



Test Report No.: RF200918W001-7



FCC TEST REPORT (PART 90S&90R)



Applicant:	Lenovo(Shanghai) Electronics Technology Co., Ltd.
Address:	Section 304-305, Building No. 4, # 222, Meiyue Road, China (Shanghai) Pilot Free Trade Zone

Manufacturer or Supplier:	Lenovo PC HK Limited
Address:	23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong
Product:	Portable Tablet Computer
Brand Name:	Lenovo
Model Name:	Lenovo TB-X605LC
FCC ID:	O57TBX605LC
Date of tests:	Sep. 19, 2020 ~ Oct. 22, 2020

The tests have been carried out according to the requirements of the following standard:

- FCC Part 90, Subpart S, Subpart R ANSI/TIA/EIA-603- D
- FCC Part 2 ANSI/TIA/EIA-603-E ANSI C63.26-2015

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Alex Chen Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
 Date: Oct. 23, 2020	 Date: Oct. 23, 2020

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BY THE LAB 68**



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF200918W001-7	Original release	Oct. 23, 2020

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 90S & Part 90R & Part 2		
STANDARD SECTION	TEST TYPE	RESULT
2.1046 90.635(b)	Maximum Peak Output Power	Compliance
2.1055 90.213	Frequency Stability	Compliance
2.1049 90.209	Occupied Bandwidth	Compliance
2.1051 90.691 90.543e	Emission Masks	Compliance
2.1051 90.691 90.543e	Conducted Spurious Emissions	Compliance
2.1053 90.691 90.543e	Radiated Spurious Emissions	Compliance

1.1 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	UNCERTAINTY
Frequency Stability	$\pm 76.97\text{Hz}$
Radiated emissions & Radiated Power (30MHz~1GMHz)	$\pm 4.98\text{dB}$
Radiated emissions & Radiated Power (1GMHz ~6GMHz)	$\pm 4.70\text{dB}$
Radiated emissions (6GMHz ~18GMHz)	$\pm 4.60\text{dB}$
Radiated emissions (18GMHz ~40GMHz)	$\pm 4.12\text{dB}$
Conducted emissions	$\pm 4.01\text{dB}$
Occupied Channel Bandwidth	$\pm 43.58\text{KHz}$
Conducted Output power	$\pm 2.06\text{dB}$
Band Edge Measurements	$\pm 4.70\text{dB}$
Emission Mask Measurements	$\pm 4.48\text{dB}$

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Apr. 27,20	Apr. 26,21
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510322	Feb. 26,20	Feb. 25,21
Signal Analyzer	Rohde&Schwarz	FSV7	101561	Mar. 31,20	Mar. 30,21
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Mar. 27,20	Mar. 26,21
Horn Antenna (1GHz-18GHz)	ETS-LINDGREN	3117	00168692	Mar. 27,20	Mar. 26,21
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40 -K-SG/QMS-00 361	15433	Nov. 24, 19	Nov. 23, 20
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 27,20	Feb. 26,21
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jun. 02,20	Jun. 01,21
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 02,20	Jun. 01,21
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Apr. 30,20	Apr. 29,21
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn- CT0001143-1216	May. 19,20	May. 18,23
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	ADT	ADT_Radiated _V7.6.15.9.2	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SM A	1505	Jun. 03,20	Jun. 02,21
Power Meter	Anritsu	ML2495A	1506002	Feb. 26,20	Feb. 25,21
Power Sensor	Anritsu	MA2411B	1339352	Feb. 26,20	Feb. 25,21
Humid & Temp Programmable Tester	Juyi	ITH-120-45-CP -AR	IAA1504-001	Jun. 02,20	Jun. 01,21
MXG Analog Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Mar. 11,20	Mar. 10,21
Power Divider	MCLI/USA	PS2-15	24880	N/A	N/A

- NOTE:**
1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
 2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
 3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Portable Tablet Computer	
BRAND NAME	Lenovo	
MODEL NAME	Lenovo TB-X605LC	
NOMINAL VOLTAGE	5.0Vdc (adapter or host equipment) 3.85Vdc (Li-ion, battery)	
MODULATION TYPE	LTE	QPSK, 16QAM
FREQUENCY RANGE	LTE Band 26 (Channel Bandwidth: 1.4MHz)	814.7MHz ~ 823.3MHz
	LTE Band 26 (Channel Bandwidth: 3MHz)	815.5MHz ~ 822.5MHz
	LTE Band 26 (Channel Bandwidth: 5MHz)	816.5MHz ~ 821.5MHz
	LTE Band 26 (Channel Bandwidth: 10MHz)	819MHz
MAX. ERP POWER	LTE Band 26 (Channel Bandwidth: 1.4MHz)	96mW
	LTE Band 26 (Channel Bandwidth: 3MHz)	96mW
	LTE Band 26 (Channel Bandwidth: 5MHz)	96mW
	LTE Band 26 (Channel Bandwidth: 10MHz)	96mW
EMISSION DESIGNATOR GOGN	LTE Band 26 (Channel Bandwidth: 1.4MHz)	QPSK: 1M09G7D
		16QAM: 1M09W7D
	LTE Band 26 (Channel Bandwidth: 3MHz)	QPSK: 2M69G7D
		16QAM: 2M68W7D
	LTE Band 26 (Channel Bandwidth: 5MHz)	QPSK: 4M47G7D
		16QAM: 4M47W7D
	LTE Band 26 (Channel Bandwidth: 10MHz)	QPSK: 8M94G7D
		16QAM: 8M93W7D
ANTENNA TYPE	Fixed Internal Antenna with -1.23dBi gain for LTE Band 26	
HW VERSION	Lenovo Tablet TB-X605LC	
SW VERSION	TB-X605LC_RF01_20190604	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	USB cable: shielded, detachable, 1meter	

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. There were Sample 1, 2, 3, 4, 5 and 6 for this project, the difference is as below:

SAMPLE	EUT CONFIGURATION INFORMATION
1	LCD Panel 1+Photo Camera 1+Photo Camera 3+CPU1+EMMC1+DDR1+speaker 1+speaker 2+motor1+Main Broad 1+BT/WLAN Module+ Battery 1
2	LCD Panel 2+Photo Camera 2+Photo Camera 4+CPU1+EMMC2+DDR2+speaker 1+speaker 2+motor2+Main Broad 2+BT/WLAN Module+ Battery 2
3	LCD Panel 1+Photo Camera 1+Photo Camera 3+CPU1+EMMC3+DDR3+speaker 1+speaker 2+motor1+Main Broad 1+BT/WLAN Module+ Battery 1
4	LCD Panel 2+Photo Camera 2+Photo Camera 4+CPU1+EMMC4+DDR4+speaker 1+speaker 2+motor2+Main Broad 2+BT/WLAN Module+ Battery 2
5	LCD Panel 1+Photo Camera 1+Photo Camera 3+CPU1+EMMC5+DDR5+speaker 1+speaker 2+motor1+Main Broad 1+BT/WLAN Module+ Battery 1
6	LCD Panel 2+Photo Camera 2+Photo Camera 4+CPU1+EMMC6+DDR6+speaker 1+speaker 2+motor2+Main Broad 2+BT/WLAN Module+ Battery 2

3. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

MODULATION MODE	TX FUNCTION
LTE	1TX/1RX

4. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.



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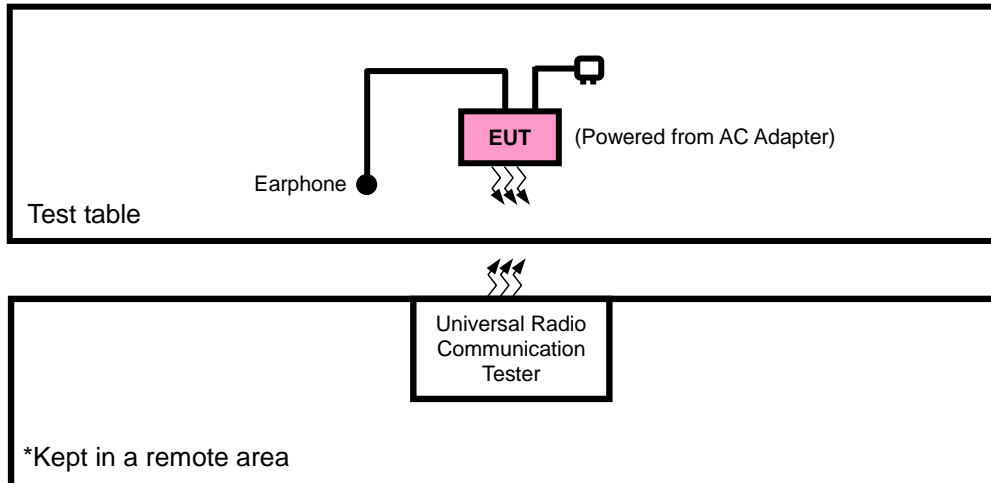
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List of Accessory:

ACCESSORIES	BRAND	MODEL	SPECIFICATION
AC Adapter 1	Salom	SC-41	I/P:100-240Vac, 0.3A O/P: 5Vdc, 2A
AC Adapter 2	AcBel	SC-41	I/P:100-240Vac, 0.3A O/P: 5Vdc, 2A
Battery 1	SCUD	L16D2P31	Rating: 3.85Vdc, 7000mAh
Battery 2	Celxpert	L16D2P31	Rating: 3.85Vdc, 7000mAh
USB Cable 1	LiQi	L27B-052000100-TCCS	1.0m shielded cable w/o core
USB Cable 2	SaiBao	S27B-052000100-TCCS	1.0m shielded cable w/o core
LCD Panel1	BOE	TV101WUM-LL4	10.1 "
LCD Panel2	BOE	TV101WUM-LL5	10.1 "
Photo Camera 1	O-film	L4H7A00	8M AF
Photo Camera 2	Q-tech	F4H7YAZ	8M AF
Photo Camera 3	Lianyi	LE5220FM	5M FF
Photo Camera 4	Jinkang	G7B5-QL607XFF	5M FF
CPU	Qualcomm	SDA-450-A-792NSP-TR-01-0-AA	-
EMMC1+DDR1	SAMSUNG	KMRP60014M-B614(4+64)	64G
EMMC2+DDR2	HYNIX	H9TQ52ACLTMCUR-KUM(4+64)	64G
EMMC3+DDR3	SAMSUNG	KMGD6001BM-B421(3+32)	32G
EMMC4+DDR4	HYNIX	H9TQ27ADFTMCUR-KUM(3+32)	32G
EMMC5+DDR5	SAMSUNG	KMQE60013M-B318(2+16)	16G
EMMC6+DDR6	HYNIX	H9TQ17ABJTCCUR-KUM(2+16)	16G
Speaker 1	Xichun	KFSC1712SBC-S-B232-20J-GT	-
Speaker 2	Xichun	KFSC1712SBC-S-B233-20J-W	-
speaker 1	Haosheng	HB171219B08-13-B1F-RH	-
speaker 2	Haosheng	XHB171219B08-14-B1F-RH	-
motor1	Hongzhifa	HZF-Z04BE-RL67B25-90	-
Motor2	Kunwang	CY0408L-021HB-064	-
Main Broad 1	Hongban	Aae_MB_PCB_V3	-
Main Broad 2	Huashen	Aae_MB_PCB_V3	-
BT/WLAN Module	Qualcomm	WCN-3680B-0-79BWLNSP-TR-05-1	-

2.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION



2.3 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
1	Adapter	JINGSAI	CLS-050200	N/A	N/A
2	DC source	LONG WEI	PS-6403D	010934269	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	Unshielded, Detachable 1.8m
2	DC Line: Unshielded, Detachable 1.0m

2.4 DESCRIPTION OF TEST MODES

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 in ERP/EIRP and radiated emission was found when positioned on X-plane for LTE. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
-	EUT + Adapter with LTE link

LTE BAND 26

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE		
B	ERP	26679 to 26783	26679, 26740, 26783	1.4MHz	QPSK, 16QAM	1 RB / 0 RB Offset		
		26705 to 26775	26705, 26740, 26775	3MHz	QPSK, 16QAM	1 RB / 0 RB Offset		
		26715 to 26765	26715, 26740, 26765	5MHz	QPSK, 16QAM	1 RB / 0 RB Offset		
		26740	26740	10MHz	QPSK, 16QAM	1 RB / 0 RB Offset		
B	FREQUENCY STABILITY	26679 to 26783	26679, 26783	1.4MHz	QPSK	1 RB / 0 RB Offset		
		26705 to 26775	26705, 26775	3MHz	QPSK	1 RB / 0 RB Offset		
		26715 to 26765	26715, 26765	5MHz	QPSK	1 RB / 0 RB Offset		
		26740	26740	10MHz	QPSK	1 RB / 0 RB Offset		
B	OCCUPIED BANDWIDTH	26679 to 26783	26679, 26740, 26783	1.4MHz	QPSK, 16QAM	6 RB / 0 RB Offset		
		26705 to 26775	26705, 26740, 26775	3MHz	QPSK, 16QAM	15 RB / 0 RB Offset		
		26715 to 26765	26715, 26740, 26765	5MHz	QPSK, 16QAM	25 RB / 0 RB Offset		
		26740	26740	10MHz	QPSK, 16QAM	50 RB / 0 RB Offset		
B	BAND EDGE	26679 to 26783	26679	1.4MHz	QPSK	1 RB / 0 RB Offset 6 RB / 0 RB Offset		
			26783	1.4MHz	QPSK	1 RB / 5 RB Offset 6 RB / 0 RB Offset		
		26705 to 26775	26705	3MHz	QPSK	1 RB / 0 RB Offset 15 RB / 0 RB Offset		
			26775	3MHz	QPSK	1 RB / 14 RB Offset 15 RB / 0 RB Offset		
		26715 to 26765	26715	5MHz	QPSK	1 RB / 0 RB Offset 25 RB / 0 RB Offset		
			26765	5MHz	QPSK	1 RB / 24 RB Offset 25 RB / 0 RB Offset		
		26740	26740	10MHz	QPSK	1 RB / 0 RB Offset 50 RB / 0 RB Offset		
			26740	10MHz	QPSK	1 RB / 49 RB Offset 50 RB / 0 RB Offset		
		B	CONDCUETED EMISSION	26679 to 26783	26679, 26740, 26783	1.4MHz	QPSK	1 RB / 0 RB Offset
				26705 to 26775	26705, 26740, 26775	3MHz	QPSK	1 RB / 0 RB Offset
				26715 to 26765	26715, 26740, 26765	5MHz	QPSK	1 RB / 0 RB Offset
				26740	26740	10MHz	QPSK	1 RB / 0 RB Offset
A	RADIATED EMISSION	26679 to 26783	26740	1.4MHz	QPSK	1 RB / 0 RB Offset		
		26705 to 26775	26740	3MHz	QPSK	1 RB / 0 RB Offset		
		26715 to 26765	26715, 26740, 26765	5MHz	QPSK	1 RB / 0 RB Offset		
		26740	26740	10MHz	QPSK	1 RB / 0 RB Offset		

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.



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TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP	23deg. C, 70%RH	DC 5V By Adapter	Star Le
FREQUENCY STABILITY	23deg. C, 70%RH	DC 3.5V/3.8V/4.4V	Kevin Zhang
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 3.85V By Battery	Kevin Zhang
BAND EDGE	23deg. C, 70%RH	DC 3.85V By Battery	Kevin Zhang
CONDCUDED EMISSION	23deg. C, 70%RH	DC 3.85V By Battery	Kevin Zhang
RADIATED EMISSION	23deg. C, 70%RH	DC 5V By Adapter	Star Le
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC 3.85V By Battery	Kevin Zhang



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2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC 47 CFR Part 2

FCC 47 CFR Part 90

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

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

3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Per FCC Part 90.635(a)(b)

Mobile stations are limited to 100 watts e.r.p. Portable stations are limited to 3 watts e.r.p.

