

TEST REPORT

FCC LTE B25(2) Test for SM-P625

Certification

APPLICANT SAMSUNG Electronics Co., Ltd.

REPORT NO. HCT-RF-2402-FC006-R1

DATE OF ISSUE February 20, 2024

Tested by Jae Mun Do

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TEST REPORT

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Additional Model

-

Applicant	SAMSUNG Electronics Co., Ltd. 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Product Name	Tablet
Model Name	SM-P625
Date of Test	January 19, 2024 ~ February 07, 2024
FCC ID	A3LSMP625
Location of Test	■ Permanent Testing Lab □ On Site Testing (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggido, Republic of Korea)
FCC Classification:	PCS Licensed Transmitter (PCB)
FCC Rule Part(s):	§ 24

F-TP22-03 (Rev. 05) Page 2 of 171



REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	February 16, 2024	Initial Release
0	February 20, 2024	Deleted the Additional Model

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).

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).

F-TP22-03 (Rev. 05) Page 3 of 171



CONTENTS

1. GENERAL INFORMATION	5
1.1. MAXIMUM OUTPUT POWER	6
2. INTRODUCTION	
2.1. DESCRIPTION OF EUT	7
2.2. MEASURING INSTRUMENT CALIBRATION	7
2.3. TEST FACILITY	7
3. DESCRIPTION OF TESTS	8
3.1 TEST PROCEDURE	8
3.2 RADIATED POWER	9
3.3 RADIATED SPURIOUS EMISSIONS	10
3.4 PEAK- TO- AVERAGE RATIO	11
3.5 OCCUPIED BANDWIDTH.	13
3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL	14
3.7 BAND EDGE	15
3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE	17
3.9 WORST CASE(RADIATED TEST)	18
3.10 WORST CASE(CONDUCTED TEST)	19
4. LIST OF TEST EQUIPMENT	20
5. MEASUREMENT UNCERTAINTY	21
6. SUMMARY OF TEST RESULTS	22
7. SAMPLE CALCULATION	23
8. TEST DATA	25
8.1 EQUIVALENT ISOTROPIC RADIATED POWER	25
8.2 RADIATED SPURIOUS EMISSIONS	28
8.3 PEAK-TO-AVERAGE RATIO	29
8.4 OCCUPIED BANDWIDTH	30
8.5 CONDUCTED SPURIOUS EMISSIONS	31
8.6 BAND EDGE	31
8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE	32
9. TEST PLOTS	50
10. ANNEX A_ TEST SETUP PHOTO	171



MEASUREMENT REPORT

1. GENERAL INFORMATION

Applicant Name:	SAMSUNG Electronics Co., Ltd.
Address:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep.
Address:	of Korea
FCC ID:	A3LSMP625
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter (PCB)
FCC Rule Part(s):	§ 24
EUT Type:	Tablet
Model(s):	SM-P625
Additional Model(s)	-
	1850.7 MHz – 1914.3 MHz (LTE – Band25/2 (1.4 MHz))
	1851.5 MHz – 1913.5 MHz (LTE – Band25/2 (3 MHz))
Tu Francisco	1852.5 MHz – 1912.5 MHz (LTE – Band25/2 (5 MHz))
Tx Frequency:	1855.0 MHz – 1910.0 MHz (LTE – Band25/2 (10 MHz))
	1857.5 MHz – 1907.5 MHz (LTE – Band25/2 (15 MHz))
	1860.0 MHz – 1905.0 MHz (LTE – Band25/2 (20 MHz))
Date(s) of Tests:	January 19, 2024 ~ February 07, 2024
Serial number:	Radiated: R32WC0037FP
Serial number:	Conducted : R32WC003BFW

F-TP22-03 (Rev. 05) Page 5 of 171



1.1. MAXIMUM OUTPUT POWER

Mada	Ty Fragues ::	F		EIRP		
Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Max. Power (W)	Max. Power (dBm)	
		1M10G7D	QPSK	0.395	25.97	
LTC D 425/2/1/4\	1050 7 1014 2	1M10W7D	16QAM	0.333	25.23	
LTE – Band25/2 (1.4)	1850.7 - 1914.3	1M10W7D	64QAM	0.267	24.27	
		1M10W7D	256QAM	0.128	21.06	
		2M72G7D	QPSK	0.402	26.04	
LTC Dom d 2 E / 2 / 2 \	2 (3) 1851.5 - 1913.5	2M71W7D	16QAM	0.338	25.29	
LTE – Band25/2 (3)	1851.5 - 1913.5	2M71W7D	64QAM	0.270	24.31	
		2M71W7D	Modulation Max. Power (W) D QPSK 0.395 D 16QAM 0.333 D 64QAM 0.267 D 256QAM 0.128 D QPSK 0.402 D 16QAM 0.338 D 64QAM 0.270 D 256QAM 0.131 D QPSK 0.406 D 16QAM 0.341 D 64QAM 0.274 D 256QAM 0.130 D QPSK 0.395 D 16QAM 0.335 D 64QAM 0.265 D 256QAM 0.128 D QPSK 0.394 D 16QAM 0.333 D 64QAM 0.265 D 256QAM 0.130 D 256QAM 0.393 D 16QAM 0.324 D 256QAM 0.130 D	21.18		
	1852.5 - 1912.5	4M54G7D	QPSK	0.406	26.08	
LTC D 425 /2 /5)		4M52W7D	16QAM	0.341	25.33	
LTE – Band25/2 (5)		4M53W7D	64QAM	0.274	24.38	
		4M53W7D	256QAM	Max. Power (W) PSK 0.395 QAM 0.333 QAM 0.267 QAM 0.128 PSK 0.402 QAM 0.338 QAM 0.270 QAM 0.131 PSK 0.406 QAM 0.341 QAM 0.130 PSK 0.395 QAM 0.335 QAM 0.265 QAM 0.333 QAM 0.333 QAM 0.265 QAM 0.333 QAM 0.300 PSK 0.393 QAM 0.324 QAM 0.259	21.14	
		9M02G7D	QPSK	0.395	25.96	
LTC D 425 /2 /10)	1055 0 1010 0	9M00W7D	16QAM	0.335	25.25	
LTE – Band25/2 (10)	1855.0 - 1910.0	9M02W7D	64QAM	0.265	24.24	
		9M01W7D	256QAM	0.128	21.08	
		13M5G7D	QPSK	0.394	25.95	
LTC Domd2E/2/1E)	1857.5 - 1907.5	13M5W7D	16QAM	0.333	25.23	
LTE – Band25/2 (15)	1857.5 - 1907.5	13M5W7D	64QAM	0.265	24.24	
		13M5W7D	256QAM	0.130	21.13	
		18M0G7D	QPSK	0.393	25.94	
LTC Dom d2E/2/20)	1000 0 1005 0	18M0W7D	16QAM	0.324	25.11	
LTE – Band25/2 (20)	1860.0 - 1905.0	18M0W7D	64QAM	0.259	24.13	
		18M0W7D	256QAM	0.127	21.05	

F-TP22-03 (Rev. 05) Page 6 of 171



2. INTRODUCTION

2.1. DESCRIPTION OF EUT

The EUT was a Mobile Phone with GSM/GPRS/EGPRS/UMTS and LTE. It also supports IEEE 802.11 a/b/g/n/ac (20/40/80 MHz), Bluetooth, BT LE, iPA.

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.

F-TP22-03 (Rev. 05) Page 7 of 171



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
Band 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/	- KDB 971168 D01 v03r01 - Section 5.2 & 5.8
Effective Isotropic Radiated Power	- 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

F-TP22-03 (Rev. 05) Page 8 of 171



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
- $3.VBW \ge 3 \times RBW$
- 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;

 $P_{d (dBm)} = Pg_{(dBm)} - cable loss_{(dB)} + antenna gain_{(dB)}$

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.

F-TP22-03 (Rev. 05) Page 9 of 171



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
- $2. VBW \ge 3 \times RBW$
- 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 10th 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;

Result (dBm) = Pg (dBm) - cable loss (dB) + antenna gain (dBi)

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

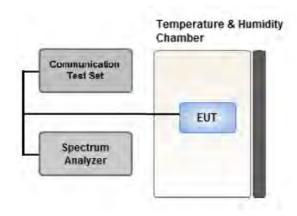
If the fundamental frequency is below 1 GHz, RF output power has been converted to EIRP.

EIRP (dBm) = ERP (dBm) + 2.15

F-TP22-03 (Rev. 05) Page 10 of 171



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 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 $_{\text{Avg}}$. Determine the P.A.R. from:

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

F-TP22-03 (Rev. 05)



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 $\geq 3 \times$ RBW.

- 1. Set the RBW \geq OBW.
- 2. Set VBW \geq 3 × RBW.
- 3. Set span $\geq 2 \times OBW$.
- 4. Sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})$.
- 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.

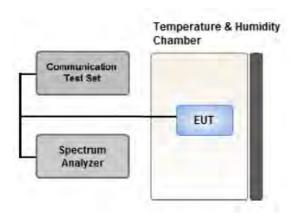
Test Settings(Average Power)

- 1. Set span to $2 \times$ to $3 \times$ the OBW.
- 2. Set RBW \geq OBW.
- 3. Set VBW \geq 3 × RBW.
- 4. Set number of measurement points in sweep $\geq 2 \times \text{span} / \text{RBW}$.
- 5. Sweep time:
 - Set $\geq [10 \times (\text{number of points in sweep}) \times (\text{transmission period})]$ 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 %.

F-TP22-03 (Rev. 05) Page 12 of 171



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

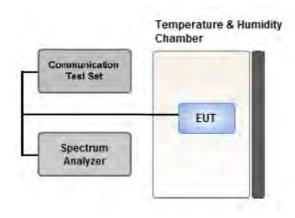
Test Settings

- 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 \geq 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

F-TP22-03 (Rev. 05) Page 13 of 171



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.

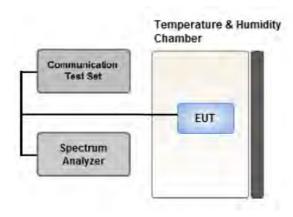
Test Settings

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

F-TP22-03 (Rev. 05)



3.7 BAND 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. RBW > 1 % of the emission bandwidth
- $4. VBW > 3 \times RBW$
- 5. Detector = RMS
- 6. Number of sweep points $\geq 2 \times \text{Span/RBW}$
- 7. Trace mode = trace average
- 8. Sweep time = auto couple
- 9. The trace was allowed to stabilize

F-TP22-03 (Rev. 05) Page 15 of 171



Test Notes

According to FCC 22.917, 24.238, 27.53 specified that power of any emission outside of The authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In

the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

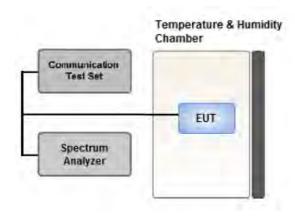
All measurements were done at 2 channels(low and high operational frequency range.) The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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.

F-TP22-03 (Rev. 05) Page 16 of 171



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 $^{\circ}$ C to +50 $^{\circ}$ C in 10 $^{\circ}$ 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 $\,^{\circ}$ 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.

F-TP22-03 (Rev. 05) Page 17 of 171



3.9 WORST CASE(RADIATED TEST)

- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- In the case of radiated spurious emissions, all bandwidth of operation were investigated and the worst case bandwidth results are reported. (Worst case: 5 MHz)
- The worst case is reported with the EUT positioning, modulations, and paging service configurations shown in the test data.
- Please refer to the table below.
- LTE BAND 25 (1850 1915 MHz) overlaps the entire frequency range of LTE BAND 2 (1850 1910 MHz) and they have the same Tune-up power.

Therefore, test data provided in this report covers BAND 2 as well as BAND 25.

- 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

- We were performed the RSE test in condition of co-location.

Mode: Stand alone, Simultaneous transmission scenarios

Worst case: Stand alone

[Worst case]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset	Axis				
		1.4	Low	1	5					
		1.7	Mid, High	1	0					
		3	Low	1	14					
		3	Mid, High	1	0	Z				
	QPSK, 16QAM, 64QAM, 256QAM	5	Low	1	24					
Effective Isotropic Radiated Power			Mid, High	1	0					
						10	Low	1	49	_
		10	Mid, High	1	0	-				
		15	Low	1	74					
			Mid, High	1	0					
		20	Low	1	99					
		20	Mid, High	1	0					
Radiated Spurious and Harmonic	OBSK	5	Low	1	24	X				
Emissions	QPSK	n 3	Mid, High	1	0	^				

F-TP22-03 (Rev. 05) Page 18 of 171



3.10 WORST CASE(CONDUCTED TEST)

- All modes of operation were investigated and the worst case configuration results are reported.
- LTE BAND 25 (1850 1915 MHz) overlaps the entire frequency range of LTE BAND 2 (1850 1910 MHz) and they have the same Tune-up power.

Therefore, test data provided in this report covers BAND 2 as well as BAND 25.

[Worst case]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset
Occupied Bandwidth	QPSK, 16QAM, 64QAM, 256QAM	1.4, 3, 5, 10, 15, 20	Mid	Full RB	0
Peak-To-Average Ratio	QPSK, 16QAM, 64QAM, 256QAM	1.4, 3, 5, 10, 15, 20	Mid	Full RB	0
		1.4	Low	1	0
		1.4	High	1	5
		3	Low	1	0
	QPSK	3	High	1	14
		5	Low	1	0
		5	High	1	24
Band Edge		10	Low	1	0
20.10.2260	ę. s	10	High	1	49
		15	Low	1	0
			High	1	74
		20	Low	1	0
		20	High	1	99
		1.4, 3, 5, 10, 15, 20	Low, High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	QPSK	1.4, 3, 5, 10, 15, 20	Low, Mid, High	1	0

F-TP22-03 (Rev. 05) Page 19 of 171



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	04/19/2024	Annual
DC Power Supply	E3632A	Agilent	MY40010147	06/23/2024	Annual
Dipole Antenna	UHAP	Schwarzbeck	557	03/09/2025	Biennial
Dipole Antenna	UHAP	Schwarzbeck	558	03/09/2025	Biennial
Chamber	SU-642	ESPEC	93008124	02/22/2024	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	04/20/2024	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/19/2024	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	03/17/2024	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	895	08/16/2024	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	1135	03/21/2024	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 GENERATOR (100 kHz ~ 40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	06/22/2024	Annual
Signal Analyzer(5 Hz ~ 40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/24/2024	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).

