Partial FCC Test Report
(Part 96 – LTE B42, B43, B48)

Report No.:	RFCDVB-WTW-P22100073-4 R1
FCC ID:	QYLLN920V
Test Model:	LN920A12-WW
Received Date:	Oct. 11, 2022
Test Date:	Oct. 27 ~ Oct. 28, 2022
Issued Date:	Feb. 14, 2023
Applicant:	Getac Technology Corporation.
Address:	5F., Building A, No. 209, Sec.1, Nangang Rd., Nangang Dist., Taipei City 11568, Taiwan, R.O.C.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location (1):	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN
FCC Registration / Designation Number:	788550 / TW0003
Test Location (2):	No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
FCC Registration / Designation Number:	281270 / TW0032

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Release Control Record

Issue No.	Description	Date Issued
RFCDVB-WTW-P22100073-4	Original release	Dec. 27, 2022
RFCDVB-WTW-P22100073-4 R1	Added LTE Band 42 and 43	Feb. 14, 2023

1 Certificate of Conformity

Product:	Radio Module
Brand:	Getac
Test Model:	LN920A12-WW
Sample Status:	Engineering sample
Applicant:	Getac Technology Corporation.
Test Date:	Oct. 27 ~ Oct. 28, 2022
Standards:	47 CFR FCC Part 96

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Celine Chou , **Date:** Feb. 14, 2023

Celine Chou / Senior Specialist

Approved by : Jeremy Lin , **Date:** Feb. 14, 2023

Jeremy Lin / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 96			
FCC Clause	Test Item	Result	Remarks
2.1046 96.41(b)	Maximum Peak Output Power	Pass	Meet the requirement of limit.
2.1047 96.41(a)	Modulation Characteristics	N/A	Refer to Note
2.1046 96.41(b)	Maximum Power Spectral Density	N/A	Refer to Note
96.41(g)	Peak to Average Ration	N/A	Refer to Note
2.1049	Emission Bandwidth	N/A	Refer to Note
2.1055	Frequency Stability	N/A	Refer to Note
2.1051 96.41(e)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 96.41(e)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -0.64dB at 7395.00MHz.

Note:

1. This report is a Class II change partial report. Therefore, only test item of Radiated Spurious Emissions tests and Maximum Peak Output Power were performed for this report. Other testing data please refer to SGS Taiwan Ltd. report no.: ER/2021/A0028-01 for module (Brand: Telit, Model: LN920A12-WW).
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.00 dB
	30MHz ~ 200MHz	2.91 dB
	200MHz ~ 1000MHz	2.93 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	1.76 dB
	18GHz ~ 40GHz	1.77 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Radio Module			
Brand	Getac			
Test Model	LN920A12-WW			
Sample Status	Engineering sample			
Power Supply Rating	3.3Vdc			
Modulation Type	QPSK, 16QAM, 64QAM			
Operating Frequency	LTE Band 42 (Channel Bandwidth 5MHz)	3552.5MHz ~ 3597.5MHz		
	LTE Band 42 (Channel Bandwidth 10MHz)	3555.0MHz ~ 3595.0MHz		
	LTE Band 42 (Channel Bandwidth 15MHz)	3557.5MHz ~ 3592.5MHz		
	LTE Band 42 (Channel Bandwidth 20MHz)	3560.0MHz ~ 3590.0MHz		
	LTE Band 43 (Channel Bandwidth 5MHz)	3602.5MHz ~ 3697.5MHz		
	LTE Band 43 (Channel Bandwidth 10MHz)	3605.0MHz ~ 3695.0MHz		
	LTE Band 43 (Channel Bandwidth 15MHz)	3607.5MHz ~ 3682.5MHz		
	LTE Band 43 (Channel Bandwidth 20MHz)	3610.0MHz ~ 3690.0MHz		
	LTE Band 48 (Channel Bandwidth 5MHz)	3552.5MHz ~ 3697.5MHz		
	LTE Band 48 (Channel Bandwidth 10MHz)	3555.0MHz ~ 3695.0MHz		
	LTE Band 48 (Channel Bandwidth 15MHz)	3557.5MHz ~ 3692.5MHz		
	LTE Band 48 (Channel Bandwidth 20MHz)	3560.0MHz ~ 3690.0MHz		
Max. EIRP Power		QPSK	16QAM	64QAM
	LTE Band 48 (Channel Bandwidth 5MHz)	104.232mW (20.18dBm/10MHz)	85.310mW (19.31dBm/10MHz)	70.795mW (18.50dBm/10MHz)
	LTE Band 48 (Channel Bandwidth 10MHz)	104.472mW (20.19dBm/10MHz)	85.507mW (19.32dBm/10MHz)	71.779mW (18.56dBm/10MHz)
	LTE Band 48 (Channel Bandwidth 15MHz)	103.276mW (20.14dBm/10MHz)	82.794mW (19.18dBm/10MHz)	69.663mW (18.43dBm/10MHz)
	LTE Band 48 (Channel Bandwidth 20MHz)	106.170mW (20.26dBm/10MHz)	87.498mW (19.42dBm/10MHz)	71.121mW (18.52dBm/10MHz)
Antenna Type	Refer to Note as below			
Antenna Connector	Refer to Note as below			
Accessory Device	NA			
Cable Supplied	NA			

Note:

1. The EUT is authorized for use in specific End-product.

Product	Brand	Model	Difference
Notebook	Getac	V110	For marketing purpose
		V110G7	
		V110Y (Y= 10 characters, Y can be 0 to 9, A to Z, a to z, "/", "\", "-", "_" or blank)	

* The model of the V110G7 was chosen for final test.

2. The End-product contains following accessory devices.

Part	Brand	Model	Specification
Adapter 1	FSP	FSP065-RBBN3	I/P: 100-240Vac, 50-60Hz, 1.5A O/P: 19.0Vdc, 3.42A 1.5m DC power cable with one core attached on adapter
Adapter 2	Getac	MTA190474W4	I/P: 100-240Vac, 50-60Hz, 1.6A O/P: 19.0Vdc, 4.74A 1.55m DC power cable with two cores attached on adapter
Battery	Getac	BP3S1P2100-S	Rating: 11.1Vdc, 2040mAh, 23Wh Typical name: 2100mAh, 24Wh
Digitizer Pen	EMpen Technology Corp	DIGITIZER PEN	-

3. The End-product has three SKUs for sale, after pre-test. SKU 2 was chosen for final test and presented in the test report.

