

FCC Test Report

(Co-Located)

Report No.: RFBCKS-WTW-P25050539-2

FCC ID: LXC-V2X-OBV-5931

Test Model: OBU-5931

Received Date: 2024/7/15

Test Date: 2025/6/26

Issued Date: 2025/7/9

Applicant: DENSO International America, Inc.

Address: 2251 Rutherford Road Suite 100, Carlsbad, California, 92008-8815 United States

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: 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
RFBCKS-WTW-P25050539-2	Original Release	2025/7/9

1 Certificate of Conformity

Product: On-Board Unit

Brand: MobiQ

Test Model: OBU-5931

Sample Status: Engineering sample

Applicant: DENSO International America, Inc.

Test Date: 2025/6/26

Standards: 47 CFR FCC Part 22, Subpart H
47 CFR FCC Part 24, Subpart E
47 CFR FCC Part 27, Subpart C, H, L, M
47 CFR FCC Part 90, Subpart I, S
47 CFR FCC Part 95, Subpart L
47 CFR FCC Part 2
ANSI 63.26-2015
ANSI C63.10-2013

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 : Pettie Chen , **Date:** 2025/7/9
Pettie Chen / Senior Specialist

Approved by : Jeremy Lin , **Date:** 2025/7/9
Jeremy Lin / Project Engineer

2 Summary of Test Results

Applied Standard	47 CFR FCC Part 22, Subpart H 47 CFR FCC Part 24, Subpart E 47 CFR FCC Part 27, Subpart C, H, L, M 47 CFR FCC Part 90, Subpart I, S 47 CFR FCC Part 95, Subpart L ANSI 63.26-2015		
FCC Clause	Test Item	Result	Remarks
Part 22.917 FCC 47 CFR Part 27.53(m) Part 2.1053 Part 95, Subpart L	Radiated Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -18.68dB at 11830.00MHz.

Note: 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) ($\pm$)
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3 dB
	30 MHz ~ 1 GHz	2.92 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	1.76 dB
	18 GHz ~ 40 GHz	1.77 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	On-Board Unit	
Brand	MobiQ	
Test Model	OBU-5931	
Sample Status	Engineering sample	
Power Supply Rating	DC12V	
Modulation Type	GPRS	GMSK
	EDGE	8PSK
	LTE	QPSK, 16QAM, 64QAM
	CV2X	QPSK
Operating Frequency	GSM, EDGE 850	824.2MHz ~ 848.8MHz
	GSM, EDGE 1900	1850.2MHz ~ 1909.8MHz
	LTE Band 2	1850.7MHz ~ 1909.3MHz
	LTE Band 4	1710.7MHz ~ 1754.3MHz
	LTE Band 5	824.7MHz ~ 848.3MHz
	LTE Band 7	2502.5MHz ~ 2567.5MHz
	LTE Band 12	699.7MHz ~ 715.3MHz
	LTE Band 14	790.5MHz ~ 795.5MHz
	LTE Band 17	706.5MHz ~ 713.5MHz
	LTE Band 25	1850.7MHz ~ 1914.3MHz
	LTE Band 26	824.7MHz ~ 848.3MHz
	LTE Band 26	814.7MHz ~ 823.3MHz
	LTE Band 66	1710.7MHz ~ 1779.3MHz
	CV2X	5915MHz
Antenna Type	Refer to Note	
Antenna Connector	Refer to Note	
Accessory Device	NA	

Note:

1. The antenna information is listed as below.

<WWAN antenna>

Type	Dipole											
Connector	SMA											
Band	GSM 850 / EDGE 850	GSM 1900 / EDGE 1900	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B14	LTE B17	LTE B25	LTE B26	LTE B66
Gain (dBi)	3.4	5.9	5.9	5.9	3.4	4.1	4.1	4.1	4.1	5.9	3.4	5.9
Cable loss	2.06	4.15	4.15	4.35	2.06	3.05	2.1	2.1	2.1	4.15	2.06	4.35
Gain With cable loss (dBi)	1.34	1.75	1.75	1.55	1.34	1.05	2	2	2	1.75	1.34	1.55

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

<CV2X antenna>

Type	Connector	Gain (dBi)	
		Ant. 0	Ant. 1
V2X	Fakra	5.18	5.50

* Ant. 1 was chosen for final test.

