

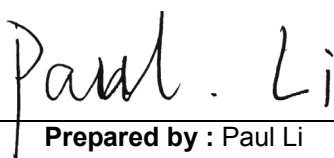
FCC Radio Test Report

FCC ID: 2AUSF-BKW700

This report concerns: Original Grant

Project No. : 1909C175
Equipment : Borqs Kids Smartwatch
Brand Name : WatchMeGo
Model Name : BKW700, ANSBKW700
Applicant : BORQS INTERNATIONAL HOLDING CORP
Address : Building B23-A, Universal Business Park, No.10 Jiuxianqiao Road, Chaoyang District Beijing, 100015 China
Manufacturer : BORQS INTERNATIONAL HOLDING CORP
Address : Building B23-A, Universal Business Park, No.10 Jiuxianqiao Road, Chaoyang District Beijing, 100015 China
Factory : BORQS INTERNATIONAL HOLDING CORP
Address : Building B23-A, Universal Business Park, No.10 Jiuxianqiao Road, Chaoyang District Beijing, 100015 China
Date of Receipt : Sep. 27, 2019
Date of Test : Sep. 27, 2019 ~ Dec. 12, 2019
Issued Date : Dec. 17, 2019
Report Version : R00
Test Sample : Engineering Sample No.: DG2019092792 for conducted, DG2019112539 for radiated.
Standard(s) : 47 CFR FCC Part 24 Subpart E
47 CFR FCC Part 2
ANSI/TIA/EIA-603-E-2016
KDB 971168 D01 Power Meas License Digital Systems v03r01

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.



Prepared by : Paul Li


Approved by : Steven Lu



Certificate #5123.02

Add: No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

Tel: +86-769-8318-3000

Web: www.newbtl.com

Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and is not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Dec. 17, 2019

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part 24 Subpart E & Part 2			
Standard(s) Section	Test Item	Judgment	Remark
2.1046 24.232(c)	Equivalent Isotropic Radiated Power	PASS	-----
2.1049	Occupied Bandwidth	PASS	-----
2.1051 24.238(a)	Conducted Spurious Emissions	PASS	-----
2.1053 24.238(a)	Radiated Spurious Emissions	PASS	-----
24.238(a)	Band Edge Measurements	PASS	-----
24.232(d)	Peak To Average Ratio	PASS	-----
2.1055 24.235	Frequency Stability	PASS	-----

Note:

(1) "N/A" denotes test is not applicable in this test report.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

The BTL measurement uncertainty as below table:

A. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
DG-CB03 (3m)	CISPR	9KHz ~ 30MHz	V	3.79
		9KHz ~ 30MHz	H	3.57
		30MHz ~ 200MHz	V	4.88
		30MHz ~ 200MHz	H	4.14
		200MHz ~ 1,000MHz	V	4.62
		200MHz ~ 1,000MHz	H	4.80

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB03 (3m)	CISPR	1GHz ~ 6GHz	4.58
		6GHz ~ 18GHz	5.18

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
Output Power & EIRP	25.1°C	50.6%	DC 3.8V	Vegeta Li
Occupied Bandwidth	25.1°C	50.6%	DC 3.8V	Vegeta Li
Conducted Spurious Emissions	25.1°C	50.6%	DC 3.8V	Vegeta Li
Radiated Spurious Emissions	24°C	68%	AC 120V/60Hz	Berton Luo
Band Edge	25.1°C	50.6%	DC 3.8V	Vegeta Li
Peak to Average Ratio	25.1°C	50.6%	DC 3.8V	Vegeta Li
Frequency Stability	Normal and Extreme			Vegeta Li

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Borqs Kids Smartwatch			
Brand Name	WatchMeGo			
Model Name	BKW700, ANSBKW700			
Model Difference(s)	Only differ in model name.			
Hardware Version	DVT1			
Software Version	SW_MD_034_190920_GCF_USERDEBUG			
Power Source	1# Supplied from battery. Model: ZWD512724V 2# DC Voltage supplied from AC/DC adapter. Model: A18A-050100U-US2 3# Supplied from USB port.			
Power Rating	1# DC 4.35V(Limited Charge), 400mAh 2# Input: 100-240V~, 50/60Hz, Max 0.2A, Output:5V  1A 3# DC 5V 1A			
IEMI No.	Radiated	866027035004528		
	Conducted	866027035001201		
Modulation Type	UL: QPSK,16QAM DL: QPSK,16QAM			
Max. EIRP	LTE	Channel Bandwidth (MHz)	QPSK (dBm)	16QAM (dBm)
	Band 2	1.4	19.28	18.29
		3	19.40	17.95
		5	19.44	18.15
		10	19.55	18.69
		15	19.43	18.24
		20	19.28	18.83
	Band 25	1.4	19.19	17.79
		3	19.07	17.96
		5	18.84	17.89
		10	19.07	17.68
		15	19.11	17.85
		20	19.05	17.84

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

LTE Band 2					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	1.4	18607	1850.7	607	1930.7
	3	18615	1851.5	615	1931.5
	5	18625	1852.5	625	1932.5
	10	18650	1855	650	1935
	15	18675	1857.5	675	1937.5
	20	18700	1860	700	1940
Mid Range	1.4/3/5/10/15/20	18900	1880	900	1960
High Range	1.4	19193	1909.3	1193	1989.3
	3	19185	1908.5	1185	1988.5
	5	19175	1907.5	1175	1987.5
	10	19150	1905	1150	1985
	15	19125	1902.5	1125	1982.5
	20	19100	1900	1100	1980

LTE Band 25					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	1.4	26047	1850.7	8047	1930.7
	3	26055	1851.5	8055	1931.5
	5	26065	1852.5	8065	1932.5
	10	26090	1855	8090	1935
	15	26115	1857.5	8115	1937.5
	20	26140	1860	8140	1940
Mid Range	1.4/3/5/10/15/20	26365	1882.5	8365	1962.5
High Range	1.4	26683	1914.3	8683	1994.3
	3	26675	1913.5	8675	1993.5
	5	26665	1912.5	8665	1992.5
	10	26640	1910	8640	1990
	15	26615	1907.5	8615	1987.5
	20	26590	1905	8590	1985

3. Table for Filed Antenna:

Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
N/A	N/A	Internal	N/A	-3.5	LTE Band 2
N/A	N/A	Internal	N/A	-3.5	LTE Band 25

2.2 DESCRIPTION OF TEST MODES

Following mode(s) is (were) found to be the worst case(s) and selected for the final test.

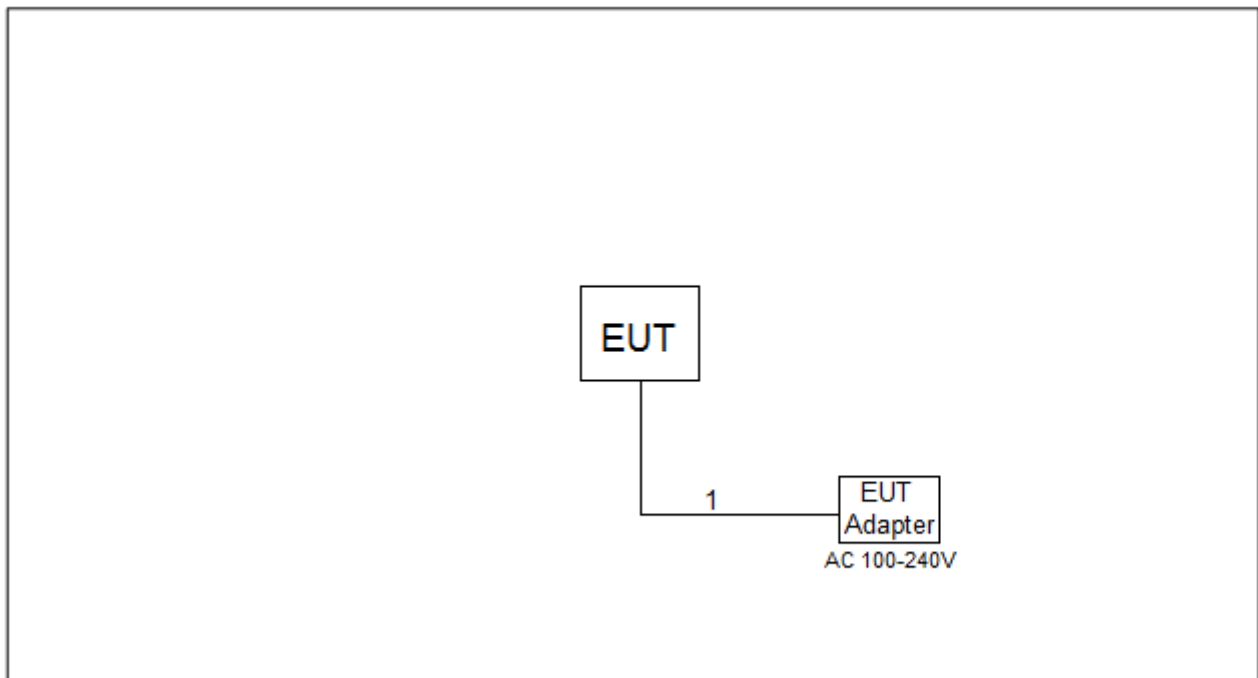
LTE BAND 2 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Output Power & EIRP	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	1RB/3RB/6RB
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	1RB/8RB/15RB
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	1RB/12RB/25RB
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	1RB/25RB/50RB
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	1RB/36RB/75RB
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	1RB/50RB/100RB
Occupied Bandwidth	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	6RB
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	15RB
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	25RB
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	50RB
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	75 RB
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	100RB
Conducted Spurious Emissions	18607 to 19193	18900	1.4MHz	QPSK	1RB
	18625 to 19175	18900	5MHz	QPSK	1RB
	18700 to 19100	18900	20MHz	QPSK	1RB
Radiated Spurious Emissions	18607 to 19193	18900	1.4MHz	QPSK	1RB
	18625 to 19175	18900	5MHz	QPSK	1RB
	18700 to 19100	18900	20MHz	QPSK	1RB
Band Edge	18607 to 19193	18607, 19193	1.4MHz	QPSK	1RB/6RB
	18615 to 19185	18615, 19185	3MHz	QPSK	1RB/15RB
	18625 to 19175	18625, 19175	5MHz	QPSK	1RB/25RB
	18650 to 19150	18650, 19150	10MHz	QPSK	1RB/50RB
	18675 to 19125	18675, 19125	15MHz	QPSK	1RB/75RB
	18700 to 19100	18700, 19100	20MHz	QPSK	1RB/100RB
Peak To Average Ratio	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	1RB
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	1RB
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	1RB
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	1RB
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	1RB
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	1RB

LTE BAND 2 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Frequency Stability	18607 to 19193	18900	1.4MHz	QPSK	1RB
	18615 to 19185	18900	3MHz	QPSK	1RB
	18625 to 19175	18900	5MHz	QPSK	1RB
	18650 to 19150	18900	10MHz	QPSK	1RB
	18675 to 19125	18900	15MHz	QPSK	1RB
	18700 to 19100	18900	20MHz	QPSK	1RB

LTE BAND 25 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Output Power & EIRP	26047 to 26683	26047, 26365, 22683	1.4MHz	QPSK, 16QAM	1RB/3RB/6RB
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK, 16QAM	1RB/8RB/15RB
	26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM	1RB/12RB/25RB
	26090 to 26640	26090, 26365, 26640	10MHz	QPSK, 16QAM	1RB/25RB/50RB
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK, 16QAM	1RB/36RB/75RB
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	1RB/50RB/100RB
Occupied Bandwidth	26047 to 26683	26047, 26365, 22683	1.4MHz	QPSK, 16QAM	6RB
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK, 16QAM	15RB
	26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM	25RB
	26090 to 26640	26090, 26365, 26640	10MHz	QPSK, 16QAM	50RB
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK, 16QAM	75 RB
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	100RB
Conducted Spurious Emissions	26047 to 26683	26365	1.4MHz	QPSK	1RB
	26065 to 26665	26365	5MHz	QPSK	1RB
	26140 to 26590	26365	20MHz	QPSK	1RB
Radiated Spurious Emissions	26047 to 26683	26365	1.4MHz	QPSK	1RB
	26065 to 26665	26365	5MHz	QPSK	1RB
	26140 to 26590	26365	20MHz	QPSK	1RB
Band Edge	26047 to 26683	26047, 26683	1.4MHz	QPSK	1RB/6RB
	26055 to 26675	26055, 26675	3MHz	QPSK	1RB/15RB
	26065 to 26665	26065, 26665	5MHz	QPSK	1RB/25RB
	26090 to 26640	26090, 26640	10MHz	QPSK	1RB/50RB
	26115 to 26615	26115, 26615	15MHz	QPSK	1RB/75RB
	26140 to 26590	26140, 26590	20MHz	QPSK	1RB/100RB

LTE BAND 25 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Peak To Average Ratio	26047 to 26683	26047, 26365, 22683	1.4MHz	QPSK, 16QAM	1RB
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK, 16QAM	1RB
	26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM	1RB
	26090 to 26640	26090, 26365, 26640	10MHz	QPSK, 16QAM	1RB
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK, 16QAM	1RB
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	1RB
Frequency Stability	26047 to 26683	26365	1.4MHz	QPSK	1RB
	26055 to 26675	26365	3MHz	QPSK	1RB
	26065 to 26665	26365	5MHz	QPSK	1RB
	26090 to 26640	26365	10MHz	QPSK	1RB
	26115 to 26615	26365	15MHz	QPSK	1RB
	26140 to 26590	26365	20MHz	QPSK	1RB

2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.4 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.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.
-	-	-	-	-

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	0.8m

3. TEST RESULT

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMIT

Mobile / Portable station are limited to 2 watts e.i.r.p.

3.1.2 TEST PROCEDURE

The testing follows FCC KDB 971168 v03r01 Section 5.

EIRP:

$EIRP = \text{Output Power} + \text{Antenan gain}$

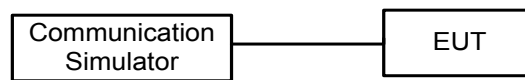
Output Power:

The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.

Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

3.1.3 TEST SETUP LAYOUT

Output Power Measurement



3.1.4 TEST DEVIATION

No deviation

3.1.5 TEST RESULTS

Please refer to the APPENDIX A.

