TEST REPORT

FCC LTE B41 Test for SM-S721B/DS
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2407-FC059

DATE OF ISSUE
July 24, 2024

Tested by
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TEST REPORT

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HCT-RF-2407-FC059

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Additional Model
SM-S721B

Applicant	**SAMSUNG Electronics Co., Ltd.** 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Product Name Model Name	Mobile Phone SM-S721B/DS
Date of Test	May 21, 2024 ~ July 23, 2024
FCC ID	A3LSMS721B
Location of Test	■ Permanent Testing Lab ☐ On Site Testing (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 Republic of Korea)
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
Test Standard Used	FCC Rule Part : § 27
Test Results	PASS

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	July 24, 2024	Initial Release

Notice

Content
The measurements shown in this report were made in accordance with the procedures specified in CFR47 section § 2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998,21 U.S. C.853(a)
The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated. The test results have only been applied with the test methods required by the standard(s). The laboratory is not accredited for the test results marked *. Information provided by the applicant is marked **. Test results provided by external providers are marked ***.
When confirmation of authenticity of this test report is required, please contact www.hct.co.kr
The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

CONTENTS

MEASUREMENT REPORT

1. GENERAL INFORMATION

Applicant Name:	SAMSUNG Electronics Co., Ltd.
Address:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
FCC ID:	A3LSMS721B
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§ 27
EUT Type:	Mobile phone
Model(s):	SM-S721B/DS
Additional Model(s)	SM-S721B
Tx Frequency:	2498.5 – 2687.5 : 5 MHz 2501.0 – 2685.0 : 10 MHz 2503.5 – 2682.5 : 15 MHz 2506.0 – 2680.0 : 20 MHz
Date(s) of Tests:	May 21, 2024 ~ July 23, 2024
Serial number:	Radiated : R3CX40LGBQH Conducted : R3CX503EC1Z(ANT B), R3CX60HWNHY(ANT F)

1.1. MAXIMUM OUTPUT POWER

ANT B

	Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
					Max. Power (W)	Max. Power (dBm)
Power Class 2	LTE – Band 41 (5)	2498.5 – 2687.5	4M52G7D	QPSK	0.192	22.84
			4M53W7D	16QAM	0.156	21.94
			4M54W7D	64QAM	0.136	21.32
			4M50W7D	256QAM	0.081	19.08
	LTE – Band 41 (10)	2501.0 – 2685.0	9M01G7D	QPSK	0.194	22.87
			8M96W7D	16QAM	0.153	21.85
			9M00W7D	64QAM	0.146	21.63
			8M99W7D	256QAM	0.081	19.10
	LTE – Band 41 (15)	2503.5 – 2682.5	13M5G7D	QPSK	0.221	23.45
			13M5W7D	16QAM	0.177	22.47
			13M4W7D	64QAM	0.156	21.92
			13M5W7D	256QAM	0.092	19.62
	LTE – Band 41 (20)	2506.0 – 2680.0	17M9G7D	QPSK	0.202	23.06
			17M9W7D	16QAM	0.167	22.23
			17M9W7D	64QAM	0.147	21.67
			17M9W7D	256QAM	0.086	19.33

ANT F

	Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
					Max. Power (W)	Max. Power (dBm)
Power Class 2	LTE – Band 41 (5)	2498.5 – 2687.5	4M54G7D	QPSK	0.124	20.95
			4M51W7D	16QAM	0.117	20.69
			4M55W7D	64QAM	0.098	19.90
			4M53W7D	256QAM	0.062	17.95
	LTE – Band 41 (10)	2501.0 – 2685.0	9M05G7D	QPSK	0.126	21.02
			9M01W7D	16QAM	0.122	20.87
			9M05W7D	64QAM	0.096	19.81
			9M00W7D	256QAM	0.062	17.95
	LTE – Band 41 (15)	2503.5 – 2682.5	13M5G7D	QPSK	0.140	21.47
			13M4W7D	16QAM	0.135	21.32
			13M5W7D	64QAM	0.112	20.48
			13M5W7D	256QAM	0.071	18.54
	LTE – Band 41 (20)	2506.0 – 2680.0	17M9G7D	QPSK	0.129	21.11
			17M9W7D	16QAM	0.122	20.86
			17M9W7D	64QAM	0.099	19.94
			17M9W7D	256QAM	0.063	17.97

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

The EUT was a Mobile Phone with GSM/GPRS/EGPRS/UMTS and LTE, Sub 6.
It also supports IEEE 802.11 a/b/g/n/ac/ax (20/40/80/160 MHz), Bluetooth(ePA), BT LE(ePA), NFC, WPT, WIFI 6E.

2.2. MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

2.3. TEST FACILITY

The Fully-anechoic chamber and conducted measurement facility used to collect the radiated data are located at the **74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA.**

3. DESCRIPTION OF TESTS

3.1 TEST PROCEDURE

Test Description	Test Procedure Used
Occupied Bandwidth	- KDB 971168 D01 v03r01 – Section 4.3 - ANSI C63.26-2015 – Section 5.4.4
Channel Edge	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Spurious and Harmonic Emissions at Antenna Terminal	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Conducted Output Power	- N/A (See SAR Report)
Peak- to- Average Ratio	- KDB 971168 D01 v03r01 – Section 5.7 - ANSI C63.26-2015 – Section 5.2.3.4
Frequency stability	- ANSI C63.26-2015 – Section 5.6
Effective Radiated Power/ Effective Isotropic Radiated Power	- KDB 971168 D01 v03r01 – Section 5.2 & 5.8 - ANSI/TIA-603-E-2016 – Section 2.2.17
Radiated Spurious and Harmonic Emissions	- KDB 971168 D01 v03r01 – Section 6.2 - ANSI/TIA-603-E-2016 – Section 2.2.12

3.2 RADIATED POWER

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.
The equipment under test is placed on a non-conductive table 3-meters away from the receive antenna in accordance with ANSI/TIA-603-E-2016 Clause 2.2.17.

Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
2. RBW = 1 – 5 % of the expected OBW, not to exceed 1 MHz
3. VBW ≥ 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points > 2 x span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto".
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

Test Note

1. The turntable is rotated through 360 degrees, and the receiving antenna scans in order to determine the level of the maximized emission.
2. A half wave dipole is then substituted in place of the EUT. For emissions above 1 GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated.
   The power is calculated by the following formula;

$$P_{d\ (dBm)} = Pg_{\ (dBm)} - \text{cable loss}_{\ (dB)} + \text{antenna gain}_{\ (dB)}$$

   Where: P_d is the dipole equivalent power and P_g is the generator output power into the substitution antenna.
3. The maximum value is calculated by adding the forward power to the calibrated source plus its appropriate gain value.
   These steps are repeated with the receiving antenna in both vertical and horizontal polarization.
   the difference between the gain of the horn and an isotropic antenna are taken into consideration
4. The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
5. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

3.3 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

Radiated Spurious Emission Measurements at 3 meters by Substitution Method according to ANSI/TIA-603-E-2016.

Test Settings

1. RBW = 100 kHz for emissions below 1 GHz and 1 MHz for emissions above 1 GHz
2. VBW ≥ 3 x RBW
3. Span = 1.5 times the OBW
4. No. of sweep points > 2 x span / RBW
5. Detector = Peak
6. Trace mode = Max Hold
7. The trace was allowed to stabilize
8. Test channel : Low/ Middle/ High
9. Frequency range : We are performed all frequency to 10^{th} harmonics from 9 kHz.

Test Note

1. Measurements value show only up to 3 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
2. The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
   The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the test data
3. For spurious emissions above 1 GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated.
   The spurious emissions is calculated by the following formula;

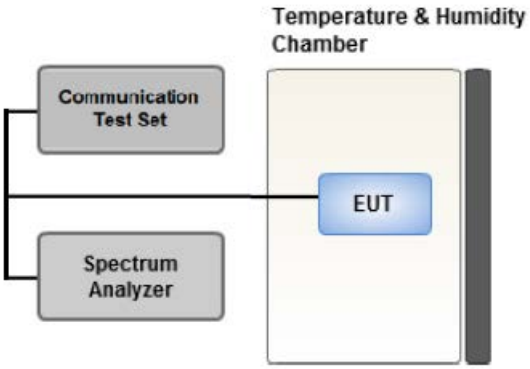
$$\text{Result}_{(dBm)} = Pg_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

   Where: P_g is the generator output power into the substitution antenna.

   If the fundamental frequency is below 1 GHz, RF output power has been converted to EIRP.

$$EIRP_{(dBm)} = ERP_{(dBm)} + 2.15$$

3.4 PEAK- TO- AVERAGE RATIO



Test setup

① CCDF Procedure for PAPR

Test Settings

1. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Set the measurement interval as follows:
   .- for continuous transmissions, set to 1 ms,
   .- or burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
4. Record the maximum PAPR level associated with a probability of 0.1 %.

② Alternate Procedure for PAPR

Use one of the procedures presented in 5.2(ANSI C63.26-2015) to measure the total peak power and record as P_{Pk}.

Use one of the applicable procedures presented 5.2(ANSI C63.26-2015) to measure the total average power and record as P_{Avg}. Determine the P.A.R. from:

$$P.A.R_{(dB)} = P_{Pk(dBm)} - P_{Avg(dBm)} \quad (P_{Avg} = \text{Average Power} + \text{Duty cycle Factor})$$

Test Settings(Peak Power)

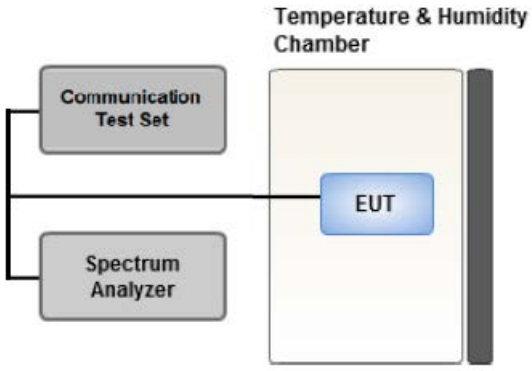
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW ≥ 3 × RBW.

1. Set the RBW ≥ OBW.
2. Set VBW ≥ 3 × RBW.
3. Set span ≥ 2 × OBW.
4. Sweep time ≥ 10 × (number of points in sweep) × (transmission symbol period).
5. Detector = peak.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the peak amplitude level.

Test Settings(Average Power)

1. Set span to 2 × to 3 × the OBW.
2. Set RBW ≥ OBW.
3. Set VBW ≥ 3 × RBW.
4. Set number of measurement points in sweep ≥ 2 × span / RBW.
5. Sweep time:
   Set ≥ [10 × (number of points in sweep) × (transmission period)] for single sweep (automation-compatible) measurement. The transmission period is the (on + off) time.
6. Detector = power averaging (rms).
7. Set sweep trigger to “free run.”
8. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. (To accurately determine the average power over the on and off period of the transmitter, it can be necessary to increase the number of traces to be averaged above 100 or, if using a manually configured sweep time, increase the sweep time.)
9. Use the peak marker function to determine the maximum amplitude level.
10. Add [10 log (1/duty cycle)] to the measured maximum power level to compute the average power during continuous transmission. For example, add [10 log (1/0.25)] = 6 dB if the duty cycle is a constant 25 %.

3.5 OCCUPIED BANDWIDTH.



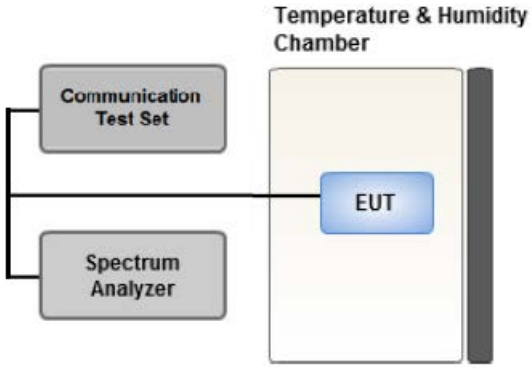
Test setup

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.
The EUT makes a call to the communication simulator.
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
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

Test Settings

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99 % occupied bandwidth and the 26 dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5 % of the expected OBW
3. VBW ≥ 3 x RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1 – 5 % of the 99 % occupied bandwidth observed in Step 7

3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

Test Overview

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.

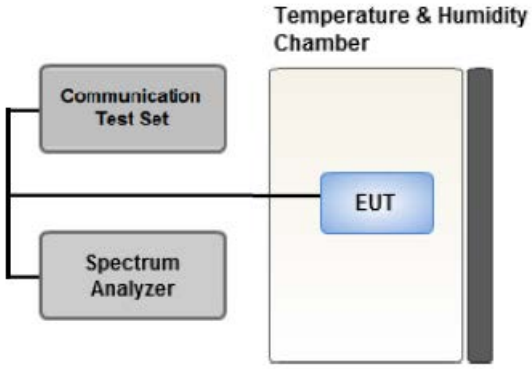
All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Settings

1. RBW = 1 MHz
2. VBW ≥ 3 MHz
3. Detector = RMS
4. Trace Mode = trace average
5. Sweep time = auto
6. Number of points in sweep ≥ 2 x Span / RBW

3.7 CHANNEL EDGE



Test setup

Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Settings

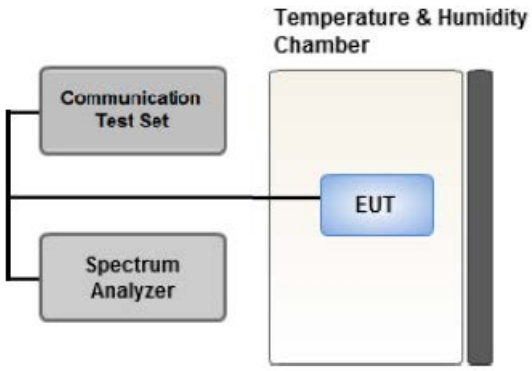
1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. Within 1 MHz of the channel edge the RBW should be 2 % of EBW, then 1 MHz after that.
4. VBW > 3 x RBW
5. Detector = RMS
6. Number of sweep points ≥ 2 x Span/RBW
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Notes

1. The attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge,
2. 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge.
3. 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge.
4. The attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz.
5. 55 + 10 log (P) dB at or below 2490.5 MHz.
6. X is the greater of 6 MHz or the actual emission bandwidth
7. The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer

Where Margin < 1 dB the emission level is either corrected by 10 log(1 MHz/ RB) or the emission is integrated over a 1 MHz bandwidth to determine the final result. When using the integration method the integration window is either centered on the emission or, for emissions at the band edge, centered by an offset of 500 kHz from the block edge so that the integration window is the 1 MHz adjacent to the block edge.

3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

Test Overview

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015.

The frequency stability of the transmitter is measured by:

1. Temperature:

   The temperature is varied from -30 °C to +50 °C in 10 °C increments using an environmental chamber.

2. Primary Supply Voltage:

   .- Unless otherwise specified, vary primary supply voltage from 85 % to 115 % of the nominal value for other than hand carried battery equipment.

   .- For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.

Test Settings

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.

3.8 WORST CASE(RADIATED TEST)

- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- All modes of operation were investigated and the worst case configuration results are reported.
  Mode : Stand alone, Stand alone + External accessories (Earphone, AC adapter, etc)
  Worst case : Stand alone
- All simultaneous transmission scenarios of operation were investigated, and the test results showed no additional significant emissions relative to the least restrictive limit were observed.

  Therefore, only the worst case(stand-alone) results were reported.
- The worst case is reported with the EUT positioning, modulations, and paging service configurations shown in the test data
- All power classes were tested, and the results were reported for the worst case PC2.
- Please refer to the table below.
- SM-S721B/DS & additional models were tested and the worst case results are reported.
  (Worst case : SM-S721B/DS)

[ANT B Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Effective Isotropic Radiated Power	QPSK, 16QAM, 64QAM, 256QAM	See Section 8.1		X
Radiated Spurious and Harmonic Emissions	QPSK	See Section 8.2		Z

[ANT F Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Effective Isotropic Radiated Power	QPSK, 16QAM, 64QAM, 256QAM	See Section 9.1		X
Radiated Spurious and Harmonic Emissions	QPSK	See Section 9.2		Z

3.9 WORST CASE(CONDUCTED TEST)

- All modes of operation were investigated and the worst case configuration results are reported.
- All power classes were tested, and the results were reported for the worst case PC2.
- SM-S721B/DS & additional models were tested and the worst case results are reported.
  (Worst case : SM-S721B/DS)

[Worst case]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset
Occupied Bandwidth	QPSK, 16QAM, 64QAM, 256QAM	5, 10, 15, 20	Mid	Full RB	0
Peak-To-Average Radio	QPSK, 16QAM, 64QAM, 256QAM	5, 10, 15, 20	Mid	Full RB	0
Channel Edge	QPSK	5	Low	1	0
			High	1	24
		10	Low	1	0
			High	1	49
		15	Low	1	0
			High	1	74
		20	Low	1	0
			High	1	99
		5, 10, 15, 20	Low, Mid, High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	QPSK	5, 10, 15, 20	Low, Mid, High	1	0

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
RF Switching System	FBSR-02B(1.2G HPF+LNA)	T&M SYSTEM	F1L1	12/11/2024	Annual
RF Switching System	FBSR-02B(3.3G HPF+LNA)	T&M SYSTEM	F1L2	12/11/2024	Annual
Power Splitter(DC ~ 26.5 GHz)	11667B	Hewlett Packard	5001	04/17/2025	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	08/25/2024	Annual
Dipole Antenna	UHAP	Schwarzbeck	557	03/09/2025	Biennial
Dipole Antenna	UHAP	Schwarzbeck	558	03/09/2025	Biennial
Chamber	SU-642	ESPEC	93008124	02/19/2025	Annual
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	147	08/17/2025	Biennial
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1298	09/11/2025	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/29/2024	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/28/2025	Biennial
Signal Analyzer(10 Hz ~ 26.5 GHz)	N9020A	Agilent	MY52090906	04/19/2025	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/17/2025	Annual
Spectrum Analyzer(10 Hz ~ 40 GHz)	FSV40	REOHDE & SCHWARZ	100931	08/17/2024	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/10/2024	Annual
Loop Antenna(9 kHz ~ 30 MHz)	FMZB1513	Schwarzbeck	1513-333	03/07/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	895	09/16/2024	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	1135	09/16/2024	Biennial
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262094331	11/17/2024	Annual
Wideband Radio Communication Tester	MT8820C	Anritsu Corp.	6201026545	12/11/2024	Annual
Signal Analyzer(5 Hz ~ 40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/17/2025	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

Note:

1. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.
2. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2017).

5. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4:2014.

All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty (±dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	1.98 (Confidence level about 95 %, k=2)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.36 (Confidence level about 95 %, k=2)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.70 (Confidence level about 95 %, k=2)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.52 (Confidence level about 95 %, k=2)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.66 (Confidence level about 95 %, k=2)
Radiated Disturbance (Above 40 GHz)	5.58 (Confidence level about 95 %, k=2)

6. SUMMARY OF TEST RESULTS

6.1 Test Condition: Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§ 2.1049	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§ 2.1051, § 27.53(m)(4)	■ < 40 + 10log10 (P[Watts]) at Channel edges ■ < 43 + 10log10 (P[Watts]) between 5 and X MHz from Channel edges ■ < 55 + 10log10 (P[Watts]) beyond X MHz beyond from Channel edges ■ < 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz	PASS
Conducted Output Power	§ 2.1046	N/A	See Note1
Frequency stability / variation of ambient temperature	§ 2.1055, § 27.54	Emission must remain in band	PASS

Note:

1. See SAR Report

6.2 Test Condition: Radiated Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Equivalent Isotropic Radiated Power	§ 27.50(h)(2)	< 2 Watts max. EIRP	PASS
Radiated Spurious and Harmonic Emissions	§ 2.1053, § 27.53(m)(4)	< 55 + 10log10 (P[Watts])	PASS

7. SAMPLE CALCULATION

7.1 ERP Sample Calculation

Ch./ Freq.		Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol.	ERP	
channel	Freq.(MHz)						W	dBm
128	824.20	-21.37	38.40	-10.61	0.95	H	0.483	26.84

ERP = Substitute LEVEL(dBm) + Ant. Gain – CL(Cable Loss)

1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.
2) During the test, the turn table is rotated until the maximum signal is found.
3) Record the field strength meter's level.
4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.
5) Increase the signal generator output till the field strength meter's level is equal to the item (3).
6) The signal generator output level with Ant. Gain and cable loss are the rating of effective radiated power.

7.2 EIRP Sample Calculation

Ch./ Freq.		Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	EIRP	
channel	Freq.(MHz)						W	dBm
20175	1,732.50	-15.75	18.45	9.90	1.76	H	0.456	26.59

EIRP = Substitute LEVEL(dBm) + Ant. Gain – CL(Cable Loss)

1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.
2) During the test, the turn table is rotated until the maximum signal is found.
3) Record the field strength meter's level.
4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.
5) Increase the signal generator output till the field strength meter's level is equal to the item (3).
6) The signal generator output level with Ant. Gain and cable loss are the rating of equivalent isotropic radiated power.

7.3. Emission Designator

GSM Emission Designator

Emission Designator = 249KGXW
GSM BW = 249 kHz
G = Phase Modulation
X = Cases not otherwise covered
W = Combination (Audio/Data)

EDGE Emission Designator

Emission Designator = 249KG7W
GSM BW = 249 kHz
G = Phase Modulation
7 = Quantized/Digital Info
W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M17F9W
WCDMA BW = 4.17 MHz
F = Frequency Modulation
9 = Composite Digital Info
W = Combination (Audio/Data)

QPSK Modulation

Emission Designator = 4M48G7D
LTE BW = 4.48 MHz
G = Phase Modulation
7 = Quantized/Digital Info
D = Data transmission; telemetry; telecommand

QAM Modulation

Emission Designator = 4M48W7D
LTE BW = 4.48 MHz
W = Amplitude/Angle Modulated
7 = Quantized/Digital Info
D = Data transmission; telemetry; telecommand

8. TEST DATA(ANT B)

8.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2498.5	LTE B41/ 5 MHz	QPSK	-22.81	14.01	10.51	2.57	H	< 2.00	0.157	21.95	1	24
		16-QAM	-23.76	13.06	10.51	2.57	H		0.126	21.00		
		64-QAM	-24.17	12.65	10.51	2.57	H		0.115	20.59		
		256-QAM	-26.57	10.25	10.51	2.57	H		0.066	18.19		
2593.0		QPSK	-22.68	14.54	10.64	2.71	H		0.177	22.47	1	0
		16-QAM	-23.63	13.59	10.64	2.71	H		0.142	21.52		
		64-QAM	-24.19	13.03	10.64	2.71	H		0.125	20.96		
		256-QAM	-26.54	10.68	10.64	2.71	H		0.073	18.61		
2687.5		QPSK	-22.20	14.85	10.74	2.75	H		0.192	22.84	1	0
		16-QAM	-23.10	13.95	10.74	2.75	H		0.156	21.94		
		64-QAM	-23.72	13.33	10.74	2.75	H		0.136	21.32		
		256-QAM	-25.96	11.09	10.74	2.75	H		0.081	19.08		

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2501.0	LTE B41/ 10 MHz	QPSK	-22.71	14.11	10.51	2.57	H	< 2.00	0.160	22.05	1	49
		16-QAM	-23.71	13.11	10.51	2.57	H		0.127	21.05		
		64-QAM	-23.94	12.88	10.51	2.57	H		0.121	20.82		
		256-QAM	-26.59	10.23	10.51	2.57	H		0.066	18.17		
2593.0		QPSK	-22.67	14.55	10.64	2.71	H		0.177	22.48	1	0
		16-QAM	-23.60	13.62	10.64	2.71	H		0.143	21.55		
		64-QAM	-23.90	13.32	10.64	2.71	H		0.133	21.25		
		256-QAM	-26.36	10.86	10.64	2.71	H		0.076	18.79		
2685.0		QPSK	-22.35	14.89	10.73	2.75	H		0.194	22.87	1	0
		16-QAM	-23.37	13.87	10.73	2.75	H		0.153	21.85		
		64-QAM	-23.59	13.65	10.73	2.75	H		0.146	21.63		
		256-QAM	-26.12	11.12	10.73	2.75	H		0.081	19.10		

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2503.5	LTE B41/ 15 MHz	QPSK	-22.89	13.94	10.58	2.57	H	< 2.00	0.157	21.95	1	74
		16-QAM	-23.91	12.92	10.58	2.57	H		0.124	20.93		
		64-QAM	-24.14	12.69	10.58	2.57	H		0.117	20.70		
		256-QAM	-26.56	10.27	10.58	2.57	H		0.067	18.28		
2593.0		QPSK	-22.33	14.89	10.64	2.71	H		0.191	22.82	1	0
		16-QAM	-23.35	13.87	10.64	2.71	H		0.151	21.80		
		64-QAM	-23.54	13.68	10.64	2.71	H		0.145	21.61		
		256-QAM	-26.01	11.21	10.64	2.71	H		0.082	19.14		
2682.5		QPSK	-21.95	15.48	10.72	2.75	H		0.221	23.45	1	0
		16-QAM	-22.93	14.50	10.72	2.75	H		0.177	22.47		
		64-QAM	-23.48	13.95	10.72	2.75	H		0.156	21.92		
		256-QAM	-25.78	11.65	10.72	2.75	H		0.092	19.62		

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2506.0	LTE B41/ 20 MHz	QPSK	-22.57	14.26	10.58	2.57	H	< 2.00	0.169	22.27	1	99
		16-QAM	-23.54	13.29	10.58	2.57	H		0.135	21.30		
		64-QAM	-23.85	12.98	10.58	2.57	H		0.126	20.99		
		256-QAM	-26.42	10.41	10.58	2.57	H		0.070	18.42		
2593.0		QPSK	-22.50	14.72	10.64	2.71	H		0.184	22.65	1	0
		16-QAM	-23.49	13.73	10.64	2.71	H		0.147	21.66		
		64-QAM	-23.73	13.49	10.64	2.71	H		0.139	21.42		
		256-QAM	-26.21	11.01	10.64	2.71	H		0.078	18.94		
2680.0		QPSK	-22.34	15.09	10.72	2.75	H		0.202	23.06	1	0
		16-QAM	-23.17	14.26	10.72	2.75	H		0.167	22.23		
		64-QAM	-23.73	13.70	10.72	2.75	H		0.147	21.67		
		256-QAM	-26.07	11.36	10.72	2.75	H		0.086	19.33		

8.2 RADIATED SPURIOUS EMISSIONS

▣ OPERATING FREQUENCY : 2687.5 MHz

▣ MEASURED OUTPUT POWER: 22.84 dBm = 0.192 W

▣ MODE: LTE B41

▣ MODULATION SIGNAL: 5 MHz QPSK

▣ DISTANCE: 1 meters

▣ LIMIT: 55 + 10 log10 (W) = 47.84 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc	Detector	RB	
										Size	Offset
39675 (2498.5)	4,997.00	-50.30	12.56	-60.11	3.81	H	-51.36	74.20	Peak	1	24
	7,495.50	-59.36	10.78	-58.97	4.71	H	-52.90	75.74	Peak		
	9,994.00	-61.17	11.18	-56.75	5.52	H	-51.09	73.93	Peak		
40620 (2593.0)	5,186.00	-42.91	12.55	-51.68	3.82	V	-42.96	65.79	Peak	1	0
	7,779.00	-49.60	11.41	-49.77	4.79	V	-43.15	65.99	Peak		
	10,372.00	-60.97	11.43	-55.52	5.59	H	-49.68	72.52	Peak		
41565 (2687.5)	5,375.00	-28.30	13.06	-37.48	3.85	H	-28.26	51.10	Peak	1	0
	8,062.50	-44.59	10.74	-42.78	4.86	V	-36.90	59.73	Peak		
	10,750.00	-60.21	11.31	-55.20	5.65	H	-49.54	72.38	Peak		

▣ OPERATING FREQUENCY : 2685.0 MHz

▣ MEASURED OUTPUT POWER: 22.87 dBm = 0.194 W

▣ MODE: LTE B41

▣ MODULATION SIGNAL: 10 MHz QPSK

▣ DISTANCE: 1 meters

▣ LIMIT: 55 + 10 log10 (W) = 47.87 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc	Detector	RB	
										Size	Offset
39700 (2501.0)	5,002.00	-51.56	12.56	-61.37	3.81	H	-52.62	75.49	Peak	1	49
	7,503.00	-56.45	10.78	-56.37	4.71	H	-50.30	73.17	Peak		
	10,004.00	-60.47	11.22	-56.28	5.52	H	-50.59	73.45	Peak		
40620 (2593.0)	5,186.00	-41.92	12.55	-50.69	3.82	H	-41.97	64.83	Peak	1	0
	7,779.00	-53.18	11.41	-53.35	4.79	V	-46.73	69.60	Peak		
	10,372.00	-58.22	11.43	-52.77	5.59	H	-46.93	69.80	Peak		
41540 (2685.0)	5,370.00	-32.43	13.07	-41.53	3.85	H	-32.31	55.18	Peak	1	0
	8,055.00	-48.81	10.74	-46.99	4.87	V	-41.12	63.98	Peak		
	10,740.00	-55.62	11.32	-50.91	5.71	V	-45.30	68.17	Peak		

▣ OPERATING FREQUENCY : 2682.5 MHz

▣ MEASURED OUTPUT POWER: 23.45 dBm = 0.221 W

▣ MODE: LTE B41

▣ MODULATION SIGNAL: 15 MHz QPSK

▣ DISTANCE: 1 meters

▣ LIMIT: 55 + 10 log10 (W) = 48.45 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc	Detector	RB	
										Size	Offset
39725 (2503.5)	5,007.00	-47.74	12.55	-57.76	3.88	H	-49.09	72.54	Peak	1	74
	7,510.50	-49.63	10.78	-50.04	4.71	H	-43.97	67.42	Peak		
	10,014.00	-59.65	11.25	-55.41	5.53	V	-49.69	73.14	Peak		
40620 (2593.0)	5,186.00	-39.24	12.55	-48.01	3.82	H	-39.29	62.73	Peak	1	0
	7,779.00	-45.47	11.41	-45.64	4.79	H	-39.02	62.47	Peak		
	10,372.00	-59.80	11.43	-54.35	5.59	V	-48.51	71.96	Peak		
41515 (2682.5)	5,365.00	-30.12	13.08	-39.11	3.86	H	-29.88	53.33	Average	1	0
	8,047.50	-42.22	10.73	-40.39	4.87	V	-34.53	57.98	Peak		
	10,730.00	-57.10	11.33	-52.65	5.78	V	-47.10	70.54	Peak		

▣ OPERATING FREQUENCY : 2680.0 MHz

▣ MEASURED OUTPUT POWER: 23.06 dBm = 0.202 W

▣ MODE: LTE B41

▣ MODULATION SIGNAL: 20 MHz QPSK

▣ DISTANCE: 1 meters

▣ LIMIT: 55 + 10 log10 (W) = 48.06 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc	Detector	RB	
										Size	Offset
39750 (2506.0)	5,012.00	-48.03	12.55	-58.05	3.88	H	-49.38	72.44	Peak	1	99
	7,518.00	-56.03	10.82	-56.73	4.71	V	-50.62	73.68	Peak		
	10,024.00	-60.02	11.29	-55.80	5.54	H	-50.04	73.10	Peak		
40620 (2593.0)	5,186.00	-44.30	12.55	-53.07	3.82	V	-44.35	67.40	Peak	1	0
	7,779.00	-52.68	11.41	-52.85	4.79	H	-46.23	69.29	Peak		
	10,372.00	-61.25	11.43	-55.80	5.59	H	-49.96	73.02	Peak		
41490 (2680.0)	5,360.00	-29.78	13.09	-38.65	3.86	H	-29.42	52.48	Peak	1	0
	8,040.00	-49.91	10.73	-48.12	4.86	V	-42.25	65.31	Peak		
	10,720.00	-55.39	11.33	-51.02	5.81	V	-45.50	68.56	Peak		

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
41	5 MHz	2593.0	QPSK	25	0	5.55
			16-QAM			6.09
			64-QAM			6.40
			256-QAM			6.76
	10 MHz		QPSK	50		5.63
			16-QAM			6.12
			64-QAM			6.42
			256-QAM			7.13
	15 MHz		QPSK	75		5.48
			16-QAM			6.10
			64-QAM			6.34
			256-QAM			6.36
	20 MHz		QPSK	100		5.53
			16-QAM			6.03
			64-QAM			6.33
			256-QAM			6.41

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 70 ~ 85.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
41	5 MHz	2593.0	QPSK	25	0	4.5202
			16-QAM			4.5344
			64-QAM			4.5368
			256-QAM			4.5044
	10 MHz		QPSK	50		9.0057
			16-QAM			8.9641
			64-QAM			9.0003
			256-QAM			8.9877
	15 MHz		QPSK	75		13.521
			16-QAM			13.490
			64-QAM			13.444
			256-QAM			13.471
	20 MHz		QPSK	100		17.926
			16-QAM			17.900
			64-QAM			17.902
			256-QAM			17.889

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 86 ~ 101.

