

SAR EVALUATION REPORT

Applicant Name:

LG Electronics MobileComm USA, Inc.
1000 Sylvan Avenue, Englewood Cliffs NJ 07632

Date of Issue: 08. 25, 2017

Test Report No.: HCT-A-1708-F003-1

Test Site: HCT CO., LTD.

FCC ID:

ZNFM700H

Equipment Type:
Application Type:

GSM/WCDMA/LTE Phone with Bluetooth4.2LE, WIFI802.11 b/g/n
Class II Permissive Change

Model Name:
Additional FCC Model(s):

LG-M700H
LGM700H, M700H

ECC Rule Part:
Permissive change:

47CFR §2.1093
Changing Some target powers

Date of Test:

08/10/2017

This device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in FCC KDB procedures and had been tested in accordance with the measurement procedures specified in FCC KDB procedures.

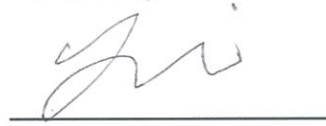
I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Tested By



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Test Engineer
SAR Team
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Reviewed By



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DOCUMENT HISTORY

Version	DATE	DESCRIPTION
HCT-A-1708-F003	08. 16, 2017	First Approval Report
HCT-A-1708-F003-1	08. 25, 2017	Sec.1.4 was revised.

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1. Device Under Test Description

1.1 DUT specification

Device Wireless specification overview		
Band & Mode	Operating Mode	Tx Frequency
GSM/GPRS/EDGE 850	Voice / Data	824.2 – 848.8 MHz
GSM/GPRS/EDGE 1900	Voice / Data	1 850.2 – 1 909.8 MHz
UMTS 850	Voice / Data	826.4 – 846.6 MHz
UMTS 1700	Voice / Data	1 712.4 – 1 752.6 MHz
UMTS 1900	Voice / Data	1 852.4 – 1 907.6 MHz
LTE Band 2 (PCS)	Voice / Data	1 850.7 – 1 909.3 MHz
LTE Band 4 (AWS)	Voice / Data	1 710.7 – 1 754.3 MHz
LTE Band 5 (Cell)	Voice / Data	824.7 – 848.3 MHz
LTE Band 7	Voice / Data	2 502.5 – 2 567.5 MHz
LTE Band 12	Voice / Data	699.7 – 715.3 MHz
LTE Band 13	Voice / Data	779.5 – 784.5 MHz
LTE Band 17	Voice / Data	706.5 – 713.5 MHz
LTE Band 66 (AWS)	Voice / Data	1 712.5 ~ 1 777.5 MHz
2.4 GHz WLAN	Voice / Data	2 412 – 2 462 MHz
Bluetooth	Data	2 402 – 2 480 MHz

Device Description		
Device Dimension	Overall (Length x Width): 69.3 mm x 142.5 mm Overall diagonal dimension: 151 mm Display diagonal dimension: 135 mm	
Back Cover:	Normal Battery cover	
Battery Options	Standard (Li-ion Polymer Battery)	
	Battery Model Name: BL-T33, Manufacturer: LishenVX	
Device Serial Numbers	Mode	Serial Number
	UMTS 1700 / UMTS1900	34E9G
	LTE 2/ 4/ 7/ 66	34E7D