Part	Brand	Model	Specification	Configuration		
				SKU 1	SKU 2	SKU 3
CPU	Intel	Alder Lake	i5-1235U (Non Vpro)	V		V
			i7-1265U (Vpro)		V	
DDR	Kingston	---	16GB (8GB+8GB)	V		
		---	32GB (16GB+16GB)		V	
		---	64GB (32GB+32GB)			V
SSD	SSSTC	---	256GB	V		
		---	512GB		V	
		---	1TB			V
LCD Panel	AUO	G116HAN01	11.6"	V	V	V
Touchscreen	Getac	---	---	V	V	V
Finger Print	Egistec	---	---	V	V	V
WLAN Module	Intel	AX211NGW	---	V	V	V
WWAN Module	Telit	LN920A12-WW	---	V	V	V
GPS	GlobalSat	MC1010G	---	V	V	V
RFID Module	NXP	PN-7462	---		V	V
Digitizer Module	Getac	EMR116-UA00	---		V	V
Bottom Camera	FOXLINK	FN80AF-443H	---	V	V	V
	Chicony	CKAM816	---	V	V	V
Camera	FOXLINK	FN20FF-679H	---	V	V	V
IR Camera	FOXLINK	FN23FF-678H	---		V	V
Option Bay	Honeywell	N6703	Barcode	V		V
	Getac	---	SD Card reader		V	
	Getac	---	Smart Card		V	

4. The following antennas were provided to the End-product.

Ant.	Type	Connector	Gain (dBi)								
			WCDMA B2	WCDMA B4	WCDMA B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B13
Main (TX / RX)	PIFA	I-PEX	2.48	2.28	-0.69	2.48	2.28	-0.69	1.92	3.16	0.87
			LTE B14	LTE B25	LTE B26	LTE B38	LTE B41	LTE B48	LTE B66	LTE B71	
			0.78	2.48	-0.69	2.15	2.82	-1.30	2.28	2.65	
Ant.	Type	Connector	Gain (dBi)								
			WCDMA B2	WCDMA B4	WCDMA B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B13
Aux (RX only)	PIFA	I-PEX	4.17	2.69	-1.49	4.17	2.69	-1.49	-0.11	-3.06	0.60
			LTE B14	LTE B25	LTE B26	LTE B38	LTE B41	LTE B42/B43/ B48	LTE B66	LTE B71	
			0.82	4.17	-1.49	0.48	1.31	-0.99	2.89	-4.84	

* Detail antenna specification please refer to antenna datasheet an antenna gain measurement report.

5. LTE Band 48 overlaps the entire frequency range of LTE Band 42 and LTE Band 43. Therefore, test data provided in this report covers LTE Band 48 as well as LTE Band 42 and LTE Band 43.

3.2 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis, NB mode and tablet mode. The worst case was found when positioned as the table below. Following channel(s) was (were) selected for the final test as listed below:

Band	Radiated Emission
LTE Band 48	NB mode

LTE Band 48

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Maximum Output Power	55265 to 56715	55265 (3552.5MHz), 55990 (3625.0MHz), 56715 (3697.5MHz)	5MHz	QPSK / 16QAM / 64QAM
	55290 to 56690	55290 (3555.0MHz), 55990 (3625.0MHz), 56690 (3695.0MHz)	10MHz	QPSK / 16QAM / 64QAM
	55315 to 56665	55315 (3557.5MHz), 55990 (3625.0MHz), 56665 (3692.5MHz)	15MHz	QPSK / 16QAM / 64QAM
	55340 to 56640	55340 (3560.0MHz), 55990 (3625.0MHz), 56640 (3690.0MHz)	20MHz	QPSK / 16QAM / 64QAM
Radiated Emission Below 1GHz	55265 to 56715	56715 (3697.5MHz)	5MHz	QPSK
Radiated Emission Above 1GHz	55265 to 56715	55265 (3552.5MHz), 55990 (3625.0MHz), 56715 (3697.5MHz)	5MHz	QPSK
	55340 to 56640	55340 (3560.0MHz), 55990 (3625.0MHz), 56640 (3690.0MHz)	20MHz	QPSK

Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
3. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the 5MHz & highest channel bandwidth for final test.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
Maximum Output Power	25deg. C, 60%RH	120Vac, 60Hz (System)	Willy Cheng
Radiated Emission	23deg. C, 68%RH, 24deg. C, 68%RH	120Vac, 60Hz (System)	Titan Hsu

3.3 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	Getac	V110G7	NA	NA	Provided by manufacturer
B.	Adapter	FSP	FSP065-RBBN3	NA	NA	Provided by manufacturer
C.	USB Flash x 3	SanDisk	SDDDC3-032G	NA	NA	-
D.	Monitor	ASUS	VA24EHE	LCLMTF243824	NA	-
E.	Earphone	Apple	MB77PFEB	NA	NA	-
F.	Load	NA	NA	NA	NA	-
G.	Radio Communication Analyzer	Anritsu	MT8820C	6201300640	NA	-

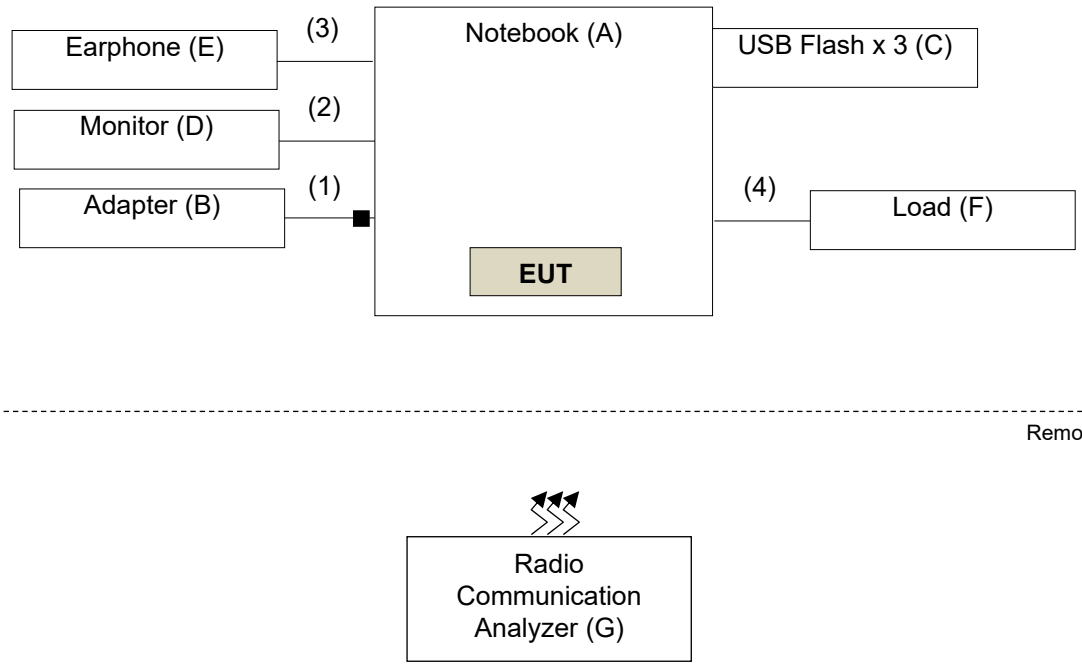
Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item G acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Power Cable	1	1.5	N	1	Provided by manufacturer Attached on adapter
2.	HDMI Cable	1	1.0	Y	0	-
3.	Earphone Cable	1	1.5	N	0	-
4.	RJ45 Cable	1	1.5	N	0	-

Note: The core(s) is(are) originally attached to the cable(s).