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

2. For WWAN, the channel with the maximum power is chosen for the final tests.

3. The WWAN module (Brand: WNC, Model: UMC-MT2731CBN, FCC ID: NKRUMC-MT2731CBN) is collocated in this EUT.

3.2 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to		Description
	RE $\geq$ 1G	RE<1G	
-	√	√	-

Where RE $\geq$ 1G: Radiated Emission above 1GHz & Bandedge Measurement
RE<1G: Radiated Emission below 1GHz

Radiated Emission Test (Above 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Type
-	CV2X + GSM 850	5905-5925	183	183 + 189	QPSK
		824.2-848.8	128 to 251		GMSK
-	CV2X + LTE Band 7 (20MHz)	5905-5925	183	183 + 21100	QPSK
		2502.5-2567.5	20850 to 21350		QPSK

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Type
-	CV2X + GSM 850	5905-5925	183	183 + 189	QPSK
		824.2-848.8	128 to 251		GMSK
-	CV2X + LTE Band 7 (20MHz)	5905-5925	183	183 + 21100	QPSK
		2502.5-2567.5	20850 to 21350		QPSK

Test Condition:

Applicable to	Environmental Conditions	Input Power (System)	Tested by
RE $\geq$ 1G	23 deg. C, 67% RH	12Vdc	Adair Peng
RE<1G	23 deg. C, 67% RH	12Vdc	Adair Peng

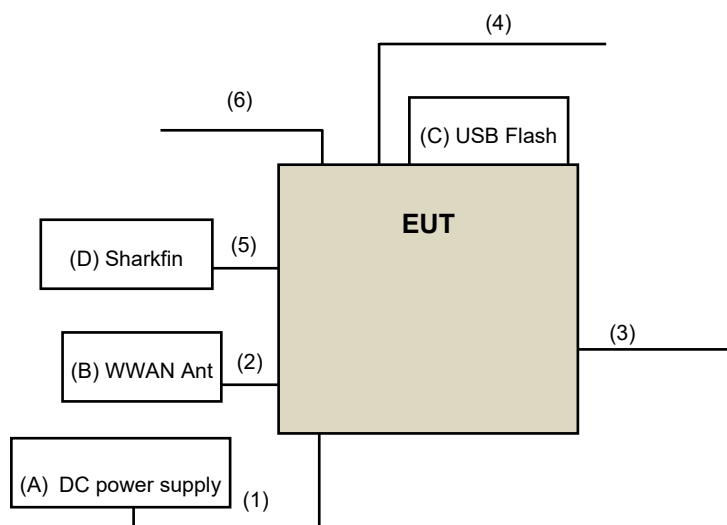
3.3 Description of Support Units

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.

No.	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	DC Power Supply	Topward	6603A	725906	NA	Provided by Lab
B	WWAN Ant	TE	ANT-LTE-WS-SMA	NA	NA	Supplied by applicant
C	USB Flash	SanDisk	SDDDC3	032G	NA	Provided by Lab
D	Sharkfin	WNC	81VYAC15.G01	NA	NA	Accessory

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC power cable	1	10	No	0	Supplied by applicant
2	WWAN Ant cable	2	3	No	0	Supplied by applicant
3	Micro USB cable	1	1	Yes	0	Supplied by applicant
4	HDMI cable	1	1	Yes	0	Provided by Lab
5	Sharkfin Ant cable	3	3	No	0	Supplied by applicant
6	Audio cable	1	1.5	No	0	Provided by Lab

3.3.1 Configuration of System under Test



3.4 General Description of Applied Standards

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

47 CFR FCC Part 22

47 CFR FCC Part 24

47 CFR FCC Part 27

47 CFR FCC Part 90

47 CFR FCC Part 95

47 CFR FCC Part 2

ANSI 63.26-2015

ANSI C63.10-2013

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

WWAN:

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. The emission limit equal to -13dBm .

