

 MOTOROLA SOLUTIONS	    CERTIFICATE 2518.08 SAMM 825																																
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.	FCC / ISED TEST REPORT Report Revision : Rev.C																																
<table><tr><td>Date/s Tested</td><td>: 06-May-2025 - 13-June-2025</td></tr><tr><td>Report Issue Date</td><td>: 06-July-2025</td></tr><tr><td>Manufacturer/Location</td><td>: Motorola Solutions INC. (Plantation)</td></tr><tr><td>Manufacturer Address</td><td>: Motorola Solutions INC. (Plantation), 8000 West Sunrise Blvd MD 41-128, USA Plantation FL 333222-9947</td></tr><tr><td>Requestor</td><td>: Stankovska Daniela</td></tr><tr><td>Product Type</td><td>: Hand-held</td></tr><tr><td>Product Marketing Name (PMN)</td><td>: APX NEXT</td></tr><tr><td>Hardware Version Identification Number (HVIN)</td><td>: H55TGT9PW8BN</td></tr><tr><td>Frequency Band</td><td>: Refer to section 1.4</td></tr><tr><td>Max RF Output Power</td><td>: 251.19mW</td></tr><tr><td>Applicant Name</td><td>: Motorola Solutions Inc</td></tr><tr><td>Applicant Address</td><td>: Plot 2A, Medan Bayan Lepas, Mukim 12, S.W.D. 11900 Bayan Lepas, Penang, Malaysia</td></tr><tr><td>FCC Registrations</td><td>: 461337</td></tr><tr><td>ISED Registrations</td><td>: MY0001</td></tr><tr><td>Firmware Version Identification Number (FVIN)</td><td>: D37.00.17 (BP), D37.00.02 (AP)</td></tr></table> The equipment was tested accordance to the requirement listed below: <table><tr><td>(LTE Band 14) FCC 47 CFR Part 2 / 90 ISED RSS-Gen (Issue 5), Amendment 1 (Mar 2019), Amendment 2 (Feb 2021) RSS-140 (Issue 1)</td><td>PASS</td></tr></table>		Date/s Tested	: 06-May-2025 - 13-June-2025	Report Issue Date	: 06-July-2025	Manufacturer/Location	: Motorola Solutions INC. (Plantation)	Manufacturer Address	: Motorola Solutions INC. (Plantation), 8000 West Sunrise Blvd MD 41-128, USA Plantation FL 333222-9947	Requestor	: Stankovska Daniela	Product Type	: Hand-held	Product Marketing Name (PMN)	: APX NEXT	Hardware Version Identification Number (HVIN)	: H55TGT9PW8BN	Frequency Band	: Refer to section 1.4	Max RF Output Power	: 251.19mW	Applicant Name	: Motorola Solutions Inc	Applicant Address	: Plot 2A, Medan Bayan Lepas, Mukim 12, S.W.D. 11900 Bayan Lepas, Penang, Malaysia	FCC Registrations	: 461337	ISED Registrations	: MY0001	Firmware Version Identification Number (FVIN)	: D37.00.17 (BP), D37.00.02 (AP)	(LTE Band 14) FCC 47 CFR Part 2 / 90 ISED RSS-Gen (Issue 5), Amendment 1 (Mar 2019), Amendment 2 (Feb 2021) RSS-140 (Issue 1)	PASS
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Prepared By:  Nur Amanina binti Ahmad Nizam Technician	Approve Signatory:  Zulhairudin bin Zulkifli Responsible Engineer																																

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REVISION HISTORY

Revision History	Description	Date	Originator
Rev. A	Initial Report	06-July-2025	Nur Amanina
Rev. B	1.Update Antenna type from Stamped Metal to PIFA 2.Update antenna gain from 0.7dBi to -1.7dBi 3.Update ERP data	06-August-2025	Nur Amanina
Rev. C	Updated Roboto font at number of heading.	21-August-2025	Nur Amanina

1.0. Summary of Test Results

FCC Clause	ISED Clause	Test Item	Results	Remarks	Serial Number Tested
2.1046	RSS-140 3.1	Conducted RF Output Power	Pass	Meet the requirement of limit	437ZBG0235
2.1046	RSS 140 4.3	Peak-to-Average Power Ratio	Pass	Meet the requirement of limit	437ZBG0235
2.1049 90.209(7)	RSS-Gen 6.7	Occupied Bandwidth (-26dBc, 99%)	Pass	Meet the requirement of limit	437ZBG0235
2.1055 90.213	RSS-Gen 6.11 RSS-140 4.2	Frequency Stability	Pass	Meet the requirement of limit	437ZBG0235
2.1051 90.543(e)	RSS-Gen 6.13 RSS-140 4.4	Band Edge/Emission Mask Conducted Spurious Emission	Pass	Meet the requirement of limit	437ZBG0235
2.1051 90.543(e)	RSS-Gen 6.13 RSS-140 4.4	Conducted Spurious Emissions	Pass	Meet the requirement of limit	437ZBG0235
2.1051 90.543(e)	RSS-140 4.4	Radiated Spurious Emission	Pass	-52.4038 dBm (Margin: 39.4038 dB, Noise Floor)	437ZBG0594
90.635(b)	RSS-140 4.3	Effective Radiated Power (ERP)	Pass	Meet the requirement of limit	437ZBG0235
90.543(f)	RSS-140 4.4(b)	GNSS (EIRP for 1599 – 1610MHz)	Pass	Meet the requirement of limit	437ZBG0235

1.1. Measurement Uncertainty

Measurement	Frequency	Expanded Uncertainty (k=1.96) (±dB)
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	4.03
	200MHz ~ 1000MHz	4.03
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	4.03
	18GHz ~ 25GHz	4.03

1.2. Equipment List

DESCRIPTION	MODEL	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
BROADBAND ATE 1 (RF CONDUCTED TESTS)				
WIDEBAND RADIO COMMUNICATION TESTER	CMW500	154550	16-Aug-24	16-Aug-25
WIDEBAND RADIO COMMUNICATION TESTER	CMW500	163061	19-Aug-24	19-Aug-25
SIGNAL ANALYZER	FSV40	101431	8-Aug-24	8-Aug-25
CHAMBER	SH-641	92003150	12-Sep-24	12-Sep-25
POWER SUPPLY	6652A	MY40001437	03-Mar-25	03-Mar-26
TEST SOFTWARE	R&S CMWrun			
VERSION	V.1.9.8			
RADIATED SPURIOUS EMISSION (EMC CHAMBER 1)				
DRG HORN FREQ.	SAS-571	566	09-Jan-25	09-Jan-26
DRG HORN FREQ.	SAS-571	719	09-Oct-24	09-Oct-25
DC POWER SUPPLY	6032A	MY41001736	05-Aug-24	05-Aug-25
SIGNAL GENERATOR	SMB 100A	180683	20-Dec-24	20-Dec-27
EMI TEST RECEIVER	ESW44	101750	07-Aug-24	07-Aug-25
5M SEMI-ANECHOIC CHAMBER	S800-HX	J2308	Not required	Not required
BILOG ANTENNA	CBL6112B	2964	08-Oct-24	08-Oct-25
BILOG ANTENNA	CBL6112D	55546	05-Jun-24	05-Jun-25
DATA LOGGER THERMOHYGROMETER	SDL500	A.016800	26-Jun-24	26-Jun-25
SYSTEM CONTROLLER	SC104V	050806-1	Not required	Not required
TURNTABLE FLUSH MOUNT 2M	FM2011	FM2011-001	Not required	Not required
ANTENNA POSITIONING TOWER	TLT2	090308-5	Not required	Not required
BROAD-BAND HORN ANTENNA	BBHA9170	BBHA9170143	30-Sep-24	30-Sep-25
PREAMPLIFIER 18-40GHZ	JS44-18004000-33-8P	2034566	Not required	Not required
PREAMPLIFIER 1-18GHZ	EMC0518A45SE	980890	04-Aug-24	04-Aug-25
PREAMPLIFIER	PAM-0118P	269	27-Aug-24	27-Aug-25
LOOP ANTENNA	6502	00208416	08-Oct-24	08-Oct-25
TEST SOFTWARE	EMC.FCC.IC.RE.v1.7.1			
VERSION	1.7.1			

DESCRIPTION	MODEL	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
BROADBAND ATE 1 (RF CONDUCTED TESTS)				
EMI TEST RECEIVER	ESW26	103229	09-Sep-24	09-Sep-25
3M SEMI-ANECHOIC CHAMBER	NA	888032	Not Required	Not Required
BORE SIGHT ANTENNA MAST	MBS-500	1010817	Not Required	Not Required
TURNTABLE FLUSH MOUNT 2M	T-200-S	T-200-S-001	Not Required	Not Required
POSITIONING CONTROLLER	MF-7802BS	MF-780208636	Not Required	Not Required
POWER SUPPLY	6032A	2615A01178	30-Jul-24	30-Jul-25
SIGNAL ANALYZER	FSV40	101432	09-Aug-24	08-Aug-25
DATA LOGGER	SDL500	A.016766	20-Jul-24	20-Jul-25
BILOG ANTENNA	CBL6112B	2950	09-Apr-25	09-Apr-26
BILOG ANTENNA	CBL 6112B	2964	08-Oct-24	08-Oct-25
DRG HORN FREQ.	SAS-571	720	29-Apr-25	29-Apr-26
DRG HORN FREQ.	SAS-571	719	09-Oct-24	09-Oct-25
PREAMPLIFIER	PAM-0118	427	15-Nov-24	15-Nov-25
SIGNAL GENERATOR	SMB100A	181117	06-Dec-21	06-Aug-25
LOOP ANTENNA	6502	00208416	08-Oct-24	08-Oct-25
BROAD-BAND HORN ANTENNA	BBHA9170	BBHA9170143	30-Sep-24	30-Sep-25
TEST SOFTWARE	EMC_FCC_IC_Bluetooth_RE_Test			
VERSION	EMC_FCC_RE_v1.6.5			

1.3. General Information

General Description of EUT

Product	APX NEXT			
Brand	Motorola Solutions			
Test Model	H55TGT9PW8BN			
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 RF Output Power	LTE Band 14 QPSK	Channel Bandwidth 5MHz	23.732dBm (0.236W)	
		Channel Bandwidth 10MHz	23.680dBm (0.233W)	
	LTE Band 14 16QAM	Channel Bandwidth 5MHz	22.944dBm (0.197W)	
		Channel Bandwidth 10MHz	22.816dBm (0.191W)	
Emission Designator	LTE Band 14		QPSK	16QAM
		Channel Bandwidth 5MHz	4M47G7D	4M49D7W
		Channel Bandwidth 10MHz	8M97G7D	8M95D7W
Antenna Type	LTE Band 14	PIFA, Antenna LTE Low Band 788 – 798MHz (-1.7dBi)		
SW Version	D37.00.17 (BP), D37.00.02 (AP)			
HW Version	P2			

Note:

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

Item	Brand	Model or P/N	Specification
Li-Ion Battery	MOTOROLA	PMNN4895A	BATTERY PACK, BATT IMPRES 2 LIION IP68 5800T

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
2	Wideband Radio Communication Tester	R&S	CMW500	163061	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:

KDB 971168 D01 Power Meas License Digital Systems v03r01
KDB 971168 D02 Misc OOB License Digital Systems v02r01
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 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	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	50 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 / Emission Mask Conducted Spurious Emission	23305 ~ 23355	23305, 23330, 23355	5 MHz	QPSK, 16QAM	1 RB / 0 RB Offset 25 RB / 0 RB Offset 1 RB / 24 RB Offset 12 RB / 6 RB Offset
	23330	23330	10 MHz		1 RB / 0 RB Offset 50 RB / 0 RB Offset 1 RB / 49 RB Offset 25 RB / 12 RB Offset
Conducted Spurious Emission	23305 ~ 23355	23305, 23330, 23355	5 MHz	QPSK	1 RB / 13 RB Offset
	23330	23330	10 MHz		1 RB / 0 RB Offset
Radiated Spurious Emission	23305 ~ 23355	23305	5 MHz	QPSK	1 RB / 13 RB Offset
		23330	5 MHz		1 RB / 13 RB Offset
		23355	5 MHz		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		
GNSS (EIRP for 1599 – 1610MHz)	23305 ~ 23355	23305	5 MHz	QPSK	1 RB / 0 RB Offset
		23355	5 MHz		1 RB / 0 RB Offset

NOTE:

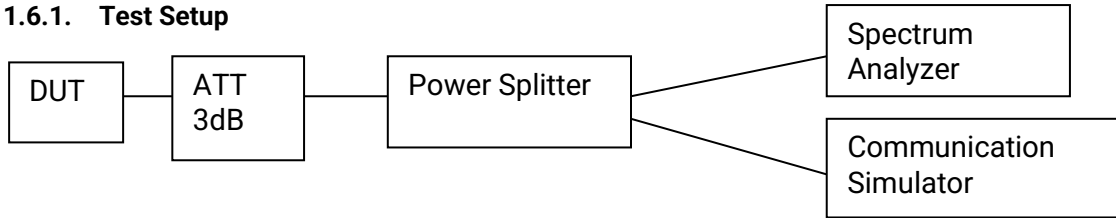
1. The Conducted RF Output Power for QPSK and 16QAM, measured value of QPSK is higher than 16QAM mode. Therefore, Conducted Spurious Emission and Radiated Emission had been tested under QPSK modes.
2. Band Edge was performed with 1 and full Resource Block at the lowest and highest operating frequency band.
3. The Effective Radiated Power (ERP) was calculated from Conducted RF Output Power in QPSK and 16QAM modulation.
4. The Peak to Average and Occupied Bandwidth was 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	7.5 Vdc	Nur Amanina
Peak-to-Average Power Ratio	25°C, 50% RH	7.5 Vdc	Nur Amanina
Occupied Bandwidth	25°C, 50% RH	7.5 Vdc	Nur Amanina
Frequency Stability	-30°C ~ 60°C	7.5 Vdc	Nur Amanina
Band Edge / Emission Mask Conducted Spurious Emission	25°C, 50% RH	7.5 Vdc	Nur Amanina
Conducted Spurious Emssion	25°C, 50% RH	7.5 Vdc	Nur Amanina
Radiated Spurious Emission	23.4°C, 68.6% RH	7.5 Vdc	Nazrin & Rezza
Equivalent Isotropically Radiated Power (EIRP)	25°C, 50% RH	7.5 Vdc	Nur Amanina

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	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	23.699	23.681	23.69	22.873	22.797	22.875
	1	13	23.732	23.722	23.716	22.944	22.835	22.91
	1	24	23.673	23.664	23.639	22.9	22.804	22.843
	12	0	22.742	22.64	22.642	21.776	21.649	21.684
	12	6	22.762	22.65	22.653	21.787	21.667	21.677
	12	13	22.718	22.688	22.674	21.75	21.721	21.708
	25	0	22.747	22.632	22.623	21.753	21.65	21.658

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		23.68			22.789	
	1	25		23.673			22.816	
	1	49		23.565			22.696	
	25	0		22.69			21.707	
	25	13		22.657			21.68	
	25	25		22.691			21.704	
	50	0		22.667			21.677	

1.6.4. Effective Radiated 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	19.849	19.831	19.84	19.023	18.947	19.025
	1	13	19.882	19.872	19.866	19.094	18.985	19.06
	1	24	19.823	19.814	19.789	19.05	18.954	18.993
	12	0	18.892	18.79	18.792	17.926	17.799	17.834
	12	6	18.912	18.8	18.803	17.937	17.817	17.827
	12	13	18.868	18.838	18.824	17.9	17.871	17.858
	25	0	18.897	18.782	18.773	17.903	17.8	17.808

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		19.83			18.939	
	1	25		19.823			18.966	
	1	49		19.715			18.846	
	25	0		18.84			17.857	
	25	13		18.807			17.83	
	25	25		18.841			17.854	
	50	0		18.817			17.827	

The maximum ERP/EIRP from the measured RF output power is given in Equation as follows:

$$\text{EIRP} = \text{PMeas} + \text{GT}$$

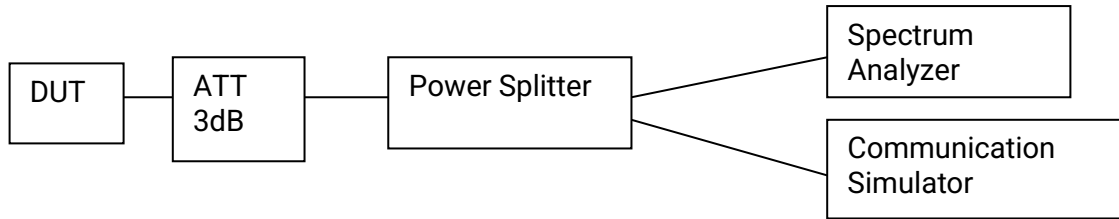
$$\text{ERP} = \text{EIRP} - 2.15$$

Where, ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively
 (Expressed in the same units as PMeas, e.g., dBm)

PMeas measured transmitter output power, in dBm
GT gain of the transmitting antenna, in dBi (EIRP)

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.