3.3.1 Configuration of System under Test



3.4 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standard:

FCC 47 CFR Part 2

FCC 47 CFR Part 96

ANSI C63.26-2015

All test items have been performed and recorded as per the above standards.

References Test Guidance:

KDB 971168 D01 Power Meas License Digital Systems v03r01

KDB 940660 D01 Part 96 CBRS Eqpt v03

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

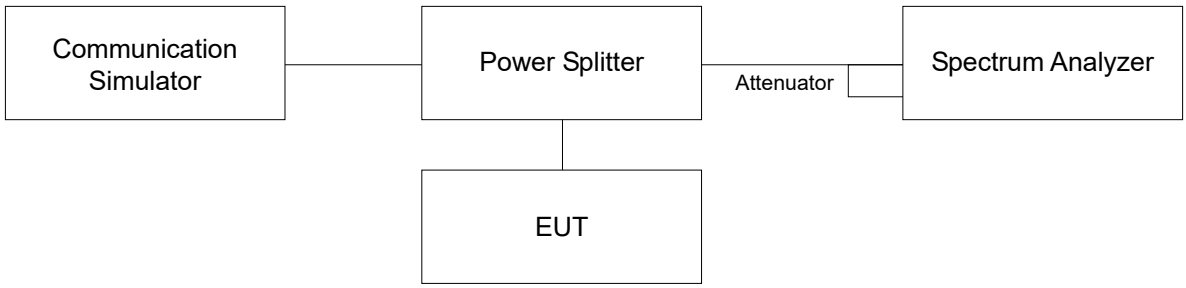
4.1 Maximum Output Power Measurement

4.1.1 Limits of Maximum Output Power Measurement

Device		Maximum EIRP (dBm/10 MHz)
☒	End User Device	23
☐	Category A CBSD	30
☐	Category B CBSD	47

4.1.2 Test Setup

Conducted Power Measurement:



4.1.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer KEYSIGHT	N9030B	MY57140953	Jul. 01, 2022	Jun. 30, 2023
Radio Communication Analyzer Anritsu	MT8821C	6272278310	Jun. 22, 2022	Jun. 21, 2023
RF cable	JB200	Cable-OVEN-02	NA	NA
DC-6GHz 20dB 50W Fixed attenuator Woken	MDC9331N-20	0724	Jul. 01, 2022	Jun. 30, 2024
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	Jan. 03, 2022	Jan. 02, 2023
AC Power Supply Extech	CFW-105	E000603	NA	NA
Digital Multimeter Fluke	87-III	70360742	Jun. 23, 2022	Jun. 22, 2023

Note: The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1.4 Test Procedures

Conducted output power measurement

a. Connect the DUT transmitter output to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
b. Set span to at least 1.5 times the OBW.
c. Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
d. Set VBW ≥ 3 × RBW.
e. Set number of points in sweep ≥ 2 × span / RBW.
f. Sweep time = auto-couple.
g. Detector = RMS (power averaging).
h. If the EUT can be configured to transmit continuously (i.e., burst duty cycle ≥ 98%), then set the trigger to free run.
i. If the EUT cannot be configured to transmit continuously (i.e., burst duty cycle < 98 %), then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep. Ensure that the sweep time is less than or equal to the transmission burst duration.
j. Trace average at least 100 traces in power averaging (i.e., RMS) mode.
k. Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band or channel power measurement function, with the band/channel limits set equal to the OBW band edges. If the instrument does not have a band or channel power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.
l. Measurement method refers to ANSI C63.26 section 5.2.7 & 5.2.4.

Maximum EIRP

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

$$ERP \text{ or } EIRP = P_{Meas} + G_T$$

where

ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas}, e.g., dBm or dBW)
P_{Meas} measured transmitter output power or PSD, in dBm or dBW
G_T gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

4.1.5 Deviation from Test Standard

No deviation.

4.1.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.1.7 Test Results

Conducted Output Power (dBm/10MHz)

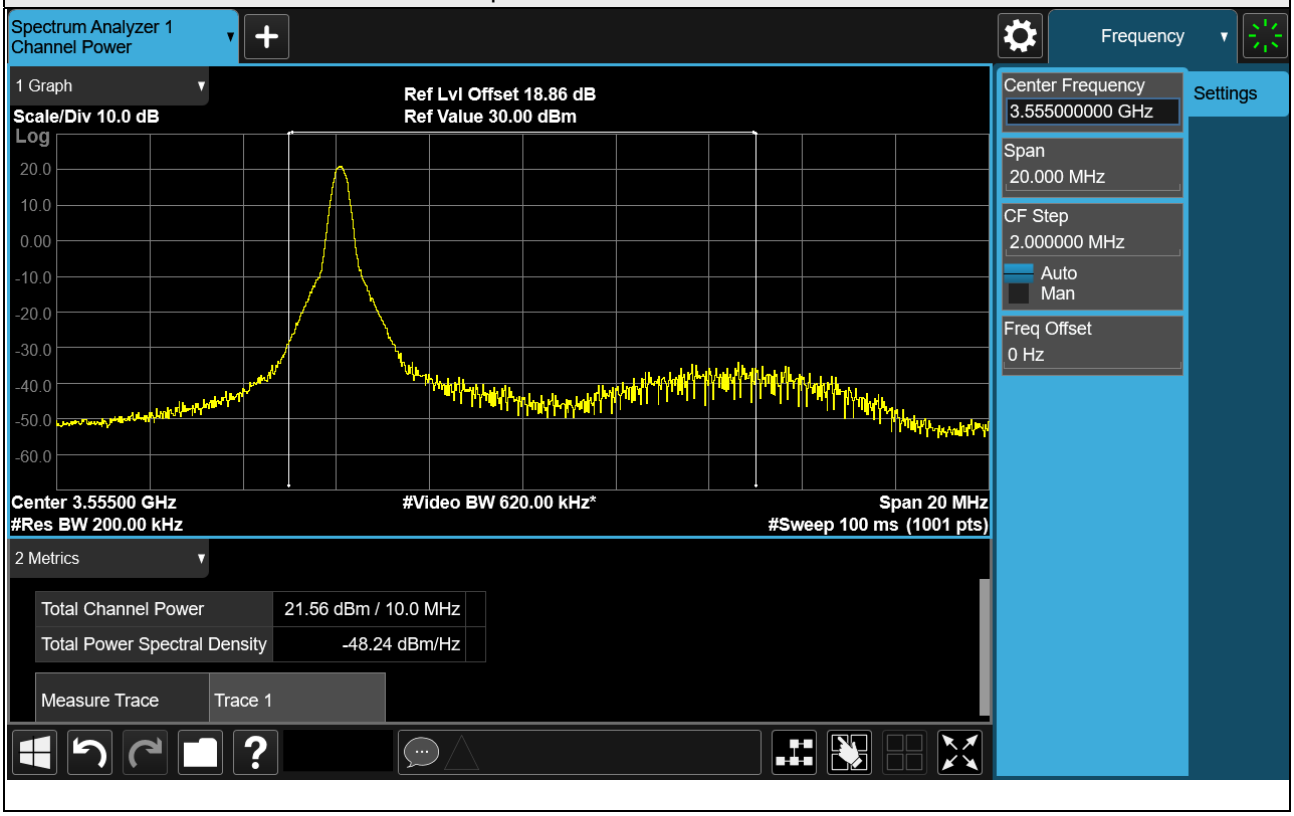
LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55340	55990	56640
		Frequency (MHz)		3560	3625	3690
20M	QPSK	1	0	21.56	21.35	21.28
		1	50	21.51	21.36	21.35
		1	99	21.49	21.44	21.15
		50	0	20.63	20.57	20.44
		50	25	20.63	20.60	20.50
		50	50	20.59	20.43	20.50
		100	0	20.62	20.40	20.35
20M	16QAM	1	0	20.72	20.33	20.63
		1	50	20.52	20.21	20.46
		1	99	20.36	20.23	20.37
		50	0	19.79	19.69	19.72
		50	25	19.69	19.67	19.49
		50	50	19.58	19.43	19.64
		100	0	19.62	19.37	19.48
20M	64QAM	1	0	19.75	19.56	19.80
		1	50	19.82	19.71	19.70
		1	99	19.54	19.57	19.55
		50	0	18.57	18.54	18.58
		50	25	18.70	18.45	18.64
		50	50	18.62	18.42	18.65
		100	0	18.69	18.65	18.53

