

<p><b>MOTOROLA PENANG ADV. COMM. LABORATORY</b> Motorola Solutions Malaysia Sdn Bhd, Plot 2A, Medan Bayan Lepas, Mukim 12 S.W.D, 11900 Bayan Lepas, Penang, Malaysia.</p>	<p><b>FCC / ISED TEST REPORT</b> <b>Report Revision : Rev.C</b></p>
<p><b>Date/s Tested</b> : 29-February-2024 - 24-May-2024 <b>Report Issue Date</b> : 1-June-2024 <b>Manufacturer/Location</b> : Motorola Solutions Malaysia Sdn Bhd <b>Manufacturer Address</b> : Plot 2A, Medan Bayan Lepas, Mukim 12, S.W.D. 11900 Bayan Lepas, Penang, Malaysia <b>Requestor</b> : HOMICIL HARLY <b>Product Type</b> : Hand-held <b>Product Version (PMN)</b> : APX N70 <b>Model Number (HVIN)</b> : H35XDT9PW8AN &amp; H35XDT9PW8AN-H <b>Frequency Band</b> : Refer to section 1.4 <b>Rated / Max RF Output Power</b> : 199.53mW / 252mW <b>Applicant Name</b> : Motorola Solutions Inc <b>Applicant Address</b> : Plot 2A, Medan Bayan Lepas, Mukim 12, S.W.D. 11900 Bayan Lepas, Penang, Malaysia <b>FCC Registrations</b> : 461337 <b>ISED Registrations</b> : MY0001 <b>Firmware Version (FVIN)</b> : D02.75.76 (BP), R02.00.00 (AP)</p> <p><b>The equipment was tested accordance to the requirement listed below:</b></p> <p><b>(LTE Band 4)</b> <b>FCC 47 CFR Part 2 / 27</b> <b>PASS</b> <b>ISED RSS GEN / 139</b></p>	
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## REVISION HISTORY

Revision History	Description	Date	Originator
Rev. A	Initial Report	04-April-2024	Awatif Rahman
Rev. B	Include additional test data (Peak-to-Average Power Ratio, Frequency Stability, Band Edge Conducted Spurious Emission, Conducted Spurious Emission).	26-May-2024	Awatif Rahman
Rev. C	Include additional test data for OBW (26dBc)	31-May-2024	Awatif Rahman

### 1.0. Summary of Test Results

FCC Clause	ISED Clause	Test Item	Results	Remarks	Serial Number Tested
2.1046 27.50(d)(6)	RSS-Gen 6.12 RSS-139 4.1	Conducted RF Output Power	Pass	Meet the requirement of limit	022TAB0501
27.50(d)(5)	RSS-139 6.5	Peak-to-Average Power Ratio	Pass	Meet the requirement of limit	022TAB0501
2.1049 27.53(h)(3)	RSS-Gen 6.6	Occupied Bandwidth (26dBc, 99%)	Pass	Meet the requirement of limit	022TAB0501
2.1055 27.54	RSS-139 6.4	Frequency Stability	Pass	Meet the requirement of limit	022TAB0501
2.1051 27.53(h)(1)(3)	RSS-Gen 6.13 RSS-139 6.6	Band Edge Conducted Spurious Emission	Pass	Meet the requirement of limit	022TAB0501
2.1051 27.53(h)(1)	RSS-Gen 6.13 RSS-139 6.6	Conducted Spurious Emissions	Pass	Meet the requirement of limit	022TAB0501
2.1053 27.53 (h)	RSS-139 6.6	Radiated Spurious Emission	Pass	-27.98dBm (Margin: 14.98dBm)	022TAB0346
2.1049 27.50(d)(4)	RSS-139 6.5	Equivalent Isotropically Radiated Power (EIRP)	Pass	Meet the requirement of limit	022TAB0501

### 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
<b>BROADBAND ATE 1 (RF CONDUCTED TESTS)</b>				
Wideband Radio Communication Tester	CMW500	154550	09-Aug-23	08-Aug-24
Signal Analyzer	FSV40	101431	07-Aug-23	06-Aug-24
Chamber	SH-641	92003150	15-Sep-23	15-Sep-24
Power Supply	6652A	3640A02967	15-Oct-23	15-Oct-24
Test Software	R&S CMWrun			
Version	V.1.9.8			
<b>RADIATED SPURIOUS EMISSION (EMC CHAMBER 1)</b>				
Drg Horn Freq.	SAS-571	1143	08-Mar-23	08-Mar-25
Drg Horn Freq.	SAS-571	720	18-Apr-23	18-Apr-25
Power Supply	NR973A	MY54180189	30-Aug-23	30-Aug-24
Signal Generator	SMB 100A	182511	04-Jun-21	04-Jun-24
Emi Test Receiver	ESW44	101731	11-Aug-23	11-Aug-24
Bilog Antenna	CBL6112B	2950	14-Dec-23	14-Dec-24
Bilog Antenna	CBL6112B	2964	25-Sep-23	25-Sep-24
Data Logger Thermohygrometer	SDL500	A.016800	21-Jun-23	21-Jun-24
Broad-Band Horn Antenna	BBHA9170	BBHA9170143	28-Aug-23	28-Aug-24
Preamplifier	PAM-0118P	361	29-Sep-23	29-Sep-26
Loop Antenna	6502	00208416	26-Oct-23	26-Oct-24
5m Semi-Anechoic Chamber	S800-HX	J2308	Not Required	Not Required
System Controller	SC104V	050806-1	Not Required	Not Required
Turntable Flush Mount 2m	FM2011	NA	Not Required	Not Required
Antenna Positioning Tower	TLT2	NA	Not Required	Not Required
Preamplifier 18-40Ghz	Miteq Hi Gain Sucoflex	002	Not Required	Not Required
Test Software	EMC_FCC_IC_BLUETOOTH_RE_TEST			
Version	EMC_FCC_RE_v1.6.5			

### 1.3. General Information

#### General Description of EUT

<b>Product</b>	ALOHA UHF			
<b>Brand</b>	Motorola Solutions			
<b>Test Model</b>	H35XDT9PW8AN, H35XDT9PW8AN-H			
<b>Power Supply Rating</b>	7.5 Vdc			
<b>Mode of Operation</b>	LTE Band 4			
<b>Modulation Type</b>	QPSK, 16QAM			
<b>Operating Frequency</b>	LTE Band 4	Channel Bandwidth 1.4MHz	1710.7MHz~1754.3MHz	
		Channel Bandwidth 3MHz	1711.5MHz~1753.5MHz	
		Channel Bandwidth 5MHz	1712.5MHz~1752.5MHz	
		Channel Bandwidth 10MHz	1715.0MHz~1750.0MHz	
		Channel Bandwidth 15MHz	1717.5MHz~1747.5MHz	
		Channel Bandwidth 20MHz	1720.0MHz~1745.0MHz	
<b>Max. Conducted RF Output Power</b>	LTE Band 4 QPSK	Channel Bandwidth 1.4MHz	23.404dBm (0.219W)	
		Channel Bandwidth 3MHz	23.480dBm (0.223W)	
		Channel Bandwidth 5MHz	23.469dBm (0.222W)	
		Channel Bandwidth 10MHz	<b>23.917dBm (0.246W)</b>	
		Channel Bandwidth 15MHz	23.321dBm (0.215W)	
		Channel Bandwidth 20MHz	23.273dBm (0.212W)	
	LTE Band 4 16QAM	Channel Bandwidth 1.4MHz	22.545dBm (0.180W)	
		Channel Bandwidth 3MHz	22.787dBm (0.190W)	
		Channel Bandwidth 5MHz	22.721dBm (0.187W)	
		Channel Bandwidth 10MHz	<b>23.072dBm (0.203W)</b>	
		Channel Bandwidth 15MHz	22.577dBm (0.181W)	
		Channel Bandwidth 20MHz	22.690dBm (0.186W)	
<b>Emission Designator</b>	LTE Band 4		QPSK	16QAM
		Channel Bandwidth 1.4MHz	1M07G7D	1M07D7W
		Channel Bandwidth 3MHz	2M68G7D	2M68D7W
		Channel Bandwidth 5MHz	4M48G7D	4M48D7W
		Channel Bandwidth 10MHz	8M95G7D	8M95D7W
		Channel Bandwidth 15MHz	13M43G7D	13M40D7W
		Channel Bandwidth 20MHz	17M86G7D	17M82D7W
<b>Antenna Type</b>	LTE Band 4	Antenna LTE Main 1710-1755MHz (1.9dBi)		
<b>SW Version</b>	D02.75.76 (BP), R02.00.00 (AP)			
<b>HW Version</b>	P2			

Note:

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

Item	Brand	Model or P/N	Specification
Li-Ion Battery	MOTOROLA	PMNN4818A	UL 3650mAH (using RN 2170 Li-Ion cell)

### 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 27**

**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 4	1.4 MHz	19957 ~ 20393	19957	20175	20393	1710.7	1732.5	1754.3
	3 MHz	19965 ~ 20386	19965	20175	20385	1711.5	1732.5	1753.5
	5 MHz	19975 ~ 20375	19975	20175	20375	1712.5	1732.5	1752.5
	10 MHz	20000 ~ 20350	20000	20175	20350	1715.0	1732.5	1750.0
	15 MHz	20025 ~ 20325	20025	20175	20325	1717.5	1732.5	1747.5
	20 MHz	20050 ~ 20300	20050	20175	20300	1720.0	1732.5	1745.0

### 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 4

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
<b>Conducted RF Output Power</b>	19957 ~ 20393	19957, 20175, 20393	1.4 MHz	QPSK, 16QAM	As per table 1.6.3
	19965 ~ 20386	19965, 20175, 20385	3 MHz		
	19975 ~ 20375	19975, 20175, 20375	5 MHz		
	20000 ~ 20350	20000, 20175, 20350	10 MHz		
	20025 ~ 20325	20025, 20175, 20325	15 MHz		
	20050 ~ 20300	20050, 20175, 20300	20 MHz		
<b>Peak-to-Average Power Ratio</b>	19957 ~ 20393	19957, 20175, 20393	1.4 MHz	QPSK, 16QAM	6 RB / 0 RB Offset
	19965 ~ 20386	19965, 20175, 20385	3 MHz		15 RB / 0 RB Offset
	19975 ~ 20375	19975, 20175, 20375	5 MHz		25 RB / 0 RB Offset
	20000 ~ 20350	20000, 20175, 20350	10 MHz		50 RB / 0 RB Offset
	20025 ~ 20325	20025, 20175, 20325	15 MHz		75 RB / 0 RB Offset
	20050 ~ 20300	20050, 20175, 20300	20 MHz		100RB / 0 RB Offset
<b>Occupied Bandwidth</b>	19957 ~ 20393	19957, 20175, 20393	1.4 MHz	QPSK, 16QAM	6 RB / 0 RB Offset
	19965 ~ 20386	19965, 20175, 20385	3 MHz		15 RB / 0 RB Offset
	19975 ~ 20375	19975, 20175, 20375	5 MHz		25 RB / 0 RB Offset
	20000 ~ 20350	20000, 20175, 20350	10 MHz		50 RB / 0 RB Offset
	20025 ~ 20325	20025, 20175, 20325	15 MHz		75 RB / 0 RB Offset
	20050 ~ 20300	20050, 20175, 20300	20 MHz		100RB / 0 RB Offset
<b>Frequency Stability</b>	19957 ~ 20393	19957, 20393	1.4 MHz	QPSK	6 RB / 0 RB Offset
	19965 ~ 20386	19965, 20385	3 MHz		15 RB / 0 RB Offset
	19975 ~ 20375	19975, 20375	5 MHz		25 RB / 0 RB Offset
	20000 ~ 20350	20000, 20350	10 MHz		50 RB / 0 RB Offset
	20025 ~ 20325	20025, 20325	15 MHz		75 RB / 0 RB Offset
	20050 ~ 20300	20050, 20300	20 MHz		100RB / 0 RB Offset

<b>Band Edge Conducted Spurious Emission</b>	19957 ~ 20393	19957, 20393	1.4 MHz	QPSK, 16QAM	1 RB / 0 RB Offset 1 RB / 5 RB Offset 6 RB / 0 RB Offset
	19965 ~ 20386	19965, 20385	3 MHz		1 RB / 0 RB Offset 1 RB / 14 RB Offset 15 RB / 0 RB Offset
	19975 ~ 20375	19975, 20375	5 MHz		1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
	20000 ~ 20350	20000, 20350	10 MHz		1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
	20025 ~ 20325	20025, 20325	15 MHz		1 RB / 0 RB Offset 1 RB / 74 RB Offset 75 RB / 0 RB Offset
	20050 ~ 20300	20050, 20300	20 MHz		1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset
<b>Conducted Spurious Emission</b>	19957 ~ 20393	19957, 20175, 20393	1.4 MHz	QPSK	1 RB / 3 RB Offset
	19965 ~ 20386	19965, 20175, 20385	3 MHz		1 RB / 7 RB Offset
	19975 ~ 20375	19975, 20175, 20375	5 MHz		1 RB / 0 RB Offset
	20000 ~ 20350	20000, 20175, 20350	10 MHz		1 RB / 49 RB Offset
	20025 ~ 20325	20025, 20175, 20325	15 MHz		1 RB / 0 RB Offset
	20050 ~ 20300	20050, 20175, 20300	20 MHz		1 RB / 49 RB Offset
<b>Radiated Spurious Emission</b>	20000 ~ 20350	20000	10 MHz	QPSK	1 RB / 49 RB Offset
		20175	10 MHz		1 RB / 49 RB Offset
		20350	10 MHz		1 RB / 49 RB Offset
<b>Equivalent Isotropically Radiated Power (EIRP)</b>	19957 ~ 20393	19957, 20175, 20393	1.4 MHz	QPSK, 16QAM	As per table 1.6.4
	19965 ~ 20386	19965, 20175, 20385	3 MHz		
	19975 ~ 20375	19975, 20175, 20375	5 MHz		
	20000 ~ 20350	20000, 20175, 20350	10 MHz		
	20025 ~ 20325	20025, 20175, 20325	15 MHz		
	20050 ~ 20300	20050, 20175, 20300	20 MHz		

**NOTE:**

1. The Conducted RF Output Power for QPSK and 16QAM, measured value of QPSK is higher than 16QAM mode. Therefore, only 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 Equivalent Isotropically Radiated Power (EIRP) was calculated from Conducted RF Output Power in QPSK and 16QAM modulation.
4. The 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.

