2021/02/19
	Coaxial Cable	DEKRA	L1907-003C	00100A1B3A120M	2019/07/10	2020/07/09
	Amplifier	EMCI	EMC001330	980255	2019/06/28	2020/06/27
	Filter	MICRO-TRONICS	BRM50702	G270	2019/08/08	2020/08/07
	Filter	MICRO-TRONICS	BRM50716	G196	2019/08/08	2020/08/07

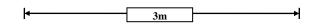
- 1. Loop Antenna is calibrated every two years, the other equipments are calibrated every one year.
- 2. The test instruments marked with "X" are used to measure the final test results.
- 3. Test Software version : DEKRA Test SystemV1.1.

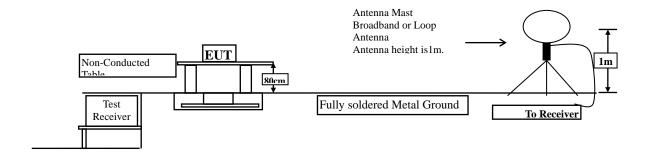


2. Radiated Emission

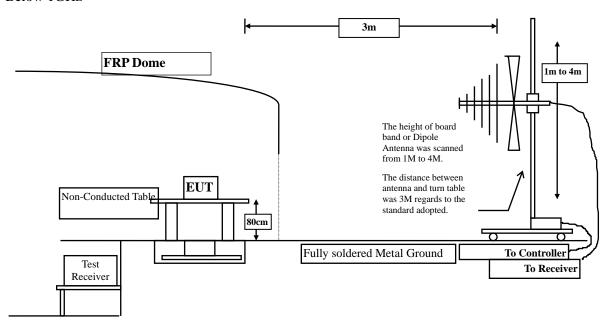
2.1. Test Setup

Under 30MHz



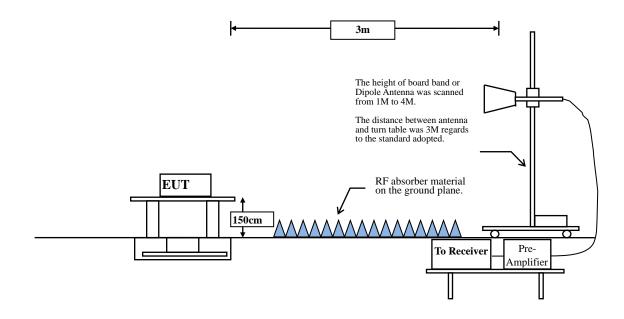


Below 1GHz





Above 1GHz





2.2. Limits

➤ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15	FCC Part 15 Subpart C Paragraph 15.209 Limits								
Frequency MHz	Field strength	Measurement distance							
TVITIZ	(microvolts/meter)	(meter)							
0.009-0.490	2400/F(kHz)	300							
0.490-1.705	24000/F(kHz)	30							
1.705-30	30	30							
30-88	100	3							
88-216	150	3							
216-960	200	3							
Above 960	500	3							

Remarks:

- 1. RF Voltage $(dBuV) = 20 \log RF \text{ Voltage } (uV)$
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

The final test results meets all the applicable FCC rules, including FCC Part 15C and Part 22H, Part 24E, Part 27 Part 90.



2.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.



2.4. Uncertainty

- \pm 4.08 dB above 1GHz
- ± 4.22 dB below 1GHz



2.5. Test Result of Radiated Emission

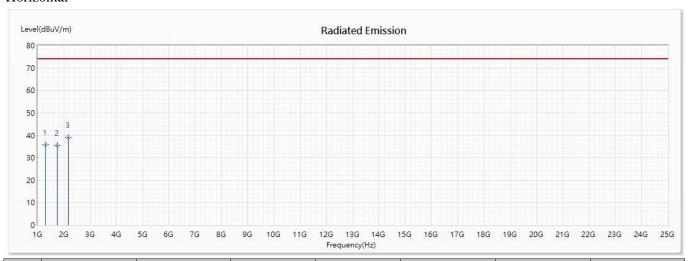
Product : MOBILE DEVICE 5

Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode1: 433.92 MHz+ LTE Band 5 (848.3 MHz_1.4 MHz BW)