3.1.2 TEST PROCEDURES

EIRP / ERP MEASUREMENT:

Per KDB 971168 D01 Power Meas License Digital Systems v03r01 or subclause 5.2.5.5 of ANSI C63.26-2015, the relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_{\text{T}} - L_{\text{C}}$$

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively
(expressed in the same units as P_{Meas} , typically dBW or dBm);

P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;

G_{T} = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

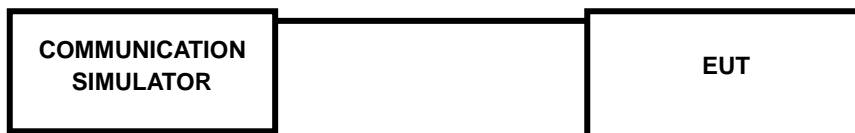
L_{C} = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

CONDUCTED POWER MEASUREMENT:

- a. The EUT was set up for the maximum power with 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.

3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



3.1.4 TEST RESULTS

AVERAGE CONDUCTED OUTPUT POWER (dBm)

LTE BAND 26

Band/BW	Modulation	RB Size	RB Offset	Low CH 26697	Mid CH 26740	High CH 26783	MPR
				Frequency 814.7 MHz	Frequency 819 MHz	Frequency 823.3 MHz	
26/ 1.4	QPSK	1	0	22.90	22.94	22.93	0
		1	2	23.19	23.16	23.20	0
		1	5	22.93	22.88	22.90	0
		3	0	22.74	22.72	22.78	0
		3	1	22.82	22.81	22.75	0
		3	3	22.77	22.74	22.76	0
		6	0	21.77	21.72	21.76	1
	16QAM	1	0	21.73	21.71	21.73	1
		1	2	21.83	21.77	21.83	1
		1	5	21.76	21.73	21.80	1
		3	0	21.96	21.95	21.95	1
		3	1	21.87	21.94	21.90	1
		3	3	21.93	21.92	21.96	1



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Band/BW	Modulation	RB Size	RB Offset	Low CH CH26705	Mid CH CH26740	High CH CH26775	MPR
				Frequency 815.5MHz	Frequency 819.0MHz	Frequency 822.5MHz	
26/ 3	QPSK	1	0	22.92	22.96	22.92	0
		1	7	23.15	23.17	23.20	0
		1	14	22.89	22.88	22.90	0
		8	0	21.73	21.75	21.78	1
		8	3	21.75	21.81	21.77	1
		8	7	21.74	21.81	21.80	1
	16QAM	15	0	21.74	21.73	21.70	1
		1	0	21.70	21.77	21.76	1
		1	7	21.80	21.80	21.81	1
		1	14	21.79	21.73	21.80	1
		8	0	20.92	20.96	20.95	2
		8	3	20.92	20.89	20.93	2
		8	7	20.95	20.90	20.92	2

Band/BW	Modulation	RB Size	RB Offset	Low CH CH26715	Mid CH CH26740	High CH CH26765	MPR
				Frequency 816.5MHz	Frequency 819.0MHz	Frequency 821.5MHz	
26/ 5	QPSK	1	0	22.93	22.91	22.93	0
		1	12	23.20	23.14	23.20	0
		1	24	22.90	22.87	22.94	0
		12	0	21.76	21.75	21.75	1
		12	6	21.75	21.82	21.78	1
		12	13	21.78	21.77	21.81	1
	16QAM	25	0	21.72	21.76	21.73	1
		1	0	21.71	21.73	21.76	1
		1	12	21.77	21.83	21.80	1
		1	24	21.79	21.73	21.79	1
		12	0	20.92	20.94	20.92	2
		12	6	20.89	20.93	20.89	2
		12	13	20.90	20.92	20.95	2

Band/BW	Modulation	RB Size	RB Offset	CH	Mid CH CH26740	CH	MPR
				MHz	Frequency 819.0MHz	MHz	
26/ 10	QPSK	1	0	-	22.98	-	0
		1	24	-	23.22	-	0
		1	49	-	22.95	-	0
		25	0	-	21.80	-	1
		25	12	-	21.83	-	1
		25	25	-	21.82	-	1
		50	0	-	21.78	-	1
	16QAM	1	0	-	21.78	-	1
		1	24	-	21.85	-	1
		1	49	-	21.81	-	1
		25	0	-	21.00	-	2
		25	12	-	20.95	-	2
		25	25	-	20.97	-	2

ERP

LTE BAND 26

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26679	814.7	23.19	-1.23	19.81	95.72	7
26740	819.0	23.16	-1.23	19.78	95.06	7
26783	823.3	23.20	-1.23	19.82	95.94	7

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26679	814.7	21.96	-1.23	18.58	72.11	7
26740	819.0	21.95	-1.23	18.57	71.94	7
26783	823.3	21.96	-1.23	18.58	72.11	7

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26705	815.5	23.15	-1.23	19.77	94.84	7
26740	819.0	23.17	-1.23	19.79	95.28	7
26775	822.5	23.20	-1.23	19.82	95.94	7

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26705	815.5	21.80	-1.23	18.42	69.5	7
26740	819.0	21.80	-1.23	18.42	69.5	7
26775	822.5	21.81	-1.23	18.43	69.66	7



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LTE BAND 26

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26715	816.5	23.20	-1.23	19.82	95.94	7
26740	819.0	23.14	-1.23	19.76	94.62	7
26765	821.5	23.20	-1.23	19.82	95.94	7

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26715	816.5	21.79	-1.23	18.41	69.34	7
26740	819.0	21.83	-1.23	18.45	69.98	7
26765	821.5	21.80	-1.23	18.42	69.50	7

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26740	819.0	23.22	-1.23	19.84	96.38	7

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _C (dB)	ERP (dBm)	ERP (mW)	Limit (W)
26740	819.0	21.85	-1.23	18.47	70.31	7

REMARKS: ERP Output Power (dBm) = EIRP (dBm) -2.15(dB).

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

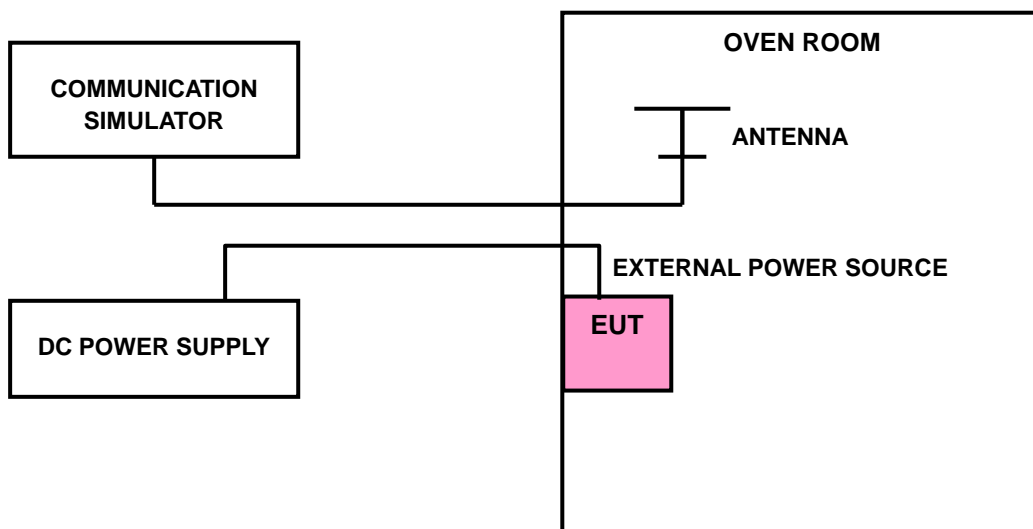
The frequency stability of mobile, portable and control transmitters operating in the wideband segment must be 1.25 parts per million or better when AFC is locked to a base station, and 5 parts per million or better when AFC is not locked

3.2.2 TEST PROCEDURE

- a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

3.2.3 TEST SETUP



3.2.4 TEST RESULTS

LTE Band 26

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	1.4MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0021	0.0026	2.5
V_{min}	-0.0031	-0.0031	2.5
V_{max}	0.0021	0.0021	2.5

NOTE: The applicant defined the normal working voltage of the battery is from V_{min} Vdc to V_{max} Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

TEMP. (°C)	1.4MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-30	-0.0114	-0.0121	2.5
-20	-0.0104	-0.0100	2.5
-10	-0.0082	-0.0083	2.5
0	-0.0075	-0.0077	2.5
10	-0.0055	-0.0049	2.5
20	-0.0041	-0.0041	2.5
30	-0.0030	-0.0026	2.5
40	-0.0022	-0.0018	2.5
50	-0.0004	-0.0004	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	3MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V_{nor}	0.0021	0.0021	2.5
V_{min}	-0.0021	-0.0025	2.5
V_{max}	0.0018	0.0018	2.5

NOTE: The applicant defined the normal working voltage of the battery is from V_{min} Vdc to V_{max} Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

TEMP. (°C)	3MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-30	-0.0120	-0.0117	2.5
-20	-0.0106	-0.0108	2.5
-10	-0.0082	-0.0085	2.5
0	-0.0075	-0.0078	2.5
10	-0.0051	-0.0045	2.5
20	-0.0045	-0.0040	2.5
30	-0.0027	-0.0040	2.5
40	-0.0017	-0.0015	2.5
50	-0.0006	-0.0004	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	5MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
V _{nor}	0.0022	0.0026	2.5
V _{min}	-0.0023	-0.0031	2.5
V _{max}	0.0021	0.0022	2.5

NOTE: The applicant defined the normal working voltage of the battery is from V_{min} Vdc to V_{max} Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

TEMP. (°C)	5MHz		LIMIT (ppm)
	FREQUENCY ERROR (ppm)		
	Low Channel	High Channel	
-30	-0.0119	-0.0114	2.5
-20	-0.0110	-0.0099	2.5
-10	-0.0084	-0.0083	2.5
0	-0.0074	-0.0075	2.5
10	-0.0057	-0.0050	2.5
20	-0.0038	-0.0042	2.5
30	-0.0043	-0.0037	2.5
40	-0.0016	-0.0022	2.5
50	-0.0003	-0.0005	2.5

FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	10MHz	LIMIT (ppm)
	FREQUENCY ERROR (ppm)	
	Mid Channel	
V_{nor}	0.0026	2.5
V_{min}	-0.0031	2.5
V_{max}	0.0026	2.5

NOTE: The applicant defined the normal working voltage of the battery is from V_{min} Vdc to V_{max} Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

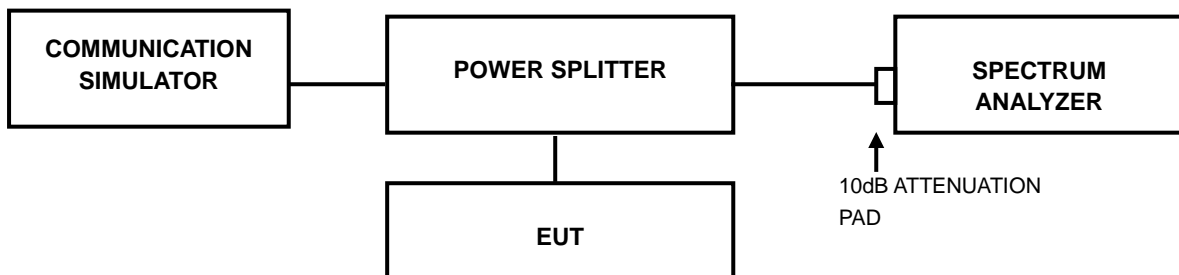
TEMP. (°C)	10MHz	LIMIT (ppm)
	FREQUENCY ERROR (ppm)	
	Mid Channel	
-30	-0.0117	2.5
-20	-0.0103	2.5
-10	-0.0081	2.5
0	-0.0078	2.5
10	-0.0049	2.5
20	-0.0040	2.5
30	-0.0034	2.5
40	-0.0016	2.5
50	-0.0004	2.5

3.3 OCCUPIED BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

3.3.2 TEST SETUP



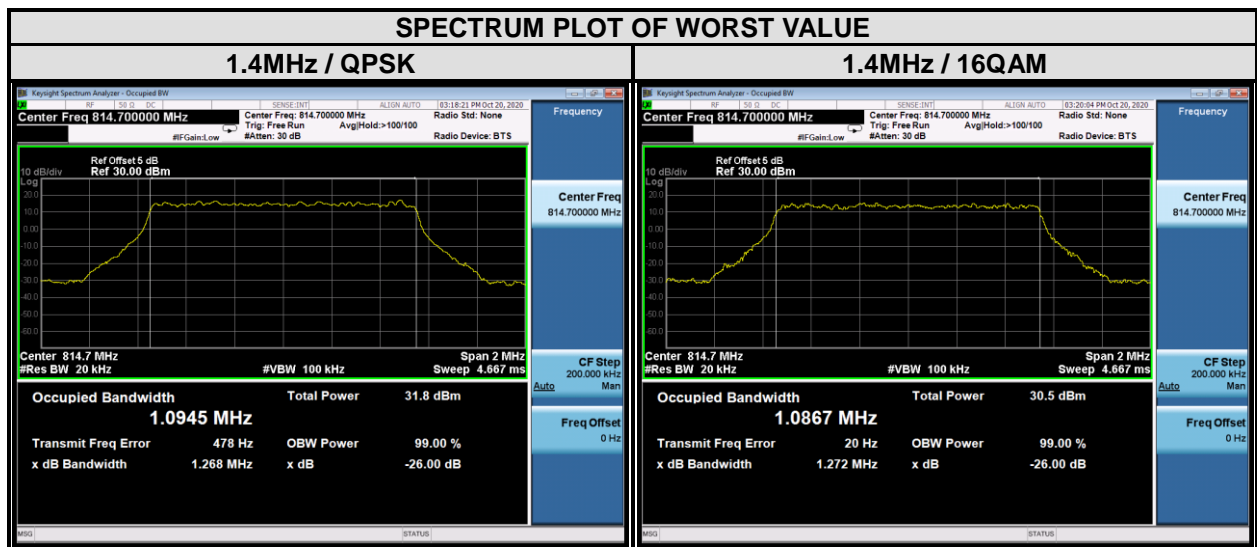
3.3.3 TEST PROCEDURES

- a. The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- b. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

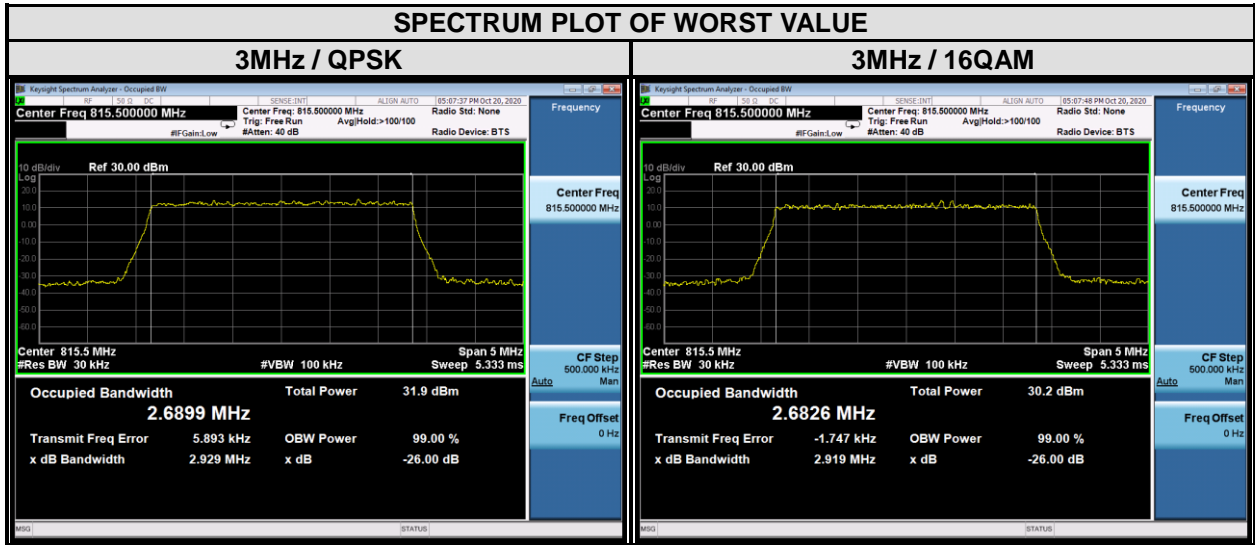
3.3.4 TEST RESULTS

LTE BAND 26

CHANNEL BANDWIDTH: 1.4MHz					
CHANNEL	Frequency (MHz)	99% OCCUPIED Bandwidth (MHz)		26dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
26697	814.7	1.09	1.09	1.27	1.27
26740	819	1.09	1.09	1.27	1.26
26783	823.3	1.09	1.08	1.28	1.24