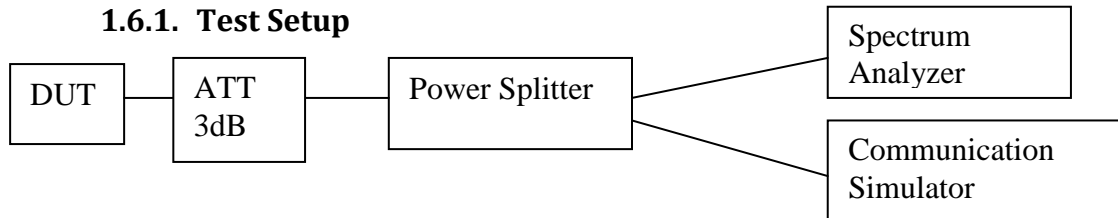


**Test Condition:**

<b>Test Item</b>	<b>Environmental Conditions</b>	<b>Input Power</b>	<b>Tested By</b>
Conducted RF Output Power	25°C, 50% RH	7.5 Vdc	Awatif Rahman
Peak-to-Average Power Ratio	25°C, 50% RH	7.5 Vdc	Awatif Rahman
Occupied Bandwidth	25°C, 50% RH	7.5 Vdc	Awatif Rahman
Frequency Stability	-30°C ~ 60°C	7.5 Vdc	Awatif Rahman
Band Edge Conducted Spurious Emission	25°C, 50% RH	7.5 Vdc	Awatif Rahman
Conducted Spurious Emission	25°C, 50% RH	7.5 Vdc	Awatif Rahman
Radiated Spurious Emission	23.4°C, 69.3% RH	7.5 Vdc	Rezza & Fuad
Equivalent Isotropically Radiated Power (EIRP)	25°C, 50% RH	7.5 Vdc	Awatif Rahman

## 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 was 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: Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

ISED: The equivalent isotropically radiated power (e.i.r.p.) for mobile and portable transmitters shall not exceed one watt.

### 1.6.3. Conducted RF Output Power – LTE Band 4 (1710-1755MHz)

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
			19957	20175	20393	19957	20175	20393
			1710.7 MHz	1732.5 MHz	1754.3 MHz	1710.7 MHz	1732.5 MHz	1754.3 MHz
Band 4 / 1.4 MHz	1	0	23.4	23.326	23.251	22.483	22.395	22.348
	1	3	<b>23.404</b>	23.353	23.307	<b>22.545</b>	22.363	22.434
	1	5	23.359	23.355	23.226	22.506	22.38	22.378
	3	0	23.289	23.308	23.298	22.45	22.422	22.293
	3	2	23.293	23.322	23.302	22.466	22.478	22.301
	3	3	23.276	23.284	23.262	22.398	22.42	22.324
	6	0	22.184	22.266	22.25	21.349	21.355	21.278

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
			19965	20175	20385	19965	20175	20385
			1711.5 MHz	1732.5 MHz	1753.5 MHz	1711.5 MHz	1732.5 MHz	1753.5 MHz
Band 4 / 3MHz	1	0	23.311	23.384	23.253	22.324	22.461	22.616
	1	7	23.198	23.48	23.204	22.362	22.224	22.787
	1	14	23.164	23.301	23.263	22.222	22.298	22.592
	8	0	22.222	22.271	22.29	21.179	21.297	21.405
	8	4	22.207	22.27	22.291	21.14	21.279	21.394
	8	7	22.219	22.251	22.251	21.187	21.246	21.362
	15	0	22.288	22.291	22.27	21.23	21.255	21.323

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
			19975	20175	20375	19975	20175	20375
			1712.5MHz	1732.5MHz	1752.5MHz	1712.5MHz	1732.5MHz	1752.5MHz
Band 4 / 5MHz	1	0	23.469	23.453	23.408	22.721	22.411	22.488
	1	13	23.352	23.359	23.315	22.495	22.283	22.462
	1	25	23.331	23.321	23.329	22.503	22.298	22.498
	12	0	22.373	22.43	22.313	21.364	21.37	21.25
	12	6	22.256	22.359	22.288	21.232	21.315	21.2
	12	13	22.268	22.315	22.277	21.243	21.322	21.167
	25	0	22.286	22.359	22.314	21.28	21.329	21.298

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
			20000	20175	20350	20000	20175	20350
			1715MHz	1732.5MHz	1750MHz	1715MHz	1732.5MHz	1750MHz
Band 4 / 10MHz	1	0	23.468	23.696	23.551	22.914	22.695	22.498
	1	25	23.208	23.321	23.356	22.59	22.373	22.166
	1	49	23.7	23.755	23.917	23.072	22.876	22.646
	25	0	22.249	22.36	22.272	21.319	21.44	21.32
	25	13	22.275	22.4	22.268	21.341	21.425	21.336
	25	25	22.414	22.527	22.345	21.447	21.534	21.41
	50	0	22.406	22.429	22.355	21.4	21.39	21.317

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
			20025	20175	20325	20025	20175	20325
			1717.5MHz	1732.5MHz	1747.5MHz	1717.5MHz	1732.5MHz	1747.5MHz
Band 4 / 15MHz	1	0	23.241	23.321	23.19	22.577	22.246	22.192
	1	38	23.124	23.182	23.142	22.507	22.181	22.099
	1	74	23.079	23.125	23.096	22.474	22.171	22.026
	36	0	22.18	22.209	22.083	21.21	21.249	21.125
	36	19	22.179	22.196	22.128	21.214	21.248	21.132
	36	39	22.119	22.105	22.059	21.155	21.194	21.094
	75	0	22.123	22.164	22.103	21.106	21.186	21.087

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
			20050	20175	20300	20050	20175	20300
			1720MHz	1732.5MHz	1745MHz	1720MHz	1732.5MHz	1745MHz
Band 4 / 20MHz	1	0	23.007	23.034	22.947	22.548	22.431	21.944
	1	49	23.273	23.11	23.015	22.69	22.605	22.037
	1	99	23.206	23	23.157	22.642	22.44	22.107
	50	0	22.096	22.147	22.049	21.056	21.119	21.078
	50	25	22.156	22.145	22.088	21.105	21.157	21.096
	50	50	22.071	22.111	22.033	21.039	21.106	21.053
	100	0	22.084	22.111	22.046	21.095	21.148	21.074

### 1.6.4. Equivalent Isotropically Radiated Power (EIRP) - LTE Band 4 (1710-1755MHz)

EIRP (dBm)								
LTE Band/BW	RB Size	RB Offset	QPSK Modulation			16QAM Modulation		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19957	20175	20393	19957	20175	20393
			1710.7 MHz	1732.5 MHz	1754.3 MHz	1710.7 MHz	1732.5 MHz	1754.3 MHz
Band 4 / 1.4 MHz	1	0	25.3	25.226	25.151	24.383	24.295	24.248
	1	3	<b>25.304</b>	25.253	25.207	<b>24.445</b>	24.263	24.334
	1	5	25.259	25.255	25.126	24.406	24.28	24.278
	3	0	25.189	25.208	25.198	24.35	24.322	24.193
	3	2	25.193	25.222	25.202	24.366	24.378	24.201
	3	3	25.176	25.184	25.162	24.298	24.32	24.224
	6	0	24.084	24.166	24.15	23.249	23.255	23.178

EIRP (dBm)								
LTE Band/BW	RB Size	RB Offset	QPSK Modulation			16QAM Modulation		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19965	20175	20385	19965	20175	20385
			1711.5 MHz	1732.5 MHz	1753.5 MHz	1711.5 MHz	1732.5 MHz	1753.5 MHz
Band 4 / 3MHz	1	0	25.211	25.284	25.153	24.224	24.361	24.516
	1	7	25.098	<b>25.38</b>	25.104	24.262	24.124	<b>24.687</b>
	1	14	25.064	25.201	25.163	24.122	24.198	24.492
	8	0	24.122	24.171	24.19	23.079	23.197	23.305
	8	4	24.107	24.17	24.191	23.04	23.179	23.294
	8	7	24.119	24.151	24.151	23.087	23.146	23.262
	15	0	24.188	24.191	24.17	23.13	23.155	23.223

EIRP (dBm)								
LTE Band/BW	RB Size	RB Offset	QPSK Modulation			16QAM Modulation		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			19975	20175	20375	19975	20175	20375
			1712.5MHz	1732.5MHz	1752.5MHz	1712.5MHz	1732.5MHz	1752.5MHz
Band 4 / 5MHz	1	0	<b>25.369</b>	25.353	25.308	<b>24.621</b>	24.311	24.388
	1	13	25.252	25.259	25.215	24.395	24.183	24.362
	1	25	25.231	25.221	25.229	24.403	24.198	24.398
	12	0	24.273	24.33	24.213	23.264	23.27	23.15
	12	6	24.156	24.259	24.188	23.132	23.215	23.1
	12	13	24.168	24.215	24.177	23.143	23.222	23.067
	25	0	24.186	24.259	24.214	23.18	23.229	23.198

EIRP (dBm)								
LTE Band/BW	RB Size	RB Offset	QPSK Modulation			16QAM Modulation		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20000	20175	20350	20000	20175	20350
			1715MHz	1732.5MHz	1750MHz	1715MHz	1732.5MHz	1750MHz
Band 4 / 10MHz	1	0	25.368	25.596	25.451	24.814	24.595	24.398
	1	25	25.108	25.221	25.256	24.49	24.273	24.066
	1	49	25.6	25.655	25.817	24.972	24.776	24.546
	25	0	24.149	24.26	24.172	23.219	23.34	23.22
	25	13	24.175	24.3	24.168	23.241	23.325	23.236
	25	25	24.314	24.427	24.245	23.347	23.434	23.31
	50	0	24.306	24.329	24.255	23.3	23.29	23.217

EIRP (dBm)								
LTE Band/BW	RB Size	RB Offset	QPSK Modulation			16QAM Modulation		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20025	20175	20325	20025	20175	20325
			1717.5MHz	1732.5MHz	1747.5MHz	1717.5MHz	1732.5MHz	1747.5MHz
Band 4 / 15MHz	1	0	25.141	25.221	25.09	24.477	24.146	24.092
	1	38	25.024	25.082	25.042	24.407	24.081	23.999
	1	74	24.979	25.025	24.996	24.374	24.071	23.926
	36	0	24.08	24.109	23.983	23.11	23.149	23.025
	36	19	24.079	24.096	24.028	23.114	23.148	23.032
	36	39	24.019	24.005	23.959	23.055	23.094	22.994
	75	0	24.023	24.064	24.003	23.006	23.086	22.987

EIRP (dBm)								
LTE Band/BW	RB Size	RB Offset	QPSK Modulation			16QAM Modulation		
			Low CH	Mid CH	High CH	Low CH	Mid CH	High CH
			20050	20175	20300	20050	20175	20300
			1720MHz	1732.5MHz	1745MHz	1720MHz	1732.5MHz	1745MHz
Band 4 / 20MHz	1	0	24.907	24.934	24.847	24.448	24.331	23.844
	1	49	25.173	25.01	24.915	24.59	24.505	23.937
	1	99	25.106	24.9	25.057	24.542	24.34	24.007
	50	0	23.996	24.047	23.949	22.956	23.019	22.978
	50	25	24.056	24.045	23.988	23.005	23.057	22.996
	50	50	23.971	24.011	23.933	22.939	23.006	22.953
	100	0	23.984	24.011	23.946	22.995	23.048	22.974

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

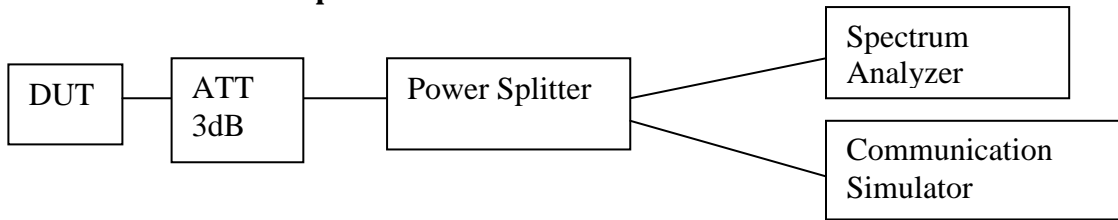
$$\mathbf{EIRP = P_{Meas} + GT}$$
$$\mathbf{ERP = EIRP - 2.15}$$

Where, ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (Expressed in the same units as P<sub>Meas</sub>, e.g., dBm)

**P<sub>Meas</sub>** 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



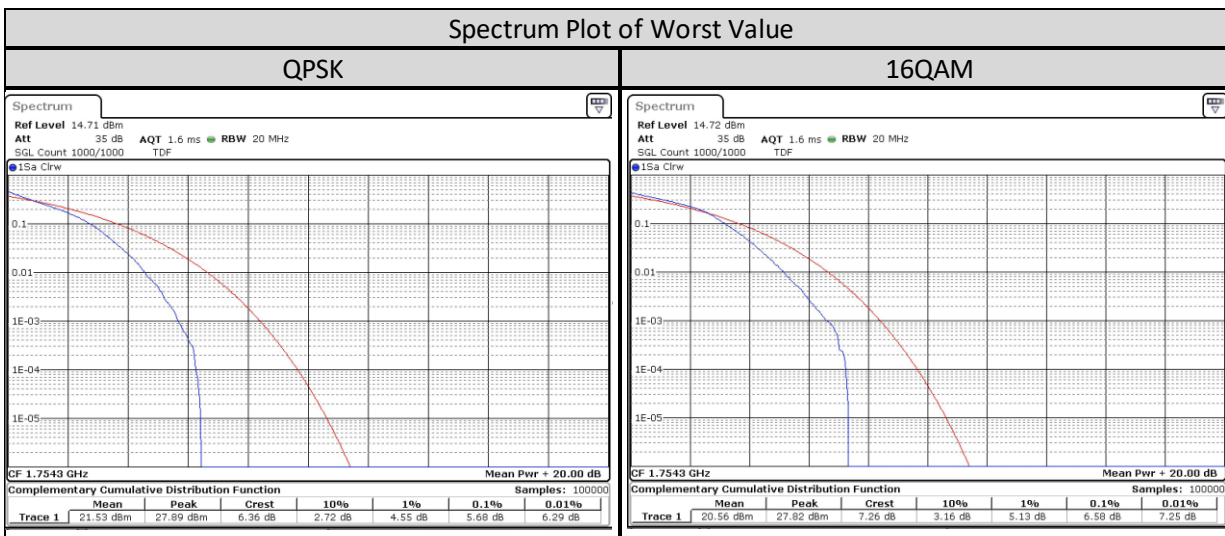
1. The DUT transmitter output port was connected to communication simulator with above setup.
2. Path loss for the measurement included.
3. Set DUT to transmit maximum power through communication simulator
4. Set the CCDF (Complementary Cumulative Distribution Function) option in the spectrum analyzer.
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 measurement was done at low, mid, high channel for each band and different modulation.

