



MRT Technology (Taiwan) Co., Ltd
Phone: +886-3-3288388
Fax: +886-3-3288918
Web: www.mrt-cert.com

Report No.: 2601TWY401-U3
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MEASUREMENT REPORT

FCC ID : NWAMS2502ELD554UA
APPLICANT : Microprogram Information Co., Ltd.

Application Type : Certification
Product : Rollingtrans Trailer ELD
Model No. : MS2502, EHA55-4U-A
Brand Name : Microprogram
FCC Classification : PCS Licensed Transmitter (PCB)
FCC Rule Part(s) : Part2, Part24 Subpart E, Part27
Test Procedure(s) : ANSI/TIA-603-E-2016, ANSI C63.26 2015
Received Date : January 28, 2026
Test Date : January 28, 2026 ~ February 11, 2026

Test By : *Wen Lee*
(Wen Lee)
Reviewed By : *Paddy Chen*
(Paddy Chen)
Approved By : *Chenz Ker*
(Chenz Ker)



The test results only relate to the tested sample.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.26-2015. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Taiwan) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2601TWY401-U3	1.0	Original Report	2026-03-06	

CONTENTS

Description	Page
1. General Information.....	5
1.1. Scope	6
1.2. MRT Test Location	6
1.3. Product Information	7
1.4. Radio Specification under Testing	8
1.5. Description of Available Antennas	8
1.6. Test Methodology	9
2. DESCRIPTION OF TEST	10
2.1. Summary	10
2.2. Occupied Bandwidth.....	12
2.3. Frequency Stability / Temperature Variation	12
2.4. Conducted Output Power Measurment.....	13
2.5. Peak-Average Ratio	13
2.6. Spurious and Harmonic Emissions at Antenna Terminal	14
2.7. Conducted and Radiated Spurious Emissions	14
3. TEST EQUIPMENT CALIBRATION DATE.....	15
4. Decision Rules and Measurement Uncertainty.....	16
4.1. Decision Rules	16
4.2. Measurement Uncertainty.....	16
5. TEST RESULT	17
5.1. Summary	17
5.2. Occupied Bandwidth.....	20
5.3. Frequency Stability Under Temperature & Voltage Variations	21
5.4. Transmitter Output Power Measurement	22
5.5. Peak-Average Ratio	23
5.6. Transmitter unwanted emissions (band-edge) Measurement	24
5.7. Transmitter unwanted emissions (spurious) Measurement	25
5.8. Radiated Spurious Emissions Measurement	27
Appendix A : TEST RESULT DATA.....	29
A1. Occupied Bandwidth Test Result	29
A1.1 LTE Band 2	29
A1.2 LTE Band 4	36
A1.3 LTE Band 12	43

A2. Frequency Stability Test Result	48
A2.1 LTE Band 2	48
A2.2 LTE Band 4	49
A2.3 LTE Band 12	50
A3. Transmitter Output Power Test Result	51
A3.1 LTE Band 2	51
A3.2 LTE Band 4	52
A3.3 LTE Band 12	53
A4. Peak to Average Radio Test Result	54
A4.1 LTE Band 2	54
A4.2 LTE Band 4	61
A4.3 LTE Band 12	68
A5. Transmitter unwanted emissions (band-edge) Test Result	73
A5.1 LTE Band 2	73
A5.2 LTE Band 4	79
A5.3 LTE Band 12	85
A6. Transmitter unwanted emissions (spurious) Test Result	89
A6.1 LTE Band 2	89
A6.2 LTE Band 4	101
A6.3 LTE Band 12	113
A7. Radiated Spurious Emissions Test Result	121
A7.1 LTE Band 2	121
A7.2 LTE Band 4	122
A7.3 LTE Band 12	123
Appendix B : Test Photograph.....	124
Appendix C : External Photograph.....	124
Appendix D : Internal Photograph.....	124

1. General Information

Applicant	Microprogram Information Co., Ltd.
Applicant Address	6F, No.402, Shizheng Rd, Xitun Dist., Taichung City 407., Taiwan
Manufacturer	Microprogram Information Co., Ltd.
Manufacturer Address	6F, No.402, Shizheng Rd, Xitun Dist., Taichung City 407., Taiwan
Test Site	MRT Technology (Taiwan) Co., Ltd
Test Site Address	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
MRT FCC Registration No.	291082
FCC Rule Part(s)	Part 24E, Part27

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Fuxing Rd., Taoyuan, Taiwan (R.O.C)

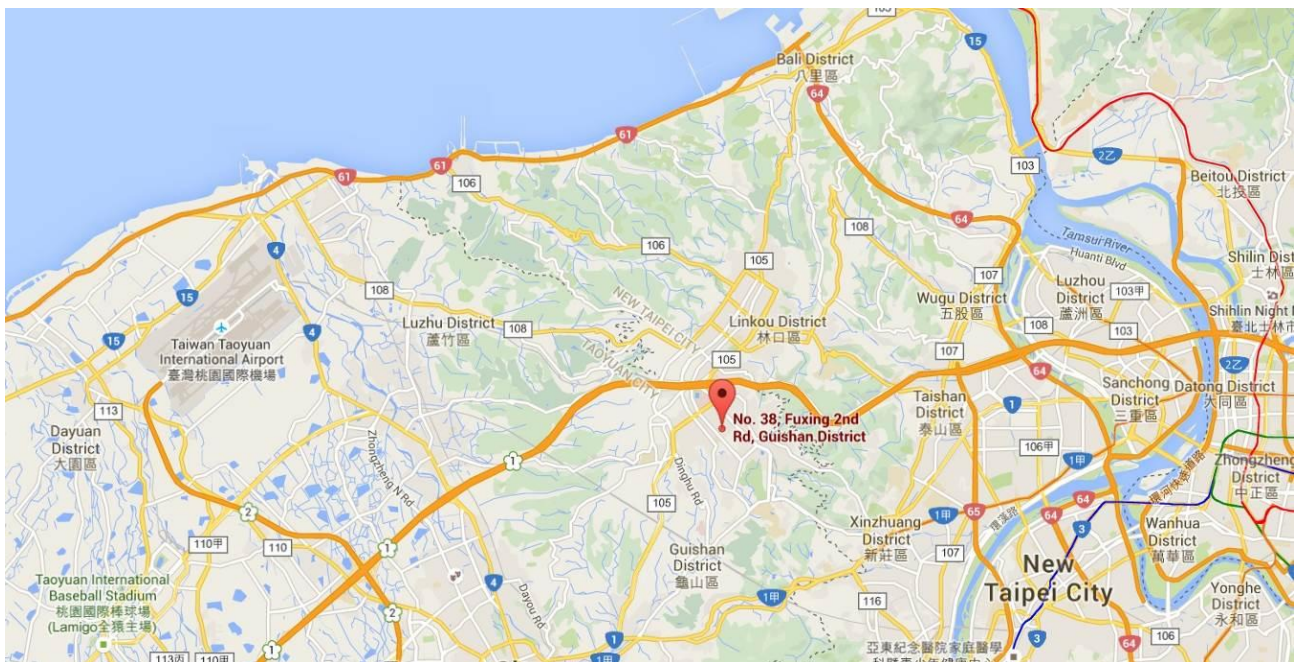
- MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
- MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.
- MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Canada, EU and TELEC Rules.

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



1.3. Product Information

Product Name	Rollingtrans Trailer ELD
Model No.	MS2502, EHA55-4U-A
Operating Temperature Range	-40°C ~ +85°C
Supply Voltage Rating	DC 10V – 36V
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

Note:

- 1.Model Difference: The difference of models only for marketing different, the other hardware was the same. (declared by the manufacturer)
- 2.The test was performed base on MS2502.

1.4. Radio Specification under Testing

E-UTRA Specification	
FDD TX Frequency Range	LTE Band 2: 1850 ~ 1910 MHz; LTE Band 4: 1710 ~ 1755 MHz LTE Band 12: 699 ~ 716 MHz
FDD RX Frequency Range	LTE Band 2: 1930 ~ 1990 MHz; LTE Band 4: 2110 ~ 2155 MHz LTE Band 12: 729 ~ 746 MHz
Support Bandwidth	Band 2, 4: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz Band 12: 1.4MHz, 3MHz, 5MHz, 10MHz
Type of Modulation	UL up to 16QAM (5 Mbps), DL up to 16QAM (10 Mbps)

1.5. Description of Available Antennas

Antenna	Brand name	Model name	Type	Antenna Gain (dBi)	
Ant0	Affini	SRFL064	FPC Self-adhesive 3M 468MP	617-698MHz	1.03
				698-824MHz	1.03
				824-960MHz	1.71
				1710-2200MHz	3.86
				2300-2400MHz	3.9
				2500-2690MHz	3.88
Note: Customer-defined antenna information and maximum gain value.					

Technology	Frequency Range (MHz)		Max Peak Gain (dBi)
	TX	RX	ANT0
LTE Band 2	1850 ~ 1910	1930 ~ 1990	3.86
LTE Band 4	1710 ~ 1755	2110 ~ 2155	3.86
LTE Band 12	699 ~ 716	729 ~ 746	1.03
Note 1: All antenna information (Antenna type and Peak Gain) is provided by the manufacturer. 2: The typical antennas used to calculate the ERP (EIRP).			

1.6. Test Methodology

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ANSI C63.26:2015
- FCC CFR 47 Part 2, Part 24, Part 27
- FCC KDB 971168 D01 v03r01: Power Meas License Digital Systems
- FCC KDB 971168 D02 v02r02: Misc Rev Approv License Devices
- FCC KDB 412172 D01 v01r01: Determining ERP and EIRP

2. DESCRIPTION OF TEST

2.1. Summary

FCC Part Section(s)	Test Description	Test Condition	Test Result
2.1049	Occupied Bandwidth	Conducted	Pass
2.1055, 24.235, 27.54	Frequency Stability		Pass
2.1046, 24.232(c) 27.50(a)(3) (b)(10) (c)(10) (d)(4) (h)(2)	Transmitter Output Power		Pass
22.913(d), 24.232(d), 27.50(d)(5)	Peak to Average Ratio		Pass
2.1051, 24.238(a) 27.53(a) (c) (f) (g) (h) (m)	Transmitter unwanted emissions (band-edge)		Pass
2.1051, 24.238(a) 27.53(a) (c) (f) (g) (h) (m)	Transmitter unwanted emissions (spurious)		
2.1053, 24.238(a) 27.53(a) (c) (f) (g) (h) (m)	Transmitter Spurious Emissions	Radiated	Pass

Notes:

- 1) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- 2) All supported modulation types were evaluated. The worst-case emission of modulation was selected. Therefore, the Frequency Stability, Transmitter unwanted emissions (band-edge), Transmitter unwanted emissions (spurious), Radiated Spurious Emissions were presented worst-case in the test report.
- 3) For radiated emission tests, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst-case emissions.

Test Items	Bandwidth	Modulation	RB Combination	Test Channel
Occupied Bandwidth	All BW	All Modulation	Full	Low/Middle/High
Frequency Stability	Maximum BW	QPSK	Full	Middle
Transmitter Output Power	All BW	All Modulation	1RB/Half/Full	Low/Middle/High
Peak to Average Ratio	Maximum BW	All Modulation	Full	Low/Middle/High
Band Edge	All BW	QPSK	1RB/Half/Full	Low/High
Conducted Emissions	All BW	All Modulation	1RB	Low/Middle/High
Radiated Emissions	Minimum BW	QPSK	1RB	Low/Middle/High

Note:

1. All modes of operation and data rates were investigated. The test results shown in the above part represent the worst case emissions.
2. All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables, attenuators, and couplers.

2.2. Occupied Bandwidth

According to FCC Part 2.1049

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

2.3. Frequency Stability / Temperature Variation

According to FCC Part 2.1055, 24.235, 27.54

Frequency stability testing is performed in accordance with the guidelines of ANSI/TIA-603-E-2016. The frequency stability of the transmitter is measured by:

- a.) Temperature: The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Specification – the frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ (± 2.5 ppm) of the center frequency.

Time Period and Procedure:

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

2.4. Conducted Output Power Measurement

According to FCC Part 2.1046, 24.232, 27.50

According to KDB 412172 D01 Section 1.2 Power Approach

$EIRP = PT + GT - LC = ERP + 2.15 \text{ dB}$, $ERP = EIRP - 2.15 \text{ dB}$

PT = transmitter output power in dBm

GT = gain of the transmitting antenna in dBi

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB.

Technology	ERP Power Limit	Technology	EIRP Power Limit
LTE Band 12	3W (34.77dBm)	LTE Band 2	2W (33dBm)
		LTE Band 4	1W (30dBm)

2.5. Peak-Average Ratio

According to FCC Part 24.232, 27.50

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.

2.6. Spurious and Harmonic Emissions at Antenna Terminal

According to FCC Part 2.1051, 24.238, 27.53

For LTE B2/B4/B12

On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm. However, in the 1MHz 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.

2.7. Conducted and Radiated Spurious Emissions

According to FCC Part 2.1051, 2.1053, 24.238, 27.53

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic.

For LTE B2/B4/B12

On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

3. TEST EQUIPMENT CALIBRATION DATE

Radiated Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	MRTTWA00002	1 year	2026/4/16
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00086	1 year	2026/11/13
Broadband Hornantenna	RFSPIN	DRH18-E	MRTTWA00106	1 year	2026/3/3
Broadband Preamplifier	EMC Instruments corporation	EMC118A45SEE	MRTTWA00107	1 year	2026/3/3
Breitband Hornantenna	SCHWARZBECK	BBHA 9170	MRTTWA00004	1 year	2026/3/27
Broadband Amplifier	SCHWARZBECK	BBV 9721	MRTTWA00006	1 year	2026/3/20
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2026/3/4
Signal Analyzer	R&S	FSV40	MRTTWA00007	1 year	2026/5/20
Antenna Cable	HUBERSUHNER	SF106	MRTTWE00010	1 year	2026/6/13
Cable	Rosnol	K1K50-UP0264-K1K50-4M	MRTTWE00012	1 year	2026/6/13
Temperature/Humidity Meter	TFA	35.1083	MRTTWA00032	1 year	2026/6/5

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2026/10/20
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2026/7/14
USB Wideband Power Sensor	KEYSIGHT	U2021XA	MRTTWA00015	1 year	2026/3/11
Wideband Radio Communication Taster	R&S	CMW 500	MRTTWA00084	1 year	2026/10/20
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MRTTWA00089	1 year	2026/6/4

Test Software

Software	Version	Function
e3	9.160520a	EMI Test Software

4. Decision Rules and Measurement Uncertainty

4.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2.

(Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

4.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Radiated Spurious Emission
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 9kHz~30MHz: $\pm 3.92\text{dB}$ 30MHz~1GHz: $\pm 4.25\text{dB}$ 1GHz~18GHz: $\pm 4.40\text{dB}$ 18GHz~40GHz: $\pm 4.45\text{dB}$
Frequency Error
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): $\pm 78.4\text{Hz}$
Conducted Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): $\pm 0.84\text{dB}$
Conducted Spurious Emission
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): $\pm 2.65\text{ dB}$
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): $\pm 3.3\%$
Temp. / Humidity
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): $\pm 0.82^\circ\text{C}/ \pm 3\%$
DC Voltage
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): $\pm 0.3\%$

Note:

Determining compliance is based on the test results met the regulation limits or requirements declared by clients, and the test results don't take into account the value of measurement uncertainty.

