

Prüfbericht-Nr.: Test report no.:	CN213YZV (P90-WWAN) 001	Auftrags-Nr.: Order no.:	238517543	Seite 1 von 18 Page 1 of 18
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 90 Test report			
Prüfgrundlage: Test specification:	FCC 47CFR Part 90 Subpart S, R			
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 Laboratory Taipei			
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	
Stellung / Position:	Senior Project Manager	Stellung / Position:	Senior Project Manager	
Sonstiges / Other:	This report evaluated Radiated Spurious Emissions and ERP only. The other test items are referred to the module report no.: (NIE) 59675RRF.003 and 59675RRF.004 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. 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.				

TEST SUMMARY

Report Section	FCC Clause	Test Item	Result
5.1.1	2.1046 90.635(b)	Conducted Output Power and Effective Radiated Power	Pass
5.1.2	2.1053 90.691	Radiated Spurious Emissions	Pass

Note:

1. The mark "-" means that the standard applied to all the bands.
2. 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 (P90-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 47 CFR Part 2
FCC 47 CFR Part 90
KDB 971168 D01 Power Meas License Digital Systems v03r01
KDB 971168 D02 Misc Rev Approv License Devices v02r01
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 26 (1.4 MHz)	814.7 ~ 823.3 MHz
		LTE Band 26 (3 MHz)	815.5 ~ 822.5 MHz
		LTE Band 26 (5 MHz)	816.5 ~ 821.5 MHz
		LTE Band 26 (10 MHz)	819 MHz
	NB-IoT	LTE Band 26	814.1 ~ 823.9 MHz
Modulation	Cat-M1	QPSK, 16QAM	
	NB-IoT	BPSK, QPSK	
Operation Voltage	3.8 Vdc		
Antenna Information	PCB Antenna with 1.3 dBi gain		
Accessory Device	Refer to 4.3		

Maximum ERP

Item	Band		Value
Maximum ERP (dBm)	Cat-M1	LTE Band 26 (1.4 MHz)	22.18
		LTE Band 26 (3 MHz)	22.09
		LTE Band 26 (5 MHz)	22.27
		LTE Band 26 (10 MHz)	22.46
	NB-IoT	Band 26	22.40

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 Radiated Power (ERP)

- ☒ 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 26	1.4 MHz	26697 to 26783	26697, 26740, 26783	QPSK, 16QAM
		3 MHz	26705 to 26775	26705, 26740, 26775	QPSK, 16QAM
		5 MHz	26715 to 26765	26715, 26740, 26765	QPSK, 16QAM
		10 MHz	26740	26740	QPSK, 16QAM

EUT Configure Mode	Band	Available Channel	Tested Channel	Sub-Carrier Bandwidth	Modulation	Ntones
NB-IoT	LTE Band 26	26691 to 26789	26691, 26740, 26789	3.75 kHz	BPSK	1@47
				15 kHz	QPSK	3@3

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Test Report No.**Seite 11 von 18**
Page 11 of 18**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 26	10 MHz	26740	26740	QPSK	Z-plane

EUT Configure Mode	Band	Available Channel	Tested Channel	Sub-Carrier Bandwidth	Modulation	Ntones	Position
NB-IoT	LTE Band 26	26691 to 26789	26691, 26740, 26789	15 kHz	QPSK	3@3	Z-plane

Note: BLE is enabled.

Test Condition

Test Item	Ambient Temperature	Relative Humidity	Tested by
ERP	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:

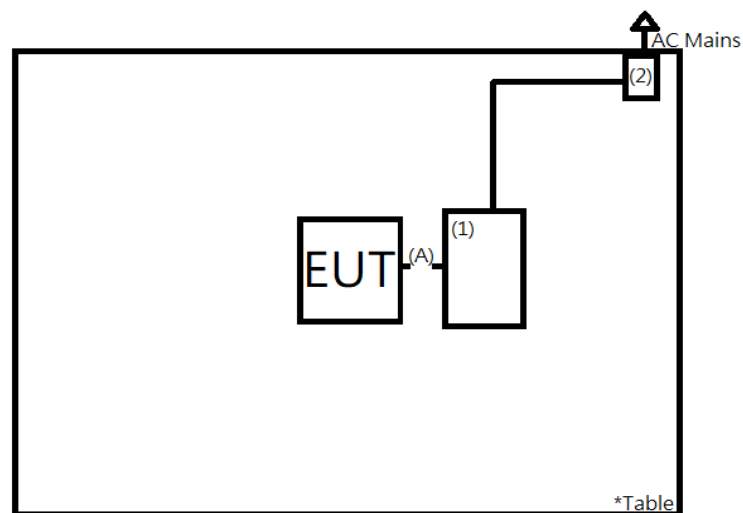
Accessory of EUT

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

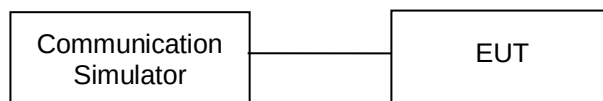
5.1.1 Conducted Output Power

Limit

According to §90.635(b): The EIRP must not exceed 100 Watts (20 dBw).

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 B26/BW=1.4M					Average Conducted Power (dBm)			LTE Cat-M1 B26/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)		
					26697/814.7	26740/819	26783/823.3						26705/815.5	26740/819	26775/822.5
QPSK	1	0	0	23.50	22.92	22.87	22.98	QPSK	1	0	0	23.50	22.91	22.94	22.92
	1	5	0	23.50	22.97	22.94	23.03		1	5	1	23.50	22.88	22.89	22.93
	3	0	0	22.50	22.12	22.05	22.09		3	0	0	22.50	22.03	22.06	22.08
	3	3	0	22.50	22.04	22.01	22.08		3	3	1	22.50	22.05	22.08	22.04
	6	0	0	21.50	20.96	21.07	21.17		6	0	0	21.50	21.05	21.06	21.07
									6	0	1	21.50	21.04	21.05	21.11
16QAM	1	0	0	23.00	22.22	22.32	22.09	16QAM	1	0	0	22.50	22.19	22.07	22.16
	1	4	0	22.50	22.27	22.16	22.24		1	4	1	22.50	22.17	22.21	22.15
	3	0	0	22.00	21.13	21.04	21.08		3	0	0	21.50	21.08	21.09	21.15
	3	2	0	22.00	21.06	21.17	21.19		3	2	1	21.50	21.16	21.04	21.12
	5	0	0	22.00	21.12	21.12	21.14		5	0	0	21.50	21.09	21.15	21.17
									5	0	1	21.50	21.06	21.13	21.14
LTE Cat-M1 B26/BW=5M					Average Conducted Power (dBm)			LTE Cat-M1 B26/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)		
					26715/816.5	26740/819	26765/821.5							26740/819	
QPSK	1	0	0	23.50	22.94	22.93	22.92	QPSK	1	0	0	23.50		23.31	
	1	0	3	23.50	22.89	22.88	22.99		1	0	3	23.50		23.28	
	1	5	0	23.50	22.94	22.90	22.96		1	5	4	23.50		23.25	
	1	5	3	23.50	22.98	22.91	22.98		1	5	7	23.50		23.27	
	3	0	0	23.00	22.07	22.08	22.01		3	0	0	23.50		23.23	
	3	3	3	23.00	22.04	22.18	22.16		3	3	7	23.50		23.16	
	6	0	0	22.50	22.08	21.99	22.02		6	0	0	22.50		22.19	
	6	0	3	22.50	22.07	22.10	22.07		6	0	7	22.50		22.21	
16QAM	1	0	0	23.50	22.96	22.95	22.94	16QAM	1	0	0	23.50		23.17	
	1	0	3	23.50	22.91	22.93	22.92		1	0	3	23.50		23.09	
	1	4	0	23.50	23.03	23.12	22.95		1	4	4	23.50		23.18	
	1	4	3	23.50	22.95	23.04	22.97		1	4	7	23.50		23.07	
	3	0	0	23.00	22.38	22.22	22.18		3	0	0	23.50		22.97	
	3	2	3	23.00	22.19	22.25	22.26		3	2	7	23.50		22.94	
	5	0	0	21.50	21.14	21.21	21.16		5	0	0	22.50		22.22	
	5	0	3	21.50	21.11	21.19	21.19		5	0	7	22.50		22.27	