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55315	55990	56665
		Frequency (MHz)		3557.5	3625	3692.5
15M	QPSK	1	0	21.44	21.33	21.08
		1	37	21.36	21.31	21.06
		1	74	21.33	21.22	21.01
		36	0	20.37	20.41	20.34
		36	19	20.51	20.46	20.32
		36	39	20.53	20.29	20.46
		75	0	20.37	20.31	20.30
15M	16QAM	1	0	20.35	20.45	20.48
		1	37	20.19	20.44	20.32
		1	74	20.47	20.32	20.02
		36	0	19.41	19.47	19.40
		36	19	19.33	19.42	19.47
		36	39	19.34	19.34	19.50
		75	0	19.38	19.52	19.30
15M	64QAM	1	0	19.73	19.57	19.58
		1	37	19.72	19.67	19.52
		1	74	19.49	19.51	19.48
		36	0	18.73	18.66	18.56
		36	19	18.55	18.51	18.54
		36	39	18.55	18.58	18.40
		75	0	18.56	18.50	18.46

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55290	55990	56690
		Frequency (MHz)		3555	3625	3695
10M	QPSK	1	0	21.45	21.36	21.35
		1	24	21.49	21.27	21.31
		1	49	21.45	21.30	21.16
		25	0	20.62	20.51	20.51
		25	12	20.65	20.52	20.56
		25	25	20.52	20.66	20.55
		50	0	20.49	20.23	20.36
10M	16QAM	1	0	20.62	20.49	20.48
		1	24	20.51	20.45	20.43
		1	49	20.43	20.45	20.30
		25	0	19.73	19.52	19.69
		25	12	19.66	19.58	19.56
		25	25	19.61	19.46	19.57
		50	0	19.55	19.49	19.56
10M	64QAM	1	0	19.86	19.79	19.76
		1	24	19.76	19.68	19.76
		1	49	19.72	19.43	19.73
		25	0	18.74	18.72	18.73
		25	12	18.66	18.59	18.62
		25	25	18.72	18.47	18.61
		50	0	18.64	18.54	18.58

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55265	55990	56715
		Frequency (MHz)		3552.5	3625	3697.5
5M	QPSK	1	0	21.48	21.30	21.38
		1	12	21.43	21.27	21.30
		1	24	21.42	21.15	21.20
		12	0	20.63	20.40	20.58
		12	6	20.68	20.50	20.60
		12	13	20.59	20.64	20.61
		25	0	20.52	20.22	20.41
5M	16QAM	1	0	20.61	20.44	20.55
		1	12	20.46	20.35	20.40
		1	24	20.45	20.37	20.34
		12	0	19.69	19.47	19.67
		12	6	19.63	19.55	19.48
		12	13	19.58	19.34	19.63
		25	0	19.53	19.42	19.50
5M	64QAM	1	0	19.78	19.79	19.80
		1	12	19.77	19.55	19.73
		1	24	19.70	19.30	19.68
		12	0	18.82	18.68	18.68
		12	6	18.68	18.49	18.61
		12	13	18.69	18.35	18.66
		25	0	18.63	18.40	18.63

Spectrum Plot of Worst Value



Maximum EIRP (dBm/10MHz)

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55340	55990	56640
		Frequency (MHz)		3560	3625	3690
20M	QPSK	1	0	20.26	20.05	19.98
		1	50	20.21	20.06	20.05
		1	99	20.19	20.14	19.85
		50	0	19.33	19.27	19.14
		50	25	19.33	19.30	19.20
		50	50	19.29	19.13	19.20
		100	0	19.32	19.10	19.05
20M	16QAM	1	0	19.42	19.03	19.33
		1	50	19.22	18.91	19.16
		1	99	19.06	18.93	19.07
		50	0	18.49	18.39	18.42
		50	25	18.39	18.37	18.19
		50	50	18.28	18.13	18.34
		100	0	18.32	18.07	18.18
20M	64QAM	1	0	18.45	18.26	18.50
		1	50	18.52	18.41	18.40
		1	99	18.24	18.27	18.25
		50	0	17.27	17.24	17.28
		50	25	17.40	17.15	17.34
		50	50	17.32	17.12	17.35
		100	0	17.39	17.35	17.23

*EIRP (dBm/10MHz) = Conducted Output Power (dBm/10MHz) + Antenna Gain (dBi).