### 1.7.2. Test Limit

In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

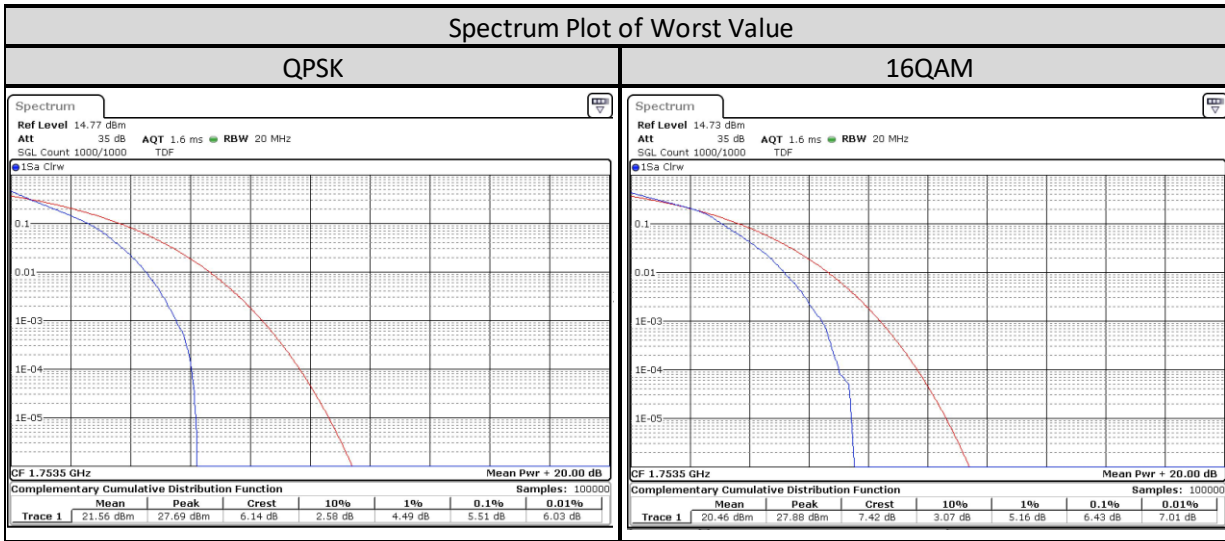
### 1.7.3. Peak-to-Average Power Ratio - LTE Band 4 (1710-1755MHz)

LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	Peak To Average (dB)	
			QPSK Modulation	16QAM Modulation
<b>Band 4/1.4MHz/6/0</b>	Low CH 19957	1710.7 MHz	5.304	6.261
	Mid CH 20175	1732.5 MHz	4.928	5.971
	High CH 20393	1754.3 MHz	<b>5.681</b>	<b>6.58</b>

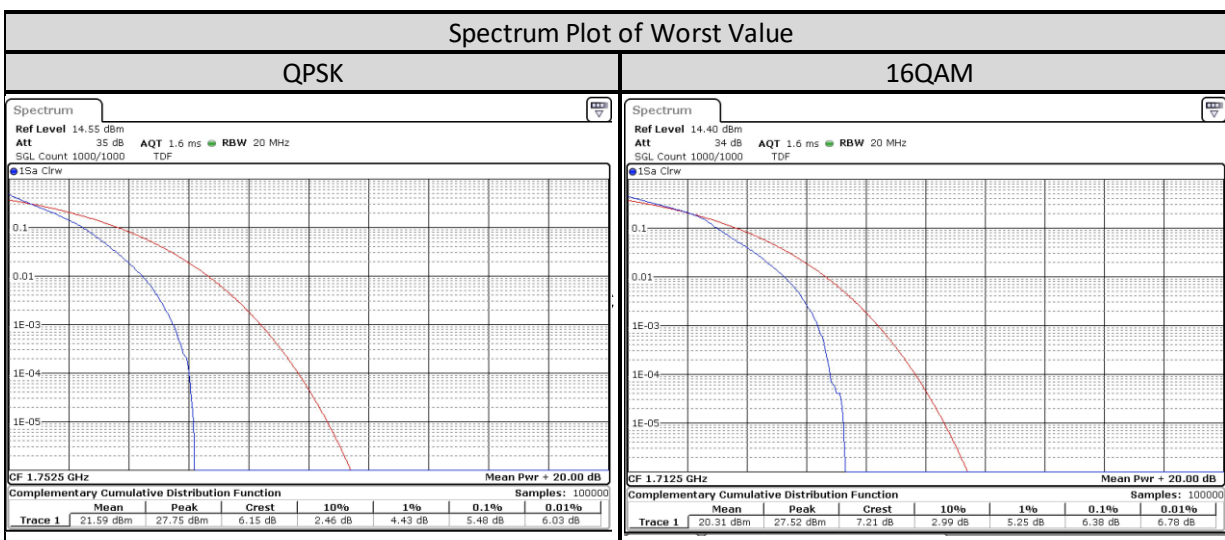




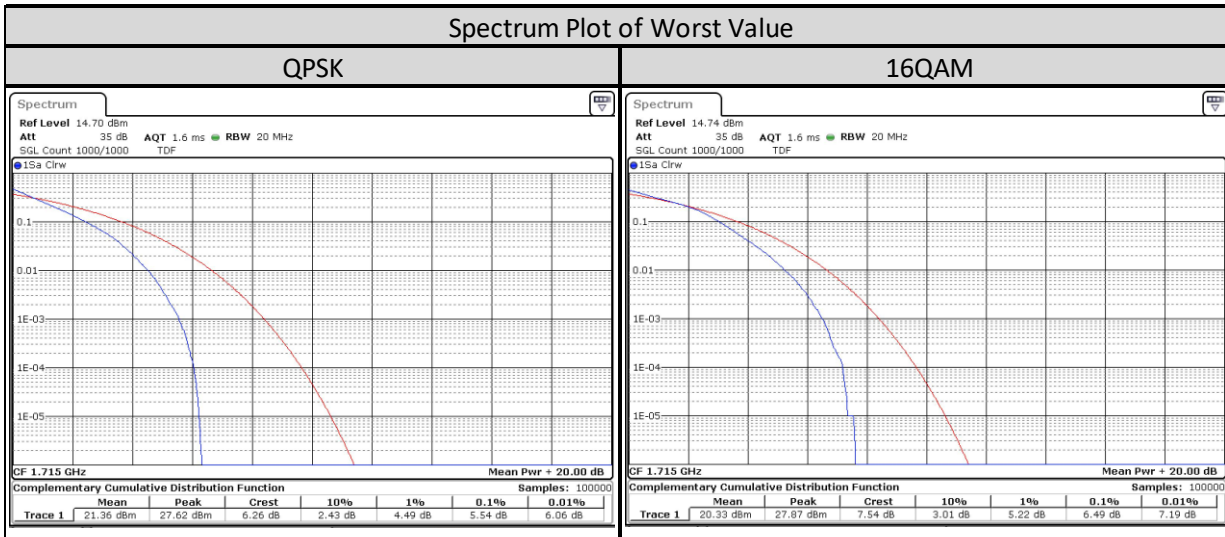
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	Peak To Average (dB)	
			QPSK Modulation	16QAM Modulation
Band 4/3MHz/15/0	Low CH 19965	1711.5 MHz	5.362	6.116
	Mid CH 20175	1732.5 MHz	5.043	6.087
	High CH 20385	1753.5 MHz	<b>5.507</b>	<b>6.435</b>



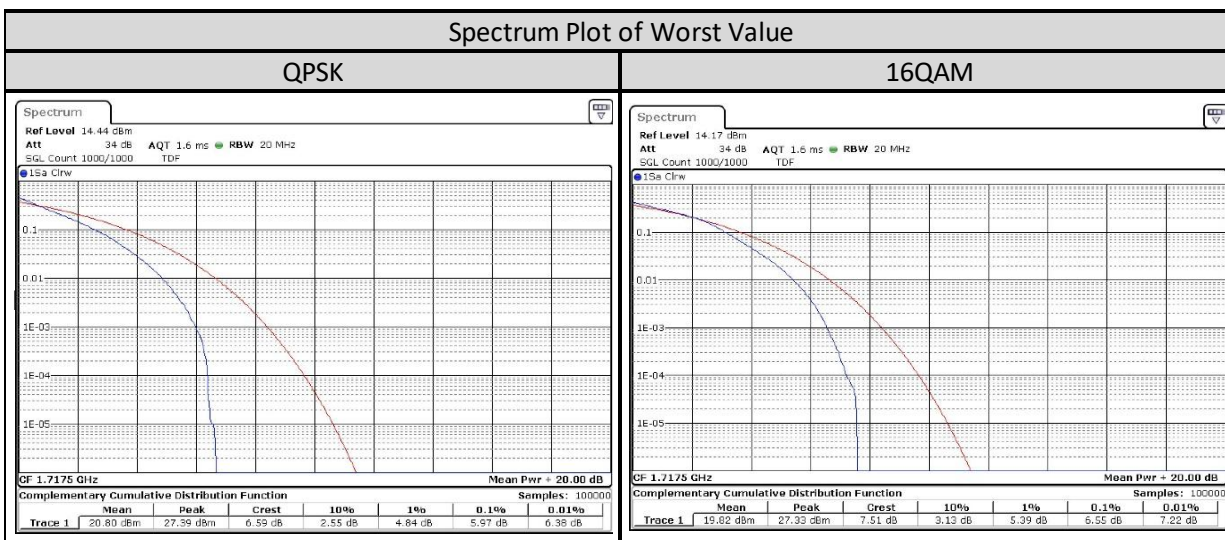
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	Peak To Average (dB)	
			QPSK Modulation	16QAM Modulation
Band 4/5MHz/25/0	Low CH 19975	1712.5 MHz	5.449	<b>6.377</b>
	Mid CH 20175	1732.5 MHz	5.101	5.884
	High CH 20375	1752.5 MHz	<b>5.478</b>	6.377



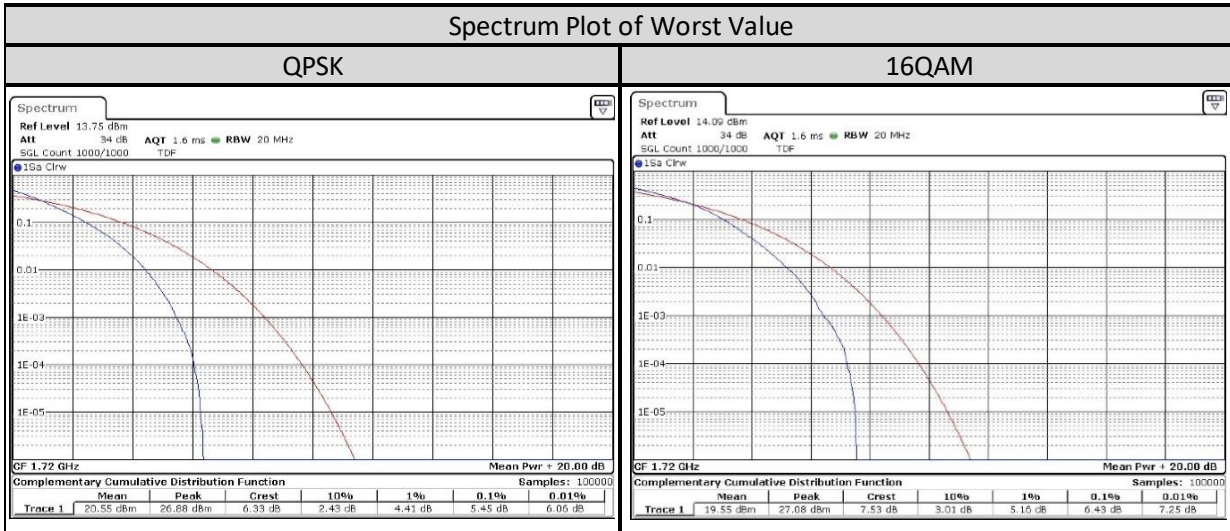
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	Peak To Average (dB)	
			QPSK Modulation	16QAM Modulation
<b>Band 4/10MHz/50/0</b>	Low CH 20000	1715 MHz	<b>5.536</b>	<b>6.493</b>
	Mid CH 20175	1732.5 MHz	5.188	6.116
	High CH 20350	1750 MHz	5.217	6.087



LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	Peak To Average (dB)	
			QPSK Modulation	16QAM Modulation
<b>Band 4/15MHz/75/0</b>	Low CH 20025	1717.5 MHz	<b>5.971</b>	<b>6.551</b>
	Mid CH 20175	1732.5 MHz	5.507	6.116
	High CH 20325	1747.5 MHz	5.391	6.029

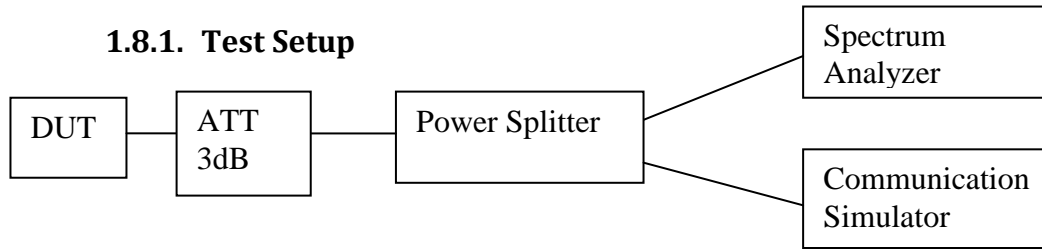


LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	Peak To Average (dB)	
			QPSK Modulation	16QAM Modulation
<b>Band 4/ 20MHz/100/0</b>	Low CH 20050	1720 MHz	<b>5.449</b>	<b>6.435</b>
	Mid CH 20175	1732.5 MHz	5.217	6.203
	High CH 20300	1745 MHz	5.043	6



## 1.8. Occupied Bandwidth

### 1.8.1. Test Setup



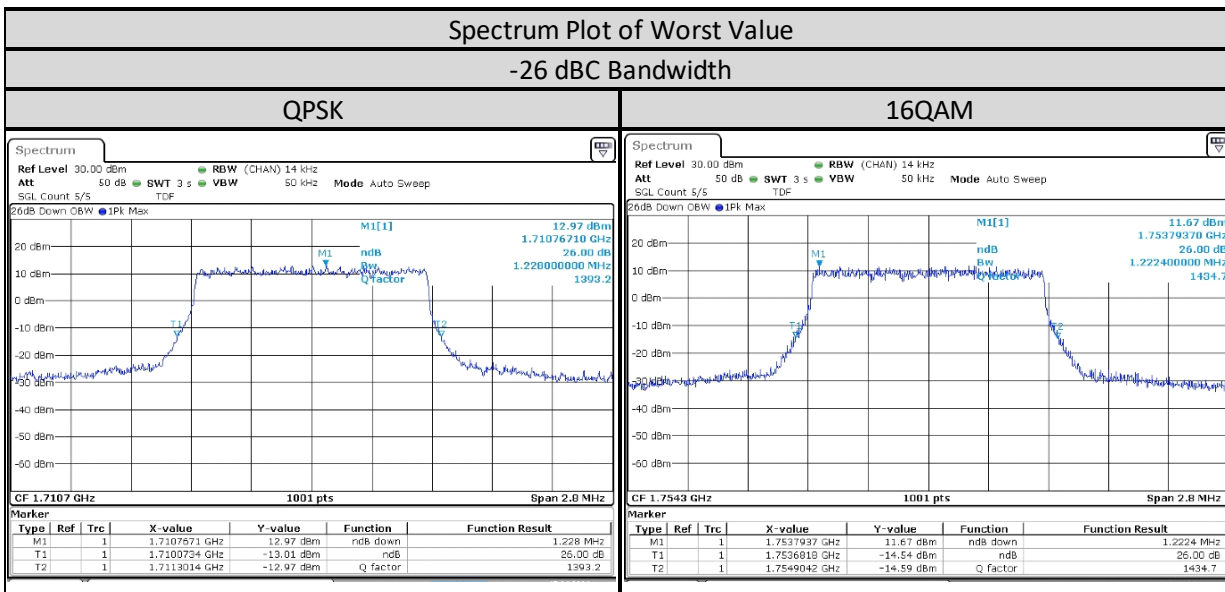
- 1) The DUT transmitter output port was connected to communication simulator with above setup.
- 2) Path loss for the measurement included.
- 3) For LTE measurement, set DUT to transmit maximum power & full RB size through communication simulator.
- 4) For LTE measurement, set DUT to transmit maximum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