1.2 DUT Wireless mode

Wireless Modulation	Band	Operating Mode		Duty Cycle
GSM	850 1900	Voice(GMSK) GPRS (GMSK) EGPRS (8PSK)	GPRS/ EDGE Multi-Slot Class: Class 33 – 4 Up, 5 Down Mode class B	GSM Voice: 12.5% GPRS/EDGE: 1 Slot: 12.5% 2 Slots : 25% 3 Slots : 37.5% 4 Slots : 50%
WCDMA (UMTS)	Band 5 Band 4 Band 2	UMTS Rel.99 (Voice / DATA) HSDPA (Rel. 5,Cat.10) HSUPA (Rel. 6 Cat.6) DC-HSDPA (Rel.8, Cat.24) HSPA+ (Rel. 7) (Uplink QPSK Only)		100 %
LTE Band	2 (PCS)	Voice / Data (QPSK, 16QAM)		100 % (FDD)
	4 (AWS)	Voice / Data (QPSK, 16QAM)		100 % (FDD)
	5 (Cell)	Voice / Data (QPSK, 16QAM)		100 % (FDD)
	7	Voice / Data (QPSK, 16QAM)		100 % (FDD)
	12	Voice / Data (QPSK, 16QAM)		100 % (FDD)
	13	Voice / Data (QPSK, 16QAM)		100 % (FDD)
	17	Voice / Data (QPSK, 16QAM)		100 % (FDD)
	66 (AWS)	Voice / Data (QPSK, 16QAM)		100 % (FDD)
2.4 GHz WLAN		Voice / Data	802.11 b, 802.11 g, 802.11 n (HT20)	99.84 %
Bluetooth		Data		76.4 % (DH5)
Bluetooth 4.2 LE		Data		N/A

1.3 Nominal and Maximum Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

Maximum PCE Power

Mode / Band		3GPP WCDMA	3GPP HSDPA(dBm)				3GPP HSUPA(dBm)					DC-HSDPA(dBm)			
			Sub test1	Sub test2	Sub test3	Sub test4	Sub test1	Sub test2	Sub test3	Sub test4	Sub Test5	Sub test1	Sub test2	Sub test3	Sub test4
UMTS Band 4 (1700 MHz)	Maximum	23.2	23.2	23.2	22.7	22.7	23.2	21.2	22.2	21.2	23.2	23.2	23.2	22.7	22.7
	Nominal	22.7	22.7	22.7	22.2	22.2	22.7	20.7	21.7	20.7	22.7	22.7	22.7	22.2	22.2
UMTS Band 2 (1900 MHz)	Maximum	23.2	23.2	23.2	22.7	22.7	23.2	21.2	22.2	21.2	23.2	23.2	23.2	22.7	22.7
	Nominal	22.7	22.7	22.7	22.2	22.2	22.7	20.7	21.7	20.7	22.7	22.7	22.7	22.2	22.2

Mode / Band		Modulated Average (dBm)
LTE Band 2 (PCS)	Maximum	23.2
	Nominal	22.7
LTE Band 4 (AWS)	Maximum	23.2
	Nominal	22.7
LTE Band 7	Maximum	23.7
	Nominal	23.2
LTE Band 66 (AWS)	Maximum	23.2
	Nominal	22.7

1.4 SAR Test Exclusion

The power of the bands (WCDMA2 / WCDMA4 / LTE2 / LTE4 / LTE66/ LTE7)in the original model has been changed as shown in the table below

Conducted Output powers of C2PC model were measured and verified for the WCDMA2, WCDMA4, LTE2, LTE4, LTE66 and LTE7 Sec.2

Target Powers for the original model (WCDMA2 / WCDMA4 / LTE2 / LTE4 / LTE66/ LTE7) are higher than C2PC model. Therefore, additional SAR testing of the C2PC model are not required.

Detailed description of the change are include in LG Class II Change Description Document.
See Original Report No: HCT-A-1705-F001-1 for SAR compliance evaluation

Item	Band	Description	
		Original Model	Permissive Changed model
Main RF Tune up power	WCDMA B2	23.2 dBm	22.7 dBm
	WCDMA B4	24.2 dBm	22.7 dBm
	LTE B2	23.2 dBm	22.7 dBm
	LTE B4	24.2 dBm	22.7 dBm
	LTE B7	23.7 dBm	23.2 dBm
	LTE B66	23.7 dBm	22.7 dBm

1.5 Guidance Applied

- IEEE1528-2013
- FCC KDB Publication 941225 D01 3G SAR Procedures v03r01
- FCC KDB Publication 941225 D05 SAR for LTE Devices v02r05
- FCC KDB Publication 447498 D01 General SAR Guidance v06
- FCC KDB Publication 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04

2. Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

2.1 UMTS

WCDMA Band 4

3GPP Release Version	Mode	3GPP 34.121	WCDMA Band 4 [dBm]		
		Subtest	UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738
99	WCDMA	12.2 kbps RMC	23.00	22.97	23.16
99	WCDMA	12.2 kbps AMR	23.00	22.96	23.12
5	HSDPA	Subtest 1	23.00	22.96	23.04
5		Subtest 2	22.91	22.95	23.04
5		Subtest 3	22.40	22.49	22.54
5		Subtest 4	22.42	22.47	22.47
6	HSUPA	Subtest 1	22.86	22.03	22.89
6		Subtest 2	21.07	21.08	21.21
6		Subtest 3	22.08	22.13	22.20
6		Subtest 4	21.07	21.17	21.13
6		Subtest 5	22.66	22.93	22.85
8	DC-HSDPA	Subtest 1	22.89	22.64	22.81
8		Subtest 2	22.88	22.66	22.81
8		Subtest 3	22.40	22.21	22.33
8		Subtest 4	22.41	22.22	22.34

WCDMA Band 2

3GPP Release Version	Mode	3GPP 34.121	WCDMA Band 2 [dBm]		
		Subtest	UL 9262 DL 9662	UL 9400 DL 9800	UL 9538 DL 9938
99	WCDMA	12.2 kbps RMC	23.14	23.08	23.15
99	WCDMA	12.2 kbps AMR	23.03	23.02	23.00
5	HSDPA	Subtest 1	22.97	23.01	23.03
5		Subtest 2	22.94	23.06	23.04
5		Subtest 3	22.50	22.51	22.45
5		Subtest 4	22.46	22.50	22.41
6	HSUPA	Subtest 1	22.75	22.67	22.50
6		Subtest 2	20.99	21.11	21.05
6		Subtest 3	21.99	22.15	22.10
6		Subtest 4	21.04	21.07	21.17
6		Subtest 5	22.74	22.71	22.48
8	DC-HSDPA	Subtest 1	22.98	22.76	22.86
8		Subtest 2	22.89	22.73	22.75
8		Subtest 3	22.53	22.30	22.39
8		Subtest 4	22.53	22.30	22.38