F-TP22-03 (Rev. 05) Page 20 of 171



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 (\pm dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	1.98 (Confidence level about 95 %, <i>k</i> =2)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.36 (Confidence level about 95 %, <i>k</i> =2)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.70 (Confidence level about 95 %, <i>k</i> =2)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.52 (Confidence level about 95 %, <i>k</i> =2)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.66 (Confidence level about 95 %, <i>k</i> =2)
Radiated Disturbance (Above 40 GHz)	5.58 (Confidence level about 95 %, <i>k</i> =2)

F-TP22-03 (Rev. 05) Page 21 of 171



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, § 24.238(a)	< 43 + 10log10 (P[Watts]) at Band Edge and for all out-of-band emissions	PASS
Conducted Output Power	§ 2.1046	N/A	See Note1
Peak- to- Average Ratio	§ 24.232(d)	<13 dB	PASS
Frequency stability / variation of ambient temperature	§ 24.235	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	§ 24.232(c)	< 2 Watts max. EIRP	PASS
Radiated Spurious and	§ 2.1053,	<43 + 10log10 (P[Watts]) for	PASS
Harmonic Emissions	§ 24.238(a)	all out-of band emissions	LH22

F-TP22-03 (Rev. 05) Page 22 of 171



7. SAMPLE CALCULATION

7.1 ERP Sample Calculation

Ch.	/ Freq.	Measured	Substitute	Ant. Gain			EF	RP
channel	Freq.(MHz)	Level (dBm)	Level (dBm)	(dBd)	C.L	Pol.	w	dBm
128	824.20	-21.37	38.40	-10.61	0.95	Н	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	Substitute	Ant. Gain			EII	RP
channel	Freq.(MHz)	Level (dBm)	Level (dBm)	(dBi)	C.L	Pol.	w	dBm
20175	1,732.50	-15.75	18.45	9.90	1.76	Н	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.

F-TP22-03 (Rev. 05) Page 23 of 171



7.3. Emission Designator

GSM Emission Designator

Emission Designator = 249KGXW

GSM BW = 249 kHz G = Phase Modulation

X = Cases not otherwise coveredW = 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)

EDGE Emission Designator

Emission Designator = 249KG7W

GSM BW = 249 kHz

G = Phase Modulation

7 = Quantized/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

F-TP22-03 (Rev. 05) Page 24 of 171



8. TEST DATA

8.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq	Mod/	Madulakian	Measured	Substitute	Ant.	6.1	Dal	Limit	EII	RP
(MHz)	Bandwidth	Modulation	Level (dBm)	Level (dBm)	Gain(dBi)	C.L	Pol	W	W	dBm
		QPSK	-17.31	16.58	10.31	2.30	٧		0.288	24.59
1850.7	1050.7	16-QAM	-18.12	15.77	10.31	2.30	٧		0.239	23.78
1650.7		64-QAM	-19.09	14.80	10.31	2.30	٧		0.191	22.81
		256-QAM	-22.22	11.67	10.31	2.30	٧		0.093	19.68
		QPSK	-16.75	17.95	10.35	2.33	٧		0.395	25.97
1002 5	LTE B25/B2	16-QAM	-17.49	17.21	10.35	2.33	V	- 2.00	0.333	25.23
1882.5	1.4 MHz	64-QAM	-18.45	16.25	10.35	2.33	٧	< 2.00	0.267	24.27
		256-QAM	-21.66	13.04	10.35	2.33	٧		0.128	21.06
		QPSK	-17.50	16.60	10.41	2.29	٧		0.296	24.72
10142		16-QAM	-18.25	15.85	10.41	2.29	٧		0.249	23.97
1914.3		64-QAM	-19.23	14.87	10.41	2.29	٧		0.199	22.99
		256-QAM	-22.42	11.68	10.41	2.29	V		0.095	19.80

Freq	Mod/	Madulatian	Measured	Substitute	Ant.	6.1	Dal	Limit	EII	RP
(MHz)	Bandwidth	Modulation	Level (dBm)	Level (dBm)	Gain(dBi)	C.L	Pol	W	W	dBm
		QPSK	-17.39	16.50	10.31	2.30	V		0.282	24.51
1051 5		16-QAM	-18.12	15.77	10.31	2.30	V		0.239	23.78
1851.5		64-QAM	-19.09	14.80	10.31	2.30	٧		0.191	22.81
		256-QAM	-22.29	11.60	10.31	2.30	٧		0.091	19.61
		QPSK	-16.68	18.02	10.35	2.33	V		0.402	26.04
1000 F	LTE B25/B2	16-QAM	-17.43	17.27	10.35	2.33	٧	-2.00	0.338	25.29
1882.5	3 MHz	64-QAM	-18.41	16.29	10.35	2.33	٧	< 2.00	0.270	24.31
		256-QAM	-21.54	13.16	10.35	2.33	٧		0.131	21.18
		QPSK	-17.22	16.88	10.41	2.29	٧		0.316	25.00
1012 5		16-QAM	-18.00	16.10	10.41	2.29	٧		0.264	24.22
1913.5		64-QAM	-18.91	15.19	10.41	2.29	٧	0.21	0.214	23.31
		256-QAM	-22.11	11.99	10.41	2.29	٧		0.103	20.11

F-TP22-03 (Rev. 05) Page 25 of 171



Freq	Mod/	Madulatian	Measured	Substitute	Ant.	C 1	Dal	Limit	EI	RP
(MHz)	Bandwidth	Modulation	Level (dBm)	Level (dBm)	Gain(dBi)	C.L	Pol	W	W	dBm
		QPSK	-17.15	16.74	10.31	2.30	٧		0.299	24.75
1052.5	1852.5	16-QAM	-17.92	15.97	10.31	2.30	٧		0.250	23.98
1852.5		64-QAM	-18.88	15.01	10.31	2.30	٧		0.200	23.02
		256-QAM	-22.05	11.84	10.31	2.30	٧		0.097	19.85
		QPSK	-16.64	18.06	10.35	2.33	٧		0.406	26.08
1002 5	LTE B25/B2	16-QAM	-17.39	17.31	10.35	2.33	٧	. 2. 00	0.341	25.33
1882.5	5 MHz	64-QAM	-18.34	16.36	10.35	2.33	٧	< 2.00	0.274	24.38
		256-QAM	-21.58	13.12	10.35	2.33	٧		0.130	21.14
		QPSK	-17.34	16.70	10.40	2.29	٧		0.303	24.81
1912.5		16-QAM	-18.08	15.95	10.41	2.29	٧		0.255	24.07
		64-QAM	-19.03	15.00	10.41	2.29	٧		0.205	23.12
		256-QAM	-22.25	11.78	10.41	2.29	٧		0.098	19.90

Freq	Mod/	Madulatian	Measured	Substitute	Ant.	C 1	Dal	Limit	EI	RP
(MHz)	Bandwidth	Modulation	Level (dBm)	Level (dBm)	Gain(dBi)	C.L	Pol	W	W	dBm
		QPSK	-17.33	16.53	10.41	2.29	٧		0.292	24.65
1855.0	16-QAM	-18.14	15.77	10.32	2.25	٧		0.242	23.84	
1855.0		64-QAM	-19.15	14.76	10.32	2.25	٧		0.192	22.83
		256-QAM	-22.31	11.60	10.32	2.25	٧		0.093	19.67
		QPSK	-16.76	17.94	10.35	2.33	٧	< 2.00	0.394	25.96
1002 5	LTE B25/B2	16-QAM	-17.47	17.23	10.35	2.33	٧		0.335	25.25
1882.5	10 MHz	64-QAM	-18.48	16.22	10.35	2.33	٧		0.265	24.24
		256-QAM	-21.64	13.06	10.35	2.33	V		0.128	21.08
		QPSK	-17.17	16.86	10.41	2.29	V		0.315	24.98
1910.0		16-QAM	-17.93	16.10	10.41	2.29	٧		0.264	24.22
		64-QAM	-18.90	15.13	10.41	2.29	٧		0.211	23.25
		256-QAM	-22.02	12.01	10.41	2.29	٧		0.103	20.13

F-TP22-03 (Rev. 05) Page 26 of 171



Freq	Mod/	NA a di il adi a ia	Measured	Substitute	Ant.	6.1	Dal	Limit	EI	RP
(MHz)	Bandwidth	Modulation	Level (dBm)	Level (dBm)	Gain(dBi)	C.L	Pol	W	W	dBm
		QPSK	-17.06	16.94	10.32	2.26	٧		0.316	25.00
1957 5	16-QAM	-17.89	16.11	10.32	2.26	٧		0.261	24.17	
1857.5		64-QAM	-18.86	15.14	10.32	2.26	٧		0.209	23.20
		256-QAM	-21.98	12.02	10.32	2.26	٧		0.102	20.08
		QPSK	-16.77	17.93	10.35	2.33	٧		0.394	25.95
1002 5	LTE B25/B2	16-QAM	-17.49	17.21	10.35	2.33	٧	. 2. 00	0.333	25.23
1882.5	15 MHz	64-QAM	-18.48	16.22	10.35	2.33	٧	< 2.00	0.265	24.24
		256-QAM	-21.59	13.11	10.35	2.33	٧		0.130	21.13
		QPSK	-17.46	16.57	10.41	2.29	٧		0.294	24.69
1907.5		16-QAM	-18.27	15.76	10.41	2.29	٧		0.244	23.88
		64-QAM	-19.25	14.78	10.41	2.29	٧		0.195	22.90
		256-QAM	-22.33	11.70	10.41	2.29	٧		0.096	19.82

Freq	Mod/	Madulatian	Measured	Substitute	Ant.	C 1	Dal	Limit	EI	RP
(MHz)	Bandwidth	Modulation	Level (dBm)	Level (dBm)	Gain(dBi)	C.L	Pol	W	W	dBm
		QPSK	-16.88	17.12	10.32	2.26	٧		0.330	25.18
1860.0	16-QAM	-17.73	16.27	10.32	2.26	V		0.271	24.33	
1860.0	.860.0	64-QAM	-18.66	15.34	10.32	2.26	٧		0.219	23.40
		256-QAM	-21.79	12.21	10.32	2.26	V		0.106	20.27
		QPSK	-16.78	17.92	10.35	2.33 V 0	0.393	25.94		
1002 5	LTE B25/B2	16-QAM	-17.61	17.09	10.35	2.33	٧	- 2.00	0.324	25.11
1882.5	20 MHz	64-QAM	-18.59	16.11	10.35	2.33	V	< 2.00	0.259	24.13
		256-QAM	-21.67	13.03	10.35	2.33	٧		0.127	21.05
		QPSK	-17.39	16.76	10.39	2.30	٧		0.306	24.86
1905.0		16-QAM	-18.20	15.95	10.39	2.30	٧	_	0.254	24.05
		64-QAM	-19.26	14.89	10.39	2.30	٧		0.199	22.99
		256-QAM	-22.30	11.85	10.39	2.30	٧		0.099	19.95

F-TP22-03 (Rev. 05) Page 27 of 171



8.2 RADIATED SPURIOUS EMISSIONS

■ OPERATING FREQUENCY: 1882.5 MHz

■ MEASURED OUTPUT POWER: 26.08 dBm = 0.406 W

■ MOD: LTE B25/B2

■ MODULATION SIGNAL: <u>5 MHz QPSK</u>

■ DISTANCE: <u>3 meters</u>

■ LIMIT: 43 + 10 log10 (W) = 39.08 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc
	3 705.00	-55.10	12.29	-60.15	3.14	Н	-51.00	77.08
26065 (1852.5)	5 557.50	-56.33	13.04	-54.71	3.92	V	-45.59	71.67
(1032.3)	7 410.00	-57.25	10.79	-47.24	4.68	V	-41.13	67.21
	3 765.00	-56.34	12.22	-60.87	3.26	Н	-51.91	77.99
26365 (1882.5)	5 647.50	-56.07	13.12	-54.12	4.03	Н	-45.03	71.11
(1002.3)	7 530.00	-57.77	10.85	-47.06	4.72	Н	-40.93	67.01
	3 825.00	-56.00	12.17	-60.48	3.28	Н	-51.60	77.68
26665 (1912.5)	5 737.50	-56.77	13.01	-54.35	4.08	V	-45.42	71.50
(1312.3)	7 650.00	-58.92	11.24	-48.53	4.75	Н	-42.04	68.12

F-TP22-03 (Rev. 05) Page 28 of 171



8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequenc y (MHz)	Modulatio n	Resource Block Size	Resource Block Offset	Data (dB)
			QPSK	6	0	5.88
	1 4 4 4 4 1		16-QAM	6	0	6.43
	1.4 MHz		64-QAM	6	0	6.60
			256-QAM	6	0	6.30
			QPSK	15	0	5.89
			16-QAM	15	0	6.54
	3 MHz		64-QAM	15	0	6.64
			256-QAM	15	0	6.39
			QPSK	25	0	5.85
	F MI I-	łz	16-QAM	25	0	6.59
	5 MHz		64-QAM	25	0	6.62
25/2		1002 5	256-QAM	25	0	6.39
25/2		1882.5	QPSK	50	0	5.98
	10 MH		16-QAM	50	0	6.49
	10 MHz		64-QAM	50	0	6.63
			256-QAM	50	0	6.36
			QPSK	75	0	5.82
	15 MHz		16-QAM	75	0	6.49
	12 MHZ		64-QAM	75	0	6.61
	20.444		256-QAM	75	0	6.35
			QPSK	100	0	5.80
			16-QAM	100	0	6.51
	20 MHz		64-QAM	100	0	6.55
			256-QAM	100	0	6.41

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 111 $^{\sim}$ 134.

F-TP22-03 (Rev. 05) Page 29 of 171



8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequenc y (MHz)	Modulatio n	Resource Block Size	Resource Block Offset	Data (MHz)
			QPSK	6	0	1.0955
	1 4 1 4 1		16-QAM	6	0	1.0969
	1.4 MHz		64-QAM	6	0	1.0998
			256-QAM	6	0	1.0991
			QPSK	15	0	2.7190
	2 1411-		16-QAM	15	0	2.7132
	3 MHz		64-QAM	15	0	2.7109
			256-QAM	15	0	2.7142
			QPSK	25	0	4.5388
			16-QAM	25	0	4.5213
	5 MHz		64-QAM	25	0	4.5344
25/2		1002 5	256-QAM	25	0	4.5305
25/2		1882.5	QPSK	50	0	9.0180
	10 MH-		16-QAM	50	0	8.9998
	10 MHz		64-QAM	50	0	9.0175
			256-QAM	50	0	9.0055
			QPSK	75	0	13.531
	15 1411-		16-QAM	75	0	13.485
	15 MHz		64-QAM	75	0	13.502
			256-QAM	75	0	13.481
			QPSK	100	0	17.993
	20 MH		16-QAM	100	0	17.984
	20 MHz		64-QAM	100	0	17.984
			256-QAM	100	0	17.954

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 87 $^{\sim}$ 110.

