

Prüfbericht-Nr.: Test report no.:	CN213YZV (P24-WWAN) 001	Auftrags-Nr.: Order no.:	238517543	Seite 1 von 23 Page 1 of 23
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2021-07-12	
Auftraggeber: Client:	AGUILA CONVERGENCE WORLDWIDE, INC. 46168,1581 S. Perry road,Plainfield,Indiana,USA			
Prüfgegenstand: Test item:	Secure Dongle,OOB Dongle			
Bezeichnung / Typ-Nr.: Identification / Type no.:	NCT8610,NCT9610			
Auftrags-Inhalt: Order content:	FCC Part 24 Test report			
Prüfgrundlage: Test specification:	FCC 47CFR Part 24 Subpart E			
Wareneingangsdatum: Date of sample receipt:	2021-07-07			
Prüfmuster-Nr.: Test sample no:	A003086990-033			
Prüfzeitraum: Testing period:	2021-08-05 - 2021-09-03			
Ort der Prüfung: Place of testing:	EMC/RF Taipei Testing Site			
Prüflaboratorium: Testing laboratory:	Taipei Testing Laboratories			
Prüfergebnis*: Test result*:	Pass			
überprüft von: compiled by:			genehmigt von: authorized by:	
Datum: Date:	2021-10-19	Ausstellungsdatum: Issue date:	2021-10-19	Brenda Chen
Stellung / Position:	Senior Project Manager	Stellung / Position:	Senior Project Manager	
Sonstiges / Other:	This report evaluated Radiated Spurious Emissions and EIRP only. The other test items are referred to the module report no.: (NIE) 59675RRF.001 and 59675RRF.002 for the details. The model/product names are electrically identical, the differences are the package, and the color of the case and logo.			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	4 = ausreichend N/A = nicht anwendbar
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory F(ail) = failed a.m. test specification(s)	4 = sufficient N/A = not applicable
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

TEST SUMMARY

Report Section	FCC Clause	Test Item	Result
5.1.1	2.1046 24.232(c)	Conducted Output Power and Effective Isotropically Radiated Power	Pass
5.1.2	2.1053 24.238(a)	Radiated Spurious Emissions	Pass

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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APPENDIX A - TEST RESULT OF RADIATED SPURIOUS EMISSIONS

APPENDIX SP - PHOTOGRAPHS TEST SETUP

APPENDIX EP - PHOTOGRAPHS OF EUT

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HISTORY OF THIS TEST REPORT

Report No.	Description	Date Issued
CN213YZV (P24-WWAN) 001	Original Release	2021-10-19

1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A - Test Result of Radiated Spurious Emissions

Appendix SP - Photographs Test Setup

Appendix EP - Photographs of EUT

Applied Standard and Test Levels

Radio
FCC 47CFR Part 2
FCC 47CFR Part 24 Subpart E
KDB 971168 D01 Power Meas License Digital Systems v03r01
ANSI/TIA/EIA-603-E 2016
ANSI C63.26-2015

1.2 Decision Rule of Conformity

The decision rule of conformity of this test report is following the requirements of the requested standard in the quotation, and agreed among testing laboratory and manufacturer (applicant) to exclude the consideration of Measurement Uncertainty, unless it is required by the specific standard.

2. Test Sites

2.1 Test Laboratory

Taipei Testing Laboratories

11F. No.758, Sec. 4, Bade Rd., Songshan Dist.
Taipei City 105
Taiwan (R.O.C.)

2.2 Test Facility

Taipei Testing Laboratories

No.458-18, Sec. 2, Fenliao Rd., Linkou Dist.,
New Taipei City 244
Taiwan (R.O.C.)
FCC Registration No.: 226631
ISED Registration No.: 25563

2.3 Traceability

All measurement equipment calibrations are traceable to NML(Taiwan)/NIST(USA) or where calibration is performed outside Taiwan, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically in a suitably accredited Calibration Lab. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

All measurement uncertainty values are shown with a coverage factor of $k=2$ to indicate a 95% level of confidence.

Emission Measurement Uncertainty

Parameter	Uncertainty
Radiated Emission (9 kHz ~ 30 MHz)	± 1.15 dB
Radiated Emission (30 MHz ~ 200 MHz)	± 1.30 dB
Radiated Emission (200 MHz ~ 1 GHz)	± 1.30 dB
Radiated Emission (1 GHz ~ 18 GHz)	± 1.54 dB
Radiated Emission (18 GHz ~ 40 GHz)	± 2.52 dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a Secure Dongle, OOB Dongle. It contains a WWAN compatible module enabling the user to communicate data through a Wireless interface.

For details refer to the User Guide, Data Sheet and Circuit Diagram.

3.2 System Details and Ratings

Basic Information of EUT

Item	EUT information
Kind of Equipment/Test Item	Secure Dongle, OOB Dongle
Type Identification	NCT8610, NCT9610
FCC ID	2AZE921NCT8610

Technical Specification of EUT

Item	EUT information		
Operating Frequency	Cat-M1	LTE Band 2 (1.4 MHz)	1850.7 ~ 1909.3 MHz
		LTE Band 2 (3 MHz)	1851.5 ~ 1908.5 MHz
		LTE Band 2 (5 MHz)	1852.5 ~ 1907.5 MHz
		LTE Band 2 (10 MHz)	1855.0 ~ 1905.0 MHz
		LTE Band 2 (15 MHz)	1857.5 ~ 1902.5 MHz
		LTE Band 2 (20 MHz)	1860.0 ~ 1900.0 MHz
		LTE Band 25 (1.4 MHz)	1850.7 ~ 1914.3 MHz
		LTE Band 25 (3 MHz)	1851.5 ~ 1913.5 MHz
		LTE Band 25 (5 MHz)	1852.5 ~ 1912.5 MHz
		LTE Band 25 (10 MHz)	1855.0 ~ 1910.0 MHz
		LTE Band 25 (15 MHz)	1857.5 ~ 1907.5 MHz
		LTE Band 25 (20 MHz)	1860.0 ~ 1905.0 MHz
NB-IoT	LTE Band 2	1850.1 ~ 1909.9 MHz	
	LTE Band 25	1850.1 ~ 1914.9 MHz	
Modulation	Cat-M1	QPSK, 16QAM	
	NB-IoT	BPSK, QPSK	
Operation Voltage	3.8 Vdc		
Antenna Information	PCB antenna with 2.4 dBi gain		
Accessory Device	Refer to 4.3		

Maximum EIRP

Item	Band		Value
Maximum EIRP (dBm)	Cat-M1	LTE Band 2 (1.4 MHz)	25.83
		LTE Band 2 (3 MHz)	25.81
		LTE Band 2 (5 MHz)	25.79
		LTE Band 2 (10 MHz)	25.96
		LTE Band 2 (15 MHz)	25.93
		LTE Band 2 (20 MHz)	26.14
		LTE Band 25 (1.4 MHz)	25.78
		LTE Band 25 (3 MHz)	25.87
		LTE Band 25 (5 MHz)	25.80
		LTE Band 25 (10 MHz)	25.89
		LTE Band 25 (15 MHz)	25.87
		LTE Band 25 (20 MHz)	26.15
	NB-IoT	LTE Band 2	26.00
		LTE Band 25	26.06

3.3 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.4 Submitted Documents

- Circuit Diagram
- Instruction Manual
- Rating Label
- Technical Description

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Setup for testing: Test samples make a communication with CMW500 which makes it possible to control them through a test software installed on a notebook computer.

This software was running on the laptop computer connected to the EUT. It was used to enable the operation modes listed as below.

Test Software	QCOM_V1.6
---------------	-----------

The samples were used as follows:
A003086990-033

Full test was applied on all test modes, but only worst case was shown.

