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FCC/IC LTE REPORT

Certification

Applicant Name:
SAMSUNG Electronics Co., Ltd.

Address:
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Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

Date of Issue:
December 11, 2019

Location:
HCT CO., LTD.,
74, Seoicheon-ro 578beon-gil, Majang-myeon,
Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA

Report No.: HCT-RF-1912-FI004

FCC ID:	**A3LSMT307U**
IC:	**649E-SMT307U**
APPLICANT:	**SAMSUNG Electronics Co., Ltd.**

Model(s):	SM-T307U
EUT Type:	Tablet
FCC Classification:	PCS Licensed Transmitter (PCB)
FCC Rule Part(s):	§24, §2
IC Rule(s):	RSS-Gen Issue5, RSS-133 Issue6

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
LTE – Band25/2 (1.4)	1850.7 - 1914.3	1M10G7D	QPSK	0.321	25.07
		1M10W7D	16QAM	0.242	23.84
		1M10W7D	64QAM	0.197	22.94
LTE – Band25/2 (3)	1851.5 - 1913.5	2M72G7D	QPSK	0.316	24.99
		2M72W7D	16QAM	0.238	23.76
		2M71W7D	64QAM	0.196	22.92
LTE – Band25/2 (5)	1852.5 - 1912.5	4M51G7D	QPSK	0.309	24.90
		4M53W7D	16QAM	0.239	23.78
		4M52W7D	64QAM	0.195	22.90
LTE – Band25/2 (10)	1855.0 - 1910.0	9M00G7D	QPSK	0.339	25.30
		9M01W7D	16QAM	0.254	24.04
		9M00W7D	64QAM	0.209	23.20
LTE – Band25/2 (15)	1857.5 - 1907.5	13M5G7D	QPSK	0.351	25.46
		13M5W7D	16QAM	0.270	24.31
		13M5W7D	64QAM	0.223	23.49
LTE – Band25/2 (20)	1860.0 - 1905.0	18M0G7D	QPSK	0.330	25.19
		18M0W7D	16QAM	0.255	24.06
		17M9W7D	64QAM	0.208	23.19

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)

Report prepared by : Jae Ryang Do
Engineer of Telecommunication Testing Center

Report approved by : Jong Seok Lee
Manager of Telecommunication Testing Center

This report only responds to the tested sample and may not be reproduced, except in full, without written approval of the HCT Co., Ltd.

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-1912-FI004	December 11, 2019	- First Approval Report

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.

This laboratory is not accredited for the test results marked *.
The above Test Report is the accredited test result by KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA.(HCT Accreditation No.: KT197)

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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:	A3LSMT307U
IC	649E-SMT307U
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter (PCB)
FCC Rule Part(s):	§24, §2
IC Rule(s):	RSS-Gen Issue5, RSS-133 Issue6
EUT Type:	Tablet
Model(s):	SM-T307U
Tx Frequency:	1850.7 MHz – 1914.3 MHz (LTE – Band25/2 (1.4 MHz)) 1851.5 MHz – 1913.5 MHz (LTE – Band25/2 (3 MHz)) 1852.5 MHz – 1912.5 MHz (LTE – Band25/2 (5 MHz)) 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:	October 22, 2019 ~ November 25, 2019

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

The EUT was a Tablet with UMTS and LTE.

It also supports IEEE 802.11 a/b/g/n/ac (HT20/40/80), Bluetooth, BT LE, ANT+.

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
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 - ANSI C63.26-2015 – Section 5.2.6(only GSM)
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 1MHz
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 1GHz, 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 = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
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 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 1GHz, 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;

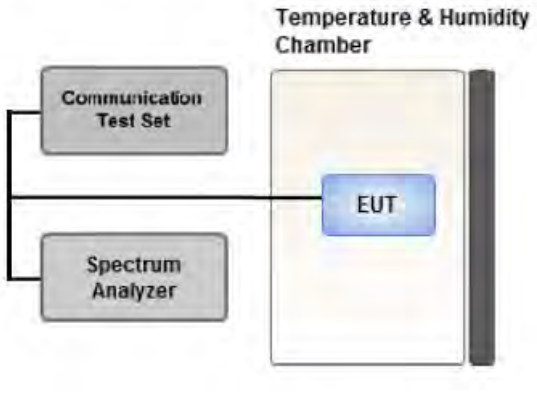
$$Result_{(dBm)} = Pg_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

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

   If the fundalmatal frequency is below 1GHz, 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:

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

Test Settings(Peak Power)

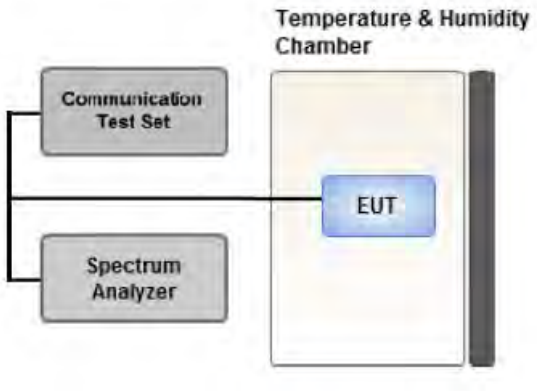
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW ≥ 3 × RBW.

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.

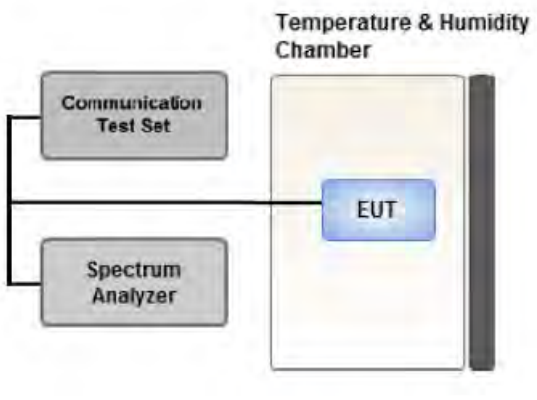
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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 26dB 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

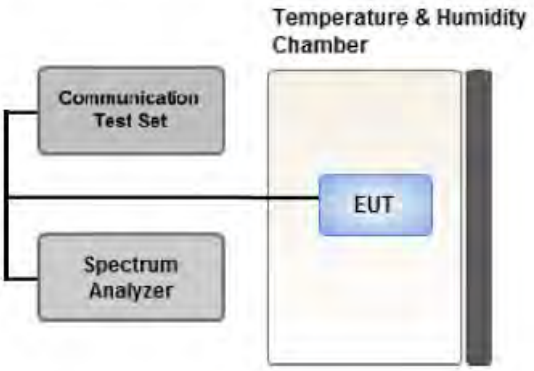
Test Overview

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 = Average
5. Sweep time = auto
6. Number of points in sweep ≥ 2 * Span / RBW

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 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

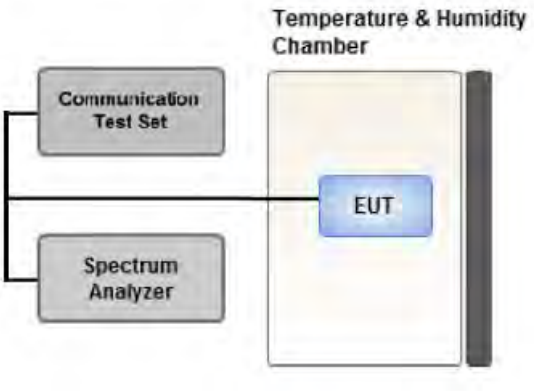
Test Notes

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.

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.
- 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.

[Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Effective Isotropic Radiated Power	QPSK, 16QAM, 64QAM	1	0	X
Radiated Spurious and Harmonic Emissions	QPSK	1	0	X

3.9 WORST CASE(CONDUCTED TEST)

[Worst case]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset
Occupied Bandwidth	QPSK, 16QAM, 64QAM	1.4, 3, 5, 10, 15, 20	Mid	Full RB	0
Peak-To-Average Ratio	QPSK, 16QAM, 64QAM	1.4, 3, 5, 10, 15, 20	Mid	Full RB	0
Band Edge	* QPSK	1.4	Low	1	0
			High	1	5
		3	Low	1	0
			High	1	14
		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
		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

* Worst case : Of all modulation, We have tested modulation of the high Conducted Output Power.
Conducted Output Power value can be confirmed on the SAR report.

- 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.

