



**FCC Test Report
FCC Part 27**

Report Reference No......: **HK2308233869-6E**

FCC ID.....: **2BDI3-K60**

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Jason Zhou

Date of issue.....: Nov. 13, 2023

Testing Laboratory Name: **Shenzhen HUAK Testing Technology Co., Ltd.**

Address.....: 1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park,
Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Applicant's name.....: **Shenzhen Haimeilan Technology Co., LTD.**

Address: 9V777, East 9th Floor, Building 2, SEG Science Park, Huaqiang
North Street, Futian District, Shenzhen, 518000 China

Test specification

Standard.....: **FCC CFR Title 47 Part 2, Part 27**

TRF Originator.....: Shenzhen HUAK Testing Technology Co., Ltd.

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Test item description: Smart Phone

Trade Mark.....: N/A

Manufacturer.....: **Shenzhen Shengkai Technology Co., Ltd.**

Model/Type reference.....: K60

Series Models: F5 Pro, F50 Pro, K60 Pro, K60E, M13, M13 Pro, M5s Pro, M5s, X5
Pro, F3 Pro, X40, X40 Pro, X40 Edge, F5, Note12 Pro, M6 Pro, I14
Pro max, I15 Pro max, G14 Pro, S22Ultra, S23 Ultra, G22

Modulation Type.....: QPSK, 16QAM

Rating.....: DC 5V From Type-C or DC 3.8V From Battery

Hardware version.....: V1.0

Software version.....: V1.0

Result.....: **PASS**



TEST REPORT

Test Report No. :	HK2308233869-6E	Nov. 13, 2023
		Date of issue

Equipment under Test : Smart Phone

Model /Type : K60

Series Models : F5 Pro, F50 Pro, K60 Pro, K60E, M13, M13 Pro, M5s Pro, M5s, X5 Pro, F3 Pro, X40, X40 Pro, X40 Edge, F5, Note12 Pro, M6 Pro, I14 Pro max, I15 Pro max, G14 Pro, S22Ultra, S23 Ultra, G22

Applicant : **Shenzhen Haimeilan Technology Co., LTD.**

Address : 9V777, East 9th Floor, Building 2, SEG Science Park, Huaqiang North Street, Futian District, Shenzhen, 518000 China

Manufacturer : **Shenzhen Shengkai Technology Co., Ltd.**

Address : 4th floor, Building 7, Hongye Industrial Park, Zhujiao Village, Hangcheng Street, Baoan District, Shenzhen, 518000, China

Test Result:	PASS
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The test report merely corresponds to the test sample.
 It is not permitted to copy extracts of these test result without the written permission of the test laboratory.



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**** Modified History ****

Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	Nov. 13, 2023	Jason Zhou

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1 Test Standards

The tests were performed according to following standards:

[FCC Part 2](#): Frequency Allocations And Radio Treaty Matters; General Rules And Regulations

[FCC Part 27](#): Miscellaneous Wireless Communications Services

[ANSI/TIA-603-E-2016](#): Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

[ANSI C63.26-2015](#): IEEE/ANSI Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

[FCC KDB 971168D01 v03r01](#): Power Meas License Digital Systems



2 Summary

2.1 General Remarks

Date of receipt of test sample	:	Aug. 23, 2023
Testing commenced on	:	Aug. 23, 2023
Testing concluded on	:	Nov. 13, 2023

2.2 Product Description

The Shenzhen Haimeilan Technology Co., LTD.'s Model:K60 or the "EUT" as referred to in this report; more general information as follows, for more details, refer to the user's manual of the EUT.

Name of EUT	Smart Phone
Model/Type reference:	K60
Series Models:	F5 Pro, F50 Pro, K60 Pro, K60E, M13, M13 Pro, M5s Pro, M5s, X5 Pro, F3 Pro, X40, X40 Pro, X40 Edge, F5, Note12 Pro, M6 Pro, I14 Pro max, I15 Pro max, G14 Pro, S22Ultra, S23 Ultra, G22
Power supply:	DC 5V From Type-C or DC 3.8V From Battery
Adapter Information	DC 5V From Type-C or DC 3.8V From Battery
Modulation Type	QPSK, 16QAM
Antenna Type	Internal Antenna
Antenna Gain	2dBi
Operation Frequency Band	LTE Band 7
Operation frequency	LTE Band 7: 2500 to 2570 MHz
LTE Release	R8
Extreme temp. Tolerance	-30°C to +50°C
Extreme vol. Limits	4.25VDC to 5.75VDC (nominal: 5.0VDC)

2.3 Equipment under Test

Power supply system utilised

Power supply voltage	:	<input type="radio"/> 120V/ 60 Hz	<input type="radio"/> 115V/60Hz
		<input type="radio"/> 12 V DC	<input type="radio"/> 24 V DC
		<input checked="" type="radio"/> Other (specified in blank below)	

DC 5V From Type-C or DC 3.8V From Battery

2.4 Short description of the Equipment under Test (EUT)

2.4.1 General Description

K60 is subscriber equipment in the LTE system. LTE frequency band is band 41; The Smart Phone implements such functions as RF signal receiving/transmitting, LTE protocol processing, voice, video MMS service, etc. Externally it provides microSD card interface, earphone port (to provide voice service) and SIM card interface.



2.5 Normal Accessory setting

Fully charged battery was used during the test.

2.6 EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

- supplied by the manufacturer
- supplied by the lab

<input type="radio"/>	Power Cable	Length (m) :	/
		Shield :	/
		Detachable :	/
<input type="radio"/>	Multimeter	Manufacturer :	/
		Model No. :	/

2.7 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for **FCC ID: 2BDI3-K60** filing to comply with FCC Part 27, Rules.

2.8 Modifications

No modifications were implemented to meet testing criteria.

2.9 General Test Conditions/Configurations

2.9.1 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	Ambient	
Temperature	TN	Ambient
Voltage	VL	4.25V
	VN	5.0V
	VH	5.75V

NOTE: VL=lower extreme test voltage VN=nominal voltage VH=upper extreme test voltage TN=normal temperature



3 Test Environment

3.1 Information of the Test Laboratory

Shenzhen HUAKE Testing Technology Co., Ltd.
Add.: 1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping,
Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Testing Laboratory Authorization:

A2LA Accreditation Code is 4781.01.
FCC Designation Number is CN1229.
Canada IC CAB identifier is CN0045.
CNAS Registration Number is L9589.

3.2 Test Description

Test Item	FCCRuleNo.	Verdict
Effective(Isotropic)RadiatedOutputPower	Part 2.1046 27.50(h)(2)	Pass
Peak-AverageRatio	Part 2.1046	Pass
ModulationCharacteristics	§2.1047	N/A
Bandwidth	Part 2.1049	Pass
BandEdgesCompliance	Part 2.1051 27.53(m)	Pass
SpuriousEmissionatAntennaTerminals	Part 2.1051 27.53(m)	Pass
Field Strengthof Spurious Radiation	Part 2.1053 27.53(m)	Pass
Frequency Stability	Part 2.1055 27.54	Pass

NOTE 1:For the verdict,the“N/A”denotes“not applicable”,the“N/T”denotes “nottested”.

Remark:

1. The measurement uncertainty is not included in the test result.



3.3 Equipments Used during the Test

Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
LISN	R&S	ENV216	HKE-059	2023/02/17	2024/02/16
LISN	R&S	ENV216	HKE-002	2023/02/17	2024/02/16
Receiver	R&S	ESCI 7	HKE-010	2023/02/17	2024/02/16
Spectrum analyzer	R&S	FSP40	HKE-025	2023/02/17	2024/02/16
Spectrum analyzer	Agilent	N9020A	HKE-048	2023/02/17	2024/02/16
RF automatic control unit	Tonscend	JS0806-1	HKE-060	2023/02/17	2024/02/16
Loop antenna	Schwarzbeck	FMZB 1519 B	HKE-014	2023/02/17	2024/02/16
Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	2023/02/17	2024/02/16
Horn antenna	Schwarzbeck	9120D	HKE-013	2023/02/17	2024/02/16
High gain antenna	Schwarzbeck	LB-180400KF	HKE-054	2023/02/17	2024/02/16
Preamplifier	EMCI	EMC051845SE	HKE-015	2023/02/17	2024/02/16
Preamplifier	Agilent	83051A	HKE-016	2023/02/17	2024/02/16
Preamplifier	Schwarzbeck	BBV 9743	HKE-006	2023/02/17	2024/02/16
Temperature and humidity meter	Boyang	HTC-1	HKE-075	2023/02/17	2024/02/16
High-low temperature chamber	Guangke	HT-80L	HKE-118	2023/02/17	2024/02/16
High pass filter unit	Tonscend	JS0806-F	HKE-055	2023/02/17	2024/02/16
RF Cable(below1GHz)	Times	9kHz-1GHz	HKE-117	2023/02/17	2024/02/16
RF Cable(above 1GHz)	Times	1-40G	HKE-034	2023/02/17	2024/02/16
Power meter	Agilent	E4419B	HKE-085	2023/02/17	2024/02/16
Power Sensor	Agilent	E9300A	HKE-086	2023/02/17	2024/02/16
Conducted test software	Tonscend	TS+ Rev 2.5.0.0	HKE-081	N/A	N/A
Radiated test software	Tonscend	TS+ Rev 2.5.0.0	HKE-082	N/A	N/A
RF test software	Tonscend	JS1120-B Version 2.6	HKE-083	N/A	N/A
RF test software	Tonscend	JS1120-4	HKE-113	N/A	N/A
RF test software	Tonscend	JS1120-3	HKE-114	N/A	N/A
RF test software	Tonscend	JS1120-1	HKE-115	N/A	N/A
Wireless Communication Test Set	R&S	CMW500	HKE-026	2023/02/17	2024/02/16
Wireless Communication Test Set	R&S	CMU200	HKE-029	2023/02/17	2024/02/16