Effective Isotropically Radiated Power (EIRP)

- ☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Band	Channel Bandwidth	Available Channel	Tested Channel	Modulation
Cat-M1	LTE Band 2	1.4 MHz	18607 to 19193	18607, 18900, 19193	QPSK, 16QAM
		3 MHz	18615 to 19185	18615, 18900, 19185	QPSK, 16QAM
		5 MHz	18625 to 19175	18625, 18900, 19175	QPSK, 16QAM
		10 MHz	18650 to 19150	18650, 18900, 19150	QPSK, 16QAM
		15 MHz	18675 to 19125	18675, 18900, 19125	QPSK, 16QAM
		20 MHz	18700 to 19100	18700, 18900, 19100	QPSK, 16QAM
	LTE Band 25	1.4 MHz	26047 to 26683	26047, 26365, 26683	QPSK, 16QAM
		3 MHz	26055 to 26675	26055, 26365, 26675	QPSK, 16QAM
		5 MHz	26065 to 26665	26065, 26365, 26665	QPSK, 16QAM
		10 MHz	26090 to 26640	26090, 26365, 26640	QPSK, 16QAM
		15 MHz	26115 to 26615	26115, 26365, 26615	QPSK, 16QAM
		20 MHz	26140 to 26590	26140, 26365, 26590	QPSK, 16QAM

EUT Configure Mode	Band	Available Channel	Tested Channel	Sub-Carrier Bandwidth	Modulation	Ntones
NB-IoT	LTE Band 2	18601 to 19199	18601, 18900, 19199	3.75 kHz	BPSK	1@47
				15 kHz	QPSK	3@3
	LTE Band 25	26041 to 26689	26041, 26365, 26689	3.75 kHz	BPSK	1@47
				15 kHz	QPSK	3@3

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Radiated Spurious Emissions

- ☒ Pre-Scan full test was applied on all test modes, but only worst case was shown.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Band	Channel Bandwidth	Available Channel	Tested Channel	Modulation	Position
Cat-M1	LTE Band 2	20 MHz	18700 to 19100	18700, 18900, 19100	QPSK	Z-plane
	LTE Band 25	20 MHz	26140 to 26590	26140, 26365, 26590	QPSK	Z-plane

EUT Configure Mode	Band	Available Channel	Tested Channel	Sub-Carrier Bandwidth	Modulation	Ntones	Position
NB-IoT	LTE Band 2	18601 to 19199	18601, 18900, 19199	15 kHz	QPSK	3@3	Z-plane
	LTE Band 25	26041 to 26689	26041, 26365, 26689	15 kHz	QPSK	3@3	Z-plane

Note: BLE is enabled.

Test Condition

Test Item	Ambient Temperature	Relative Humidity	Tested by
EIRP	21.6-25.8 °C	46.2-66.5 %	Andy Chen
Radiated Spurious Emissions	23.1-25.1 °C	50-60 %	Kay Wu

4.3 Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories:

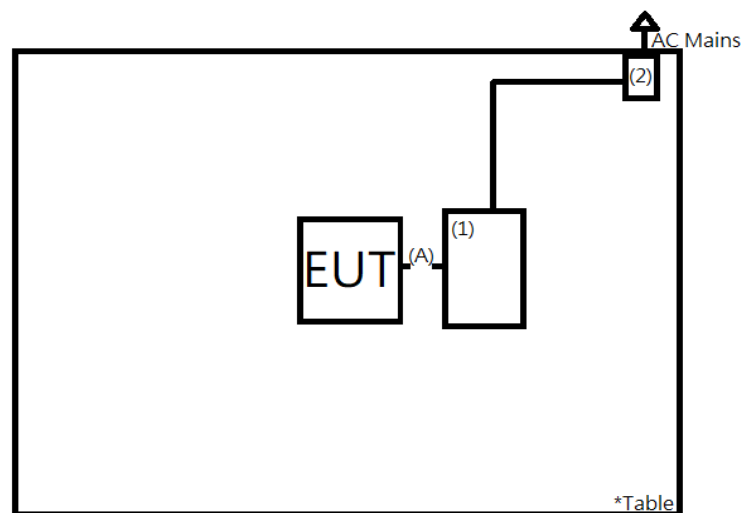
Accessory of EUT

No.	Product	Brand	Model	Description
A	USB Type-C Cable	ACES Electronics Co.,Ltd.	60-6363-860-FA	12 cm shielded cable w/o core

Support Unit

Support Unit								
No	Description	Brand	Model	S/N	Shielded	Ferrite Core (Qty)	Length (cm)	Remark
1	Notebook	HP	15-da1064TX	CND911MY2	-	-	-	-
2	Adapter	HP	TPN-LA16	N/A	NO	NO	180	-

4.4 Test Setup Diagram



5. Test Results

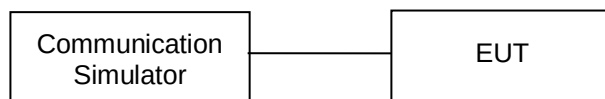
5.1 Transmitter Requirement & Test Suites

5.1.1 Conducted Output Power

Limit 2 watt (EIRP)

Kind of Test Site Shielded room

Test Setup



Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date	Test Date	
						From	Until
Radio Communication Analyzer	Anritsu	MT8821C	6262044753	2021/1/29	2022/1/28	2021/8/5	2021/9/3

Test Procedures

The EUT was set up for the maximum power with WWAN link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

EIRP = Conducted Power + Antenna Gain

ERP = EIRP – 2.15

Test Result
<Conducted Output Power>

LTE Cat-M1 B2/BW=1.4M					Average Conducted Power (dBm)			LTE Cat-M1 B2/BW=3M					Average Conducted Power (dBm)		
Modulation	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)		
					18607/1850.7	18900/1880	19193/1909.3						18615/1851.5	18900/1880	19185/1908.5
QPSK	1	0	0	23.50	23.43	23.40	23.20	QPSK	1	0	0	24.00	23.38	23.30	23.21
	1	5	0	23.50	23.41	23.35	23.14		1	5	1	24.00	23.41	23.26	23.19
	3	0	0	22.50	22.45	22.42	22.32		3	0	0	24.00	22.48	22.43	22.26
	3	3	0	22.50	22.48	22.49	22.35		3	3	1	24.00	22.51	23.32	22.31
	6	0	0	22.00	21.58	21.47	21.44		6	0	0	21.50	21.42	21.42	21.35
									6	0	1	21.50	21.48	21.43	21.36
16QAM	1	0	0	22.50	22.47	22.42	22.48	16QAM	1	0	0	23.00	22.72	22.39	22.28
	1	4	0	22.50	22.42	22.50	22.48		1	4	1	23.00	22.61	22.23	22.19
	3	0	0	22.00	21.51	21.44	21.39		3	0	0	22.00	21.54	21.46	21.38
	3	2	0	22.00	21.48	21.48	21.45		3	2	1	21.50	21.48	21.37	21.28
	5	0	0	22.00	21.52	21.36	21.46		5	0	0	21.50	21.48	21.32	21.23
									5	0	1	21.50	21.46	21.44	21.34
LTE Cat-M1 B2/BW=5M					Average Conducted Power (dBm)			LTE Cat-M1 B2/BW=10M					Average Conducted Power (dBm)		
Modulation	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)		
					18625/1852.5	18900/1880	19175/1907.5						18650/1855	18900/1880	19150/1905
QPSK	1	0	0	24.00	23.34	23.33	23.15	QPSK	1	0	0	24.00	23.38	23.56	23.16
	1	0	3	24.00	23.29	23.23	23.10		1	0	3	24.00	23.34	23.51	23.15
	1	5	0	24.00	23.34	23.32	23.08		1	5	4	24.00	23.38	23.24	23.13
	1	5	3	24.00	23.32	23.39	23.12		1	5	7	24.00	23.40	23.25	23.10
	3	0	0	24.00	22.46	22.45	22.21		3	0	0	24.00	23.50	23.51	23.29
	3	3	3	24.00	22.48	22.39	22.25		3	3	7	24.00	23.47	23.49	23.29
	6	0	0	23.50	22.50	22.37	22.32		6	0	0	23.50	22.37	22.41	22.25
	6	0	3	23.50	22.47	22.41	22.26		6	0	7	23.50	22.38	22.38	22.21
16QAM	1	0	0	23.00	22.68	22.53	22.41	16QAM	1	0	0	23.00	22.71	22.42	22.33
	1	0	3	23.00	22.71	22.57	22.28		1	0	3	23.00	22.73	22.50	22.28
	1	4	0	23.00	22.72	22.66	22.45		1	4	4	23.00	22.75	22.59	22.44
	1	4	3	23.00	22.76	22.62	22.47		1	4	7	23.00	22.65	22.52	22.45
	3	0	0	23.00	22.58	22.53	22.43		3	0	0	23.00	22.59	22.55	22.50
	3	2	3	23.00	22.67	22.57	22.49		3	2	7	23.00	22.63	22.61	22.52
	5	0	0	22.00	21.42	21.45	21.31		5	0	0	22.50	22.41	22.48	22.31
	5	0	3	22.00	21.58	21.31	21.12		5	0	7	22.50	22.44	22.42	22.35
LTE Cat-M1 B2/BW=15M					Average Conducted Power (dBm)			LTE Cat-M1 B2/BW=20M					Average Conducted Power (dBm)		
Modulation	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modulation	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)		
					18675/1857.5	18900/1880	19125/1902.5						18700/1860	18900/1880	19100/1900
QPSK	1	0	0	24.00	23.32	23.22	23.13	QPSK	1	0	0	24.00	23.55	23.74	23.46
	1	0	3	24.00	23.31	23.25	23.08		1	0	3	24.00	23.51	23.61	23.42
	1	5	8	24.00	23.34	23.18	23.09		1	5	12	24.00	23.45	23.58	23.39
	1	5	11	24.00	23.27	23.21	23.04		1	5	15	24.00	23.47	23.54	23.43
	3	0	0	24.00	23.53	23.33	23.33		3	0	0	24.00	23.56	23.71	23.54
	3	3	11	24.00	23.41	23.39	23.19		3	3	15	24.00	23.53	23.63	23.46
	6	0	0	23.50	23.50	23.34	23.32		6	0	0	23.50	23.45	23.50	23.44
	6	0	11	23.50	23.45	23.26	23.16		6	0	15	23.50	23.41	23.35	23.41
16QAM	1	0	0	23.00	22.55	22.28	22.22	16QAM	1	0	0	23.00	22.55	22.65	22.49
	1	0	3	23.00	22.59	22.68	22.46		1	0	3	23.00	22.50	22.55	22.37
	1	4	8	23.00	22.68	22.65	22.51		1	4	12	23.00	22.45	22.46	22.47
	1	4	11	23.00	22.73	22.53	22.56		1	4	15	23.00	22.52	22.53	22.44
	3	0	0	23.00	22.62	22.56	22.32		3	0	0	23.00	22.56	22.53	22.39
	3	2	11	23.00	22.64	22.58	22.46		3	2	15	23.00	22.61	22.59	22.47
	5	0	0	22.50	22.49	22.45	22.41		5	0	0	23.00	22.52	22.45	22.39
	5	0	11	22.50	22.43	22.48	22.37		5	0	15	23.00	22.41	22.44	22.32