CV2X:

Conducted emissions limits measured at the antenna input shall not exceed:

- (1) $-16\text{ dBm}/100\text{ kHz}$ within ± 1 megahertz of the band edges;
- (2) $-13\text{ dBm}/\text{MHz}$ within ± 1 megahertz to ± 5 megahertz of the band edges;
- (3) $-16\text{ dBm}/\text{MHz}$ within ± 5 megahertz to ± 30 megahertz of the band edges; and
- (4) $-28\text{ dBm}/\text{MHz}$ beyond 30 megahertz from the band edges.

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower KaiTuo	NA	NA	NA	NA
Antenna Tower Controller KaiTuo	KT-2000	NA	NA	NA
Turn Table Max-Full	MFT-151SS-0.5T	NA	NA	NA
Turn Table Controller Max-Full	MF-7802BS	MF780208675	NA	NA
MXE EMI Receiver Agilent	N9038A	MY52260177	2024/9/19	2025/9/18
PXA Signal Analyzer Keysight	N9030B	MY57140488	2025/3/11	2026/3/10
Loop Antenna TESEQ	HLA 6121	45745	2024/8/21	2025/8/20
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-9000	201252(with PAD)	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-3000	201250	2025/1/14	2026/1/13
Preamplifier EMCI	EMC330N	980783	2025/1/14	2026/1/13
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-995	2024/10/9	2025/10/8
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-500	201245	2025/1/14	2026/1/13
Horn Antenna RFSPIN	DRH18-E	210104A18E	2024/11/10	2025/11/9
Preamplifier EMCI	EMC118A45SE	980810	2024/12/26	2025/12/25
RF Coaxial Cable EMCI	EMC104-SM-SM-9000	201230	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMC104-SM-SM-3000	201242	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMC104-SM-SM-1000	210101	2025/1/14	2026/1/13
Preamplifier EMCI	EMC184045SE	980787	2025/1/14	2026/1/13
Horn Antenna Schwarzbeck	BBHA 9170	9170-1048	2024/11/10	2025/11/9
RF Coaxial Cable EMCI	EMC101G-KM-KM-5000	201261	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMC101G-KM-KM-3000	201258	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2025/1/14	2026/1/13

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in WM Chamber 7.

4.1.3 Test Procedures

The EUT is configured by test software or key-in commands to set data modulation and maximum power using WWAN technology.

- a. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) height or 1.5 m height (above 1GHz) 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 ANSI C63.26 section 5.5 and 5.2.7
- e. $EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m.
- f. $ERP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8 - 2.15$; where D is the measurement distance (in the far field region) in m.

Note:

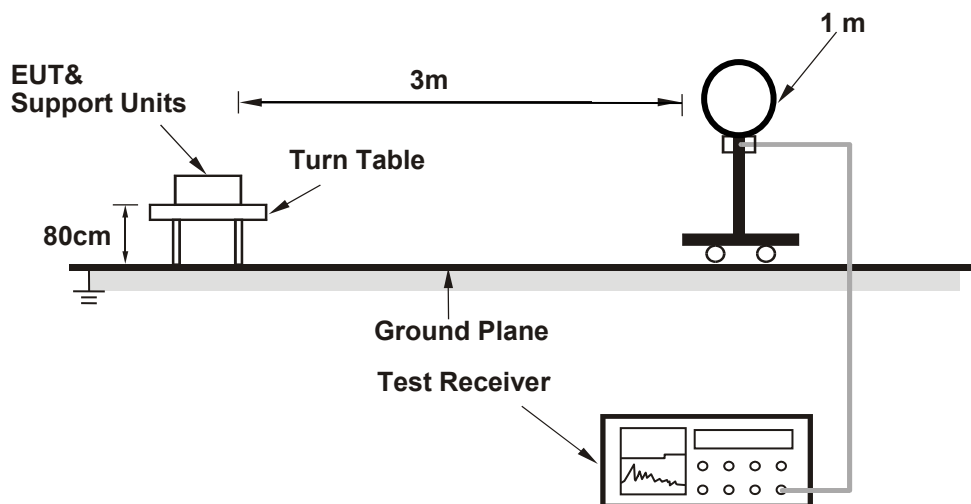
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz.
Set detector = average.