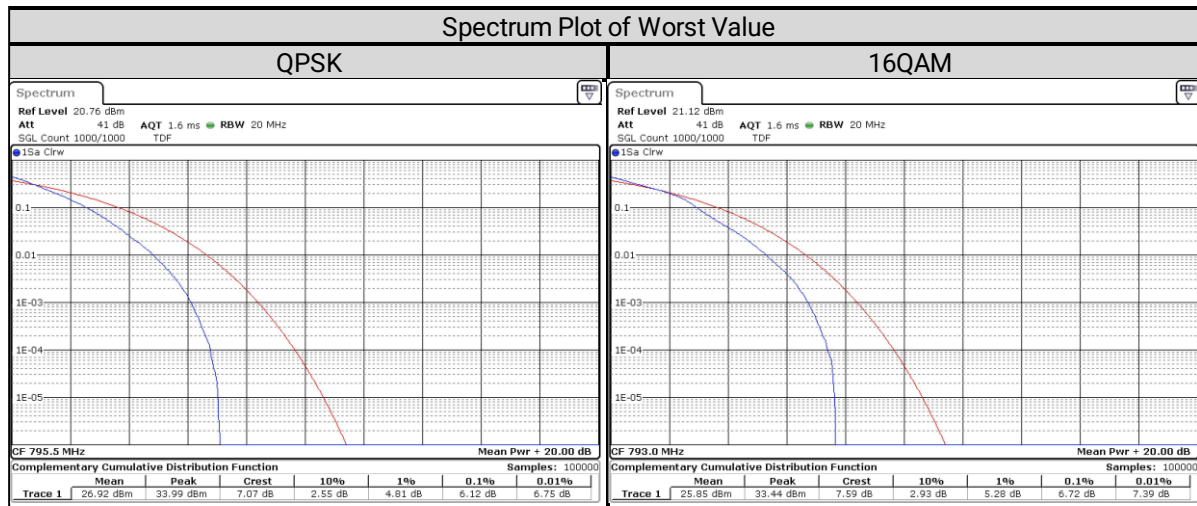
1.7.2. Test Limit

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)

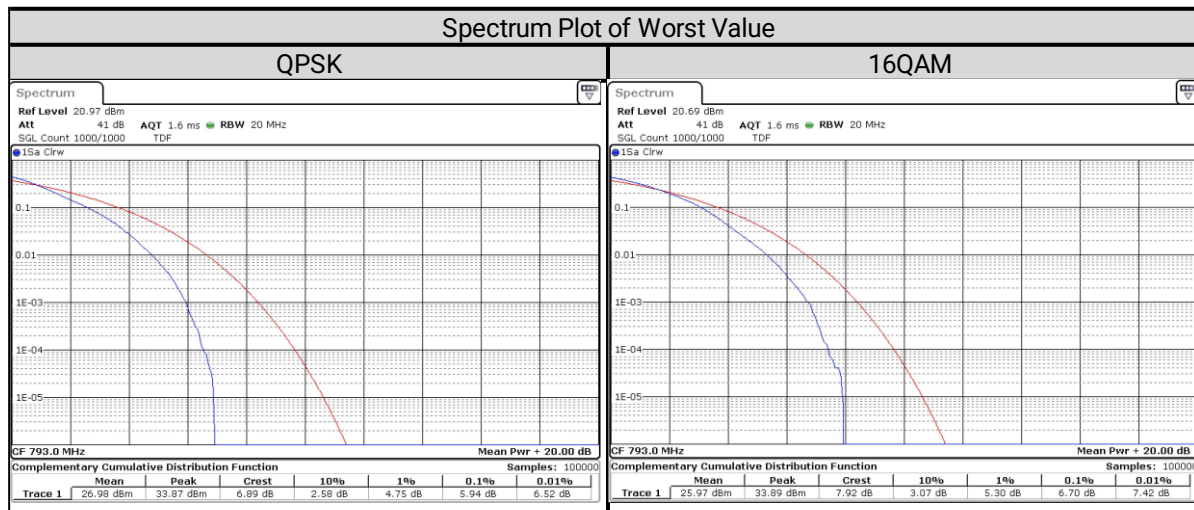
5MHz

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	5.594	6.29
	Mid CH 23330	793 MHz	5.971	6.724
	High CH 23355	795.5 MHz	6.116	6.723



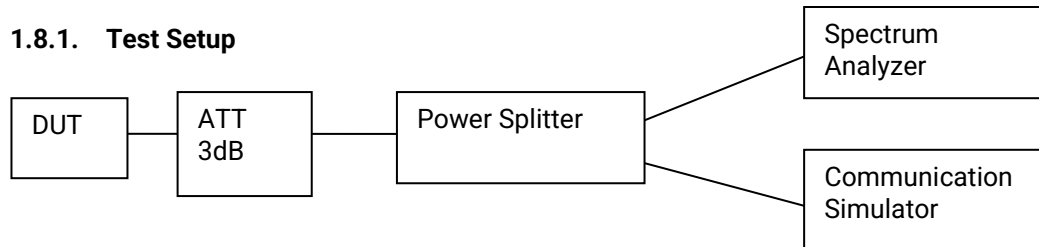
10MHz

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	5.942	6.696
	High CH			



1.8. Occupied Bandwidth

1.8.1. Test Setup



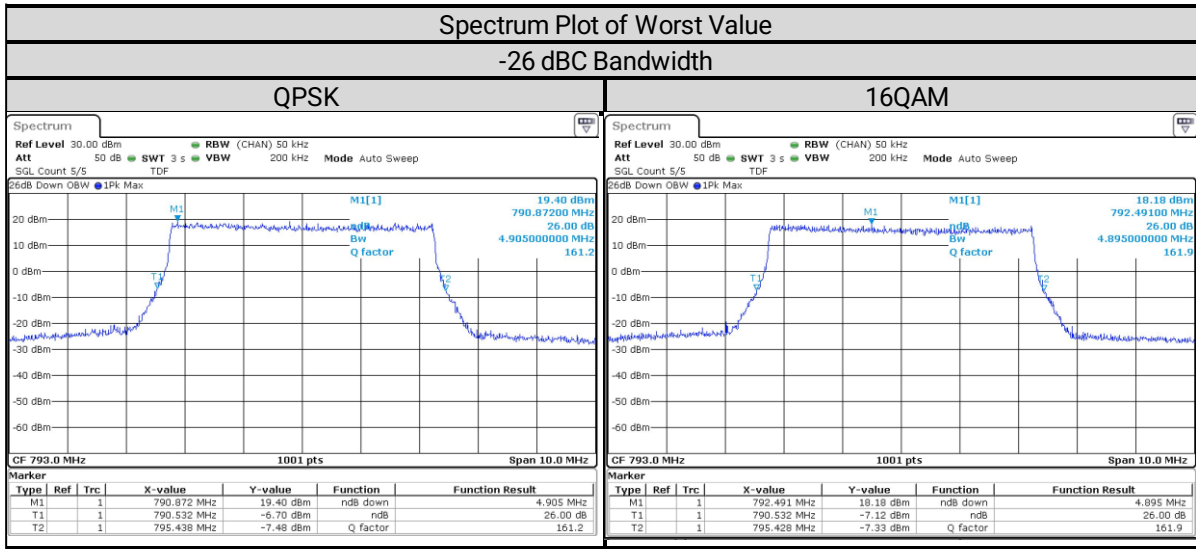
- 1) The DUT transmitter output port was connected to communication simulator with above setup.
- 2) Path loss for the measurement included.
- 3) For LTE measurement, set DUT to transmit maximum power & full RB size through communication simulator.
- 4) For LTE measurement, set DUT to transmit maximum 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

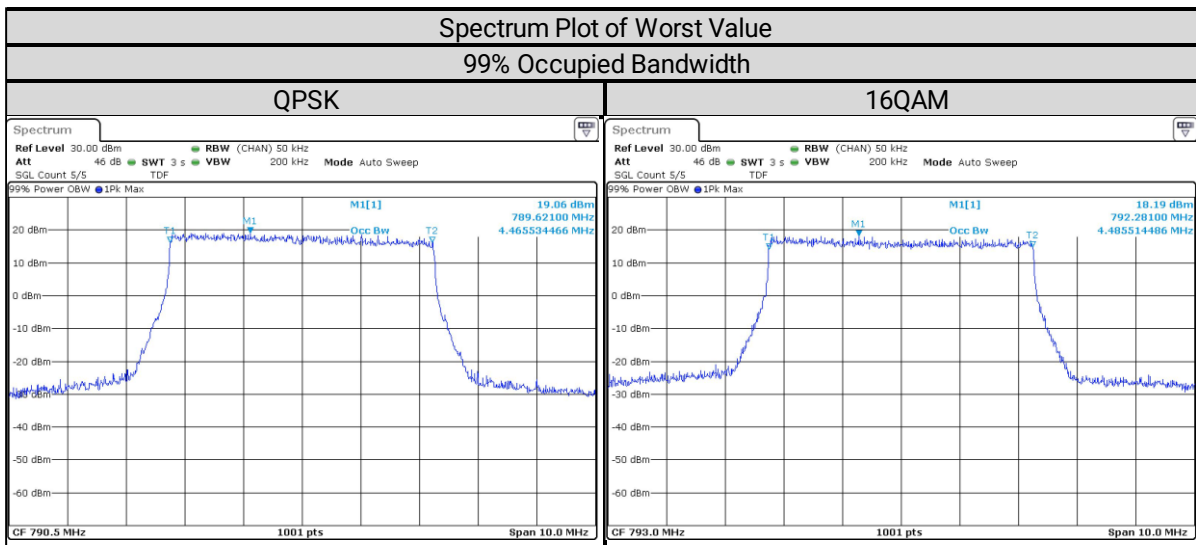
For measurement 99% of occupied bandwidth that is required by FCC 2.1049 and RSS Gen 6.7.

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

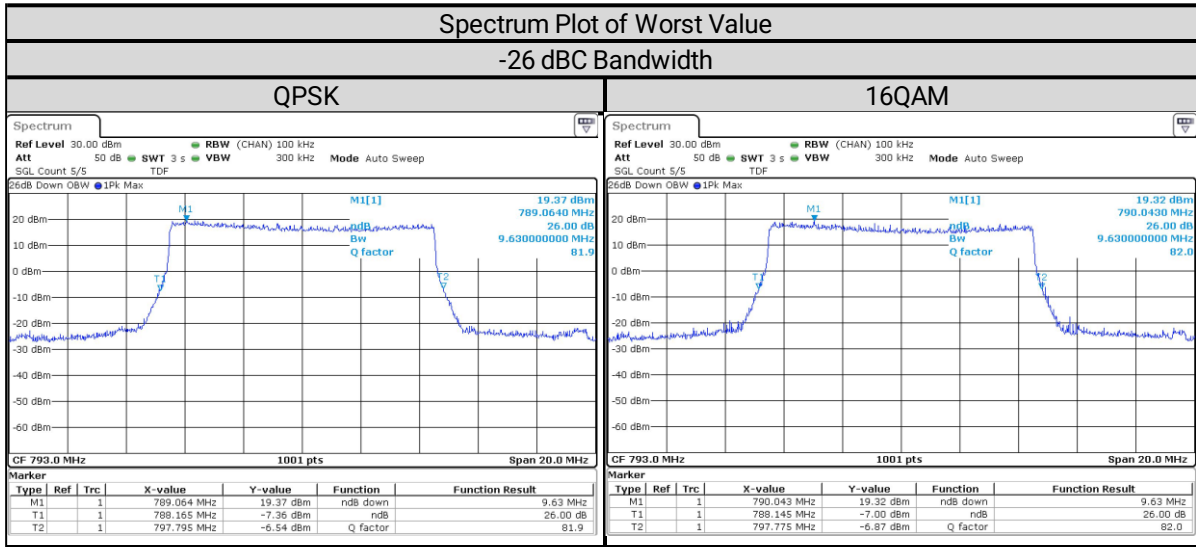
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	-26 dBc Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 14/5MHz/25/0	Low CH 23305	790.5 MHz	4.845	4.885
	Mid CH 23330	793 MHz	4.905	4.895
	High CH 23355	795.5 MHz	4.885	4.885



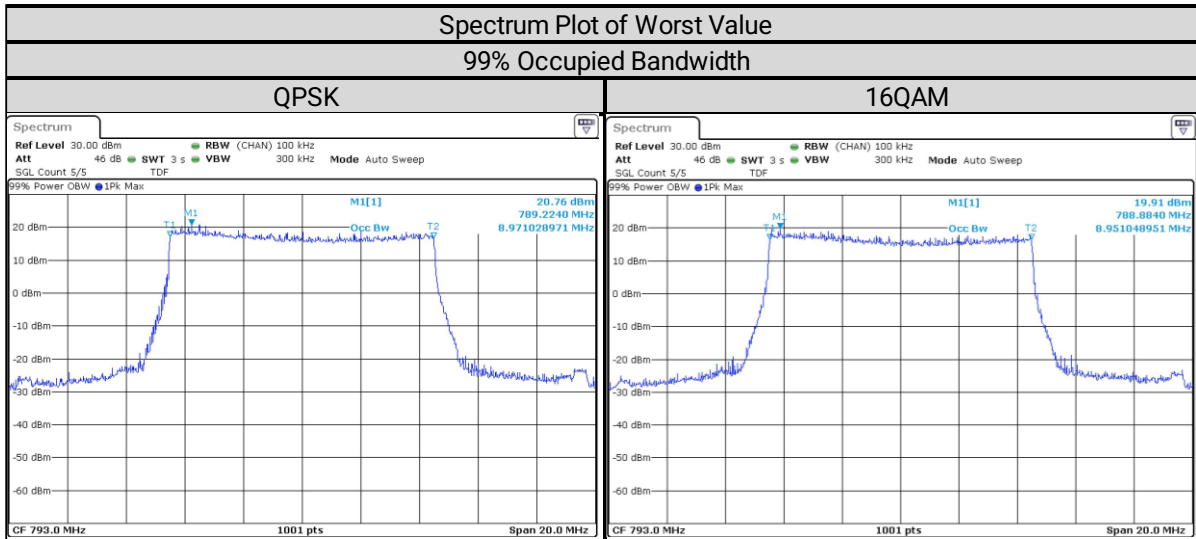
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	99% Occupied Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 14/5MHz/25/0	Low CH 23305	790.5 MHz	4.466	4.466
	Mid CH 23330	793 MHz	4.466	4.486
	High CH 23355	795.5 MHz	4.466	4.466



