

Partial FCC Test Report

(PART 90S)

Report No.: RF200319C26-4

FCC ID: QYLEM7455Z

Test Model: EM7455Z

Received Date: Nov. 11, 2019

Test Date: Jan. 04 ~ Jan. 10, 2020

Issued Date: Mar. 25, 2020

Applicant: Getac Technology Corporation.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

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FCC Registration /
Designation Number: 427177 / TW0011



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Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 Summary of Test Results.....	5
2.1 Measurement Uncertainty.....	5
2.2 Test Site and Instruments	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Configuration of System under Test.....	8
3.2.1 Description of Support Units	8
3.3 Test Mode Applicability and Tested Channel Detail	9
3.4 EUT Operating Conditions	10
3.5 General Description of Applied Standards and references.....	10
4 Test Types and Results	11
4.1 Output Power Measurement.....	11
4.1.1 Limits of Output Power Measurement	11
4.1.2 Test Procedures.....	11
4.1.3 Test Setup.....	12
4.1.4 Test Results	13
4.2 Radiated Emission Measurement.....	15
4.2.1 Limits of Radiated Emission Measurement	15
4.2.2 Test Procedure	15
4.2.3 Deviation from Test Standard	15
4.2.4 Test Setup.....	16
4.2.5 Test Results	17
5 Pictures of Test Arrangements.....	31
Appendix – Information of the Testing Laboratories	32

Release Control Record

Issue No.	Description	Date Issued
RF200319C26-4	Original Release	Mar. 25, 2020

1 Certificate of Conformity

Product: Radio module

Brand: Getac

Test Model: EM7455Z

Sample Status: Identical Prototype

Applicant: Getac Technology Corporation.

Test Date: Jan. 04 ~ Jan. 10, 2020

Standards: FCC Part 90, Subpart I, S
FCC Part 2

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 : Gina Liu, **Date:** Mar. 25, 2020
Gina Liu / Specialist

Approved by : Dylan Chiou, **Date:** Mar. 25, 2020
Dylan Chiou / Senior Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 90 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 90.635 (b)	Effective Radiated Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	N/A	Refer to Note
2.1055 90.213	Frequency Stability	N/A	Refer to Note
2.1049 90.209	Occupied Bandwidth	N/A	Refer to Note
2.1051 90.210	Emission Masks	N/A	Refer to Note
2.1051 90.691	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 90.691	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -34.60 dB at 145.29 MHz.

Note:

1. This report is a Class II change partial report and change WWAN main antenna. Therefore, only test item of Radiated Spurious Emissions tests and Effective Radiated Power were performed for this report. Other testing data please refer to TTL report no.: B15W50341-FCC-RF and B15W50341-FCC-RF_Rev1 for module (Brand: Sierra wireless Inc., Model: EM7455).
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3.04 dB
	30 MHz ~ 200 MHz	2.93 dB
	200 MHz ~ 1000 MHz	2.95 dB

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent Technologies	N9038A	MY52260177	Aug. 26, 2019	Aug. 25, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Apr. 15, 2019	Apr. 14, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSW26	102023	Oct. 08, 2019	Oct. 07, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-616	Nov. 12, 2019	Nov. 11, 2020
HORN Antenna ETS-Lindgren	3117	00143293	Nov. 24, 2019	Nov. 23, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-631	Nov. 12, 2019	Nov. 11, 2020
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 15, 2019	Apr. 14, 2020
MXG Vector signal generator Agilent	N5182B	MY53050430	Nov. 25, 2019	Nov. 24, 2020
Preamplifier Agilent	310N	187226	Jun. 18, 2019	Jun. 17, 2020
Preamplifier Agilent	83017A	MY39501357	Jun. 18, 2019	Jun. 17, 2020
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(RFC -SMS-100-SMS-12 0+RFC-SMS-100-S MS-400)	Jun. 18, 2019	Jun. 17, 2020
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(RFC -SMS-100-SMS-24)	Jun. 18, 2019	Jun. 17, 2020
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Software BV ADT	E3 8.130425b	NA	NA	NA
Antenna Tower MF	NA	NA	NA	NA
Turn Table MF	NA	NA	NA	NA
Antenna Tower & Turn Table Controller MF	MF-7802	NA	NA	NA
Radio Communication Analyzer Anritsu	MT8820C	6201300640	Aug. 19, 2019	Aug. 18, 2021

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

3 General Information

3.1 General Description of EUT

Product	Radio module	
Brand	Getac	
Test Model	EM7455Z	
Status of EUT	Identical Prototype	
Power Supply Rating	3.3 Vdc (Host equipment)	
Modulation Type	LTE	QPSK, 16QAM
Frequency Range	LTE Band 26 (Channel Bandwidth: 1.4 MHz)	814.7 ~ 823.3 MHz
	LTE Band 26 (Channel Bandwidth: 3 MHz)	815.5 ~ 822.5 MHz
	LTE Band 26 (Channel Bandwidth: 5 MHz)	816.5 ~ 821.5 MHz
	LTE Band 26 (Channel Bandwidth: 10 MHz)	819 MHz
Max. ERP Power	LTE Band 26 (Channel Bandwidth: 1.4 MHz)	77.98 mW
	LTE Band 26 (Channel Bandwidth: 3 MHz)	78.70 mW
	LTE Band 26 (Channel Bandwidth: 5 MHz)	79.25 mW
	LTE Band 26 (Channel Bandwidth: 10 MHz)	79.98 mW
Antenna Type	Refer to Note as below	
Accessory Device	Refer to Note as below	
Data Cable Supplied	Refer to Note as below	

Note:

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

Product	Brand	Model
Tablet	Getac	ZX70

2. The antenna information is listed as below.

Antenna Type	Brand	Model	Antenna Gain
			LTE B26
PIFA	Pulse	Main: 422144300001	0.77
	SINBON	Aux.: 340879100003 (Rx only)	2.05

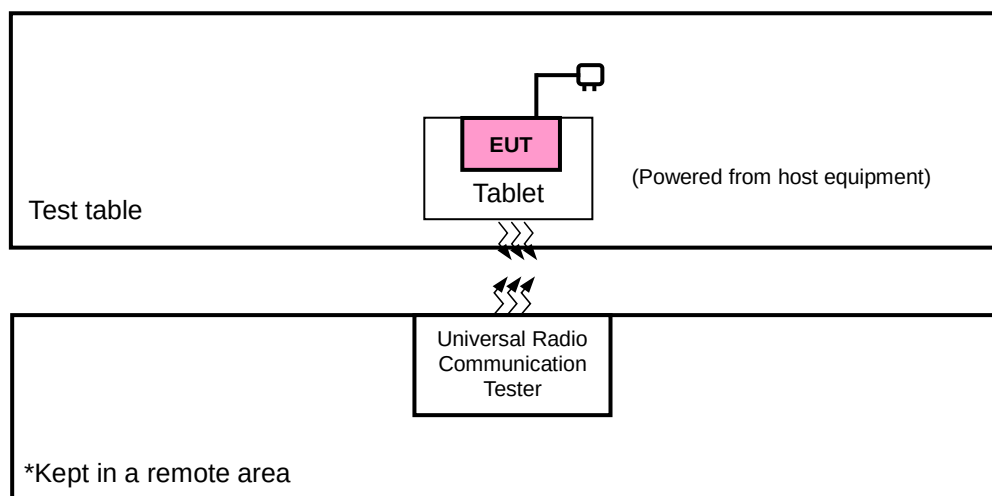
3. The End-product contains following accessory devices.