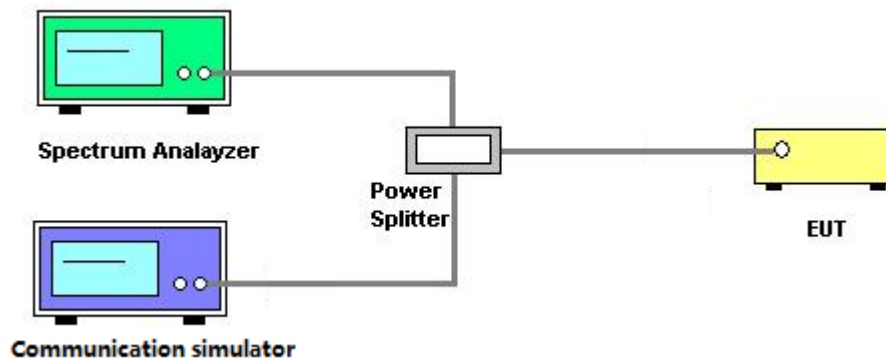
3.2 OCCUPIED BANDWIDTH MEASUREMENT

3.2.1 TEST PROCEDURE

The testing follows FCC KDB 971168 v03r01 Section 4.

1. The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth and 26dB bandwidth.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. $RBW = (1\% \sim 5\%) * EBW$
 $VBW \geq 3 * RBW$
4. Set spectrum analyzer with Peak detector.

3.2.2 TEST SETUP LAYOUT



3.2.3 TEST DEVIATION

No deviation

3.2.4 TEST RESULTS

Please refer to the APPENDIX B.

3.3 CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

3.3.1 LIMIT

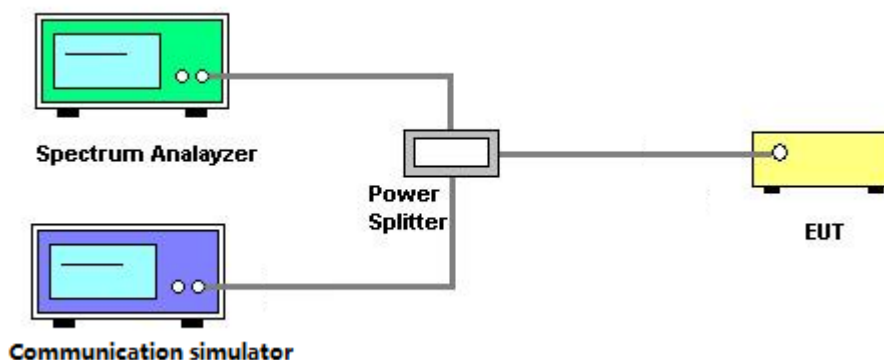
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

3.3.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured. Set RBW $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
3. Set spectrum analyzer with Peak detector.
4. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.3.3 TEST SETUP LAYOUT



3.3.4 TEST DEVIATION

No deviation

3.3.5 TEST RESULTS

Please refer to the APPENDIX C.

3.4 RADIATED SPURIOUS EMISSIONS MEASUREMENT

3.4.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

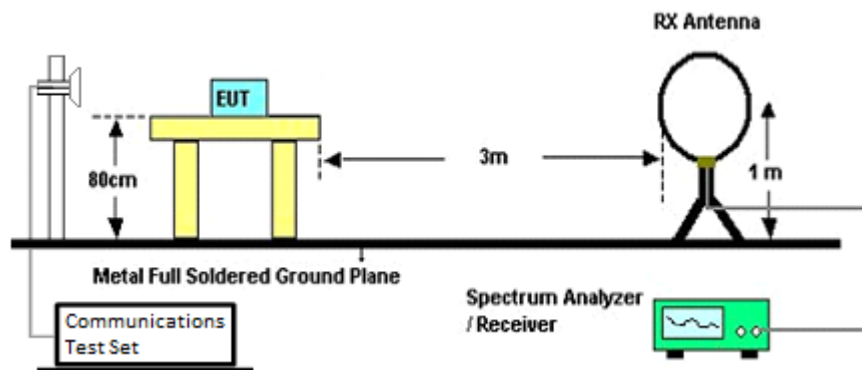
3.4.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6.2.

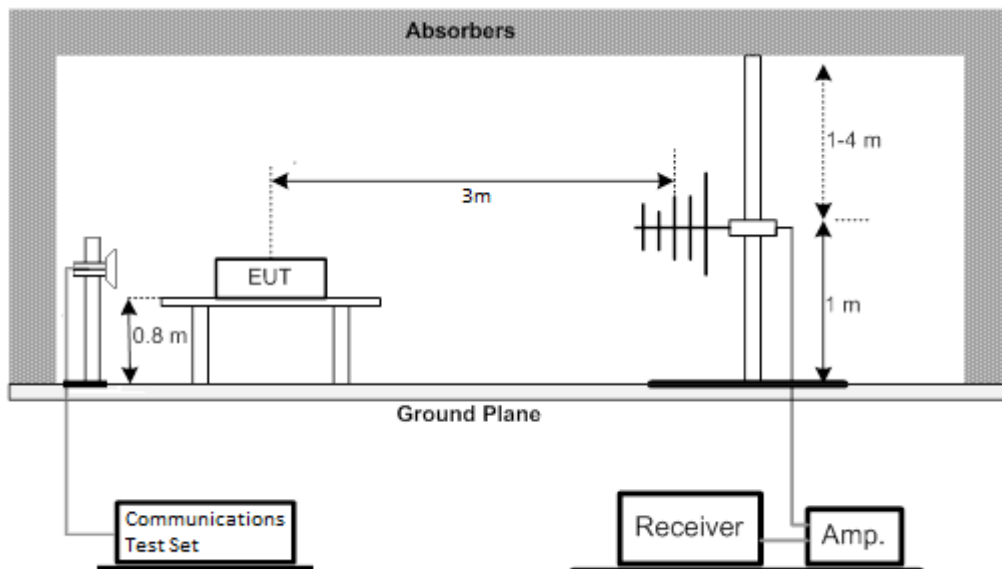
1. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
2. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value " of step a. Record the power level of S.G
3. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}.$
4. ERP can be calculated form EIRP by subtracting the gain of dipole, $ERP = EIPR - 2.15\text{dBi}.$
5. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

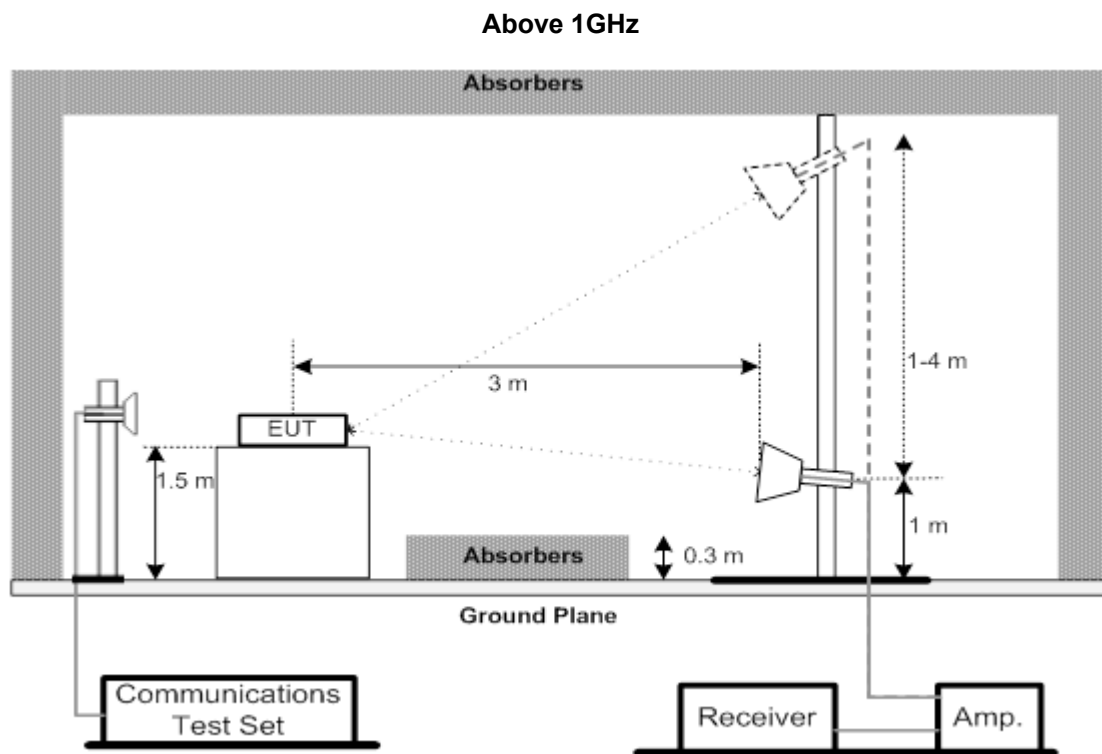
3.4.3 TEST SETUP LAYOUT

Below 30MHz



30MHz to 1000MHz





3.4.4 TEST DEVIATION

No deviation

3.4.5 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the APPENDIX D.

3.4.6 TEST RESULTS (30MHZ TO 1000MHZ)

Please refer to the APPENDIX E.

3.4.7 TEST RESULTS (ABOVE 1000MHZ)

Please refer to the APPENDIX F.

3.5 BAND EDGE MEASUREMENT

3.5.1 LIMIT

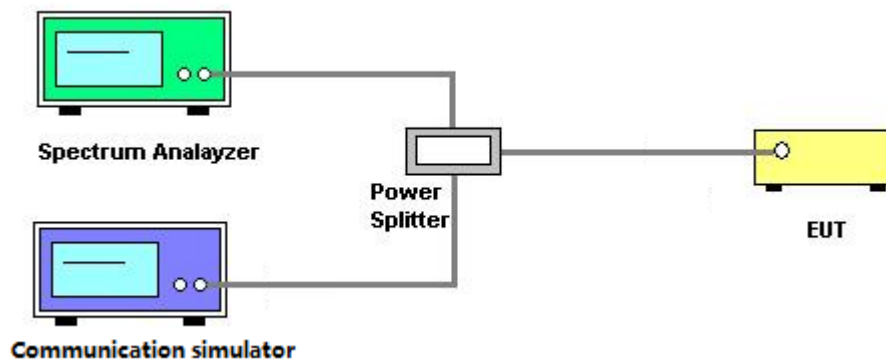
A Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

3.5.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6.

1. All measurements were done at low and high operational frequency range.
2. Record the max trace plot into the test report.

3.5.3 TEST SETUP LAYOUT



3.5.4 TEST DEVIATION

No deviation

3.5.5 TEST RESULTS

Please refer to the APPENDIX G.

3.6 PEAK TO AVERAGE RATIO MEASUREMENT

3.6.1 LIMIT

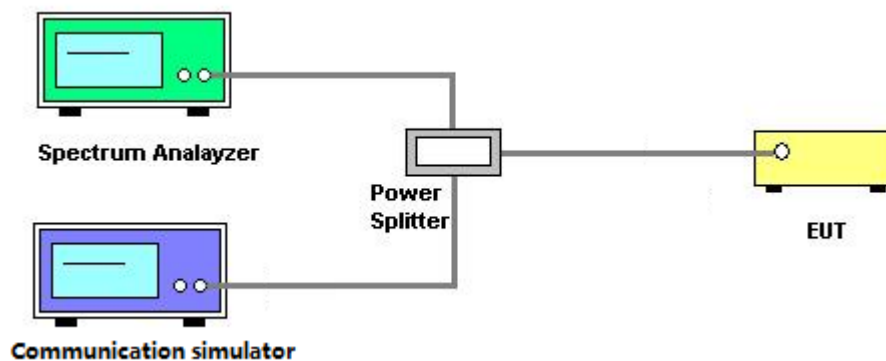
In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.6.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 5.7.

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

3.6.3 TEST SETUP LAYOUT



3.6.4 TEST DEVIATION

No deviation

3.6.5 TEST RESULTS

Please refer to the APPENDIX H.

3.7 FREQUENCY STABILITY MEASUREMENT

3.7.1 LIMIT

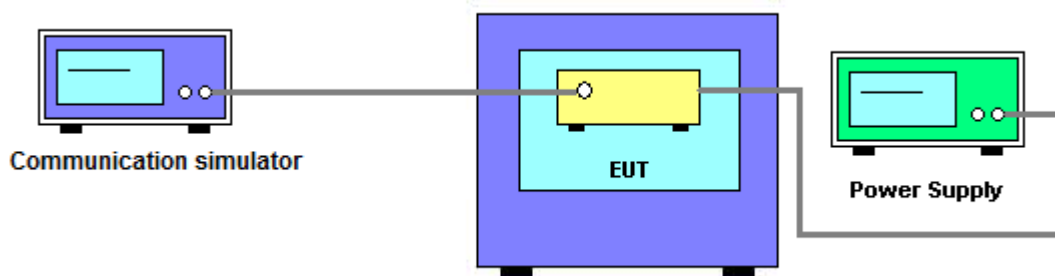
± 1.5 ppm is for base and fixed station. ± 2.5 ppm is for mobile station.

3.7.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 9.

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

3.7.3 TEST SETUP LAYOUT



3.7.4 TEST DEVIATION

No deviation

3.7.5 TEST RESULTS

Please refer to the APPENDIX I.

