

# ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

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## INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 22H, PART 24E, PART 27C and PART 90S ISED RSS-130, 132, 133, 139 REQUIREMENT CLASS II PC REPORT

OF

**FCC Applicant:** Keep Truckin, Inc.  
55 Hawthorne St, San Francisco, CA 94105 USA

**IC Applicant:** Keep Truckin, Inc.  
55 Hawthorne St, San Francisco, CA 94105 USA

**Product Name:** Asset Gateway

**Brand Name:** KeepTruckin

**Model No.:** AG-55

**Model Difference:** N/A

**FCC ID:** 2AQM7-AG55

**IC:** 24516-AG55

**Report Number:** ER/2019/80104-01

**FCC Rule Part:** 2 , 22H & 24E & 27C & L & 90S

**ISED Rule:** RSS-130, 132, 133, 139,

**Issue Date:** Oct. 31, 2019

**Date of Test:** Oct. 15, 2019 ~ Oct. 18, 2019

**Date of EUT Received:** Aug. 19, 2019

**We hereby certify that:**

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.26-2015 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits.

The test results of this report relate only to the tested sample identified in this report.

**Approved By:** \_\_\_\_\_



**Jim Chang / Manager**



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## Revision History

Revision	Description	Issue Date	Remark
Rev.00	Initial creation of document	Oct. 31, 2019	<i>Revised by Karen Huang</i>

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## 1 GENERAL PRODUCT INFORMATION

### 1.1 Product Description

General:

Product Name:	Asset Gateway	
Brand Name:	KeepTruckin	
Model No.:	AG-55	
Model Difference:	N/A	
Hardware Version:	N/A	
Software Version:	N/A	
Scope:	The test report covers the radiated emissions requirement of the standards referenced in the report to allow system upgrade from DVT2 to DVT3	
Class II Permissive change:	DVT2 change to DVT3	
Power Supply:	3.6Vdc from Rechargeable Li-polymer Battery	
	Battery:	Model No.: BJ-X55XX-4KXKUQ, Supplier: Kunshan Million Gold Tian Yu Trading Co., Ltd.
IMEI:	356726104291370	

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## 1.2 Frequency Range

### 1.2.1 NB IoT

NB IoT Band	Subcarrier Spacing (kHz)	Operation Frequency (MHz)
2	3.75	1850.1 - 1909.9
	15	
4	3.75	1710.1 - 1754.9
	15	
5	3.75	824.1 - 848.9
	15	
12	3.75	699.1 - 715.9
	15	
13	3.75	777.1 - 786.9
	15	
	15	
26	3.75	824.1 - 848.9
	15	
26 Part 90	3.75	814.1 - 823.9

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### 1.2.2 Cat. M1

M1 Band	BW (MHz)	Operation Frequency (MHz)			M1 Band	BW (MHz)	Operation Frequency (MHz)		
2	1.4	1850.7	-	1909.3	26	1.4	824.7	-	848.3
	3	1851.5	-	1908.5		3	825.5	-	847.5
	5	1852.5	-	1907.5		5	826.5	-	846.5
	10	1855.0	-	1905.0		10	829.0	-	844.0
	15	1857.5	-	1902.5		15	831.5	-	841.5
	20	1860.0	-	1900.0	26 Part90	1.4	814.7	-	823.3
4	1.4	1710.7	-	1754.3		3	815.5	-	822.5
	3	1711.5	-	1753.5		5	816.5	-	821.5
	5	1712.5	-	1752.5		10	819.0		
	10	1715.0	-	1750.0					
	15	1717.5	-	1747.5					
	20	1720.0	-	1745.0					
5	1.4	824.7	-	848.3					
	3	825.5	-	847.5					
	5	826.5	-	846.5					
	10	829.0	-	844.0					
12	1.4	699.7	-	715.3					
	3	700.5	-	714.5					
	5	701.5	-	713.5					
	10	704.0	-	711.0					
13	5	779.5	-	784.5					
	10	782							

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## Antenna Designation

Antenna Type	Supplier	Antenna Part No.	Main / Aux	Note
Monopole	INPAQ	WA-F-LTE8-03-005-B	Main	Ant 1
Operating Frequency (MHz)			Ant 1 Peak Antenna Gain (dBi)	
LTE-Band 2			1850.1 ~ 1909.9	5.36
LTE-Band 4			1710.1 ~ 1754.9	4.30
LTE-Band 5			824.1 ~ 848.9	-1.63
LTE-Band 12			699.1 ~ 715.9	-0.36
LTE-Band 13			777.1 ~ 786.9	0.18
LTE-Band 26			824.1 ~ 848.9	-1.63
LTE-Band 26 Part 90			814.1 ~ 823.9	-1.68

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### 1.3 Type of Emission & Max ERP/EIRP Power Measurement Result:

#### 1.3.1 NB IoT

NB IoT Band	Modulation	ERP / EIRP (dBm)		(W)	99% BW (kHz)	Type of Emission
2	BPSK	28.32	EIRP	0.679	229.00	229KG7D
2	QPSK	<b>28.35</b>	EIRP	<b>0.684</b>	222.32	222KG7D
NB IoT Band	Modulation	ERP / EIRP (dBm)		(W)	99% BW (kHz)	Type of Emission
4	BPSK	27.16	EIRP	0.520	230.08	230KG7D
4	QPSK	<b>27.24</b>	EIRP	<b>0.530</b>	222.91	223KG7D
NB IoT Band	Modulation	ERP / EIRP (dBm)		(W)	99% BW (kHz)	Type of Emission
5	BPSK	<b>21.26</b>	ERP	<b>0.134</b>	223.60	224KG7D
5	QPSK	21.02	ERP	0.126	221.84	222KG7D
NB IoT Band	Modulation	ERP / EIRP (dBm)		(W)	99% BW (kHz)	Type of Emission
12	BPSK	<b>23.39</b>	ERP	<b>0.218</b>	223.32	223KG7D
12	QPSK	23.32	ERP	0.215	225.64	226KG7D

NB IoT Band	Modulation	ERP / EIRP (dBm)		(W)	99% BW (kHz)	Type of Emission
13	BPSK	<b>23.13</b>	ERP	<b>0.206</b>	224.10	224KG7D
13	QPSK	23.03	ERP	0.201	221.54	222KG7D
NB IoT Band	Modulation	ERP / EIRP (dBm)		(W)	99% BW (kHz)	Type of Emission
26	BPSK	<b>21.52</b>	ERP	<b>0.142</b>	224.12	224KG7D
26	QPSK	21.46	ERP	0.140	221.00	221KG7D
NB IoT Band	Modulation	ERP / EIRP (dBm)		(W)	99% BW (kHz)	Type of Emission
26 Part90	BPSK	<b>21.16</b>	ERP	<b>0.131</b>	276.90	277KG7D
26 Part90	QPSK	21.15	ERP	0.130	276.20	276KG7D

#### 1.3.2 Cat. M1

M1 Band	BW	Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
2	1.4	QPSK	28.00	EIRP	0.631	1.0926	1M09G7D
		16QAM	27.94	EIRP	0.622	1.1023	1M10D7W
2	3	QPSK	28.03	EIRP	0.635	1.2203	1M22G7D
		16QAM	27.79	EIRP	0.601	1.1997	1M20D7W
2	5	QPSK	28.04	EIRP	0.637	1.4435	1M44G7D
		16QAM	28.67	EIRP	0.736	1.2842	1M28D7W
2	10	QPSK	27.81	EIRP	0.604	1.9901	1M99G7D
		16QAM	28.67	EIRP	0.736	2.6042	2M60D7W
2	15	QPSK	28.04	EIRP	0.637	2.300	2M30G7D
		16QAM	28.78	EIRP	0.755	2.293	2M29D7W
2	20	QPSK	28.67	EIRP	0.736	3.325	3M33G7D
		16QAM	28.65	EIRP	0.733	2.763	2M76D7W

M1 Band	BW	Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
4	1.4	QPSK	26.92	EIRP	0.492	1.0986	1M10G7D
		16QAM	26.83	EIRP	0.482	1.1017	1M10D7W
4	3	QPSK	26.99	EIRP	0.500	1.2129	1M21G7D
		16QAM	26.68	EIRP	0.466	1.1868	1M19D7W
4	5	QPSK	27.03	EIRP	0.505	1.3107	1M31G7D
		16QAM	27.64	EIRP	0.581	1.2488	1M25D7W
4	10	QPSK	26.78	EIRP	0.476	2.0659	2M07G7D
		16QAM	27.54	EIRP	0.568	2.0817	2M08D7W
4	15	QPSK	27.01	EIRP	0.502	2.324	2M32G7D
		16QAM	26.99	EIRP	0.500	2.284	2M28D7W
4	20	QPSK	27.02	EIRP	0.504	2.716	2M72G7D
		16QAM	26.99	EIRP	0.500	2.357	2M36D7W

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M1 Band	BW	Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
5	1.4	QPSK	21.18	ERP	0.131	1.0964	1M10G7D
		16QAM	21.00	ERP	0.126	1.0985	1M10D7W
5	3	QPSK	21.11	ERP	0.129	1.2042	1M20G7D
		16QAM	20.96	ERP	0.125	1.1805	1M18D7W
5	5	QPSK	21.25	ERP	0.133	1.7009	1M70G7D
		16QAM	21.79	ERP	0.151	1.2383	1M24D7W
5	10	QPSK	21.23	ERP	0.133	2.2606	2M26G7D
		16QAM	21.79	ERP	0.151	2.5460	2M55D7W
M1 Band	BW	Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
12	1.4	QPSK	23.09	ERP	0.204	1.0975	1M10G7D
		16QAM	22.55	ERP	0.180	1.0978	1M10D7W
12	3	QPSK	23.05	ERP	0.202	1.2173	1M22G7D
		16QAM	22.80	ERP	0.191	1.1856	1M19D7W
12	5	QPSK	23.12	ERP	0.205	1.3468	1M35G7D
		16QAM	23.49	ERP	0.223	1.2886	1M29D7W
12	10	QPSK	23.12	ERP	0.205	2.3087	2M31G7D
		16QAM	23.55	ERP	0.226	2.5362	2M54D7W
M1 Band	BW	Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
13	5	QPSK	23.50	ERP	0.224	1.3430	1M34G7D
		16QAM	23.97	ERP	0.249	1.2718	1M27D7W
13	10	QPSK	23.49	ERP	0.223	1.9668	1M97G7D
		16QAM	23.89	ERP	0.245	2.0518	2M05D7W

M1 Band	BW	Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
26	1.4	QPSK	21.00	ERP	0.126	1.0962	1M10G7D
		16QAM	20.73	ERP	0.118	1.0994	1M10D7W
26	3	QPSK	20.96	ERP	0.125	1.2490	1M25G7D
		16QAM	20.62	ERP	0.115	1.1830	1M18D7W
26	5	QPSK	21.16	ERP	0.131	1.3587	1M36G7D
		16QAM	21.51	ERP	0.142	1.2934	1M29D7W
26	10	QPSK	20.92	ERP	0.124	2.5778	2M58G7D
		16QAM	21.60	ERP	0.145	2.5495	2M55D7W
26	15	QPSK	21.15	ERP	0.130	2.355	2M36G7D
		16QAM	21.63	ERP	0.146	2.377	2M38D7W
M1 Band	BW	Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
26 Part 90	1.4	QPSK	20.84	ERP	0.121	1.0974	1M10G7D
		16QAM	20.71	ERP	0.118	1.0980	1M10D7W
26 Part 90	3	QPSK	20.85	ERP	0.122	1.2675	1M27G7D
		16QAM	20.15	ERP	0.104	1.3861	1M39D7W
26 Part 90	5	QPSK	20.99	ERP	0.126	1.3541	1M35G7D
		16QAM	21.47	ERP	0.140	1.3285	1M33D7W
26 Part 90	10	QPSK	20.83	ERP	0.121	2.5316	2M53G7D
		16QAM	21.40	ERP	0.138	2.4742	2M47D7W

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#### 1.4 Test Methodology of Applied Standards

FCC 47 CFR Part 2, 22H, 24E, 27C, Part 90.

ISED RSS-130 Issue 2 Feb. 2019,

ISED RSS-132 Issue 3 Jan. 2013

ISED RSS-133 Issue 6, Amendment 1 Jan. 18, 2018, ISED RSS-139 Issue 3 July 16, 2015

ISED RSS-132 Issue 3 Dec. 2016

ANSI C63.26-2015

KDB971168 D01 Power Meas license Digital System v03r01

TS 151 010-1 is used to set, and measure the output power.

#### 1.5 Test Facility

SGS Taiwan Ltd. Electronics & Communication Laboratory No.134, Wu Kung Road,  
New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 24803 code 0513)

FCC Registration Numbers are: TW0001

Canada Registration number: 4620A-4

#### 1.6 Special Accessories

No special accessories were used during testing.

#### 1.7 Equipment Modifications

There were no modifications incorporated into the EUT.

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## 2 SYSTEM TEST CONFIGURATION

### 2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

### 2.2 EUT Exercise

The EUT (Transmitter) was operated in the continuous transmission mode employed with the simulator of the Base Station that fixates at test default channels to fix the Tx frequency which was for the purpose of the measurements.

### 2.3 Test Procedure

#### 2.3.1 Conducted Measurement at Antenna Port

According to measurement procured ANSI C63.26-2015, the EUT is placed on a turn table which is 0.8 m above ground plane. A low loss of RF cable was used to connect the antenna port of EUT to measurement equipment.

#### 2.3.2 Radiated Emissions (ERP/EIRP)

According to measurement procured ANSI C63.26-2015, The EUT is placed on a turn table, for emission measurements below 1 GHz is 0.8 m above ground plane, for emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both Horizontal and Vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna according to the requirements in Section 8 and 13.

### 2.4 Measurement Results Explanation Example

#### For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

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**Note:**

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.  
Following shows an offset computation in physical test.

	RF cable loss (dB)	Attenuation factor(dB)	offset(dB)
Low Band (Below 1GHz)	1.2	13.8	15
High Band (Above 1 GHz)	1.7	13.3	15

## 2.5 Final Amplifier Voltage and Current Information:

### NB IoT

#### Band 2

Test mode	DC voltage (V)	DC current (mA)
Band 2_3.75K	3.6	<b>167.000</b>
Band 2_15K	3.6	154.000

#### Band 4

Test mode	DC voltage (V)	DC current (mA)
Band 4_3.75K	3.6	<b>174.000</b>
Band 4_15K	3.6	162.000

#### Band 5

Test mode	DC voltage (V)	DC current (mA)
Band 5_3.75K	3.6	163.000
Band 5_15K	3.6	<b>194.000</b>

#### Band 12

Test mode	DC voltage (V)	DC current (mA)
Band 12_3.75K	3.6	192.000
Band 12_15K	3.6	<b>207.000</b>

#### Band 13

Test mode	DC voltage (V)	DC current (mA)
Band 13_3.75K	3.6	173.000
Band 13_15K	3.6	<b>184.000</b>

#### Band 26

Test mode	DC voltage (V)	DC current (mA)
Band 26_3.75K	3.6	183.000
Band 26_15K	3.6	<b>192.000</b>

#### Band 26\_Part90

Test mode	DC voltage (V)	DC current (mA)
Band 26_Part90_3.75K	3.6	<b>194.000</b>
Band 26_Part90_15K	3.6	186.000

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## Cat M1

### M1 Band 2

Test mode	DC voltage (V)	DC current (mA)
M1 Band 2_1.4M QPSK	3.6	168.000
M1 Band 2_1.4M 16QAM	3.6	156.000
M1 Band 2_3M QPSK	3.6	165.000
M1 Band 2_3M 16QAM	3.6	201.000
M1 Band 2_5M QPSK	3.6	195.000
M1 Band 2_5M 16QAM	3.6	193.000
M1 Band 2_10M QPSK	3.6	<b>203.000</b>
M1 Band 2_10M 16QAM	3.6	184.000
M1 Band 2_15M QPSK	3.6	176.000
M1 Band 2_15M 16QAM	3.6	186.000
M1 Band 2_20M QPSK	3.6	169.000
M1 Band 2_20M 16QAM	3.6	187.000

### M1 Band 4

Test mode	DC voltage (V)	DC current (mA)
M1 Band 4_1.4M QPSK	3.6	175.000
M1 Band 4_1.4M 16QAM	3.6	183.000
M1 Band 4_3M QPSK	3.6	162.000
M1 Band 4_3M 16QAM	3.6	195.000
M1 Band 4_5M QPSK	3.6	183.000
M1 Band 4_5M 16QAM	3.6	187.000
M1 Band 4_10M QPSK	3.6	179.000
M1 Band 4_10M 16QAM	3.6	166.000
M1 Band 4_15M QPSK	3.6	182.000
M1 Band 4_15M 16QAM	3.6	194.000
M1 Band 4_20M QPSK	3.6	<b>198.000</b>
M1 Band 4_20M 16QAM	3.6	178.000

### M1 Band 5

Test mode	DC voltage (V)	DC current (mA)
M1 Band 5_1.4M QPSK	3.6	212.000
M1 Band 5_1.4M 16QAM	3.6	198.000
M1 Band 5_3M QPSK	3.6	189.000
M1 Band 5_3M 16QAM	3.6	185.000
M1 Band 5_5M QPSK	3.6	<b>219.000</b>
M1 Band 5_5M 16QAM	3.6	192.000
M1 Band 5_10M QPSK	3.6	185.000
M1 Band 5_10M 16QAM	3.6	174.000

### M1 Band 12

Test mode	DC voltage (V)	DC current (mA)
M1 Band 5_1.4M QPSK	3.6	<b>199.000</b>
M1 Band 5_1.4M 16QAM	3.6	168.000
M1 Band 5_3M QPSK	3.6	185.000
M1 Band 5_3M 16QAM	3.6	184.000
M1 Band 5_5M QPSK	3.6	193.000
M1 Band 5_5M 16QAM	3.6	178.000
M1 Band 5_10M QPSK	3.6	162.000
M1 Band 5_10M 16QAM	3.6	181.000
M1 Band 5_10M 64QAM	3.6	197.000

### M1 Band 13

Test mode	DC voltage (V)	DC current (mA)
M1 Band 13_5M QPSK	3.6	186.000
M1 Band 13_5M 16QAM	3.6	189.000
M1 Band 13_10M QPSK	3.6	175.000
M1 Band 13_10M 16QAM	3.6	<b>192.000</b>

### M1 Band 26

Test mode	DC voltage (V)	DC current (mA)
M1 Band 26_1.4M QPSK	3.6	185.000
M1 Band 26_1.4M 16QAM	3.6	<b>196.000</b>
M1 Band 26_3M QPSK	3.6	168.000
M1 Band 26_3M 16QAM	3.6	178.000
M1 Band 26_5M QPSK	3.6	182.000
M1 Band 26_5M 16QAM	3.6	194.000
M1 Band 26_10M QPSK	3.6	173.000
M1 Band 26_10M 16QAM	3.6	169.000
M1 Band 26_15M QPSK	3.6	171.000
M1 Band 26_15M 16QAM	3.6	193.000

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## M1 Band 26 for Part 90S

Test Mode	DC voltage (V)	DC current (mA)
M1 Band 26_1.4M QPSK	3.6	195.000
M1 Band 26_1.4M 16QAM	3.6	192.000
M1 Band 26_3M QPSK	3.6	186.000
M1 Band 26_3M 16QAM	3.6	187.000
M1 Band 26_5M QPSK	3.6	177.000
M1 Band 26_5M 16QAM	3.6	<b>196.000</b>
M1 Band 26_10M QPSK	3.6	183.000
M1 Band 26_10M 16QAM	3.6	181.000

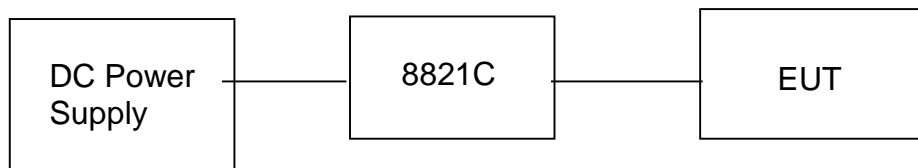
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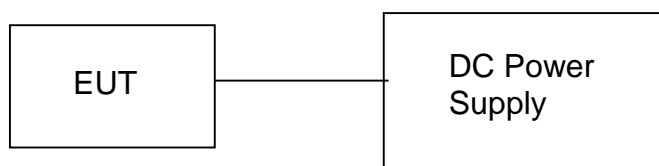
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## 2.6 Configuration of Tested System

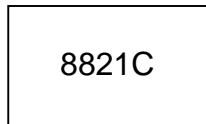
**Fig. 2-1 Configuration of Tested System (Fixed Channel-Conducted)**



**Fig. 2-2 Configuration of Tested System (Fixed Channel-Radiated)**



### Remote Side



**Table 2-1 Equipment Used in**

Item	Equipment	Mfr/Brand	Model/ Type No.	Series No.	Data Cable	Power Cord
1.	Radio Communication Analyser	Anritsu	MT8821C	6261786084	Shielded	Un-shielded
2.	DC Power Supply	Agilent	E3640A	MY52410006	N/A	N/A

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### 3 SUMMARY OF TEST RESULTS

FCC Rules	IC Rules	Description Of Test	Result
§2.1046(a)	RSS-GEN §6.12	RF Power Output	Compliant
§22.913(a)(5) §24.232(c) §27.50(c)(10) §27.50(d)(4) §27.50(b)(10) §90.635(b)	RSS-130 §4.6    RSS-132 §5.4 RSS-133 §6.4    RSS-139 §6.5	ERP/ EIRP measurement	Compliant
§2.1053 §22.917(a) §24.238(a) §27.53(f) §27.53(g) §27.53(h) §90.691(a)(2)	RSS-GEN §6.13 RSS-130 §4.7    RSS-132 §5.5 RSS-133 §6.5    RSS-139 §6.6	Field Strength of Spurious Radiation	Compliant

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## 4 DESCRIPTION OF TEST MODES

### 4.1 The Worst Test Modes and Configuration

1. The EUT has been tested under operating condition.
2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, X(E1)Y(E2)Z(H) axis and antenna ports. The worst case was found as listed below. Following channel(s) was (were) selected for the final test as listed below:

### 4.2 NB IoT

NB IoT Modes	Radiated Emission		
	E1	E2	H
B2	-	V	-
B4	-	V	-
B5	-	V	-
B12	-	V	-
B13	-	V	-
B26	-	V	-
B26 Part 90S	-	V	-

NB IoT Modes	Test Items	Subcarrier		Modulation		Test		
		3.75	15	BPSK	QPSK	L	M	H
B2	EIRP	V	V	V	V	V	V	V
	Radiated Spurious Emission	V	-	V	-	V	V	V
NB IoT Modes	Test Items	Subcarrier		Modulation		Test		
		3.75	15	BPSK	QPSK	L	M	H
B4	EIRP	V	V	V	V	V	V	V
	Radiated Spurious Emission	V	-	V	-	V	V	V
NB IoT Modes	Test Items	Subcarrier		Modulation		Test		
		3.75	15	BPSK	QPSK	L	M	H
B5	EIRP	V	V	V	V	V	V	V
	Radiated Spurious Emission	V	-	V	-	V	V	V
NB IoT Modes	Test Items	Subcarrier		Modulation		Test		
		3.75	15	BPSK	QPSK	L	M	H
B12	EIRP	V	V	V	V	V	V	V
	Radiated Spurious Emission	V	-	V	-	V	V	V
NB IoT Modes	Test Items	Subcarrier		Modulation		Test		
		3.75	15	BPSK	QPSK	L	M	H
B13	EIRP	V	V	V	V	V	V	V
	Radiated Spurious Emission	V	-	V	-	V	V	V

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NB IoT Modes	Test Items	Subcarrier		Modulation		Test		
		3.75	15	BPSK	QPSK	L	M	H
B26	EIRP	V	V	V	V	V	V	V
	Radiated Spurious Emission	V	-	V	-	V	V	V
NB IoT Modes	Test Items	Subcarrier		Modulation		Test		
		3.75	15	BPSK	QPSK	L	M	H
B26 Part 90S	EIRP	V	V	V	V	V	V	V
	Radiated Spurious Emission	V	-	V	-	V	V	V

#### 4.3 Cat M1

##### M1 Band 2

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
RADIATED EMISSION	18675 to 19125	18675, 18900, 19125	15MHz	16QAM	1 RB, 0 RB Offest

##### M1 Band 4

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	19957 to 19393	19957, 20175, 19393	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	19965 to 22385	19965, 20175, 22385	3MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
RADIATED EMIS- SION	19975 to 20375	19975, 20175, 20375	15MHz	16QAM	1 RB, 5 RB Offest

##### M1 Band 5

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
RADIATED EMIS- SION	20425 to 20625	20425, 20525, 20625	5MHz	16QAM	1 RB, 0 RB Offest

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### M1 Band 12

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAMM	1 RB/ 0,5 RB Offest
RADIATED EMISSION	23060 to 23130	23060, 23095, 23130	10MHz	16QAM	1 RB, 5 RB Offest

### M1 Band 13

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	23230	23230	10MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
RADIATED EMIS- SION	23230	23230	10MHz	16QAM	1 RB/ 0 RB Offest

### M1 Band 26 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK, 16QAM,	1 RB/ 0,5 RB Offest
	26805 to 27025	26805, 26915, 27025	3MHz	QPSK, 16QAM,	1 RB/ 0,5 RB Offest
	26815 to 27015	26815, 26915, 27015	5MHz	QPSK, 16QAM,	1 RB/ 0,5 RB Offest
	26840 to 26990	26840, 26915, 26990	10MHz	QPSK, 16QAM,	1 RB/ 0,5 RB Offest
	26865 to 26965	26865, 26915, 26965	15MHz	QPSK, 16QAM,	1 RB/ 0,5 RB Offest
RADIATED EMISSION	26840 to 26990	26840, 26915, 26990	10MHz	16QAM	1 RB, 0 RB Offest

### M1 Band 26 for 90S MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	26705 to 26775	26705, 26740, 26775	3MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	26715 to 26765	26715, 26740, 26765	5MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	26740	26740	10MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
RADIATED EMISSION	26715 to 26765	26715, 26740, 26765	5MHz	16QAM	1 RB, 5 RB Offest

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## 5 MEASUREMENT UNCERTAINTY

Test Items	Uncertainty
RF Power Output	+/- 1.10 dB
ERP/ EIRP measurement	Vertical Polarization = +/- 4.74dB Horizontal Polarization = +/- 4.62dB
99% Occupied Bandwidth	+/- 5.19 Hz
Out of Band Emissions at Antenna Terminals and Band Edge	+/- 0.70 dB
Peak to Average Ratio	+/- 0.70 dB
Frequency Stability vs. Temperature	+/- 5.19 Hz
Frequency Stability vs. Voltage	+/- 5.19 Hz
Temperature	+/- 0.65 °C
Humidity	+/- 4.6 %
DC / AC Power Source	DC= +/- 0.13%, AC= +/- 0.2%

### Radiated Spurious Emission:

Measurement uncertainty (Polarization : <b>Vertical</b> )	9kHz – 30MHz: +/- 2.87 dB
	30MHz - 180MHz: +/- 3.37dB
	180MHz -417MHz: +/- 3.19dB
	0.417GHz-1GHz: +/- 3.19dB
	1GHz - 18GHz: +/- 4.04dB
	18GHz - 40GHz: +/- 4.04dB

Measurement uncertainty (Polarization : <b>Horizontal</b> )	9kHz – 30MHz: +/- 2.87 dB
	30MHz - 167MHz: +/- 4.22dB
	167MHz -500MHz: +/- 3.44dB
	0.5GHz-1GHz: +/- 3.39dB
	1GHz - 18GHz: +/- 4.08dB
	18GHz - 40GHz: +/- 4.08dB

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
2. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

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## 6 MAXMUM OUTPUT POWER

### 6.1 Standard Applicable

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals.

#### 6.1.1 FCC ERP/EIRP LIMIT

According to FCC §2.1046

##### **FCC 22.913(a)**

(5) mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

##### **FCC 24.232(c)**

Mobile and portable stations are limited to 2 W EIRP.

##### **FCC 27.50 (b)**

(10) Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

##### **FCC 27.50(c)**

(10) Portable stations (hand-held devices) are limited to 3 watts ERP.

##### **FCC 27.50(d)**

(4) Mobile, and portable (hand-held) stations operating in the 1710-1755 MHz, 1695-1710 MHz and 1755-1780 MHz bands are limited to 1W EIRP.

##### **FCC 90.635(b)**

Mobile station is limited to 100W ERP

##### **RSS-130 §4.6**

The e.r.p. shall not exceed 3 watts for mobile equipment, fixed subscriber equipment and portable equipment operating in the Band 617-652 and 663-698MHz.

##### **RSS-132 §5.4**

The equivalent isotropically radiated power (e.i.r.p.) for mobile equipment in operating in the Bands 824-849 and 869-894MHz shall not exceed 11.5 watts.

##### **RSS-133 §6.4**

The equivalent isotropically radiated power (e.i.r.p.) for transmitters shall not exceed the limits given in SRSP-510 which is 2 watts.

##### **RSS-139 §6.5**

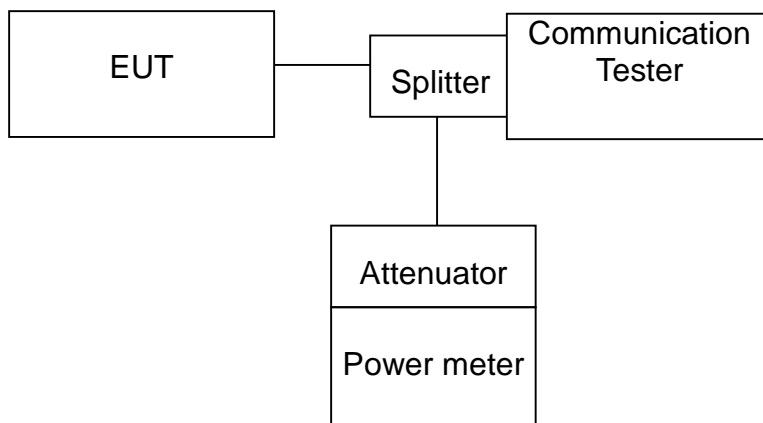
The equivalent isotropically radiated power (e.i.r.p.) for mobile and portable transmitters in the Bands 1710-1780MHz shall not exceed one watt.

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## 6.2 Test Set-up



**Note:** Measurement setup for testing on Antenna connector

## 6.3 Measurement Procedure

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading. TS 151 010-1 is reference to conduct the test measurement of output power.

The Procedure of KDB941225 (SAR Measurement Procedures for 3G devices, (WCD-MA/HSPA) was used for EUT and Base station setting. RMC 12.2kps is used for this testing, and KDB 971168 D01 Power Meas License Digital System as the supplemental test methodology to adjust the proper setting obtaining the measurement results

All bands conducted average power is obtained from the simulator telecommunication test set.

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP.

### TEST PROCEDURE:

ANSI C63.26:2015

KDB 971168 D01 Section 5.6

$$\text{ERP/EIRP} = \text{PMeas} + \text{GT-LC}$$

where: ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);

PMeas = measured transmitter output power or PSD, in dBm or dBW;

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.2  
For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.