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4 Test Conditions and Results

4.1 Output Power

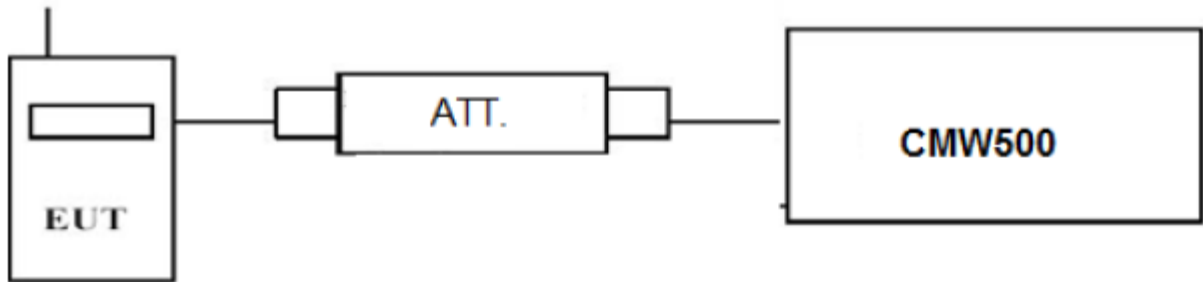
4.1.1 Conducted Output Power

TEST APPLICABLE

Part 27.50(h)(2) , during the process of testing, the EUT was controlled via R&S Digital Radio Communication tester (CMW500) to ensure max power transmission and proper modulation. This result contains output power measurements for the EUT. In all cases, output power is within the specified limits.

TEST CONFIGURATION

Conducted Power Measurement:



TEST PROCEDURE

Conducted Power Measurement:

- a) Place the EUT on a bench and set it in transmitting mode.
- b) Connect a low loss RF cable from the antenna port to a CMW500 by an Att.
- c) EUT Communicate with CMW500 then selects a channel for testing.
- d) Add a correction factor to the display CMW500, and then test.

TEST RESULTS



Remark:

1. We measured all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE Band 7;

LTE Band 7				
TX Channel Bandwidth	Frequency (MHz)	RB Size/Offset	Burst Average Power [dBm]	
			QPSK	16QAM
5 MHz	2502.5	1 RB low	20.78	19.83
		1 RB mid	20.86	19.87
		1 RB high	20.86	19.90
		50% RB low	20.80	20.84
		50% RB mid	21.80	18.84
		50% RB high	21.85	20.88
		100% RB	20.78	19.82
	2535	1 RB low	21.14	20.16
		1 RB mid	21.07	20.10
		1 RB high	20.95	18.91
		50% RB low	21.08	19.28
		50% RB mid	20.77	18.74
		50% RB high	20.64	19.33
		100% RB	20.91	19.20
	2567.5	1 RB low	21.66	20.68
		1 RB mid	20.56	20.75
		1 RB high	21.67	20.71
		50% RB low	20.73	19.77
		50% RB mid	20.73	19.77
		50% RB high	20.72	19.75
		100% RB	20.69	19.75
10 MHz	2505	1 RB low	20.70	19.75
		1 RB mid	20.80	19.80
		1 RB high	20.86	19.91
		50% RB low	21.75	20.78
		50% RB mid	20.78	19.80
		50% RB high	20.85	19.84
		100% RB	20.82	19.85
	2535	1 RB low	21.19	20.09
		1 RB mid	21.05	19.91
		1 RB high	21.04	19.82
		50% RB low	20.76	19.97
		50% RB mid	20.28	18.66
		50% RB high	21.15	18.13
		100% RB	21.10	18.76
	2565	1 RB low	21.45	20.50
		1 RB mid	20.04	20.70
		1 RB high	21.66	20.70
		50% RB low	20.56	19.60
		50% RB mid	20.56	19.61
		50% RB high	20.67	19.70
		100% RB	20.65	19.70

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15 MHz	2507.5	1 RB low	20.72	19.76
		1 RB mid	20.72	19.74
		1 RB high	20.76	19.82
		50% RB low	20.79	19.80
		50% RB mid	21.80	19.79
		50% RB high	21.79	19.79
		100% RB	20.79	18.75
	2535	1 RB low	21.04	20.23
		1 RB mid	21.11	20.29
		1 RB high	21.09	20.29
		50% RB low	20.18	20.19
		50% RB mid	20.18	20.18
		50% RB high	20.17	20.17
		100% RB	20.17	19.20
	2562.5	1 RB low	20.21	19.25
		1 RB mid	20.26	19.98
		1 RB high	21.09	20.16
		50% RB low	20.02	20.01
50% RB mid		20.03	20.04	
50% RB high		20.03	20.02	
100% RB		20.02	19.00	
20 MHz	2510	1 RB low	20.73	19.68
		1 RB mid	20.79	19.71
		1 RB high	20.90	19.88
		50% RB low	20.77	18.80
		50% RB mid	21.76	18.80
		50% RB high	20.84	18.87
		100% RB	20.81	18.83
	2535	1 RB low	21.14	20.31
		1 RB mid	21.92	20.39
		1 RB high	21.18	20.34
		50% RB low	20.19	19.23
		50% RB mid	20.18	19.24
		50% RB high	20.27	19.34
		100% RB	20.22	19.24
	2560	1 RB low	20.95	19.91
		1 RB mid	20.96	19.93
		1 RB high	21.19	20.11
		50% RB low	20.98	19.03
50% RB mid		20.98	19.02	
50% RB high		20.05	19.10	
100% RB		20.01	19.05	

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4.1.2. Radiated Output Power

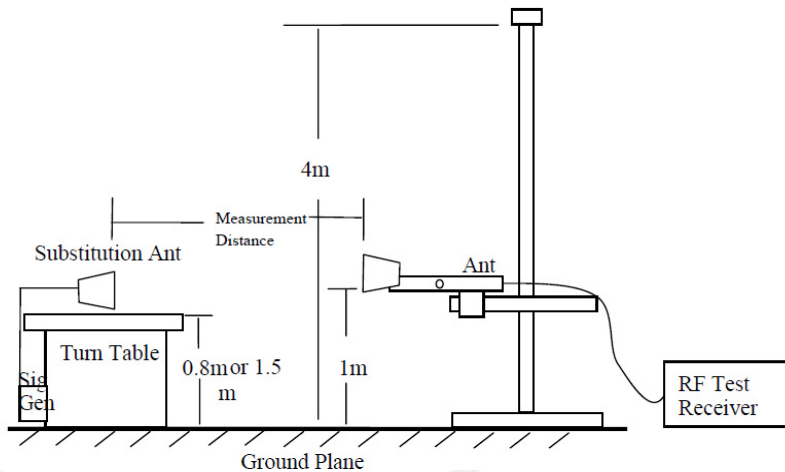
LIMIT

This is the test for the maximum radiated power from the EUT.

TEST CONFIGURATION

Radiated Power Measurement:

remark : 0.8m for below 1GHz, 1.5m for above 1GHz



TEST PROCEDURE

The EUT was setup according to EIA/TIA 603D

- The EUT shall be placed at the specified height on a support, and in the position closest to normal use as declared by provider.
- The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter.
- The output of the test antenna shall be connected to the measuring receiver.
- The transmitter shall be switched on and the measuring receiver shall be tuned to the frequency of the transmitter under test.
- The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.
- The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.
- The maximum signal level detected by the measuring receiver shall be noted.
- The transmitter shall be replaced by a substitution antenna.
- The substitution antenna shall be orientated for vertical polarization and the length of the substitution antenna shall be adjusted to correspond to the frequency of the transmitter.
- The substitution antenna shall be connected to a calibrated signal generator.
- If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.
- The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuator setting of the measuring receiver.
- The measurement shall be repeated with the test antenna and the substitution antenna orientated for horizontal polarization.
- The measure of the effective radiated power is the larger of the two levels recorded at the input to the substitution antenna, corrected for gain of the substitution antenna if necessary.
- Test site anechoic chamber refer to ANSI C63.4.



TEST RESULTS

Radiated Measurement:

Remark:

1. We measured all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE Band 7; recorded worst case for each Channel Bandwidth of LTE Band 7.
2. $EIRP = P_s(dBm) - P_{cl}(dB) + G_a(dBi)$
3. We measured both Horizontal and Vertical direction, recorded worst case direction.

LTE Band 7 Channel Bandwidth 5MHz QPSK 1RB#0

Frequency (MHz)	P _s (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Burst Average EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
2502.5	8.24	3.41	15.12	19.95	33.01	13.06	V
2535	7.42	3.49	15.12	19.05	33.01	13.96	V
2567.5	6.95	3.55	15.12	18.52	33.01	14.49	V

LTE Band 7 Channel Bandwidth 10MHz QPSK 1RB#0

Frequency (MHz)	P _s (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Burst Average EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
2505	8.22	3.41	15.12	19.93	33.01	13.08	V
2535	7.81	3.49	15.12	19.44	33.01	13.57	V
2565	7.33	3.55	15.12	18.9	33.01	14.11	V

LTE Band 7 Channel Bandwidth 15MHz QPSK 1RB#0

Frequency (MHz)	P _s (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Burst Average EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
2507.5	7.04	3.41	15.12	18.75	33.01	14.26	V
2535	7.15	3.49	15.12	18.78	33.01	14.23	V
2562.5	6.18	3.55	15.12	17.75	33.01	15.26	V

LTE Band 7 Channel Bandwidth 20MHz QPSK 1RB#0

Frequency (MHz)	P _s (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Burst Average EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
2510	8.41	3.41	15.12	20.12	33.01	12.89	V
2535	7.24	3.49	15.12	18.87	33.01	14.14	V
2560	5.81	3.55	15.12	17.38	33.01	15.63	V

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LTE Band 7 Channel Bandwidth 5MHz 16QAM 1RB#0