4. LIST OF MEASUREMENT EQUIPMENTS

Radiated Spurious Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 09, 2020
2	Amplifier	Agilent	8449B	3008A02274	Mar. 10, 2020
3	HighPass Filter	Wairwright Instruments Gmbh	WHK 1.5/15G-10ST	11	Mar. 10, 2020
4	Band Reject Filter	Wairwright Instruments Gmbh	WRCG 1710/1785-1690/1805-60/12SS	38	Mar. 10, 2020
5	Band Reject Filter	Wairwright Instruments Gmbh	WRCG 824/849-810/863-60/9SS	7	Mar. 10, 2020
6	Band Reject Filter	Wairwright Instruments Gmbh	WRCG 880/915-860/935-60/9SS	14	Mar. 10, 2020
7	Band Reject Filter	Wairwright Instruments Gmbh	WRCG 1850/1910-1830/1930-60/10SS	17	Mar. 10, 2020
8	HighPass Filter	Wairwright Instruments Gmbh	WHK3.1/18G-10SS	24	Mar. 10, 2020
9	Wireless Communication Test SET	Agilent	E5515C	MY48364183	Mar. 10, 2020
10	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 10, 2020
11	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020
12	wideband radio communication tester	R&S	CMW500	152372	Mar. 10, 2020
13	High pass filter	KANGMAIWEI	ZHPF-M3-12.75G-3869	B2015073763	Feb. 12, 2020
14	High pass filter	KANGMAIWEI	ZHPF-M1000-4000-1	B2015073762	Feb. 12, 2020
15	High pass filter	KANGMAIWEI	ZHPF-M6-186-1727	B2015073764	Feb. 12, 2020
16	Cable	emci	LMR-400(30MHz-1GHz)(8m+5m)	N/A	May 24, 2020
17	Cable	mitron	B10-01-01-12M	18072744	Jun. 29, 2020
18	Controller	ETS-Lindgren	2090	N/A	N/A
19	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
20	Loop Antenna	EM	EM-6876-1	230	Jan. 15, 2020
21	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 09, 2020
22	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 23, 2020

Conducted Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Wireless Communication Test SET	Agilent	E5515C	MY48364183	Mar. 10, 2020
2	EXA Spectrum Analyzer	Agilent	N9010A	MY50520044	Mar. 10, 2020
3	POWER SPLITTER	Mini-Circuits	ZFRSC-123-S+	331000910-1	Mar. 10, 2020
4	wideband radio communication tester	R&S	CMW500	152372	Mar. 10, 2020

Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Wireless Communication Test SET	Agilent	E5515C	MY48364183	Mar. 10, 2020
2	Multi-output DC Power Supply	GW Instek	GPC-3030DN	EK880675	Sep. 26, 2020
3	POWER SPLITTER	Mini-Circuits	ZFRSC-123-S+	331000910-1	Mar. 10, 2020
4	wideband radio communication tester	R&S	CMW500	152372	Mar. 10, 2020
5	Const Temp,& Humidity Chamber	Bell	BTH-50C	20170306001	Mar. 10, 2020

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

5. EUT TEST PHOTO**Radiated Emissions Test Photos****9 kHz to 30 MHz**

Radiated Emissions Test Photos**30 MHz to 1 GHz**

Radiated Emissions Test Photos**Above 1 GHz**

APPENDIX A - OUTPUT POWER

Output Power (dBm):

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18607CH	18900CH	19193CH
				1850.7MHz	1880MHz	1909.3MHz
2 / 1.4M	QPSK	1	0	22.53	22.30	22.21
		1	2	22.69	22.58	22.24
		1	5	22.55	22.39	22.49
		3	0	22.68	22.33	22.33
		3	1	22.78	22.33	22.39
		3	2	22.71	22.25	22.43
		6	0	21.42	21.21	21.32
	16QAM	1	0	21.58	21.43	21.01
		1	2	21.60	21.54	21.05
		1	5	21.69	21.48	20.99
		3	0	21.33	21.27	21.20
		3	1	21.56	21.13	21.01
		3	2	21.79	21.49	21.02
		6	0	20.50	20.40	20.27

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18615CH	18900CH	19185CH
				1851.5MHz	1880MHz	1908.5MHz
2 / 3M	QPSK	1	0	22.90	22.24	22.11
		1	7	22.86	22.44	22.23
		1	14	22.83	22.27	22.03
		8	0	21.52	21.24	20.96
		8	4	21.53	21.11	20.99
		8	7	21.55	21.11	20.93
		15	0	21.53	21.15	20.96
	16QAM	1	0	21.12	21.37	21.08
		1	7	21.45	20.92	21.02
		1	14	21.16	21.12	20.94
		8	0	21.07	20.49	20.33
		8	4	21.09	20.36	20.06
		8	7	21.09	20.38	20.11
		15	0	20.78	20.54	20.10

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18625CH	18900CH	19175CH
				1852.5MHz	1880MHz	1907.5MHz
2 / 5M	QPSK	1	0	22.75	22.28	21.94
		1	13	22.94	22.40	22.00
		1	24	22.71	22.13	21.83
		12	0	21.57	21.40	21.00
		12	6	21.68	21.39	21.03
		12	11	21.66	21.37	21.01
		25	0	21.51	21.28	21.04
	16QAM	1	0	21.60	21.51	21.04
		1	13	21.65	21.14	21.16
		1	24	21.54	20.94	20.78
		12	0	20.83	20.43	20.07
		12	6	20.88	20.43	20.16
		12	11	20.86	20.37	20.12
		25	0	21.08	20.65	20.00

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18650CH	18900CH	19150CH
				1855MHz	1880MHz	1905MHz
2 / 10M	QPSK	1	0	22.68	22.30	22.32
		1	25	23.05	22.72	22.09
		1	49	22.68	22.16	22.12
		25	0	21.72	21.32	20.98
		25	13	21.70	21.40	21.09
		25	25	21.66	21.28	20.99
		50	0	21.64	21.34	20.95
	16QAM	1	0	21.88	21.17	21.36
		1	25	22.19	21.64	21.06
		1	49	21.80	21.32	21.16
		25	0	20.75	20.40	20.26
		25	13	20.82	20.52	20.16
		25	25	20.88	20.40	20.36
		50	0	20.83	20.42	20.01

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18675CH	18900CH	19125CH
				1857.5MHz	1880MHz	1902.5MHz
2 / 15M	QPSK	1	0	22.87	22.41	22.21
		1	38	22.93	22.56	22.12
		1	74	22.66	22.15	22.05
		36	0	21.70	21.35	21.08
		36	18	21.69	21.31	21.20
		36	39	21.54	21.19	21.02
		75	0	21.68	21.26	21.02
	16QAM	1	0	20.86	21.25	21.74
		1	38	20.93	21.65	21.56
		1	74	20.62	21.00	21.56
		36	0	20.71	20.51	20.20
		36	18	20.80	20.45	20.24
		36	39	20.52	20.34	20.05
		75	0	20.66	20.41	20.08

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18700CH	18900CH	19100CH
				1860MHz	1880MHz	1900MHz
2 / 20M	QPSK	1	0	22.51	22.66	22.22
		1	50	22.78	22.71	22.40
		1	99	22.50	22.51	21.81
		50	0	21.67	21.49	21.27
		50	25	21.62	21.48	21.15
		50	50	21.57	21.35	21.14
		100	0	21.64	21.37	21.31
	16QAM	1	0	21.30	21.37	20.55
		1	50	21.32	21.83	20.86
		1	99	21.16	21.13	20.57
		50	0	20.83	20.40	19.92
		50	25	20.73	20.46	19.92
		50	50	20.68	20.26	19.78
		100	0	20.70	20.48	19.85

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26047CH	26365CH	26683CH
				1850.7MHz	1882.5MHz	1914.3MHz
25 / 1.4M	QPSK	1	0	22.60	22.56	22.31
		1	2	22.69	22.59	22.42
		1	5	22.61	22.58	22.18
		3	0	22.47	22.47	22.01
		3	1	22.50	22.50	22.05
		3	2	22.52	22.54	22.06
		6	0	21.41	21.43	21.00
	16QAM	1	0	21.01	21.01	20.91
		1	2	21.14	21.29	20.95
		1	5	21.01	21.20	20.84
		3	0	21.18	21.20	21.12
		3	1	21.23	21.23	21.20
		3	2	21.23	21.21	21.18
		6	0	20.21	20.20	20.11

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26055CH	26365CH	26675CH
				1851.5MHz	1882.5MHz	1913.5MHz
25 / 3M	QPSK	1	0	22.21	22.31	22.35
		1	7	22.44	22.57	22.57
		1	14	22.27	22.29	22.34
		8	0	21.18	21.21	21.22
		8	4	21.18	21.23	21.29
		8	7	21.21	21.26	21.30
		15	0	21.21	21.25	21.29
	16QAM	1	0	21.09	21.02	21.35
		1	7	21.30	21.34	21.46
		1	14	21.16	20.93	21.19
		8	0	20.33	20.20	20.20
		8	4	20.29	20.21	20.25
		8	7	20.29	20.26	20.21
		15	0	20.31	20.22	20.24

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26065CH	26365CH	26665CH
				1852.5MHz	1882.5MHz	1912.5MHz
25 / 5M	QPSK	1	0	22.19	22.13	22.03
		1	13	22.34	22.14	22.14
		1	24	22.31	22.16	22.15
		12	0	21.73	21.84	22.01
		12	6	21.24	21.09	21.10
		12	11	20.83	20.67	20.69
		25	0	21.12	21.13	21.13
	16QAM	1	0	20.83	20.63	20.72
		1	13	21.00	20.81	20.73
		1	24	21.10	20.78	20.70
		12	0	20.81	20.99	21.39
		12	6	21.11	20.98	20.97
		12	11	20.05	20.14	19.99
		25	0	20.26	20.08	20.02

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26090CH	26365CH	26640CH
				1855MHz	1882.5MHz	19110MHz
25 / 10M	QPSK	1	0	22.39	22.33	22.57
		1	25	22.41	22.39	22.46
		1	49	22.41	22.37	22.50
		25	0	21.20	21.31	21.30
		25	13	21.23	21.33	21.40
		25	25	21.28	21.27	21.41
		50	0	21.25	21.30	21.37
	16QAM	1	0	21.12	20.95	21.02
		1	25	21.18	20.93	21.09
		1	49	20.98	20.95	21.10
		25	0	20.20	20.15	20.09
		25	13	20.30	20.20	20.15
		25	25	20.25	20.24	20.15
		50	0	20.25	20.21	20.15

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26115CH	26365CH	26615CH
				1857.5MHz	1882.5MHz	1907.5MHz
25 / 15M	QPSK	1	0	22.61	22.46	22.41
		1	38	22.59	22.40	22.37
		1	74	22.59	22.44	22.09
		36	0	21.42	21.44	21.02
		36	18	21.43	21.42	20.96
		36	39	21.37	21.42	21.00
		75	0	21.41	21.44	20.98
	16QAM	1	0	21.21	21.07	21.32
		1	38	21.16	21.02	21.15
		1	74	21.09	20.96	21.27
		36	0	20.35	20.31	20.34
		36	18	20.33	20.32	20.25
		36	39	20.35	20.34	20.28
		75	0	20.36	20.29	20.25

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26140CH	26365CH	26590CH
				1860MHz	1882.5MHz	1905MHz
25 / 20M	QPSK	1	0	22.12	22.12	22.42
		1	50	22.16	22.23	22.55
		1	99	21.97	22.09	22.46
		50	0	21.21	21.21	21.02
		50	25	21.21	21.17	21.09
		50	50	21.11	21.21	21.06
		100	0	21.24	21.25	21.14
	16QAM	1	0	21.03	21.00	21.06
		1	50	21.02	21.10	21.34
		1	99	20.81	20.98	21.07
		50	0	20.45	20.39	20.41
		50	25	20.43	20.36	20.45
		50	50	20.27	20.37	20.32
		100	0	20.45	20.37	20.44

EIRP (dBm):

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18607CH	18900CH	19193CH
				1850.7MHz	1880MHz	1909.3MHz
2 / 1.4M	QPSK	1	0	19.03	18.80	18.71
		1	2	19.19	19.08	18.74
		1	5	19.05	18.89	18.99
		3	0	19.18	18.83	18.83
		3	1	19.28	18.83	18.89
		3	2	19.21	18.75	18.93
		6	0	17.92	17.71	17.82
	16QAM	1	0	18.08	17.93	17.51
		1	2	18.10	18.04	17.55
		1	5	18.19	17.98	17.49
		3	0	17.83	17.77	17.70
		3	1	18.06	17.63	17.51
		3	2	18.29	17.99	17.52
		6	0	17.00	16.90	16.77

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18615CH	18900CH	19185CH
				1851.5MHz	1880MHz	1908.5MHz
2 / 3M	QPSK	1	0	19.40	18.74	18.61
		1	7	19.36	18.94	18.73
		1	14	19.33	18.77	18.53
		8	0	18.02	17.74	17.46
		8	4	18.03	17.61	17.49
		8	7	18.05	17.61	17.43
		15	0	18.03	17.65	17.46
	16QAM	1	0	17.62	17.87	17.58
		1	7	17.95	17.42	17.52
		1	14	17.66	17.62	17.44
		8	0	17.57	16.99	16.83
		8	4	17.59	16.86	16.56
		8	7	17.59	16.88	16.61
		15	0	17.28	17.04	16.60

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18625CH	18900CH	19175CH
				1852.5MHz	1880MHz	1907.5MHz
2 / 5M	QPSK	1	0	19.25	18.78	18.44
		1	13	19.44	18.90	18.50
		1	24	19.21	18.63	18.33
		12	0	18.07	17.90	17.50
		12	6	18.18	17.89	17.53
		12	11	18.16	17.87	17.51
		25	0	18.01	17.78	17.54
	16QAM	1	0	18.10	18.01	17.54
		1	13	18.15	17.64	17.66
		1	24	18.04	17.44	17.28
		12	0	17.33	16.93	16.57
		12	6	17.38	16.93	16.66
		12	11	17.36	16.87	16.62
		25	0	17.58	17.15	16.50

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18650CH	18900CH	19150CH
				1855MHz	1880MHz	1905MHz
2 / 10M	QPSK	1	0	19.18	18.80	18.82
		1	25	19.55	19.22	18.59
		1	49	19.18	18.66	18.62
		25	0	18.22	17.82	17.48
		25	13	18.20	17.90	17.59
		25	25	18.16	17.78	17.49
		50	0	18.14	17.84	17.45
	16QAM	1	0	18.38	17.67	17.86
		1	25	18.69	18.14	17.56
		1	49	18.30	17.82	17.66
		25	0	17.25	16.90	16.76
		25	13	17.32	17.02	16.66
		25	25	17.38	16.90	16.86
		50	0	17.33	16.92	16.51

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18675CH	18900CH	19125CH
				1857.5MHz	1880MHz	1902.5MHz
2 / 15M	QPSK	1	0	19.37	18.91	18.71
		1	38	19.43	19.06	18.62
		1	74	19.16	18.65	18.55
		36	0	18.20	17.85	17.58
		36	18	18.19	17.81	17.70
		36	39	18.04	17.69	17.52
		75	0	18.18	17.76	17.52
	16QAM	1	0	17.36	17.75	18.24
		1	38	17.43	18.15	18.06
		1	74	17.12	17.50	18.06
		36	0	17.21	17.01	16.70
		36	18	17.30	16.95	16.74
		36	39	17.02	16.84	16.55
		75	0	17.16	16.91	16.58

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18700CH	18900CH	19100CH
				1860MHz	1880MHz	1900MHz
2 / 20M	QPSK	1	0	19.01	19.16	18.72
		1	50	19.28	19.21	18.90
		1	99	19.00	19.01	18.31
		50	0	18.17	17.99	17.77
		50	25	18.12	17.98	17.65
		50	50	18.07	17.85	17.64
		100	0	18.14	17.87	17.81
	16QAM	1	0	17.80	17.87	17.05
		1	50	17.82	18.33	17.36
		1	99	17.66	17.63	17.07
		50	0	17.33	16.90	16.42
		50	25	17.23	16.96	16.42
		50	50	17.18	16.76	16.28
		100	0	17.20	16.98	16.35

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26047CH	26365CH	26683CH
				1850.7MHz	1882.5MHz	1914.3MHz
25 / 1.4M	QPSK	1	0	19.10	19.06	18.81
		1	2	19.19	19.09	18.92
		1	5	19.11	19.08	18.68
		3	0	18.97	18.97	18.51
		3	1	19.00	19.00	18.55
		3	2	19.02	19.04	18.56
		6	0	17.91	17.93	17.50
	16QAM	1	0	17.51	17.51	17.41
		1	2	17.64	17.79	17.45
		1	5	17.51	17.70	17.34
		3	0	17.68	17.70	17.62
		3	1	17.73	17.73	17.70
		3	2	17.73	17.71	17.68
		6	0	16.71	16.70	16.61