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## 6.4 Measurement Equipment Used

Conducted Emission (measured at antenna port) Test Site					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Radio Communication Analyser	Anritsu	MT8821C	6261786084	01/09/2019	01/08/2020

## 6.5 Measurement Result

### NB IoT

Gain: 5.36

LTE NB-IoT Band 2						
Channel	Freq. (MHz)	Modulation	Subcarrier Spacing (kHz)	N <sub>tones</sub>	Measure Result	
					Power(dBm)	EIRP(dBm)
18601	1850.1	BPSK	3.75	1@0	22.75	28.11
				1@47	22.65	28.01
		QPSK	15	1@11	22.96	28.32
				1@0	22.99	28.35
				1@11	22.92	28.28
				12@0	21.23	26.59
18900	1880	BPSK	3.75	1@0	22.74	28.1
				1@47	22.62	27.98
		QPSK	15	1@11	22.91	28.27
				1@0	22.84	28.2
				1@11	22.92	28.28
				12@0	21.21	26.57
19199	1909.9	BPSK	3.75	1@0	22.59	27.95
				1@47	22.54	27.9
		QPSK	15	1@11	22.51	27.87
				1@0	22.58	27.94
				1@11	22.61	27.97
				12@0	21.08	26.44

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Gain: 4.3

LTE NB-IoT Band 4						
Channel	Freq. (MHz)	Modulation	Subcarrier Spacing (kHz)	N <sub>tones</sub>	Measure Result	
					Power(dBm)	EIRP(dBm)
19951	1710.1	BPSK	3.75	1@0	22.45	26.75
				1@47	22.59	26.89
		QPSK	15	1@11	22.86	27.16
				1@0	22.89	27.19
				1@11	22.94	27.24
				12@0	21.12	25.42
20175	1732.5	BPSK	3.75	1@0	22.56	26.86
				1@47	22.38	26.68
		QPSK	15	1@11	22.42	26.72
				1@0	22.64	26.94
				1@11	22.59	26.89
				12@0	21.05	25.35
20399	1754.9	BPSK	3.75	1@0	22.48	26.78
				1@47	22.33	26.63
		QPSK	15	1@11	22.74	27.04
				1@0	22.61	26.91
				1@11	22.69	26.99
				12@0	20.98	25.28

Gain: -1.63

LTE NB-IoT Band 5						
Channel	Freq. (MHz)	Modulation	Subcarrier Spacing (kHz)	N <sub>tones</sub>	Measure Result	
					Power(dBm)	EIRP(dBm)
20401	824.1	BPSK	3.75	1@0	22.58	20.95
				1@47	22.41	20.78
		QPSK	15	1@11	22.35	20.72
				1@0	22.37	20.74
				1@11	22.48	20.85
				12@0	20.9	19.27
20525	836.5	BPSK	3.75	1@0	22.59	20.96
				1@47	22.62	20.99
		QPSK	15	1@11	22.66	21.03
				1@0	22.65	21.02
				1@11	22.51	20.88
				12@0	21.09	19.46
20649	848.9	BPSK	3.75	1@0	22.52	20.89
				1@47	22.67	21.04
		QPSK	15	1@11	22.89	21.26
				1@0	22.62	20.99
				1@11	22.61	20.98
				12@0	21.06	19.43

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Gain: -0.36

LTE NB-IoT Band 12						
Channel	Freq. (MHz)	Modulation	Subcarrier Spacing (kHz)	N <sub>tones</sub>	Measure Result	
					Power(dBm)	EIRP(dBm)
23011	699.1	BPSK	3.75	1@0	23.15	22.79
				1@47	23.21	22.85
		QPSK	15	1@11	23.75	23.39
				1@0	23.59	23.23
				1@11	23.68	23.32
				12@0	21.85	21.49
23095	707.5	BPSK	3.75	1@0	23.05	22.69
				1@47	23.14	22.78
		QPSK	15	1@11	23.41	23.05
				1@0	23.48	23.12
				1@11	23.56	23.2
				12@0	21.75	21.39
23179	715.9	BPSK	3.75	1@0	23.11	22.75
				1@47	23.3	22.94
		QPSK	15	1@11	23.22	22.86
				1@0	23.31	22.95
				1@11	23.25	22.89
				12@0	21.51	21.15

Gain: 0.18

LTE NB-IoT Band 13						
Channel	Freq. (MHz)	Modulation	Subcarrier Spacing (kHz)	N <sub>tones</sub>	Measure Result	
					Power(dBm)	EIRP(dBm)
23181	777.1	BPSK	3.75	1@0	22.95	23.13
				1@47	22.83	23.01
		QPSK	15	1@11	22.81	22.99
				1@0	22.85	23.03
				1@11	22.81	22.99
				12@0	21.1	21.28
23230	782	BPSK	3.75	1@0	22.79	22.97
				1@47	22.68	22.86
		QPSK	15	1@11	22.72	22.9
				1@0	22.75	22.93
				1@11	22.73	22.91
				12@0	21.01	21.19
23279	786.9	BPSK	3.75	1@0	22.56	22.74
				1@47	22.63	22.81
		QPSK	15	1@11	22.61	22.79
				1@0	22.62	22.8
				1@11	22.6	22.78
				12@0	20.91	21.09

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Gain: -1.63

LTE NB-IoT Band 26						
Channel	Freq. (MHz)	Modulation	Subcarrier Spacing (kHz)	N <sub>tones</sub>	Measure Result	
					Power(dBm)	EIRP(dBm)
26791	824.1	BPSK	3.75	1@0	22.45	20.82
				1@47	22.49	20.86
		BPSK	15	1@11	22.75	21.12
				1@0	22.76	21.13
		QPSK	15	1@11	22.84	21.21
				12@0	20.91	19.28
26915	836.5	BPSK	3.75	1@0	22.48	20.85
				1@47	22.55	20.92
		BPSK	15	1@11	22.88	21.25
				1@0	22.81	21.18
		QPSK	15	1@11	22.82	21.19
				12@0	21.02	19.39
27039	848.9	BPSK	3.75	1@0	22.69	21.06
				1@47	22.63	21
		BPSK	15	1@11	23.15	21.52
				1@0	23.06	21.43
		QPSK	15	1@11	23.09	21.46
				12@0	21.28	19.65

Gain: -1.68

LTE NB-IoT Band 26 Part90						
Channel	Freq. (MHz)	Modulation	Subcarrier Spacing (kHz)	N <sub>tones</sub>	Measure Result	
					Power(dBm)	EIRP(dBm)
26691	814.1	BPSK	3.75	1@0	22.47	20.84
				1@47	22.35	20.72
		BPSK	15	1@11	22.79	21.16
				1@0	22.64	21.01
		QPSK	15	1@11	22.78	21.15
				12@0	20.96	19.33
26740	819	BPSK	3.75	1@0	22.59	20.96
				1@47	22.38	20.75
		BPSK	15	1@11	22.68	21.05
				1@0	22.76	21.13
		QPSK	15	1@11	22.73	21.1
				12@0	20.92	19.29
26789	823.9	BPSK	3.75	1@0	22.45	20.82
				1@47	22.48	20.85
		BPSK	15	1@11	22.66	21.03
				1@0	22.68	21.05
		QPSK	15	1@11	22.63	21
				12@0	20.78	19.15

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## CAT M1

Antenna gain (dBi) 5.36

M1 Band 2 Uplink frequency band : 1850 to 1910 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
1.4	18607	1850.7	QPSK	1	0	0	22.14	27.50	33	-5.5
				1	5	0	22.36	27.72	33	-5.28
				6	0	0	20.47	25.83	33	-7.17
	18900	1880	QPSK	1	0	0	22.58	27.94	33	-5.06
				1	5	0	22.64	<b>28.00</b>	33	-5
				6	0	0	20.42	25.78	33	-7.22
	19193	1909.3	QPSK	1	0	0	22.21	27.57	33	-5.43
				1	5	0	22.36	27.72	33	-5.28
				6	0	0	20.36	25.72	33	-7.28
	18607	1850.7	16QAM	1	0	0	22.35	27.71	33	-5.29
				1	5	0	22.58	<b>27.94</b>	33	-5.06
				6	0	0	20.61	25.97	33	-7.03
	18900	1880	16QAM	1	0	0	22.31	27.67	33	-5.33
				1	5	0	22.38	27.74	33	-5.26
				6	0	0	20.62	25.98	33	-7.02
	19193	1909.3	16QAM	1	0	0	22.28	27.64	33	-5.36
				1	5	0	22.41	27.77	33	-5.23
				6	0	0	20.39	25.75	33	-7.25

Antenna gain (dBi) 5.36

M1 Band 2 Uplink frequency band : 1850 to 1910 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
3	18615	1851.5	QPSK	1	0	0	22.51	27.87	33	-5.13
				1	5	0	22.54	27.90	33	-5.1
				6	0	0	20.48	25.84	33	-7.16
	18900	1880	QPSK	1	0	0	22.56	27.92	33	-5.08
				1	5	0	22.67	<b>28.03</b>	33	-4.97
				6	0	0	20.59	25.95	33	-7.05
	19185	1908.5	QPSK	1	0	1	22.42	27.78	33	-5.22
				1	5	1	22.57	27.93	33	-5.07
				6	0	1	20.42	25.78	33	-7.22
	18615	1851.5	16QAM	1	0	0	21.81	27.17	33	-5.83
				1	5	0	21.85	27.21	33	-5.79
				6	0	0	20.68	26.04	33	-6.96
	18900	1880	16QAM	1	0	0	22.11	27.47	33	-5.53
				1	5	0	22.15	27.51	33	-5.49
				6	0	0	20.69	26.05	33	-6.95
	19185	1908.5	16QAM	1	0	1	22.34	27.70	33	-5.3
				1	5	1	22.43	<b>27.79</b>	33	-5.21
				6	0	1	20.51	25.87	33	-7.13

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Antenna gain (dBi) 5.36

M1 Band 2_Uplink frequency band : 1850 to 1910 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
5	18625	1852.5	QPSK	1	0	0	22.48	27.84	33	-5.16
				1	5	0	22.57	27.93	33	-5.07
				6	0	0	21.51	26.87	33	-6.13
	18900	1880	QPSK	1	0	0	22.59	27.95	33	-5.05
				1	5	0	22.68	<b>28.04</b>	33	-4.96
				6	0	0	21.39	26.75	33	-6.25
	19175	1907.5	QPSK	1	0	3	22.54	27.90	33	-5.1
				1	5	3	22.60	27.96	33	-5.04
				6	0	3	21.48	26.84	33	-6.16
	18625	1852.5	16QAM	1	0	0	23.22	28.58	33	-4.42
				1	5	0	23.31	<b>28.67</b>	33	-4.33
				6	0	0	20.64	26.00	33	-7
	18900	1880	16QAM	1	0	0	23.15	28.51	33	-4.49
				1	5	0	23.20	28.56	33	-4.44
				6	0	0	20.74	26.10	33	-6.9
	19175	1907.5	16QAM	1	0	3	23.15	28.51	33	-4.49
				1	5	3	23.21	28.57	33	-4.43
				6	0	3	20.58	25.94	33	-7.06

Antenna gain (dBi) 5.36

M1 Band 2_Uplink frequency band : 1850 to 1910 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
10	18650	1855	QPSK	1	0	0	22.25	27.61	33	-5.39
				1	5	0	22.31	27.67	33	-5.33
				6	0	0	21.48	26.84	33	-6.16
	18900	1880	QPSK	1	0	0	22.26	27.62	33	-5.38
				1	5	0	22.45	<b>27.81</b>	33	-5.19
				6	0	0	21.61	26.97	33	-6.03
	19150	1905	QPSK	1	0	7	22.25	27.61	33	-5.39
				1	5	7	22.16	27.52	33	-5.48
				6	0	7	21.39	26.75	33	-6.25
	18650	1855	16QAM	1	0	0	23.15	28.51	33	-4.49
				1	5	0	23.19	28.55	33	-4.45
				6	0	0	20.76	26.12	33	-6.88
	18900	1880	16QAM	1	0	0	23.25	28.61	33	-4.39
				1	5	0	23.31	<b>28.67</b>	33	-4.33
				6	0	0	20.61	25.97	33	-7.03
	19150	1905	16QAM	1	0	7	23.17	28.53	33	-4.47
				1	5	7	23.24	28.60	33	-4.4
				6	0	7	20.61	25.97	33	-7.03

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Antenna gain (dBi) 5.36

M1 Band 2 Uplink frequency band : 1850 to 1910 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
15	18675	1857.5	QPSK	1	0	0	22.41	27.77	33	-5.23
				1	5	0	22.45	27.81	33	-5.19
				6	0	0	22.59	27.95	33	-5.05
	18900	1880	QPSK	1	0	0	22.37	27.73	33	-5.27
				1	5	0	22.68	<b>28.04</b>	33	-4.96
				6	0	0	22.47	27.83	33	-5.17
	19125	1902.5	QPSK	1	0	11	22.35	27.71	33	-5.29
				1	5	11	22.31	27.67	33	-5.33
				6	0	11	22.56	27.92	33	-5.08
	18675	1857.5	16QAM	1	0	0	23.08	28.44	33	-4.56
				1	5	0	23.17	28.53	33	-4.47
				6	0	0	22.74	28.10	33	-4.9
	18900	1880	16QAM	1	0	0	23.18	28.54	33	-4.46
				1	5	0	23.42	<b>28.78</b>	33	-4.22
				6	0	0	22.75	28.11	33	-4.89
	19125	1902.5	16QAM	1	0	11	23.23	28.59	33	-4.41
				1	5	11	23.12	28.48	33	-4.52
				6	0	11	22.61	27.97	33	-5.03

Antenna gain (dBi) 5.36

M1 Band 2 Uplink frequency band : 1850 to 1910 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
20	18700	1860	QPSK	1	0	0	23.31	<b>28.67</b>	33	-4.33
				1	5	0	22.45	27.81	33	-5.19
				6	0	0	22.52	27.88	33	-5.12
	18900	1880	QPSK	1	0	0	22.31	27.67	33	-5.33
				1	5	0	22.49	27.85	33	-5.15
				6	0	0	22.61	27.97	33	-5.03
	19100	1900	QPSK	1	0	15	22.42	27.78	33	-5.22
				1	5	15	22.49	27.85	33	-5.15
				6	0	15	22.53	27.89	33	-5.11
	18700	1860	16QAM	1	0	0	23.12	28.48	33	-4.52
				1	5	0	23.18	28.54	33	-4.46
				6	0	0	22.74	28.10	33	-4.9
	18900	1880	16QAM	1	0	0	23.22	28.58	33	-4.42
				1	5	0	23.29	<b>28.65</b>	33	-4.35
				6	0	0	22.75	28.11	33	-4.89
	19100	1900	16QAM	1	0	15	23.15	28.51	33	-4.49
				1	5	15	23.10	28.46	33	-4.54
				6	0	15	22.54	27.90	33	-5.1

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Antenna gain (dBi) 4.3

M1 Band 4 Uplink frequency band : 1710 to 1755 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
1.4	19957	1710.7	QPSK	1	0	0	22.11	26.41	30	-3.59
				1	5	0	22.32	26.62	30	-3.38
				6	0	0	20.35	24.65	30	-5.35
	20175	1732.5	QPSK	1	0	0	22.49	26.79	30	-3.21
				1	5	0	22.62	<b>26.92</b>	30	-3.08
				6	0	0	20.52	24.82	30	-5.18
	20393	1754.3	QPSK	1	0	0	22.33	26.63	30	-3.37
				1	5	0	22.35	26.65	30	-3.35
				6	0	0	20.37	24.67	30	-5.33
	19957	1710.7	16QAM	1	0	0	22.29	26.59	30	-3.41
				1	5	0	22.53	<b>26.83</b>	30	-3.17
				6	0	0	20.51	24.81	30	-5.19
	20175	1732.5	16QAM	1	0	0	22.39	26.69	30	-3.31
				1	5	0	22.51	26.81	30	-3.19
				6	0	0	20.62	24.92	30	-5.08
	20393	1754.3	16QAM	1	0	0	22.18	26.48	30	-3.52
				1	5	0	22.32	26.62	30	-3.38
				6	0	0	20.21	24.51	30	-5.49

Antenna gain (dBi) 4.3

M1 Band 4 Uplink frequency band : 1710 to 1755 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
3	19965	1711.5	QPSK	1	0	0	22.41	26.71	30	-3.29
				1	5	0	22.59	26.89	30	-3.11
				6	0	0	20.48	24.78	30	-5.22
	20175	1732.5	QPSK	1	0	0	22.57	26.87	30	-3.13
				1	5	0	22.69	<b>26.99</b>	30	-3.01
				6	0	0	20.51	24.81	30	-5.19
	20385	1753.5	QPSK	1	0	1	22.43	26.73	30	-3.27
				1	5	1	22.57	26.87	30	-3.13
				6	0	1	20.38	24.68	30	-5.32
	19965	1711.5	16QAM	1	0	0	21.85	26.15	30	-3.85
				1	5	0	21.93	26.23	30	-3.77
				6	0	0	20.62	24.92	30	-5.08
	20175	1732.5	16QAM	1	0	0	22.13	26.43	30	-3.57
				1	5	0	22.21	26.51	30	-3.49
				6	0	0	20.68	24.98	30	-5.02
	20385	1753.5	16QAM	1	0	1	22.31	26.61	30	-3.39
				1	5	1	22.38	<b>26.68</b>	30	-3.32
				6	0	1	20.51	24.81	30	-5.19

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Antenna gain (dBi) 4.3

M1 Band 4 Uplink frequency band : 1710 to 1755 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)	
5	19975	1712.5	QPSK	1	0	0	22.48	26.78	30	-3.22	
				1	5	0	22.56	26.86	30	-3.14	
				6	0	0	21.59	25.89	30	-4.11	
	20175	1732.5	QPSK	1	0	0	22.58	26.88	30	-3.12	
				1	5	0	22.73	<b>27.03</b>	30	-2.97	
				6	0	0	21.31	25.61	30	-4.39	
	20375	1752.5	QPSK	1	0	3	22.48	26.78	30	-3.22	
				1	5	3	22.65	26.95	30	-3.05	
				6	0	3	21.43	25.73	30	-4.27	
	19975	1712.5	16QAM	1	0	0	23.21	27.51	30	-2.49	
				1	5	0	23.25	27.55	30	-2.45	
				6	0	0	20.61	24.91	30	-5.09	
	20175	1732.5	16QAM	1	0	0	23.19	27.49	30	-2.51	
				1	5	0	23.34	<b>27.64</b>	30	-2.36	
				6	0	0	20.62	24.92	30	-5.08	
	20375	1752.5	16QAM	1	0	3	23.11	27.41	30	-2.59	
				1	5	3	23.25	27.55	30	-2.45	
				6	0	3	20.63	24.93	30	-5.07	

Antenna gain (dBi) 4.3

M1 Band 4 Uplink frequency band : 1710 to 1755 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)	
10	20000	1715	QPSK	1	0	0	22.31	26.61	30	-3.39	
				1	5	0	22.48	<b>26.78</b>	30	-3.22	
				6	0	0	21.52	25.82	30	-4.18	
	20175	1732.5	QPSK	1	0	0	22.21	26.51	30	-3.49	
				1	5	0	22.39	26.69	30	-3.31	
				6	0	0	21.59	25.89	30	-4.11	
	20375	1750	QPSK	1	0	7	22.33	26.63	30	-3.37	
				1	5	7	22.28	26.58	30	-3.42	
				6	0	7	21.57	25.87	30	-4.13	
	20000	1715	16QAM	1	0	0	23.08	27.38	30	-2.62	
				1	5	0	23.24	<b>27.54</b>	30	-2.46	
				6	0	0	20.61	24.91	30	-5.09	
	20175	1732.5	16QAM	1	0	0	23.16	27.46	30	-2.54	
				1	5	0	23.08	27.38	30	-2.62	
				6	0	0	20.51	24.81	30	-5.19	
	20375	1750	16QAM	1	0	7	23.02	27.32	30	-2.68	
				1	5	7	23.09	27.39	30	-2.61	
				6	0	7	20.61	24.91	30	-5.09	

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Antenna gain (dBi) 4.3

M1 Band 4 Uplink frequency band : 1710 to 1755 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
15	20025	1717.5	QPSK	1	0	0	22.25	26.55	30	-3.45
				1	5	0	22.47	26.77	30	-3.23
				6	0	0	22.71	<b>27.01</b>	30	-2.99
	20175	1732.5	QPSK	1	0	0	22.35	26.65	30	-3.35
				1	5	0	22.43	26.73	30	-3.27
				6	0	0	22.48	26.78	30	-3.22
	20325	1747.5	QPSK	1	0	11	22.35	26.65	30	-3.35
				1	5	11	22.59	26.89	30	-3.11
				6	0	11	22.42	26.72	30	-3.28
	20025	1717.5	16QAM	1	0	0	22.27	26.57	30	-3.43
				1	5	0	22.51	26.81	30	-3.19
				6	0	0	22.69	<b>26.99</b>	30	-3.01
	20175	1732.5	16QAM	1	0	0	22.29	26.59	30	-3.41
				1	5	0	22.41	26.71	30	-3.29
				6	0	0	22.53	26.83	30	-3.17
	20325	1747.5	16QAM	1	0	11	22.56	26.86	30	-3.14
				1	5	11	22.43	26.73	30	-3.27
				6	0	11	22.49	26.79	30	-3.21

Antenna gain (dBi) 4.3

M1 Band 4 Uplink frequency band : 1710 to 1755 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
20	20050	1720	QPSK	1	0	0	22.41	26.71	30	-3.29
				1	5	0	22.57	26.87	30	-3.13
				6	0	0	22.63	26.93	30	-3.07
	20175	1732.5	QPSK	1	0	0	22.58	26.88	30	-3.12
				1	5	0	22.72	<b>27.02</b>	30	-2.98
				6	0	0	22.52	26.82	30	-3.18
	20300	1745	QPSK	1	0	15	22.48	26.78	30	-3.22
				1	5	15	22.46	26.76	30	-3.24
				6	0	15	22.41	26.71	30	-3.29
	20050	1720	16QAM	1	0	0	22.38	26.68	30	-3.32
				1	5	0	22.62	26.92	30	-3.08
				6	0	0	22.69	<b>26.99</b>	30	-3.01
	20175	1732.5	16QAM	1	0	0	22.51	26.81	30	-3.19
				1	5	0	22.57	26.87	30	-3.13
				6	0	0	22.53	26.83	30	-3.17
	20300	1745	16QAM	1	0	15	22.44	26.74	30	-3.26
				1	5	15	22.58	26.88	30	-3.12
				6	0	15	22.56	26.86	30	-3.14

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Antenna gain (dBi) -1.63

M1 Band 5_Uplink frequency band : 824 to 849 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
1.4	20407	824.7	QPSK	1	0	0	22.51	18.73	20.88	38.45	-17.57
				1	5	0	22.58	18.80	20.95	38.45	-17.5
				6	0	0	20.62	16.84	18.99	38.45	-19.46
	20525	836.5	QPSK	1	0	0	22.63	18.85	21.00	38.45	-17.45
				1	5	0	22.81	19.03	21.18	38.45	-17.27
				6	0	0	22.68	18.90	21.05	38.45	-17.4
	20643	848.3	QPSK	1	0	0	22.65	18.87	21.02	38.45	-17.43
				1	5	0	22.61	18.83	20.98	38.45	-17.47
				6	0	0	20.75	16.97	19.12	38.45	-19.33
	20407	824.7	16QAM	1	0	0	22.63	18.85	21.00	38.45	-17.45
				1	5	0	22.05	18.27	20.42	38.45	-18.03
				6	0	0	20.68	16.90	19.05	38.45	-19.4
	20525	836.5	16QAM	1	0	0	22.24	18.46	20.61	38.45	-17.84
				1	5	0	22.43	18.65	20.80	38.45	-17.65
				6	0	0	20.81	17.03	19.18	38.45	-19.27
	20643	848.3	16QAM	1	0	0	22.29	18.51	20.66	38.45	-17.79
				1	5	0	22.15	18.37	20.52	38.45	-17.93
				6	0	0	20.99	17.21	19.36	38.45	-19.09

Antenna gain (dBi) -1.63

M1 Band 5_Uplink frequency band : 824 to 849 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
3	20415	825.5	QPSK	1	0	0	22.63	18.85	21.00	38.45	-17.45
				1	5	0	22.65	18.87	21.02	38.45	-17.43
				6	0	0	20.63	16.85	19.00	38.45	-19.45
	20525	836.5	QPSK	1	0	0	22.64	18.86	21.01	38.45	-17.44
				1	5	0	22.60	18.82	20.97	38.45	-17.48
				6	0	0	20.71	16.93	19.08	38.45	-19.37
	20635	847.5	QPSK	1	0	1	22.62	18.84	20.99	38.45	-17.46
				1	5	1	22.74	18.96	21.11	38.45	-17.34
				6	0	1	20.75	16.97	19.12	38.45	-19.33
	20415	825.5	16QAM	1	0	0	22.11	18.33	20.48	38.45	-17.97
				1	5	0	22.31	18.53	20.68	38.45	-17.77
				6	0	0	20.72	16.94	19.09	38.45	-19.36
	20525	836.5	16QAM	1	0	0	22.18	18.40	20.55	38.45	-17.9
				1	5	0	22.26	18.48	20.63	38.45	-17.82
				6	0	0	20.89	17.11	19.26	38.45	-19.19
	20635	847.5	16QAM	1	0	1	22.51	18.73	20.88	38.45	-17.57
				1	5	1	22.59	18.81	20.96	38.45	-17.49
				6	0	1	20.97	17.19	19.34	38.45	-19.11

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Antenna gain (dBi) -1.63

M1 Band 5 Uplink frequency band : 824 to 849 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
5	20425	826.5	QPSK	1	0	0	22.61	18.83	20.98	38.45	-17.47
				1	5	0	22.82	19.04	21.19	38.45	-17.26
				6	0	0	21.76	17.98	20.13	38.45	-18.32
	20525	836.5	QPSK	1	0	0	22.88	19.10	21.25	38.45	-17.2
				1	5	0	22.62	18.84	20.99	38.45	-17.46
				6	0	0	21.78	18.00	20.15	38.45	-18.3
	20625	846.5	QPSK	1	0	3	22.79	19.01	21.16	38.45	-17.29
				1	5	3	22.72	18.94	21.09	38.45	-17.36
				6	0	3	21.62	17.84	19.99	38.45	-18.46
	20425	826.5	16QAM	1	0	0	23.31	19.53	21.68	38.45	-16.77
				1	5	0	23.18	19.40	21.55	38.45	-16.9
				6	0	0	20.90	17.12	19.27	38.45	-19.18
	20525	836.5	16QAM	1	0	0	23.21	19.43	21.58	38.45	-16.87
				1	5	0	23.35	19.57	21.72	38.45	-16.73
				6	0	0	20.89	17.11	19.26	38.45	-19.19
	20625	846.5	16QAM	1	0	3	23.42	19.64	21.79	38.45	-16.66
				1	5	3	23.15	19.37	21.52	38.45	-16.93
				6	0	3	21.06	17.28	19.43	38.45	-19.02

Antenna gain (dBi) -1.63

M1 Band 5 Uplink frequency band : 824 to 849 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
10	20450	829	QPSK	1	0	0	22.86	19.08	21.23	38.45	-17.22
				1	5	0	22.48	18.70	20.85	38.45	-17.6
				6	0	0	21.65	17.87	20.02	38.45	-18.43
	20525	836.5	QPSK	1	0	0	22.58	18.80	20.95	38.45	-17.5
				1	5	0	22.54	18.76	20.91	38.45	-17.54
				6	0	0	21.48	17.70	19.85	38.45	-18.6
	20600	844	QPSK	1	0	7	22.69	18.91	21.06	38.45	-17.39
				1	5	7	22.67	18.89	21.04	38.45	-17.41
				6	0	7	21.70	17.92	20.07	38.45	-18.38
	20450	829	16QAM	1	0	0	23.29	19.51	21.66	38.45	-16.79
				1	5	0	23.35	19.57	21.72	38.45	-16.73
				6	0	0	20.67	16.89	19.04	38.45	-19.41
	20525	836.5	16QAM	1	0	0	23.42	19.64	21.79	38.45	-16.66
				1	5	0	23.28	19.50	21.65	38.45	-16.8
				6	0	0	20.88	17.10	19.25	38.45	-19.2
	20600	844	16QAM	1	0	7	23.21	19.43	21.58	38.45	-16.87
				1	5	7	23.19	19.41	21.56	38.45	-16.89
				6	0	7	20.62	16.84	18.99	38.45	-19.46

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Antenna gain (dBi) -0.36

M1 Band 12 Uplink frequency band : 699 to 716 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
1.4	23017	699.7	QPSK	1	0	0	23.29	20.78	22.93	34.77	-11.84
				1	5	0	23.38	20.87	23.02	34.77	-11.75
				6	0	0	21.29	18.78	20.93	34.77	-13.84
	23095	707.5	QPSK	1	0	0	23.39	20.88	23.03	34.77	-11.74
				1	5	0	23.32	20.81	22.96	34.77	-11.81
				6	0	0	21.36	18.85	21.00	34.77	-13.77
	23173	715.5	QPSK	1	0	0	23.45	20.94	23.09	34.77	-11.68
				1	5	0	23.31	20.80	22.95	34.77	-11.82
				6	0	0	21.29	18.78	20.93	34.77	-13.84
	23017	699.7	16QAM	1	0	0	22.78	20.27	22.42	34.77	-12.35
				1	5	0	22.91	20.40	22.55	34.77	-12.22
				6	0	0	21.35	18.84	20.99	34.77	-13.78
	23095	707.5	16QAM	1	0	0	22.78	20.27	22.42	34.77	-12.35
				1	5	0	22.74	20.23	22.38	34.77	-12.39
				6	0	0	21.49	18.98	21.13	34.77	-13.64
	23173	715.5	16QAM	1	0	0	22.62	20.11	22.26	34.77	-12.51
				1	5	0	22.59	20.08	22.23	34.77	-12.54
				6	0	0	21.31	18.80	20.95	34.77	-13.82

Antenna gain (dBi) -0.36

M1 Band 12 Uplink frequency band : 699 to 716 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
3	23025	700.5	QPSK	1	0	0	23.35	20.84	22.99	34.77	-11.78
				1	5	0	23.39	20.88	23.03	34.77	-11.74
				6	0	0	21.28	18.77	20.92	34.77	-13.85
	23095	707.5	QPSK	1	0	0	23.41	20.90	23.05	34.77	-11.72
				1	5	0	23.15	20.64	22.79	34.77	-11.98
				6	0	0	21.24	18.73	20.88	34.77	-13.89
	23165	714.5	QPSK	1	0	1	23.09	20.58	22.73	34.77	-12.04
				1	5	1	23.24	20.73	22.88	34.77	-11.89
				6	0	1	21.19	18.68	20.83	34.77	-13.94
	23025	700.5	16QAM	1	0	0	23.08	20.57	22.72	34.77	-12.05
				1	5	0	23.16	20.65	22.80	34.77	-11.97
				6	0	0	21.48	18.97	21.12	34.77	-13.65
	23095	707.5	16QAM	1	0	0	22.77	20.26	22.41	34.77	-12.36
				1	5	0	22.62	20.11	22.26	34.77	-12.51
				6	0	0	21.45	18.94	21.09	34.77	-13.68
	23165	714.5	16QAM	1	0	1	22.65	20.14	22.29	34.77	-12.48
				1	5	1	22.58	20.07	22.22	34.77	-12.55
				6	0	1	21.37	18.86	21.01	34.77	-13.76

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Antenna gain (dBi) -0.36

M1 Band 12 Uplink frequency band : 699 to 716 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
5	23035	701.5	QPSK	1	0	0	23.31	20.80	22.95	34.77	-11.82
				1	5	0	23.25	20.74	22.89	34.77	-11.88
				6	0	0	22.12	19.61	21.76	34.77	-13.01
	23095	707.5	QPSK	1	0	0	23.24	20.73	22.88	34.77	-11.89
				1	5	0	23.48	20.97	23.12	34.77	-11.65
				6	0	0	22.31	19.80	21.95	34.77	-12.82
	23155	713.5	QPSK	1	0	3	23.25	20.74	22.89	34.77	-11.88
				1	5	3	23.19	20.68	22.83	34.77	-11.94
				6	0	3	22.19	19.68	21.83	34.77	-12.94
	23035	701.5	16QAM	1	0	0	23.85	21.34	23.49	34.77	-11.28
				1	5	0	23.74	21.23	23.38	34.77	-11.39
				6	0	0	21.36	18.85	21.00	34.77	-13.77
	23095	707.5	16QAM	1	0	0	23.68	21.17	23.32	34.77	-11.45
				1	5	0	23.75	21.24	23.39	34.77	-11.38
				6	0	0	21.39	18.88	21.03	34.77	-13.74
	23155	713.5	16QAM	1	0	3	23.64	21.13	23.28	34.77	-11.49
				1	5	3	23.51	21.00	23.15	34.77	-11.62
				6	0	3	21.16	18.65	20.80	34.77	-13.97