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	9.63	9.63
	High CH			

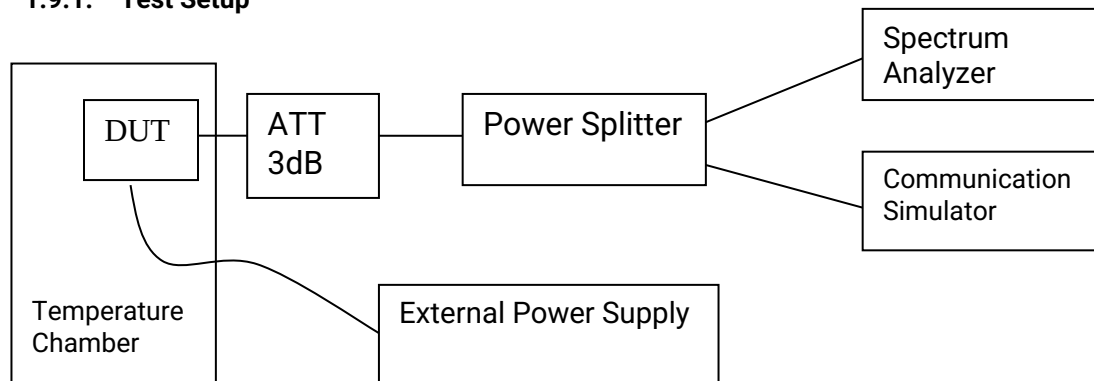


LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	99% Occupied Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 14/10MHz/50/0	Low CH			
	Mid CH 23330	793 MHz	8.971	8.951
	High CH			



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

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

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	
LTE Band 14		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
	60	790.499997	-0.003764	795.500003	0.00437
	50	790.499996	-0.004777	795.500004	0.004981
	40	790.499997	-0.004325	795.500004	0.004604
	30	790.500004	0.00456	795.500003	0.004046
	20	790.500005	0.005936	795.500004	0.004891
	10	790.500004	0.005049	795.500005	0.006096
	0	790.500005	0.006008	795.500005	0.005682
	-10	790.500004	0.004777	795.500004	0.005449
	-20	790.500004	0.004542	795.500004	0.005557
	-30	790.500004	0.00523	795.500004	0.005467

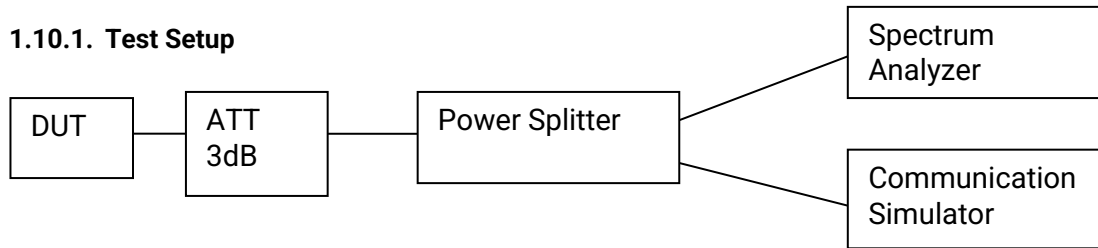
Band	Voltage (V)	Frequency Error VS Voltage			
		Channel Bandwidth: 5 MHz			
		Low Channel		High Channel	
		790.5MHz		795.5MHz	
LTE Band 14		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
	9	790.5000066	0.00608	795.5000065	0.005844
	7.5	790.5000415	0.004343	795.5004111	0.00437
	6	790.5000365	-0.003927	795.5000167	0.004765

Band	Temp (Deg C)	Frequency Error VS Temperature	
		Channel Bandwidth: 10 MHz	
		Mid Channel	
		793MHz	
LTE Band 14		Frequency (MHz)	Frequency Error (ppm)
	60	793.000003	0.004113
	50	793.000004	0.00534
	40	793.000003	0.004131
	30	793.000004	0.005105
	20	793.000003	0.003806
	10	793.000003	0.004347
	0	793.000004	0.005304
	-10	793.000004	0.005015
	-20	793.000003	0.003951
	-30	793.000004	0.004853

Band	Voltage (V)	Frequency Error VS Voltage	
		Channel Bandwidth: 10 MHz	
		Mid Channel	
		793MHz	
LTE Band 14		Frequency (MHz)	Frequency Error (ppm)
	9	793.000099	0.008244
	7.5	793.0001111	0.003427
	6	793.0000517	-0.004095

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:

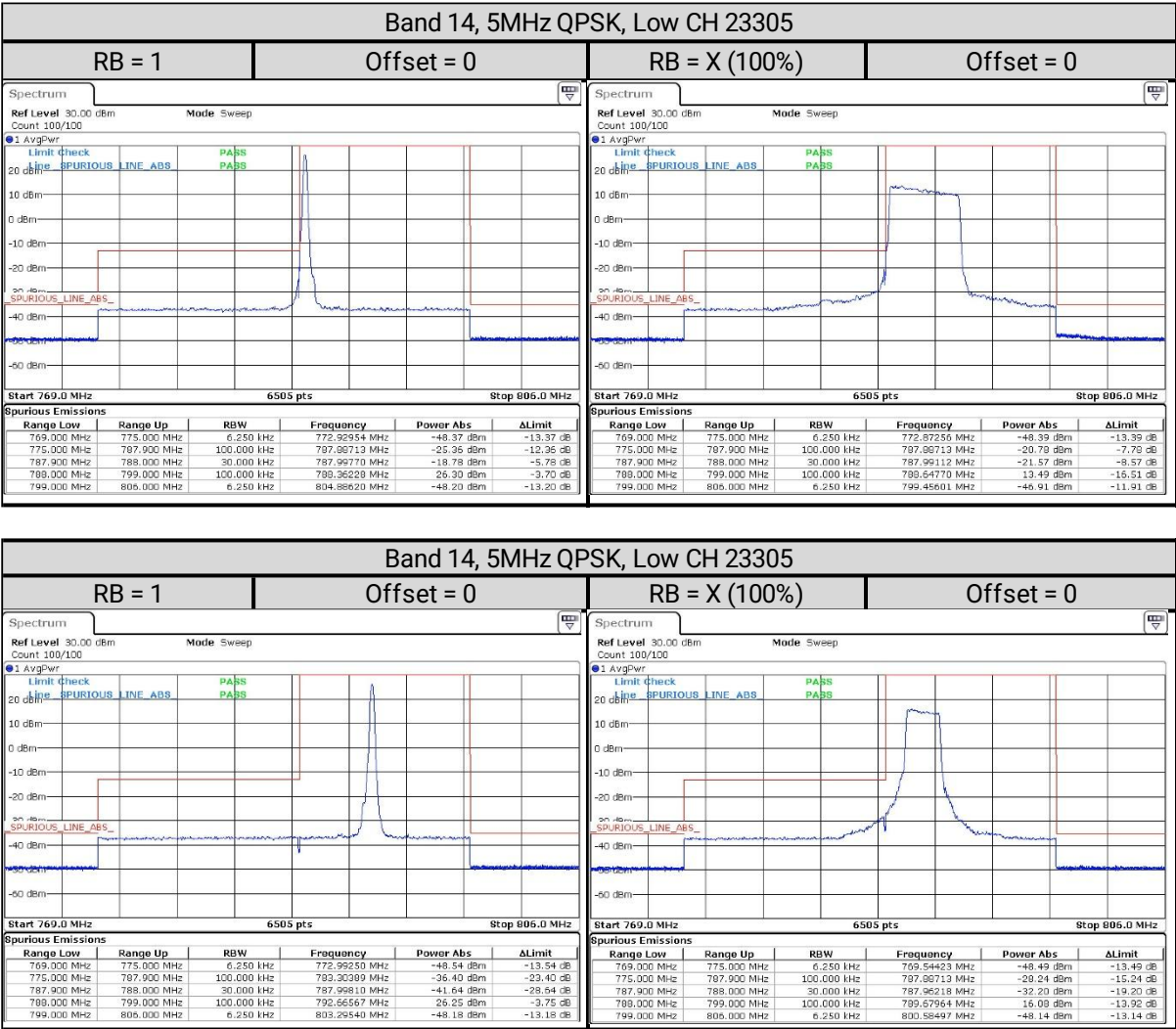
$76 + 10 \log (p)$, dB in a 6.25 kHz band for fixed and base station equipment

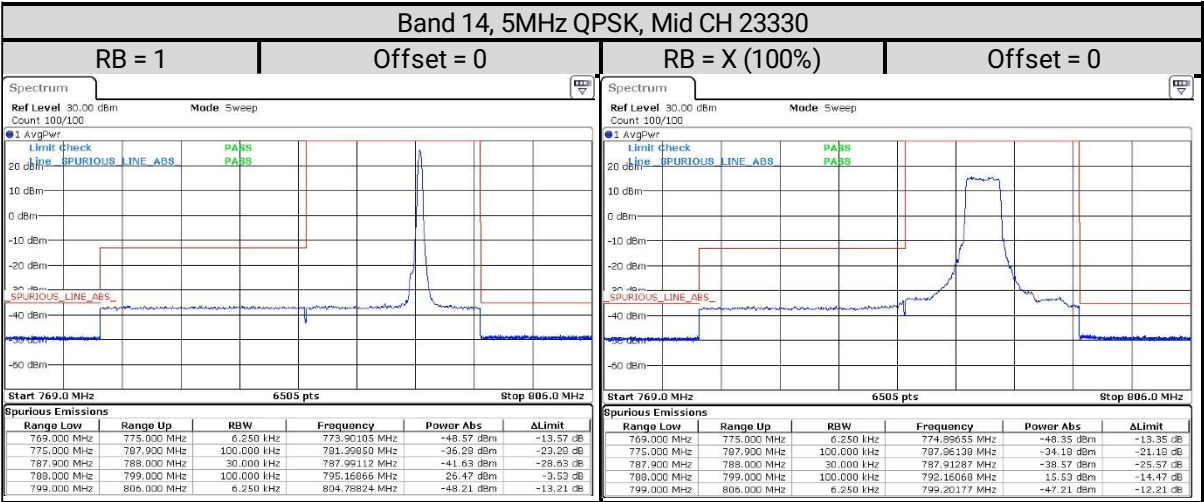
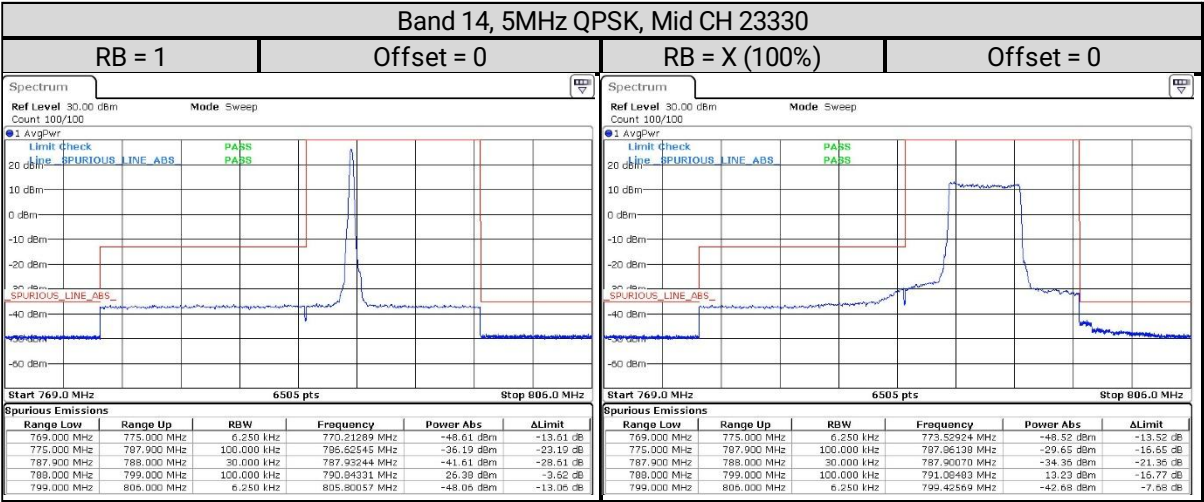
$65 + 10 \log (p)$, dB in a 6.25 kHz band for mobile and portable/hand-held equipment

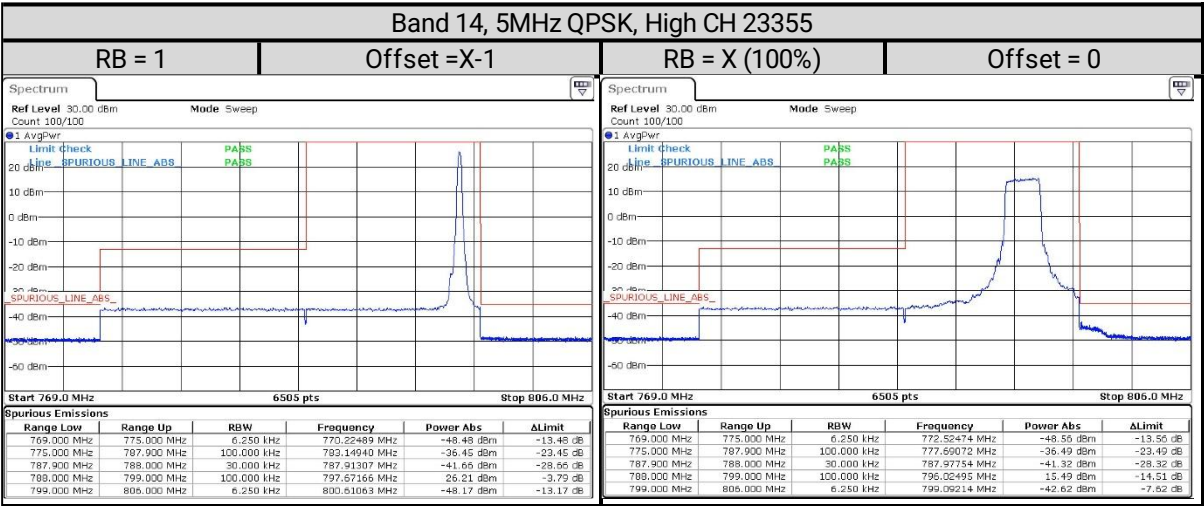
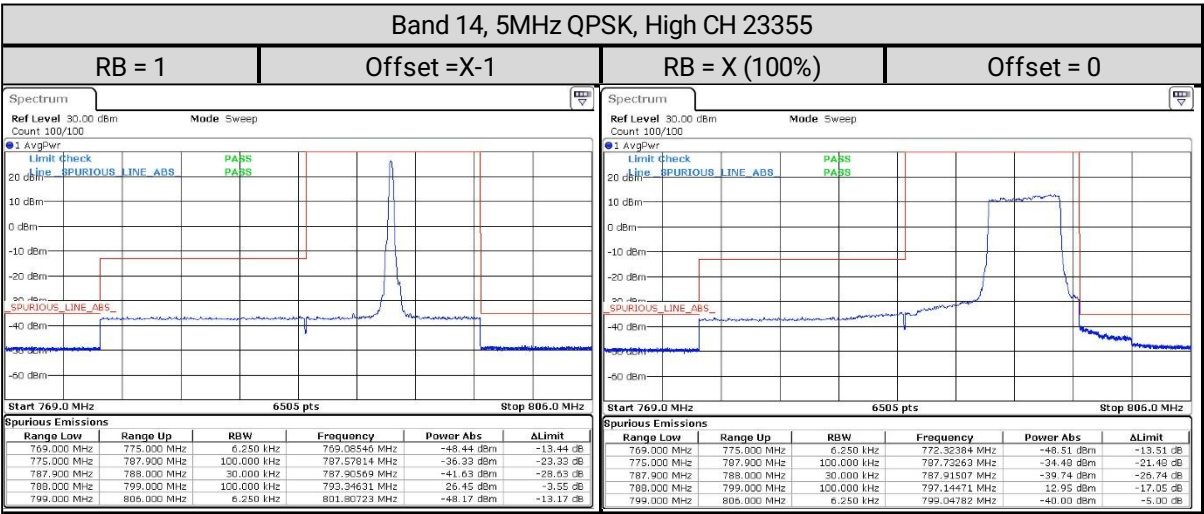
For any frequency between 775-788 MHz, above 806 MHz, and below 758 MHz: $43 + 10 \log (p)$, dB in a bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency bands 758-768 MHz and 788-798 MHz, a resolution bandwidth of 30 kHz may be employed.