4. LIST OF TEST EQUIPMENT

Manufacture	Model/ Equipment	Serial Number	Calibration Date	Calibration Interval	Calibration Due
T&M SYSTEM	FBSR-02B(WHK1.2/15G-10EF)/H.P.F	-	06/10/2019	Annual	06/10/2020
T&M SYSTEM	FBSR-02B(WHK3.3/18G-10EF)/H.P.F	-	06/10/2019	Annual	06/10/2020
Hewlett Packard	11667B / Power Splitter(DC~26.5 GHz)	11275	05/03/2019	Annual	05/03/2020
Agilent	E3632A/DC Power Supply	MY40004326	07/01/2019	Annual	07/01/2020
Schwarzbeck	UHAP/ Dipole Antenna	557	03/29/2019	Biennial	03/29/2021
Schwarzbeck	UHAP/ Dipole Antenna	558	03/29/2019	Biennial	03/29/2021
ESPEC	SU-642 / Chamber	93000717	08/14/2019	Annual	08/14/2020
Schwarzbeck	BBHA 9120D/ Horn Antenna(1~18GHz)	147	08/29/2019	Biennial	08/29/2021
Schwarzbeck	BBHA 9120D/ Horn Antenna(1~18GHz)	9120D-1298	09/25/2019	Biennial	09/25/2021
Schwarzbeck	BBHA 9170/ Horn Antenna(15~40GHz)	BBHA9170342	04/29/2019	Biennial	04/29/2021
Schwarzbeck	BBHA 9170/ Horn Antenna(15~40GHz)	BBHA9170124	01/28/2019	Biennial	01/28/2021
Agilent	N9020A/Signal Analyzer(10Hz~26.5GHz)	MY51110063	05/08/2019	Annual	05/08/2020
Hewlett Packard	8493C/ATTENUATOR(20dB)	17280	06/04/2019	Annual	06/04/2020
REOHDE & SCHWARZ	FSV40/Spectrum Analyzer(10Hz~40GHz)	100931	10/14/2019	Annual	10/14/2020
Agilent	8960 (E5515C)/ Base Station	MY48360800	08/27/2019	Annual	08/27/2020
Schwarzbeck	FMZB1513/ Loop Antenna(9kHz~30MHz)	1513-175	08/23/2018	Biennial	08/23/2020
Schwarzbeck	VULB9160/ Bilog Antenna	9160-3368	08/09/2018	Biennial	08/09/2020
Schwarzbeck	VULB9160/ Hybrid Antenna	760	03/22/2019	Biennial	03/22/2021
Anritsu Corp.	MT8821C/Wideband Radio Communication Tester	6201502997	08/09/2019	Annual	08/09/2020
Anritsu Corp.	MT8820C/Wideband Radio Communication Tester	6201026545	01/30/2019	Annual	01/30/2020
REOHDE & SCHWARZ	SMB100A/ SIGNAL GENERATOR (100kHz~40GHz)	177633	07/15/2019	Annual	07/15/2020
REOHDE & SCHWARZ	ESU40 / EMI TEST RECEIVER	100524	05/17/2019	Annual	05/17/2020
HCT CO., LTD.,	FCC LTE Mobile Conducted RF Automation Test Software	-	-	-	-

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)	1.82
Radiated Disturbance (9 kHz ~ 30 MHz)	3.40
Radiated Disturbance (30 MHz ~ 1 GHz)	4.80
Radiated Disturbance (1 GHz ~ 18 GHz)	5.70
Radiated Disturbance (18 GHz ~ 40 GHz)	5.05

6. SUMMARY OF TEST RESULTS

6.1 Test Condition : Conducted Test

Test Description	FCC Part Section(s)	IC Section(s)	Test Limit	Test Result
Occupied Bandwidth	§2.1049	RSS Gen(6.7)	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§2.1051, §24.238(a)	RSS 133(6.5)	< 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)	RSS 133(6.4)	< 13 dB	PASS
Frequency stability / variation of ambient temperature	§24.235	RSS 133(6.3)	Emission must remain in band	PASS

Note:

1. See SAR Report
2. The same samples were used for SAR and EMC

6.2 Test Condition : Radiated Test

Test Description	FCC Part Section(s)	IC Section(s)	Test Limit	Test Result
Equivalent Isotropic Radiated Power	§24.232(c)	RSS 133(6.4)	< 2 Watts max. EIRP	PASS
Radiated Spurious and Harmonic Emissions	§2.1053, §24.238(a)	RSS 133(6.5)	< 43 + 10log10 (P[Watts]) for all out-of band emissions	PASS
Receiver Spurious Emissions	N/A	RSS Gen(7)	Section 8.8	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

16QAM Modulation

Emission Designator = 4M48W7D

LTE BW = 4.48 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

64QAM 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

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	
								W	W	dBm
1850.7	LTE B25/B2 1.4 MHz	QPSK	-16.92	16.89	10.13	1.95	H	< 2.00	0.321	25.07
		16-QAM	-18.15	15.66	10.13	1.95	H		0.242	23.84
		64-QAM	-19.05	14.76	10.13	1.95	H		0.197	22.94
1882.5		QPSK	-17.33	16.56	10.15	1.98	H		0.297	24.73
		16-QAM	-18.46	15.43	10.15	1.98	H		0.229	23.60
		64-QAM	-19.40	14.49	10.15	1.98	H		0.184	22.66
1914.3		QPSK	-17.72	16.55	10.24	2.00	H		0.301	24.79
		16-QAM	-19.01	15.26	10.24	2.00	H		0.224	23.50
		64-QAM	-19.90	14.37	10.24	2.00	H		0.182	22.61

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
1851.5	LTE B25/B2 3 MHz	QPSK	-16.81	16.83	10.10	1.94	H	< 2.00	0.316	24.99
		16-QAM	-18.04	15.60	10.10	1.94	H		0.238	23.76
		64-QAM	-18.88	14.76	10.10	1.94	H		0.196	22.92
1882.5		QPSK	-17.32	16.57	10.15	1.98	H		0.298	24.74
		16-QAM	-18.51	15.38	10.15	1.98	H		0.226	23.55
		64-QAM	-19.30	14.59	10.15	1.98	H		0.189	22.76
1913.5		QPSK	-17.80	16.48	10.23	2.00	H		0.296	24.71
		16-QAM	-18.98	15.30	10.23	2.00	H		0.225	23.53
		64-QAM	-19.81	14.47	10.23	2.00	H		0.186	22.70

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
1852.5	LTE B25/B2 5 MHz	QPSK	-16.90	16.74	10.10	1.94	H	< 2.00	0.309	24.90
		16-QAM	-18.02	15.62	10.10	1.94	H		0.239	23.78
		64-QAM	-18.90	14.74	10.10	1.94	H		0.195	22.90
1882.5		QPSK	-17.21	16.68	10.15	1.98	H		0.305	24.85
		16-QAM	-18.36	15.53	10.15	1.98	H		0.234	23.70
		64-QAM	-19.25	14.64	10.15	1.98	H		0.191	22.81
1912.5		QPSK	-17.65	16.63	10.23	2.00	H		0.306	24.86
		16-QAM	-18.83	15.45	10.23	2.00	H		0.233	23.68
		64-QAM	-19.75	14.53	10.23	2.00	H		0.189	22.76

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
1855.0	LTE B25/B2 10 MHz	QPSK	-16.69	17.12	10.12	1.94	H	< 2.00	0.339	25.30
		16-QAM	-17.95	15.86	10.12	1.94	H		0.254	24.04
		64-QAM	-18.79	15.02	10.12	1.94	H		0.209	23.20
1882.5		QPSK	-16.95	16.94	10.15	1.98	H		0.324	25.11
		16-QAM	-18.07	15.82	10.15	1.98	H		0.250	23.99
		64-QAM	-19.00	14.89	10.15	1.98	H		0.202	23.06
1910.0		QPSK	-17.46	16.87	10.23	2.00	H		0.324	25.10
		16-QAM	-18.65	15.68	10.23	2.00	H		0.246	23.91
		64-QAM	-19.41	14.92	10.23	2.00	H		0.207	23.15

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
1857.5	LTE B25/B2 15 MHz	QPSK	-16.79	17.02	10.13	1.95	H	< 2.00	0.331	25.20
		16-QAM	-17.96	15.85	10.13	1.95	H		0.253	24.03
		64-QAM	-18.79	15.02	10.13	1.95	H		0.209	23.20
1882.5		QPSK	-17.35	16.54	10.15	1.98	H		0.296	24.71
		16-QAM	-18.45	15.44	10.15	1.98	H		0.229	23.61
		64-QAM	-19.40	14.49	10.15	1.98	H		0.184	22.66
1907.5		QPSK	-17.11	17.23	10.23	2.00	H		0.351	25.46
		16-QAM	-18.26	16.08	10.23	2.00	H		0.270	24.31
		64-QAM	-19.08	15.26	10.23	2.00	H		0.223	23.49

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
1860.0	LTE B25/B2 20 MHz	QPSK	-16.80	17.01	10.13	1.95	H	< 2.00	0.330	25.19
		16-QAM	-17.93	15.88	10.13	1.95	H		0.255	24.06
		64-QAM	-18.80	15.01	10.13	1.95	H		0.208	23.19
1882.5		QPSK	-17.14	16.75	10.15	1.98	H		0.310	24.92
		16-QAM	-18.56	15.33	10.15	1.98	H		0.224	23.50
		64-QAM	-19.25	14.64	10.15	1.98	H		0.191	22.81
1905.0		QPSK	-17.18	16.96	10.22	2.00	H		0.329	25.17
		16-QAM	-18.35	15.79	10.22	2.00	H		0.251	24.00
		64-QAM	-19.17	14.97	10.22	2.00	H		0.208	23.18