F-TP22-03 (Rev. 05) Page 30 of 171



8.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequenc y (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measuremen t Maximum Data (dBm)	Result (dBm)	Limit (dBm)
		3.6790	3.7114	27.976	-67.105	-39.129	
	1.4	3.6790	3.7059	27.976	-67.158	-39.182	
		3.6780	3.7354	27.976	-67.230	-39.254	
		3.6815	3.6980	27.976	-66.475	-38.499	
	3	3.7114	3.7089	27.976	-67.220	-39.244	
		3.6885	3.7034	27.976	-67.014	-39.038	
		3.7194	3.6960	27.976	-66.999	-39.023	
	5	3.7114	3.6945	27.976	-67.183	-39.207	
25/2		3.6850	3.7079	27.976	-67.154	-39.178	12.00
25/2		3.7189	3.6890	27.976	-66.952	-38.976	-13.00
	10	3.7044	3.6870	27.976	-66.911	-38.935	
		3.6785	3.7099	27.976	-67.126	-39.150	
		3.6910	3.6875	27.976	-67.149	-39.173	
	15	3.7039	3.6975	27.976	-67.038	-39.062	
	20	3.7044	3.7089	27.976	-67.090	-39.114	
		3.7169	3.7059	27.976	-66.944	-38.968	
		3.7124	3.6780	27.976	-67.266	-39.290	
		3.7005	3.7029	27.976	-67.301	-39.325	

Note:

- 1. Plots of the EUT's Conducted Spurious Emissions are shown Page 135 \sim 170.
- $2.\ Conducted\ Spurious\ Emissions\ was\ Tested\ QPSK\ Modulation,\ Resource\ Block\ Size\ 1\ and\ Resource\ Block\ Offset\ 0$
- 3. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
- 4. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 - 1	25.270
1 - 5	27.976
5 - 10	28.591
10 - 15	29.116
15 - 20	29.489
Above 20(26.5)	30.131

8.6 BAND EDGE

- Plots of the EUT's Band Edge are shown Page 51 \sim 86.

F-TP22-03 (Rev. 05) Page 31 of 171



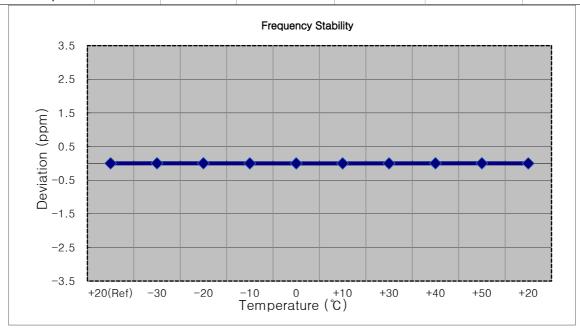
8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

■ MODE: <u>LTE B25/B2</u>
 ■ OPERATING FREQUENCY: <u>1850,700,000 Hz</u>
 ■ CHANNEL: <u>26047 (1.4 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1850 700 003	0.0	0.000 000	0.000
100 %		-30	1850 700 006	2.7	0.000 000	0.001
100 %		-20	1850 700 008	4.9	0.000 000	0.003
100 %		-10	1850 700 002	-1.8	0.000 000	-0.001
100 %	3.850	0	1850 700 001	-2.5	0.000 000	-0.001
100 %		+10	1850 700 001	-2.4	0.000 000	-0.001
100 %		+30	1850 700 001	-2.5	0.000 000	-0.001
100 %		+40	1850 700 006	2.9	0.000 000	0.002
100 %		+50	1850 700 006	2.4	0.000 000	0.001
Batt. Endpoint	3.400	+20	1850 700 001	-2.3	0.000 000	-0.001



F-TP22-03 (Rev. 05) Page 32 of 171



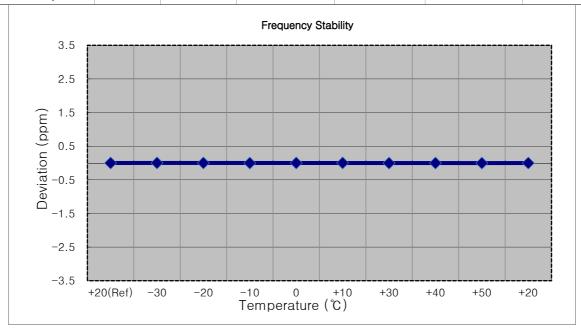
■ OPERATING FREQUENCY: 1851,500,000 Hz

■ CHANNEL: <u>26055 (3 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1851 500 004	0.0	0.000 000	0.000
100 %		-30	1851 500 008	4.0	0.000 000	0.002
100 %		-20	1851 500 008	4.0	0.000 000	0.002
100 %		-10	1851 500 001	-2.5	0.000 000	-0.001
100 %	3.850	0	1851 500 006	2.4	0.000 000	0.001
100 %		+10	1851 500 008	4.3	0.000 000	0.002
100 %		+30	1851 499 999	-4.7	0.000 000	-0.003
100 %		+40	1851 500 002	-2.0	0.000 000	-0.001
100 %		+50	1851 499 999	-4.1	0.000 000	-0.002
Batt. Endpoint	3.400	+20	1851 500 001	-2.1	0.000 000	-0.001



F-TP22-03 (Rev. 05) Page 33 of 171



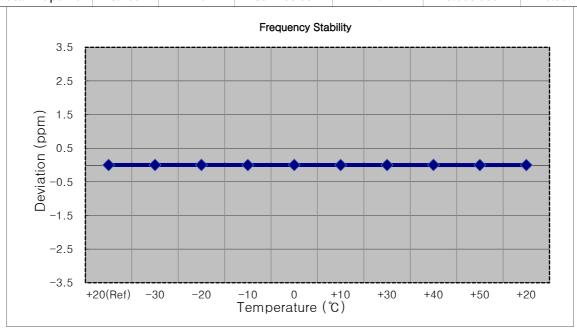
■ OPERATING FREQUENCY: 1852,500,000 Hz

■ CHANNEL: <u>26065 (5 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	- ppm
100 %		+20(Ref)	1852 499 997	0.0	0.000 000	0.000
100 %		-30	1852 499 999	2.4	0.000 000	0.001
100 %	3.850	-20	1852 500 001	4.2	0.000 000	0.002
100 %		-10	1852 499 994	-2.6	0.000 000	-0.001
100 %		0	1852 500 000	3.4	0.000 000	0.002
100 %		+10	1852 499 994	-2.6	0.000 000	-0.001
100 %		+30	1852 499 994	-3.1	0.000 000	-0.002
100 %		+40	1852 500 001	4.1	0.000 000	0.002
100 %		+50	1852 499 994	-2.9	0.000 000	-0.002
Batt. Endpoint	3.400	+20	1852 499 994	-2.7	0.000 000	-0.001



F-TP22-03 (Rev. 05) Page 34 of 171



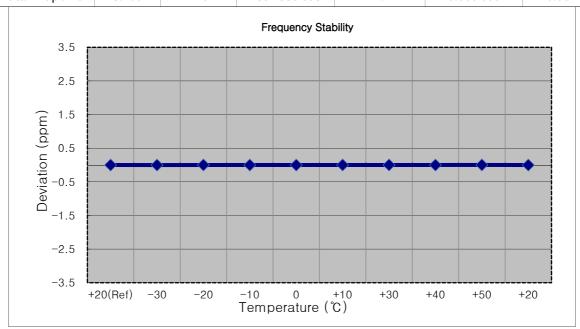
■ OPERATING FREQUENCY: 1855,000,000 Hz

■ CHANNEL: <u>26090 (10 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	- ppm
100 %		+20(Ref)	1854 999 995	0.0	0.000 000	0.000
100 %		-30	1854 999 992	-3.7	0.000 000	-0.002
100 %	3.850	-20	1854 999 999	3.4	0.000 000	0.002
100 %		-10	1854 999 993	-2.3	0.000 000	-0.001
100 %		0	1854 999 992	-3.1	0.000 000	-0.002
100 %		+10	1854 999 998	2.9	0.000 000	0.002
100 %		+30	1854 999 998	2.5	0.000 000	0.001
100 %		+40	1854 999 993	-2.3	0.000 000	-0.001
100 %		+50	1854 999 999	3.8	0.000 000	0.002
Batt. Endpoint	3.400	+20	1854 999 993	-2.7	0.000 000	-0.001



F-TP22-03 (Rev. 05) Page 35 of 171



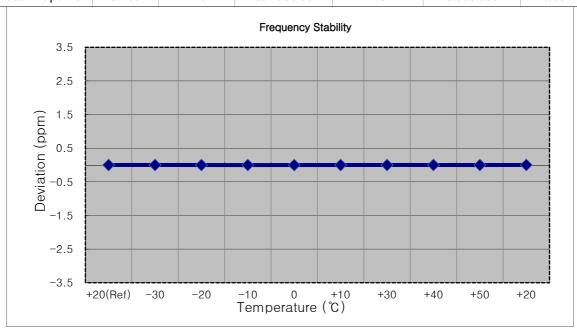
■ OPERATING FREQUENCY: 1857,500,000 Hz

■ CHANNEL: <u>26115 (15 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	- ppm
100 %		+20(Ref)	1857 500 005	0.0	0.000 000	0.000
100 %		-30	1857 500 006	1.6	0.000 000	0.001
100 %	3.850	-20	1857 500 003	-1.8	0.000 000	-0.001
100 %		-10	1857 500 003	-1.8	0.000 000	-0.001
100 %		0	1857 500 002	-2.9	0.000 000	-0.002
100 %		+10	1857 500 003	-1.6	0.000 000	-0.001
100 %		+30	1857 500 003	-1.6	0.000 000	-0.001
100 %		+40	1857 500 007	2.8	0.000 000	0.002
100 %		+50	1857 500 002	-2.2	0.000 000	-0.001
Batt. Endpoint	3.400	+20	1857 500 007	2.8	0.000 000	0.002



F-TP22-03 (Rev. 05) Page 36 of 171



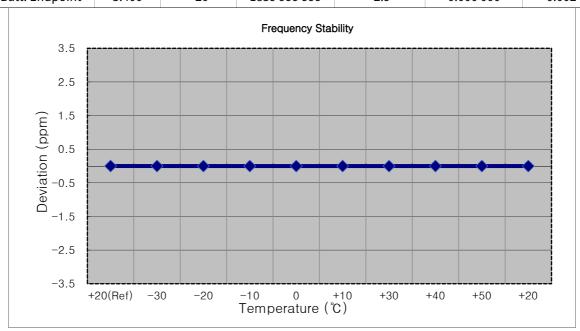
■ OPERATING FREQUENCY: 1860,000,000 Hz

■ CHANNEL: <u>26140 (20 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1860 000 002	0.0	0.000 000	0.000
100 %		-30	1860 000 000	-1.7	0.000 000	-0.001
100 %		-20	1860 000 000	-2.0	0.000 000	-0.001
100 %		-10	1859 999 999	-2.6	0.000 000	-0.001
100 %	3.850	0	1859 999 998	-3.4	0.000 000	-0.002
100 %		+10	1859 999 999	-2.2	0.000 000	-0.001
100 %		+30	1859 999 997	-4.5	0.000 000	-0.002
100 %	_	+40	1860 000 000	-1.8	0.000 000	-0.001
100 %		+50	1859 999 998	-3.1	0.000 000	-0.002
Batt. Endpoint	3.400	+20	1859 999 999	-2.9	0.000 000	-0.002



F-TP22-03 (Rev. 05) Page 37 of 171



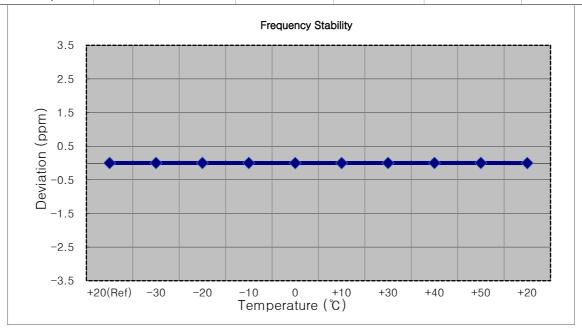
■ OPERATING FREQUENCY: 1882,500,000 Hz

■ CHANNEL: <u>26365 (1.4 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1882 500 003	0.0	0.000 000	0.000
100 %		-30	1882 500 006	2.6	0.000 000	0.001
100 %		-20	1882 500 006	2.3	0.000 000	0.001
100 %		-10	1882 500 007	3.2	0.000 000	0.002
100 %	3.850	0	1882 500 001	-2.0	0.000 000	-0.001
100 %		+10	1882 500 001	-2.6	0.000 000	-0.001
100 %		+30	1882 500 005	1.9	0.000 000	0.001
100 %		+40	1882 500 006	2.9	0.000 000	0.002
100 %		+50	1882 500 006	2.4	0.000 000	0.001
Batt. Endpoint	3.400	+20	1882 500 001	-2.7	0.000 000	-0.001



F-TP22-03 (Rev. 05) Page 38 of 171



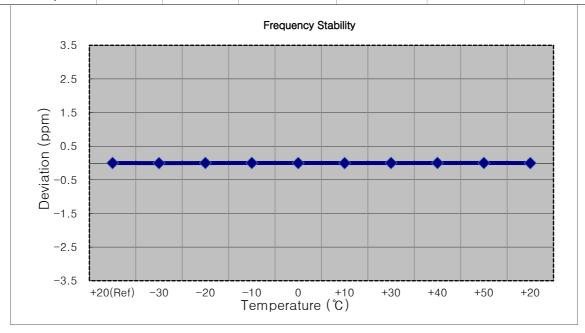
■ OPERATING FREQUENCY: 1882,500,000 Hz

■ CHANNEL: <u>26365 (3 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1882 499 996	0.0	0.000 000	0.000
100 %		-30	1882 499 990	-5.7	0.000 000	-0.003
100 %		-20	1882 499 999	3.0	0.000 000	0.002
100 %		-10	1882 499 998	2.6	0.000 000	0.001
100 %	3.850	0	1882 499 993	-2.8	0.000 000	-0.001
100 %		+10	1882 499 991	-4.7	0.000 000	-0.002
100 %		+30	1882 499 998	1.9	0.000 000	0.001
100 %		+40	1882 500 000	4.5	0.000 000	0.002
100 %		+50	1882 499 999	3.0	0.000 000	0.002
Batt. Endpoint	3.400	+20	1882 499 991	-4.5	0.000 000	-0.002