Frequency (MHz)	P _s (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Burst Average EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
2502.5	7.24	3.41	15.12	18.95	33.01	14.06	V
2535	7.51	3.49	15.12	19.14	33.01	13.87	V
2567.5	7.98	3.55	15.12	19.55	33.01	13.46	V

LTE Band 7 Channel Bandwidth 10MHz 16QAM 1RB#0

Frequency (MHz)	P _s (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Burst Average EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
2505	7.04	3.41	15.12	18.75	33.01	14.26	V
2535	7.87	3.49	15.12	19.5	33.01	13.51	V
2565	7.43	3.55	15.12	19	33.01	14.01	V

LTE Band 7 Channel Bandwidth 15MHz 16QAM 1RB#0

Frequency (MHz)	P _s (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Burst Average EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
2507.5	6.65	3.41	15.12	18.36	33.01	14.65	V
2535	7.31	3.49	15.12	18.94	33.01	14.07	V
2562.5	7.62	3.55	15.12	19.19	33.01	13.82	V

LTE Band 7 Channel Bandwidth 20MHz 16QAM 1RB#0

Frequency (MHz)	P _s (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Burst Average EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
2510	6.81	3.41	15.12	18.52	33.01	14.49	V
2535	7.82	3.49	15.12	19.45	33.01	13.56	V
2560	7.57	3.55	15.12	19.14	33.01	13.87	V

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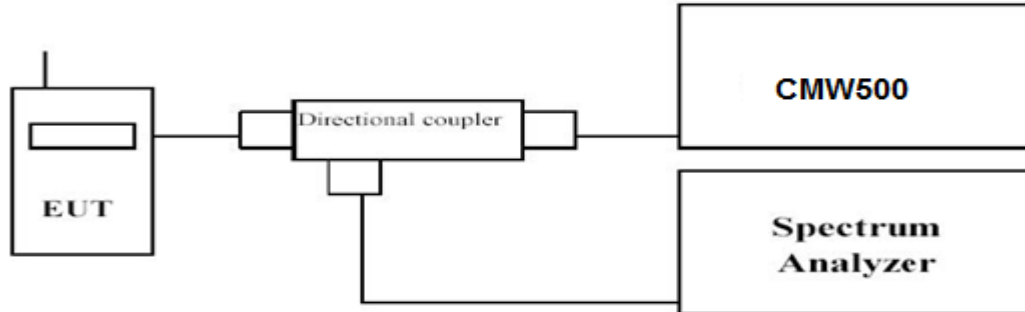


4.2 Peak-to-Average Ratio (PAR)

LIMIT

The Peak-to-Average Ratio (PAR) of the transmission may not exceed 13 dB.

TEST CONFIGURATION



TEST PROCEDURE

1. Refer to instrument’s analyzer instruction manual for details on how to use the power statistics/CCDF function;
2. Set resolution/measurement bandwidth \geq signal’s occupied bandwidth;
3. Set the number of counts to a value that stabilizes the measured CCDF curve;
4. Set the measurement interval as follows:
 - 1). for continuous transmissions, set to 1 ms,
 - 2). for burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
5. Record the maximum PAPR level associated with a probability of 0.1%.

TEST RESULTS

Remark:

1. We measured all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE Band 7; recorded worst case for each Channel Bandwidth of LTE Band 7.

LTE Band 7				
TX Channel Bandwidth	Frequency (MHz)	RB Size/Offset	PAPR(dB)	
			QPSK	16QAM
5 MHz	2502.5	1RB#0	5.83	6.06
	2535		6.20	6.32
	2567.5		5.74	6.17
10 MHz	2505	1RB#0	4.96	5.95
	2535		5.57	6.33
	2565		5.20	6.10
15 MHz	2507.5	1RB#0	4.75	5.74
	2535		5.34	6.31
	2562.5		4.70	5.50
20 MHz	2510	1RB#0	4.58	5.38
	2535		5.30	6.27
	2560		4.55	5.17