Antenna gain (dBi) -0.36

M1 Band 12 Uplink frequency band : 699 to 716 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
10	23060	704	QPSK	1	0	0	23.48	20.97	23.12	34.77	-11.65
				1	5	0	23.29	20.78	22.93	34.77	-11.84
				6	0	0	22.31	19.80	21.95	34.77	-12.82
	23095	707.5	QPSK	1	0	0	23.23	20.72	22.87	34.77	-11.9
				1	5	0	23.15	20.64	22.79	34.77	-11.98
				6	0	0	22.31	19.80	21.95	34.77	-12.82
	23130	711	QPSK	1	0	7	23.41	20.90	23.05	34.77	-11.72
				1	5	7	23.28	20.77	22.92	34.77	-11.85
				6	0	7	22.34	19.83	21.98	34.77	-12.79
	23060	704	16QAM	1	0	0	23.81	21.30	23.45	34.77	-11.32
				1	5	0	23.77	21.26	23.41	34.77	-11.36
				6	0	0	21.49	18.98	21.13	34.77	-13.64
	23095	707.5	16QAM	1	0	0	23.81	21.30	23.45	34.77	-11.32
				1	5	0	23.71	21.20	23.35	34.77	-11.42
				6	0	0	21.45	18.94	21.09	34.77	-13.68
	23130	711	16QAM	1	0	7	23.89	21.38	23.53	34.77	-11.24
				1	5	7	23.91	21.40	23.55	34.77	-11.22
				6	0	7	21.27	18.76	20.91	34.77	-13.86

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Antenna gain (dBi) 0.18

M1 Band 13 Uplink frequency band : 777 to 787 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
5	23205	779.5	QPSK	1	0	0	23.16	21.19	23.34	34.77	-11.43
				1	5	0	23.21	21.24	23.39	34.77	-11.38
				6	0	0	22.22	20.25	22.40	34.77	-12.37
	23230	782	QPSK	1	0	0	23.18	21.21	23.36	34.77	-11.41
				1	5	0	23.24	21.27	23.42	34.77	-11.35
				6	0	0	22.08	20.11	22.26	34.77	-12.51
	23255	784.5	QPSK	1	0	3	23.32	21.35	23.50	34.77	-11.27
				1	5	3	23.15	21.18	23.33	34.77	-11.44
				6	0	3	22.14	20.17	22.32	34.77	-12.45
	23205	779.5	16QAM	1	0	0	23.79	21.82	23.97	34.77	-10.8
				1	5	0	23.63	21.66	23.81	34.77	-10.96
				6	0	0	21.25	19.28	21.43	34.77	-13.34
	23230	782	16QAM	1	0	0	23.61	21.64	23.79	34.77	-10.98
				1	5	0	23.64	21.67	23.82	34.77	-10.95
				6	0	0	21.25	19.28	21.43	34.77	-13.34
	23255	784.5	16QAM	1	0	3	23.63	21.66	23.81	34.77	-10.96
				1	5	3	23.58	21.61	23.76	34.77	-11.01
				6	0	3	21.08	19.11	21.26	34.77	-13.51

Antenna gain (dBi) 0.18

M1 Band 13 Uplink frequency band : 777 to 787 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB allocation	RB Start	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
10	23230	782	QPSK	1	0	0	23.27	21.30	23.45	34.77	-11.32
				1	5	0	23.31	21.34	23.49	34.77	-11.28
				6	0	0	22.15	20.18	22.33	34.77	-12.44
	23230	782	16QAM	1	0	0	23.71	21.74	23.89	34.77	-10.88
				1	5	0	23.69	21.72	23.87	34.77	-10.9
				6	0	0	21.38	19.41	21.56	34.77	-13.21

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Antenna gain (dBi) -1.63

M1 Band 26 Uplink frequency band : 824 to 849 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
3	26805	825.5	QPSK	1	0	0	22.44	18.66	20.81	38.45	-17.64
				1	5	0	22.51	18.73	20.88	38.45	-17.57
				6	0	0	20.42	16.64	18.79	38.45	-19.66
	26915	836.5	QPSK	1	0	0	22.43	18.65	20.80	38.45	-17.65
				1	5	0	22.54	18.76	20.91	38.45	-17.54
				6	0	0	20.38	16.60	18.75	38.45	-19.7
	27025	847.5	QPSK	1	0	1	22.46	18.68	20.83	38.45	-17.62
				1	5	1	22.59	18.81	<b>20.96</b>	38.45	-17.49
				6	0	1	20.35	16.57	18.72	38.45	-19.73
	26805	825.5	16QAM	1	0	0	22.25	18.47	<b>20.62</b>	38.45	-17.83
				1	5	0	22.21	18.43	20.58	38.45	-17.87
				6	0	0	20.69	16.91	19.06	38.45	-19.39
	26915	836.5	16QAM	1	0	0	22.15	18.37	20.52	38.45	-17.93
				1	5	0	22.19	18.41	20.56	38.45	-17.89
				6	0	0	20.61	16.83	18.98	38.45	-19.47
	27025	847.5	16QAM	1	0	1	22.08	18.30	20.45	38.45	-18
				1	5	1	22.04	18.26	20.41	38.45	-18.04
				6	0	1	20.61	16.83	18.98	38.45	-19.47

Antenna gain (dBi) -1.63

M1 Band 26 Uplink frequency band : 824 to 849 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
5	26815	826.5	QPSK	1	0	0	22.42	18.64	20.79	38.45	-17.66
				1	5	0	22.61	18.83	20.98	38.45	-17.47
				6	0	0	21.52	17.74	19.89	38.45	-18.56
	26915	836.5	QPSK	1	0	0	22.69	18.91	21.06	38.45	-17.39
				1	5	0	22.73	18.95	21.10	38.45	-17.35
				6	0	0	21.45	17.67	19.82	38.45	-18.63
	27015	846.5	QPSK	1	0	3	22.69	18.91	21.06	38.45	-17.39
				1	5	3	22.79	19.01	<b>21.16</b>	38.45	-17.29
				6	0	3	21.53	17.75	19.90	38.45	-18.55
	26815	826.5	16QAM	1	0	0	23.05	19.27	21.42	38.45	-17.03
				1	5	0	23.14	19.36	<b>21.51</b>	38.45	-16.94
				6	0	0	20.53	16.75	18.90	38.45	-19.55
	26915	836.5	16QAM	1	0	0	23.12	19.34	21.49	38.45	-16.96
				1	5	0	23.01	19.23	21.38	38.45	-17.07
				6	0	0	20.62	16.84	18.99	38.45	-19.46
	27015	846.5	16QAM	1	0	3	23.07	19.29	21.44	38.45	-17.01
				1	5	3	23.05	19.27	21.42	38.45	-17.03
				6	0	3	20.60	16.82	18.97	38.45	-19.48

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Antenna gain (dBi) -1.63

M1 Band 26 Uplink frequency band : 824 to 849 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
10	26840	829	QPSK	1	0	0	22.41	18.63	20.78	38.45	-17.67
				1	5	0	22.48	18.70	20.85	38.45	-17.6
				6	0	0	21.35	17.57	19.72	38.45	-18.73
	26915	836.5	QPSK	1	0	0	22.42	18.64	20.79	38.45	-17.66
				1	5	0	22.55	18.77	<b>20.92</b>	38.45	-17.53
				6	0	0	21.47	17.69	19.84	38.45	-18.61
	26990	844	QPSK	1	0	7	22.43	18.65	20.80	38.45	-17.65
				1	5	7	22.41	18.63	20.78	38.45	-17.67
				6	0	7	21.59	17.81	19.96	38.45	-18.49
	26840	829	16QAM	1	0	0	23.23	19.45	<b>21.60</b>	38.45	-16.85
				1	5	0	23.17	19.39	21.54	38.45	-16.91
				6	0	0	20.94	17.16	19.31	38.45	-19.14
	26915	836.5	16QAM	1	0	0	23.05	19.27	21.42	38.45	-17.03
				1	5	0	23.12	19.34	21.49	38.45	-16.96
				6	0	0	20.92	17.14	19.29	38.45	-19.16
	26990	844	16QAM	1	0	7	23.12	19.34	21.49	38.45	-16.96
				1	5	7	23.19	19.41	21.56	38.45	-16.89
				6	0	7	20.72	16.94	19.09	38.45	-19.36

Antenna gain (dBi) -1.63

M1 Band 26 Uplink frequency band : 824 to 849 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
15	26865	831.5	QPSK	1	0	0	22.41	18.63	20.78	38.45	-17.67
				1	5	0	22.43	18.65	20.80	38.45	-17.65
				6	0	0	22.59	18.81	20.96	38.45	-17.49
	26915	836.5	QPSK	1	0	0	22.41	18.63	20.78	38.45	-17.67
				1	5	0	22.38	18.60	20.75	38.45	-17.7
				6	0	0	22.48	18.70	20.85	38.45	-17.6
	26965	841.5	QPSK	1	0	11	22.64	18.86	21.01	38.45	-17.44
				1	5	11	22.52	18.74	20.89	38.45	-17.56
				6	0	11	22.78	19.00	<b>21.15</b>	38.45	-17.3
	26865	831.5	16QAM	1	0	0	23.15	19.37	21.52	38.45	-16.93
				1	5	0	23.07	19.29	21.44	38.45	-17.01
				6	0	0	22.65	18.87	21.02	38.45	-17.43
	26915	836.5	16QAM	1	0	0	22.98	19.20	21.35	38.45	-17.1
				1	5	0	22.95	19.17	21.32	38.45	-17.13
				6	0	0	22.88	19.10	21.25	38.45	-17.2
	26965	841.5	16QAM	1	0	11	23.26	19.48	<b>21.63</b>	38.45	-16.82
				1	5	11	23.18	19.40	21.55	38.45	-16.9
				6	0	11	22.63	18.85	21.00	38.45	-17.45

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Antenna gain (dBi) -1.68

## Part 90S\_M1 Band 26 Uplink frequency band : 814 to 824 MHz

BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
1.4	26697	814.7	QPSK	1	0	0	22.40	18.57	20.72	50	-29.28
				1	5	0	22.38	18.55	20.70	50	-29.3
				6	0	0	20.51	16.68	18.83	50	-31.17
	26740	819	QPSK	1	0	0	22.49	18.66	20.81	50	-29.19
				1	5	0	22.36	18.53	20.68	50	-29.32
				6	0	0	20.42	16.59	18.74	50	-31.26
	26783	823.3	QPSK	1	0	0	22.52	18.69	20.84	50	-29.16
				1	5	0	22.47	18.64	20.79	50	-29.21
				6	0	0	20.38	16.55	18.70	50	-31.3
	26697	814.7	16QAM	1	0	0	22.31	18.48	20.63	50	-29.37
				1	5	0	22.29	18.46	20.61	50	-29.39
				6	0	0	20.54	16.71	18.86	50	-31.14
	26740	819	16QAM	1	0	0	22.26	18.43	20.58	50	-29.42
				1	5	0	22.39	18.56	20.71	50	-29.29
				6	0	0	20.55	16.72	18.87	50	-31.13
	26783	823.3	16QAM	1	0	0	22.24	18.41	20.56	50	-29.44
				1	5	0	22.26	18.43	20.58	50	-29.42
				6	0	0	20.47	16.64	18.79	50	-31.21

Antenna gain (dBi) -1.68

## Part 90S\_M1 Band 26 Uplink frequency band : 814 to 824 MHz

BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
3	26705	815.5	QPSK	1	0	0	22.41	18.58	20.73	50	-29.27
				1	5	0	22.48	18.65	20.80	50	-29.2
				6	0	0	20.35	16.52	18.67	50	-31.33
	26740	819	QPSK	1	0	0	22.38	18.55	20.70	50	-29.3
				1	5	0	22.34	18.51	20.66	50	-29.34
				6	0	0	20.39	16.56	18.71	50	-31.29
	26775	822.5	QPSK	1	0	1	22.53	18.70	20.85	50	-29.15
				1	5	1	22.51	18.68	20.83	50	-29.17
				6	0	1	20.48	16.65	18.80	50	-31.2
	26705	815.5	16QAM	1	0	0	21.71	17.88	20.03	50	-29.97
				1	5	0	21.66	17.83	19.98	50	-30.02
				6	0	0	20.52	16.69	18.84	50	-31.16
	26740	819	16QAM	1	0	0	21.77	17.94	20.09	50	-29.91
				1	5	0	21.83	18.00	20.15	50	-29.85
				6	0	0	20.43	16.60	18.75	50	-31.25
	26775	822.5	16QAM	1	0	1	21.82	17.99	20.14	50	-29.86
				1	5	1	21.79	17.96	20.11	50	-29.89
				6	0	1	20.58	16.75	18.90	50	-31.1

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Antenna gain (dBi) -1.68

Part 90S_M1 Band 26 Uplink frequency band : 814 to 824 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
5	26715	816.5	QPSK	1	0	0	22.58	18.75	20.90	50	-29.1
				1	5	0	22.48	18.65	20.80	50	-29.2
				6	0	0	21.31	17.48	19.63	50	-30.37
	26740	819	QPSK	1	0	0	22.54	18.71	20.86	50	-29.14
				1	5	0	22.49	18.66	20.81	50	-29.19
				6	0	0	21.38	17.55	19.70	50	-30.3
	26765	821.5	QPSK	1	0	3	22.67	18.84	<b>20.99</b>	50	-29.01
				1	5	3	22.53	18.70	20.85	50	-29.15
				6	0	3	21.42	17.59	19.74	50	-30.26
	26715	816.5	16QAM	1	0	0	23.12	19.29	21.44	50	-28.56
				1	5	0	23.09	19.26	21.41	50	-28.59
				6	0	0	20.68	16.85	19.00	50	-31
	26740	819	16QAM	1	0	0	23.04	19.21	21.36	50	-28.64
				1	5	0	23.01	19.18	21.33	50	-28.67
				6	0	0	20.59	16.76	18.91	50	-31.09
	26765	821.5	16QAM	1	0	3	23.01	19.18	21.33	50	-28.67
				1	5	3	23.15	19.32	<b>21.47</b>	50	-28.53
				6	0	3	20.68	16.85	19.00	50	-31

Antenna gain (dBi) -1.68

Part 90S_M1 Band 26 Uplink frequency band : 814 to 824 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Index	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
10	26740	819	QPSK	1	0	0	22.48	18.65	20.80	50	-29.2
				1	5	0	22.51	18.68	<b>20.83</b>	50	-29.17
				6	0	0	21.48	17.65	19.80	50	-30.2
	26740	819	16QAM	1	0	0	23.04	19.21	21.36	50	-28.64
				1	5	0	23.08	19.25	<b>21.40</b>	50	-28.6
				6	0	0	20.78	16.95	19.10	50	-30.9

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## 7 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

### 7.1 Standard Applicable

According to FCC §2.1053,

**FCC §22.917(a), §24.238(a), §27.53(h)**

**RSS-130 §4.7, RSS-132 §5.5, RSS-139 §6.5, RSS-139 §6.6**

Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

#### **FCC §27.53(c) for B13**

For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB (-13dBm)

(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than  $65 + 10 \log(P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;

#### **FCC §27.53 (f) for B13**

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

#### **FCC §27.53(c) (5) & FCC §27.53(g) for B12, 13**

Compliance for operations in the 600 MHz, 698-746 MHz, 746-758 MHz and the 776-788 MHz band with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

#### **RSS-130 §4.7.1 for B12, 13**

Compliance for operations in the 617-652 MHz, 663-698 MHz, 698-756 MHz and the 777-787 MHz band, the unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least  $43 + 10 \log_{10} p$  (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

#### **RSS-130 §4.7.2 for B13**

In addition to the limit outlined in section 4.7.1 above, equipment operating in the frequency bands 746-756 MHz and 777-787 MHz shall also comply with the following restrictions:

the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:

$76 + 10 \log_{10} p$  (watts), dB, for base and fixed equipment and

$65 + 10 \log_{10} p$  (watts), dB, for mobile and portable equipment

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the e.i.r.p. in the band 1559-1610 MHz shall not exceed -70 dBW/MHz for wideband signal and -80 dBW for discrete emission with bandwidth less than 700 Hz.

#### **FCC §27.53(h)(3) for B4**

Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

#### **§90.691 Emission mask requirements for EA-based systems for B26**

(a) Out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least  $116 \log_{10}(f/6.1)$  decibels or  $50 + 10 \log_{10}(P)$  decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

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**Table 2 — Unwanted Emissions for Mobile, Portable and Low-Power Fixed Subscriber Equipment**

Frequency (MHz)	Attenuation (dB)
<2200	$43 + 10 \log_{10}(p)$
2200 - 2288	$70 + 10 \log_{10}(p)$
2288 - 2292	$67 + 10 \log_{10}(p)$
2292 - 2296	$61 + 10 \log_{10}(p)$
2296 - 2300	$55 + 10 \log_{10}(p)$
2300 - 2305	$43 + 10 \log_{10}(p)$
2305 - 2320	$43 + 10 \log_{10}(p)$ <sup>Note</sup>
2320 - 2324	$55 + 10 \log_{10}(p)$
2324 - 2328	$61 + 10 \log_{10}(p)$
2328 - 2337	$67 + 10 \log_{10}(p)$
2337 - 2341	$61 + 10 \log_{10}(p)$
2341 - 2345	$55 + 10 \log_{10}(p)$
2345 - 2360	$43 + 10 \log_{10}(p)$ <sup>Note</sup>
2360 - 2365	$43 + 10 \log_{10}(p)$
2365 - 2395	$70 + 10 \log_{10}(p)$
>2395	$43 + 10 \log_{10}(p)$

**Note:** Measured at the edges of the highest and lowest frequency range(s) in which the equipment is designed to operate. See Section 1.2 for the permitted frequency ranges for various equipment types.

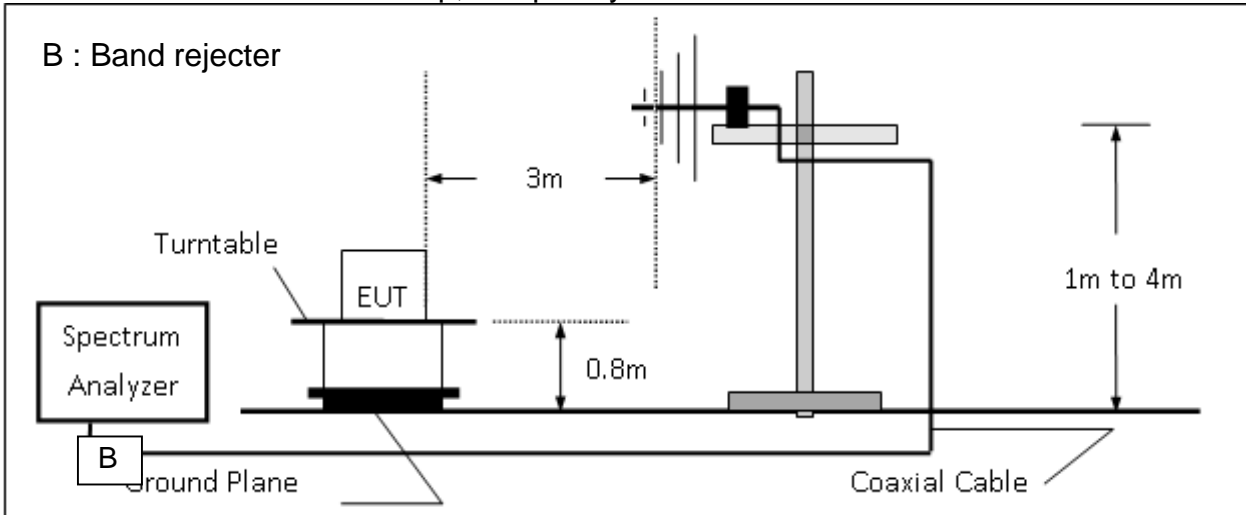
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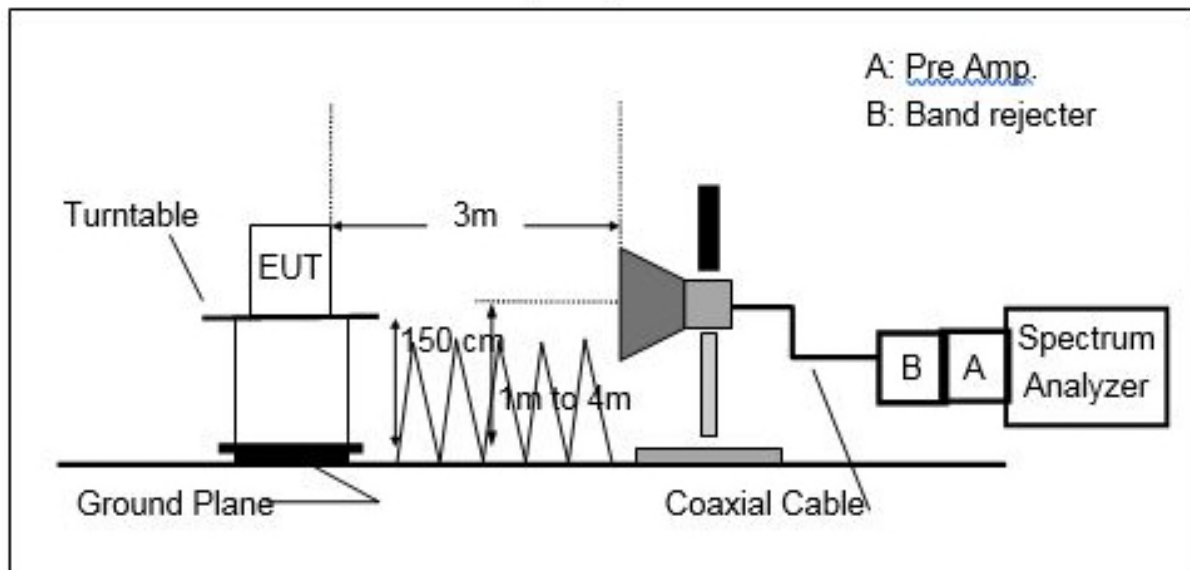
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## 7.2 EUT Setup

### Radiated Emission Test Set-Up, Frequency Below 1000MHz



### Radiated Emission Test Set-UP Frequency Over 1 GHz



## 7.3 Measurement Procedure:

The EUT was placed on a non-conductive; 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.

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The frequency range up to tenth harmonic was investigated for each of three fundamental frequencies (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.

The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.

$$\text{ERP (dBm)} = \text{SG Level(dBm)} + \text{Antenna Gain(dBd)} + \text{Cable Loss(dB)}$$

$$\text{EIRP (dBm)} = \text{SG Level(dBm)} + \text{Antenna Gain(dBi)} + \text{Cable Loss(dB)}$$

#### 7.4 Measurement Equipment Used:

ERP, EIRP MEASUREMENT EQUIPMENT List 966 Chamber					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Bi-log Antenna	SCHWAZBECK	VULB9168	378	01/04/2019	01/03/2020
Horn Antenna	Schwarzbeck	BBHA9120D	603	04/24/2019	04/23/2020
Horn Antenna	Schwarzbeck	BBHA9170	184	12/27/2018	12/26/2019
Horn Antenna	Schwarzbeck	BBHA9170	185	08/07/2019	08/06/2020
Horn Antenna	Schwarzbeck	BBHA9120D	D803	12/24/2018	12/23/2019
Bi-log Antenna	TESEO	CBL 6112D	35242 & AT-N0555	01/10/2019	01/09/2020
PXA Spectrum Analyzer	Agilent	N9030A	MY53120760	04/22/2019	04/21/2020
Pre-Amplifier	EMC Instruments	EMC184045B	980135	01/02/2019	01/01/2020
Pre-Amplifier	EMC Instruments	EMC051825	980152	01/02/2019	01/01/2020
Pre-Amplifier	HP	8447D	2944A09469	01/02/2019	01/01/2020
Filter 635-920	Micro-Tronics	WI	4	01/02/2019	01/01/2020
Filter 800-1000	Micro-Tronics	EWT	M1	01/02/2019	01/01/2020
Filter 1700-2000	Micro-Tronics	EWT	M3	01/02/2019	01/01/2020
1GHz High Pass Filter	Micro-Tronics	HPM50108	32	01/02/2019	01/01/2020
2GHz High Pass Filter	Micro-Tronics	HPM50110	36	01/02/2019	01/02/2020
Coaxial Cable	Huber Suhner	succoflex 102	MY2622/2	01/02/2019	01/01/2020
Coaxial Cable	Huber Suhner	succoflex 104A	800086/4a	01/02/2019	01/01/2020
Coaxial Cable	Huber Suhner	EMC 104-SM-SM-2000	160123	01/02/2019	01/01/2020

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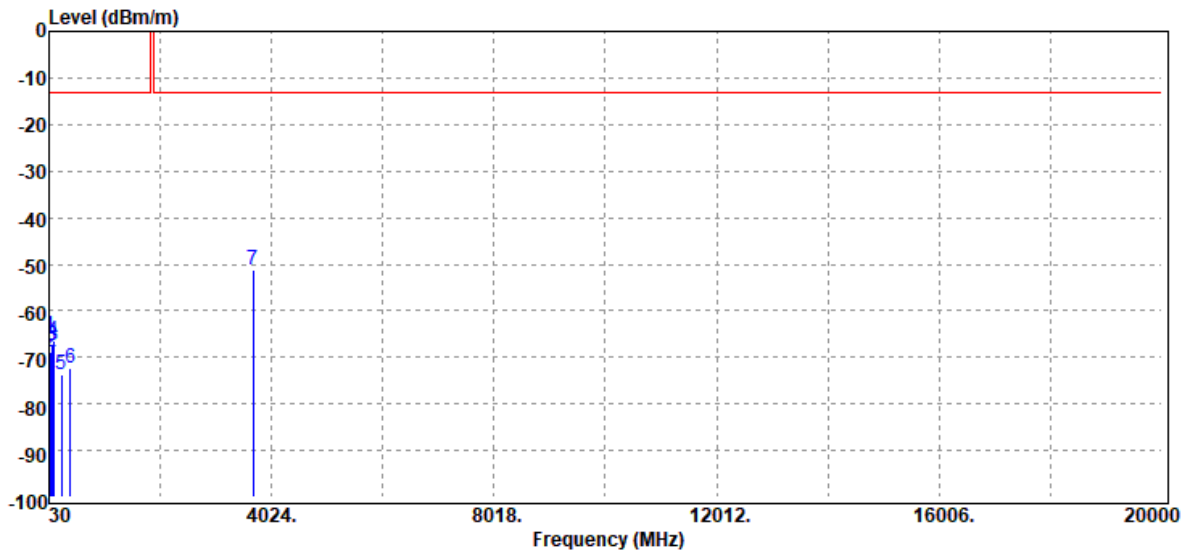
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## 7.5 Measurement Result:

### Radiated Spurious Emission Measurement Result: NB\_IOT-Band 2 (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B2 15kHz QPSK 1 0  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :1850.1 MHz

Test Date :2019-10-15  
Temp./Humi. :25.3/70  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-65.48	-45.70	-19.15	-0.63	-13.00	-52.48
59.10	-68.74	-52.51	-15.50	-0.73	-13.00	-55.74
93.05	-67.32	-60.72	-5.67	-0.93	-13.00	-54.32
104.69	-66.31	-58.63	-6.68	-1.00	-13.00	-53.31
256.01	-73.54	-70.35	-1.62	-1.57	-13.00	-60.54
419.94	-72.19	-68.54	-1.68	-1.97	-13.00	-59.19
3700.20	-51.14	-57.61	12.40	-5.93	-13.00	-38.14

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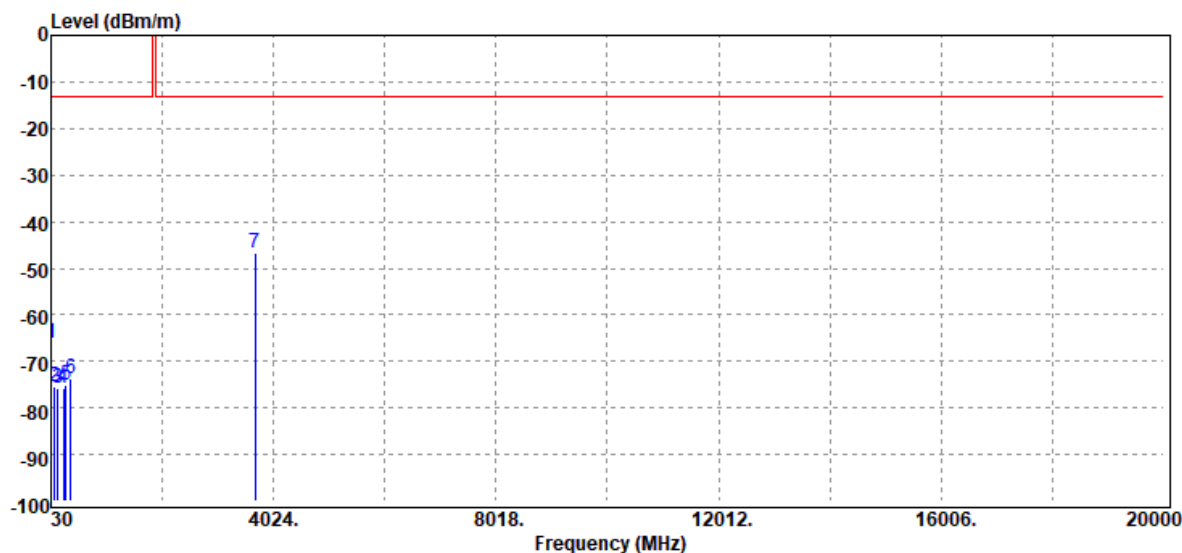
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Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B2 15kHz QPSK 1 0  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :1850.1 MHz

Test Date :2019-10-15  
Temp./Humi. :25.3/70  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-65.97	-46.19	-19.15	-0.63	-13.00	-52.97
91.11	-75.42	-68.75	-5.75	-0.92	-13.00	-62.42
154.16	-75.79	-67.05	-7.46	-1.28	-13.00	-62.79
255.04	-75.63	-72.46	-1.61	-1.56	-13.00	-62.63
299.66	-74.99	-71.60	-1.70	-1.69	-13.00	-61.99
385.99	-73.82	-70.23	-1.63	-1.96	-13.00	-60.82
3700.20	-46.59	-53.06	12.40	-5.93	-13.00	-33.59

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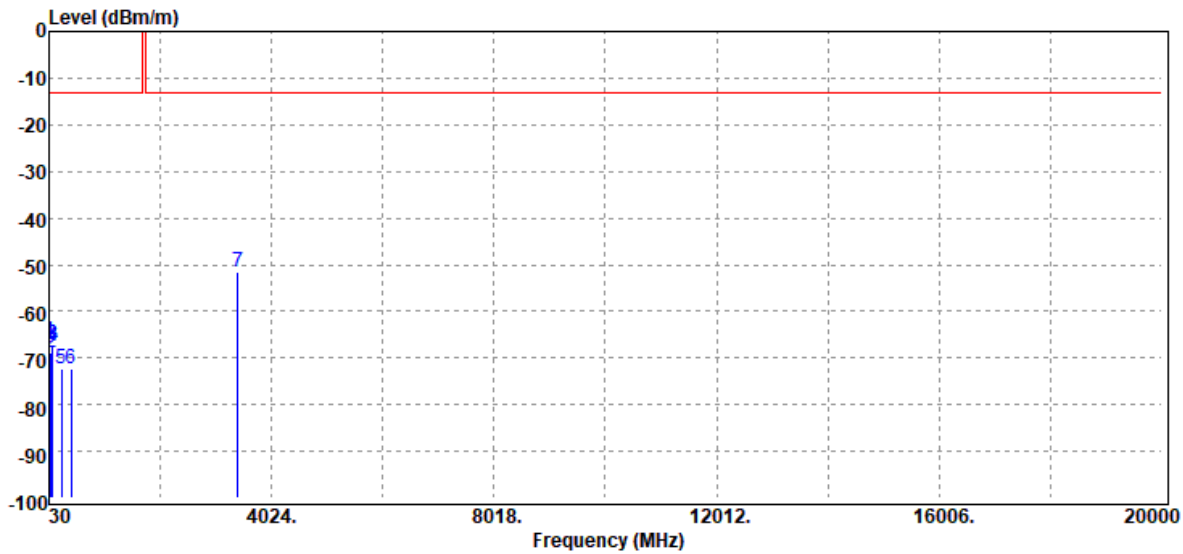
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## Radiated Spurious Emission Measurement Result: NB\_IOT-Band 4 (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B4 15kHz QPSK 1 11  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :1710.1 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
36.79	-66.57	-46.70	-19.25	-0.62	-13.00	-53.57
59.10	-68.92	-52.69	-15.50	-0.73	-13.00	-55.92
93.05	-67.25	-60.65	-5.67	-0.93	-13.00	-54.25
101.78	-67.60	-60.18	-6.44	-0.98	-13.00	-54.60
257.95	-72.24	-69.01	-1.63	-1.60	-13.00	-59.24
432.55	-72.27	-68.77	-1.67	-1.83	-13.00	-59.27
3420.20	-51.65	-58.25	12.40	-5.80	-13.00	-38.65