5. TEST RESULT

5.1. Summary

Maximum Conducted Power and ERP/EIRP Power

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation (1) as follows

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T$$

where

ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively. (expressed in the same units as P_{Meas} , e.g., dBm or dBW)

P_{Meas} measured transmitter output power or PSD, in dBm or dBW

G_T gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

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

LTE Band		Band2	Antenna Gain (dBi)		3.86
BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Maximum EIRP (W)	EIRP Limit (W)
1.4M	QPSK	22.06	0.161	0.391	2
	16QAM	21.90	0.155	0.377	2
3M	QPSK	22.18	0.165	0.401	2
	16QAM	21.10	0.129	0.313	2
5M	QPSK	21.96	0.157	0.382	2
	16QAM	21.36	0.137	0.333	2
10M	QPSK	22.42	0.174	0.424	2
	16QAM	21.92	0.155	0.378	2
15M	QPSK	22.03	0.160	0.388	2
	16QAM	21.90	0.155	0.377	2
20M	QPSK	22.39	0.173	0.421	2
	16QAM	21.84	0.153	0.372	2

LTE Band		Band4	Antenna Gain (dBi)		3.86
BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Maximum EIRP (W)	EIRP Limit (W)
1.4M	QPSK	22.86	0.193	0.470	1
	16QAM	21.87	0.154	0.374	1
3M	QPSK	22.40	0.174	0.423	1
	16QAM	22.07	0.161	0.392	1
5M	QPSK	22.29	0.169	0.412	1
	16QAM	21.97	0.158	0.383	1
10M	QPSK	22.72	0.187	0.455	1
	16QAM	21.91	0.155	0.378	1
15M	QPSK	22.67	0.185	0.449	1
	16QAM	22.00	0.159	0.386	1
20M	QPSK	22.57	0.181	0.440	1
	16QAM	22.15	0.164	0.399	1

LTE Band		Band12	Antenna Gain (dBi)		1.03
BW	Modulation	Conducted Peak Power (dBm)	Conducted Peak Power (W)	Maximum ERP (W)	ERP Limit (W)
1.4M	QPSK	24.60	0.288	0.223	3
	16QAM	23.98	0.250	0.193	3
3M	QPSK	24.59	0.288	0.223	3
	16QAM	24.10	0.257	0.198	3
5M	QPSK	24.41	0.276	0.213	3
	16QAM	23.91	0.246	0.190	3
10M	QPSK	24.62	0.289	0.224	3
	16QAM	24.31	0.270	0.208	3

LTE Band	BandWidth	Maximum 99% Occupied Bandwidth Designator	
		QPSK	16QAM
Band 2	1.4MHz	1M08G7D	1M08D7W
	3MHz	2M68G7D	2M69D7W
	5MHz	4M47G7D	4M46D7W
	10MHz	8M93G7D	4M88D7W
	15MHz	13M4G7D	4M94D7W
	20MHz	17M9G7D	5M00D7W

LTE Band	BandWidth	Maximum 99% Occupied Bandwidth Designator	
		QPSK	16QAM
Band 4	1.4MHz	1M08G7D	1M08D7W
	3MHz	2M69G7D	2M68D7W
	5MHz	4M47G7D	4M46D7W
	10MHz	8M94G7D	4M89D7W
	15MHz	13M4G7D	4M97D7W
	20MHz	17M8G7D	5M00D7W

LTE Band	BandWidth	Maximum 99% Occupied Bandwidth Designator	
		QPSK	16QAM
Band 12	1.4MHz	1M08G7D	1M08D7W
	3MHz	2M69G7D	2M68D7W
	5MHz	4M46G7D	4M46D7W
	10MHz	8M94G7D	4M88D7W

5.2. Occupied Bandwidth

5.2.1 Test Limit

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

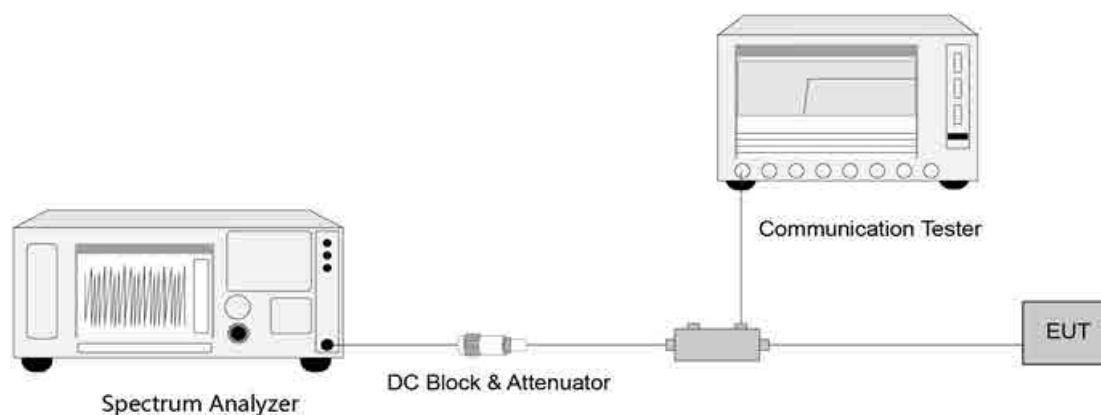
5.2.2 Test Procedure used

ANSI C63.26-2015 - Section 5.4.4

5.2.3 Test Setting

1. Set center frequency to the nominal EUT channel center frequency
2. RBW = The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

5.2.4 Test Setup



5.2.5 Test Result

Refer to Appendix A.1

5.3. Frequency Stability Under Temperature & Voltage Variations

5.3.1 Test Limit

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

5.3.2 Test Procedure

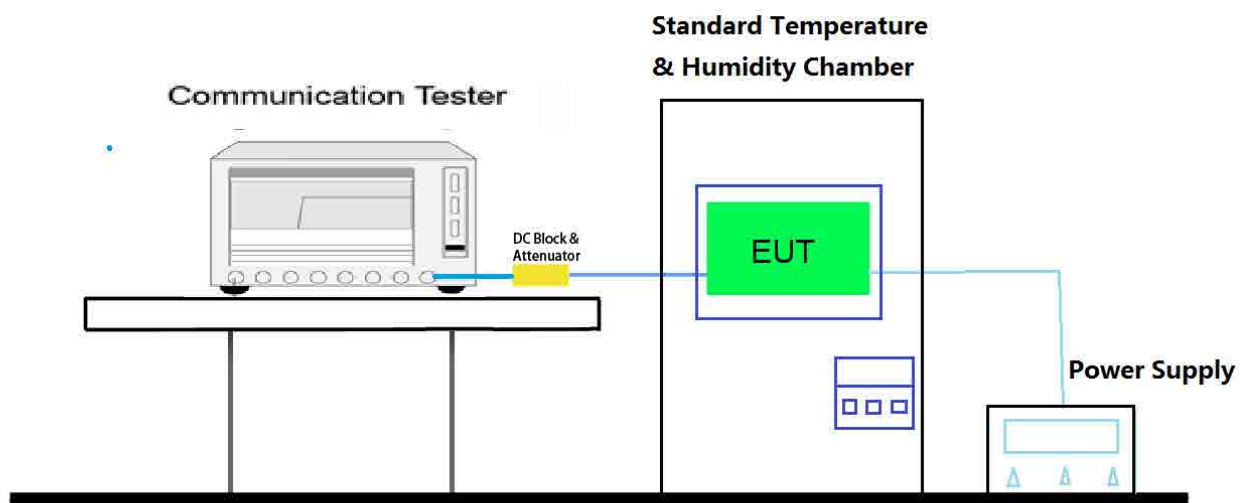
ANSI C63.26-2015 - Section 5.6

5.3.3 Frequency Stability Under Voltage Variations

Set chamber temperature to 20°C . Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum

5.3.4 Test Setup



5.3.5 Test Result

Refer to Appendix A.2

5.4. Transmitter Output Power Measurement

5.4.1 Test Limit

Technology	ERP Power Limit	Technology	EIRP Power Limit
LTE Band 12	3W (34.77dBm)	LTE Band 2	2W (33dBm)
		LTE Band 4	1W (30dBm)

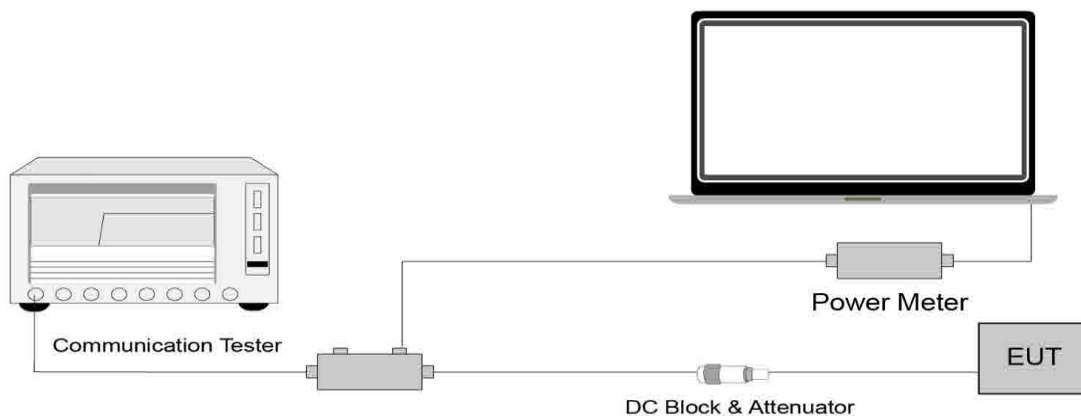
5.4.2 Test Procedure

ANSI C63.26-2015 - Section 5.2.4.2

5.4.3 Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

5.4.4 Test Setup



5.4.5 Test Result

Refer to Appendix A.3

5.5. Peak-Average Ratio

5.5.1 Test Limit

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB.

The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure.

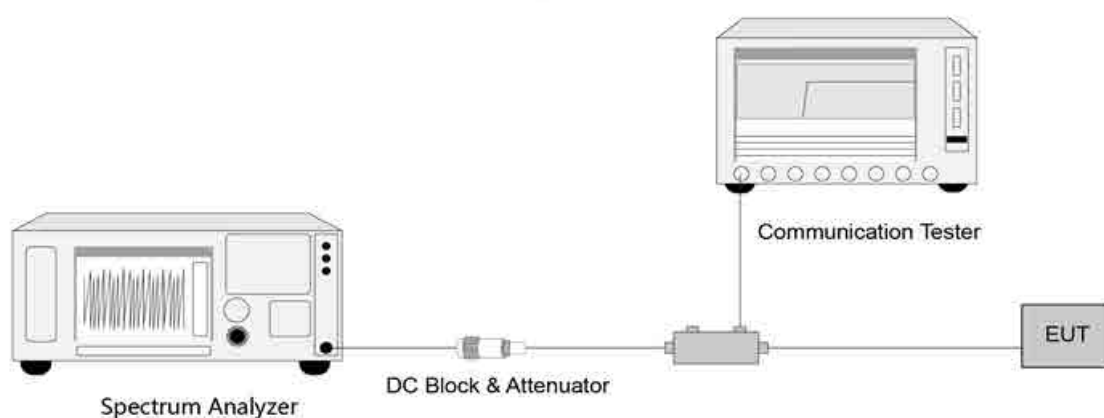
5.5.2 Test Procedure

ANSI C63.26-2015 - Section 5.2.3.4 (CCDF).

5.5.3 Test Setting

1. Set the 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 PARR level associated with a probability of 0.1%

5.5.4 Test Setup



5.5.5 Test Result

Refer to Appendix A.4

5.6. Transmitter unwanted emissions (band-edge) Measurement

5.6.1 Test Limit

On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

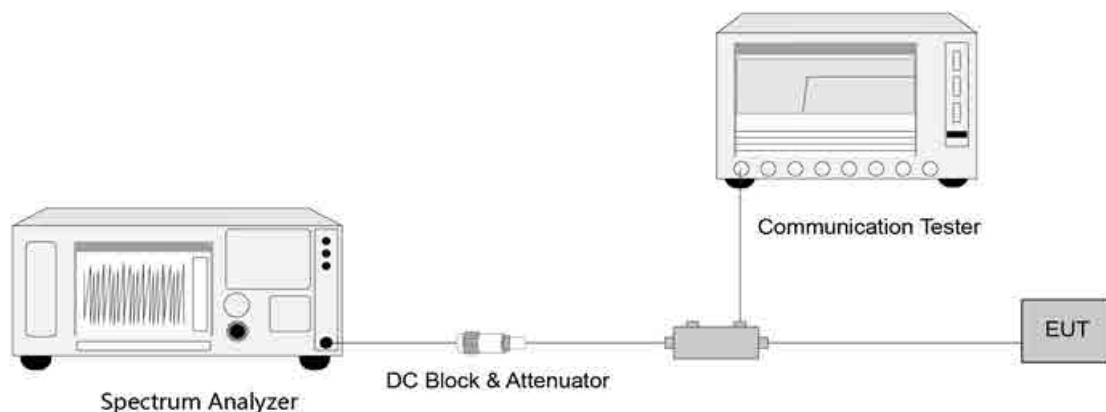
5.6.2 Test Procedure

ANSI C63.26-2015 - Section 5.7.

5.6.3 Test Setting

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. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). 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.

5.6.4 Test Setup



5.6.4 Test Result

Refer to Appendix A.5

5.7. Transmitter unwanted emissions (spurious) Measurement

5.7.1 Test Limit

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic.

On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

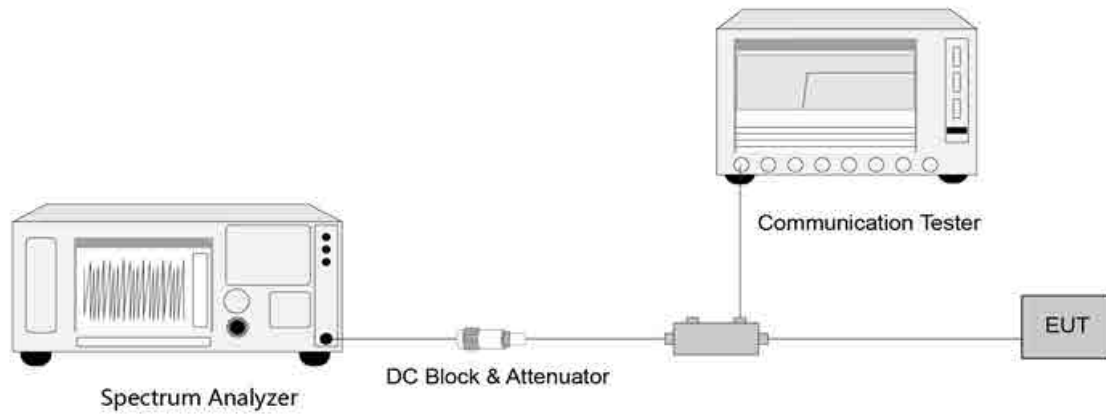
5.7.2 Test Procedure

ANSI C63.26-2015 - Section 5.7

5.7.3 Test Setting

1. Set the analyzer frequency to low, Mid or high channel.
2. RBW = specified resolution bandwidth of 100 kHz is at or below 1GHz and 1MHz is above 1GHz
3. VBW $\geq 3 \times$ RBW
4. Sweep time = auto
5. Detector = power averaging (rms)
6. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic.
7. Use the peak marker function to determine the maximum amplitude level.