8.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
41	5	2498.5	26.1406	34.110	-76.652	-42.542	-25.00
		2593.0	26.1368	34.110	-76.400	-42.290	
		2687.5	25.7998	34.110	-76.515	-42.405	
	10	2501.0	26.1168	34.110	-76.472	-42.362	
		2593.0	26.1020	34.110	-76.704	-42.594	
		2685.0	26.1487	34.110	-76.405	-42.295	
	15	2503.5	26.1474	34.110	-76.413	-42.303	
		2593.0	25.8584	34.110	-76.507	-42.397	
		2682.5	25.7573	34.110	-76.751	-42.641	
	20	2506.0	26.1428	34.110	-76.489	-42.379	
		2593.0	25.7700	34.110	-76.882	-42.772	
		2680.0	26.1143	34.110	-76.601	-42.491	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 102 ~ 125.
2. Conducted Spurious Emissions was Tested QPSK Modulation, Resource Block Size 1 and Resource Block Offset 0
3. Duty Cycle factor already applied on the factor.
   - Duty Cycle factor(dB) = 3.979
   - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
   - Result(dBm) = Reading + Factor

Frequency Range (GHz)	Factor [dB]
0.03 – 1	29.249
1 – 5	31.955
5 – 10	32.570
10 – 15	33.095
15 – 20	33.468
Above 20	34.110

8.6 CHANNEL EDGE

Band Width	Frequency (MHz)	Modulation	RB (Size/ Offset)	2 495 MHz ~ 2 496 MHz	C.E ~ (C.E +1 MHz)	2 490.5 MHz ~ 2 495 MHz	(C.E + 1 MHz) ~ (C.E + 5 MHz)	Below 2 490.5 MHz	(C.E + 5 MHz) ~ (C.E + X MHz)	Above (C.E + X MHz)
				Lower	Upper	Lower	Upper	Lower	Upper	Upper
5 MHz	2498.5	QPSK	25/0	-20.21	-19.39	-24.04	-22.67	-35.48	-32.03	-33.21
10 MHz	2501.0	QPSK	50/0	-24.56	-23.46	-25.65	-23.85	-30.66	-27.00	-35.57
15 MHz	2503.5	QPSK	75/0	-26.20	-24.28	-27.89	-25.45	-31.98	-28.23	-37.67
20 MHz	2506.0	QPSK	100/0	-28.82	-26.19	-29.14	-26.89	-32.35	-29.06	-37.95
Limit(dBm)				-13.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	C.E ~ (C.E ± 1 MHz)		(C.E ± 1 MHz) ~ (C.E ± 5 MHz)	
					Lower	Upper	Lower	Upper
5 MHz	2593.0	QPSK	25	0	-20.57	-20.67	-24.21	-23.71
	2687.5	QPSK	25	0	-20.14	-21.36	-24.05	-24.97
10 MHz	2593.0	QPSK	50	0	-24.08	-23.70	-25.05	-25.24
	2685.0	QPSK	50	0	-23.87	-25.97	-26.96	-28.18
15 MHz	2593.0	QPSK	75	0	-25.47	-25.19	-27.06	-26.72
	2682.5	QPSK	75	0	-25.67	-26.96	-28.35	-28.76
20 MHz	2593.0	QPSK	100	0	-27.89	-28.28	-28.45	-28.37
	2680.0	QPSK	100	0	-28.04	-29.38	-29.75	-30.31
Limit(dBm)					-10.0		-10.0	

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	(C.E ± 5 MHz) ~ (C.E ± X MHz)		Above (C.E ± X MHz)	
					Lower	Upper	Lower	Upper
5 MHz	2593.0	QPSK	25	0	-32.16	-32.40	-34.09	-34.40
	2687.5	QPSK	25	0	-32.79	-35.36	-33.96	-36.80
10 MHz	2593.0	QPSK	50	0	-29.08	-29.08	-35.75	-37.04
	2685.0	QPSK	50	0	-30.96	-32.66	-36.56	-39.90
15 MHz	2593.0	QPSK	75	0	-30.27	-30.30	-37.14	-38.52
	2682.5	QPSK	75	0	-30.82	-32.41	-38.37	-41.66
20 MHz	2593.0	QPSK	100	0	-30.58	-30.89	-38.16	-40.34
	2680.0	QPSK	100	0	-31.84	-33.02	-39.37	-42.34
Limit(dBm)					-13.0		-25.0	

Note:
1. C.E = Channel Edge
2. X = X is the greater of 6 MHz or the actual emission bandwidth.
3. X = 6 MHz(5 MHz Bandwidth), 10 MHz(10 MHz Bandwidth), 15 MHz(15 MHz Bandwidth), 20 MHz(20 MHz Bandwidth)
4. RB = Resource Block
5. Duty Cycle factor already applied on the factor.
   - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
   - Result(dBm) = Reading + Factor
   - Duty Cycle Factor(dB) = 3.979
6. Plots of the EUT's Channel Edge are shown Page 126 ~ 153. (1RB & Full RB)

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ MODE: LTE 41

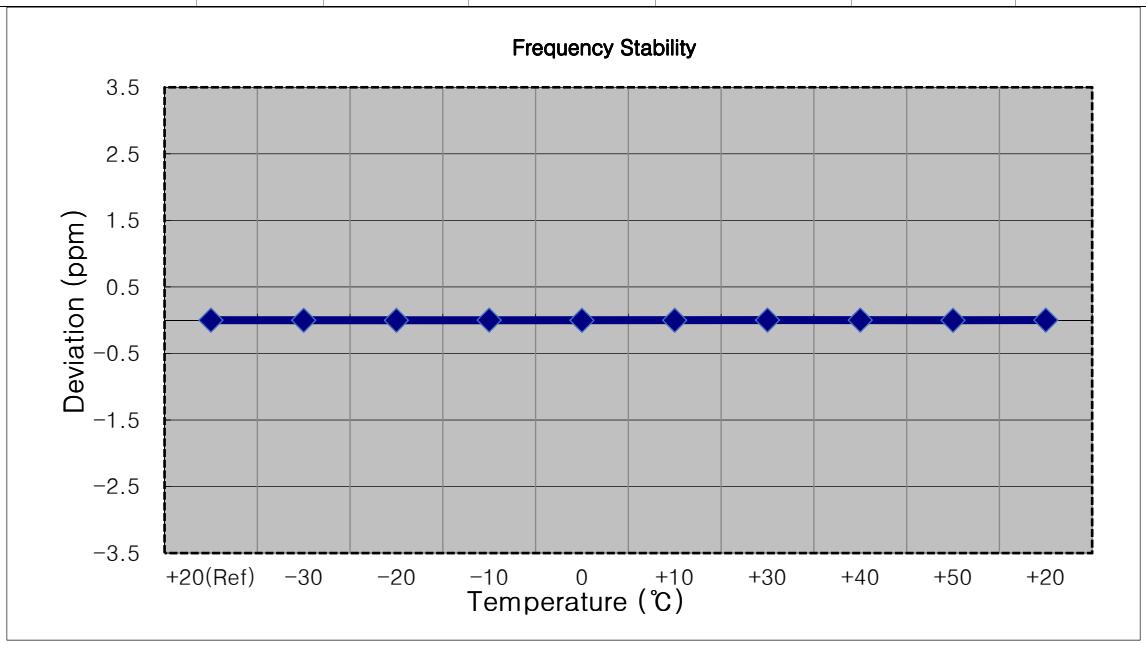
▣ OPERATING FREQUENCY: 2498,500,000 Hz

▣ BANDWIDTH: 39675 (5 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(℃)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2498 499 997	0.0	0.000 000	0.000
100 %		-30	2498 499 994	-3.2	0.000 000	-0.001
100 %		-20	2498 499 993	-4.6	0.000 000	-0.002
100 %		-10	2498 500 001	3.3	0.000 000	0.001
100 %		0	2498 499 993	-4.5	0.000 000	-0.002
100 %		+10	2498 499 994	-2.9	0.000 000	-0.001
100 %		+30	2498 500 001	4.0	0.000 000	0.002
100 %		+40	2498 500 000	3.2	0.000 000	0.001
100 %		+50	2498 499 994	-3.3	0.000 000	-0.001
Batt. Endpoint	3.300	+20	2498 500 000	3.2	0.000 000	0.001



▣ MODE: LTE 41

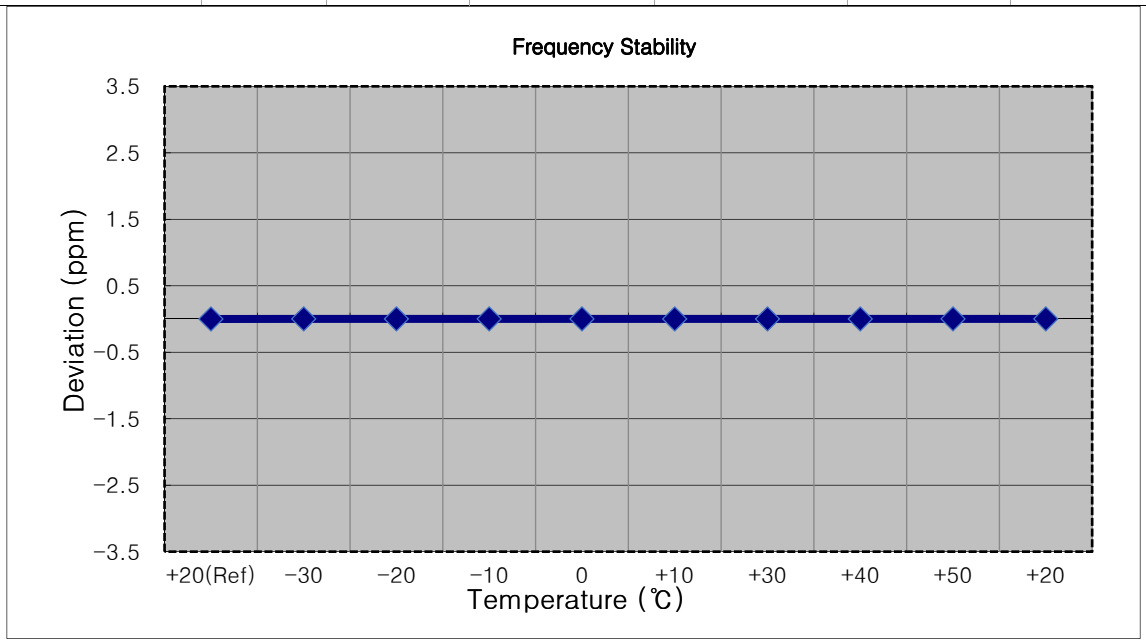
▣ OPERATING FREQUENCY: 2501,000,000 Hz

▣ BANDWIDTH: 39700 (10 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(℃)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2501 000 002	0.0	0.000 000	0.000
100 %		-30	2501 000 006	3.6	0.000 000	0.001
100 %		-20	2501 000 006	3.6	0.000 000	0.001
100 %		-10	2501 000 006	3.3	0.000 000	0.001
100 %		0	2501 000 007	4.4	0.000 000	0.002
100 %		+10	2501 000 005	3.1	0.000 000	0.001
100 %		+30	2501 000 004	2.1	0.000 000	0.001
100 %		+40	2501 000 004	1.5	0.000 000	0.001
100 %		+50	2501 000 007	4.8	0.000 000	0.002
Batt. Endpoint	3.300	+20	2501 000 006	3.7	0.000 000	0.001



▣ MODE: LTE 41

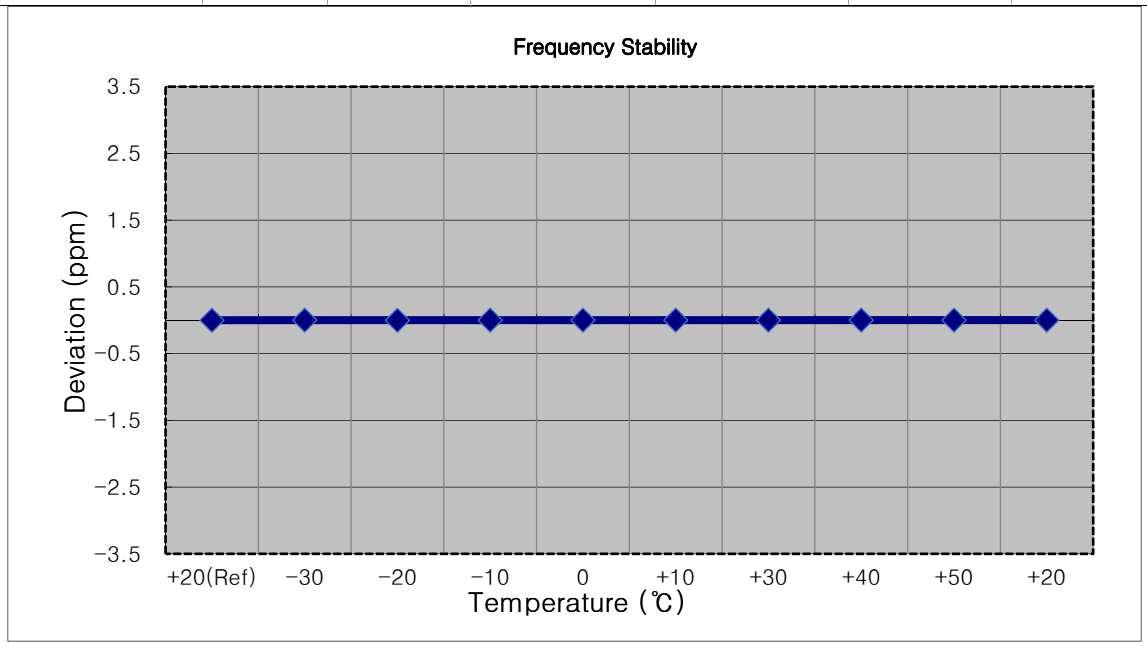
▣ OPERATING FREQUENCY: 2503,500,000 Hz

▣ BANDWIDTH: 39725 (15 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2503 500 003	0.0	0.000 000	0.000
100 %		-30	2503 500 006	2.6	0.000 000	0.001
100 %		-20	2503 500 000	-2.8	0.000 000	-0.001
100 %		-10	2503 500 006	3.0	0.000 000	0.001
100 %		0	2503 500 006	2.7	0.000 000	0.001
100 %		+10	2503 500 006	3.3	0.000 000	0.001
100 %		+30	2503 500 006	3.5	0.000 000	0.001
100 %		+40	2503 500 008	5.0	0.000 000	0.002
100 %		+50	2503 500 007	3.7	0.000 000	0.001
Batt. Endpoint	3.300	+20	2503 500 006	3.5	0.000 000	0.001



▣ MODE: LTE 41

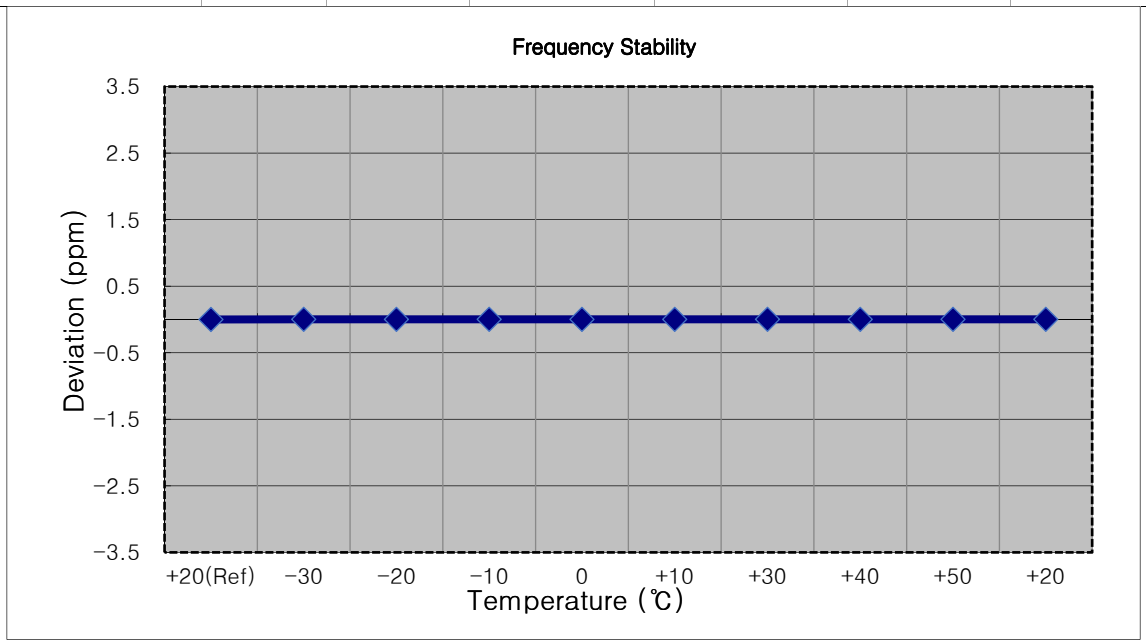
▣ OPERATING FREQUENCY: 2506,000,000 Hz

▣ BANDWIDTH: 39750 (20 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2506 000 004	0.0	0.000 000	0.000
100 %		-30	2506 000 009	4.8	0.000 000	0.002
100 %		-20	2506 000 008	4.3	0.000 000	0.002
100 %		-10	2506 000 009	4.8	0.000 000	0.002
100 %		0	2506 000 009	4.6	0.000 000	0.002
100 %		+10	2506 000 008	4.2	0.000 000	0.002
100 %		+30	2506 000 010	5.5	0.000 000	0.002
100 %		+40	2506 000 008	4.1	0.000 000	0.002
100 %		+50	2506 000 010	5.9	0.000 000	0.002
Batt. Endpoint	3.300	+20	2506 000 010	5.9	0.000 000	0.002



▣ MODE: LTE 41

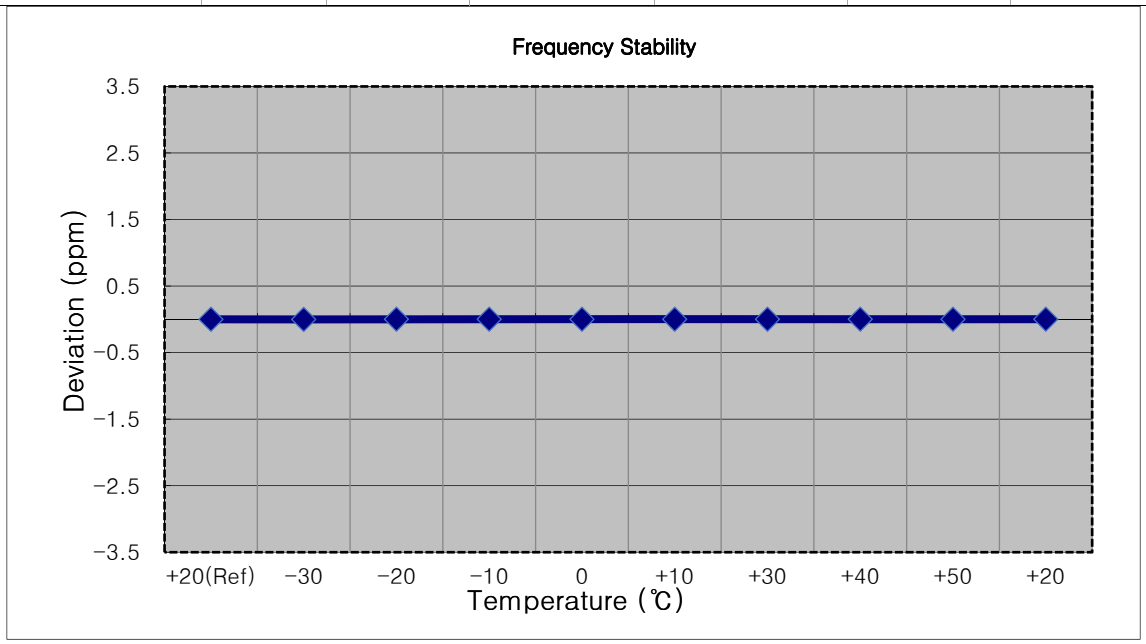
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (5 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2593 000 004	0.0	0.000 000	0.000
100 %		-30	2593 000 001	-3.0	0.000 000	-0.001
100 %		-20	2593 000 008	4.7	0.000 000	0.002
100 %		-10	2593 000 009	4.9	0.000 000	0.002
100 %		0	2593 000 007	3.7	0.000 000	0.001
100 %		+10	2593 000 007	3.3	0.000 000	0.001
100 %		+30	2593 000 007	3.7	0.000 000	0.001
100 %		+40	2593 000 008	3.8	0.000 000	0.001
100 %		+50	2593 000 006	2.6	0.000 000	0.001
Batt. Endpoint	3.300	+20	2593 000 008	4.1	0.000 000	0.002



▣ MODE: LTE 41

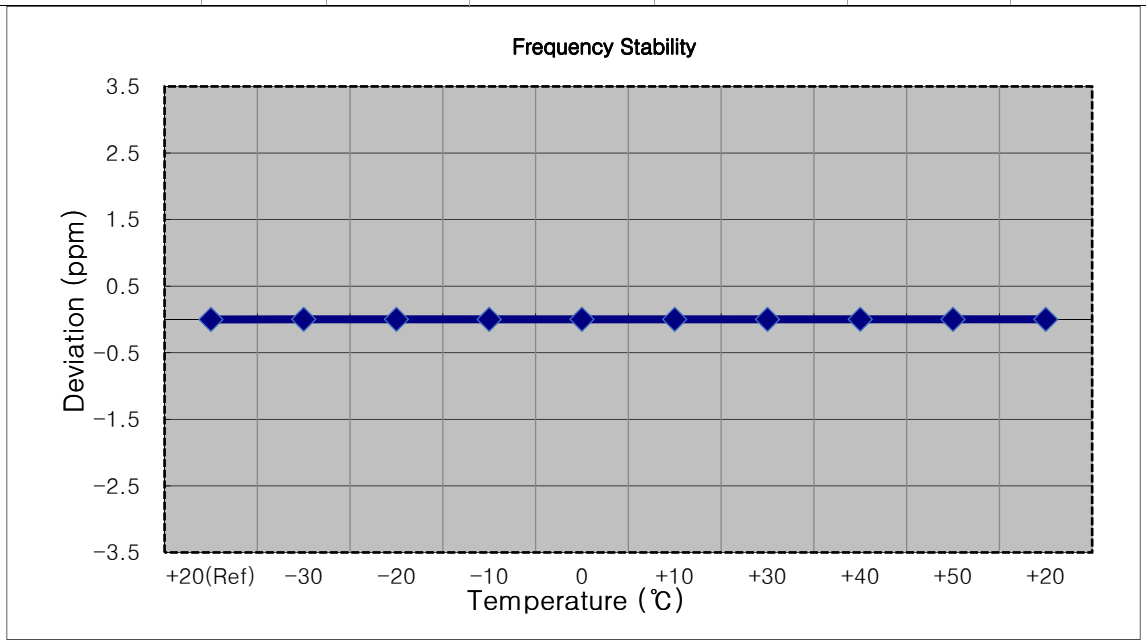
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (10 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2593 000 004	0.0	0.000 000	0.000
100 %		-30	2593 000 009	5.4	0.000 000	0.002
100 %		-20	2593 000 008	4.5	0.000 000	0.002
100 %		-10	2593 000 007	3.6	0.000 000	0.001
100 %		0	2593 000 010	5.8	0.000 000	0.002
100 %		+10	2593 000 007	3.6	0.000 000	0.001
100 %		+30	2593 000 008	3.8	0.000 000	0.001
100 %		+40	2593 000 009	5.4	0.000 000	0.002
100 %		+50	2593 000 008	4.5	0.000 000	0.002
Batt. Endpoint	3.300	+20	2593 000 008	4.4	0.000 000	0.002



▣ MODE: LTE 41

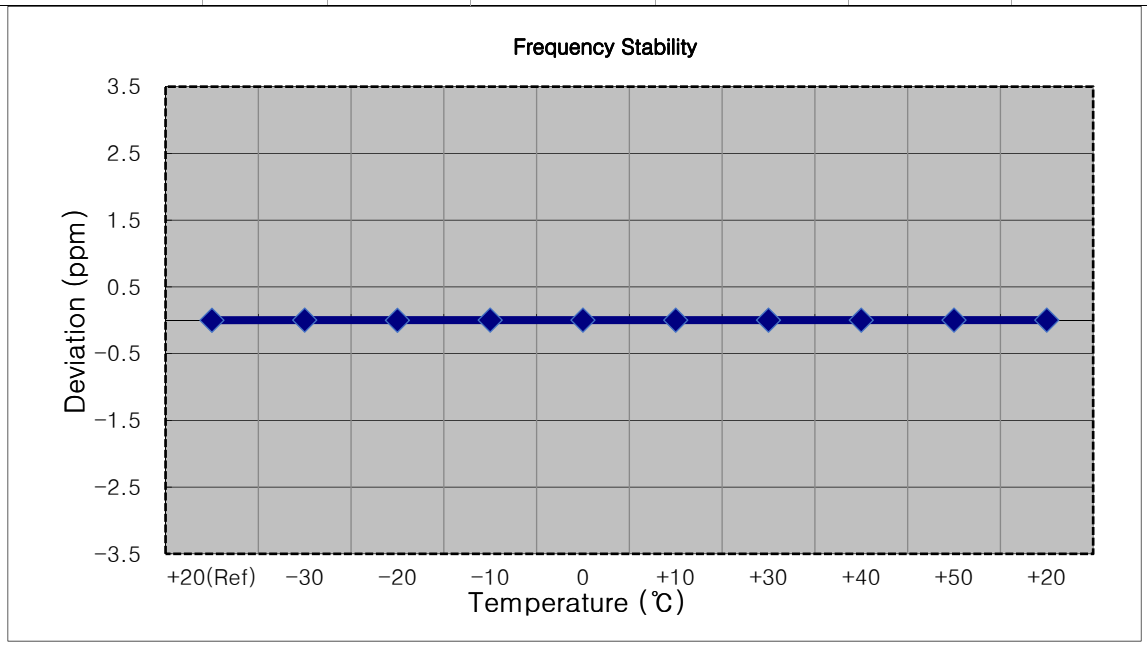
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (15 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2593 000 005	0.0	0.000 000	0.000
100 %		-30	2593 000 011	5.3	0.000 000	0.002
100 %		-20	2593 000 003	-2.7	0.000 000	-0.001
100 %		-10	2593 000 011	5.8	0.000 000	0.002
100 %		0	2593 000 012	6.2	0.000 000	0.002
100 %		+10	2593 000 009	3.8	0.000 000	0.001
100 %		+30	2593 000 009	3.9	0.000 000	0.002
100 %		+40	2593 000 009	4.0	0.000 000	0.002
100 %		+50	2593 000 010	4.5	0.000 000	0.002
Batt. Endpoint	3.300	+20	2593 000 011	5.3	0.000 000	0.002



▣ MODE: LTE 41

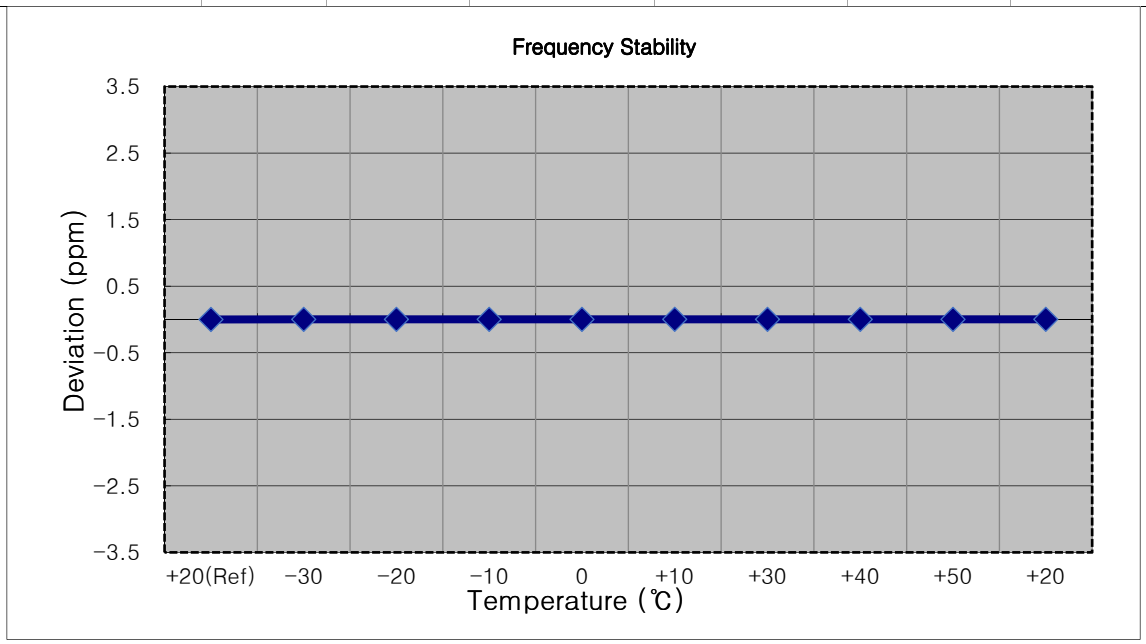
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (20 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2593 000 005	0.0	0.000 000	0.000
100 %		-30	2593 000 009	4.2	0.000 000	0.002
100 %		-20	2593 000 009	3.9	0.000 000	0.002
100 %		-10	2593 000 009	4.0	0.000 000	0.002
100 %		0	2593 000 010	4.7	0.000 000	0.002
100 %		+10	2593 000 011	5.3	0.000 000	0.002
100 %		+30	2593 000 009	3.4	0.000 000	0.001
100 %		+40	2593 000 009	3.9	0.000 000	0.002
100 %		+50	2593 000 010	4.3	0.000 000	0.002
Batt. Endpoint	3.300	+20	2593 000 010	5.0	0.000 000	0.002



▣ MODE: LTE 41

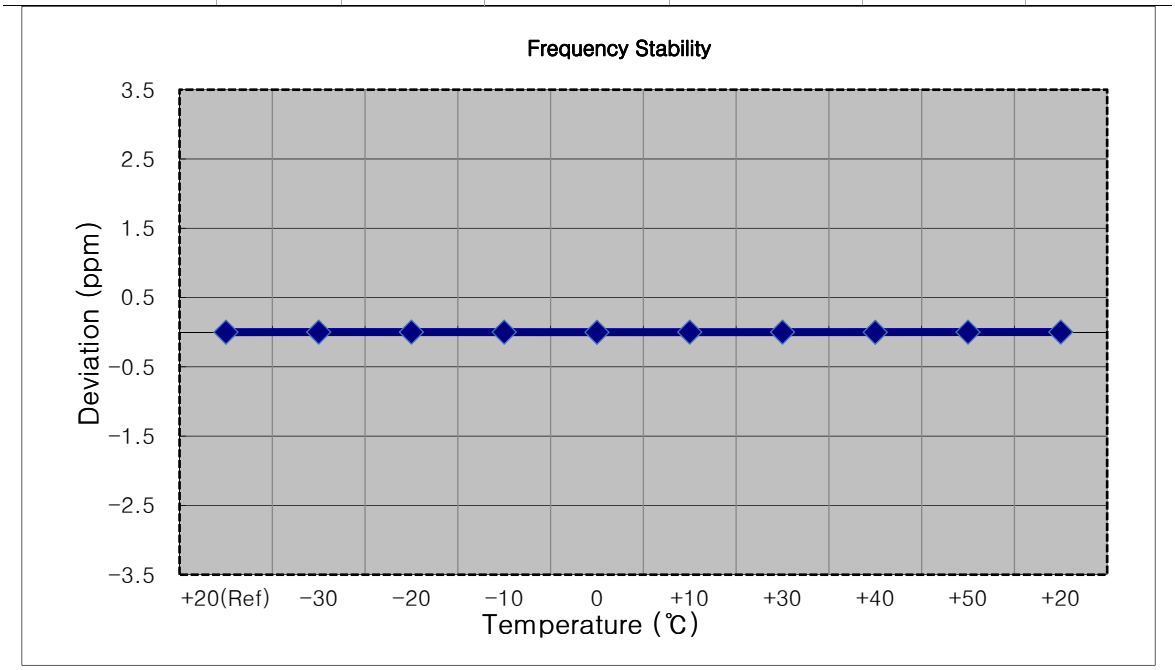
▣ OPERATING FREQUENCY: 2687,500,000 Hz

▣ BANDWIDTH: 41565 (5 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(℃)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2687 500 003	0.0	0.000 000	0.000
100 %		-30	2687 500 007	3.9	0.000 000	0.001
100 %		-20	2687 500 007	3.5	0.000 000	0.001
100 %		-10	2687 500 007	3.7	0.000 000	0.001
100 %		0	2687 500 000	-2.9	0.000 000	-0.001
100 %		+10	2687 500 006	2.8	0.000 000	0.001
100 %		+30	2687 500 007	3.8	0.000 000	0.001
100 %		+40	2687 499 999	-3.7	0.000 000	-0.001
100 %		+50	2687 500 006	3.0	0.000 000	0.001
Batt. Endpoint	3.300	+20	2687 500 008	4.6	0.000 000	0.002



▣ MODE: LTE 41

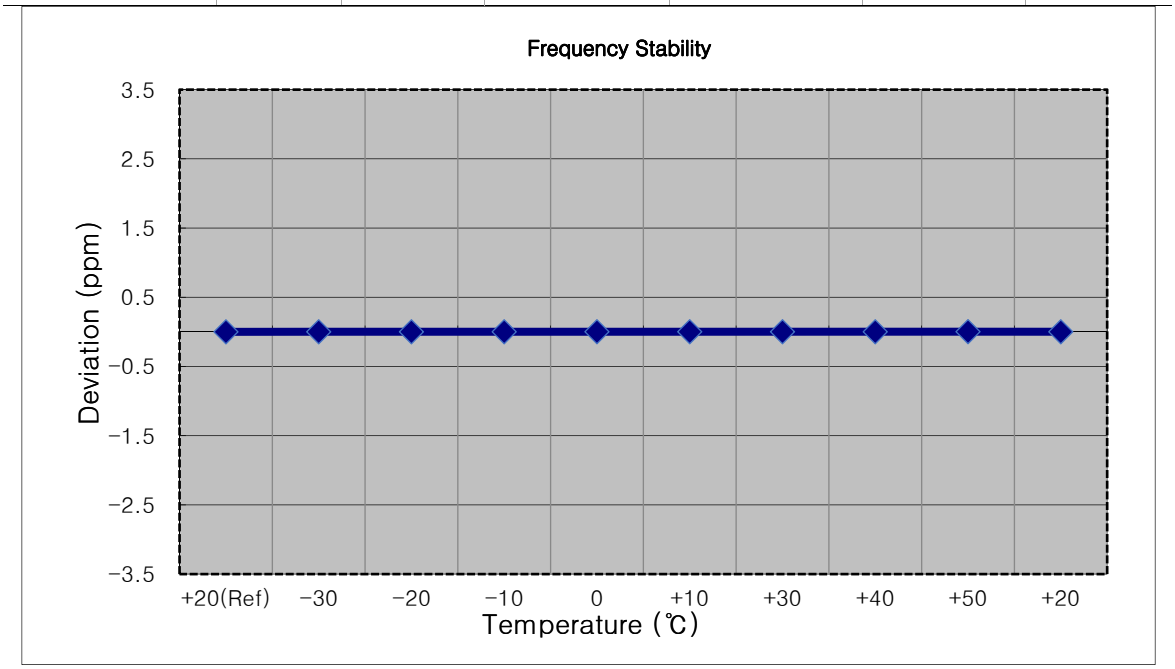
▣ OPERATING FREQUENCY: 2685,000,000 Hz

▣ BANDWIDTH: 41540 (10 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(℃)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2685 000 004	0.0	0.000 000	0.000
100 %		-30	2685 000 007	3.0	0.000 000	0.001
100 %		-20	2685 000 006	2.3	0.000 000	0.001
100 %		-10	2685 000 007	2.8	0.000 000	0.001
100 %		0	2685 000 010	5.5	0.000 000	0.002
100 %		+10	2685 000 008	3.8	0.000 000	0.001
100 %		+30	2685 000 008	4.0	0.000 000	0.001
100 %		+40	2685 000 007	3.3	0.000 000	0.001
100 %		+50	2685 000 010	5.7	0.000 000	0.002
Batt. Endpoint	3.300	+20	2685 000 008	3.4	0.000 000	0.001