8.2 RADIATED SPURIOUS EMISSIONS

▣ OPERATING FREQUENCY: 1850.7 MHz

▣ MEASURED OUTPUT POWER: 25.07 dBm = 0.321 W

▣ MODE: LTE B25/B2

▣ MODULATION SIGNAL: 1.4 MHz QPSK

▣ DISTANCE: 3 meters

▣ LIMIT: 43 + 10 log10 (W) = 38.07 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc
26047 (1850.7)	3,701.40	-55.27	12.40	-60.24	2.86	H	-50.70	75.77
	5,552.10	-55.40	13.10	-53.85	3.58	V	-44.33	69.39
	7,402.80	-56.20	11.10	-46.41	4.26	H	-39.57	64.63
26365 (1882.5)	3,765.00	-54.81	12.47	-59.80	2.88	V	-50.21	75.28
	5,647.50	-55.07	13.32	-53.32	3.61	V	-43.61	68.68
	7,530.00	-57.49	11.30	-47.25	4.29	V	-40.24	65.30
26683 (1914.3)	3,828.60	-54.35	12.40	-59.22	2.90	V	-49.72	74.79
	5,742.90	-55.49	13.30	-52.89	3.63	H	-43.22	68.29
	7,657.20	-57.38	11.70	-46.94	4.33	H	-39.57	64.64

▣ OPERATING FREQUENCY: 1851.5 MHz

▣ MEASURED OUTPUT POWER: 24.99 dBm = 0.316 W

▣ MODE: LTE B25/B2

▣ MODULATION SIGNAL: 3 MHz QPSK

▣ DISTANCE: 3 meters

▣ LIMIT: 43 + 10 log10 (W) = 37.99 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc
26055 (1851.5)	3,703.00	-55.82	12.40	-60.79	2.86	V	-51.25	76.24
	5,554.50	-56.26	13.14	-54.72	3.58	V	-45.16	70.15
	7,406.00	-56.32	11.12	-46.47	4.25	V	-39.61	64.60
26365 (1882.5)	3,765.00	-55.35	12.47	-60.34	2.88	V	-50.75	75.74
	5,647.50	-55.71	13.32	-53.96	3.61	V	-44.25	69.24
	7,530.00	-57.14	11.30	-46.90	4.29	V	-39.89	64.88
26675 (1913.5)	3,827.00	-54.02	12.40	-58.91	2.90	V	-49.41	74.40
	5,740.50	-56.92	13.33	-54.35	3.64	V	-44.66	69.65
	7,654.00	-56.48	11.70	-46.10	4.33	V	-38.73	63.72

▣ OPERATING FREQUENCY: 1852.5 MHz

▣ MEASURED OUTPUT POWER: 24.90 dBm = 0.309 W

▣ MODE: LTE B25/B2

▣ MODULATION SIGNAL: 5 MHz QPSK

▣ DISTANCE: 3 meters

▣ LIMIT: 43 + 10 log10 (W) = 37.90 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc
26065 (1852.5)	3,705.00	-55.60	12.42	-60.58	2.86	V	-51.03	75.93
	5,557.50	-57.15	13.15	-55.61	3.58	V	-46.04	70.94
	7,410.00	-56.04	11.13	-46.13	4.25	V	-39.25	64.15
26365 (1882.5)	3,765.00	-56.05	12.47	-61.04	2.88	V	-51.45	76.35
	5,647.50	-56.86	13.32	-55.11	3.61	V	-45.40	70.30
	7,530.00	-55.78	11.30	-45.54	4.29	V	-38.53	63.43
26665 (1912.5)	3,825.00	-55.64	12.40	-60.56	2.90	V	-51.06	75.96
	5,737.50	-56.59	13.33	-53.66	3.64	V	-43.97	68.87
	7,650.00	-57.76	11.70	-47.44	4.32	V	-40.06	64.96

▣ OPERATING FREQUENCY: 1855.0 MHz

▣ MEASURED OUTPUT POWER: 25.30 dBm = 0.339 W

▣ MODE: LTE B25/B2

▣ MODULATION SIGNAL: 10 MHz QPSK

▣ DISTANCE: 3 meters

▣ LIMIT: 43 + 10 log10 (W) = 38.30 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc
26090 (1855.0)	3,710.00	-55.60	12.43	-60.59	2.86	V	-51.02	76.33
	5,565.00	-56.63	13.18	-54.96	3.59	V	-45.37	70.68
	7,420.00	-57.52	11.15	-47.76	4.24	V	-40.85	66.15
26365 (1882.5)	3,765.00	-55.70	12.47	-60.69	2.88	V	-51.10	76.40
	5,647.50	-55.62	13.32	-53.87	3.61	V	-44.16	69.46
	7,530.00	-57.51	11.30	-47.27	4.29	V	-40.26	65.56
26640 (1910.0)	3,820.00	-55.69	12.40	-60.66	2.90	V	-51.16	76.46
	5,730.00	-55.34	13.35	-53.24	3.63	V	-43.52	68.82
	7,640.00	-58.03	11.65	-47.79	4.34	V	-40.48	65.79

▣ OPERATING FREQUENCY: 1907.5 MHz

▣ MEASURED OUTPUT POWER: 25.46 dBm = 0.351 W

▣ MODE: LTE B25/B2

▣ MODULATION SIGNAL: 15 MHz QPSK

▣ DISTANCE: 3 meters

▣ LIMIT: 43 + 10 log10 (W) = 38.46 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc
26115 (1857.5)	3,715.00	-54.61	12.44	-59.67	2.87	V	-50.09	75.55
	5,572.50	-55.08	13.20	-53.29	3.59	V	-43.68	69.13
	7,430.00	-56.05	11.15	-46.11	4.25	V	-39.21	64.67
26365 (1882.5)	3,765.00	-55.20	12.47	-60.19	2.88	V	-50.60	76.06
	5,647.50	-56.76	13.32	-55.01	3.61	V	-45.30	70.76
	7,530.00	-57.39	11.30	-47.15	4.29	V	-40.14	65.59
26615 (1907.5)	3,815.00	-55.15	12.40	-60.16	2.90	V	-50.66	76.12
	5,722.50	-55.98	13.35	-53.84	3.63	V	-44.12	69.58
	7,630.00	-57.65	11.60	-47.60	4.34	V	-40.34	65.79

▣ OPERATING FREQUENCY: 1905.0 MHz

▣ MEASURED OUTPUT POWER: 25.19 dBm = 0.330 W

▣ MODE: LTE B25/B2

▣ MODULATION SIGNAL: 20 MHz QPSK

▣ DISTANCE: 3 meters

▣ LIMIT: 43 + 10 log10 (W) = 38.19 dBc

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	dBc
26140 (1860.0)	3,720.00	-55.86	12.45	-60.98	2.87	V	-51.40	76.59
	5,580.00	-57.34	13.20	-54.73	3.58	V	-45.11	70.30
	7,440.00	-58.14	11.18	-47.94	4.25	V	-41.01	66.20
26365 (1882.5)	3,765.00	-55.62	12.47	-60.61	2.88	V	-51.02	76.21
	5,647.50	-56.94	13.32	-55.19	3.61	V	-45.48	70.67
	7,530.00	-57.07	11.30	-46.83	4.29	V	-39.82	65.00
26590 (1905.0)	3,810.00	-54.88	12.40	-59.92	2.90	V	-50.42	75.61
	5,715.00	-56.59	13.37	-54.46	3.63	V	-44.72	69.91
	7,620.00	-57.13	11.60	-47.17	4.34	V	-39.91	65.09

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
25/2	1.4 MHz	1882.5	QPSK	6	0	5.44
			16-QAM	6	0	6.18
			64-QAM	6	0	6.36
	3 MHz		QPSK	15	0	5.49
			16-QAM	15	0	6.20
			64-QAM	15	0	6.34
	5 MHz		QPSK	25	0	5.41
			16-QAM	25	0	6.19
			64-QAM	25	0	6.36
	10 MHz		QPSK	50	0	5.41
			16-QAM	50	0	6.13
			64-QAM	50	0	6.32
	15 MHz		QPSK	75	0	5.33
			16-QAM	75	0	6.04
			64-QAM	75	0	6.25
	20 MHz		QPSK	100	0	5.30
			16-QAM	100	0	6.05
			64-QAM	100	0	6.24

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 72 ~ 89.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
25/2	1.4 MHz	1882.5	QPSK	6	0	1.1004
			16-QAM	6	0	1.1005
			64-QAM	6	0	1.0976
	3 MHz		QPSK	15	0	2.7180
			16-QAM	15	0	2.7187
			64-QAM	15	0	2.7125
	5 MHz		QPSK	25	0	4.5110
			16-QAM	25	0	4.5256
			64-QAM	25	0	4.5228
	10 MHz		QPSK	50	0	9.0014
			16-QAM	50	0	9.0089
			64-QAM	50	0	8.9963
	15 MHz		QPSK	75	0	13.496
			16-QAM	75	0	13.505
			64-QAM	75	0	13.500
	20 MHz		QPSK	100	0	17.947
			16-QAM	100	0	17.946
			64-QAM	100	0	17.942

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 54 ~ 71.

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)
25/2	1.4	1850.7	3.7234	27.976	-77.513	-49.537	-13.00
		1882.5	3.6950	27.976	-76.952	-48.976	
		1914.3	3.6960	27.976	-77.352	-49.376	
	3	1851.5	3.6990	27.976	-77.436	-49.460	
		1882.5	3.6805	27.976	-76.874	-48.898	
		1913.5	3.6880	27.976	-77.471	-49.495	
	5	1852.5	3.6835	27.976	-77.560	-49.584	
		1882.5	3.6965	27.976	-77.064	-49.088	
		1912.5	3.7064	27.976	-77.356	-49.380	
	10	1855.0	3.7104	27.976	-77.595	-49.619	
		1882.5	3.7039	27.976	-77.406	-49.430	
		1910.0	3.7179	27.976	-77.384	-49.408	
	15	1857.5	3.6975	27.976	-77.580	-49.604	
		1882.5	3.6845	27.976	-77.526	-49.550	
		1907.5	3.6865	27.976	-77.411	-49.435	
	20	1860.0	3.6965	27.976	-77.583	-49.607	
		1882.5	3.7089	27.976	-77.066	-49.090	
		1905.0	3.6770	27.976	-77.445	-49.469	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 126 ~ 161.
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 + 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	30.131

8.6 BAND EDGE

- Plots of the EUT's Band Edge are shown Page 90 ~ 125.