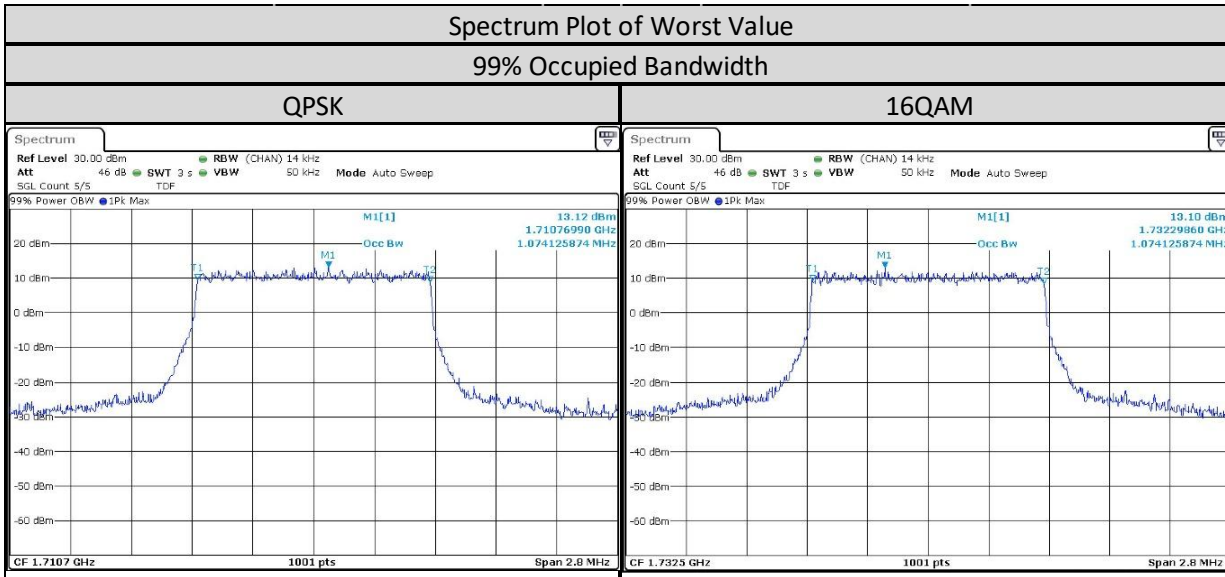
The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

### 1.8.3. Occupied Bandwidth - LTE Band 4 (1710-1755MHz)

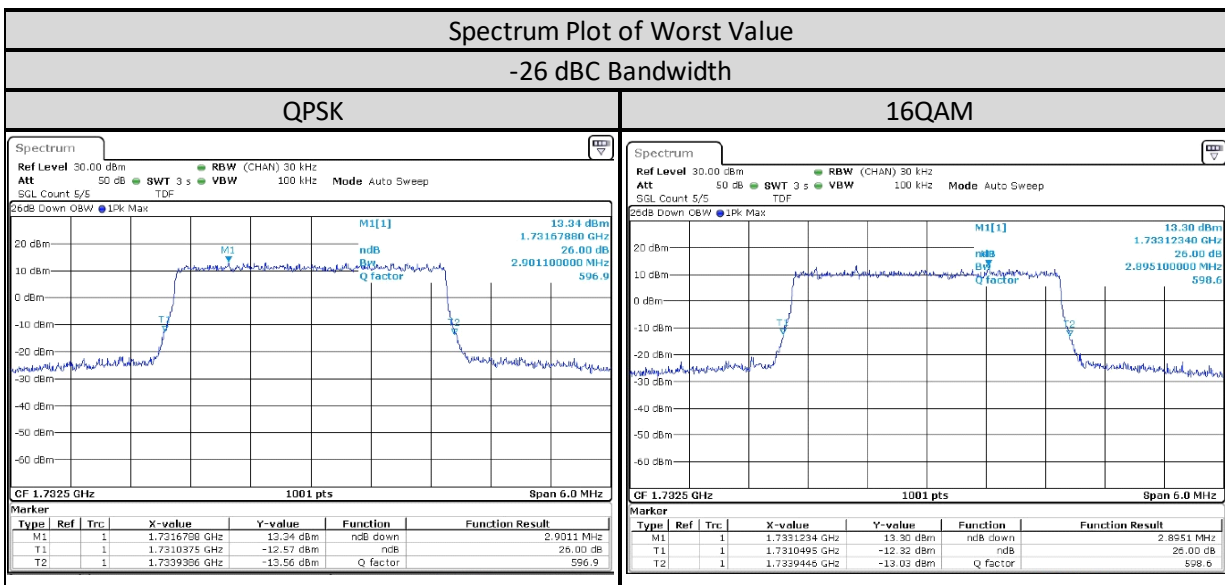
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	-26 dBc Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 4/1.4MHz/6/0	Low CH 19957	1710.7 MHz	1.228	1.183
	Mid CH 20175	1732.5 MHz	1.206	1.208
	High CH 20393	1754.3 MHz	1.206	1.222



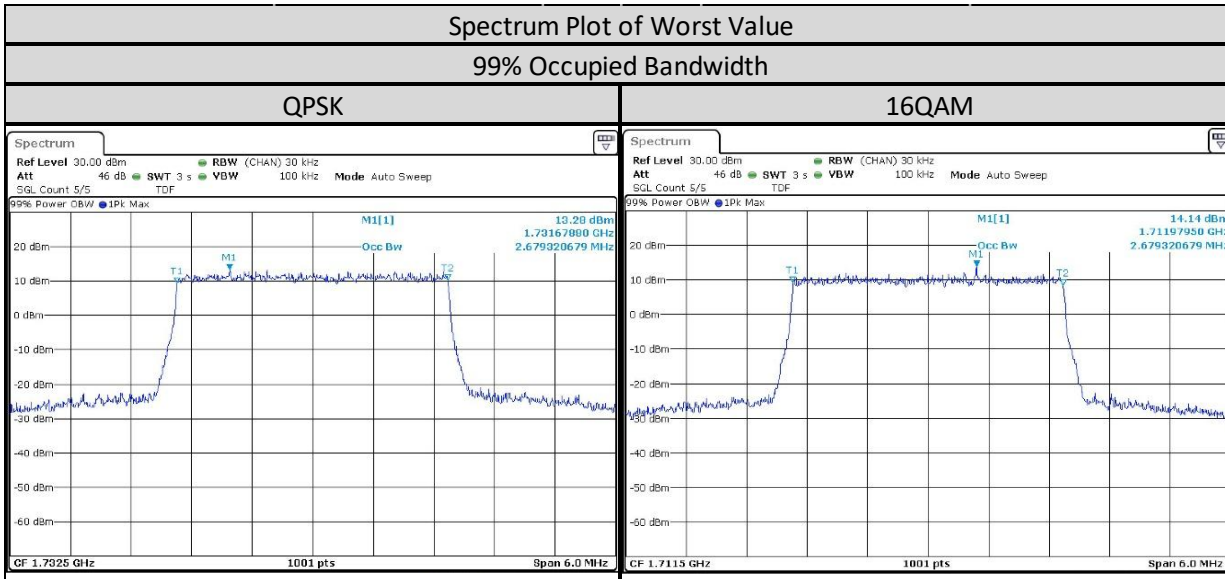
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	99% Occupied Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 4/1.4MHz/6/0	Low CH 19957	1710.7 MHz	1.074	1.071
	Mid CH 20175	1732.5 MHz	1.071	1.074
	High CH 20393	1754.3 MHz	1.071	1.074



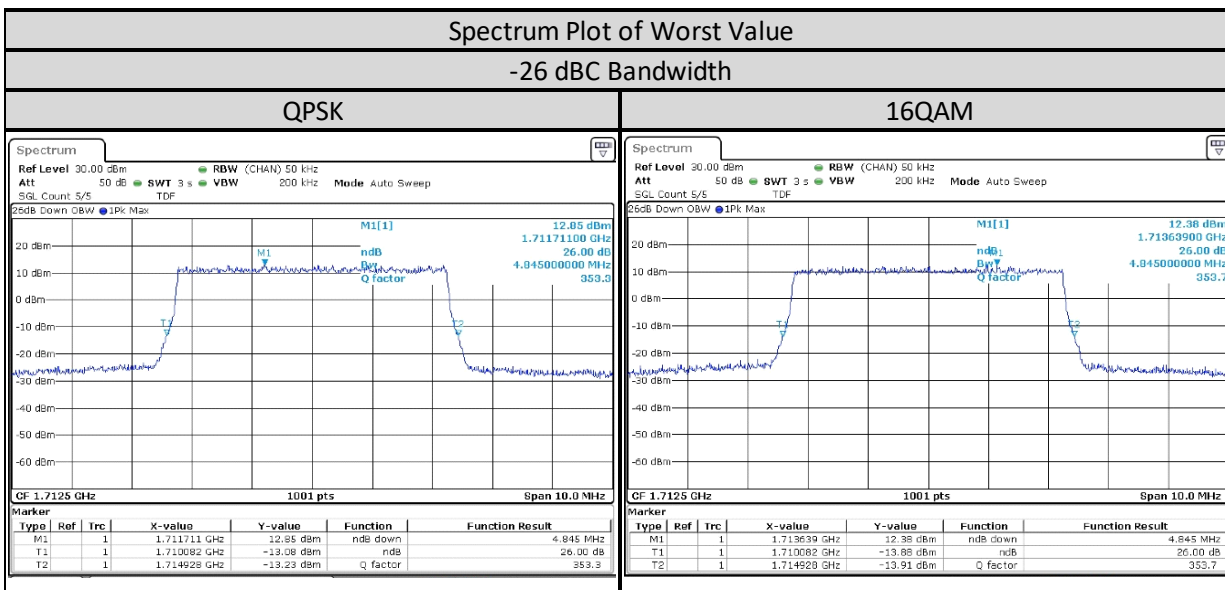
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	-26 dBc Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 4/3MHz/15/0	Low CH 19965	1711.5 MHz	2.877	2.865
	Mid CH 20175	1732.5 MHz	2.901	2.895
	High CH 20385	1753.5 MHz	2.883	2.889



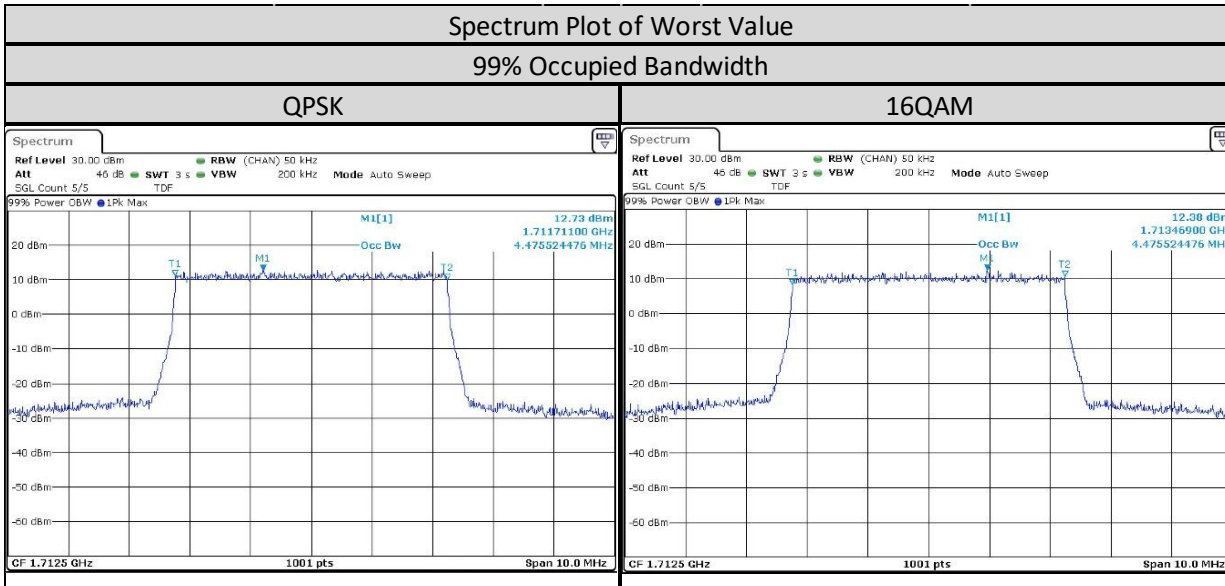
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	99% Occupied Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 4/3MHz/15/0	Low CH 19965	1711.5 MHz	2.673	<b>2.679</b>
	Mid CH 20175	1732.5 MHz	<b>2.679</b>	2.679
	High CH 20385	1753.5 MHz	2.673	2.673