F-TP22-03 (Rev. 05) Page 39 of 171



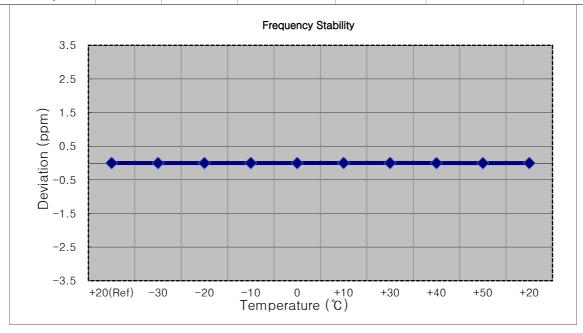
■ OPERATING FREQUENCY: 1882,500,000 Hz

■ CHANNEL: <u>26365 (5 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1882 500 005	0.0	0.000 000	0.000
100 %		-30	1882 500 003	-2.0	0.000 000	-0.001
100 %		-20	1882 500 002	-3.3	0.000 000	-0.002
100 %		-10	1882 500 007	1.7	0.000 000	0.001
100 %	3.850	0	1882 500 001	-4.1	0.000 000	-0.002
100 %		+10	1882 500 008	3.1	0.000 000	0.002
100 %		+30	1882 500 009	3.5	0.000 000	0.002
100 %		+40	1882 500 002	-2.8	0.000 000	-0.001
100 %		+50	1882 500 001	-4.4	0.000 000	-0.002
Batt. Endpoint	3.400	+20	1882 500 002	-2.8	0.000 000	-0.001



F-TP22-03 (Rev. 05) Page 40 of 171



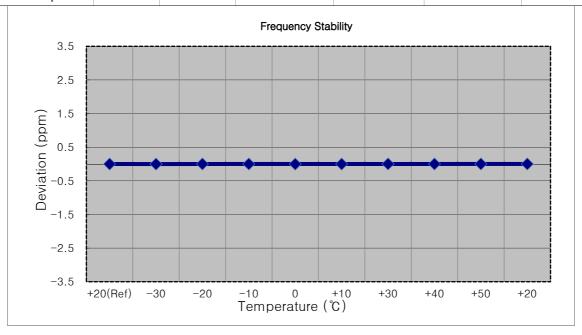
■ OPERATING FREQUENCY: 1882,500,000 Hz

■ CHANNEL: <u>26365 (10 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1882 499 995	0.0	0.000 000	0.000
100 %		-30	1882 499 992	-3.1	0.000 000	-0.002
100 %		-20	1882 499 998	3.0	0.000 000	0.002
100 %		-10	1882 499 998	3.1	0.000 000	0.002
100 %	3.850	0	1882 499 993	-2.7	0.000 000	-0.001
100 %		+10	1882 499 993	-2.3	0.000 000	-0.001
100 %		+30	1882 499 999	3.7	0.000 000	0.002
100 %		+40	1882 499 998	3.1	0.000 000	0.002
100 %		+50	1882 500 000	4.2	0.000 000	0.002
Batt. Endpoint	3.400	+20	1882 499 998	2.7	0.000 000	0.001



F-TP22-03 (Rev. 05) Page 41 of 171



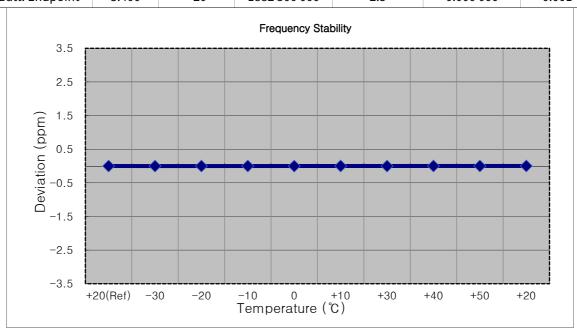
■ OPERATING FREQUENCY: 1882,500,000 Hz

■ CHANNEL: <u>26365 (15 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1882 499 997	0.0	0.000 000	0.000
100 %		-30	1882 499 994	-3.4	0.000 000	-0.002
100 %		-20	1882 499 995	-2.3	0.000 000	-0.001
100 %		-10	1882 499 999	1.5	0.000 000	0.001
100 %	3.850	0	1882 499 995	-2.5	0.000 000	-0.001
100 %		+10	1882 499 999	2.2	0.000 000	0.001
100 %		+30	1882 499 994	-3.7	0.000 000	-0.002
100 %		+40	1882 500 000	2.5	0.000 000	0.001
100 %		+50	1882 499 999	1.9	0.000 000	0.001
Batt. Endpoint	3.400	+20	1882 500 000	2.5	0.000 000	0.001



F-TP22-03 (Rev. 05) Page 42 of 171



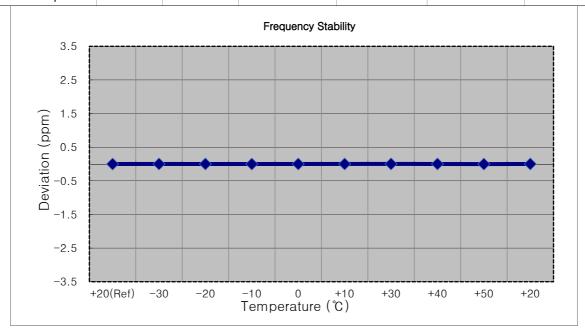
■ OPERATING FREQUENCY: 1882,500,000 Hz

■ CHANNEL: <u>26365 (20 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1882 500 003	0.0	0.000 000	0.000
100 %		-30	1882 500 005	2.6	0.000 000	0.001
100 %		-20	1882 500 005	2.3	0.000 000	0.001
100 %		-10	1882 500 001	-1.6	0.000 000	-0.001
100 %	3.850	0	1882 500 005	2.0	0.000 000	0.001
100 %		+10	1882 500 005	2.5	0.000 000	0.001
100 %		+30	1882 500 007	4.2	0.000 000	0.002
100 %		+40	1882 500 007	4.0	0.000 000	0.002
100 %		+50	1882 499 998	-4.7	0.000 000	-0.002
Batt. Endpoint	3.400	+20	1882 500 005	2.2	0.000 000	0.001



F-TP22-03 (Rev. 05) Page 43 of 171



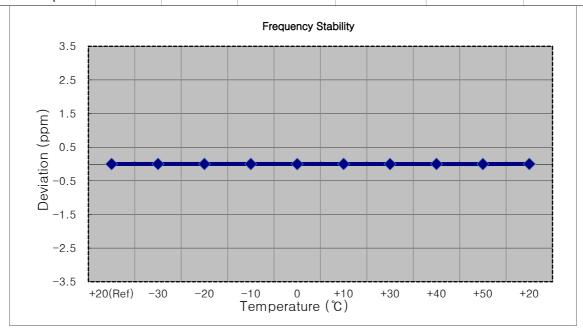
■ OPERATING FREQUENCY: 1914,300,000 Hz

■ CHANNEL: <u>26683 (1.4 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation				
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm			
100 %		+20(Ref)	1914 299 998	0.0	0.000 000	0.000			
100 %		-30	1914 300 001	3.4	0.000 000	0.002			
100 %		-20	1914 300 001	3.4	0.000 000	0.002			
100 %		-10	1914 300 001	3.3	0.000 000	0.002			
100 %	3.850	0	1914 299 994	-3.7	0.000 000	-0.002			
100 %		+10	1914 300 001	3.3	0.000 000	0.002			
100 %		+30	1914 299 995	-2.7	0.000 000	-0.001			
100 %		+40	1914 300 001	3.2	0.000 000	0.002			
100 %		+50	1914 299 995	-2.9	0.000 000	-0.002			
Batt. Endpoint	3.400	+20	1914 300 001	3.3	0.000 000	0.002			



F-TP22-03 (Rev. 05) Page 44 of 171



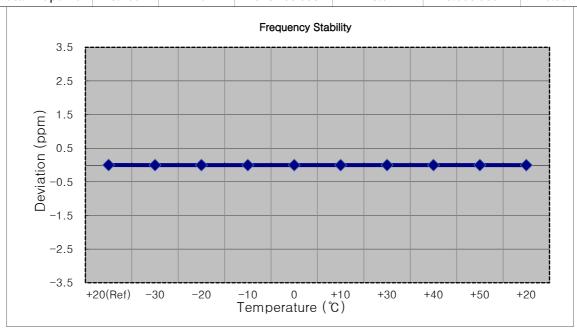
■ OPERATING FREQUENCY: 1913,500,000 Hz

■ CHANNEL: <u>26675 (3 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1913 500 006	0.0	0.000 000	0.000
100 %		-30	1913 500 000	-6.8	0.000 000	-0.004
100 %		-20	1913 500 002	-4.2	0.000 000	-0.002
100 %		-10	1913 499 999	-7.7	0.000 000	-0.004
100 %	3.850	0	1913 500 000	-6.6	0.000 000	-0.003
100 %		+10	1913 499 999	-7.3	0.000 000	-0.004
100 %		+30	1913 500 001	-5.5	0.000 000	-0.003
100 %		+40	1913 500 001	-5.9	0.000 000	-0.003
100 %		+50	1913 500 001	-5.9	0.000 000	-0.003
Batt. Endpoint	3.400	+20	1913 499 998	-8.5	0.000 000	-0.004



F-TP22-03 (Rev. 05) Page 45 of 171



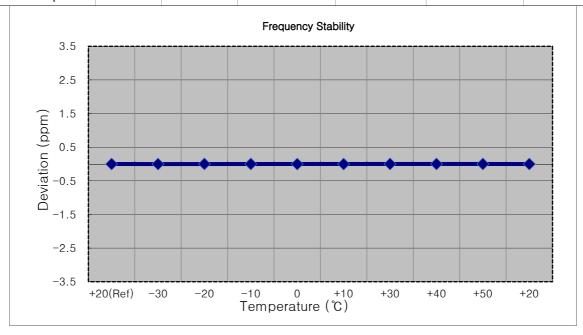
■ OPERATING FREQUENCY: 1912,500,000 Hz

■ CHANNEL: <u>26665 (5 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1912 500 002	0.0	0.000 000	0.000
100 %		-30	1912 499 999	-3.1	0.000 000	-0.002
100 %		-20	1912 500 006	4.0	0.000 000	0.002
100 %		-10	1912 500 004	2.5	0.000 000	0.001
100 %	3.850	0	1912 499 999	-2.6	0.000 000	-0.001
100 %		+10	1912 499 999	-2.9	0.000 000	-0.002
100 %		+30	1912 500 005	3.1	0.000 000	0.002
100 %		+40	1912 500 004	2.4	0.000 000	0.001
100 %		+50	1912 500 005	2.8	0.000 000	0.001
Batt. Endpoint	3.400	+20	1912 500 000	-2.1	0.000 000	-0.001



F-TP22-03 (Rev. 05) Page 46 of 171



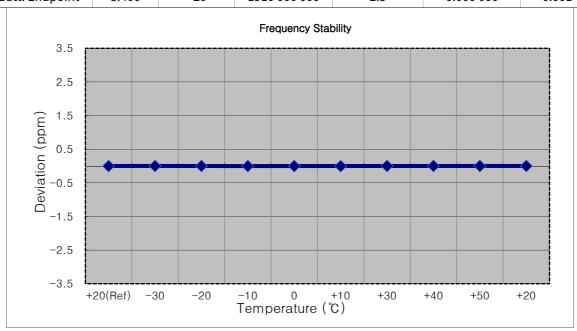
■ OPERATING FREQUENCY: 1910,000,000 Hz

■ CHANNEL: <u>26640 (10 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp. Fre	Frequency	Frequency Frequency (Hz) Error (Hz)	Deviation (%)	ppm
(%)	(VDC)		(Hz)			
100 %		+20(Ref)	1909 999 998	0.0	0.000 000	0.000
100 %		-30	1910 000 001	3.1	0.000 000	0.002
100 %		-20	1910 000 001	3.0	0.000 000	0.002
100 %		-10	1909 999 994	-3.5	0.000 000	-0.002
100 %	3.850	0	1909 999 994	-3.7	0.000 000	-0.002
100 %		+10	1909 999 993	-4.8	0.000 000	-0.003
100 %		+30	1910 000 000	2.2	0.000 000	0.001
100 %		+40	1910 000 001	3.0	0.000 000	0.002
100 %		+50	1910 000 001	3.3	0.000 000	0.002
Batt. Endpoint	3.400	+20	1910 000 000	2.5	0.000 000	0.001



F-TP22-03 (Rev. 05) Page 47 of 171



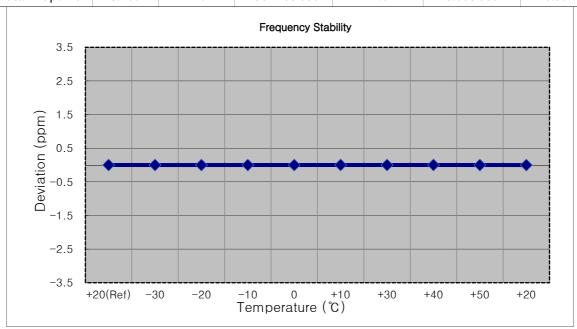
■ OPERATING FREQUENCY: 1907,500,000 Hz

■ CHANNEL: <u>26615 (15 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100 %		+20(Ref)	1907 499 997	0.0	0.000 000	0.000
100 %		-30	1907 499 995	-2.3	0.000 000	-0.001
100 %		-20	1907 499 995	-2.3	0.000 000	-0.001
100 %		-10	1907 499 995	-2.0	0.000 000	-0.001
100 %	3.850	0	1907 499 995	-2.0	0.000 000	-0.001
100 %		+10	1907 500 000	2.9	0.000 000	0.002
100 %		+30	1907 499 995	-2.2	0.000 000	-0.001
100 %		+40	1907 500 000	2.6	0.000 000	0.001
100 %		+50	1907 499 996	-1.4	0.000 000	-0.001
Batt. Endpoint	3.400	+20	1907 499 995	-2.6	0.000 000	-0.001



F-TP22-03 (Rev. 05) Page 48 of 171



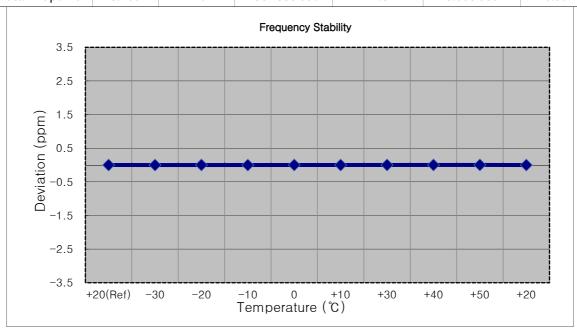
■ OPERATING FREQUENCY: 1905,000,000 Hz

■ CHANNEL: <u>26590 (20 MHz)</u>

■ REFERENCE VOLTAGE: 3.850 VDC

■ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	
100 %	3.850	+20(Ref)	1904 999 997	0.0	0.000 000	0.000
100 %		-30	1904 999 995	-2.6	0.000 000	-0.001
100 %		-20	1905 000 001	3.3	0.000 000	0.002
100 %		-10	1904 999 992	-4.9	0.000 000	-0.003
100 %		0	1905 000 000	3.1	0.000 000	0.002
100 %		+10	1904 999 995	-2.0	0.000 000	-0.001
100 %		+30	1905 000 000	2.3	0.000 000	0.001
100 %		+40	1905 000 000	2.7	0.000 000	0.001
100 %		+50	1905 000 001	3.8	0.000 000	0.002
Batt. Endpoint	3.400	+20	1904 999 996	-1.8	0.000 000	-0.001