▣ MODE: LTE 41

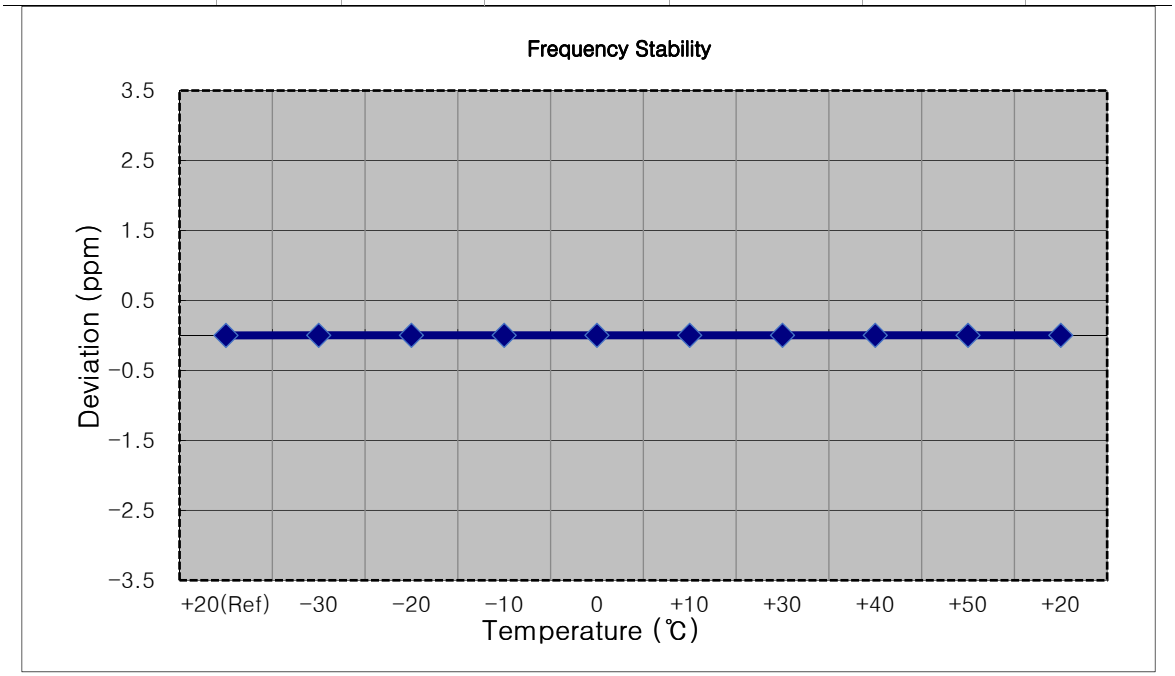
▣ OPERATING FREQUENCY: 2682,500,000 Hz

▣ BANDWIDTH: 41515 (15 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2682 500 005	0.0	0.000 000	0.000
100 %		-30	2682 500 009	4.7	0.000 000	0.002
100 %		-20	2682 500 008	3.3	0.000 000	0.001
100 %		-10	2682 500 008	3.8	0.000 000	0.001
100 %		0	2682 500 009	4.0	0.000 000	0.001
100 %		+10	2682 500 009	4.6	0.000 000	0.002
100 %		+30	2682 500 010	4.9	0.000 000	0.002
100 %		+40	2682 500 009	4.3	0.000 000	0.002
100 %		+50	2682 500 009	4.4	0.000 000	0.002
Batt. Endpoint	3.300	+20	2682 500 009	3.9	0.000 000	0.001



▣ MODE: LTE 41

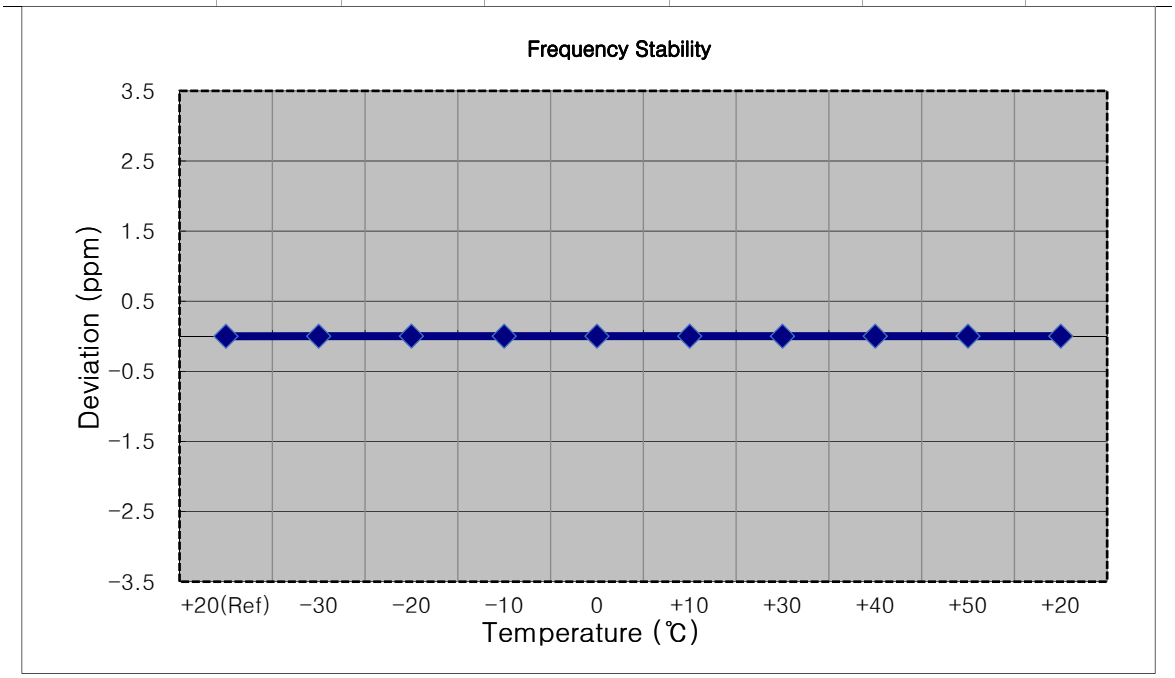
▣ OPERATING FREQUENCY: 2680,000,000 Hz

▣ BANDWIDTH: 41490 (20 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(℃)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2680 000 003	0.0	0.000 000	0.000
100 %		-30	2680 000 006	2.7	0.000 000	0.001
100 %		-20	2680 000 009	5.8	0.000 000	0.002
100 %		-10	2680 000 008	4.4	0.000 000	0.002
100 %		0	2680 000 007	3.8	0.000 000	0.001
100 %		+10	2680 000 008	4.1	0.000 000	0.002
100 %		+30	2680 000 006	2.4	0.000 000	0.001
100 %		+40	2680 000 008	4.2	0.000 000	0.002
100 %		+50	2680 000 007	3.5	0.000 000	0.001
Batt. Endpoint	3.300	+20	2680 000 007	3.8	0.000 000	0.001



9. TEST DATA(ANT F)

9.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2498.5	LTE B41/ 5 MHz	QPSK	-24.66	12.16	10.51	2.57	H	< 2.00	0.102	20.10	1	13
		16-QAM	-24.84	11.98	10.51	2.57	H		0.098	19.92		
		64-QAM	-25.81	11.01	10.51	2.57	H		0.079	18.95		
		256-QAM	-27.76	9.06	10.51	2.57	H		0.050	17.00		
2593.0		QPSK	-24.28	12.94	10.64	2.71	H		0.122	20.87	1	13
		16-QAM	-24.65	12.57	10.64	2.71	H		0.112	20.50		
		64-QAM	-25.37	11.85	10.64	2.71	H		0.095	19.78		
		256-QAM	-27.28	9.94	10.64	2.71	H		0.061	17.87		
2687.5		QPSK	-24.09	12.96	10.74	2.75	H		0.124	20.95	1	0
		16-QAM	-24.35	12.70	10.74	2.75	H		0.117	20.69		
		64-QAM	-25.14	11.91	10.74	2.75	H		0.098	19.90		
		256-QAM	-27.09	9.96	10.74	2.75	H		0.062	17.95		

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2501.0	LTE B41/ 10 MHz	QPSK	-24.46	12.36	10.51	2.57	H	< 2.00	0.107	20.30	1	25
		16-QAM	-24.74	12.08	10.51	2.57	H		0.101	20.02		
		64-QAM	-25.57	11.25	10.51	2.57	H		0.083	19.19		
		256-QAM	-27.51	9.31	10.51	2.57	H		0.053	17.25		
2593.0		QPSK	-24.32	12.90	10.64	2.71	H		0.121	20.83	1	25
		16-QAM	-24.57	12.65	10.64	2.71	H		0.114	20.58		
		64-QAM	-25.39	11.83	10.64	2.71	H		0.095	19.76		
		256-QAM	-27.40	9.82	10.64	2.71	H		0.060	17.75		
2685.0		QPSK	-24.20	13.04	10.73	2.75	H		0.126	21.02	1	0
		16-QAM	-24.35	12.89	10.73	2.75	H		0.122	20.87		
		64-QAM	-25.41	11.83	10.73	2.75	H		0.096	19.81		
		256-QAM	-27.27	9.97	10.73	2.75	H		0.062	17.95		

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2503.5	LTE B41/ 15 MHz	QPSK	-24.70	12.13	10.58	2.57	H	< 2.00	0.103	20.14	1	38
		16-QAM	-24.93	11.90	10.58	2.57	H		0.098	19.91		
		64-QAM	-25.76	11.07	10.58	2.57	H		0.081	19.08		
		256-QAM	-27.82	9.01	10.58	2.57	H		0.050	17.02		
2593.0		QPSK	-24.24	12.98	10.64	2.71	H		0.123	20.91	1	38
		16-QAM	-24.49	12.73	10.64	2.71	H		0.116	20.66		
		64-QAM	-25.51	11.71	10.64	2.71	H		0.092	19.64		
		256-QAM	-27.30	9.92	10.64	2.71	H		0.061	17.85		
2682.5		QPSK	-23.93	13.50	10.72	2.75	H		0.140	21.47	1	0
		16-QAM	-24.08	13.35	10.72	2.75	H		0.136	21.32		
		64-QAM	-24.92	12.51	10.72	2.75	H		0.112	20.48		
		256-QAM	-26.86	10.57	10.72	2.75	H		0.071	18.54		

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2506.0	LTE B41/ 20 MHz	QPSK	-24.80	12.03	10.58	2.57	H	< 2.00	0.101	20.04	1	50
		16-QAM	-25.05	11.78	10.58	2.57	H		0.095	19.79		
		64-QAM	-26.01	10.82	10.58	2.57	H		0.076	18.83		
		256-QAM	-27.89	8.94	10.58	2.57	H		0.050	16.95		
2593.0		QPSK	-24.30	12.92	10.64	2.71	H		0.122	20.85	1	50
		16-QAM	-24.54	12.68	10.64	2.71	H		0.115	20.61		
		64-QAM	-25.42	11.80	10.64	2.71	H		0.094	19.73		
		256-QAM	-27.40	9.82	10.64	2.71	H		0.060	17.75		
2680.0		QPSK	-24.29	13.14	10.72	2.75	H		0.129	21.11	1	0
		16-QAM	-24.54	12.89	10.72	2.75	H		0.122	20.86		
		64-QAM	-25.46	11.97	10.72	2.75	H		0.099	19.94		
		256-QAM	-27.43	10.00	10.72	2.75	H		0.063	17.97		

9.2 RADIATED SPURIOUS EMISSIONS

▣ OPERATING FREQUENCY : 2687.5 MHz

▣ MEASURED OUTPUT POWER: 20.95 dBm = 0.124 W

▣ MODE: LTE B41

▣ MODULATION SIGNAL: 5 MHz QPSK

▣ DISTANCE: 1 meters

▣ LIMIT: 55 + 10 log10 (W) = 45.95 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc	Detector	RB	
										Size	Offset
39675 (2498.5)	4 997.00	-39.98	12.56	-49.79	3.81	V	-41.04	61.99	Peak	1	13
	7 495.50	-47.93	10.78	-47.54	4.71	H	-41.47	62.42	Peak		
	9 994.00	-57.78	11.18	-53.36	5.52	H	-47.70	68.65	Peak		
	12 492.50	-60.35	13.08	-55.94	6.29	H	-49.15	70.10	Peak		
	14 991.00	-58.62	11.40	-48.11	6.99	H	-43.70	64.64	Peak		
40620 (2593.0)	5 186.00	-54.78	12.55	-63.55	3.82	H	-54.83	75.77	Peak	1	13
	7 779.00	-56.36	11.41	-56.53	4.79	H	-49.91	70.86	Peak		
	10 372.00	-56.12	11.43	-50.67	5.59	H	-44.83	65.78	Peak		
41565 (2687.5)	5 375.00	-53.62	13.06	-62.80	3.85	V	-53.58	74.53	Peak	1	0
	8 062.50	-57.54	10.74	-55.73	4.86	H	-49.85	70.79	Peak		
	10 750.00	-54.01	11.31	-49.00	5.65	H	-43.34	64.29	Peak		

▣ OPERATING FREQUENCY : 2685.0 MHz

▣ MEASURED OUTPUT POWER: 21.02 dBm = 0.126 W

▣ MODE: LTE B41

▣ MODULATION SIGNAL: 10 MHz QPSK

▣ DISTANCE: 1 meters

▣ LIMIT: 55 + 10 log10 (W) = 46.02 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc	Detector	RB	
										Size	Offset
39700 (2501.0)	5 002.00	-39.61	12.56	-49.42	3.81	H	-40.67	61.69	Peak	1	25
	7 503.00	-46.05	10.78	-45.97	4.71	H	-39.90	60.92	Peak		
	10 004.00	-56.87	11.22	-52.68	5.52	H	-46.99	68.00	Peak		
	12 505.00	-60.03	13.11	-55.87	6.25	H	-49.01	70.02	Peak		
	15 006.00	-58.91	11.45	-48.64	6.99	H	-44.18	65.20	Peak		
40620 (2593.0)	5 186.00	-53.53	12.55	-62.30	3.82	H	-53.58	74.59	Peak	1	25
	7 779.00	-55.85	11.41	-56.02	4.79	H	-49.40	70.42	Peak		
	10 372.00	-54.36	11.43	-48.91	5.59	V	-43.07	64.09	Peak		
41540 (2685.0)	5 370.00	-53.89	13.07	-62.99	3.85	V	-53.77	74.79	Peak	1	0
	8 055.00	-57.71	10.74	-55.89	4.87	H	-50.02	71.03	Peak		
	10 740.00	-53.49	11.32	-48.78	5.71	V	-43.17	64.19	Peak		

▣ OPERATING FREQUENCY : 2682.5 MHz

▣ MEASURED OUTPUT POWER: 21.47 dBm = 0.140 W

▣ MODE: LTE B41

▣ MODULATION SIGNAL: 15 MHz QPSK

▣ DISTANCE: 1 meters

▣ LIMIT: 55 + 10 log10 (W) = 46.47 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc	Detector	RB	
										Size	Offset
39725 (2503.5)	5 007.00	-39.40	12.55	-49.42	3.88	H	-40.75	62.22	Peak	1	38
	7 510.50	-48.81	10.78	-49.22	4.71	H	-43.15	64.62	Peak		
	10 014.00	-56.44	11.25	-52.20	5.53	H	-46.48	67.95	Peak		
	12 517.50	-60.31	13.12	-56.02	6.21	H	-49.11	70.57	Peak		
	15 021.00	-56.23	11.48	-46.21	6.99	H	-41.72	63.19	Peak		
40620 (2593.0)	5 186.00	-50.96	12.55	-59.73	3.82	V	-51.01	72.47	Peak	1	38
	7 779.00	-54.84	11.41	-55.01	4.79	V	-48.39	69.86	Peak		
	10 372.00	-54.18	11.43	-48.73	5.59	H	-42.89	64.36	Peak		
41515 (2682.5)	5 365.00	-45.96	13.08	-54.95	3.86	V	-45.72	67.19	Peak	1	0
	8 047.50	-59.41	10.73	-57.58	4.87	V	-51.72	73.19	Peak		
	10 730.00	-54.40	11.33	-49.95	5.78	V	-44.40	65.86	Peak		

▣ OPERATING FREQUENCY : 2680.0 MHz

▣ MEASURED OUTPUT POWER: 21.11 dBm = 0.129 W

▣ MODE: LTE B41

▣ MODULATION SIGNAL: 20 MHz QPSK

▣ DISTANCE: 1 meters

▣ LIMIT: 55 + 10 log10 (W) = 46.11 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc	Detector	RB	
										Size	Offset
39750 (2506.0)	5 012.00	-38.08	12.55	-48.10	3.88	H	-39.43	60.54	Peak	1	50
	7 518.00	-46.06	10.82	-46.76	4.71	H	-40.65	61.76	Peak		
	10 024.00	-56.89	11.29	-52.67	5.54	V	-46.91	68.02	Peak		
40620 (2593.0)	5 186.00	-52.16	12.55	-60.93	3.82	H	-52.21	73.31	Peak	1	50
	7 779.00	-56.01	11.41	-56.18	4.79	H	-49.56	70.67	Peak		
	10 372.00	-56.02	11.43	-50.57	5.59	H	-44.73	65.84	Peak		
41490 (2680.0)	5 360.00	-53.16	13.09	-62.03	3.86	H	-52.80	73.91	Peak	1	0
	8 040.00	-55.20	10.73	-53.41	4.86	H	-47.54	68.65	Peak		
	10 720.00	-56.38	11.33	-52.01	5.81	V	-46.49	67.60	Peak		

9.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
41	5 MHz	2593.0	QPSK	25	0	5.95
			16-QAM			6.59
			64-QAM			7.22
			256-QAM			6.28
	10 MHz		QPSK	50		6.26
			16-QAM			6.63
			64-QAM			6.91
			256-QAM			6.47
	15 MHz		QPSK	75		6.04
			16-QAM			6.57
			64-QAM			6.91
			256-QAM			6.39
	20 MHz		QPSK	100		6.06
			16-QAM			6.69
			64-QAM			6.97
			256-QAM			6.49

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 155 ~ 170.

9.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
41	5 MHz	2593.0	QPSK	25	0	4.5366
			16-QAM			4.5085
			64-QAM			4.5507
			256-QAM			4.5287
	10 MHz		QPSK	50		9.0541
			16-QAM			9.0120
			64-QAM			9.0485
			256-QAM			9.0009
	15 MHz		QPSK	75		13.466
			16-QAM			13.433
			64-QAM			13.489
			256-QAM			13.445
	20 MHz		QPSK	100		17.914
			16-QAM			17.897
			64-QAM			17.911
			256-QAM			17.934

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 171 ~ 186.

9.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
41	5	2498.5	4.9926	31.955	-77.463	-45.508	-25.00
		2593.0	9.1276	32.570	-79.635	-47.065	
		2687.5	9.9427	32.570	-80.030	-47.460	
	10	2501.0	4.9931	31.955	-75.586	-43.631	
		2593.0	5.4980	32.570	-80.194	-47.624	
		2685.0	8.2931	32.570	-80.312	-47.742	
	15	2503.5	4.9936	31.955	-75.124	-43.169	
		2593.0	3.8041	31.955	-80.002	-48.047	
		2682.5	3.7029	31.955	-80.445	-48.490	
	20	2506.0	4.9941	31.955	-80.194	-48.239	
		2593.0	8.2627	32.570	-80.063	-47.493	
		2680.0	2.7244	31.955	-74.084	-42.129	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 187 ~ 210.
2. Conducted Spurious Emissions was Tested QPSK Modulation, Resource Block Size 1 and Resource Block Offset 0
3. Duty Cycle factor already applied on the factor.
   - Duty Cycle factor(dB) = 3.979
   - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
   - Result(dBm) = Reading + Factor

Frequency Range (GHz)	Factor [dB]
0.03 – 1	29.249
1 – 5	31.955
5 – 10	32.570
10 – 15	33.095
15 – 20	33.468
Above 20	34.110

9.6 CHANNEL EDGE

Band Width	Frequency (MHz)	Modulation	RB (Size/ Offset)	2 495 MHz ~ 2 496 MHz		C.E ~ (C.E +1 MHz)		2 490.5 MHz ~ 2 495 MHz	(C.E + 1 MHz) ~ (C.E + 5 MHz)	Below 2 490.5 MHz	(C.E + 5 MHz) ~ (C.E + X MHz)	Above (C.E + X MHz)
				Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Upper
5 MHz	2498.5	QPSK	25/0	-20.58	-19.62	-19.94	-18.47	-29.69	-27.69	-29.36		
10 MHz	2501.0	QPSK	50/0	-22.47	-22.74	-21.29	-21.04	-26.17	-23.63	-29.68		
15 MHz	2503.5	QPSK	75/0	-24.71	-24.58	-22.53	-22.08	-26.12	-24.60	-32.64		
20 MHz	2506.0	QPSK	100/0	-26.28	-26.22	-24.60	-24.00	-27.76	-26.86	-33.98		
Limit(dBm)				-13.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0		

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	C.E ~ (C.E ± 1 MHz)		(C.E ± 1 MHz) ~ (C.E ± 5 MHz)	
					Lower	Upper	Lower	Upper
5 MHz	2593.0	QPSK	25	0	-20.10	-20.28	-17.38	-18.02
	2687.5	QPSK	25	0	-17.31	-17.76	-11.46	-12.11
10 MHz	2593.0	QPSK	50	0	-21.79	-22.35	-19.38	-19.58
	2685.0	QPSK	50	0	-18.72	-18.82	-12.83	-14.52
15 MHz	2593.0	QPSK	75	0	-23.24	-24.27	-20.65	-21.22
	2682.5	QPSK	75	0	-19.56	-20.35	-15.20	-16.69
20 MHz	2593.0	QPSK	100	0	-23.37	-23.76	-21.25	-22.04
	2680.0	QPSK	100	0	-19.40	-20.56	-16.42	-17.70
Limit(dBm)					-10.0		-10.0	

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	(C.E ± 5 MHz) ~ (C.E ± X MHz)		Above (C.E ± X MHz)	
					Lower	Upper	Lower	Upper
5 MHz	2593.0	QPSK	25	0	-30.27	-31.01	-31.98	-31.92
	2687.5	QPSK	25	0	-25.54	-26.09	-26.25	-27.61
10 MHz	2593.0	QPSK	50	0	-24.05	-24.34	-33.84	-33.27
	2685.0	QPSK	50	0	-18.78	-19.85	-27.44	-28.92
15 MHz	2593.0	QPSK	75	0	-24.04	-23.33	-36.84	-35.83
	2682.5	QPSK	75	0	-18.71	-20.23	-31.18	-31.69
20 MHz	2593.0	QPSK	100	0	-23.90	-24.30	-37.94	-36.84
	2680.0	QPSK	100	0	-19.22	-21.58	-32.29	-32.75
Limit(dBm)					-13.0		-25.0	

Note:
1. C.E = Channel Edge
2. X = X is the greater of 6 MHz or the actual emission bandwidth.
3. X = 6 MHz(5 MHz Bandwidth), 10 MHz(10 MHz Bandwidth), 15 MHz(15 MHz Bandwidth), 20 MHz(20 MHz Bandwidth)
4. RB = Resource Block
5. Duty Cycle factor already applied on the factor.
   - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
   - Result(dBm) = Reading + Factor
   - Duty Cycle Factor(dB) = 3.979
6. Plots of the EUT's Channel Edge are shown Page 211 ~ 238. (1RB & Full RB)

9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ MODE: LTE 41

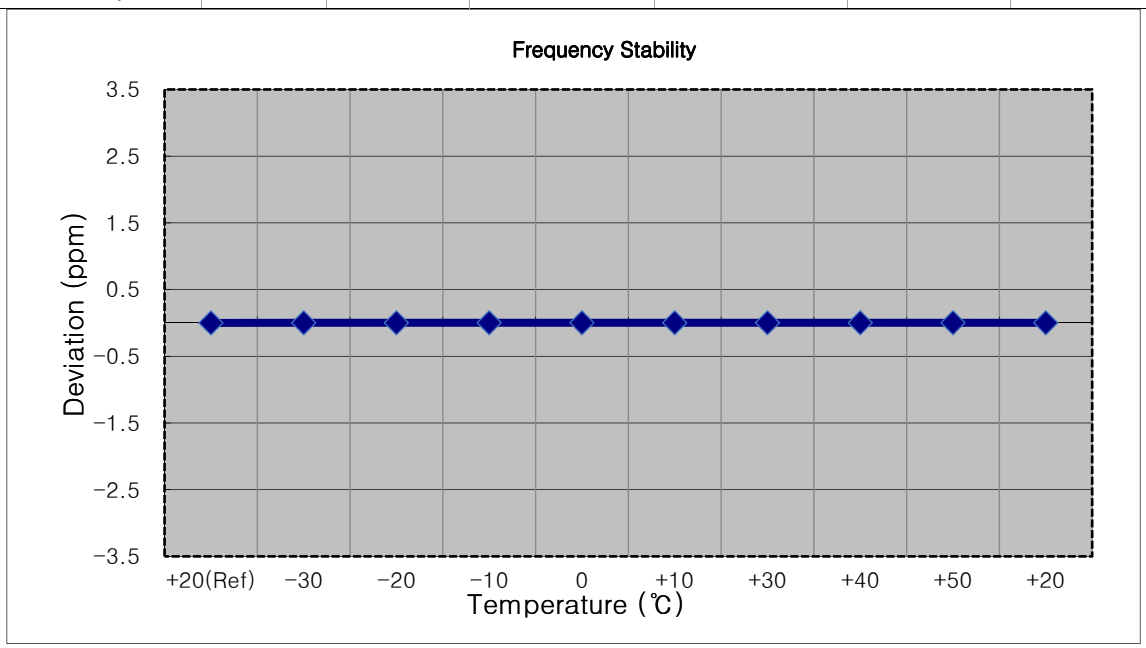
▣ OPERATING FREQUENCY: 2498,500,000 Hz

▣ BANDWIDTH: 39675 (5 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(℃)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2498 500 003	0.0	0.000 000	0.000
100 %		-30	2498 500 008	4.7	0.000 000	0.002
100 %		-20	2498 500 008	4.3	0.000 000	0.002
100 %		-10	2498 500 008	4.9	0.000 000	0.002
100 %		0	2498 500 009	5.3	0.000 000	0.002
100 %		+10	2498 500 009	6.0	0.000 000	0.002
100 %		+30	2498 500 010	6.4	0.000 000	0.003
100 %		+40	2498 500 009	5.3	0.000 000	0.002
100 %		+50	2498 500 008	5.0	0.000 000	0.002
Batt. Endpoint	3.300	+20	2498 500 008	4.4	0.000 000	0.002



▣ MODE: LTE 41

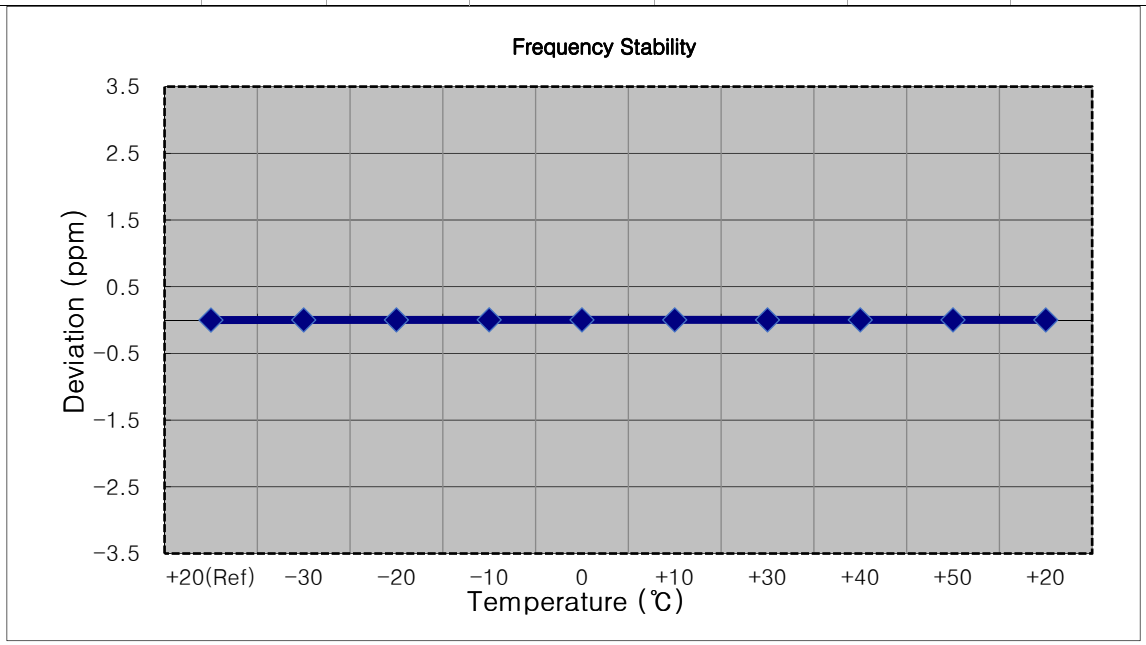
▣ OPERATING FREQUENCY: 2501,000,000 Hz

▣ BANDWIDTH: 39700 (10 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2501 000 005	0.0	0.000 000	0.000
100 %		-30	2501 000 009	3.8	0.000 000	0.002
100 %		-20	2501 000 011	6.5	0.000 000	0.003
100 %		-10	2501 000 012	7.6	0.000 000	0.003
100 %		0	2501 000 011	6.6	0.000 000	0.003
100 %		+10	2501 000 010	5.1	0.000 000	0.002
100 %		+30	2501 000 010	5.1	0.000 000	0.002
100 %		+40	2501 000 010	5.1	0.000 000	0.002
100 %		+50	2501 000 011	5.8	0.000 000	0.002
Batt. Endpoint	3.300	+20	2501 000 009	4.0	0.000 000	0.002



▣ MODE: LTE 41

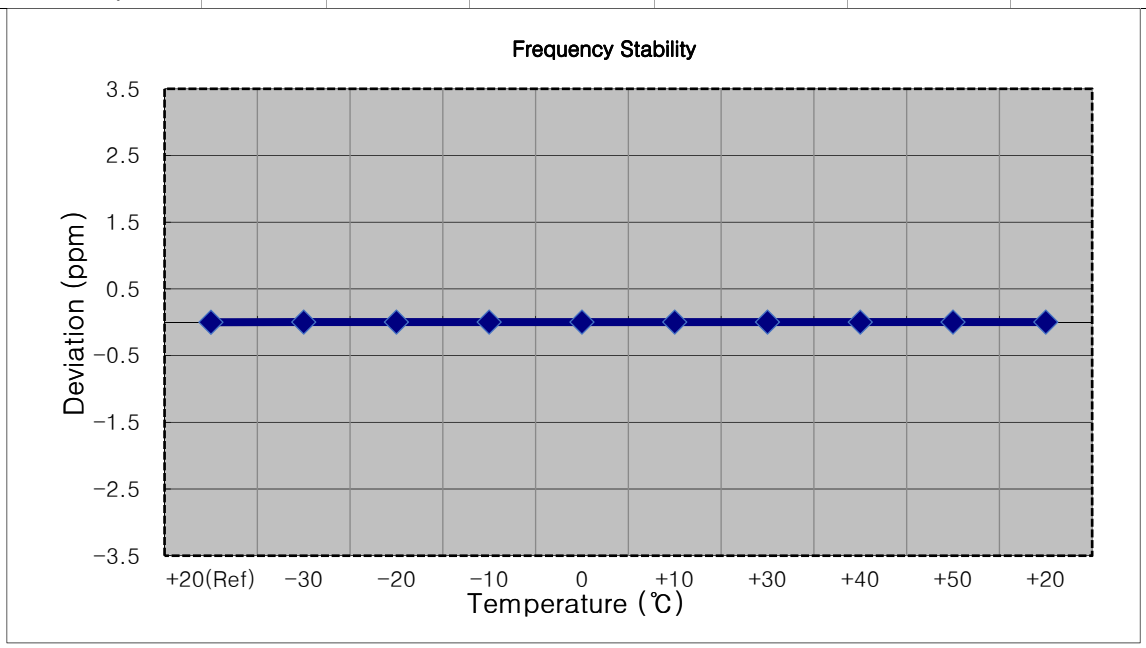
▣ OPERATING FREQUENCY: 2503,500,000 Hz

▣ BANDWIDTH: 39725 (15 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2503 500 005	0.0	0.000 000	0.000
100 %		-30	2503 500 011	5.9	0.000 000	0.002
100 %		-20	2503 500 010	5.2	0.000 000	0.002
100 %		-10	2503 500 010	4.9	0.000 000	0.002
100 %		0	2503 500 011	6.1	0.000 000	0.002
100 %		+10	2503 500 011	5.9	0.000 000	0.002
100 %		+30	2503 500 009	4.5	0.000 000	0.002
100 %		+40	2503 500 008	3.8	0.000 000	0.002
100 %		+50	2503 500 010	5.6	0.000 000	0.002
Batt. Endpoint	3.300	+20	2503 500 010	5.0	0.000 000	0.002