NB-IoT B26/BW=3.75kHz			Average Conducted Power (dBm)			NB-IoT B26/BW=15kHz			Average Conducted Power (dBm)		
Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)			Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)		
			26691/814.1	26740/819	26789/823.9				26691/814.1	26740/819	26789/823.9
BPSK	1@0	23.50	23.08	23.04	22.98	QPSK	1@0	23.50	23.07	23.21	23.16
	1@47	23.50	23.01	22.96	23.03		1@11	23.50	23.04	23.17	23.11
							3@3	23.50	23.09	23.25	23.19

<ERP>

LTE Cat-M1 B26/BW=1.4M				ERP (dBm)				LTE Cat-M1 B26/BW=3M				ERP (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)		
					26697/ 814.7	26740/ 819	26783/ 823.3						26705/ 815.5	26740/ 819	26775/ 822.5
QPSK	1	0	0		22.07	22.02	22.13	QPSK	1	0	0		22.06	22.09	22.07
	1	5	0		22.12	22.09	22.18		1	5	1		22.03	22.04	22.08
	3	0	0		21.27	21.20	21.24		3	0	0		21.18	21.21	21.23
	3	3	0		21.19	21.16	21.23		3	3	1		21.20	21.23	21.19
	6	0	0		20.11	20.22	20.32		6	0	0		20.20	20.21	20.22
									6	0	1		20.19	20.20	20.26
16QAM	1	0	0		21.37	21.47	21.24	16QAM	1	0	0		21.34	21.22	21.31
	1	4	0		21.42	21.31	21.39		1	4	1		21.32	21.36	21.30
	3	0	0		20.28	20.19	20.23		3	0	0		20.23	20.24	20.30
	3	2	0		20.21	20.32	20.34		3	2	1		20.31	20.19	20.27
	5	0	0		20.27	20.27	20.29		5	0	0		20.24	20.30	20.32
									5	0	1		20.21	20.28	20.29
LTE Cat-M1 B26/BW=5M				ERP (dBm)				LTE Cat-M1 B26/BW=10M				ERP (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)		
					26715/ 816.5	26740/ 819	26765/ 821.5							26740/ 819	
QPSK	1	0	0		22.09	22.08	22.07	QPSK	1	0	0			22.46	
	1	0	3		22.04	22.03	22.14		1	0	3			22.43	
	1	5	0		22.09	22.05	22.11		1	5	4			22.40	
	1	5	3		22.13	22.06	22.13		1	5	7			22.42	
	3	0	0		21.22	21.23	21.16		3	0	0			22.38	
	3	3	3		21.19	21.33	21.31		3	3	7			22.31	
	6	0	0		21.23	21.14	21.17		6	0	0			21.34	
16QAM	6	0	3	21.22	21.25	21.22	6	0	7		21.36				
	1	0	0	22.11	22.10	22.09	16QAM	1	0	0			22.32		
	1	0	3	22.06	22.08	22.07		1	0	3			22.24		
	1	4	0	22.18	22.27	22.10		1	4	4			22.33		
	1	4	3	22.10	22.19	22.12		1	4	7			22.22		
	3	0	0	21.53	21.37	21.33		3	0	0			22.12		
	3	2	3	21.34	21.40	21.41		3	2	7			22.09		
5	0	0	20.29	20.36	20.31	5		0	0			21.37			
	5	0	3	20.26	20.34	20.34		5	0	7		21.42			

NB-IoT B26/BW=3.75kHz		ERP (dBm)				NB-IoT B26/BW=15kHz		ERP (dBm)			
Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)			Modulation	Ntones	Max. Tune-up	Channel/Frequency(MHz)		
			26691/814.1	26740/819	26789/823.9				26691/814.1	26740/819	26789/823.9
BPSK	1@0		22.23	22.19	22.13	QPSK	1@0		22.22	22.36	22.31
	1@47		22.16	22.11	22.18		1@11		22.19	22.32	22.26
							3@3		22.24	22.40	22.34