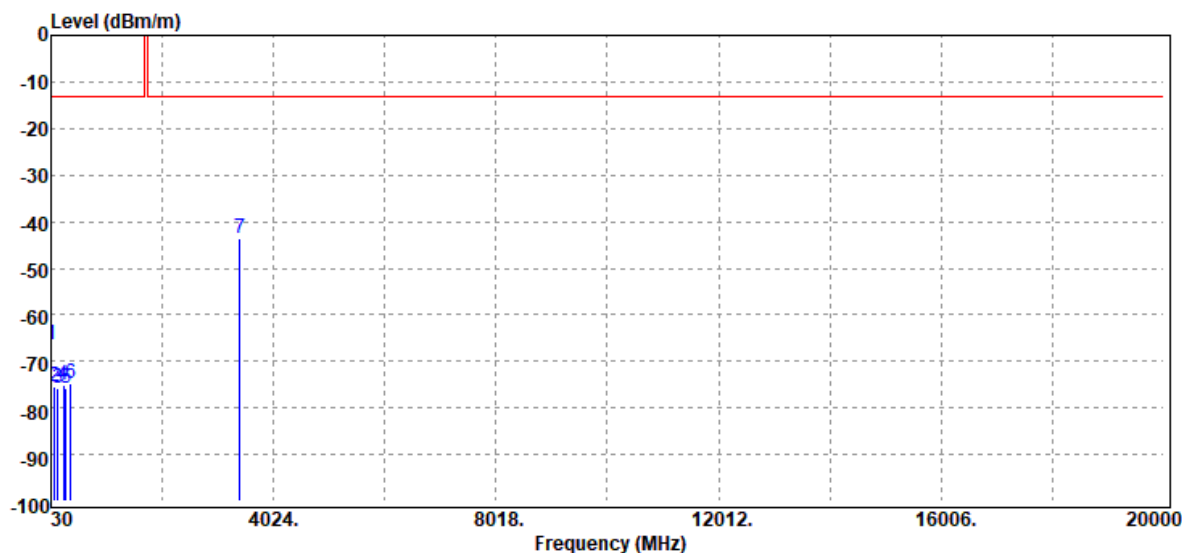
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Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B4 15kHz QPSK 1 11  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :1710.1 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
36.79	-66.34	-46.47	-19.25	-0.62	-13.00	-53.34
93.05	-75.59	-68.99	-5.67	-0.93	-13.00	-62.59
156.10	-75.94	-67.37	-7.26	-1.31	-13.00	-62.94
256.01	-75.26	-72.07	-1.62	-1.57	-13.00	-62.26
293.84	-75.82	-72.38	-1.75	-1.69	-13.00	-62.82
385.99	-74.77	-71.18	-1.63	-1.96	-13.00	-61.77
3420.20	-43.47	-50.07	12.40	-5.80	-13.00	-30.47

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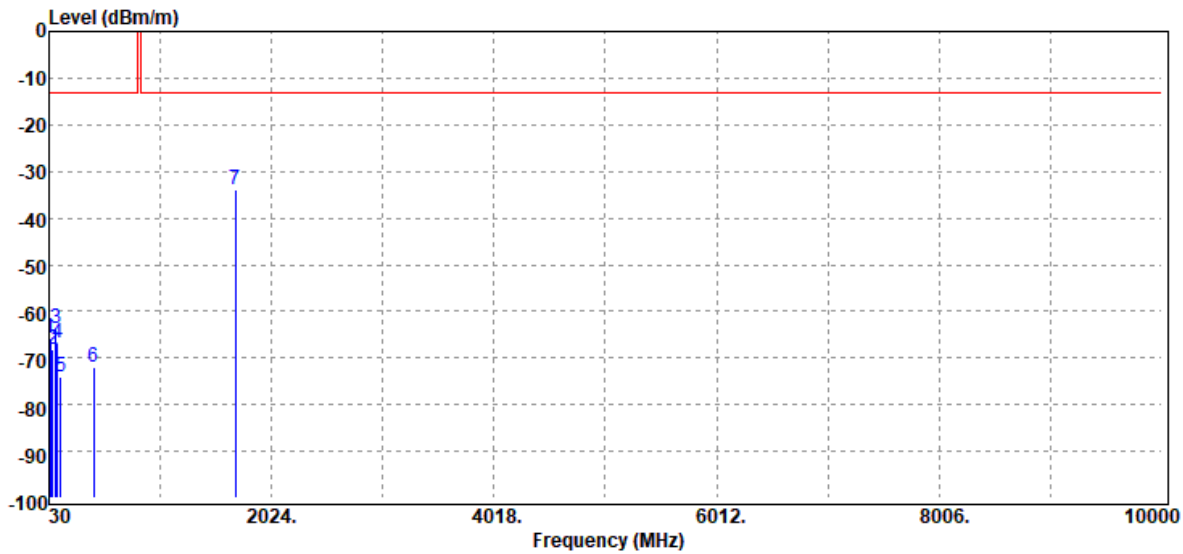
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## Radiated Spurious Emission Measurement Result: NB\_IOT-Band 5 (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B5 15kHz BPSK 1 11  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :848.9 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
37.76	-65.78	-46.00	-19.15	-0.63	-13.00	-52.78
59.10	-68.15	-51.92	-15.50	-0.73	-13.00	-55.15
93.05	-63.79	-57.19	-5.67	-0.93	-13.00	-50.79
102.75	-66.78	-59.31	-6.48	-0.99	-13.00	-53.78
136.70	-74.16	-65.33	-7.70	-1.13	-13.00	-61.16
432.55	-72.10	-68.60	-1.67	-1.83	-13.00	-59.10
1697.80	-33.97	-39.60	9.68	-4.05	-13.00	-20.97

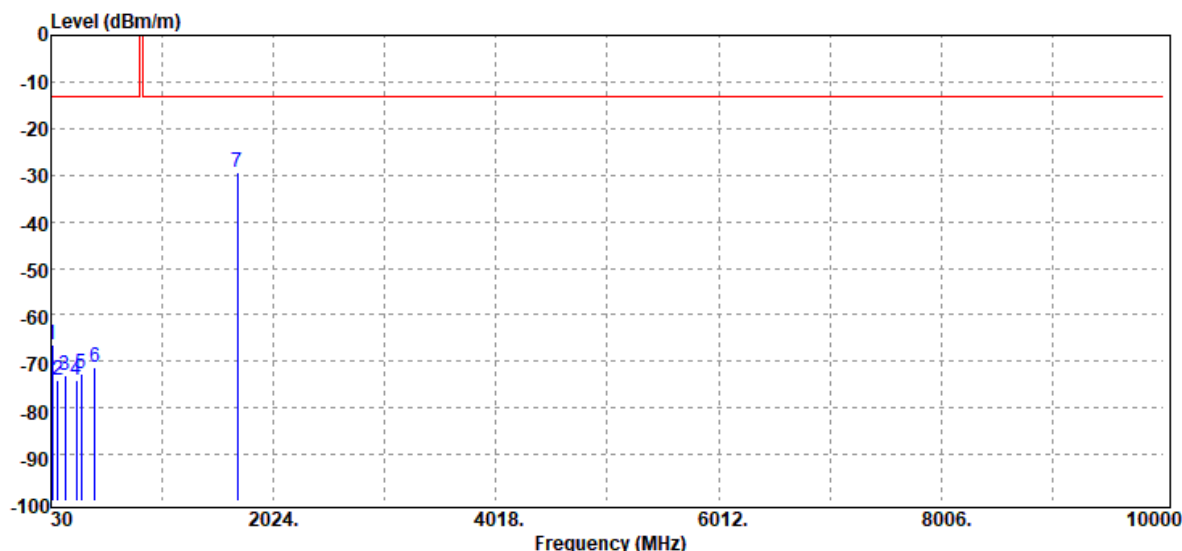
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Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B5 15kHz BPSK 1 11  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :848.9 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-66.30	-46.52	-19.15	-0.63	-13.00	-53.30
91.11	-74.12	-67.45	-5.75	-0.92	-13.00	-61.12
155.13	-72.92	-64.31	-7.32	-1.29	-13.00	-59.92
255.04	-73.91	-70.74	-1.61	-1.56	-13.00	-60.91
303.54	-72.68	-69.36	-1.66	-1.66	-13.00	-59.68
422.85	-71.42	-67.87	-1.62	-1.93	-13.00	-58.42
1697.80	-29.32	-34.95	9.68	-4.05	-13.00	-16.32

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

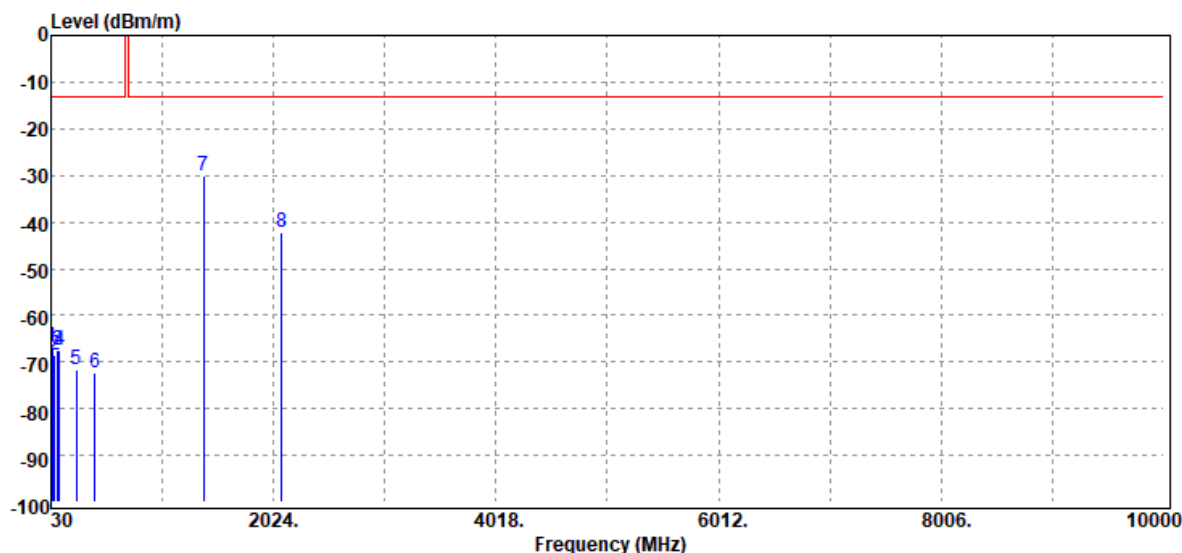
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## Radiated Spurious Emission Measurement Result: NB\_IOT-Band 12 (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B12 15kHz BPSK 1 11  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :699.1 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
37.76	-66.79	-47.01	-19.15	-0.63	-13.00	-53.79
59.10	-68.65	-52.42	-15.50	-0.73	-13.00	-55.65
92.08	-67.60	-61.01	-5.66	-0.93	-13.00	-54.60
105.66	-67.54	-59.75	-6.79	-1.00	-13.00	-54.54
256.01	-71.76	-68.57	-1.62	-1.57	-13.00	-58.76
422.85	-72.18	-68.63	-1.62	-1.93	-13.00	-59.18
1398.20	-30.21	-34.41	7.89	-3.69	-13.00	-17.21
2100.00	-42.14	-47.42	9.80	-4.52	-13.00	-29.14

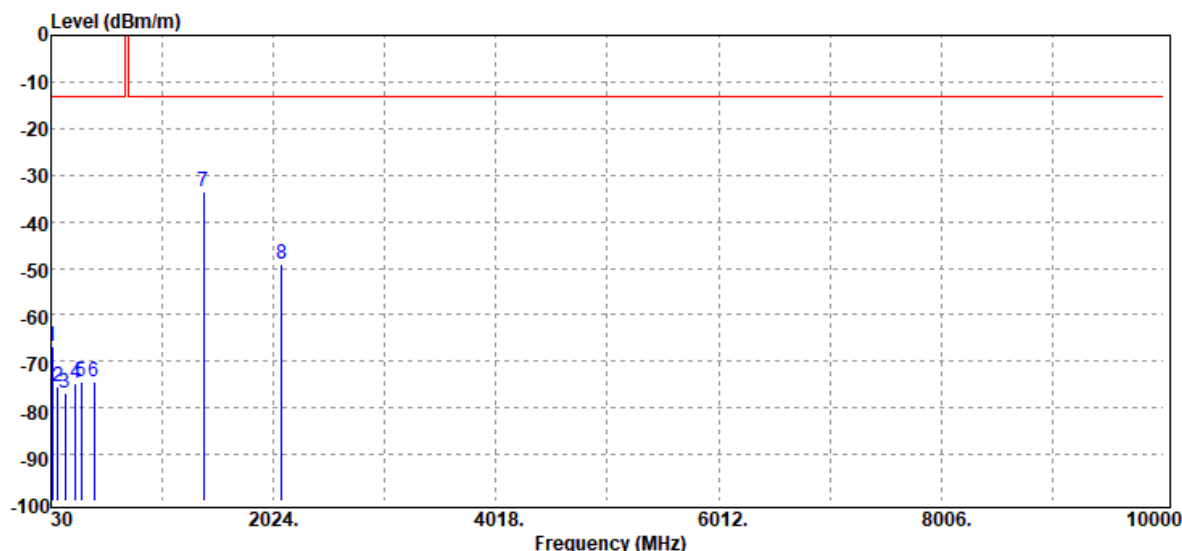
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Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B12 15kHz BPSK 1 11  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :699.1 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-66.67	-46.89	-19.15	-0.63	-13.00	-53.67
93.05	-75.35	-68.75	-5.67	-0.93	-13.00	-62.35
156.10	-76.65	-68.08	-7.26	-1.31	-13.00	-63.65
253.10	-74.79	-71.61	-1.64	-1.54	-13.00	-61.79
303.54	-74.49	-71.17	-1.66	-1.66	-13.00	-61.49
418.00	-74.51	-70.90	-1.64	-1.97	-13.00	-61.51
1398.20	-33.54	-37.74	7.89	-3.69	-13.00	-20.54
2100.00	-49.23	-54.51	9.80	-4.52	-13.00	-36.23

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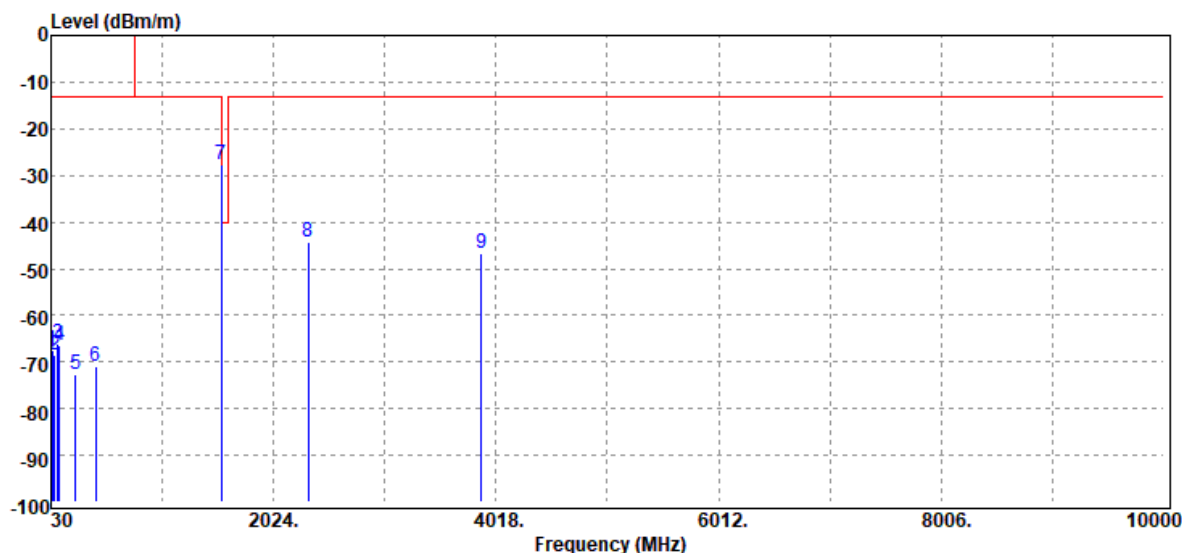
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## Radiated Spurious Emission Measurement Result: NB\_IOT-Band 13 (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B13 3.75kHz BPSK 1 0  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :782.0 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-67.50	-47.72	-19.15	-0.63	-13.00	-54.50
59.10	-68.39	-52.16	-15.50	-0.73	-13.00	-55.39
93.05	-65.97	-59.37	-5.67	-0.93	-13.00	-52.97
104.69	-66.37	-58.69	-6.68	-1.00	-13.00	-53.37
253.10	-72.81	-69.63	-1.64	-1.54	-13.00	-59.81
429.64	-70.77	-67.27	-1.66	-1.84	-13.00	-57.77
1554.20	-27.68	-32.91	9.11	-3.88	-13.00	-14.68
2335.00	-44.23	-48.96	9.51	-4.78	-13.00	-31.23
3885.00	-46.81	-52.79	12.20	-6.22	-13.00	-33.81

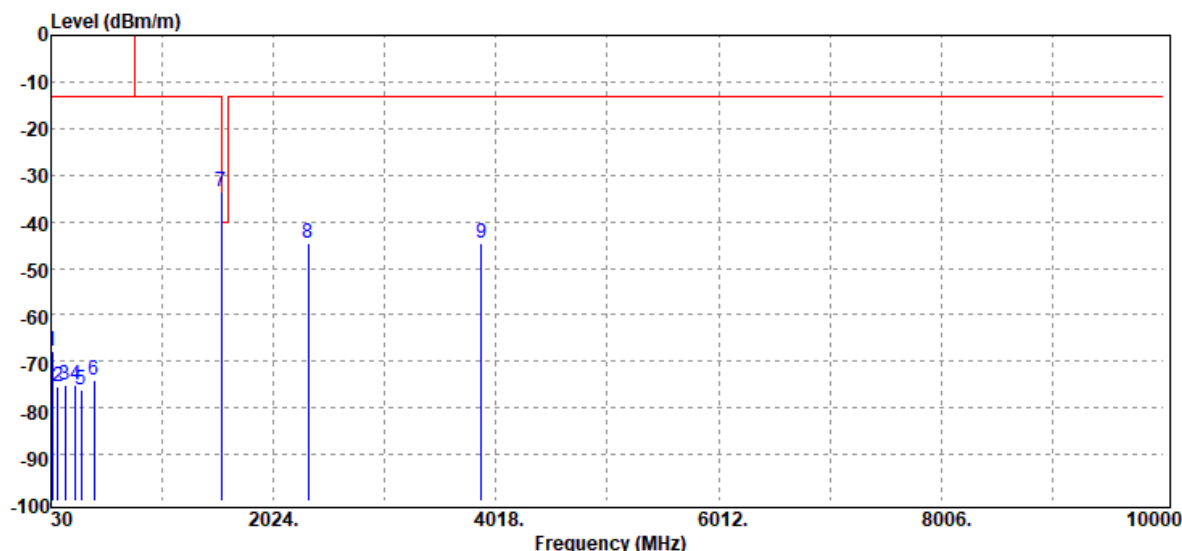
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Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B13 3.75kHz BPSK 1 0  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :782.0 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-67.73	-47.95	-19.15	-0.63	-13.00	-54.73
92.08	-75.58	-68.99	-5.66	-0.93	-13.00	-62.58
154.16	-75.21	-66.47	-7.46	-1.28	-13.00	-62.21
253.10	-75.13	-71.95	-1.64	-1.54	-13.00	-62.13
298.69	-76.06	-72.66	-1.71	-1.69	-13.00	-63.06
418.00	-73.96	-70.35	-1.64	-1.97	-13.00	-60.96
1554.20	-33.69	-38.92	9.11	-3.88	-13.00	-20.69
2335.00	-44.62	-49.35	9.51	-4.78	-13.00	-31.62
3885.00	-44.71	-50.69	12.20	-6.22	-13.00	-31.71

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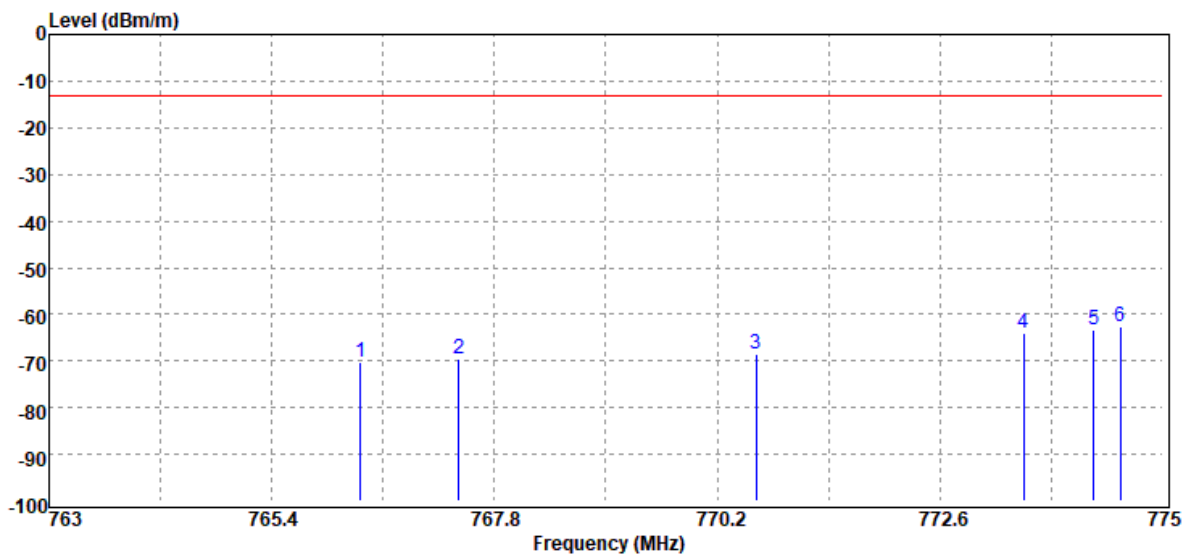
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## Radiated Spurious Emission Measurement Result: LTE-Band 13 (763~775MHz) (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B13 3.75kHz BPSK 1 0  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :777.1 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
766.36	-70.36	-66.01	-1.75	-2.60	-13.00	-57.36
767.42	-69.41	-65.08	-1.74	-2.59	-13.00	-56.41
770.62	-68.59	-64.29	-1.71	-2.59	-13.00	-55.59
773.50	-63.88	-59.53	-1.74	-2.61	-13.00	-50.88
774.26	-63.20	-58.84	-1.74	-2.62	-13.00	-50.20
774.54	-62.52	-58.15	-1.75	-2.62	-13.00	-49.52

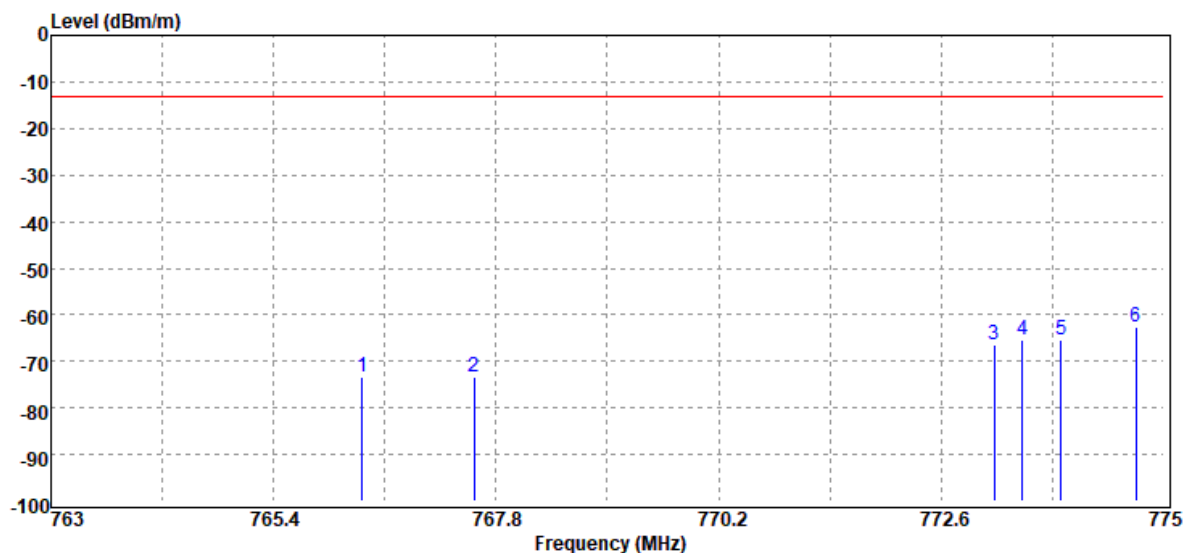
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Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B13 3.75kHz BPSK 1 0  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :777.1 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
766.36	-73.46	-69.11	-1.75	-2.60	-13.00	-60.46
767.56	-73.39	-69.06	-1.74	-2.59	-13.00	-60.39
773.18	-66.41	-62.06	-1.74	-2.61	-13.00	-53.41
773.48	-65.30	-60.95	-1.74	-2.61	-13.00	-52.30
773.90	-65.23	-60.87	-1.74	-2.62	-13.00	-52.23
774.70	-62.53	-58.16	-1.75	-2.62	-13.00	-49.53

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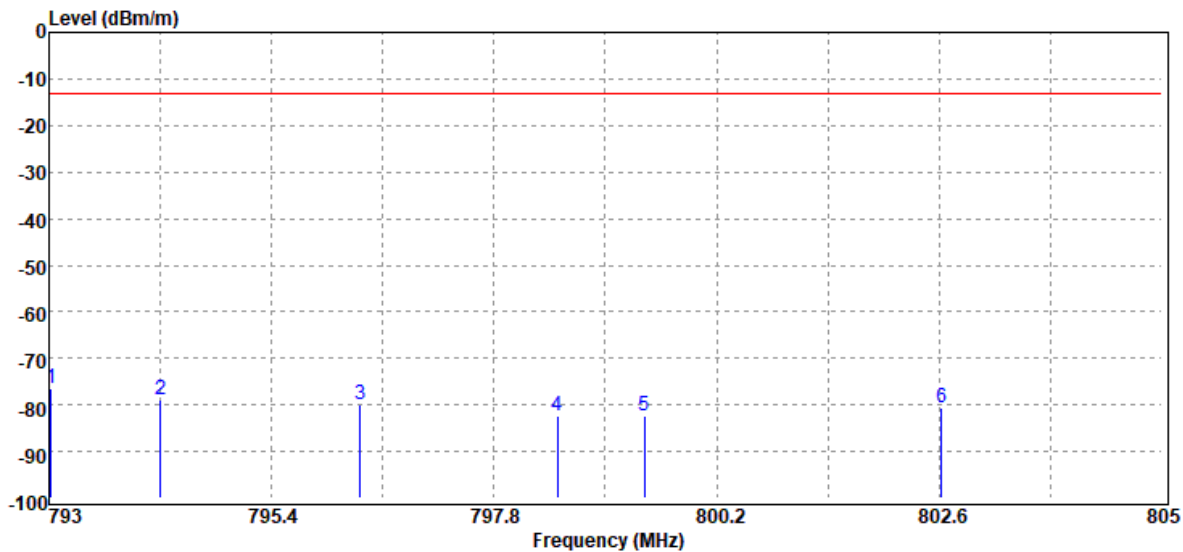
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## Radiated Spurious Emission Measurement Result: LTE-Band 13 (793~805MHz) (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B13 3.75kHz BPSK 1 0  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :777.1 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
793.02	-76.59	-71.90	-1.65	-3.04	-13.00	-63.59
794.20	-78.96	-74.26	-1.64	-3.06	-13.00	-65.96
796.36	-80.01	-75.30	-1.62	-3.09	-13.00	-67.01
798.48	-82.44	-77.71	-1.60	-3.13	-13.00	-69.44
799.42	-82.25	-77.51	-1.59	-3.15	-13.00	-69.25
802.62	-80.63	-75.87	-1.60	-3.16	-13.00	-67.63

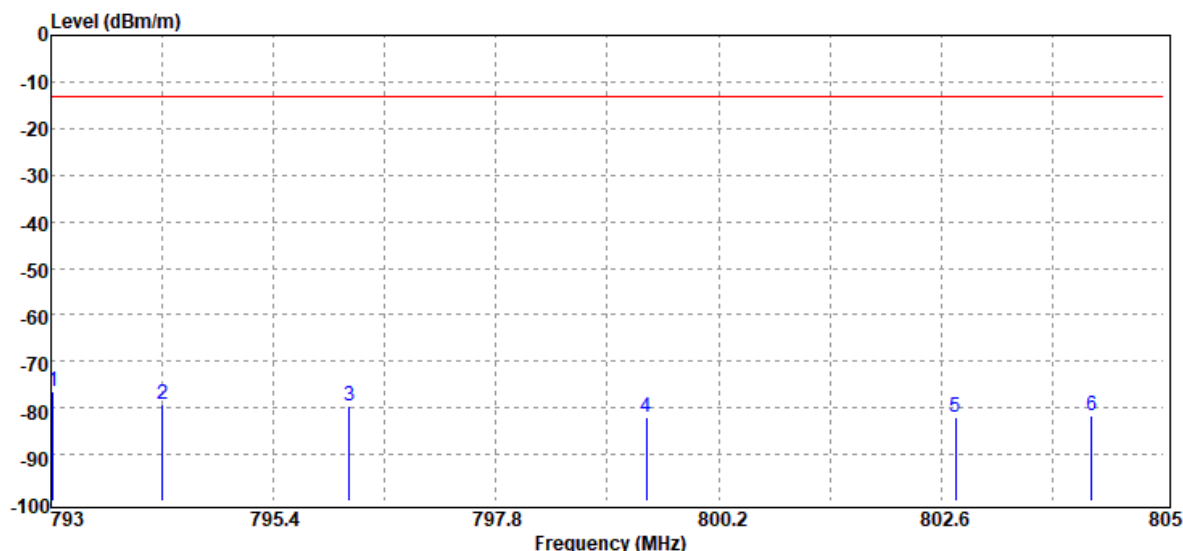
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Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B13 3.75kHz BPSK 1 0  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :777.1 MHz

Test Date :2019-10-15  
Temp./Humi. :26.3/69  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
793.02	-76.53	-71.84	-1.65	-3.04	-13.00	-63.53
794.20	-79.41	-74.71	-1.64	-3.06	-13.00	-66.41
796.22	-79.55	-74.84	-1.62	-3.09	-13.00	-66.55
799.42	-82.07	-77.33	-1.59	-3.15	-13.00	-69.07
802.76	-81.96	-77.20	-1.60	-3.16	-13.00	-68.96
804.22	-81.57	-76.79	-1.61	-3.17	-13.00	-68.57

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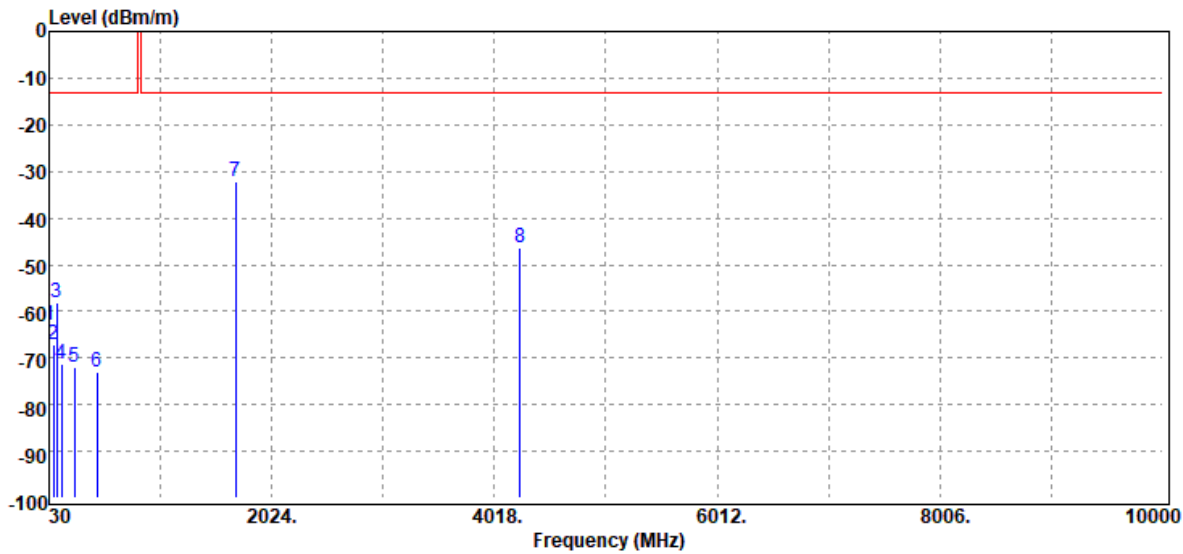
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## Radiated Spurious Emission Measurement Result: NB\_IOT-Band 26 (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B26 15kHz BPSK 1 11  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :848.9 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
31.94	-62.82	-41.51	-20.76	-0.55	-13.00	-49.82
69.77	-67.08	-54.16	-12.11	-0.81	-13.00	-54.08
101.78	-57.99	-50.57	-6.44	-0.98	-13.00	-44.99
139.61	-71.42	-62.48	-7.80	-1.14	-13.00	-58.42
255.04	-72.12	-68.95	-1.61	-1.56	-13.00	-59.12
459.71	-72.86	-69.12	-1.58	-2.16	-13.00	-59.86
1697.80	-32.31	-37.94	9.68	-4.05	-13.00	-19.31
4245.00	-46.40	-52.37	12.41	-6.44	-13.00	-33.40