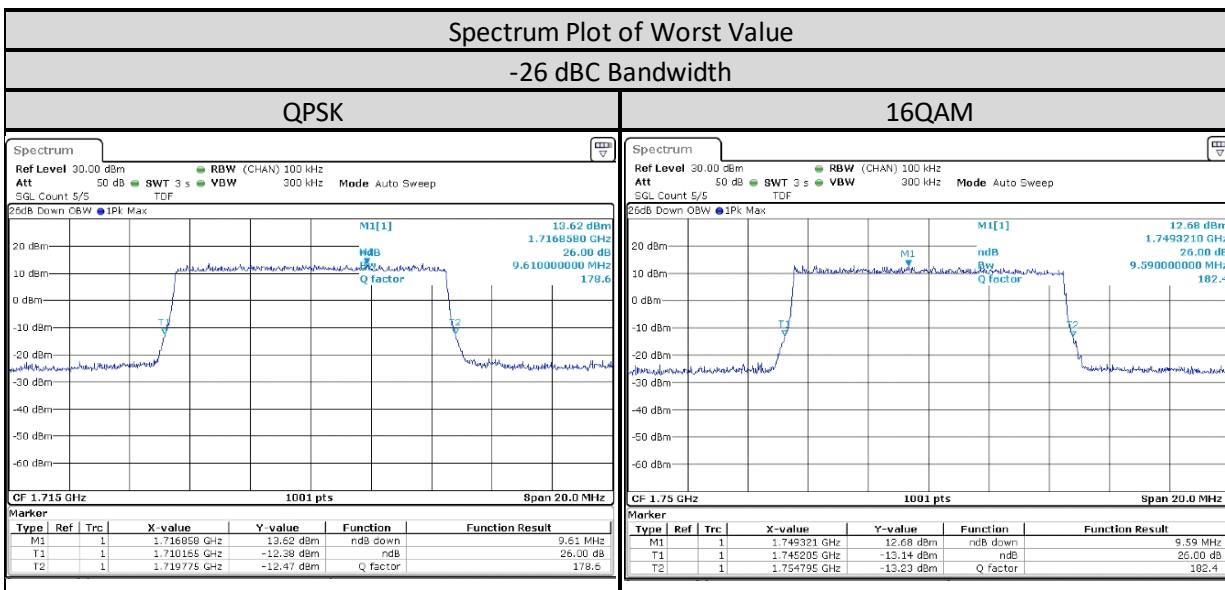
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	-26 dBc Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 4/5MHz/25/0	Low CH 19975	1712.5 MHz	<b>4.845</b>	<b>4.845</b>
	Mid CH 20175	1732.5 MHz	4.795	4.825
	High CH 20375	1752.5 MHz	4.845	4.845



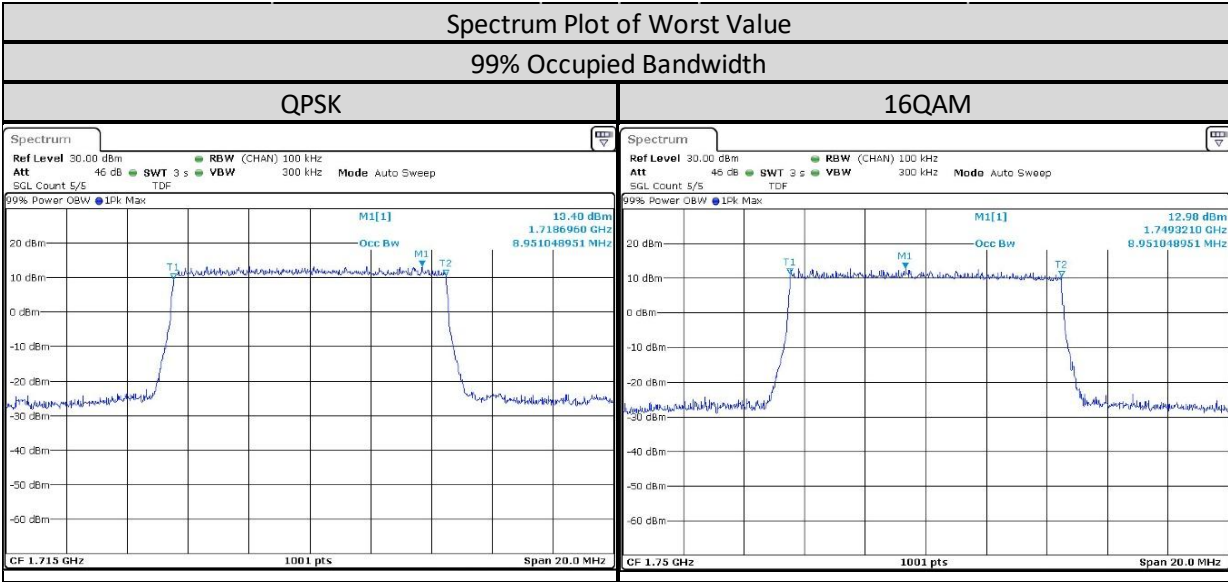
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	99% Occupied Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
<b>Band 4/5MHz/25/0</b>	Low CH 19975	1712.5 MHz	<b>4.476</b>	<b>4.476</b>
	Mid CH 20175	1732.5 MHz	4.456	4.456
	High CH 20375	1752.5 MHz	4.476	4.466



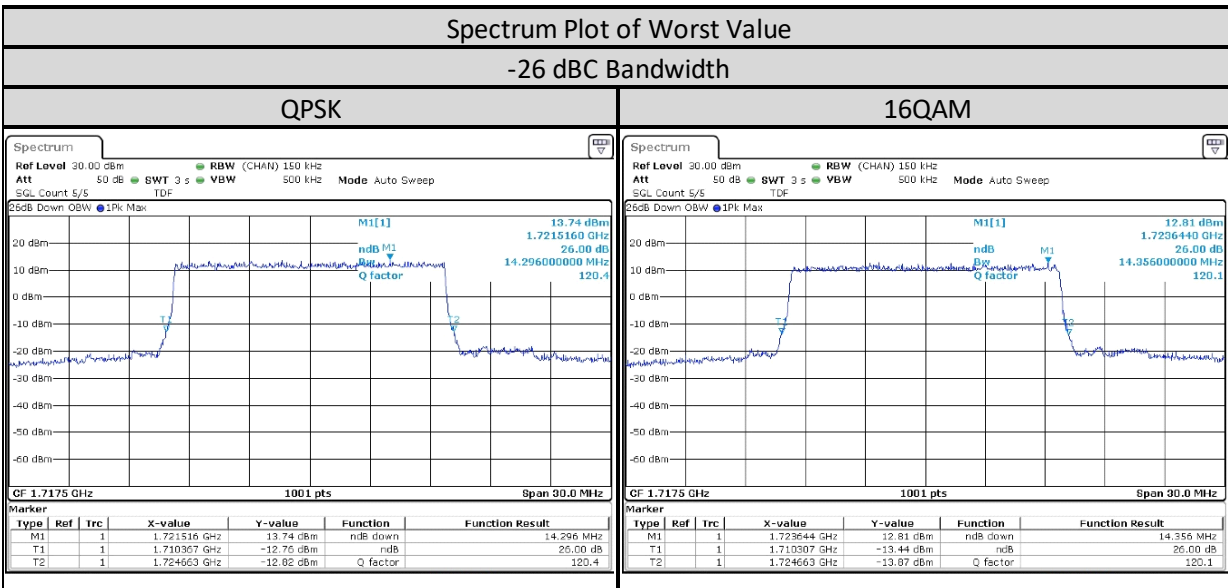
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	-26 dBc Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
<b>Band 4/10MHz/50/0</b>	Low CH 20000	1715 MHz	<b>9.61</b>	9.57
	Mid CH 20175	1732.5 MHz	9.57	9.55
	High CH 20350	1750 MHz	9.57	<b>9.59</b>



LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	99% Occupied Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 4/10MHz/50/0	Low CH 20000	1715 MHz	8.951	8.931
	Mid CH 20175	1732.5 MHz	8.911	8.911
	High CH 20350	1750 MHz	8.931	8.951

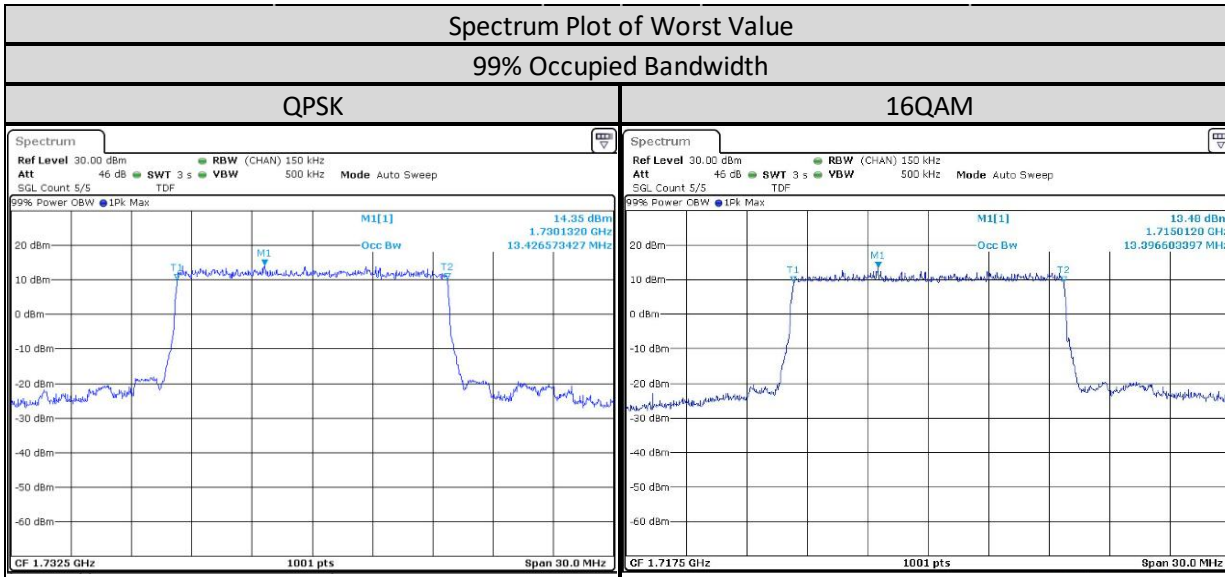


LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	-26 dBc Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 4/15MHz/75/0	Low CH 20025	1717.5 MHz	14.296	14.356
	Mid CH 20175	1732.5 MHz	14.236	14.206
	High CH 20325	1747.5 MHz	14.296	14.266

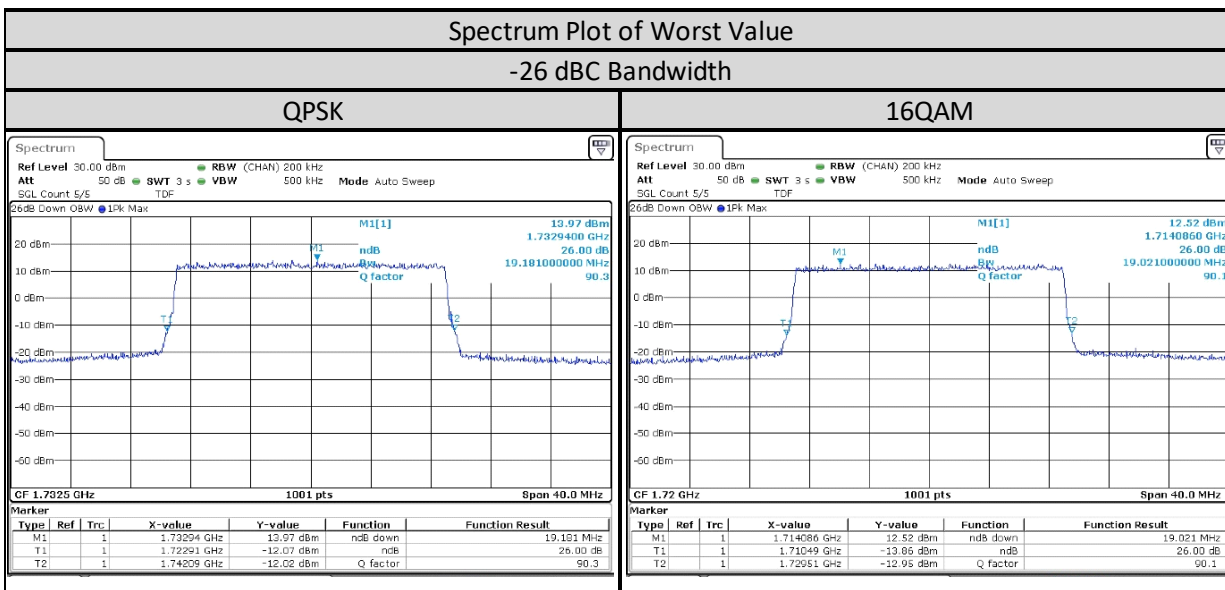




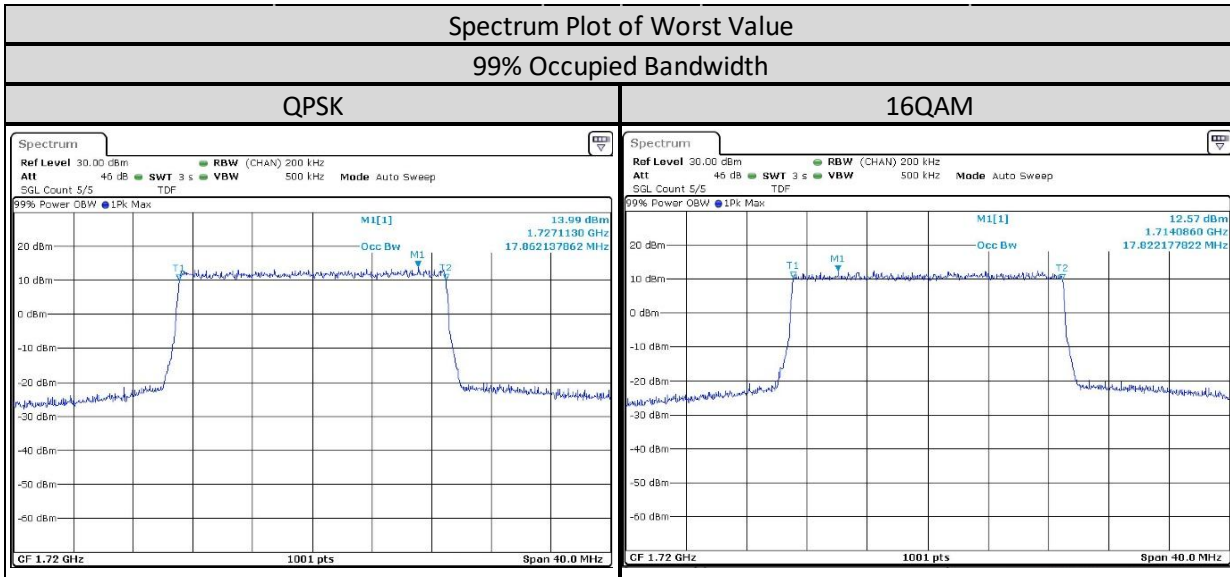
LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	99% Occupied Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 4/15MHz/75/0	Low CH 20025	1717.5 MHz	13.397	<b>13.397</b>
	Mid CH 20175	1732.5 MHz	<b>13.427</b>	13.367
	High CH 20325	1747.5 MHz	13.367	13.397



LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	-26 dBc Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
Band 4/20MHz/100/0	Low CH 20050	1720 MHz	18.981	<b>19.021</b>
	Mid CH 20175	1732.5 MHz	<b>19.181</b>	18.861
	High CH 20300	1745 MHz	18.821	18.861