LTE Cat-M1 B25/BW=1.4M				Average Conducted Power (dBm)				LTE Cat-M1 B25/BW=3M				Average Conducted Power (dBm)			
Modula- -tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modula- -tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)		
					26047/ 1850.7	26365/ 1882.5	26683/ 1914.3						26055/ 1851.5	26365/ 1882.5	26675/ 1913.5
QPSK	1	0	0	23.50	23.38	23.26	23.20	QPSK	1	0	0	23.50	23.47	23.31	23.13
	1	5	0	23.50	23.37	23.25	23.15		1	5	1	23.50	23.34	23.35	23.15
	3	0	0	22.50	22.43	22.37	22.31		3	0	0	22.50	22.44	22.46	22.32
	3	3	0	22.50	22.43	22.34	22.30		3	3	1	22.50	22.46	22.38	22.27
	6	0	0	22.00	21.45	21.35	21.39		6	0	0	22.00	21.59	21.47	21.30
									6	0	1	22.00	21.56	21.51	21.36
16QAM	1	0	0	22.50	22.44	22.43	22.31	16QAM	1	0	0	23.00	22.37	22.52	22.33
	1	4	0	22.50	22.43	22.47	22.33		1	4	1	22.50	22.50	22.36	22.37
	3	0	0	21.50	21.46	21.42	21.28		3	0	0	21.50	21.48	21.40	21.39
	3	2	0	21.50	21.43	21.44	21.34		3	2	1	21.50	21.42	21.45	21.32
	5	0	0	21.50	21.46	21.35	21.30		5	0	0	21.50	21.31	21.41	21.38
									5	0	1	21.50	21.44	21.48	21.36
LTE Cat-M1 B25/BW=5M				Average Conducted Power (dBm)				LTE Cat-M1 B25/BW=10M				Average Conducted Power (dBm)			
Modula- -tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modula- -tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)		
					26065/ 1852.5	26365/ 1882.5	26665/ 1912.5						26090/ 1855	26365/ 1882.5	26640/ 1910
QPSK	1	0	0	23.50	23.38	23.25	23.09	QPSK	1	0	0	23.50	23.37	23.28	23.13
	1	0	3	23.50	23.27	23.28	23.12		1	0	3	23.50	23.26	23.32	23.10
	1	5	0	23.50	23.30	23.40	23.09		1	5	4	23.50	23.28	23.35	23.09
	1	5	3	23.50	23.28	23.39	23.17		1	5	7	23.50	23.29	23.29	23.08
	3	0	0	23.50	22.45	22.47	22.26		3	0	0	23.50	23.47	23.49	23.25
	3	3	3	23.50	22.51	22.38	22.33		3	3	7	23.50	23.45	23.44	23.17
	6	0	0	23.50	22.47	22.48	22.27		6	0	0	23.50	22.46	22.39	22.33
	6	0	3	23.50	22.45	22.46	22.28		6	0	7	23.50	22.44	22.45	22.37
16QAM	1	0	0	23.00	22.67	22.72	22.46	16QAM	1	0	0	23.00	22.49	22.59	22.43
	1	0	3	23.00	22.69	22.52	22.40		1	0	3	23.00	22.47	22.63	22.36
	1	4	0	23.00	22.73	22.63	22.51		1	4	4	23.00	22.63	22.69	22.37
	1	4	3	23.00	22.80	22.69	22.46		1	4	7	23.00	22.66	22.61	22.49
	3	0	0	23.00	22.51	22.56	22.34		3	0	0	23.00	22.52	22.37	22.30
	3	2	3	23.00	22.61	22.49	22.46		3	2	7	23.00	22.48	22.51	22.37
	5	0	0	21.50	21.39	21.40	21.27		5	0	0	22.50	22.44	22.41	22.33
	5	0	3	21.50	21.43	21.47	21.35		5	0	7	22.50	22.45	22.36	22.30
LTE Cat-M1 B25/BW=15M				Average Conducted Power (dBm)				LTE Cat-M1 B25/BW=20M				Average Conducted Power (dBm)			
Modula- -tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modula- -tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)		
					26115/ 1857.5	26365/ 1882.5	26615/ 1907.5						26140/ 1860	26365/ 1882.5	26590/ 1905
QPSK	1	0	0	23.50	23.30	23.26	23.09	QPSK	1	0	0	24.00	23.40	23.75	23.41
	1	0	3	23.50	23.24	23.22	23.06		1	0	3	24.00	23.37	23.53	23.38
	1	5	8	23.50	23.33	23.29	23.14		1	5	12	24.00	23.35	23.39	23.37
	1	5	11	23.50	23.31	23.24	23.12		1	5	15	24.00	23.28	23.33	23.22
	3	0	0	23.50	23.42	23.44	23.25		3	0	0	24.00	23.44	23.54	23.42
	3	3	11	23.50	23.39	23.26	23.24		3	3	15	24.00	23.37	23.34	23.31
	6	0	0	23.50	23.35	23.47	23.25		6	0	0	23.50	23.38	23.29	23.27
	6	0	11	23.50	23.43	23.37	23.27		6	0	15	23.50	23.31	23.30	23.31
16QAM	1	0	0	23.00	22.53	22.59	22.38	16QAM	1	0	0	23.00	22.56	22.55	22.55
	1	0	3	23.00	22.64	22.53	22.43		1	0	3	23.00	22.58	22.52	22.38
	1	4	8	23.00	22.56	22.66	22.48		1	4	12	23.00	22.65	22.64	22.44
	1	4	11	23.00	22.62	22.62	22.44		1	4	15	23.00	22.64	22.50	22.56
	3	0	0	23.00	22.48	22.53	22.40		3	0	0	23.00	22.52	22.54	22.36
	3	2	11	23.00	22.56	22.49	22.42		3	2	15	23.00	22.54	22.56	22.40
	5	0	0	23.00	22.54	22.51	22.26		5	0	0	23.00	22.53	22.37	22.42
	5	0	11	23.00	22.53	22.42	22.31		5	0	15	23.00	22.58	22.43	22.35

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NB-IoT B2/BW=3.75kHz			Average Conducted Power (dBm)			NB-IoT B2/BW=15kHz			Average Conducted Power (dBm)		
Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)			Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)		
			18601/1850.1	18900/1880	19199/1909.9				18601/1850.1	18900/1880	19199/1909.9
BPSK	1@0	23.50	23.40	23.43	23.50	QPSK	1@0	24.00	23.35	23.60	23.46
	1@47	23.50	23.34	23.50	23.40		1@11	23.50	23.33	23.41	23.44
							3@3	23.50	23.37	23.47	23.40

NB-IoT B25/BW=3.75kHz			Average Conducted Power (dBm)			NB-IoT B25/BW=15kHz			Average Conducted Power (dBm)		
Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)			Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)		
			26041/1850.1	26365/1882.50	26689/1914.9				26041/1850.1	26365/1882.50	26689/1914.9
BPSK	1@0	23.50	23.43	23.50	23.43	QPSK	1@0	24.00	23.33	23.66	23.43
	1@47	23.50	23.38	23.47	23.45		1@11	23.50	23.31	23.41	23.41
							3@3	23.50	23.45	23.48	23.46