5.7.4 Test Setup



5.7.5 Test Result

Refer to Appendix A.6

5.8. Radiated Spurious Emissions Measurement

5.8.1 Test Limit

On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

5.8.2 Test Procedure

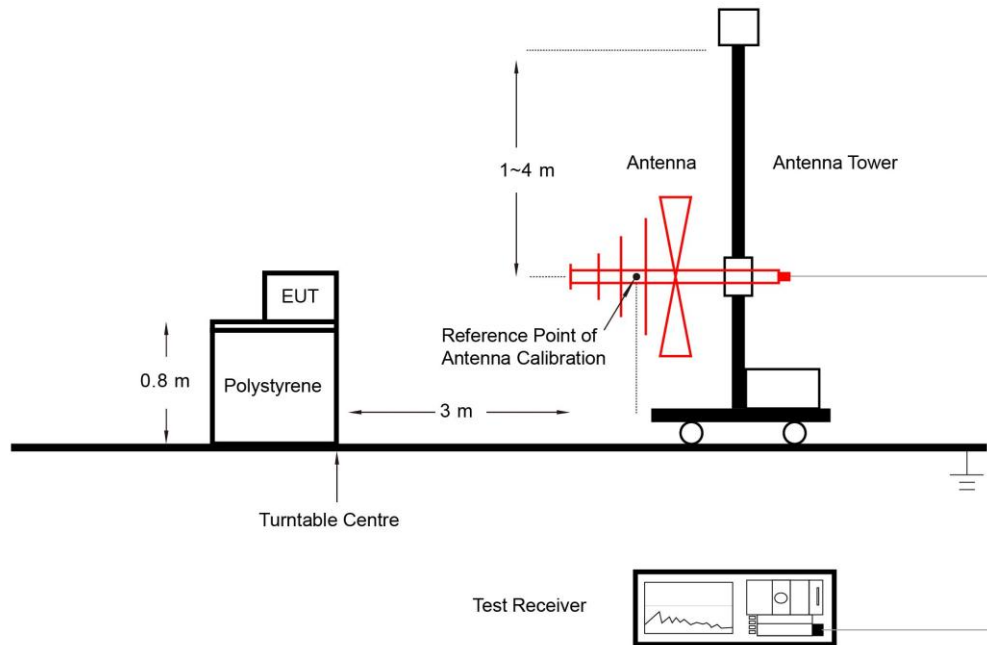
ANSI C63.26-2015 - Section 5.7

5.8.3 Test Setting

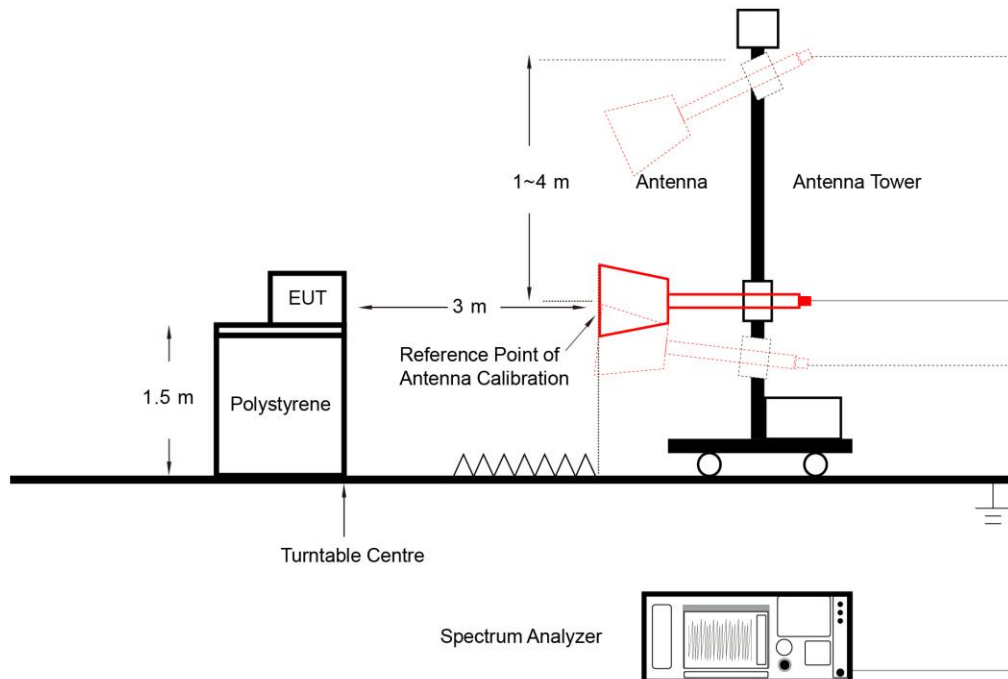
1. RBW = 120kHz or 1MHz
2. VBW $\geq 3 \times$ RBW
3. Sweep time $\geq 10 \times$ (number of points in sweep) $\times$ (transmission symbol period)
4. Detector = CISPR quasi-peak / average detector (Below 1 GHz, compliance with the limits shall be demonstrated using a CISPR quasi-peak detector and the related measurement bandwidth. Above 1 GHz, compliance with the limits shall be demonstrated using a linear average detector with a minimum resolution bandwidth of 1 MHz.)
5. The trace was allowed to stabilize

5.8.4 Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



5.8.5 Test Result

Refer to Appendix A.7.

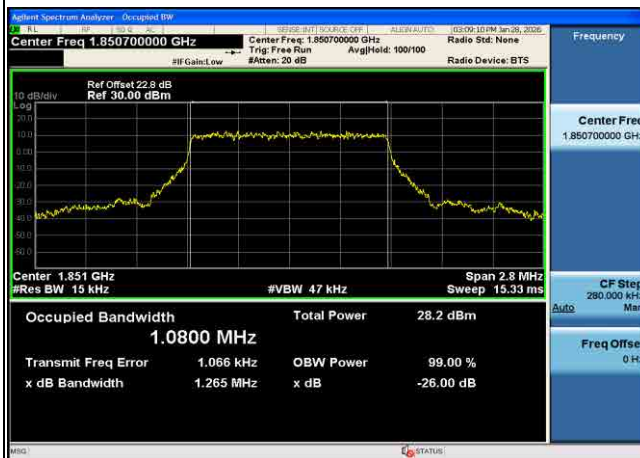
Appendix A : TEST RESULT DATA

A1. Occupied Bandwidth Test Result

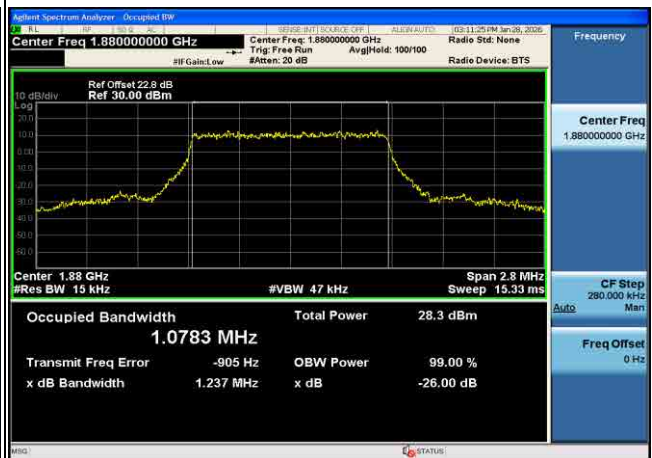
A1.1 LTE Band 2

LTE Band 2						
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		26 dB bandwidth (MHz)	
			QPSK	16QAM	QPSK	16QAM
1.4M	18607	1850.7	1.0800	1.0783	1.265	1.242
1.4M	18900	1880	1.0783	1.0784	1.237	1.276
1.4M	19193	1909.3	1.0794	1.0810	1.240	1.245
3M	18615	1851.5	2.6808	2.6855	2.935	2.907
3M	18900	1880	2.6839	2.6847	2.933	2.901
3M	19185	1908.5	2.6814	2.6816	2.929	2.924
5M	18625	1852.5	4.4701	4.4492	4.915	4.831
5M	18900	1880	4.4610	4.4581	4.877	4.883
5M	19175	1907.5	4.4527	4.4567	4.848	4.861
10M	18650	1855	8.9093	4.8646	9.512	5.597
10M	18900	1880	8.9298	4.8779	9.581	5.490
10M	19150	1905	8.9072	4.8631	9.529	5.467
15M	18675	1857.5	13.329	4.9325	14.10	5.714
15M	18900	1880	13.400	4.9356	14.09	7.196
15M	19125	1902.5	13.417	4.9282	14.40	5.689
20M	18700	1860	17.813	4.9855	18.73	5.699
20M	18900	1880	17.749	4.9995	18.90	9.533
20M	19100	1900	17.914	4.9857	19.18	5.894

OCC_4G_B2_.QPSK_1.4M_CH18607



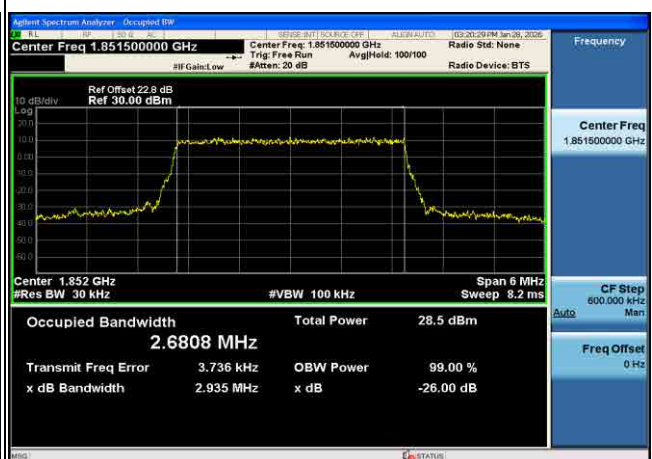
OCC_4G_B2_.QPSK_1.4M_CH18900



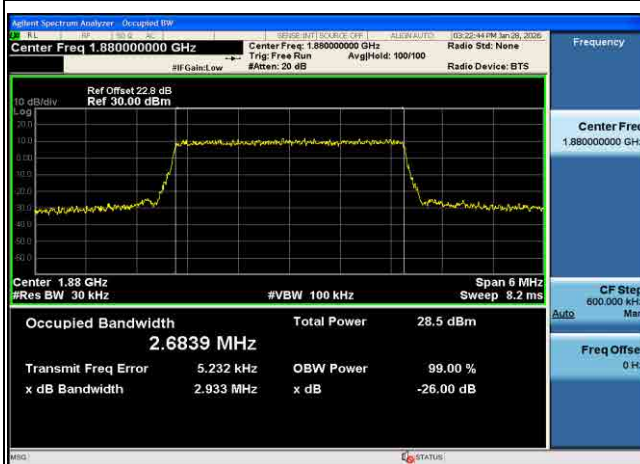
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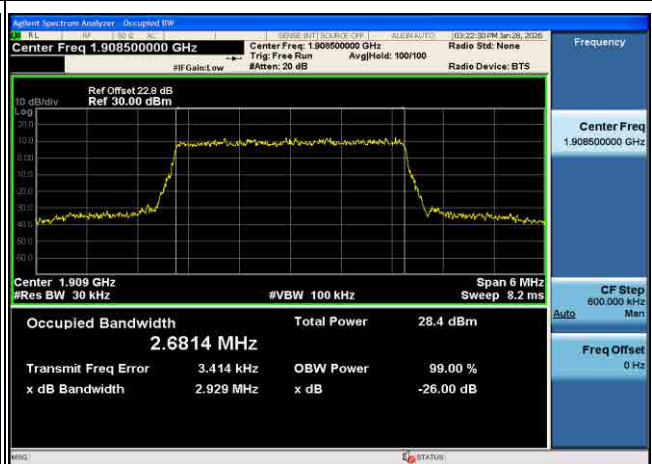
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OCC_4G_B2_.QPSK_3M_CH18900

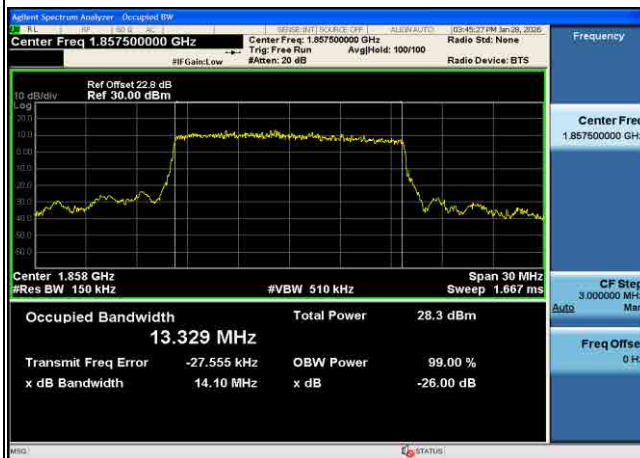


OCC_4G_B2_.QPSK_3M_CH19185

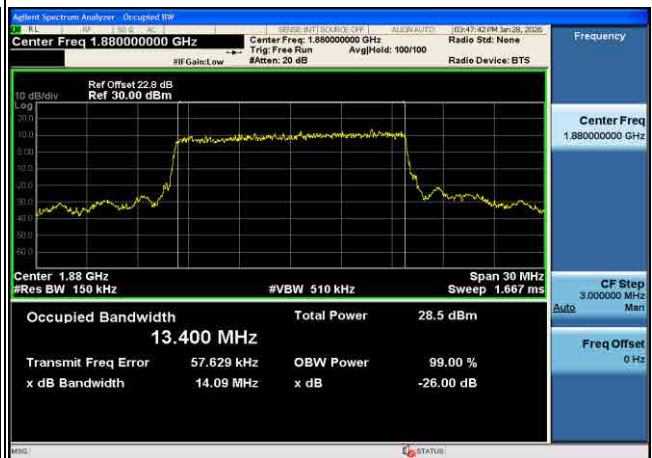




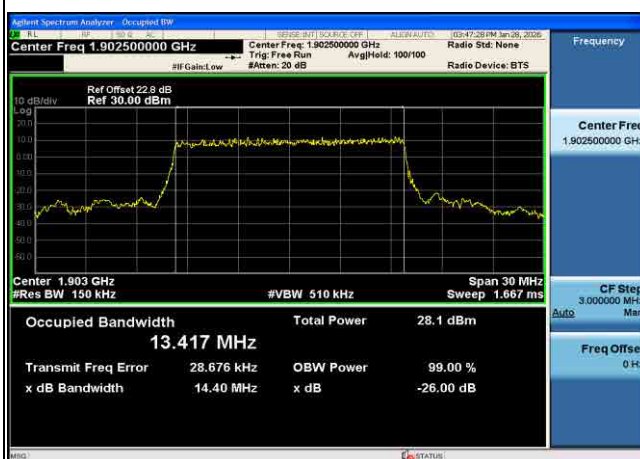
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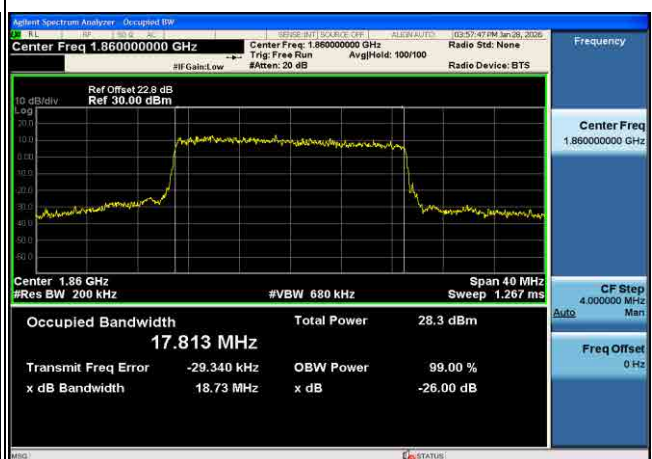
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OCC_4G_B2_.QPSK_15M_CH19125