4.1.4 Deviation from Test Standard

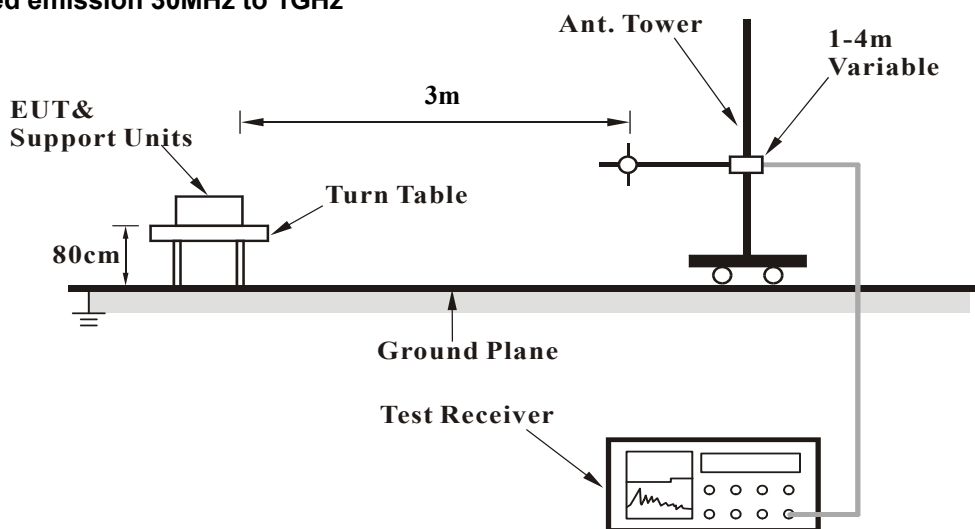
No deviation.

4.1.5 Test Setup

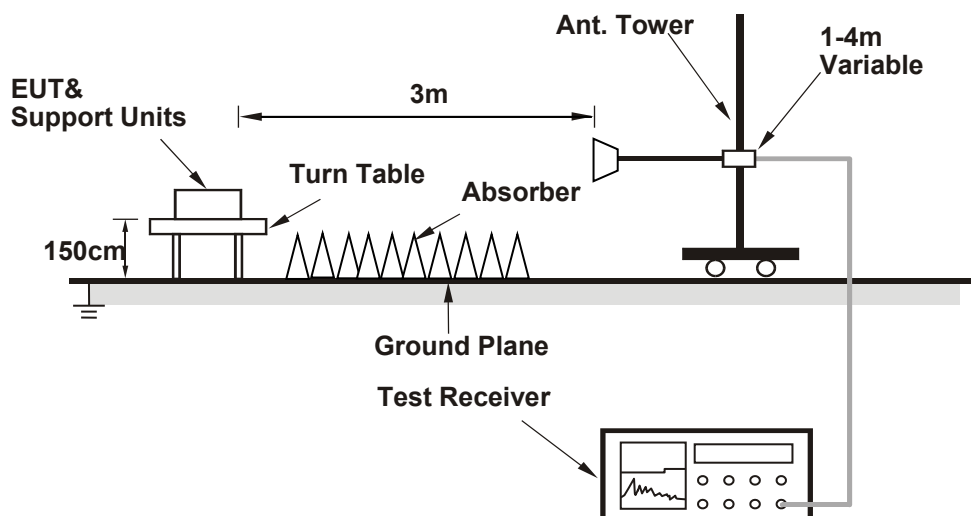
For Radiated emission below 30MHz



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).

4.1.6 EUT Operating Conditions

Set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz Data:

CV2X + GSM 850

RF Mode	CV2X	Channel	CH 183 : 5915 MHz
Frequency Range	1GHz ~ 40GHz		

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	11830.00	-47.13	-28.00	-19.13	1.42 H	166	32.88	-80.01
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	11830.00	-46.68	-28.00	-18.68	1.91 V	123	33.33	-80.01

Remarks:

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

RF Mode	GSM 850	Channel	CH 189 : 836.4 MHz
Frequency Range	1GHz ~ 18GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1672.80	-40.92	-13.00	-27.92	1.59 H	101	62.93	-103.85
2	2509.20	-46.05	-13.00	-33.05	1.15 H	151	54.82	-100.87
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1672.80	-40.40	-13.00	-27.40	1.69 V	341	63.45	-103.85
2	2509.20	-45.69	-13.00	-32.69	1.42 V	55	55.18	-100.87

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit.