WCDMA Average Conducted output powers

2.2 LTE

LTE Band 2 Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				18607	18900	19193		
				1850.7 MHz	1880 MHz	1909.3 MHz	[dB]	[dB]
1.4 MHz	QPSK	1	0	22.80	22.69	22.97	0	0
		1	3	22.87	22.76	22.94	0	0
		1	5	22.78	22.66	23.01	0	0
		3	0	22.68	22.61	22.75	0	0
		3	1	22.73	22.74	22.79	0	0
		3	3	22.86	22.75	22.73	0	0
		6	0	21.68	21.49	21.68	0-1	1
	16QAM	1	0	21.83	21.36	21.61	0-1	1
		1	3	21.91	21.59	21.79	0-1	1
		1	5	21.49	21.47	21.58	0-1	1
		3	0	21.66	21.49	21.70	0-1	1
		3	1	21.72	21.32	21.75	0-1	1
		3	3	21.55	21.37	21.77	0-1	1
		6	0	20.71	20.39	20.52	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				18615	18900	19185		
				1851.5 MHz	1880 MHz	1908.5 MHz	[dB]	[dB]
3 MHz	QPSK	1	0	22.96	22.85	22.87	0	0
		1	7	23.11	22.99	23.10	0	0
		1	14	22.89	22.76	22.91	0	0
		8	0	21.98	21.51	21.71	0-1	1
		8	3	21.95	21.66	21.73	0-1	1
		8	7	21.96	21.64	21.70	0-1	1
		15	0	21.77	21.61	21.69	0-1	1
	16QAM	1	0	21.50	21.52	21.58	0-1	1
		1	7	21.92	21.31	21.34	0-1	1
		1	14	21.64	21.25	21.01	0-1	1
		8	0	20.50	20.67	20.73	0-2	2
		8	3	20.89	20.91	20.90	0-2	2
		8	7	20.92	20.89	20.81	0-2	2
		15	0	20.78	20.69	20.68	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				18625	18900	19175		
				1852.5 MHz	1880 MHz	1907.5 MHz	[dB]	[dB]
5 MHz	QPSK	1	0	22.68	22.72	22.67	0	0
		1	12	23.00	23.02	23.10	0	0
		1	24	22.68	22.74	22.82	0	0
		12	0	21.69	21.59	21.62	0-1	1
		12	6	21.69	21.56	21.71	0-1	1
		12	11	21.59	21.63	21.68	0-1	1
		25	0	21.66	21.56	21.56	0-1	1
	16QAM	1	0	21.38	21.43	21.46	0-1	1
		1	12	21.21	21.33	21.25	0-1	1
		1	24	21.44	21.32	21.38	0-1	1
		12	0	20.53	20.68	20.62	0-2	2
		12	6	20.52	20.65	20.85	0-2	2
		12	11	20.62	20.66	20.81	0-2	2
		25	0	20.70	20.60	20.75	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				18650	18900	19150		
				1855 MHz	1880 MHz	1905 MHz	[dB]	[dB]
10 MHz	QPSK	1	0	22.91	22.99	22.77	0	0
		1	24	23.09	22.95	22.90	0	0
		1	49	22.89	22.81	22.79	0	0
		25	0	21.85	21.78	21.66	0-1	1
		25	12	21.66	21.63	21.68	0-1	1
		25	24	21.68	21.59	21.62	0-1	1
		50	0	21.69	21.52	21.64	0-1	1
	16QAM	1	0	21.58	21.59	21.51	0-1	1
		1	24	21.49	21.42	21.42	0-1	1
		1	49	21.43	21.36	21.52	0-1	1
		25	0	20.81	20.87	20.68	0-2	2
		25	12	20.69	20.66	20.74	0-2	2
		25	24	20.65	20.58	20.66	0-2	2
		50	0	20.68	20.61	20.63	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				18675	18900	19125		
				1857.5 MHz	1880 MHz	1902.5 MHz	[dB]	[dB]
15 MHz	QPSK	1	0	22.89	22.92	22.80	0	0
		1	36	23.10	23.05	23.12	0	0
		1	74	22.66	22.80	23.10	0	0
		36	0	21.73	21.84	21.49	0-1	1
		36	18	21.67	21.55	21.68	0-1	1
		36	38	21.69	21.56	21.67	0-1	1
		75	0	21.69	21.69	21.61	0-1	1
	16QAM	1	0	21.64	21.72	21.54	0-1	1
		1	36	21.54	21.46	21.53	0-1	1
		1	74	21.39	21.46	21.50	0-1	1
		36	0	20.63	20.91	20.55	0-2	2
		36	18	20.65	20.61	20.63	0-2	2
		36	38	20.66	20.54	20.64	0-2	2
		75	0	20.66	20.77	20.69	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				18700	18900	19100		
				1860 MHz	1880 MHz	1900 MHz	[dB]	[dB]
20 MHz	QPSK	1	0	22.90	22.91	22.73	0	0
		1	49	22.95	23.07	23.05	0	0
		1	99	22.78	22.68	23.06	0	0
		50	0	21.69	21.90	21.52	0-1	1
		50	25	21.76	21.60	21.63	0-1	1
		50	49	21.76	21.61	21.65	0-1	1
		100	0	21.72	21.72	21.61	0-1	1
	16QAM	1	0	21.57	21.60	21.35	0-1	1
		1	49	21.55	21.49	21.44	0-1	1
		1	99	21.38	21.34	21.49	0-1	1
		50	0	20.86	20.81	20.71	0-2	2
		50	25	20.84	20.69	20.62	0-2	2
		50	49	20.63	20.66	20.71	0-2	2
		100	0	20.61	20.80	20.57	0-2	2