<EIRP>

LTE Cat-M1 B2/BW=1.4M				EIRP (dBm)				LTE Cat-M1 B2/BW=3M				EIRP (dBm)			
Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)		
					18607/ 1850.7	18900/ 1880	19193/ 1909.3						18615/ 1851.5	18900/ 1880	19185/ 1908.5
QPSK	1	0	0		25.83	25.80	25.60	QPSK	1	0	0		25.78	25.70	25.61
	1	5	0		25.81	25.75	25.54		1	5	1		25.81	25.66	25.59
	3	0	0		24.85	24.82	24.72		3	0	0		24.88	24.83	24.66
	3	3	0		24.88	24.89	24.75		3	3	1		24.91	25.72	24.71
	6	0	0		23.98	23.87	23.84		6	0	0		23.82	23.82	23.75
									6	0	1		23.88	23.83	23.76
16QAM	1	0	0		24.87	24.82	24.88	16QAM	1	0	0		25.12	24.79	24.68
	1	4	0		24.82	24.90	24.88		1	4	1		25.01	24.63	24.59
	3	0	0		23.91	23.84	23.79		3	0	0		23.94	23.86	23.78
	3	2	0		23.88	23.88	23.85		3	2	1		23.88	23.77	23.68
	5	0	0		23.92	23.76	23.86		5	0	0		23.88	23.72	23.63
									5	0	1		23.86	23.84	23.74
LTE Cat-M1 B2/BW=5M				EIRP (dBm)				LTE Cat-M1 B2/BW=10M				EIRP (dBm)			
Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)		
					18625/ 1852.5	18900/ 1880	19175/ 1907.5						18650/ 1855	18900/ 1880	19150/ 1905
QPSK	1	0	0		25.74	25.73	25.55	QPSK	1	0	0		25.78	25.96	25.56
	1	0	3		25.69	25.63	25.50		1	0	3		25.74	25.91	25.55
	1	5	0		25.74	25.72	25.48		1	5	4		25.78	25.64	25.53
	1	5	3		25.72	25.79	25.52		1	5	7		25.80	25.65	25.50
	3	0	0		24.86	24.85	24.61		3	0	0		25.90	25.91	25.69
	3	3	3		24.88	24.79	24.65		3	3	7		25.87	25.89	25.69
	6	0	0		24.90	24.77	24.72		6	0	0		24.77	24.81	24.65
16QAM	6	0	3		24.87	24.81	24.66	16QAM	6	0	7		24.78	24.78	24.61
	1	0	0		25.08	24.93	24.81		1	0	0		25.11	24.82	24.73
	1	0	3		25.11	24.97	24.68		1	0	3		25.13	24.90	24.68
	1	4	0		25.12	25.06	24.85		1	4	4		25.15	24.99	24.84
	1	4	3		25.16	25.02	24.87		1	4	7		25.05	24.92	24.85
	3	0	0		24.98	24.93	24.83		3	0	0		24.99	24.95	24.90
	3	2	3		25.07	24.97	24.89		3	2	7		25.03	25.01	24.92
16QAM	5	0	0		23.82	23.85	23.71	16QAM	5	0	0		24.81	24.88	24.71
	5	0	3		23.98	23.71	23.52		5	0	7		24.84	24.82	24.75
	LTE Cat-M1 B2/BW=15M				EIRP (dBm)				LTE Cat-M1 B2/BW=20M				EIRP (dBm)		
Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)		
					18675/ 1857.5	18900/ 1880	19125/ 1902.5						18700/ 1860	18900/ 1880	19100/ 1900
QPSK	1	0	0		25.72	25.62	25.53	QPSK	1	0	0		25.95	26.14	25.86
	1	0	3		25.71	25.65	25.48		1	0	3		25.91	26.01	25.82
	1	5	8		25.74	25.58	25.49		1	5	12		25.85	25.98	25.79
	1	5	11		25.67	25.61	25.44		1	5	15		25.87	25.94	25.83
	3	0	0		25.93	25.73	25.73		3	0	0		25.96	26.11	25.94
	3	3	11		25.81	25.79	25.59		3	3	15		25.93	26.03	25.86
	6	0	0		25.90	25.74	25.72		6	0	0		25.85	25.90	25.84
16QAM	6	0	11		25.85	25.66	25.56	16QAM	6	0	15		25.81	25.75	25.81
	1	0	0		24.95	24.68	24.62		1	0	0		24.95	25.05	24.89
	1	0	3		24.99	25.08	24.86		1	0	3		24.90	24.95	24.77
	1	4	8		25.08	25.05	24.91		1	4	12		24.85	24.86	24.87
	1	4	11		25.13	24.93	24.96		1	4	15		24.92	24.93	24.84
	3	0	0		25.02	24.96	24.72		3	0	0		24.96	24.93	24.79
	3	2	11		25.04	24.98	24.86		3	2	15		25.01	24.99	24.87
16QAM	5	0	0		24.89	24.85	24.81	16QAM	5	0	0		24.92	24.85	24.79
	5	0	11		24.83	24.88	24.77		5	0	15		24.81	24.84	24.72

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LTE Cat-M1 B25/BW=1.4M				EIRP (dBm)			LTE Cat-M1 B25/BW=3M				EIRP (dBm)						
Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)				
					26047/ 1850.7	26365/ 1882.5	26683/ 1914.3						26055/ 1851.5	26365/ 1882.5	26675/ 1913.5		
QPSK	1	0	0		25.78	25.66	25.60	QPSK	1	0	0		25.87	25.71	25.53		
	1	5	0		25.77	25.65	25.55		1	5	1		25.74	25.75	25.55		
	3	0	0		24.83	24.77	24.71		3	0	0		24.84	24.86	24.72		
	3	3	0		24.83	24.74	24.70		3	3	1		24.86	24.78	24.67		
	6	0	0		23.85	23.75	23.79		6	0	0		23.99	23.87	23.70		
									6	0	1		23.96	23.91	23.76		
16QAM	1	0	0		24.84	24.83	24.71	16QAM	1	0	0		24.77	24.92	24.73		
	1	4	0		24.83	24.87	24.73		1	4	1		24.90	24.76	24.77		
	3	0	0		23.86	23.82	23.68		3	0	0		23.88	23.80	23.79		
	3	2	0		23.83	23.84	23.74		3	2	1		23.82	23.85	23.72		
	5	0	0		23.86	23.75	23.70		5	0	0		23.71	23.81	23.78		
									5	0	1		23.84	23.88	23.76		
LTE Cat-M1 B25/BW=5M				EIRP (dBm)			LTE Cat-M1 B25/BW=10M				EIRP (dBm)						
Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)				
					26065/ 1852.5	26365/ 1882.5	26665/ 1912.5						26090/ 1855	26365/ 1882.5	26640/ 1910		
QPSK	1	0	0		25.78	25.65	25.49	QPSK	1	0	0		25.77	25.68	25.53		
	1	0	3		25.67	25.68	25.52		1	0	3		25.66	25.72	25.50		
	1	5	0		25.70	25.80	25.49		1	5	4		25.68	25.75	25.49		
	1	5	3		25.68	25.79	25.57		1	5	7		25.69	25.69	25.48		
	3	0	0		24.85	24.87	24.66		3	0	0		25.87	25.89	25.65		
	3	3	3		24.91	24.78	24.73		3	3	7		25.85	25.84	25.57		
	6	0	0		24.87	24.88	24.67		6	0	0		24.86	24.79	24.73		
16QAM	1	0	0		24.85	24.86	24.68	16QAM	1	0	0		24.84	24.85	24.77		
	1	0	3		25.07	25.12	24.86		1	0	3		24.89	24.99	24.83		
	1	0	3		25.09	24.92	24.80		1	0	3		24.87	25.03	24.76		
	1	4	0		25.13	25.03	24.91		1	4	4		25.03	25.09	24.77		
	1	4	3		25.20	25.09	24.86		1	4	7		25.06	25.01	24.89		
	3	0	0		24.91	24.96	24.74		3	0	0		24.92	24.77	24.70		
	3	2	3		25.01	24.89	24.86		3	2	7		24.88	24.91	24.77		
16QAM	5	0	0		23.79	23.80	23.67	16QAM	5	0	0		24.84	24.81	24.73		
	5	0	3		23.83	23.87	23.75		5	0	7		24.85	24.76	24.70		
	LTE Cat-M1 B25/BW=15M				Average Conducted Power (dBm)				LTE Cat-M1 B25/BW=20M				Average Conducted Power (dBm)				
	Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			Modula- tion	RB Size	RB Offset	NB Index	Max. Tune-up	Channel/Frequency(MHz)			
						26115/ 1857.5	26365/ 1882.5							26615/ 1907.5	26140/ 1860	26365/ 1882.5	26590/ 1905
	QPSK	1	0	0		25.70	25.66		25.49	QPSK	1	0	0		25.80	26.15	25.81
		1	0	3		25.64	25.62		25.46		1	0	3		25.77	25.93	25.78
1		5	8		25.73	25.69	25.54	1	5		12		25.75	25.79	25.77		
1		5	11		25.71	25.64	25.52	1	5		15		25.68	25.73	25.62		
3		0	0		25.82	25.84	25.65	3	0		0		25.84	25.94	25.82		
3		3	11		25.79	25.66	25.64	3	3		15		25.77	25.74	25.71		
6		0	0		25.75	25.87	25.65	6	0		0		25.78	25.69	25.67		
16QAM	1	0	0		25.83	25.77	25.67	16QAM	1	0	0		25.71	25.70	25.71		
	1	0	3		24.93	24.99	24.78		1	0	0		24.96	24.95	24.95		
	1	0	3		25.04	24.93	24.83		1	0	3		24.98	24.92	24.78		
	1	4	8		24.96	25.06	24.88		1	4	12		25.05	25.04	24.84		
	1	4	11		25.02	25.02	24.84		1	4	15		25.04	24.90	24.96		
	3	0	0		24.88	24.93	24.80		3	0	0		24.92	24.94	24.76		
	3	2	11		24.96	24.89	24.82		3	2	15		24.94	24.96	24.80		
16QAM	5	0	0		24.94	24.91	24.66	16QAM	5	0	0		24.93	24.77	24.82		
	5	0	11		24.93	24.82	24.71		5	0	15		24.98	24.83	24.75		