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26055CH	26365CH	26675CH
				1851.5MHz	1882.5MHz	1913.5MHz
25 / 3M	QPSK	1	0	18.71	18.81	18.85
		1	7	18.94	19.07	19.07
		1	14	18.77	18.79	18.84
		8	0	17.68	17.71	17.72
		8	4	17.68	17.73	17.79
		8	7	17.71	17.76	17.80
		15	0	17.71	17.75	17.79
	16QAM	1	0	17.59	17.52	17.85
		1	7	17.80	17.84	17.96
		1	14	17.66	17.43	17.69
		8	0	16.83	16.70	16.70
		8	4	16.79	16.71	16.75
		8	7	16.79	16.76	16.71
		15	0	16.81	16.72	16.74

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26065CH	26365CH	26665CH
				1852.5MHz	1882.5MHz	1912.5MHz
25 / 5M	QPSK	1	0	18.69	18.63	18.53
		1	13	18.84	18.64	18.64
		1	24	18.81	18.66	18.65
		12	0	18.23	18.34	18.51
		12	6	17.74	17.59	17.60
		12	11	17.33	17.17	17.19
		25	0	17.62	17.63	17.63
	16QAM	1	0	17.33	17.13	17.22
		1	13	17.50	17.31	17.23
		1	24	17.60	17.28	17.20
		12	0	17.31	17.49	17.89
		12	6	17.61	17.48	17.47
		12	11	16.55	16.64	16.49
		25	0	16.76	16.58	16.52

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26090CH	26365CH	26640CH
				1855MHz	1882.5MHz	19110MHz
25 / 10M	QPSK	1	0	18.89	18.83	19.07
		1	25	18.91	18.89	18.96
		1	49	18.91	18.87	19.00
		25	0	17.70	17.81	17.80
		25	13	17.73	17.83	17.90
		25	25	17.78	17.77	17.91
		50	0	17.75	17.80	17.87
	16QAM	1	0	17.62	17.45	17.52
		1	25	17.68	17.43	17.59
		1	49	17.48	17.45	17.60
		25	0	16.70	16.65	16.59
		25	13	16.80	16.70	16.65
		25	25	16.75	16.74	16.65
		50	0	16.75	16.71	16.65

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26115CH	26365CH	26615CH
				1857.5MHz	1882.5MHz	1907.5MHz
25 / 15M	QPSK	1	0	19.11	18.96	18.91
		1	38	19.09	18.90	18.87
		1	74	19.09	18.94	18.59
		36	0	17.92	17.94	17.52
		36	18	17.93	17.92	17.46
		36	39	17.87	17.92	17.50
		75	0	17.91	17.94	17.48
	16QAM	1	0	17.71	17.57	17.82
		1	38	17.66	17.52	17.65
		1	74	17.59	17.46	17.77
		36	0	16.85	16.81	16.84
		36	18	16.83	16.82	16.75
		36	39	16.85	16.84	16.78
		75	0	16.86	16.79	16.75

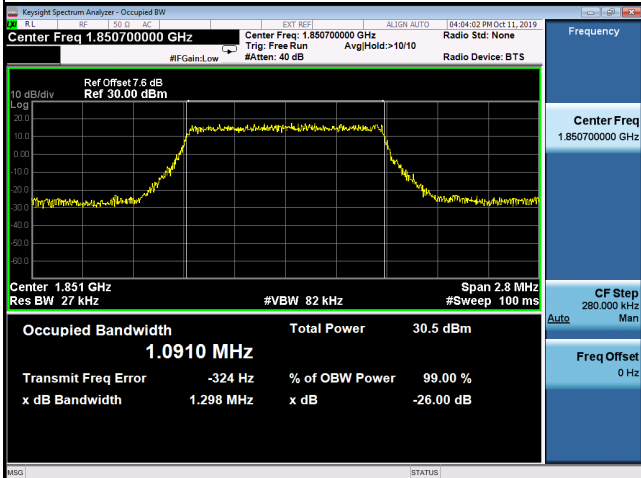
LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				26140CH	26365CH	26590CH
				1860MHz	1882.5MHz	1905MHz
25 / 20M	QPSK	1	0	18.62	18.62	18.92
		1	50	18.66	18.73	19.05
		1	99	18.47	18.59	18.96
		50	0	17.71	17.71	17.52
		50	25	17.71	17.67	17.59
		50	50	17.61	17.71	17.56
		100	0	17.74	17.75	17.64
	16QAM	1	0	17.53	17.50	17.56
		1	50	17.52	17.60	17.84
		1	99	17.31	17.48	17.57
		50	0	16.95	16.89	16.91
		50	25	16.93	16.86	16.95
		50	50	16.77	16.87	16.82
		100	0	16.95	16.87	16.94

APPENDIX B - OCCUPIED BANDWIDTH

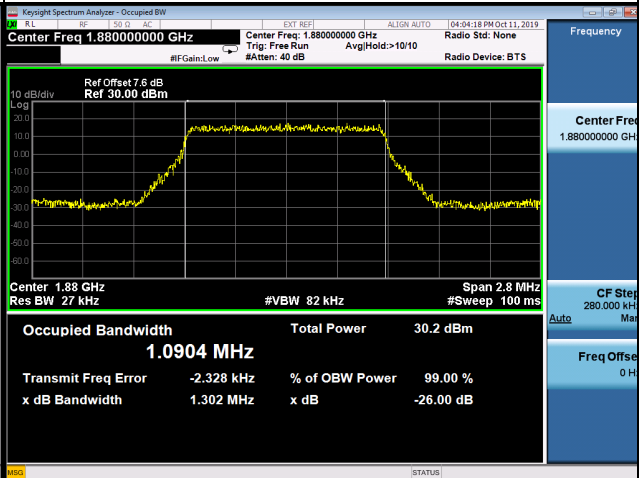
LTE Band 2_1.4M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18607	1850.7	1.0910	18607	1850.7	1.298
18900	1880	1.0904	18900	1880	1.302
19193	1909.3	1.0910	19193	1909.3	1.314
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18607	1850.7	1.0950	18607	1850.7	1.299
18900	1880	1.0943	18900	1880	1.290
19193	1909.3	1.0932	19193	1909.3	1.302

Spectrum Plot

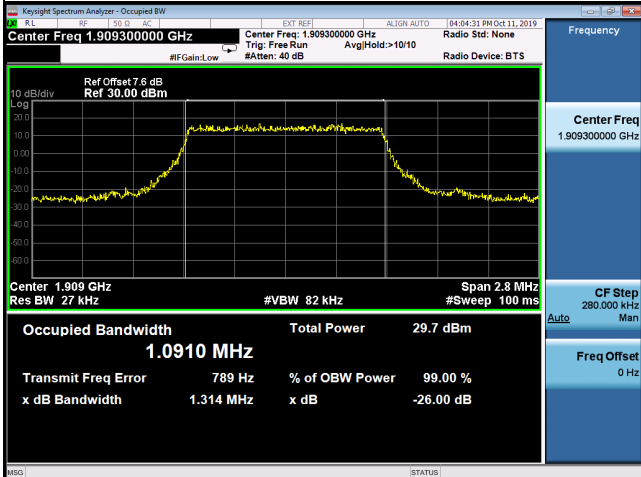
QPSK-18607



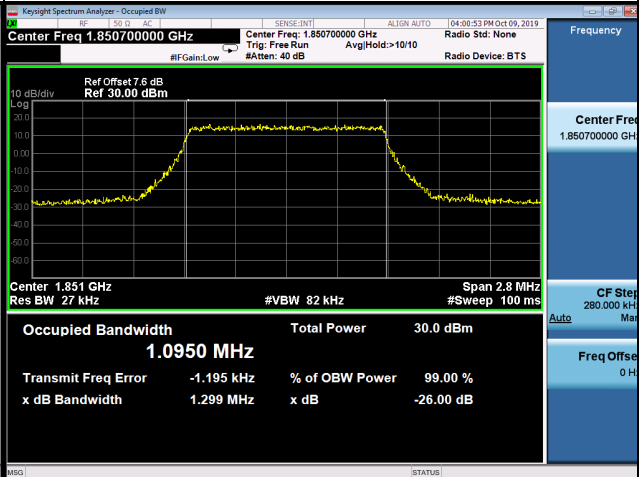
QPSK-18900



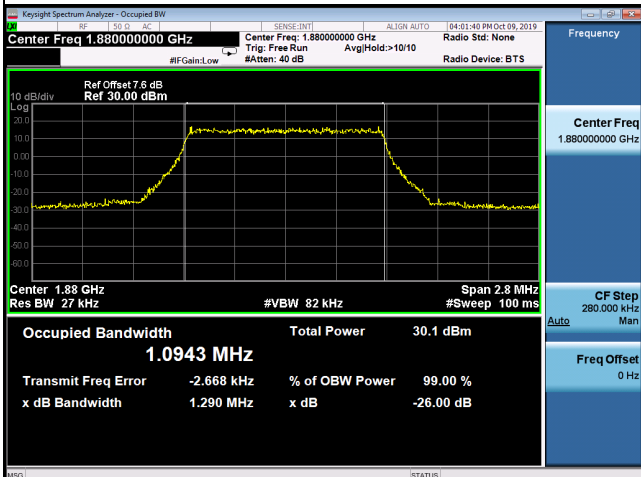
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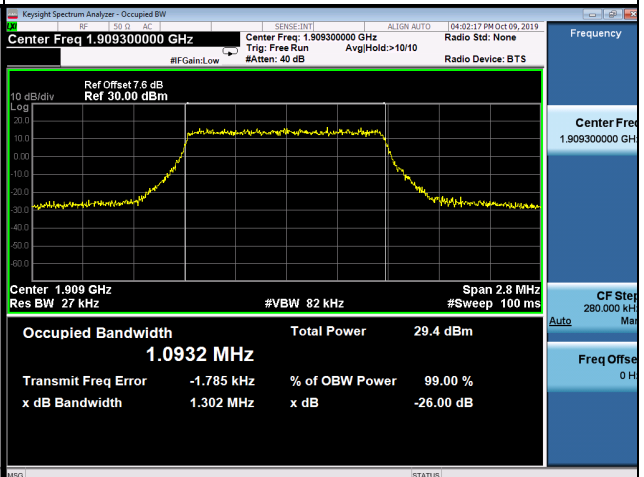
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16QAM-18900



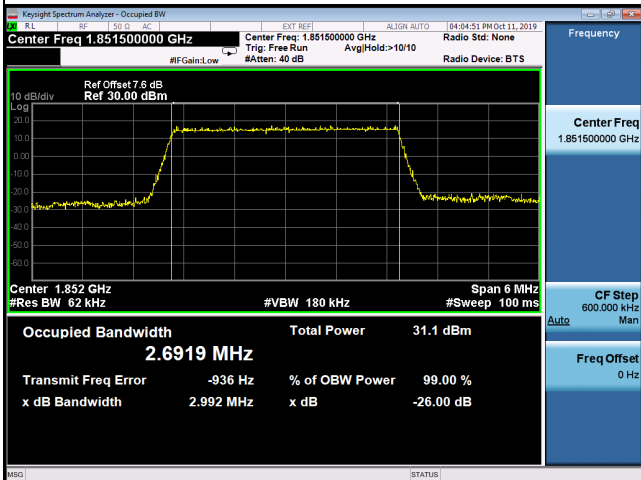
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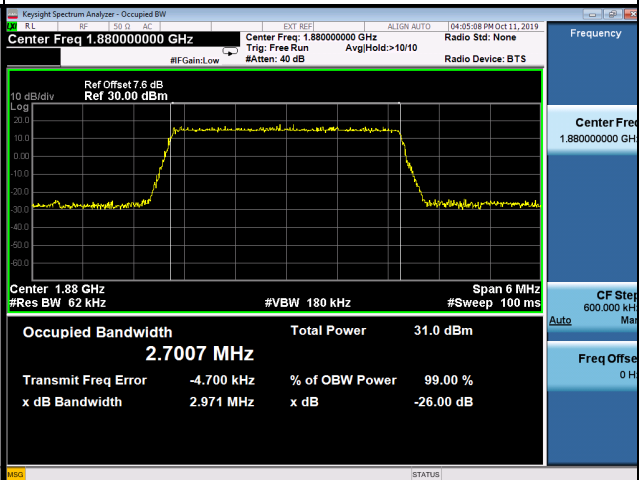
LTE Band 2_3M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18615	1851.5	2.6919	18615	1851.5	2.992
18900	1880	2.7007	18900	1880	2.971
19185	1908.5	2.6981	19185	1908.5	3.007
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18615	1851.5	2.7040	18615	1851.5	3.023
18900	1880	2.7020	18900	1880	3.000
19185	1908.5	2.7056	19185	1908.5	2.988

