 <p>CERTIFICATE 2518.08</p> <p>MS ISO/IEC 17025 TESTING SAMM NO. 0825</p>
<p>MOTOROLA PENANG ADV. COMM. LABORATORY Motorola Solutions Malaysia Sdn Bhd, Plot 2A, Medan Bayan Lepas, Mukim 12 S.W.D, 11900 Bayan Lepas, Penang, Malaysia.</p>	<p>FCC / ISED TEST REPORT Report Revision : Rev.A</p>
<p>Date/s Tested : 05-August-2022 - 17-August-2022 Manufacturer/Location : Motorola Solutions Malaysia Sdn Bhd Manufacturer Address : Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia Requestor : CADOGAN SEAN Product Type : Hand-held Product Version (PMN) : APX N70 Model Number (HVIN) : H35UCT9PW8AN Frequency Band : Refer to section 1.4 Applicant Name : Motorola Solutions Inc Applicant Address : 8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322. FCC Registrations : 461337 ISED Registrations : MY0001 Firmware Version (FVIN) : D00.00.45</p> <p>The equipment was tested accordance to the requirement listed below:</p> <p>(LTE Band 14) FCC 47 CFR Part 2 / 90 PASS ISED RSS GEN / 140</p>	
<p>This report shall not be reproduced without written approval from an officially designated representative of the Motorola Penang Adv. Comm. Laboratory. The results and statements contained in this report pertain only to the device(s) evaluated.</p>	
<p>Prepared By:</p> <p>_____</p> <p>Lim Khay Kwang Technician</p>	<p>Approve Signatory:</p> <p>_____</p> <p>Ho Sze Khian Technical Manager</p>

Table of Contents

1.0. Summary of Test Results	3
1.1. Measurement Uncertainty	3
1.2. Equipment List.....	3
1.3. General Information.....	4
1.4. Channel number and frequency info.....	6
1.5. Test Mode Applicability and Tested Channel Detail.....	6
1.6. Conducted RF Output Power	8
1.6.1. Test Setup.....	8
1.6.2. Test Limits	8
1.6.3. Conducted RF Output Power – LTE Band 14 (788-798MHz).....	8
1.6.4. Conducted RF Output Power – LTE Band 14 (788-798MHz).....	9
1.7. Peak-to-Average Power Ratio.....	11
1.7.1. Test Setup.....	11
1.7.2. Test Limit.....	11
1.7.3. Peak To Average Power Ratio – LTE Band 14 (788-798MHz).....	11
1.8. Occupied Bandwidth.....	13
1.8.1. Test Setup.....	13
1.8.2. Test Limit.....	13
1.8.3. Occupied Bandwidth - LTE Band 14 (788-798MHz)	13
1.9. Frequency Stability	17
1.9.1. Test Setup.....	17
1.9.2. Test Limit.....	17
1.9.3. Frequency Stability - LTE Band 14 (788-798MHz).....	17
1.10. Band Edge/Emission Mask Conducted Spurious Emission.....	20
1.10.1. Test Setup.....	20
1.10.2. Test Limit.....	20
1.10.3. Band Edge/Emission Mask Conducted Spurious Emission - LTE Band 14 (788-798MHz)	21
1.11. Conducted Spurious Emission	25
1.11.1. Test Setup.....	25
1.11.2. Test Limit.....	25
1.11.3. Conducted Spurious Emission - LTE Band 14 (788-798MHz).....	26
1.12. Radiated Spurious Emission	28
1.12.1. Test Setup.....	28
1.12.2. Test Limit.....	28
1.12.3. Radiated Spurious Emission – LTE Band 14 (788-798MHz)	30
1.13. Effective Radiated Power (ERP)	39
1.13.1. Test Setup.....	39
1.13.2. Test Limit.....	39
1.13.3. Effective Radiated Power (ERP) - LTE Band 14 (788-798MHz)	39
1.14. GNSS (EIRP for 1559 - 1610MHz).....	40
1.14.1. Test Setup.....	40
1.14.2. Test Limit.....	41
1.14.3. GNSS (EIRP for 1599 – 1610MHz) - LTE Band 14 (788-798MHz).....	41

REVISION HISTORY

Revision History	Description	Date	Originator
Rev A.	Initial Report	23-August-2022	Lim Khay Kwang

1.0. Summary of Test Results

FCC Clause	ISED Clause	Test Item	Result	Remark	Serial Number Tested
2.1046	RSS-140 3.1	Conducted RF Output Power	Pass	Meet the requirement of limit.	022TYP0011
2.1046	RSS 140 4.3	Peak-to-Average Power Ratio	Pass	Meet the requirement of limit.	022TYP0011
2.1049 90.209(7)	RSS-Gen 6.7	Occupied Bandwidth (26dBc, 99%)	Pass	Meet the requirement of limit.	022TYP0011
2.1055 90.213	RSS-140 4.2	Frequency Stability	Pass	Meet the requirement of limit.	022TYP0011
2.1051 90.543(e)	RSS-Gen 6.13 RSS-140 4.4	Band Edge Conducted Spurious Emission	Pass	Meet the requirement of limit.	022TYP0011
2.1051 90.543(e)	RSS-Gen 6.13 RSS-140 4.4	Conducted Spurious Emissions	Pass	Meet the requirement of limit.	022TYP0011
2.1051 90.543(e)	RSS-140 4.4	Radiated Spurious Emission: -41.4878 dBm (NF)	Pass	Meet the requirement of limit.	022TYP0004
90.635(b)	RSS-140 4.3	Effective Radiated Power (ERP)	NA	NA	NA
90.543(f)	RSS – 140 4.4(b)	GNSS (EIRP for 1599 – 1610MHz)	Pass	Meet the requirement of limit	022TYP0004