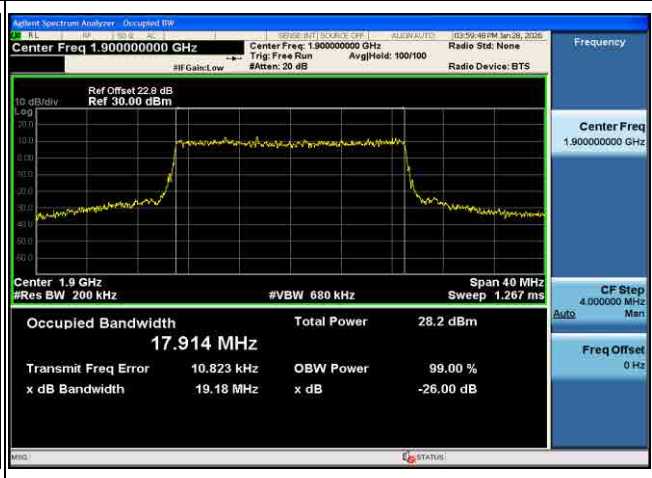
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OCC_4G_B2_.QPSK_20M_CH18900



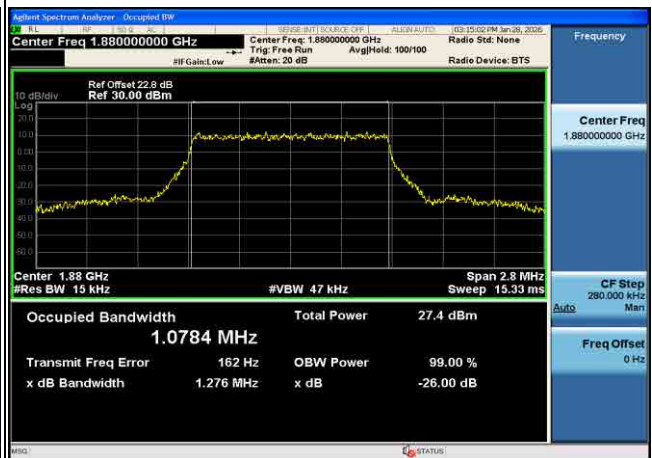
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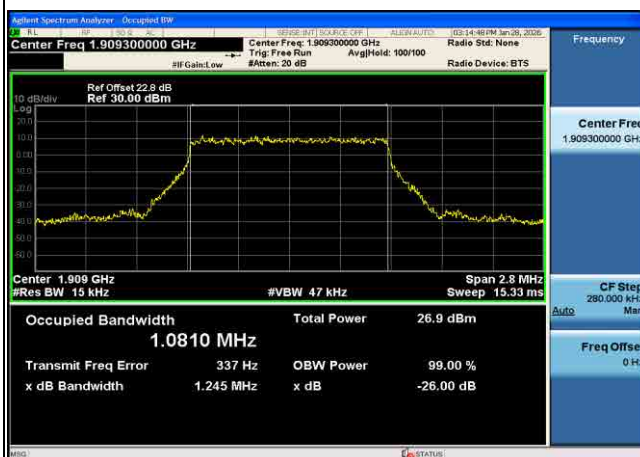
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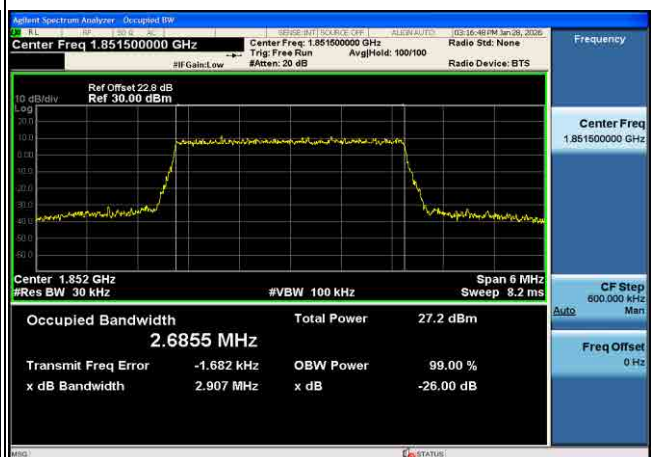
OCC_4G_B2_16QAM_1.4M_CH18900



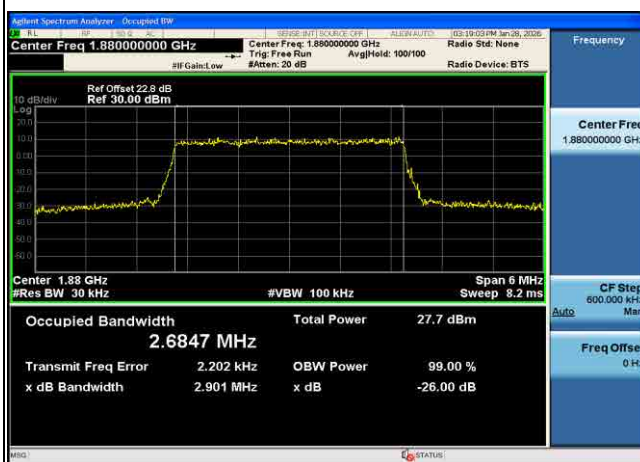
OCC_4G_B2_16QAM_1.4M_CH19193



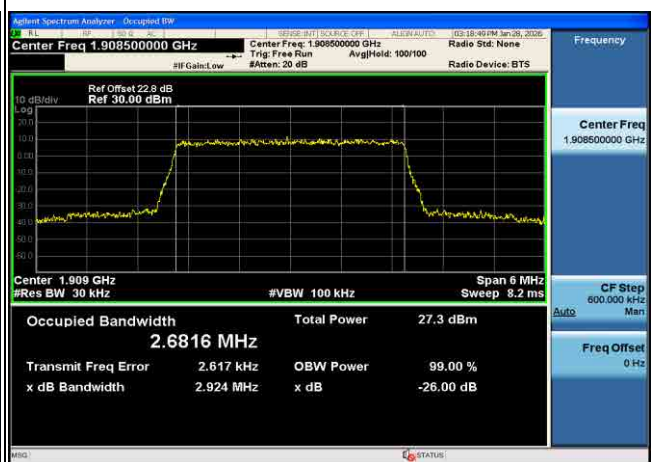
OCC_4G_B2_16QAM_3M_CH18615



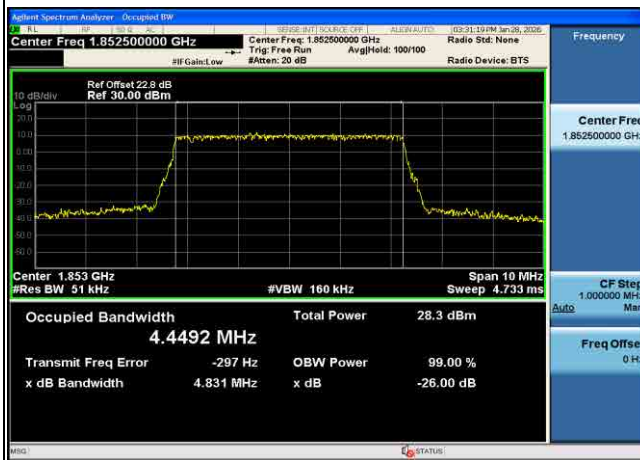
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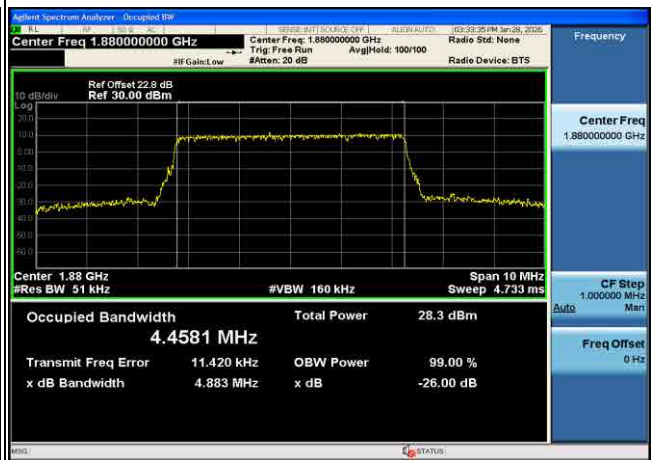
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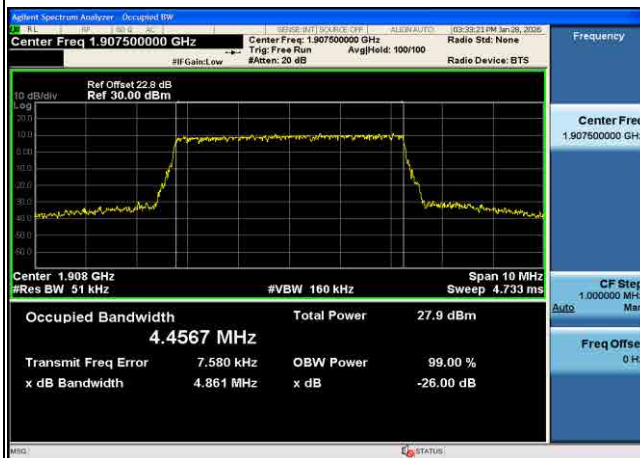
OCC_4G_B2_16QAM_5M_CH18625



OCC_4G_B2_16QAM_5M_CH18900



OCC_4G_B2_16QAM_5M_CH19175



OCC_4G_B2_16QAM_10M_CH18650



OCC_4G_B2_16QAM_10M_CH18900



OCC_4G_B2_16QAM_10M_CH19150



OCC_4G_B2_16QAM_15M_CH18675



OCC_4G_B2_16QAM_15M_CH18900



OCC_4G_B2_16QAM_15M_CH19125



OCC_4G_B2_16QAM_20M_CH18700



OCC_4G_B2_16QAM_20M_CH18900



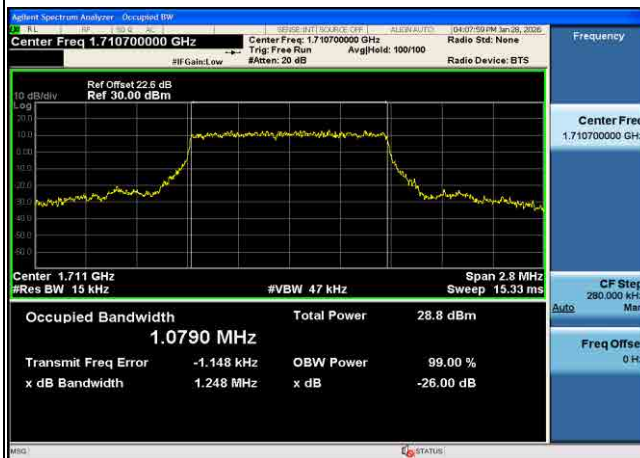
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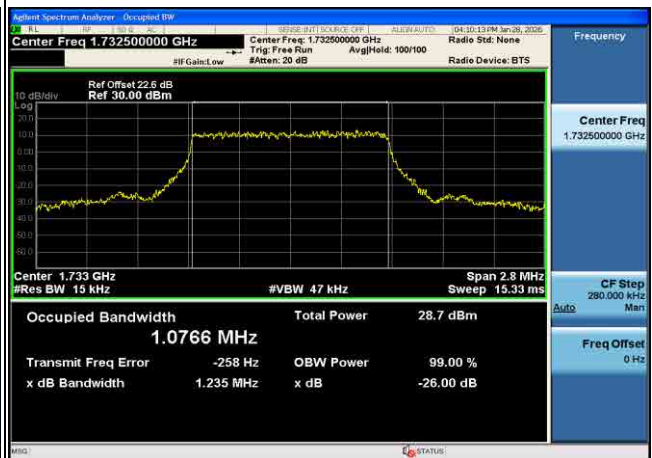
A1.2 LTE Band 4

LTE Band 4						
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		26 dB bandwidth (MHz)	
			QPSK	16QAM	QPSK	16QAM
1.4M	19957	1710.7	1.0790	1.0756	1.248	1.224
1.4M	20175	1732.5	1.0766	1.0790	1.235	1.256
1.4M	20393	1754.3	1.0843	1.0814	1.241	1.247
3M	19965	1711.5	2.6815	2.6795	2.918	2.899
3M	20175	1732.5	2.6781	2.6792	2.884	2.910
3M	20385	1753.5	2.6852	2.6823	2.909	2.913
5M	19975	1712.5	4.4684	4.4626	4.852	4.904
5M	20175	1732.5	4.4526	4.4573	4.907	4.890
5M	20375	1752.5	4.4586	4.4636	4.913	4.909
10M	20000	1715	8.9319	4.8883	9.679	5.633
10M	20175	1732.5	8.9304	4.8706	9.635	5.615
10M	20350	1750	8.9364	4.8769	9.647	5.605
15M	20025	1717.5	13.373	4.9266	14.36	7.201
15M	20175	1732.5	13.357	4.9312	14.26	5.514
15M	20325	1747.5	13.387	4.9688	14.35	5.631
20M	20050	1720	17.848	4.9782	18.96	6.655
20M	20175	1732.5	17.782	5.0023	18.91	5.671
20M	20300	1745	17.788	4.9847	18.93	6.026