Spectrum Plot

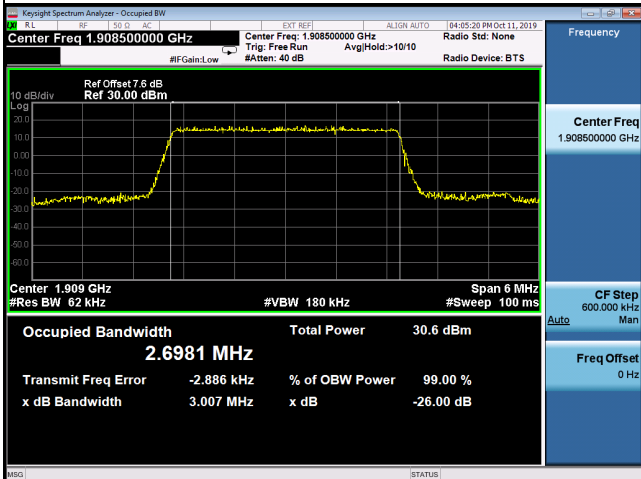
QPSK-18615



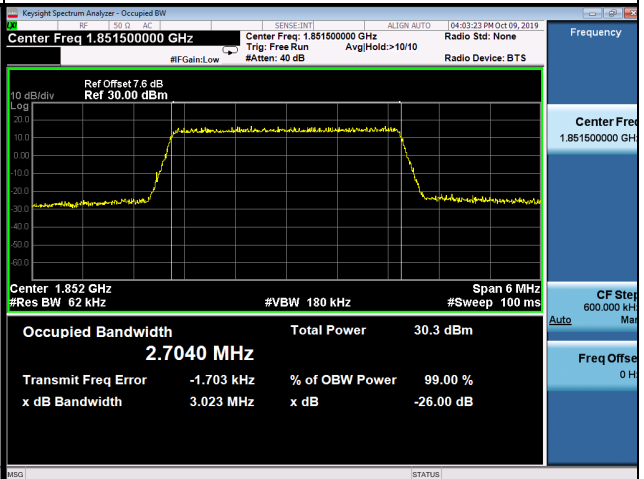
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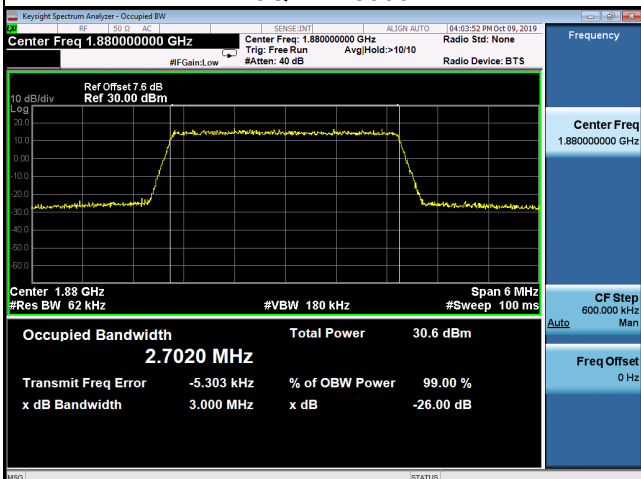
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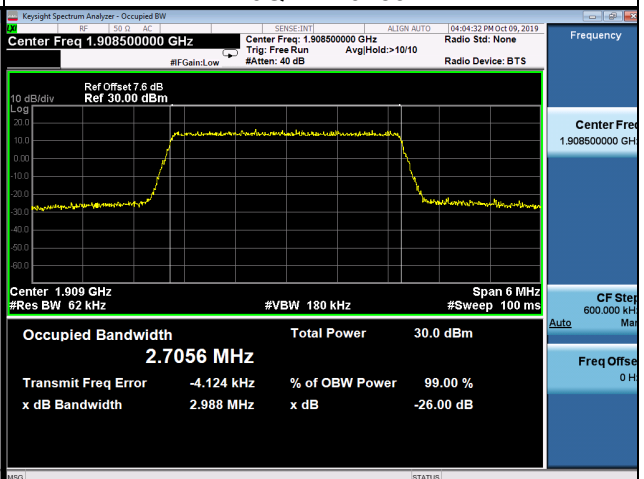
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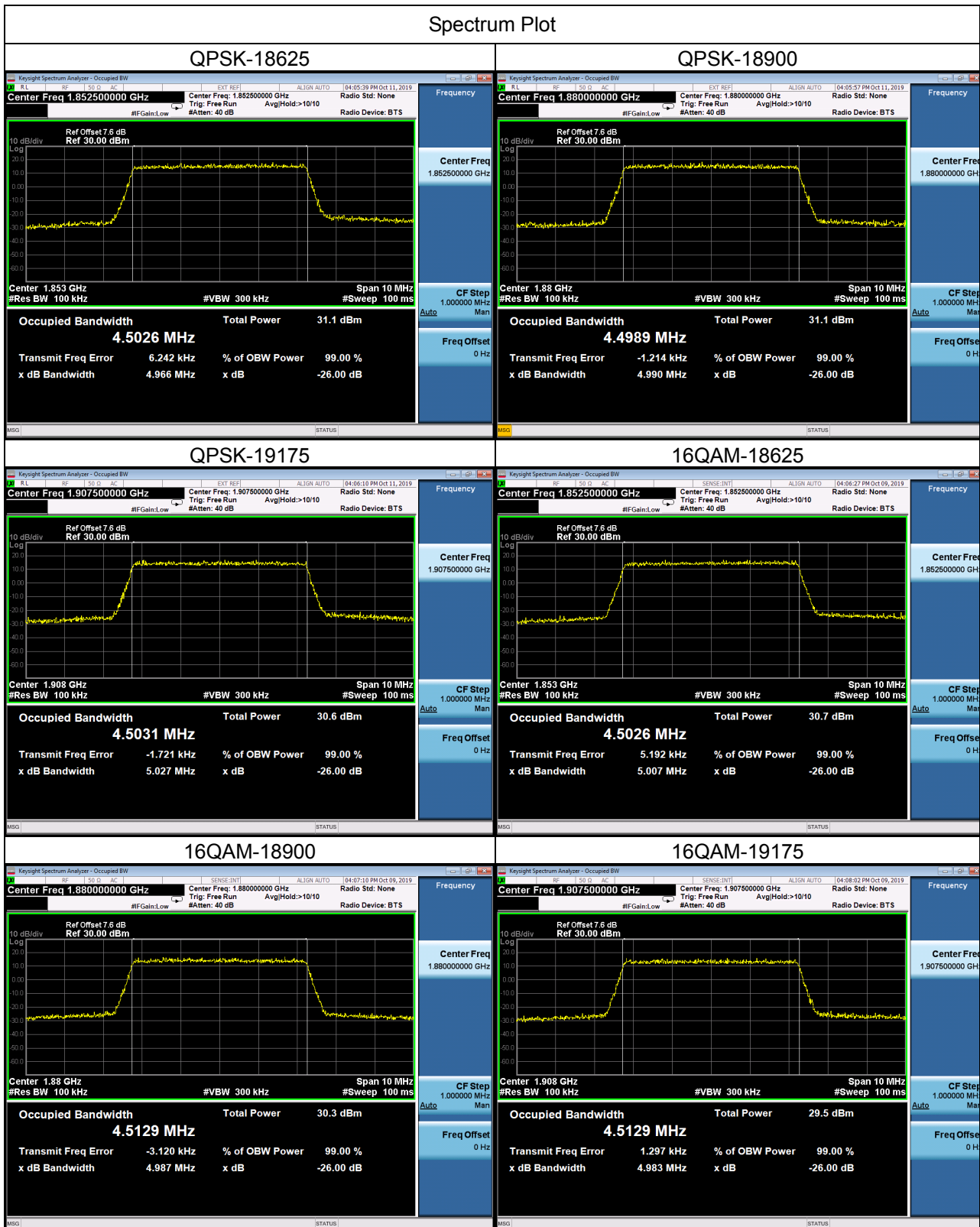


16QAM-19185



LTE Band 2_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18625	1852.5	4.5026	18625	1852.5	4.966
18900	1880	4.4989	18900	1880	4.990
19175	1907.5	4.5031	19175	1907.5	5.027
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18625	1852.5	4.5026	18625	1852.5	5.007
18900	1880	4.5129	18900	1880	4.987
19175	1907.5	4.5129	19175	1907.5	4.983

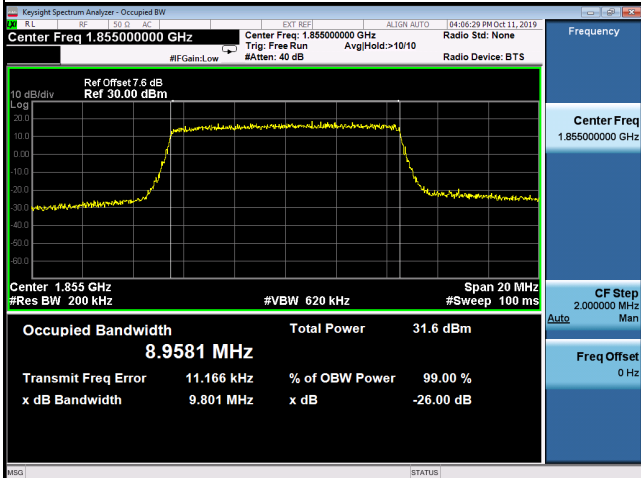
Spectrum Plot



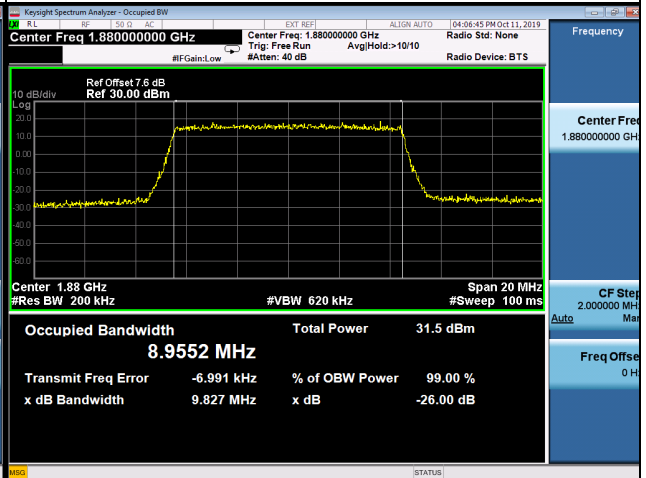
LTE Band 2_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18650	1855	8.9581	18650	1855	9.801
18900	1880	8.9552	18900	1880	9.827
19150	1905	8.9585	19150	1905	9.887
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18650	1855	8.9621	18650	1855	9.858
18900	1880	8.9602	18900	1880	9.890
19150	1905	8.9657	19150	1905	9.806

Spectrum Plot

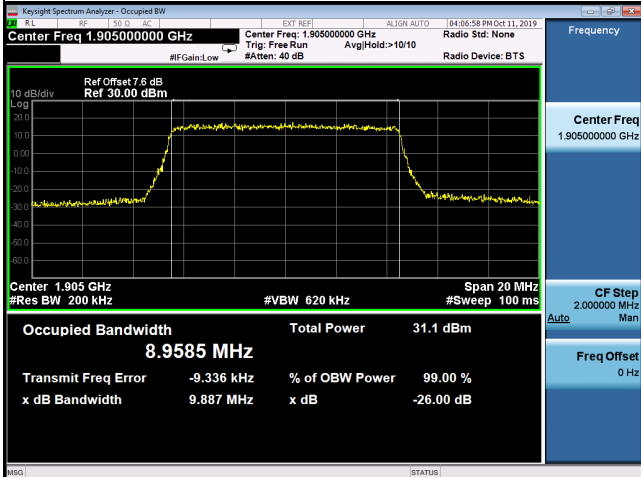
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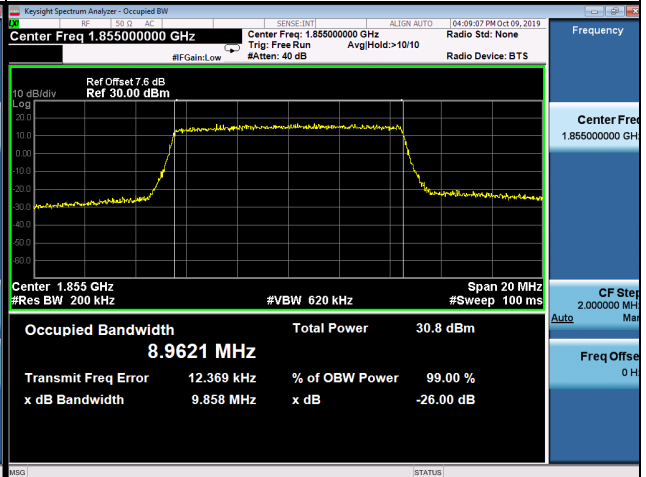
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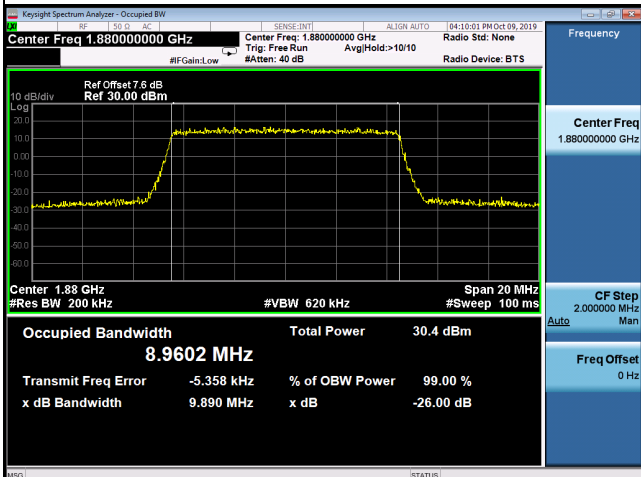
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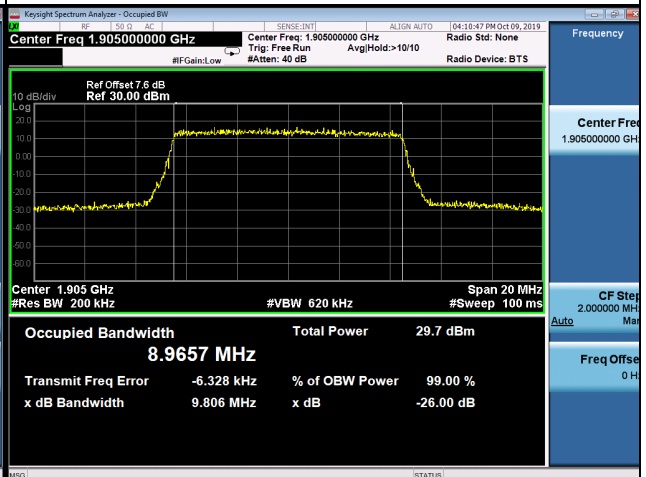
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16QAM-18900