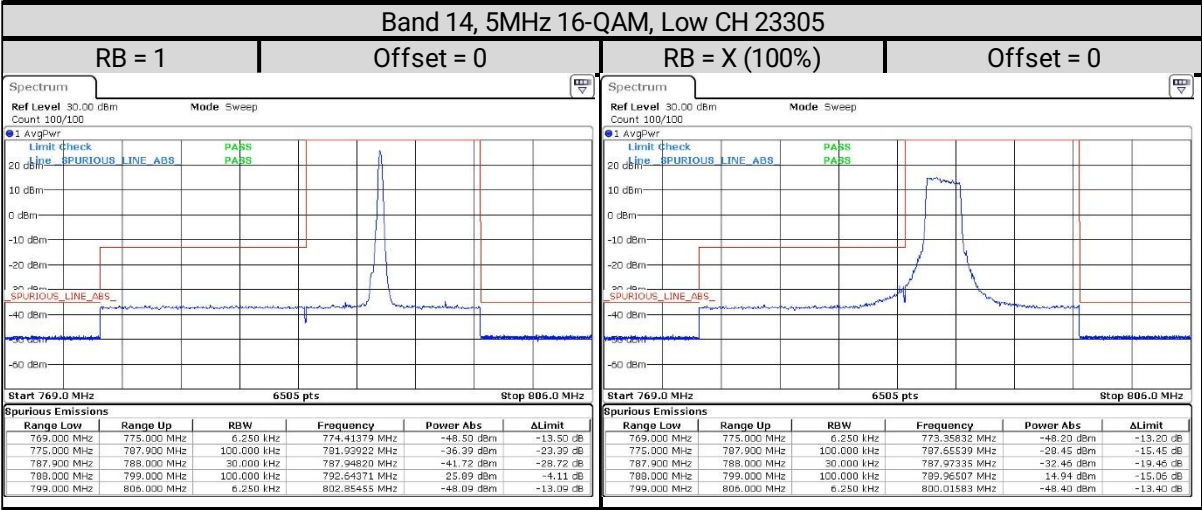
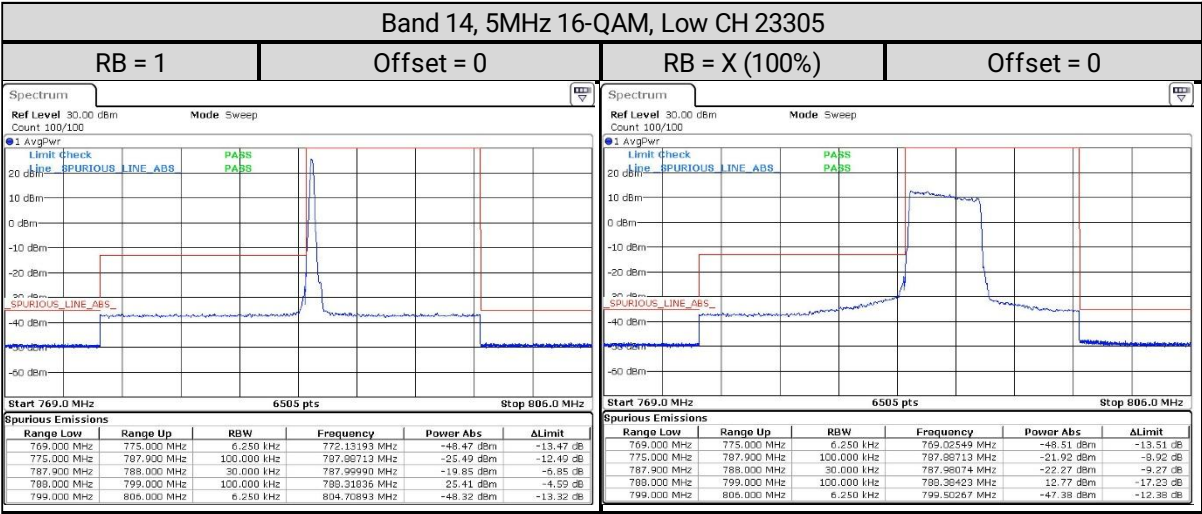
1.10.3. Band Edge/Emission Mask Conducted Spurious Emission - LTE Band 14 (788-798MHz)

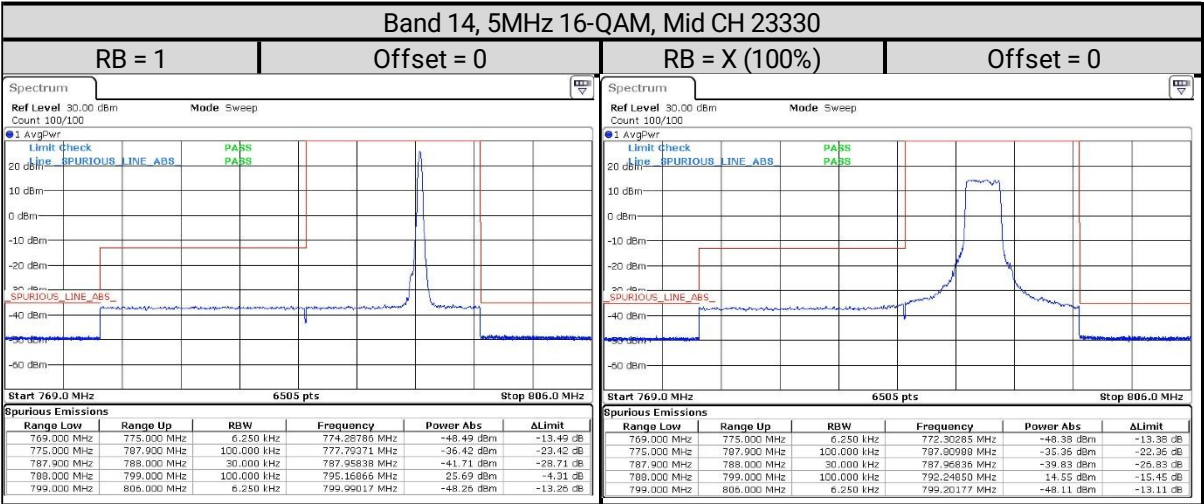
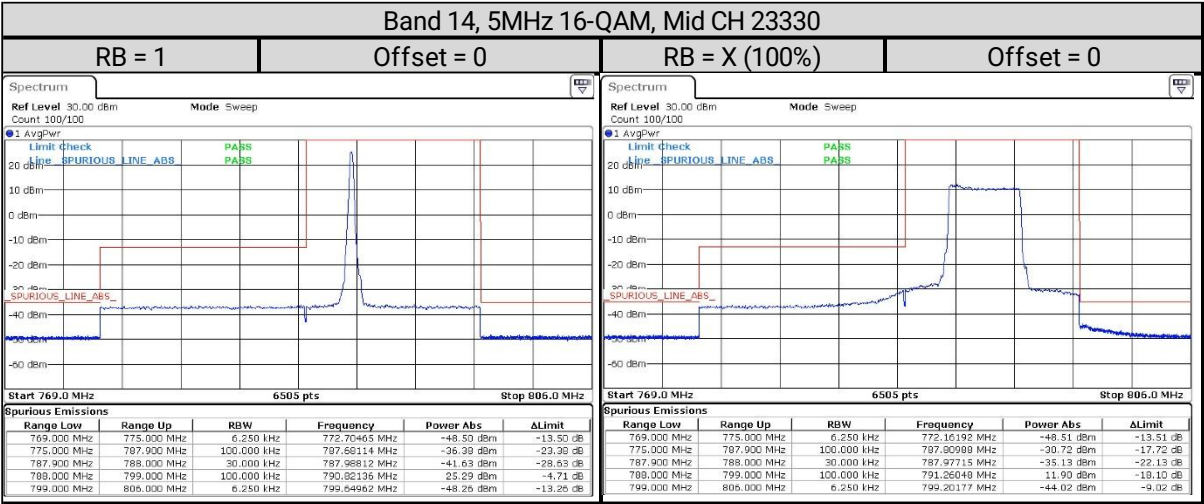
5MHz

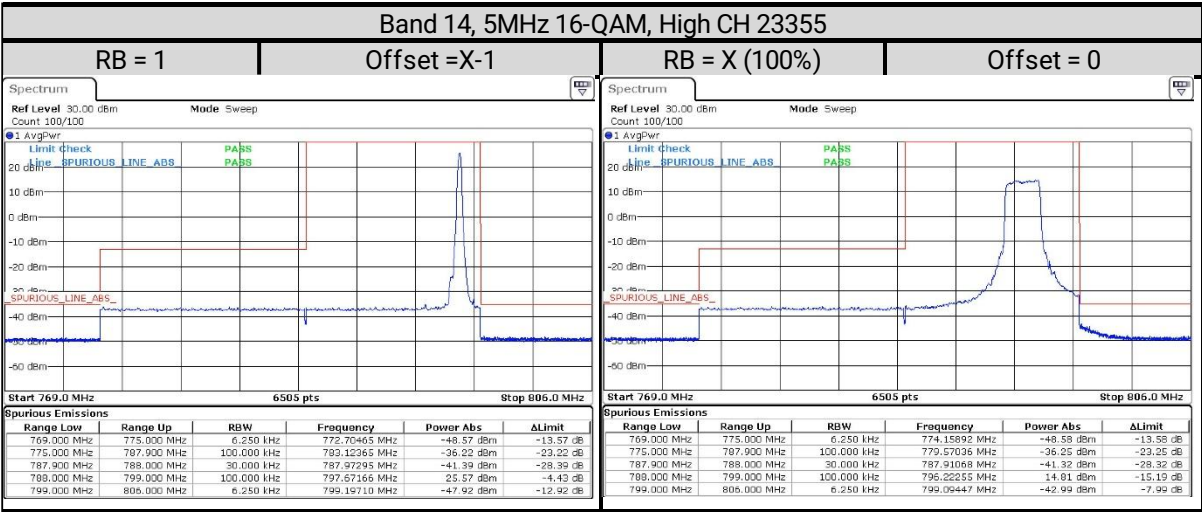
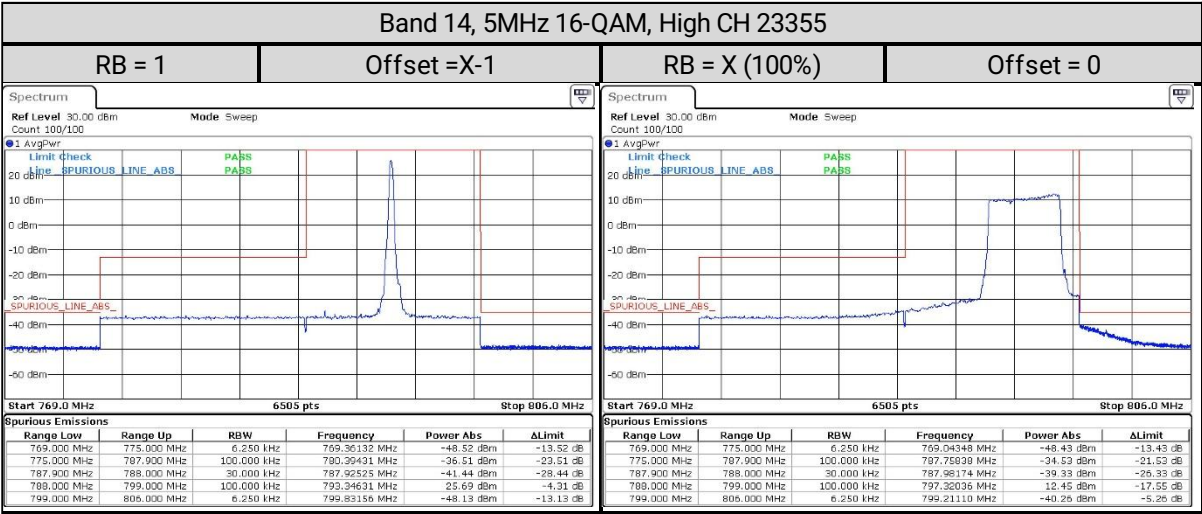




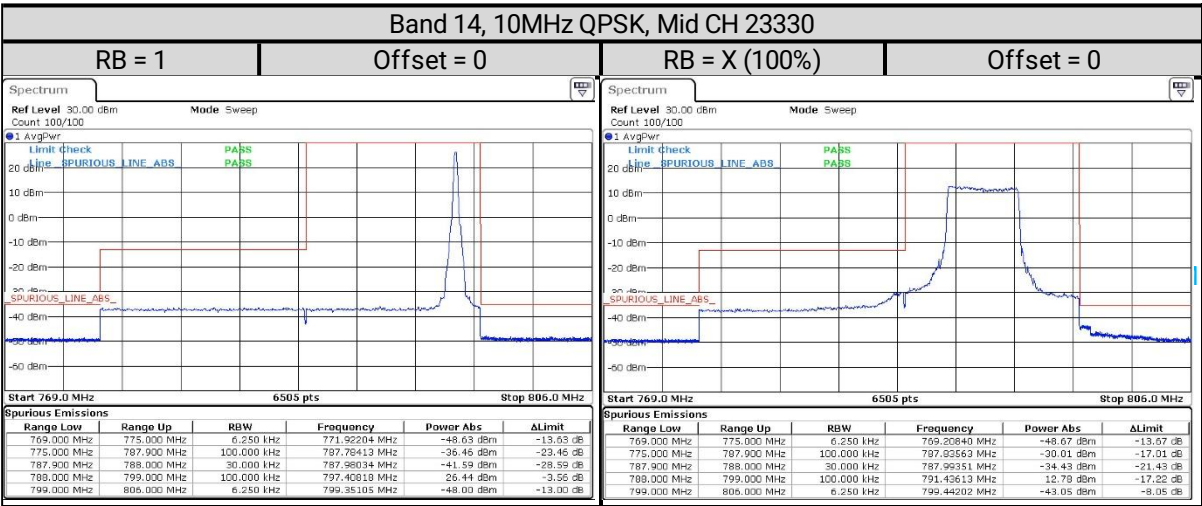
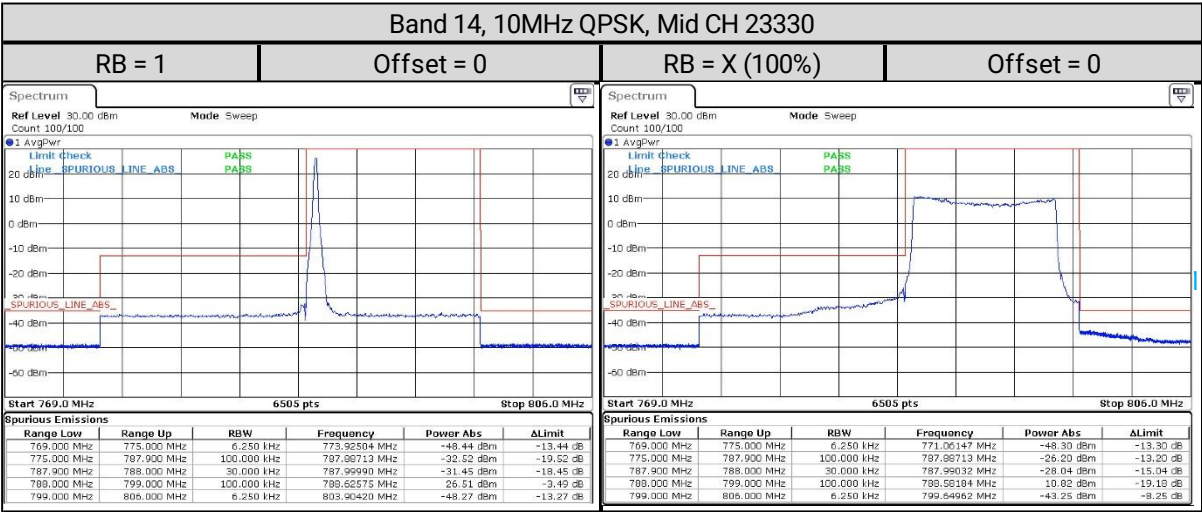