Part	Brand	Model	Specification
Adapter	FSP	FSP025-DHAN3	I/P: 100-240Vac, 1.0A, 50-60Hz O/P: 12Vdc, Max.25W
CPU	Qualcomm	SDA660	692 PIN
Storage	Samsung	KMDH6001DA-B422	64GB
WWAN Module	Getac	EM7455Z	ID: QYLEM7455Z
WiFi/BT Chip on board	Qualcomm	WCN3990	802.11 ac/ BT5.0 2x2 support ID: QYLWCN3990Z
Front Camera	Truly	COD865-B8BF-E	8 MP, Fix Focus
Rear Camera	Truly	COD898-B12BA-E	12 MP, Auto focus
GPS	Locosys	MC-1010G	--
LCD	Truly	TDO-HD0698K61701	7" HD 720 x 1280
Barcode Reader	Honeywell	N6603	--
HF RFID Module	NXP	NQ310	ID: QYLNQ310Z

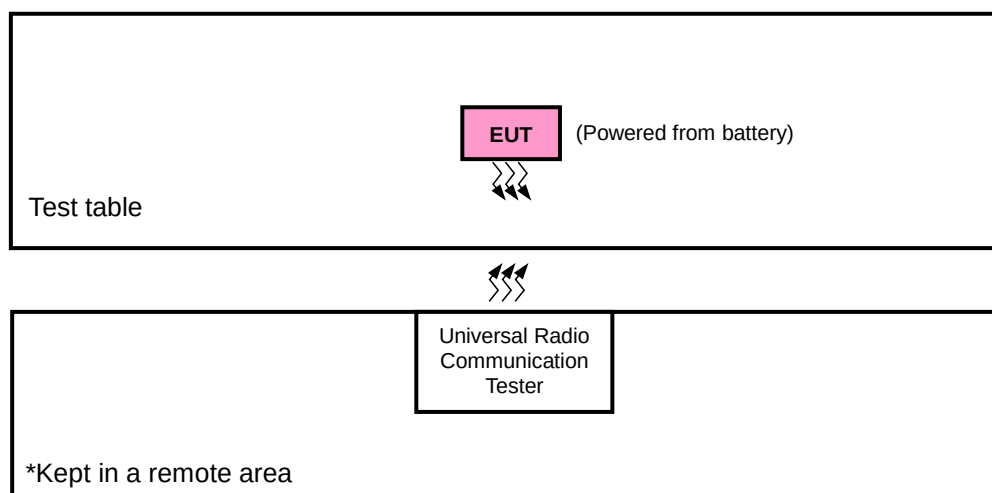
4. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Configuration of System under Test

<Radiated Emission Test>



<E.R.P. Test>



3.2.1 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
1.	Tablet	Getac	ZX70	N/A	N/A
2.	Universal Radio Communication Tester	Anritsu	MT8820C	6201300640	N/A

No.	Signal Cable Description Of The Above Support Units
1.	N/A

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item 1 was provided by client.

3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis, and antenna ports

The worst case was found when positioned as the table below. Following channel(s) was (were) selected for the final test as listed below:

Band	ERP	Radiated Emission
LTE Band 26	Z-plane	Z-axis

LTE Band 26

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	ERP	26697 to 26783	26697, 26740, 26783	1.4 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26705 to 26775	26705, 26740, 26775	3 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26715 to 26765	26715, 26740, 26765	5 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26740	26740	10 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
-	Radiated Emission	26697 to 26783	26697, 26740, 26783	1.4 MHz	QPSK	1 RB / 0 RB Offset
		26715 to 26765	26715, 26740, 26765	5 MHz	QPSK	1 RB / 0 RB Offset
		26740	26740	10 MHz	QPSK	1 RB / 0 RB Offset

Note:

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

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
ERP	25 deg. C, 65 % RH	3.3 Vdc	Anson Lin
Radiated Emission	25 deg. C, 65 % RH	120 Vac, 60 Hz	Karl Lee

3.4 EUT Operating Conditions

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

3.5 General Description of Applied Standards and references

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

Test Standard:

FCC 47 CFR Part 2

FCC 47 CFR Part 90

ANSI 63.26-2015

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

References Test Guidance:

KDB 971168 D01 Power Meas License Digital Systems v03r01

KDB 971168 D02 Misc Rev Approv License Devices v02r01

ANSI/TIA/EIA-603-E 2016

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

4 Test Types and Results

4.1 Output Power Measurement

4.1.1 Limits of Output Power Measurement

The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw) ERP.

4.1.2 Test Procedures

EIRP / ERP Measurement:

- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 10 MHz for LTE mode, $VBW \geq 3 \times RBW$.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- c. 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 b. Record the power level of S.G.
- d. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15 \text{ dB}$.

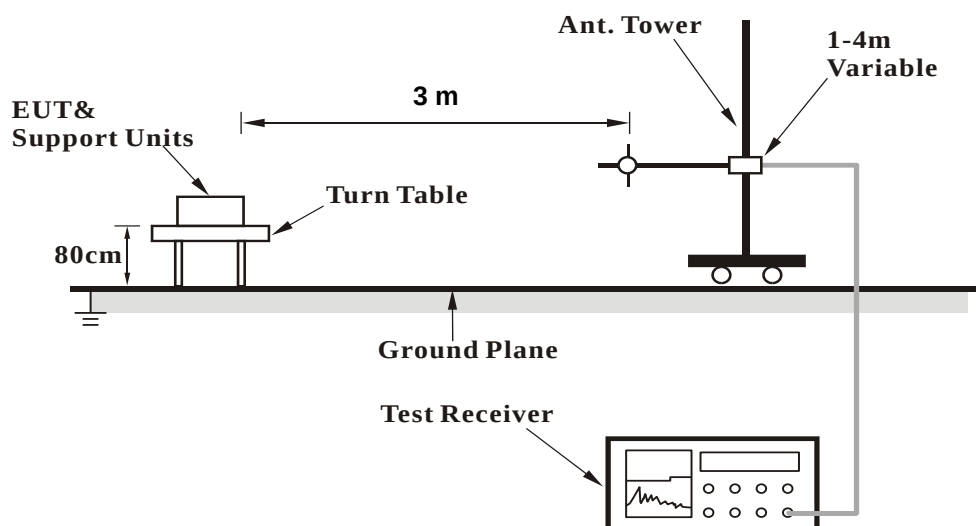
Conducted Power Measurement:

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

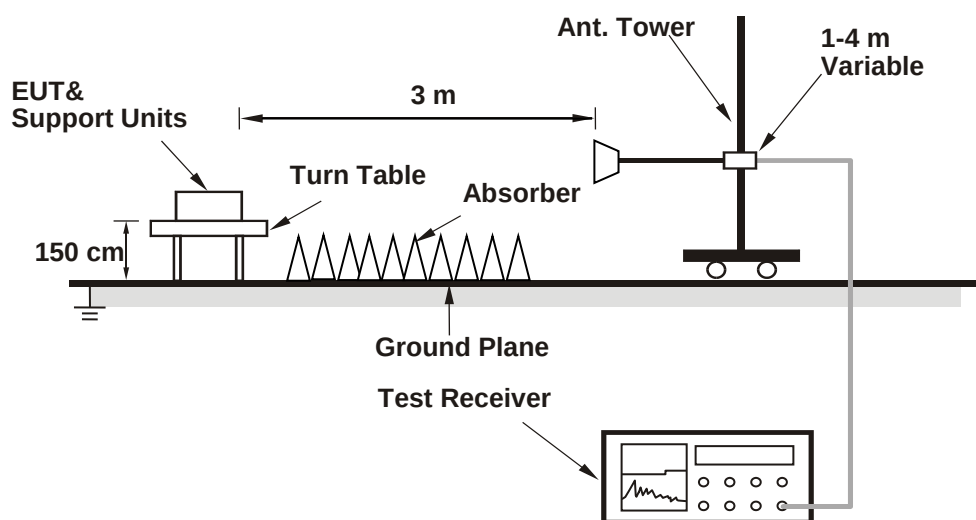
4.1.3 Test Setup

EIRP / ERP Measurement:

<Radiated Emission below or equal 1 GHz>



<Radiated Emission above 1 GHz>



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

4.1.4 Test Results

ERP Power (dBm)

LTE Band 26							
Channel Bandwidth: 1.4 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	26697	814.7	-10.26	31.208	18.80	75.82	H
	26740	819.0	-10.23	31.3	18.92	77.98	
	26783	823.3	-10.34	31.222	18.73	74.68	
	26697	814.7	-15.64	31.504	13.71	23.52	V
	26740	819.0	-15.18	31.117	13.79	23.92	
	26783	823.3	-16.14	31.922	13.63	23.08	
Channel Bandwidth: 1.4 MHz / 16QAM							
Z	26697	814.7	-11.26	31.208	17.80	60.23	H
	26740	819.0	-11.24	31.3	17.91	61.80	
	26783	823.3	-11.35	31.222	17.72	59.18	
	26697	814.7	-16.65	31.504	12.70	18.64	V
	26740	819.0	-16.18	31.117	12.79	19.00	
	26783	823.3	-17.14	31.922	12.63	18.33	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

LTE Band 26							
Channel Bandwidth: 3 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	26705	815.5	-10.22	31.208	18.84	76.52	H
	26740	819.0	-10.19	31.3	18.96	78.70	
	26775	822.5	-10.30	31.222	18.77	75.37	
	26705	815.5	-15.60	31.504	13.75	23.74	V
	26740	819.0	-15.14	31.117	13.83	24.14	
	26775	822.5	-16.10	31.922	13.67	23.29	
Channel Bandwidth: 3 MHz / 16QAM							
Z	26705	815.5	-11.22	31.208	17.84	60.79	H
	26740	819.0	-11.20	31.3	17.95	62.37	
	26775	822.5	-11.30	31.222	17.77	59.87	
	26705	815.5	-16.60	31.504	12.75	18.85	V
	26740	819.0	-16.14	31.117	12.83	19.17	
	26775	822.5	-17.10	31.922	12.67	18.50	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

LTE Band 26							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	26715	816.5	-10.18	31.208	18.88	77.23	H
	26740	819.0	-10.16	31.3	18.99	79.25	
	26765	821.5	-10.26	31.222	18.81	76.07	
	26715	816.5	-15.56	31.504	13.79	23.96	V
	26740	819.0	-15.10	31.117	13.87	24.36	
	26765	821.5	-16.06	31.922	13.71	23.51	
Channel Bandwidth: 5 MHz / 16QAM							
Z	26715	816.5	-11.18	31.208	17.88	61.35	H
	26740	819.0	-11.17	31.3	17.98	62.81	
	26765	821.5	-11.26	31.222	17.81	60.42	
	26715	816.5	-16.56	31.504	12.79	19.03	V
	26740	819.0	-16.11	31.117	12.86	19.31	
	26765	821.5	-17.06	31.922	12.71	18.67	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

LTE Band 26							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	26740	819.0	-10.12	31.3	19.03	79.98	H
	26740	819.0	-15.06	31.117	13.91	24.59	V
Channel Bandwidth: 10 MHz / 16QAM							
Z	26740	819.0	-11.12	31.3	18.03	63.53	H
	26740	819.0	-16.06	31.117	12.91	19.53	V

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

4.2 Radiated Emission Measurement

4.2.1 Limits of Radiated Emission Measurement

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.

4.2.2 Test Procedure

- Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- 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.
- $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}.$
- E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15 \text{ dB}.$

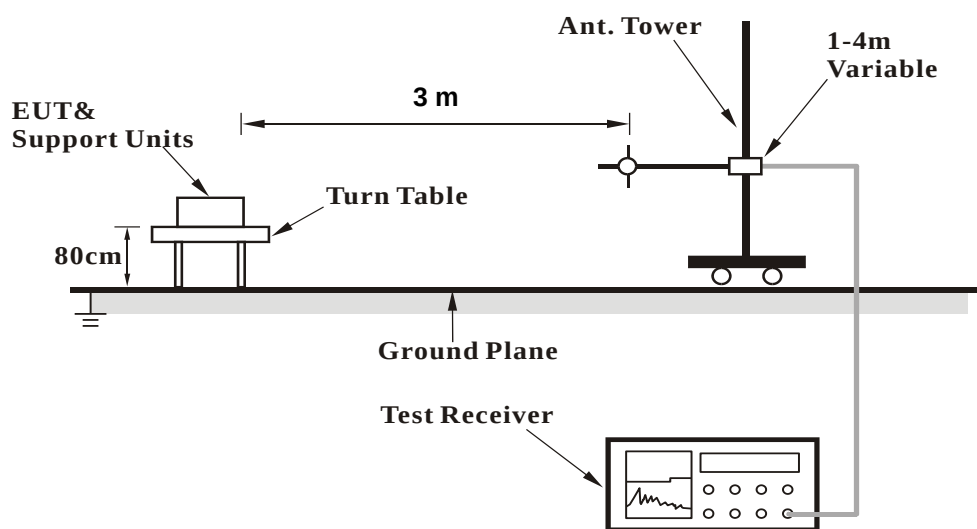
Note: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

4.2.3 Deviation from Test Standard

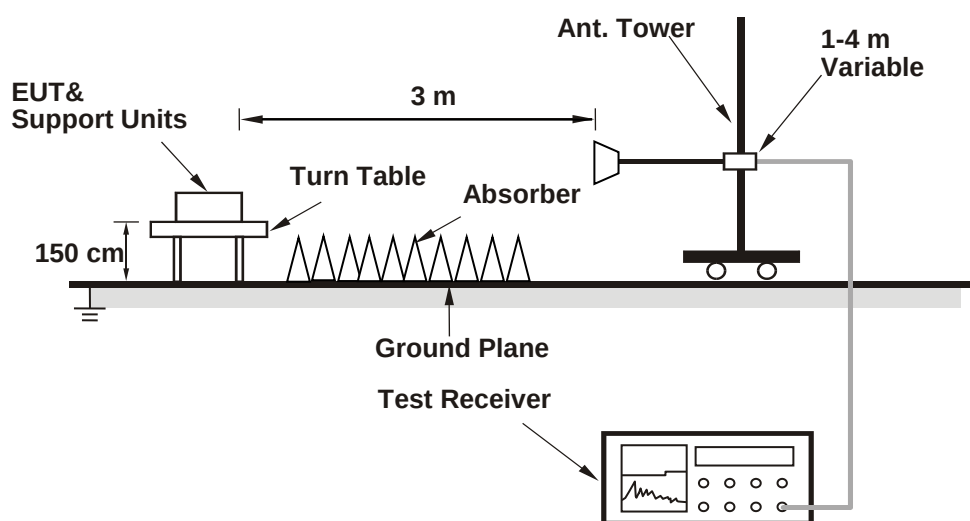
No deviation.