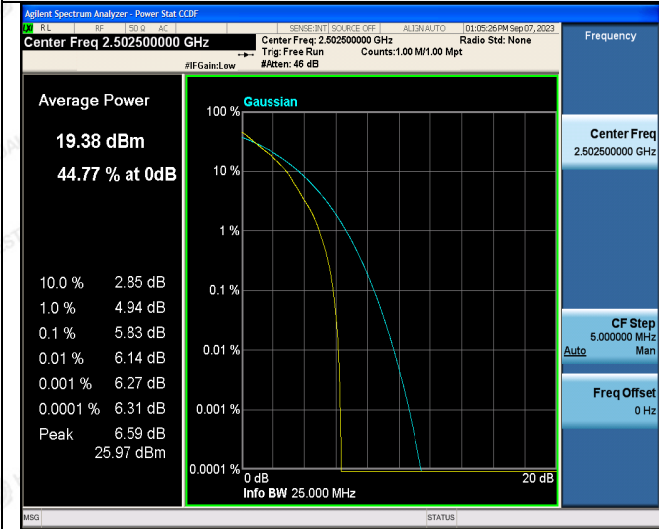


LTE Band 7-5MHz Channel BandwidthPAPR

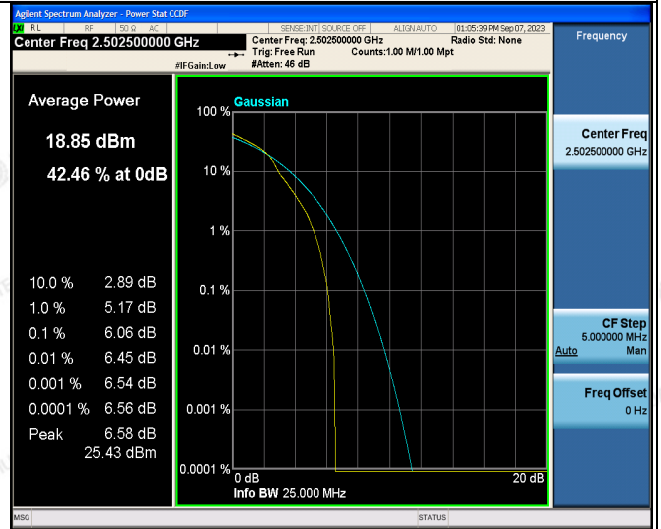
QPSK

16QAM

Low Channel

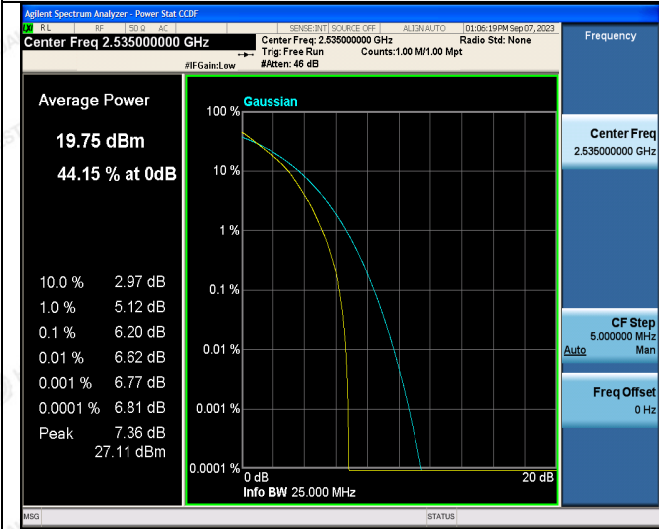


1RB#0

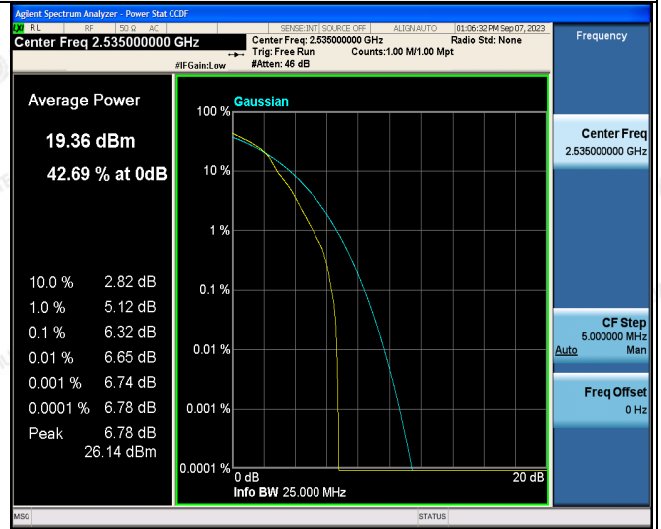


1RB#0

Middle Channel

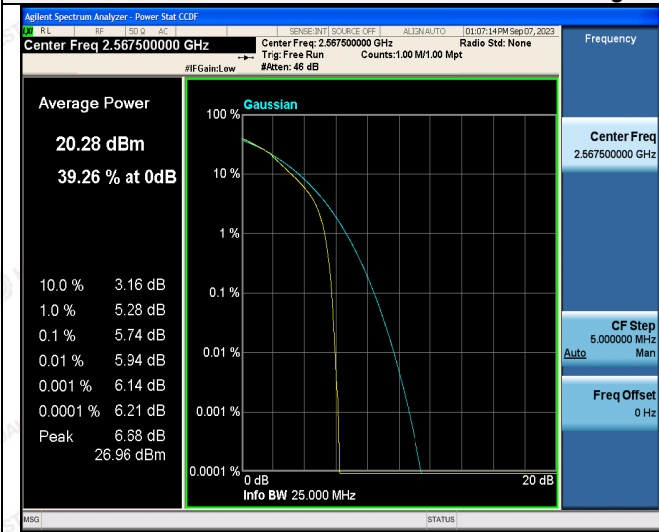


1RB#0

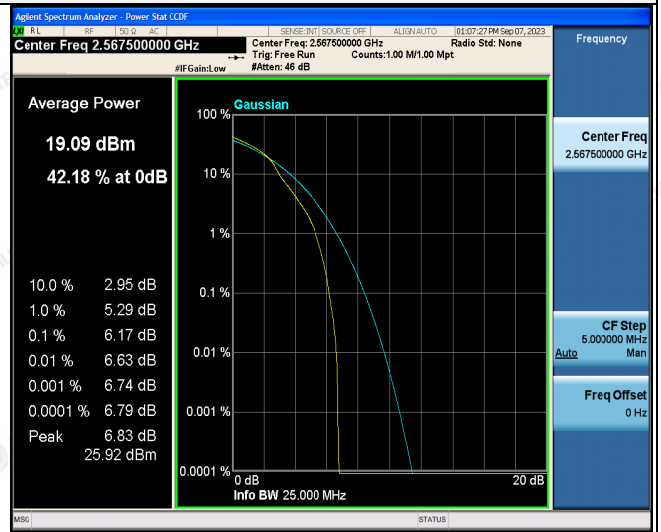


1RB#0

High Channel



1RB#0

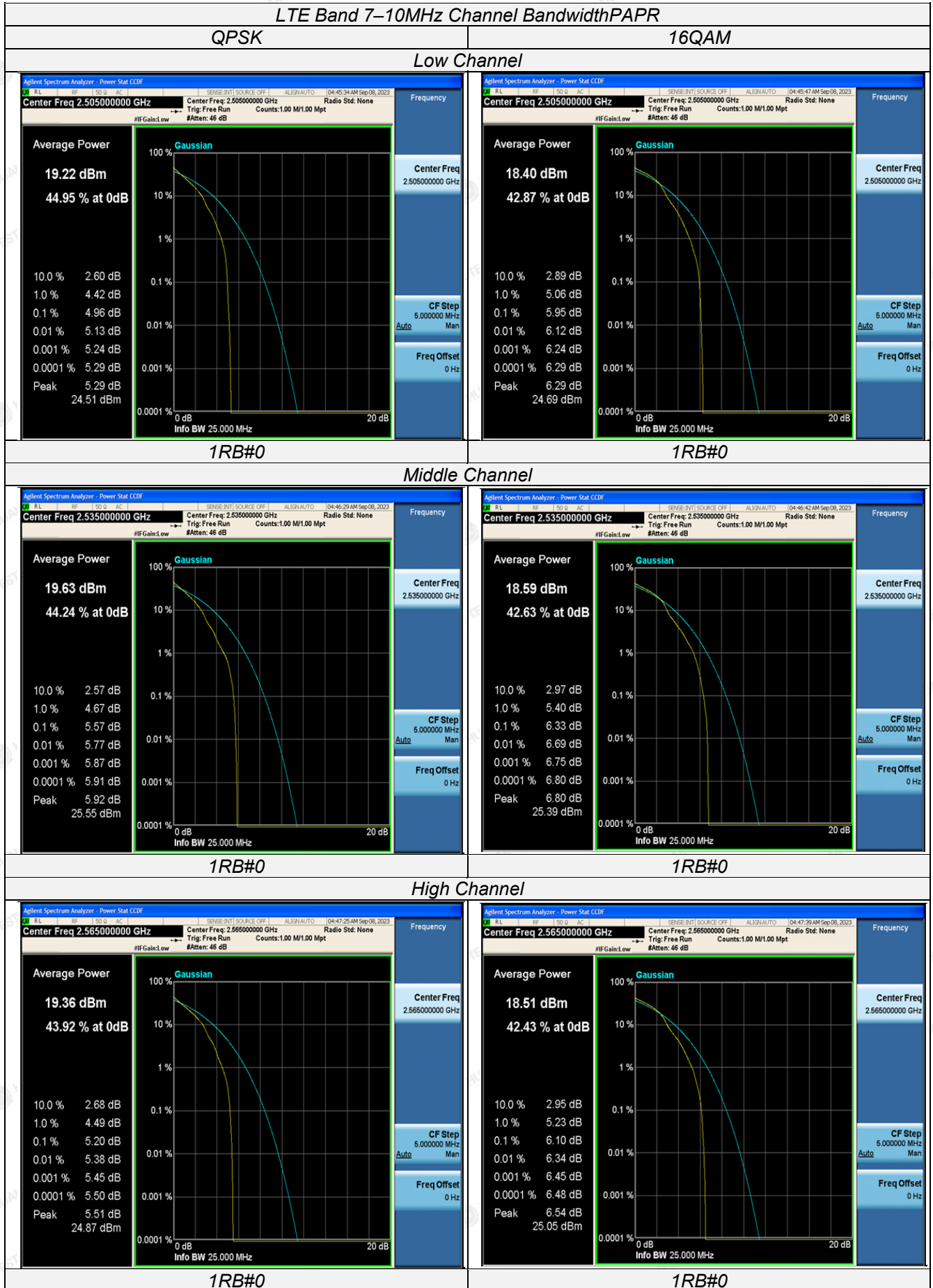


1RB#0

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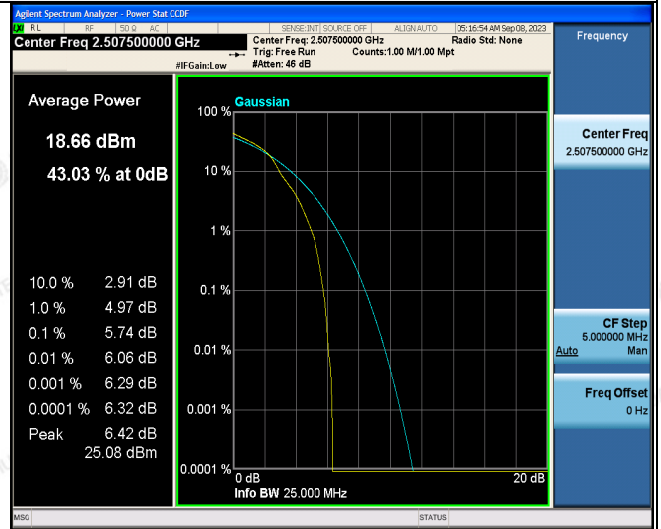
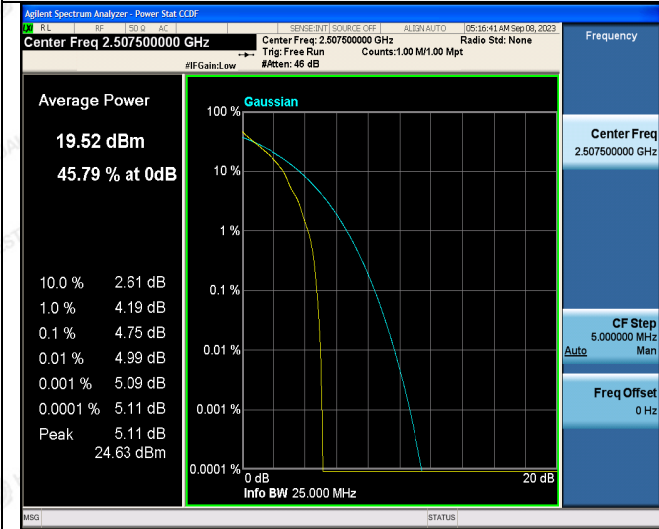


LTE Band 7- 15 MHz Channel Bandwidth PPR

QPSK

16QAM

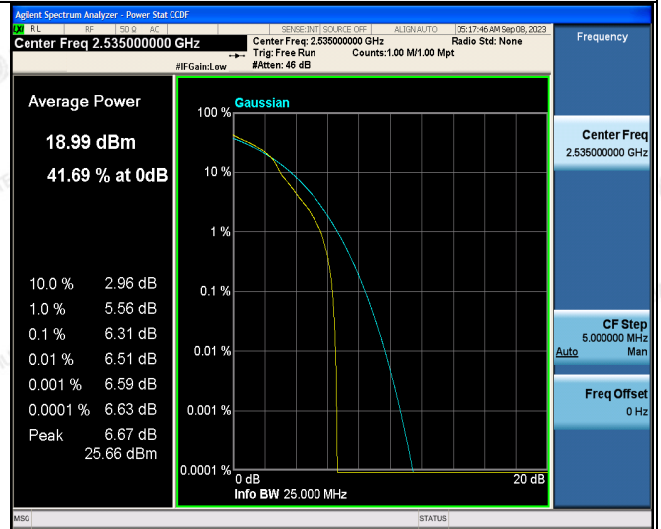
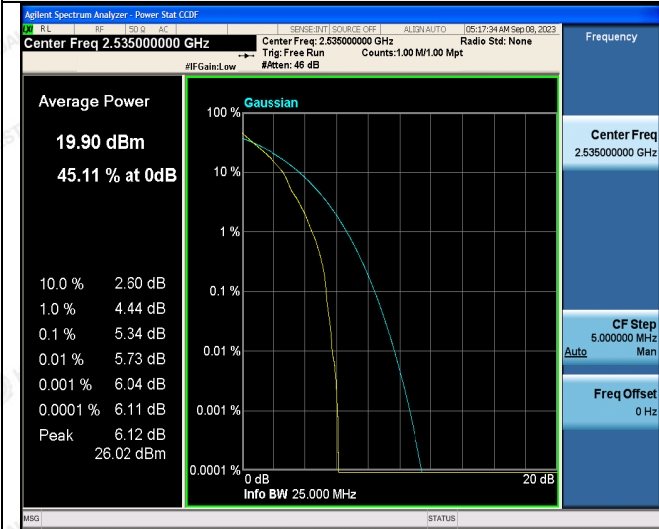
Low Channel