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ MODE: LTE B25/B2

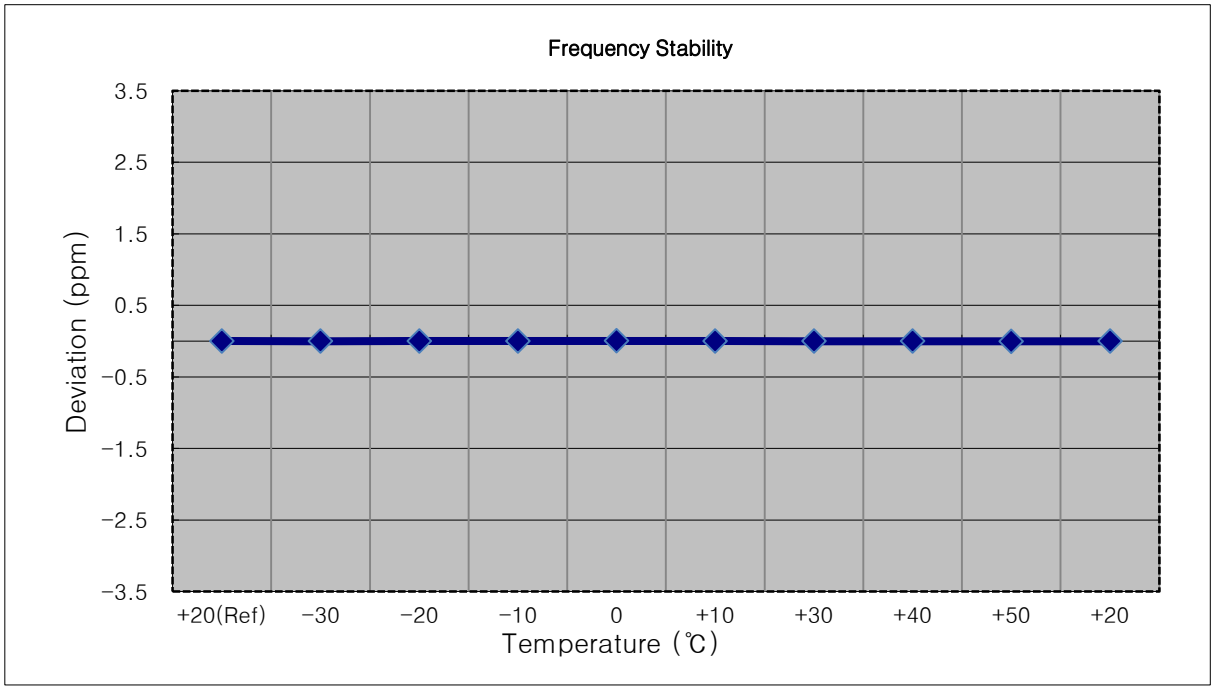
▣ OPERATING FREQUENCY: 1850,700,000 Hz

▣ CHANNEL: 26047 (1.4 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1850 700 004	0.0	0.000 000	0.000
100%		-30	1850 700 001	-3.1	0.000 000	-0.002
100%		-20	1850 700 008	3.5	0.000 000	0.002
100%		-10	1850 700 006	2.0	0.000 000	0.001
100%		0	1850 700 010	5.6	0.000 000	0.003
100%		+10	1850 700 007	2.8	0.000 000	0.002
100%		+30	1850 700 001	-3.0	0.000 000	-0.002
100%		+40	1850 700 000	-4.0	0.000 000	-0.002
100%		+50	1850 699 999	-4.9	0.000 000	-0.003
Batt. Endpoint	7.300	+20	1850 700 000	-4.2	0.000 000	-0.002



▣ MODE: LTE B25/B2

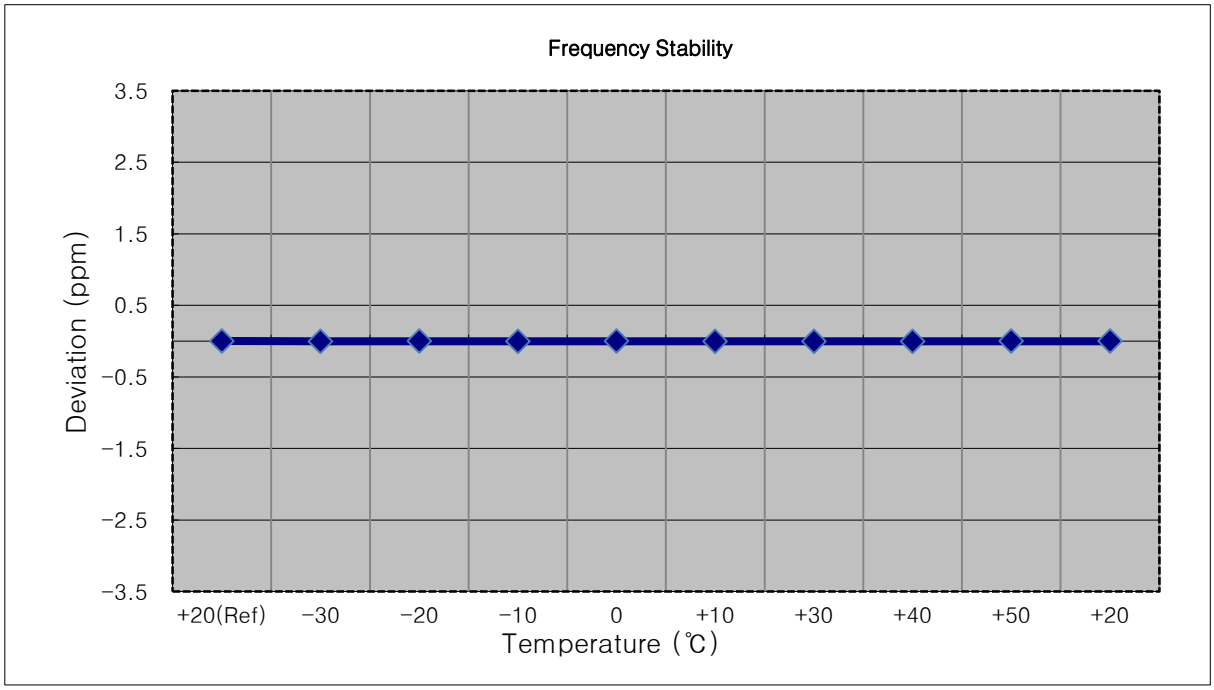
▣ OPERATING FREQUENCY: 1851,500,000 Hz

▣ CHANNEL: 26055 (3 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1851 499 994	0.0	0.000 000	0.000
100%		-30	1851 499 989	-4.5	0.000 000	-0.002
100%		-20	1851 499 989	-4.2	0.000 000	-0.002
100%		-10	1851 499 989	-4.4	0.000 000	-0.002
100%		0	1851 499 989	-4.3	0.000 000	-0.002
100%		+10	1851 499 989	-4.7	0.000 000	-0.003
100%		+30	1851 499 988	-5.4	0.000 000	-0.003
100%		+40	1851 499 989	-5.0	0.000 000	-0.003
100%		+50	1851 499 990	-3.5	0.000 000	-0.002
Batt. Endpoint	7.300	+20	1851 499 990	-3.7	0.000 000	-0.002