4.2.4 Test Setup

<Radiated Emission below or equal 1 GHz>



<Radiated Emission above 1 GHz>



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

4.2.5 Test Results

LTE Band 26

Channel Bandwidth: 1.4 MHz / QPSK

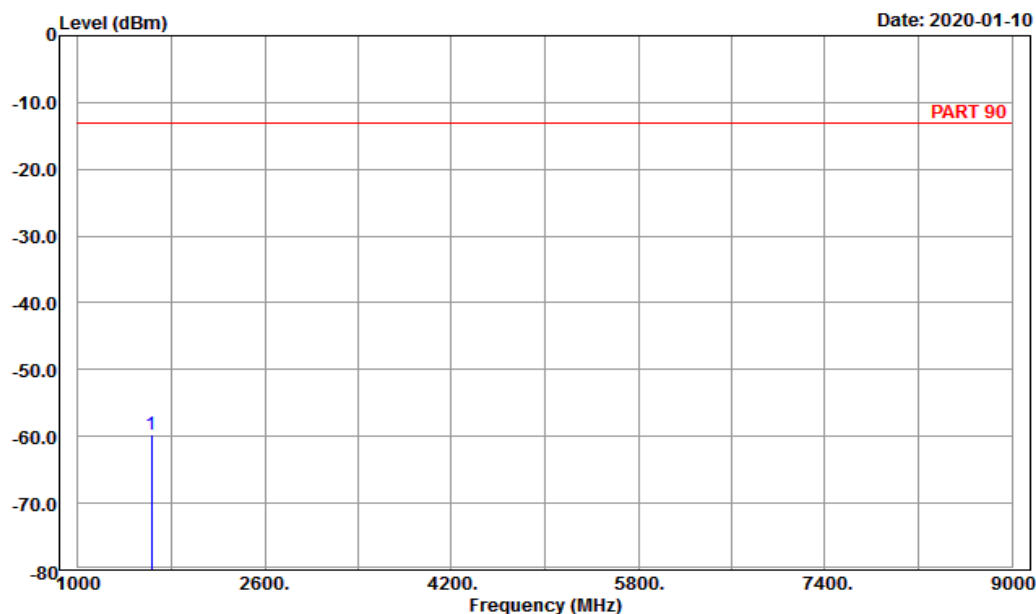
Low Channel



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A D T

Data: 3



Site : 966 chamber 1
 Condition: PART 90 Horizontal
 Remark : LTE_Band 26 _Link_L-Ch
 Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1629.40	-59.70	-67.26	7.56	-13.00	-46.70	Peak

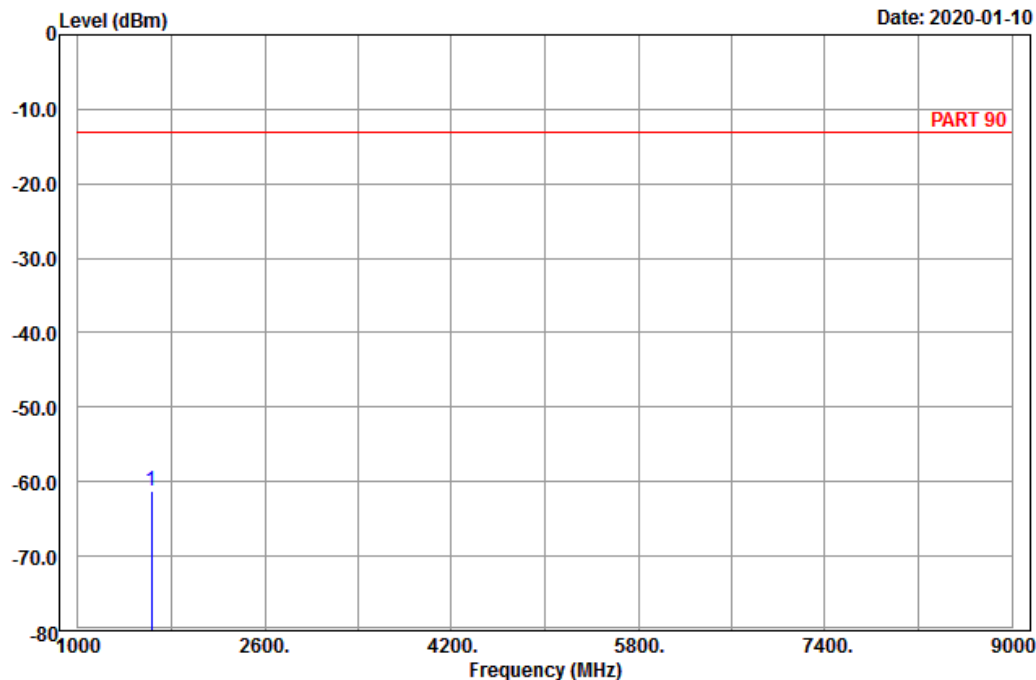


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A D T

Data: 4

Date: 2020-01-10



Site : 966 chamber 1
Condition: PART 90 Vertical
Remark : LTE_Band 26 _Link_L-Ch
Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1629.40	-61.27	-68.83	7.56	-13.00	-48.27	Peak

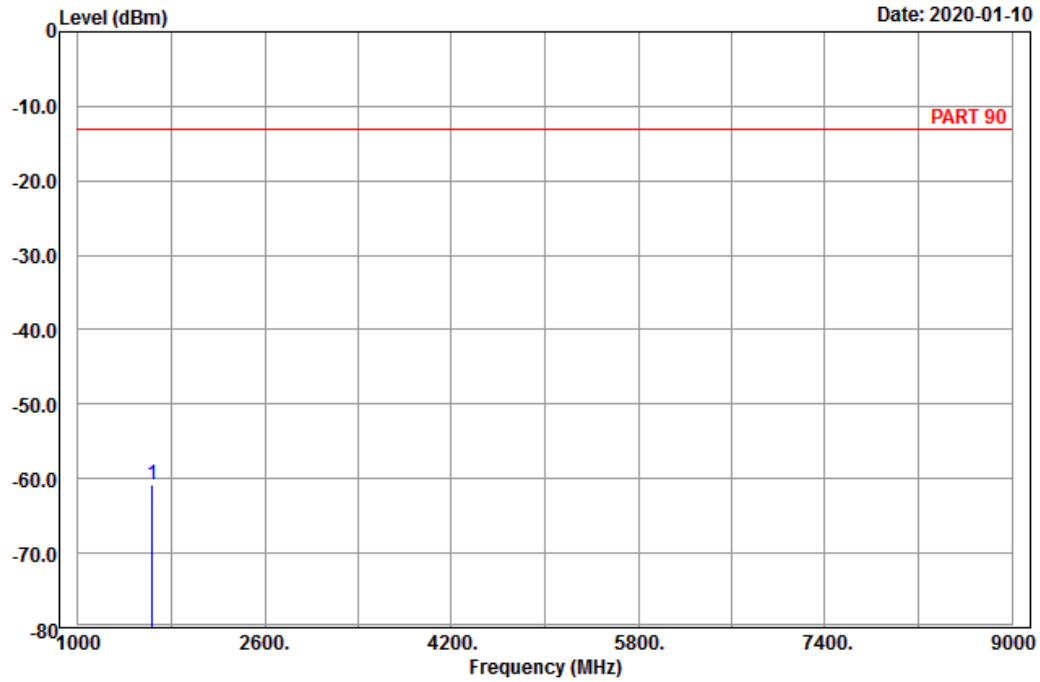
Middle Channel



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A D T

Data: 3



Site : 966 chamber 1
Condition: PART 90 Horizontal
Remark : LTE_Band 26 _Link_M-Ch
Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1638.00	-60.90	-68.46	7.56	-13.00	-47.90	Peak