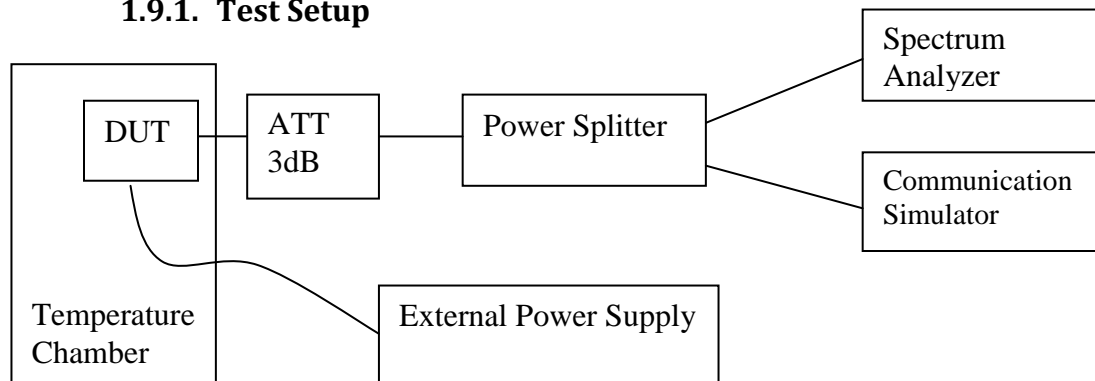


LTE Band/BW/RB Size/RB Offset	Channel Number	Tx Frequency	99% Occupied Bandwidth (MHz)	
			QPSK Modulation	16QAM Modulation
<b>Band 4/20MHz/100/0</b>	Low CH 20050	1720 MHz	<b>17.862</b>	<b>17.822</b>
	Mid CH 20175	1732.5 MHz	17.682	17.822
	High CH 20300	1745 MHz	17.862	17.822



## 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 4 (1710-1755MHz)

Band	Temp ( Deg C)	Frequency Error VS Temperature			
		Channel Bandwidth: 1.4 MHz			
		Low Channel		High Channel	
		1710.7MHz		1754.3MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 4	60	1710.700015	0.008713	1754.299988	-0.006589
	50	1710.700018	0.010486	1754.299993	-0.004159
	40	1710.700008	0.00475	1754.299993	-0.003906
	30	1710.700008	0.004959	1754.299994	-0.003678
	20	1710.700014	0.008253	1754.29999	-0.005732
	10	1710.700006	0.003562	1754.299993	-0.003833
	0	1710.700011	0.006205	1754.300006	0.00327
	-10	1710.700007	0.004273	1754.299994	-0.003563
	-20	1710.700009	0.005335	1754.29999	-0.005692
	-30	1710.699992	-0.004792	1754.299993	-0.003824

Band	Voltage (V)	Frequency Error VS Voltage			
		Channel Bandwidth: 1.4 MHz			
		Low Channel		High Channel	
		1710.7MHz		1754.3MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 4	9	1710.700008	0.013237	1754.29999	-0.004852
	7.5	1710.700008	0.009407	1754.299993	-0.003824
	6	1710.700008	0.008621	1754.299994	-0.006344

Band	Temp ( Deg C)	Frequency Error VS Temperature			
		Channel Bandwidth: 3 MHz			
		Low Channel		High Channel	
		1711.5MHz		1753.5MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 4	60	1711.500008	0.004522	1753.500008	0.004397
	50	1711.500006	0.003494	1753.500011	0.006021
	40	1711.500007	0.004146	1753.500007	0.004177
	30	1711.500008	0.004823	1753.500008	0.00456
	20	1711.500008	0.004463	1753.500008	0.004397
	10	1711.500008	0.004605	1753.500008	0.004838
	0	1711.50001	0.005734	1753.500009	0.005034
	-10	1711.50001	0.005993	1753.500008	0.004813
	-20	1711.50001	0.005567	1753.500009	0.005099
	-30	1711.500011	0.006578	1753.500008	0.004699

Band	Voltage (V)	Frequency Error VS Voltage			
		Channel Bandwidth: 3 MHz			
		Low Channel		High Channel	
		1711.5MHz		1753.5MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 4	9	1711.50001	0.004647	1753.500008	0.005368
	7.5	1711.50001	0.007104	1753.500009	0.004324
	6	1711.50001	0.004647	1753.500008	0.005148

Band	Temp ( Deg C)	Frequency Error VS Temperature			
		Channel Bandwidth: 5 MHz			
		Low Channel		High Channel	
		1712.5MHz		1752.5MHz	
LTE Band 4		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
	60	1712.500008	0.004912	1752.499994	-0.00342
	50	1712.50001	0.005822	1752.499994	-0.003698
	40	1712.500009	0.00543	1752.499994	-0.003396
	30	1712.500008	0.004703	1752.499992	-0.004506
	20	1712.500012	0.007109	1752.499992	-0.004775
	10	1712.500009	0.005396	1752.499992	-0.004547
	0	1712.50001	0.005931	1752.499994	-0.003641
	-10	1712.500011	0.006323	1752.499993	-0.004057
	-20	1712.500011	0.006181	1752.499993	-0.003934
-30	1712.500009	0.005522	1752.499994	-0.003151	

Band	Voltage (V)	Frequency Error VS Voltage			
		Channel Bandwidth: 5 MHz			
		Low Channel		High Channel	
		1712.5MHz		1752.5MHz	
LTE Band 4		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
	9	1712.50001	0.005079	1752.499992	-0.003085
	7.5	1712.500009	0.006048	1752.499992	-0.003461
	6	1712.500008	0.005822	1752.499992	-0.003975

Band	Temp ( Deg C)	Frequency Error VS Temperature			
		Channel Bandwidth: 10 MHz			
		Low Channel		High Channel	
		1715MHz		1750MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 4	60	1714.999993	-0.004212	1750.000008	0.00452
	50	1714.999993	-0.003987	1750.000007	0.004087
	40	1714.999992	-0.004404	1750.000007	0.004185
	30	1714.999993	-0.004254	1750.000007	0.004251
	20	1714.999992	-0.004379	1750.000008	0.004553
	10	1714.999992	-0.004871	1750.000008	0.004741
	0	1715.000006	0.003687	1750.000001	0.005526
	-10	1714.999992	-0.004763	1750.000009	0.005125
	-20	1714.999994	-0.00352	1750.000008	0.004823
	-30	1714.999993	-0.004146	1750.000001	0.005828

Band	Voltage (V)	Frequency Error VS Voltage			
		Channel Bandwidth: 10 MHz			
		Low Channel		High Channel	
		1715MHz		1750MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 4	9	1714.999992	-0.004838	1750.000008	0.005689
	7.5	1714.999994	-0.004504	1750.000008	0.00461
	6	1714.999993	-0.004129	1750.000001	0.003997

Band	Temp ( Deg C)	Frequency Error VS Temperature			
		Channel Bandwidth: 15 MHz			
		Low Channel		High Channel	
		1717.5MHz		1747.5MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 4	60	1717.499994	-0.00359	1747.500007	0.003962
	50	1717.500006	0.003698	1747.500008	0.004666
	40	1717.500007	0.00414	1747.500007	0.00406
	30	1717.500007	0.00394	1747.500007	0.003897
	20	1717.500007	0.003948	1747.500007	0.003913
	10	1717.500008	0.004698	1747.500007	0.004289
	0	1717.500008	0.004556	1747.500007	0.003978
	-10	1717.500007	0.004289	1747.500008	0.004445
	-20	1717.500009	0.005331	1747.500009	0.005108
	-30	1717.500008	0.004947	1747.500008	0.004641

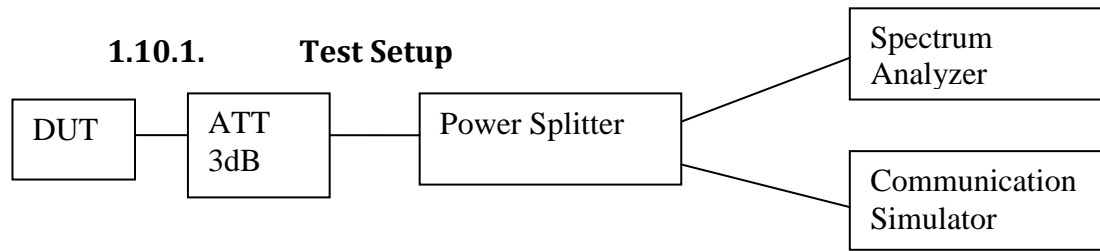
Band	Voltage (V)	Frequency Error VS Voltage			
		Channel Bandwidth: 15 MHz			
		Low Channel		High Channel	
		1717.5MHz		1747.5MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 4	9	1717.500008	0.004448	1747.500007	0.003266
	7.5	1717.500008	0.003965	1747.500008	0.003978
	6	1717.500007	0.004306	1747.500009	0.004126



Band	Temp ( Deg C)	Frequency Error VS Temperature			
		Channel Bandwidth: 20 MHz			
		Low Channel		High Channel	
		1720MHz		1745MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 4	60	1720.000008	0.004558	1744.999992	-0.004738
	50	1720.000008	0.004466	1744.999994	-0.003632
	40	1720.000007	0.004225	1744.999991	-0.004878
	30	1720.000008	0.004807	1744.999993	-0.003755
	20	1720.000008	0.004499	1744.999994	-0.003714
	10	1720.000058	0.03395	1744.999994	-0.003599
	0	1720.000009	0.005265	1744.999994	-0.003607
	-10	1720.000009	0.005431	1744.999993	-0.003951
	-20	1720.000009	0.004957	1744.999993	-0.004025
	-30	1720.000009	0.004982	1744.999992	-0.004509

Band	Voltage (V)	Frequency Error VS Voltage			
		Channel Bandwidth: 20 MHz			
		Low Channel		High Channel	
		1720MHz		1745MHz	
		Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
LTE Band 4	9	1720.000009	0.003793	1744.999994	-0.003623
	7.5	1720.000009	0.005223	1744.999994	-0.004492
	6	1720.000009	0.005198	1744.999994	-0.00423

## 1.10. Band Edge Conducted Spurious Emission



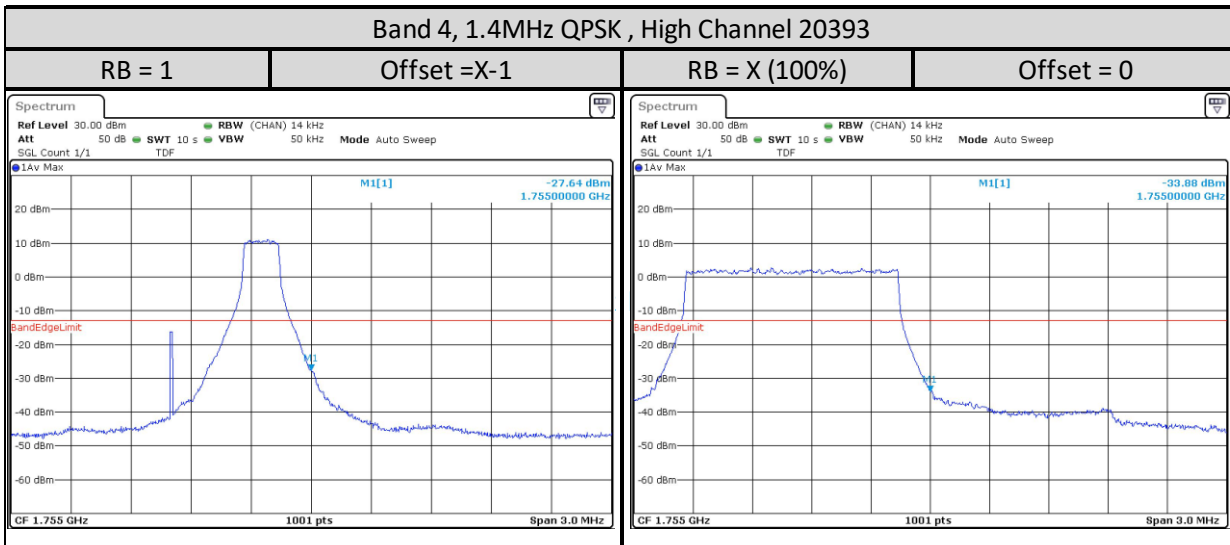
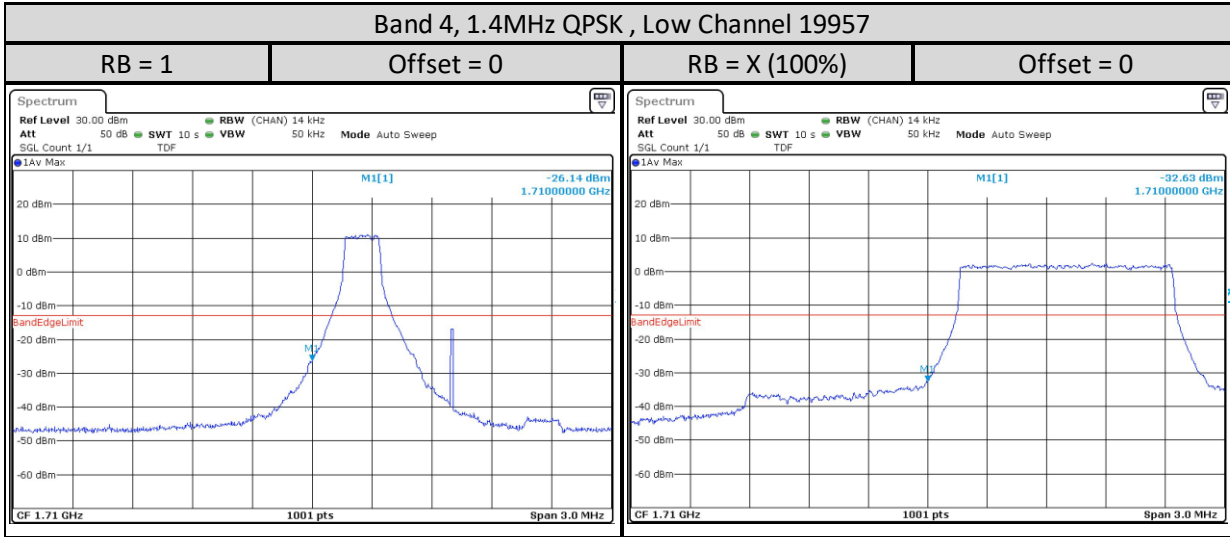
- 1) The DUT transmitter output port was connected to communication simulator with above setup.
- 2) Path loss for the measurement included.
- 3) Set DUT to transmit maximum power through communication simulator.
- 4) The band edges of lowest and highest channels with the highest RF powers were measured.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