▣ MODE: LTE B25/B2

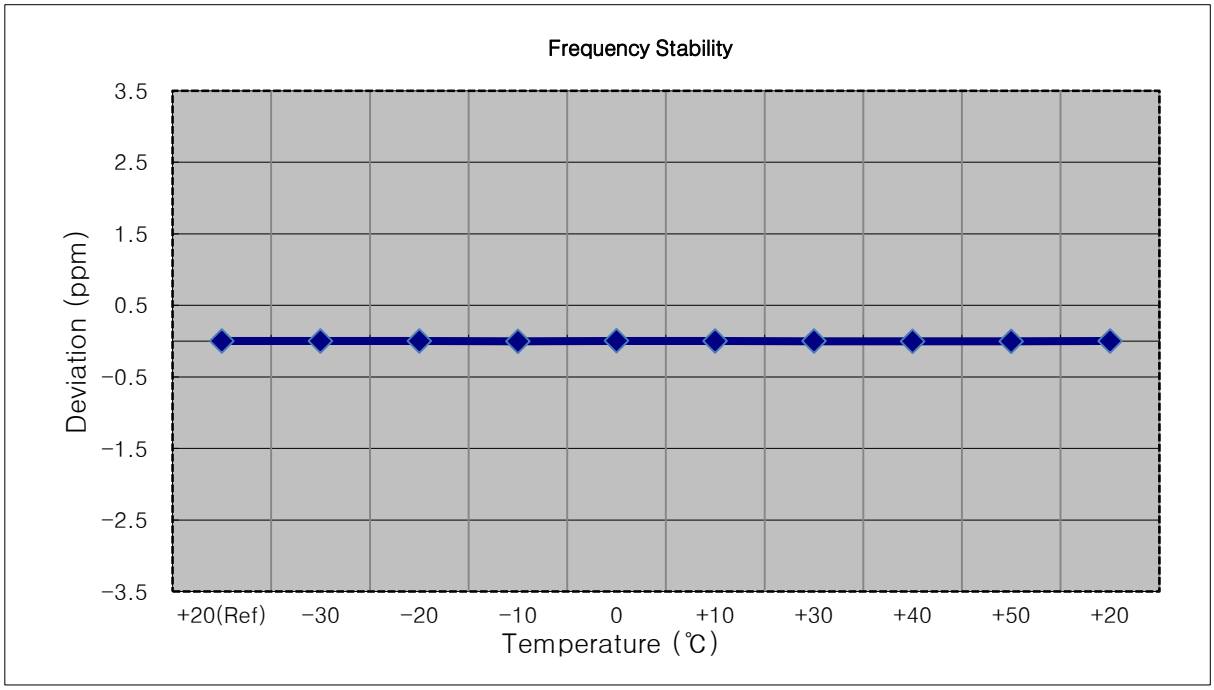
▣ OPERATING FREQUENCY: 1852,500,000 Hz

▣ CHANNEL: 26065 (5 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1852 500 004	0.0	0.000 000	0.000
100%		-30	1852 500 008	3.4	0.000 000	0.002
100%		-20	1852 500 008	3.4	0.000 000	0.002
100%		-10	1852 500 000	-4.4	0.000 000	-0.002
100%		0	1852 500 009	5.0	0.000 000	0.003
100%		+10	1852 500 008	3.3	0.000 000	0.002
100%		+30	1852 500 001	-3.8	0.000 000	-0.002
100%		+40	1852 499 999	-5.5	0.000 000	-0.003
100%		+50	1852 500 000	-4.4	0.000 000	-0.002
Batt. Endpoint	7.300	+20	1852 500 008	3.8	0.000 000	0.002



▣ MODE: LTE B25/B2

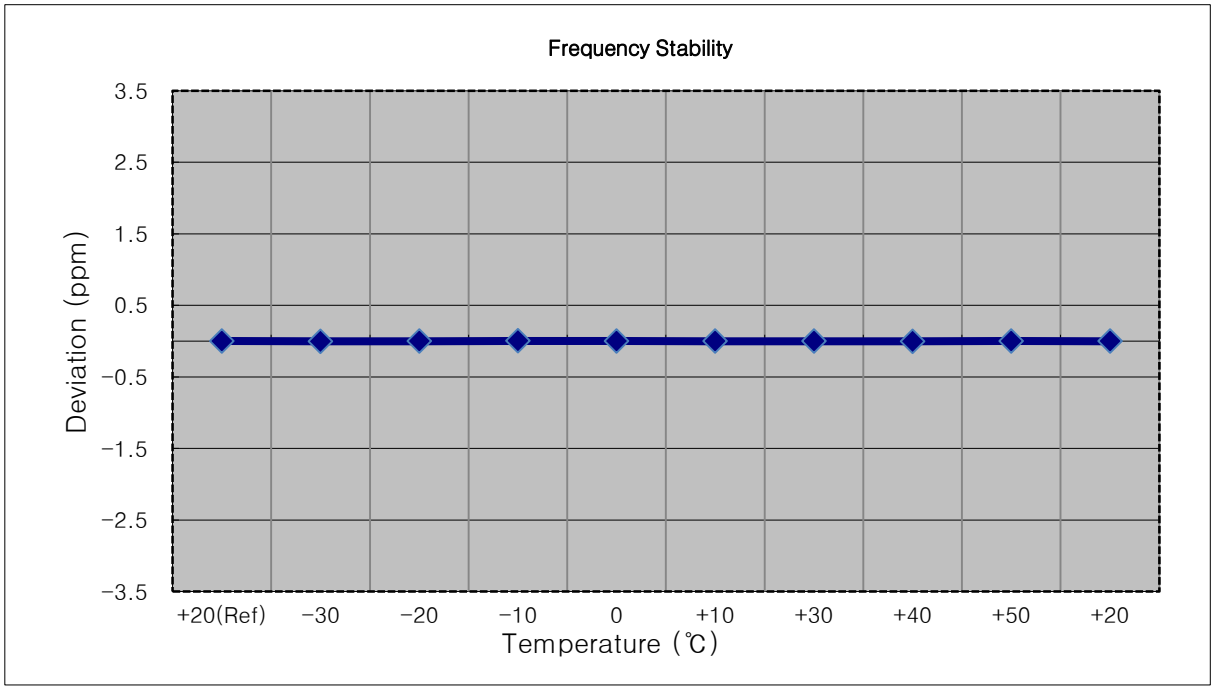
▣ OPERATING FREQUENCY: 1855,000,000 Hz

▣ CHANNEL: 26090 (10 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1855 000 005	0.0	0.000 000	0.000
100%		-30	1854 999 999	-6.7	0.000 000	-0.004
100%		-20	1855 000 002	-3.6	0.000 000	-0.002
100%		-10	1855 000 009	4.2	0.000 000	0.002
100%		0	1855 000 008	2.8	0.000 000	0.002
100%		+10	1855 000 002	-3.1	0.000 000	-0.002
100%		+30	1855 000 002	-3.0	0.000 000	-0.002
100%		+40	1855 000 000	-5.6	0.000 000	-0.003
100%		+50	1855 000 008	3.1	0.000 000	0.002
Batt. Endpoint	7.300	+20	1855 000 002	-3.2	0.000 000	-0.002



▣ MODE: LTE B25/B2

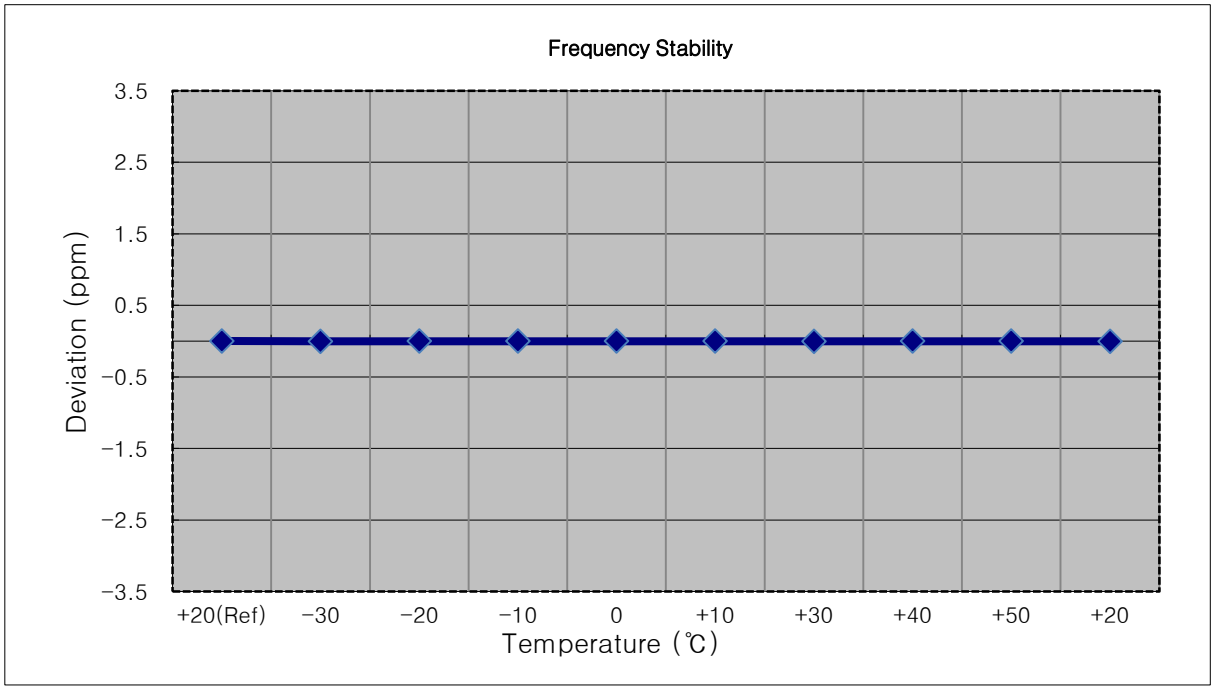
▣ OPERATING FREQUENCY: 1857,500,000 Hz

▣ CHANNEL: 26115 (15 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1857 499 997	0.0	0.000 000	0.000
100%		-30	1857 499 992	-4.8	0.000 000	-0.003
100%		-20	1857 499 993	-3.8	0.000 000	-0.002
100%		-10	1857 499 994	-2.9	0.000 000	-0.002
100%		0	1857 499 993	-3.8	0.000 000	-0.002
100%		+10	1857 499 994	-3.2	0.000 000	-0.002
100%		+30	1857 499 992	-5.6	0.000 000	-0.003
100%		+40	1857 499 994	-3.5	0.000 000	-0.002
100%		+50	1857 499 995	-1.8	0.000 000	-0.001
Batt. Endpoint	7.300	+20	1857 499 993	-4.5	0.000 000	-0.002