LTE Band 4 Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				19957	20175	20393		
				1710.7 MHz	1732.5 MHz	1754.3 MHz	[dB]	[dB]
1.4 MHz	QPSK	1	0	22.68	22.64	22.57	0	0
		1	3	22.84	22.77	22.67	0	0
		1	5	22.50	22.65	22.56	0	0
		3	0	22.61	22.52	22.44	0	0
		3	1	22.73	22.65	22.61	0	0
		3	3	22.73	22.68	22.64	0	0
		6	0	21.48	21.58	21.48	0-1	1
	16QAM	1	0	21.17	21.65	21.19	0-1	1
		1	3	21.59	21.69	21.39	0-1	1
		1	5	21.42	21.29	21.22	0-1	1
		3	0	21.65	21.39	21.40	0-1	1
		3	1	21.50	21.44	21.58	0-1	1
		3	3	21.62	21.35	21.52	0-1	1
		6	0	20.63	20.54	20.41	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				19965	20175	20385		
				1711.5 MHz	1732.5 MHz	1753.5 MHz	[dB]	[dB]
3 MHz	QPSK	1	0	22.74	22.71	22.33	0	0
		1	7	22.76	22.77	22.57	0	0
		1	14	22.58	22.62	22.59	0	0
		8	0	21.81	21.49	21.46	0-1	1
		8	3	21.84	21.56	21.45	0-1	1
		8	7	21.51	21.52	21.40	0-1	1
		15	0	21.56	21.57	21.37	0-1	1
	16QAM	1	0	21.47	21.34	21.13	0-1	1
		1	7	21.19	21.20	21.05	0-1	1
		1	14	21.35	21.24	21.23	0-1	1
		8	0	20.81	20.54	20.26	0-2	2
		8	3	20.75	20.79	20.26	0-2	2
		8	7	20.73	20.83	20.62	0-2	2
		15	0	20.60	20.66	20.46	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				19975	20175	20375		
				1712.5 MHz	1732.5 MHz	1752.5 MHz	[dB]	[dB]
5 MHz	QPSK	1	0	22.62	22.57	22.48	0	0
		1	12	22.90	22.79	22.50	0	0
		1	24	22.57	22.49	22.66	0	0
		12	0	21.51	21.44	21.42	0-1	1
		12	6	21.59	21.50	21.46	0-1	1
		12	11	21.60	21.47	21.61	0-1	1
		25	0	21.54	21.55	21.48	0-1	1
	16QAM	1	0	21.30	21.18	21.20	0-1	1
		1	12	21.03	21.17	21.14	0-1	1
		1	24	21.29	21.23	21.24	0-1	1
		12	0	20.70	20.28	20.17	0-2	2
		12	6	20.65	20.39	20.23	0-2	2
		12	11	20.58	20.32	20.27	0-2	2
		25	0	20.79	20.59	20.30	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				20000	20175	20350		
				1715 MHz	1732.5 MHz	1750 MHz	[dB]	[dB]
10 MHz	QPSK	1	0	22.91	22.77	22.72	0	0
		1	24	23.14	22.82	22.95	0	0
		1	49	22.60	22.46	22.80	0	0
		25	0	21.61	21.45	21.46	0-1	1
		25	12	21.66	21.59	21.48	0-1	1
		25	24	21.67	21.51	21.49	0-1	1
		50	0	21.55	21.57	21.45	0-1	1
	16QAM	1	0	21.33	21.10	21.29	0-1	1
		1	24	21.34	21.24	21.20	0-1	1
		1	49	21.21	21.24	21.23	0-1	1
		25	0	20.72	20.61	20.50	0-2	2
		25	12	20.99	20.55	20.43	0-2	2
		25	24	20.72	20.59	20.41	0-2	2
		50	0	20.54	20.65	20.40	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				20025	20175	20325		
				1717.5 MHz	1732.5 MHz	1747.5 MHz	[dB]	[dB]
15 MHz	QPSK	1	0	22.90	22.77	22.75	0	0
		1	36	22.77	22.90	22.71	0	0
		1	74	22.65	22.56	22.53	0	0
		36	0	21.82	21.48	21.42	0-1	1
		36	18	21.57	21.45	21.40	0-1	1
		36	38	21.47	21.42	21.41	0-1	1
		75	0	21.56	21.40	21.43	0-1	1
	16QAM	1	0	21.46	21.29	21.13	0-1	1
		1	36	21.23	21.08	21.09	0-1	1
		1	74	21.27	21.07	21.08	0-1	1
		36	0	20.65	20.55	20.32	0-2	2
		36	18	20.61	20.58	20.45	0-2	2
		36	38	20.42	20.59	20.24	0-2	2
		75	0	20.60	20.61	20.64	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)	MPR Allowed Per 3GPP	MPR
				20175	[dB]	[dB]
				1732.5 MHz		
20 MHz	QPSK	1	0	22.82	0	0
		1	49	22.91	0	0
		1	99	22.50	0	0
		50	0	21.49	0-1	1
		50	25	21.41	0-1	1
		50	49	21.35	0-1	1
		100	0	21.44	0-1	1
	16QAM	1	0	21.30	0-1	1
		1	49	21.16	0-1	1
		1	99	21.10	0-1	1
		50	0	20.48	0-2	2
		50	25	20.62	0-2	2
		50	49	20.45	0-2	2
		100	0	20.54	0-2	2