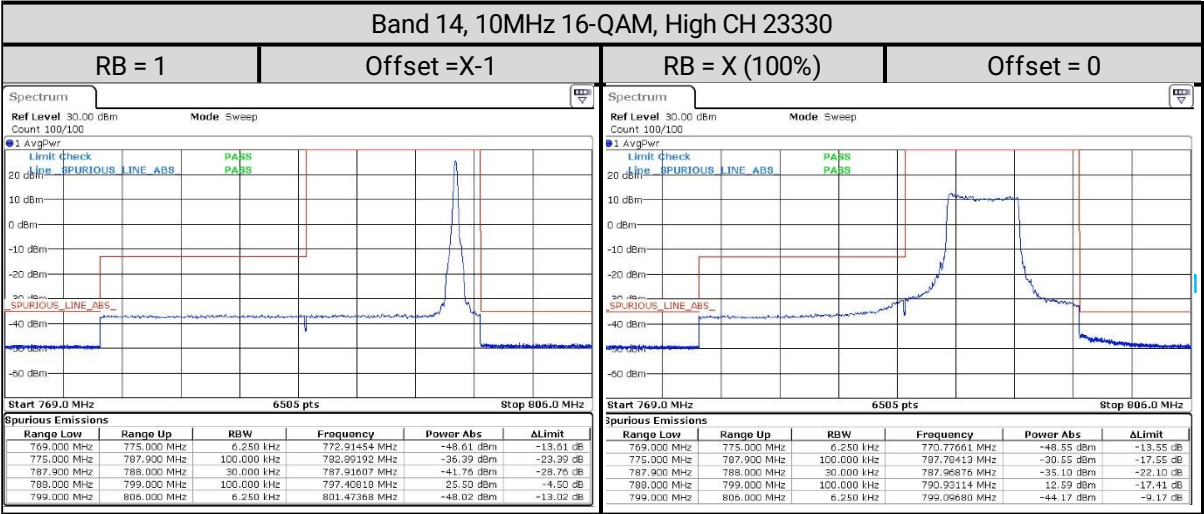
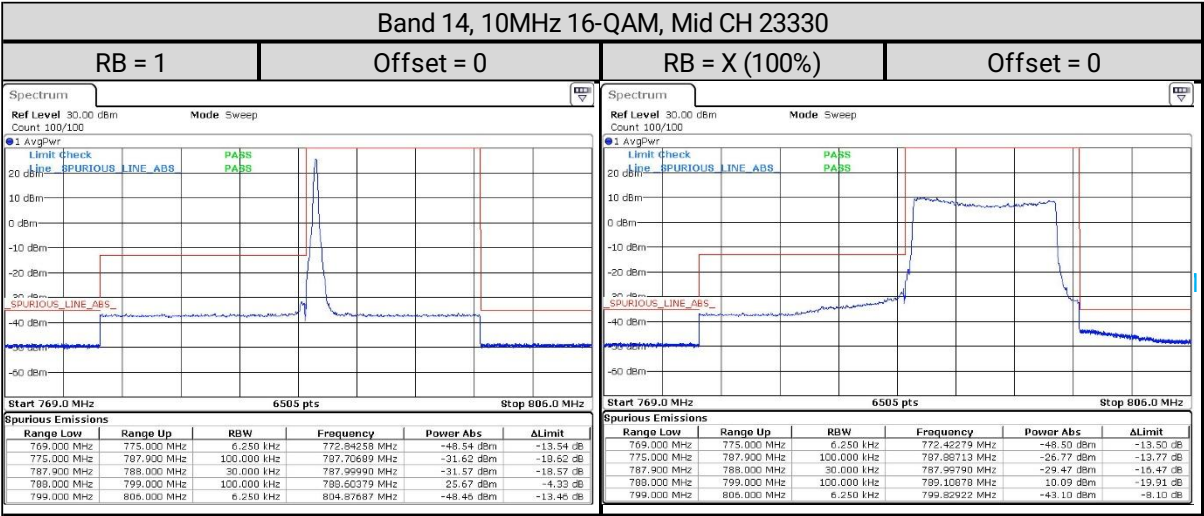






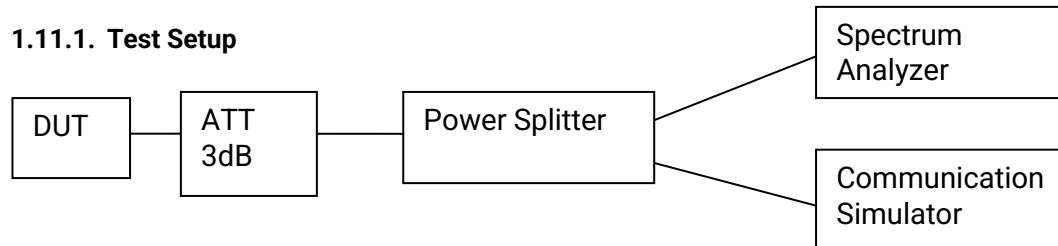
10MHz





1.11. Conducted Spurious Emission

1.11.1. 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) Spectrum Analyzer setting, RBW = 1 MHz, VBW = 3*RBW.
- 5) The spurious emission of lowest, middle and highest channels with the highest RF powers were measured.
- 6) Record the maximum trace plot into the test report.

1.11.2. 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:

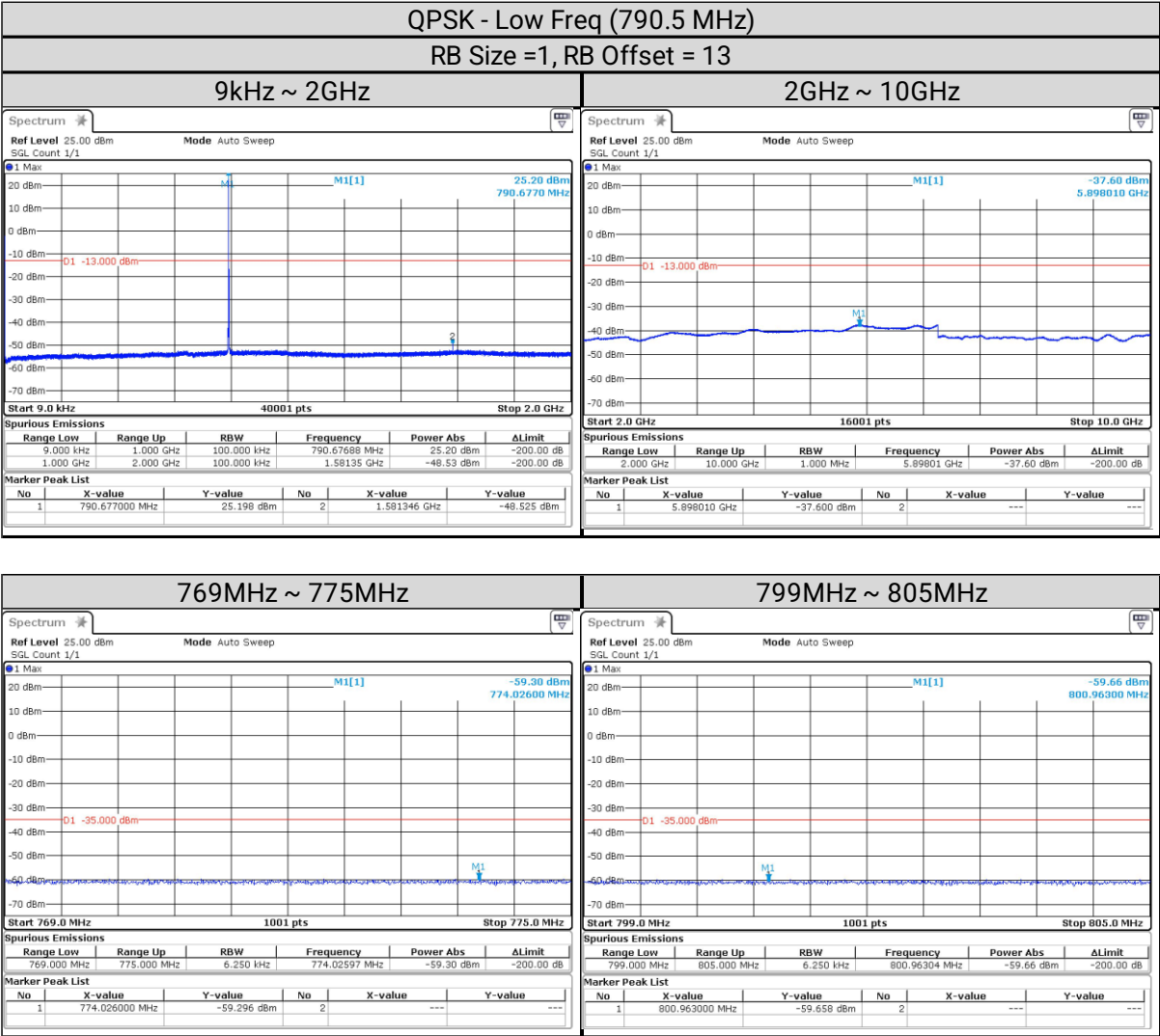
$76 + 10 \log (p)$, dB in a 6.25 kHz band for fixed and base station equipment

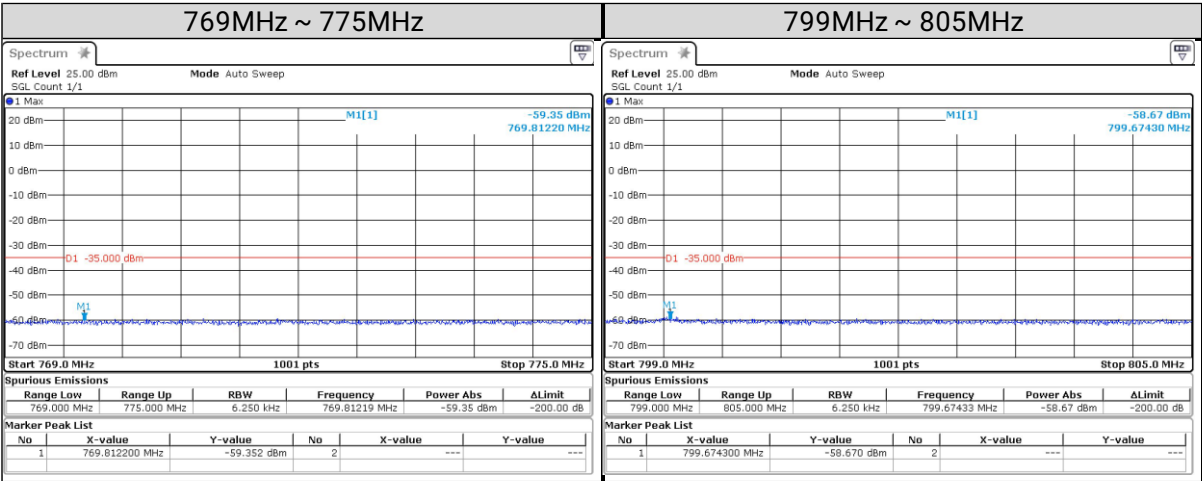
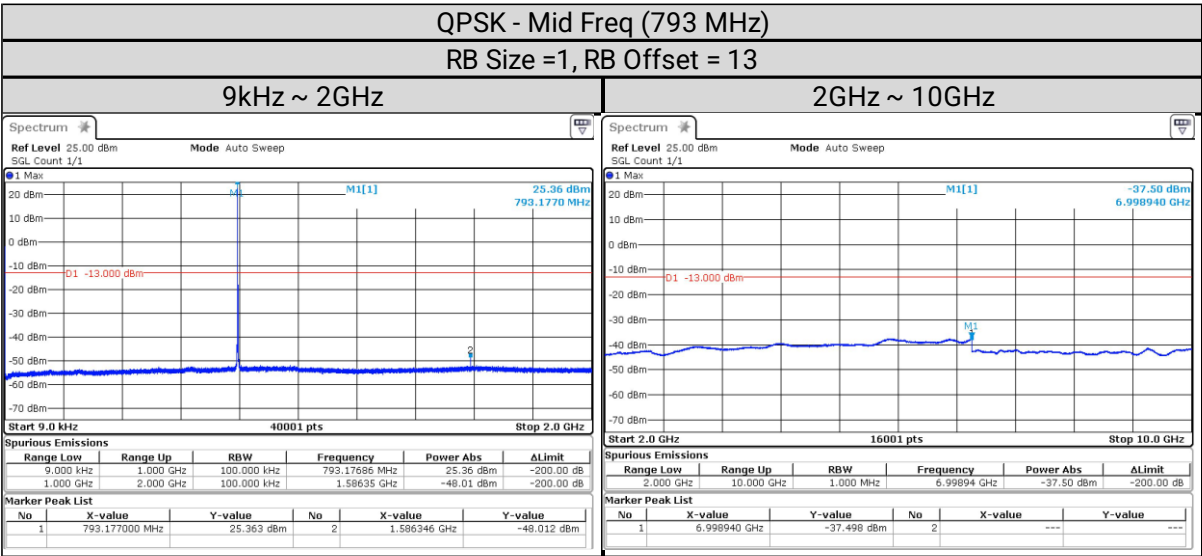
$65 + 10 \log (p)$, dB in a 6.25 kHz band for mobile and portable/hand-held equipment