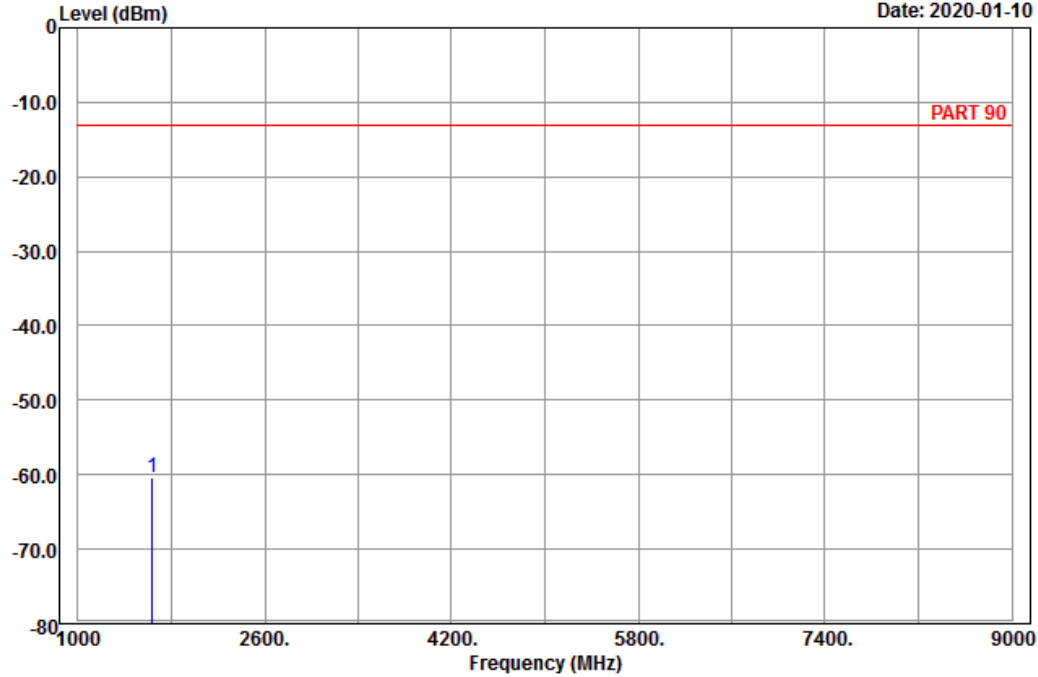


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A D T

Data: 4

Date: 2020-01-10



Site : 966 chamber 1
 Condition: PART 90 Vertical
 Remark : LTE_Band 26 _Link_M-Ch
 Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1638.00	-60.44	-68.00	7.56	-13.00	-47.44	Peak

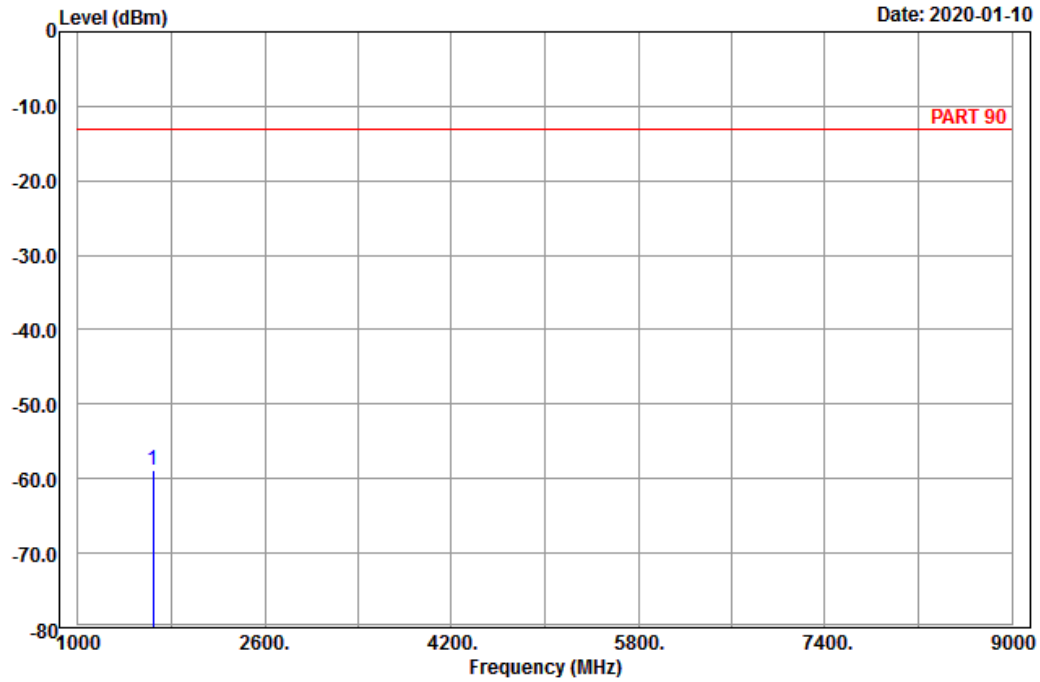
High Channel



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A D T

Data: 3



Site : 966 chamber 1
 Condition: PART 90 Horizontal
 Remark : LTE_Band 26 _Link_H-Ch
 Tested by: Karl Lee

		Read	Limit	Over	
Freq	Level	Level	Factor	Line	Limit Remark
MHz	dBm	dBm	dB	dBm	dB
1 pp 1646.60	-58.79	-66.52	7.73	-13.00	-45.79 Peak

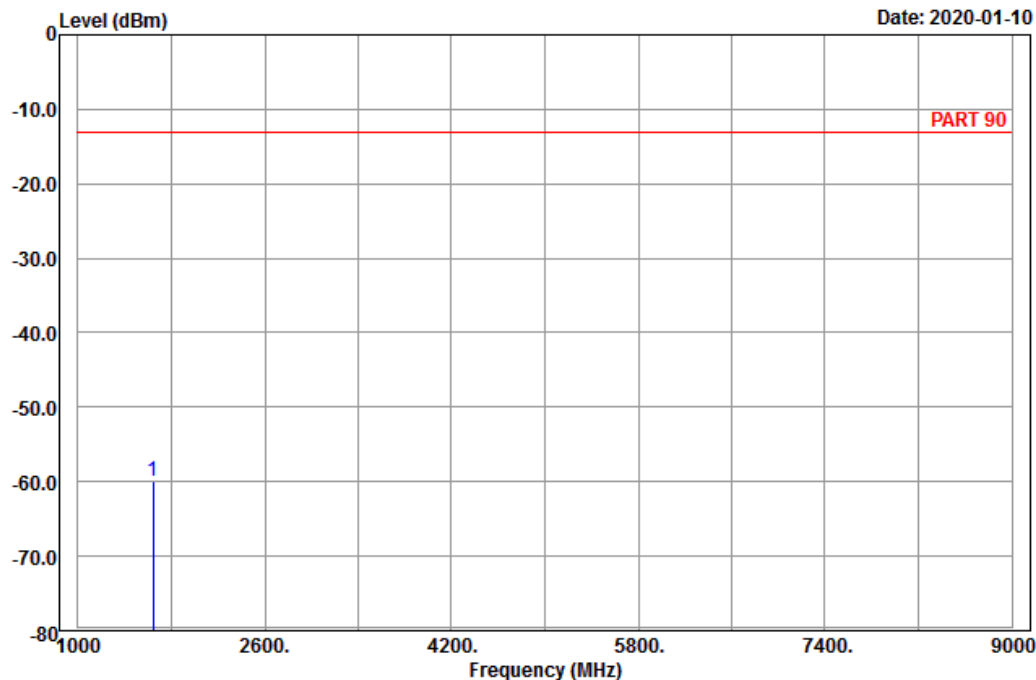


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-01-10



Site : 966 chamber 1
Condition: PART 90 Vertical
Remark : LTE_Band 26 _Link_H-Ch
Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1646.60	-59.90	-67.63	7.73	-13.00	-46.90	Peak