CV2X + LTE Band 7 (20MHz)

RF Mode	CV2X	Channel	CH 183 : 5915 MHz
Frequency Range	1GHz ~ 40GHz		

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	11830.00	-47.15	-28.00	-19.15	1.49 H	165	32.86	-80.01
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	11830.00	-46.69	-28.00	-18.69	1.97 V	125	33.32	-80.01

Remarks:

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

RF Mode	LTE Band 7 (20MHz)	Channel	CH 21100 : 2535.0 MHz
Frequency Range	1GHz ~ 27GHz		

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	5070.00	-50.23	-25.00	-25.23	1.20 H	49	42.38	-92.61
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	5070.00	-50.88	-25.00	-25.88	1.22 V	164	41.73	-92.61

Remarks:

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

Below 1GHz data

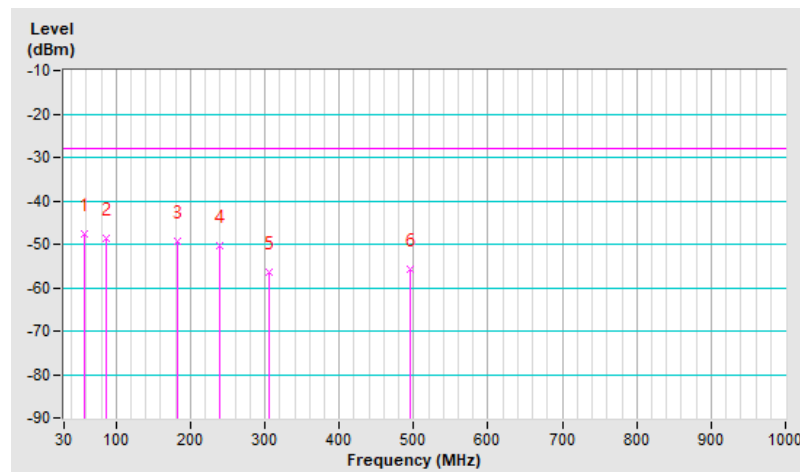
CV2X + GSM 850

Channel	CH 183 : 5915 MHz	Frequency Range	9kHz ~ 1GHz
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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	57.22	-47.52	-28.00	-19.52	1.99 H	266	57.15	-104.67
2	86.26	-48.63	-28.00	-20.63	1.99 H	190	60.87	-109.50
3	183.26	-49.20	-28.00	-21.20	1.00 H	78	56.06	-105.26
4	238.55	-50.36	-28.00	-22.36	1.49 H	173	54.28	-104.64
5	305.48	-56.40	-28.00	-28.40	1.00 H	81	45.31	-101.71
6	495.60	-55.79	-28.00	-27.79	1.49 H	6	42.35	-98.14

Remarks:

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

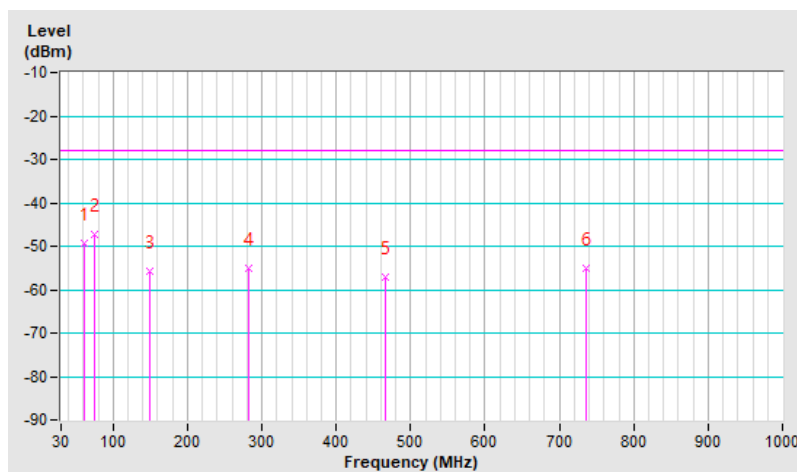


Channel	CH 183 : 5915 MHz	Frequency Range	9kHz ~ 1GHz
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ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	61.04	-49.47	-28.00	-21.47	1.00 V	94	55.39	-104.86
2	75.23	-47.26	-28.00	-19.26	1.50 V	266	60.11	-107.37
3	148.34	-55.61	-28.00	-27.61	1.00 V	110	48.07	-103.68
4	283.17	-54.97	-28.00	-26.97	1.00 V	144	47.33	-102.30
5	465.53	-57.11	-28.00	-29.11	1.00 V	29	41.31	-98.42
6	736.16	-55.01	-28.00	-27.01	1.99 V	112	38.59	-93.60

Remarks:

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

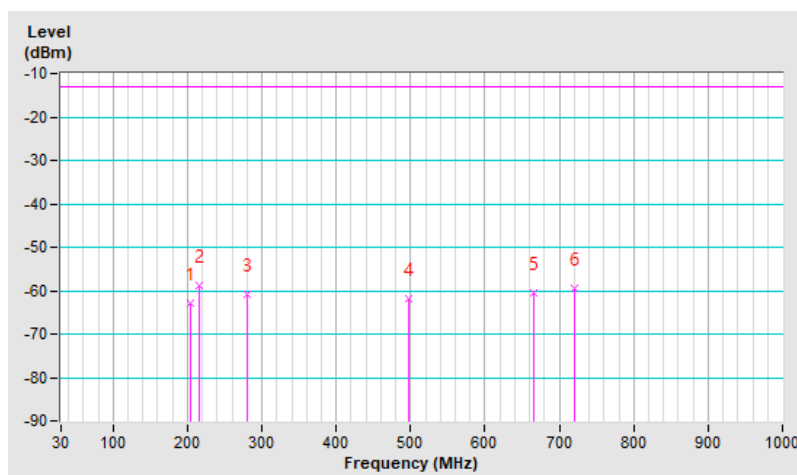


Channel	CH 189 : 836.4 MHz	Frequency Range	Below 1000 MHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	204.60	-62.96	-13.00	-49.96	1.50 H	225	51.07	-114.03
2	215.33	-58.74	-13.00	-45.74	1.50 H	111	55.15	-113.89
3	280.25	-60.88	-13.00	-47.88	2.00 H	199	49.44	-110.32
4	497.23	-61.71	-13.00	-48.71	2.00 H	44	43.22	-104.93
5	666.12	-60.44	-13.00	-47.44	1.50 H	344	41.23	-101.67
6	720.15	-59.65	-13.00	-46.65	1.50 H	233	41.12	-100.77

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit.

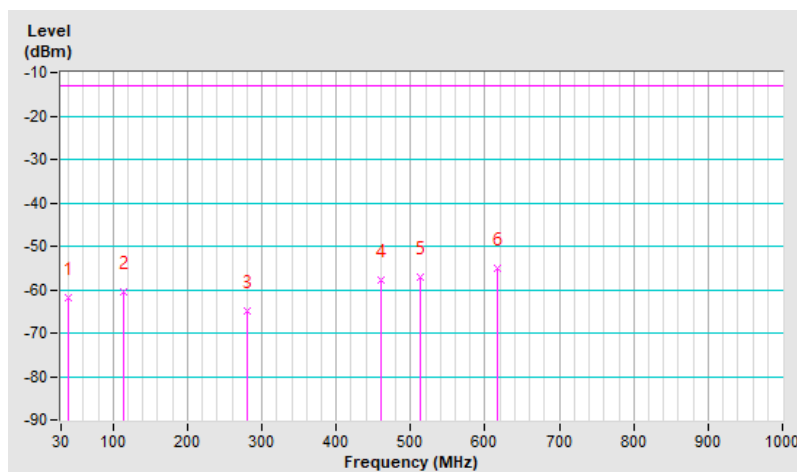


Channel	CH 189 : 836.4 MHz	Frequency Range	Below 1000 MHz
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Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	39.12	-61.78	-13.00	-48.78	2.00 V	355	49.11	-110.89
2	113.22	-60.47	-13.00	-47.47	1.50 V	150	52.77	-113.24
3	281.25	-65.06	-13.00	-52.06	1.50 V	193	45.23	-110.29
4	460.22	-57.69	-13.00	-44.69	1.50 V	155	47.77	-105.46
5	513.22	-57.07	-13.00	-44.07	1.50 V	111	47.55	-104.62
6	616.99	-54.94	-13.00	-41.94	2.00 V	174	47.15	-102.09

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit.