Horizontal



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Type
1	1301.76	35.82	74.00	-38.18	55.19	-19.37	PK
2	1735.68	35.48	74.00	-38.52	54.68	-19.20	PK
* 3	2169.6	39.15	74.00	-34.85	54.71	-15.56	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

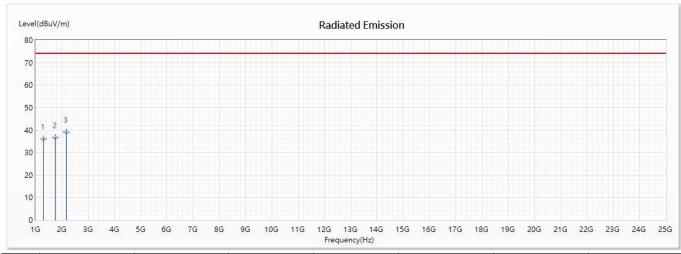


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode1: 433.92 MHz+ LTE Band 5 (848.3 MHz_1.4 MHz BW)

Vertical



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	1301.76	36.03	74.00	-37.97	55.40	-19.37	PK
2	1735.68	36.50	74.00	-37.50	55.70	-19.20	PK
* 3	2169.6	38.95	74.00	-35.05	54.51	-15.56	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

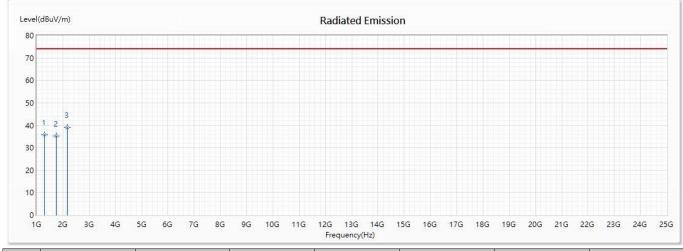


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode2: 433.92MHz+ LTE Band 4 (1745MHz+20 MHz BW)

Horizontal



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	1301.76	35.86	74.00	-38.14	55.23	-19.37	PK
2	1735.68	35.11	74.00	-38.89	54.31	-19.20	PK
* 3	2169.6	39.07	74.00	-34.93	54.63	-15.56	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

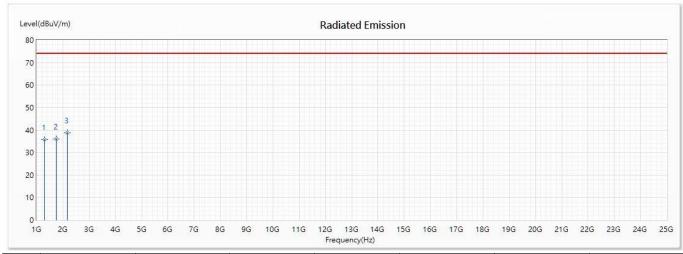


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode2: 433.92MHz+ LTE Band 4 (1745MHz+20 MHz BW)

Vertical



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	1301.76	35.79	74.00	-38.21	55.16	-19.37	PK
2	1735.68	35.95	74.00	-38.05	55.15	-19.20	PK
* 3	2169.6	38.71	74.00	-35.29	54.27	-15.56	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

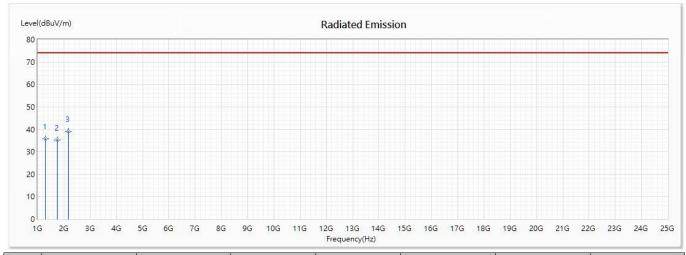


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode3: 433.92 MHz+ LTE Band 5 (848.3 MHz_1.4 MHz BW)