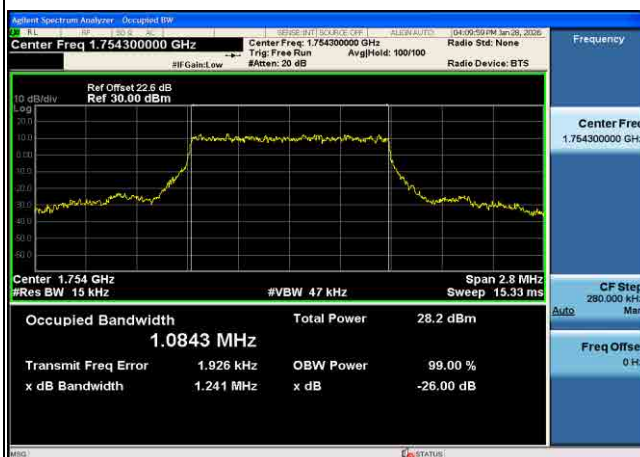
OCC_4G_B4_.QPSK_1.4M_CH19957



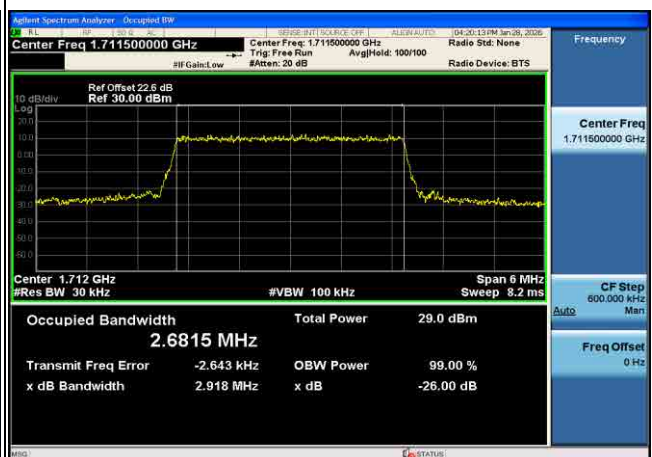
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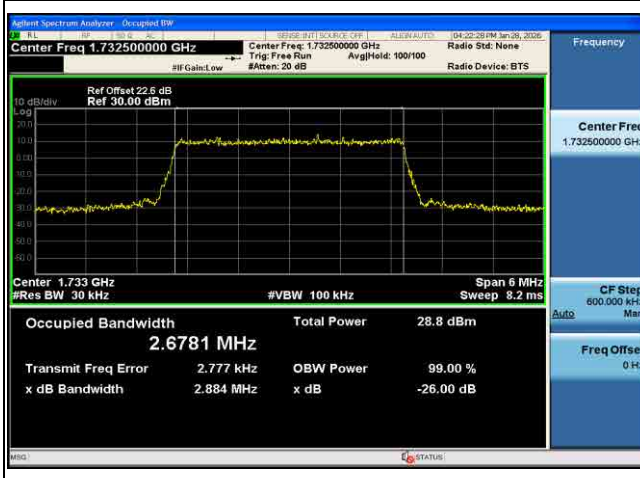
OCC_4G_B4_.QPSK_1.4M_CH20393



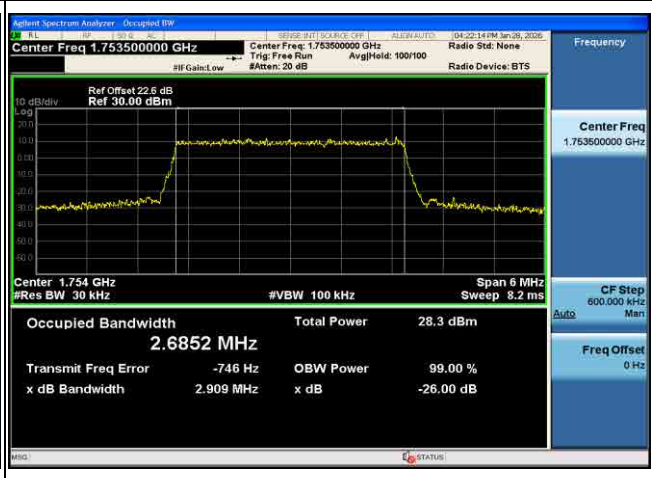
OCC_4G_B4_.QPSK_3M_CH19965

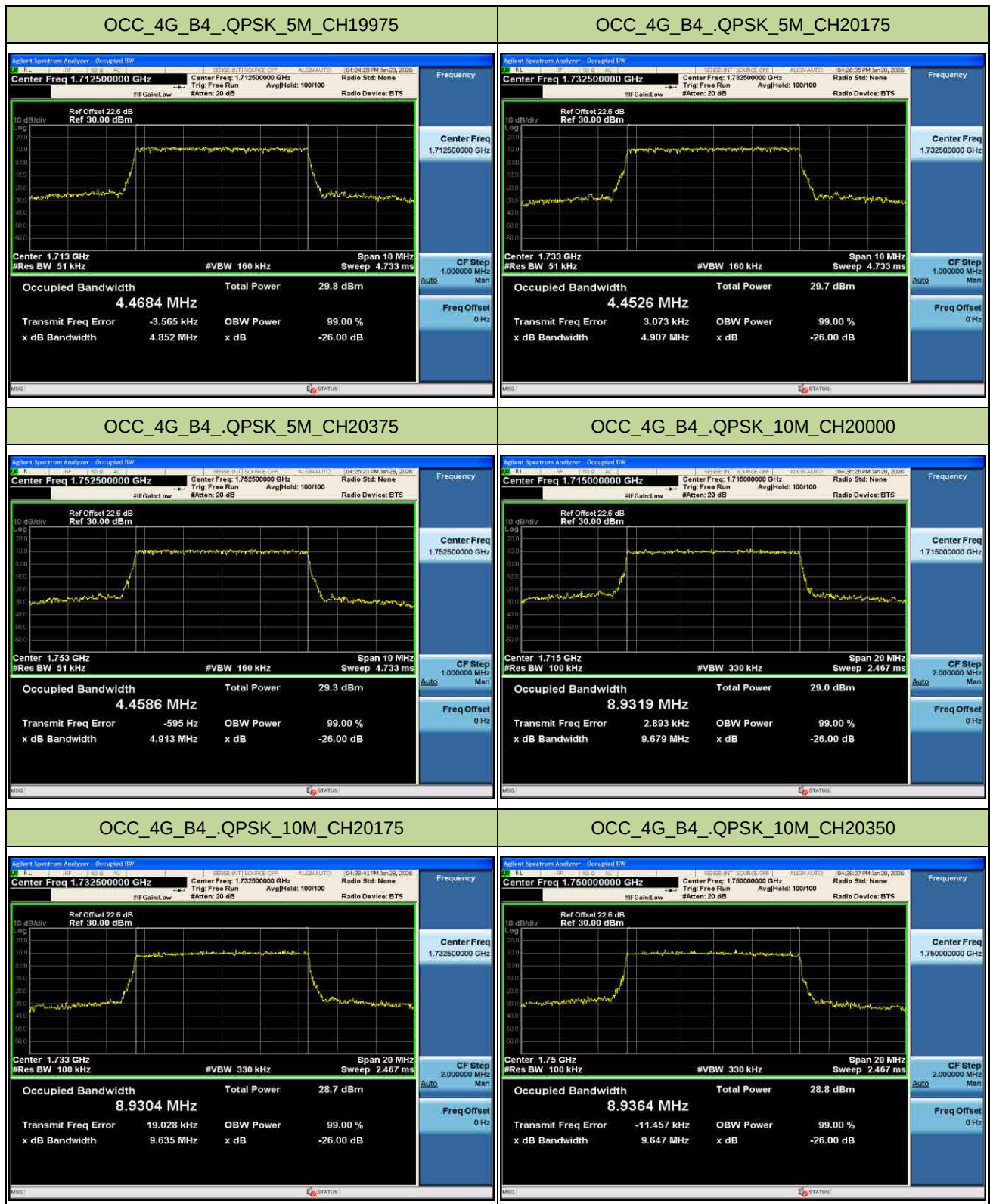


OCC_4G_B4_.QPSK_3M_CH20175



OCC_4G_B4_.QPSK_3M_CH20385



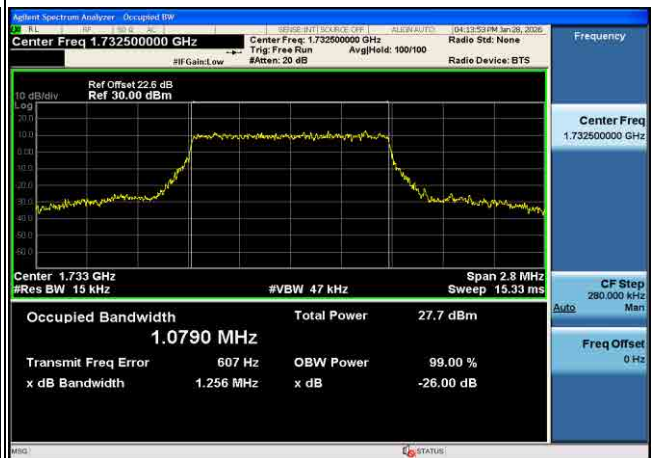




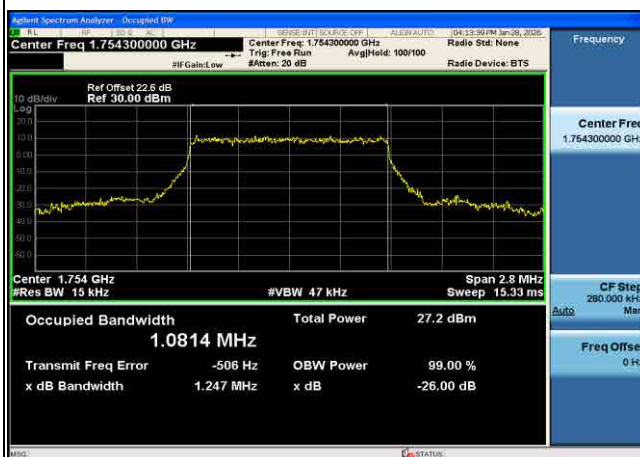
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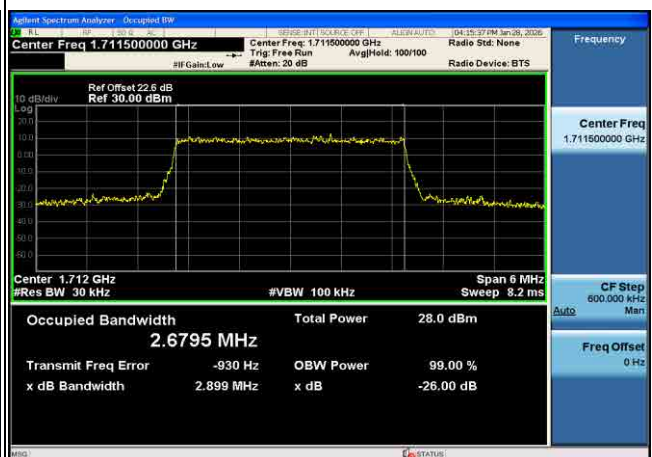
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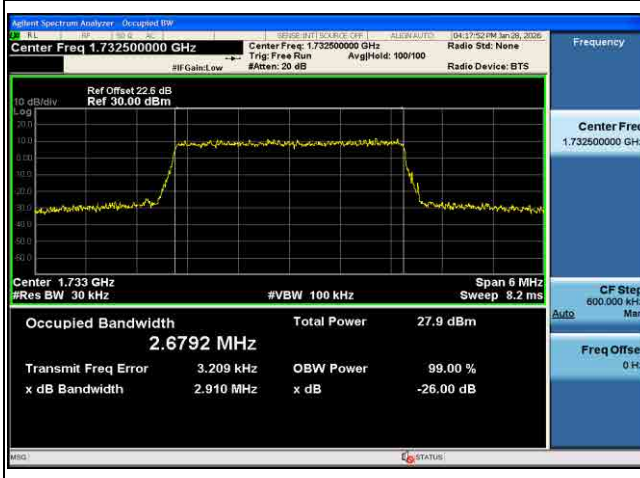
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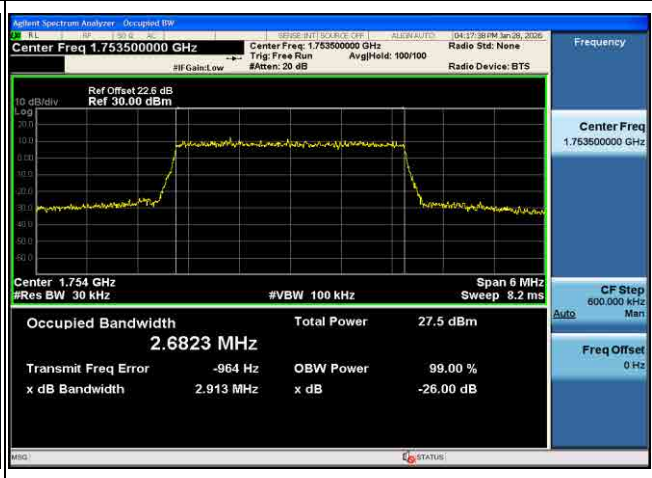
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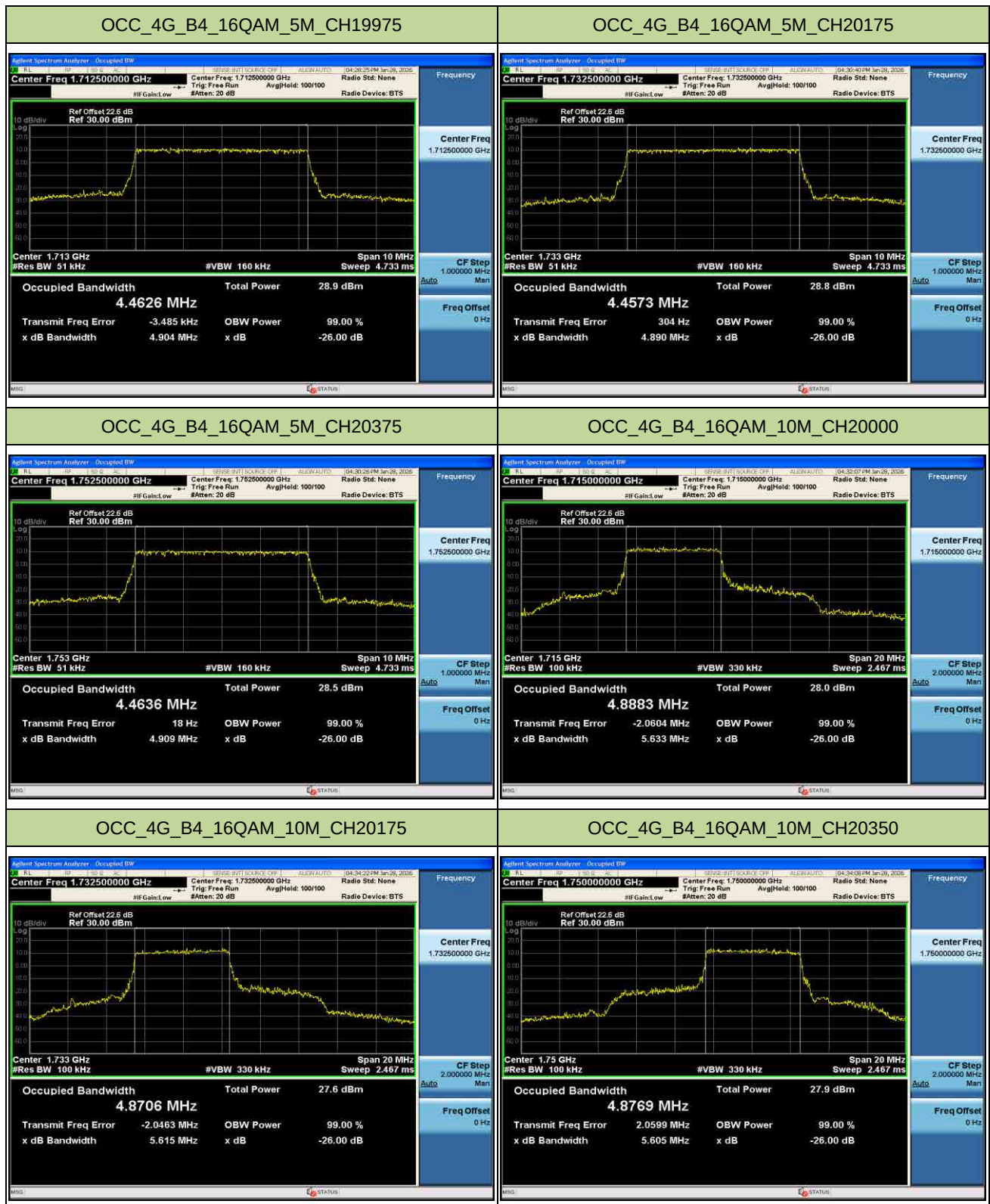