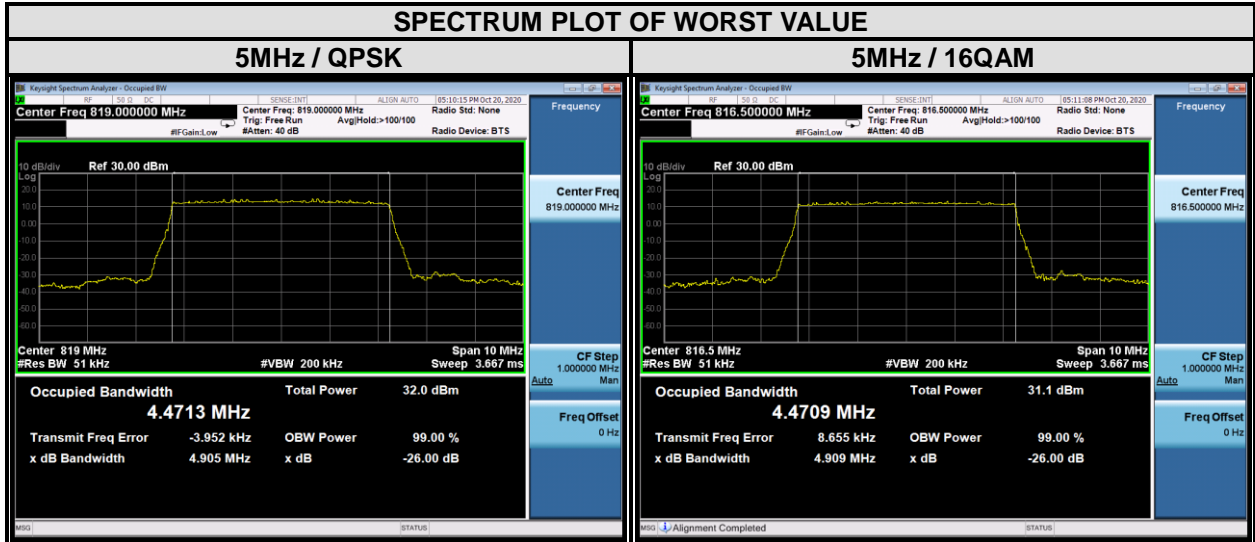
CHANNEL BANDWIDTH: 3MHz					
CHANNEL	Frequency (MHz)	99% OCCUPIED Bandwidth (MHz)		26dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
26705	815.5	2.69	2.68	2.93	2.92
26740	819	2.68	2.68	2.91	2.94
26775	822.5	2.69	2.68	2.92	2.93



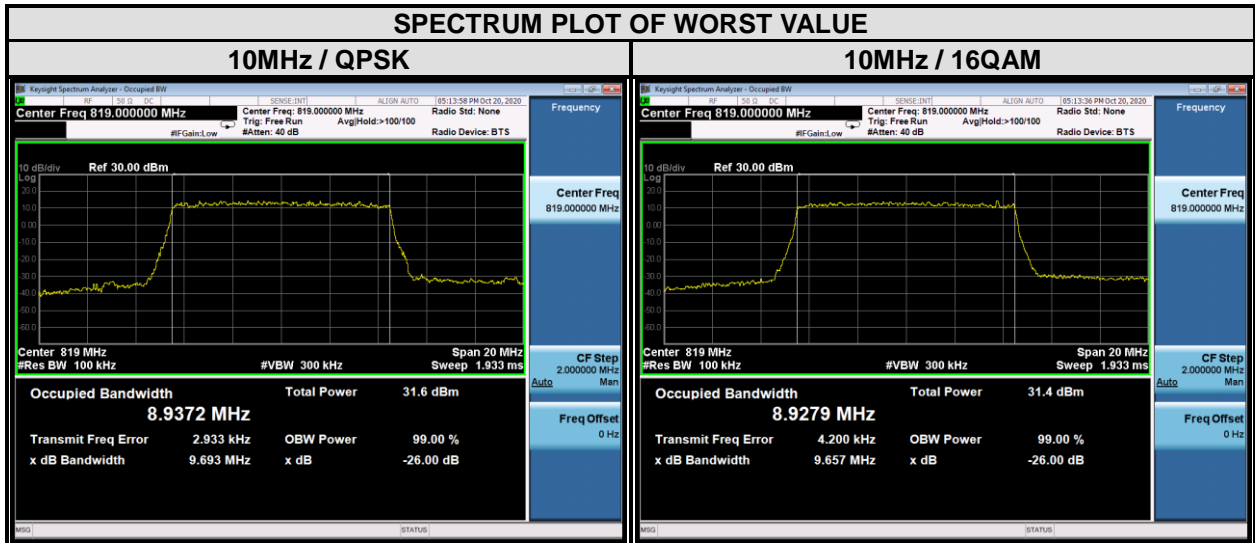


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CHANNEL BANDWIDTH: 5MHz					
CHANNEL	Frequency (MHz)	99% OCCUPIED Bandwidth (MHz)		26dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
26715	816.5	4.46	4.47	4.89	4.91
26740	819	4.47	4.46	4.91	4.85
26765	821.5	4.46	4.46	4.86	4.94



CHANNEL BANDWIDTH: 10MHz					
CHANNEL	Frequency (MHz)	99% OCCUPIED Bandwidth (MHz)		26dB Bandwidth (MHz)	
		QPSK	16QAM	QPSK	16QAM
-	-	-	-	-	-
26740	819	8.94	8.93	9.69	9.66
-	-	-	-	-	-

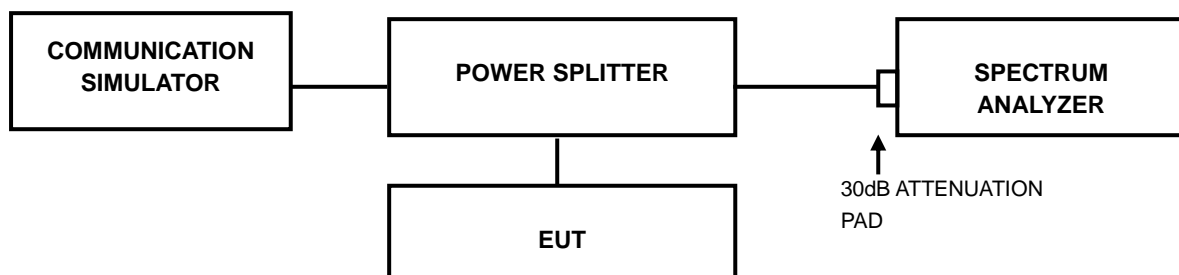


3.4 PEAK TO AVERAGE RATIO

3.4.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

In addition, the peak to average power ratio (PAPR) of the equipment shall not exceed 13 dB for more than 0.1% of the time, using a signal that corresponds to the highest PAPR during periods of continuous transmission.

3.4.2 TEST SETUP



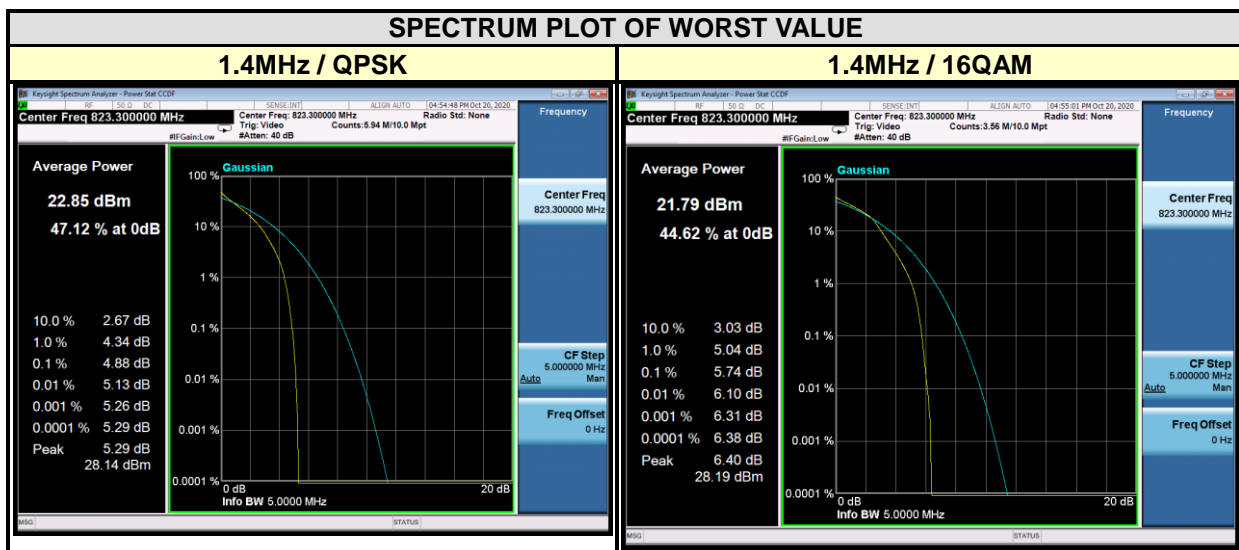
3.4.3 TEST PROCEDURES

1. Set resolution/measurement bandwidth \geq signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.

3.4.4 TEST RESULTS

LTE BAND 26

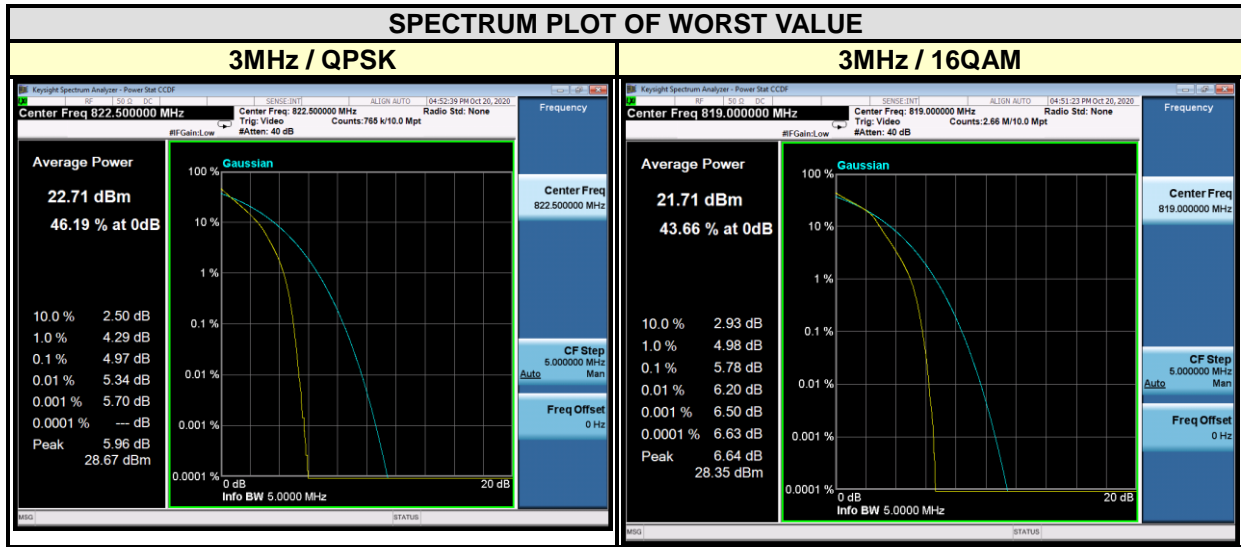
CHANNEL BANDWIDTH: 1.4MHz			
CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)	
		QPSK	16QAM
26697	814.7	4.62	5.61
26740	819	4.83	5.66
26783	823.3	4.88	5.74





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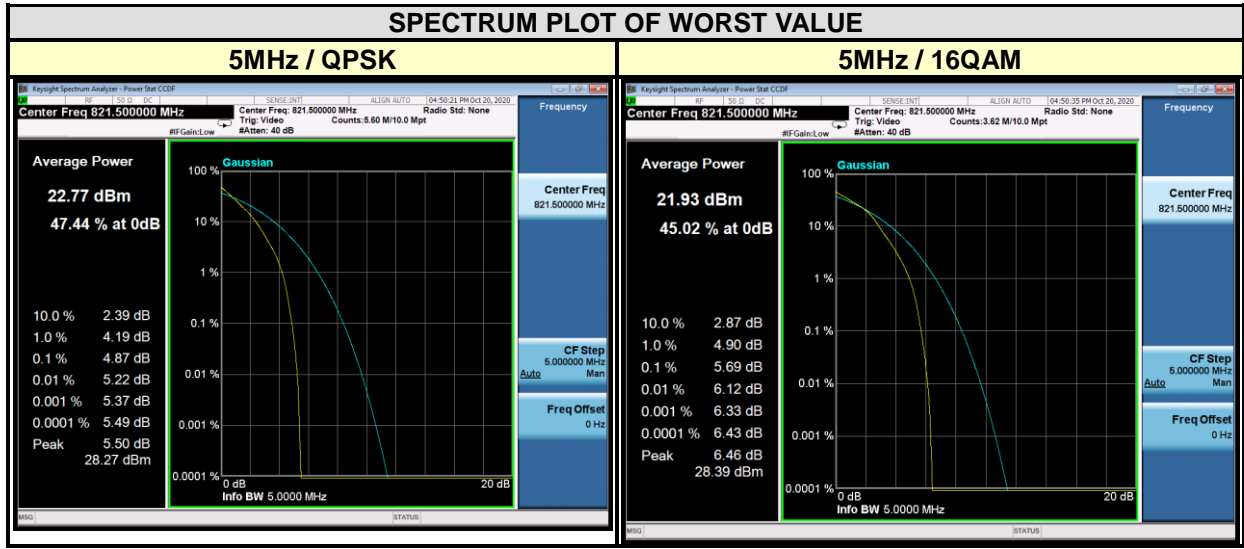
CHANNEL BANDWIDTH: 3MHz			
CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)	
		QPSK	16QAM
26705	815.5	4.81	5.68
26740	819	4.92	5.78
26775	822.5	4.97	5.77





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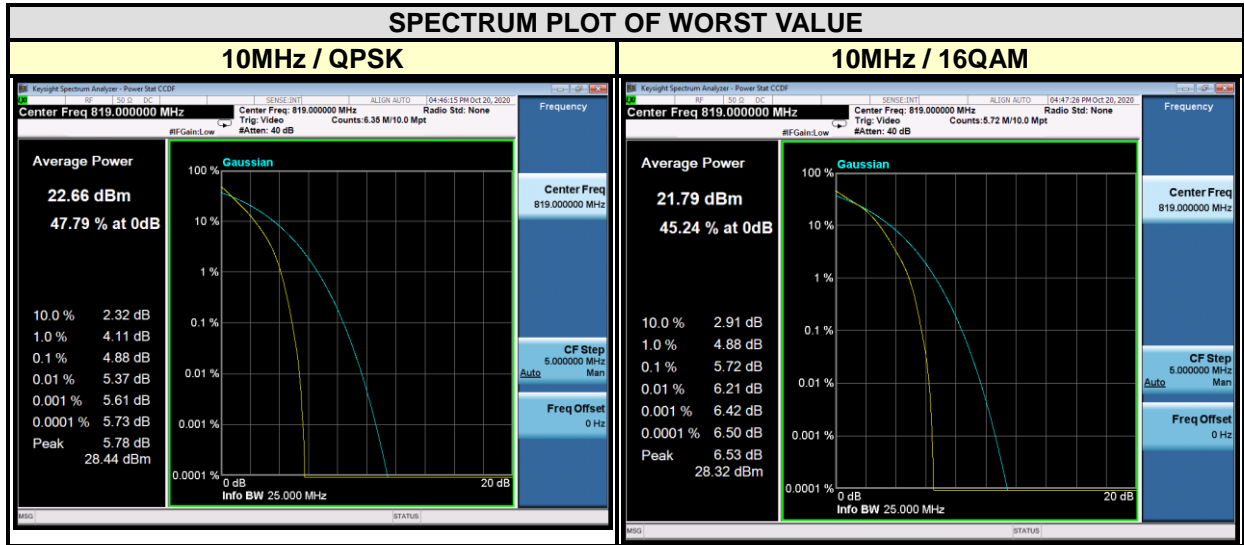
CHANNEL BANDWIDTH: 5MHz			
CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)	
		QPSK	16QAM
26715	816.5	4.80	5.65
26740	819	4.83	5.65
26765	821.5	4.87	5.69





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CHANNEL BANDWIDTH: 10MHz			
CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)	
		QPSK	16QAM
-	-	-	-
26740	819	4.88	5.72
-	-	-	-



3.5 EMISSION MASK MEASUREMENT

3.5.1 LIMITS OF EMISSION MASK MEASUREMENT

According to FCC part 90.691 shall be tested the emission mask. For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \text{ Log}_{10}(f/6.1)$ decibels or $50 + 10 \text{ Log}_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

FCC part 90.543e as below:

(e) For operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(1) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than $76 + 10 \log (P)$ dB in a 6.25 kHz band segment, for base and fixed stations.