Horizontal



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Type
1	1301.76	35.85	74.00	-38.15	55.22	-19.37	PK
2	1735.68	35.24	74.00	-38.76	54.44	-19.20	PK
* 3	2169.6	39.12	74.00	-34.88	54.68	-15.56	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
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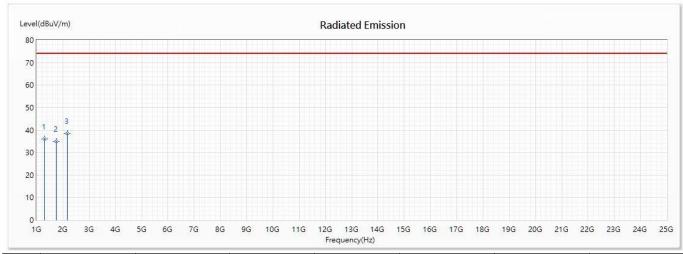


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode3: 433.92 MHz+ LTE Band 5 (848.3 MHz_1.4 MHz BW)

Vertical



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	1301.76	36.14	74.00	-37.86	55.51	-19.37	PK
2	1735.68	35.04	74.00	-38.96	54.24	-19.20	PK
* 3	2169.6	38.56	74.00	-35.44	54.12	-15.56	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

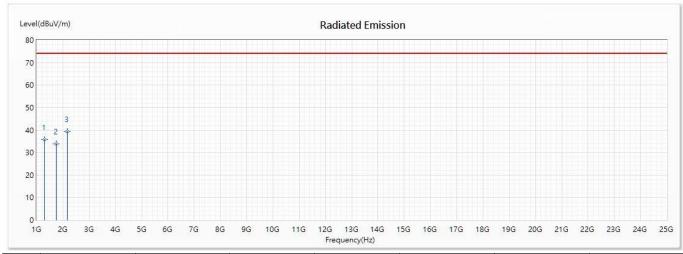


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode4: 433.92MHz+ LTE Band 4 (1732.5MHz+10 MHz BW)

Horizontal



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	1301.76	35.66	74.00	-38.34	55.03	-19.37	PK
2	1735.68	33.93	74.00	-40.07	53.13	-19.20	PK
* 3	2169.6	39.38	74.00	-34.62	54.94	-15.56	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

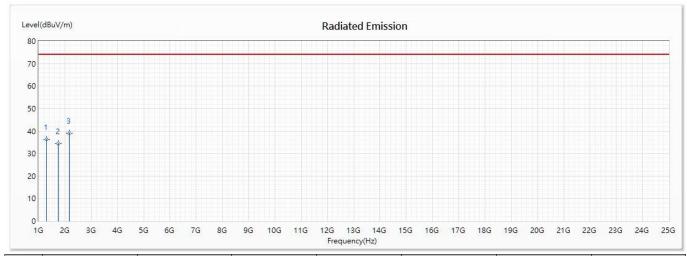


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode4: 433.92MHz+ LTE Band 4 (1732.5MHz+10 MHz BW)

Vertical



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Type
1	1301.76	36.21	74.00	-37.79	55.58	-19.37	PK
2	1735.68	34.31	74.00	-39.69	53.51	-19.20	PK
* 3	2169.6	38.93	74.00	-35.07	54.49	-15.56	PK

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

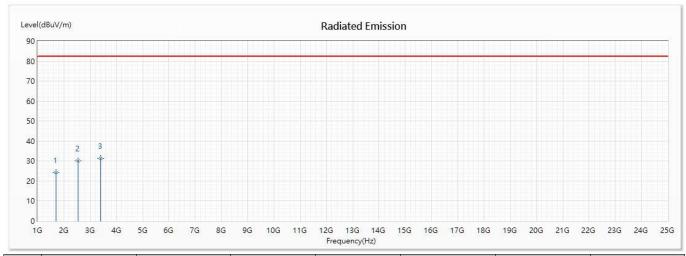


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode1: 433.92 MHz+ LTE Band 5 (848.3 MHz_1.4 MHz BW)