1RB#0

1RB#0

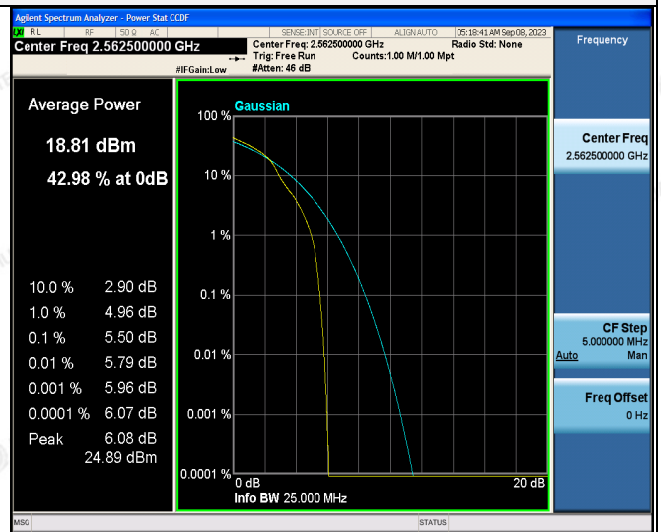
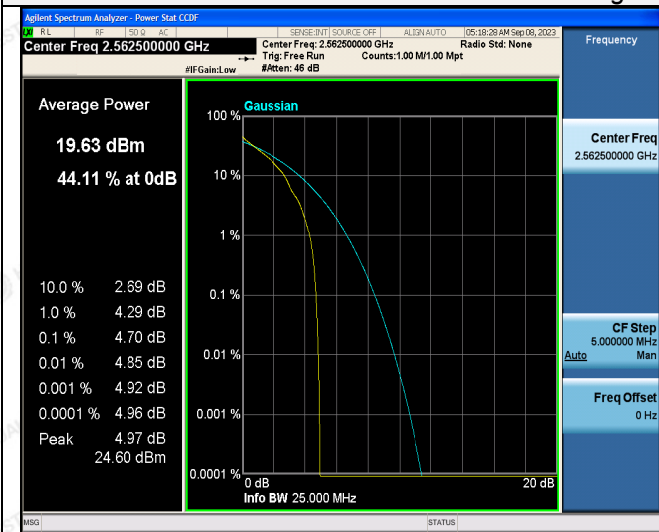
Middle Channel



1RB#0

1RB#0

High Channel



1RB#0

1RB#0

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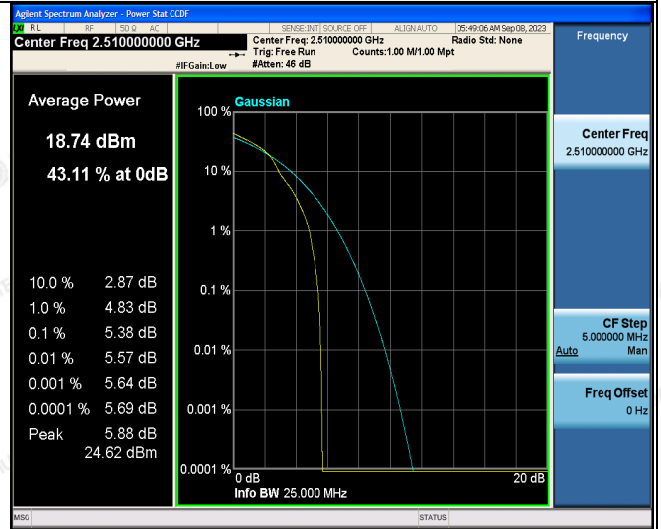
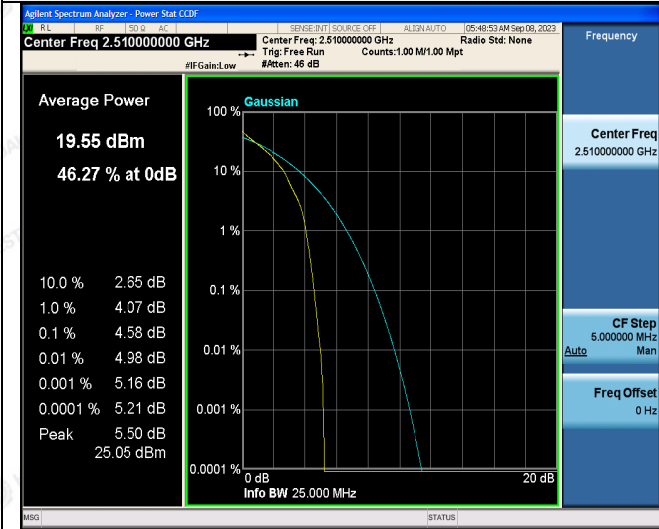


LTE Band 7-20MHz Channel Bandwidth PAPP

QPSK

16QAM

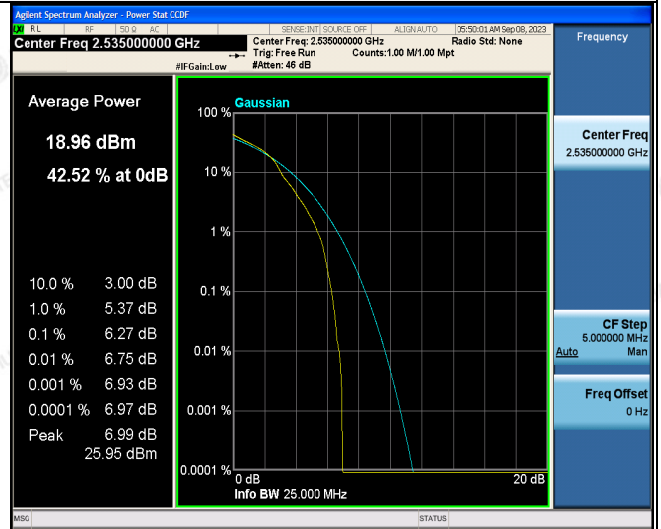
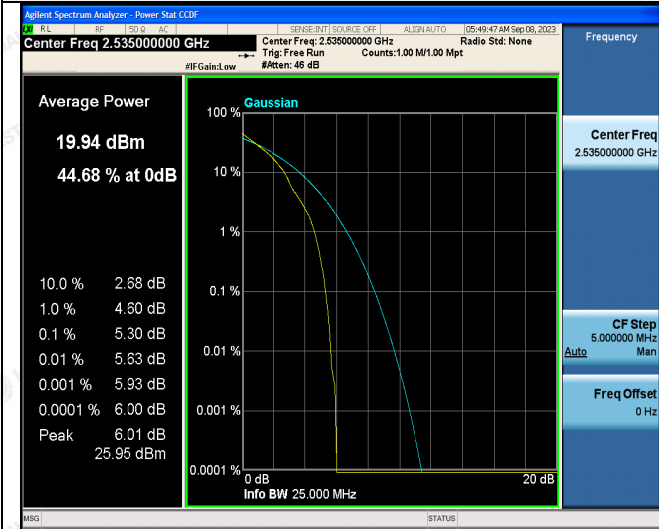
Low Channel



1RB#0

1RB#0

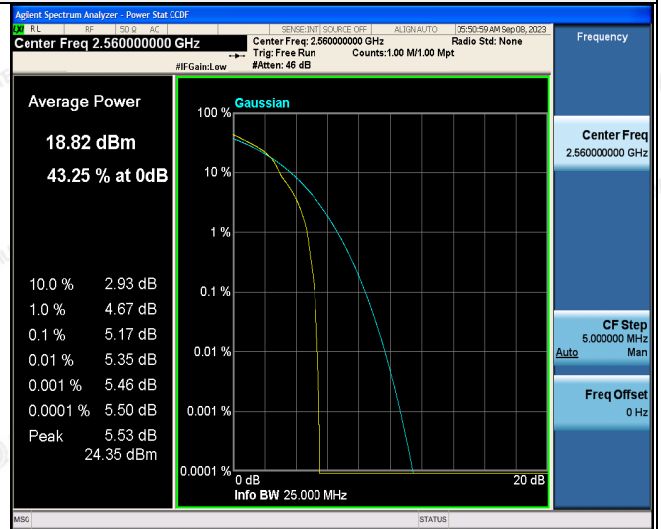
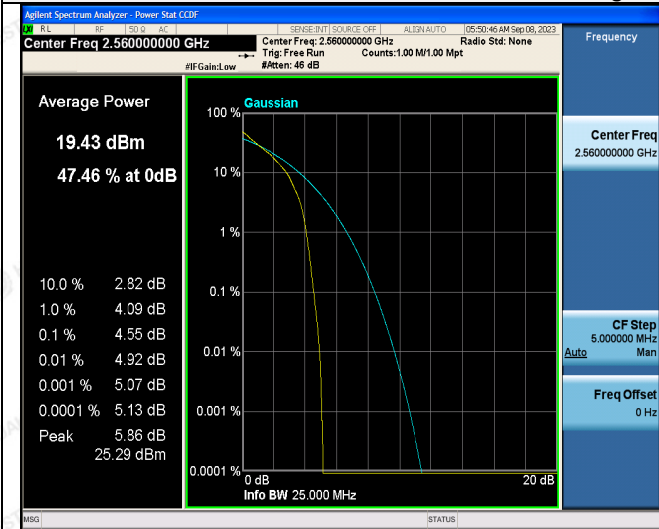
Middle Channel



1RB#0

1RB#0

High Channel



1RB#0

1RB#0

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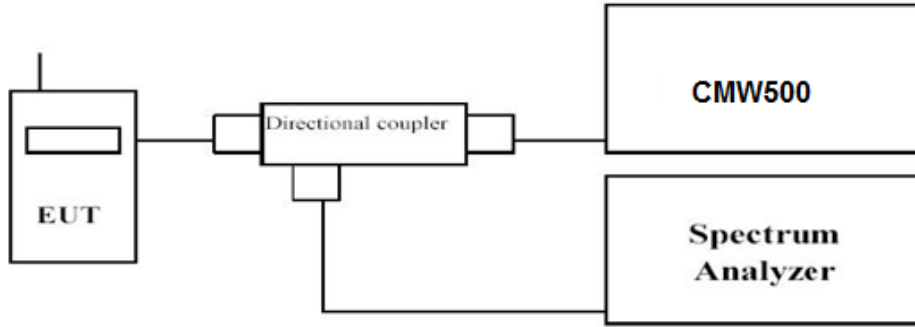
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4.3 Occupied Bandwidth and Emission Bandwidth

LIMIT

N/A

TEST CONFIGURATION



TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at low, middle and high channel in each band. The -26dBc Emission bandwidth was also measured and recorded. Set RBW was set to about 1% of emission BW, VBW ≥ 3 times RBW. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

TEST RESULTS

Remark:

1. We were tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE Band 7; recorded worst case for each Channel Bandwidth of LTE Band 7.