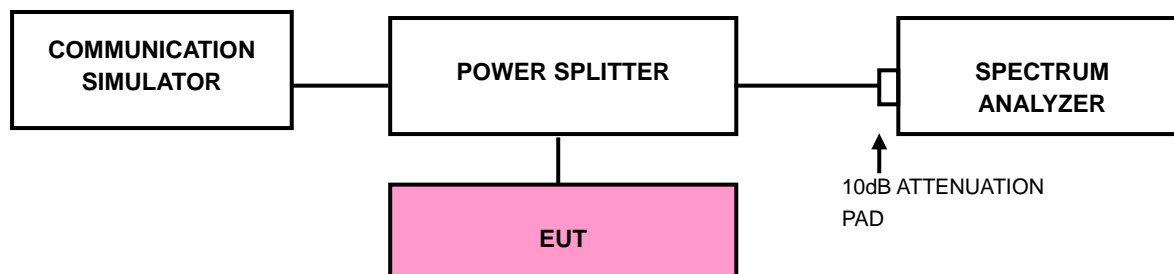
(2) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations.

(3) On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least $43 + 10 \log (P)$ dB.

(4) Compliance with the provisions of paragraphs (e)(1) and (2) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

(5) Compliance with the provisions of paragraph (e)(3) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of 30 kHz may be employed.

3.5.2 TEST SETUP



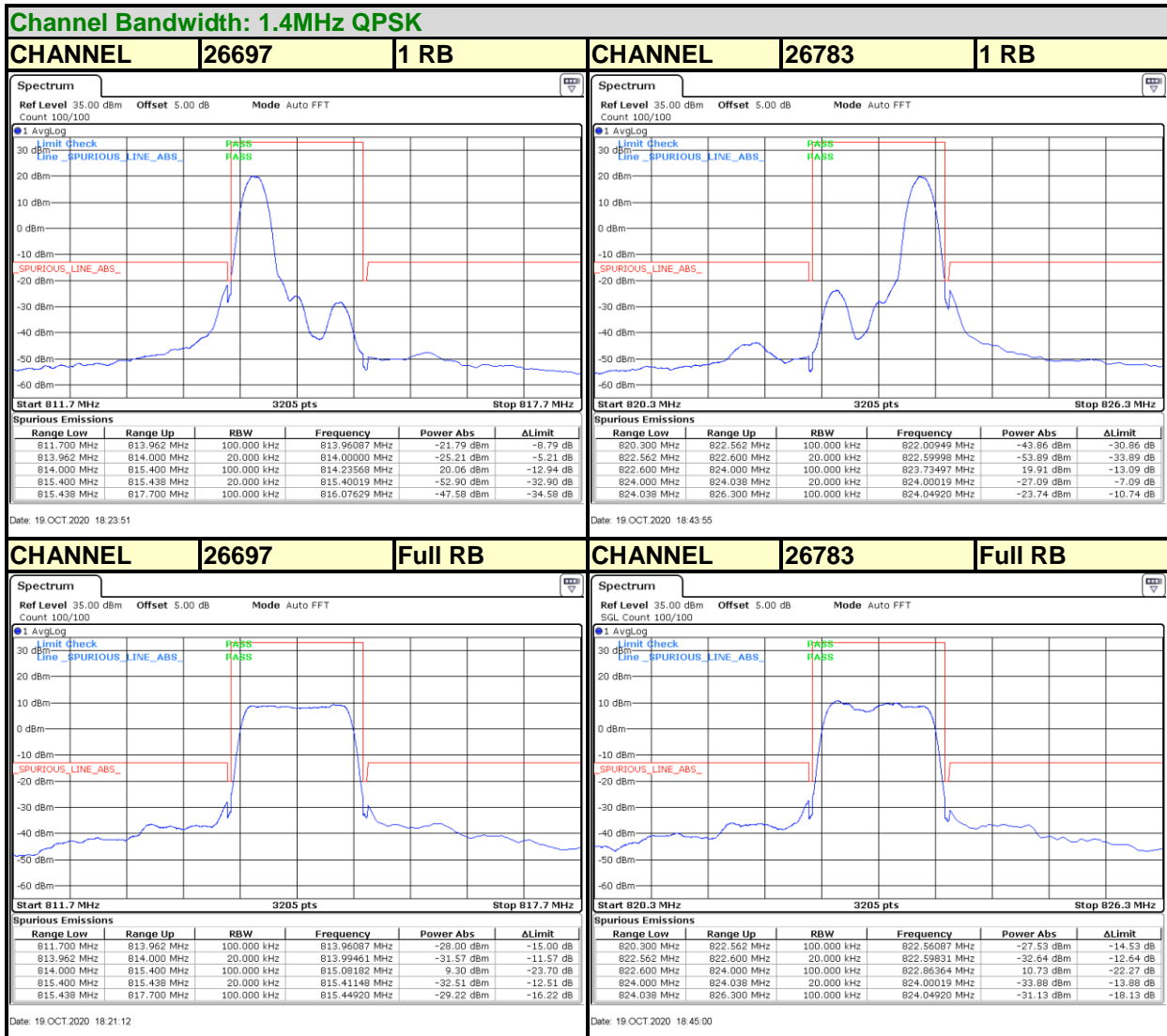
3.5.3 TEST PROCEDURES

- The EUT was set up for the maximum peak power with LTE link data modulation. The power was measured with R&S Spectrum Analyzer. All measurements were done at 2 channels (low and high operational frequency range.).
- The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 50kHz and VBW of the spectrum is 200kHz. (LTE bandwidth 5MHz)
- The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 100kHz and VBW of the spectrum is 300kHz. (LTE bandwidth 10MHz)
- Record the max trace plot into the test report.



3.5.4 TEST RESULTS

LTE BAND 26

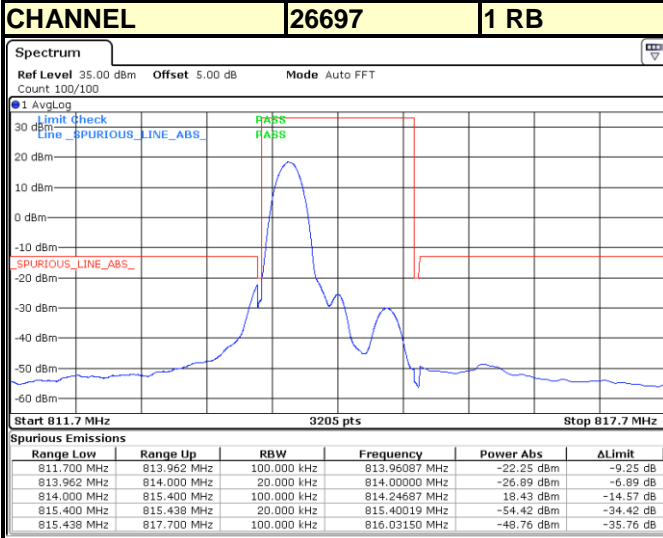




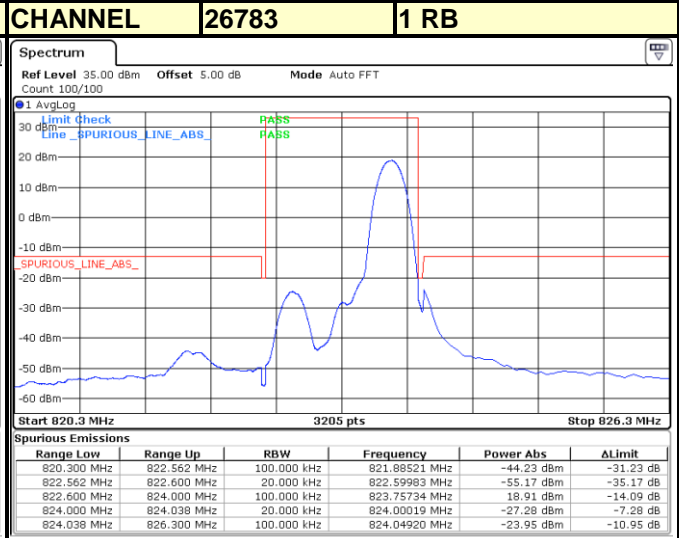
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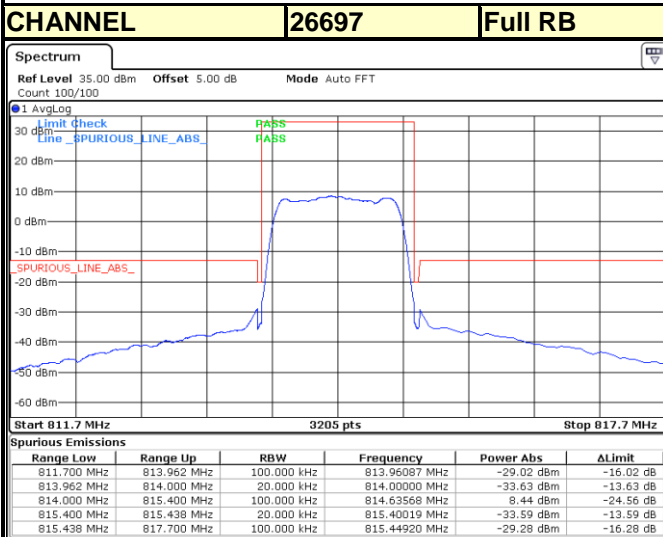
Channel Bandwidth: 1.4MHz 16QAM



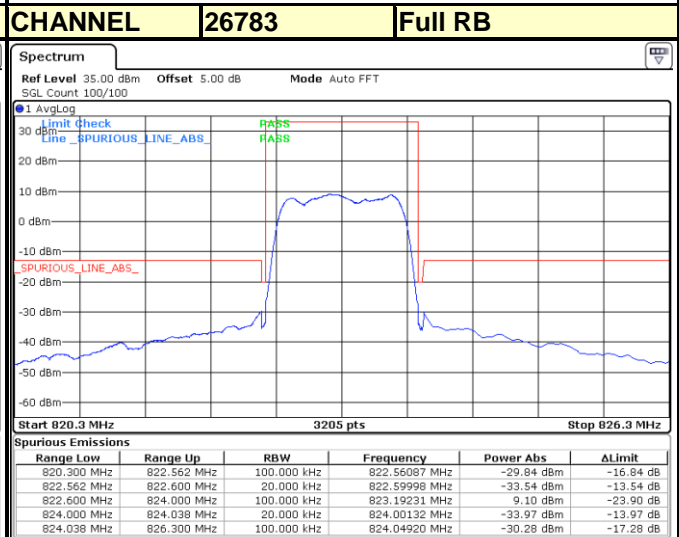
Date: 19.OCT.2020 18:23:27



Date: 19.OCT.2020 18:44:22



Date: 19.OCT.2020 18:23:07



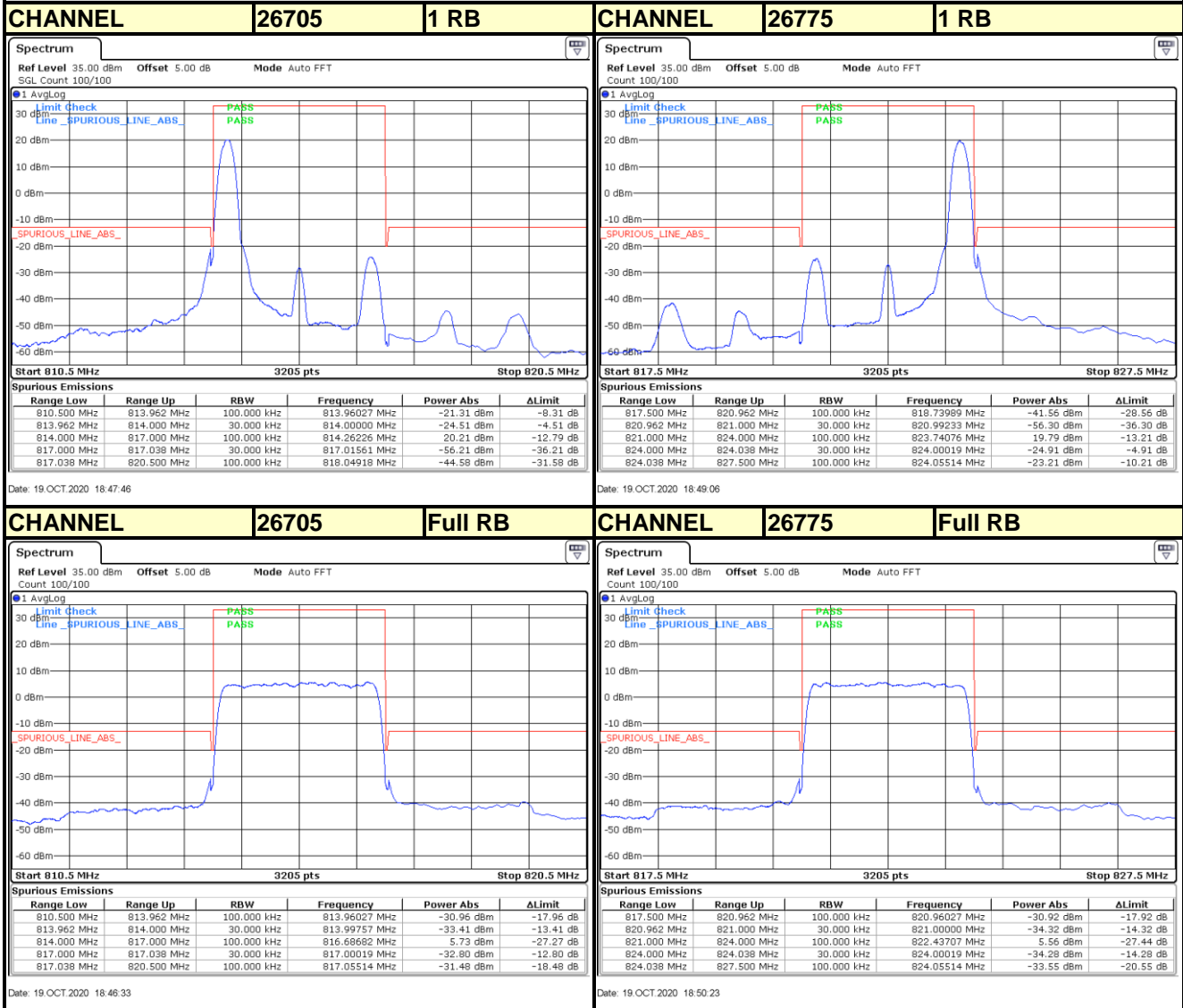
Date: 19.OCT.2020 18:44:40



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Test Report No.: RF200918W001-7