1.1. Measurement Uncertainty

Measurement	Frequency	Expended Uncertainty (k=1.96) (±dB)
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	5.01
	200MHz ~ 1000MHz	5.01
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.01
	18GHz ~ 25GHz	5.01

1.2. Equipment List

Description	Model	Serial Number	Calibration Date	Calibration Due Date
Broadband ATE 1 (RF Conducted Tests); Test Software Version: CMWRun v1.9.8				
Signal Analyzer	FSV40	101431	02-Dec-21	02-Dec-23
Chamber	SH-641	92003150	17-Sep-21	17-Sep-22

Wideband Radio Communication Tester	CMW500	154550	07-Mar-21	07-Mar-23
Power Supply	6652A	3541A02565	29-Jun-22	29-Jun-23
Radiated Spurious Emission (EMC Chamber 1); Test Software Version: EMC_FCC_RE_v1.6.4				
Drg Horn Freq.	SAS-571	720	06-Apr-21	06-Apr-23
Drg Horn Freq.	SAS-571	719	13-Sep-21	13-Sep-22
Advanced Power System - Dynamic Dc Power Supply, 120v, 16.7a, 2000w	N7976A	MY53410110	30-Jun-22	30-Jun-23
Signal Generator	SMB 100A	182511	04-Jun-21	04-Jun-24
Emi Test Receiver	ESW44	101731	05-Nov-21	05-Nov-22
5m Semi-Anechoic Chamber	S800-HX	J2308	No Cal. Req'd	No Cal. Req'd
Bilog Antenna	CBL6112B	2863	22-Jun-22	22-Jun-23
Bilog Antenna	CBL6112D	30991	05-Oct-21	05-Oct-22
Data Logger Thermohyrometer	SDL500	A.016785	23-Jun-22	23-Jun-23
System Controller	SC104V	050806-1	No Cal. Req'd	No Cal. Req'd
Turntable Flush Mount 2m	FM2011	NA	No Cal. Req'd	No Cal. Req'd
Antenna Positioning Tower	TLT2	NA	No Cal. Req'd	No Cal. Req'd
Broad-Band Horn Antenna	BBHA9170	BBHA9170255	18-Feb-22	18-Feb-23
Preamplifier 18-40GHz	BBV9721	9721-007	No Cal. Req'd	No Cal. Req'd
Preamplifier	PAM-0118P	361	11-Sep-20	11-Sep-23
Loop Antenna	6502	00208416	08-Oct-21	08-Oct-22
Test Software	EMC_FCC_IC_BLUETOOTH_RE_TEST			

1.3. General Information

General Description of EUT

Product	ALOHA		
Brand	Motorola Solutions		
Test Model	H35UCT9PW8AN		
Power Supply Rating	7.5 Vdc		
Mode of operation	LTE Band 14		
Modulation Type	QPSK, 16QAM		
Operating Frequency	LTE Band 14	Channel Bandwidth 5MHz	790.5MHz~795.5MHz
		Channel Bandwidth 10MHz	793.0MHz
Max. Conducted Power	LTE Band 14 QPSK	Channel Bandwidth 5MHz	23.571dBm (0.228W)
		Channel Bandwidth 10MHz	23.593dBm (0.229W)
	LTE Band 14 16QAM	Channel Bandwidth 5MHz	22.633dBm (0.183W)
		Channel Bandwidth 10MHz	22.643dBm (0.184W)
Emission Designator	LTE Band 14		QPSK 16QAM
		Channel Bandwidth 5MHz	4M47G7D 4M48D7W
		Channel Bandwidth 10MHz	8M89G7D 8M87D7W
Antenna Type	LTE Band 14	LTE LOW BAND MAIN ANTENNA (-1.7dBi)	
SW Version	D00.00.45		
HW Version	P1		

Note:

1. The EUT contains following accessory devices and data cable.

Item	Brand	Model or P/N	Specification
Li-Ion	Motorola	PMNN4817A	Hi Cap 4400mAH (using RN 2170 Li-Ion cell) Non-UL battery

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	Wideband Radio Communication Tester	R&S	CMW500	154550	NA

NO.	Signal Cable Description of The above Support Units
1	NA

Note:

1. All power cords of the above support units are non-shielded.
2. Item 1 acted as a communication partner to transfer data.

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.

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 C63.26-2015

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

1.4. Channel number and frequency info.

Band	Bandwidth supported	Available Channel Number	Test Channel Number			Test Channel Frequency (MHz)		
			Low Channel	Mid Channel	High Channel	Low Channel	Mid Channel	High Channel
LTE Band 14	5 MHz	23305 ~ 23355	23305	23330	23355	790.5	793.0	795.5
	10 MHz	23330	-	23330	-	-	793.0	-

1.5. 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 Radiated Emission and Effective Radiated Power (ERP) worst case was found when positioned on Z-Plane for LTE band 26 (part 90).

Pre-scan also have been conducted with the accessory devices listed in section table 1.3, only the worst case radiated emission results of the combination test configuration is reported in this report.