▣ MODE: LTE 41

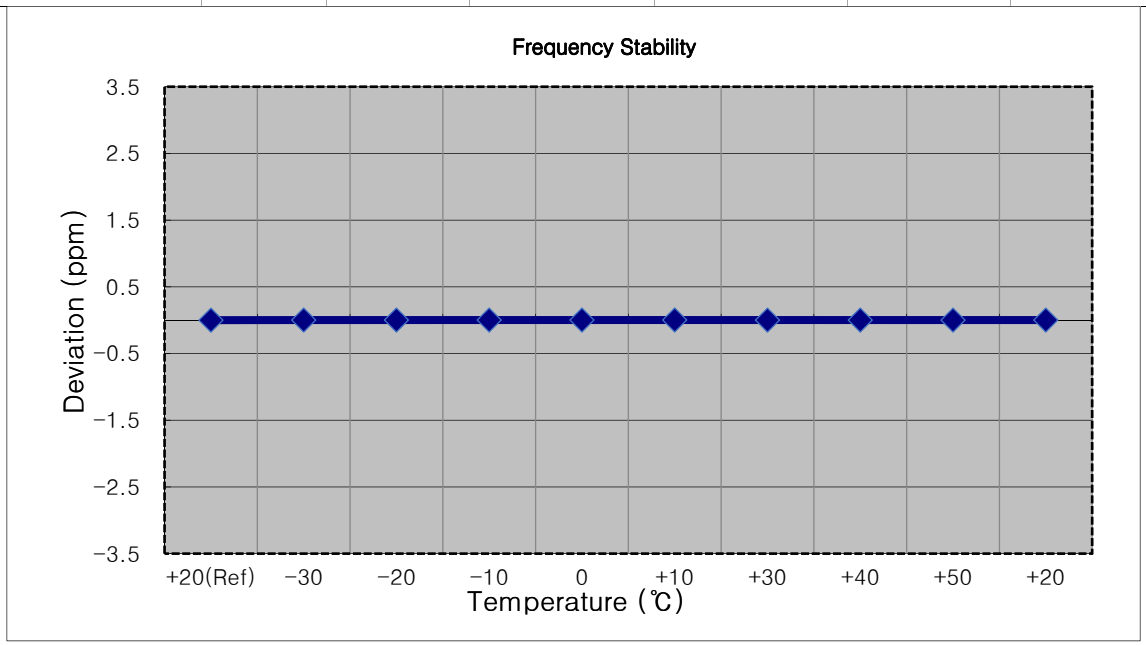
▣ OPERATING FREQUENCY: 2506,000,000 Hz

▣ BANDWIDTH: 39750 (20 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2506 000 004	0.0	0.000 000	0.000
100 %		-30	2506 000 008	4.3	0.000 000	0.002
100 %		-20	2506 000 009	4.6	0.000 000	0.002
100 %		-10	2506 000 009	4.7	0.000 000	0.002
100 %		0	2506 000 009	4.6	0.000 000	0.002
100 %		+10	2506 000 010	5.9	0.000 000	0.002
100 %		+30	2506 000 007	3.1	0.000 000	0.001
100 %		+40	2506 000 008	3.7	0.000 000	0.001
100 %		+50	2506 000 007	3.3	0.000 000	0.001
Batt. Endpoint	3.300	+20	2506 000 008	4.3	0.000 000	0.002



▣ MODE: LTE 41

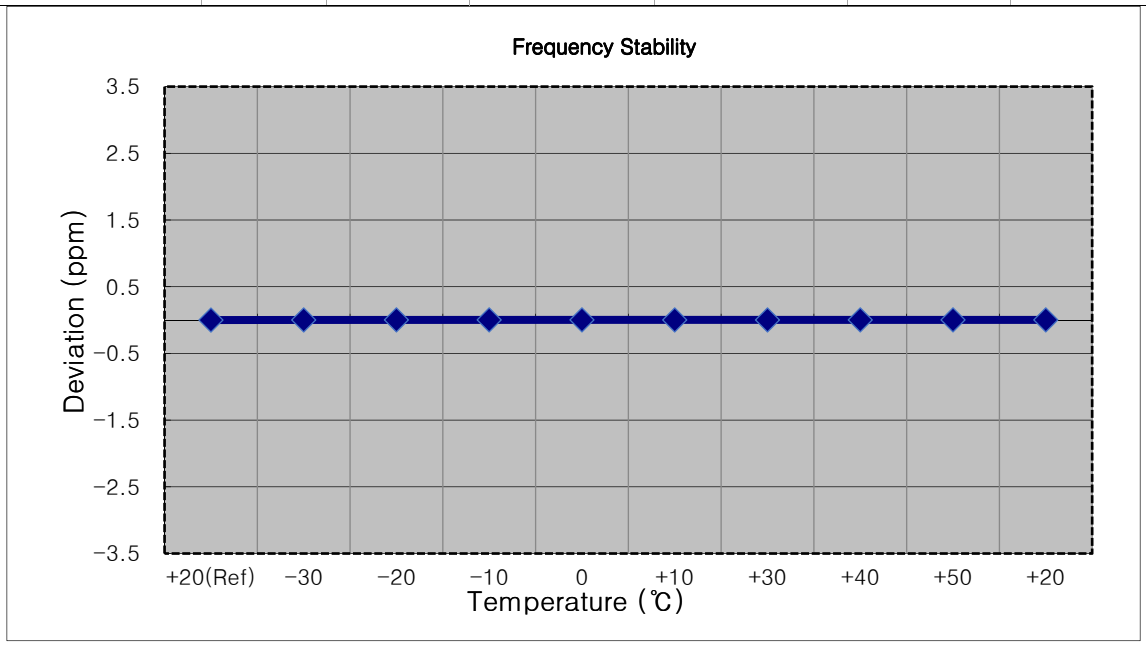
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (5 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2593 000 005	0.0	0.000 000	0.000
100 %		-30	2593 000 009	3.9	0.000 000	0.002
100 %		-20	2593 000 011	5.8	0.000 000	0.002
100 %		-10	2593 000 011	5.7	0.000 000	0.002
100 %		0	2593 000 012	6.5	0.000 000	0.003
100 %		+10	2593 000 010	4.8	0.000 000	0.002
100 %		+30	2593 000 010	4.8	0.000 000	0.002
100 %		+40	2593 000 011	5.2	0.000 000	0.002
100 %		+50	2593 000 012	6.8	0.000 000	0.003
Batt. Endpoint	3.300	+20	2593 000 011	6.0	0.000 000	0.002



▣ MODE: LTE 41

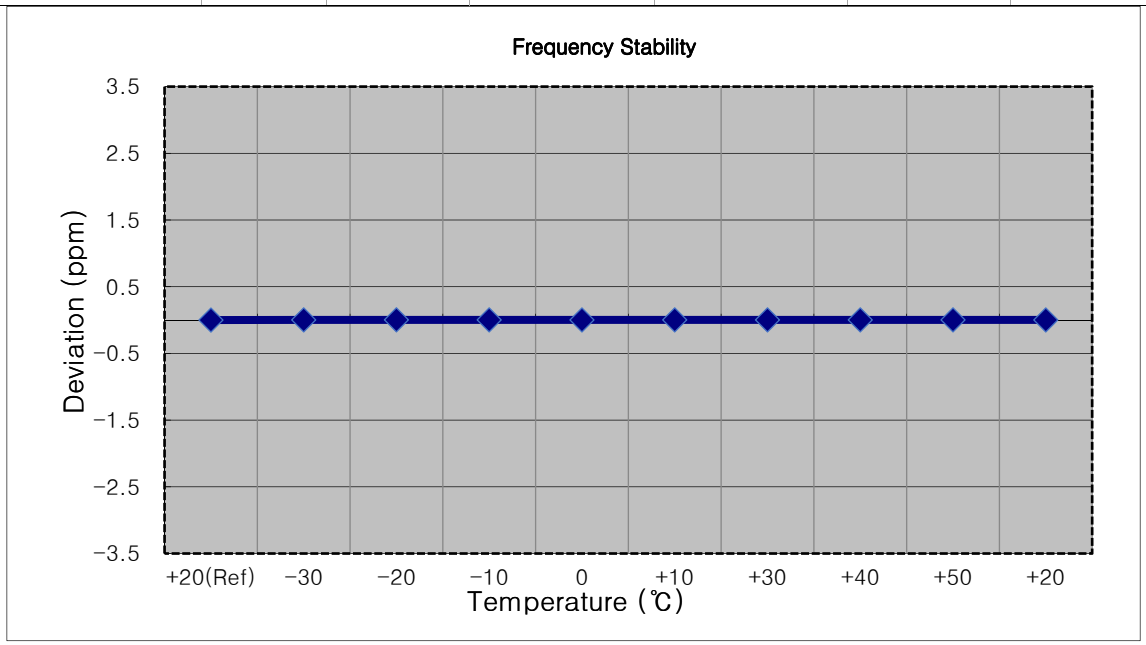
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (10 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2593 000 007	0.0	0.000 000	0.000
100 %		-30	2593 000 013	5.4	0.000 000	0.002
100 %		-20	2593 000 015	7.4	0.000 000	0.003
100 %		-10	2593 000 013	5.4	0.000 000	0.002
100 %		0	2593 000 011	3.6	0.000 000	0.001
100 %		+10	2593 000 014	6.3	0.000 000	0.002
100 %		+30	2593 000 013	5.8	0.000 000	0.002
100 %		+40	2593 000 013	5.4	0.000 000	0.002
100 %		+50	2593 000 013	5.8	0.000 000	0.002
Batt. Endpoint	3.300	+20	2593 000 012	4.7	0.000 000	0.002



▣ MODE: LTE 41

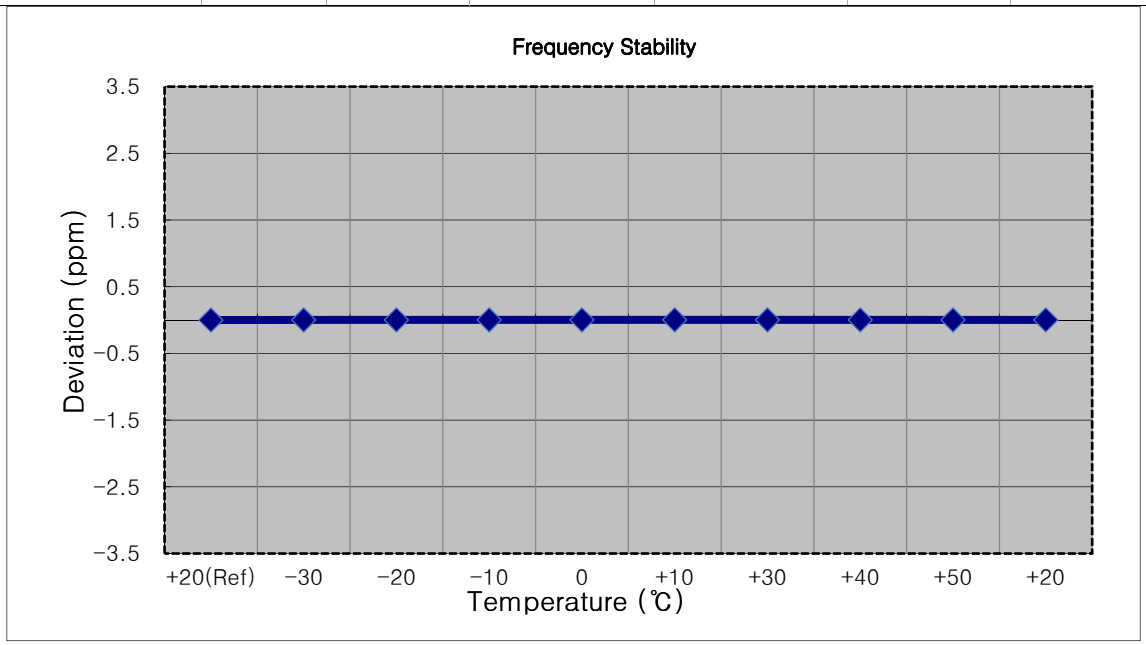
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (15 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2593 000 006	0.0	0.000 000	0.000
100 %		-30	2593 000 011	4.9	0.000 000	0.002
100 %		-20	2593 000 011	4.6	0.000 000	0.002
100 %		-10	2593 000 012	6.2	0.000 000	0.002
100 %		0	2593 000 012	6.2	0.000 000	0.002
100 %		+10	2593 000 014	7.8	0.000 000	0.003
100 %		+30	2593 000 012	6.3	0.000 000	0.002
100 %		+40	2593 000 011	5.2	0.000 000	0.002
100 %		+50	2593 000 011	4.9	0.000 000	0.002
Batt. Endpoint	3.300	+20	2593 000 012	5.8	0.000 000	0.002



▣ MODE: LTE 41

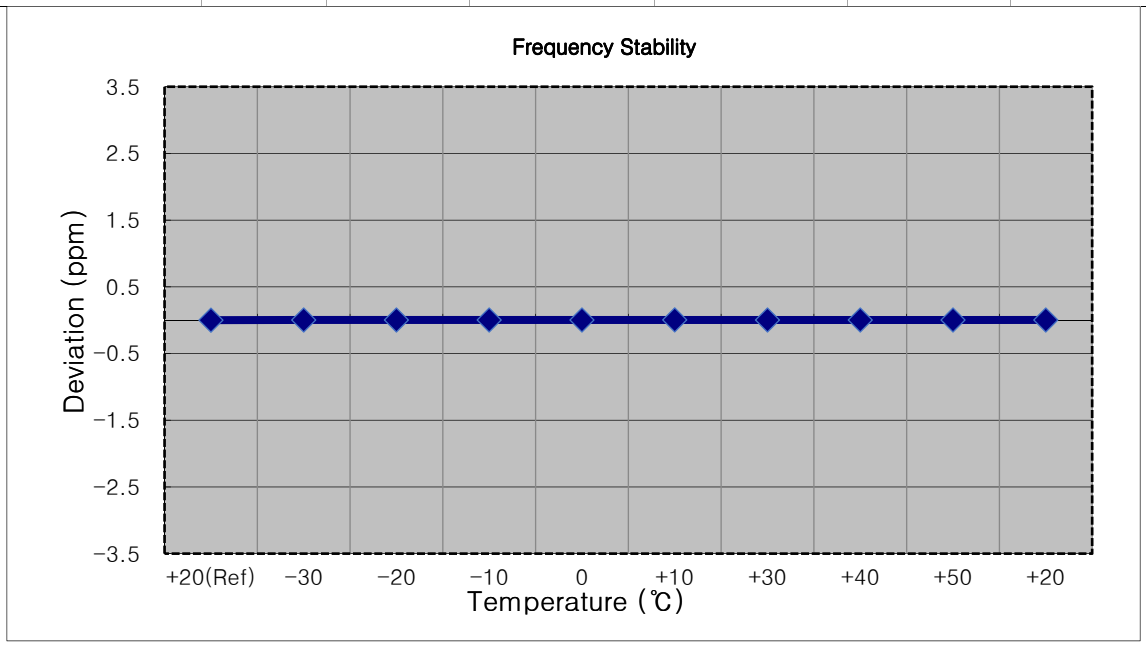
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (20 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2593 000 006	0.0	0.000 000	0.000
100 %		-30	2593 000 014	7.9	0.000 000	0.003
100 %		-20	2593 000 012	6.5	0.000 000	0.003
100 %		-10	2593 000 013	6.7	0.000 000	0.003
100 %		0	2593 000 013	7.0	0.000 000	0.003
100 %		+10	2593 000 016	10.4	0.000 000	0.004
100 %		+30	2593 000 012	6.6	0.000 000	0.003
100 %		+40	2593 000 014	8.1	0.000 000	0.003
100 %		+50	2593 000 013	7.0	0.000 000	0.003
Batt. Endpoint	3.300	+20	2593 000 013	7.3	0.000 000	0.003



▣ MODE: LTE 41

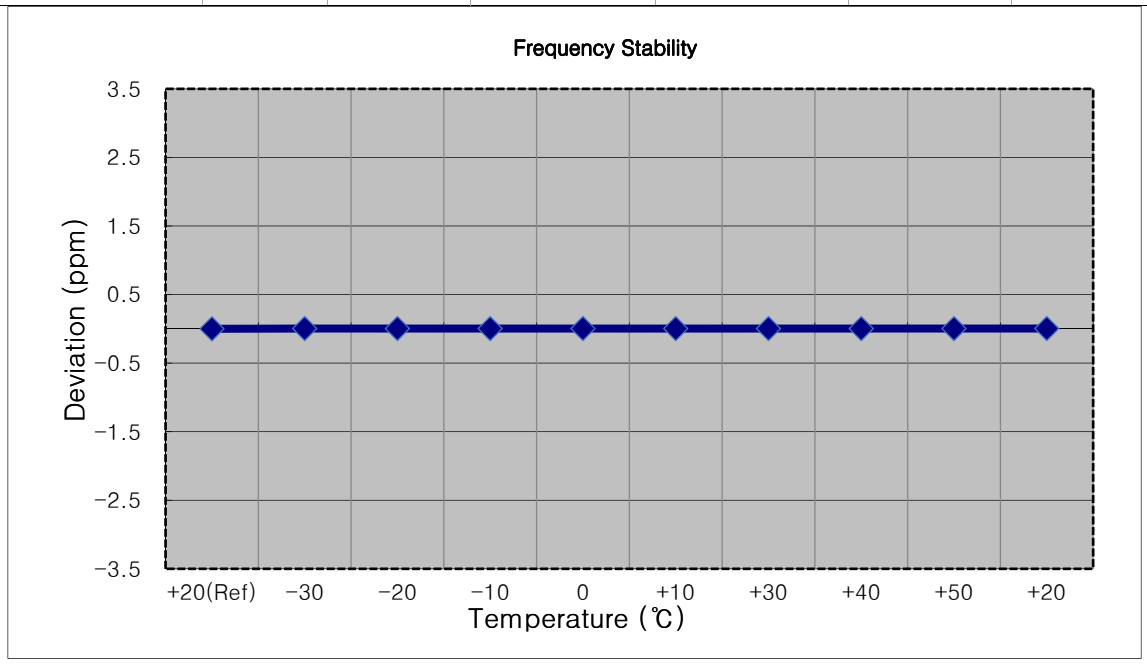
▣ OPERATING FREQUENCY: 2687,500,000 Hz

▣ BANDWIDTH: 41565 (5 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2687 500 010	0.0	0.000 000	0.000
100 %		-30	2687 500 022	11.4	0.000 000	0.004
100 %		-20	2687 500 021	10.3	0.000 000	0.004
100 %		-10	2687 500 019	8.7	0.000 000	0.003
100 %		0	2687 500 021	10.7	0.000 000	0.004
100 %		+10	2687 500 020	9.3	0.000 000	0.003
100 %		+30	2687 500 020	9.6	0.000 000	0.004
100 %		+40	2687 500 020	10.1	0.000 000	0.004
100 %		+50	2687 500 020	10.0	0.000 000	0.004
Batt. Endpoint	3.300	+20	2687 500 021	11.0	0.000 000	0.004



▣ MODE: LTE 41

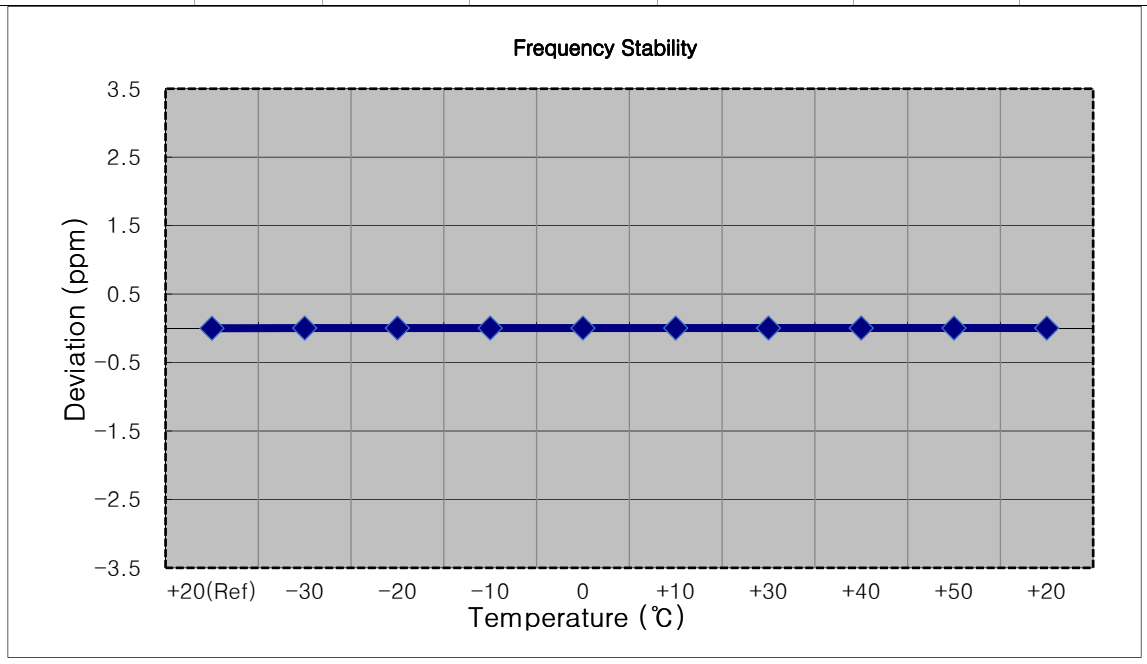
▣ OPERATING FREQUENCY: 2685,000,000 Hz

▣ BANDWIDTH: 41540 (10 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(℃)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2685 000 009	0.0	0.000 000	0.000
100 %		-30	2685 000 018	9.0	0.000 000	0.003
100 %		-20	2685 000 019	9.6	0.000 000	0.004
100 %		-10	2685 000 018	8.9	0.000 000	0.003
100 %		0	2685 000 018	9.5	0.000 000	0.004
100 %		+10	2685 000 017	8.3	0.000 000	0.003
100 %		+30	2685 000 018	9.1	0.000 000	0.003
100 %		+40	2685 000 018	9.0	0.000 000	0.003
100 %		+50	2685 000 018	9.4	0.000 000	0.004
Batt. Endpoint	3.300	+20	2685 000 018	9.2	0.000 000	0.003



▣ MODE: LTE 41

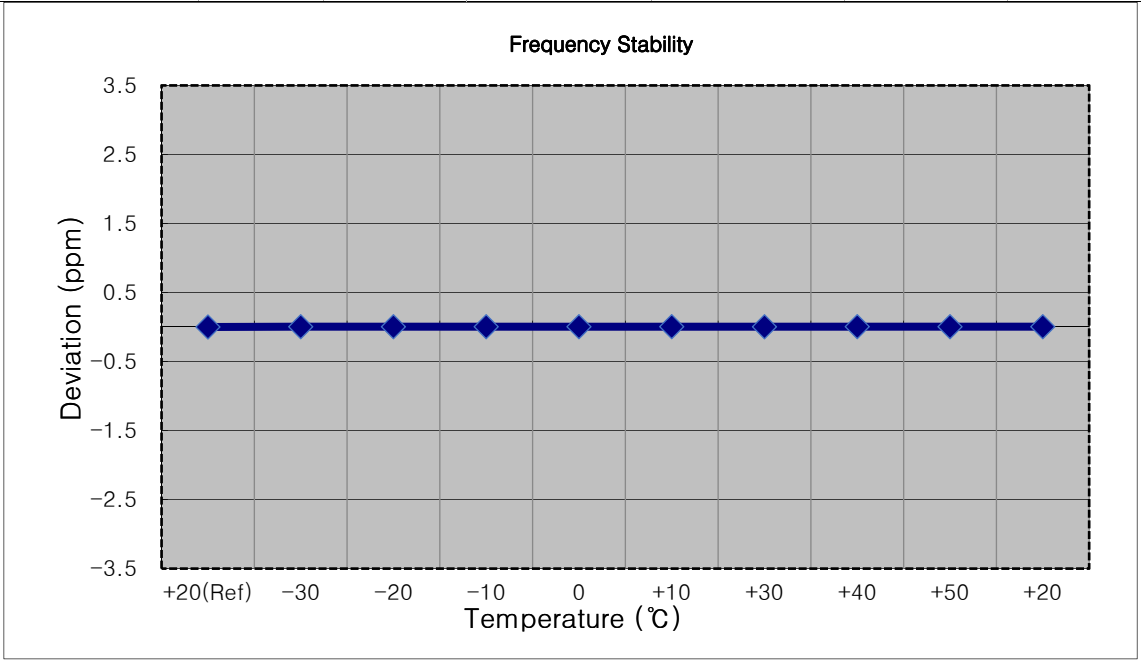
▣ OPERATING FREQUENCY: 2682,500,000 Hz

▣ BANDWIDTH: 41515 (15 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2682 500 013	0.0	0.000 000	0.000
100 %		-30	2682 500 024	10.7	0.000 000	0.004
100 %		-20	2682 500 024	10.3	0.000 000	0.004
100 %		-10	2682 500 024	10.8	0.000 000	0.004
100 %		0	2682 500 024	10.5	0.000 000	0.004
100 %		+10	2682 500 027	13.3	0.000 000	0.005
100 %		+30	2682 500 022	9.2	0.000 000	0.003
100 %		+40	2682 500 026	12.5	0.000 000	0.005
100 %		+50	2682 500 024	10.7	0.000 000	0.004
Batt. Endpoint	3.300	+20	2682 500 025	11.4	0.000 000	0.004



▣ MODE: LTE 41

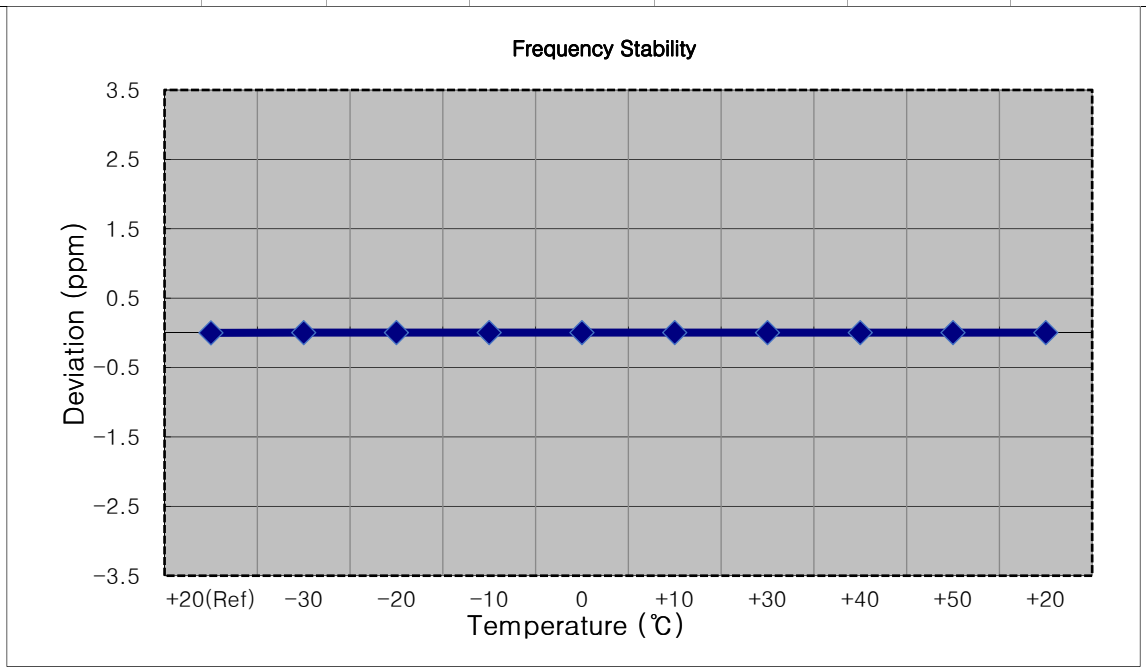
▣ OPERATING FREQUENCY: 2680,000,000 Hz

▣ BANDWIDTH: 41490 (20 MHz)

▣ REFERENCE VOLTAGE: 3.880 VDC

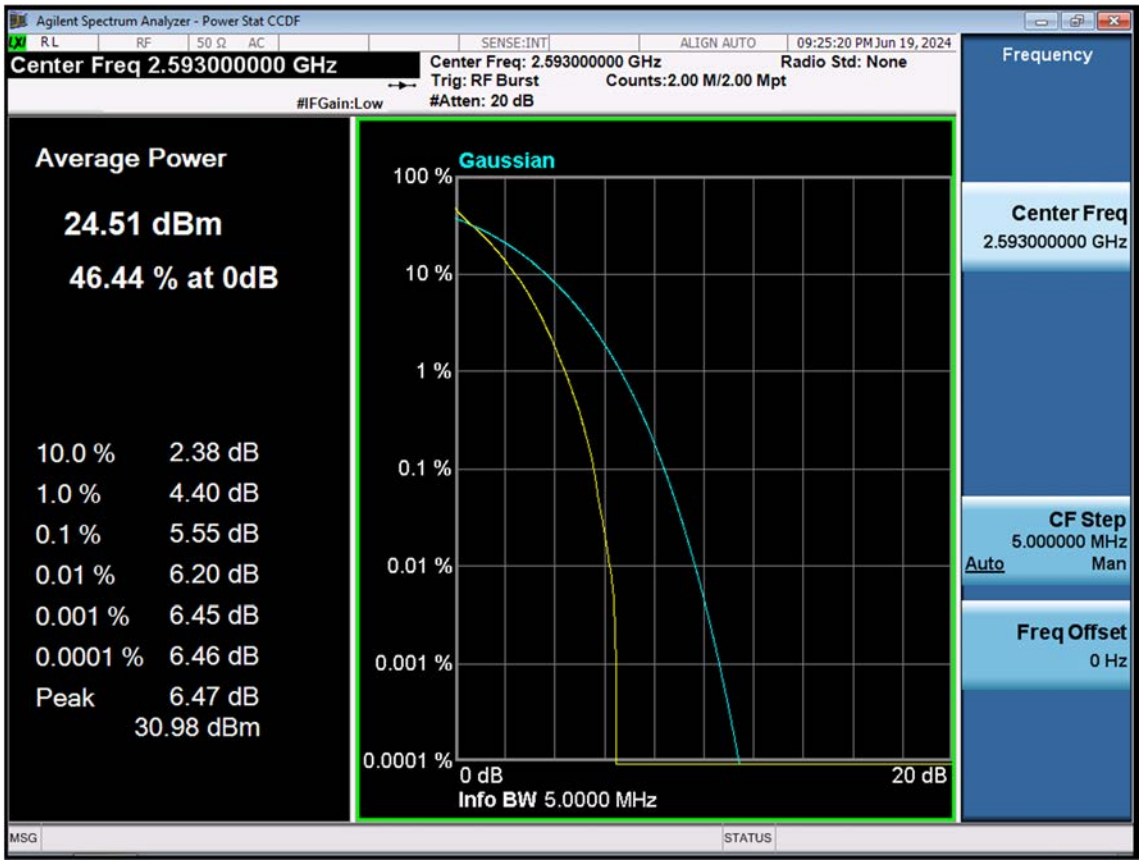
▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(℃)	(Hz)	(Hz)	(%)	
100 %	3.880	+20(Ref)	2680 000 008	0.0	0.000 000	0.000
100 %		-30	2680 000 017	8.3	0.000 000	0.003
100 %		-20	2680 000 017	9.0	0.000 000	0.003
100 %		-10	2680 000 017	9.0	0.000 000	0.003
100 %		0	2680 000 018	9.5	0.000 000	0.004
100 %		+10	2680 000 018	9.3	0.000 000	0.003
100 %		+30	2680 000 016	8.1	0.000 000	0.003
100 %		+40	2680 000 016	8.2	0.000 000	0.003
100 %		+50	2680 000 016	7.6	0.000 000	0.003
Batt. Endpoint	3.300	+20	2680 000 017	8.7	0.000 000	0.003