▣ MODE: LTE B25/B2

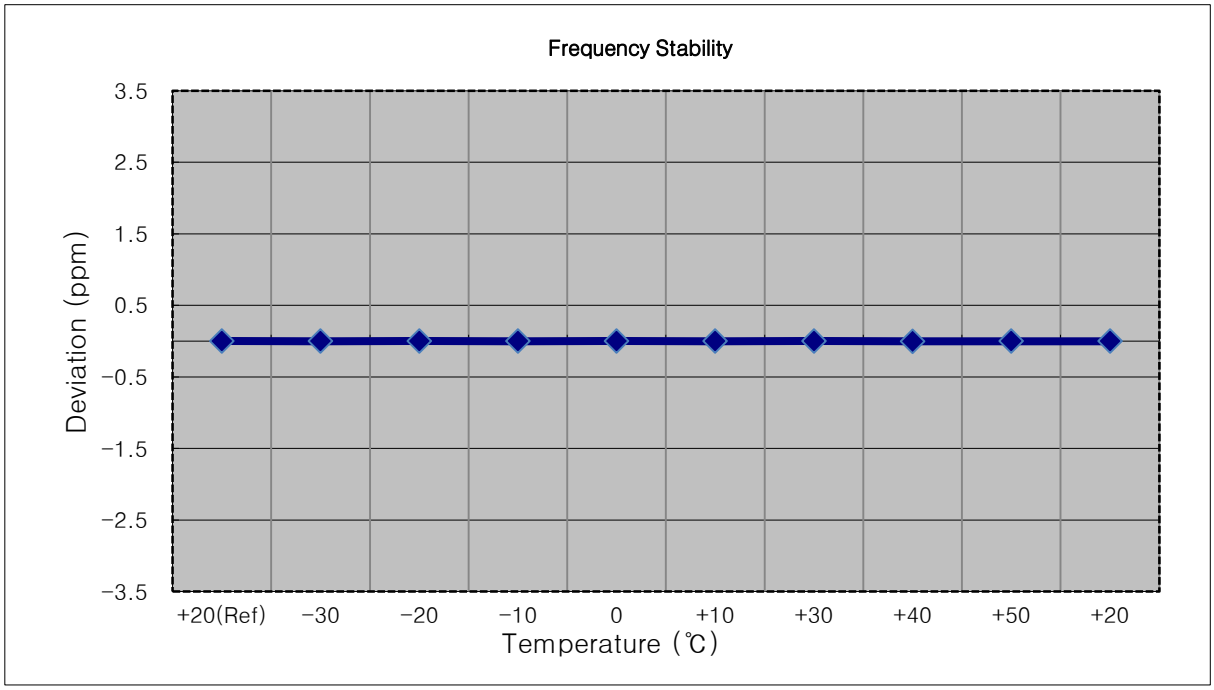
▣ OPERATING FREQUENCY: 1860,000,000 Hz

▣ CHANNEL: 26140 (20 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1859 999 995	0.0	0.000 000	0.000
100%		-30	1859 999 991	-3.6	0.000 000	-0.002
100%		-20	1859 999 997	2.0	0.000 000	0.001
100%		-10	1859 999 991	-3.1	0.000 000	-0.002
100%		0	1859 999 998	3.9	0.000 000	0.002
100%		+10	1859 999 990	-4.1	0.000 000	-0.002
100%		+30	1859 999 997	2.9	0.000 000	0.002
100%		+40	1859 999 988	-6.2	0.000 000	-0.003
100%		+50	1859 999 992	-2.4	0.000 000	-0.001
Batt. Endpoint	7.300	+20	1859 999 992	-2.9	0.000 000	-0.002



▣ MODE: LTE B25/B2

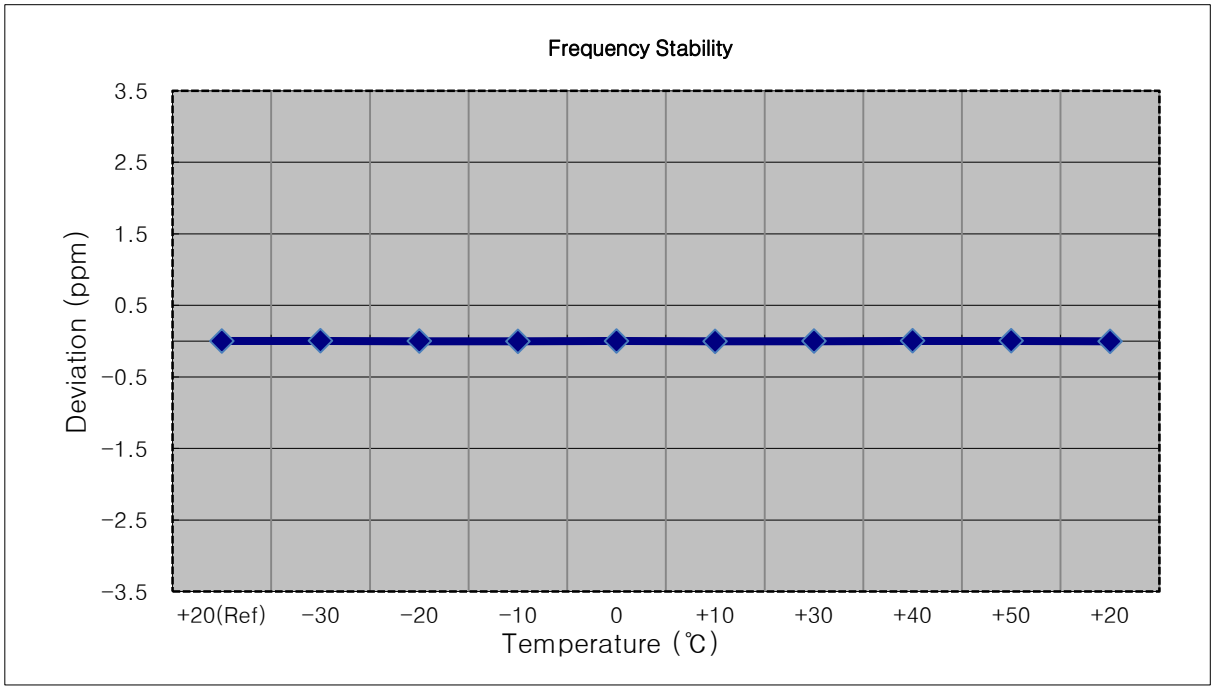
▣ OPERATING FREQUENCY: 1882,500,000 Hz

▣ CHANNEL: 26365 (1.4 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1882 500 008	0.0	0.000 000	0.000
100%		-30	1882 500 013	5.2	0.000 000	0.003
100%		-20	1882 500 005	-2.7	0.000 000	-0.001
100%		-10	1882 500 002	-6.0	0.000 000	-0.003
100%		0	1882 500 011	3.3	0.000 000	0.002
100%		+10	1882 500 002	-6.1	0.000 000	-0.003
100%		+30	1882 500 005	-2.8	0.000 000	-0.001
100%		+40	1882 500 013	5.0	0.000 000	0.003
100%		+50	1882 500 013	5.4	0.000 000	0.003
Batt. Endpoint	7.300	+20	1882 500 003	-5.2	0.000 000	-0.003



▣ MODE: LTE B25/B2

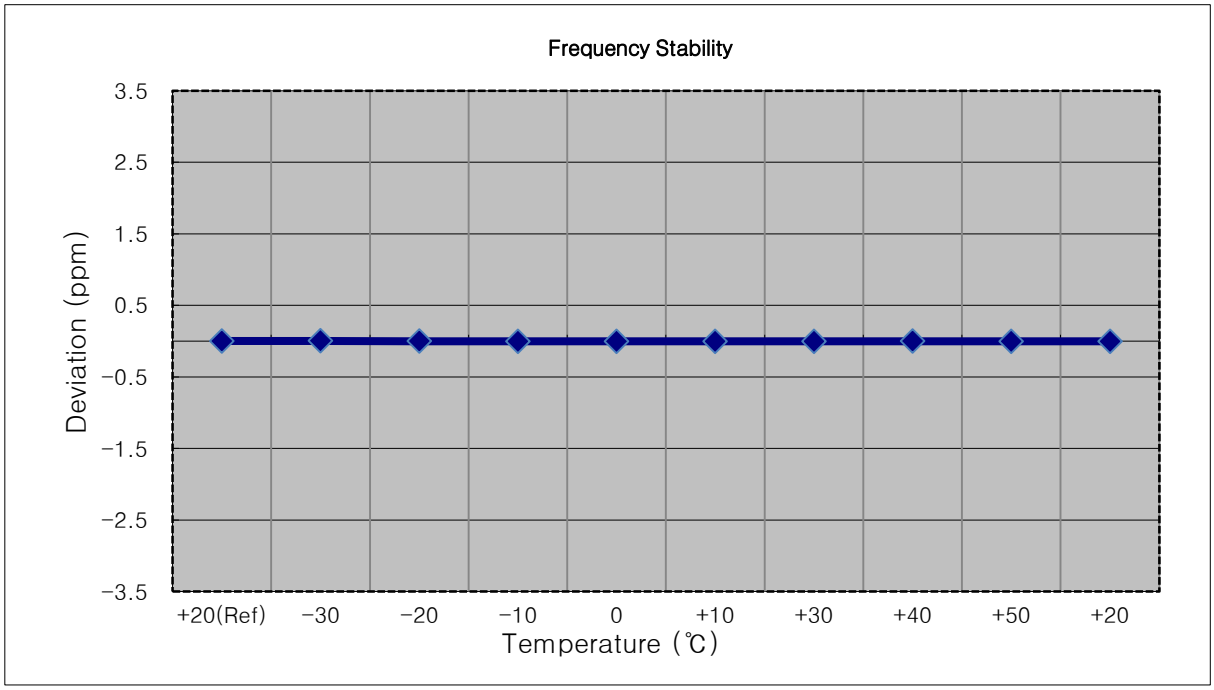
▣ OPERATING FREQUENCY: 1882,500,000 Hz

▣ CHANNEL: 26365 (3 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1882 499 996	0.0	0.000 000	0.000
100%		-30	1882 500 000	4.6	0.000 000	0.002
100%		-20	1882 499 992	-3.8	0.000 000	-0.002
100%		-10	1882 499 989	-6.8	0.000 000	-0.004
100%		0	1882 499 991	-4.8	0.000 000	-0.003
100%		+10	1882 499 990	-5.3	0.000 000	-0.003
100%		+30	1882 499 990	-6.2	0.000 000	-0.003
100%		+40	1882 499 992	-3.6	0.000 000	-0.002
100%		+50	1882 499 989	-6.8	0.000 000	-0.004
Batt. Endpoint	7.300	+20	1882 499 990	-5.4	0.000 000	-0.003