Channel Bandwidth: 3MHz QPSK



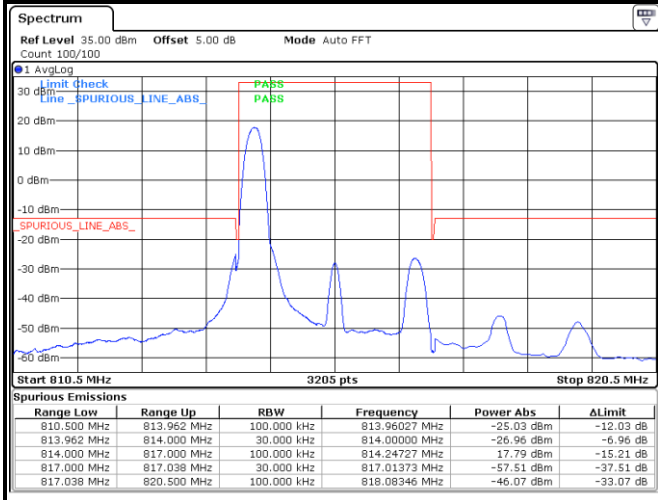


BUREAU VERITAS

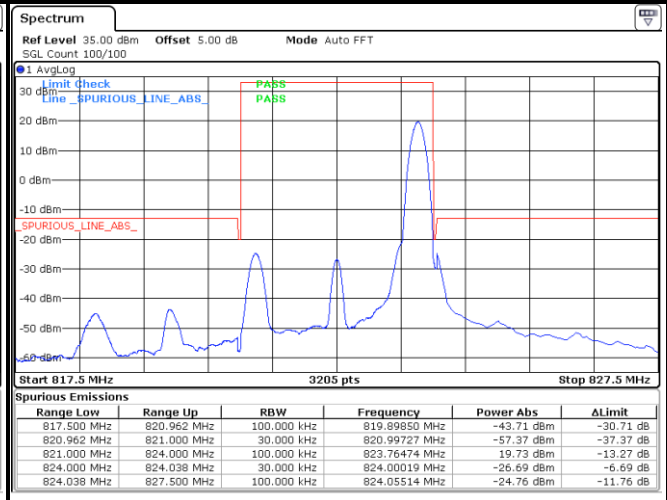
Test Report No.: RF200918W001-7

Channel Bandwidth: 3MHz 16QAM

CHANNEL 26705 1 RB CHANNEL 26775 1 RB

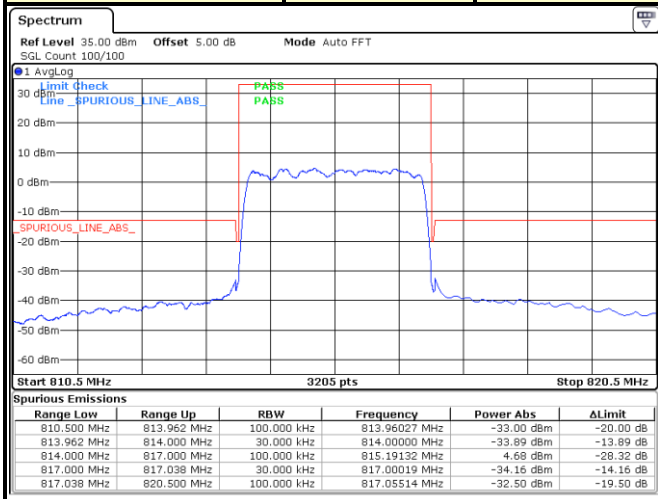


Date: 19 OCT 2020 16:47:27



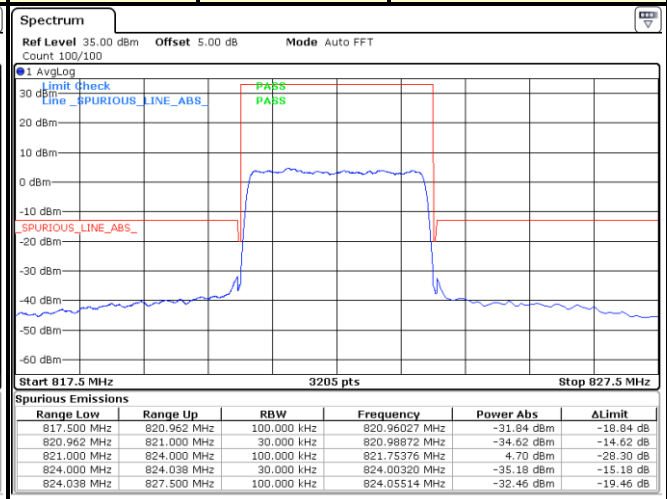
Date: 19 OCT 2020 18:49:36

CHANNEL 26705 Full RB



Date: 19 OCT 2020 16:47:10

CHANNEL 26775 Full RB



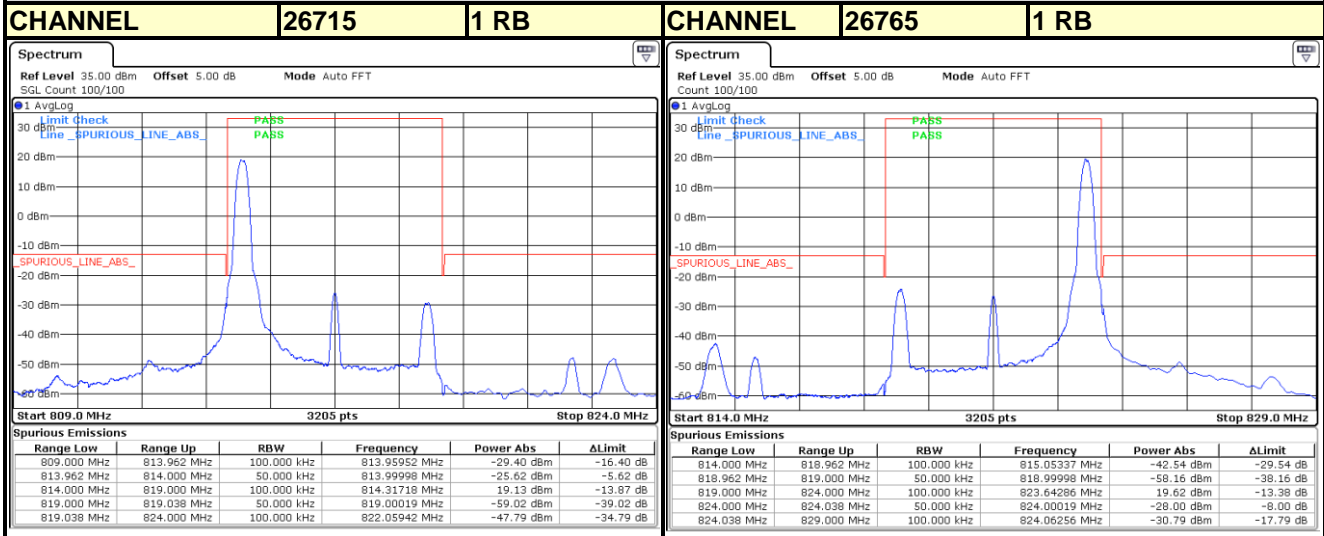
Date: 19 OCT 2020 18:50:02



BUREAU VERITAS

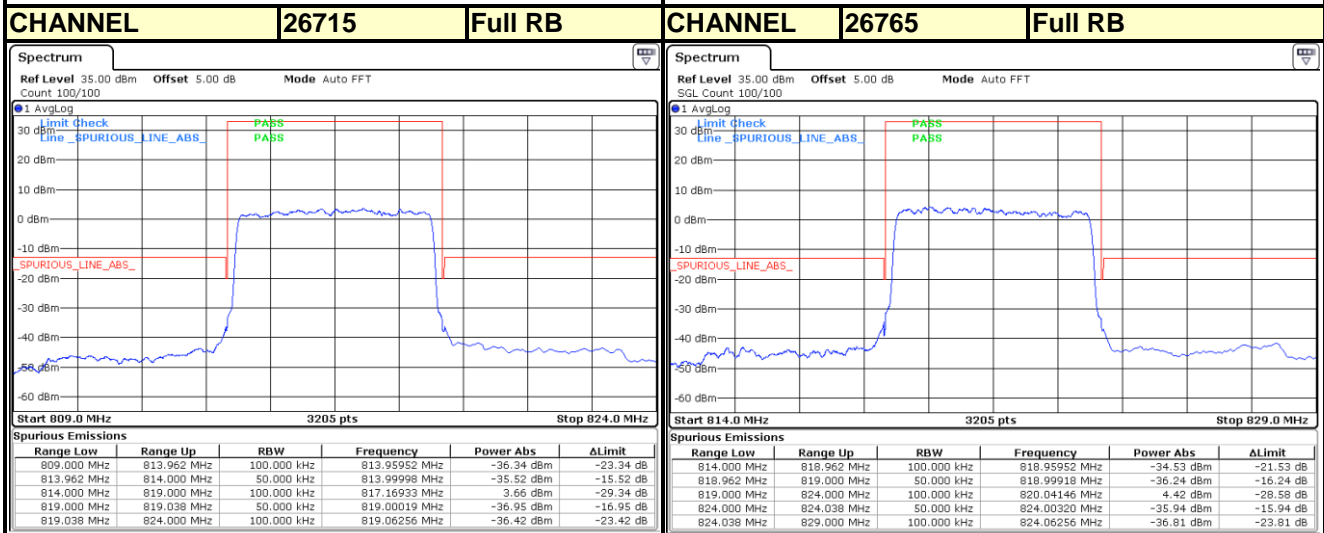
Test Report No.: RF200918W001-7

Channel Bandwidth: 5MHz QPSK



Date: 19 OCT 2020 18:53:19

Date: 19 OCT 2020 18:54:53



Date: 19 OCT 2020 18:51:47

Date: 19 OCT 2020 18:55:53

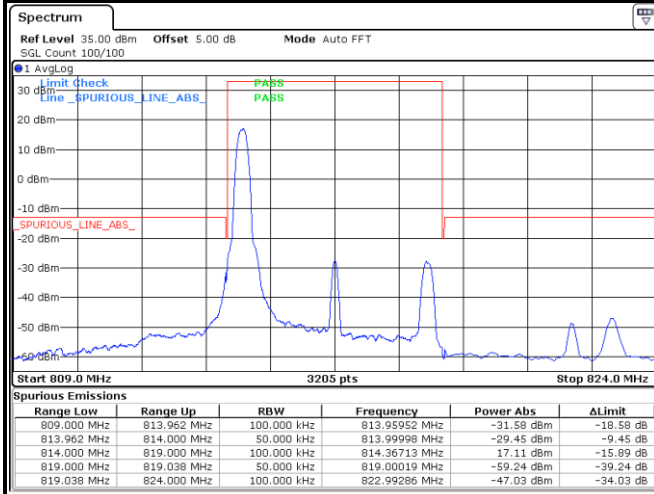


BUREAU VERITAS

Test Report No.: RF200918W001-7

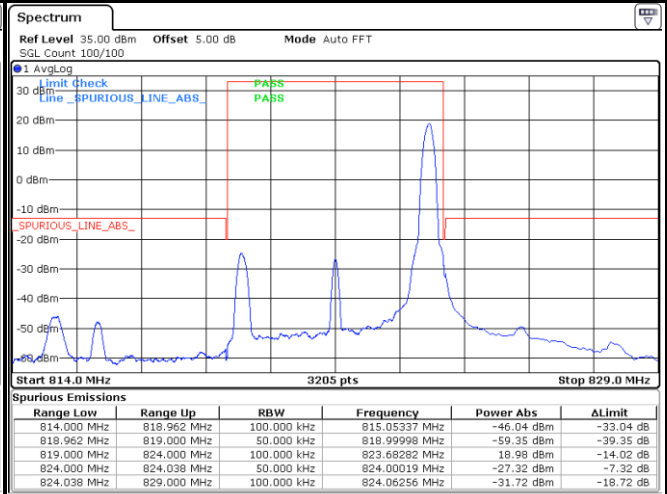
Channel Bandwidth: 5MHz 16QAM

CHANNEL 26715 1 RB



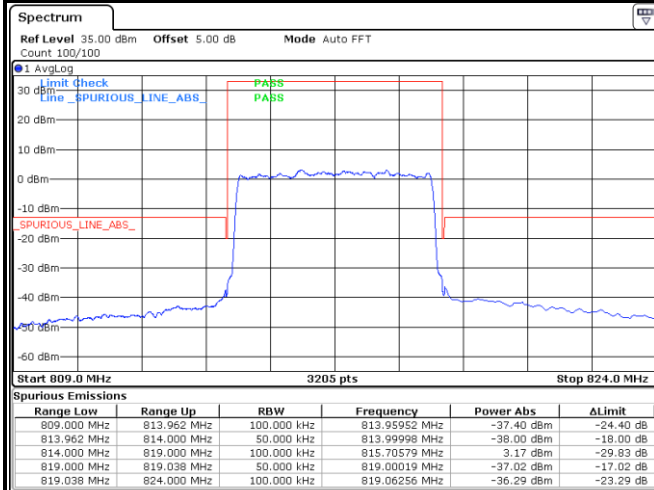
Date: 19 OCT 2020 18:52:48

CHANNEL 26765 1 RB



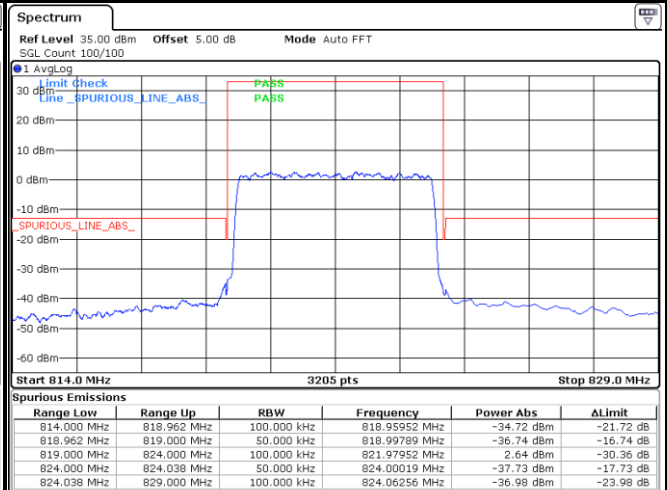
Date: 19 OCT 2020 18:55:18

CHANNEL 26715 Full RB



Date: 19 OCT 2020 18:52:19

CHANNEL 26765 Full RB



Date: 19 OCT 2020 18:55:35

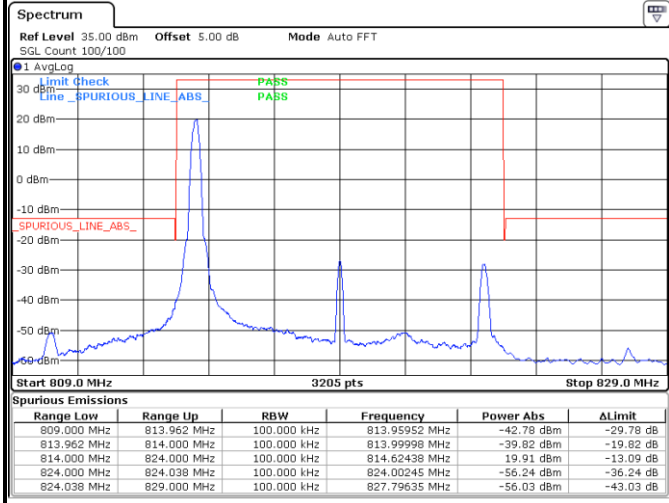


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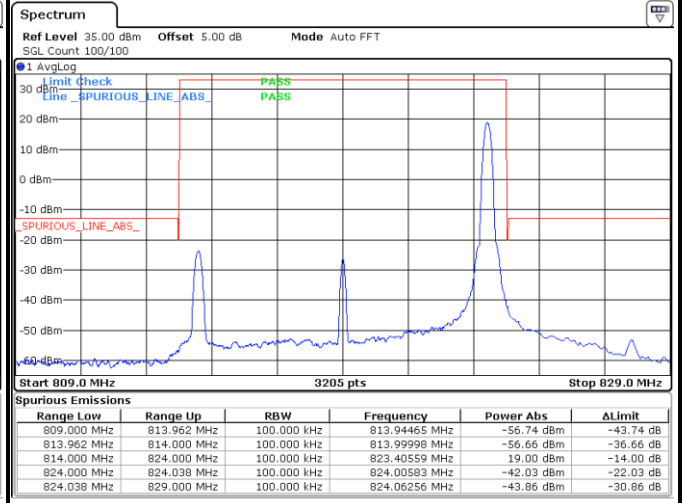
Test Report No.: RF200918W001-7