LTE Band 7						
TX Channel Bandwidth	RB Size/Offset	Frequency (MHz)	99% Occupied bandwidth (MHz)		-26dBc Emission bandwidth (MHz)	
			QPSK	16QAM	QPSK	16QAM
5 MHz	25RB#0	2502.5	4.5289	4.5110	5.011	5.049
		2535	4.5121	4.5250	5.020	5.076
		2567.5	4.5192	4.5096	5.996	5.038
10 MHz	50RB#0	2505	8.9714	8.9974	9.851	9.838
		2535	9.0148	8.9667	9.898	9.948
		2565	9.0247	9.0008	9.878	9.878
15 MHz	75RB#0	2507.5	13.513	13.496	14.86	14.82
		2535	13.525	13.516	14.89	14.85
		2562.5	13.529	13.511	14.89	14.82
20 MHz	100RB#0	2510	17.924	17.936	19.45	19.49
		2535	18.036	18.006	19.77	19.57
		2560	17.949	17.989	19.56	19.39

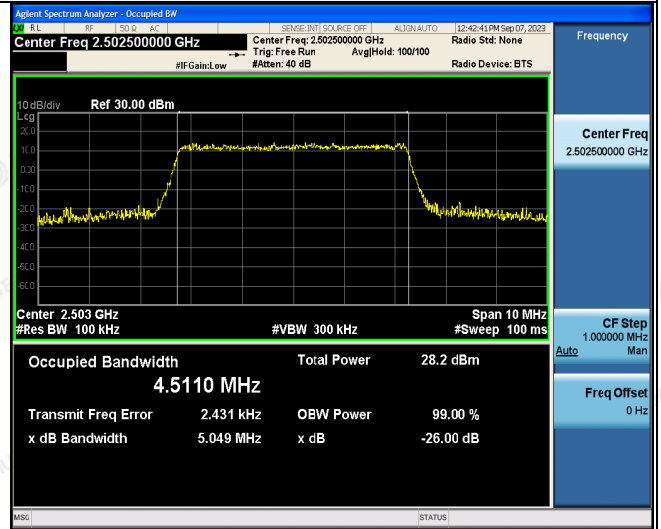
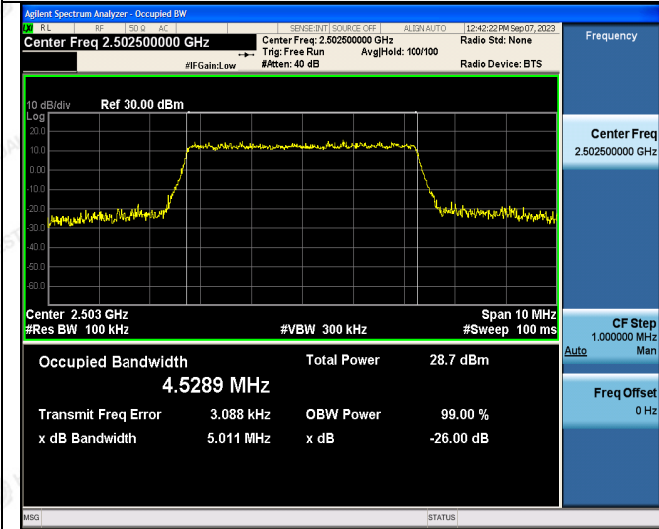


LTE Band 7-5MHz Channel Bandwidth Occupied Bandwidth and Emission Bandwidth

QPSK

16QAM

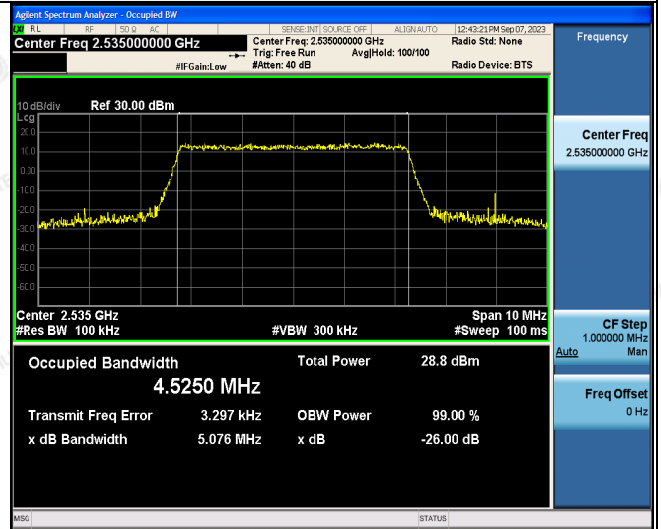
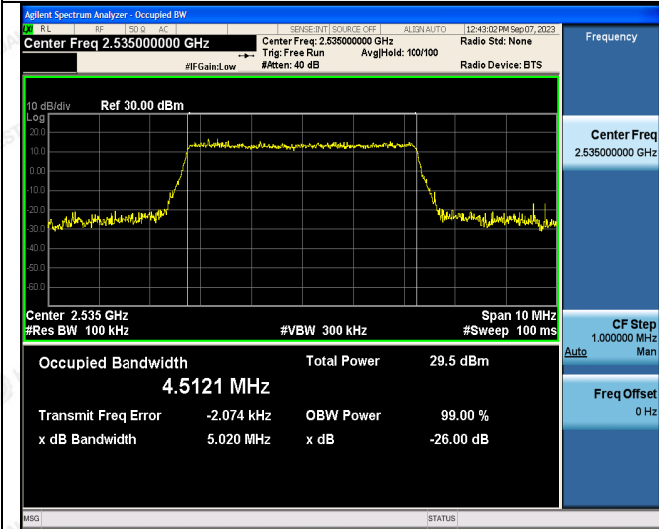
Low Channel



25RB#0

25RB#0

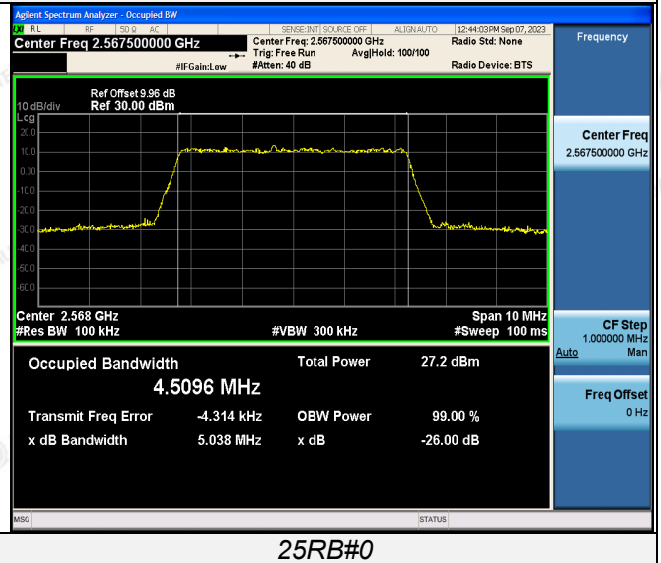
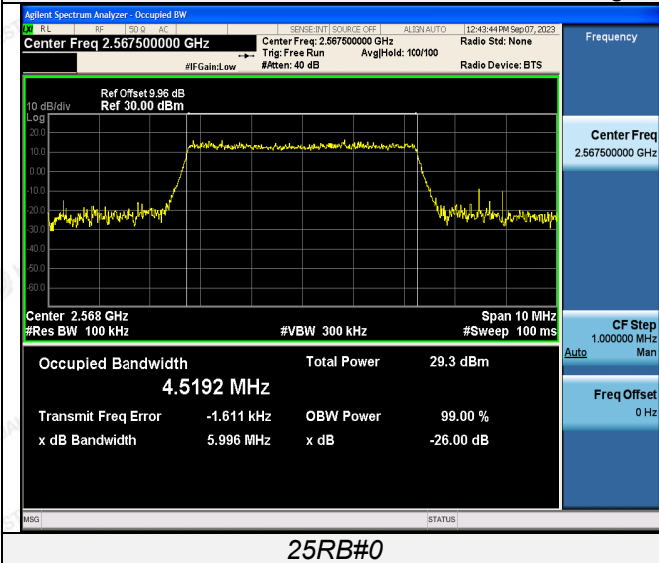
Middle Channel