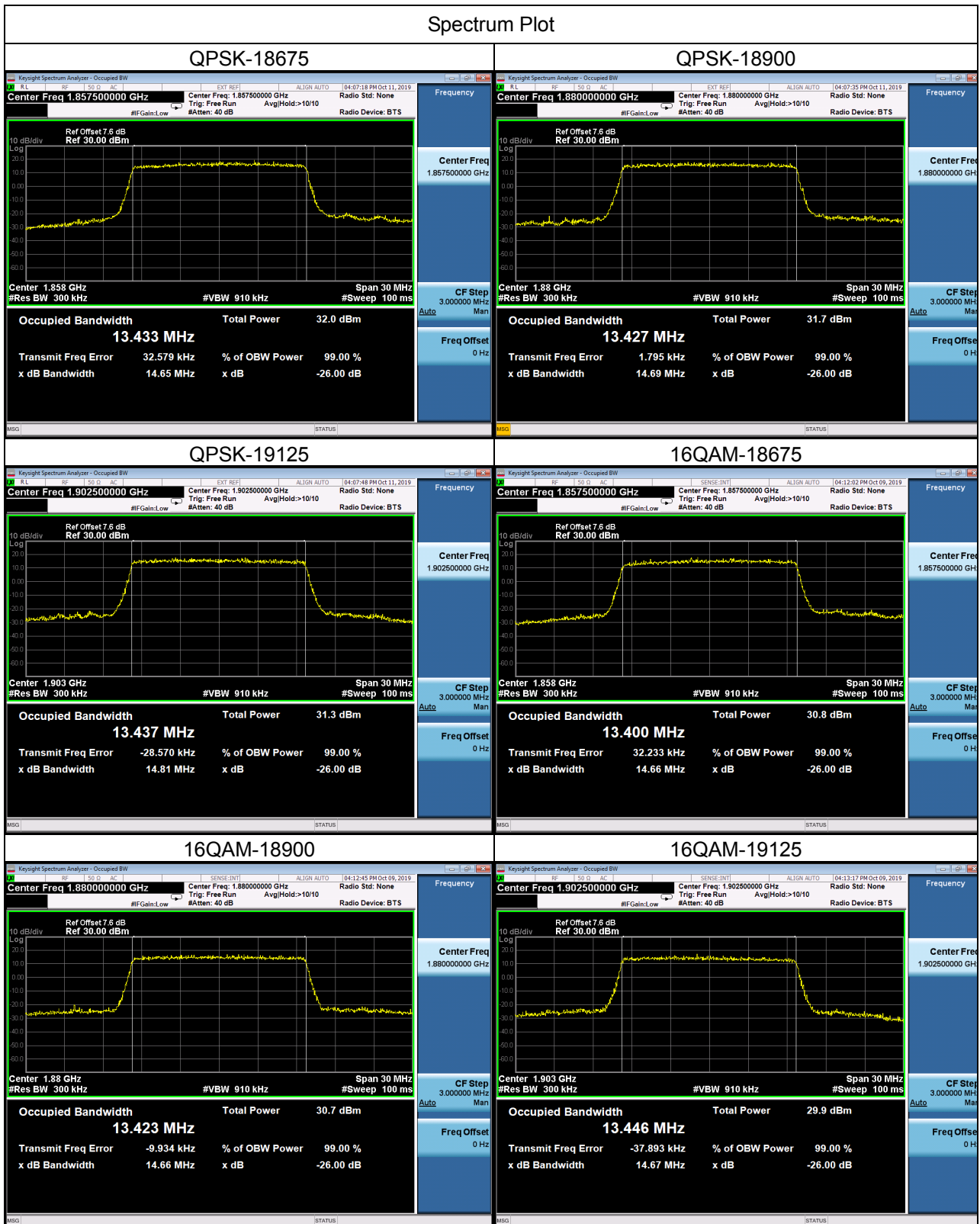


16QAM-19150



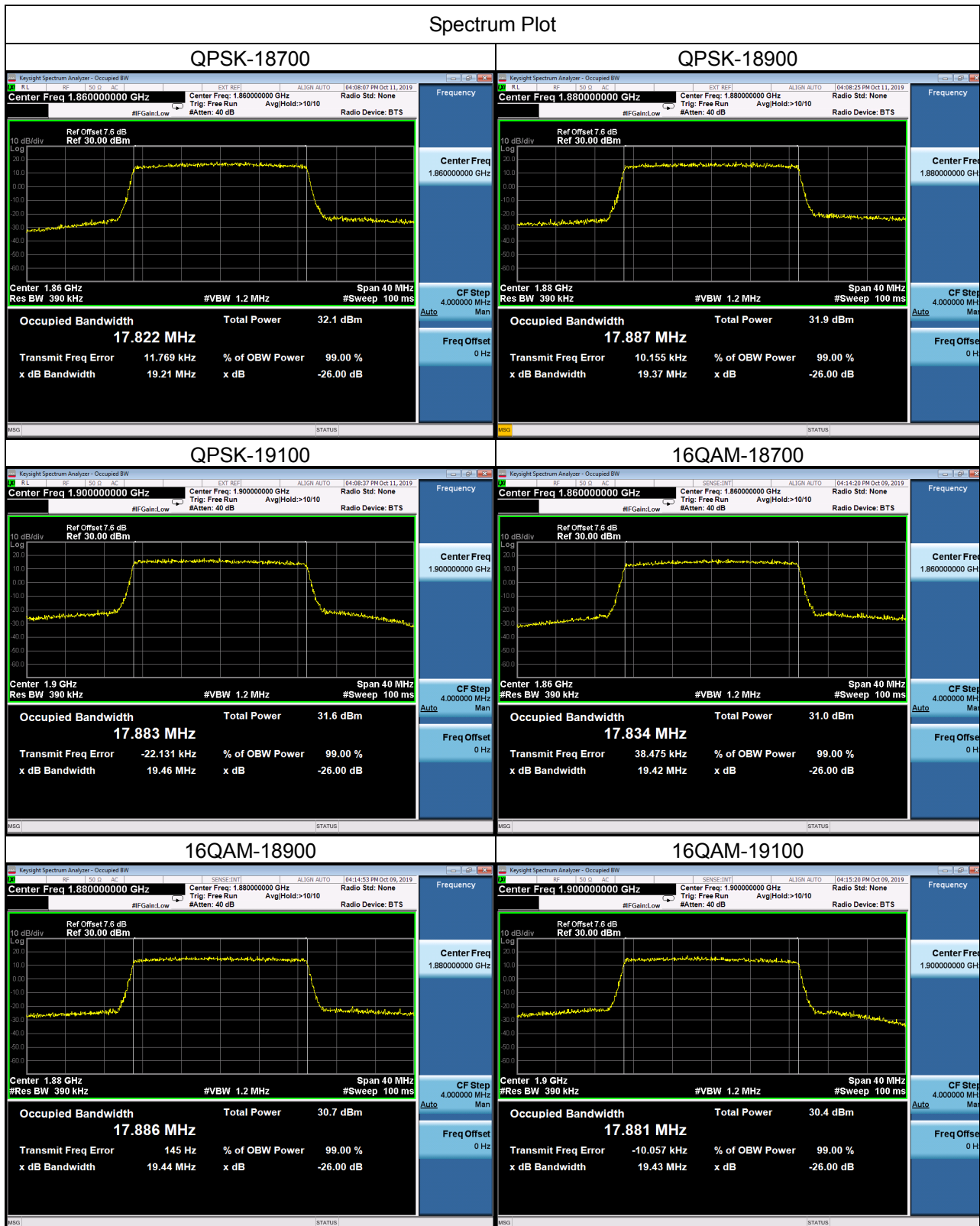
LTE Band 2_15M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18675	1857.5	13.433	18675	1857.5	14.65
18900	1880	13.427	18900	1880	14.69
19125	1902.5	13.437	19125	1902.5	14.81
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18675	1857.5	13.400	18675	1857.5	14.66
18900	1880	13.423	18900	1880	14.66
19125	1902.5	13.446	19125	1902.5	14.67

Spectrum Plot



LTE Band 2_20M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18700	1860	17.822	18700	1860	19.21
18900	1880	17.887	18900	1880	19.37
19100	1900	17.883	19100	1900	19.46
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
18700	1860	17.834	18700	1860	19.42
18900	1880	17.886	18900	1880	19.44
19100	1900	17.881	19100	1900	19.43

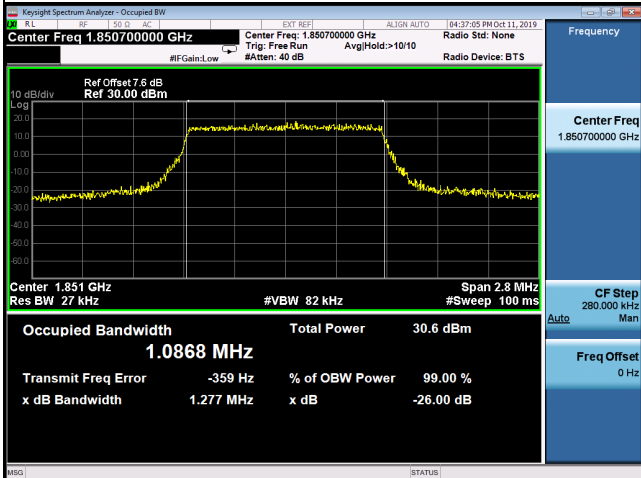
Spectrum Plot



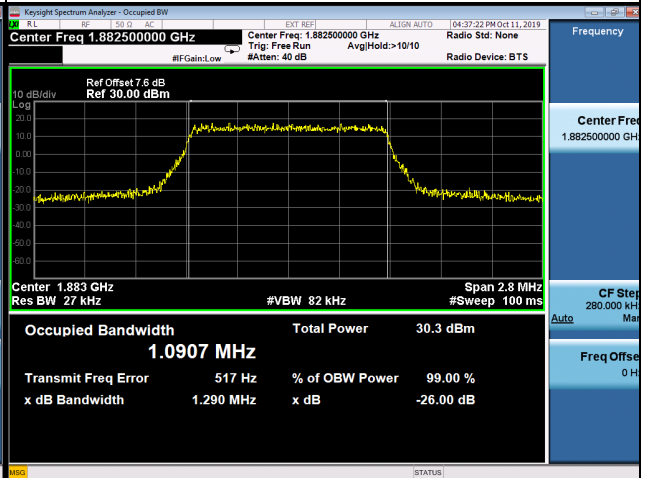
LTE Band 25_1.4M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26047	1850.7	1.0868	26047	1850.7	1.277
26365	1882.5	1.0907	26365	1882.5	1.290
26055	1914.3	1.0945	26055	1914.3	1.390
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26047	1850.7	1.0903	26047	1850.7	1.277
26365	1882.5	1.0933	26365	1882.5	1.281
26055	1914.3	1.0992	26055	1914.3	1.340

Spectrum Plot

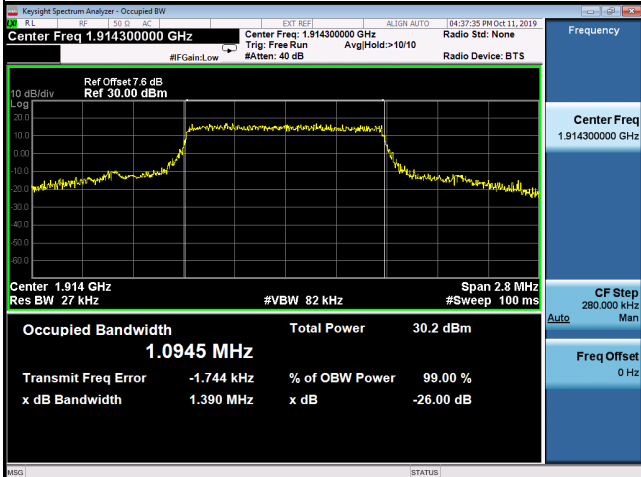
QPSK-26047



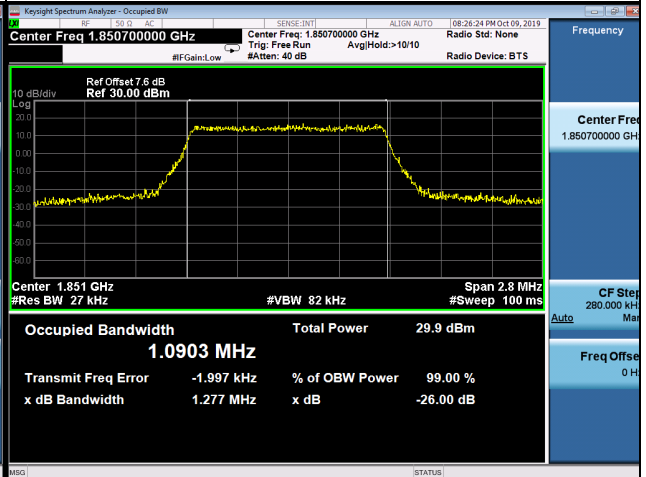
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QPSK-26683



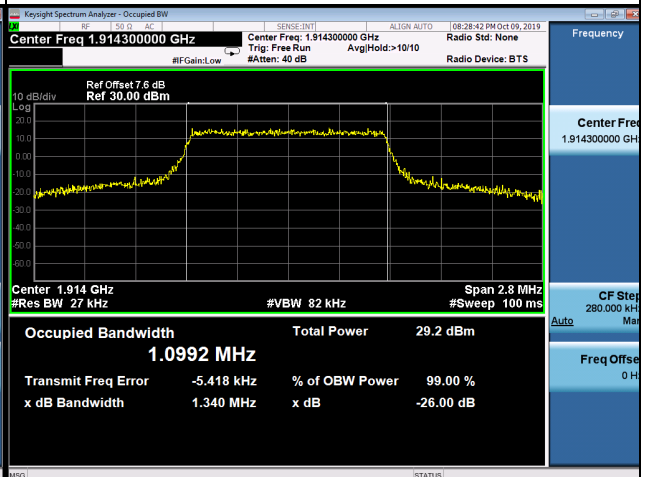
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16QAM-26365

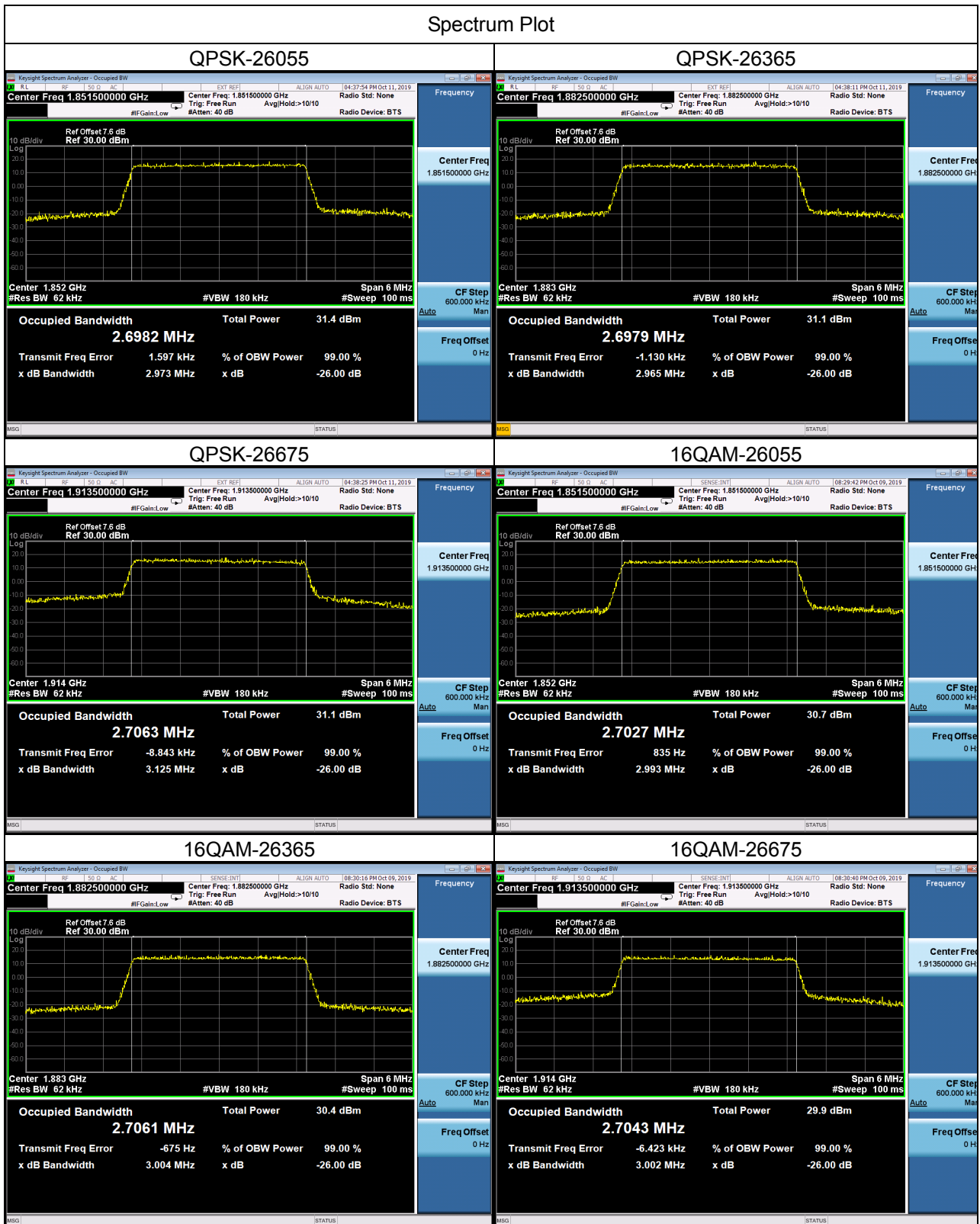


16QAM-26683



LTE Band 25_3M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26055	1851.5	2.6982	26055	1851.5	2.973
26365	1822.5	2.6979	26365	1822.5	2.965
26675	1913.5	2.7063	26675	1913.5	3.125
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26055	1851.5	2.7027	26055	1851.5	2.993
26365	1822.5	2.7061	26365	1822.5	3.004
26675	1913.5	2.7043	26675	1913.5	3.002