The following channel(s) was (were) selected for the final test as listed below:

LTE Band 14

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Uplink Modulation	Mode
Conducted RF Output Power	23305~ 23355	23305, 23330, 23355	5 MHz	QPSK, 16QAM	As per table 1.6.3
	23330	23330	10 MHz		
Peak to Average Power Ratio	23305~ 23355	23305, 23330, 23355	5 MHz	QPSK, 16QAM	25 RB / 0 RB Offset
	23330	23330	10 MHz		50 RB / 0 RB Offset
Occupied Bandwidth	23305~ 23355	23305, 23330, 23355	5 MHz	QPSK, 16QAM	25 RB / 0 RB Offset
	23330	23330	10 MHz		50 RB / 0 RB Offset
Frequency Stability	23305~ 23355	23305, 23355	5 MHz	QPSK	25 RB / 0 RB Offset
	23330	23330	10 MHz		50 RB / 0 RB Offset
Band Edge Conducted Spurious Emission	23305~ 23355	23305, 23355	5 MHz	QPSK, 16QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
	23330	23330	10 MHz		1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
Conducted Spurious Emission	23305~ 23355	23305, 23330, 23355	5 MHz	QPSK	1 RB / 0 RB Offset
	23330	23330	10 MHz		1 RB / 0 RB Offset

Radiated Spurious Emission	23305~ 23355	23305	5 MHz	QPSK	1 RB / 0 RB Offset
		23330	10 MHz		1 RB / 0 RB Offset
		23355	5 MHz		1 RB / 24 RB Offset
GNSS (EIRP for 1599 – 1610MHz)	23305~ 23355	23305	5 MHz	QPSK	1 RB / 24 RB Offset
		23355			1 RB / 13 RB Offset
Effective Radiated Power (ERP)	23305~ 23355	23305, 23330, 23355	5 MHz	QPSK, 16QAM	As per table 1.6.4
	23330	23330	10 MHz		

NOTE:

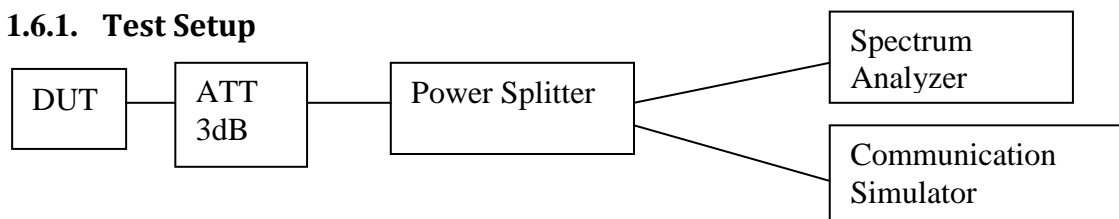
1. The Conducted RF Output Power for QPSK and 16QAM, measured value of QPSK mode is higher than 16QAM mode. Therefore, only Conducted Spurious Emission, Radiated Emission and GNSS (EIRP for 1599 – 1610MHz) had been tested under QPSK modes.
2. Band Edge was performed with 1 and full Resource Block at the lowest and highest operating frequency band.
3. The Effective Radiated Power (ERP) was calculated from Conducted RF Output Power results in QPSK and 16QAM modulation.
4. Peak to Average and Occupied Bandwidth were performed with full Resource Block which is the worst case.
5. Frequency stability was performed with full Resource Block in QPSK modulation.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
Conducted RF Output Power	25°C, 50% RH	7.5V DC	Khay Kwang
Peak-to-Average Power Ratio	25°C, 50% RH	7.5V DC	Khay Kwang
Occupied Bandwidth	25°C, 50% RH	7.5V DC	Khay Kwang
Frequency Stability	-30°C ~ 60°C	7.5V DC	Khay Kwang
Band Edge Conducted Spurious Emission	25°C, 50% RH	7.5V DC	Khay Kwang
Conducted Spurious Emission	25°C, 50% RH	7.5V DC	Khay Kwang
Radiated Spurious Emission	25°C, 63.7% RH	7.5V DC	Qawiman&Nazrin
Equivalent Isotropically Radiated Power (EIRP)	25°C, 50% RH	7.5V DC	Khay Kwang

1.6. Conducted RF Output Power

1.6.1. Test Setup



1. The DUT transmitter output port was connected to communication simulator with above setup.
2. Path loss for the measurement included.
3. Set DUT to transmit maximum power through communication simulator
4. All the measurement were done at low, mid, high channel for each band and different modulation.
5. Record the average power into the test report.

1.6.2. Test Limits

FCC: Portable stations (hand-held devices) transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 3 watts ERP.

ISED: The e.r.p. for portable equipment including handheld devices shall not exceed 3 W.

1.6.3. Conducted RF Output Power – LTE Band 14 (788-798MHz)

Conducted Output Power (dBm)								
LTE Band/BW	RB Size	RB Offset	QPSK Modulation			16QAM Modulation		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23305 790.5MHz	23330 793.0MHz	23355 795.5 MHz	23305 790.5 MHz	23330 793.0MHz	23355 795.5 MHz
Band 14 / 5MHz	1	0	23.571	23.319	23.225	22.633	22.419	22.269
	1	13	23.547	23.207	23.236	22.628	22.323	22.287
	1	24	23.468	23.262	23.299	22.587	22.372	22.272
	12	0	22.408	22.249	22.302	21.368	21.202	21.292
	12	6	22.38	22.242	22.369	21.353	21.154	21.345
	12	13	22.38	22.198	22.263	21.376	21.136	21.283
	25	0	22.41	22.212	22.349	21.379	21.188	21.303