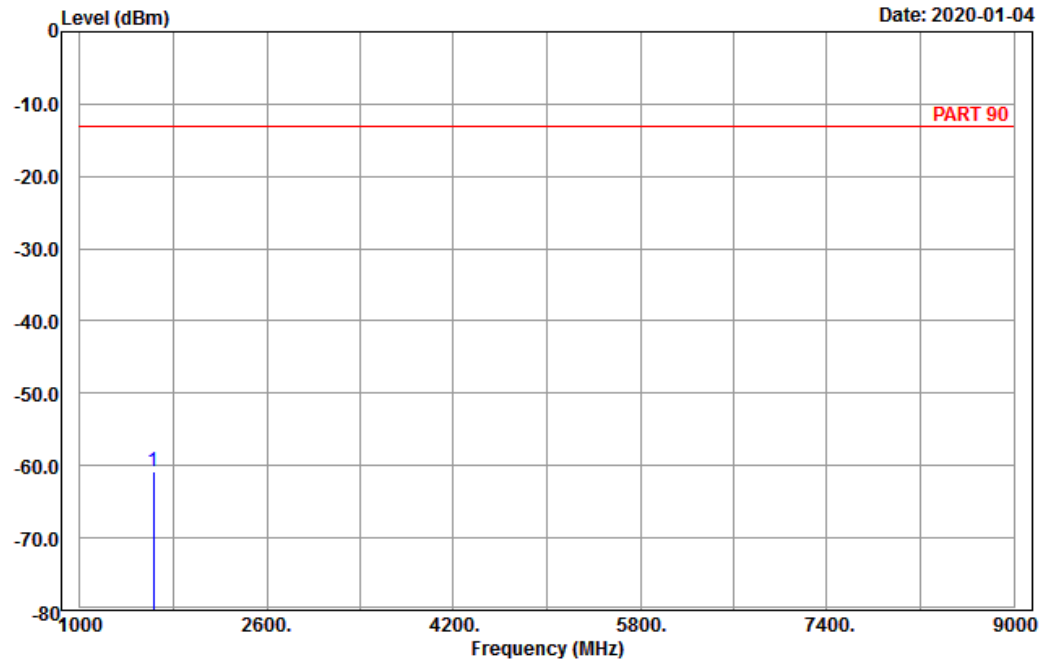
Channel Bandwidth: 5 MHz / QPSK
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1
Condition: PART 90 Horizontal
Remark : LTE_Band 26 _Link_L-Ch
Tested by: Karl Lee

		Read	Limit	Over	
Freq	Level	Level	Factor	Line	Limit Remark
MHz	dBm	dBm	dB	dBm	dB
1 pp 1633.00	-60.76	-68.32	7.56	-13.00	-47.76 Peak

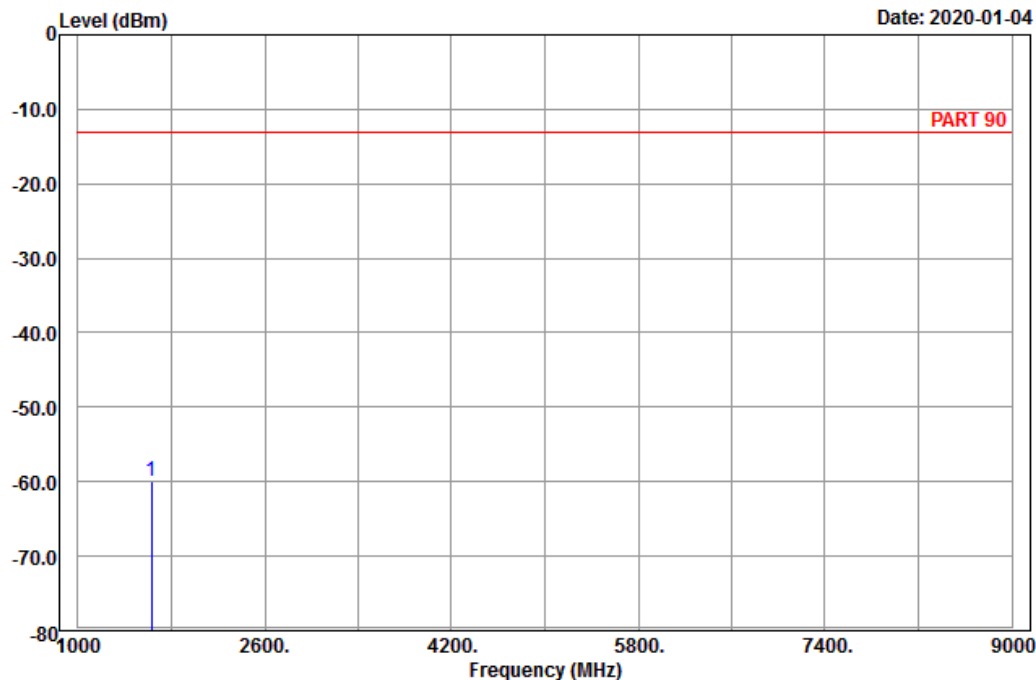


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2020-01-04



Site : 966 chamber 1
Condition: PART 90 Vertical
Remark : LTE_Band 26 _Link_L-Ch
Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1633.00	-59.96	-67.52	7.56	-13.00	-46.96	Peak

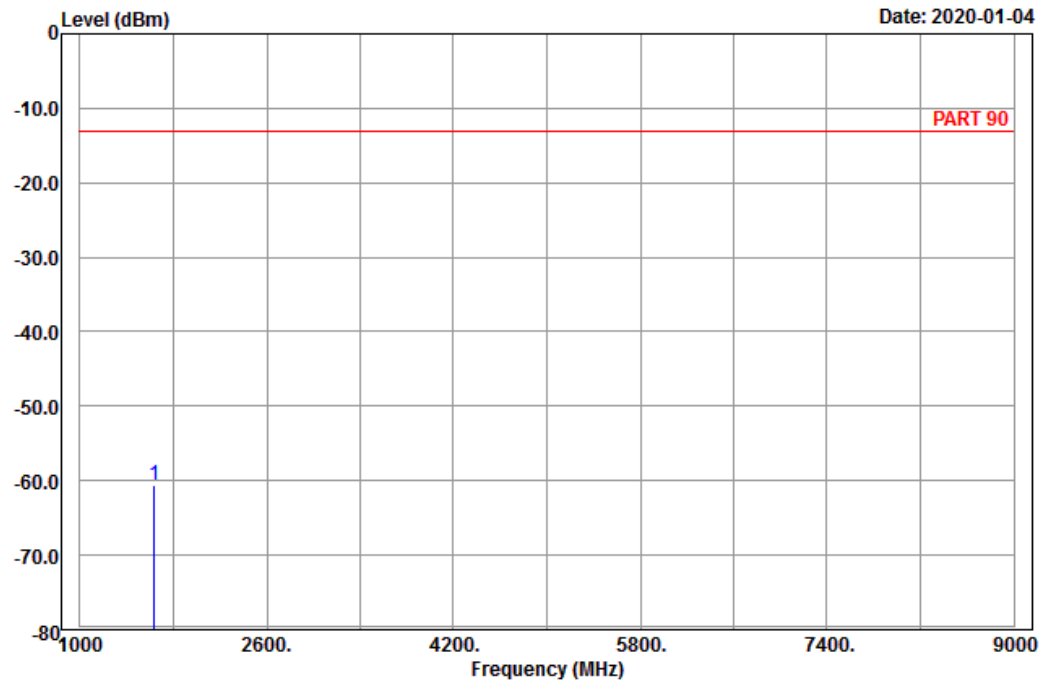
Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1
Condition: PART 90 Horizontal
Remark : LTE_Band 26 _Link_M-Ch
Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1638.00	-60.59	-68.15	7.56	-13.00	-47.59	Peak