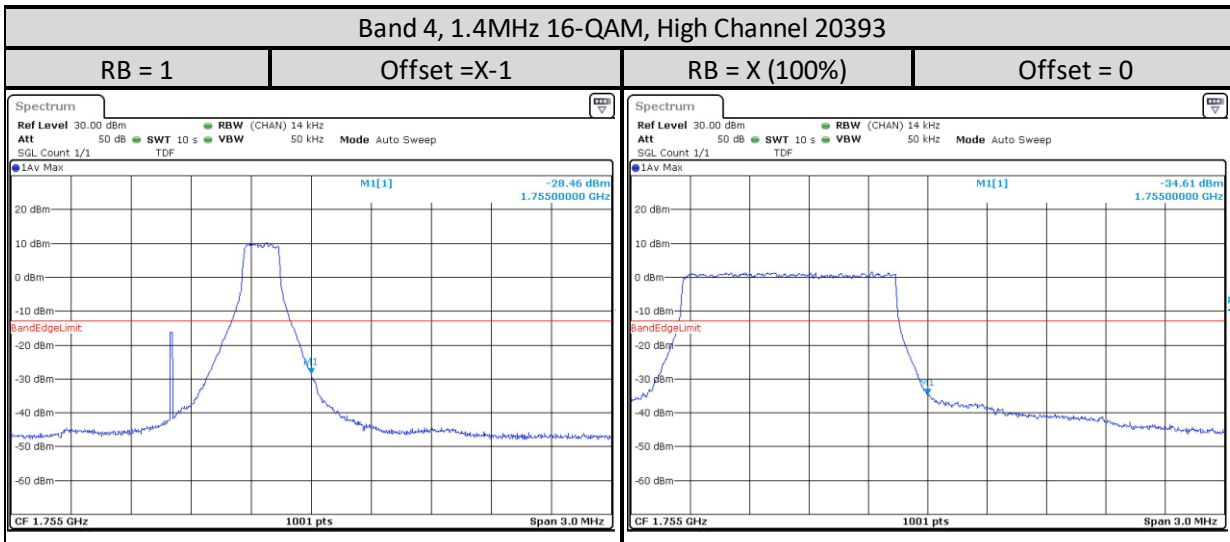
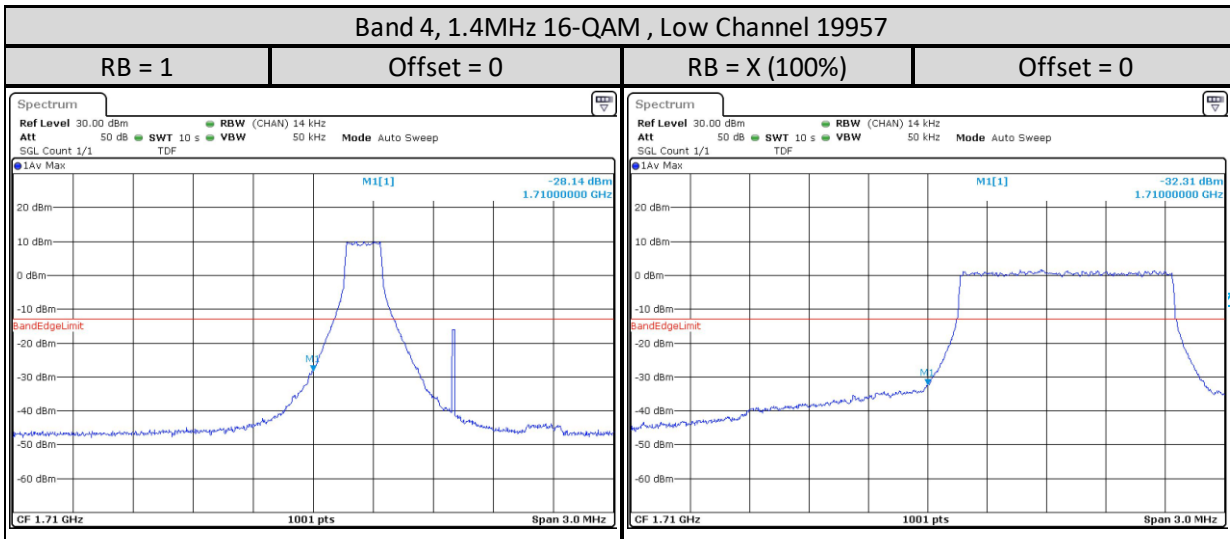
### 1.10.2. Test Limit

For operations in the 1710-1755 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB. In the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

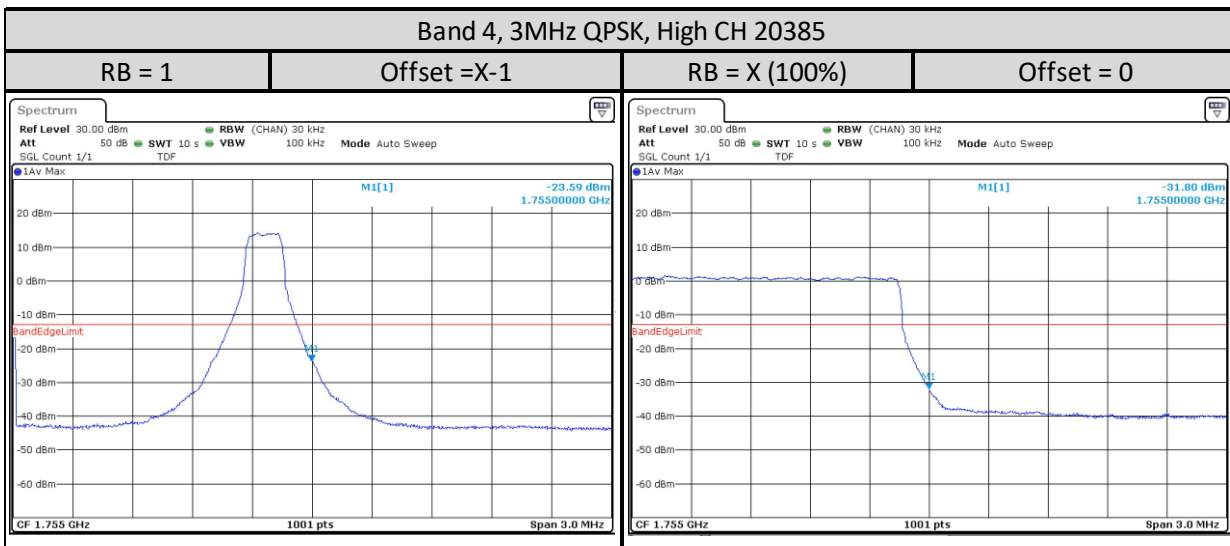
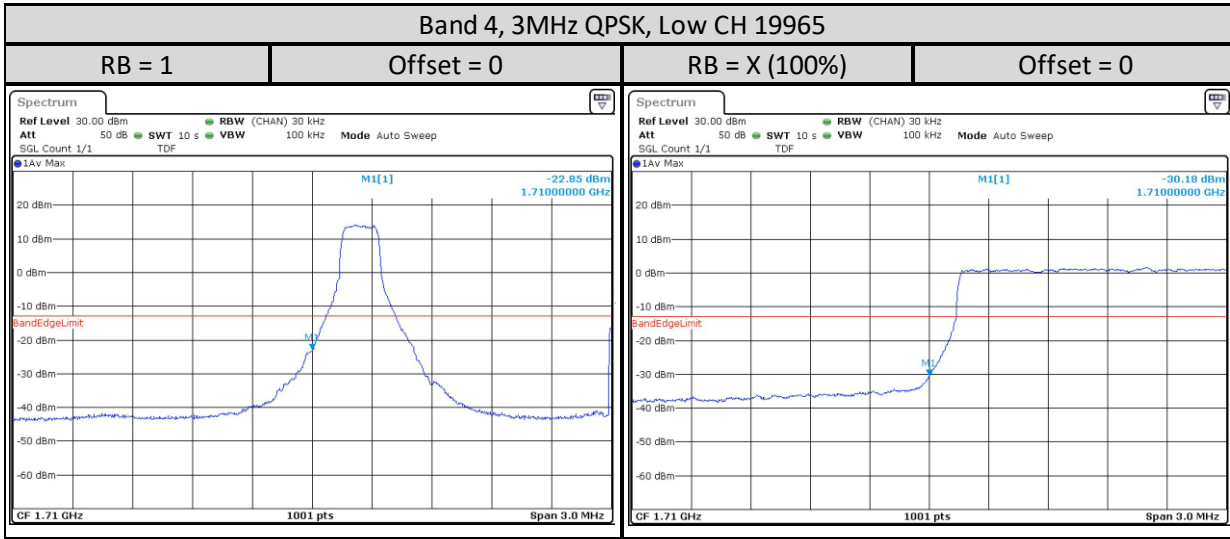
### 1.10.3. Band Edge Conducted Spurious Emission – LTE Band 4 (1710-1755MHz)

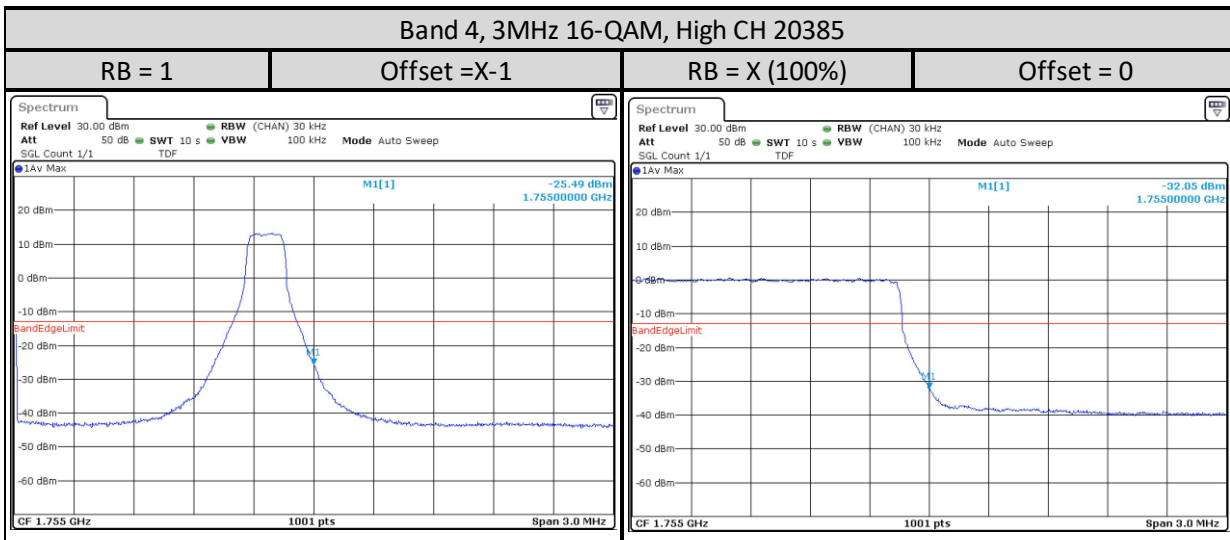
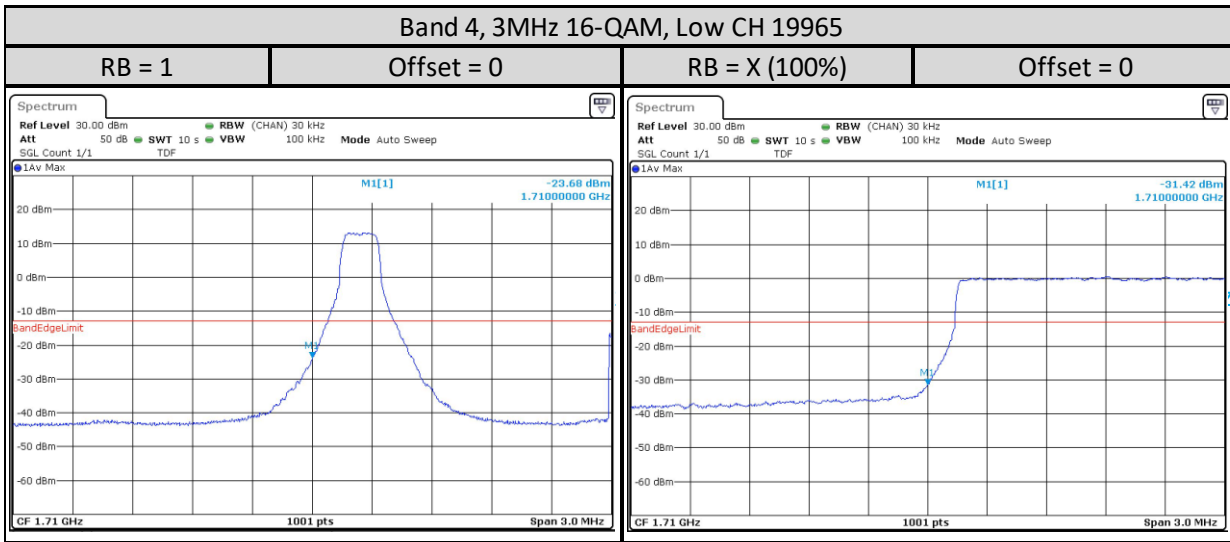
#### 1.4MHz



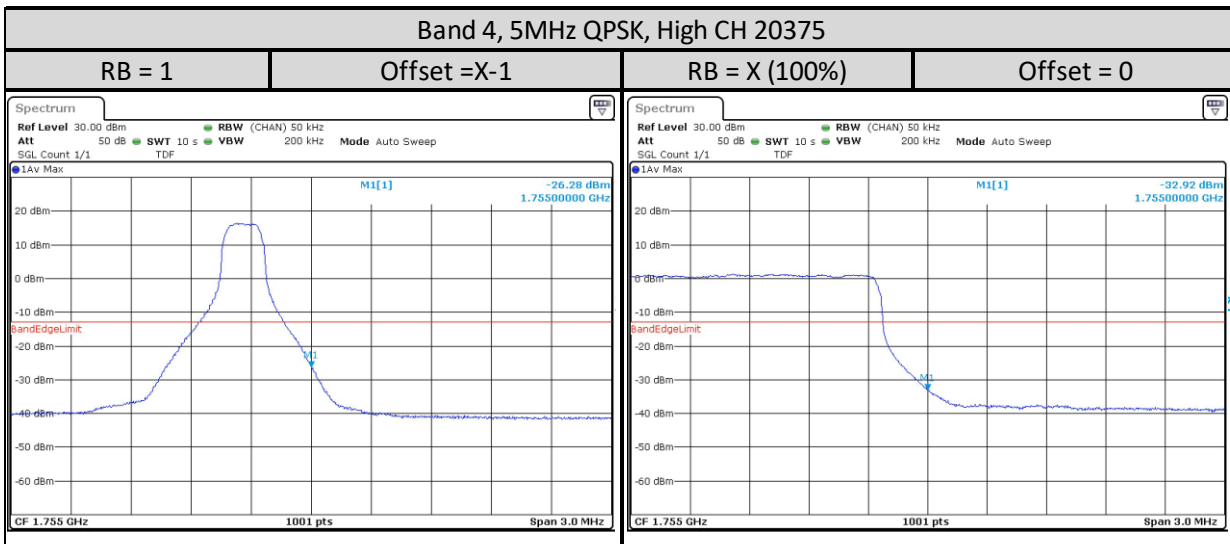
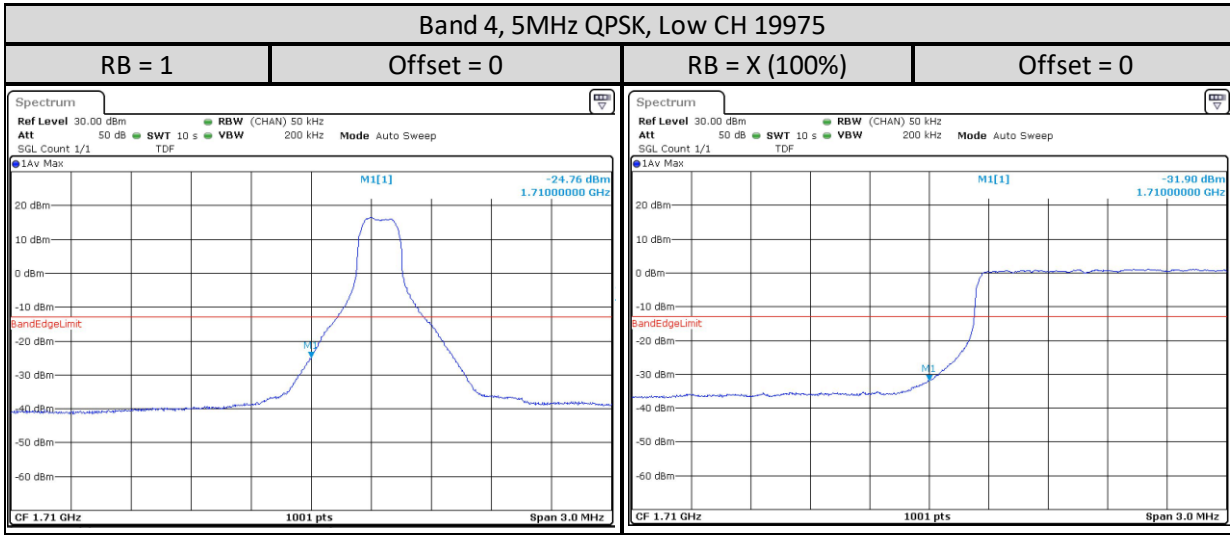