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55315	55990	56665
		Frequency (MHz)		3557.5	3625	3692.5
15M	QPSK	1	0	20.14	20.03	19.78
		1	37	20.06	20.01	19.76
		1	74	20.03	19.92	19.71
		36	0	19.07	19.11	19.04
		36	19	19.21	19.16	19.02
		36	39	19.23	18.99	19.16
		75	0	19.07	19.01	19.00
15M	16QAM	1	0	19.05	19.15	19.18
		1	37	18.89	19.14	19.02
		1	74	19.17	19.02	18.72
		36	0	18.11	18.17	18.10
		36	19	18.03	18.12	18.17
		36	39	18.04	18.04	18.20
		75	0	18.08	18.22	18.00
15M	64QAM	1	0	18.43	18.27	18.28
		1	37	18.42	18.37	18.22
		1	74	18.19	18.21	18.18
		36	0	17.43	17.36	17.26
		36	19	17.25	17.21	17.24
		36	39	17.25	17.28	17.10
		75	0	17.26	17.20	17.16

*EIRP (dBm/10MHz) = Conducted Output Power (dBm/10MHz) + Antenna Gain (dBi).

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55290	55990	56690
		Frequency (MHz)		3555	3625	3695
10M	QPSK	1	0	20.15	20.06	20.05
		1	24	20.19	19.97	20.01
		1	49	20.15	20.00	19.86
		25	0	19.32	19.21	19.21
		25	12	19.35	19.22	19.26
		25	25	19.22	19.36	19.25
		50	0	19.19	18.93	19.06
10M	16QAM	1	0	19.32	19.19	19.18
		1	24	19.21	19.15	19.13
		1	49	19.13	19.15	19.00
		25	0	18.43	18.22	18.39
		25	12	18.36	18.28	18.26
		25	25	18.31	18.16	18.27
		50	0	18.25	18.19	18.26
10M	64QAM	1	0	18.56	18.49	18.46
		1	24	18.46	18.38	18.46
		1	49	18.42	18.13	18.43
		25	0	17.44	17.42	17.43
		25	12	17.36	17.29	17.32
		25	25	17.42	17.17	17.31
		50	0	17.34	17.24	17.28

*EIRP (dBm/10MHz) = Conducted Output Power (dBm/10MHz) + Antenna Gain (dBi).

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55265	55990	56715
		Frequency (MHz)		3552.5	3625	3697.5
5M	QPSK	1	0	20.18	20.00	20.08
		1	12	20.13	19.97	20.00
		1	24	20.12	19.85	19.90
		12	0	19.33	19.10	19.28
		12	6	19.38	19.20	19.30
		12	13	19.29	19.34	19.31
		25	0	19.22	18.92	19.11
5M	16QAM	1	0	19.31	19.14	19.25
		1	12	19.16	19.05	19.10
		1	24	19.15	19.07	19.04
		12	0	18.39	18.17	18.37
		12	6	18.33	18.25	18.18
		12	13	18.28	18.04	18.33
		25	0	18.23	18.12	18.20
5M	64QAM	1	0	18.48	18.49	18.50
		1	12	18.47	18.25	18.43
		1	24	18.40	18.00	18.38
		12	0	17.52	17.38	17.38
		12	6	17.38	17.19	17.31
		12	13	17.39	17.05	17.36
		25	0	17.33	17.10	17.33

*EIRP (dBm/10MHz) = Conducted Output Power (dBm/10MHz) + Antenna Gain (dBi).

Full Conducted Output Power (dBm/20MHz)

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55340	55990	56640
		Frequency (MHz)		3560	3625	3690
20M	QPSK	1	0	21.63	21.51	21.34
		1	50	21.62	21.49	21.45
		1	99	21.56	21.45	21.34
		50	0	20.79	20.74	20.68
		50	25	20.78	20.66	20.72
		50	50	20.70	20.67	20.71
		100	0	20.67	20.52	20.54
20M	16QAM	1	0	20.75	20.67	20.67
		1	50	20.61	20.56	20.55
		1	99	20.61	20.55	20.47
		50	0	19.85	19.77	19.82
		50	25	19.80	19.65	19.66
		50	50	19.78	19.67	19.73
		100	0	19.66	19.70	19.67
20M	64QAM	1	0	19.87	19.87	19.83
		1	50	19.85	19.88	19.80
		1	99	19.78	19.70	19.77
		50	0	18.82	18.84	18.77
		50	25	18.76	18.76	18.71
		50	50	18.78	18.67	18.71
		100	0	18.73	18.68	18.67

Full Conducted Output Power (dBm/15MHz)

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55315	55990	56665
		Frequency (MHz)		3557.5	3625	3692.5
15M	QPSK	1	0	21.50	21.37	21.31
		1	37	21.48	21.34	21.33
		1	74	21.37	21.30	21.22
		36	0	20.60	20.60	20.48
		36	19	20.63	20.56	20.57
		36	39	20.56	20.66	20.61
		75	0	20.56	20.38	20.34
15M	16QAM	1	0	20.60	20.53	20.53
		1	37	20.43	20.56	20.36
		1	74	20.51	20.55	20.31
		36	0	19.65	19.63	19.63
		36	19	19.60	19.61	19.51
		36	39	19.63	19.53	19.57
		75	0	19.51	19.56	19.51
15M	64QAM	1	0	19.79	19.86	19.83
		1	37	19.81	19.75	19.79
		1	74	19.73	19.58	19.75
		36	0	18.78	18.73	18.68
		36	19	18.74	18.72	18.63
		36	39	18.71	18.55	18.63
		75	0	18.68	18.54	18.67

Full Conducted Output Power (dBm/10MHz)

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55290	55990	56690
		Frequency (MHz)		3555	3625	3695
10M	QPSK	1	0	21.45	21.36	21.35
		1	24	21.49	21.27	21.31
		1	49	21.45	21.30	21.16
		25	0	20.62	20.51	20.51
		25	12	20.65	20.52	20.56
		25	25	20.52	20.66	20.55
		50	0	20.49	20.23	20.36
10M	16QAM	1	0	20.62	20.49	20.48
		1	24	20.51	20.45	20.43
		1	49	20.43	20.45	20.30
		25	0	19.73	19.52	19.69
		25	12	19.66	19.58	19.56
		25	25	19.61	19.46	19.57
		50	0	19.55	19.49	19.56
10M	64QAM	1	0	19.86	19.79	19.76
		1	24	19.76	19.68	19.76
		1	49	19.72	19.43	19.73
		25	0	18.74	18.72	18.73
		25	12	18.66	18.59	18.62
		25	25	18.72	18.47	18.61
		50	0	18.64	18.54	18.58

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55265	55990	56715
		Frequency (MHz)		3552.5	3625	3697.5
5M	QPSK	1	0	21.48	21.30	21.38
		1	12	21.43	21.27	21.30
		1	24	21.42	21.15	21.20
		12	0	20.63	20.40	20.58
		12	6	20.68	20.50	20.60
		12	13	20.59	20.64	20.61
		25	0	20.52	20.22	20.41
5M	16QAM	1	0	20.61	20.44	20.55
		1	12	20.46	20.35	20.40
		1	24	20.45	20.37	20.34
		12	0	19.69	19.47	19.67
		12	6	19.63	19.55	19.48
		12	13	19.58	19.34	19.63
		25	0	19.53	19.42	19.50
5M	64QAM	1	0	19.78	19.79	19.80
		1	12	19.77	19.55	19.73
		1	24	19.70	19.30	19.68
		12	0	18.82	18.68	18.68
		12	6	18.68	18.49	18.61
		12	13	18.69	18.35	18.66
		25	0	18.63	18.40	18.63