F-TP22-03 (Rev. 05) Page 49 of 171



9. TEST PLOTS

F-TP22-03 (Rev. 05) Page 50 of 171



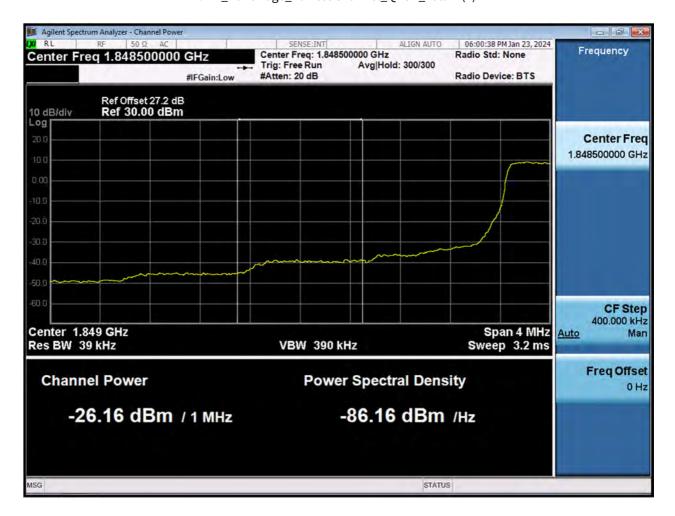
BW1.4 M_BandEdge_Lowest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 51 of 171



BW1.4 M_BandEdge_Lowest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 52 of 171



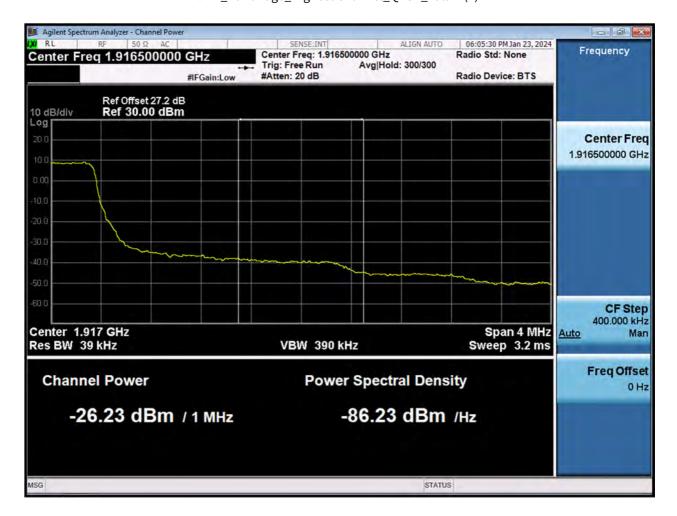
BW1.4 M_BandEdge_Highest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 53 of 171



BW1.4 M_BandEdge_Highest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 54 of 171



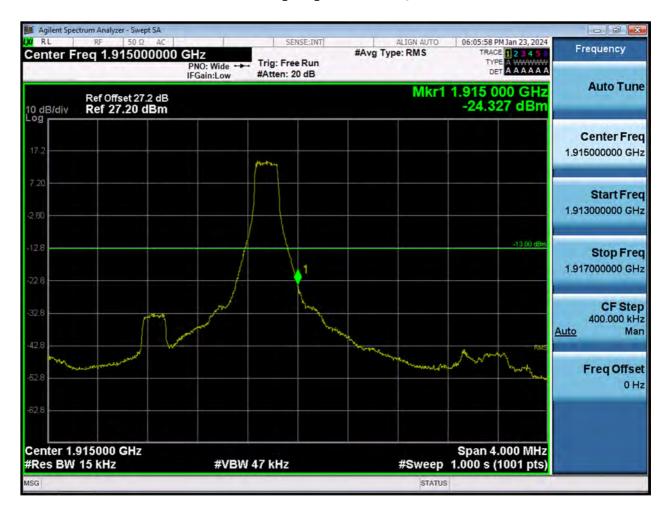
BW1.4 M_BandEdge_Lowest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 55 of 171



BW1.4 M_BandEdge_Highest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 56 of 171



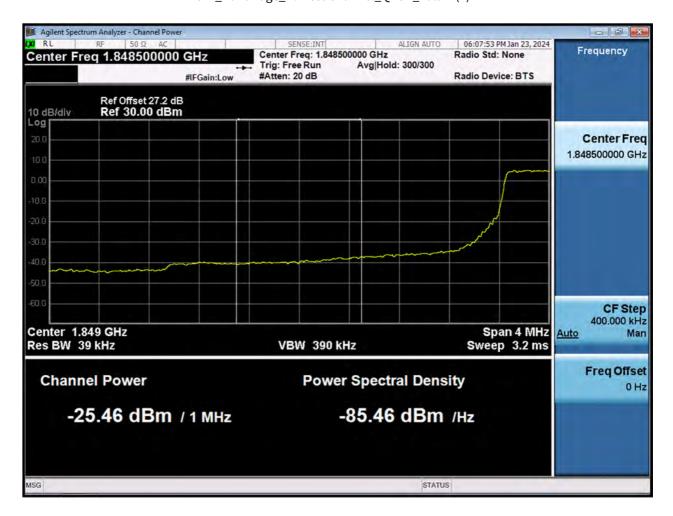
BW3 M_BandEdge_Lowest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 57 of 171



BW3 M_BandEdge_Lowest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 58 of 171



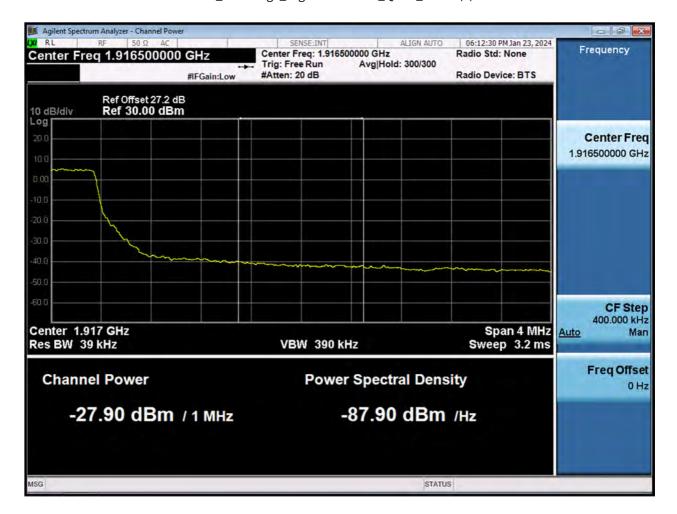
BW3 M_BandEdge_Highest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 59 of 171



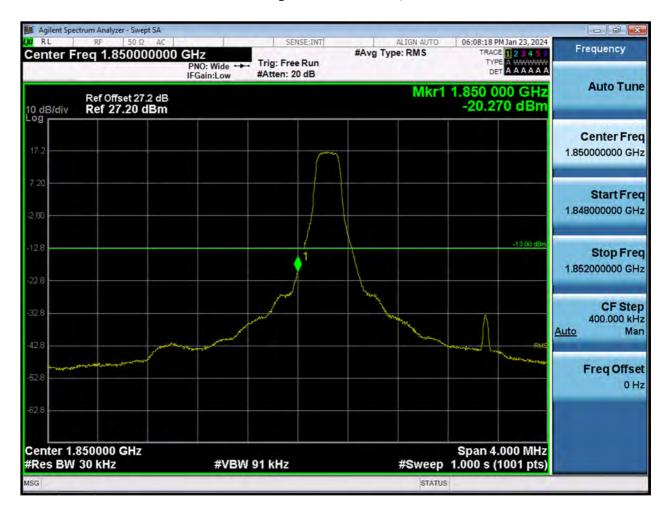
BW3 M_BandEdge_Highest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 60 of 171



BW3 M_BandEdge_Lowest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 61 of 171



BW3 M_BandEdge_Highest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 62 of 171



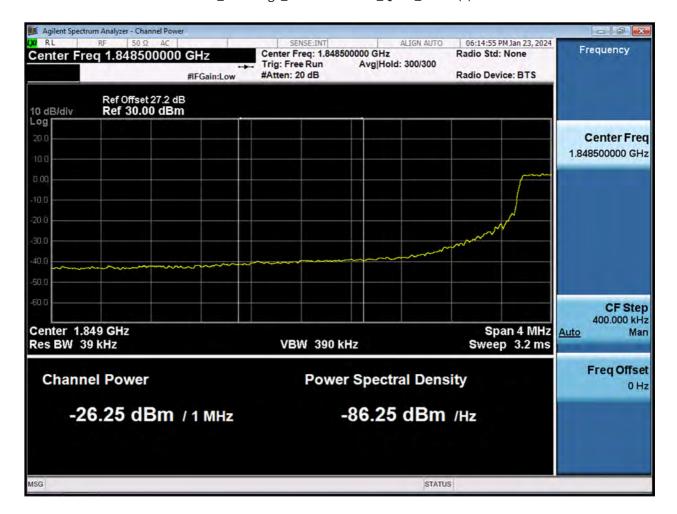
BW5 M_BandEdge_Lowest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 63 of 171



BW5 M_BandEdge_Lowest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 64 of 171



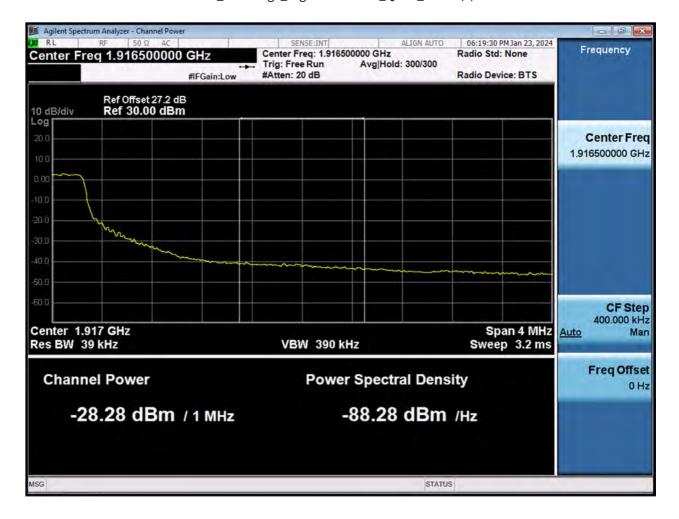
BW5 M_BandEdge_Highest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 65 of 171



BW5 M_BandEdge_Highest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 66 of 171



BW5 M_BandEdge_Lowest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 67 of 171



BW5 M_BandEdge_Highest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 68 of 171



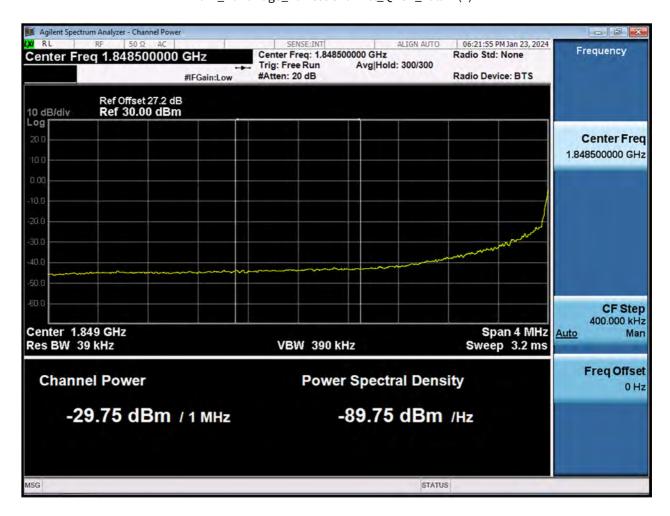
BW10 M_BandEdge_Lowest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 69 of 171



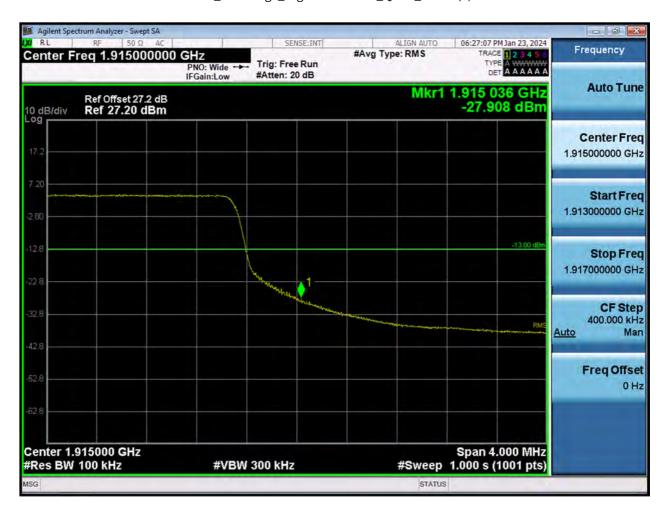
BW10 M_BandEdge_Lowest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 70 of 171



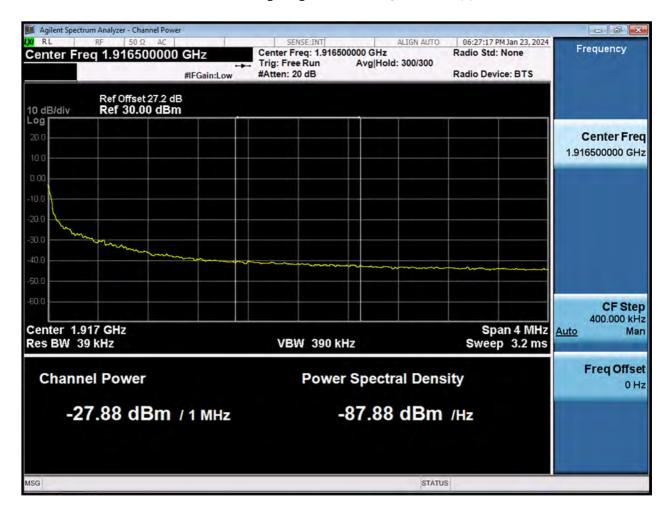
BW10 M_BandEdge_Highest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 71 of 171