5.1.2 Radiated Spurious Emissions and Band Edges

Limit

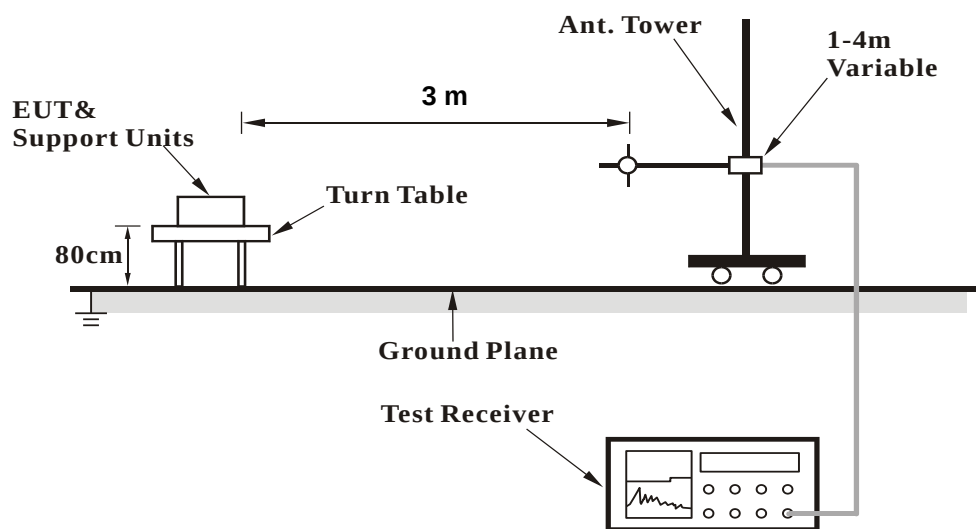
§90.691: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P)$ dB. The limit of emission is equal to -13 dBm.

Kind of Test Site

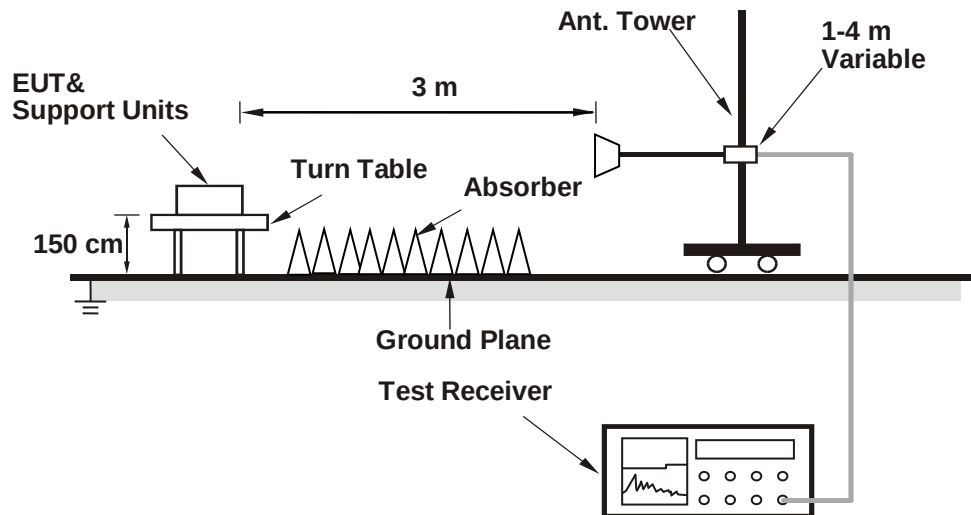
3m Semi-Anechoic Chamber

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

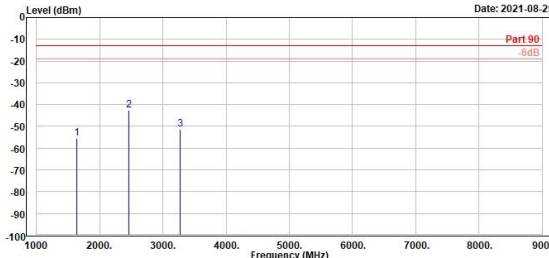
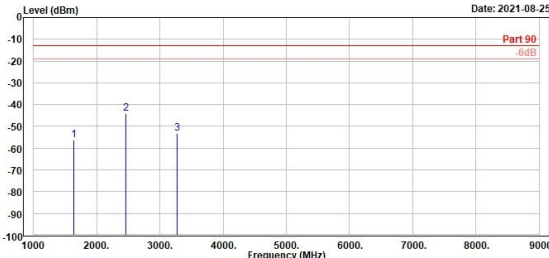
Please refer to Appendix A.