Full EIRP (dBm/20MHz)

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55340	55990	56640
		Frequency (MHz)		3560	3625	3690
20M	QPSK	1	0	20.33	20.21	20.04
		1	50	20.32	20.19	20.15
		1	99	20.26	20.15	20.04
		50	0	19.49	19.44	19.38
		50	25	19.48	19.36	19.42
		50	50	19.40	19.37	19.41
		100	0	19.37	19.22	19.24
20M	16QAM	1	0	19.45	19.37	19.37
		1	50	19.31	19.26	19.25
		1	99	19.31	19.25	19.17
		50	0	18.55	18.47	18.52
		50	25	18.50	18.35	18.36
		50	50	18.48	18.37	18.43
		100	0	18.36	18.40	18.37
20M	64QAM	1	0	18.57	18.57	18.53
		1	50	18.55	18.58	18.50
		1	99	18.48	18.40	18.47
		50	0	17.52	17.54	17.47
		50	25	17.46	17.46	17.41
		50	50	17.48	17.37	17.41
		100	0	17.43	17.38	17.37

*Full EIRP (dBm/20MHz) = Full Conducted Output Power (dBm/20MHz) + Antenna Gain (dBi)

Full EIRP (dBm/15MHz)

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55315	55990	56665
		Frequency (MHz)		3557.5	3625	3692.5
15M	QPSK	1	0	20.20	20.07	20.01
		1	37	20.18	20.04	20.03
		1	74	20.07	20.00	19.92
		36	0	19.30	19.30	19.18
		36	19	19.33	19.26	19.27
		36	39	19.26	19.36	19.31
		75	0	19.26	19.08	19.04
15M	16QAM	1	0	19.30	19.23	19.23
		1	37	19.13	19.26	19.06
		1	74	19.21	19.25	19.01
		36	0	18.35	18.33	18.33
		36	19	18.30	18.31	18.21
		36	39	18.33	18.23	18.27
		75	0	18.21	18.26	18.21
15M	64QAM	1	0	18.49	18.56	18.53
		1	37	18.51	18.45	18.49
		1	74	18.43	18.28	18.45
		36	0	17.48	17.43	17.38
		36	19	17.44	17.42	17.33
		36	39	17.41	17.25	17.33
		75	0	17.38	17.24	17.37

*Full EIRP (dBm/15MHz) = Full Conducted Output Power (dBm/15MHz) + Antenna Gain (dBi)

Full EIRP (dBm/10MHz)

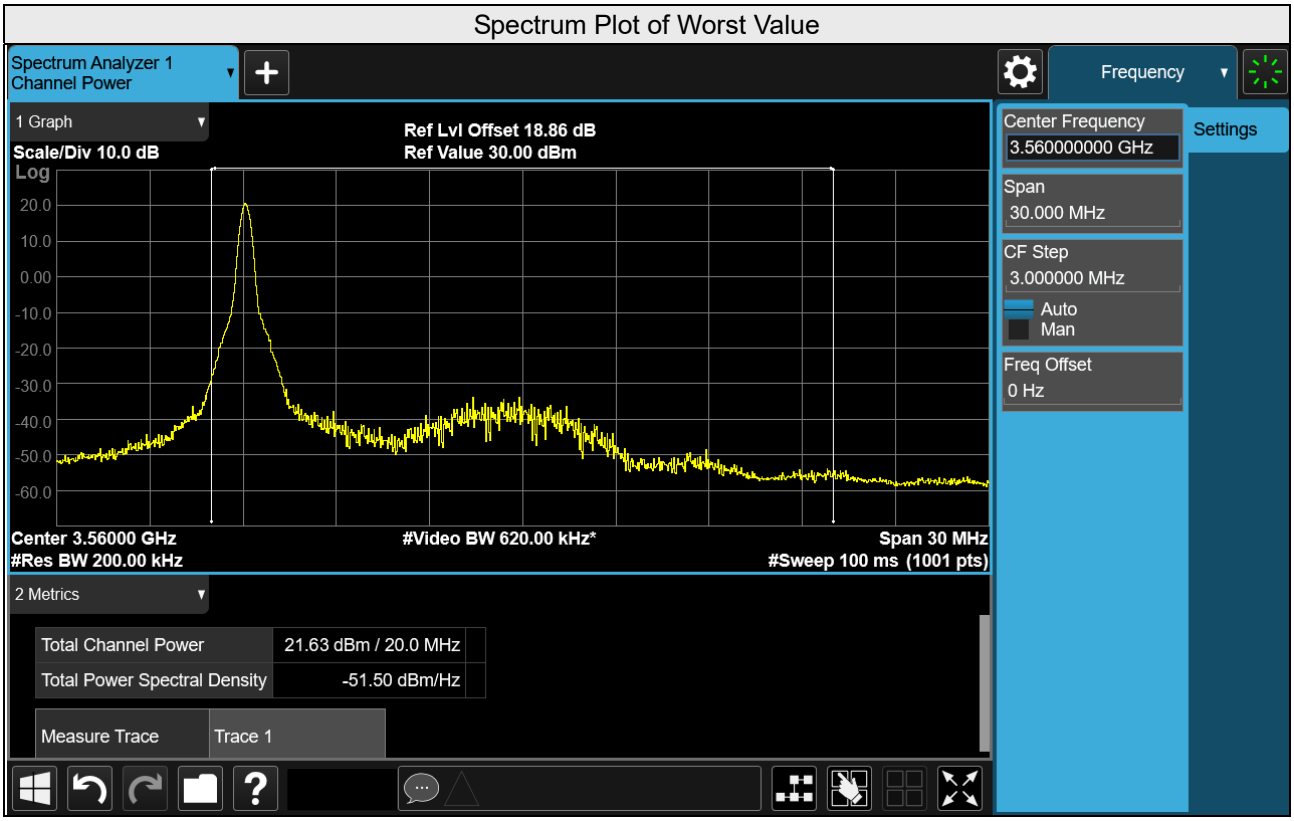
LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55290	55990	56690
		Frequency (MHz)		3555	3625	3695
10M	QPSK	1	0	20.15	20.06	20.05
		1	24	20.19	19.97	20.01
		1	49	20.15	20.00	19.86
		25	0	19.32	19.21	19.21
		25	12	19.35	19.22	19.26
		25	25	19.22	19.36	19.25
		50	0	19.19	18.93	19.06
10M	16QAM	1	0	19.32	19.19	19.18
		1	24	19.21	19.15	19.13
		1	49	19.13	19.15	19.00
		25	0	18.43	18.22	18.39
		25	12	18.36	18.28	18.26
		25	25	18.31	18.16	18.27
		50	0	18.25	18.19	18.26
10M	64QAM	1	0	18.56	18.49	18.46
		1	24	18.46	18.38	18.46
		1	49	18.42	18.13	18.43
		25	0	17.44	17.42	17.43
		25	12	17.36	17.29	17.32
		25	25	17.42	17.17	17.31
		50	0	17.34	17.24	17.28