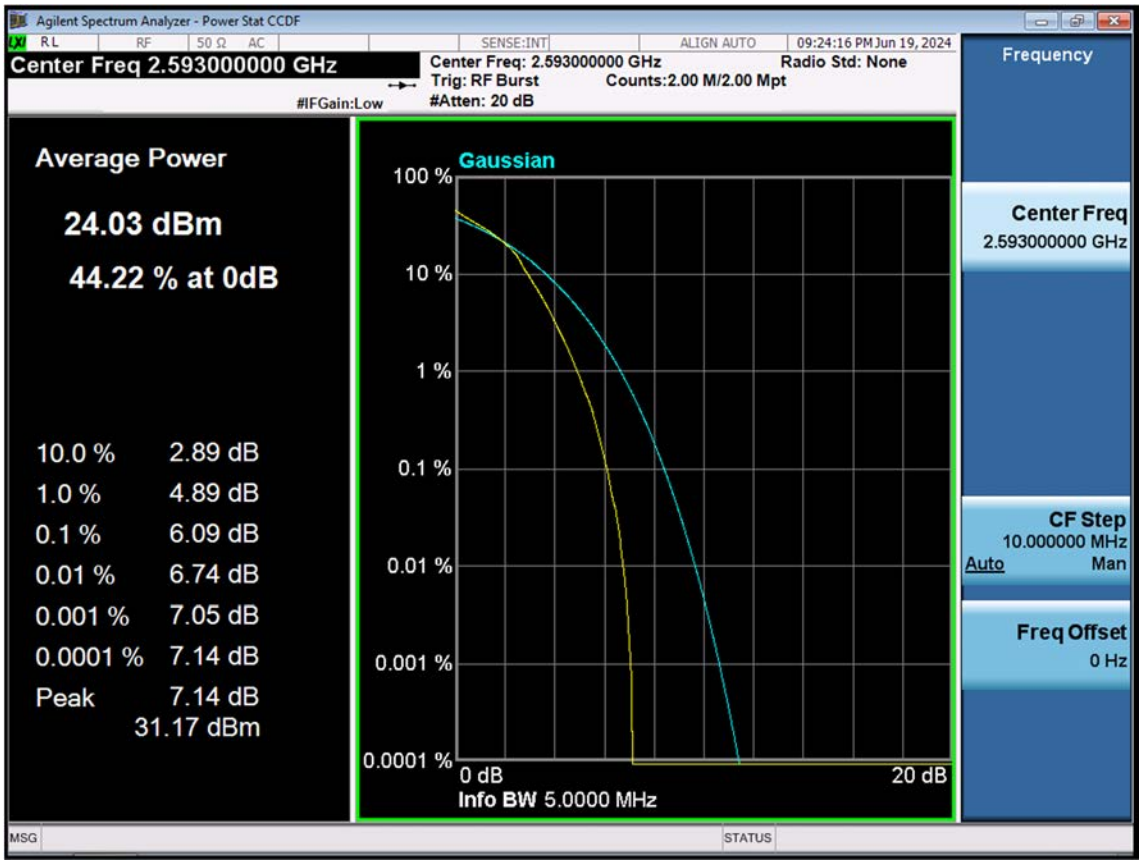


10. TEST PLOTS(ANT B)

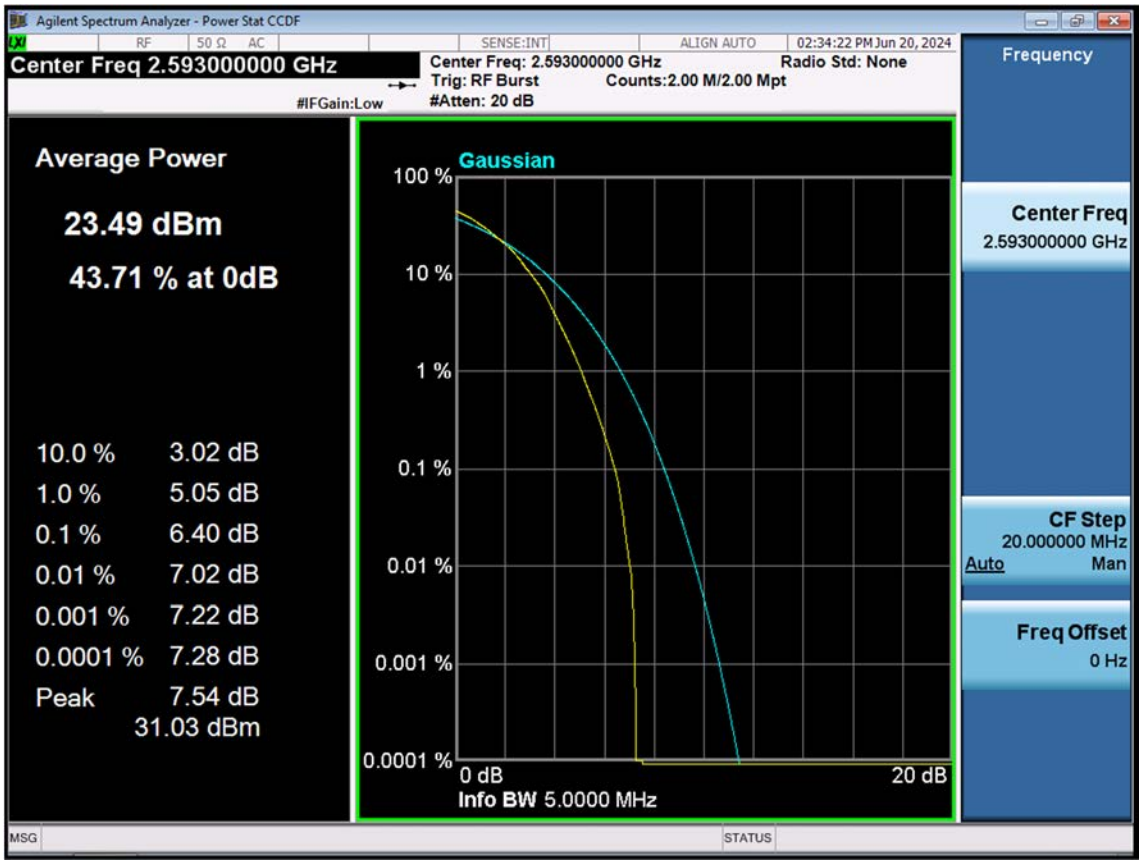
LTE B41_5 M_PAR_Mid_QPSK_FullRB



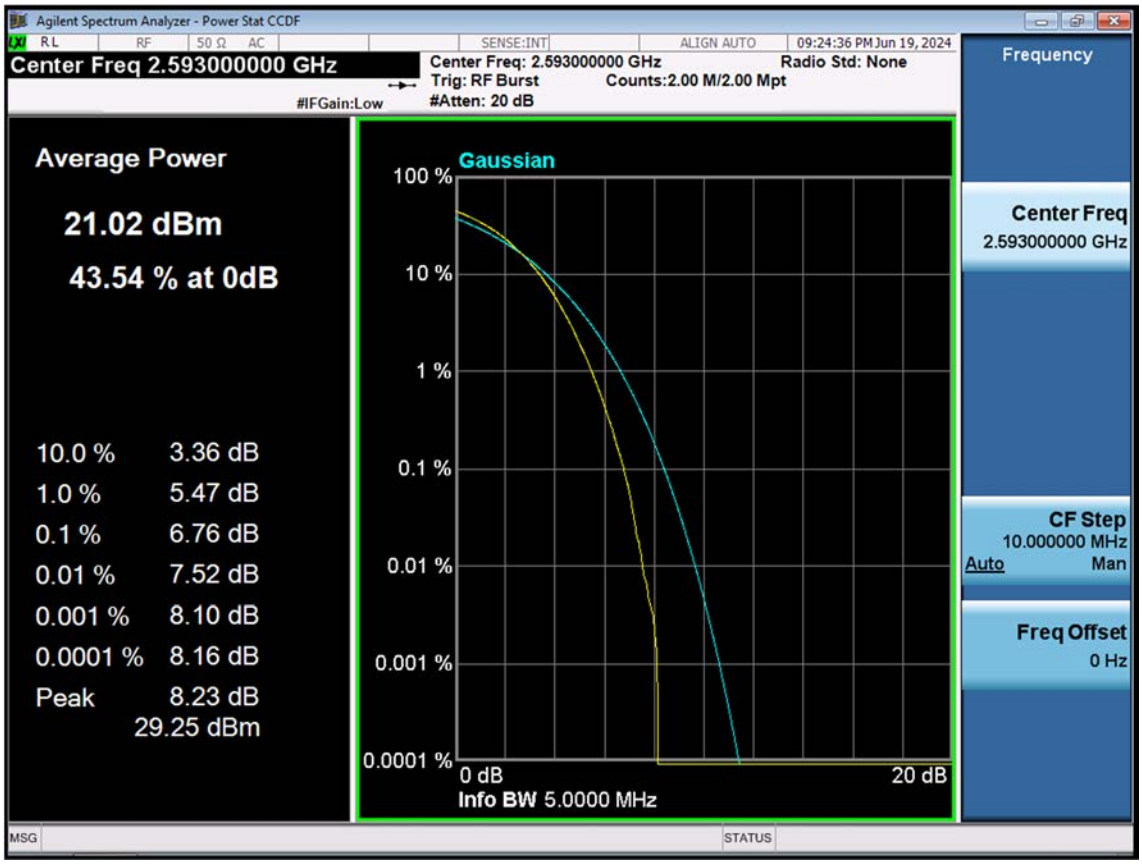
LTE B41_5 M_PAR_Mid_16QAM_FullRB



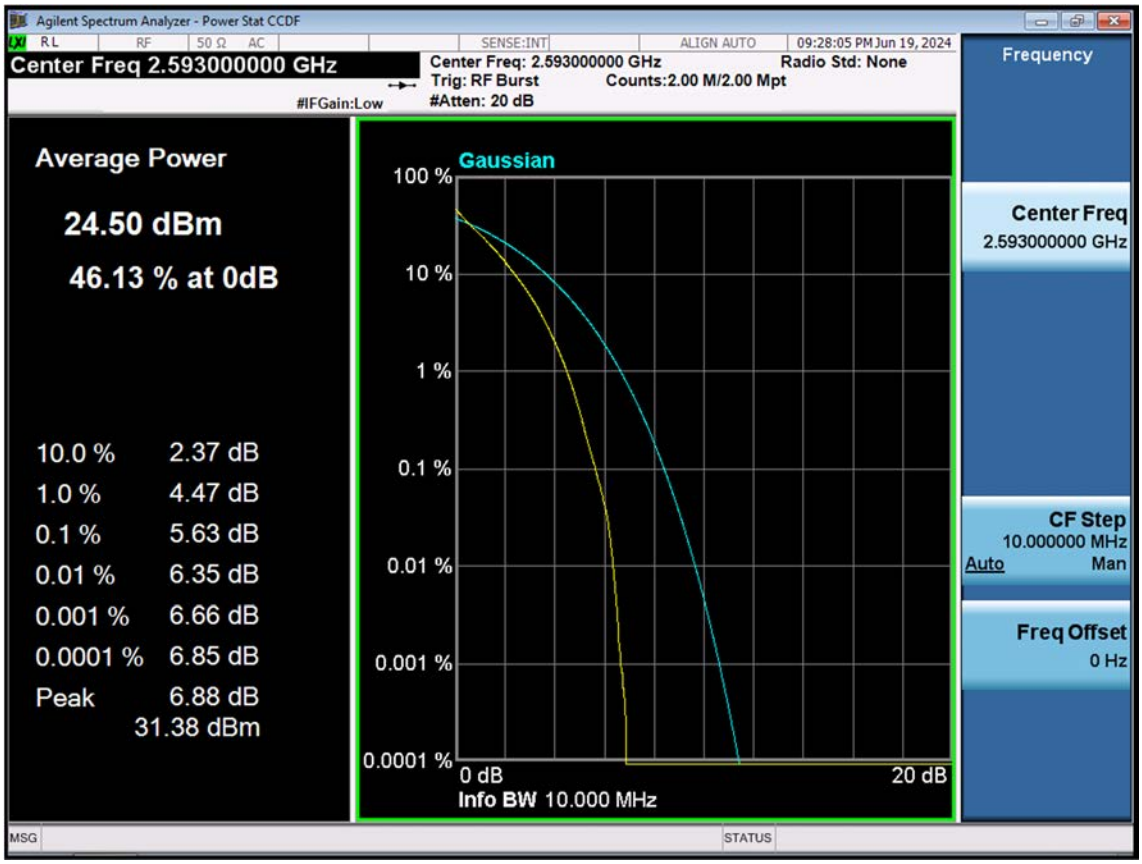
LTE B41_5 M_PAR_Mid_64QAM_FullRB



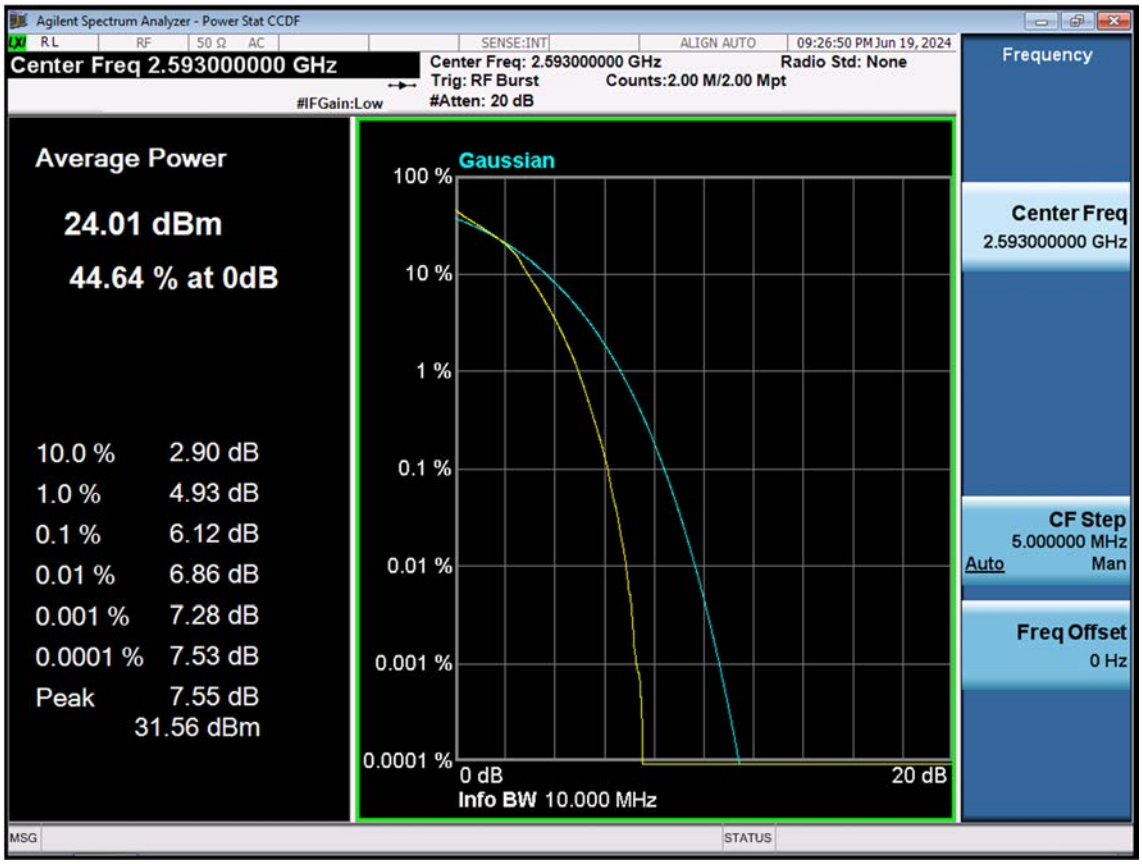
LTE B41_5 M_PAR_Mid_256QAM_FullRB



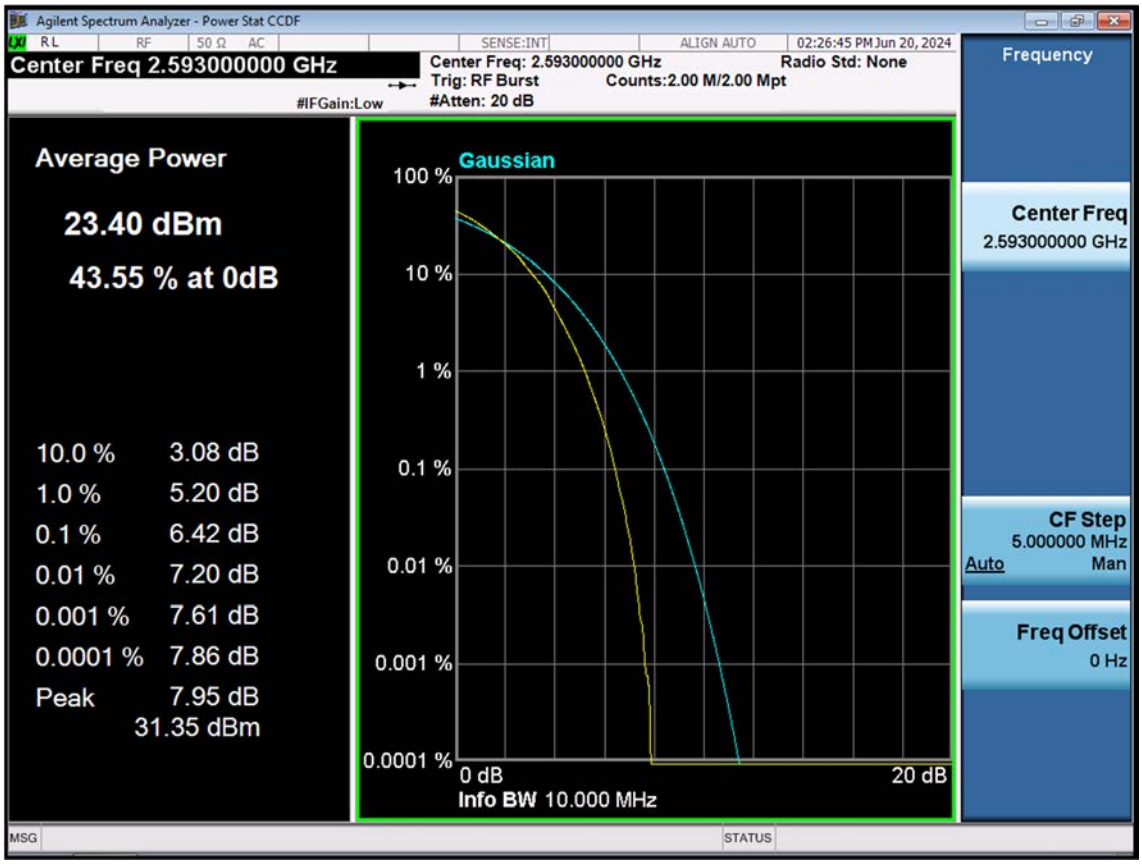
LTE B41_10 M_PAR_Mid_QPSK_FullRB



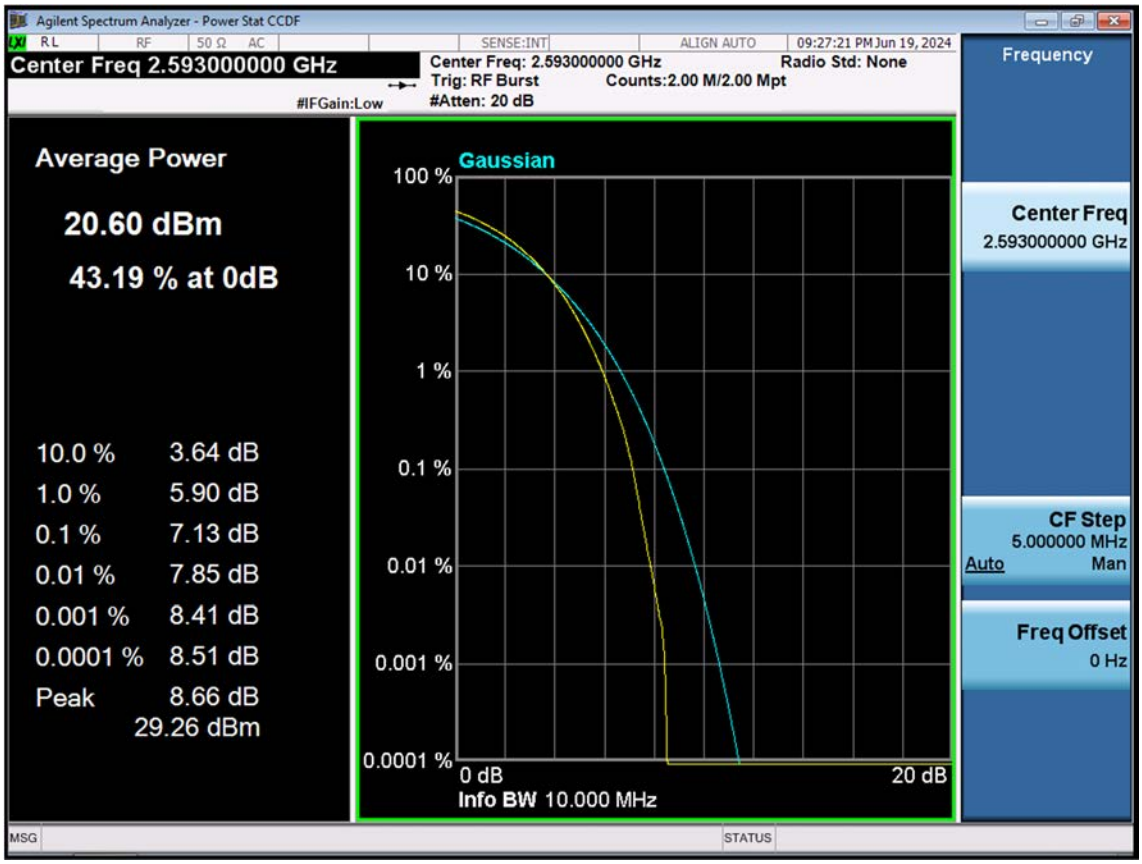
LTE B41_10 M_PAR_Mid_16QAM_FullRB



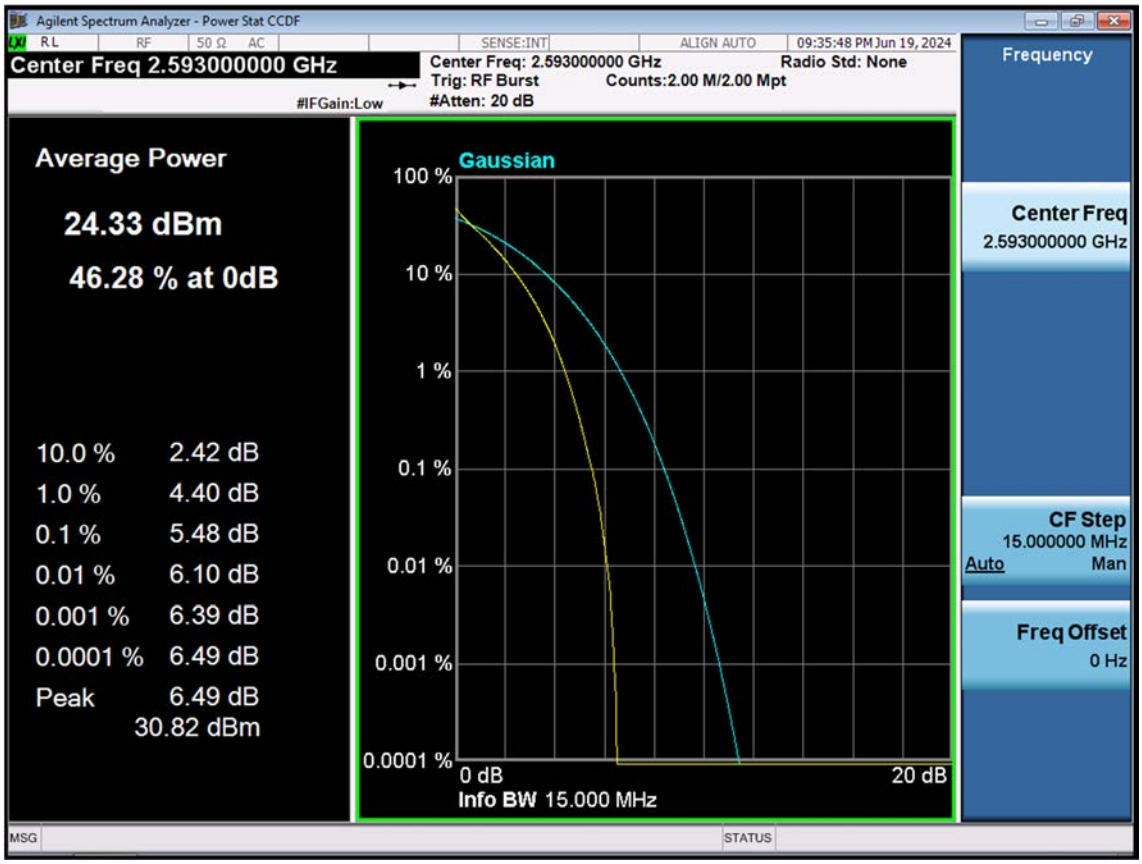
LTE B41_10 M_PAR_Mid_64QAM_FullRB



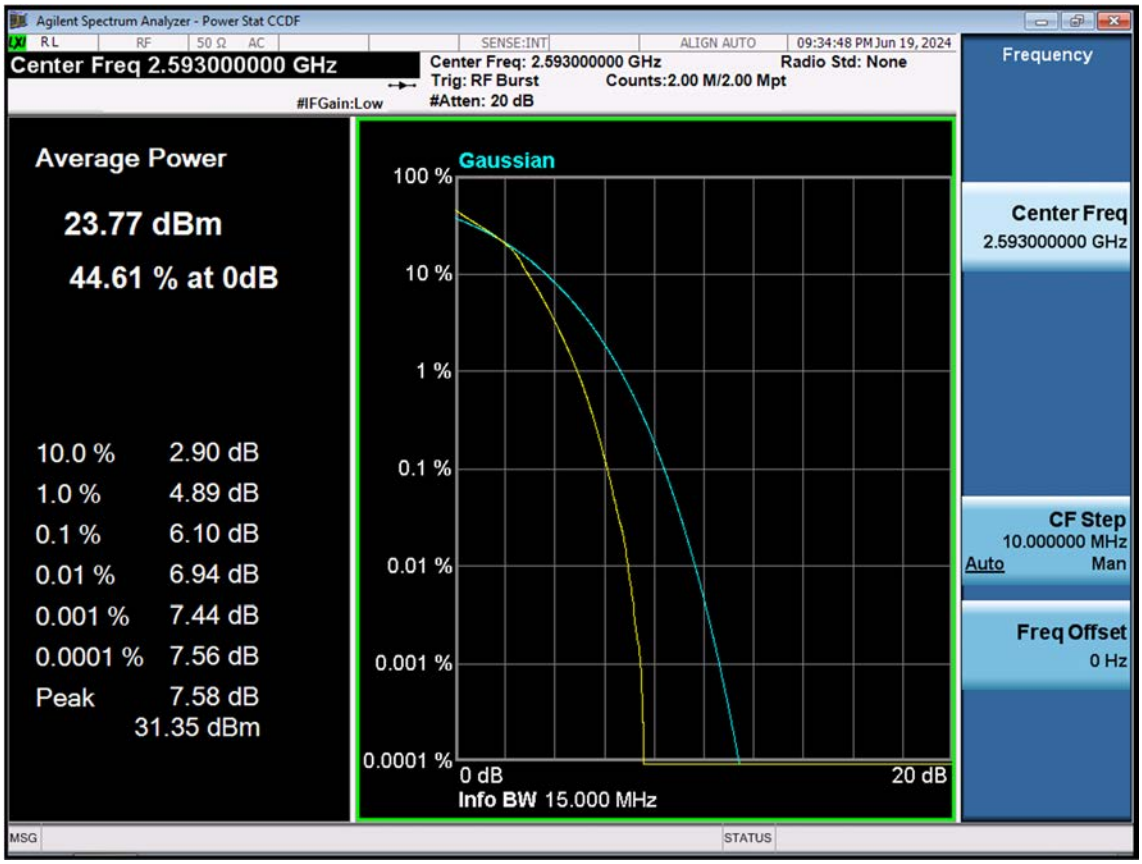
LTE B41_10 M_PAR_Mid_256QAM_FullRB



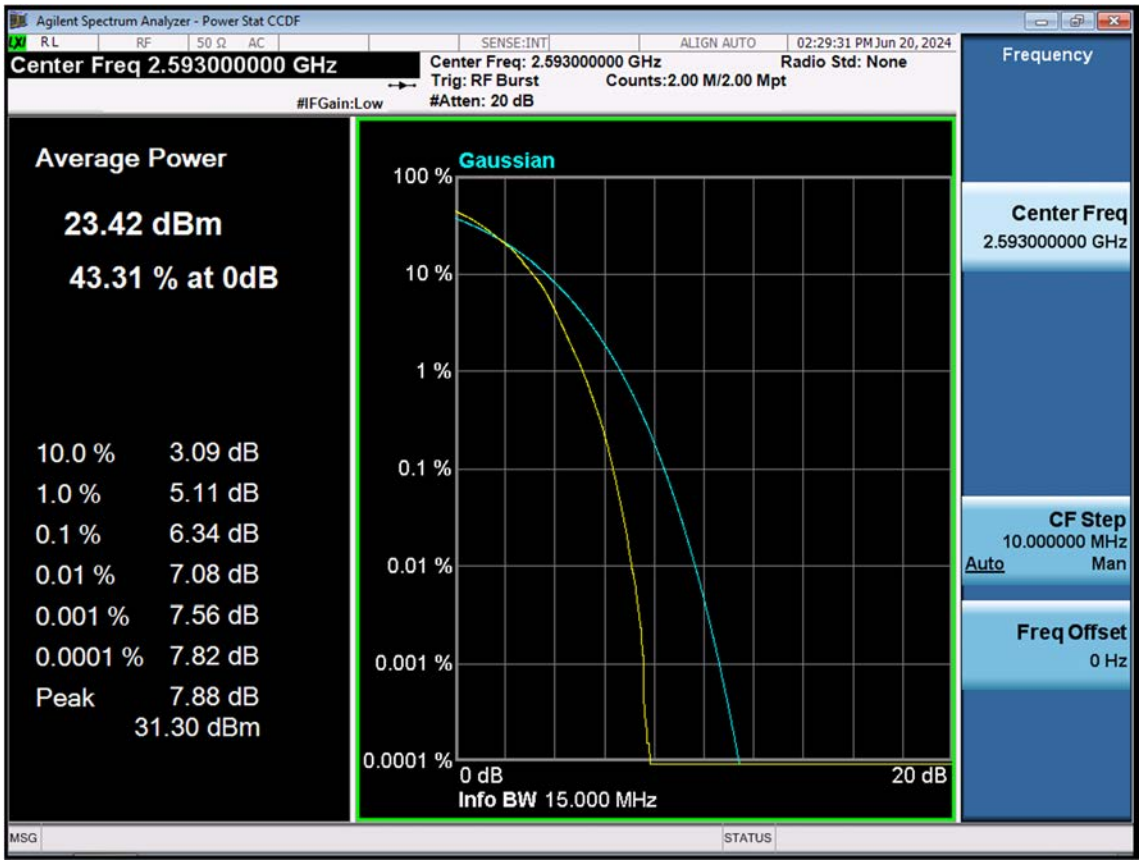
LTE B41_15 M_PAR_Mid_QPSK_FullRB



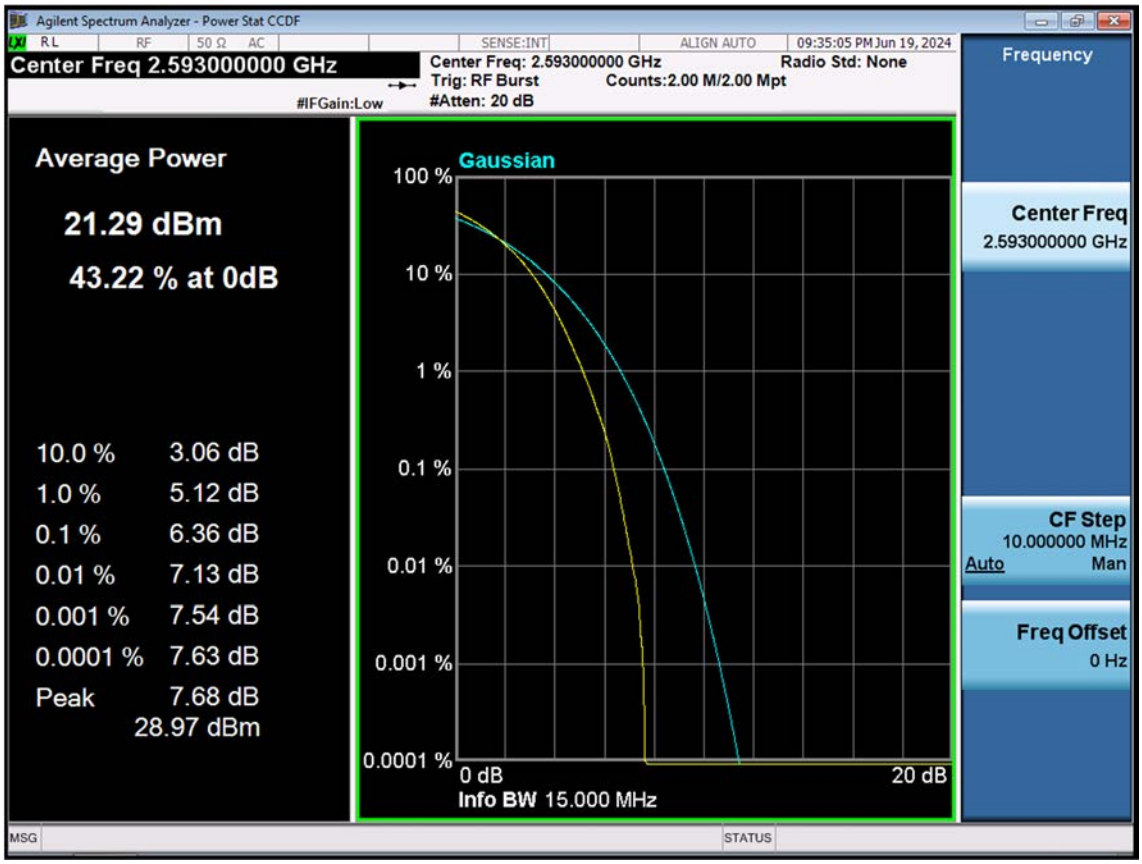
LTE B41_15 M_PAR_Mid_16QAM_FullRB