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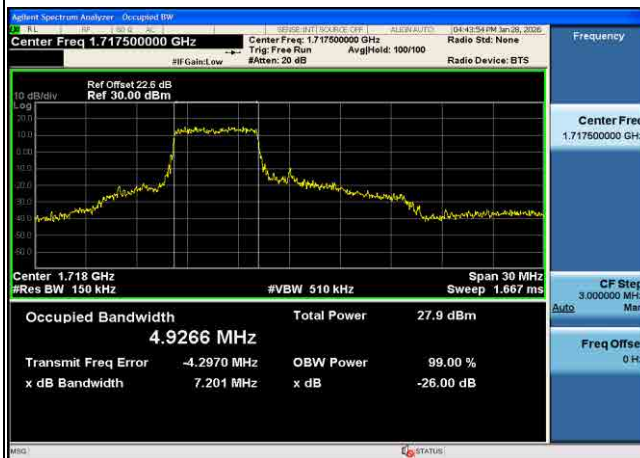


OCC_4G_B4_16QAM_3M_CH20385





OCC_4G_B4_16QAM_15M_CH20025



OCC_4G_B4_16QAM_15M_CH20175



OCC_4G_B4_16QAM_15M_CH20325



OCC_4G_B4_16QAM_20M_CH20050



OCC_4G_B4_16QAM_20M_CH20175



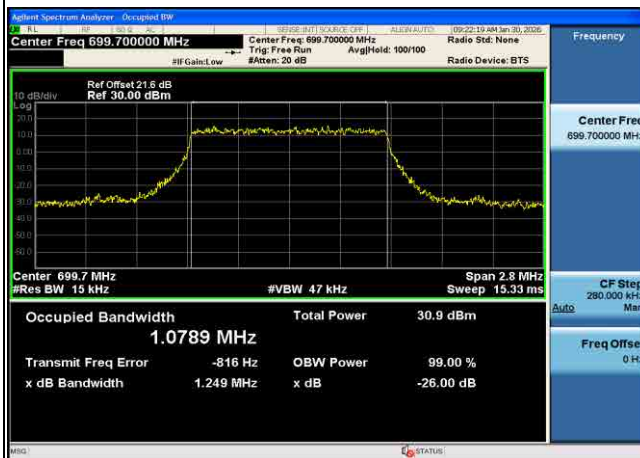
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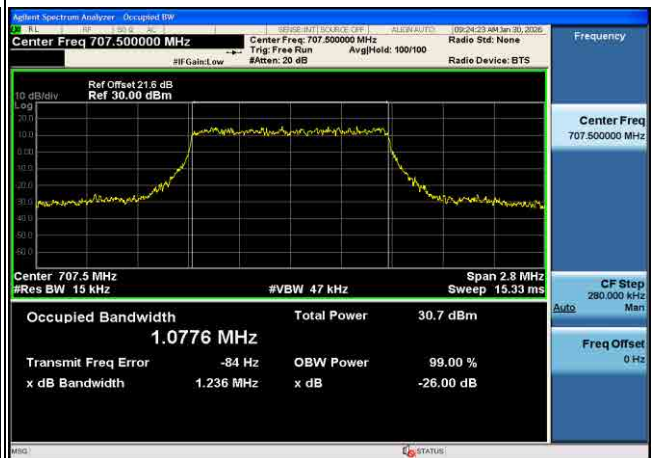
A1.3 LTE Band 12

LTE Band 12						
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		26 dB bandwidth (MHz)	
			QPSK	16QAM	QPSK	16QAM
1.4M	23017	699.7	1.0789	1.0743	1.249	1.223
1.4M	23095	707.5	1.0776	1.0800	1.236	1.269
1.4M	23173	715.3	1.0815	1.0808	1.225	1.249
3M	23025	700.5	2.6772	2.6711	2.919	2.903
3M	23095	707.5	2.6782	2.6792	2.907	2.909
3M	23165	714.5	2.6860	2.6818	2.907	2.884
5M	23035	701.5	4.4557	4.4491	4.833	4.810
5M	23095	707.5	4.4632	4.4646	4.850	4.898
5M	23155	713.5	4.4475	4.4609	4.825	4.872
10M	23060	704	8.9367	4.8769	9.532	5.499
10M	23095	707.5	8.9281	4.8595	9.629	5.404
10M	23130	711	8.8789	4.8524	9.456	5.588

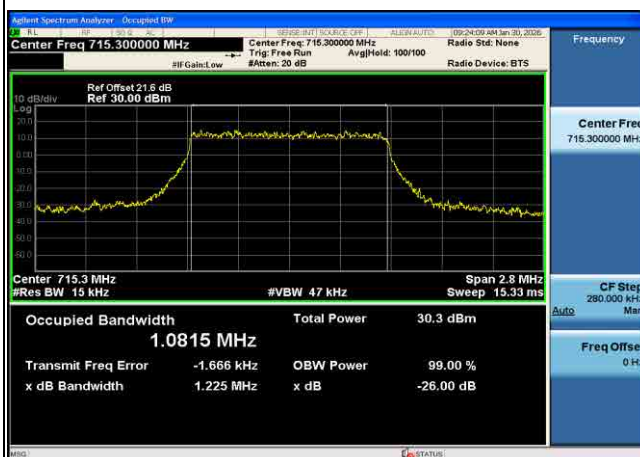
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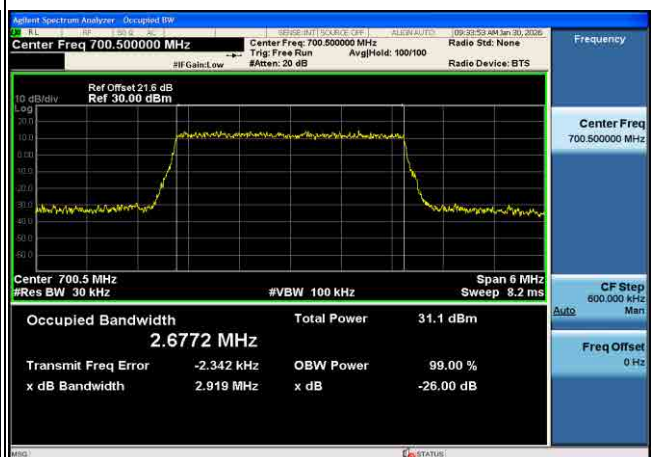
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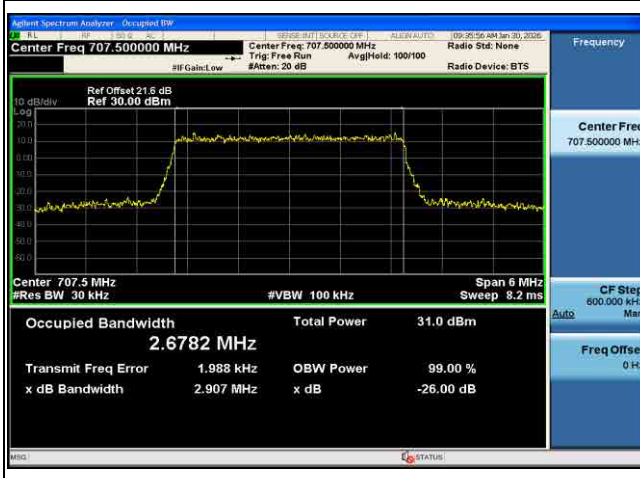
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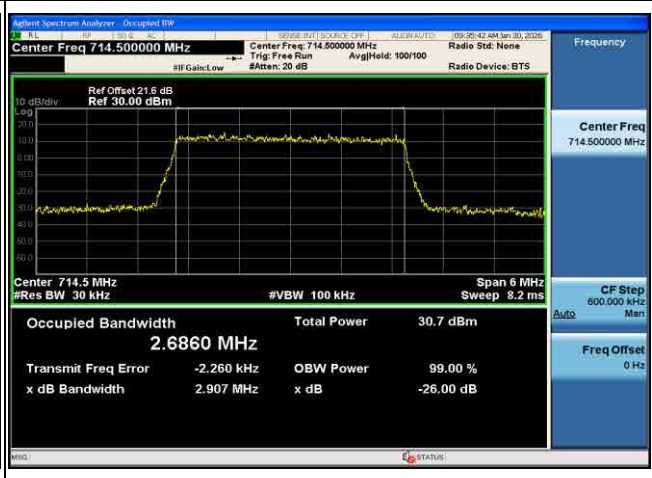
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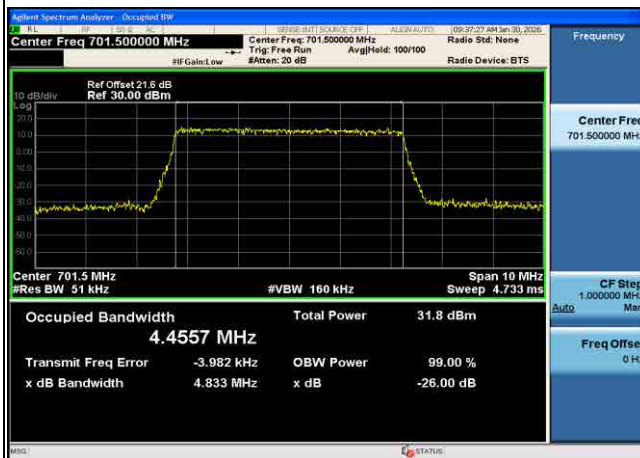
OCC_4G_B12_.QPSK_3M_CH23095