*Full EIRP (dBm/10MHz) = Full Conducted Output Power (dBm/10MHz) + Antenna Gain (dBi)

LTE Band 48						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		55265	55990	56715
		Frequency (MHz)		3552.5	3625	3697.5
5M	QPSK	1	0	20.18	20.00	20.08
		1	12	20.13	19.97	20.00
		1	24	20.12	19.85	19.90
		12	0	19.33	19.10	19.28
		12	6	19.38	19.20	19.30
		12	13	19.29	19.34	19.31
		25	0	19.22	18.92	19.11
5M	16QAM	1	0	19.31	19.14	19.25
		1	12	19.16	19.05	19.10
		1	24	19.15	19.07	19.04
		12	0	18.39	18.17	18.37
		12	6	18.33	18.25	18.18
		12	13	18.28	18.04	18.33
		25	0	18.23	18.12	18.20
5M	64QAM	1	0	18.48	18.49	18.50
		1	12	18.47	18.25	18.43
		1	24	18.40	18.00	18.38
		12	0	17.52	17.38	17.38
		12	6	17.38	17.19	17.31
		12	13	17.39	17.05	17.36
		25	0	17.33	17.10	17.33

*Full EIRP (dBm/10MHz) = Full Conducted Output Power (dBm/10MHz) + Antenna Gain (dBi)

Spectrum Plot of Worst Value



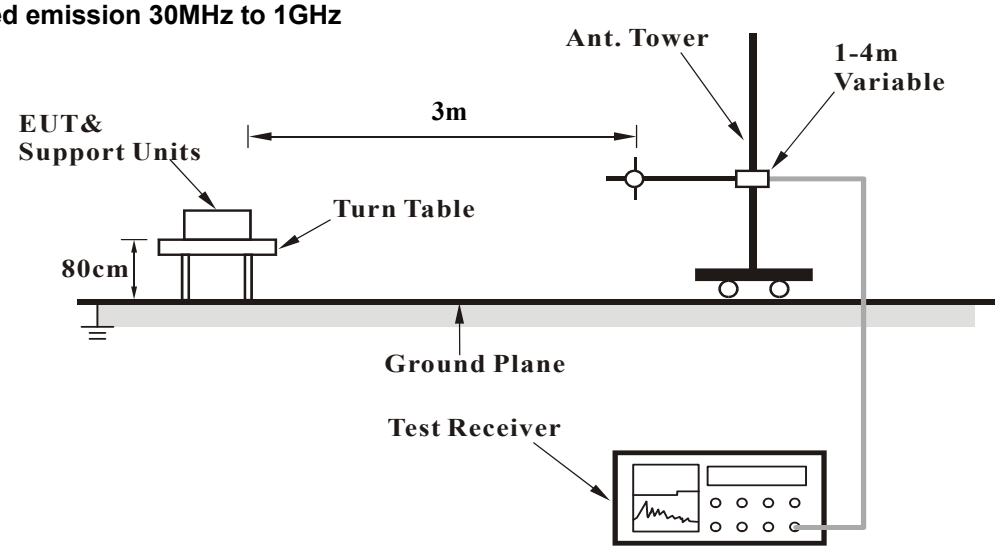
4.2 Radiated Emission Measurement

4.2.1 Limits of Radiated Emission Measurement

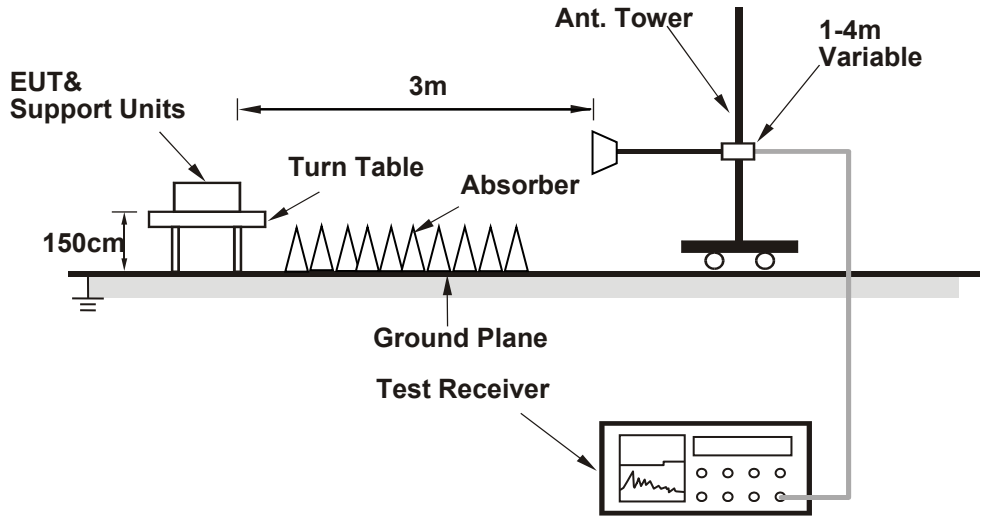
The power of any emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

4.2.2 Test Set Up

For radiated emission 30MHz to 1GHz



For radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver KEYSIGHT	N9038B	MY60180018	Feb. 18, 2022	Feb. 17, 2023
Spectrum Analyzer KEYSIGHT	N9020B	MY60110513	Dec. 24, 2021	Dec. 23, 2022
Loop Antenna TESEQ	HLA 6121	45745	Jul. 27, 2022	Jul. 26, 2023
Pre-amplifier EMCI	EMC001340	980201	Sep. 23, 2022	Sep. 22, 2023
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	Jan. 15, 2022	Jan. 14, 2023
Preamplifier EMCI	EMC330N	980798	Jan. 17, 2022	Jan. 16, 2023
BILOG Antenna SCHWARZBECK	VULB9168	9168-1214	Oct. 20, 2022	Oct. 19, 2023
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-9000	201251	Jan. 17, 2022	Jan. 16, 2023
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-3000	201249	Jan. 17, 2022	Jan. 16, 2023
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-500	201248	Jan. 17, 2022	Jan. 16, 2023
HORN Antenna RF SPIN	DRH18-E	210101A18E	Nov. 14, 2021	Nov. 13, 2022
Preamplifier EMCI	EMC118A45SE	980809	Dec. 30, 2021	Dec. 29, 2022
RF Coaxial Cable EMCI	EMC104-SM-SM-3000	201232	Jan. 17, 2022	Jan. 16, 2023
RF Coaxial Cable EMCI	EMC104-SM-SM-1000	210103	Jan. 17, 2022	Jan. 16, 2023
HORN Antenna SCHWARZBECK	BBHA 9170	9170-1048	Nov. 14, 2021	Nov. 13, 2022
RF Coaxial Cable EMCI	EMC101G-KM-KM-5000	201261	Jan. 17, 2022	Jan. 16, 2023
RF Coaxial Cable EMCI	EMC101G-KM-KM-3000	201258	Jan. 17, 2022	Jan. 16, 2023
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201255	Jan. 17, 2022	Jan. 16, 2023
Software BV ADT	ADT_Radiated_V7.6.15.9.5	NA	NA	NA
Antenna Tower Max-Full	MFA-515BSN	NA	NA	NA
Turn Table Max-Full	MFT-201SS	NA	NA	NA
Turn Table Controller Max-Full	MF-7802BS	MF780208676	NA	NA
Radio Communication Analyzer Anritsu	MT8820C	6201300640	Aug. 26, 2021	Aug. 22, 2023