Conducted Output Power (dBm)								
LTE Band/BW	RB Size	RB Offset	QPSK Modulation			16QAM Modulation		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
				23330			23330	
				793.0MHz			793.0MHz	
Band 14 / 10MHz	1	0		23.593			22.643	
	1	25		23.226			22.319	
	1	49		23.401			22.487	
	25	0		22.358			21.488	
	25	13		22.313			21.358	
	25	25		22.367			21.393	
	50	0		22.306			21.272	

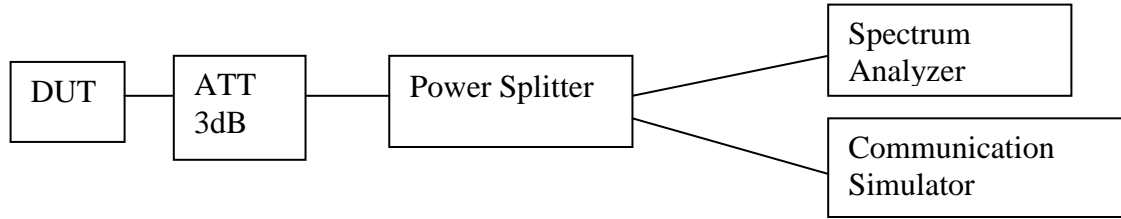
1.6.4 Conducted RF Output Power – LTE Band 14 (788-798MHz)

ERP (dBm)								
LTE Band/BW	RB Size	RB Offset	QPSK Modulation			16QAM Modulation		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			23305	23330	23355	23305	23330	23355
			790.5MHz	793.0MHz	795.5 MHz	790.5 MHz	793.0MHz	795.5 MHz
Band 14 / 5MHz	1	0	19.721	19.469	19.375	18.783	18.569	18.419
	1	13	19.697	19.357	19.386	18.778	18.473	18.437
	1	24	19.618	19.412	19.449	18.737	18.522	18.422
	12	0	18.558	18.399	18.452	17.518	17.352	17.442
	12	6	18.53	18.392	18.519	17.503	17.304	17.495
	12	13	18.53	18.348	18.413	17.526	17.286	17.433
	25	0	18.56	18.362	18.499	17.529	17.338	17.453

ERP (dBm)								
LTE Band/BW	RB Size	RB Offset	QPSK Modulation			16QAM Modulation		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
				23330			23330	
				793.0MHz			793.0MHz	
Band 14 / 10MHz	1	0		19.743			18.793	
	1	25		19.376			18.469	
	1	49		19.551			18.637	
	25	0		18.508			17.638	
	25	13		18.463			17.508	
	25	25		18.517			17.543	
	50	0		18.456			17.422	

1.7. Peak-to-Average Power Ratio

1.7.1. Test Setup



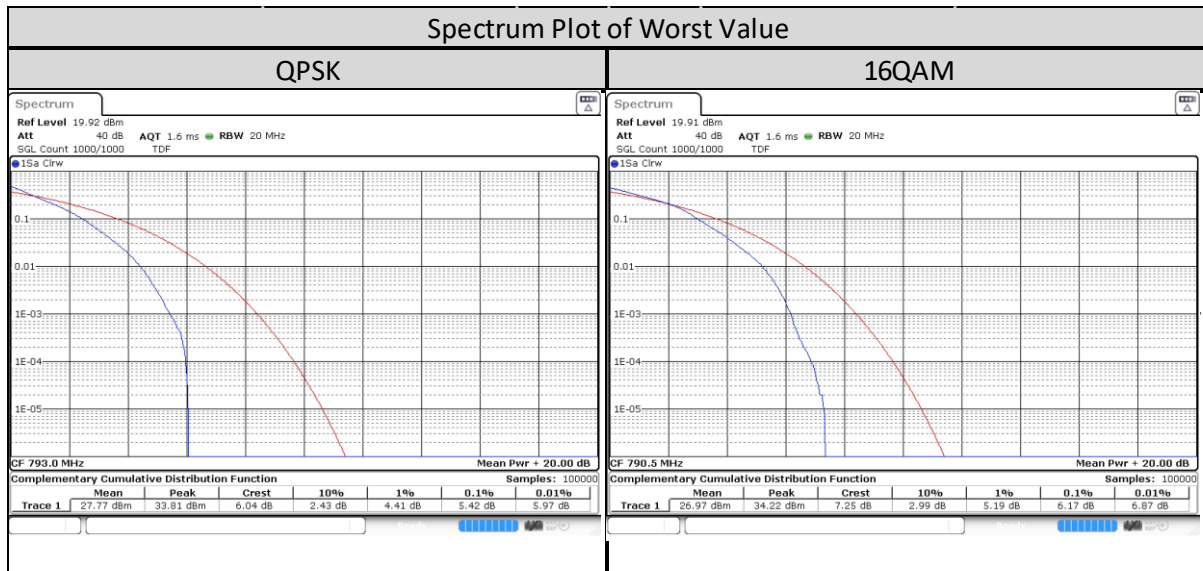
- 1) The DUT transmitter output port was connected to communication simulator with above setup.
- 2) Path loss for the measurement included.
- 3) Set DUT to transmit maximum power through communication simulator
- 4) Set the CCDF (Complementary Cumulative Distribution Function) option in the spectrum analyzer.
- 5) Spectrum Analyzer setting, RBW = 20MHz.
- 6) Recorded the maximum PAR level associated with a probability of 0.1% as Peak to Average Ratio.
- 7) All the measurements were done at low, mid, high channel for each band and different modulation.