Note: LTE Band 4 (AWS) at 20 MHz Bandwidth does not support three non-overlapping channels. Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the mid channel of the group of overlapping channels should be selected for testing.

LTE Band 7 Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				20775	21100	21425		
				2502.5MHz	2535MHz	2567.5MHz	[dB]	[dB]
5 MHz	QPSK	1	0	23.23	23.13	23.21	0	0
		1	12	23.69	23.31	23.41	0	0
		1	24	23.04	22.99	23.11	0	0
		12	0	22.15	21.99	22.13	0-1	1
		12	6	22.34	22.13	22.13	0-1	1
		12	11	22.18	22.11	22.20	0-1	1
		25	0	22.29	22.10	22.16	0-1	1
	16QAM	1	0	22.03	21.97	21.90	0-1	1
		1	12	22.14	21.85	22.20	0-1	1
		1	24	21.85	21.66	21.84	0-1	1
		12	0	21.13	21.03	21.04	0-2	2
		12	6	21.05	21.04	21.06	0-2	2
		12	11	20.93	21.21	21.09	0-2	2
		25	0	21.28	21.09	21.12	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				20800	21100	21400		
				2505MHz	2535MHz	2565MHz	[dB]	[dB]
10 MHz	QPSK	1	0	23.23	23.19	23.26	0	0
		1	24	23.14	23.42	23.42	0	0
		1	49	23.32	22.99	23.44	0	0
		25	0	22.26	22.07	22.14	0-1	1
		25	12	22.23	22.06	22.23	0-1	1
		25	24	22.26	22.08	22.19	0-1	1
		50	0	22.31	22.14	22.22	0-1	1
	16QAM	1	0	22.01	22.08	21.98	0-1	1
		1	24	22.20	21.96	22.55	0-1	1
		1	49	22.09	21.75	22.08	0-1	1
		25	0	21.21	21.10	21.22	0-2	2
		25	12	21.25	21.14	21.24	0-2	2
		25	24	21.26	20.91	21.22	0-2	2
		50	0	21.23	21.10	21.17	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				20825	21100	21375		
				2507.5MHz	2535MHz	2562.5MHz	[dB]	[dB]
15 MHz	QPSK	1	0	23.28	23.32	23.24	0	0
		1	36	23.62	23.38	23.46	0	0
		1	74	23.12	23.13	23.37	0	0
		36	0	22.18	22.12	22.03	0-1	1
		36	18	22.30	22.04	22.25	0-1	1
		36	38	22.25	21.88	22.26	0-1	1
		75	0	22.34	22.04	22.21	0-1	1
	16QAM	1	0	22.02	22.29	21.88	0-1	1
		1	36	22.27	21.93	22.30	0-1	1
		1	74	21.98	22.02	22.01	0-1	1
		36	0	21.30	20.95	21.04	0-2	2
		36	18	21.21	21.09	21.14	0-2	2
		36	38	21.16	20.91	21.09	0-2	2
		75	0	21.19	21.06	21.14	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				20850	21100	21350		
				2510MHz	2535MHz	2560MHz	[dB]	[dB]
20 MHz	QPSK	1	0	23.23	23.34	23.12	0	0
		1	49	23.56	23.21	23.54	0	0
		1	99	23.37	23.05	23.24	0	0
		50	0	22.19	22.19	21.96	0-1	1
		50	25	22.22	22.11	22.23	0-1	1
		50	49	22.12	21.98	22.17	0-1	1
		100	0	22.17	22.02	22.12	0-1	1
	16QAM	1	0	21.95	21.96	21.82	0-1	1
		1	49	22.29	22.05	22.01	0-1	1
		1	99	22.04	22.05	21.94	0-1	1
		50	0	21.14	21.26	21.07	0-2	2
		50	25	21.17	21.05	21.22	0-2	2
		50	49	21.23	21.11	21.05	0-2	2
		100	0	21.13	21.05	20.98	0-2	2