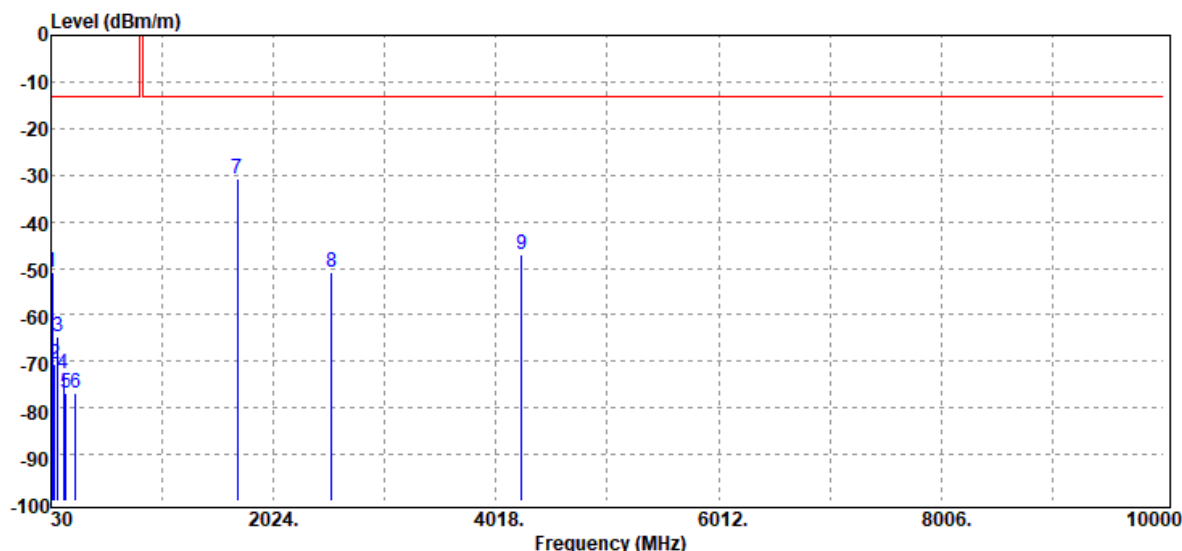
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Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B26 15kHz BPSK 1 11  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :848.9 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
40.67	-50.80	-31.12	-19.02	-0.66	-13.00	-37.80
65.89	-70.45	-56.27	-13.40	-0.78	-13.00	-57.45
94.02	-64.73	-58.11	-5.68	-0.94	-13.00	-51.73
138.64	-72.57	-63.67	-7.77	-1.13	-13.00	-59.57
166.77	-76.89	-69.25	-6.32	-1.32	-13.00	-63.89
253.10	-76.92	-73.74	-1.64	-1.54	-13.00	-63.92
1697.80	-30.78	-36.41	9.68	-4.05	-13.00	-17.78
2545.00	-50.80	-56.50	10.68	-4.98	-13.00	-37.80
4245.00	-47.07	-53.04	12.41	-6.44	-13.00	-34.07

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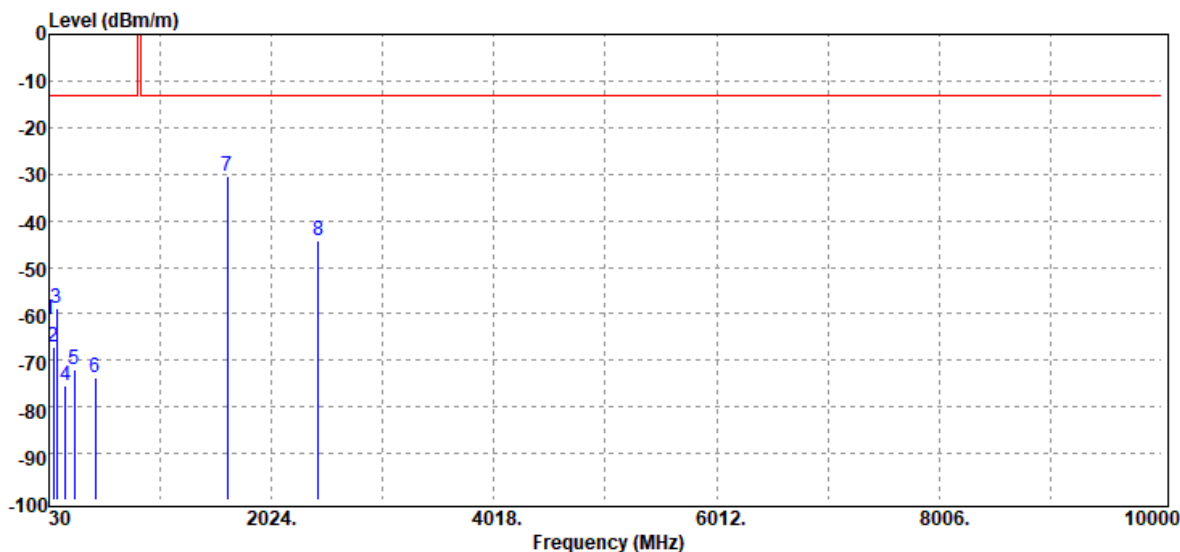
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## Radiated Spurious Emission Measurement Result: NB\_IOT-Band 26(Part 90) (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B26 15kHz BPSK 1 11  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :814.1 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
34.85	-61.11	-40.62	-19.90	-0.59	-13.00	-48.11
69.77	-67.13	-54.21	-12.11	-0.81	-13.00	-54.13
100.81	-58.83	-51.54	-6.31	-0.98	-13.00	-45.83
174.53	-75.29	-68.87	-5.15	-1.27	-13.00	-62.29
255.04	-71.99	-68.82	-1.61	-1.56	-13.00	-58.99
442.25	-73.74	-70.15	-1.72	-1.87	-13.00	-60.74
1628.20	-30.53	-35.80	9.26	-3.99	-13.00	-17.53
2440.00	-44.17	-49.52	10.24	-4.89	-13.00	-31.17

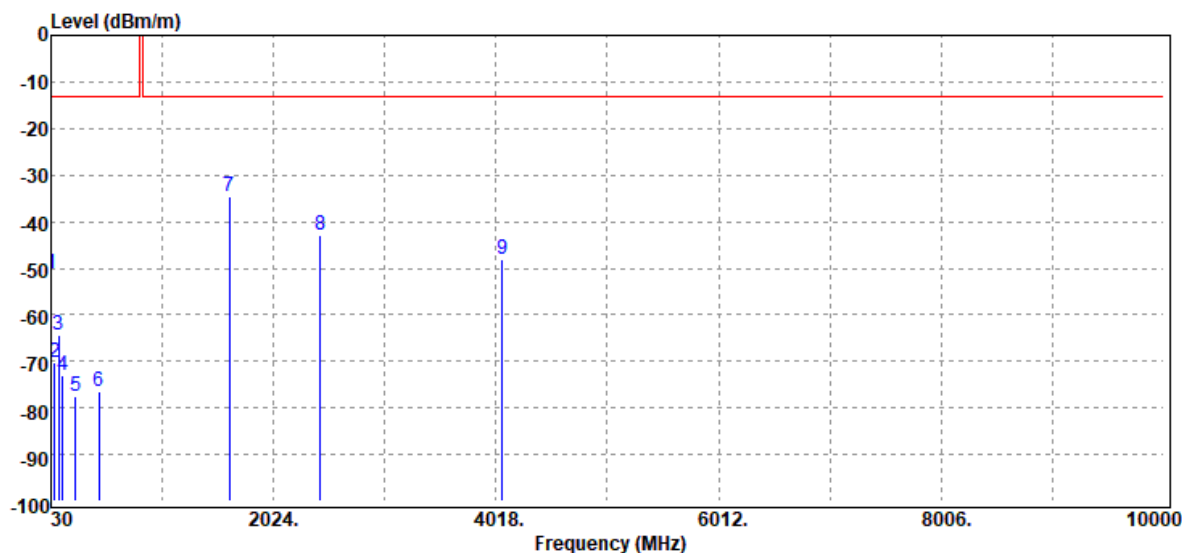
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Report Number :ER-2019-80104-01  
Operation Mode :NB\_IOT B26 15kHz BPSK 1 11  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :814.1 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
34.85	-51.34	-30.85	-19.90	-0.59	-13.00	-38.34
62.98	-70.30	-55.28	-14.26	-0.76	-13.00	-57.30
100.81	-64.27	-56.98	-6.31	-0.98	-13.00	-51.27
131.85	-73.04	-64.51	-7.42	-1.11	-13.00	-60.04
251.16	-77.42	-74.24	-1.66	-1.52	-13.00	-64.42
455.83	-76.35	-72.66	-1.58	-2.11	-13.00	-63.35
1628.20	-34.75	-40.02	9.26	-3.99	-13.00	-21.75
2440.00	-42.81	-48.16	10.24	-4.89	-13.00	-29.81
4070.00	-48.03	-54.22	12.40	-6.21	-13.00	-35.03

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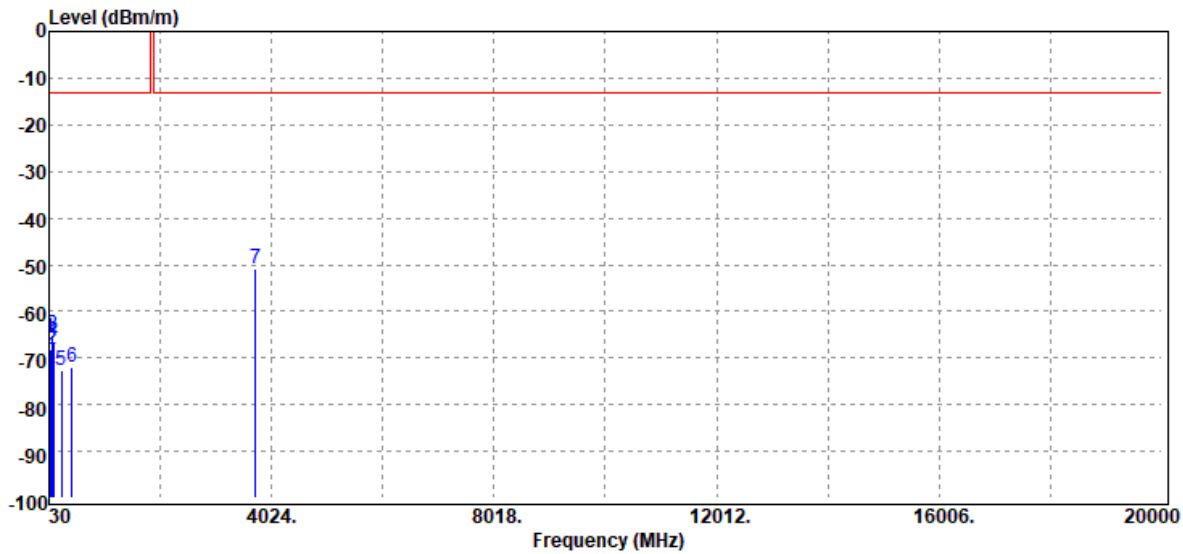
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## Radiated Spurious Emission Measurement Result: CAT\_M1\_Band 2 (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B2 15MHz 16QAM 1 5  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :1857.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
37.76	-65.76	-45.98	-19.15	-0.63	-13.00	-52.76
59.10	-68.25	-52.02	-15.50	-0.73	-13.00	-55.25
93.05	-65.20	-58.60	-5.67	-0.93	-13.00	-52.20
104.69	-66.41	-58.73	-6.68	-1.00	-13.00	-53.41
255.04	-72.79	-69.62	-1.61	-1.56	-13.00	-59.79
435.46	-72.02	-68.51	-1.68	-1.83	-13.00	-59.02
3730.00	-50.84	-57.21	12.34	-5.97	-13.00	-37.84

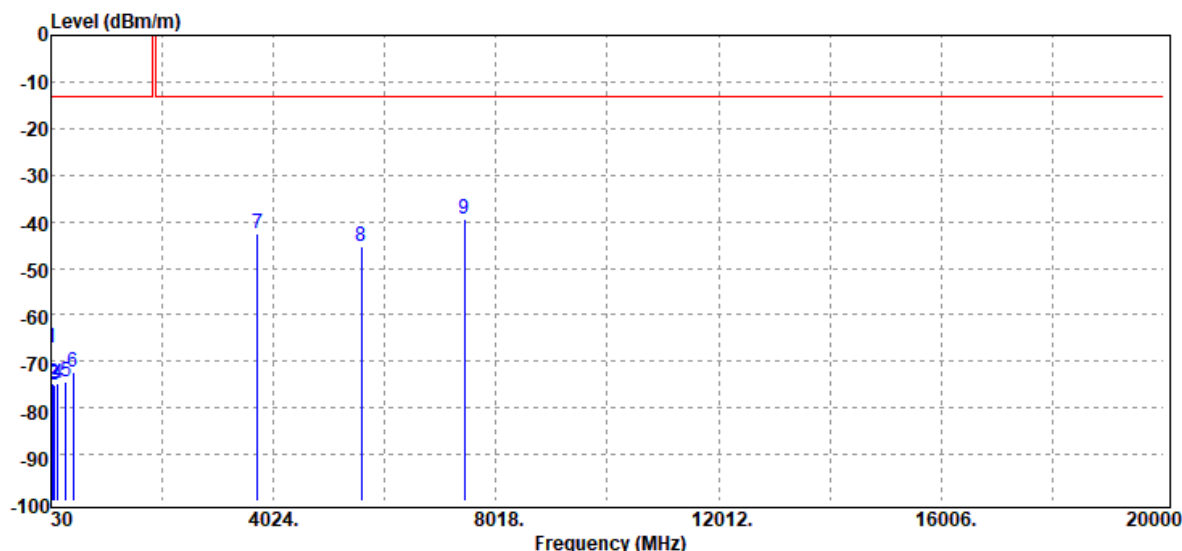
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B2 15MHz 16QAM 1 5  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :1857.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
36.79	-67.15	-47.28	-19.25	-0.62	-13.00	-54.15
59.10	-74.89	-58.66	-15.50	-0.73	-13.00	-61.89
91.11	-75.23	-68.56	-5.75	-0.92	-13.00	-62.23
153.19	-74.80	-66.08	-7.46	-1.26	-13.00	-61.80
301.60	-74.37	-71.02	-1.68	-1.67	-13.00	-61.37
430.61	-72.34	-68.83	-1.67	-1.84	-13.00	-59.34
3730.00	-42.58	-48.95	12.34	-5.97	-13.00	-29.58
5599.00	-45.44	-51.14	13.10	-7.40	-13.00	-32.44
7454.00	-39.34	-41.34	10.61	-8.61	-13.00	-26.34

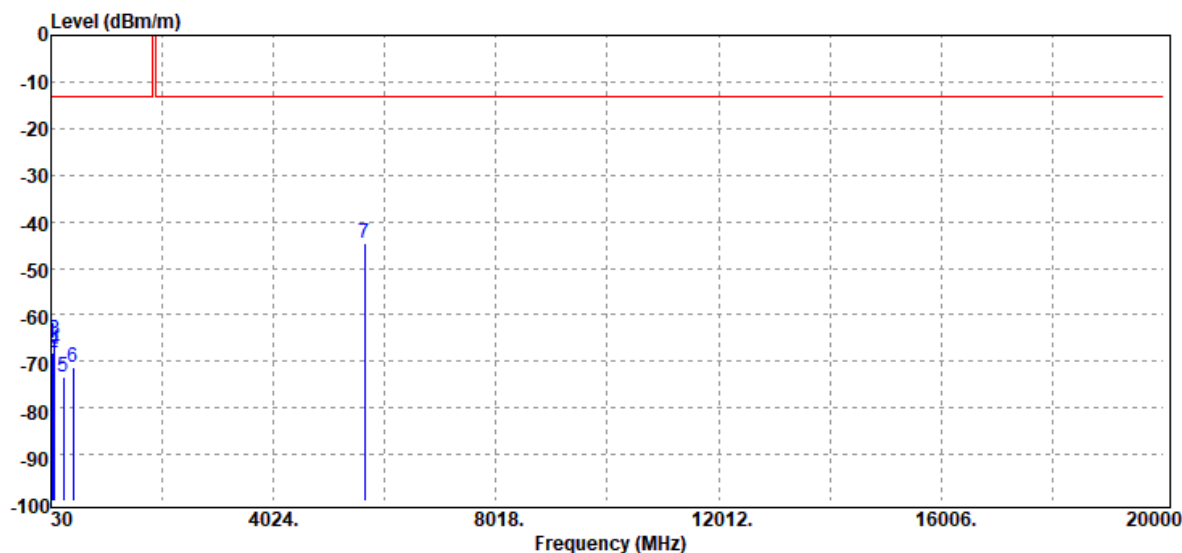
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B2 15MHz 16QAM 1 5  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :1880.0 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-66.17	-46.39	-19.15	-0.63	-13.00	-53.17
59.10	-68.18	-51.95	-15.50	-0.73	-13.00	-55.18
92.08	-65.30	-58.71	-5.66	-0.93	-13.00	-52.30
100.81	-67.37	-60.08	-6.31	-0.98	-13.00	-54.37
256.01	-73.49	-70.30	-1.62	-1.57	-13.00	-60.49
434.49	-71.42	-67.92	-1.67	-1.83	-13.00	-58.42
5655.00	-44.59	-50.35	13.27	-7.51	-13.00	-31.59

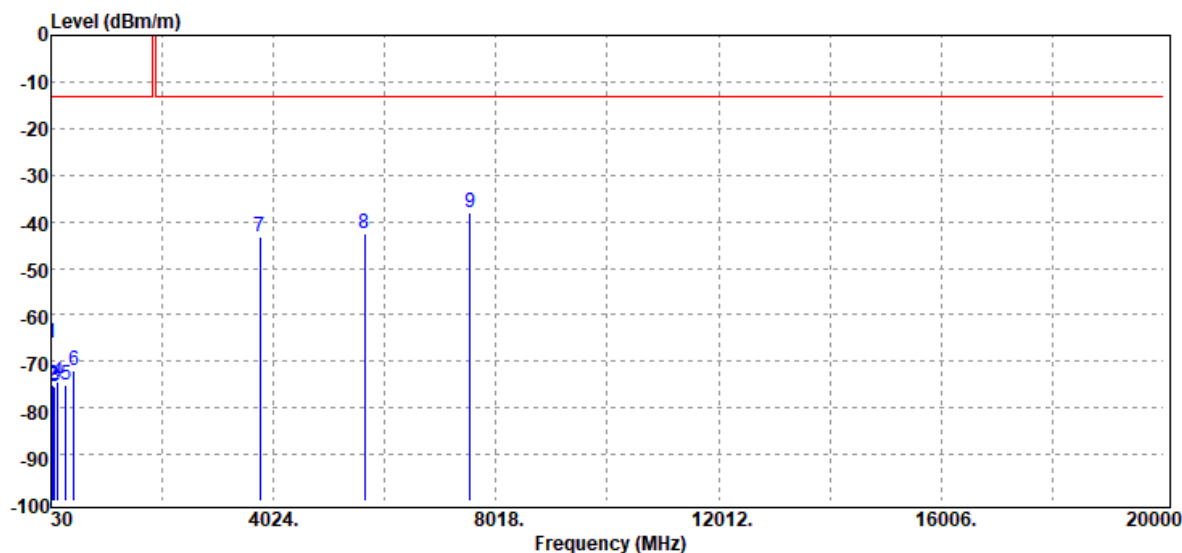
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B2 15MHz 16QAM 1 5  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :1880.0 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-66.22	-46.44	-19.15	-0.63	-13.00	-53.22
59.10	-75.24	-59.01	-15.50	-0.73	-13.00	-62.24
91.11	-75.42	-68.75	-5.75	-0.92	-13.00	-62.42
153.19	-74.32	-65.60	-7.46	-1.26	-13.00	-61.32
301.60	-74.93	-71.58	-1.68	-1.67	-13.00	-61.93
442.25	-72.04	-68.45	-1.72	-1.87	-13.00	-59.04
3779.00	-43.19	-49.45	12.30	-6.04	-13.00	-30.19
5655.00	-42.42	-48.18	13.27	-7.51	-13.00	-29.42
7545.00	-37.93	-40.13	10.79	-8.59	-13.00	-24.93

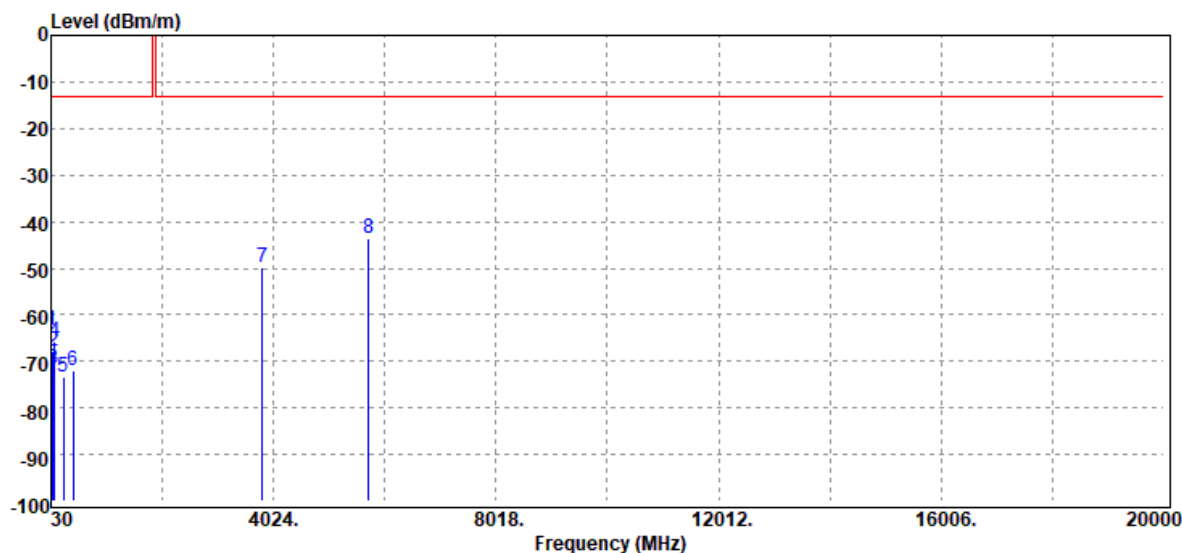
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B2 15MHz 16QAM 1 5  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :1902.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
37.76	-63.26	-43.48	-19.15	-0.63	-13.00	-50.26
59.10	-67.69	-51.46	-15.50	-0.73	-13.00	-54.69
75.59	-71.69	-60.61	-10.25	-0.83	-13.00	-58.69
93.05	-65.60	-59.00	-5.67	-0.93	-13.00	-52.60
255.04	-73.33	-70.16	-1.61	-1.56	-13.00	-60.33
432.55	-72.12	-68.62	-1.67	-1.83	-13.00	-59.12
3821.00	-49.90	-56.05	12.26	-6.11	-13.00	-36.90
5725.00	-43.44	-48.80	12.95	-7.59	-13.00	-30.44

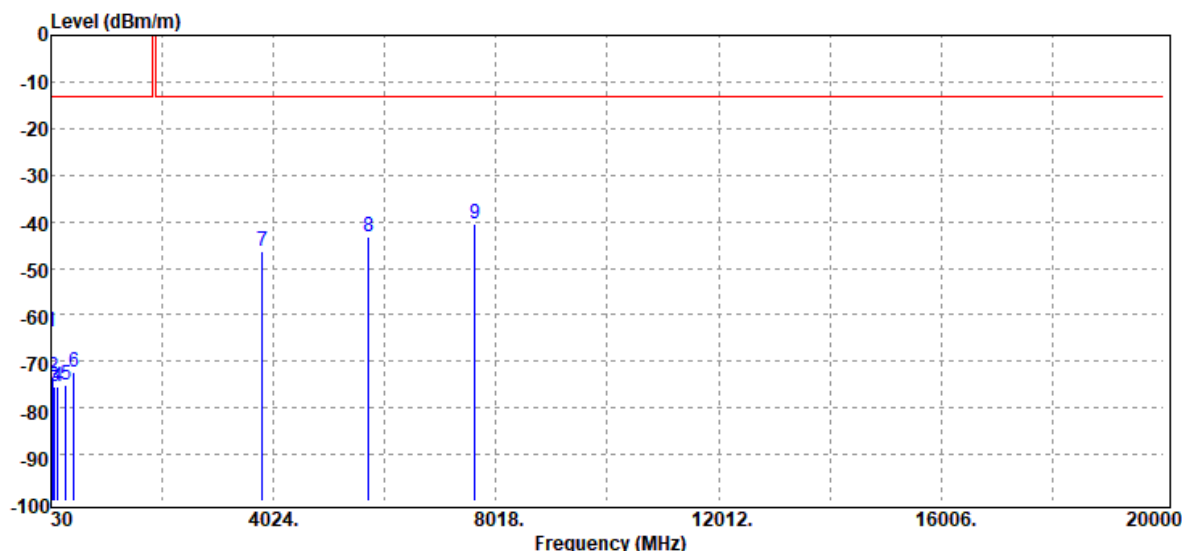
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B2 15MHz 16QAM 1 5  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :1902.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-63.68	-43.90	-19.15	-0.63	-13.00	-50.68
59.10	-73.45	-57.22	-15.50	-0.73	-13.00	-60.45
93.05	-75.53	-68.93	-5.67	-0.93	-13.00	-62.53
151.25	-75.57	-66.70	-7.64	-1.23	-13.00	-62.57
303.54	-75.06	-71.74	-1.66	-1.66	-13.00	-62.06
445.16	-72.41	-68.82	-1.67	-1.92	-13.00	-59.41
3821.00	-46.37	-52.52	12.26	-6.11	-13.00	-33.37
5725.00	-43.37	-48.73	12.95	-7.59	-13.00	-30.37
7636.00	-40.54	-42.87	11.00	-8.67	-13.00	-27.54

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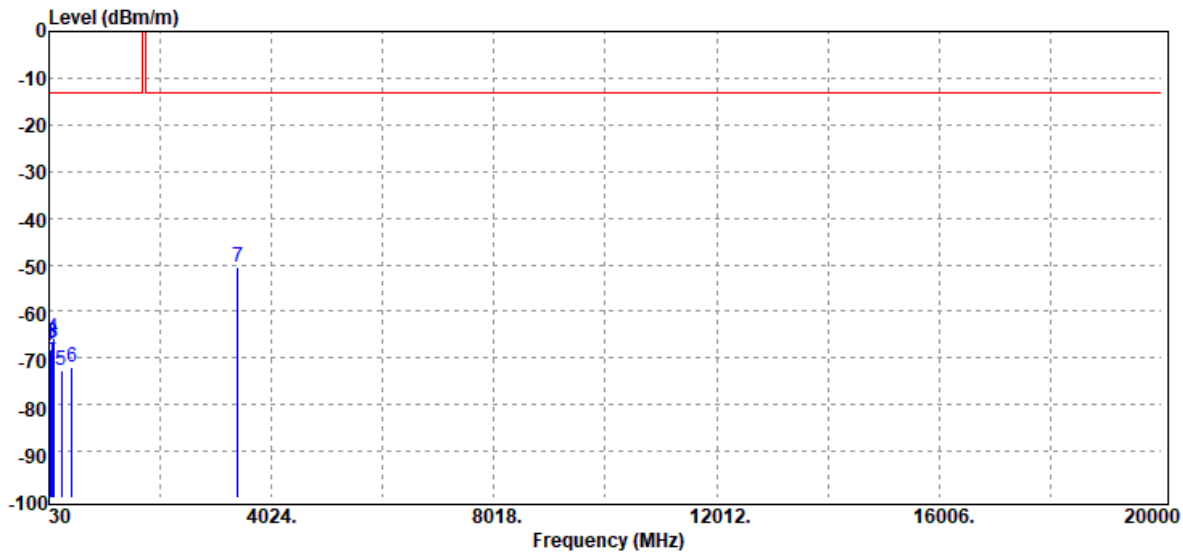
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## Radiated Spurious Emission Measurement Result: CAT\_M1\_Band 4 (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B4 5MHz 16QAM 1 5  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :1712.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
36.79	-66.64	-46.77	-19.25	-0.62	-13.00	-53.64
59.10	-68.18	-51.95	-15.50	-0.73	-13.00	-55.18
92.08	-66.87	-60.28	-5.66	-0.93	-13.00	-53.87
102.75	-65.90	-58.43	-6.48	-0.99	-13.00	-52.90
256.01	-72.68	-69.49	-1.62	-1.57	-13.00	-59.68
444.19	-71.81	-68.22	-1.69	-1.90	-13.00	-58.81
3425.00	-50.38	-56.98	12.40	-5.80	-13.00	-37.38

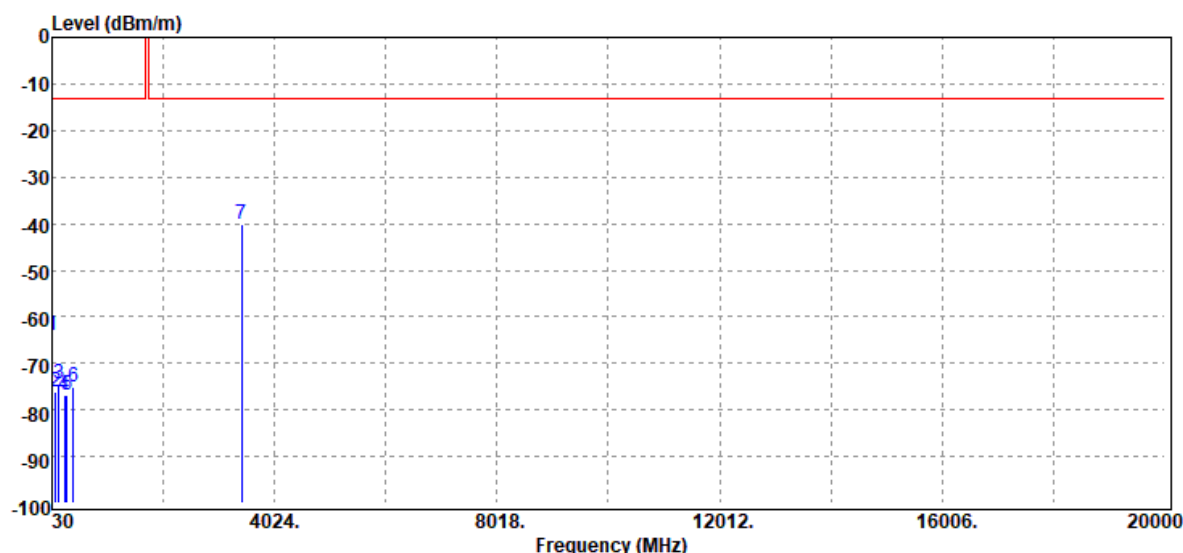
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B4 5MHz 16QAM 1 5  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :1712.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-64.02	-44.24	-19.15	-0.63	-13.00	-51.02
91.11	-76.19	-69.52	-5.75	-0.92	-13.00	-63.19
153.19	-74.53	-65.81	-7.46	-1.26	-13.00	-61.53
256.01	-76.67	-73.48	-1.62	-1.57	-13.00	-63.67
293.84	-76.66	-73.22	-1.75	-1.69	-13.00	-63.66
419.94	-75.00	-71.35	-1.68	-1.97	-13.00	-62.00
3429.00	-40.19	-46.80	12.40	-5.79	-13.00	-27.19