Appendix A: Test Results of Radiated Spurious Emissions

Link Mode, 30MHz ~ 10th

<Cat-M1>

LTE Band 26

Channel 26740										
Horizontal						Vertical				
 TUV Rheinland Taiwan Ltd. No. 458-18, Sec. 2, Fenlian, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.) Tel: +886-2172-1000 Fax: +886-2172-1322						 TUV Rheinland Taiwan Ltd. No. 458-18, Sec. 2, Fenlian, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.) Tel: +886-2172-1000 Fax: +886-2172-1322				
Level (dBm) Date: 2021-08-25 						Level (dBm) Date: 2021-08-25 				
Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase
MHz	dBm	dBm	dB	dB	dBm	dB	cm	deg		Note
1	1638.00	-55.47	-46.68	-8.79	-13.00	-42.47	---	---	Peak	Horizontal
2	2457.00	-42.75	-37.95	-4.80	-13.00	-29.75	---	---	Peak	Horizontal
3	3276.00	-51.27	-49.07	-2.20	-13.00	-38.27	---	---	Peak	Horizontal
Freq	Level	Read	Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase
MHz	dBm	dBm	dB	dB	dBm	dB	cm	deg		Note
1	1638.00	-56.27	-48.89	-7.38	-13.00	-43.27	---	---	Peak	Vertical
2	2457.00	-43.95	-40.67	-3.28	-13.00	-30.95	---	---	Peak	Vertical
3	3276.00	-53.07	-51.69	-1.38	-13.00	-40.07	---	---	Peak	Vertical

<NB-IoT>

LTE Band 26

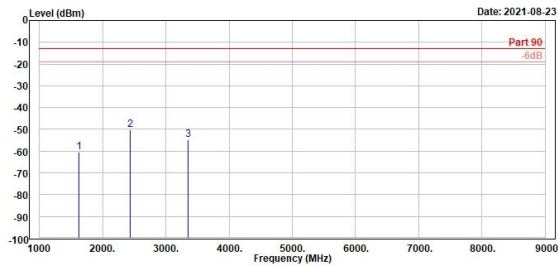
Channel 26691

Horizontal

Vertical



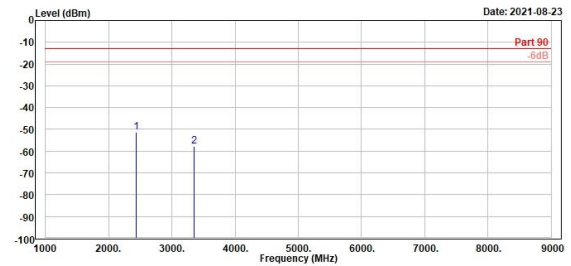
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Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBm	Level	Line	Limit	dB	dB	cm	deg	
1	1628.20	-60.36	-49.35	-11.01	-13.00	-47.36	---	---	Peak
2	2442.30	-50.37	-43.36	-7.01	-13.00	-37.37	---	---	Peak
3	3356.00	-54.66	-50.54	-4.12	-13.00	-41.66	---	---	Peak



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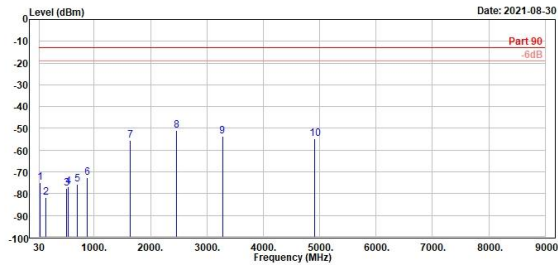
Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBm	Level	Line	Limit	dB	dB	cm	deg	
1	2442.30	-51.39	-45.90	-5.49	-13.00	-38.39	---	---	Peak
2	3356.00	-57.89	-54.51	-3.38	-13.00	-44.89	---	---	Peak

Channel 26740

Horizontal



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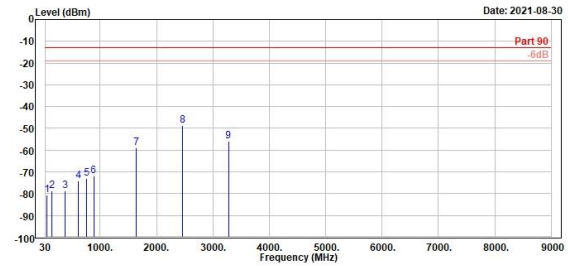