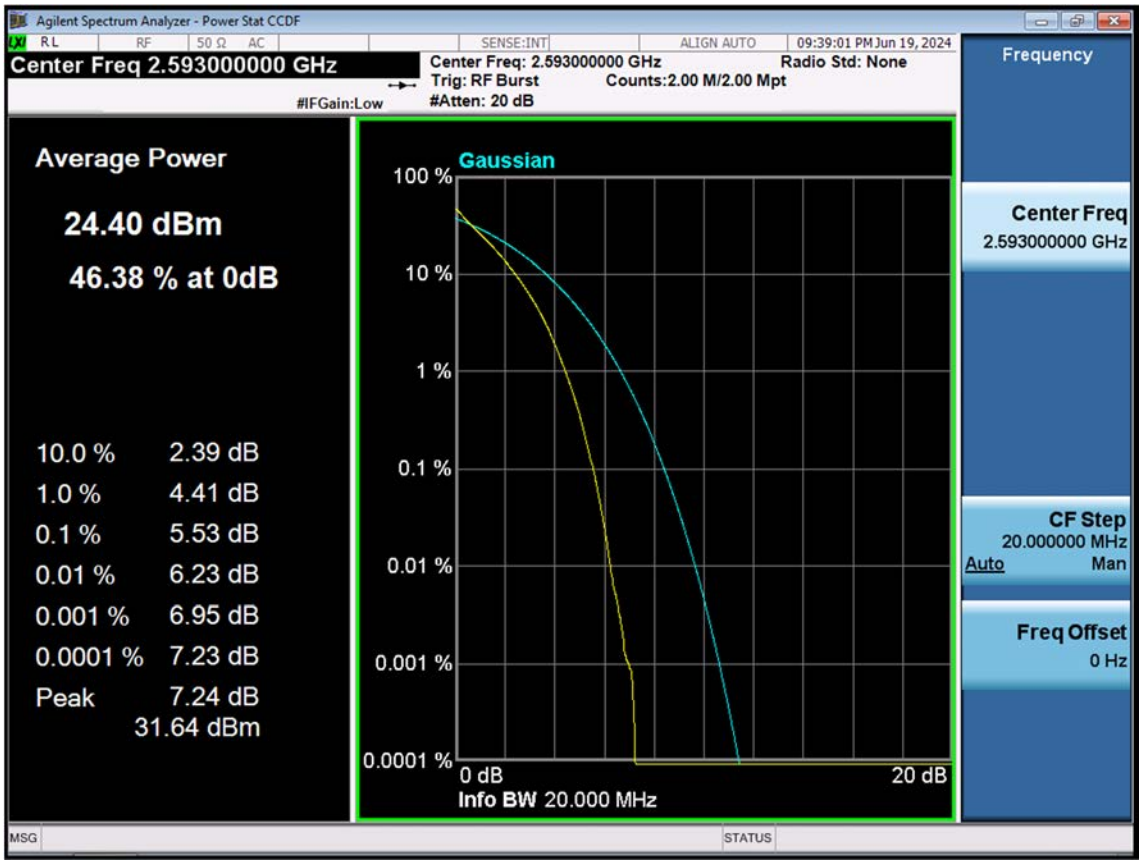
LTE B41_15 M_PAR_Mid_64QAM_FullRB



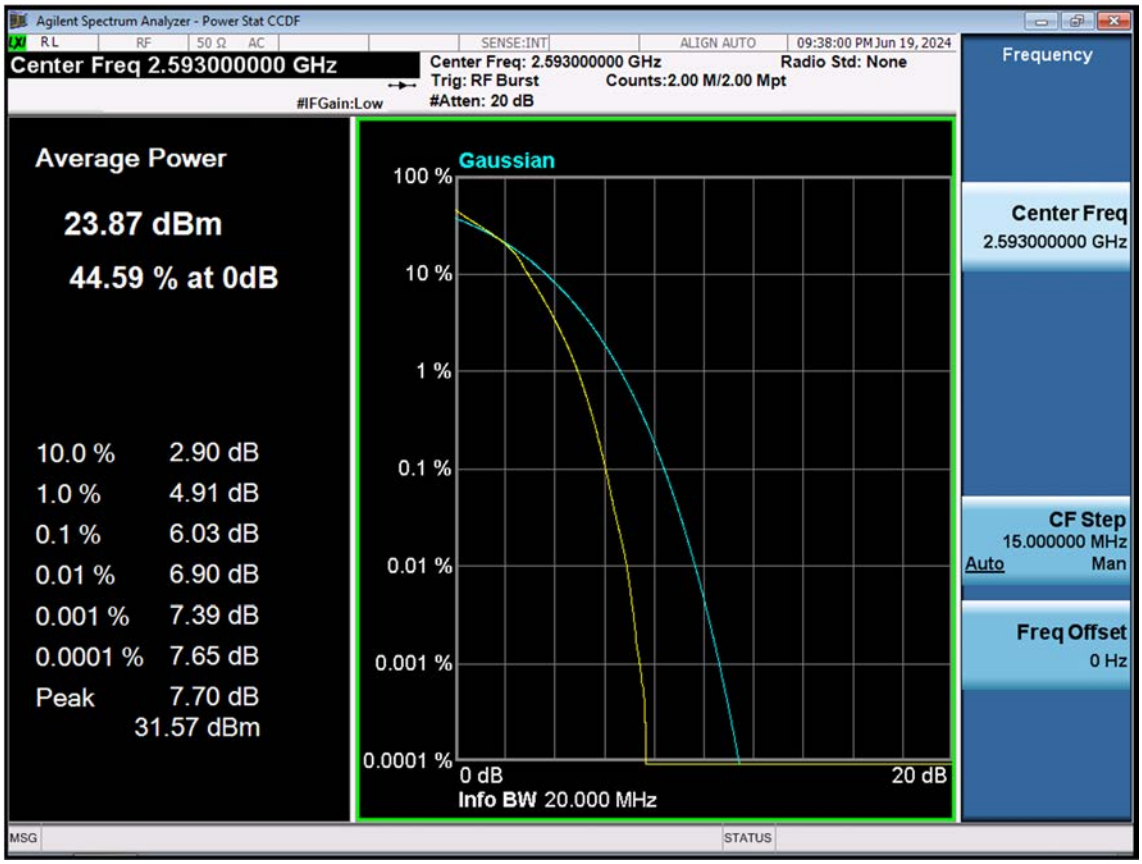
LTE B41_15 M_PAR_Mid_256QAM_FullRB



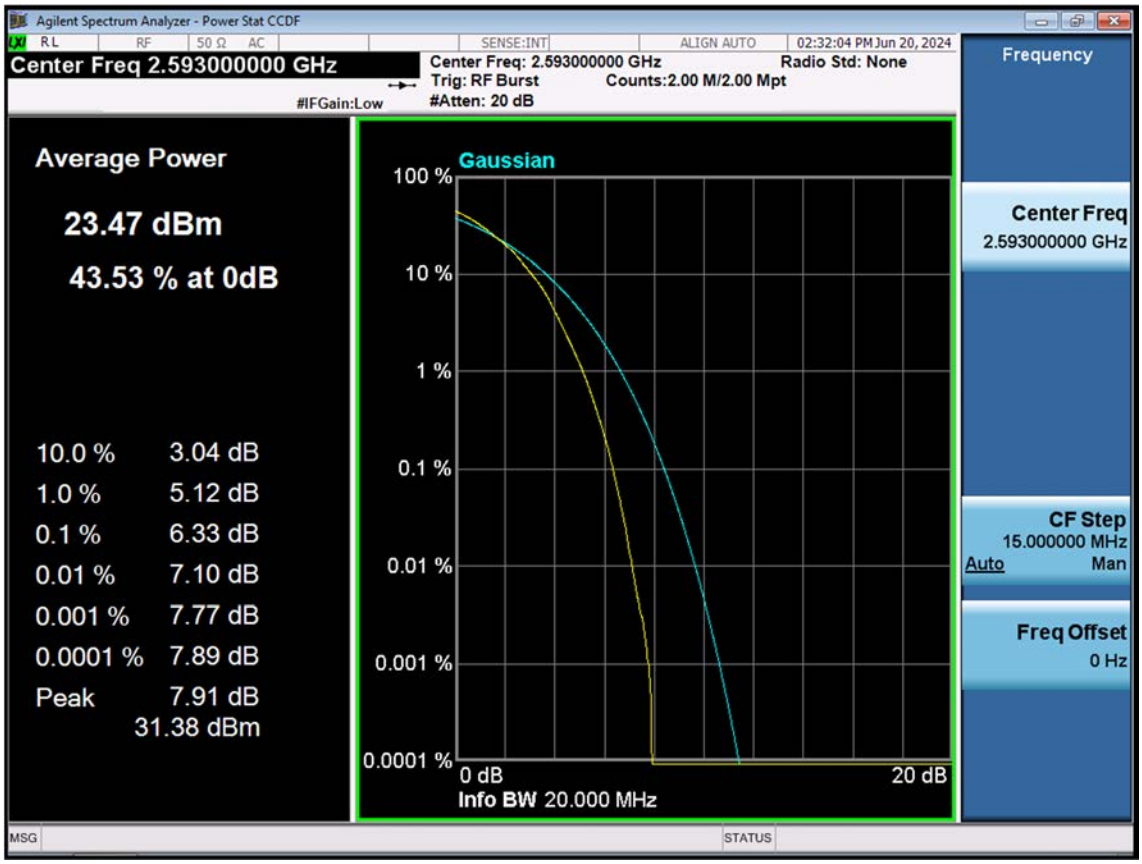
LTE B41_20 M_PAR_Mid_QPSK_FullRB



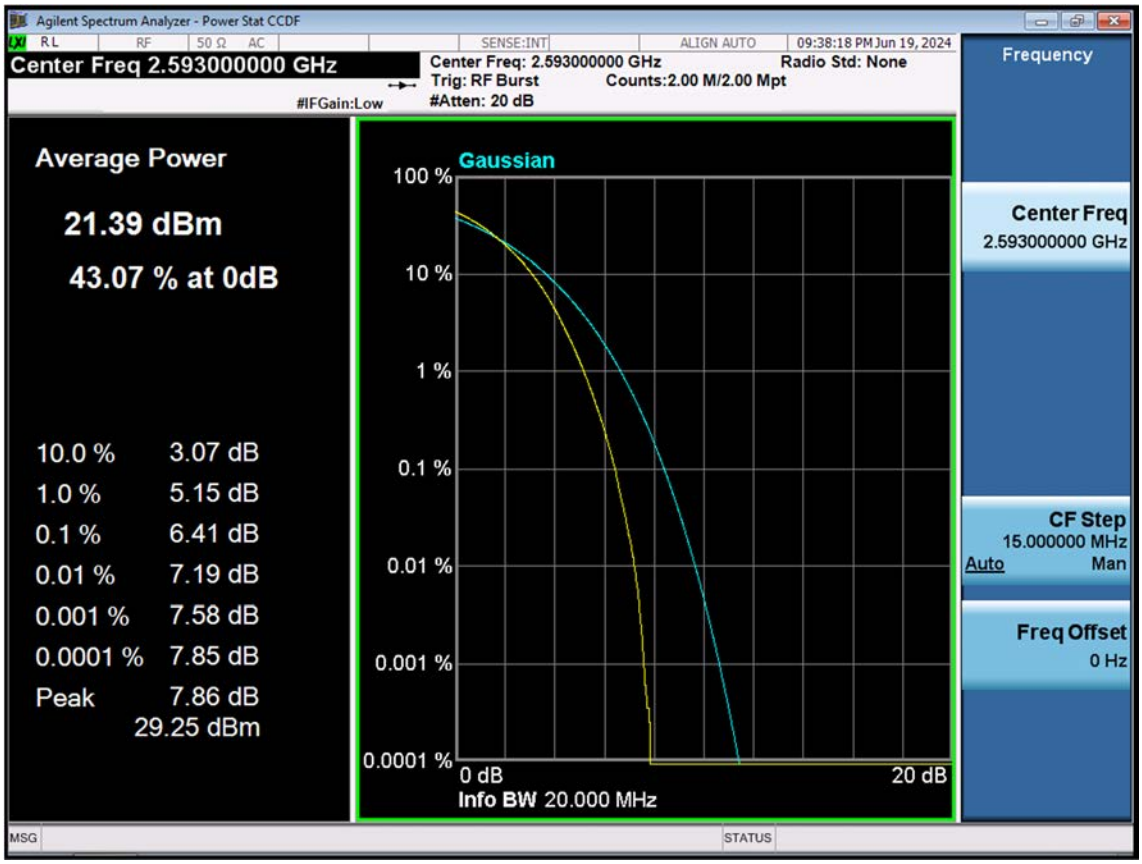
LTE B41_20 M_PAR_Mid_16QAM_FullRB



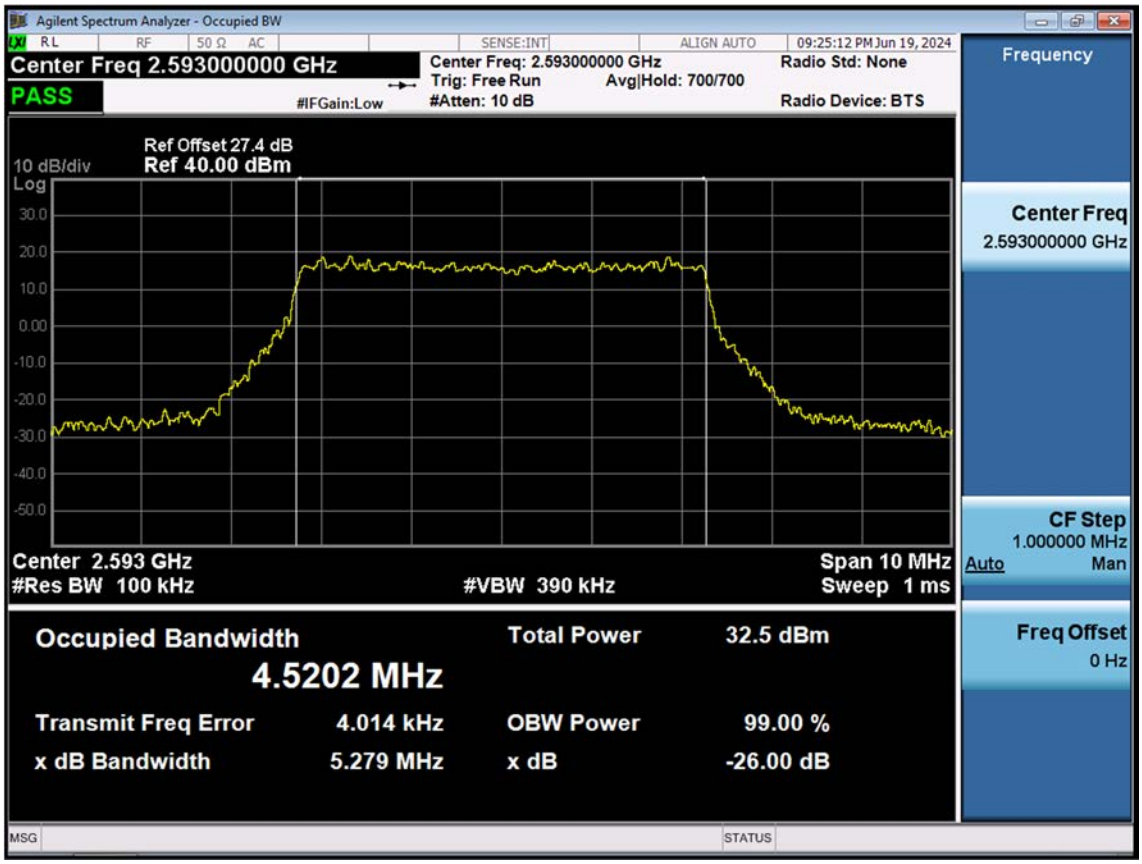
LTE B41_20 M_PAR_Mid_64QAM_FullRB



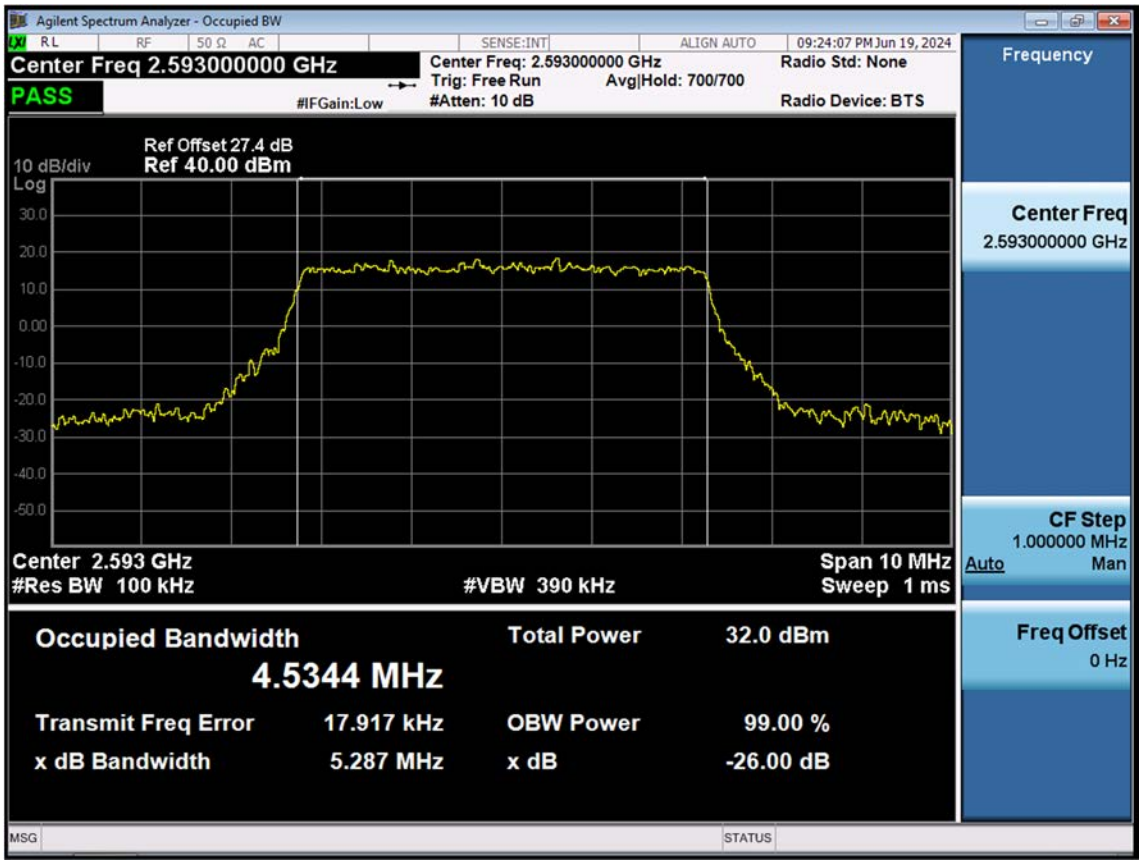
LTE B41_20 M_PAR_Mid_256QAM_FullRB



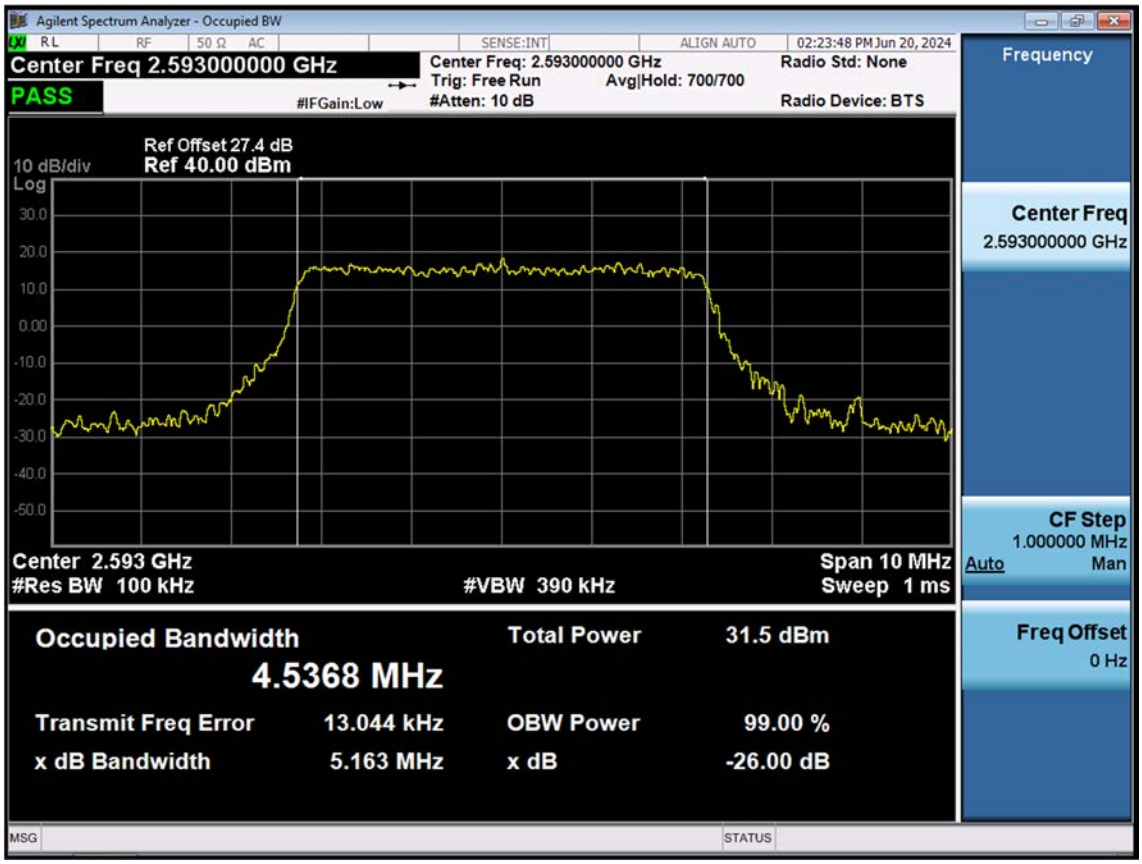
LTE B41_5 M_OBW_Mid_QPSK_FullRB



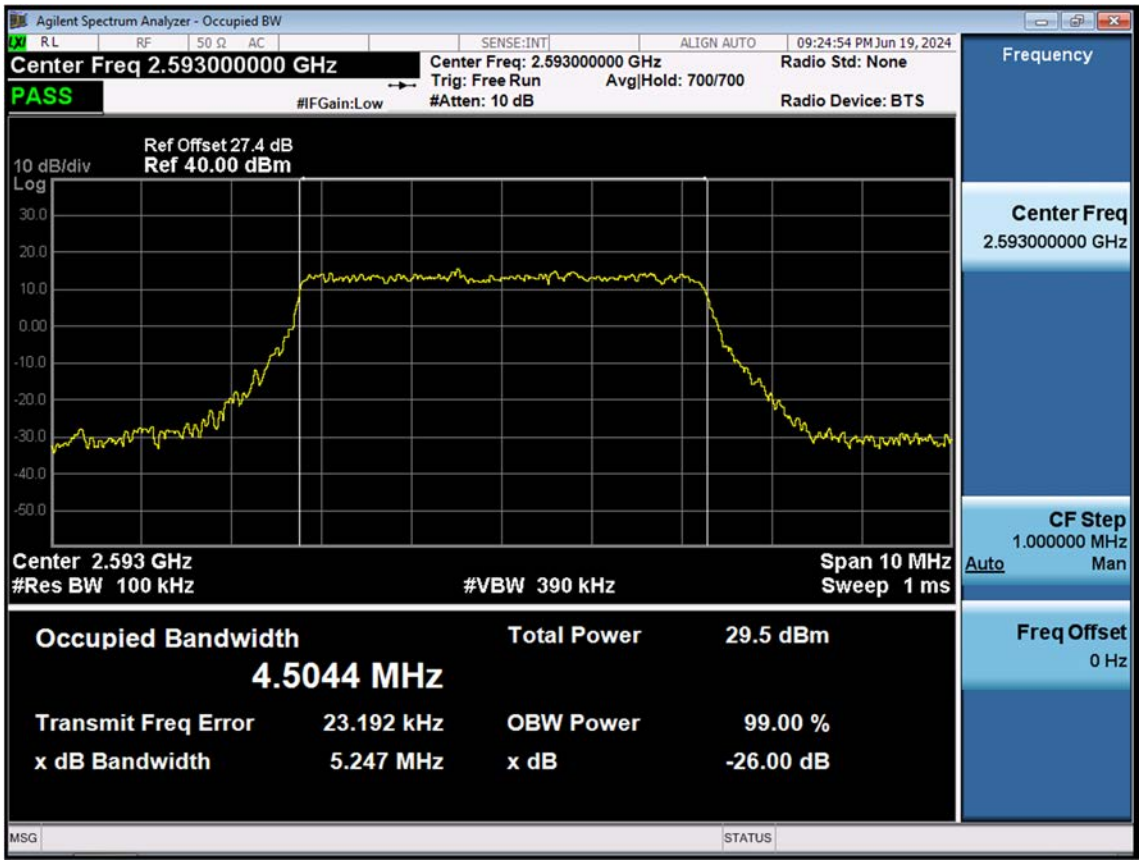
LTE B41_5 M_OBW_Mid_16QAM_FullRB



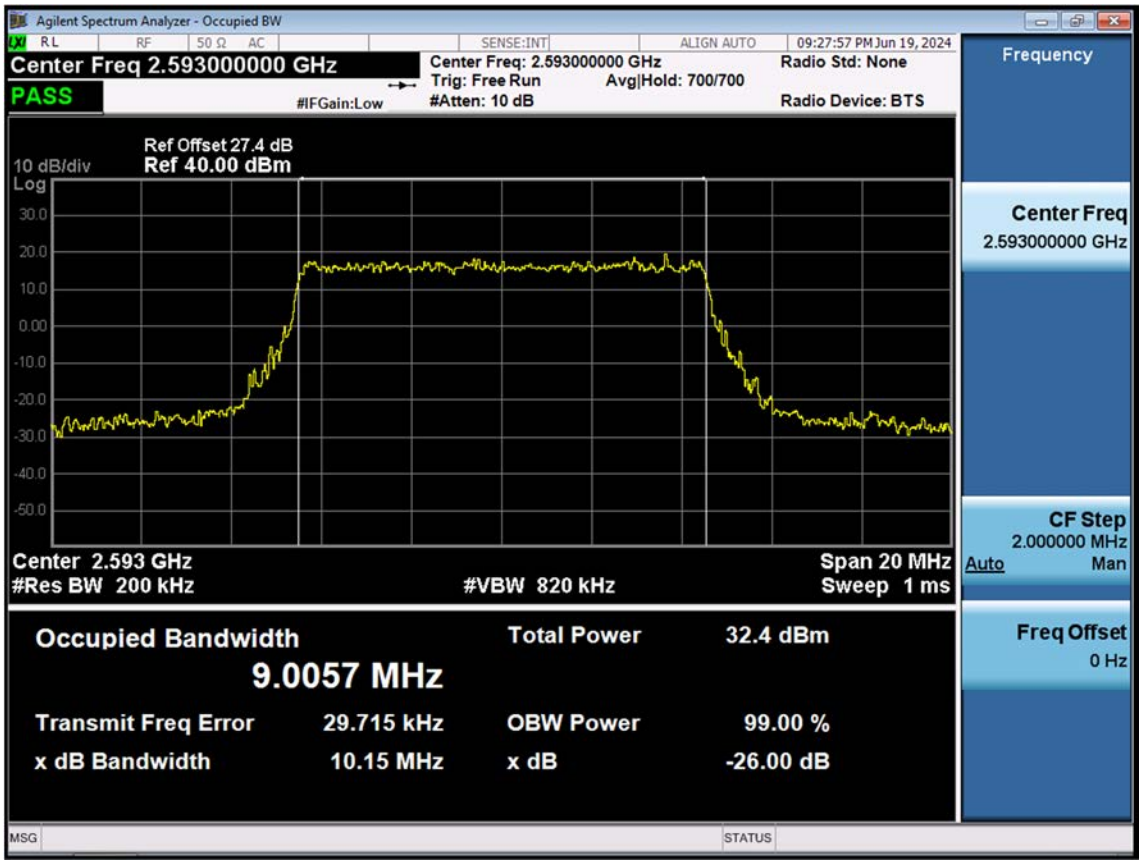
LTE B41_5 M_OBW_Mid_64QAM_FullRB



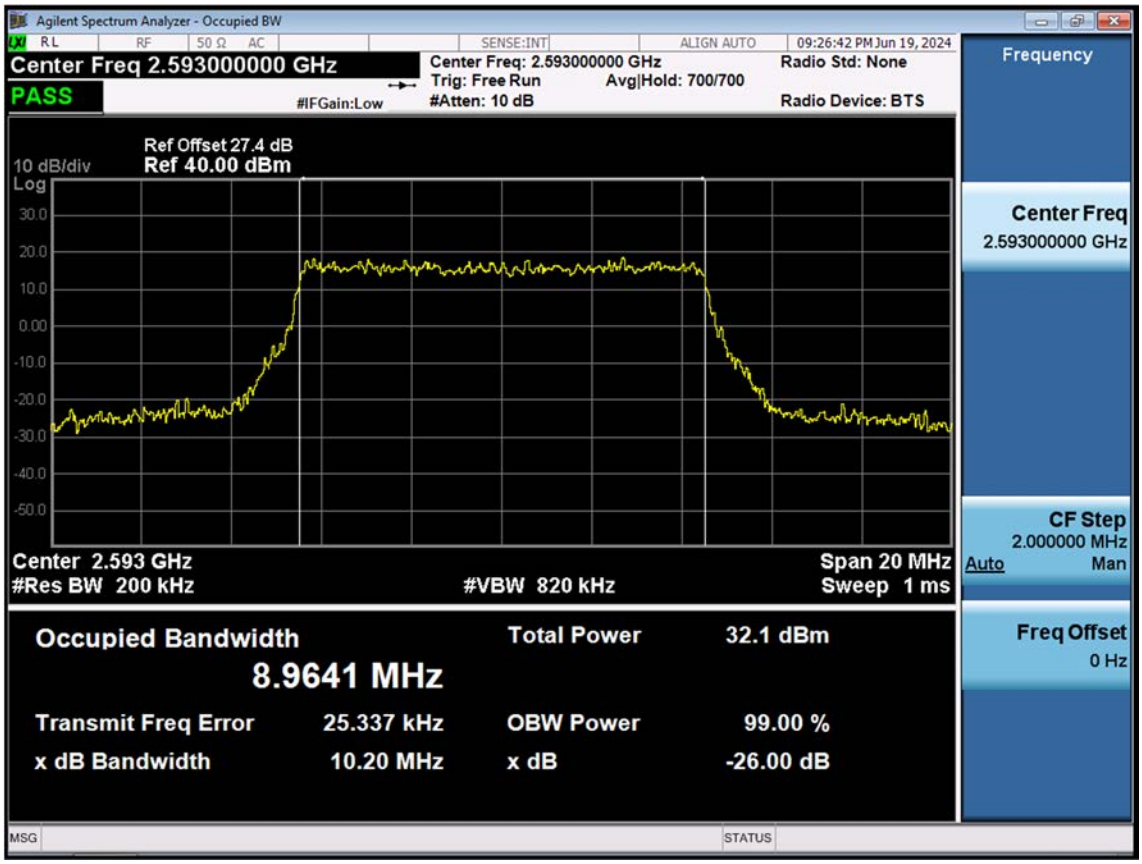
LTE B41_5 M_OBW_Mid_256QAM_FullRB



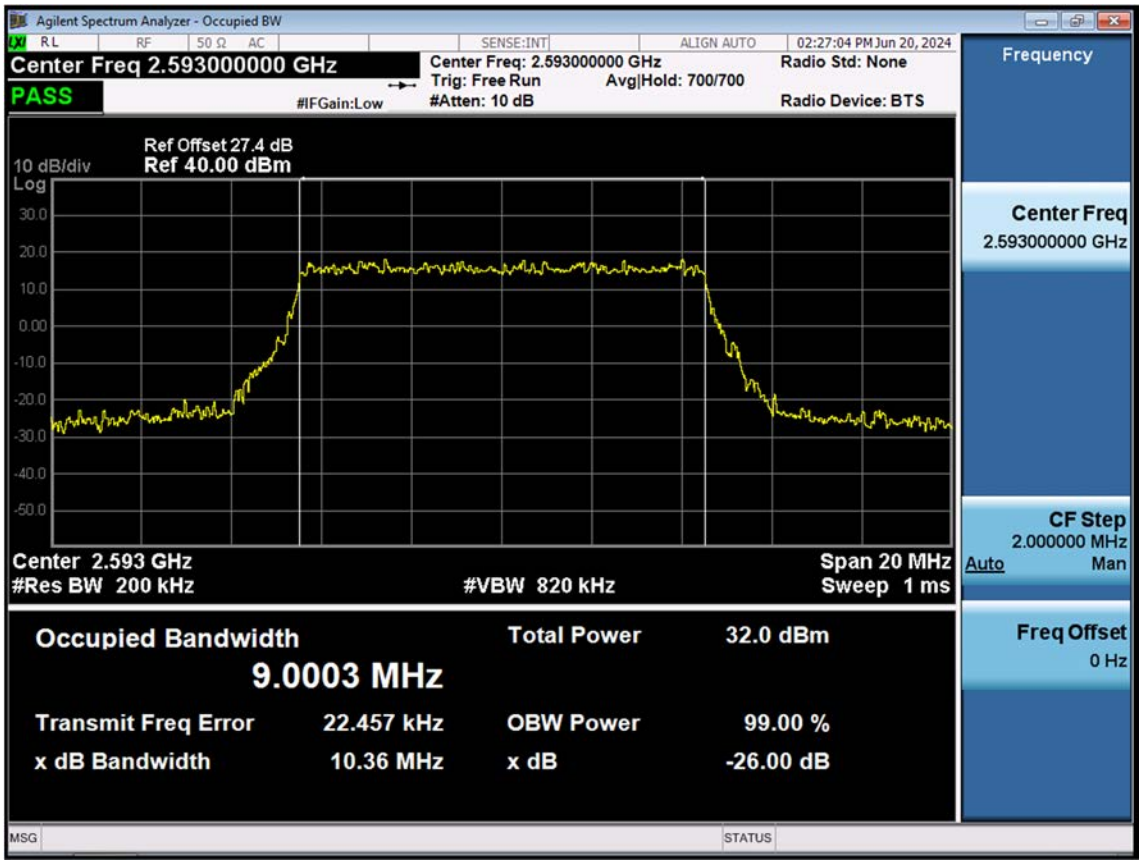