BW10 M_BandEdge_Highest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 72 of 171



BW10 M_BandEdge_Lowest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 73 of 171



BW10 M_BandEdge_Highest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 74 of 171



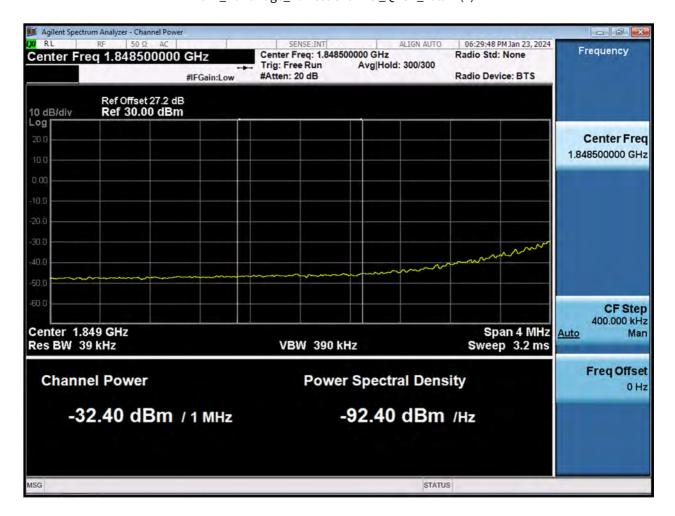
BW15 M_BandEdge_Lowest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 75 of 171



BW15 M_BandEdge_Lowest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 76 of 171



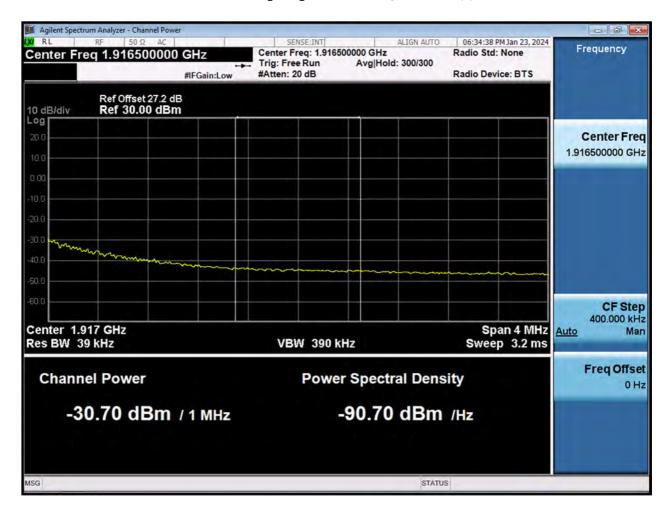
BW15 M_BandEdge_Highest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 77 of 171



BW15 M_BandEdge_Highest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 78 of 171



BW15 M_BandEdge_Lowest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 79 of 171



BW15 M_BandEdge_Highest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 80 of 171



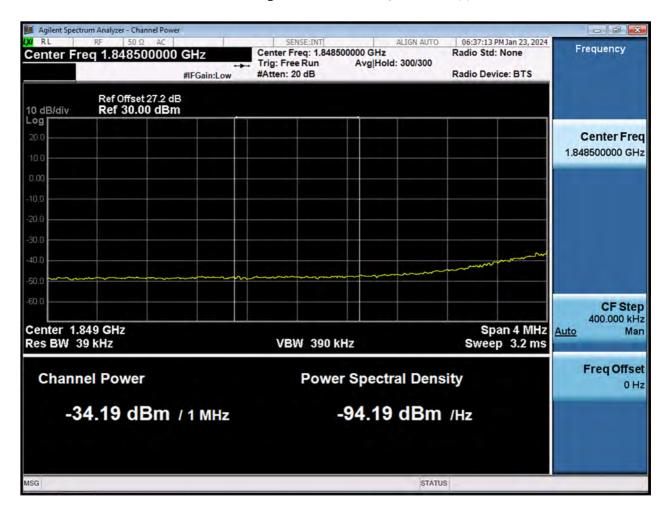
BW20 M_BandEdge_Lowest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 81 of 171



BW20 M_BandEdge_Lowest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 82 of 171



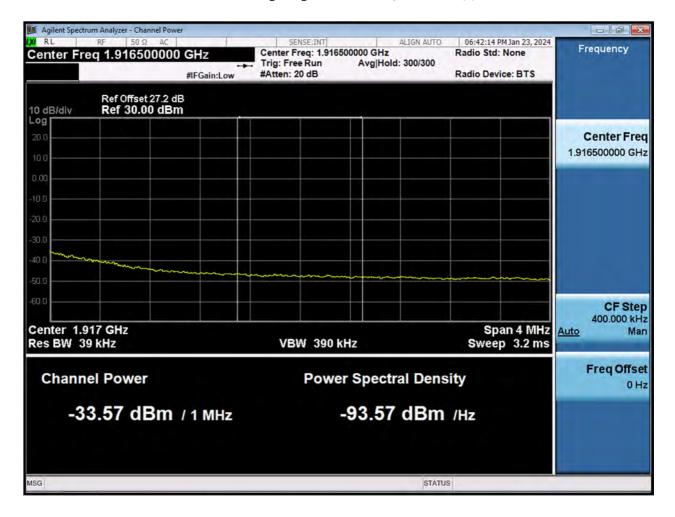
BW20 M_BandEdge_Highest Channel_QPSK_FullRB(1)



F-TP22-03 (Rev. 05) Page 83 of 171



BW20 M_BandEdge_Highest Channel_QPSK_FullRB(2)



F-TP22-03 (Rev. 05) Page 84 of 171



BW20 M_BandEdge_Lowest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 85 of 171



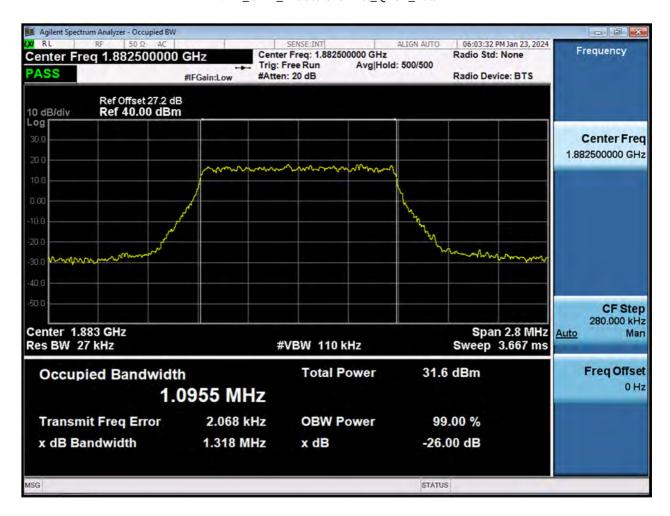
BW20 M_BandEdge_Highest Channel_QPSK_1RB



F-TP22-03 (Rev. 05) Page 86 of 171



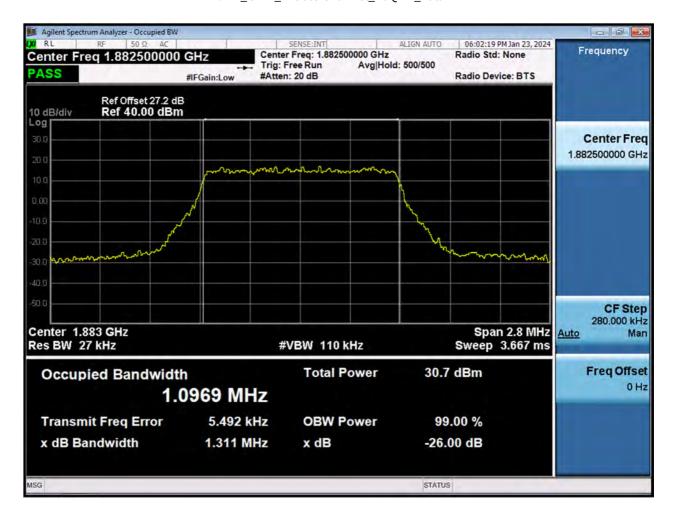
$BW1.4\ M_OBW_Middle\ Channel_QPSK_FullRB$



F-TP22-03 (Rev. 05) Page 87 of 171



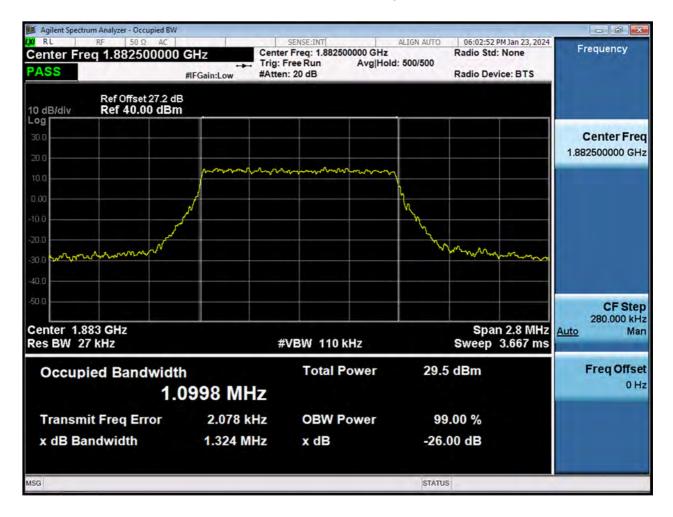
BW1.4 M_OBW_Middle Channel_16QAM_FullRB



F-TP22-03 (Rev. 05) Page 88 of 171



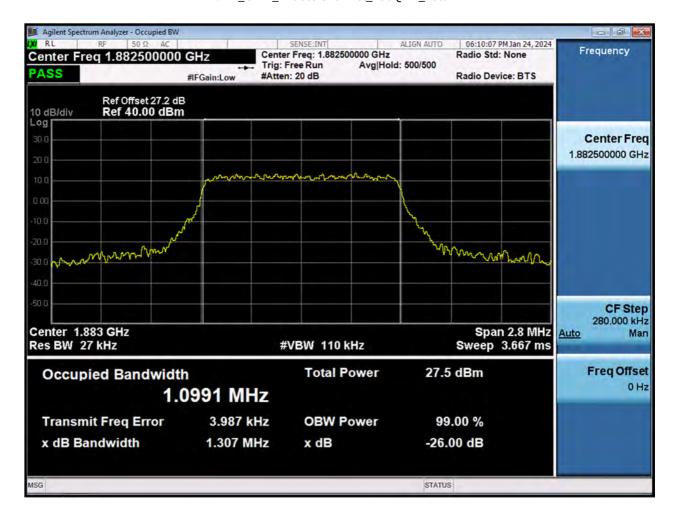
BW1.4 M_OBW_Middle Channel_64QAM_FullRB



F-TP22-03 (Rev. 05) Page 89 of 171



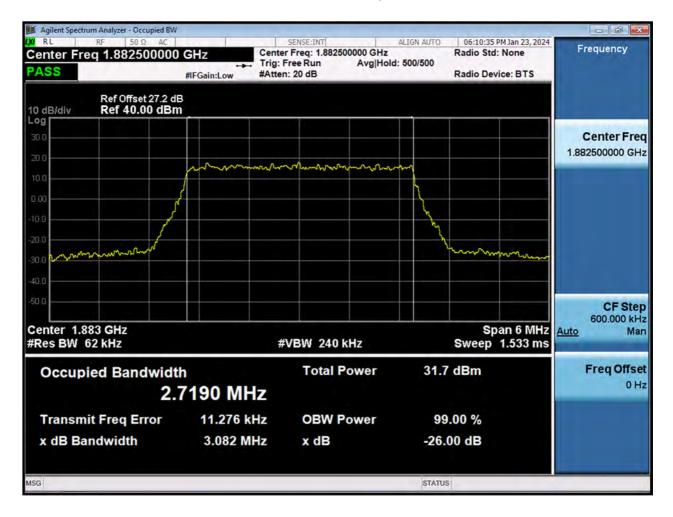
BW1.4 M_OBW_Middle Channel_256QAM_FullRB