1.7.2. Test Limit

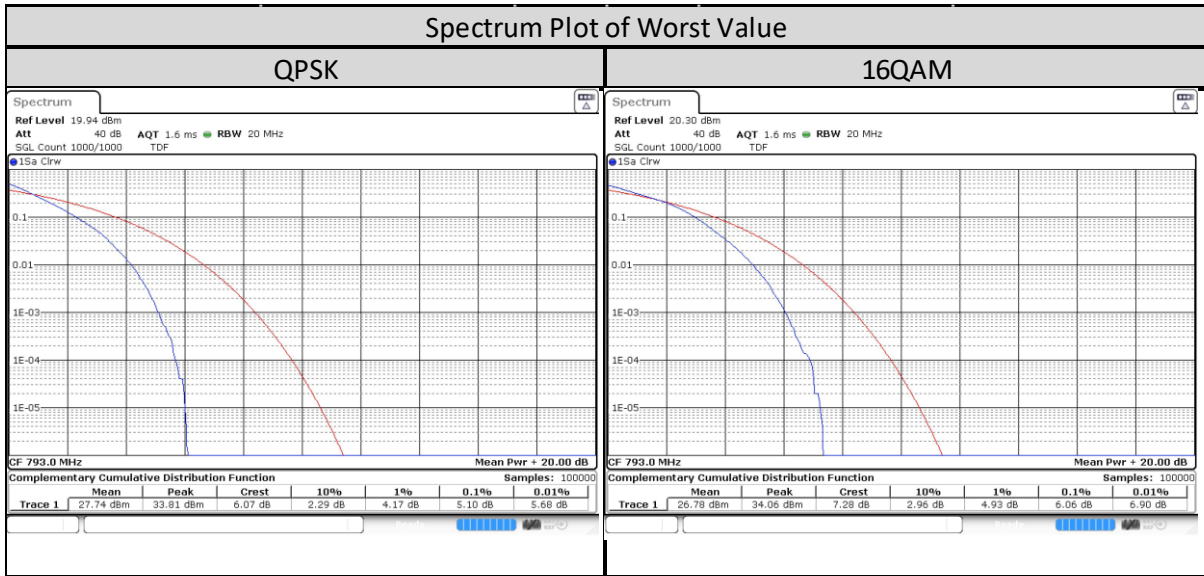
The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB

1.7.3. Peak To Average Power Ratio - LTE Band 14 (788-798MHz)

LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	Peak To Average (dB)	
			QPSK Modulation	16QAM Modulation
Band 14/5MHz/25/0	Low CH 23305	790.5 MHz	5.391	6.174
	Mid CH 23330	793 MHz	5.42	6.029
	High CH 23355	795.5 MHz	5.217	6.087

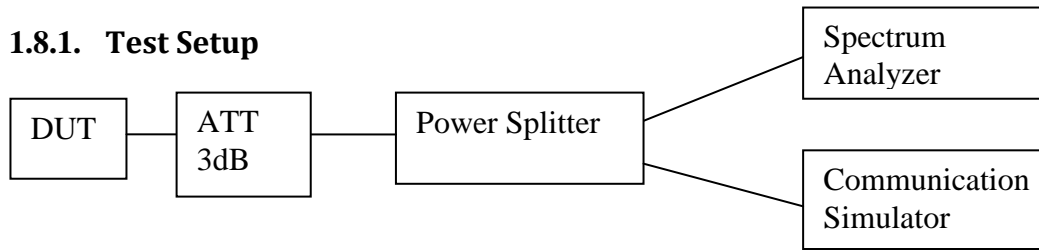


LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	Peak To Average (dB)	
			QPSK Modulation	16QAM Modulation
Band 14/10MHz/50/0	Low CH			
	Mid CH 23330	793 MHz	5.101	6.058
	High CH			