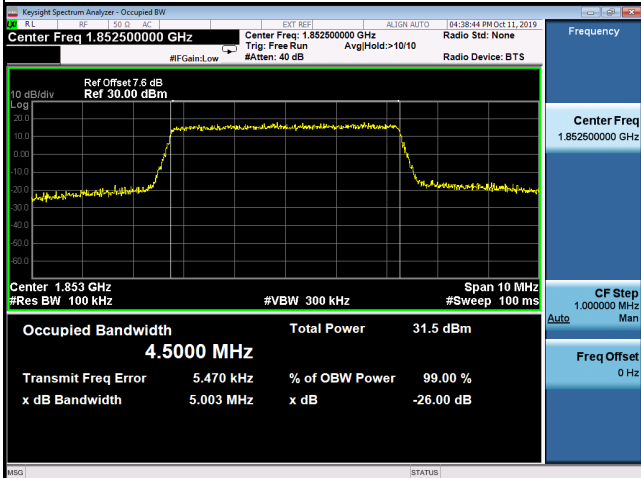
Spectrum Plot



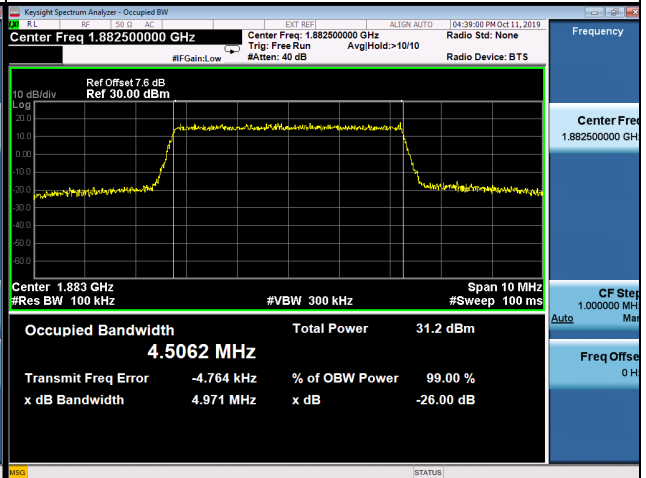
LTE Band 25_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26065	1852.5	4.5000	26065	1852.5	5.003
26365	1882.5	4.5062	26365	1882.5	4.971
26665	1912.5	4.5123	26665	1912.5	5.025
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26065	1852.5	4.5069	26065	1852.5	5.009
26365	1882.5	4.5091	26365	1882.5	4.965
26665	1912.5	4.5078	26665	1912.5	5.056

Spectrum Plot

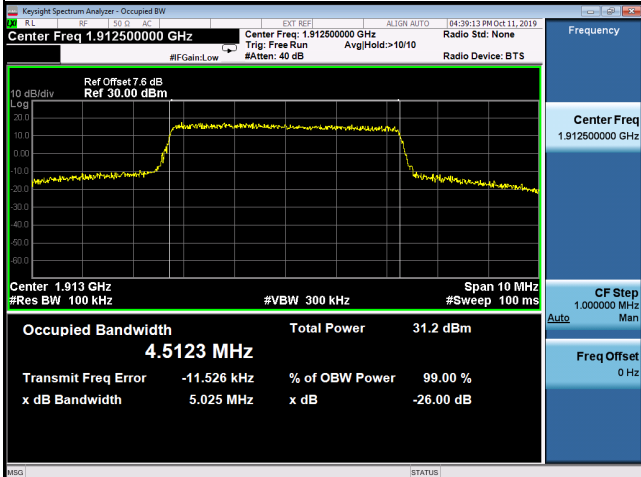
QPSK-26065



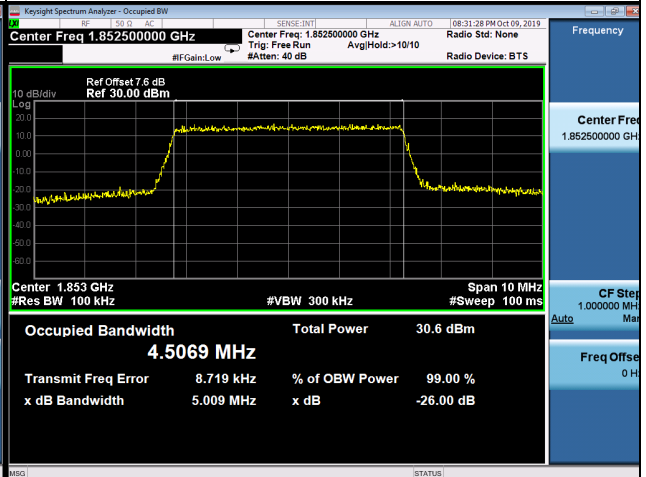
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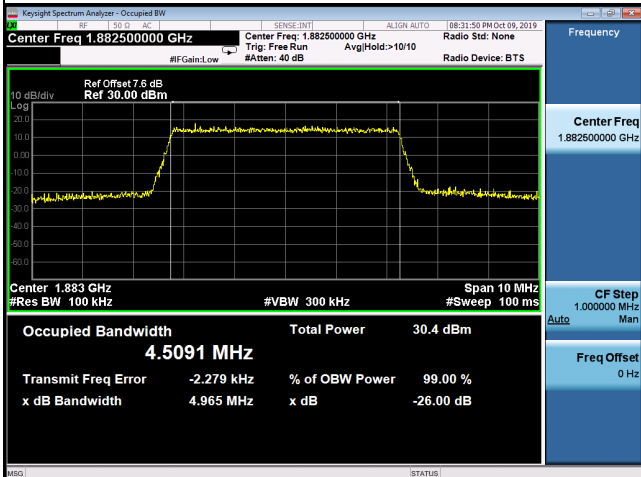
QPSK-26665



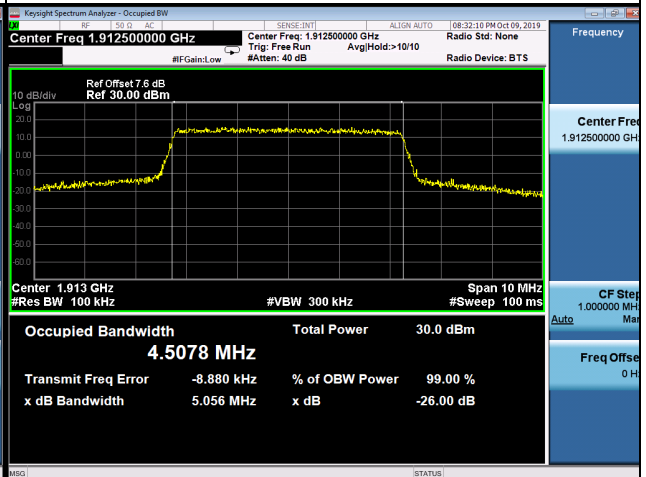
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16QAM-26365



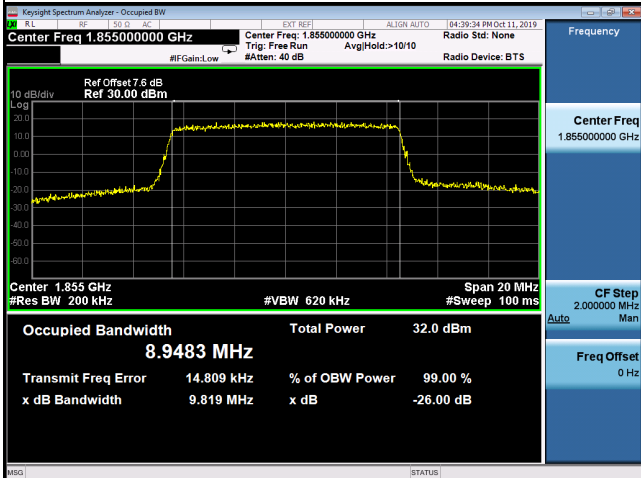
16QAM-26665



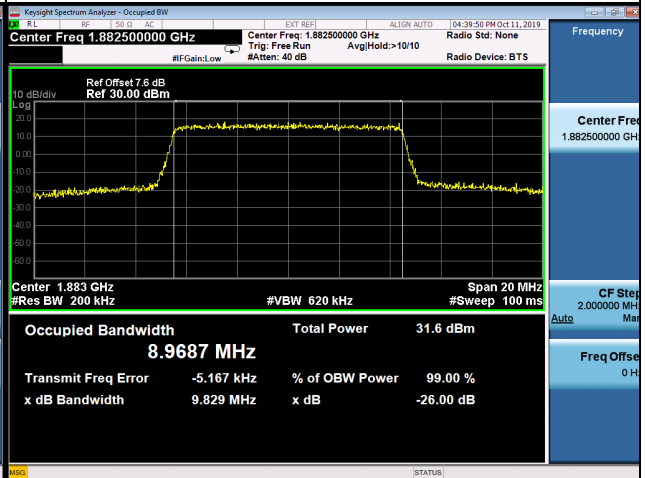
LTE Band 25_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26090	1855	8.9483	26090	1855	9.819
26365	1882.5	8.9687	26365	1882.5	9.829
26640	1911	8.9461	26640	1911	9.762
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26090	1855	8.9542	26090	1855	9.888
26365	1882.5	8.9658	26365	1882.5	9.907
26640	1911	8.9372	26640	1911	9.896

Spectrum Plot

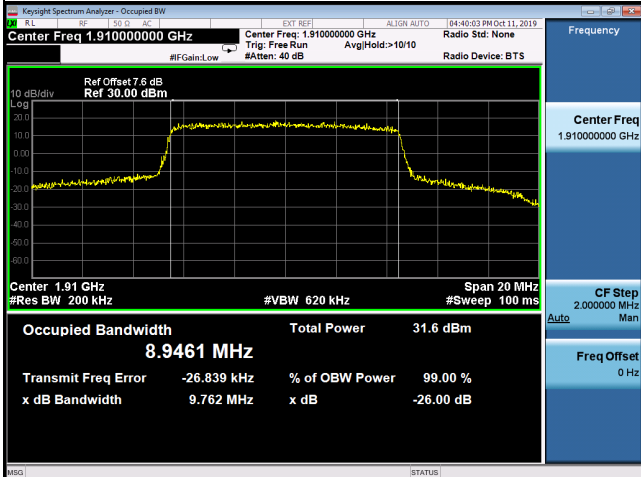
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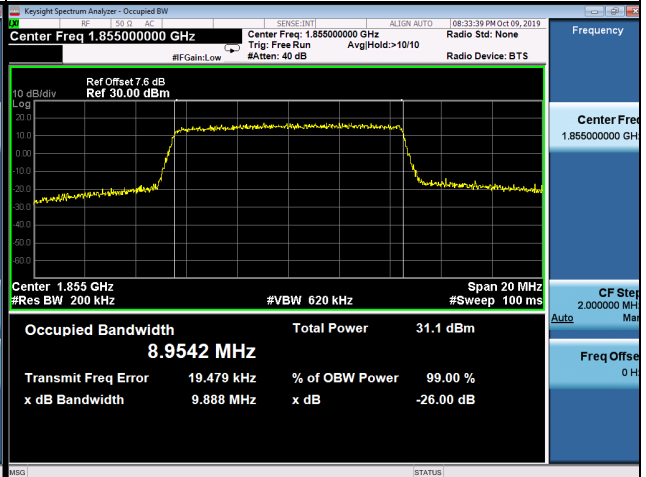
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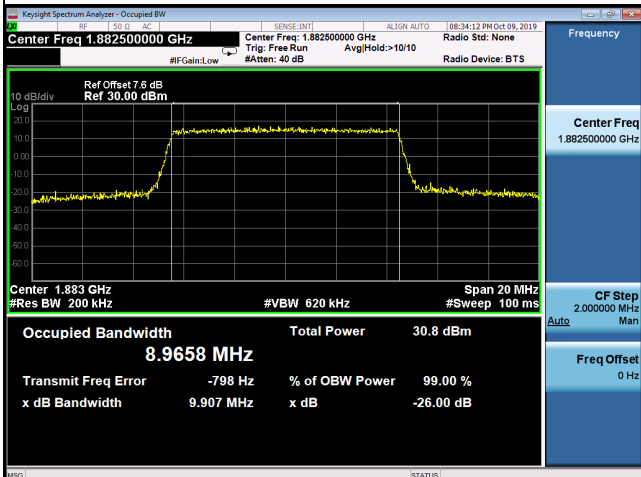
QPSK-26640



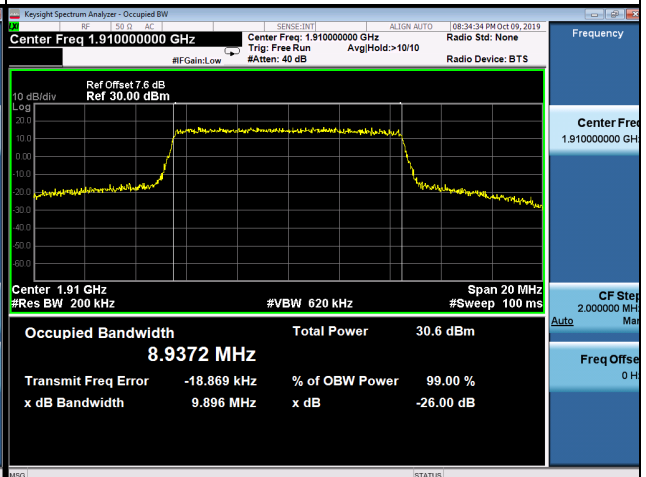
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16QAM-26365