25RB#0

25RB#0

High Channel



25RB#0

25RB#0

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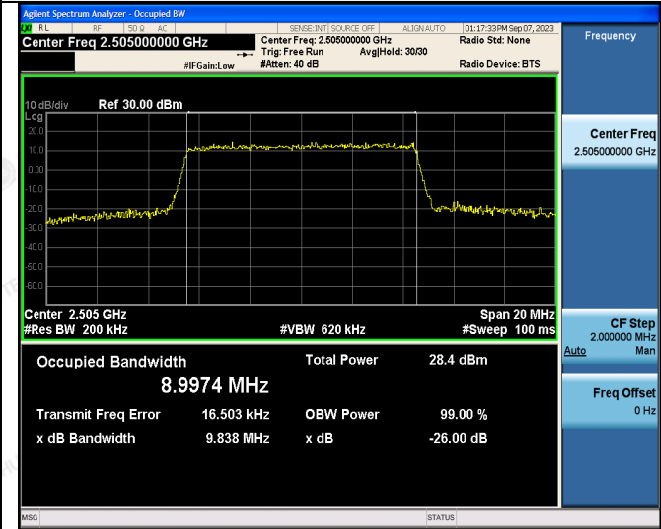
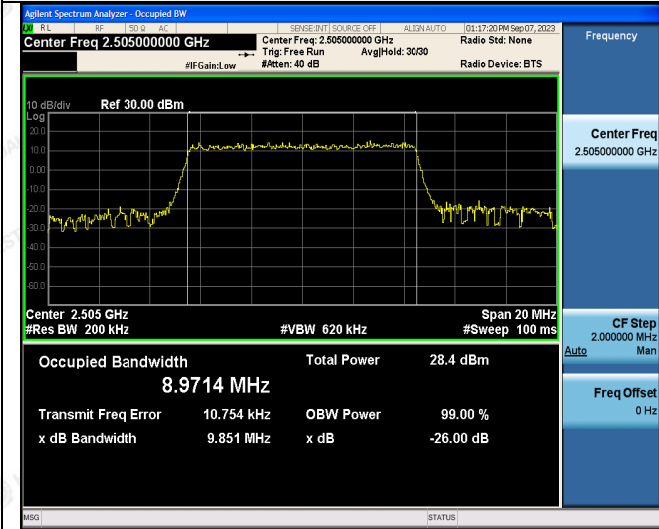


LTE Band 7-10MHz Channel Bandwidth Occupied Bandwidth and Emission Bandwidth

QPSK

16QAM

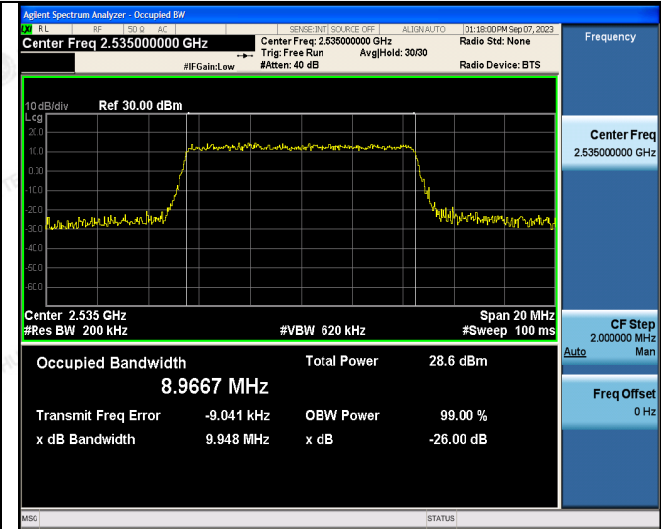
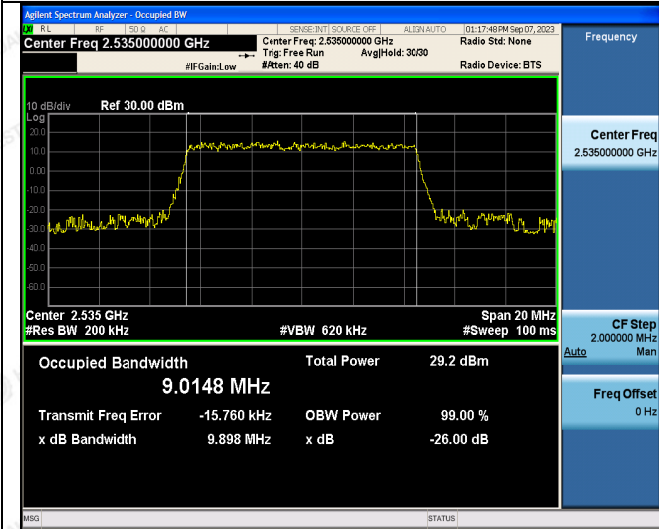
Low Channel



50RB#0

50RB#0

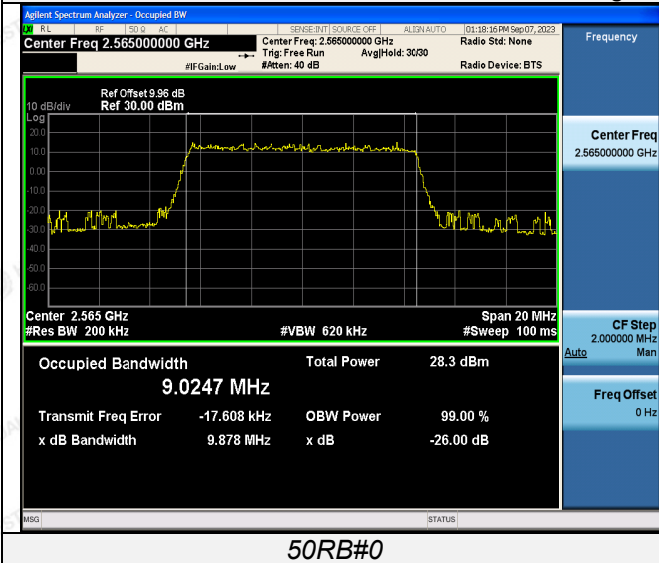
Middle Channel



50RB#0

50RB#0

High Channel



50RB#0

50RB#0

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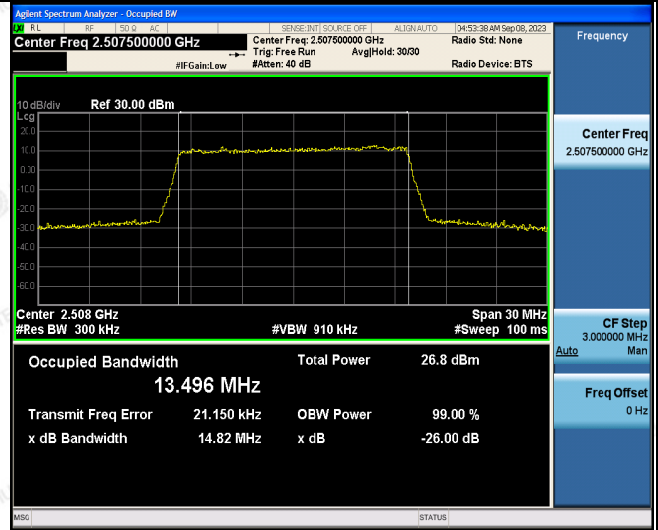
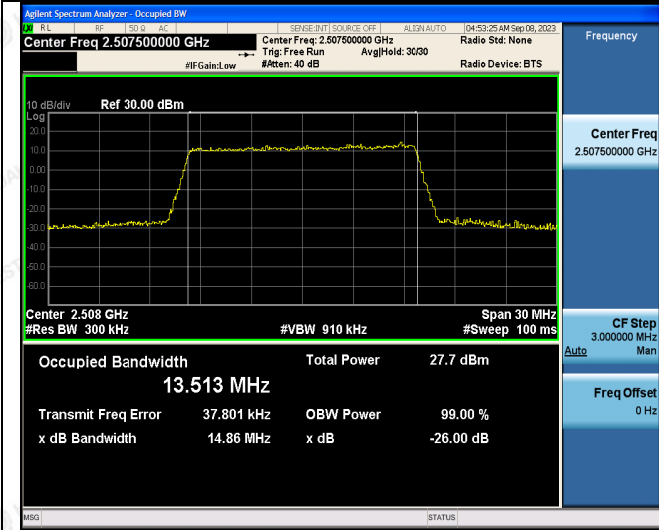


LTE Band 7-15MHz Channel Bandwidth Occupied Bandwidth and Emission Bandwidth

QPSK

16QAM

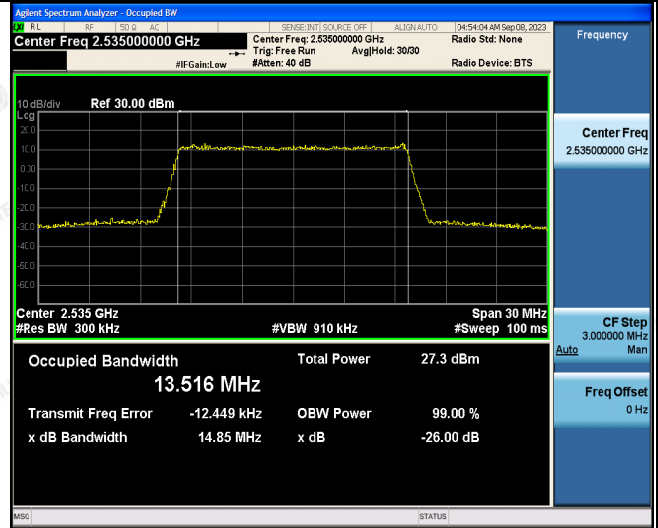
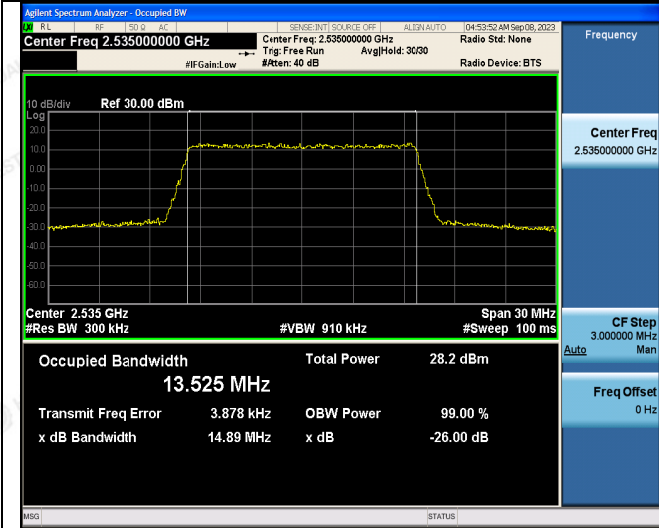
Low Channel