1.8. Occupied Bandwidth

1.8.1. Test Setup



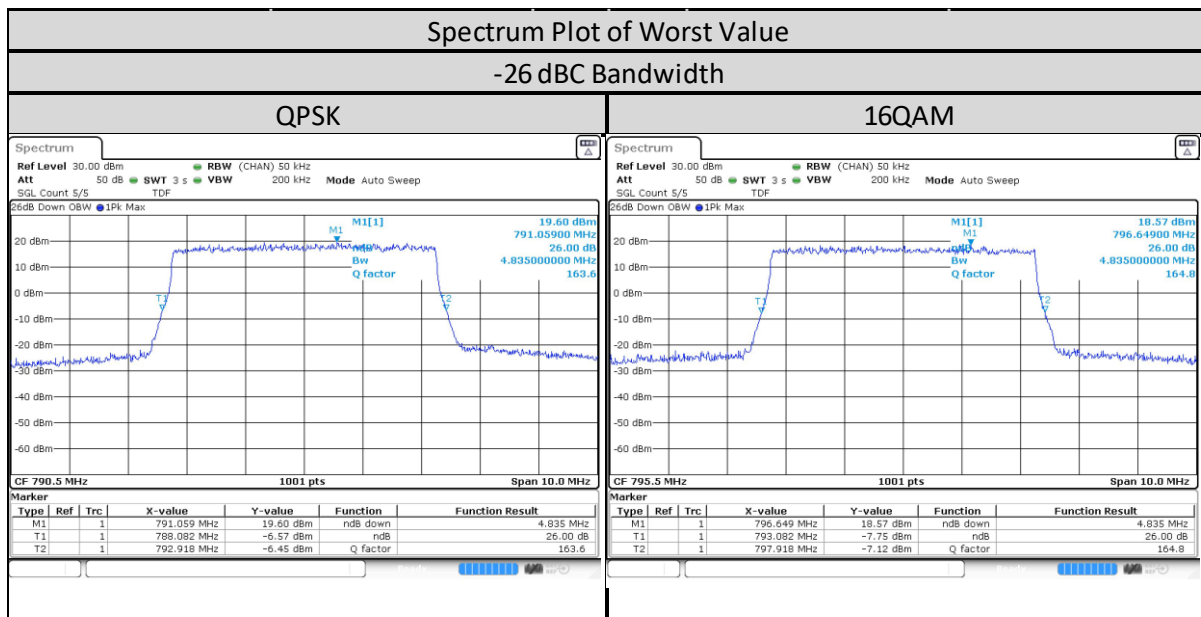
- 1) The DUT transmitter output port was connected to communication simulator with above setup.
- 2) Path loss for the measurement included.
- 3) For LTE measurement, set DUT to transmit maximum power & full RB size through communication simulator.
- 4) For LTE measurement, set DUT to transmit maximum power through communication simulator.
- 5) Spectrum Analyzer setting, RBW is 1% of OBW and VBW is 3 times of RBW.
- 6) Measure & record -26dBc and 99% occupied bandwidth (BW).
- 7) All the measurement was done at low, mid, high channel for each band and different modulation.

1.8.2. Test Limit

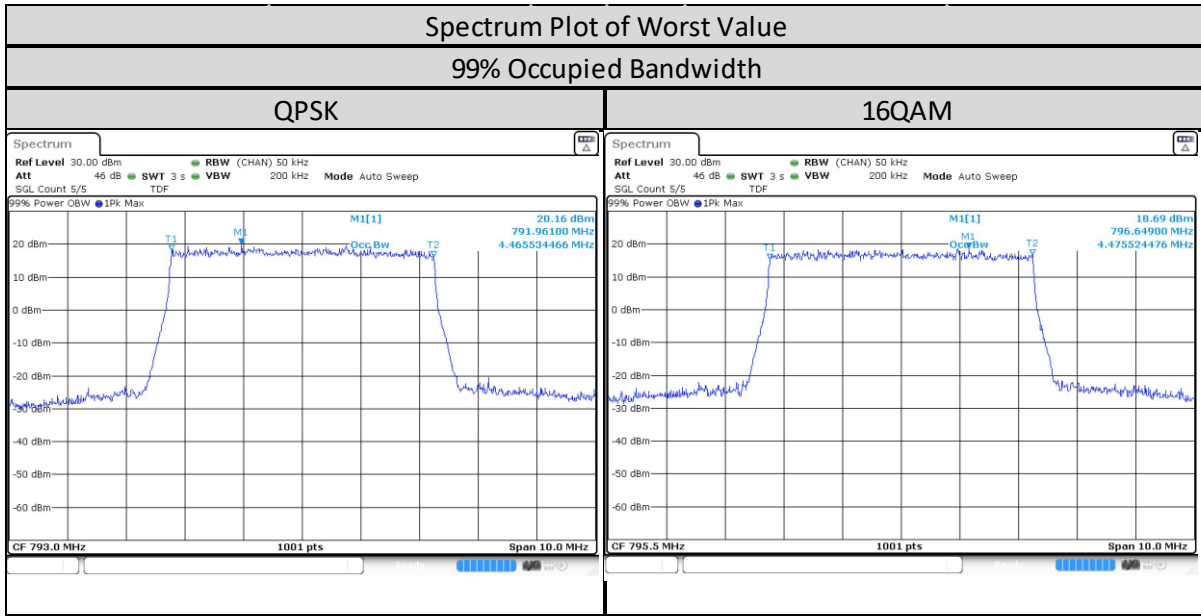
For measurement 99% of occupied bandwidth that is required by FCC 2.1049 and RSS Gen 6.6.

1.8.3. Occupied Bandwidth - LTE Band 14 (788-798MHz)

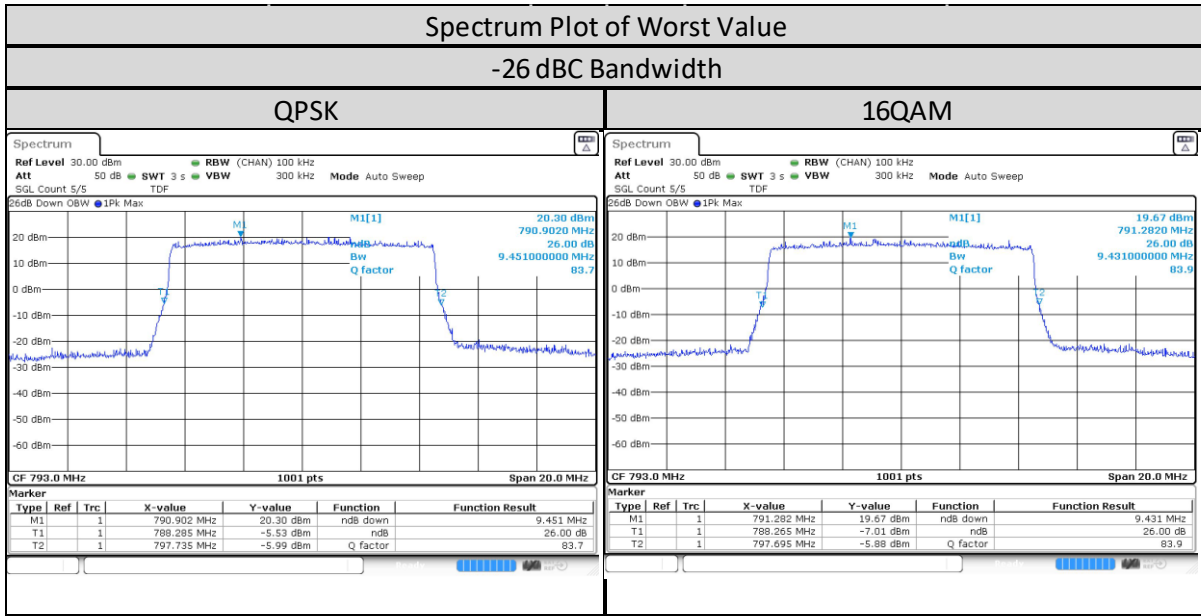
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	-26 dBc Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 14/5MHz/25/0	Low CH 23305	790.5 MHz	4.835	4.775
	Mid CH 23330	793 MHz	4.805	4.815
	High CH 23355	795.5 MHz	4.815	4.835