NB-IoT B2/BW=3.75kHz			EIRP (dBm)			NB-IoT B2/BW=15kHz			EIRP (dBm)		
Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)			Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)		
			18601/1850.1	18900/1880	19199/1909.9				18601/1850.1	18900/1880	19199/1909.9
BPSK	1@0		25.80	25.83	25.90	QPSK	1@0		25.75	26.00	25.86
	1@47		25.74	25.90	25.80		1@11		25.73	25.81	25.84
							3@3		25.77	25.87	25.80

NB-IoT B25/BW=3.75kHz			EIRP (dBm)			NB-IoT B25/BW=15kHz			EIRP (dBm)		
Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)			Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)		
			26041/1850.1	26365/1882.50	26689/1914.9				26041/1850.1	26365/1882.50	26689/1914.9
BPSK	1@0		25.83	25.90	25.83	QPSK	1@0		25.73	26.06	25.83
	1@47		25.78	25.87	25.85		1@11		25.71	25.81	25.81
							3@3		25.85	25.88	25.86

5.1.2 Radiated Spurious Emissions

Limit

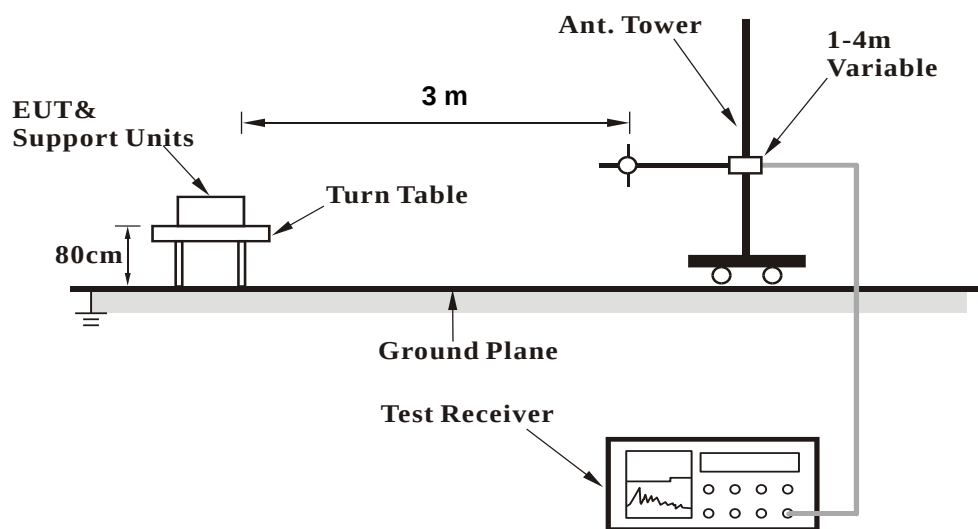
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

Kind of Test Site

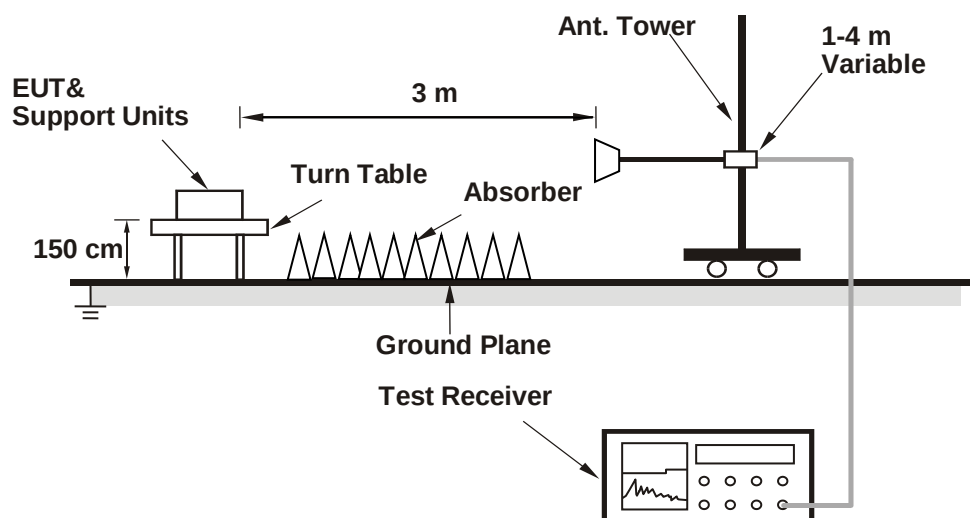
3m Semi-Anechoic Chamber

Test Setup

<Radiated Emissions below or equal to 1 GHz>



<Radiated Emissions above 1 GHz>



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

Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV40	101508	2021/3/16	2022/3/15
Receiver	R&S	ESR7	102109	2021/3/16	2022/3/15
Bilog Antenna	SCHWARZBECK	VULB-9168	00951	2021/2/18	2022/2/17
Horn Antenna	ETS-Lindgren	3117	00218930	2020/12/1	2021/11/30
LF-AMP	Agilent	8447D	2944A10772	2021/2/18	2022/2/17
HF-AMP + AC source	EMCI	EMC051845SE	980633	2021/2/9	2022/2/8
HF-AMP + AC source	EMCI	EMC184045SE	980657	2021/2/1	2022/1/31
Horn Antenna	SCHWARZBECK	BBHA 9170	00887	2021/4/8	2022/4/7
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104EA	800056/4EA	2021/3/17	2022/3/16
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104	804680/4	2021/3/17	2022/3/16
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104	MY37202/4	2021/3/17	2022/3/16
Microwave Cable	HUBER+SUHNER	SUCOFLEX 102EA	800898/2EA	2021/4/16	2022/4/15
Microwave Cable	HUBER+SUHNER	SUCOFLEX 102EA	800901/2EA	2021/4/16	2022/4/15
Microwave Cable	HUBER+SUHNER	SUCOFLEX 102EA	801027/2EA	2021/4/16	2022/4/15
Loop Antenna	Chance Most	EMCILPA600 +calibration	287	2021/1/15	2022/1/14

Test Procedures

- Substitution method is used for E.I.R.P. measurement. In the semi-anechoic chamber, EUT placed on the 0.8m (below or equal to 1 GHz) and/or 1.5m (above 1 GHz) height of turn table, rotated the table around horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the turn table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- E.I.R.P. = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
- E.R.P. can be calculated from E.I.R.P. by subtracting the gain of dipole, E.R.P. = E.I.R.P – 2.15 dB.

Note:

- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.
- Testing was carried out within frequency range 30 MHz to the tenth harmonic.
- All modes of operation were investigated and the worst-case emissions are reported.
- The Radiated Emissions testing was performed in the X, Y and Z axis orientation. The worst-case Axis orientation is recorded in this test report.