LTE B41_10 M_OBW_Mid_QPSK_FullRB



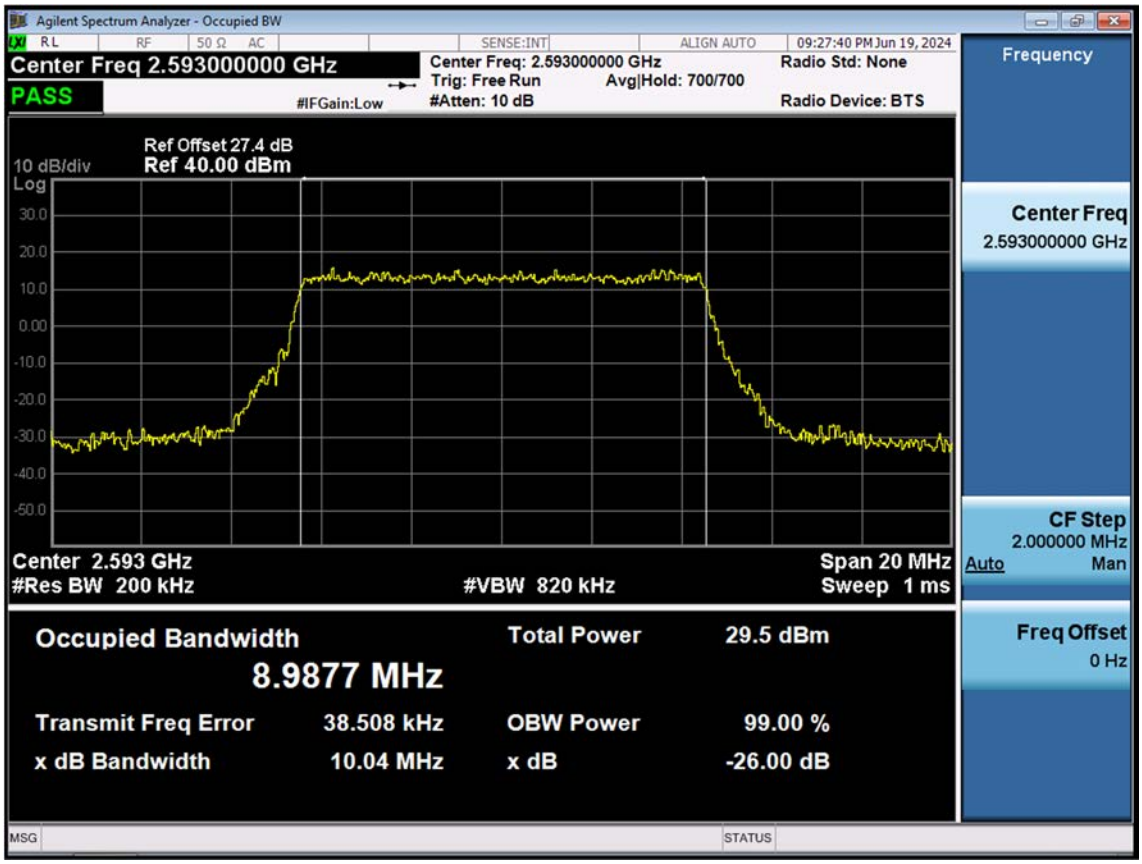
LTE B41_10 M_OBW_Mid_16QAM_FullRB



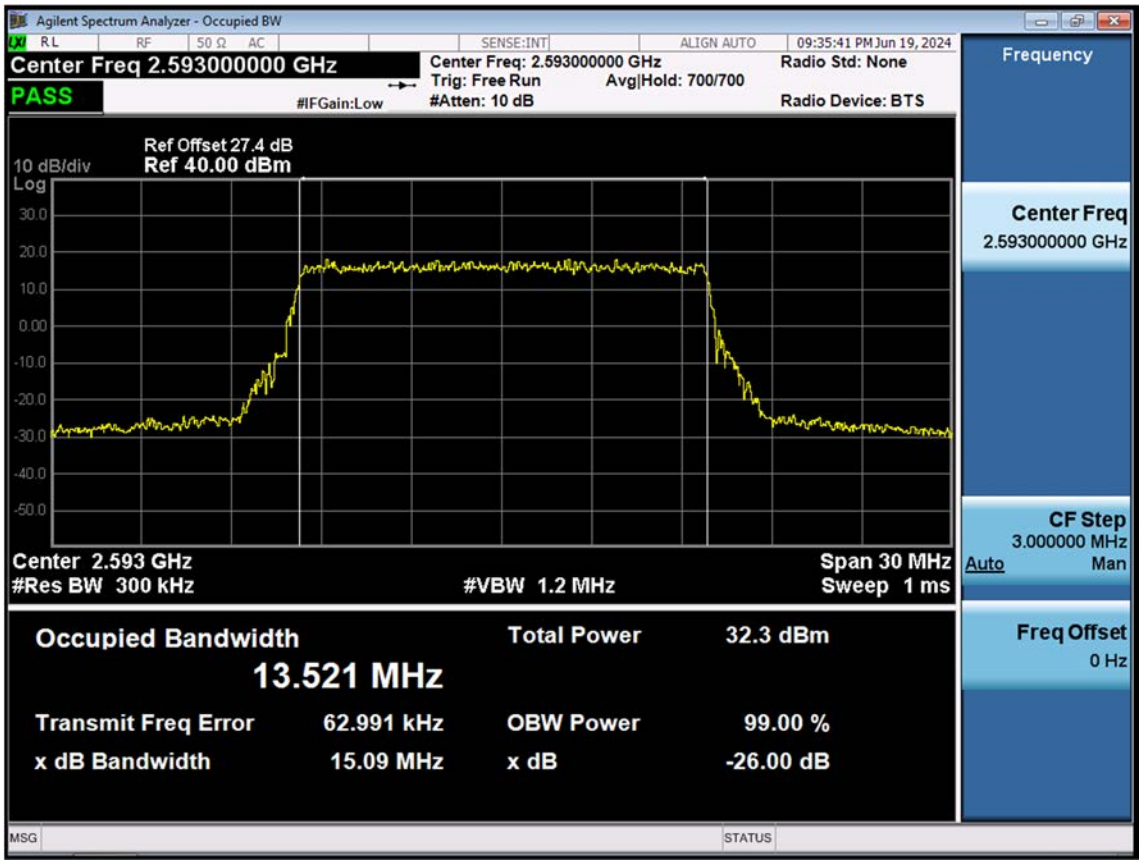
LTE B41_10 M_OBW_Mid_64QAM_FullRB



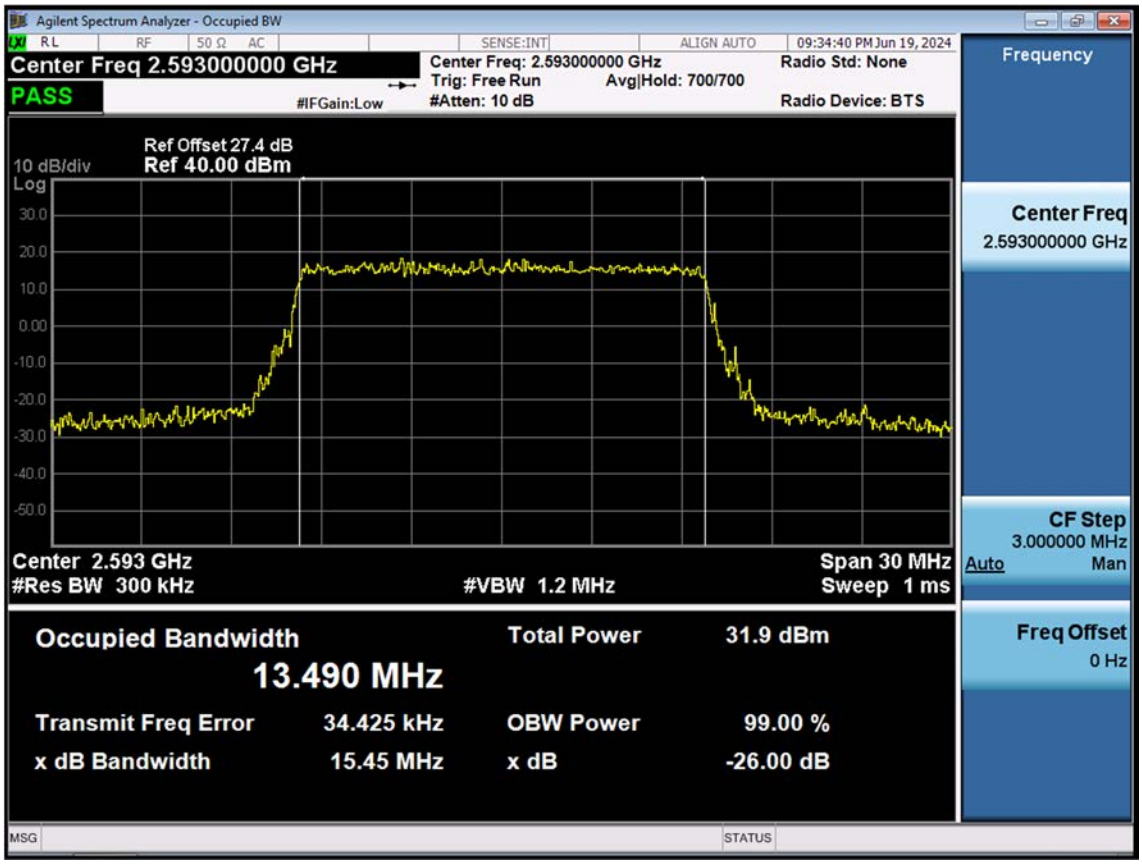
LTE B41_10 M_OBW_Mid_256QAM_FullRB



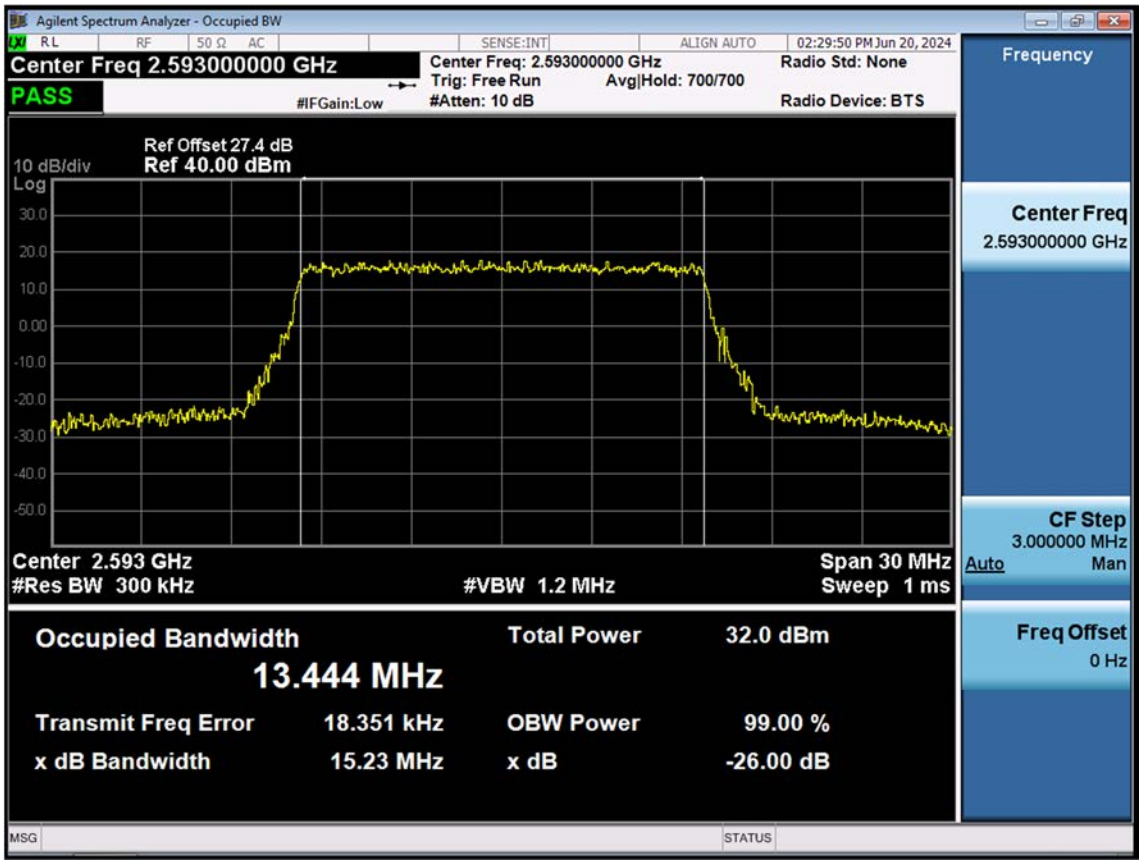
LTE B41_15 M_OBW_Mid_QPSK_FullRB



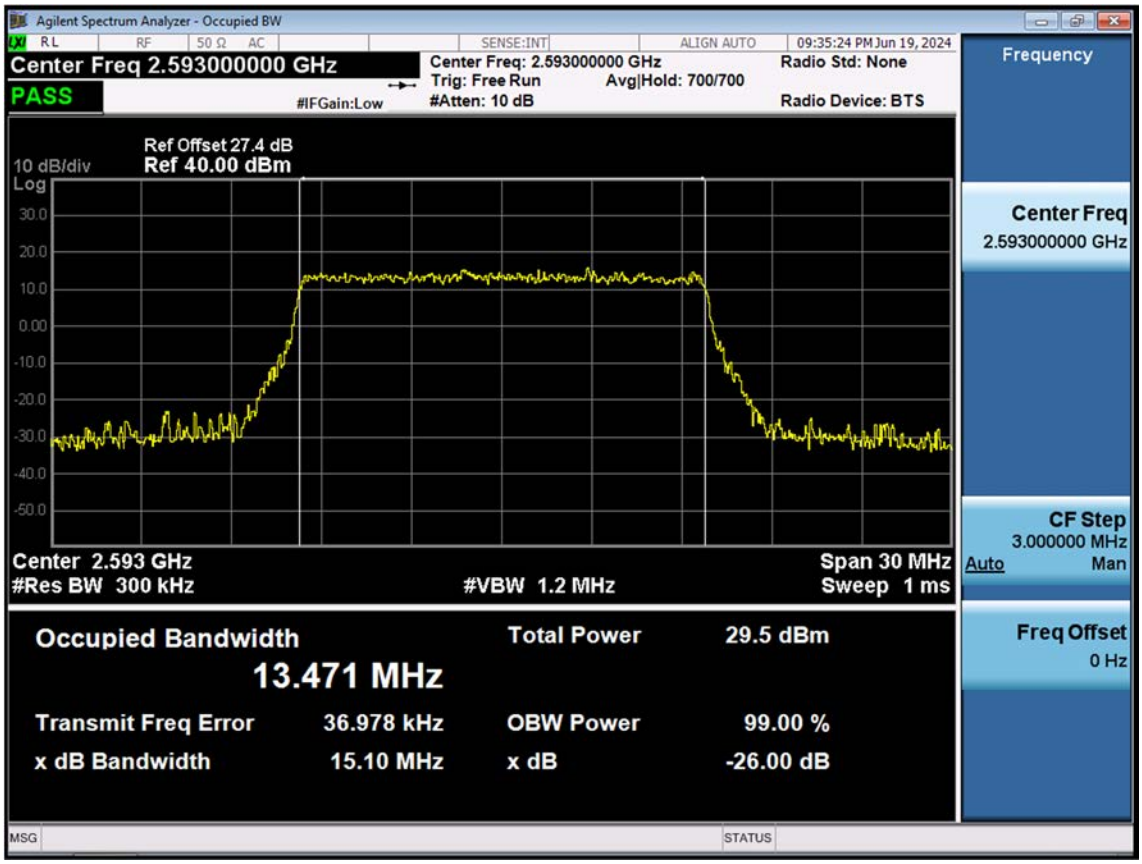
LTE B41_15 M_OBW_Mid_16QAM_FullRB



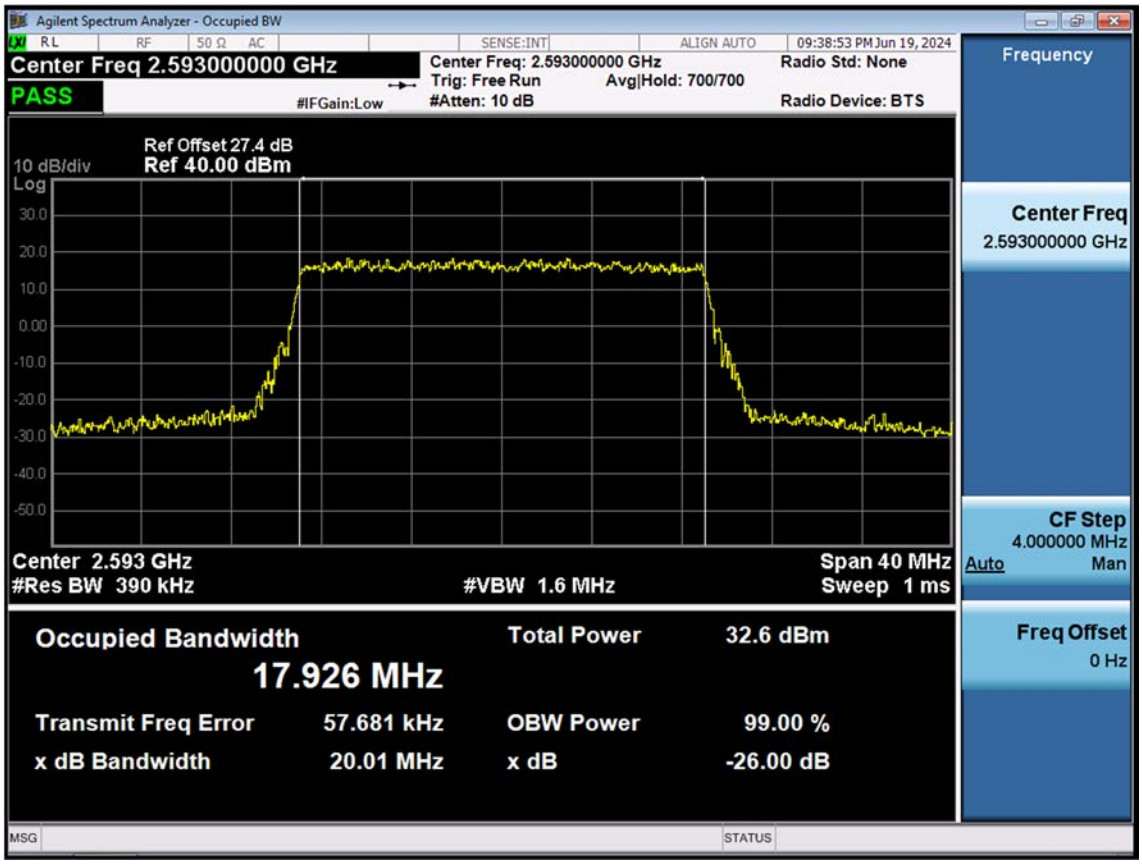
LTE B41_15 M_OBW_Mid_64QAM_FullRB



LTE B41_15 M_OBW_Mid_256QAM_FullRB



LTE B41_20 M_OBW_Mid_QPSK_FullRB



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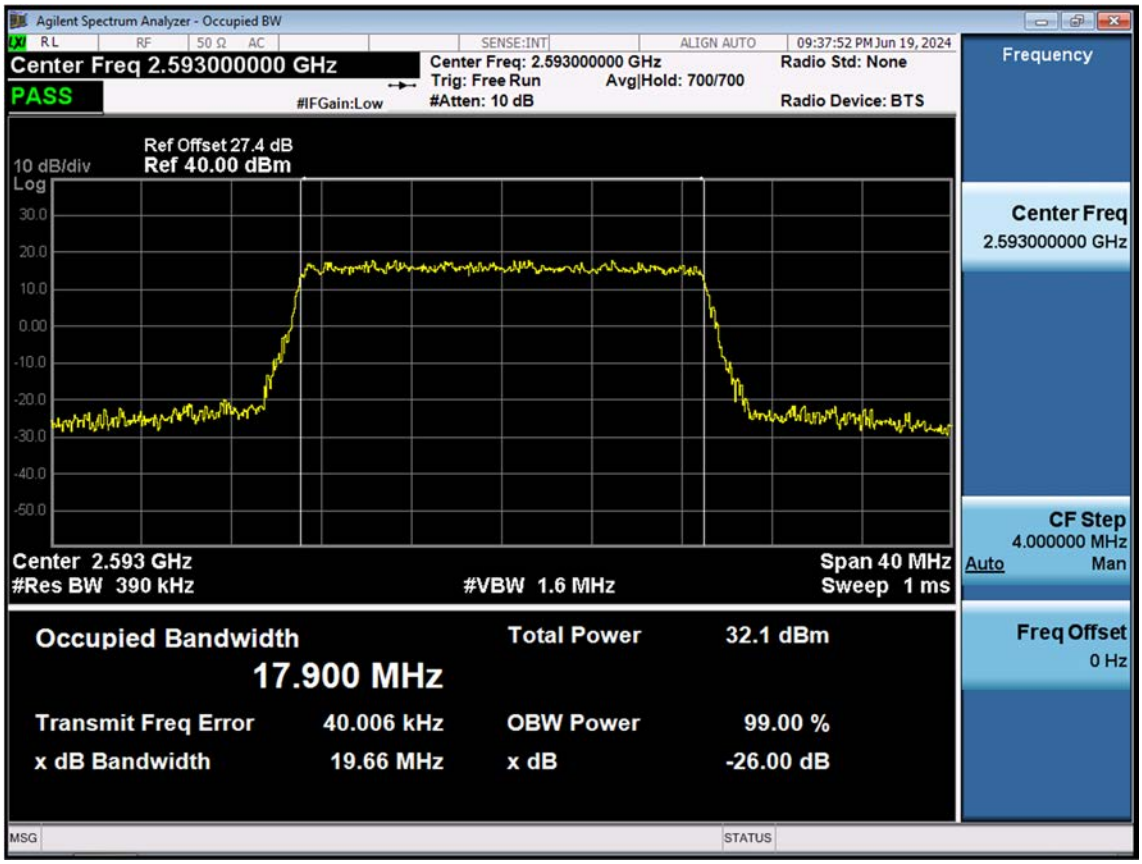

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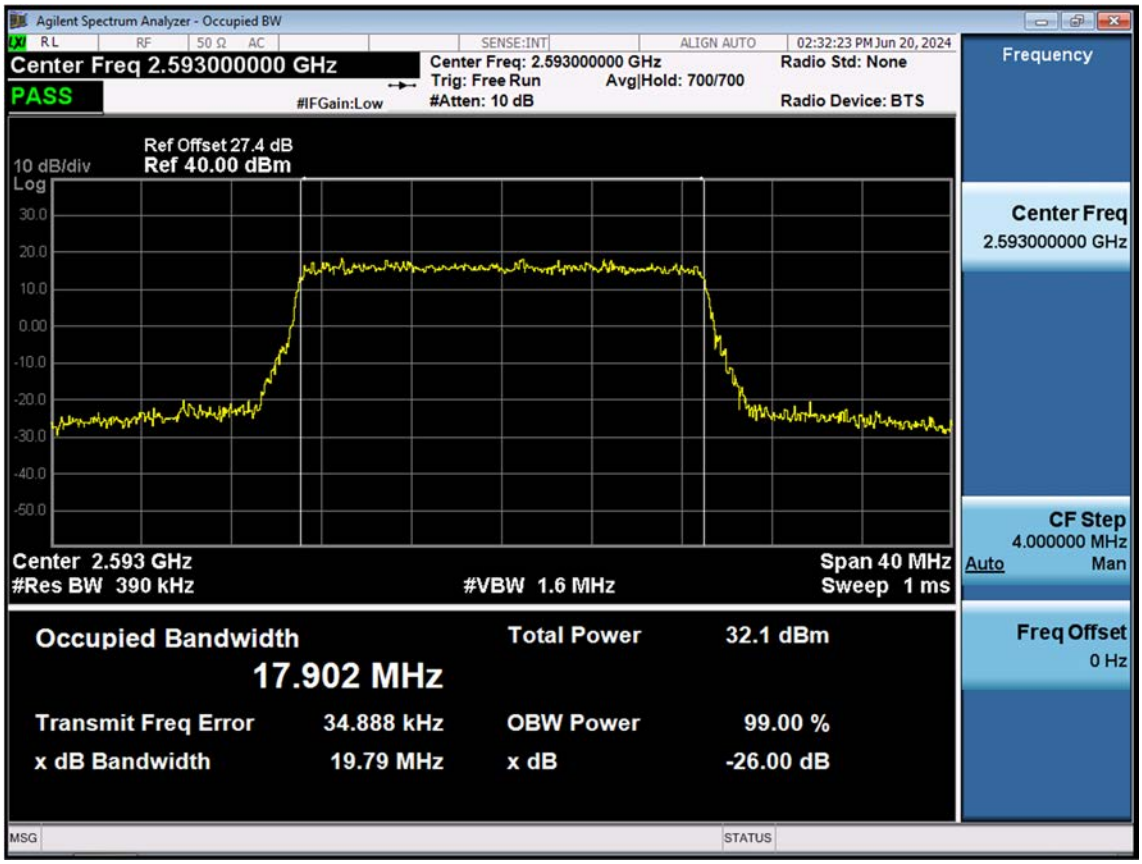
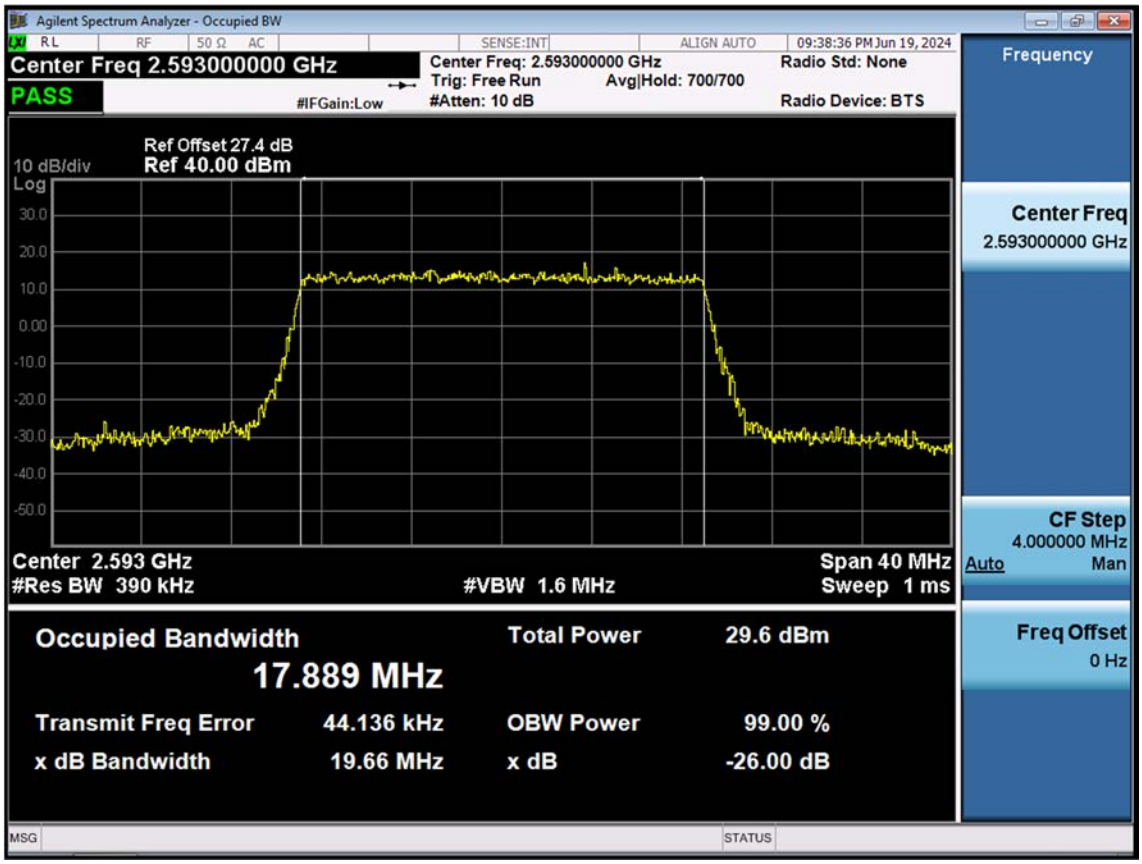
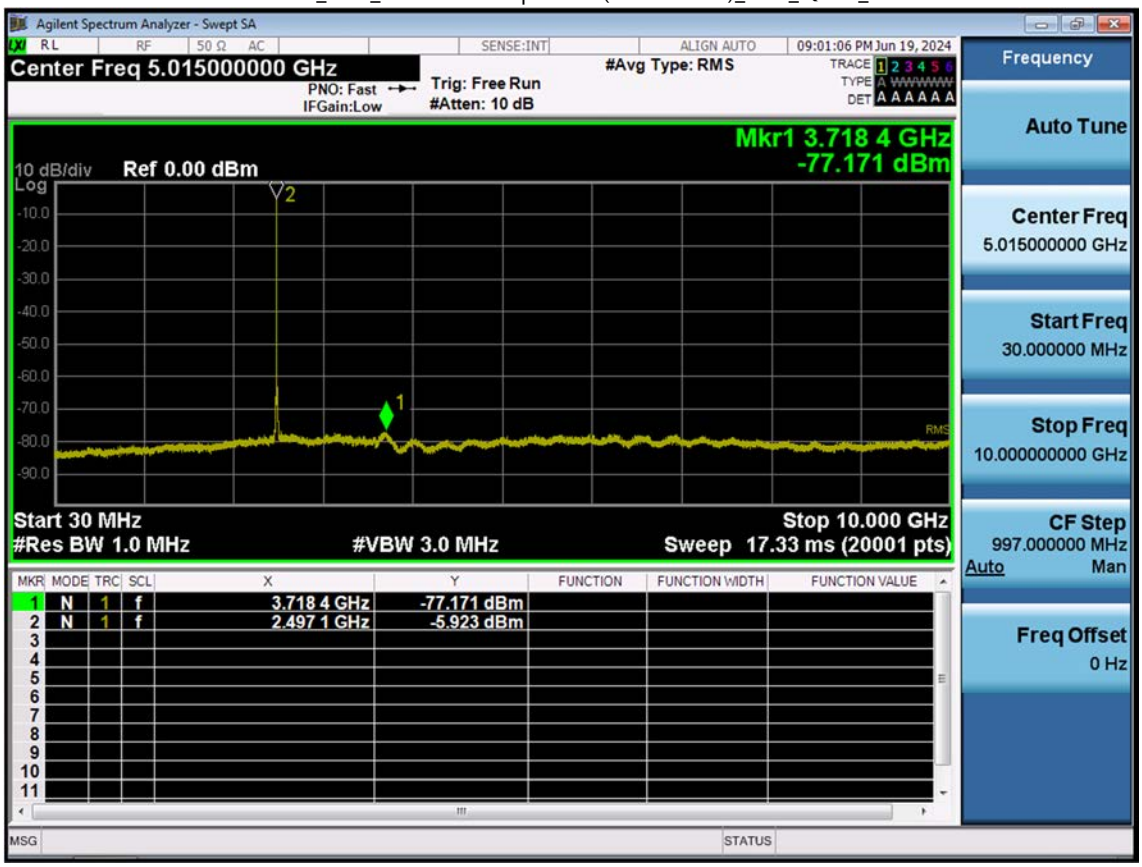