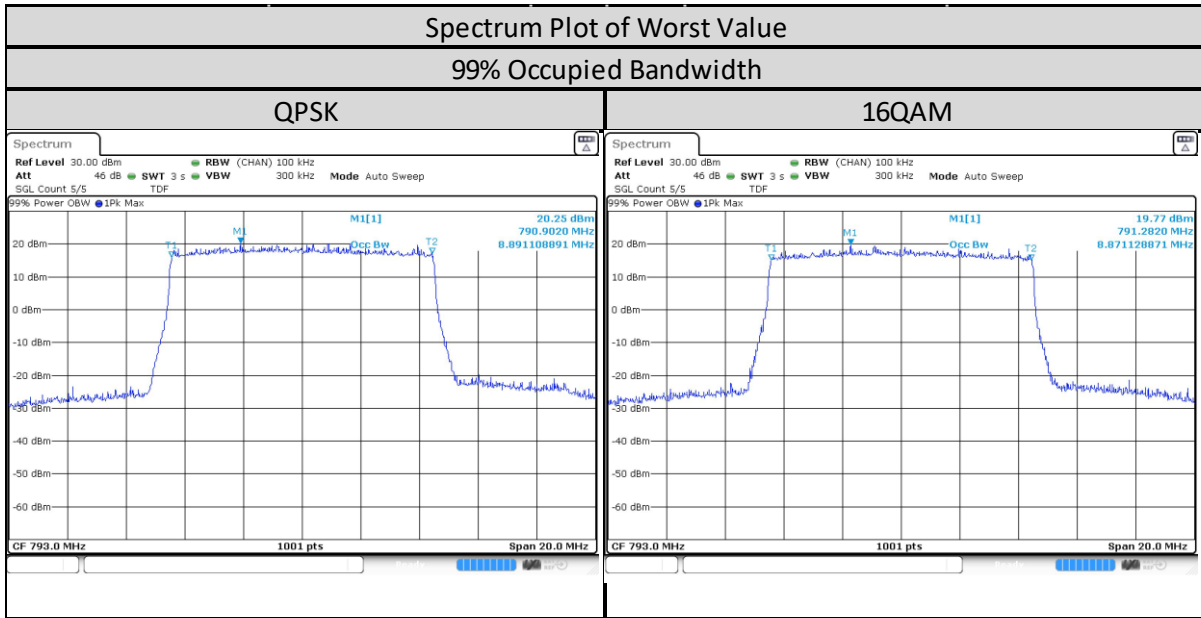
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	99% Occupied Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 14/5MHz/25/0	Low CH 23305	790.5 MHz	4.446	4.456
	Mid CH 23330	793 MHz	4.466	4.456
	High CH 23355	795.5 MHz	4.466	4.476



LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	-26 dBc Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 14/10MHz/50/0	Low CH			
	Mid CH 23330	793 MHz	9.451	9.431
	High CH			

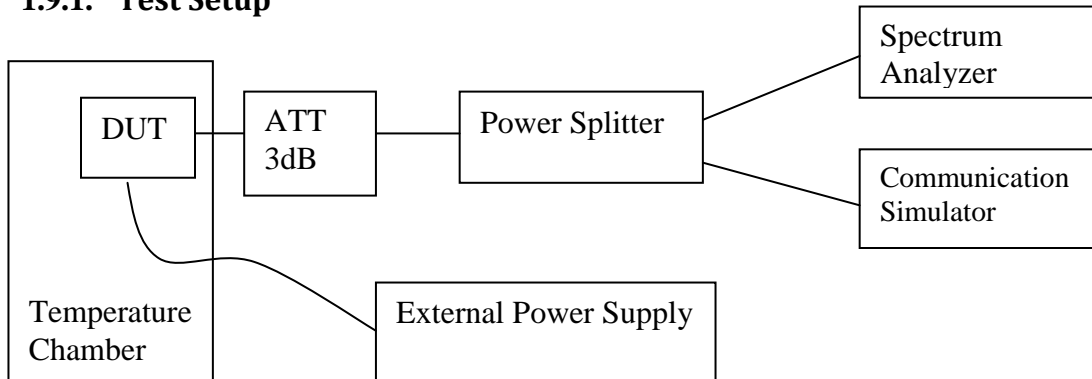


LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	99% Occupied Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 14/10MHz/50/0	Low CH			
	Mid CH 23330	793 MHz	8.891	8.871
	High CH			