▣ MODE: LTE B25/B2

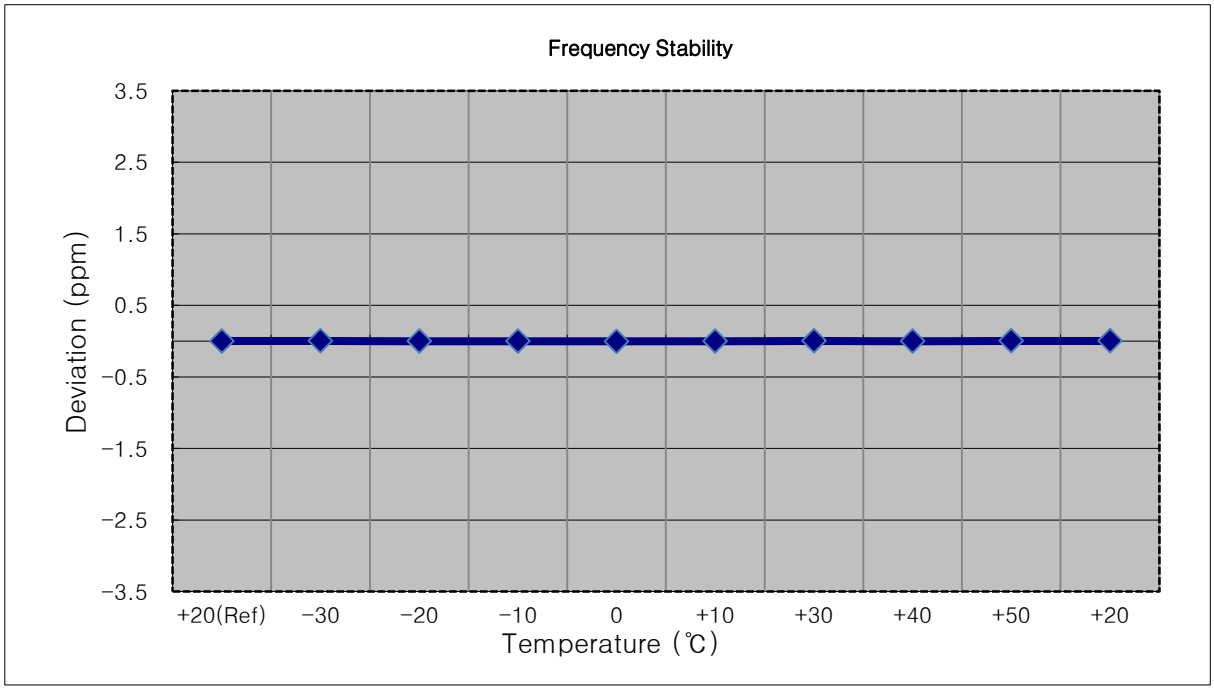
▣ OPERATING FREQUENCY: 1882,500,000 Hz

▣ CHANNEL: 26365 (5 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1882 499 996	0.0	0.000 000	0.000
100%		-30	1882 500 002	6.4	0.000 000	0.003
100%		-20	1882 499 992	-3.6	0.000 000	-0.002
100%		-10	1882 499 992	-4.2	0.000 000	-0.002
100%		0	1882 499 991	-4.9	0.000 000	-0.003
100%		+10	1882 499 993	-3.2	0.000 000	-0.002
100%		+30	1882 500 000	4.0	0.000 000	0.002
100%		+40	1882 499 992	-3.9	0.000 000	-0.002
100%		+50	1882 500 003	6.7	0.000 000	0.004
Batt. Endpoint	7.300	+20	1882 500 000	4.2	0.000 000	0.002



▣ MODE: LTE B25/B2

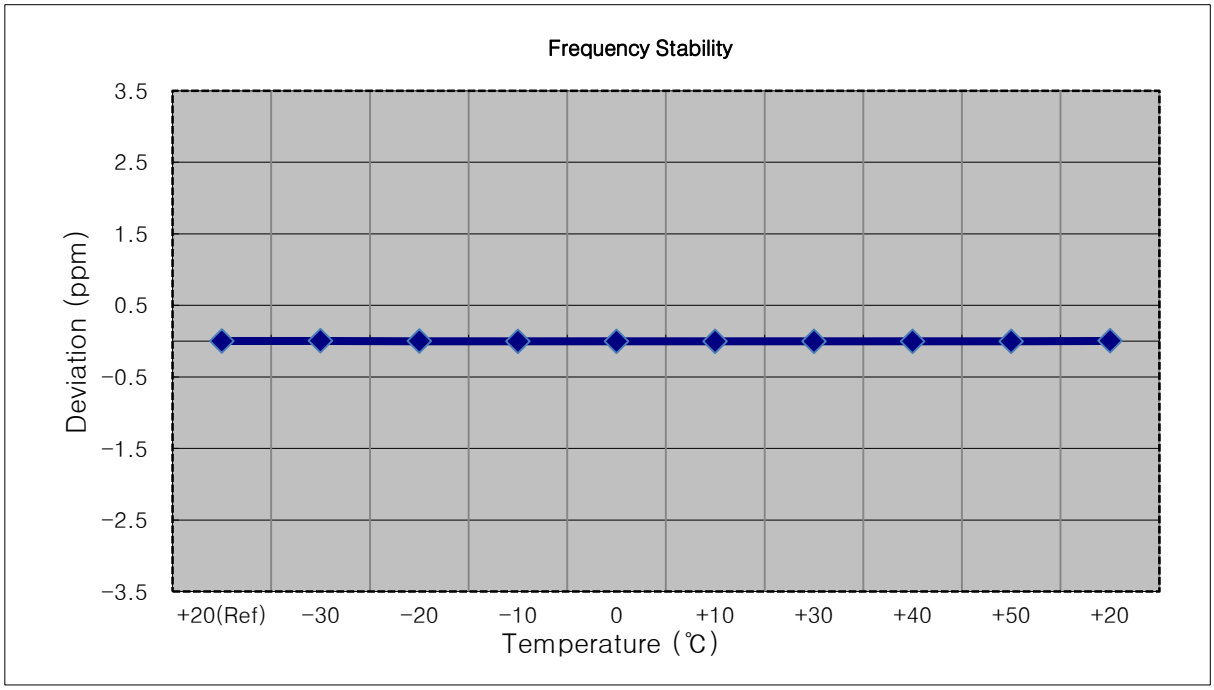
▣ OPERATING FREQUENCY: 1882,500,000 Hz

▣ CHANNEL: 26365 (10 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1882 499 994	0.0	0.000 000	0.000
100%		-30	1882 500 000	5.1	0.000 000	0.003
100%		-20	1882 499 991	-3.6	0.000 000	-0.002
100%		-10	1882 499 990	-4.5	0.000 000	-0.002
100%		0	1882 499 989	-5.5	0.000 000	-0.003
100%		+10	1882 499 988	-6.6	0.000 000	-0.004
100%		+30	1882 499 988	-6.1	0.000 000	-0.003
100%		+40	1882 499 989	-5.3	0.000 000	-0.003
100%		+50	1882 499 990	-4.9	0.000 000	-0.003
Batt. Endpoint	7.300	+20	1882 500 000	5.5	0.000 000	0.003