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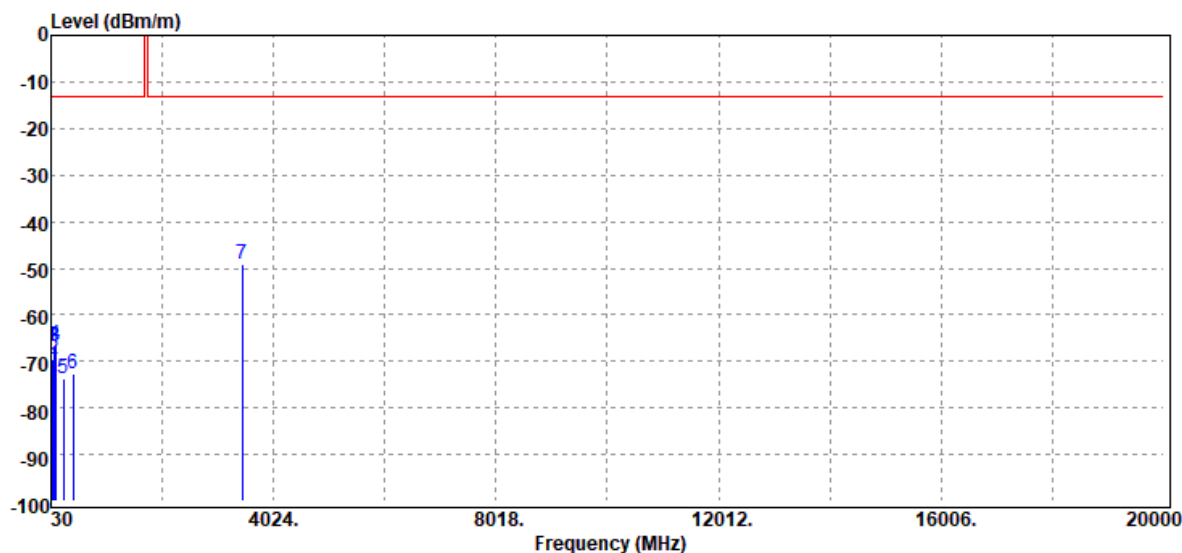
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B4 5MHz 16QAM 1 5  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :1732.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
37.76	-66.85	-47.07	-19.15	-0.63	-13.00	-53.85
59.10	-69.53	-53.30	-15.50	-0.73	-13.00	-56.53
92.08	-66.82	-60.23	-5.66	-0.93	-13.00	-53.82
104.69	-66.56	-58.88	-6.68	-1.00	-13.00	-53.56
255.04	-73.63	-70.46	-1.61	-1.56	-13.00	-60.63
430.61	-72.54	-69.03	-1.67	-1.84	-13.00	-59.54
3465.00	-49.08	-55.70	12.37	-5.75	-13.00	-36.08

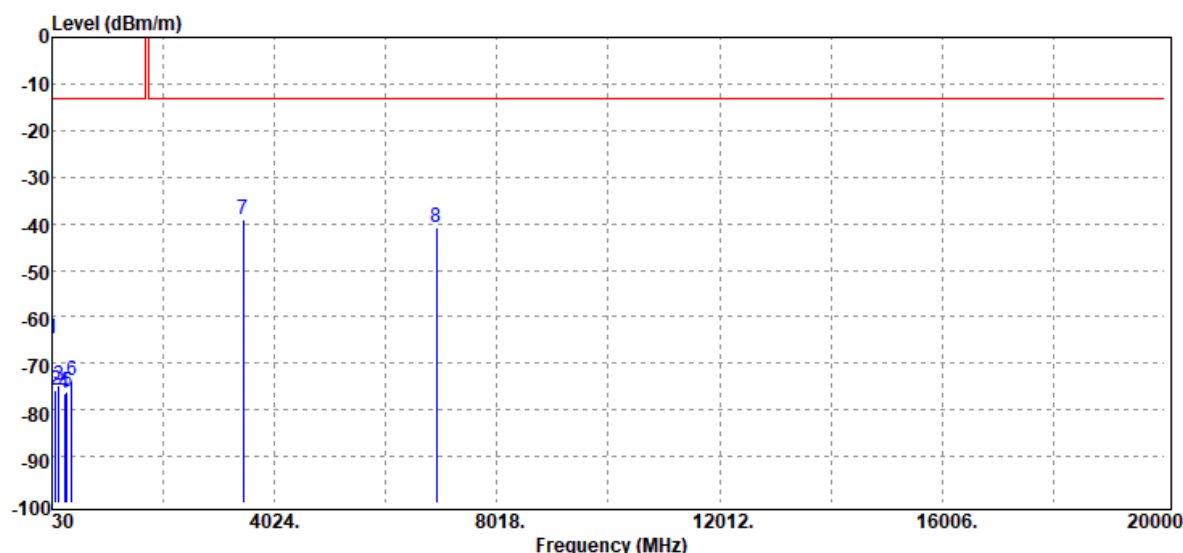
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B4 5MHz 16QAM 1 5  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :1732.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-64.61	-44.83	-19.15	-0.63	-13.00	-51.61
93.05	-75.74	-69.14	-5.67	-0.93	-13.00	-62.74
151.25	-74.61	-65.74	-7.64	-1.23	-13.00	-61.61
255.04	-76.48	-73.31	-1.61	-1.56	-13.00	-63.48
304.51	-76.05	-72.75	-1.65	-1.65	-13.00	-63.05
385.99	-73.62	-70.03	-1.63	-1.96	-13.00	-60.62
3465.00	-39.25	-45.87	12.37	-5.75	-13.00	-26.25
6929.00	-40.82	-44.06	11.50	-8.26	-13.00	-27.82

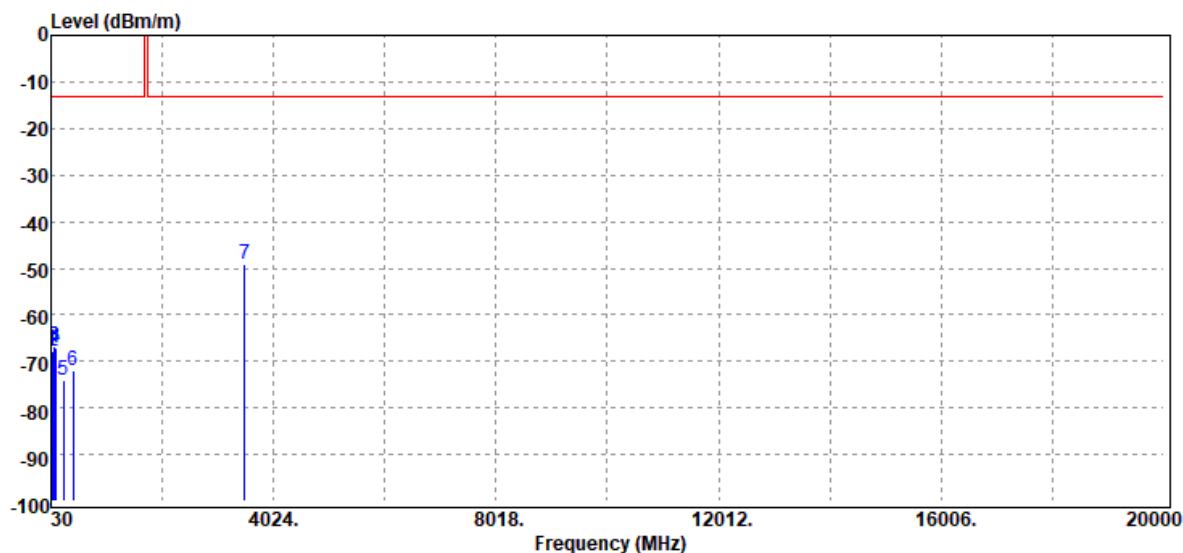
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B4 5MHz 16QAM 1 5  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :1752.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-67.57	-47.79	-19.15	-0.63	-13.00	-54.57
59.10	-67.95	-51.72	-15.50	-0.73	-13.00	-54.95
92.08	-66.74	-60.15	-5.66	-0.93	-13.00	-53.74
102.75	-67.28	-59.81	-6.48	-0.99	-13.00	-54.28
255.04	-74.21	-71.04	-1.61	-1.56	-13.00	-61.21
429.64	-72.08	-68.58	-1.66	-1.84	-13.00	-59.08
3505.00	-49.21	-55.77	12.28	-5.72	-13.00	-36.21

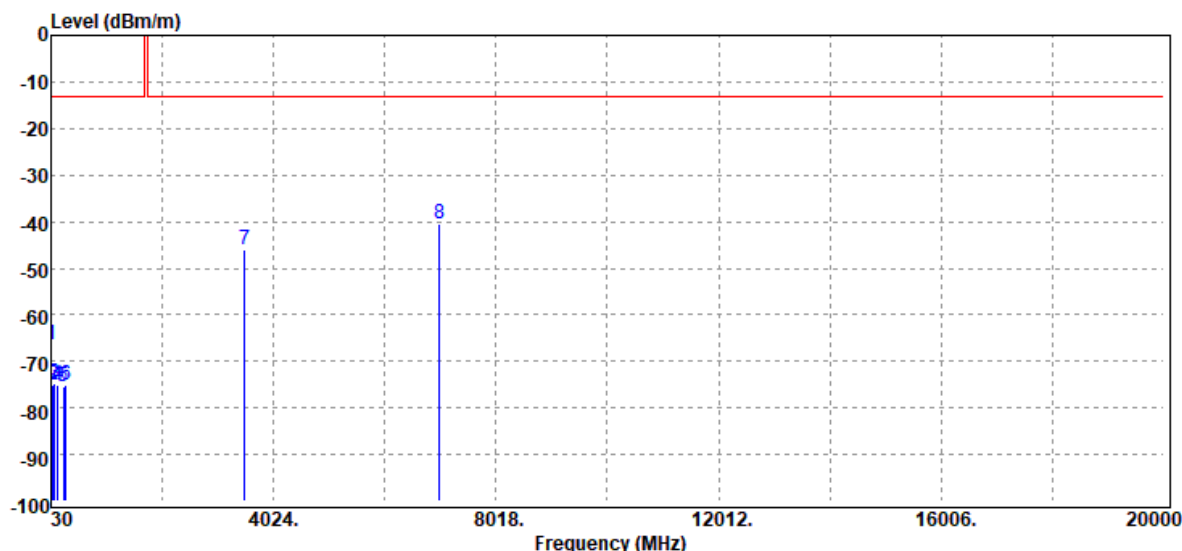
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B4 5MHz 16QAM 1 5  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :1752.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-66.43	-46.65	-19.15	-0.63	-13.00	-53.43
59.10	-75.23	-59.00	-15.50	-0.73	-13.00	-62.23
93.05	-74.68	-68.08	-5.67	-0.93	-13.00	-61.68
154.16	-75.08	-66.34	-7.46	-1.28	-13.00	-62.08
251.16	-75.45	-72.27	-1.66	-1.52	-13.00	-62.45
298.69	-74.99	-71.59	-1.71	-1.69	-13.00	-61.99
3505.00	-46.04	-52.60	12.28	-5.72	-13.00	-33.04
7006.00	-40.49	-43.34	11.16	-8.31	-13.00	-27.49

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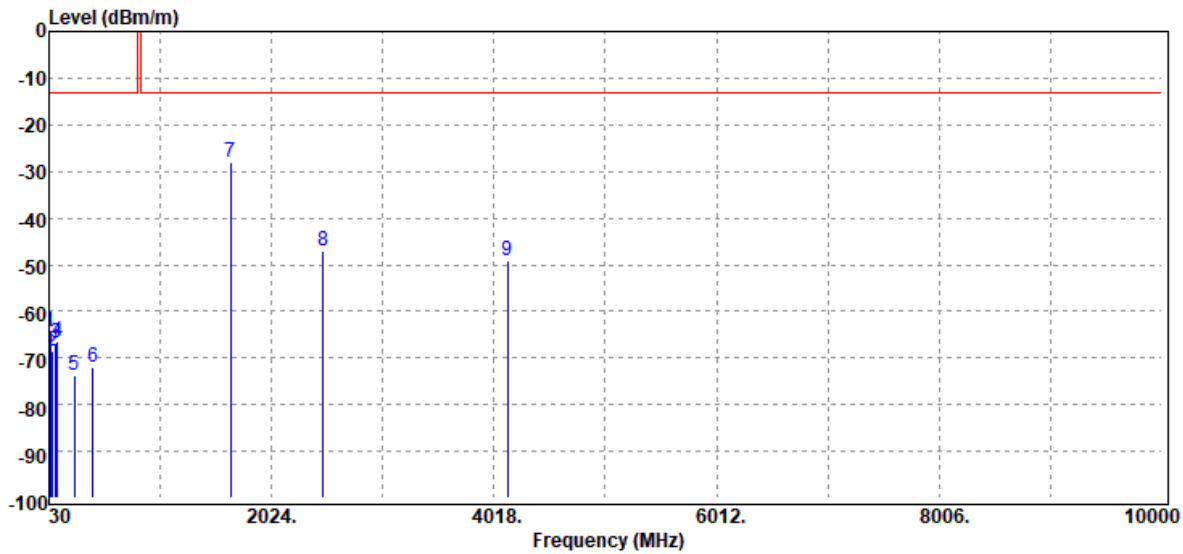
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## Radiated Spurious Emission Measurement Result: CAT\_M1\_Band 5 (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B5 5MHz 16QAM 1 0  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :826.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
37.76	-64.41	-44.63	-19.15	-0.63	-13.00	-51.41
59.10	-68.57	-52.34	-15.50	-0.73	-13.00	-55.57
93.05	-66.82	-60.22	-5.67	-0.93	-13.00	-53.82
104.69	-66.49	-58.81	-6.68	-1.00	-13.00	-53.49
256.01	-73.87	-70.68	-1.62	-1.57	-13.00	-60.87
420.91	-71.84	-68.22	-1.66	-1.96	-13.00	-58.84
1660.00	-27.88	-33.24	9.38	-4.02	-13.00	-14.88
2485.00	-47.11	-52.63	10.44	-4.92	-13.00	-34.11
4140.00	-49.11	-55.26	12.48	-6.33	-13.00	-36.11

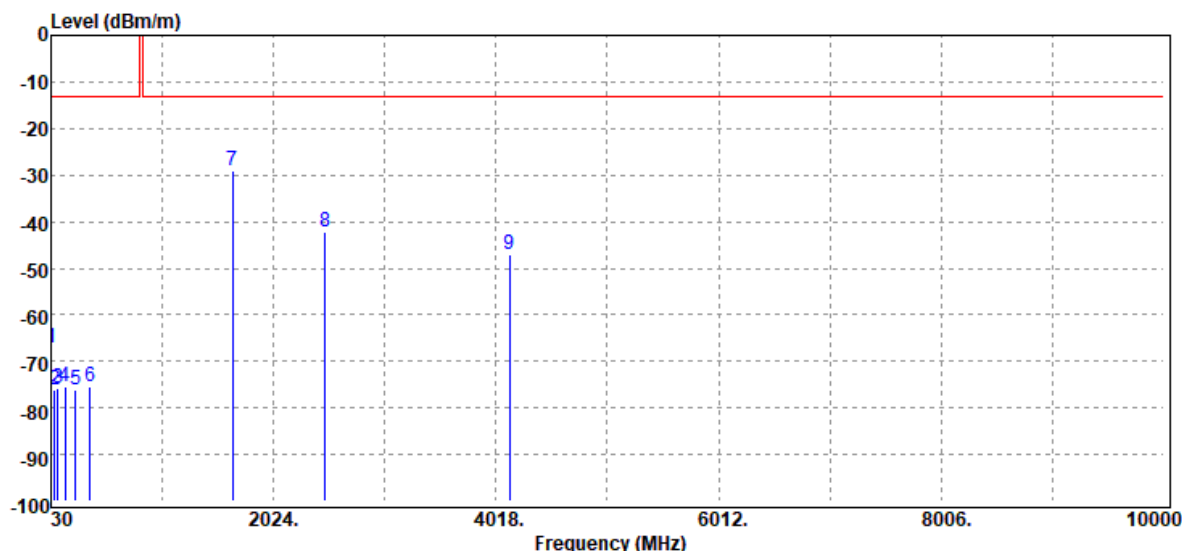
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B5 5MHz 16QAM 1 0  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :826.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
36.79	-67.01	-47.14	-19.25	-0.62	-13.00	-54.01
59.10	-75.97	-59.74	-15.50	-0.73	-13.00	-62.97
93.05	-75.70	-69.10	-5.67	-0.93	-13.00	-62.70
153.19	-75.45	-66.73	-7.46	-1.26	-13.00	-62.45
253.10	-76.17	-72.99	-1.64	-1.54	-13.00	-63.17
382.11	-75.41	-71.84	-1.64	-1.93	-13.00	-62.41
1660.00	-29.16	-34.52	9.38	-4.02	-13.00	-16.16
2485.00	-42.20	-47.72	10.44	-4.92	-13.00	-29.20
4140.00	-47.17	-53.32	12.48	-6.33	-13.00	-34.17

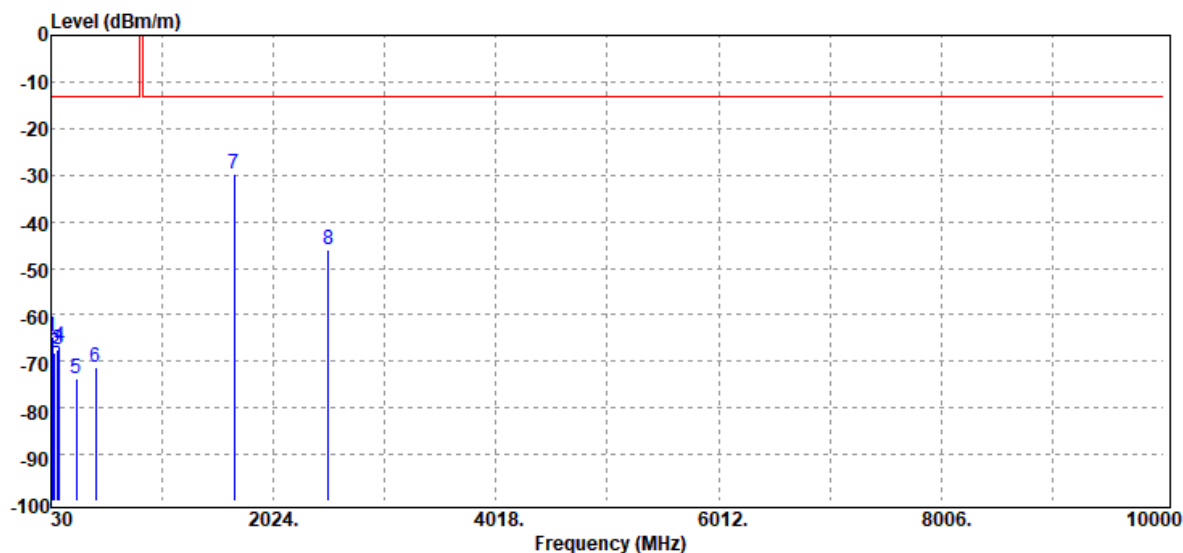
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B5 5MHz 16QAM 1 0  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :836.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
37.76	-64.76	-44.98	-19.15	-0.63	-13.00	-51.76
59.10	-68.30	-52.07	-15.50	-0.73	-13.00	-55.30
93.05	-67.31	-60.71	-5.67	-0.93	-13.00	-54.31
104.69	-66.90	-59.22	-6.68	-1.00	-13.00	-53.90
255.04	-73.54	-70.37	-1.61	-1.56	-13.00	-60.54
427.70	-71.28	-67.79	-1.62	-1.87	-13.00	-58.28
1673.00	-29.90	-35.36	9.49	-4.03	-13.00	-16.90
2515.00	-45.91	-51.52	10.56	-4.95	-13.00	-32.91

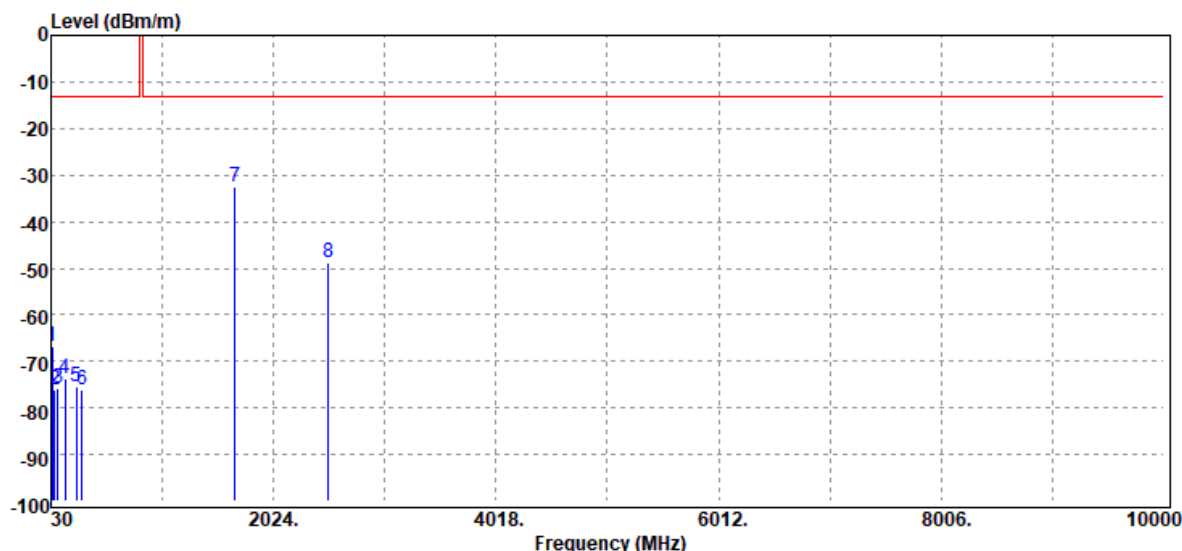
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B5 5MHz 16QAM 1 0  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :836.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-66.85	-47.07	-19.15	-0.63	-13.00	-53.85
59.10	-76.20	-59.97	-15.50	-0.73	-13.00	-63.20
93.05	-75.94	-69.34	-5.67	-0.93	-13.00	-62.94
156.10	-73.80	-65.23	-7.26	-1.31	-13.00	-60.80
257.95	-75.50	-72.27	-1.63	-1.60	-13.00	-62.50
311.30	-76.16	-72.87	-1.67	-1.62	-13.00	-63.16
1675.00	-32.69	-38.16	9.50	-4.03	-13.00	-19.69
2515.00	-48.86	-54.47	10.56	-4.95	-13.00	-35.86

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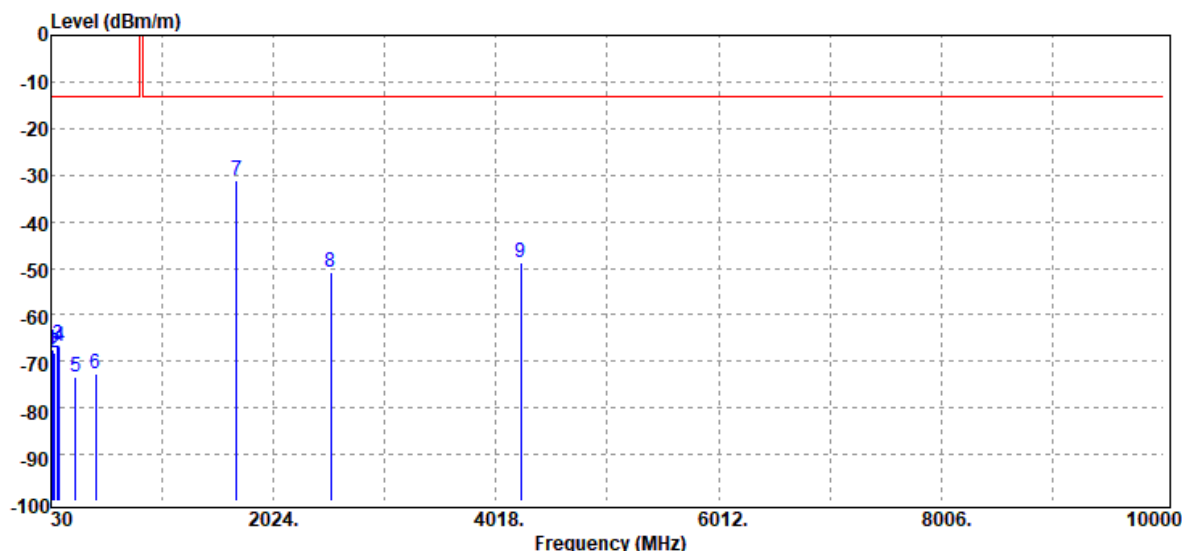
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B5 5MHz 16QAM 1 0  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :846.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-67.39	-47.61	-19.15	-0.63	-13.00	-54.39
59.10	-68.32	-52.09	-15.50	-0.73	-13.00	-55.32
93.05	-66.49	-59.89	-5.67	-0.93	-13.00	-53.49
104.69	-66.62	-58.94	-6.68	-1.00	-13.00	-53.62
253.10	-73.46	-70.28	-1.64	-1.54	-13.00	-60.46
427.70	-72.57	-69.08	-1.62	-1.87	-13.00	-59.57
1690.00	-31.23	-36.80	9.62	-4.05	-13.00	-18.23
2540.00	-50.72	-56.40	10.66	-4.98	-13.00	-37.72
4240.00	-48.72	-54.69	12.42	-6.45	-13.00	-35.72

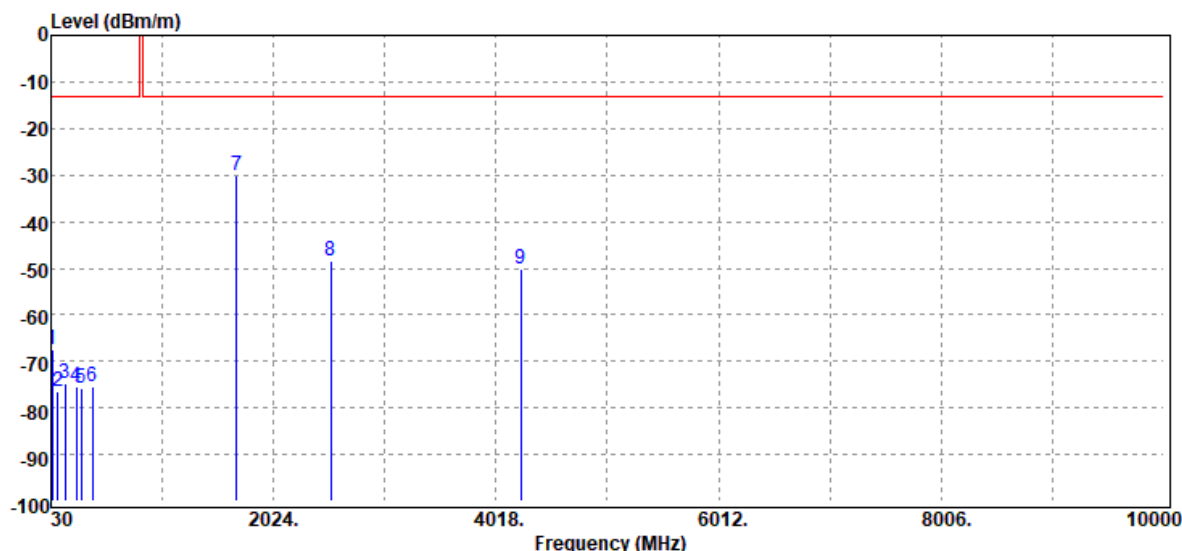
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B5 5MHz 16QAM 1 0  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :846.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-67.34	-47.56	-19.15	-0.63	-13.00	-54.34
93.05	-76.34	-69.74	-5.67	-0.93	-13.00	-63.34
154.16	-74.60	-65.86	-7.46	-1.28	-13.00	-61.60
256.01	-75.60	-72.41	-1.62	-1.57	-13.00	-62.60
303.54	-75.88	-72.56	-1.66	-1.66	-13.00	-62.88
401.51	-75.47	-71.95	-1.60	-1.92	-13.00	-62.47
1690.00	-30.03	-35.60	9.62	-4.05	-13.00	-17.03
2540.00	-48.28	-53.96	10.66	-4.98	-13.00	-35.28
4240.00	-50.10	-56.07	12.42	-6.45	-13.00	-37.10

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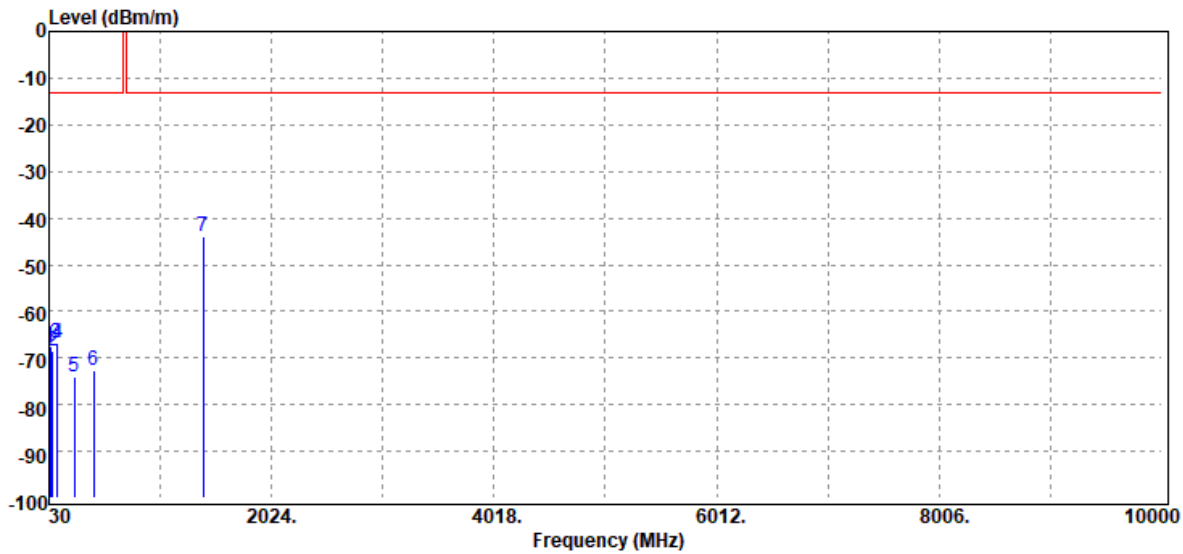
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## Radiated Spurious Emission Measurement Result: CAT\_M1\_Band 12 (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B12 10MHz 16QAM 1 5  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :704.0 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
37.76	-67.55	-47.77	-19.15	-0.63	-13.00	-54.55
59.10	-68.61	-52.38	-15.50	-0.73	-13.00	-55.61
94.99	-66.86	-60.23	-5.69	-0.94	-13.00	-53.86
104.69	-66.94	-59.26	-6.68	-1.00	-13.00	-53.94
259.89	-73.98	-70.72	-1.64	-1.62	-13.00	-60.98
432.55	-72.59	-69.09	-1.67	-1.83	-13.00	-59.59
1415.00	-43.83	-48.06	7.93	-3.70	-13.00	-30.83

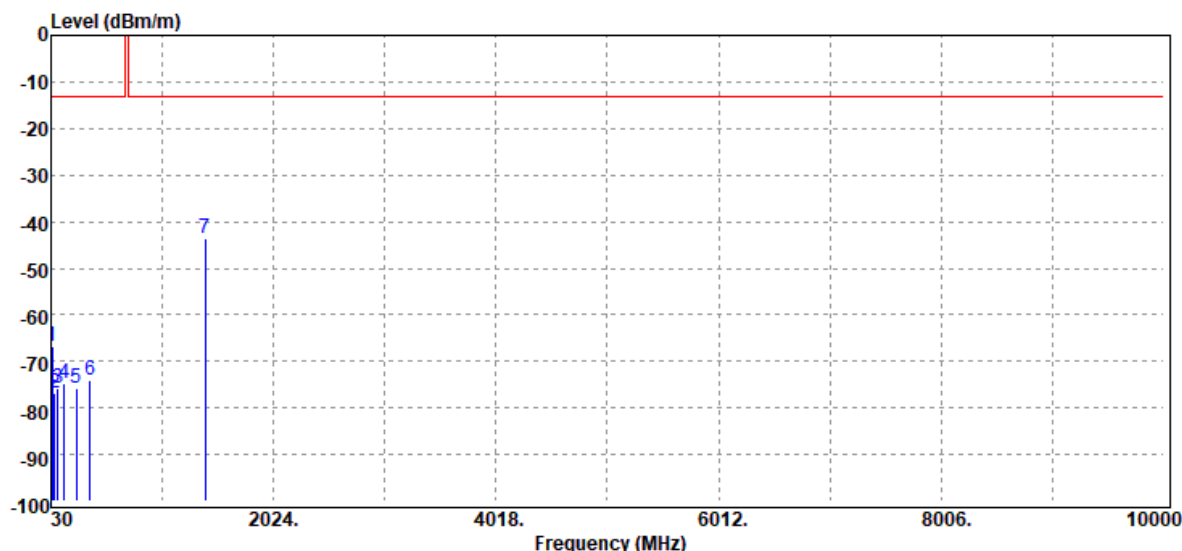
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B12 10MHz 16QAM 1 5  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :704.0 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-66.66	-46.88	-19.15	-0.63	-13.00	-53.66
59.10	-76.95	-60.72	-15.50	-0.73	-13.00	-63.95
93.05	-75.70	-69.10	-5.67	-0.93	-13.00	-62.70
151.25	-74.61	-65.74	-7.64	-1.23	-13.00	-61.61
256.01	-75.67	-72.48	-1.62	-1.57	-13.00	-62.67
382.11	-74.17	-70.60	-1.64	-1.93	-13.00	-61.17
1415.00	-43.70	-47.93	7.93	-3.70	-13.00	-30.70