Test Results

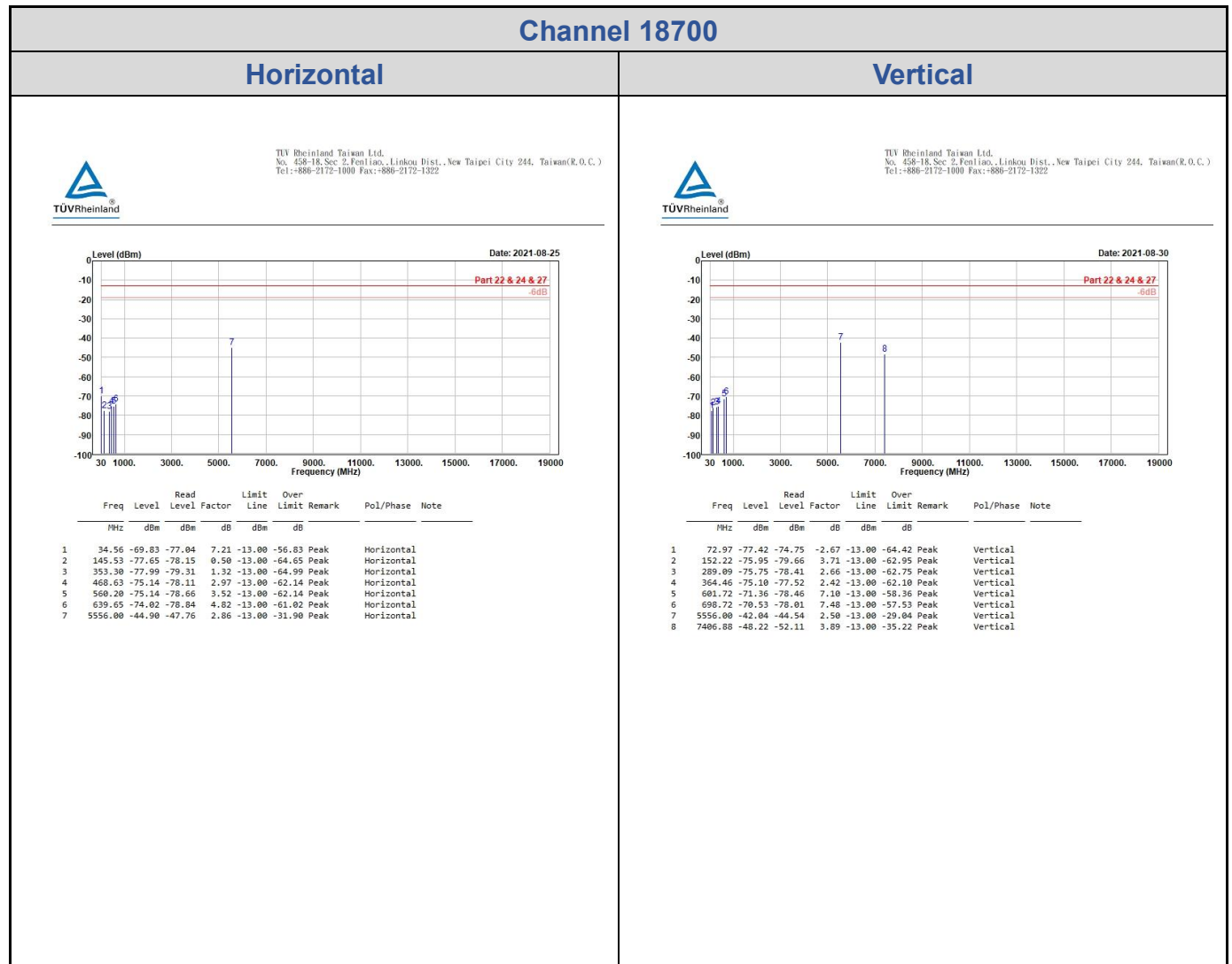
Please refer to Appendix A.

Appendix A: Test Results of Radiated Spurious Emissions

Link Mode, 30MHz ~ 10th

<Cat-M1>

LTE Band 2

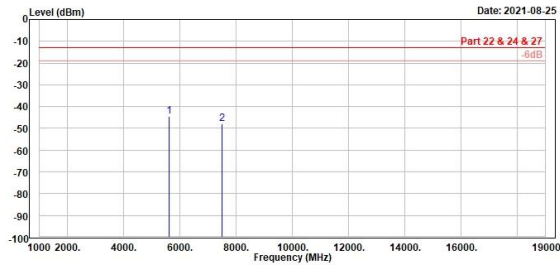


Channel 18900

Horizontal



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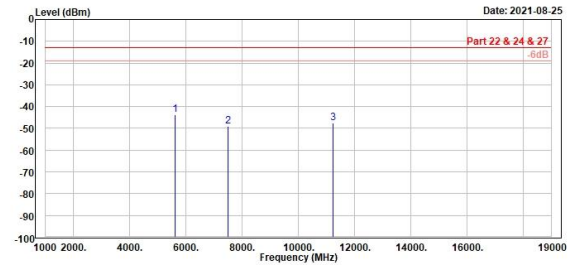


	Freq	Level	Read	Level	Factor	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	dBm	dB	dB	dB	dB			
1	5615.58	-44.32	-47.18	2.86	-13.00	-31.32	Peak	Horizontal	Horizontal	
2	7487.63	-47.87	-51.94	4.07	-13.00	-34.87	Peak	Horizontal	Horizontal	

Vertical



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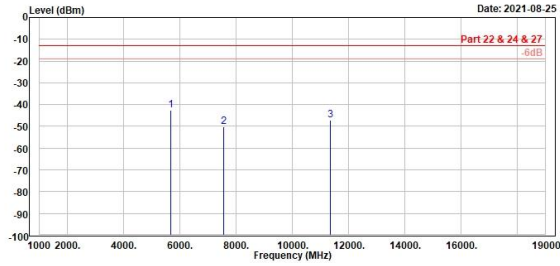
	Freq	Level	Read	Level	Factor	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	dBm	dB	dB	dB	dB			
1	5615.58	-43.64	-46.19	2.55	-13.00	-30.64	Peak	Vertical	Vertical	
2	7487.63	-48.98	-52.85	3.87	-13.00	-35.98	Peak	Vertical	Vertical	
3	11231.88	-47.62	-56.82	9.20	-13.00	-34.62	Peak	Vertical	Vertical	

Channel 19100

Horizontal



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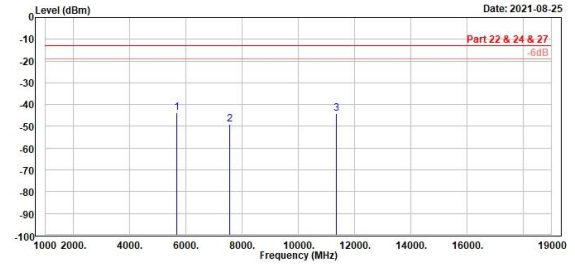


	Freq	Level	Read Level	Factor	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	dBm	dB	dBm	dB			
1	5675.00	-42.58	-45.46	2.88	-13.00	-29.58	Peak	Horizontal	
2	7568.38	-50.18	-54.32	4.14	-13.00	-37.18	Peak	Horizontal	
3	11358.88	-47.02	-56.60	9.58	-13.00	-34.02	Peak	Horizontal	

Vertical



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	Freq	Level	Read Level	Factor	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	dBm	dB	dBm	dB			
1	5675.00	-43.66	-46.27	2.61	-13.00	-30.66	Peak	Vertical	
2	7568.38	-49.13	-53.11	3.98	-13.00	-36.13	Peak	Vertical	
3	11358.88	-44.13	-53.61	9.48	-13.00	-31.13	Peak	Vertical	

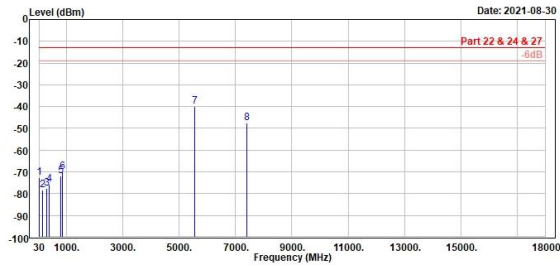
LTE Band 25

Channel 26140

Horizontal



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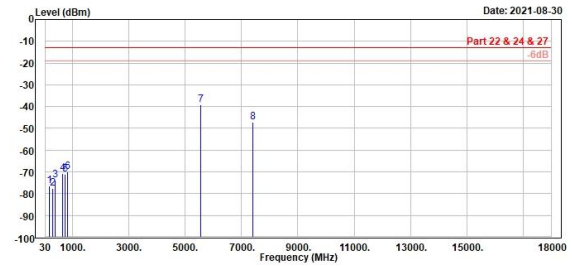


	Freq	Level	Read	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	Level	Line	Limit			
			Factor					
			dB	dB	dB			
1	36.01	-72.52	-79.65	7.13	-13.00	-59.52 Peak	Horizontal	
2	154.45	-78.39	-78.78	0.39	-13.00	-65.39 Peak	Horizontal	
3	289.09	-77.58	-76.32	-1.26	-13.00	-64.58 Peak	Horizontal	
4	385.51	-75.66	-77.98	2.32	-13.00	-62.66 Peak	Horizontal	
5	775.64	-71.72	-79.25	7.53	-13.00	-58.72 Peak	Horizontal	
6	839.08	-70.14	-78.46	8.32	-13.00	-57.14 Peak	Horizontal	
7	5553.88	-40.86	-42.92	2.86	-13.00	-27.86 Peak	Horizontal	
8	7484.75	-47.46	-51.55	4.09	-13.00	-34.46 Peak	Horizontal	