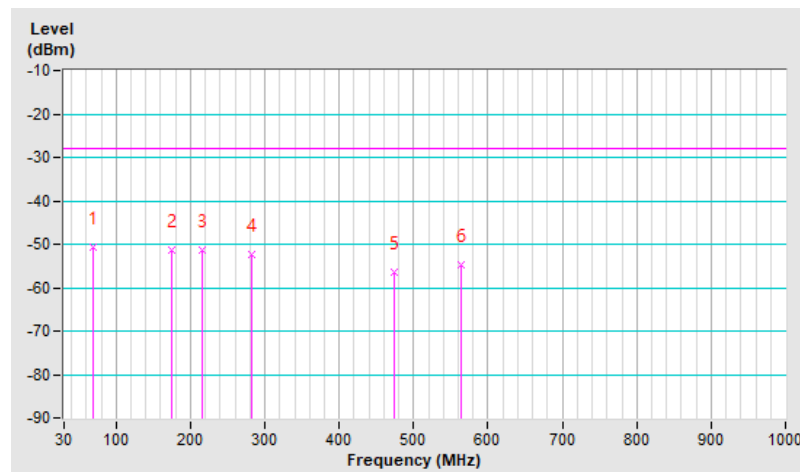
CV2X + LTE Band 7 (20MHz)

Channel	CH 183 : 5915 MHz	Frequency Range	9kHz ~ 1GHz
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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	68.80	-50.63	-28.00	-22.63	2.00 H	172	55.35	-105.98
2	175.50	-51.25	-28.00	-23.25	1.00 H	114	53.04	-104.29
3	215.27	-51.47	-28.00	-23.47	1.50 H	269	54.51	-105.98
4	283.17	-52.22	-28.00	-24.22	2.00 H	238	50.08	-102.30
5	473.29	-56.57	-28.00	-28.57	1.00 H	201	41.79	-98.36
6	563.50	-54.62	-28.00	-26.62	1.00 H	201	42.32	-96.94

Remarks:

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

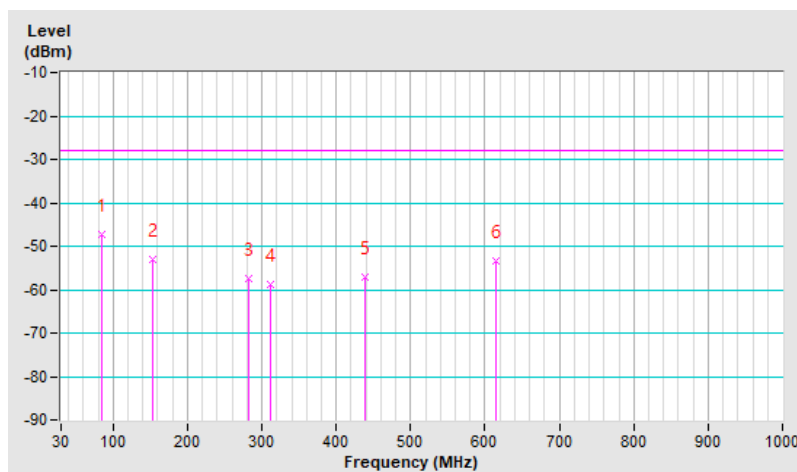


Channel	CH 183 : 5915 MHz	Frequency Range	9kHz ~ 1GHz
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ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	85.29	-47.14	-28.00	-19.14	1.00 V	88	62.22	-109.36
2	154.16	-53.10	-28.00	-25.10	1.49 V	88	50.36	-103.46
3	283.17	-57.47	-28.00	-29.47	1.00 V	22	44.83	-102.30
4	311.30	-58.73	-28.00	-30.73	1.49 V	43	42.76	-101.49
5	438.37	-57.01	-28.00	-29.01	2.00 V	7	41.83	-98.84
6	614.91	-53.35	-28.00	-25.35	1.49 V	4	42.17	-95.52