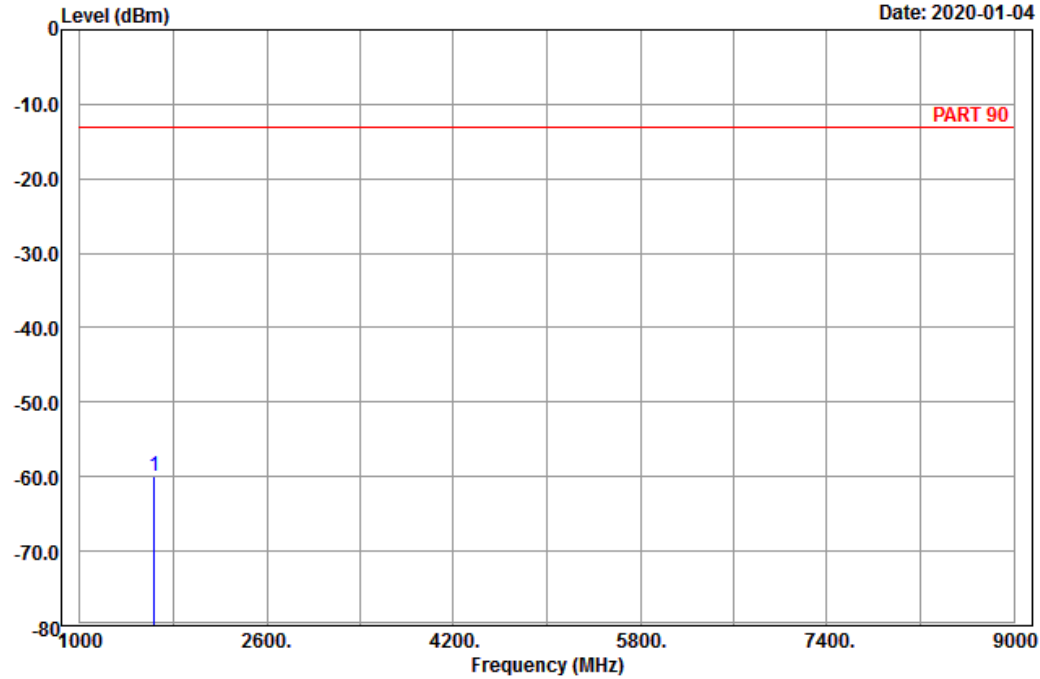


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2020-01-04



Site : 966 chamber 1
Condition: PART 90 Vertical
Remark : LTE_Band 26 _Link_M-Ch
Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1638.00	-60.02	-67.58	7.56	-13.00	-47.02	Peak

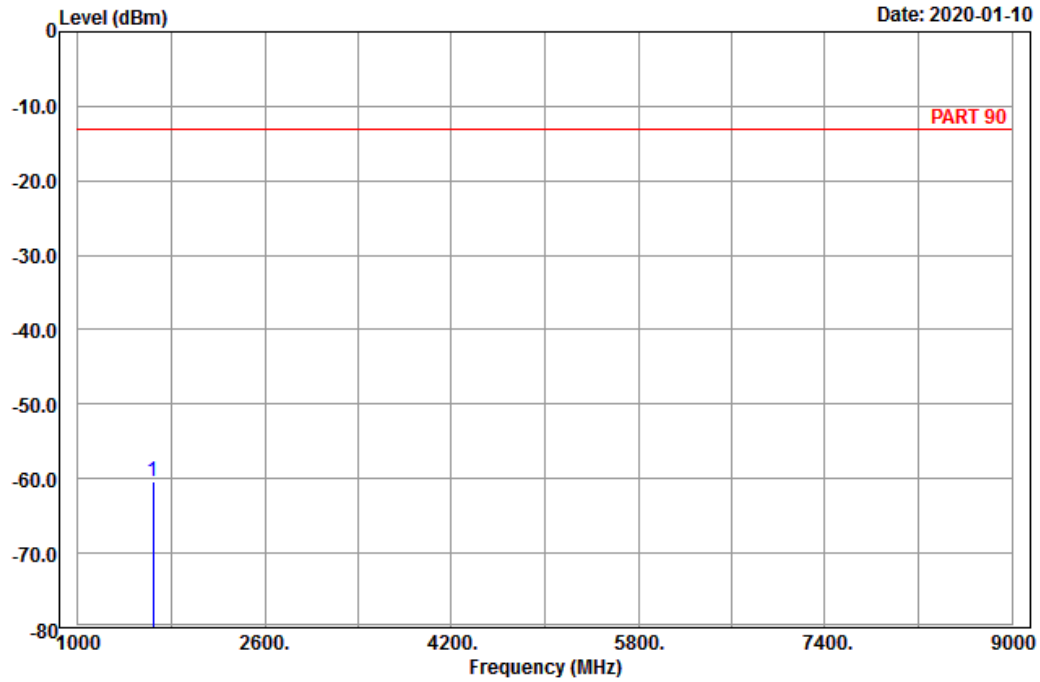
High Channel



Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

A D T

Data: 3



Site : 966 chamber 1
Condition: PART 90 Horizontal
Remark : LTE_Band 26 _Link_H-Ch
Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1643.00	-60.49	-68.22	7.73	-13.00	-47.49	Peak