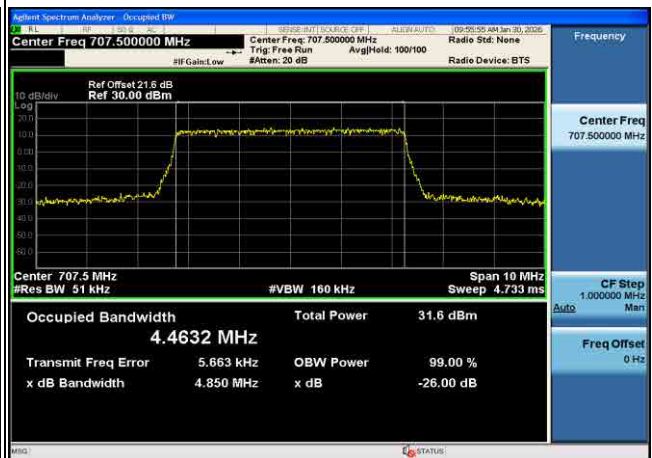
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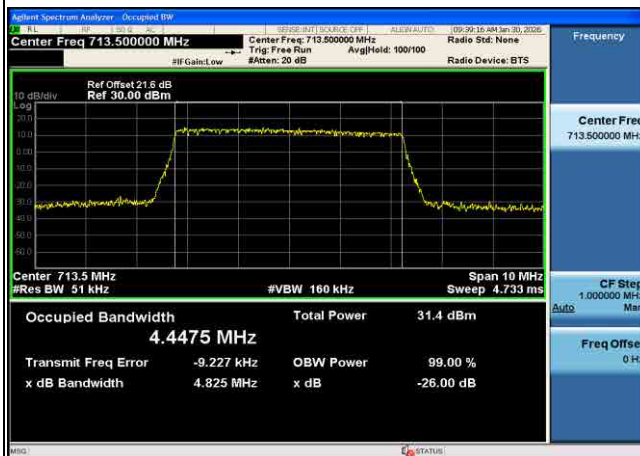
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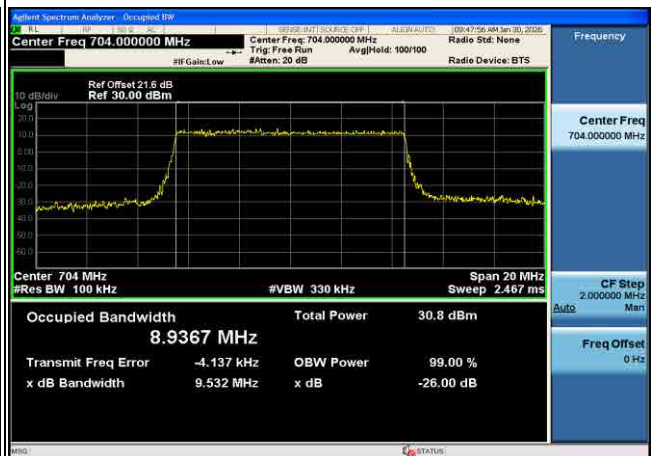
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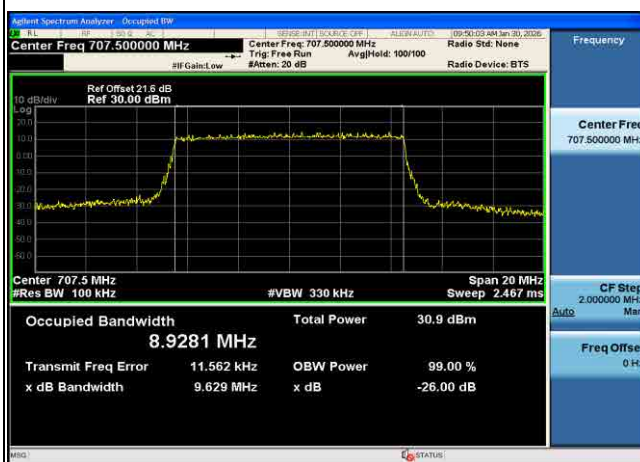
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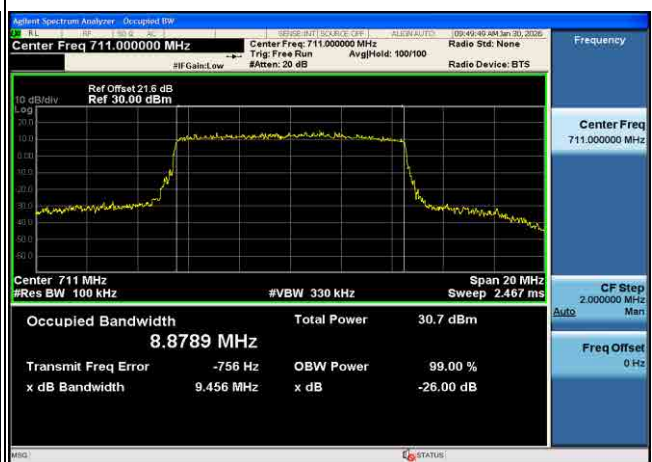
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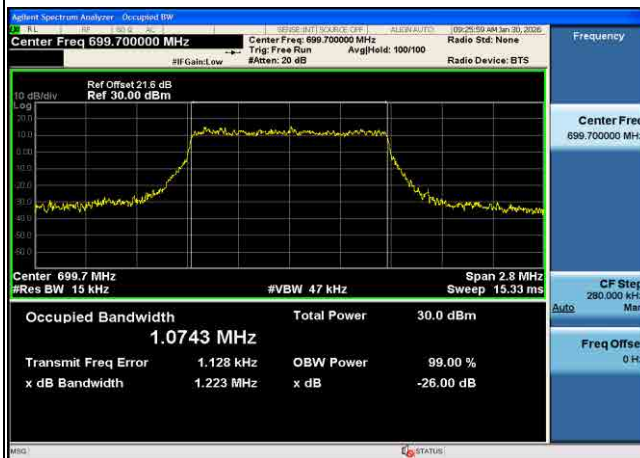
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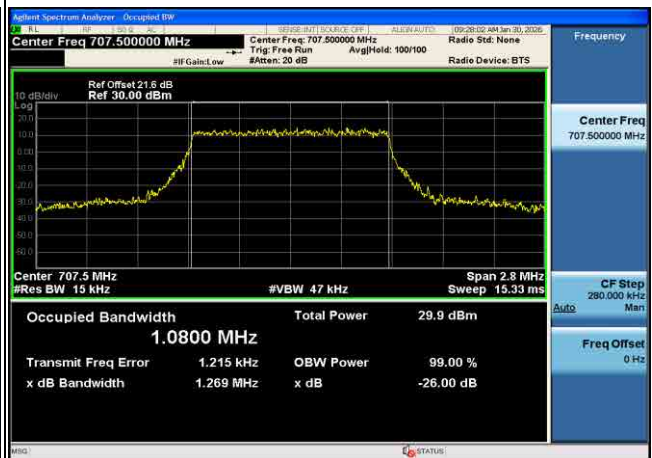
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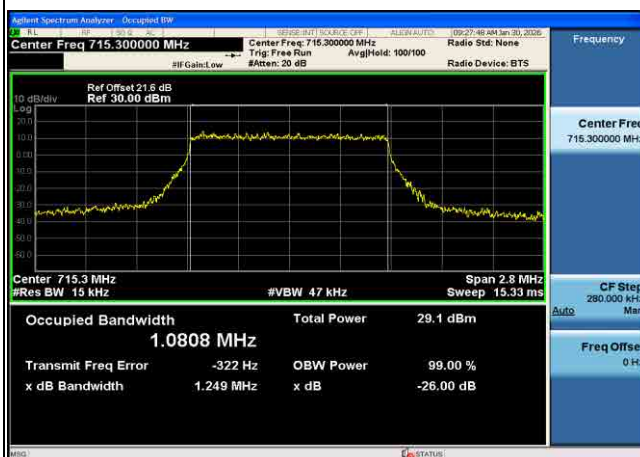
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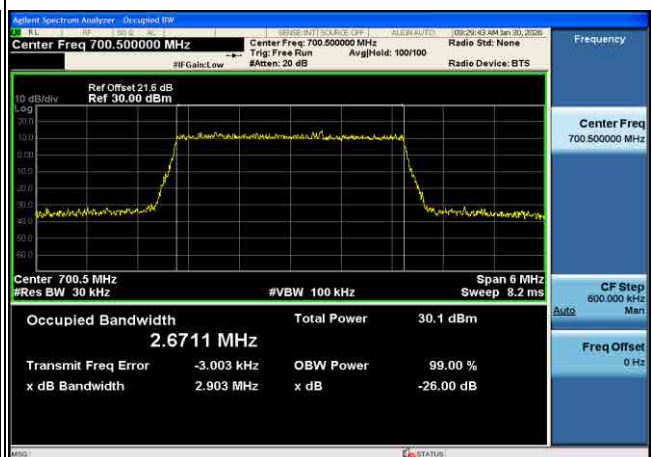
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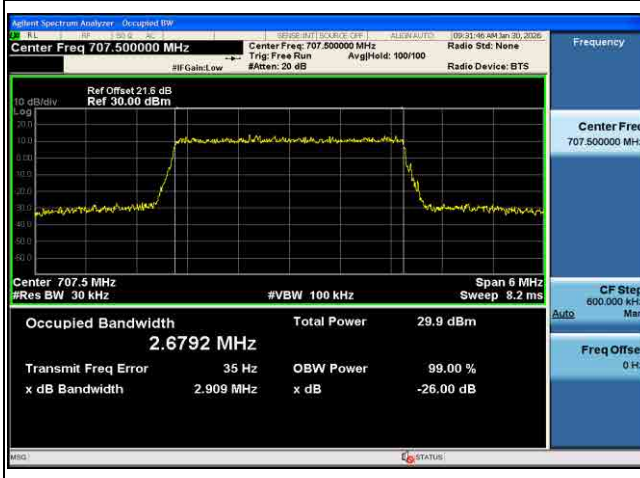
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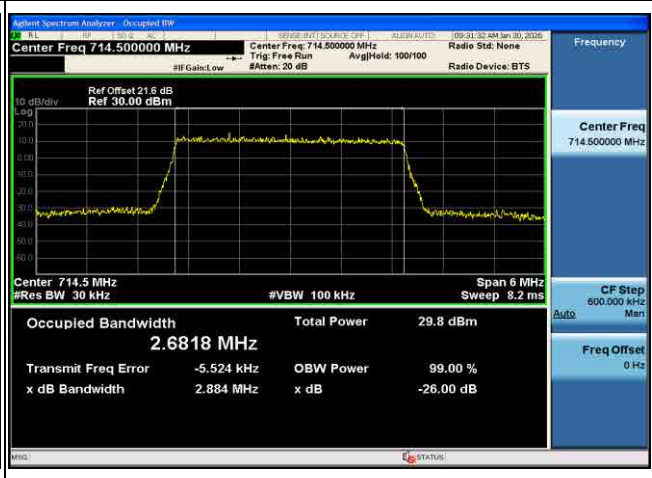
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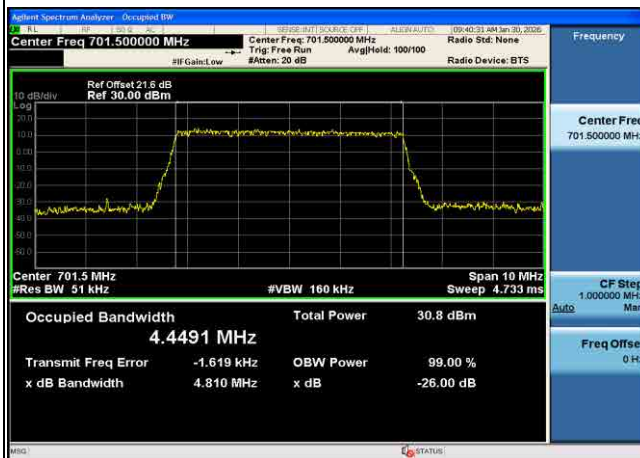
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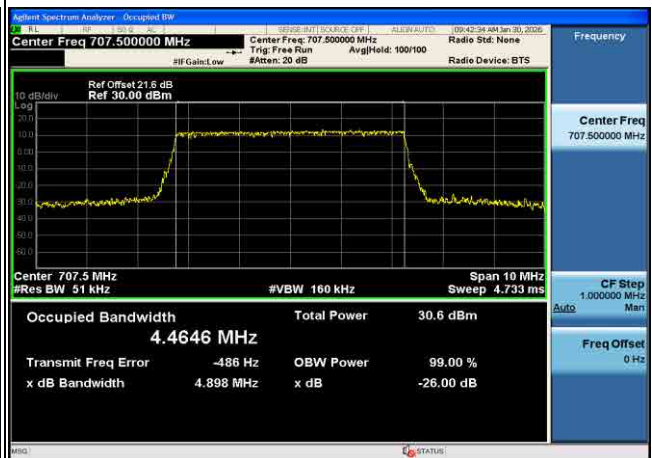
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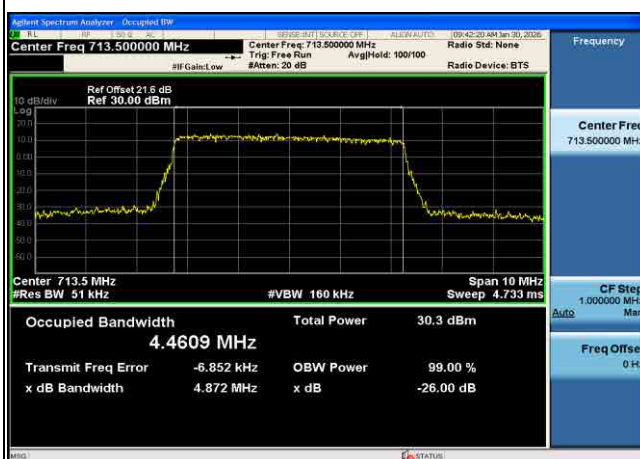
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OCC_4G_B12_16QAM_10M_CH23060



OCC_4G_B12_16QAM_10M_CH23095



OCC_4G_B12_16QAM_10M_CH23130



A2. Frequency Stability Test Result

A2.1 LTE Band 2

Test Site	SR3	Test Engineer	Wen Lee
Test Date	2026/2/11	Test Band	Band 2 20M

Temperature vs. Frequency Stability						
Voltage (%)	Power (DC)	Temp (°C)	Declared Frequency (MHz)	Measured Frequency (Hz)	Frequency Tolerance (ppm)	Limit (ppm)
100%	DC 3.2V	-30	1880	-9.54	-0.0051	±2.5
		-20	1880	-7.94	-0.0042	±2.5
		-10	1880	-6.97	-0.0037	±2.5
		0	1880	-7.35	-0.0039	±2.5
		10	1880	-7.72	-0.0041	±2.5
		+ 20 (Ref)	1880	-10.67	-0.0057	±2.5
		30	1880	-10.44	-0.0056	±2.5
		40	1880	-10.83	-0.0058	±2.5
		50	1880	-8.31	-0.0044	±2.5
Voltage vs. Frequency Stability						
Voltage (%)	Power (DC)	Temp (°C)	Declared Frequency (MHz)	Measured Frequency (Hz)	Frequency Tolerance (ppm)	Limit (ppm)
100%	DC 3.2V	20	1880	-10.67	-0.0057	±2.5
115%	DC 3.68V	20	1880	-10.2	-0.0054	±2.5
85%	DC 2.72V	20	1880	-7.14	-0.0038	±2.5

A2.2 LTE Band 4

Test Site	SR3	Test Engineer	Wen Lee
Test Date	2026/2/11	Test Band	Band 4 20M

Temperature vs. Frequency Stability						
Voltage (%)	Power (VAC)	Temp (°C)	Declared Frequency (MHz)	Measured Frequency (Hz)	Frequency Tolerance (ppm)	Limit (ppm)
100%	DC 3.2V	-30	1732.5	6.87	0.0040	±2.5
		-20	1732.5	7.61	0.0044	±2.5
		-10	1732.5	5.72	0.0033	±2.5
		0	1732.5	7.04	0.0041	±2.5
		10	1732.5	6.21	0.0036	±2.5
		+ 20 (Ref)	1732.5	6.65	0.0038	±2.5
		30	1732.5	5.36	0.0031	±2.5
		40	1732.5	6.31	0.0036	±2.5
		50	1732.5	5.65	0.0033	±2.5
Voltage vs. Frequency Stability						
Voltage (%)	Power (VAC)	Temp (°C)	Declared Frequency (MHz)	Measured Frequency (Hz)	Frequency Tolerance (ppm)	Limit (ppm)
100%	DC 3.2V	20	1732.5	6.65	0.0038	±2.5
115%	DC 3.68V	20	1732.5	-6.00	-0.0035	±2.5
85%	DC 2.72V	20	1732.5	-5.65	-0.0033	±2.5

A2.3 LTE Band 12

Test Site	SR3	Test Engineer	Wen Lee
Test Date	2026/2/11	Test Band	Band 12 10M

Temperature vs. Frequency Stability						
Voltage (%)	Power (VAC)	Temp (°C)	Declared Frequency (MHz)	Measured Frequency (Hz)	Frequency Tolerance (ppm)	Limit (ppm)
100%	DC 3.2V	-30	707.5	3.49	0.0049	±2.5
		-20	707.5	3.38	0.0048	±2.5
		-10	707.5	2.95	0.0042	±2.5
		0	707.5	-3.59	-0.0051	±2.5
		10	707.5	2.95	0.0042	±2.5
		+ 20 (Ref)	707.5	-4.33	-0.0061	±2.5
		30	707.5	-3.85	-0.0054	±2.5
		40	707.5	-4.29	-0.0061	±2.5
		50	707.5	-4.79	-0.0068	±2.5
Voltage vs. Frequency Stability						
Voltage (%)	Power (VAC)	Temp (°C)	Declared Frequency (MHz)	Measured Frequency (Hz)	Frequency Tolerance (ppm)	Limit (ppm)
100%	DC 3.2V	20	707.5	-4.33	-0.0061	±2.5
115%	DC 3.68V	20	707.5	-3.64	-0.0051	±2.5
85%	DC 2.72V	20	707.5	2.33	0.0033	±2.5

A3. Transmitter Output Power Test Result

A3.1 LTE Band 2

LTE Band2			Maximum Conducted Output Power (Channel / Frequency (MHz))																	
Modulation	Bandwidth		1.4MHz			3MHz			5MHz			10MHz			15MHz			20MHz		
	RB	RB	18607	18900	19193	18615	18900	19185	18625	18900	19175	18650	18900	19150	18675	18900	19125	18700	18900	19100
	No.	Offset	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
QPSK	1	#0	21.63	21.97	21.83	21.96	21.71	21.46	21.79	21.48	21.58	21.86	21.87	21.58	21.87	21.71	21.97	21.85	21.94	22.14
	1	#Mid	21.77	22.06	22.04	21.95	22.02	21.77	21.92	21.96	21.61	22.02	22.42	21.97	21.99	22.03	21.87	22.19	22.39	21.82
	1	#High	21.63	22.01	21.90	21.87	22.18	21.80	21.87	21.88	21.57	21.69	21.96	21.79	21.60	21.74	21.73	21.73	22.23	21.84
	50%	#0	21.79	21.82	21.64	20.71	20.89	20.63	20.72	20.94	20.64	20.80	21.10	20.73	20.74	20.95	20.88	20.91	20.99	20.82
	50%	#Mid	21.70	22.06	21.85	20.81	20.92	20.64	20.78	20.93	20.63	20.81	21.01	20.70	20.67	20.90	20.67	20.80	20.89	20.75
	50%	#High	21.65	21.77	21.81	20.77	20.86	20.65	20.80	20.95	20.52	20.89	21.01	20.68	20.64	20.96	20.61	20.82	20.97	20.72
	100%	#0	20.94	20.89	20.65	20.82	21.00	20.71	20.77	21.06	20.68	20.73	21.06	20.73	20.77	20.94	20.82	20.87	21.05	20.85
16QAM	1	#0	21.47	21.19	20.98	21.02	20.95	20.61	20.90	20.67	20.12	21.21	20.80	20.37	21.03	20.19	20.97	20.76	21.28	21.09
	1	#Mid	21.69	21.04	21.02	21.10	20.98	20.54	21.36	20.76	20.58	21.92	21.08	21.47	21.90	21.13	20.90	20.80	21.55	21.37
	1	#High	21.90	20.90	20.91	20.85	20.60	20.66	21.28	21.23	20.47	21.03	21.07	21.49	21.08	20.96	20.78	19.88	21.84	21.30
	50%	#0	20.91	20.94	20.49	19.80	19.80	19.61	19.71	19.98	19.50	20.77	20.92	20.58	20.95	20.84	20.79	20.98	21.00	20.79
	50%	#Mid	20.75	21.06	20.47	19.97	19.77	19.48	19.64	20.10	19.61	20.93	20.95	20.60	20.84	20.89	20.68	20.75	20.79	20.74
	50%	#High	20.83	21.01	20.48	20.00	19.87	19.38	19.67	19.90	19.52	20.94	21.07	20.61	20.91	20.90	20.61	20.85	20.90	20.68
	100%	#0	19.98	20.09	19.65	20.02	19.97	19.66	19.81	20.03	19.71	19.84	20.12	20.08	20.04	19.99	19.83	19.89	19.98	19.94

Note: The maximum number of RBs in LTE CAT1 16QAM is 27 RBs, the 50% is 12RBs for bandwidth 10M/15M/20M.