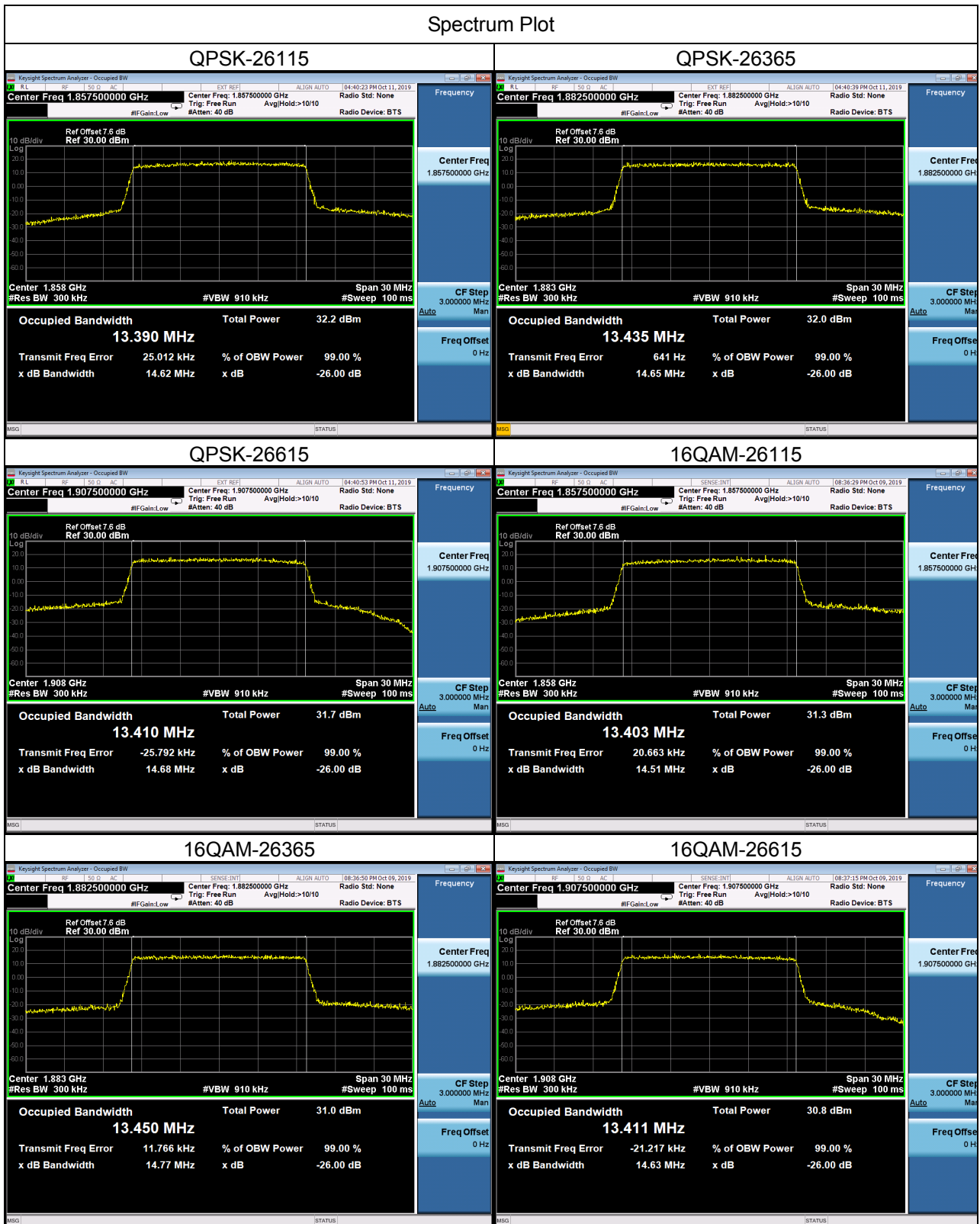


16QAM-26640



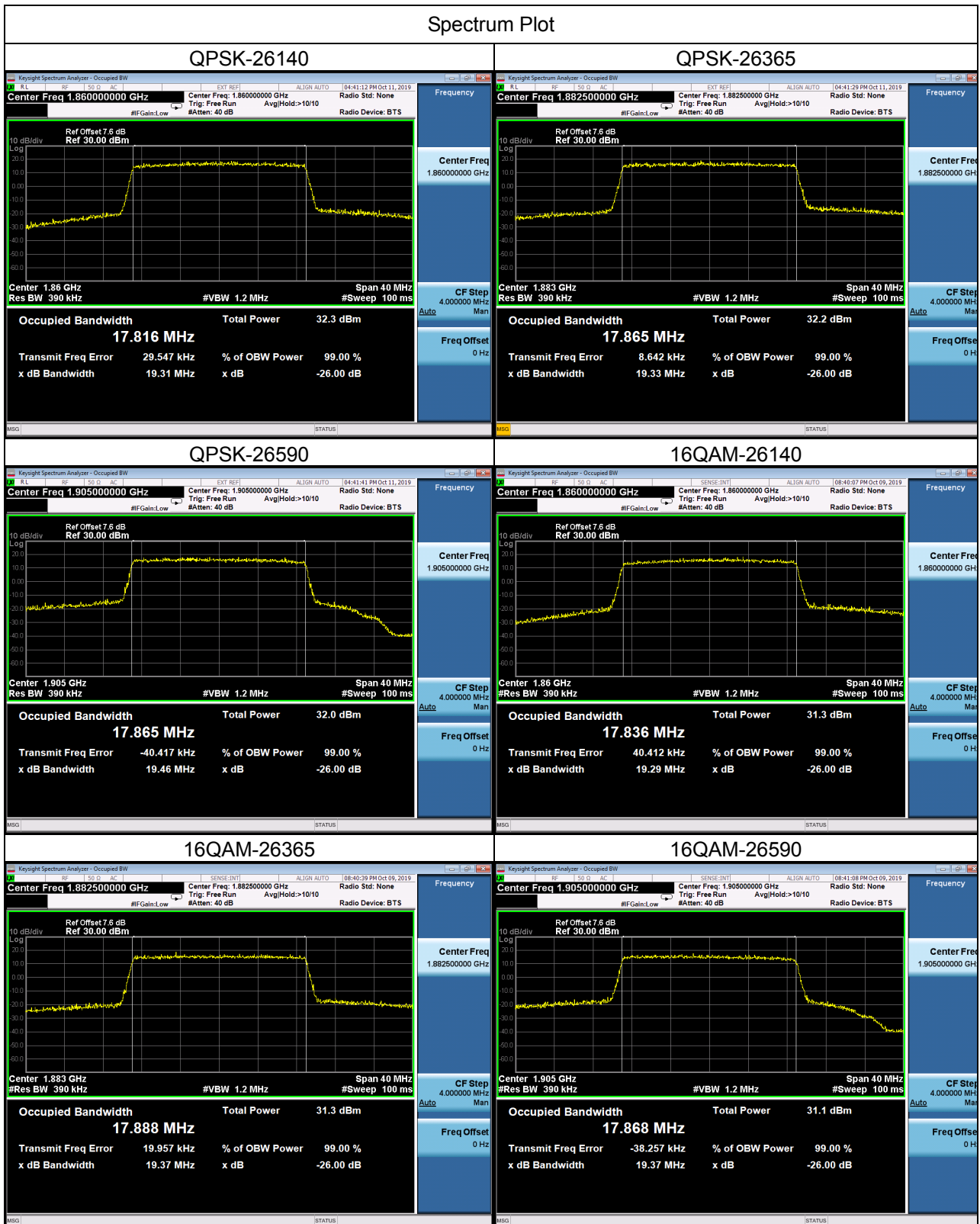
LTE Band 25_15M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26115	1857.5	13.390	26115	1857.5	14.62
26365	1882.5	13.435	26365	1882.5	14.65
26615	1907.5	13.410	26615	1907.5	14.68
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26115	1857.5	13.403	26115	1857.5	14.51
26365	1882.5	13.450	26365	1882.5	14.77
26615	1907.5	13.411	26615	1907.5	14.63

Spectrum Plot

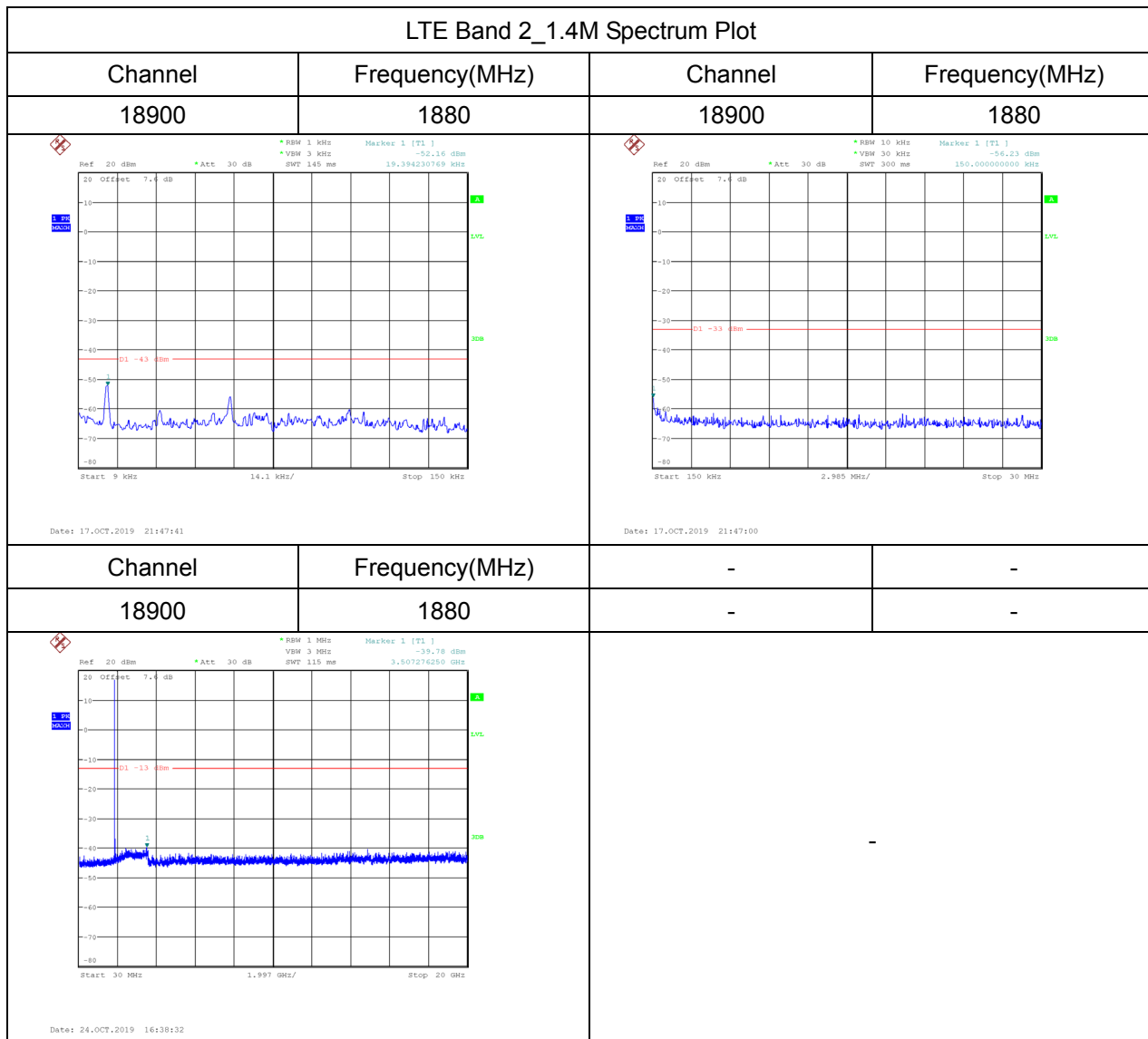


LTE Band 25_20M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26140	1860	17.816	26140	1860	19.31
26365	1882.5	17.865	26365	1882.5	19.33
26590	1905	17.865	26590	1905	19.46
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
26140	1860	17.836	26140	1860	19.29
26365	1882.5	17.888	26365	1882.5	19.37
26590	1905	17.868	26590	1905	19.37

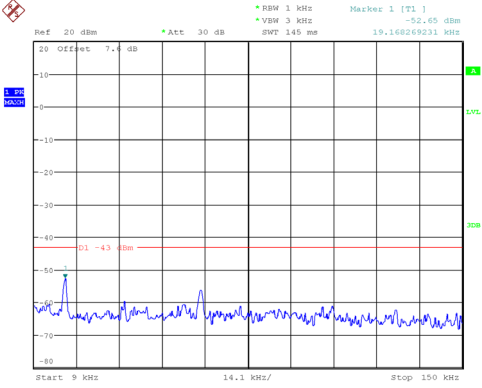
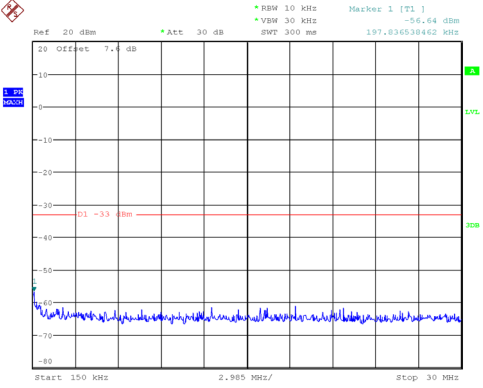
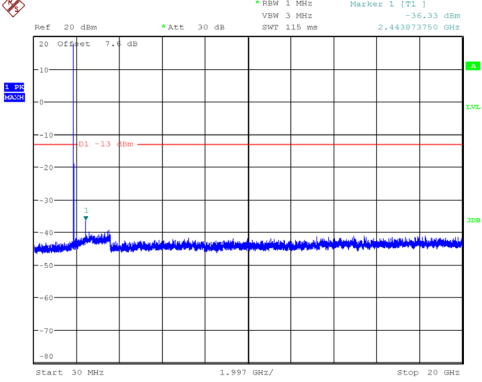
Spectrum Plot



APPENDIX C - CONDUCTED SPURIOUS EMISSIONS



LTE Band 2_5M Spectrum Plot

Channel	Frequency(MHz)	Channel	Frequency(MHz)
18900	1880	18900	1880
 Date: 17.OCT.2019 21:51:40		 Date: 17.OCT.2019 21:52:17	
Channel	Frequency(MHz)	-	-
18900	1880	-	-
 Date: 24.OCT.2019 16:37:39		-	