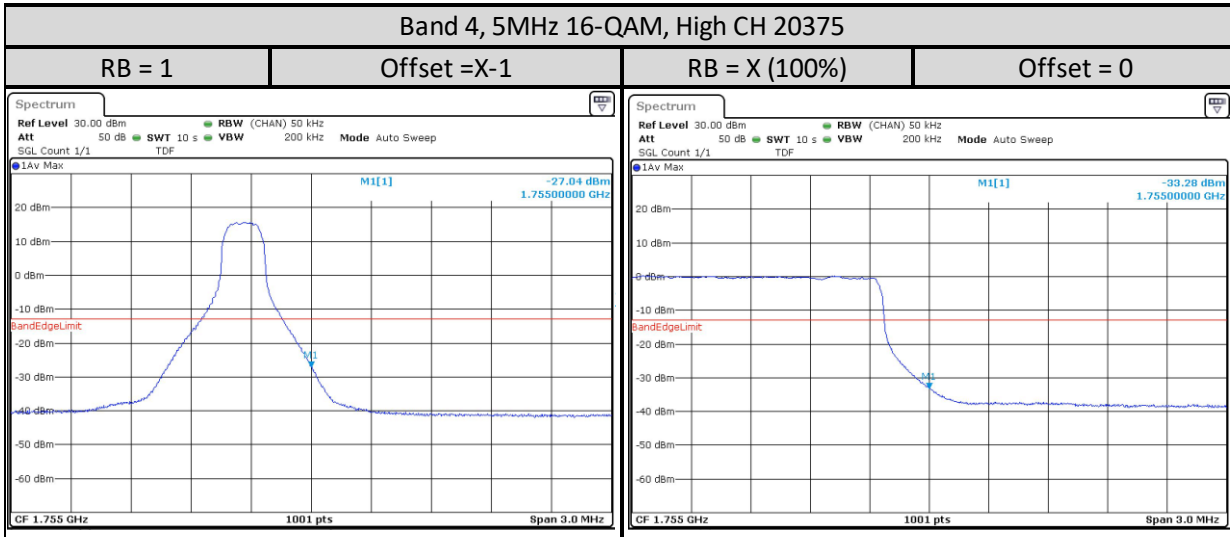
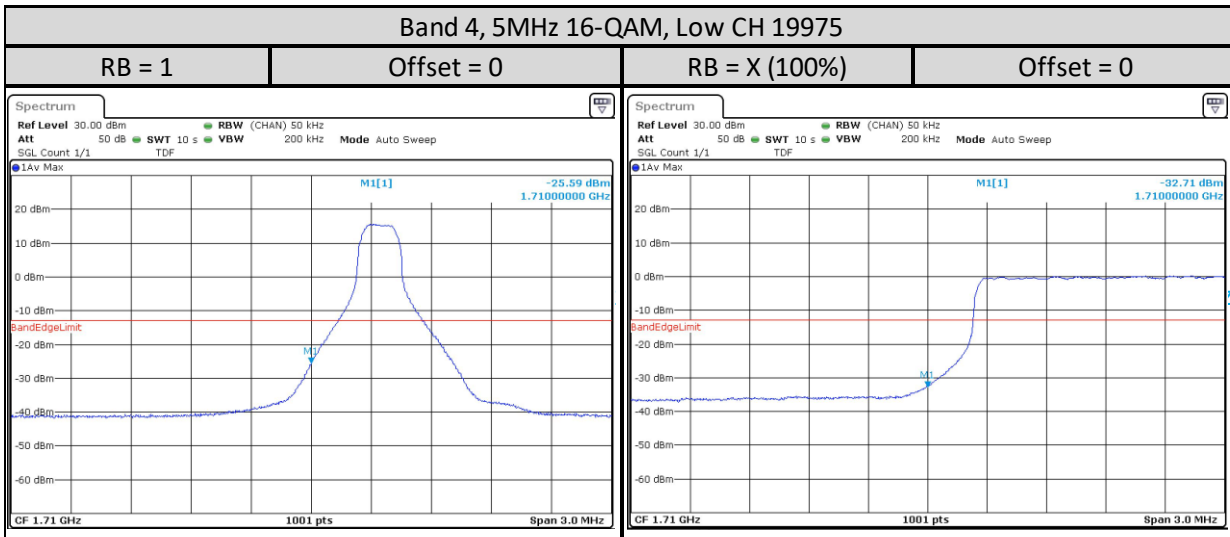
**3MHz**





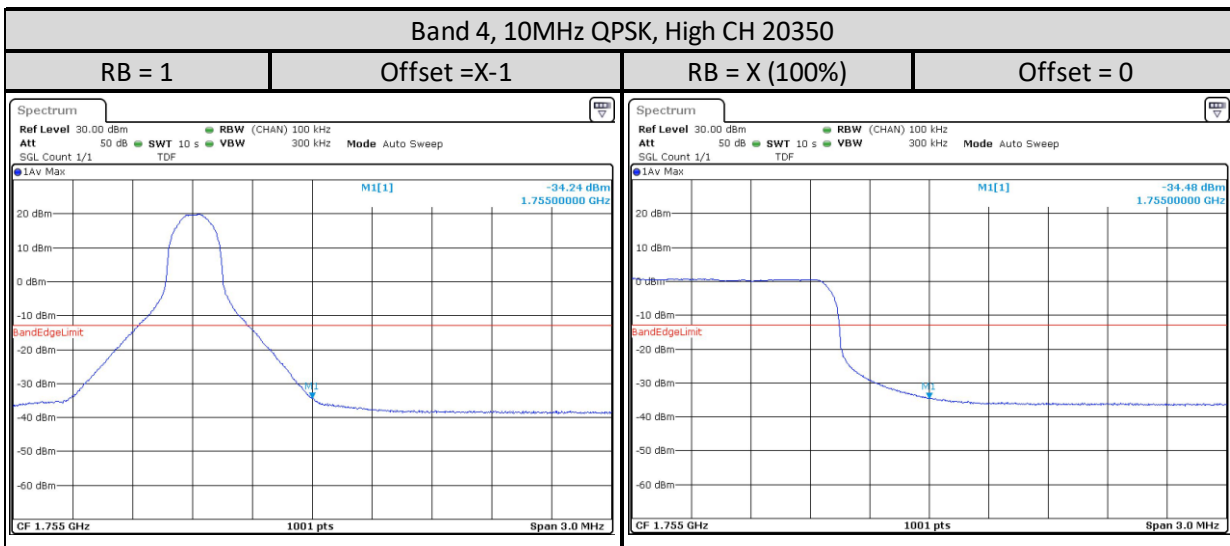
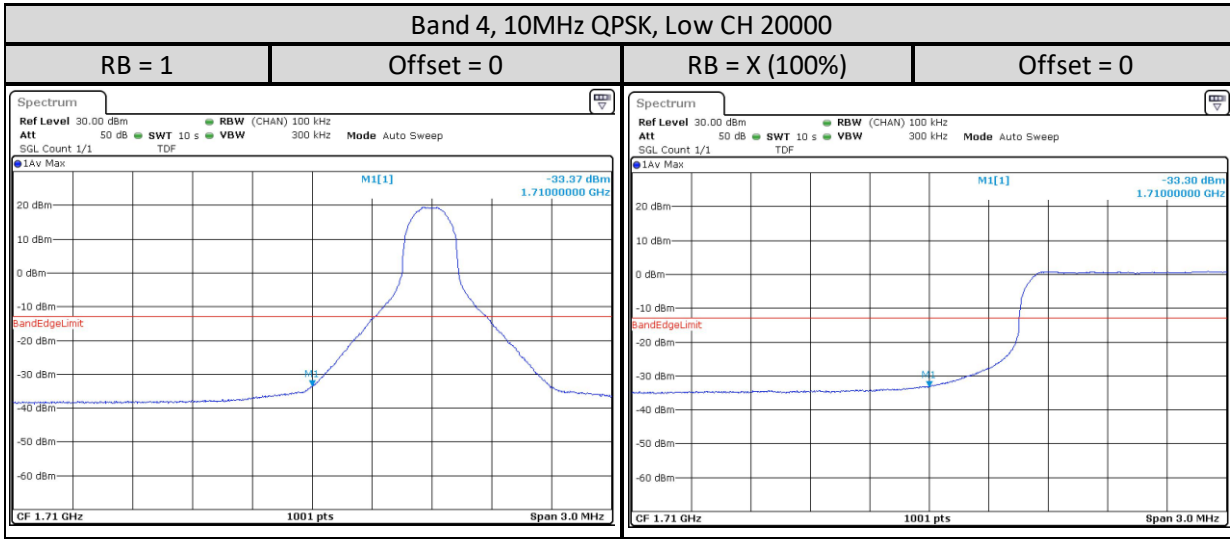
**5MHz**

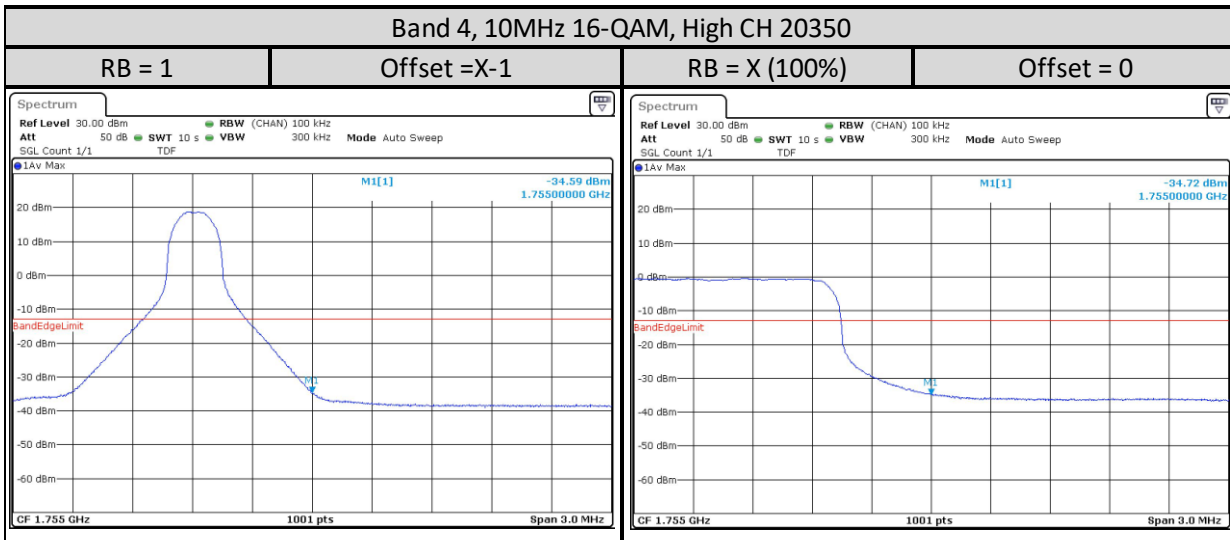
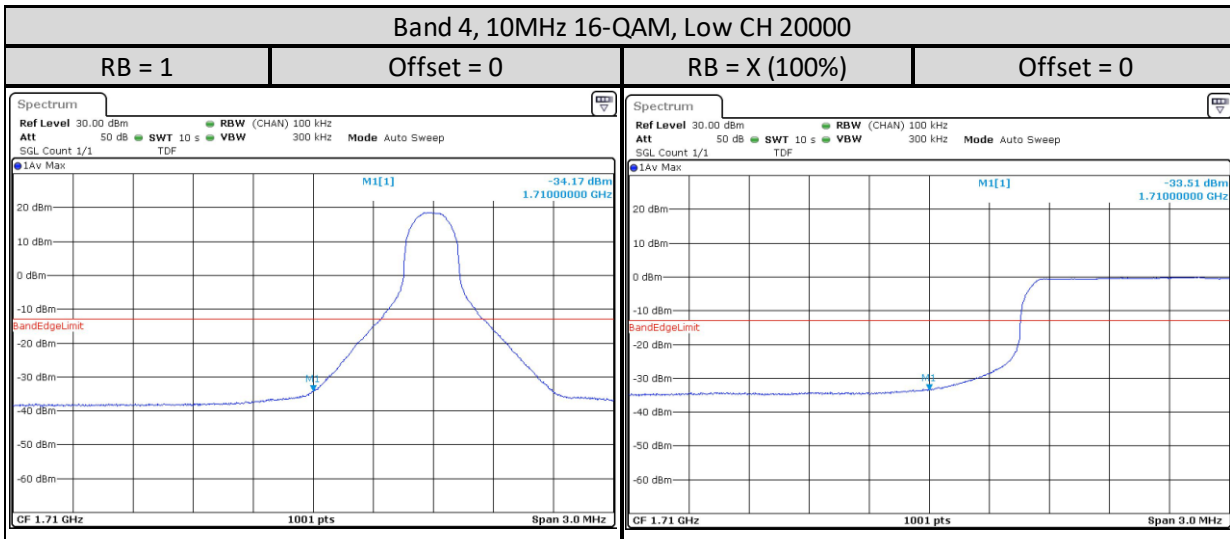






### 10MHz





**15MHz**