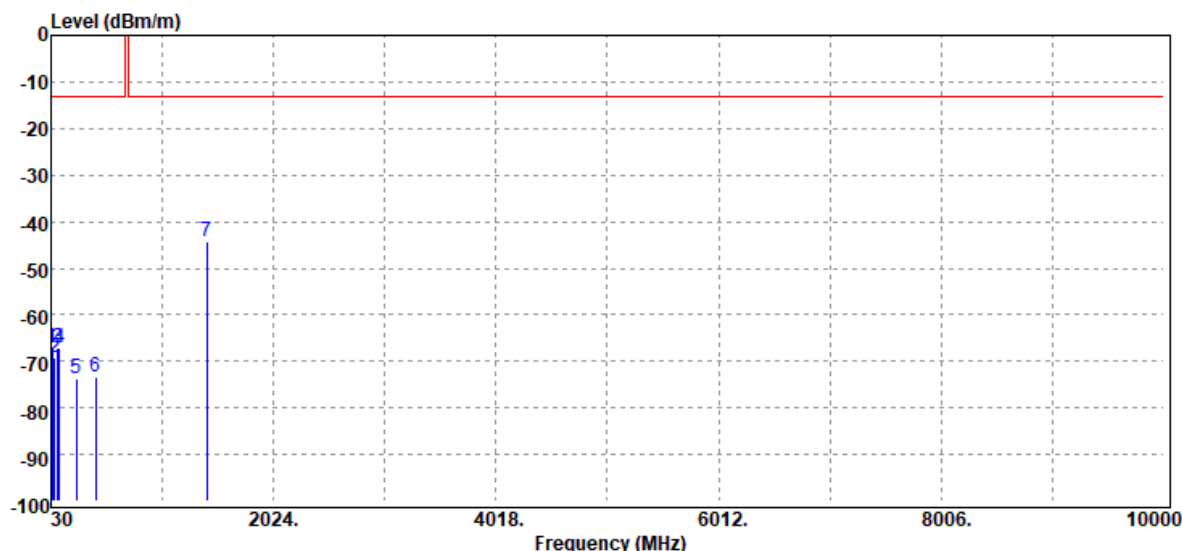
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B12 10MHz 16QAM 1 5  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :707.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-67.08	-47.30	-19.15	-0.63	-13.00	-54.08
59.10	-69.34	-53.11	-15.50	-0.73	-13.00	-56.34
93.05	-67.05	-60.45	-5.67	-0.93	-13.00	-54.05
104.69	-66.97	-59.29	-6.68	-1.00	-13.00	-53.97
256.01	-73.66	-70.47	-1.62	-1.57	-13.00	-60.66
430.61	-73.38	-69.87	-1.67	-1.84	-13.00	-60.38
1425.00	-44.15	-48.39	7.95	-3.71	-13.00	-31.15

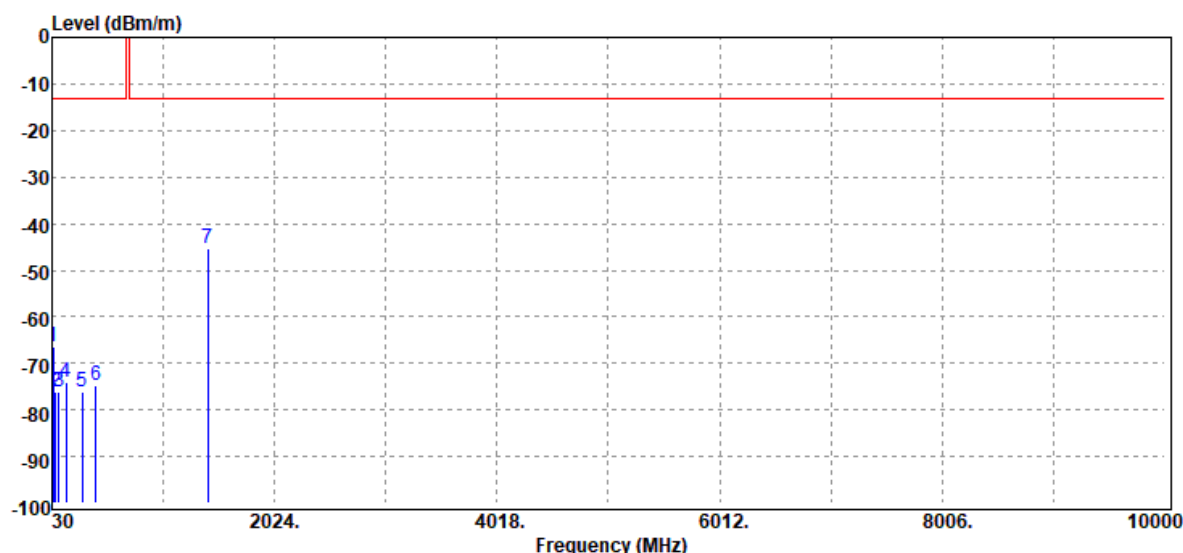
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B12 10MHz 16QAM 1 5  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :707.5 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-66.45	-46.67	-19.15	-0.63	-13.00	-53.45
59.10	-76.18	-59.95	-15.50	-0.73	-13.00	-63.18
91.11	-76.24	-69.57	-5.75	-0.92	-13.00	-63.24
156.10	-74.08	-65.51	-7.26	-1.31	-13.00	-61.08
301.60	-76.00	-72.65	-1.68	-1.67	-13.00	-63.00
419.94	-74.67	-71.02	-1.68	-1.97	-13.00	-61.67
1425.00	-45.29	-49.53	7.95	-3.71	-13.00	-32.29

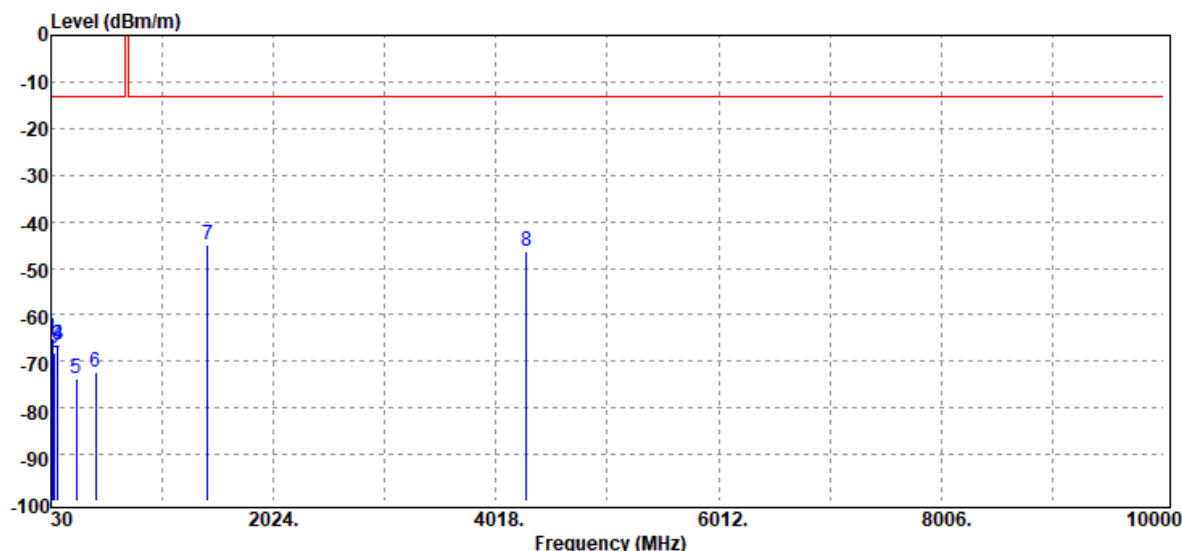
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B12 10MHz 16QAM 1 5  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :711.0 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-65.00	-45.22	-19.15	-0.63	-13.00	-52.00
59.10	-68.14	-51.91	-15.50	-0.73	-13.00	-55.14
93.05	-66.28	-59.68	-5.67	-0.93	-13.00	-53.28
93.05	-66.28	-59.68	-5.67	-0.93	-13.00	-53.28
255.04	-73.76	-70.59	-1.61	-1.56	-13.00	-60.76
430.61	-72.26	-68.75	-1.67	-1.84	-13.00	-59.26
1435.00	-45.01	-49.26	7.97	-3.72	-13.00	-32.01
4290.00	-46.49	-52.56	12.48	-6.41	-13.00	-33.49

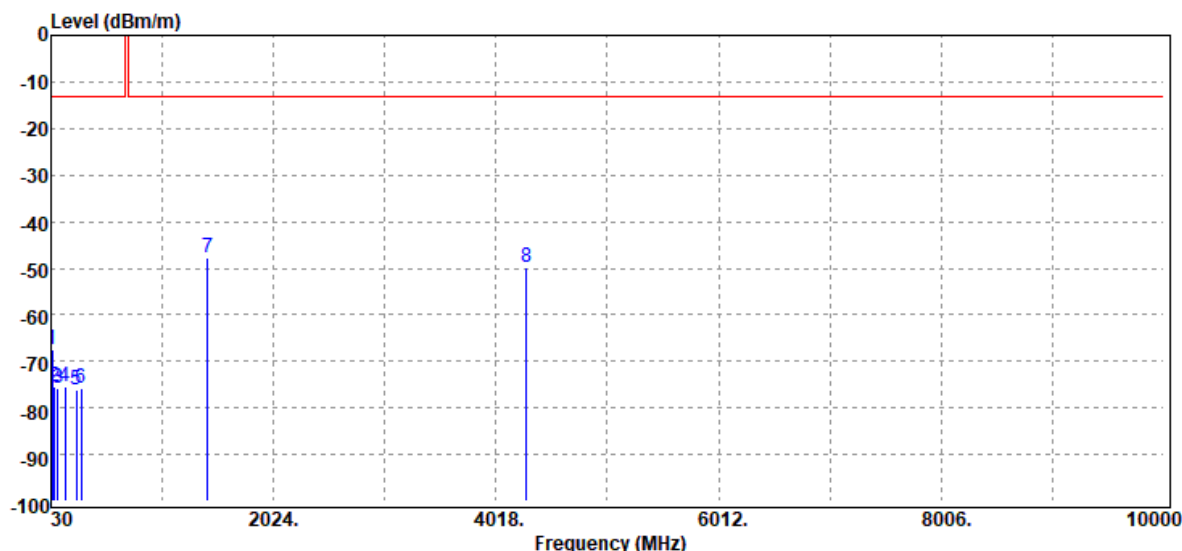
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B12 10MHz 16QAM 1 5  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :711.0 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-67.54	-47.76	-19.15	-0.63	-13.00	-54.54
59.10	-75.41	-59.18	-15.50	-0.73	-13.00	-62.41
93.05	-75.86	-69.26	-5.67	-0.93	-13.00	-62.86
156.10	-75.57	-67.00	-7.26	-1.31	-13.00	-62.57
255.04	-76.01	-72.84	-1.61	-1.56	-13.00	-63.01
298.69	-75.89	-72.49	-1.71	-1.69	-13.00	-62.89
1435.00	-47.80	-52.05	7.97	-3.72	-13.00	-34.80
4290.00	-49.68	-55.75	12.48	-6.41	-13.00	-36.68

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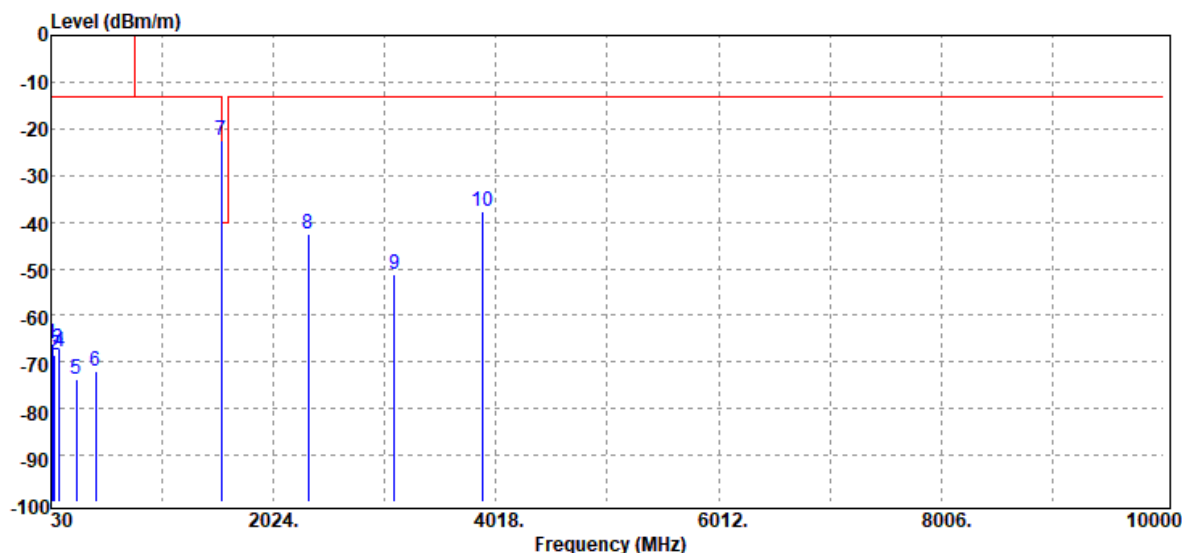
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**Radiated Spurious Emission Measurement Result: CAT\_M1\_Band 13 (The Worst Case)**

Report Number :ER-2019-80104-01  
 Operation Mode :Cat\_M1 B13 10MHz 16QAM 1 0  
 Test Mode :Tx CH Mid  
 EUT Pol :H Plane  
 Test Channel :782.0 MHz

Test Date :2019-10-16  
 Temp./Humi. :22.6/60  
 Antenna Pol. :VERTICAL  
 Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
37.76	-66.24	-46.46	-19.15	-0.63	-13.00	-53.24
59.10	-68.47	-52.24	-15.50	-0.73	-13.00	-55.47
94.99	-66.98	-60.35	-5.69	-0.94	-13.00	-53.98
104.69	-67.89	-60.21	-6.68	-1.00	-13.00	-54.89
257.95	-73.86	-70.63	-1.63	-1.60	-13.00	-60.86
430.61	-72.03	-68.52	-1.67	-1.84	-13.00	-59.03
1555.50	-22.45	-27.68	9.11	-3.88	-13.00	-9.45
2335.00	-42.45	-47.18	9.51	-4.78	-13.00	-29.45
3110.00	-51.20	-56.83	11.22	-5.59	-13.00	-38.20
3890.00	-37.66	-43.63	12.20	-6.23	-13.00	-24.66

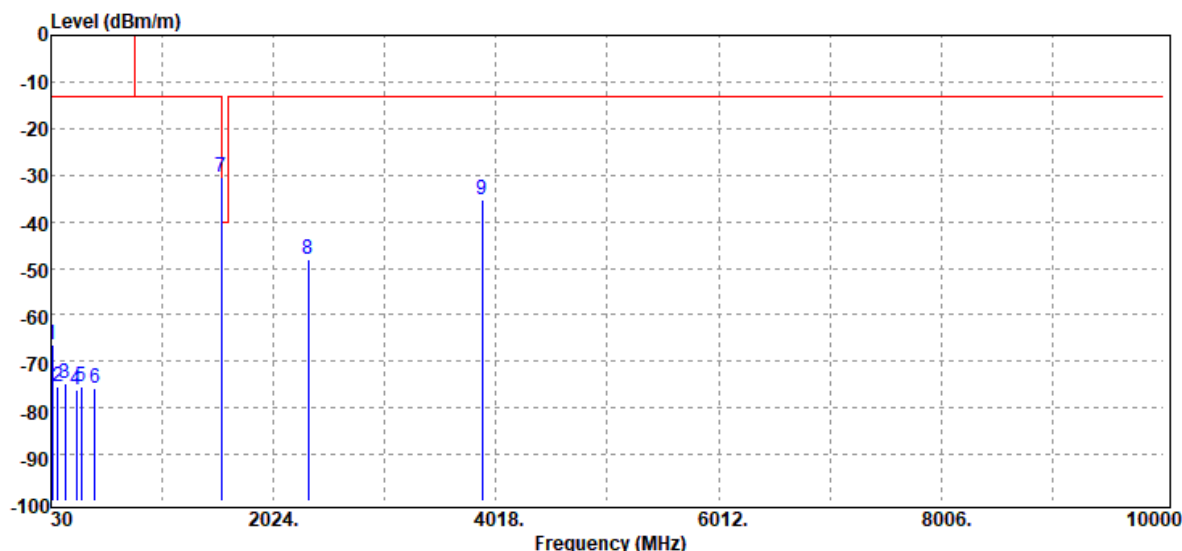
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B13 10MHz 16QAM 1 0  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :782.0 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
37.76	-66.51	-46.73	-19.15	-0.63	-13.00	-53.51
93.05	-75.32	-68.72	-5.67	-0.93	-13.00	-62.32
153.19	-74.83	-66.11	-7.46	-1.26	-13.00	-61.83
255.04	-75.96	-72.79	-1.61	-1.56	-13.00	-62.96
299.66	-75.57	-72.18	-1.70	-1.69	-13.00	-62.57
419.94	-75.62	-71.97	-1.68	-1.97	-13.00	-62.62
1555.50	-30.53	-35.76	9.11	-3.88	-13.00	-17.53
2335.00	-48.15	-52.88	9.51	-4.78	-13.00	-35.15
3890.00	-35.42	-41.39	12.20	-6.23	-13.00	-22.42

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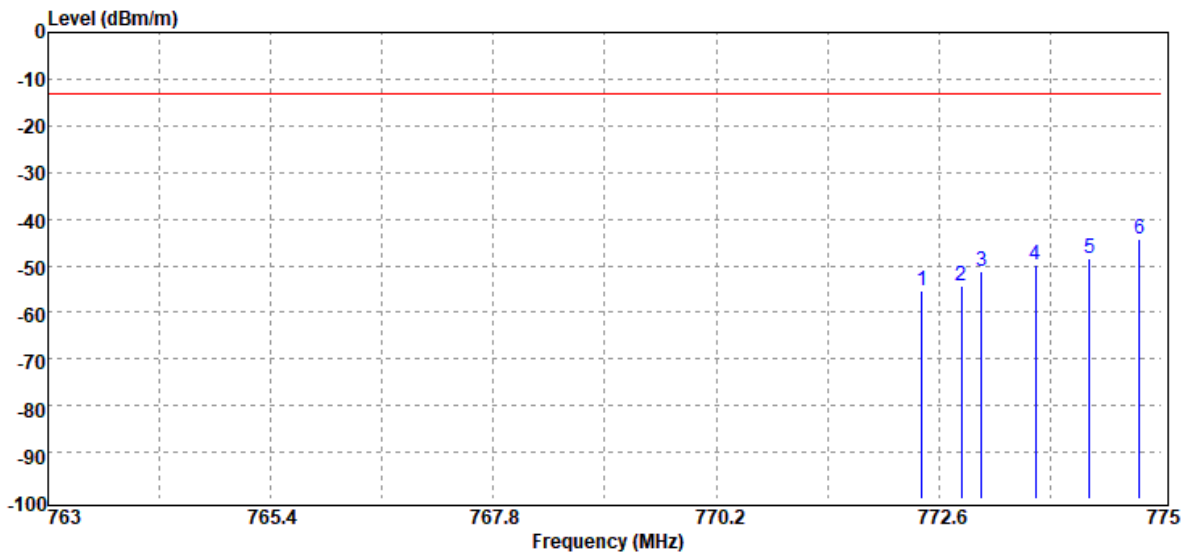
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## Radiated Spurious Emission Measurement Result: CAT\_M1\_Band 13 (763-775MHz) (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B13 10MHz 16QAM 1 0  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :782.0 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
772.42	-55.34	-51.01	-1.73	-2.60	-13.00	-42.34
772.84	-54.22	-49.88	-1.73	-2.61	-13.00	-41.22
773.06	-51.33	-46.99	-1.73	-2.61	-13.00	-38.33
773.64	-49.94	-45.59	-1.74	-2.61	-13.00	-36.94
774.22	-48.34	-43.98	-1.74	-2.62	-13.00	-35.34
774.76	-44.15	-39.78	-1.75	-2.62	-13.00	-31.15

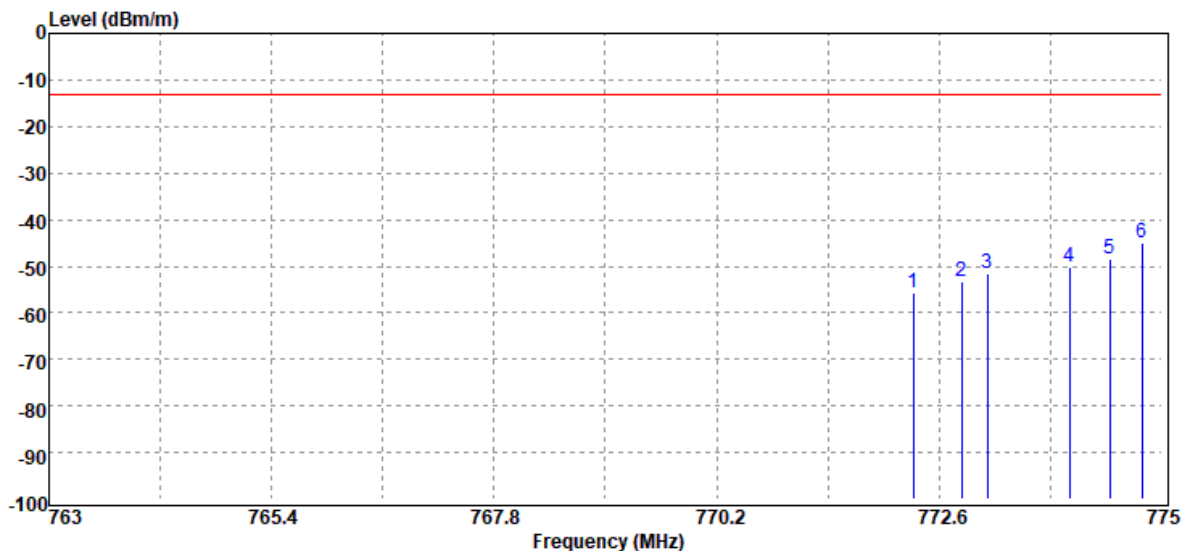
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B13 10MHz 16QAM 1 0  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :782.0 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
772.32	-55.57	-51.24	-1.73	-2.60	-13.00	-42.57
772.84	-53.27	-48.93	-1.73	-2.61	-13.00	-40.27
773.12	-51.68	-47.34	-1.73	-2.61	-13.00	-38.68
774.00	-50.06	-45.70	-1.74	-2.62	-13.00	-37.06
774.44	-48.48	-44.11	-1.75	-2.62	-13.00	-35.48
774.78	-45.01	-40.64	-1.75	-2.62	-13.00	-32.01

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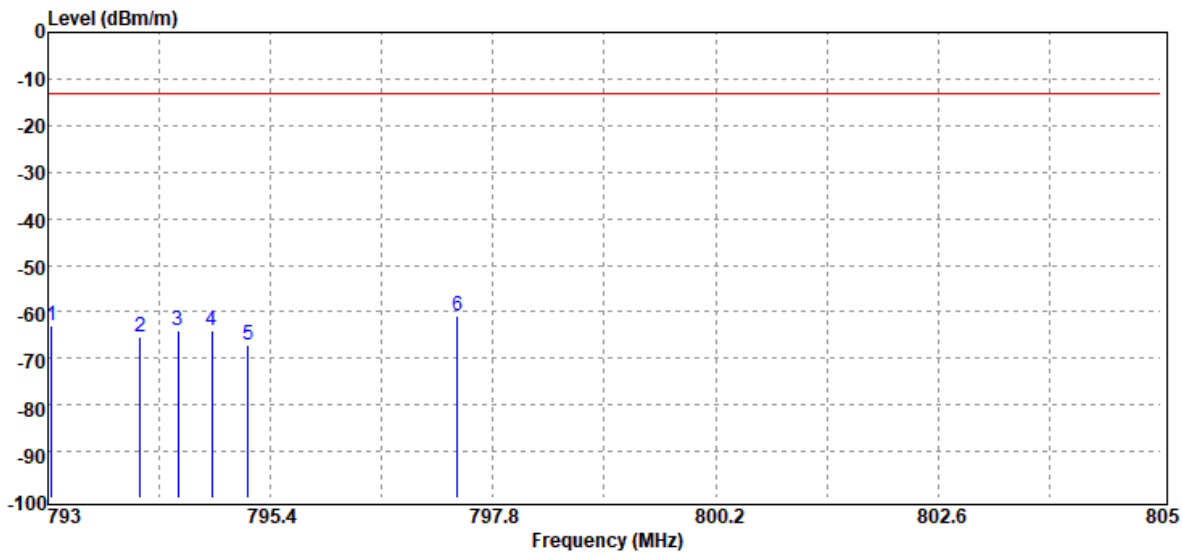
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## Radiated Spurious Emission Measurement Result: CAT\_M1\_Band 13 (793-805MHz) (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B13 10MHz 16QAM 1 0  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :782.0 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
793.04	-63.04	-58.35	-1.65	-3.04	-13.00	-50.04
794.00	-65.39	-60.70	-1.64	-3.05	-13.00	-52.39
794.40	-63.95	-59.25	-1.64	-3.06	-13.00	-50.95
794.76	-64.02	-59.32	-1.63	-3.07	-13.00	-51.02
795.16	-67.15	-62.45	-1.63	-3.07	-13.00	-54.15
797.42	-60.92	-56.20	-1.61	-3.11	-13.00	-47.92

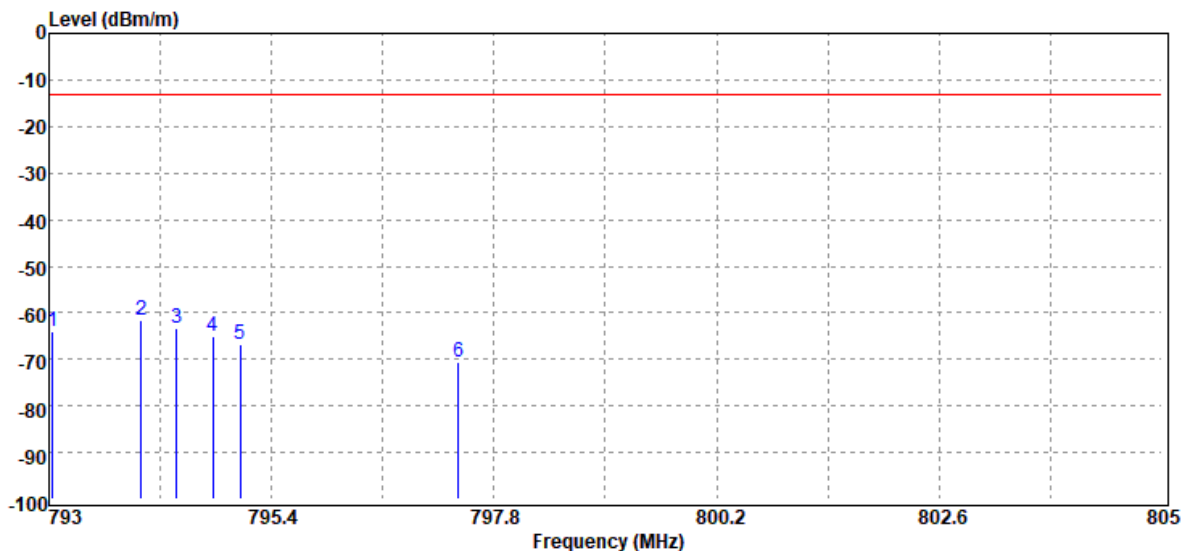
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B13 10MHz 16QAM 1 0  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :782.0 MHz

Test Date :2019-10-16  
Temp./Humi. :22.6/60  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
793.04	-64.12	-59.43	-1.65	-3.04	-13.00	-51.12
794.00	-61.67	-56.98	-1.64	-3.05	-13.00	-48.67
794.38	-63.49	-58.79	-1.64	-3.06	-13.00	-50.49
794.76	-65.11	-60.41	-1.63	-3.07	-13.00	-52.11
795.06	-66.86	-62.16	-1.63	-3.07	-13.00	-53.86
797.42	-70.49	-65.77	-1.61	-3.11	-13.00	-57.49

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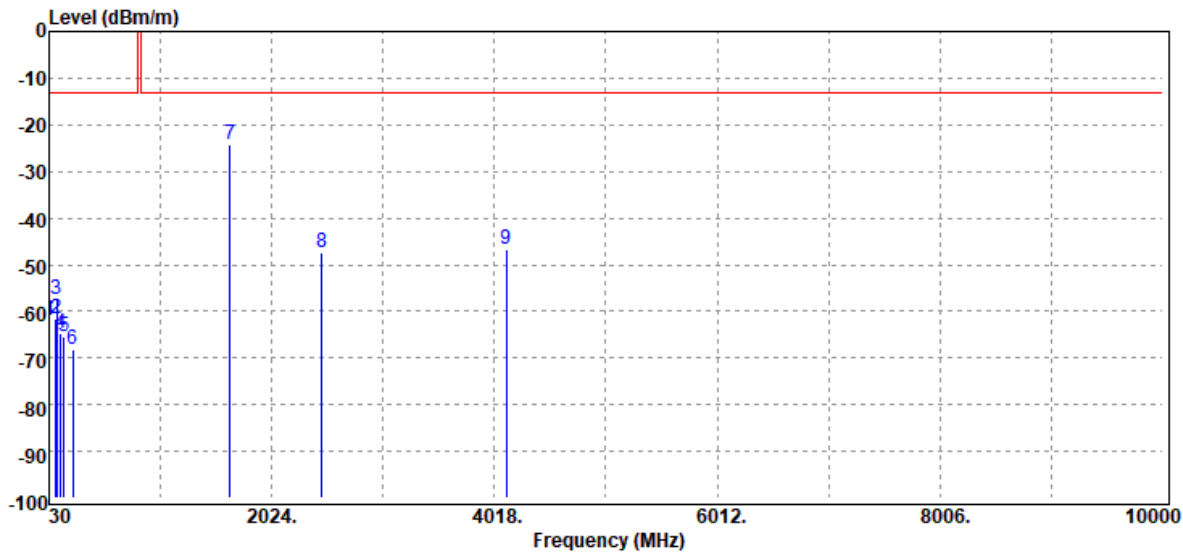
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## Radiated Spurious Emission Measurement Result: CAT\_M1\_Band 26 (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 10MHz 16QAM 1 0  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :829.0 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level	Gain	Loss	dBm	dB
		dBm	dBi/dBd	dB		
34.85	-62.04	-41.55	-19.90	-0.59	-13.00	-49.04
94.02	-61.66	-55.04	-5.68	-0.94	-13.00	-48.66
101.78	-57.53	-50.11	-6.44	-0.98	-13.00	-44.53
131.85	-64.76	-56.23	-7.42	-1.11	-13.00	-51.76
163.86	-65.28	-57.29	-6.65	-1.34	-13.00	-52.28
245.34	-68.10	-64.97	-1.66	-1.47	-13.00	-55.10
1650.00	-24.10	-29.39	9.30	-4.01	-13.00	-11.10
2475.00	-47.45	-52.94	10.40	-4.91	-13.00	-34.45
4125.00	-46.67	-52.83	12.45	-6.29	-13.00	-33.67