Horizontal



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Type
1	1696.6	24.33	82.23	-57.90	43.47	-19.14	AV
2	2544.9	30.06	82.23	-52.17	44.39	-14.33	AV
* 3	3393.2	31.24	82.23	-50.99	44.09	-12.85	AV

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
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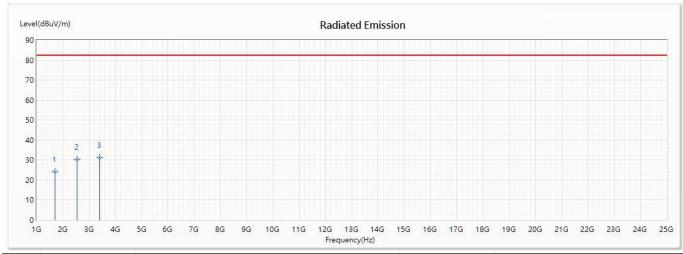


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode1: 433.92 MHz+ LTE Band 5 (848.3 MHz_1.4 MHz BW)

Vertical



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Type
1	1696.6	24.12	82.23	-58.11	43.26	-19.14	AV
2	2544.9	30.45	82.23	-51.78	44.78	-14.33	AV
* 3	3393.2	31.34	82.23	-50.89	44.19	-12.85	AV

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
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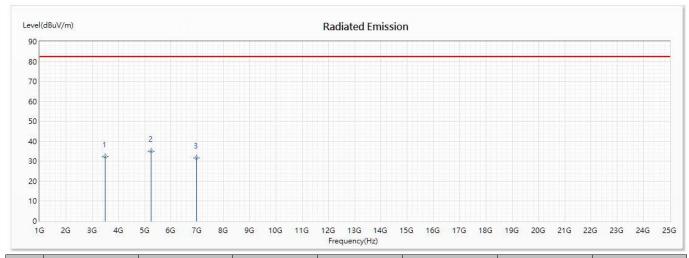


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode2: 433.92MHz+ LTE Band 4 (1745MHz+20 MHz BW)

Horizontal



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Type
1	3490	32.27	82.23	-49.96	44.36	-12.09	AV
* 2	5235	35.12	82.23	-47.11	47.08	-11.96	AV
3	6980	31.55	82.23	-50.68	45.21	-13.66	AV

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

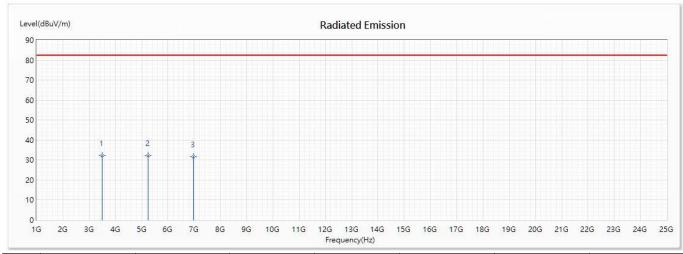


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode2: 433.92MHz+ LTE Band 4 (1745MHz+20 MHz BW)

Vertical



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Type
* 1	3490	32.40	82.23	-49.83	44.49	-12.09	AV
2	5235	32.16	82.23	-50.07	44.12	-11.96	AV
3	6980	31.52	82.23	-50.71	45.18	-13.66	AV