A3.2 LTE Band 4

LTE Band4			Maximum Conducted Output Power (Channel / Frequency (MHz))																	
Modulation	Bandwidth		1.4MHz			3MHz			5MHz			10MHz			15MHz			20MHz		
	RB	RB	19957	20175	20393	19965	20175	20385	19975	20175	20375	20000	20175	20350	20025	20175	20325	20050	20175	20300
	No.	Offset	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
QPSK	1	#0	22.76	22.14	21.83	22.27	22.07	21.71	22.21	21.87	21.98	22.56	22.14	22.15	22.60	22.04	22.32	22.27	22.13	22.45
	1	#Mid	22.67	22.23	21.96	22.20	22.38	21.63	22.13	22.29	21.97	22.70	22.72	22.34	22.67	22.18	22.11	22.41	22.57	22.44
	1	#High	22.86	22.06	22.03	21.97	22.40	21.80	22.14	22.14	21.73	22.10	22.38	21.91	22.27	21.84	21.89	22.14	22.07	22.09
	50%	#0	22.54	22.16	21.88	21.43	21.07	20.74	21.64	21.22	21.01	21.49	21.27	21.15	21.37	21.20	21.16	21.36	21.23	21.23
	50%	#Mid	22.50	22.18	21.77	21.46	21.17	20.79	21.43	21.19	20.93	21.36	21.21	21.01	21.36	21.09	21.01	21.28	21.10	21.06
	50%	#High	22.51	22.05	21.68	21.50	21.27	20.81	21.46	21.19	21.02	21.33	21.22	21.01	21.34	21.09	21.03	21.28	21.07	21.12
	100%	#0	21.52	21.20	20.77	21.35	21.23	20.81	21.41	21.24	20.95	21.33	21.19	21.02	21.24	21.25	21.11	21.36	21.28	21.11
16QAM	1	#0	21.86	21.69	20.71	21.63	21.07	20.73	21.91	21.16	20.97	21.83	21.08	21.10	22.00	20.64	21.22	21.35	21.50	21.35
	1	#Mid	21.84	21.67	20.76	21.74	21.07	20.74	21.97	21.09	20.76	21.80	21.32	21.91	21.62	21.09	21.20	21.48	22.15	21.76
	1	#High	21.87	21.30	20.62	22.07	21.17	20.66	21.81	21.17	20.34	21.78	20.96	20.96	21.62	20.89	20.40	20.76	21.46	20.52
	50%	#0	21.37	21.34	20.87	20.86	20.05	19.86	20.33	20.03	19.83	21.65	21.33	21.02	21.31	21.17	21.18	21.39	20.98	21.17
	50%	#Mid	21.28	21.17	20.93	20.72	20.07	19.89	20.25	20.02	19.93	21.21	21.22	20.78	21.08	21.13	20.76	21.10	20.98	20.81
	50%	#High	21.23	21.26	20.83	20.72	19.99	19.86	20.29	20.02	19.96	21.36	21.12	20.93	21.08	21.06	20.70	21.12	21.14	20.87
	100%	#0	20.51	20.17	19.86	20.46	20.07	19.81	20.55	20.33	20.04	20.56	20.44	20.12	20.44	20.13	20.19	20.52	20.03	20.33

Note: The maximum number of RBs in LTE CAT1 16QAM is 27 RBs, the 50% is 12RBs for bandwidth 10M/15M/20M.

A3.3 LTE Band 12

LTE Band12			Maximum Conducted Output Power (Channel / Frequency (MHz))											
Modulation	Bandwidth		1.4MHz			3MHz			5MHz			10MHz		
	RB	RB	23017	23095	23173	23025	23095	23165	23035	23095	23155	23060	23095	23130
	No.	Offset	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5	704	707.5	711
QPSK	1	#0	24.40	24.40	24.09	24.45	24.47	24.23	24.17	24.41	24.17	24.47	24.25	24.21
	1	#Mid	24.57	24.60	24.23	24.59	24.39	24.37	24.02	24.35	24.11	24.58	24.62	24.37
	1	#High	24.40	24.53	24.13	24.23	24.44	23.94	24.15	24.18	23.78	24.47	24.34	23.73
	50%	#0	24.45	24.27	23.88	23.59	23.41	23.19	23.46	23.35	23.12	23.45	23.41	23.41
	50%	#Mid	24.47	24.31	23.79	23.56	23.39	22.97	23.51	23.30	22.83	23.41	23.22	23.14
	50%	#High	24.44	24.37	23.85	23.45	23.38	23.01	23.50	23.43	22.90	23.39	23.18	23.12
	100%	#0	23.64	23.44	22.77	23.55	23.39	23.11	23.47	23.35	23.06	23.49	23.43	23.25
16QAM	1	#0	23.74	23.22	23.01	23.80	23.21	24.10	23.43	23.13	23.04	23.93	23.07	23.14
	1	#Mid	23.98	23.46	23.29	23.85	23.60	22.55	23.91	23.62	22.90	23.87	24.31	24.02
	1	#High	23.92	23.29	23.17	23.70	23.66	22.52	23.83	23.44	22.38	23.82	23.44	22.90
	50%	#0	23.37	23.43	22.55	22.65	22.17	22.29	22.40	22.17	22.17	23.60	23.48	23.30
	50%	#Mid	23.42	23.39	22.61	22.75	22.83	22.10	22.22	22.23	22.04	23.50	23.25	22.97
	50%	#High	23.55	23.44	22.71	22.62	22.73	22.15	22.41	22.35	22.13	23.50	23.27	23.04
	100%	#0	22.69	22.47	21.79	22.39	22.42	21.99	22.38	22.50	22.07	22.48	22.59	22.42
Note: The maximum number of RBs in LTE CAT1 16QAM is 27 RBs, the 50% is 12RBs for bandwidth 10M.														

A4. Peak to Average Radio Test Result

A4.1 LTE Band 2

LTE Band 2				
BW	Channel	Frequency (MHz)	PAPR 0.1% Value (dB)	
			QPSK	16QAM
1.4M	18607	1850.7	4.34	5.14
1.4M	18900	1880	4.48	5.24
1.4M	19193	1909.3	4.24	5.04
3M	18615	1851.5	4.46	5.23
3M	18900	1880	4.58	5.37
3M	19185	1908.5	4.46	5.25
5M	18625	1852.5	4.43	5.16
5M	18900	1880	4.56	5.35
5M	19175	1907.5	4.47	5.23
10M	18650	1855	4.43	4.56
10M	18900	1880	4.61	4.79
10M	19150	1905	4.65	4.73
15M	18675	1857.5	4.52	4.46
15M	18900	1880	4.70	4.70
15M	19125	1902.5	4.86	4.66
20M	18700	1860	4.62	4.44
20M	18900	1880	4.61	4.68
20M	19100	1900	4.93	4.66

PTAR_4G_B2_.QPSK_1.4M_CH18607



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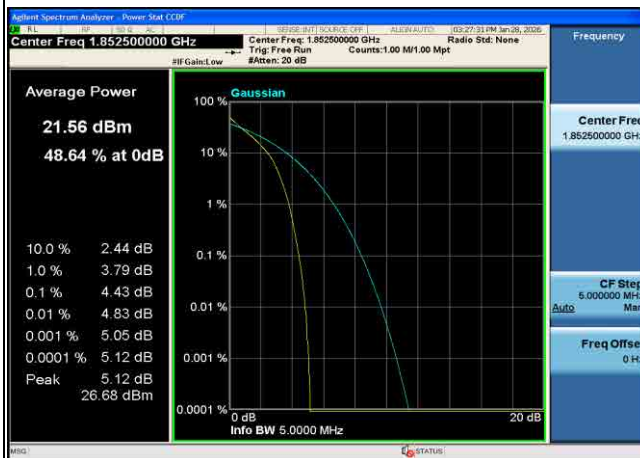
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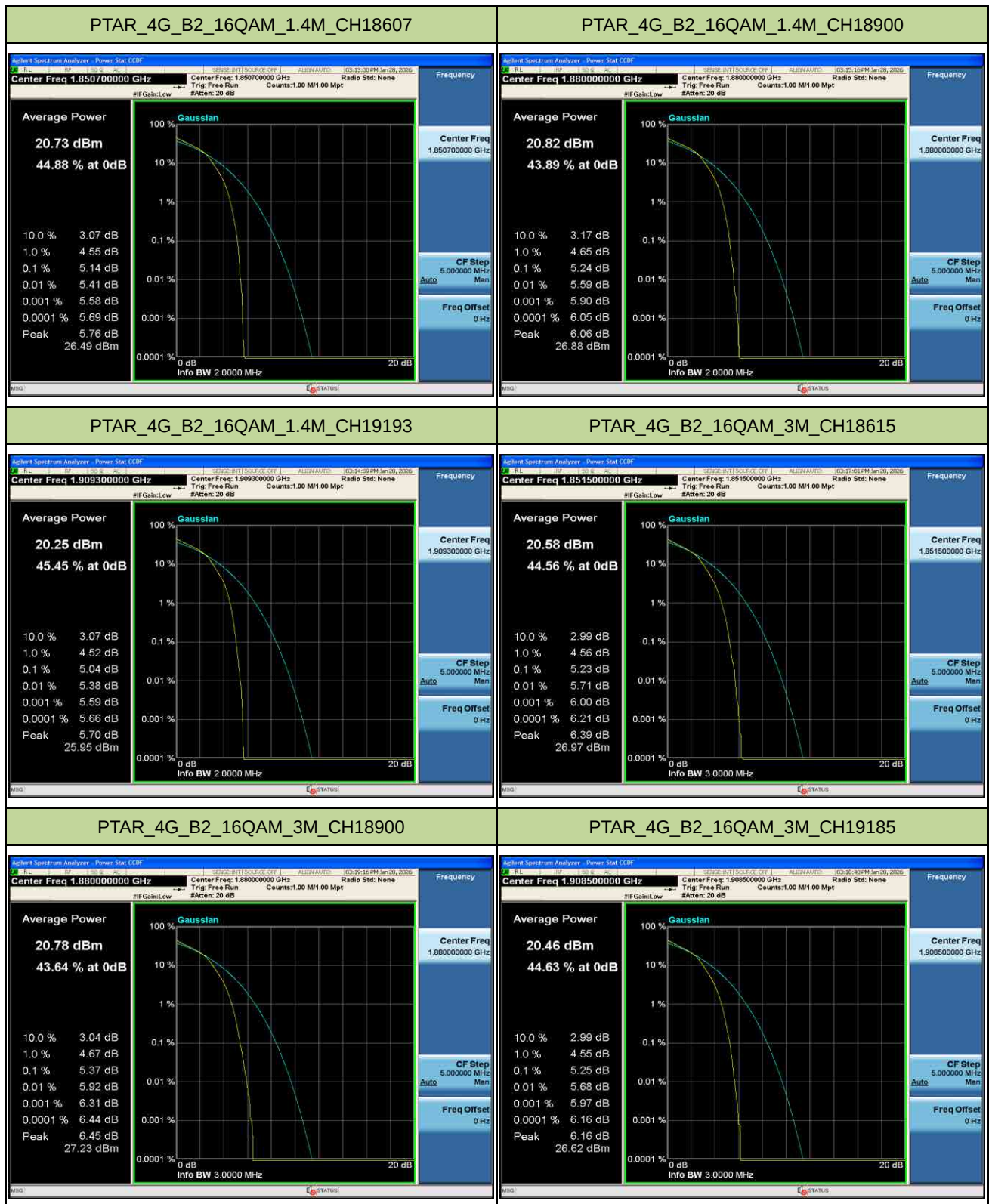


PTAR_4G_B2_QPSK_20M_CH18900



PTAR_4G_B2_QPSK_20M_CH19100





PTAR_4G_B2_16QAM_5M_CH18625



PTAR_4G_B2_16QAM_5M_CH18900



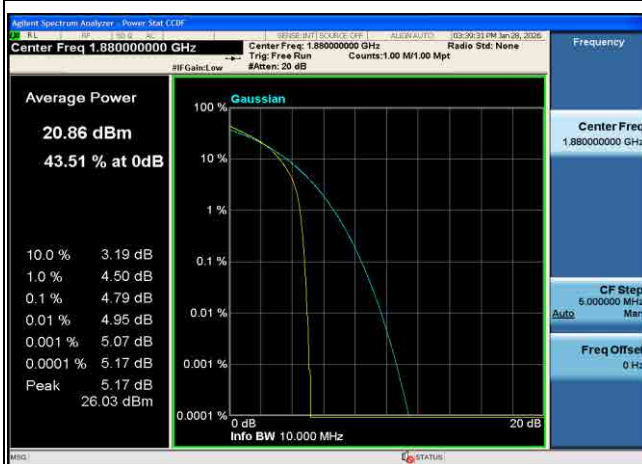
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PTAR_4G_B2_16QAM_10M_CH18900



PTAR_4G_B2_16QAM_10M_CH19150