Vertical



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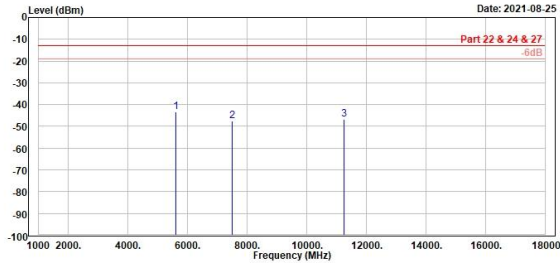
	Freq	Level	Read	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	Level	Line	Limit			
			Factor					
			dB	dB	dB			
1	158.43	-76.46	-80.09	3.63	-13.00	-63.46 Peak	Vertical	
2	289.18	-77.57	-80.23	2.66	-13.00	-64.57 Peak	Vertical	
3	385.41	-73.93	-76.49	2.56	-13.00	-60.93 Peak	Vertical	
4	647.41	-70.62	-78.49	7.87	-13.00	-57.62 Peak	Vertical	
5	748.82	-71.15	-79.27	8.12	-13.00	-58.15 Peak	Vertical	
6	817.35	-70.07	-78.47	8.40	-13.00	-57.07 Peak	Vertical	
7	5553.88	-39.16	-41.66	2.50	-13.00	-26.16 Peak	Vertical	
8	7484.75	-47.32	-51.21	3.89	-13.00	-34.32 Peak	Vertical	

Channel 26365

Horizontal



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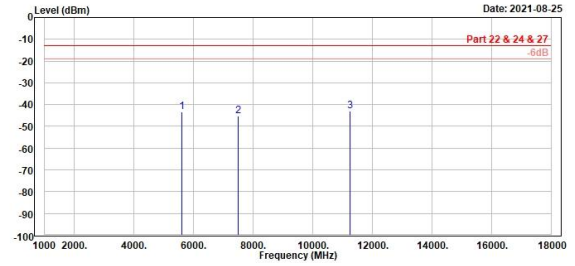


Freq	Level	Read Level	Factor	Limit	Over Limit	Remark	Pol/Phase	Note
MHz	dBm	dBm	dB	dBm	dB			
1 5621.88	-43.44	-46.31	2.87	-13.00	-30.44	Peak	Horizontal	
2 7496.13	-47.59	-51.66	4.07	-13.00	-34.59	Peak	Horizontal	
3 11242.50	-46.50	-55.91	9.33	-13.00	-33.50	Peak	Horizontal	

Vertical



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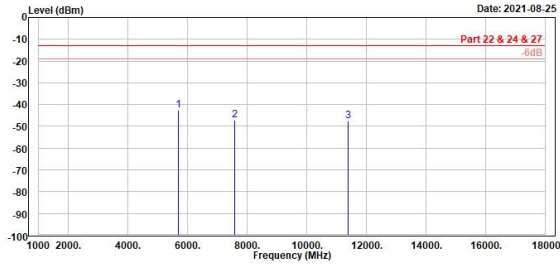
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MHz	dBm	dBm	dB	dBm	dB			
1 5621.88	-43.25	-45.81	2.56	-13.00	-30.25	Peak	Vertical	
2 7496.13	-45.35	-49.22	3.87	-13.00	-32.35	Peak	Vertical	
3 11244.63	-42.84	-52.07	9.23	-13.00	-29.84	Peak	Vertical	

Channel 26590

Horizontal



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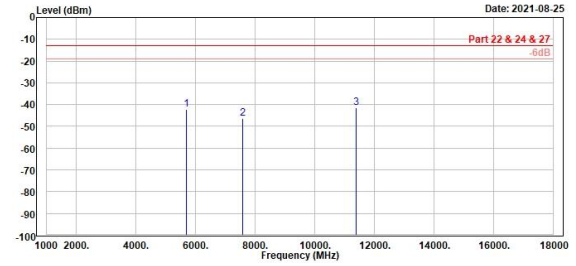


Freq	Level	Read Level	Factor	Limit	Over	Limit	Remark	Pol/Phase	Note
MHz	dBm	dBm	dB	dBm	dB	dB			
1 5689.88	-42.67	-45.55	2.88	-13.00	-29.67	Peak	Horizontal		
2 7585.38	-46.97	-51.12	4.15	-13.00	-33.97	Peak	Horizontal		
3 11378.50	-47.64	-57.29	9.65	-13.00	-34.64	Peak	Horizontal		

Vertical



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Freq	Level	Read Level	Factor	Limit	Over	Limit	Remark	Pol/Phase	Note
MHz	dBm	dBm	dB	dBm	dB	dB			
1 5689.88	-42.32	-44.95	2.63	-13.00	-29.32	Peak	Vertical		
2 7585.38	-46.52	-50.53	4.01	-13.00	-33.52	Peak	Vertical		
3 11378.50	-41.34	-50.89	9.55	-13.00	-28.34	Peak	Vertical		

<NB-IoT>

LTE Band 2

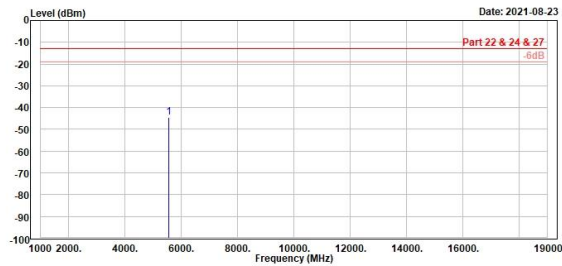
Channel 18601

Horizontal

Vertical



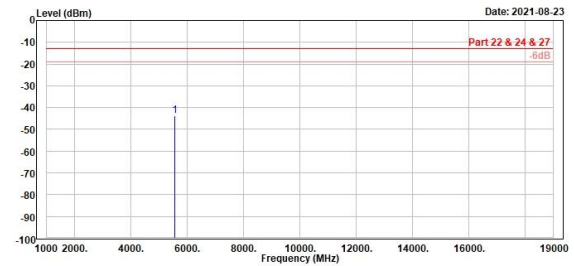
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Freq	Level	Read	Level	Factor	Limit	Over	Limit	Remark	Pol/Phase	Note
MHz	dBm	dBm	dB	dB	dB	dB	dB			
1	5550.00	-44.58	-47.43	2.85	-13.00	-31.58	Peak		Horizontal	



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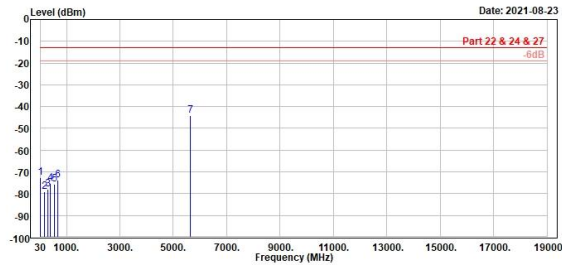
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MHz	dBm	dBm	dB	dB	dB	dB	dB			
1	5550.00	-43.80	-46.29	2.49	-13.00	-30.80	Peak		Vertical	

Channel 18900

Horizontal



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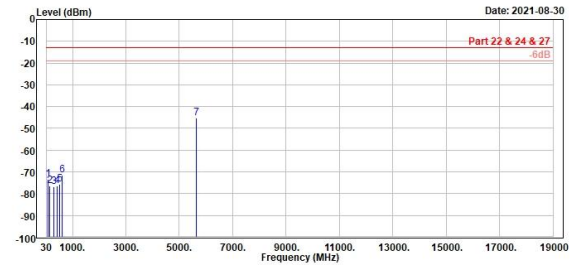


	Freq	Level	Read	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	Level	Line	Limit			
			Factor					
			dB	dBm	dB			
1	32.91	-72.68	-79.78	7.10	-13.00	-59.68 Peak	Horizontal	
2	170.94	-79.18	-78.69	-0.49	-13.00	-66.18 Peak	Horizontal	
3	288.99	-77.90	-76.64	-1.26	-13.00	-64.90 Peak	Horizontal	
4	385.51	-75.27	-77.59	2.32	-13.00	-62.27 Peak	Horizontal	
5	547.11	-75.65	-79.01	3.36	-13.00	-62.65 Peak	Horizontal	
6	660.60	-73.73	-78.80	5.07	-13.00	-60.73 Peak	Horizontal	
7	5640.00	-44.08	-46.95	2.87	-13.00	-31.08 Peak	Horizontal	