LTE Band 66 Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				131979	132322	132665		
				1710.7 MHz	1745 MHz	1779.3 MHz	[dB]	[dB]
1.4 MHz	QPSK	1	0	23.00	23.03	23.02	0	0
		1	3	23.08	23.13	23.16	0	0
		1	5	23.11	23.06	23.18	0	0
		3	0	23.15	23.02	23.06	0	0
		3	1	23.18	23.08	23.09	0	0
		3	3	23.08	23.13	23.03	0	0
	16QAM	6	0	22.12	21.91	22.12	0-1	1
		1	0	21.90	22.02	22.18	0-1	1
		1	3	22.07	22.14	22.09	0-1	1
		1	5	21.94	22.09	21.93	0-1	1
		3	0	22.07	21.98	21.96	0-1	1
		3	1	22.14	21.96	22.08	0-1	1
		3	3	22.00	21.93	22.08	0-1	1
		6	0	21.13	20.82	21.09	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				131987	132322	132657		
				1711.5 MHz	1745 MHz	1778.5 MHz	[dB]	[dB]
3 MHz	QPSK	1	0	22.91	23.08	23.13	0	0
		1	7	23.13	23.10	23.15	0	0
		1	14	23.03	22.81	23.04	0	0
		8	0	22.19	21.84	22.09	0-1	1
		8	3	22.12	21.99	22.08	0-1	1
		8	7	22.20	21.95	22.06	0-1	1
		15	0	22.10	21.90	22.08	0-1	1
	16QAM	1	0	22.02	21.79	21.82	0-1	1
		1	7	21.78	21.55	21.70	0-1	1
		1	14	21.93	21.72	21.78	0-1	1
		8	0	21.13	20.62	21.08	0-2	2
		8	3	21.12	21.02	21.19	0-2	2
		8	7	21.10	21.10	21.02	0-2	2
		15	0	21.10	21.00	21.17	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				131997	132322	132647		
				1712.5 MHz	1745 MHz	1777.5 MHz	[dB]	[dB]
5 MHz	QPSK	1	0	22.77	22.83	23.02	0	0
		1	12	22.99	22.92	22.96	0	0
		1	24	22.73	22.75	23.03	0	0
		12	0	22.05	21.85	22.04	0-1	1
		12	6	22.10	21.88	22.03	0-1	1
		12	11	22.08	21.93	22.09	0-1	1
		25	0	22.11	21.89	22.03	0-1	1
	16QAM	1	0	21.82	21.64	21.74	0-1	1
		1	12	22.14	21.52	22.00	0-1	1
		1	24	21.83	21.63	21.53	0-1	1
		12	0	21.11	20.93	20.78	0-2	2
		12	6	20.90	20.93	21.08	0-2	2
		12	11	21.02	20.70	21.03	0-2	2
		25	0	21.03	20.97	21.17	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				132022	132322	132622		
				1715 MHz	1745 MHz	1775 MHz	[dB]	[dB]
10 MHz	QPSK	1	0	23.14	23.17	23.06	0	0
		1	24	23.11	22.98	23.03	0	0
		1	49	22.87	22.89	22.95	0	0
		25	0	22.07	21.96	21.95	0-1	1
		25	12	22.11	21.87	21.96	0-1	1
		25	24	22.04	21.94	21.96	0-1	1
		50	0	22.04	21.93	21.93	0-1	1
	16QAM	1	0	21.82	21.78	21.49	0-1	1
		1	24	21.72	21.24	21.64	0-1	1
		1	49	21.61	21.63	21.59	0-1	1
		25	0	21.02	21.13	20.94	0-2	2
		25	12	21.03	20.87	20.99	0-2	2
		25	24	21.01	21.00	20.88	0-2	2
		50	0	21.07	20.87	21.05	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				132047	132322	132597		
				1717.5 MHz	1745 MHz	1772.5 MHz	[dB]	[dB]
15 MHz	QPSK	1	0	23.17	22.98	23.12	0	0
		1	36	23.16	23.17	23.07	0	0
		1	74	22.95	22.88	23.07	0	0
		36	0	22.17	22.05	22.07	0-1	1
		36	18	22.11	21.89	21.95	0-1	1
		36	38	22.02	21.96	22.00	0-1	1
		75	0	22.13	21.97	21.97	0-1	1
	16QAM	1	0	21.85	21.86	21.62	0-1	1
		1	36	21.74	21.46	21.65	0-1	1
		1	74	21.74	21.53	21.70	0-1	1
		36	0	20.99	21.01	21.18	0-2	2
		36	18	21.06	20.84	20.97	0-2	2
		36	38	20.88	20.91	20.89	0-2	2
		75	0	21.13	21.03	21.03	0-2	2