	Freq	Level	Read Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBm	dBm	dB	dBm	dB	cm	deg			
1	43.00	-74.90	-79.28	4.38	-13.00	-61.90	---	---	Peak	Horizontal	
2	137.38	-81.74	-79.78	-1.96	-13.00	-68.74	---	---	Peak	Horizontal	
3	506.95	-77.66	-78.64	0.98	-13.00	-64.66	---	---	Peak	Horizontal	
4	539.06	-76.80	-77.97	1.17	-13.00	-63.80	---	---	Peak	Horizontal	
5	695.91	-75.82	-78.98	3.08	-13.00	-62.82	---	---	Peak	Horizontal	
6	871.67	-72.70	-79.24	6.54	-13.00	-59.70	---	---	Peak	Horizontal	
7	1638.00	-55.52	-44.58	-10.94	-13.00	-42.52	---	---	Peak	Horizontal	
8	2457.00	-51.82	-44.07	-6.95	-13.00	-38.02	---	---	Peak	Horizontal	
9	3276.00	-53.71	-49.36	-4.35	-13.00	-40.71	---	---	Peak	Horizontal	
10	4914.00	-54.59	-54.13	-0.46	-13.00	-41.59	---	---	Peak	Horizontal	

Vertical



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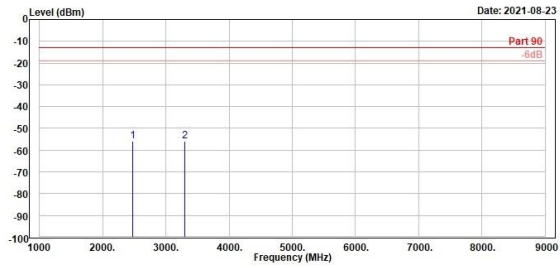
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	MHz	dBm	dBm	dB	dBm	dB	cm	deg			
1	57.55	-80.75	-76.10	-4.65	-13.00	-67.75	---	---	Peak	Vertical	
2	158.09	-78.70	-80.28	1.58	-13.00	-65.70	---	---	Peak	Vertical	
3	385.51	-78.67	-79.09	0.42	-13.00	-65.67	---	---	Peak	Vertical	
4	612.87	-74.25	-79.40	5.15	-13.00	-61.25	---	---	Peak	Vertical	
5	754.38	-72.85	-78.96	6.11	-13.00	-59.85	---	---	Peak	Vertical	
6	884.76	-71.86	-79.09	7.23	-13.00	-58.86	---	---	Peak	Vertical	
7	1638.00	-58.77	-49.24	-9.53	-13.00	-45.77	---	---	Peak	Vertical	
8	2457.00	-48.62	-43.39	-5.43	-13.00	-35.62	---	---	Peak	Vertical	
9	3276.00	-55.72	-52.19	-3.53	-13.00	-42.72	---	---	Peak	Vertical	

Channel 26789

Horizontal



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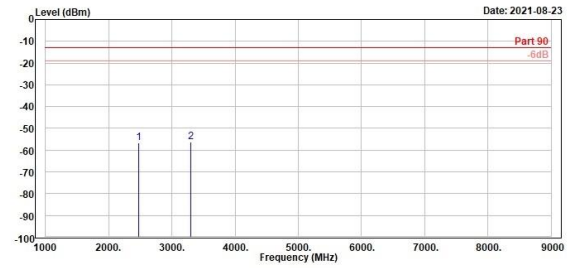


	Freq	Level	Read Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBm	dBm	dB	dBm	dB	cm	deg			
1	2471.00	-55.89	-49.00	-6.89	-13.00	-42.89	---	---	Peak	Horizontal	
2	3295.00	-56.05	-51.75	-4.30	-13.00	-43.05	---	---	Peak	Horizontal	

Vertical



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	Freq	Level	Read Level	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBm	dBm	dB	dBm	dB	cm	deg			
1	2471.00	-56.49	-51.11	-5.38	-13.00	-43.49	---	---	Peak	Vertical	
2	3295.00	-56.15	-52.66	-3.49	-13.00	-43.15	---	---	Peak	Vertical	