Vertical



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	Freq	Level	Read	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	Level	Line	Limit			
			Factor					
			dB	dBm	dB			
1	85.68	-73.49	-71.59	-1.90	-13.00	-60.49 Peak	Vertical	
2	151.06	-76.34	-80.05	3.71	-13.00	-63.34 Peak	Vertical	
3	288.99	-76.72	-79.38	2.66	-13.00	-63.72 Peak	Vertical	
4	423.24	-76.36	-79.28	2.92	-13.00	-63.36 Peak	Vertical	
5	526.54	-75.65	-79.82	4.17	-13.00	-62.65 Peak	Vertical	
6	622.86	-71.51	-78.97	7.46	-13.00	-58.51 Peak	Vertical	
7	5640.00	-45.33	-47.91	2.58	-13.00	-32.33 Peak	Vertical	

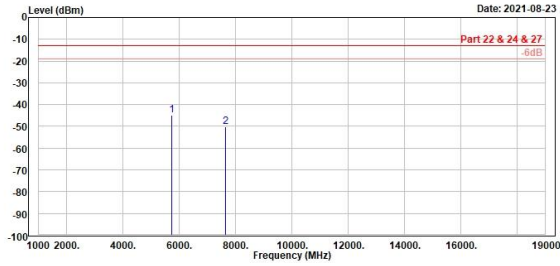
Channel 19199

Horizontal

Vertical



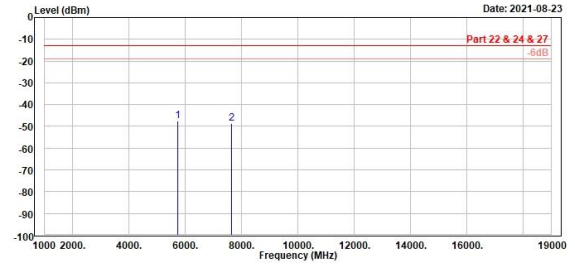
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	Freq	Level	Read	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	Level	Line	Limit			
			Factor					
			dB	dBm	dB			
1	5729.00	-44.83	-47.70	2.87	-13.00	-31.83 Peak	Horizontal	
2	7639.00	-50.12	-54.33	4.21	-13.00	-37.12 Peak	Horizontal	



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	Freq	Level	Read	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	Level	Line	Limit			
			Factor					
			dB	dBm	dB			
1	5729.00	-47.47	-50.13	2.66	-13.00	-34.47 Peak	Vertical	
2	7639.00	-48.67	-52.76	4.09	-13.00	-35.67 Peak	Vertical	

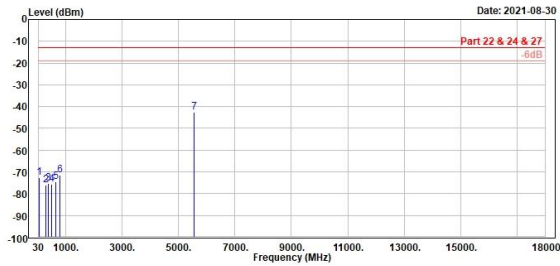
LTE Band 25

Channel 26041

Horizontal



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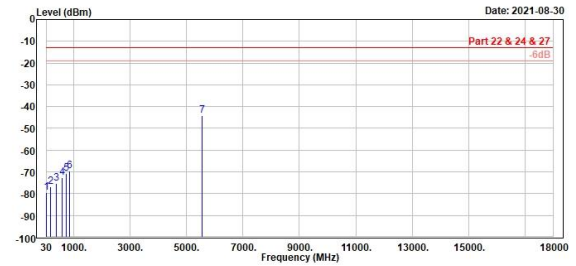


	Freq	Level	Read	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	Level	Line	Limit			
			Factor					
			dB	dBm	dB			
1	43.77	-72.55	-79.03	6.48	-13.00	-59.55 Peak	Horizontal	
2	289.09	-76.23	-74.97	-1.26	-13.00	-63.23 Peak	Horizontal	
3	385.41	-75.44	-77.75	2.31	-13.00	-62.44 Peak	Horizontal	
4	482.02	-75.57	-78.59	3.02	-13.00	-62.57 Peak	Horizontal	
5	634.89	-74.34	-79.08	4.74	-13.00	-61.34 Peak	Horizontal	
6	784.27	-71.61	-79.24	7.63	-13.00	-58.61 Peak	Horizontal	
7	5550.00	-42.54	-45.39	2.85	-13.00	-29.54 Peak	Horizontal	

Vertical



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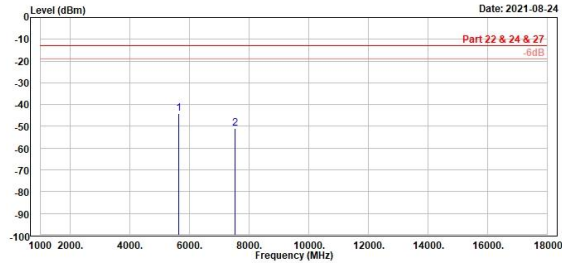
	Freq	Level	Read	Limit	Over	Remark	Pol/Phase	Note
	MHz	dBm	Level	Line	Limit			
			Factor					
			dB	dBm	dB			
1	36.50	-79.45	-74.11	-5.34	-13.00	-66.45 Peak	Vertical	
2	163.67	-76.94	-80.28	3.34	-13.00	-63.94 Peak	Vertical	
3	385.00	-75.16	-77.73	2.57	-13.00	-62.16 Peak	Vertical	
4	596.00	-72.56	-79.45	6.89	-13.00	-59.56 Peak	Vertical	
5	737.62	-70.87	-78.94	8.07	-13.00	-57.87 Peak	Vertical	
6	858.19	-69.41	-78.49	9.08	-13.00	-56.41 Peak	Vertical	
7	5550.00	-44.14	-46.63	2.49	-13.00	-31.14 Peak	Vertical	

Channel 26365

Horizontal



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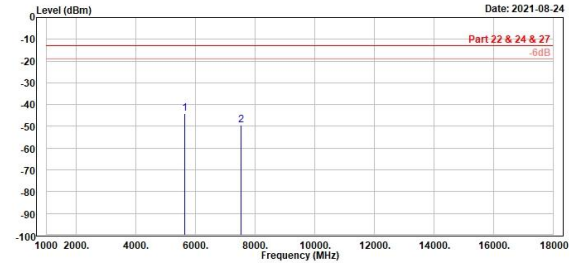


	Freq	Level	Read Level	Factor	Limit	Over Limit	Remark	Pol/Phase	Note
	MHz	dBm	dBm	dB	dBm	dB			
1	5648.00	-44.14	-47.01	2.87	-13.00	-31.14	Peak	Horizontal	
2	7530.00	-50.86	-54.95	4.09	-13.00	-37.86	Peak	Horizontal	

Vertical



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	Freq	Level	Read Level	Factor	Limit	Over Limit	Remark	Pol/Phase	Note
	MHz	dBm	dBm	dB	dBm	dB			
1	5647.00	-44.19	-46.77	2.58	-13.00	-31.19	Peak	Vertical	
2	7530.00	-49.44	-53.35	3.91	-13.00	-36.44	Peak	Vertical	

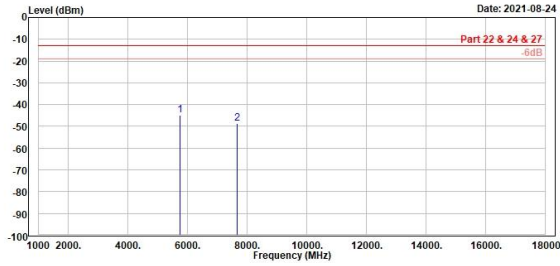
Channel 26689

Horizontal

Vertical



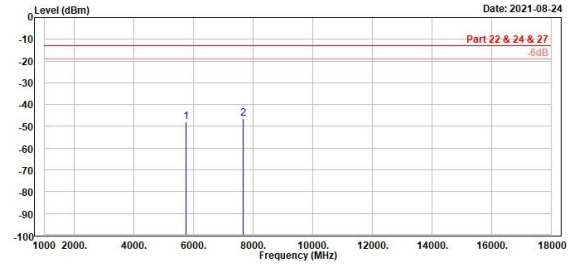
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	Freq	Level	Read Level Factor	Limit Line	Over Limit	Remark	Pol/Phase	Note
	MHz	dBm	dBm	dB	dBm	dB		
1	5744.00	-44.69	-47.57	2.88	-13.00	-31.69 Peak	Horizontal	
2	7659.00	-48.50	-52.73	4.23	-13.00	-35.50 Peak	Horizontal	



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	Freq	Level	Read Level Factor	Limit Line	Over Limit	Remark	Pol/Phase	Note
	MHz	dBm	dBm	dB	dBm	dB		
1	5744.00	-48.03	-50.71	2.68	-13.00	-35.03 Peak	Vertical	
2	7660.00	-46.55	-50.68	4.13	-13.00	-33.55 Peak	Vertical	