Channel Bandwidth: 10MHz QPSK

CHANNEL 26740 1 RB CHANNEL 26740 49 RB

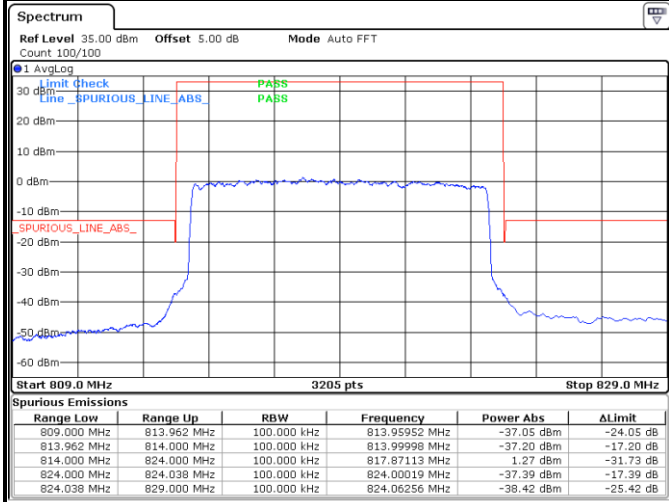


Date: 19.OCT.2020 19:00:38



Date: 19.OCT.2020 19:00:05

CHANNEL 26740 Full RB



Date: 19.OCT.2020 18:59:17

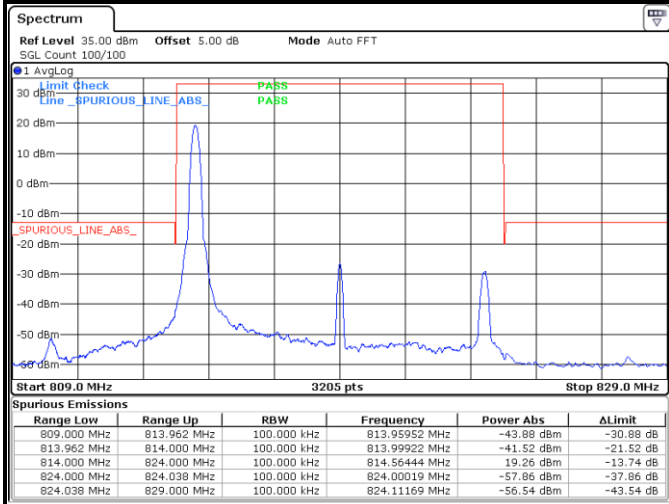


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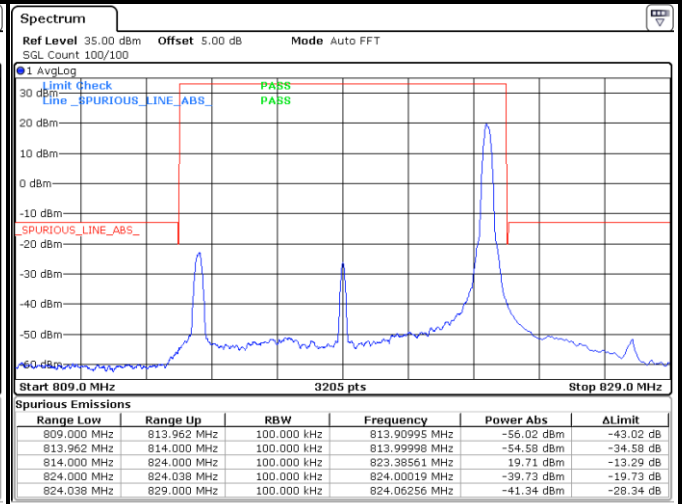
Test Report No.: RF200918W001-7

Channel Bandwidth: 10MHz 16QAM

CHANNEL 26740 1 RB CHANNEL 26740 49 RB

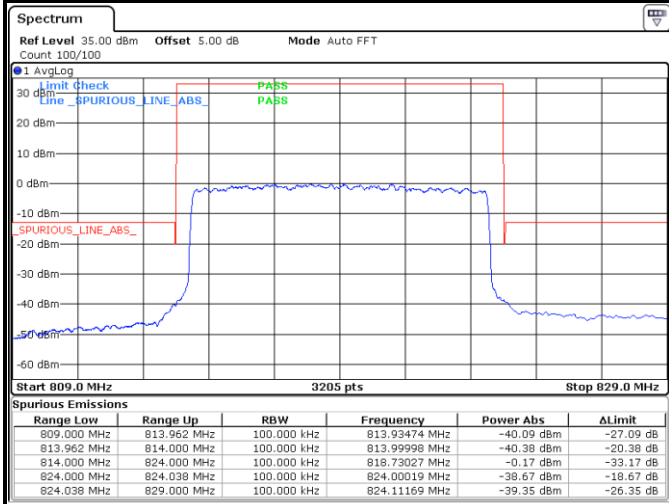


Date: 19.OCT.2020 19:00:21



Date: 19.OCT.2020 18:59:38

CHANNEL 26740 Full RB



Date: 19.OCT.2020 18:58:24

3.6 CONDUCTED SPURIOUS EMISSIONS

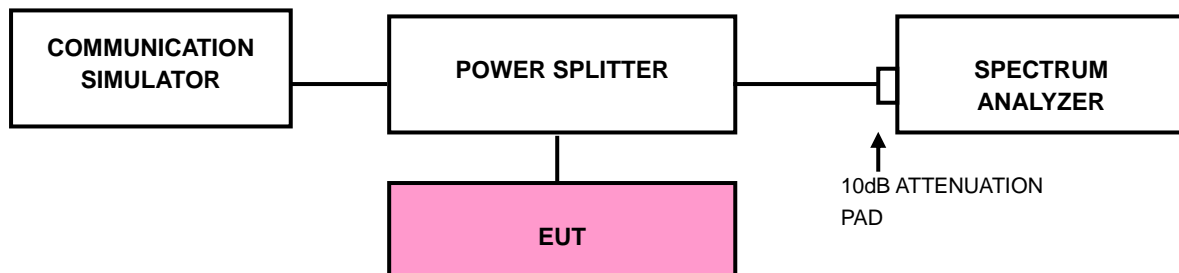
3.6.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

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

3.6.2 TEST PROCEDURE

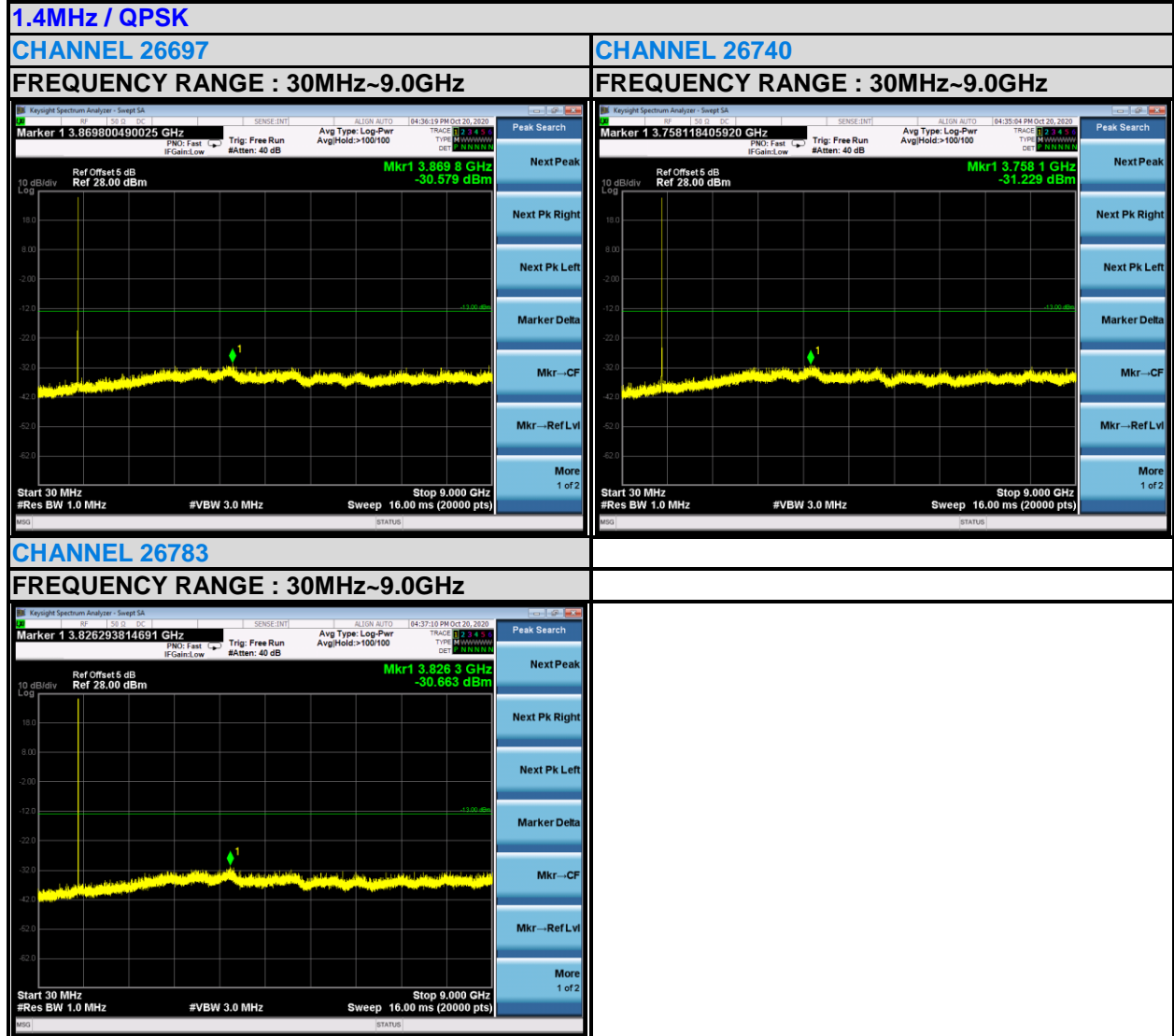
- a. The EUT makes a phone call to the communication simulator. All measurements were done at middle operational frequency range.
- b. Measuring frequency range is from 30 MHz to 9GHz. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz are used for conducted emission measurement.

3.6.3 TEST SETUP



3.6.4 TEST RESULTS

LTE BAND 26







Test Report No.: RF200918W001-7



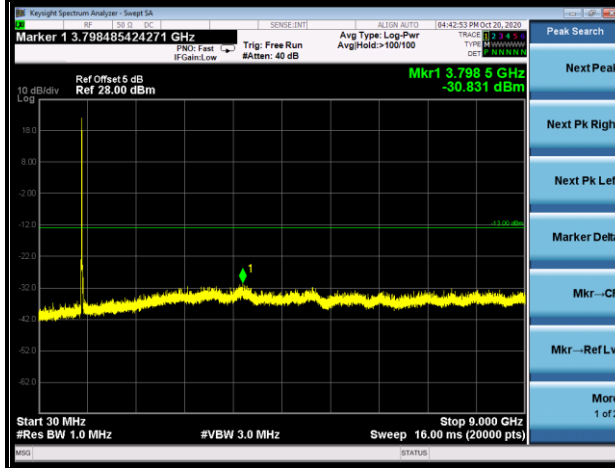


Test Report No.: RF200918W001-7

10MHz / QPSK

CHANNEL 26740

FREQUENCY RANGE : 30MHz~9.0GHz





3.7 RADIATED EMISSION MEASUREMENT

3.7.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

(2) For operations in the 763–775 MHz and 793–805 MHz bands, all emissions including harmonics in the band 1559– 1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

3.7.2 TEST PROCEDURES

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m 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 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- b. 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
- c. $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn.}$
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi.}$

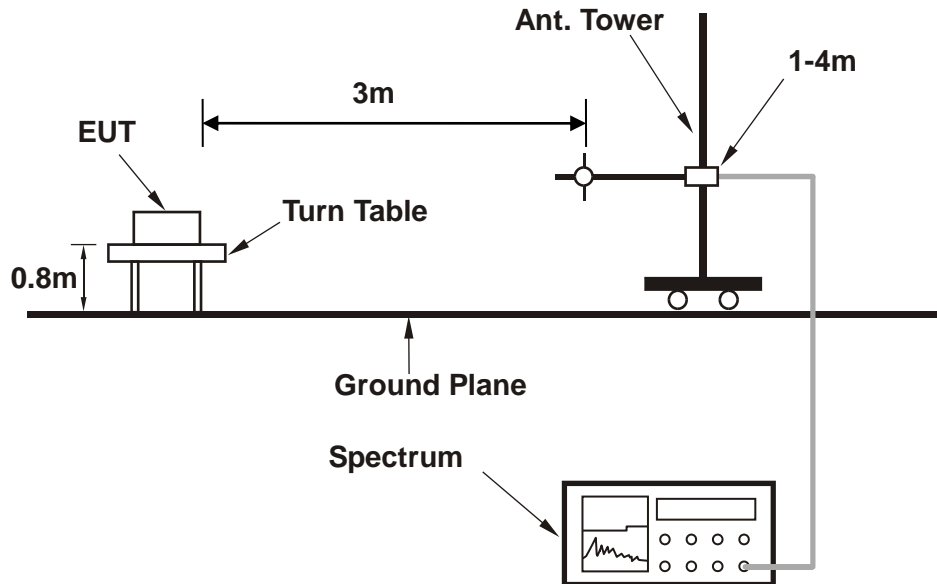
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.7.3 DEVIATION FROM TEST STANDARD