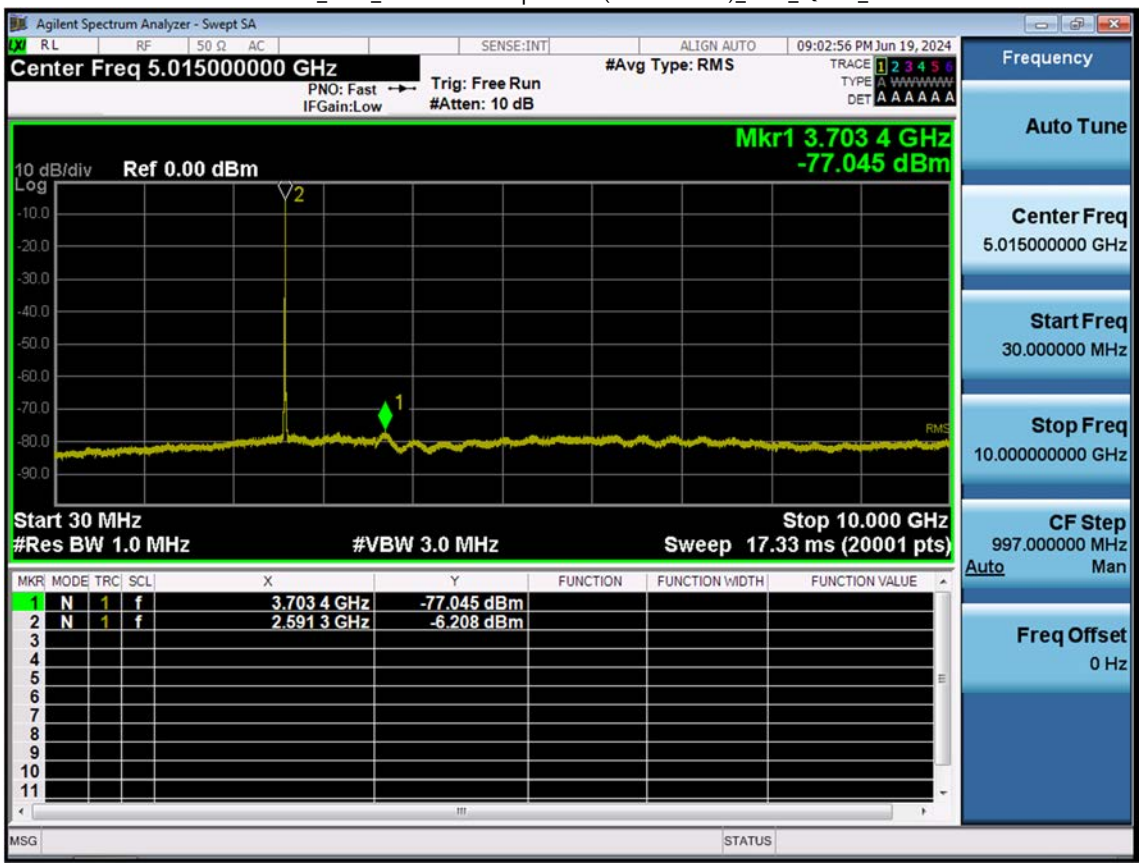
LTE B41_20 M_OBW_Mid_256QAM_FullRB



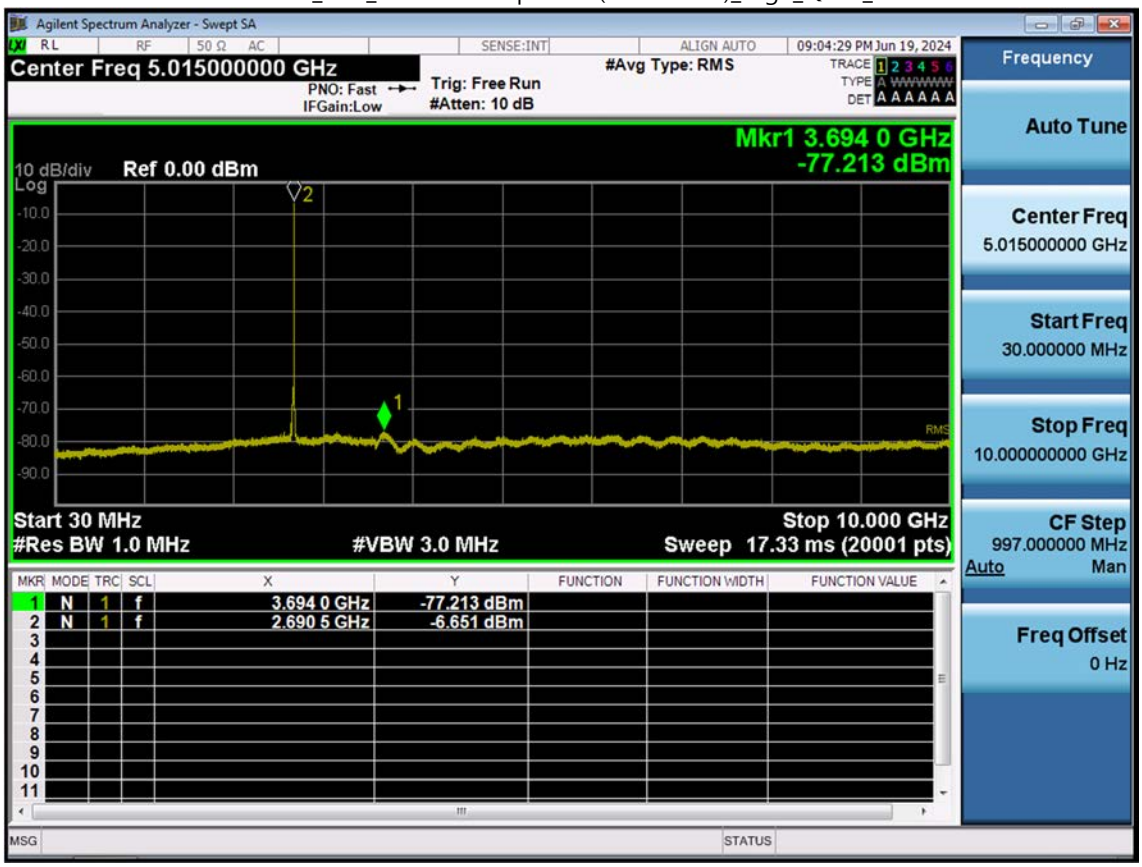
LTE B41_5 M_Conducted Spurious(30 M-10 G)_Low_QPSK_1RB



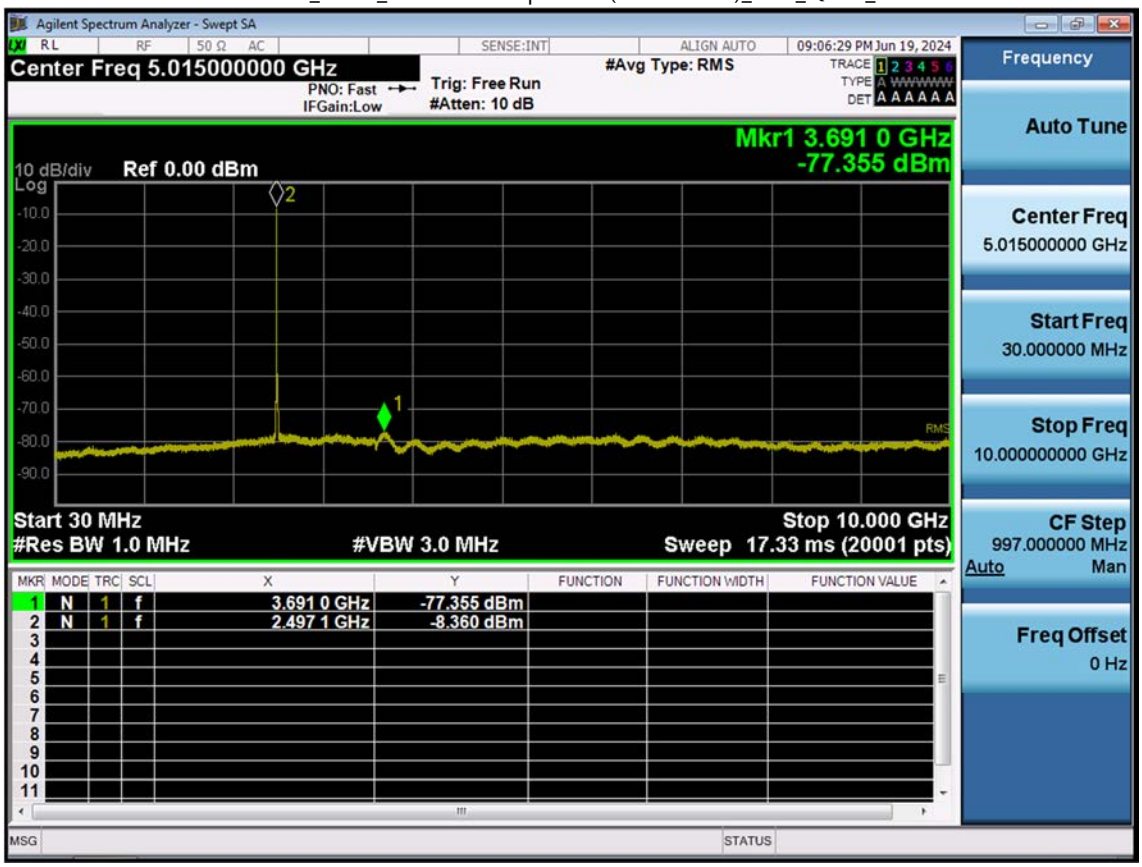
LTE B41_5 M_Conducted Spurious(30 M-10 G)_Mid_QPSK_1RB



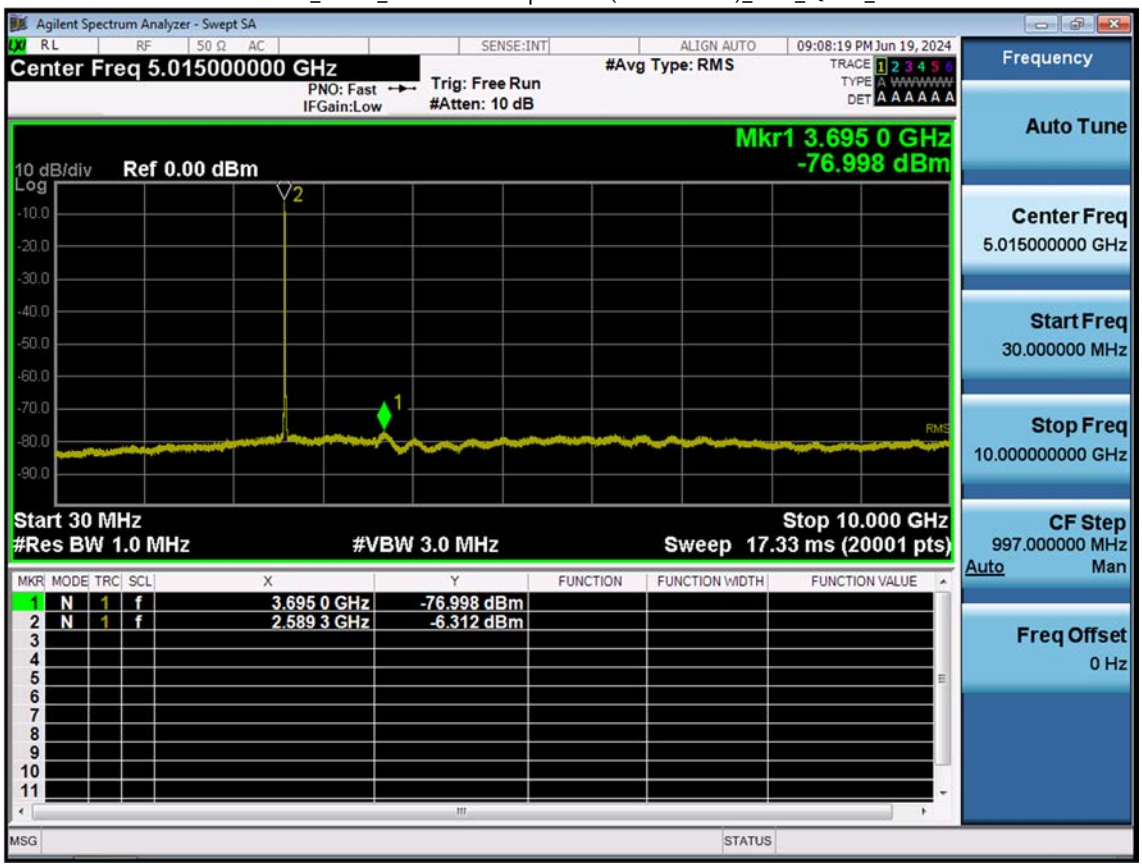
LTE B41_5 M_Conducted Spurious(30 M-10 G)_High_QPSK_1RB



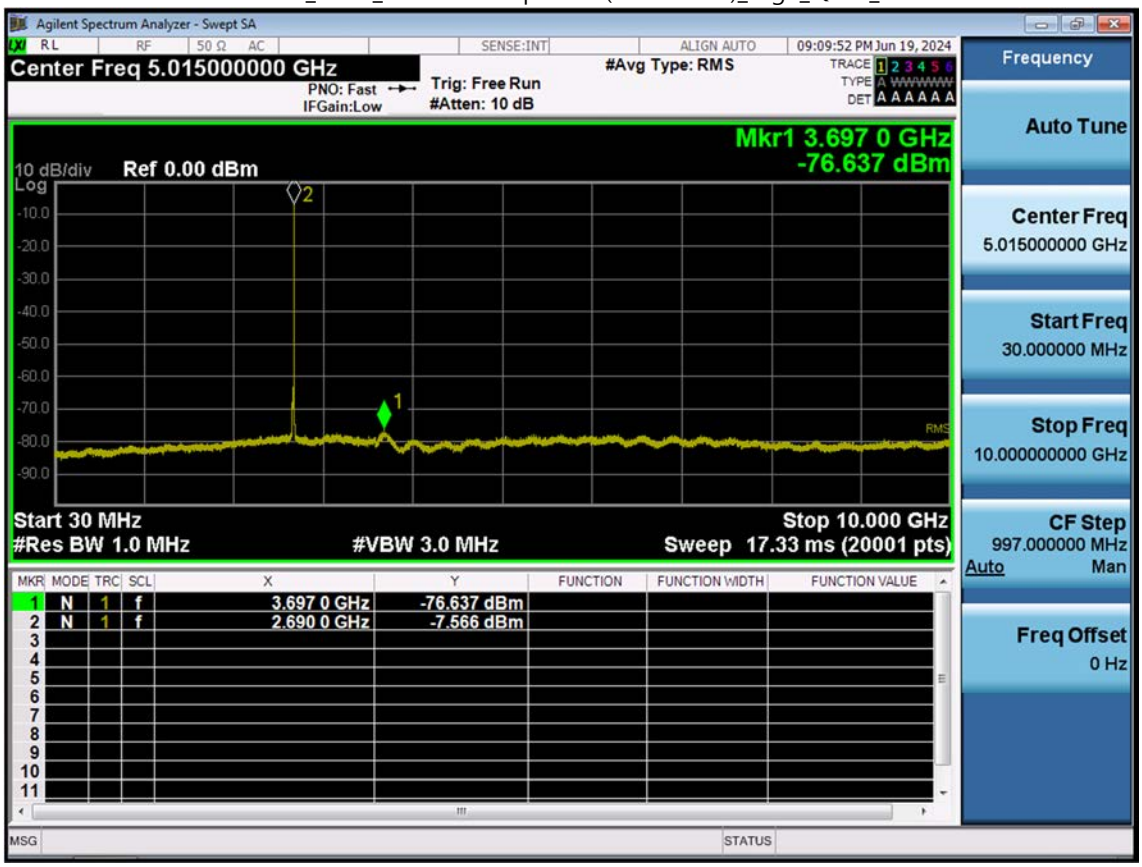
LTE B41_10 M_Conducted Spurious(30 M-10 G)_Low_QPSK_1RB



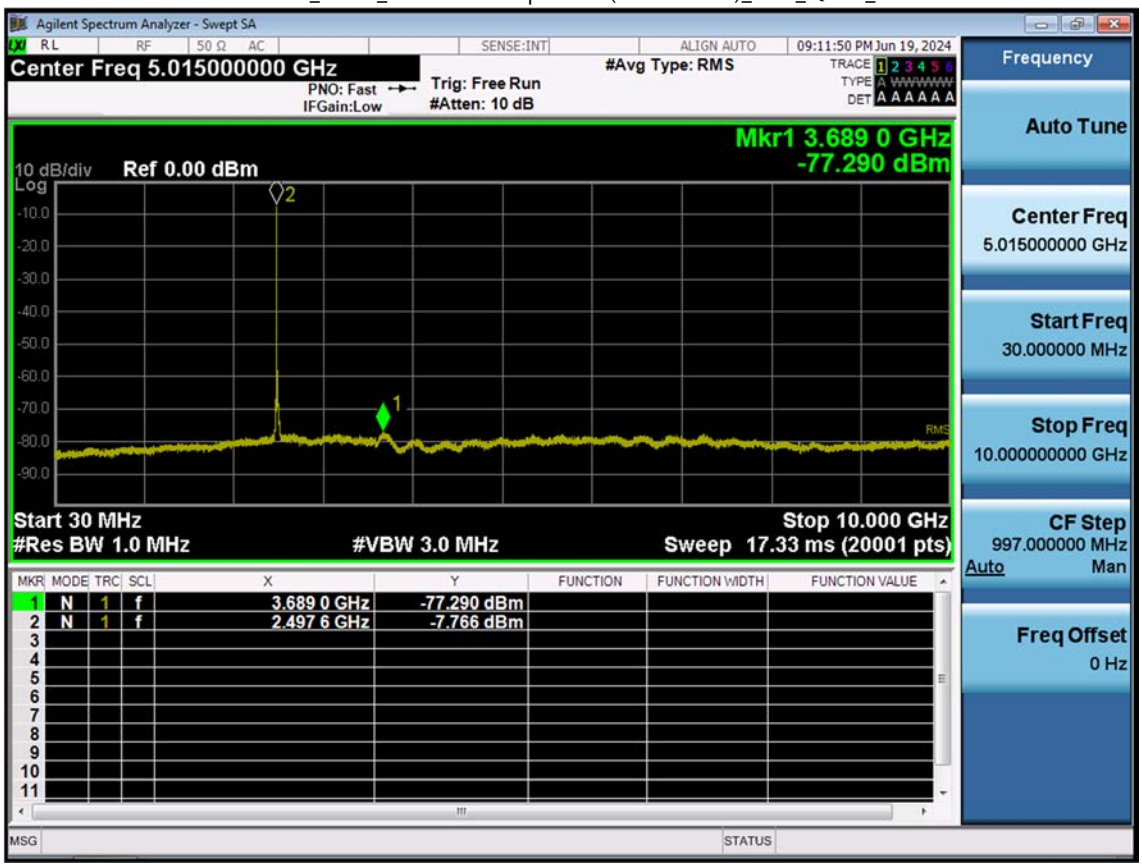
LTE B41_10 M_Conducted Spurious(30 M-10 G)_Mid_QPSK_1RB



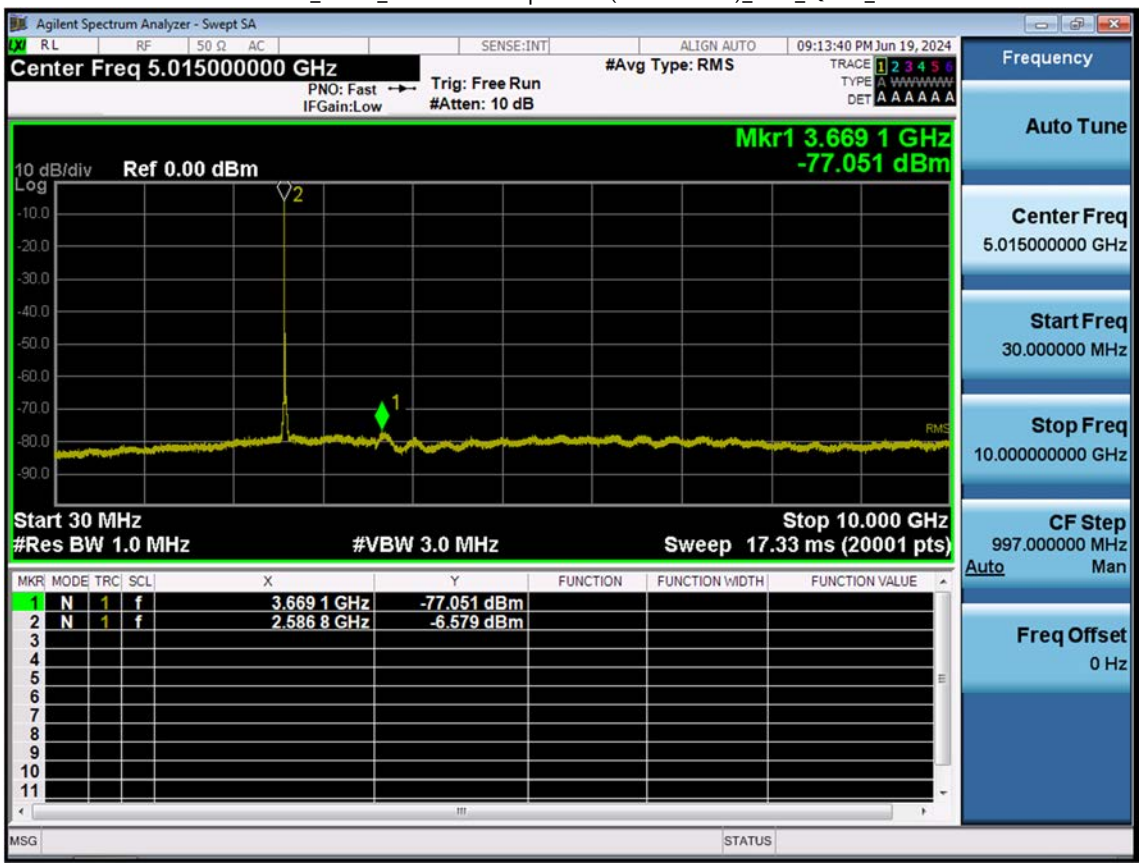
LTE B41_10 M_Conducted Spurious(30 M-10 G)_High_QPSK_1RB



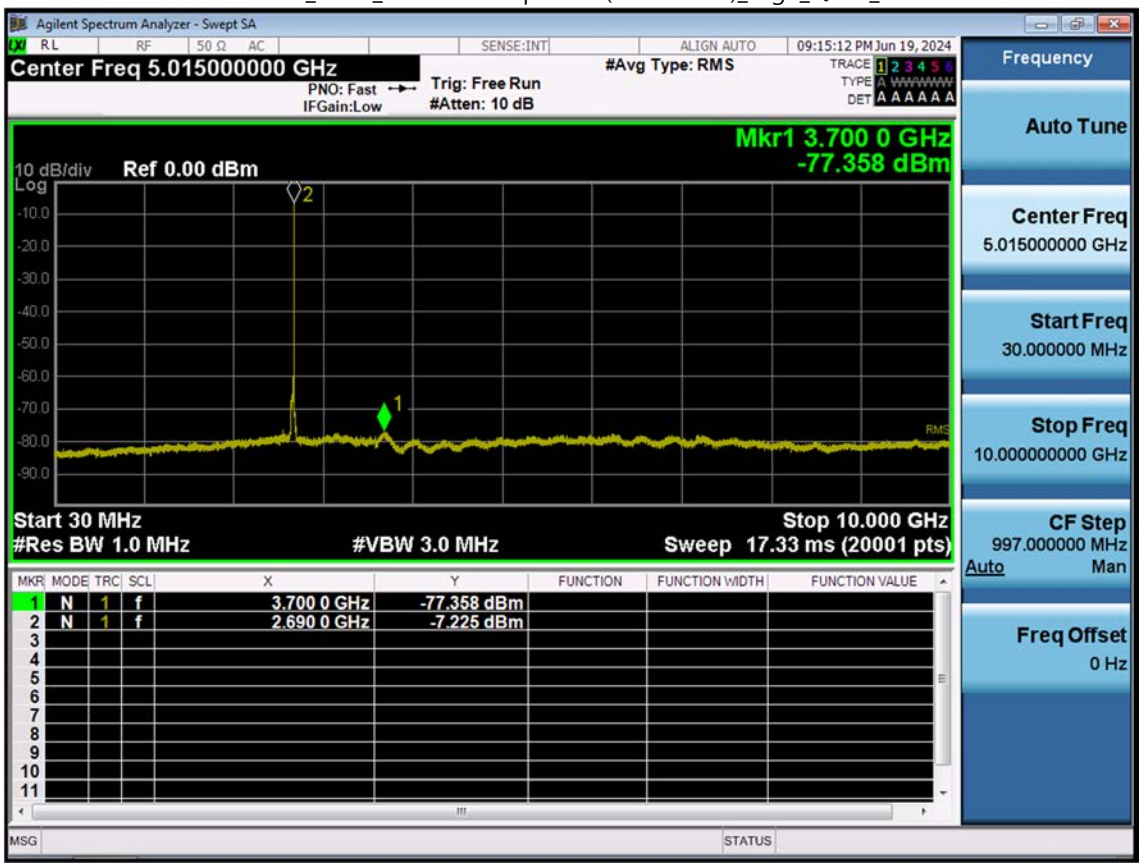
LTE B41_15 M_Conducted Spurious(30 M-10 G)_Low_QPSK_1RB



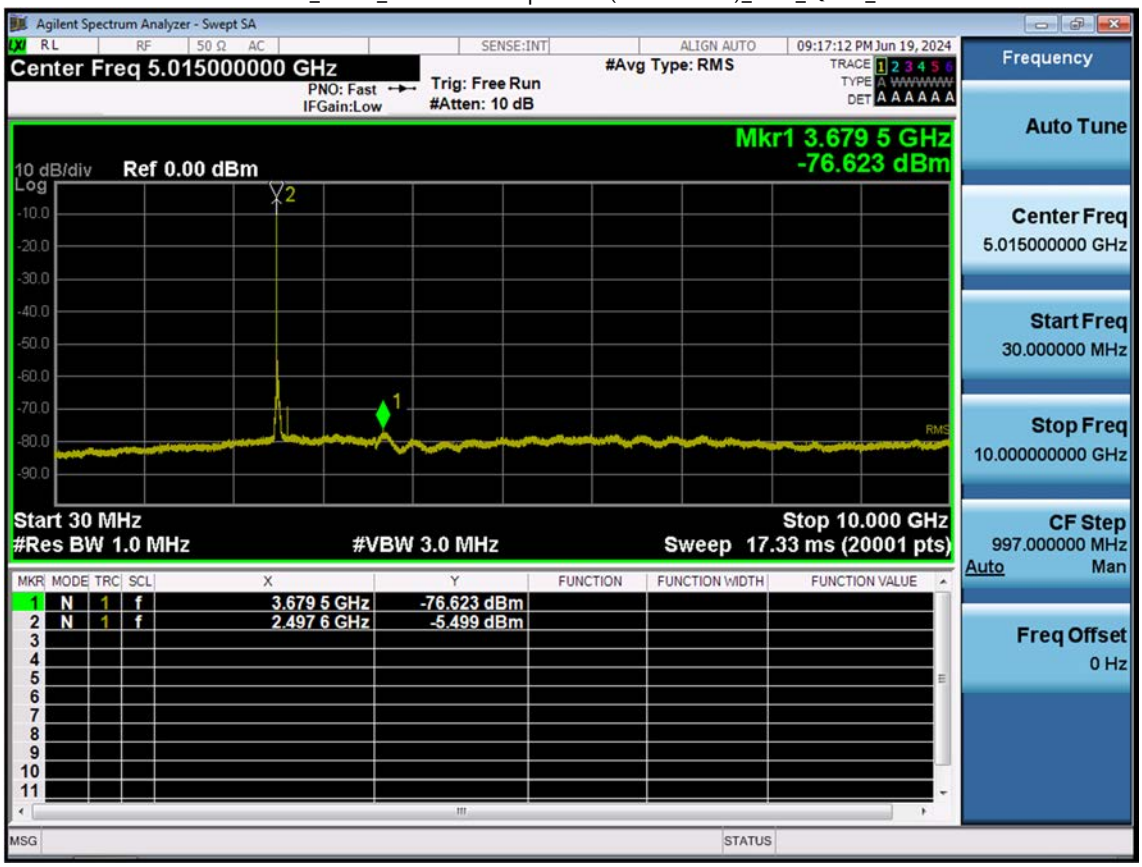
LTE B41_15 M_Conducted Spurious(30 M-10 G)_Mid_QPSK_1RB



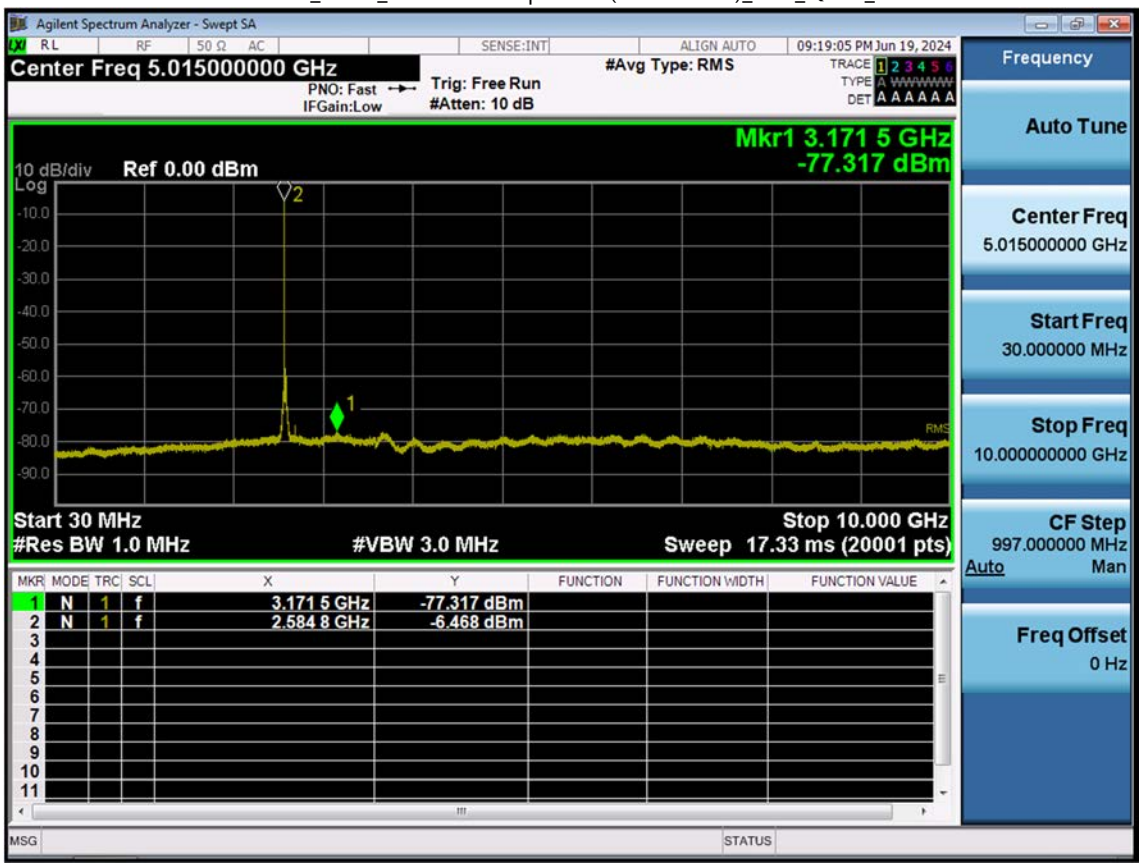
LTE B41_15 M_Conducted Spurious(30 M-10 G)_High_QPSK_1RB



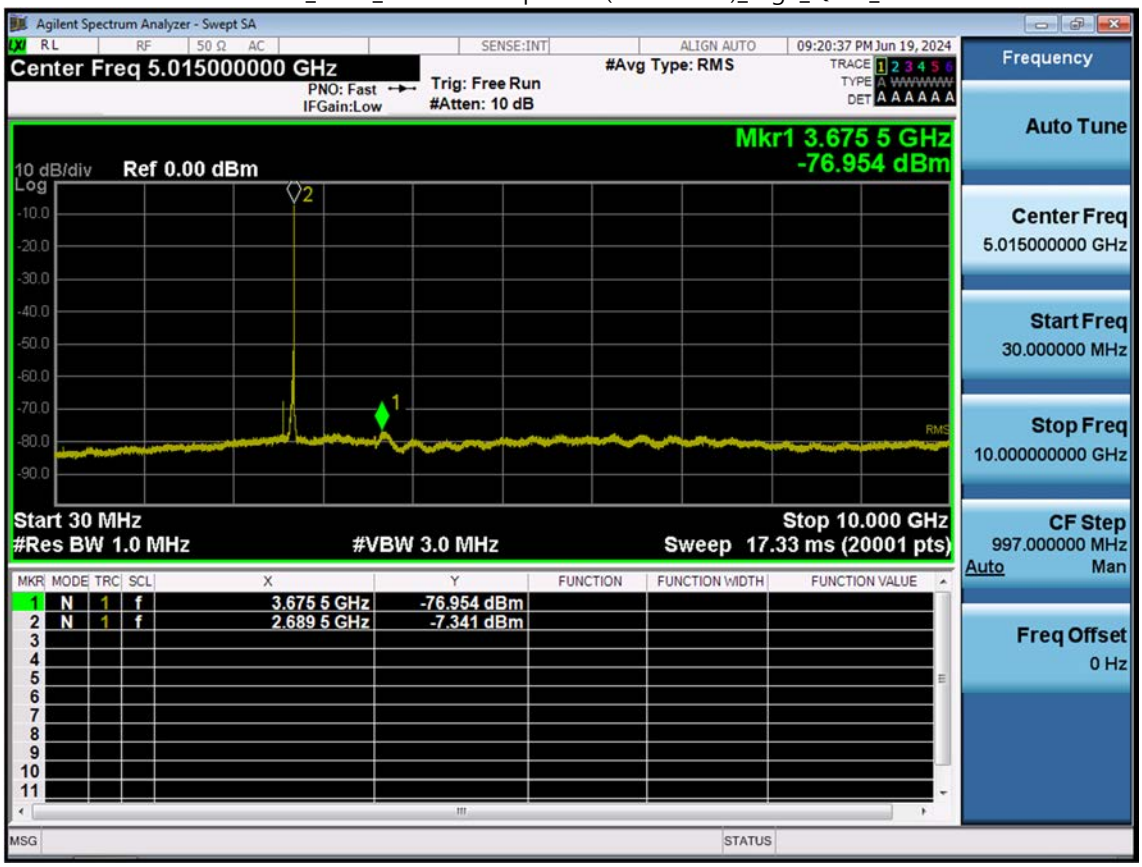
LTE B41_20 M_Conducted Spurious(30 M-10 G)_Low_QPSK_1RB



LTE B41_20 M_Conducted Spurious(30 M-10 G)_Mid_QPSK_1RB



LTE B41_20 M_Conducted Spurious(30 M-10 G)_High_QPSK_1RB



LTE B41_5 M_Conducted Spurious(Above10 G)_Low_QPSK_1RB

LTE B41_5 M_Conducted Spurious(Above10 G)_Mid_QPSK_1RB

LTE B41_5 M_Conducted Spurious(Above10 G)_High_QPSK_1RB

LTE B41_10 M_Conducted Spurious(Above10 G)_Low_QPSK_1RB

LTE B41_10 M_Conducted Spurious(Above10 G)_Mid_QPSK_1RB

LTE B41_10 M_Conducted Spurious(Above10 G)_High_QPSK_1RB

LTE B41_15 M_Conducted Spurious(Above10 G)_Low_QPSK_1RB

LTE B41_15 M_Conducted Spurious(Above10 G)_Mid_QPSK_1RB