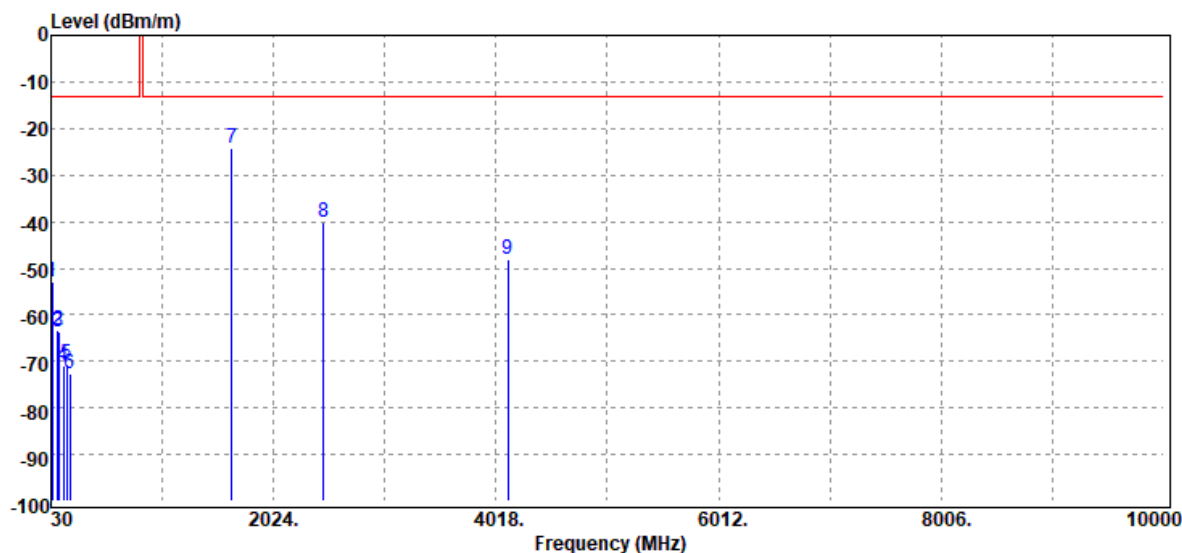
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 10MHz 16QAM 1 0  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :829.0 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
40.67	-52.83	-33.15	-19.02	-0.66	-13.00	-39.83
94.02	-63.41	-56.79	-5.68	-0.94	-13.00	-50.41
100.81	-63.67	-56.38	-6.31	-0.98	-13.00	-50.67
139.61	-70.86	-61.92	-7.80	-1.14	-13.00	-57.86
170.65	-70.70	-63.58	-5.83	-1.29	-13.00	-57.70
199.75	-72.54	-68.92	-2.23	-1.39	-13.00	-59.54
1650.00	-24.27	-29.56	9.30	-4.01	-13.00	-11.27
2475.00	-40.12	-45.61	10.40	-4.91	-13.00	-27.12
4125.00	-47.97	-54.13	12.45	-6.29	-13.00	-34.97

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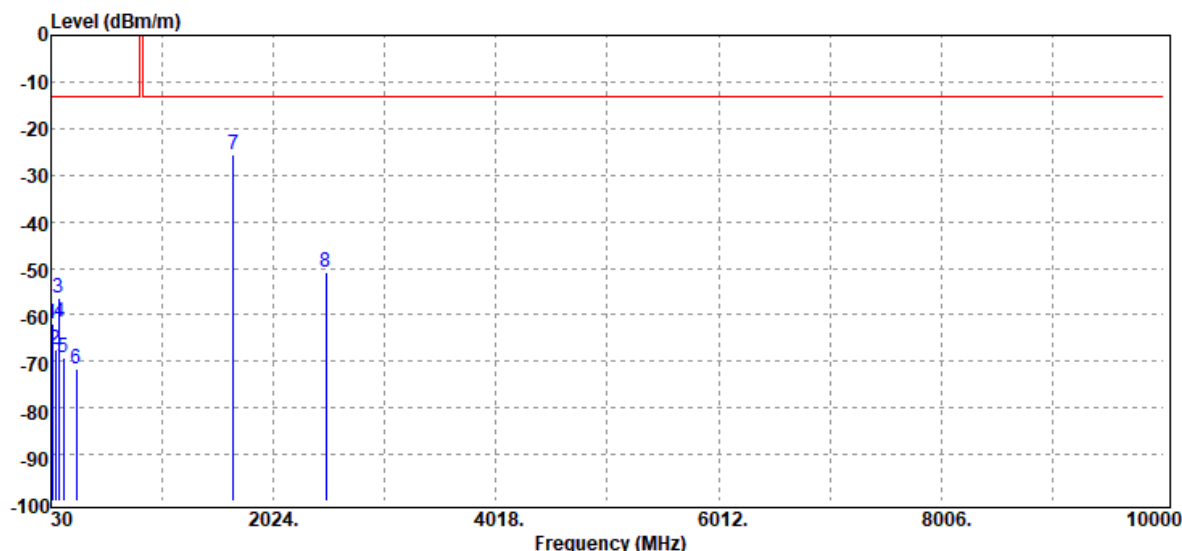
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 10MHz 16QAM 1 0  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :836.5 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
40.67	-61.97	-42.29	-19.02	-0.66	-13.00	-48.97
69.77	-67.42	-54.50	-12.11	-0.81	-13.00	-54.42
100.81	-56.56	-49.27	-6.31	-0.98	-13.00	-43.56
108.57	-61.64	-53.68	-6.94	-1.02	-13.00	-48.64
139.61	-69.36	-60.42	-7.80	-1.14	-13.00	-56.36
254.07	-71.70	-68.53	-1.62	-1.55	-13.00	-58.70
1665.00	-25.75	-31.15	9.42	-4.02	-13.00	-12.75
2495.00	-50.88	-56.44	10.48	-4.92	-13.00	-37.88

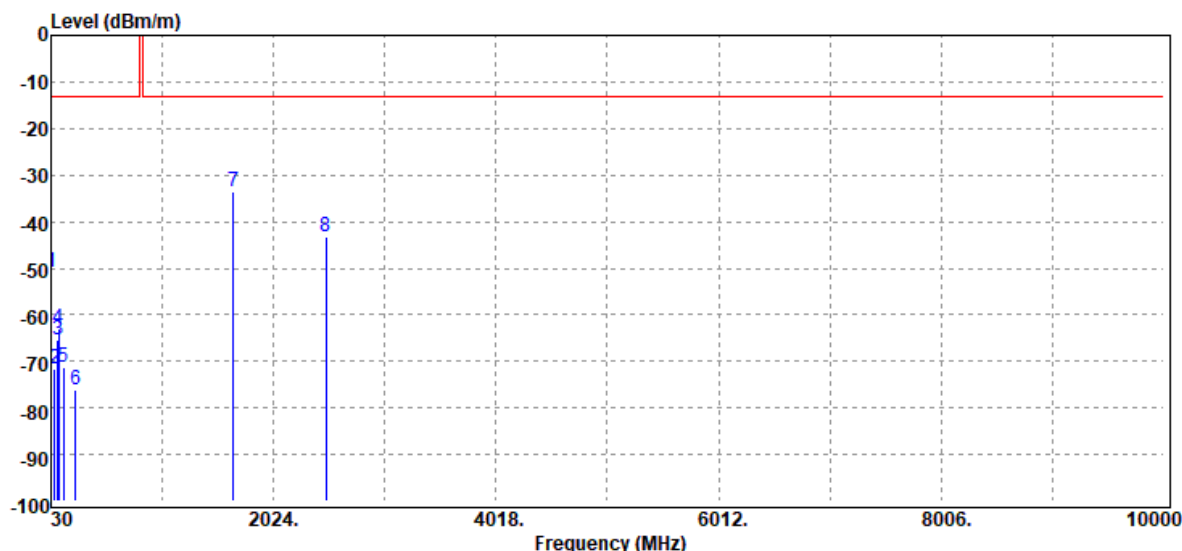
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 10MHz 16QAM 1 0  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :836.5 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
34.85	-50.70	-30.21	-19.90	-0.59	-13.00	-37.70
65.89	-71.67	-57.49	-13.40	-0.78	-13.00	-58.67
94.02	-65.44	-58.82	-5.68	-0.94	-13.00	-52.44
100.81	-63.06	-55.77	-6.31	-0.98	-13.00	-50.06
138.64	-71.37	-62.47	-7.77	-1.13	-13.00	-58.37
250.19	-76.25	-73.06	-1.68	-1.51	-13.00	-63.25
1665.00	-33.72	-39.12	9.42	-4.02	-13.00	-20.72
2495.00	-43.39	-48.95	10.48	-4.92	-13.00	-30.39

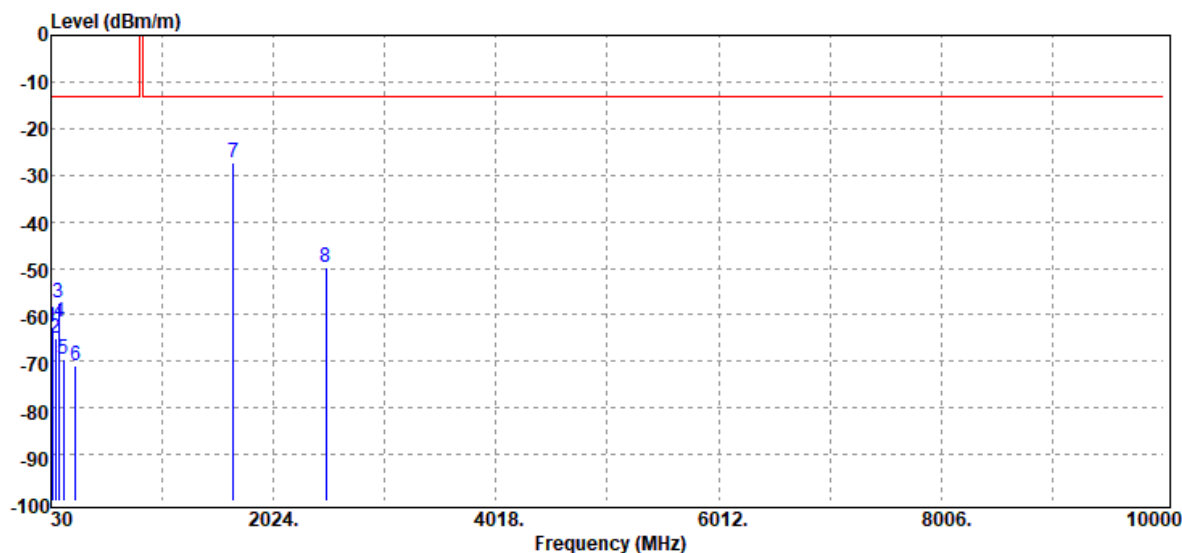
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 10MHz 16QAM 1 0  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :844.0 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
40.67	-62.68	-43.00	-19.02	-0.66	-13.00	-49.68
69.77	-65.04	-52.12	-12.11	-0.81	-13.00	-52.04
100.81	-57.57	-50.28	-6.31	-0.98	-13.00	-44.57
108.57	-61.71	-53.75	-6.94	-1.02	-13.00	-48.71
139.61	-69.62	-60.68	-7.80	-1.14	-13.00	-56.62
253.10	-71.00	-67.82	-1.64	-1.54	-13.00	-58.00
1665.00	-27.17	-32.57	9.42	-4.02	-13.00	-14.17
2495.00	-49.86	-55.42	10.48	-4.92	-13.00	-36.86

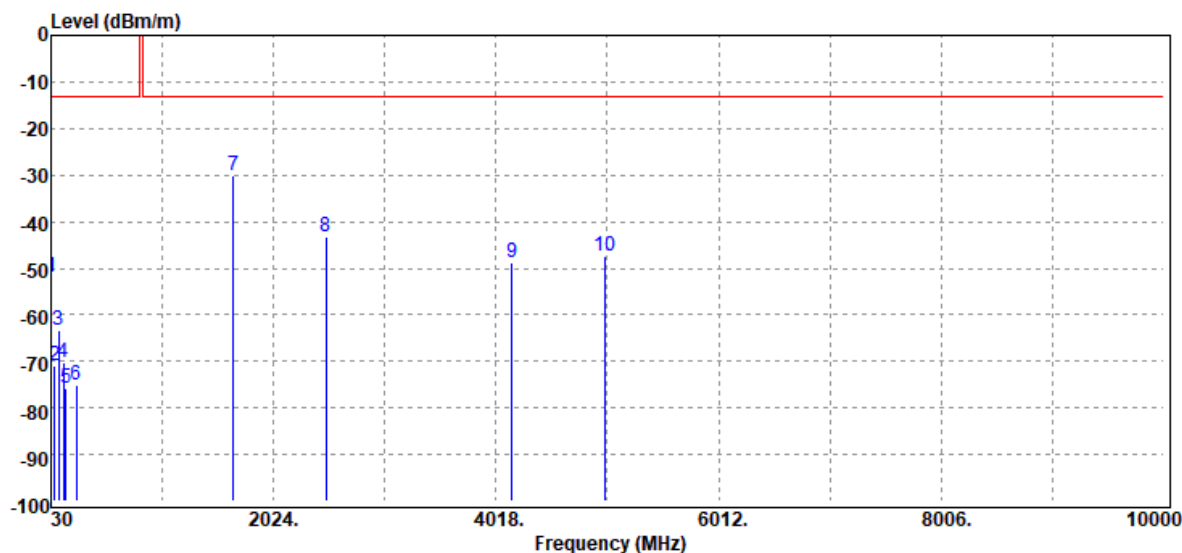
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 10MHz 16QAM 1 0  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :844.0 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
34.85	-52.04	-31.55	-19.90	-0.59	-13.00	-39.04
65.89	-70.95	-56.77	-13.40	-0.78	-13.00	-57.95
100.81	-63.45	-56.16	-6.31	-0.98	-13.00	-50.45
138.64	-70.33	-61.43	-7.77	-1.13	-13.00	-57.33
166.77	-75.68	-68.04	-6.32	-1.32	-13.00	-62.68
255.04	-75.09	-71.92	-1.61	-1.56	-13.00	-62.09
1665.00	-29.99	-35.39	9.42	-4.02	-13.00	-16.99
2495.00	-43.14	-48.70	10.48	-4.92	-13.00	-30.14
4160.00	-48.89	-55.01	12.50	-6.38	-13.00	-35.89
4995.00	-47.34	-52.72	12.41	-7.03	-13.00	-34.34

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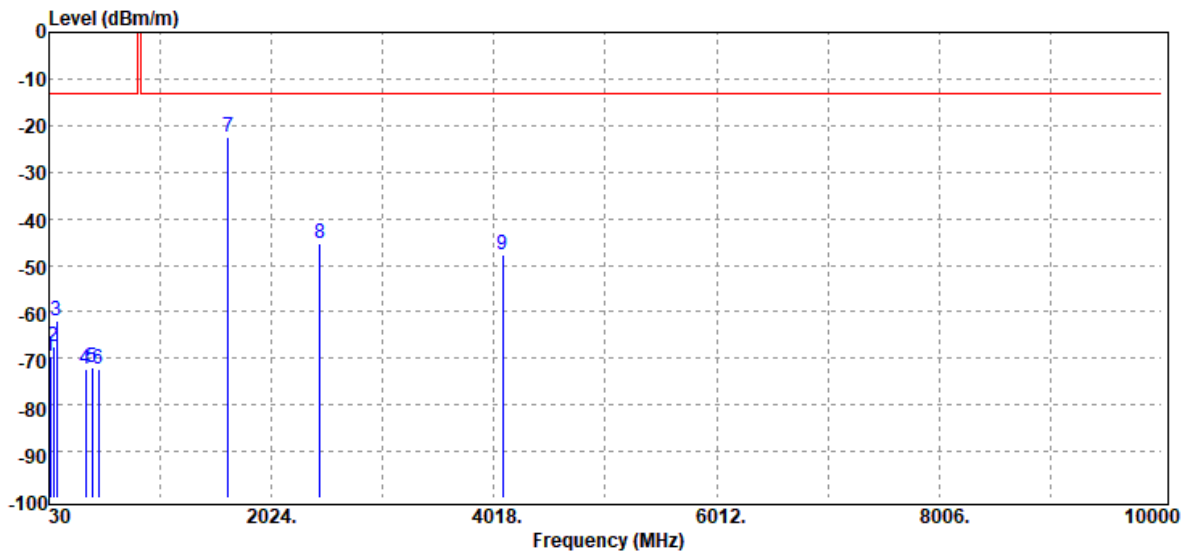
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## Radiated Spurious Emission Measurement Result: CAT\_M1\_Band 26 (Part 90) (The Worst Case)

Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 5MHz 16QAM 1 5  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :816.5 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
42.61	-69.56	-50.09	-18.81	-0.66	-13.00	-56.56
69.77	-67.62	-54.70	-12.11	-0.81	-13.00	-54.62
101.78	-61.97	-54.55	-6.44	-0.98	-13.00	-48.97
356.89	-72.48	-69.03	-1.53	-1.92	-13.00	-59.48
413.15	-72.07	-68.54	-1.58	-1.95	-13.00	-59.07
473.29	-72.24	-68.47	-1.51	-2.26	-13.00	-59.24
1633.00	-22.63	-27.91	9.27	-3.99	-13.00	-9.63
2455.00	-45.49	-50.91	10.32	-4.90	-13.00	-32.49
4095.00	-47.63	-53.80	12.40	-6.23	-13.00	-34.63

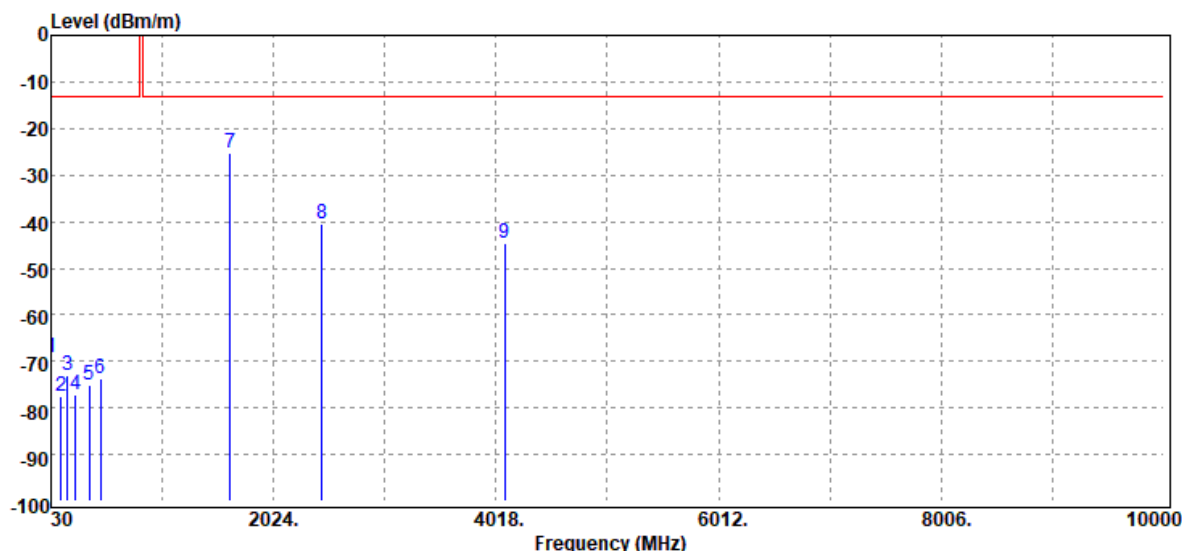
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 5MHz 16QAM 1 5  
Test Mode :Tx CH Low  
EUT Pol :H Plane  
Test Channel :816.5 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
30.00	-69.14	-47.42	-21.20	-0.52	-13.00	-56.14
121.18	-77.45	-69.33	-7.09	-1.03	-13.00	-64.45
180.35	-72.95	-67.55	-4.15	-1.25	-13.00	-59.95
250.19	-77.26	-74.07	-1.68	-1.51	-13.00	-64.26
369.50	-75.08	-71.59	-1.58	-1.91	-13.00	-62.08
474.26	-73.77	-70.01	-1.51	-2.25	-13.00	-60.77
1633.00	-25.32	-30.60	9.27	-3.99	-13.00	-12.32
2455.00	-40.58	-46.00	10.32	-4.90	-13.00	-27.58
4095.00	-44.68	-50.85	12.40	-6.23	-13.00	-31.68

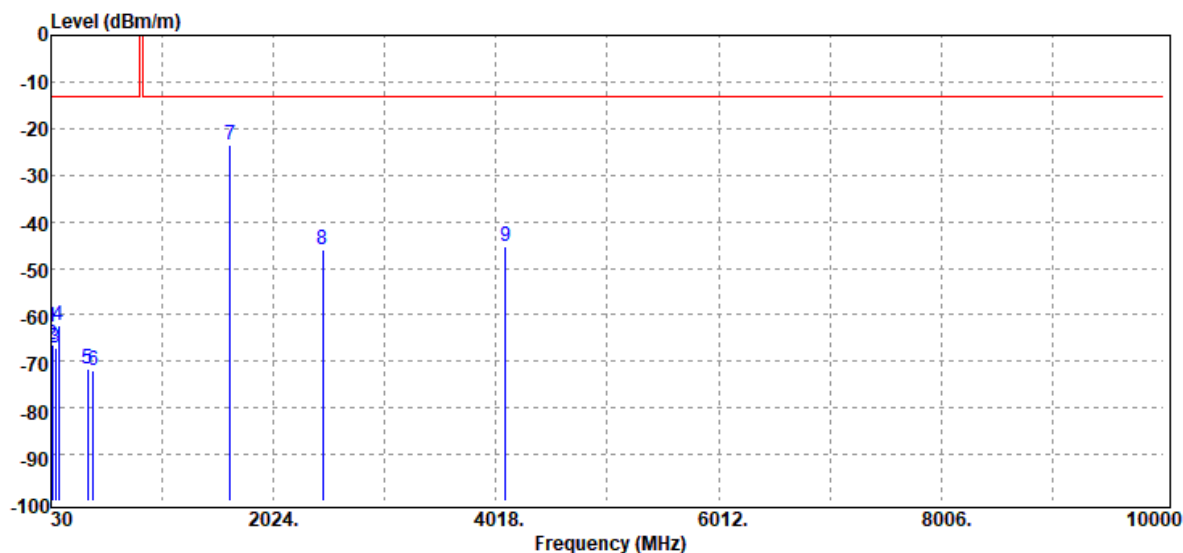
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 5MHz 16QAM 1 5  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :819.0 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Loss dB	dBm	dB
33.88	-62.46	-41.73	-20.15	-0.58	-13.00	-49.46
41.64	-66.43	-46.85	-18.92	-0.66	-13.00	-53.43
69.77	-67.27	-54.35	-12.11	-0.81	-13.00	-54.27
101.78	-62.30	-54.88	-6.44	-0.98	-13.00	-49.30
355.92	-71.66	-68.21	-1.53	-1.92	-13.00	-58.66
412.18	-72.09	-68.57	-1.58	-1.94	-13.00	-59.09
1638.00	-23.41	-28.69	9.28	-4.00	-13.00	-10.41
2465.00	-45.99	-51.44	10.36	-4.91	-13.00	-32.99
4105.00	-45.19	-51.35	12.41	-6.25	-13.00	-32.19

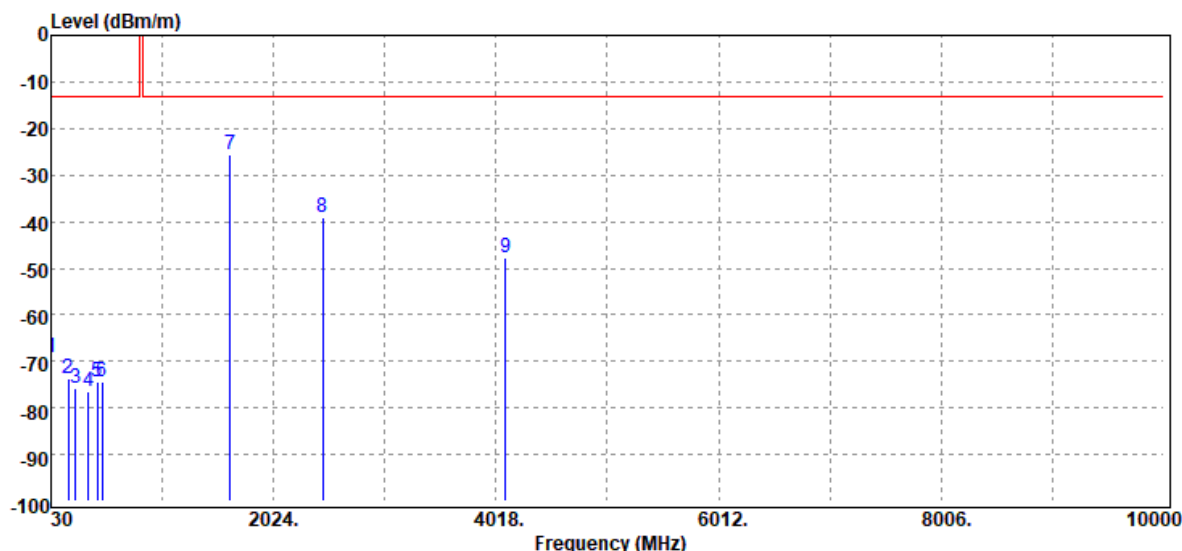
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 5MHz 16QAM 1 5  
Test Mode :Tx CH Mid  
EUT Pol :H Plane  
Test Channel :819.0 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
30.97	-69.15	-47.59	-21.02	-0.54	-13.00	-56.15
183.26	-73.77	-68.84	-3.65	-1.28	-13.00	-60.77
249.22	-75.94	-72.76	-1.68	-1.50	-13.00	-62.94
363.68	-76.40	-72.91	-1.57	-1.92	-13.00	-63.40
443.22	-74.28	-70.68	-1.71	-1.89	-13.00	-61.28
485.90	-74.23	-70.48	-1.53	-2.22	-13.00	-61.23
1638.00	-25.72	-31.00	9.28	-4.00	-13.00	-12.72
2465.00	-39.18	-44.63	10.36	-4.91	-13.00	-26.18
4105.00	-47.86	-54.02	12.41	-6.25	-13.00	-34.86

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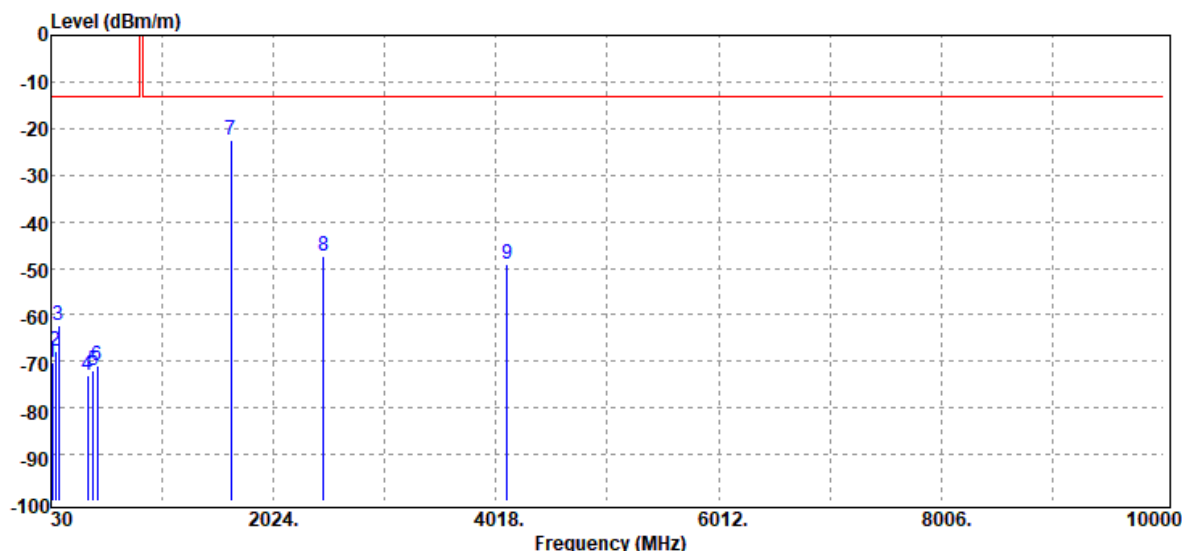
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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 5MHz 16QAM 1 5  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :821.5 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :VERTICAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
41.64	-70.36	-50.78	-18.92	-0.66	-13.00	-57.36
69.77	-67.90	-54.98	-12.11	-0.81	-13.00	-54.90
101.78	-62.31	-54.89	-6.44	-0.98	-13.00	-49.31
356.89	-72.88	-69.43	-1.53	-1.92	-13.00	-59.88
410.24	-72.06	-68.55	-1.58	-1.93	-13.00	-59.06
447.10	-70.81	-67.18	-1.67	-1.96	-13.00	-57.81
1643.00	-22.46	-27.75	9.29	-4.00	-13.00	-9.46
2470.00	-47.24	-52.71	10.38	-4.91	-13.00	-34.24
4120.00	-49.23	-55.39	12.44	-6.28	-13.00	-36.23

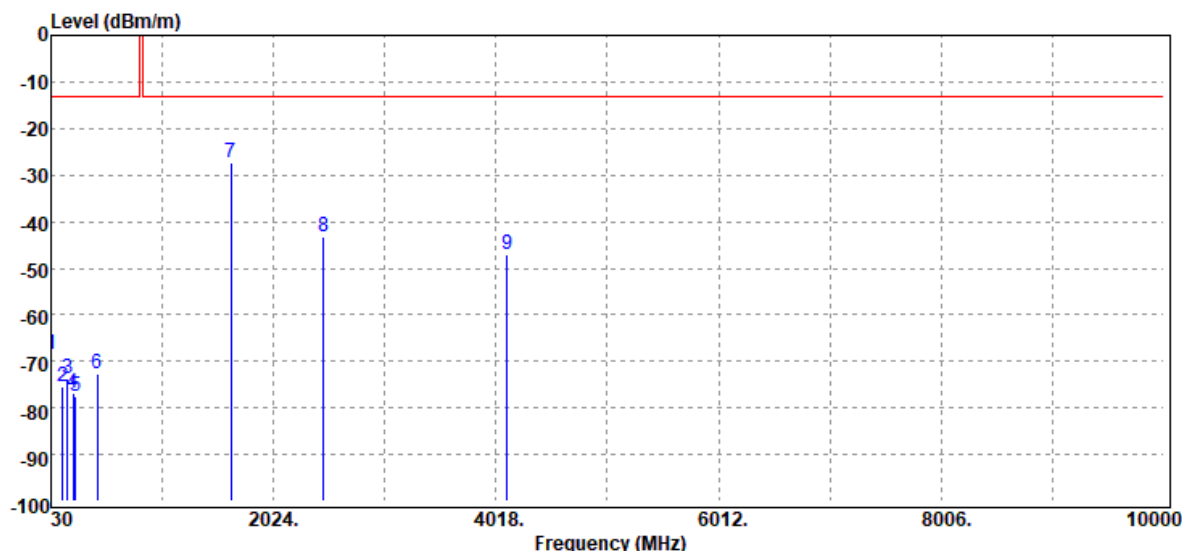
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Report Number :ER-2019-80104-01  
Operation Mode :Cat\_M1 B26 5MHz 16QAM 1 5  
Test Mode :Tx CH High  
EUT Pol :H Plane  
Test Channel :821.5 MHz

Test Date :2019-10-18  
Temp./Humi. :23.7/66  
Antenna Pol. :HORIZONTAL  
Engineer. : Nick



Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
30.00	-68.49	-46.77	-21.20	-0.52	-13.00	-55.49
137.67	-75.58	-66.72	-7.73	-1.13	-13.00	-62.58
181.32	-73.53	-68.33	-3.94	-1.26	-13.00	-60.53
225.94	-76.75	-73.58	-1.68	-1.49	-13.00	-63.75
249.22	-77.58	-74.40	-1.68	-1.50	-13.00	-64.58
447.10	-72.76	-69.13	-1.67	-1.96	-13.00	-59.76
1643.00	-27.43	-32.72	9.29	-4.00	-13.00	-14.43
2470.00	-43.22	-48.69	10.38	-4.91	-13.00	-30.22
4120.00	-47.05	-53.21	12.44	-6.28	-13.00	-34.05

~ End of Report ~

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