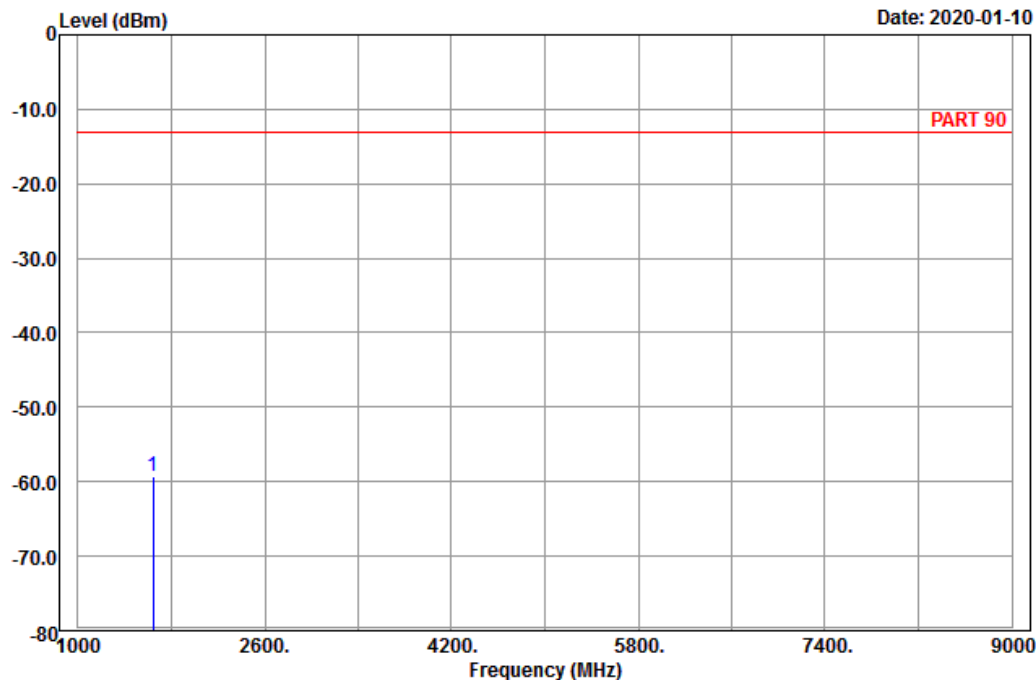


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 2020-01-10



Site : 966 chamber 1
Condition: PART 90 Vertical
Remark : LTE_Band 26 _Link_H-Ch
Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1643.00	-59.24	-66.97	7.73	-13.00	-46.24	Peak

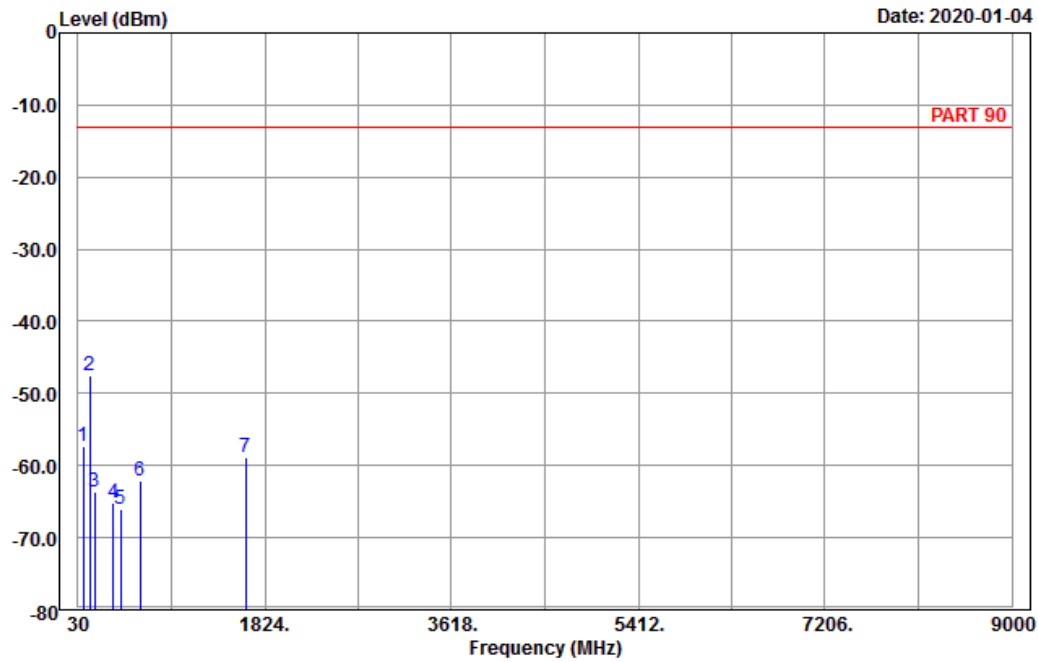
Channel Bandwidth: 10 MHz / QPSK
Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1
Condition: PART 90 Horizontal
Remark : LTE_Band 26 _Link_M-Ch
Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	78.06	-57.42	-45.49	-11.93	-13.00	-44.42	Peak
2 pp	145.29	-47.60	-39.77	-7.83	-13.00	-34.60	Peak
3	192.54	-63.74	-57.87	-5.87	-13.00	-50.74	Peak
4	369.30	-65.28	-60.94	-4.34	-13.00	-52.28	Peak
5	438.60	-65.97	-62.38	-3.59	-13.00	-52.97	Peak
6	624.80	-62.21	-62.36	0.15	-13.00	-49.21	Peak
7	1638.00	-58.86	-66.42	7.56	-13.00	-45.86	Peak

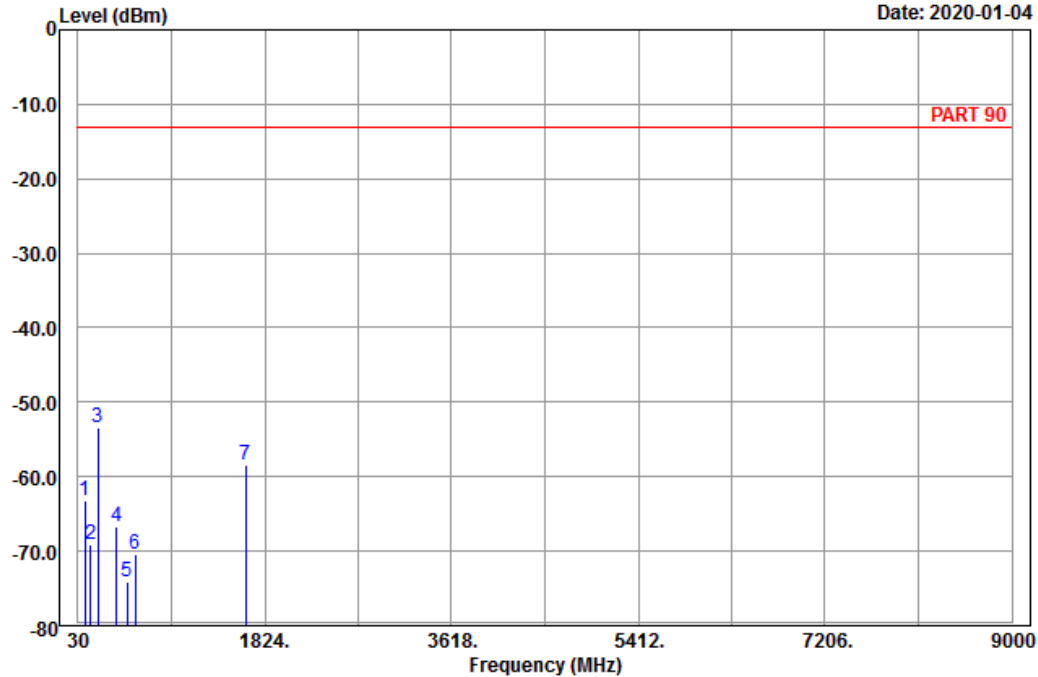


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2020-01-04



Site : 966 chamber 1
Condition: PART 90 Vertical
Remark : LTE_Band 26_Link_M-Ch
Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	93.72	-63.24	-52.79	-10.45	-13.00	-50.24	Peak
2	149.88	-69.00	-61.05	-7.95	-13.00	-56.00	Peak
3 pp	221.70	-53.35	-47.47	-5.88	-13.00	-40.35	Peak
4	399.40	-66.74	-64.00	-2.74	-13.00	-53.74	Peak
5	505.10	-74.16	-69.23	-4.93	-13.00	-61.16	Peak
6	580.00	-70.46	-70.04	-0.42	-13.00	-57.46	Peak
7	1638.00	-58.47	-66.03	7.56	-13.00	-45.47	Peak

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 according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Web Site: www.bureauveritas-adt.com

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

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