75RB#0

75RB#0

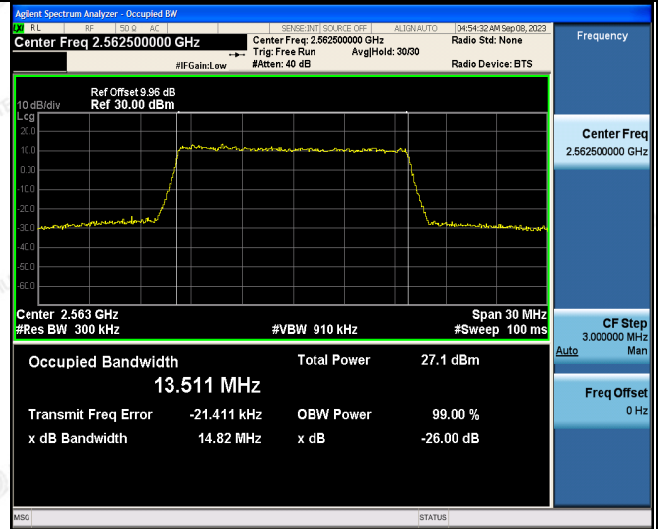
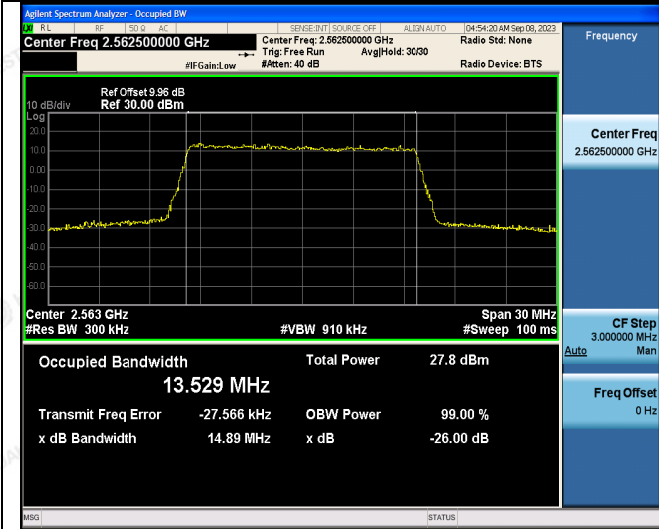
Middle Channel



75RB#0

75RB#0

High Channel



75RB#0

75RB#0

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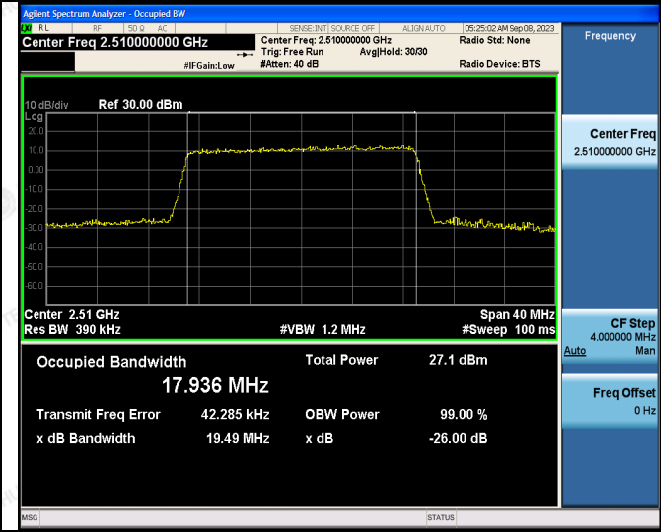
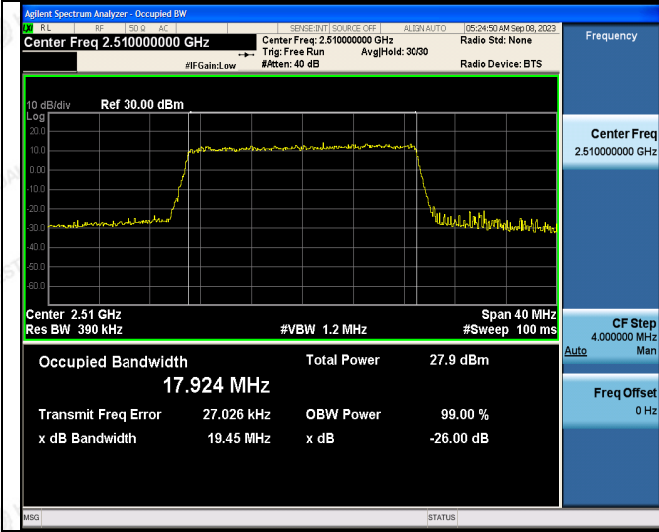


LTE Band 7-20MHz Channel Bandwidth Occupied Bandwidth and Emission Bandwidth

QPSK

16QAM

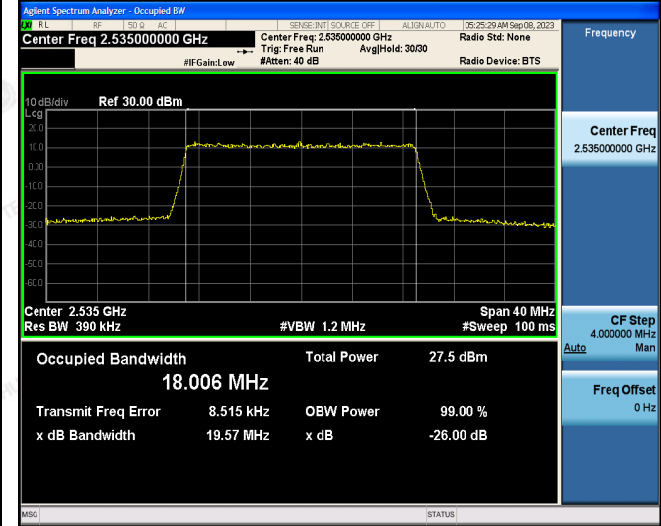
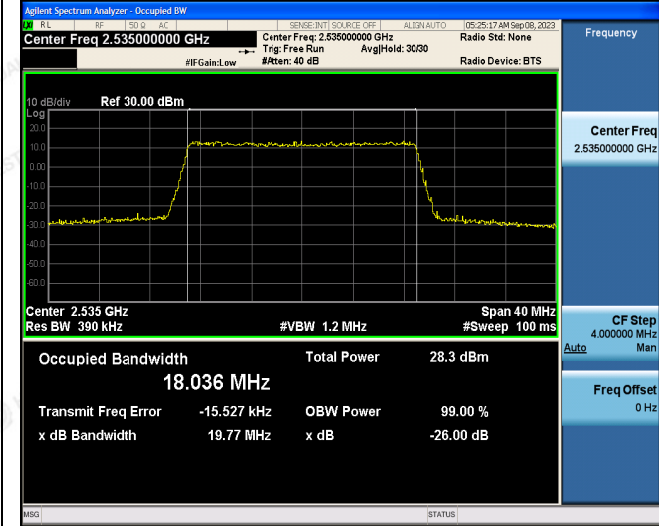
Low Channel



100RB#0

100RB#0

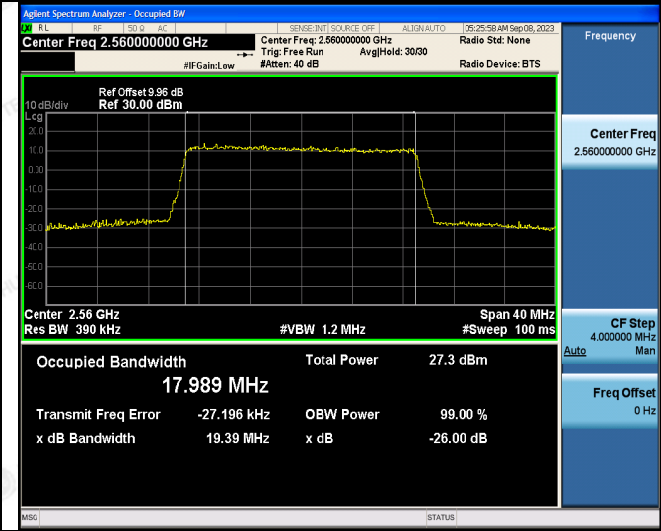
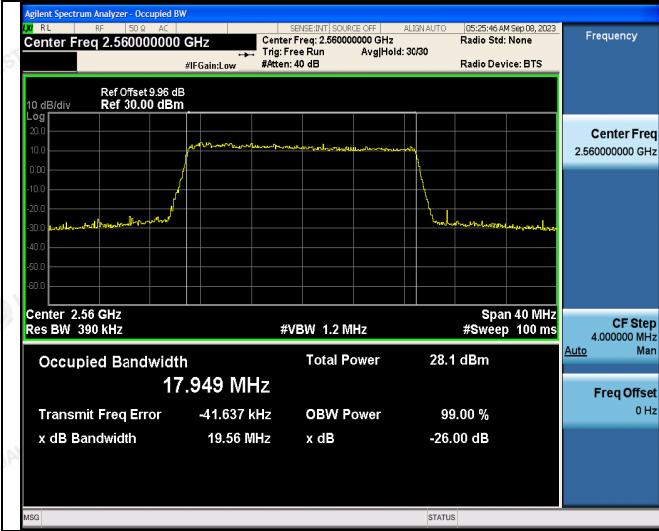
Middle Channel



100RB#0

100RB#0

High Channel



100RB#0

100RB#0

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