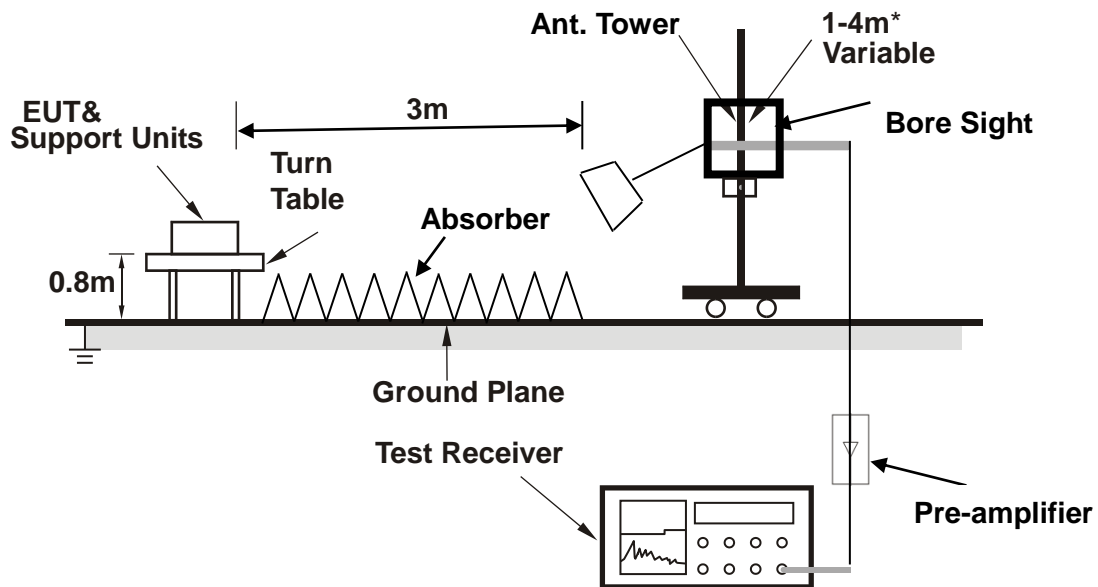
No deviation

3.7.4 TEST SETUP

< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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



3.7.5 TEST RESULTS

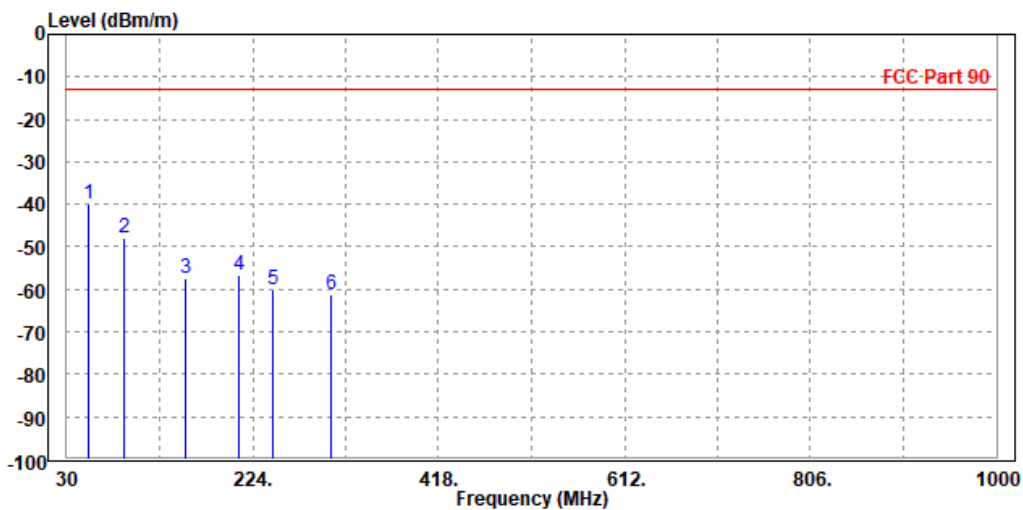
BELOW 1GHz WORST-CASE DATA

30 MHz – 1GHz data:
LTE BAND 26

CHANNEL BANDWIDTH: 10MHz / QPSK

MODE	TX channel 26740	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase	
	MHz	dBm/m	dBm	dBm/m	dB	dB/m			
1	PP	52.330	-39.85	-40.57	-13.00	-26.85	0.72	Peak	Horizontal
2		89.740	-47.98	-38.97	-13.00	-34.98	-9.01	Peak	Horizontal
3		154.380	-57.25	-38.41	-13.00	-44.25	-18.84	Peak	Horizontal
4		208.920	-56.84	-39.78	-13.00	-43.84	-17.06	Peak	Horizontal
5		245.310	-60.24	-43.87	-13.00	-47.24	-16.37	Peak	Horizontal
6		306.550	-61.27	-47.68	-13.00	-48.27	-13.59	Peak	Horizontal

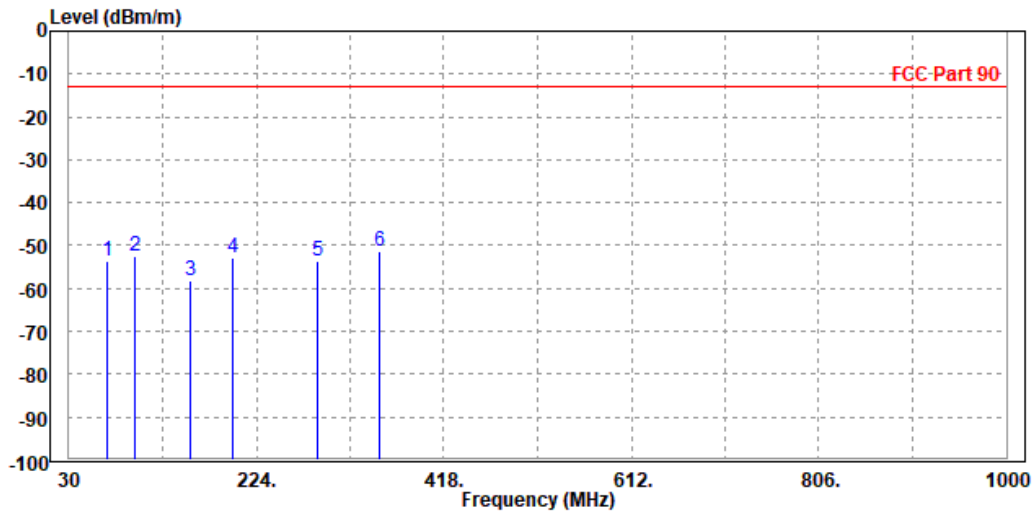




Test Report No.: RF200918W001-7

MODE	TX channel 26740	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	69.130	-53.44	-38.14	-13.00	-40.44	-15.30	Peak	Vertical
2	98.290	-52.64	-41.99	-13.00	-39.64	-10.65	Peak	Vertical
3	156.220	-58.27	-42.73	-13.00	-45.27	-15.54	Peak	Vertical
4	198.990	-52.87	-42.11	-13.00	-39.87	-10.76	Peak	Vertical
5	288.100	-53.54	-42.19	-13.00	-40.54	-11.35	Peak	Vertical
6 PP	351.000	-51.24	-40.13	-13.00	-38.24	-11.11	Peak	Vertical





Test Report No.: RF200918W001-7

ABOVE 1GHz

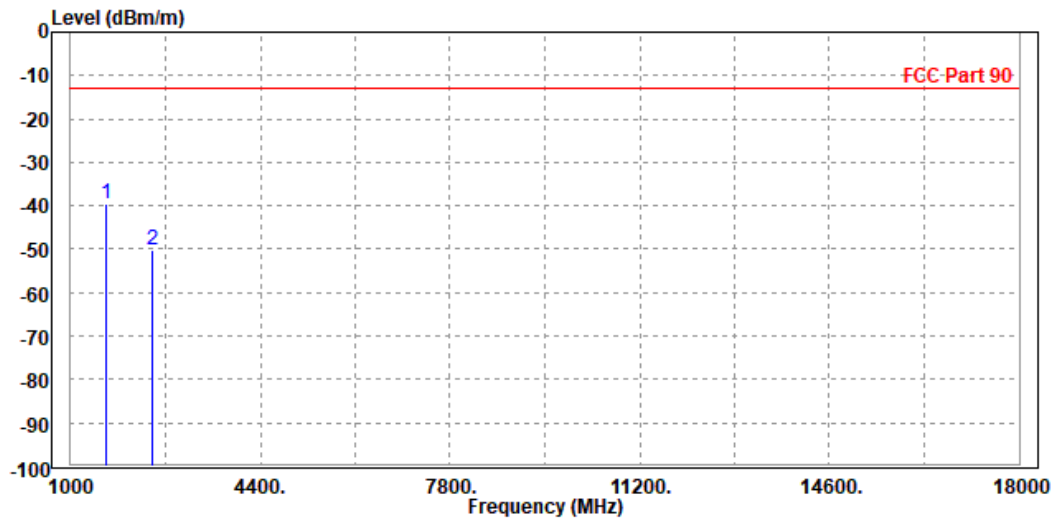
Note: For higher frequency, the emission is too low to be detected.

LTE BAND 26

CHANNEL BANDWIDTH: 1.4MHz / QPSK

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Read	Limit	Over				
Freq	Level	Level	Line	Limit	Factor	Remark	Pol/Phase
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 1646.000	-39.37	-42.60	-13.00	-26.37	3.23	Peak	Horizontal
2 2457.000	-50.11	-58.12	-13.00	-37.11	8.01	Peak	Horizontal

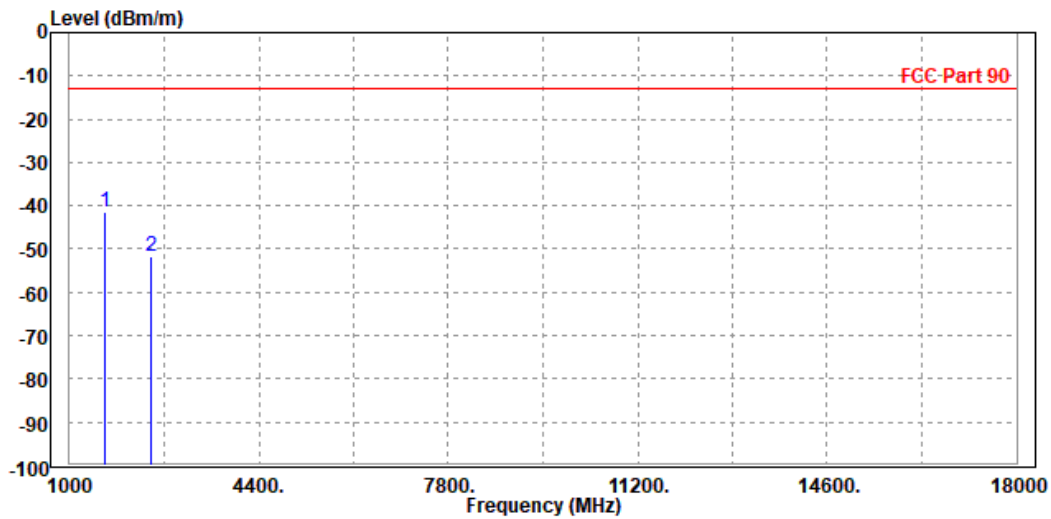




Test Report No.: RF200918W001-7

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1646.000	-41.50	-44.86	-13.00	-28.50	3.36	Peak	Vertical
2	2457.000	-51.72	-58.74	-13.00	-38.72	7.02	Peak	Vertical



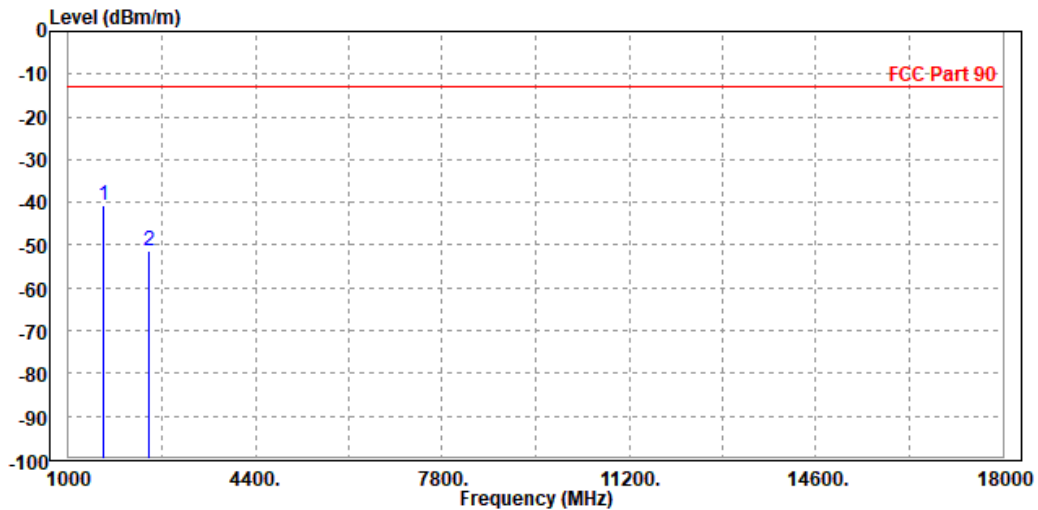


Test Report No.: RF200918W001-7

CHANNEL BANDWIDTH: 3MHz / QPSK

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm/m	dBm	dBm/m	dB	dB/m	Pol/Phase
1 PP 1646.000	-40.86	-44.09	-13.00	-27.86	3.23	Peak Horizontal
2 2457.000	-51.21	-59.22	-13.00	-38.21	8.01	Peak Horizontal

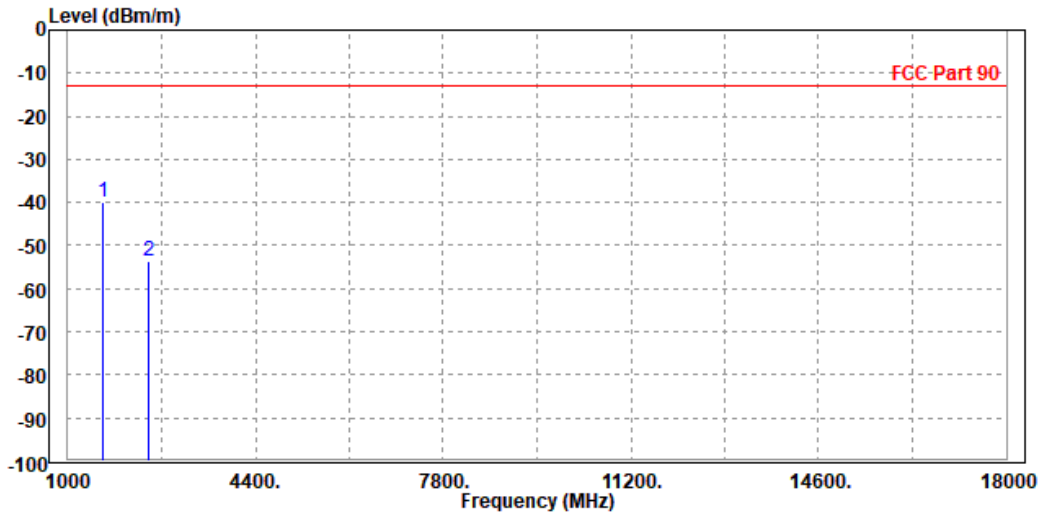




Test Report No.: RF200918W001-7

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1646.000	-39.84	-43.20	-13.00	-26.84	3.36	Peak	Vertical
2	2457.000	-53.59	-60.61	-13.00	-40.59	7.02	Peak	Vertical