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR Allowed Per 3GPP	MPR
				132072	132322	132572		
				1720 MHz	1745 MHz	1770 MHz	[dB]	[dB]
20 MHz	QPSK	1	0	23.19	23.10	23.18	0	0
		1	49	23.10	22.92	23.16	0	0
		1	99	22.84	23.08	22.96	0	0
		50	0	22.17	22.12	22.09	0-1	1
		50	25	22.00	21.98	22.01	0-1	1
		50	49	22.06	21.86	21.88	0-1	1
		100	0	22.09	22.02	22.08	0-1	1
	16QAM	1	0	21.79	21.92	21.92	0-1	1
		1	49	21.72	21.55	21.80	0-1	1
		1	99	21.61	21.68	21.66	0-1	1
		50	0	21.16	21.11	21.06	0-2	2
		50	25	21.03	21.05	21.04	0-2	2
		50	49	20.93	20.92	20.90	0-2	2
		100	0	20.94	20.88	21.04	0-2	2

3. TEST EQUIPMENT

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
Agilent	Base Station E5515C	GB44400269	02/02/2017	Annual	02/08/2018
R&S	Wideband Radio Communication Tester CMW500	101519	04/27/2017	Annual	04/27/2018
Anritsu	Radio Communication Analyzer/ MT8820C	6200628628	07/04/2017	Annual	07/04/2018
Anritsu	Radio Communication Analyzer/ MT8820C	6200576565	07/04/2017	Annual	07/04/2018

4. CONCLUSION

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the ANSI/IEEE C95.1 1992.

These measurements are taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests.

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the FCC and Industry Canada. These measurements were taken to simulate the RF effects of RF exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

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