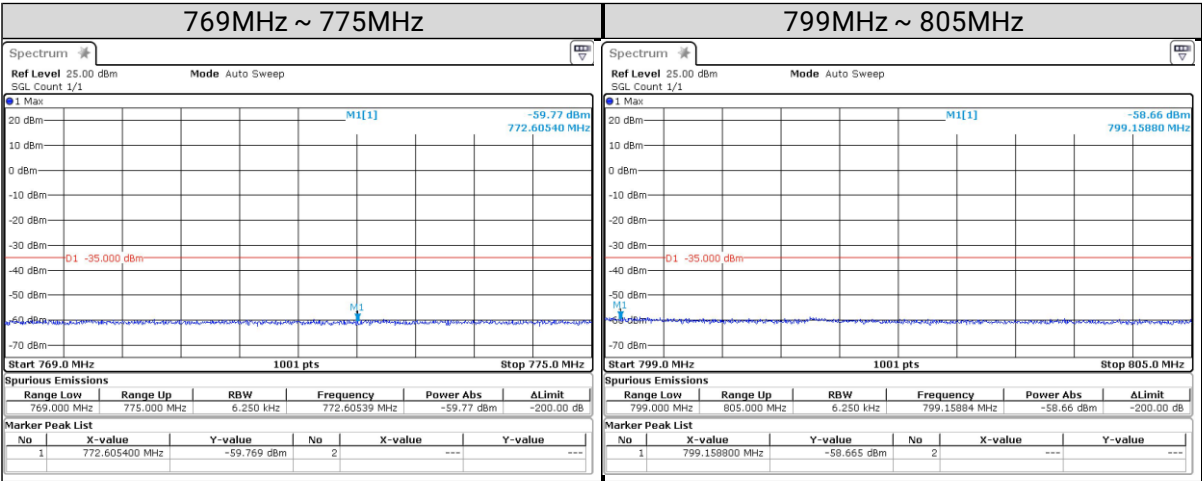
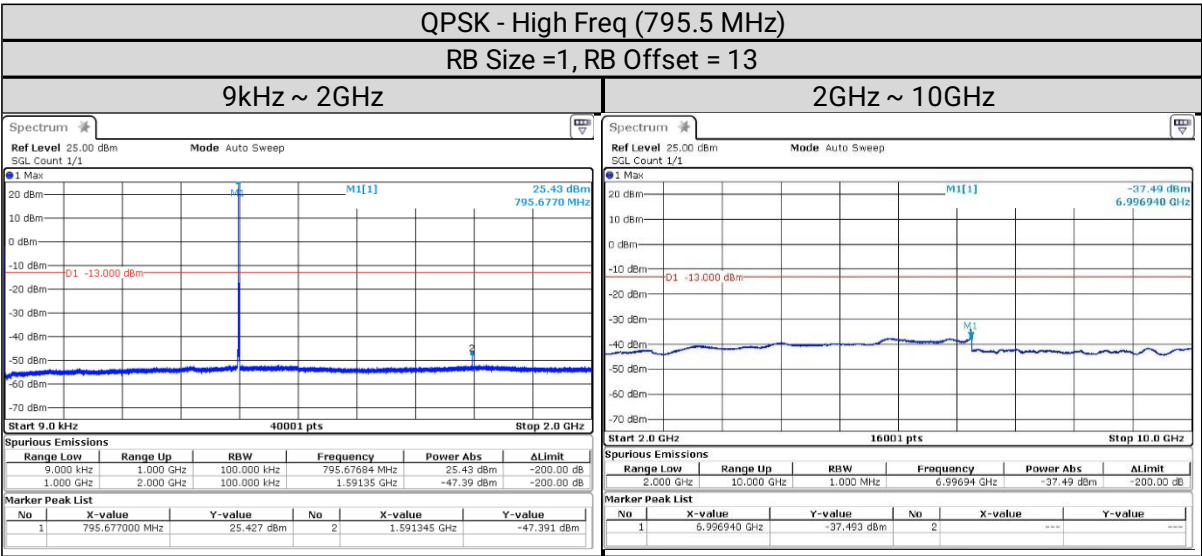
For any frequency between 775-788 MHz, above 806 MHz, and below 758 MHz: $43 + 10 \log (p)$, dB in a bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency bands 758-768 MHz and 788-798 MHz, a resolution bandwidth of 30 kHz may be employed.

1.11.3. Conducted Spurious Emission - LTE Band 14 (788-798MHz)

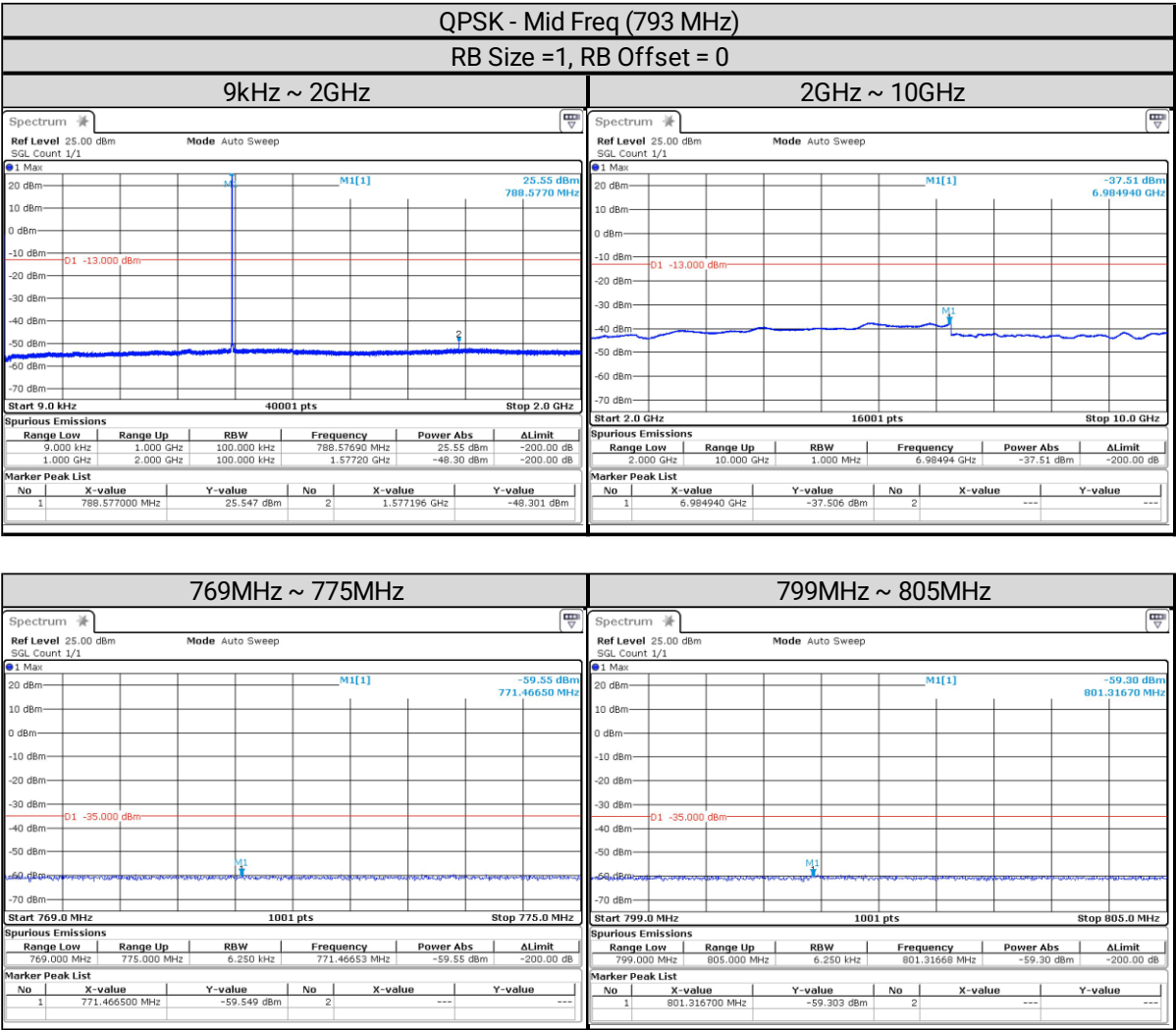
5MHz





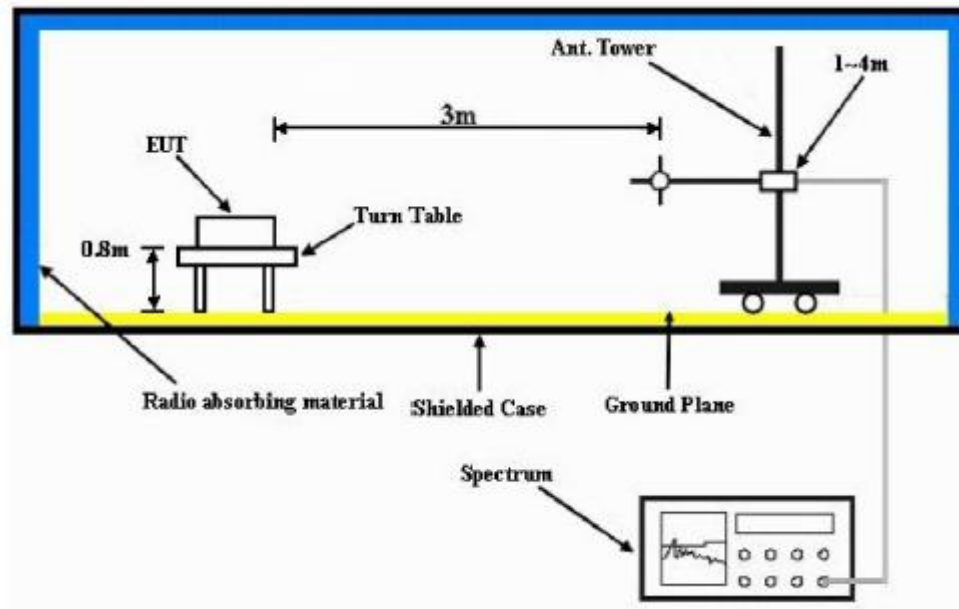


10MHz



1.12. Radiated Spurious Emission

1.12.1. Test Setup



- 1) The spectrum setting for scanning Radiated Emission below 1 GHz is RBW = 100 kHz, VBW = 300 kHz and above 1 GHz is RBW = 1MHz, VBW = 3MHz. Detector mode is positive peak.
- 2) In the semi-anechoic chamber, setup as illustrated above the EUT placed on the Turn Table at 0.8m height for below 1GHz measurement and at 1.5m height for above 1GHz measurement, 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.
- 3) The substitution antenna is substituted for EUT at the same position and signals generator (S.G) export the CW signal to the substitution antenna via a TX cable. The receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum radiation power. Record the power level of maximum radiation power from spectrum. So, the measured substitution value = Ref level of S.G + TX cables loss – Substituted Antenna Gain.
- 4) Final Radiated Spurious Emission = "Read Value" + Measured substitution value.

1.12.2. 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

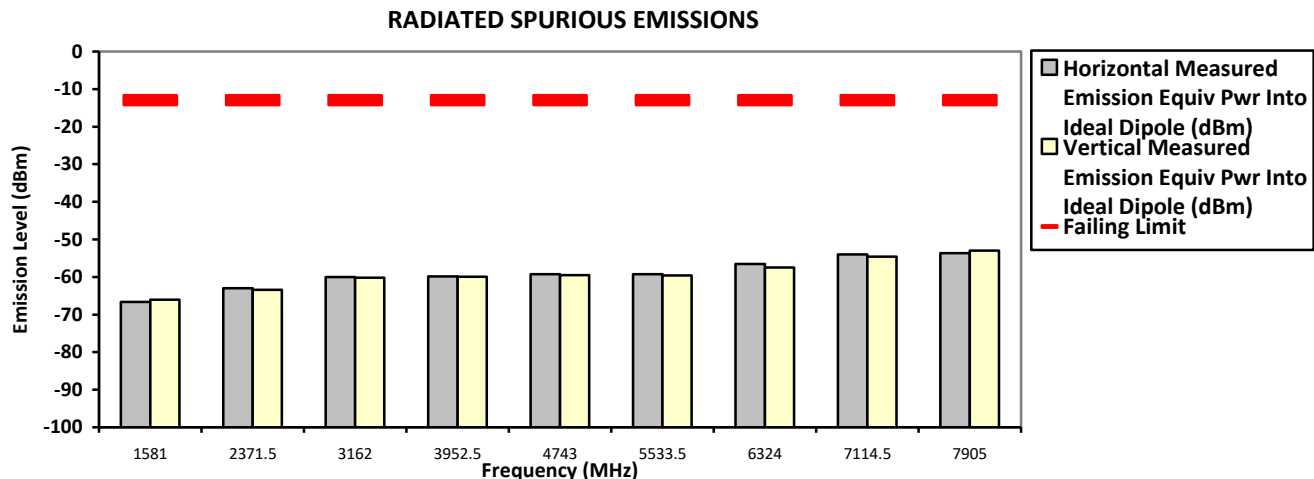
$65 + 10 \log (p)$, dB in a 6.25 kHz band for mobile and portable/hand-held equipment

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.

1.12.3. Radiated Spurious Emission – LTE Band 14 (788-798MHz)

Test: SAC Transmitter Radiated Emission	EMC SR ID: 0875N00-EMC-00082
Model Number: H55TGT9PW8BN	S/N: 437ZBG0594
Battery: PMNN4895A	
Accessory: AN000297A01	
Test Mode: TX LTE Band 14 (X-Plane)	Test Frequency: 790.500000 MHz (Low)
Channel Bandwidth: 5MHz	Power: 0.25119 Watt(s)/Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1581.0000	-13.0000	-66.6392 **	-66.0610 **
2371.5000	-13.0000	-62.9683 **	-63.4181 **
3162.0000	-13.0000	-60.0590 **	-60.1748 **
3952.5000	-13.0000	-59.8239 **	-59.9022 **
4743.0000	-13.0000	-59.2432 **	-59.5183 **
5533.5000	-13.0000	-59.2632 **	-59.6111 **
6324.0000	-13.0000	-56.5169 **	-57.4527 **
7114.5000	-13.0000	-53.9701 **	-54.5731 **
7905.0000	-13.0000	-53.6620 **	-52.9521 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.
Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza Thu, 15 May, 2025

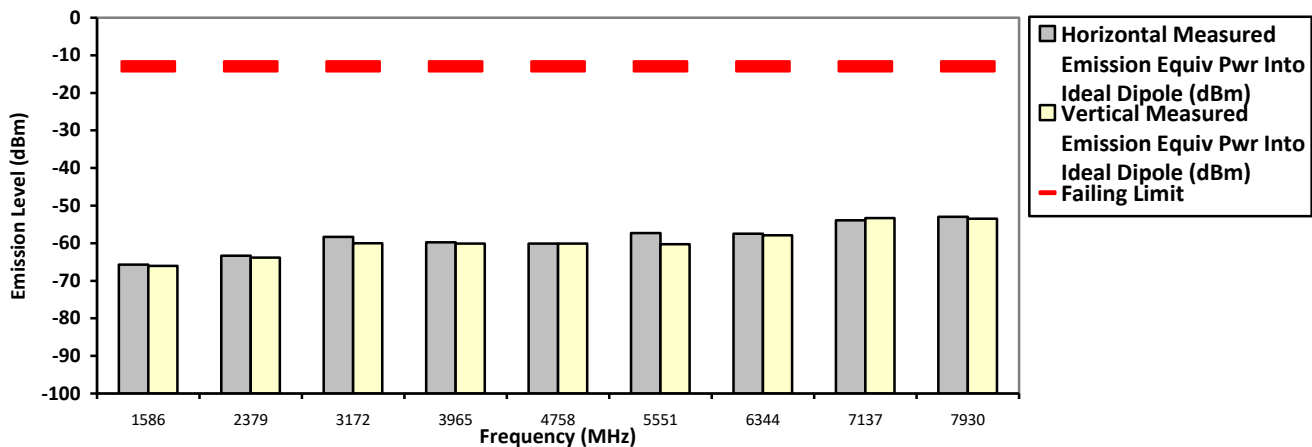
Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.
*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported
System MU: 4.03 dB Temp(Deg): 23.4 Hum(%RH):68.6