F-TP22-03 (Rev. 05) Page 90 of 171



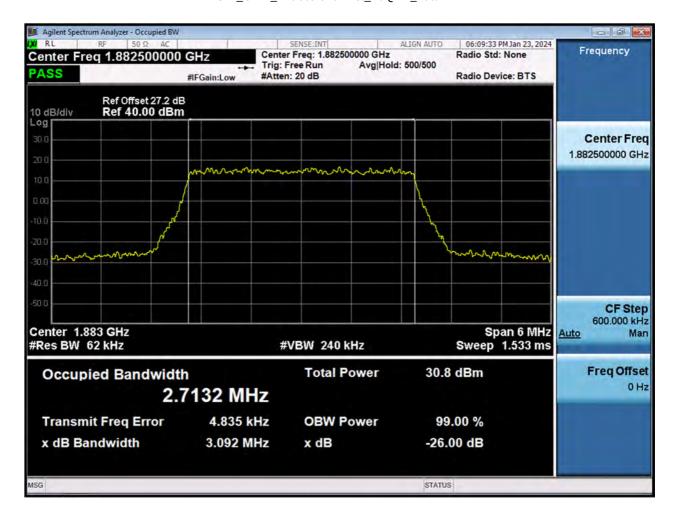
BW3 M_OBW_Middle Channel_QPSK_FullRB



F-TP22-03 (Rev. 05) Page 91 of 171



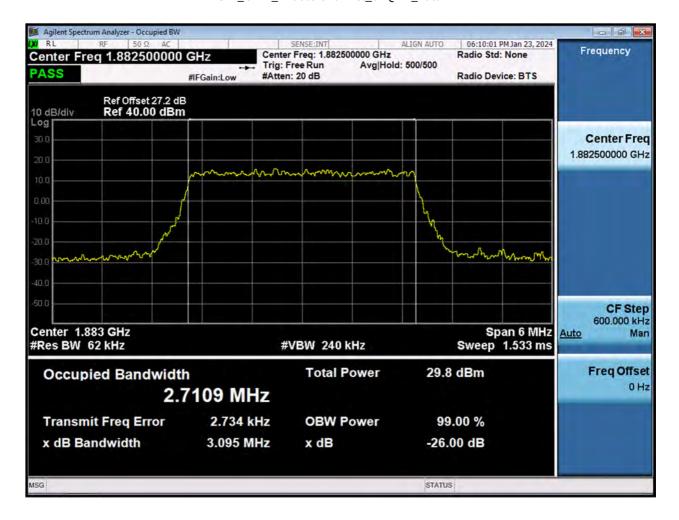
BW3 M_OBW_Middle Channel_16QAM_FullRB



F-TP22-03 (Rev. 05) Page 92 of 171



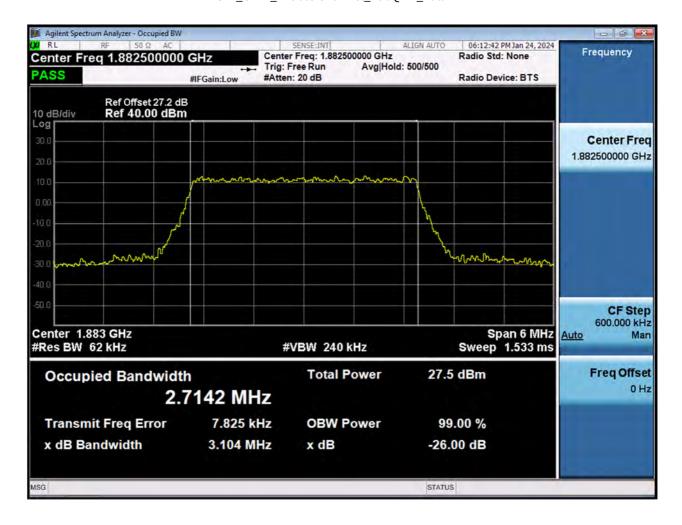
BW3 M_OBW_Middle Channel_64QAM_FullRB



F-TP22-03 (Rev. 05) Page 93 of 171



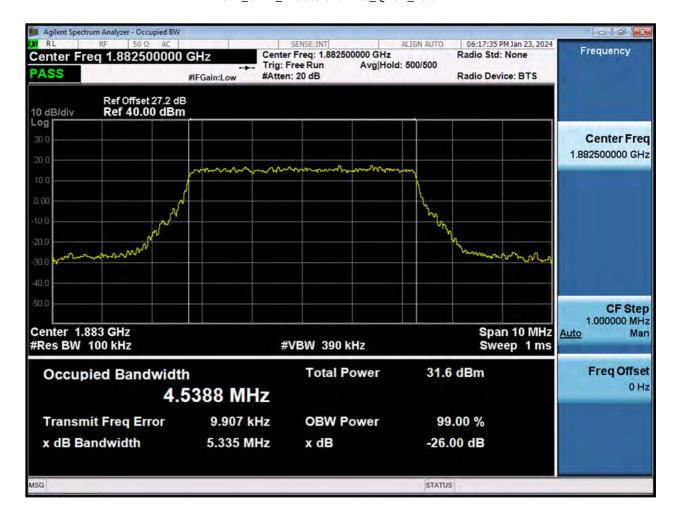
BW3 M_OBW_Middle Channel_256QAM_FullRB



F-TP22-03 (Rev. 05) Page 94 of 171



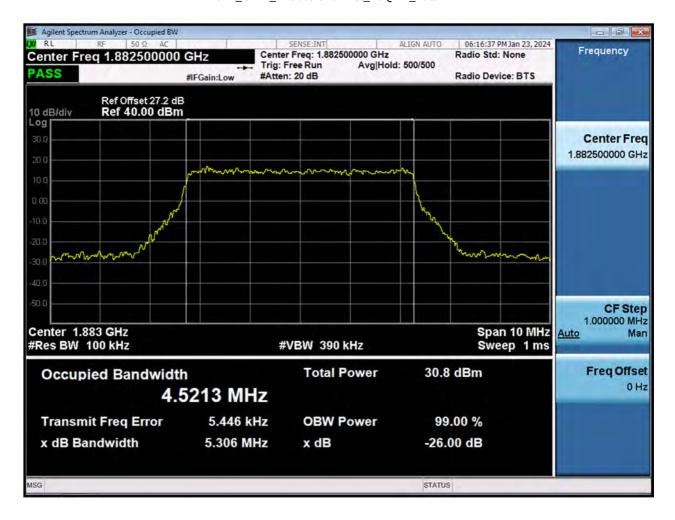
BW5 M_OBW_Middle Channel_QPSK_FullRB



F-TP22-03 (Rev. 05) Page 95 of 171



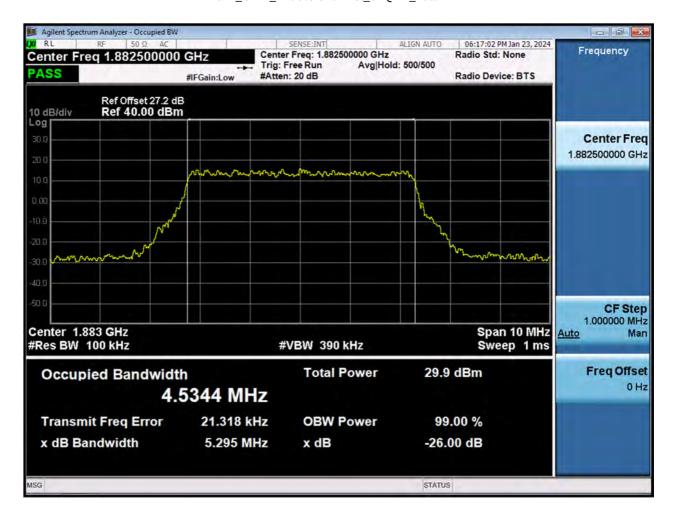
BW5 M_OBW_Middle Channel_16QAM_FullRB



F-TP22-03 (Rev. 05) Page 96 of 171



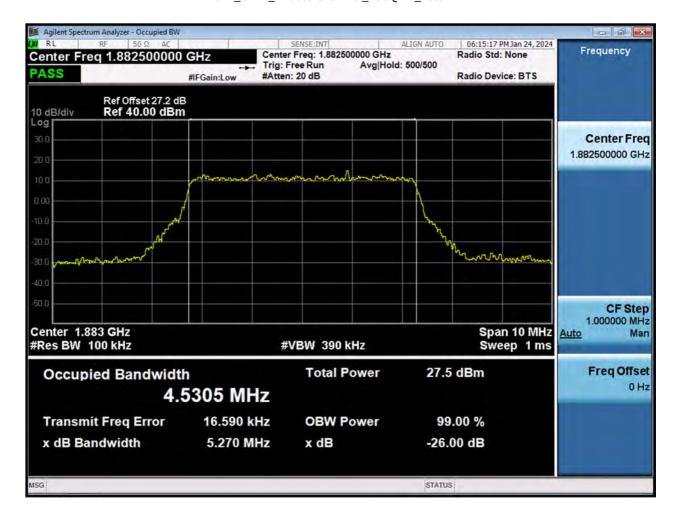
BW5 M_OBW_Middle Channel_64QAM_FullRB



F-TP22-03 (Rev. 05) Page 97 of 171



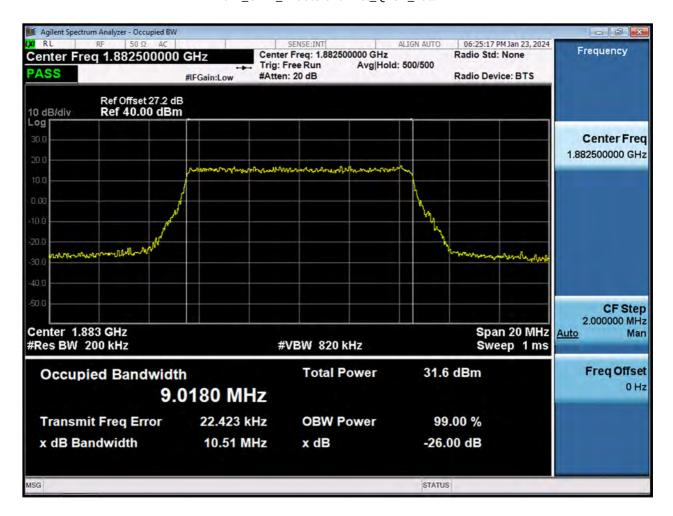
BW5 M_OBW_Middle Channel_256QAM_FullRB



F-TP22-03 (Rev. 05) Page 98 of 171



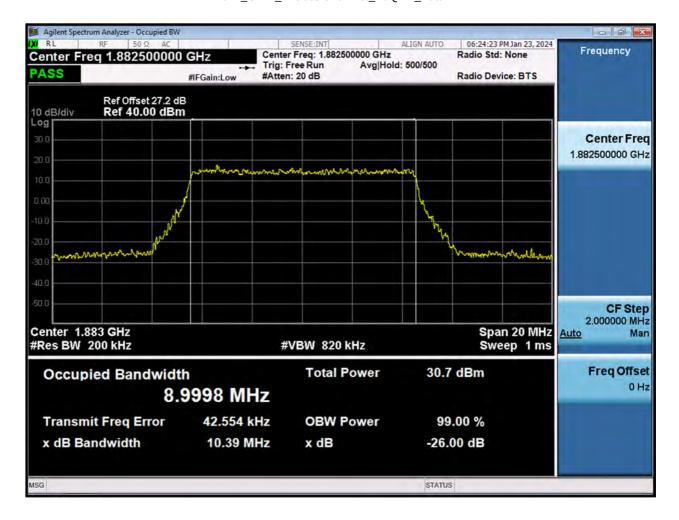
BW10 M_OBW_Middle Channel_QPSK_FullRB



F-TP22-03 (Rev. 05) Page 99 of 171



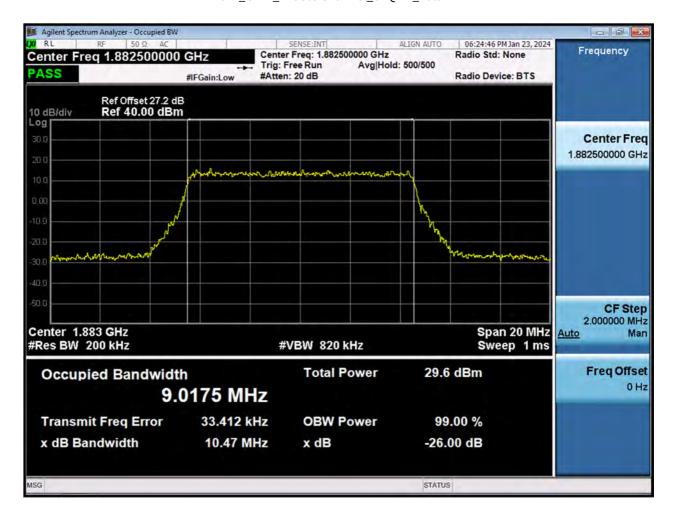
BW10 M_OBW_Middle Channel_16QAM_FullRB



F-TP22-03 (Rev. 05) Page 100 of 171



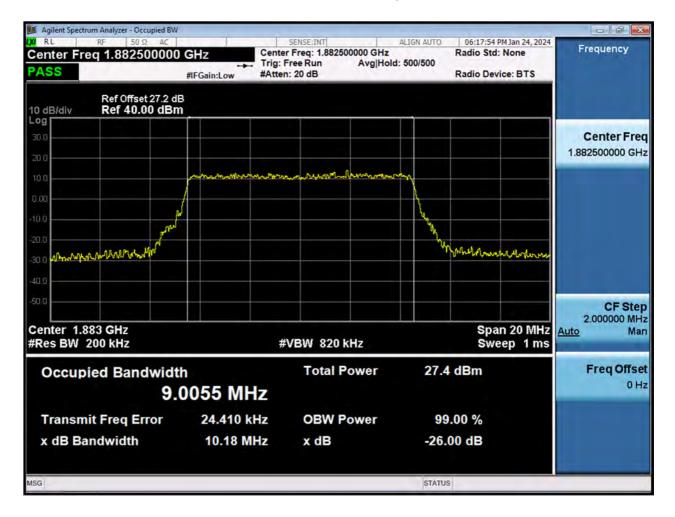
BW10 M_OBW_Middle Channel_64QAM_FullRB



F-TP22-03 (Rev. 05) Page 101 of 171



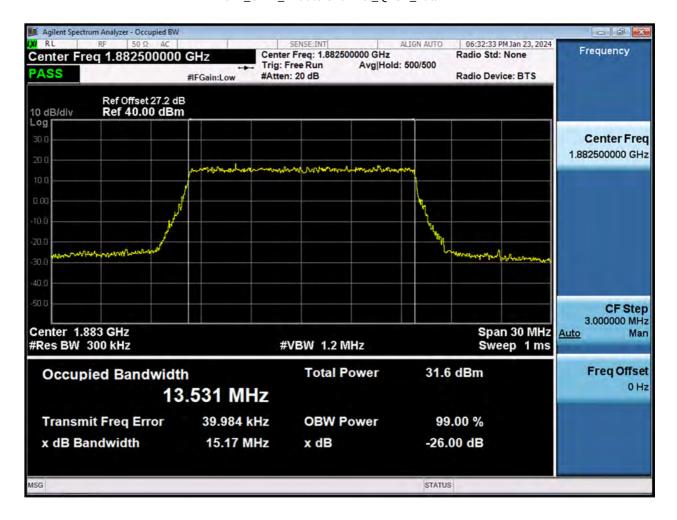
BW10 M_OBW_Middle Channel_256QAM_FullRB



F-TP22-03 (Rev. 05) Page 102 of 171



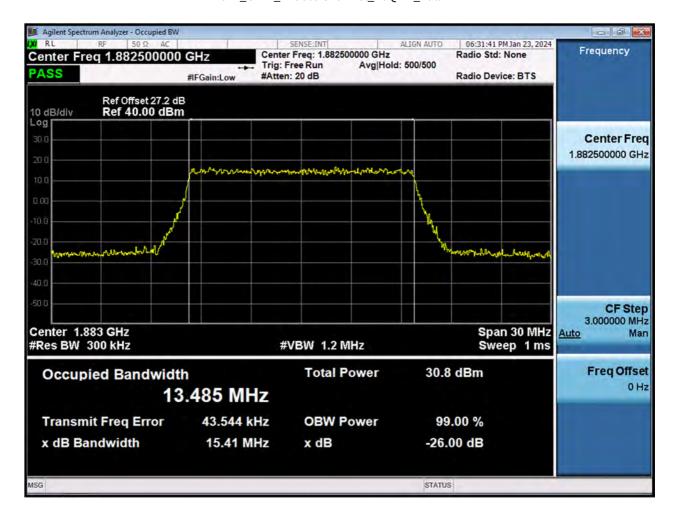
BW15 M_OBW_Middle Channel_QPSK_FullRB



F-TP22-03 (Rev. 05) Page 103 of 171



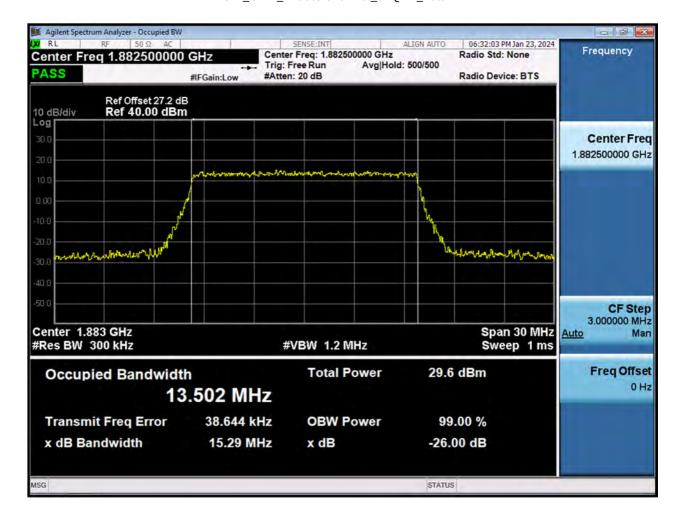
BW15 M_OBW_Middle Channel_16QAM_FullRB



F-TP22-03 (Rev. 05) Page 104 of 171