Note: 1. The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HY - 966 chamber 9.

4.2.4 Test Procedures

a. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.

b. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.

d. Following C63.26 section 5.5 and 5.2.7.
EIRP (dBm) = E (dBμV/m) + 20log (D) - 104.8; where D is the measurement distance (in the far field region) in m.
ERP (dBm) = E (dBμV/m) + 20log (D) - 104.8 - 2.15; where D is the measurement distance (in the far field region) in m.

Note:
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.
2. The emission levels were against the limit of frequency range 9 kHz ~ 30 MHz:
The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

4.2.5 Deviation from Test Standard

No deviation.

4.2.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.2.7 Test Results

Below 1GHz

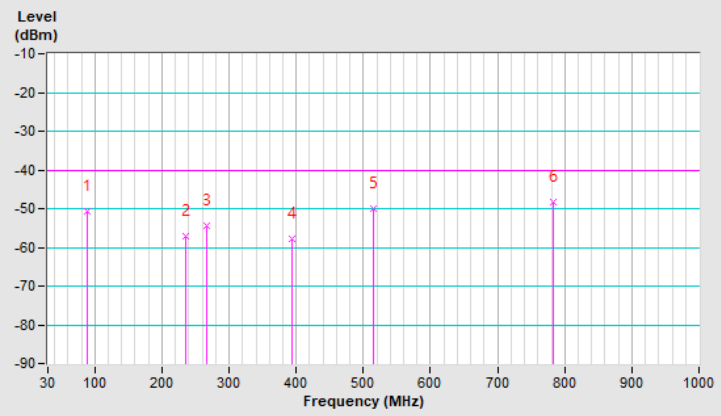
LTE Band 48, Channel Bandwidth 5MHz

Mode	TX channel 56715 (3697.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	88.20	-50.58	-40.00	-10.58	1.00 H	86	58.94	-109.52
2	235.64	-56.97	-40.00	-16.97	1.49 H	96	48.37	-105.34
3	266.68	-54.56	-40.00	-14.56	1.00 H	294	49.13	-103.69
4	392.78	-57.89	-40.00	-17.89	1.00 H	250	43.31	-101.20
5	515.00	-50.13	-40.00	-10.13	1.49 H	25	49.09	-99.22
6	782.72	-48.39	-40.00	-8.39	1.00 H	16	44.38	-92.77

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

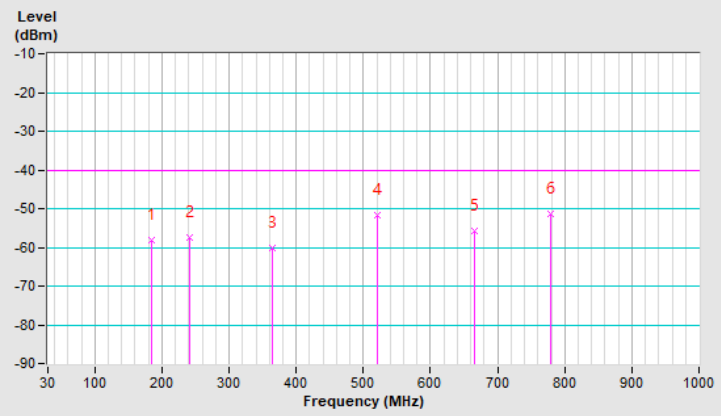


Mode	TX channel 56715 (3697.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	185.20	-58.18	-40.00	-18.18	1.00 V	42	47.65	-105.83
2	241.46	-57.44	-40.00	-17.44	1.49 V	293	47.35	-104.79
3	363.68	-60.30	-40.00	-20.30	1.00 V	273	41.36	-101.66
4	520.82	-51.78	-40.00	-11.78	1.49 V	334	47.34	-99.12
5	666.32	-55.66	-40.00	-15.66	1.00 V	240	40.26	-95.92
6	778.84	-51.48	-40.00	-11.48	1.00 V	189	41.32	-92.80

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.



Above 1GHz
LTE Band 48, Channel Bandwidth 5MHz

Mode	TX channel 55265 (3552.5MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7105.00	-42.03	-40.00	-2.03	1.27 H	128	37.13	-79.16
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7105.00	-41.80	-40.00	-1.80	1.01 V	278	37.36	-79.16

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

Mode	TX channel 55990 (3625.0MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7250.00	-41.14	-40.00	-1.14	1.25 H	125	37.70	-78.84
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7250.00	-40.92	-40.00	-0.92	1.07 V	278	37.92	-78.84

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

Mode	TX channel 56715 (3697.5MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7395.00	-40.86	-40.00	-0.86	1.25 H	128	37.29	-78.15
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	**7395.00**	**-40.64**	**-40.00**	**-0.64**	**1.08 V**	**272**	**37.51**	**-78.15**

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

LTE Band 48, Channel Bandwidth 20MHz

Mode	TX channel 55340 (3560.0MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7120.00	-41.69	-40.00	-1.69	1.32 H	126	37.25	-78.94
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7120.00	-40.92	-40.00	-0.92	1.09 V	272	38.02	-78.94

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

Mode	TX channel 55990 (3625.00MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7250.00	-41.75	-40.00	-1.75	1.29 H	125	37.09	-78.84
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7250.00	-41.34	-40.00	-1.34	1.07 V	279	37.50	-78.84

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

Mode	TX channel 56640 (3690.00MHz)	Frequency Range	1GHz ~ 40GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Titan Hsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7380.00	-41.20	-40.00	-1.20	1.29 H	123	37.12	-78.32
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7380.00	-40.77	-40.00	-0.77	1.10 V	274	37.55	-78.32

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value.
4. The other EIRP levels were very low against the limit.

5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

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Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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