Remarks:

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

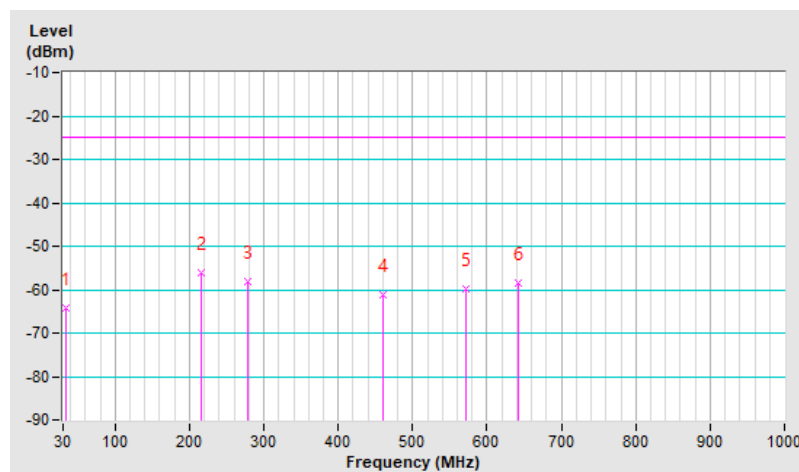


Channel	CH 21100 : 2535.0 MHz	Frequency Range	Below 1000 MHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	33.32	-64.36	-25.00	-39.36	1.50 H	226	45.12	-109.48
2	216.33	-56.20	-25.00	-31.20	1.50 H	164	55.52	-111.72
3	278.23	-58.13	-25.00	-33.13	1.00 H	161	50.12	-108.25
4	460.33	-61.09	-25.00	-36.09	1.50 H	331	42.22	-103.31
5	572.33	-59.95	-25.00	-34.95	1.50 H	199	41.22	-101.17
6	641.22	-58.42	-25.00	-33.42	1.50 H	200	41.12	-99.54

Remarks:

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

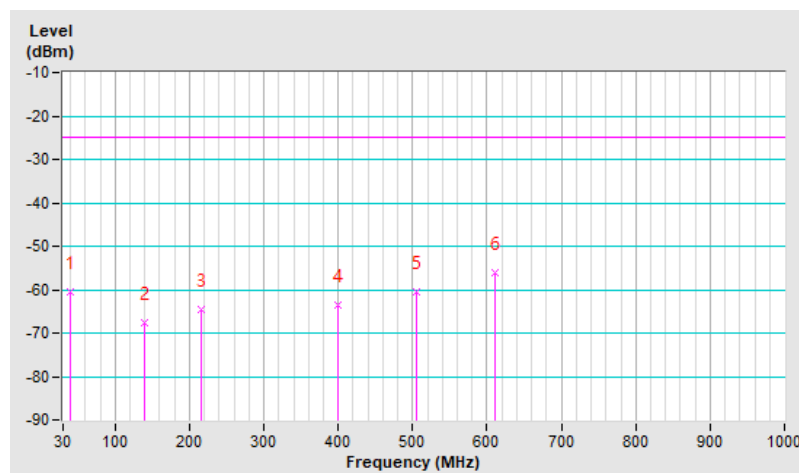


Channel	CH 21100 : 2535.0 MHz	Frequency Range	Below 1000 MHz
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Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	40.12	-60.60	-25.00	-35.60	2.00 V	177	48.22	-108.82
2	139.33	-67.62	-25.00	-42.62	1.50 V	193	41.05	-108.67
3	215.22	-64.52	-25.00	-39.52	1.00 V	44	47.22	-111.74
4	400.05	-63.50	-25.00	-38.50	1.50 V	332	41.55	-105.05
5	505.23	-60.40	-25.00	-35.40	1.50 V	54	42.23	-102.63
6	611.12	-56.10	-25.00	-31.10	1.00 V	271	43.88	-99.98

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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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Email: service.adt@tw.bureauveritas.com

Web Site: <http://ee.bureauveritas.com.tw>

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

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