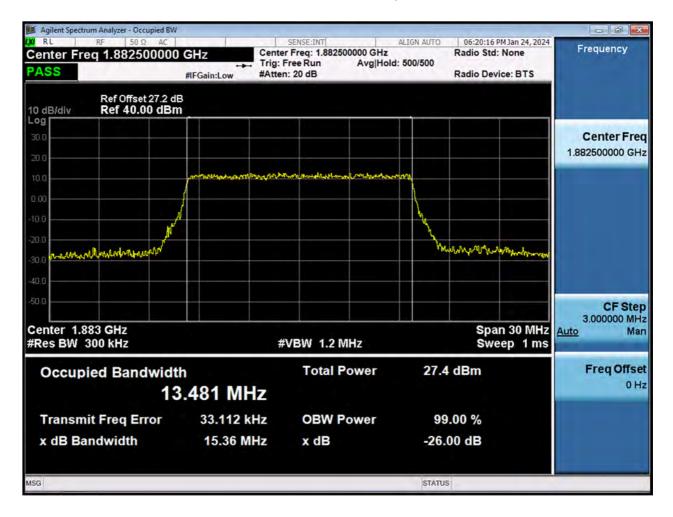
BW15 M_OBW_Middle Channel_64QAM_FullRB



F-TP22-03 (Rev. 05) Page 105 of 171



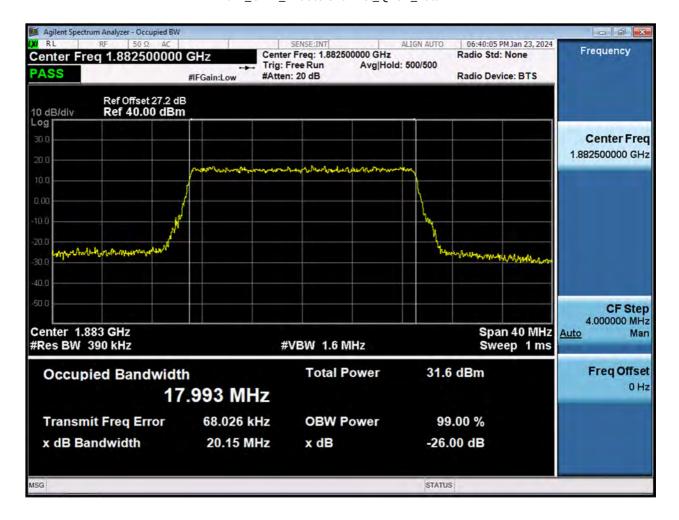
BW15 M_OBW_Middle Channel_256QAM_FullRB



F-TP22-03 (Rev. 05) Page 106 of 171



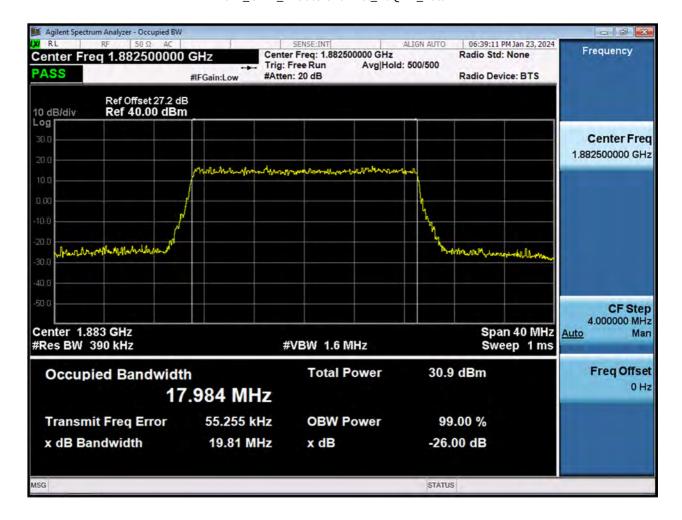
BW20 M_OBW_Middle Channel_QPSK_FullRB



F-TP22-03 (Rev. 05) Page 107 of 171



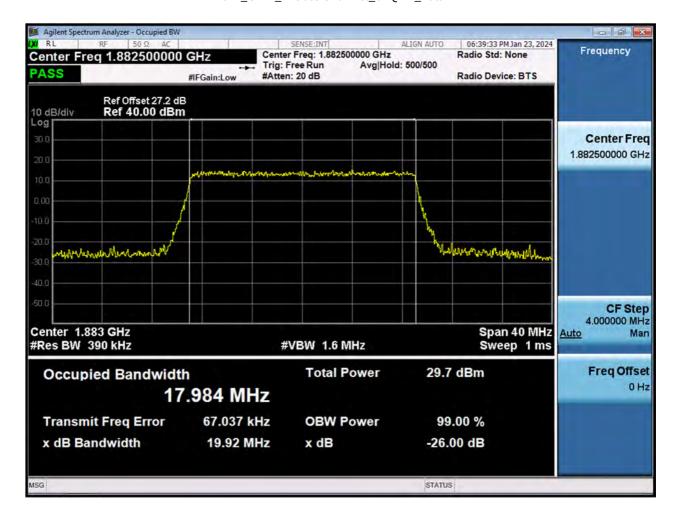
BW20 M_OBW_Middle Channel_16QAM_FullRB



F-TP22-03 (Rev. 05) Page 108 of 171



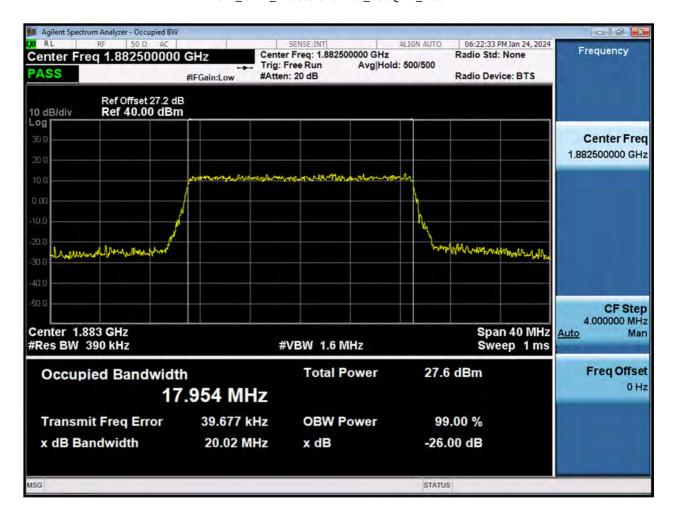
BW20 M_OBW_Middle Channel_64QAM_FullRB



F-TP22-03 (Rev. 05) Page 109 of 171



BW20 M_OBW_Middle Channel_256QAM_FullRB



F-TP22-03 (Rev. 05) Page 110 of 171



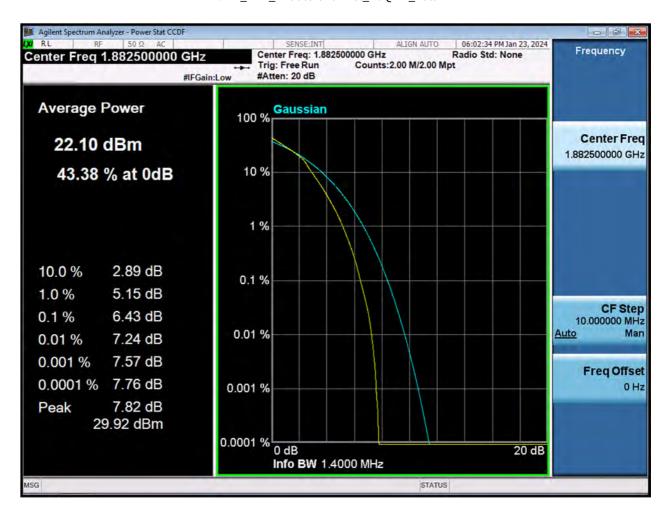
BW1.4 M_PAR_Middle Channel_QPSK_FullRB



F-TP22-03 (Rev. 05) Page 111 of 171



BW1.4 M_PAR_Middle Channel_16QAM_FullRB



F-TP22-03 (Rev. 05) Page 112 of 171



BW1.4 M_PAR_Middle Channel_64QAM_FullRB



F-TP22-03 (Rev. 05) Page 113 of 171



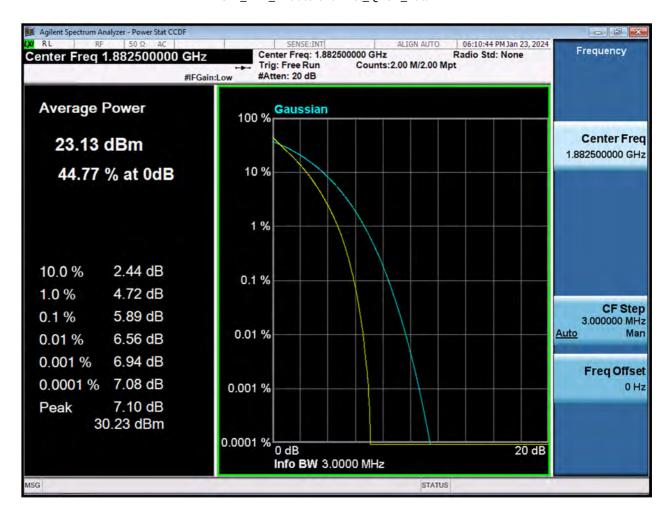
BW1.4 M_PAR_Middle Channel_256QAM_FullRB



F-TP22-03 (Rev. 05) Page 114 of 171



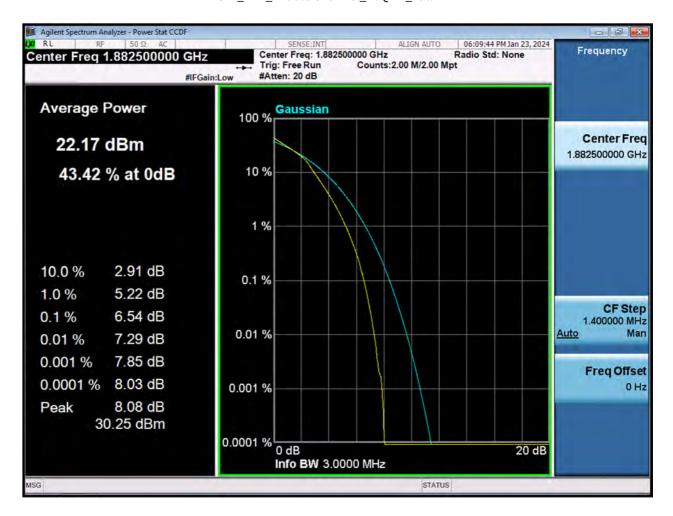
BW3 M_PAR_Middle Channel_QPSK_FullRB



F-TP22-03 (Rev. 05) Page 115 of 171



BW3 M_PAR_Middle Channel_16QAM_FullRB



F-TP22-03 (Rev. 05) Page 116 of 171



BW3 M_PAR_Middle Channel_64QAM_FullRB



F-TP22-03 (Rev. 05) Page 117 of 171



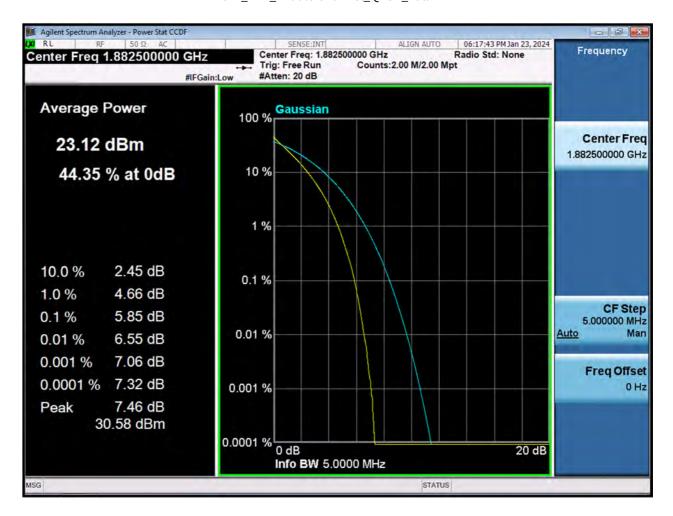
BW3 M_PAR_Middle Channel_256QAM_FullRB



F-TP22-03 (Rev. 05) Page 118 of 171



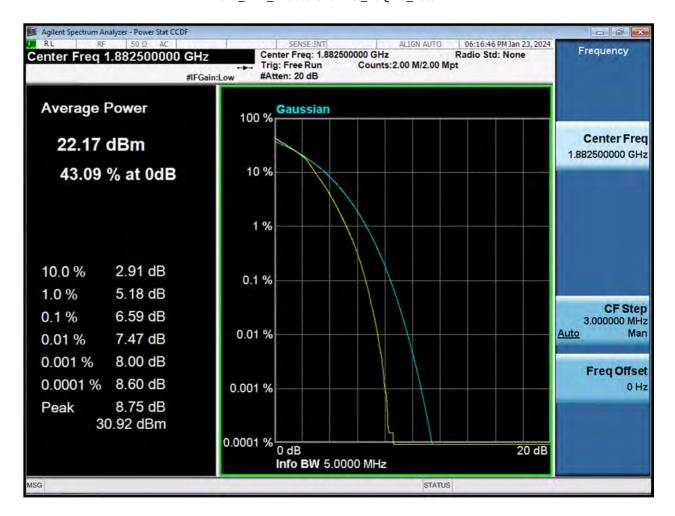
BW5 M_PAR_Middle Channel_QPSK_FullRB



F-TP22-03 (Rev. 05) Page 119 of 171



BW5 M_PAR_Middle Channel_16QAM_FullRB



F-TP22-03 (Rev. 05) Page 120 of 171