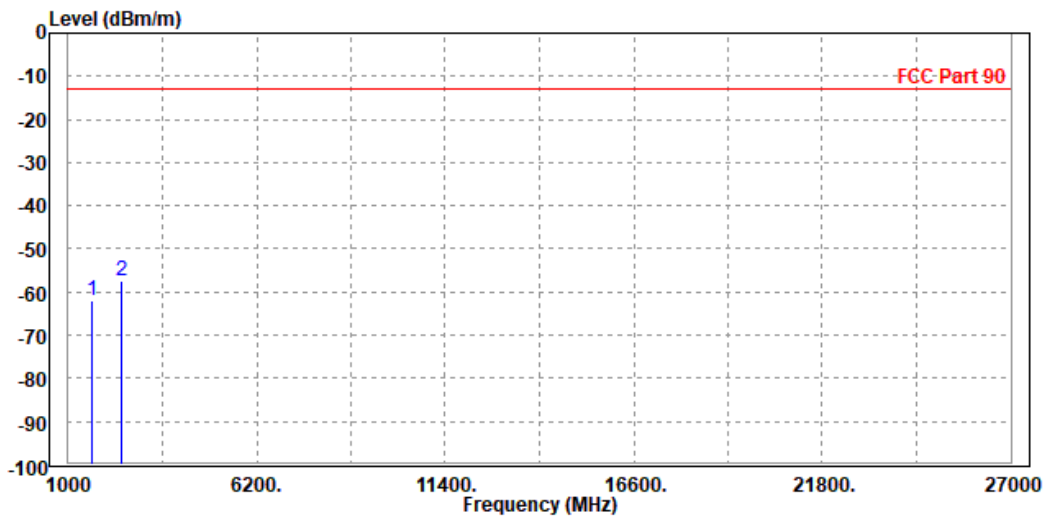
Test Report No.: RF200918W001-7

CHANNEL BANDWIDTH: 5MHz / QPSK

CH 26715

MODE	TX channel 26715	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1638.000	-61.99	-56.94	-13.00	-48.99	-5.05	Peak	Horizontal
2	PP 2457.000	-57.56	-55.89	-13.00	-44.56	-1.67	Peak	Horizontal

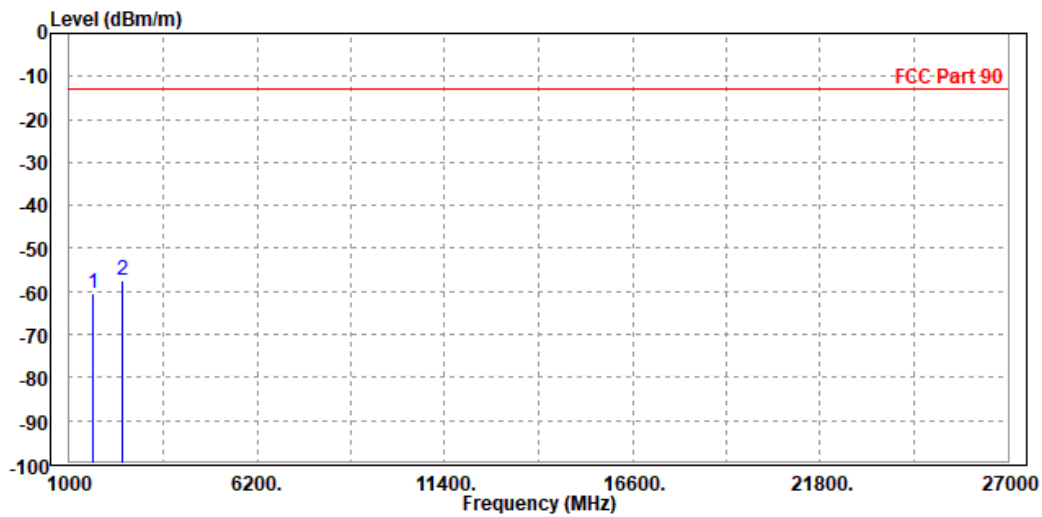




Test Report No.: RF200918W001-7

MODE	TX channel 26715	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1638.000	-60.63	-56.99	-13.00	-47.63	-3.64	Peak	Vertical
2 PP	2457.000	-57.30	-57.12	-13.00	-44.30	-0.18	Peak	Vertical



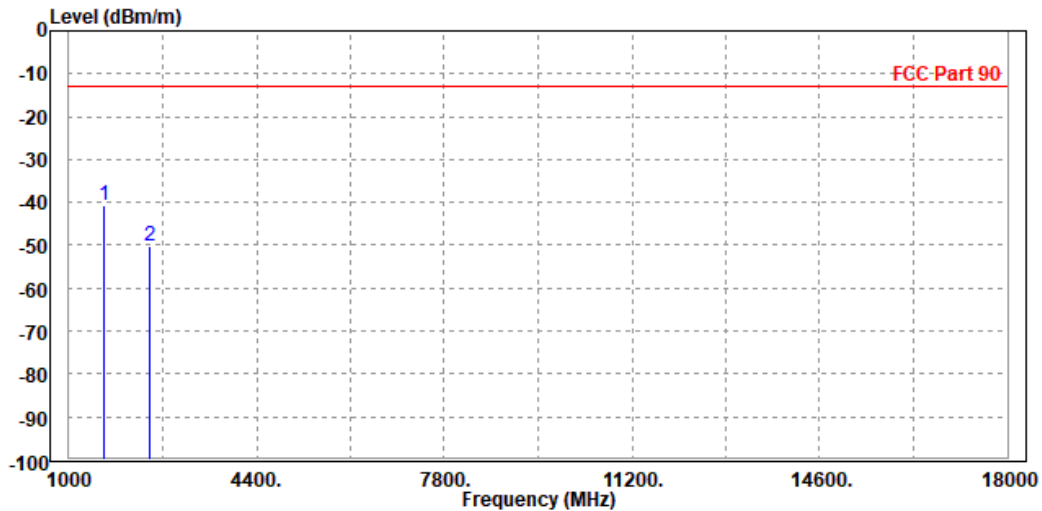


Test Report No.: RF200918W001-7

CH 26740

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1646.000	-40.69	-43.92	-13.00	-27.69	3.23	Peak	Horizontal
2	2457.000	-50.18	-58.19	-13.00	-37.18	8.01	Peak	Horizontal

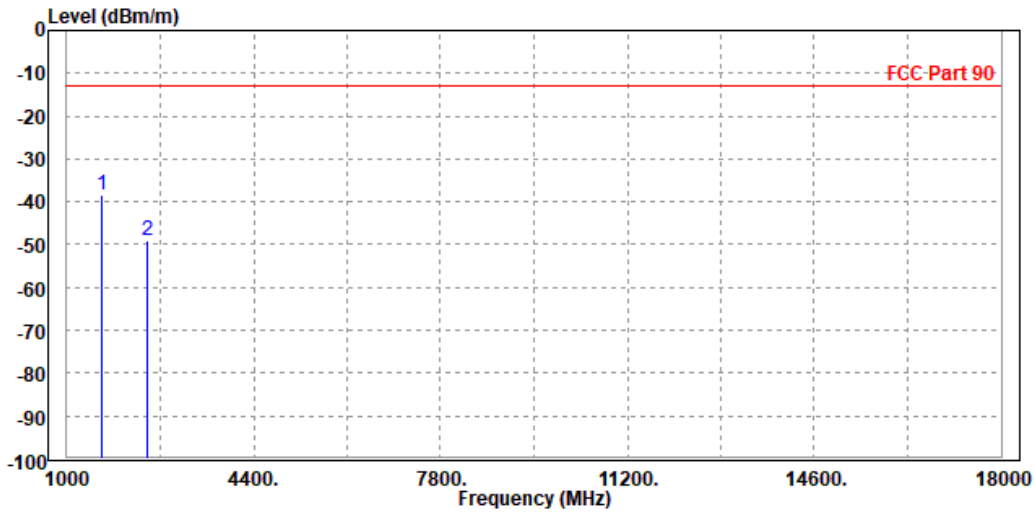




Test Report No.: RF200918W001-7

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1646.000	-38.30	-41.66	-13.00	-25.30	3.36	Peak	Vertical
2	2457.000	-49.06	-56.08	-13.00	-36.06	7.02	Peak	Vertical





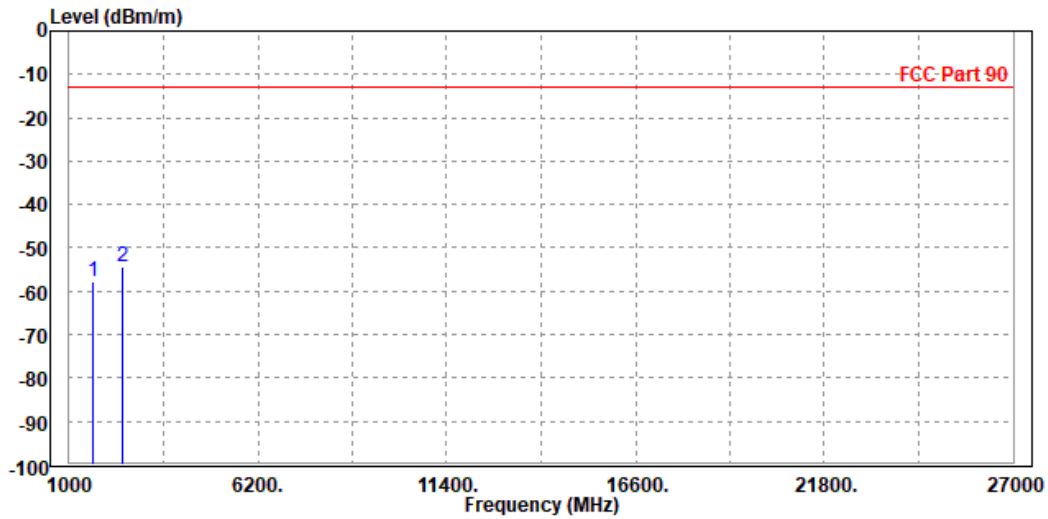
**BUREAU
VERITAS**

Test Report No.: RF200918W001-7

CH 26765

MODE	TX channel 26765	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1638.000	-57.66	-52.61	-13.00	-44.66	-5.05	Peak	Horizontal
2 PP	2457.000	-54.39	-52.72	-13.00	-41.39	-1.67	Peak	Horizontal

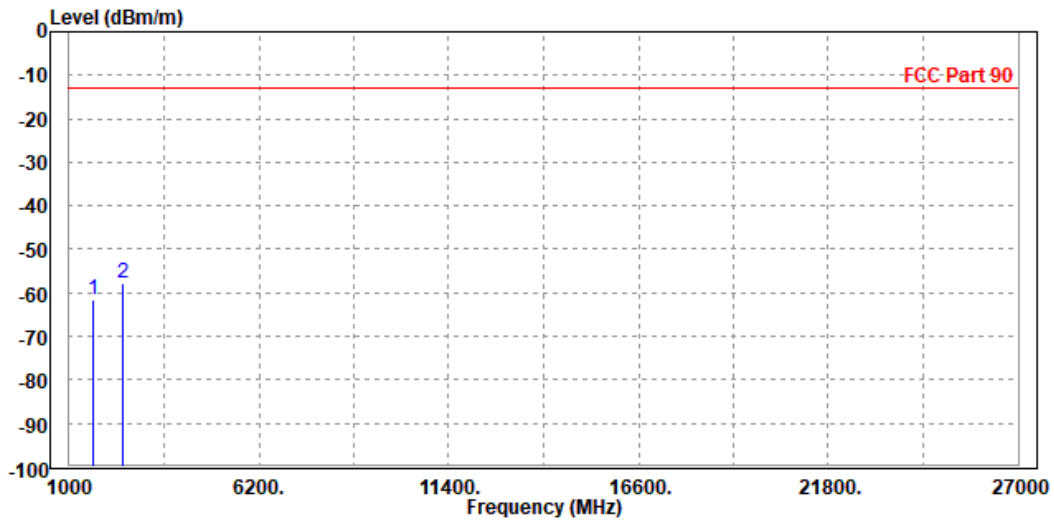




Test Report No.: RF200918W001-7

MODE	TX channel 26765	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1638.000	-61.77	-58.13	-13.00	-48.77	-3.64	Peak	Vertical
2 PP	2457.000	-57.97	-57.79	-13.00	-44.97	-0.18	Peak	Vertical



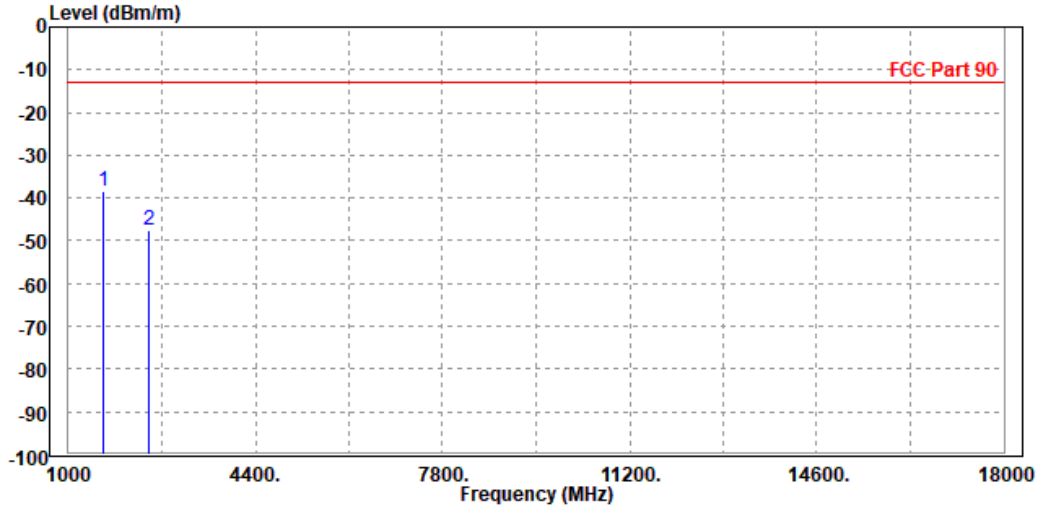


Test Report No.: RF200918W001-7

CHANNEL BANDWIDTH: 10MHz / QPSK

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1646.000	-38.29	-41.52	-13.00	-25.29	3.23	Peak	Horizontal
2	2457.000	-47.54	-55.55	-13.00	-34.54	8.01	Peak	Horizontal

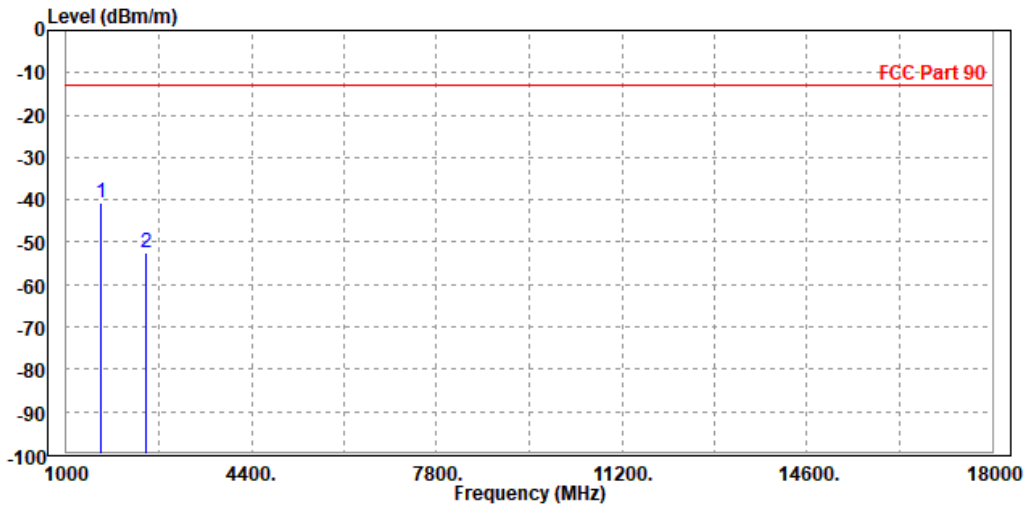




Test Report No.: RF200918W001-7

MODE	TX channel 26740	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5V from adapter
TESTED BY	Star Le		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1646.000	-40.79	-44.15	-13.00	-27.79	3.36	Peak	Vertical
2	2457.000	-52.54	-59.56	-13.00	-39.54	7.02	Peak	Vertical





Test Report No.: RF200918W001-7

4 INFORMATION ON THE TESTING LABORATORIES

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

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

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Fax: +86-755-88696577

Email: customerservice.dg@cn.bureauveritas.com

Web Site: www.adt.com.tw

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



Test Report No.: RF200918W001-7

5 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

---END---