Remarks: Passed Results Marginal Results Failed Results

Test: SAC Transmitter Radiated Emission	EMC SR ID: 0875N00-EMC-00082
Model Number: H55TGT9PW8BN	S/N: 437ZBG0594
Battery: PMNN4895A	
Accessory: AN000297A01	
Test Mode: TX LTE Band 14 (X-Plane)	Test Frequency: 793.000000 MHz (Mid)
Channel Bandwidth: 5MHz	Power: 0.25119 Watt(s)/Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1586.0000	-13.0000	-65.7260 **	-66.0746 **
2379.0000	-13.0000	-63.2955 **	-63.8611 **
3172.0000	-13.0000	-58.3231 **	-60.0296 **
3965.0000	-13.0000	-59.7909 **	-60.1078 **
4758.0000	-13.0000	-60.1329 **	-60.1156 **
5551.0000	-13.0000	-57.3245 **	-60.2529 **
6344.0000	-13.0000	-57.4969 **	-57.9050 **
7137.0000	-13.0000	-53.9210 **	-53.3092 **
7930.0000	-13.0000	-53.0021 **	-53.4787 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza

Thu, 15 May, 2025

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported

System MU: 4.03 dB

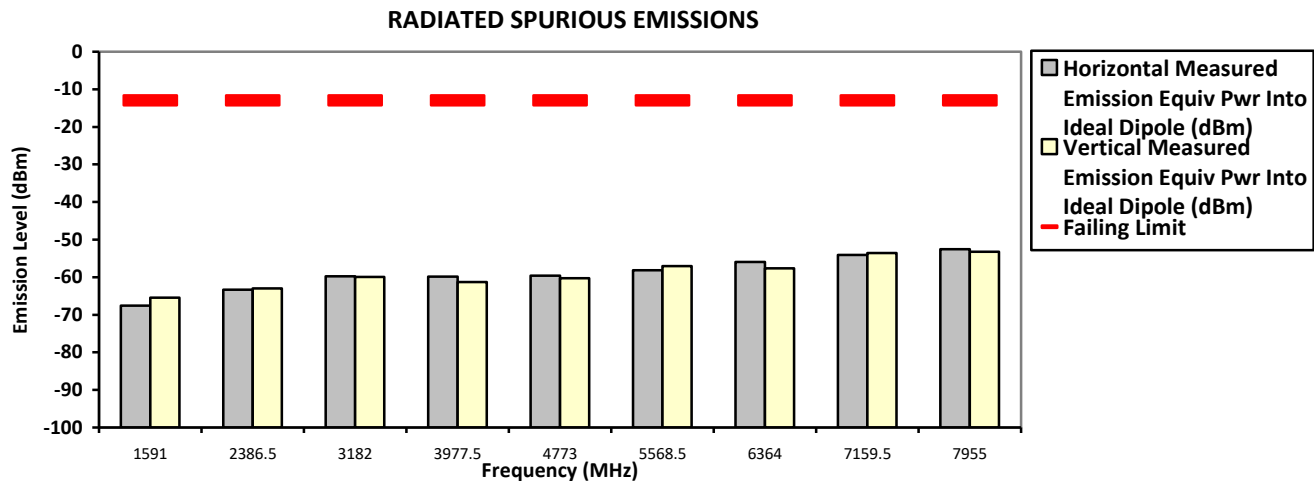
Temp(Deg): 23.4 Hum(%RH):68.6

Remarks:

Passed Results	Marginal Results	Failed Results
----------------	------------------	----------------

Test: SAC Transmitter Radiated Emission	EMC SR ID: 0875N00-EMC-00082
Model Number: H55TGT9PW8BN	S/N: 437ZBG0594
Battery: PMNN4895A	
Accessory: AN000297A01	
Test Mode: TX LTE Band 14 (X-Plane)	Test Frequency: 795.500000 MHz (High)
Channel Bandwidth: 5MHz	Power: 0.25119 Watt(s)/Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1591.0000	-13.0000	-67.5438 **	-65.4552 **
2386.5000	-13.0000	-63.2950 **	-62.9494 **
3182.0000	-13.0000	-59.7707 **	-59.9341 **
3977.5000	-13.0000	-59.8868 **	-61.2947 **
4773.0000	-13.0000	-59.5906 **	-60.2379 **
5568.5000	-13.0000	-58.1718 **	-57.0294 **
6364.0000	-13.0000	-55.9386 **	-57.6625 **
7159.5000	-13.0000	-54.0508 **	-53.5972 **
7955.0000	-13.0000	-52.5130 **	-53.2098 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza

Thu, 15 May, 2025

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported

System MU: 4.03 dB

Temp(Deg): 23.4 Hum(%RH):68.6

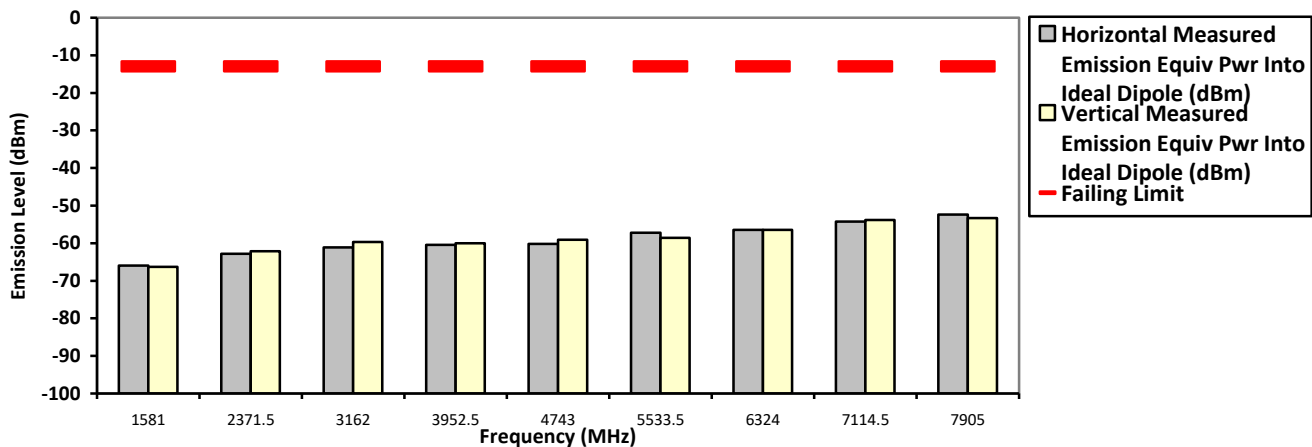
Remarks:

Passed Results	Marginal Results	Failed Results
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Test: SAC Transmitter Radiated Emission	EMC SR ID: 0875N00-EMC-00082
Model Number: H55TGT9PW8BN	S/N: 437ZBG0594
Battery: PMNN4895A	
Accessory: AN000297A01	
Test Mode: TX LTE Band 14 (Y-Plane)	Test Frequency: 790.500000 MHz (Low)
Channel Bandwidth: 5MHz	Power: 0.25119 Watt(s)/Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1581.0000	-13.0000	-65.9686 **	-66.3334 **
2371.5000	-13.0000	-62.8086 **	-62.1271 **
3162.0000	-13.0000	-61.0892 **	-59.7196 **
3952.5000	-13.0000	-60.4828 **	-60.0385 **
4743.0000	-13.0000	-60.2235 **	-59.0907 **
5533.5000	-13.0000	-57.2489 **	-58.5837 **
6324.0000	-13.0000	-56.4650 **	-56.4899 **
7114.5000	-13.0000	-54.2056 **	-53.8068 **
7905.0000	-13.0000	-52.4038 **	-53.2765 **

RADIATED SPURIOUS EMISSIONS



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Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza

Thu, 15 May, 2025

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported

System MU: 4.03 dB

Temp(Deg): 23.4 Hum(%RH):68.6

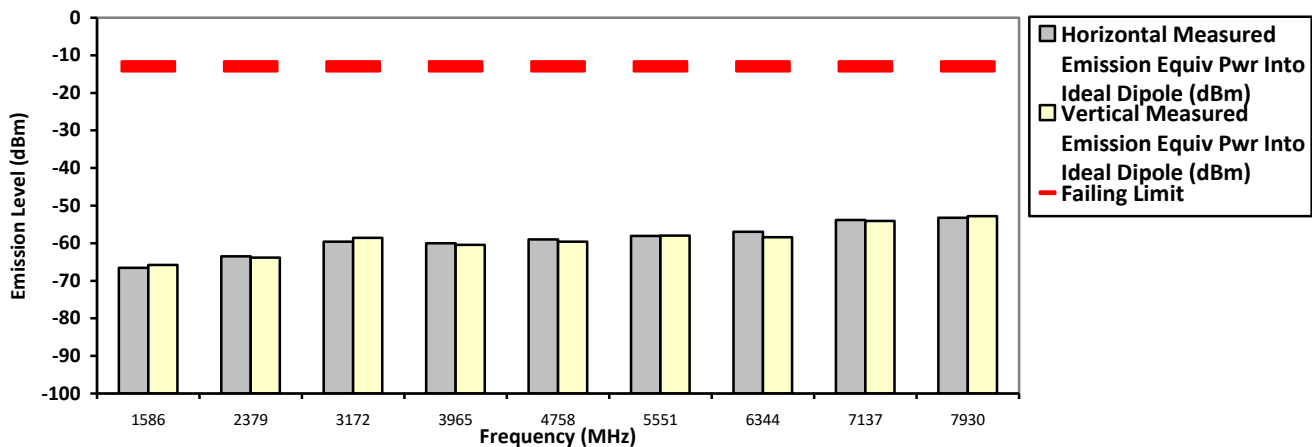
Remarks:

Passed Results	Marginal Results	Failed Results
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Test: SAC Transmitter Radiated Emission	EMC SR ID: 0875N00-EMC-00082
Model Number: H55TGT9PW8BN	S/N: 437ZBG0594
Battery: PMNN4895A	
Accessory: AN000297A01	
Test Mode: TX LTE Band 14 (Y-Plane)	Test Frequency: 793.000000 MHz (Mid)
Channel Bandwidth: 5MHz	Power: 0.25119 Watt(s)/Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1586.0000	-13.0000	-66.5452 **	-65.7868 **
2379.0000	-13.0000	-63.5239 **	-63.8191 **
3172.0000	-13.0000	-59.6284 **	-58.5791 **
3965.0000	-13.0000	-59.9800 **	-60.4262 **
4758.0000	-13.0000	-58.9846 **	-59.6150 **
5551.0000	-13.0000	-58.0662 **	-57.9543 **
6344.0000	-13.0000	-56.9321 **	-58.4334 **
7137.0000	-13.0000	-53.8377 **	-54.1046 **
7930.0000	-13.0000	-53.2305 **	-52.7881 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza

Thu, 15 May, 2025

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported

System MU: 4.03 dB

Temp(Deg): 23.4 Hum(%RH):68.6

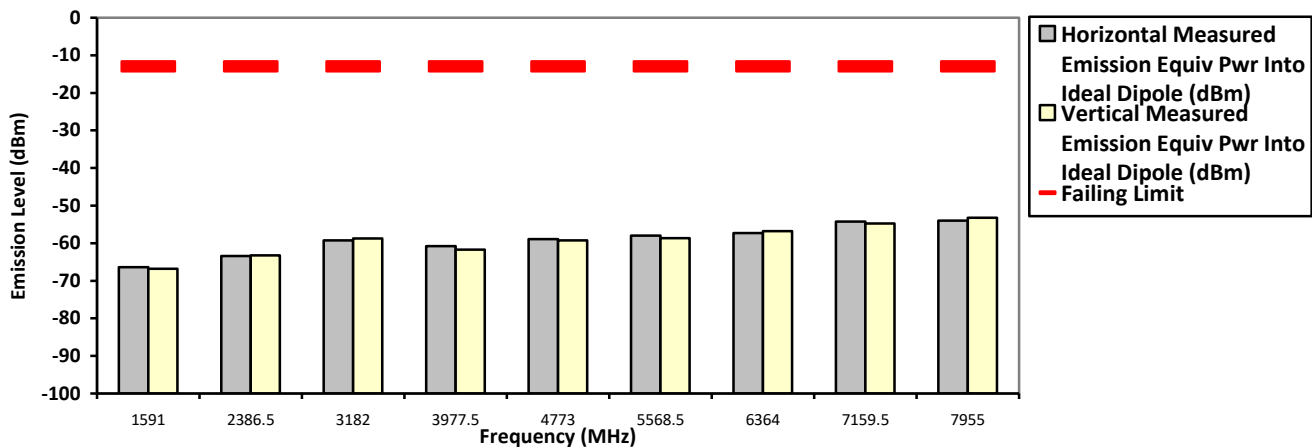
Remarks:

Passed Results	Marginal Results	Failed Results
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Test: SAC Transmitter Radiated Emission	EMC SR ID: 0875N00-EMC-00082
Model Number: H55TGT9PW8BN	S/N: 437ZBG0594
Battery: PMNN4895A	
Accessory: AN000297A01	
Test Mode: TX LTE Band 14 (Y-Plane)	Test Frequency: 795.500000 MHz (High)
Channel Bandwidth: 5MHz	Power: 0.25119 Watt(s)/Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1591.0000	-13.0000	-66.3516 **	-66.7849 **
2386.5000	-13.0000	-63.3936 **	-63.2252 **
3182.0000	-13.0000	-59.2548 **	-58.7167 **
3977.5000	-13.0000	-60.7556 **	-61.7448 **
4773.0000	-13.0000	-58.9530 **	-59.2579 **
5568.5000	-13.0000	-58.0116 **	-58.6473 **
6364.0000	-13.0000	-57.2944 **	-56.7629 **
7159.5000	-13.0000	-54.2189 **	-54.7624 **
7955.0000	-13.0000	-53.9889 **	-53.1990 **

RADIATED SPURIOUS EMISSIONS



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Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza

Thu, 15 May, 2025

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported

System MU: 4.03 dB

Temp(Deg): 23.4 Hum(%RH):68.6

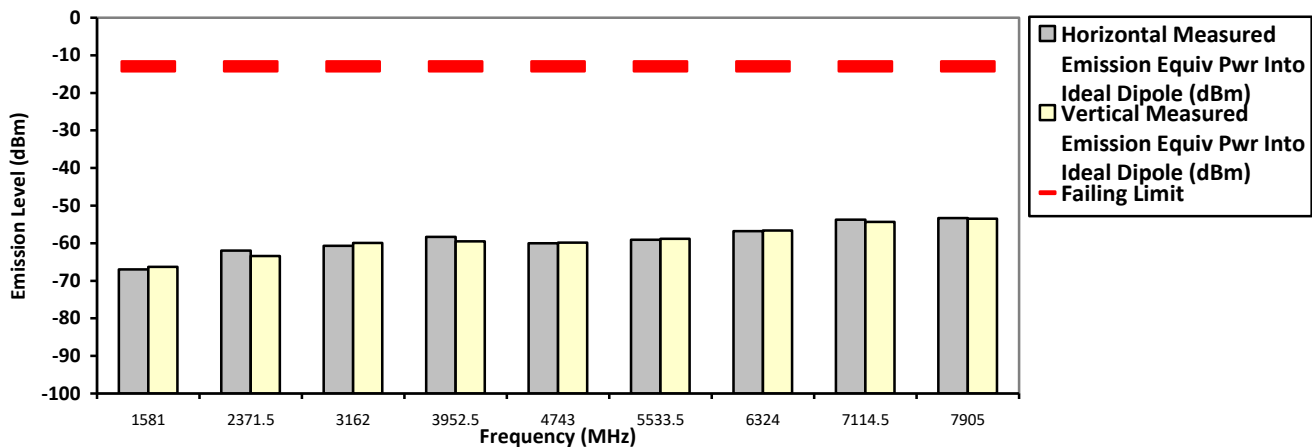
Remarks:

Passed Results	Marginal Results	Failed Results
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Test: SAC Transmitter Radiated Emission	EMC SR ID: 0875N00-EMC-00082
Model Number: H55TGT9PW8BN	S/N: 437ZBG0594
Battery: PMNN4895A	
Accessory: AN000297A01	
Test Mode: TX LTE Band 14 (Z-Plane)	Test Frequency: 790.500000 MHz (Low)
Channel Bandwidth: 5MHz	Power: 0.25119 Watt(s)/Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1581.0000	-13.0000	-67.0196 **	-66.3196 **
2371.5000	-13.0000	-62.0118 **	-63.3886 **
3162.0000	-13.0000	-60.7046 **	-59.9564 **
3952.5000	-13.0000	-58.2852 **	-59.4708 **
4743.0000	-13.0000	-59.9846 **	-59.8643 **
5533.5000	-13.0000	-59.0632 **	-58.7978 **
6324.0000	-13.0000	-56.7880 **	-56.6631 **
7114.5000	-13.0000	-53.7167 **	-54.3040 **
7905.0000	-13.0000	-53.2835 **	-53.4837 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza

Thu, 15 May, 2025

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported

System MU: 4.03 dB

Temp(Deg): 23.4 Hum(%RH):68.6

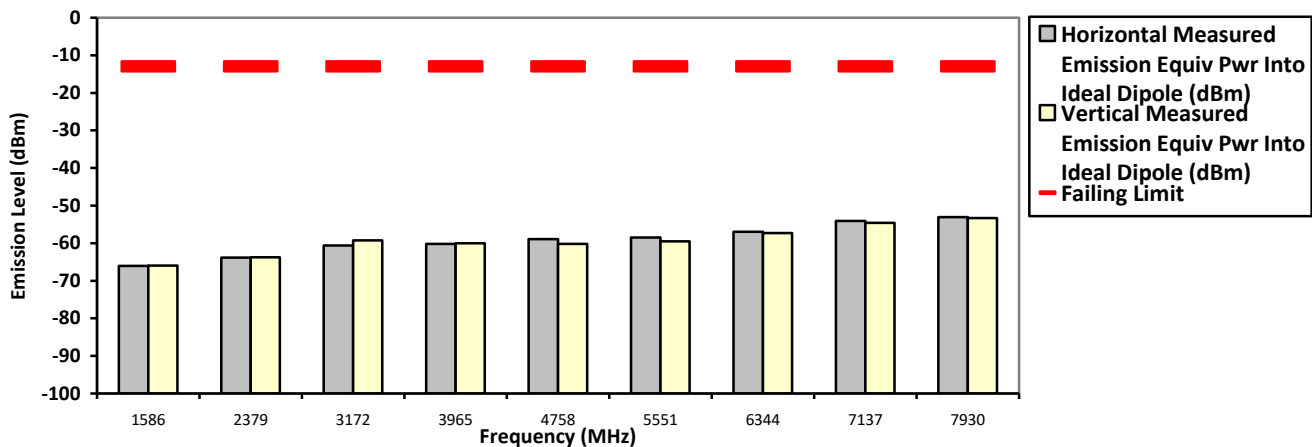
Remarks:

Passed Results	Marginal Results	Failed Results
----------------	------------------	----------------

Test: SAC Transmitter Radiated Emission	EMC SR ID: 0875N00-EMC-00082
Model Number: H55TGT9PW8BN	S/N: 437ZBG0594
Battery: PMNN4895A	
Accessory: AN000297A01	
Test Mode: TX LTE Band 14 (Z-Plane)	Test Frequency: 793.000000 MHz (Mid)
Channel Bandwidth: 5MHz	Power: 0.25119 Watt(s)/Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1586.0000	-13.0000	-66.0311 **	-65.9886 **
2379.0000	-13.0000	-63.8208 **	-63.7114 **
3172.0000	-13.0000	-60.6457 **	-59.2601 **
3965.0000	-13.0000	-60.2041 **	-59.9830 **
4758.0000	-13.0000	-58.8862 **	-60.2292 **
5551.0000	-13.0000	-58.4790 **	-59.5279 **
6344.0000	-13.0000	-56.9897 **	-57.3373 **
7137.0000	-13.0000	-54.0332 **	-54.5605 **
7930.0000	-13.0000	-53.0265 **	-53.3304 **

RADIATED SPURIOUS EMISSIONS



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza

Thu, 15 May, 2025

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported

System MU: 4.03 dB

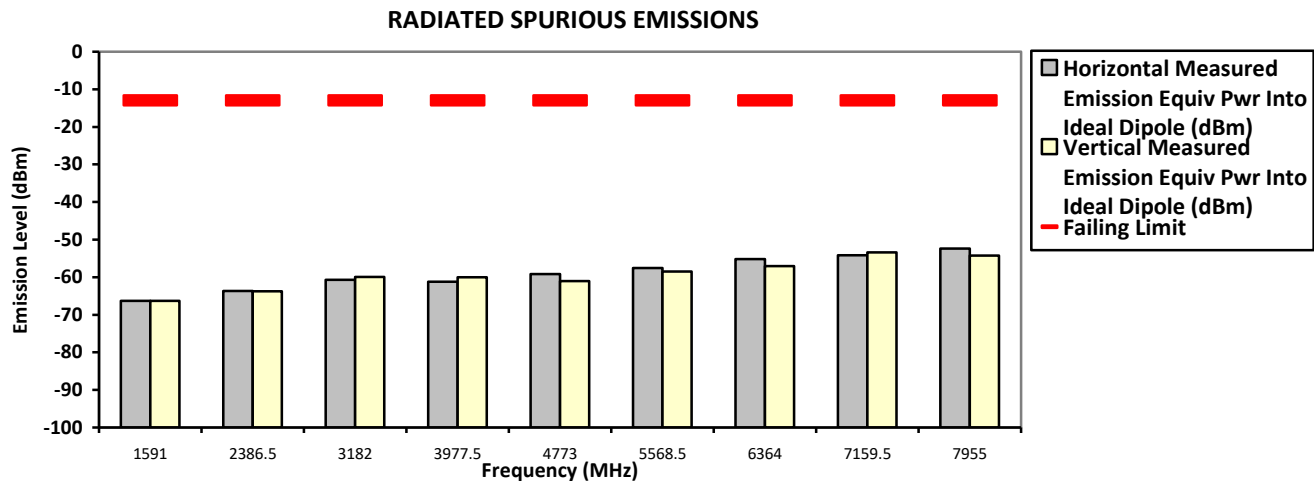
Temp(Deg): 23.4 Hum(%RH):68.6

Remarks:

Passed Results	Marginal Results	Failed Results
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Test: SAC Transmitter Radiated Emission	EMC SR ID: 0875N00-EMC-00082
Model Number: H55TGT9PW8BN	S/N: 437ZBG0594
Battery: PMNN4895A	
Accessory: AN000297A01	
Test Mode: TX LTE Band 14 (Z-Plane)	Test Frequency: 795.500000 MHz (High)
Channel Bandwidth: 5MHz	Power: 0.25119 Watt(s)/Max Power

Frequency (MHz)	Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into ideal Dipole (dBm)
1591.0000	-13.0000	-66.3371 **	-66.3320 **
2386.5000	-13.0000	-63.6859 **	-63.7399 **
3182.0000	-13.0000	-60.6892 **	-59.8916 **
3977.5000	-13.0000	-61.2108 **	-60.0394 **
4773.0000	-13.0000	-59.1480 **	-61.0614 **
5568.5000	-13.0000	-57.5204 **	-58.4810 **
6364.0000	-13.0000	-55.2032 **	-57.0496 **
7159.5000	-13.0000	-54.1206 **	-53.3746 **
7955.0000	-13.0000	-52.4180 **	-54.2193 **



The data presented here was taken using the substitution method as found in the ANSI C63.26-2015 document.

Motorola Penang EMC Lab - Test Performed by: Nazrin & Rezza

Thu, 15 May, 2025

Remarks: ** Indicates the spurious emission could not be detected due to noise limitations or ambient.

*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported

System MU: 4.03 dB

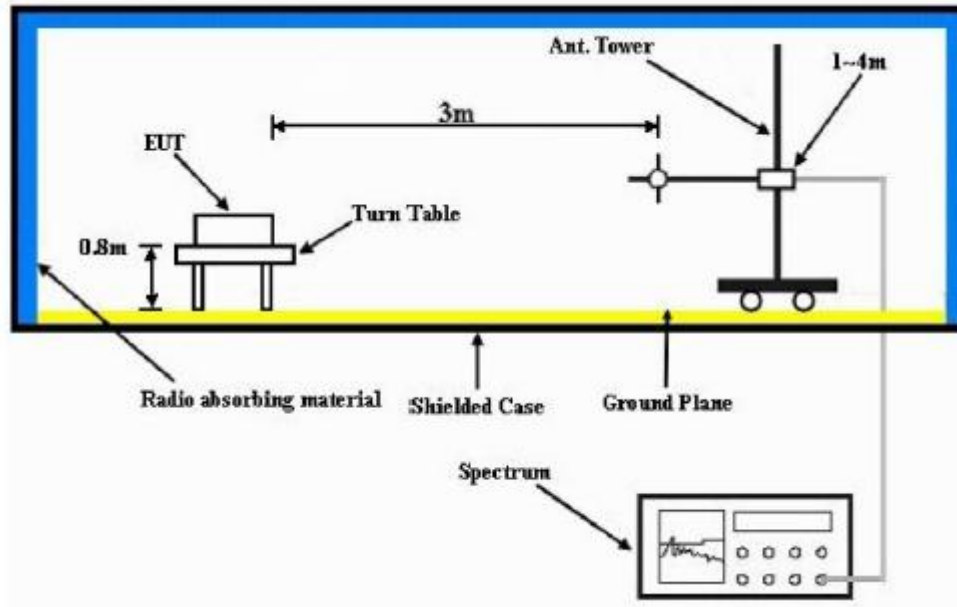
Temp(Deg): 23.4 Hum(%RH):68.6

Remarks:

Passed Results	Marginal Results	Failed Results
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1.13. Effective Radiated Power (ERP)

1.13.1. Test Setup



- 1) The spectrum setting for scanning Radiated Emission below 1 GHz is RBW = 100 kHz, VBW = 300 kHz and above 1 GHz is RBW = 1MHz, VBW = 3MHz. Detector mode is RMS.
- 2) In the semi-anechoic chamber, setup as illustrated above the EUT placed on the Turn Table at 0.8m height for below 1Ghz measurement and at 1.5m height for above 1GHz measurement, 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.
- 3) The substitution antenna is substituted for EUT at the same position and signals generator (S.G) export the CW signal to the substitution antenna via a TX cable. The receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum radiation power. Record the power level of maximum radiation power from spectrum. So, the measured substitution value = Ref level of S.G + TX cables loss – Substituted Antenna Gain.
- 4) $ERP = \text{"Read Value"} + \text{Measured substitution value.}$

1.13.2. Test Limit

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.

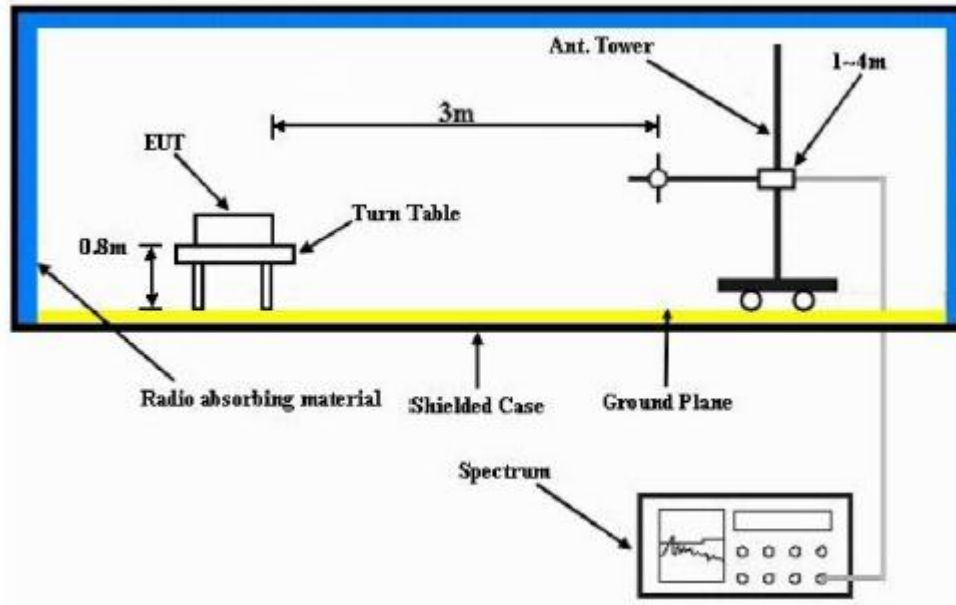
ISED: The e.r.p. for portable equipment including handheld devices shall not exceed 3 W.

1.13.3. Effective Radiated Power (ERP) - LTE Band 14 (788-798MHz)

[Refer to 1.6.4 / Not Performed.](#)

1.14. GNSS (EIRP for 1599 – 1610MHz) – LTE Band 14 (788-798MHz)

1.14.1. Test Setup



- 1) The Resolution Bandwidth for Equivalent Isotropically Radiated Power (EIRP) below 1 GHz is 100 kHz with Video Bandwidth = 300 kHz and Resolution Bandwidth for EIRP above 1 GHz is 1 MHz with Video Bandwidth = 3 MHz. Detector Mode is RMS.
- 2) In the semi-anechoic chamber, setup as illustrated above the DUT placed on the 0.8m height of Turn Table, rotated the table 45 degree each interval 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 for each degree interval. The "Read Value" is the spectrum reading of maximum power value.
- 3) The substitution antenna is substituted for DUT at the same position and signals generator (S.G) export the CW signal to the substitution antenna via a TX cable. The receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum radiation power. Record the power level of maximum radiation power from spectrum. So, the Measured substitution value = Ref level of S.G + TX cables loss – Substituted Antenna Gain.
- 4) $EIRP = \text{"Read Value"} + \text{Measured substitution value} + 2.15$.

1.14.2. Test Limit

FCC: For operations in the 758-775 MHz and 788-805 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.

ISED: The equivalent isotropically radiated power (e.i.r.p.) of all emissions, including harmonics in the band 1559-1610 MHz, shall not exceed -70 dBW/MHz for wideband emissions, and -80 dBW/kHz for discrete emissions of less than 700 Hz bandwidth.

1.14.3. GNSS (EIRP for 1599 – 1610MHz) – LTE Band 14 (788-798MHz)

EiRP in RNSS band (1.581GHz)

S/N: 437ZBG0594

Channel BW: 5 MHz

Accessory: AN000297A01

Battery: PMNN4895A

Tx Power: 251.19 mWatts

Modulation: QPSK

Frequency Channel: 790.5000 MHz (LTE Band 14)

Antenna Polarization	2Fc (MHz)	EIRP (dBm)	Limit (dBm)
Horizontal	1581.0000	-71.07	-40
Vertical	1581.0000	-73.96	-40

EiRP in RNSS band (1.581GHz)

S/N: 437ZBG0594

Channel BW: 5 MHz

Accessory: AN000297A01

Battery: PMNN4895A

Tx Power: 251.19 mWatts

Modulation: QPSK

Frequency Channel: 795.5000 MHz (LTE Band 14)

Antenna Polarization	2Fc (MHz)	EIRP (dBm)	Limit (dBm)
Horizontal	1591.0000	-71.86	-40
Vertical	1591.0000	-74.47	-40

--End of Test Report--