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

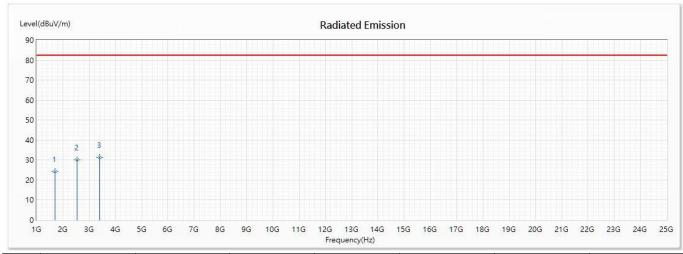


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS Test date : 2020/05/06

Test Mode : Mode3: 433.92 MHz+ LTE Band 5 (848.3 MHz_1.4 MHz BW)

Horizontal



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	1696.6	24.27	82.23	-57.96	43.41	-19.14	AV
2	2544.9	30.19	82.23	-52.04	44.52	-14.33	AV
* 3	3393.2	31.41	82.23	-50.82	44.26	-12.85	AV

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

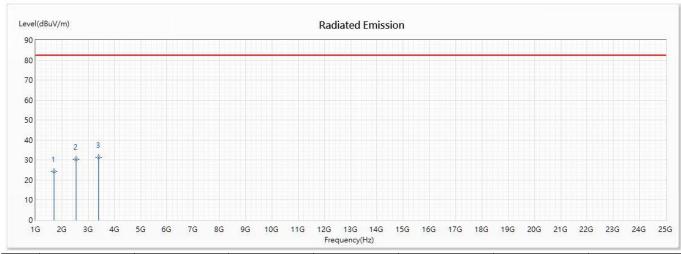


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode3: 433.92 MHz+ LTE Band 5 (848.3 MHz_1.4 MHz BW)

Vertical



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
1	1696.6	24.23	82.23	-58.00	43.37	-19.14	AV
2	2544.9	30.31	82.23	-51.92	44.64	-14.33	AV
* 3	3393.2	31.36	82.23	-50.87	44.21	-12.85	AV

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

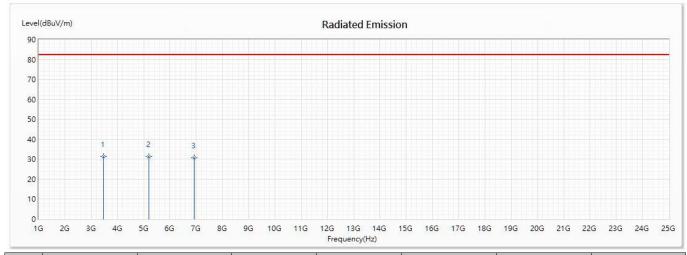


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode4: 433.92MHz+ LTE Band 4 (1732.5MHz+10 MHz BW)

Horizontal



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Type
1	3465	31.35	82.23	-50.88	43.67	-12.32	AV
* 2	5197.5	31.38	82.23	-50.85	43.12	-11.74	AV
3	6930	30.72	82.23	-51.51	43.61	-12.89	AV

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

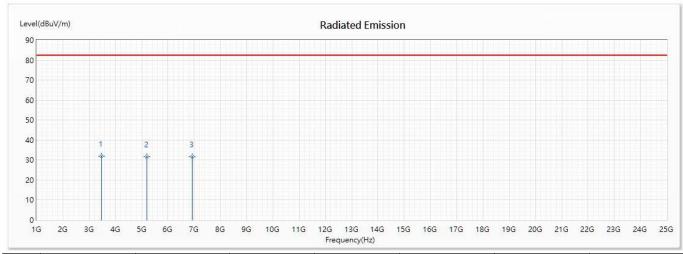


Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS
Test date : 2020/05/06

Test Mode : Mode4: 433.92MHz+ LTE Band 4 (1732.5MHz+10 MHz BW)

Vertical



No	Frequency	Emission Level	Limit	Margin	Reading Level	Correct Factor	Detector
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	Туре
* 1	3465	31.90	82.23	-50.33	44.22	-12.32	AV
2	5197.5	31.71	82.23	-50.52	43.45	-11.74	AV
3	6930	31.56	82.23	-50.67	44.45	-12.89	AV

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



3. EMI Reduction Method During Compliance Testing

No modification was made during testing.

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