1.9. Frequency Stability

1.9.1. Test Setup



- 1) The DUT is placed in the temperature chamber and DUT is power up by external power supply to control the DC input voltage.
- 2) The temperature chamber could control the temperature and humidity and external power supply could control the test voltage range from minimum to maximum operating voltage.
- 3) Measured frequency error from the communication simulator by vary below step :
 - i. Vary temperature of the temperature chamber from -30 ~ 60 deg C (10 deg C / Step) and set external supply voltage constant at nominal voltage.
 - ii. Vary external supply voltage from minimum to maximum operation voltage support by DUT and set temperature chamber constant at room temp.
- 4) All the measurement was done at mid channel for each band.

1.9.2. Test Limit

As per manufacturer declared product operating at -30 to 60 deg C with spec of +/- 0.1ppm.

1.9.3. Frequency Stability - LTE Band 14 (788-798MHz)

Band	Temp (Deg C)	Frequency Error VS Temperature			
		Channel Bandwidth: 5 MHz			
		Low Channel		High Channel	
		790.5MHz		795.5MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 14	60	790.499996	-0.004759	795.500008	0.009549
	50	790.500004	0.00523	795.500003	0.003453
	40	790.499995	-0.005755	795.500006	0.008056
	30	790.500005	0.005899	795.500006	0.008164
	20	790.499995	-0.005827	795.500004	0.005593
	10	790.500005	0.00637	795.500006	0.007715
	0	790.500005	0.005899	795.500006	0.007355
	-10	790.500005	0.006062	795.500008	0.009836
	-20	790.500005	0.006533	795.500005	0.006851
	-30	790.500004	0.004651	795.500001	0.012714

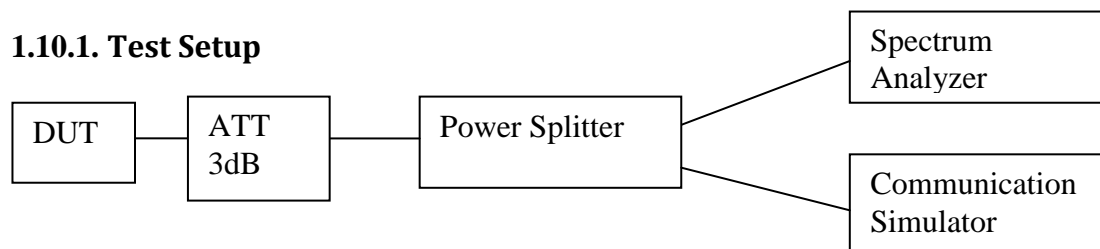
Band	Voltage (V)	Frequency Error VS Voltage			
		Channel Bandwidth: 5 MHz			
		Low Channel		High Channel	
		790.5MHz		795.5MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 14	9	790.499995	-0.005809	795.500006	0.007067
	7.5	790.500004	0.004615	795.500006	0.007499
	6	790.500007	0.008614	795.500005	0.0057

Band	Temp (Deg C)	Frequency Error VS Temperature	
		Channel Bandwidth: 10 MHz	
		Mid Channel	
		793MHz	
LTE Band 14		Frequency (MHz)	Frequency Error (ppm)
	60	792.999996	-0.005087
	50	793.000004	0.005213
	40	793.000004	0.005484
	30	793.000004	0.005358
	20	792.999995	-0.006296
	10	793.000005	0.005827
	0	793.000003	0.004257
	-10	793.000005	0.006169
	-20	793.000004	0.004528
-30	793.000004	0.005574	

Band	Voltage (V)	Frequency Error VS Voltage	
		Channel Bandwidth: 10 MHz	
		Mid Channel	
		793MHz	
LTE Band 14		Frequency (MHz)	Frequency Error (ppm)
	9	793.000004	0.005087
	7.5	793.000004	0.005412
	6	793.000004	0.005141

1.10. Band Edge/Emission Mask Conducted Spurious Emission

1.10.1. Test Setup



- 1) The DUT transmitter output port was connected to communication simulator with above setup.
- 2) Path loss for the measurement included.
- 3) Set DUT to transmit maximum power through communication simulator.
- 4) The band edges of lowest and highest channels with the highest RF powers were measured.
- 5) The center frequency of spectrum is the band edge frequency, RBW is 1~3% of OBW and VBW is 3 times of RBW.
- 6) Record the maximum trace plot into the test report.

1.10.2. Test Limit

FCC:

(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.

ISED:

The power of any unwanted emission outside the bands 758-768 MHz and 788-798 MHz shall be attenuated below the transmitter output power P in dBW as follows, where p is the transmitter output power in watts:

For any frequency between 769-775 MHz and 799-806 MHz:

$76 + 10 \log (p)$, dB in a 6.25 kHz band for fixed and base station equipment

$65 + 10 \log (p)$, dB in a 6.25 kHz band for mobile and portable/hand-held equipment

For any frequency between 775-788 MHz, above 806 MHz, and below 758 MHz: $43 + 10 \log (p)$, dB in a bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency bands 758-768 MHz and 788-798 MHz, a resolution bandwidth of 30 kHz may be employed.

1.10.3. Band Edge/Emission Mask Conducted Spurious Emission - LTE Band 14 (788-798MHz)