▣ MODE: LTE B25/B2

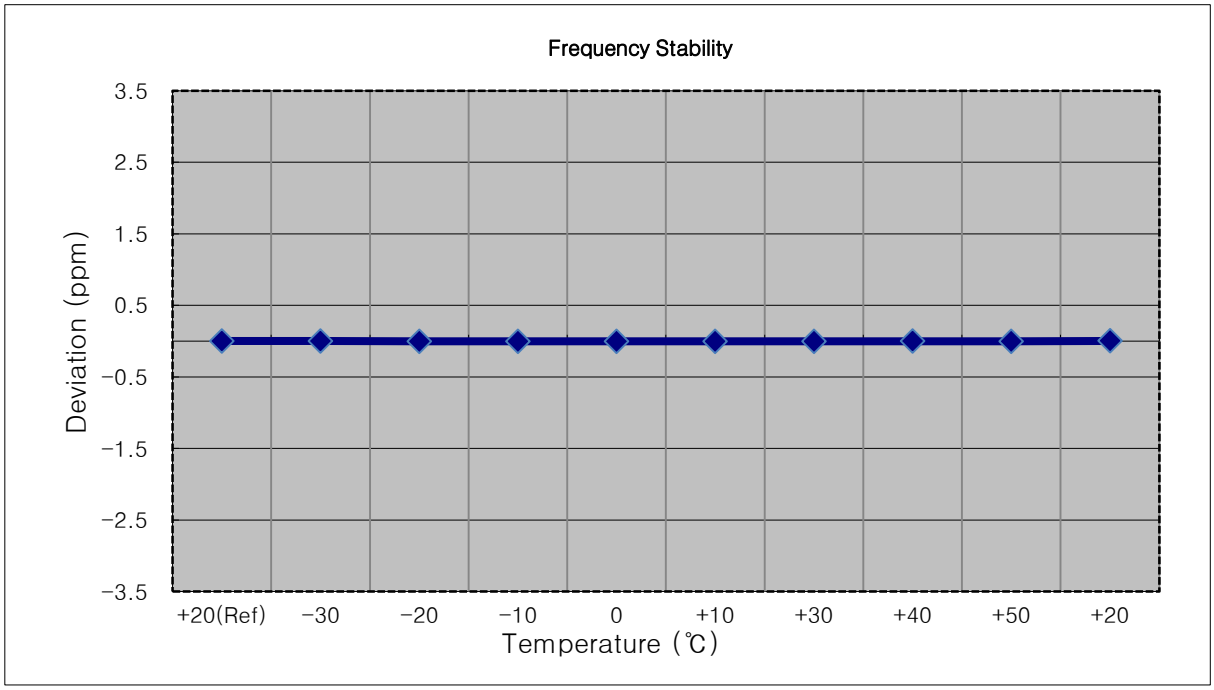
▣ OPERATING FREQUENCY: 1882,500,000 Hz

▣ CHANNEL: 26365 (15 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1882 499 993	0.0	0.000 000	0.000
100%		-30	1882 499 995	2.1	0.000 000	0.001
100%		-20	1882 499 987	-6.1	0.000 000	-0.003
100%		-10	1882 499 988	-4.7	0.000 000	-0.002
100%		0	1882 499 988	-4.6	0.000 000	-0.002
100%		+10	1882 499 988	-4.9	0.000 000	-0.003
100%		+30	1882 499 987	-5.8	0.000 000	-0.003
100%		+40	1882 499 989	-3.9	0.000 000	-0.002
100%		+50	1882 499 988	-4.9	0.000 000	-0.003
Batt. Endpoint	7.300	+20	1882 499 998	4.7	0.000 000	0.002



▣ MODE: LTE B25/B2

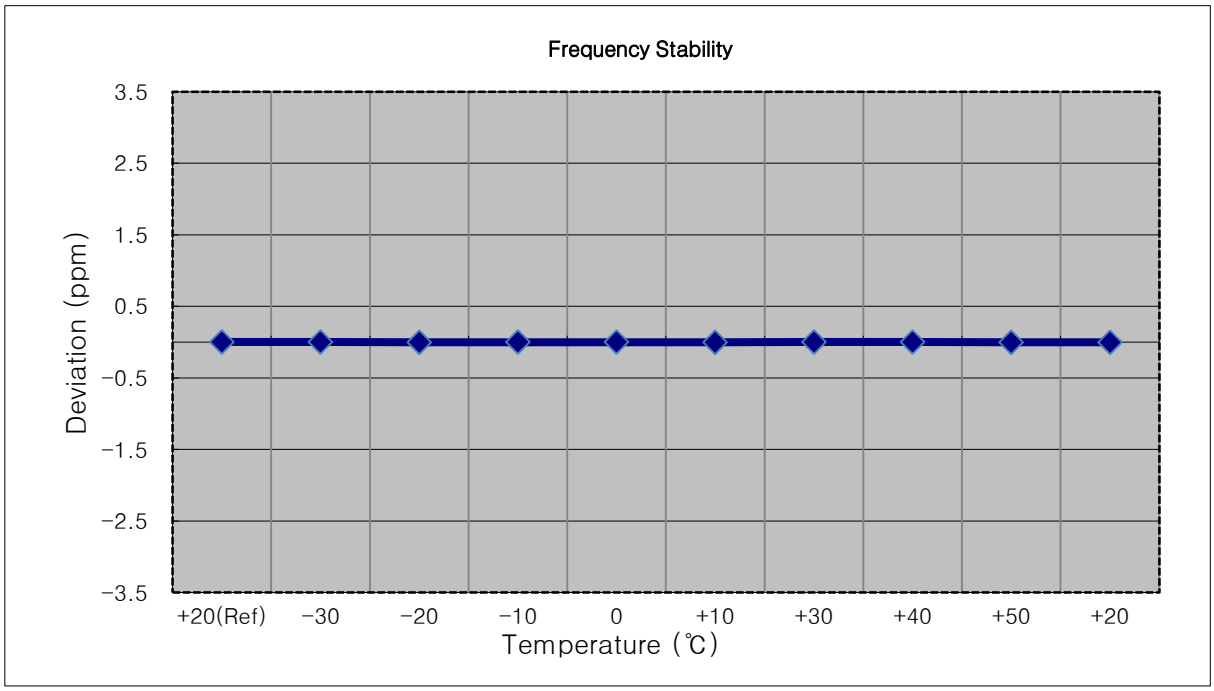
▣ OPERATING FREQUENCY: 1882,500,000 Hz

▣ CHANNEL: 26365 (20 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1882 499 998	0.0	0.000 000	0.000
100%		-30	1882 500 002	3.7	0.000 000	0.002
100%		-20	1882 499 993	-5.0	0.000 000	-0.003
100%		-10	1882 499 995	-2.8	0.000 000	-0.001
100%		0	1882 499 994	-4.4	0.000 000	-0.002
100%		+10	1882 499 993	-5.0	0.000 000	-0.003
100%		+30	1882 500 002	3.7	0.000 000	0.002
100%		+40	1882 500 001	2.6	0.000 000	0.001
100%		+50	1882 499 993	-4.8	0.000 000	-0.003
Batt. Endpoint	7.300	+20	1882 499 991	-6.7	0.000 000	-0.004



▣ MODE: LTE B25/B2

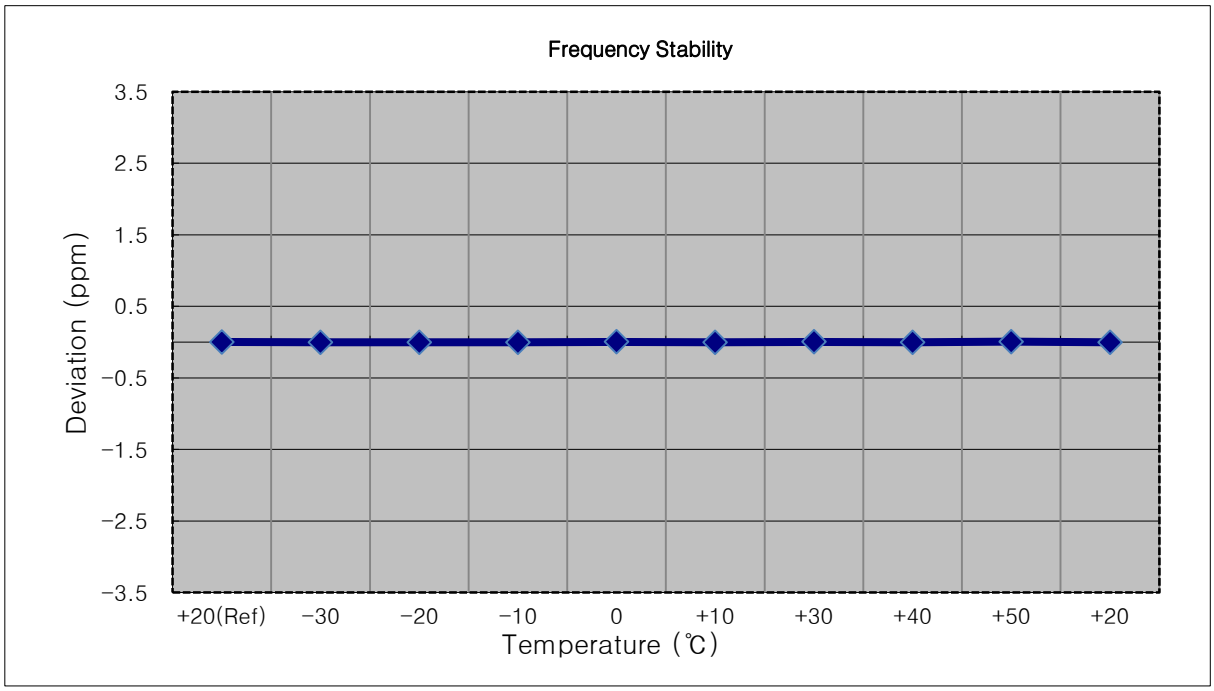
▣ OPERATING FREQUENCY: 1914,300,000 Hz

▣ CHANNEL: 26683 (1.4 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1914 300 007	0.0	0.000 000	0.000
100%		-30	1914 299 999	-7.3	0.000 000	-0.004
100%		-20	1914 300 001	-5.4	0.000 000	-0.003
100%		-10	1914 300 002	-4.8	0.000 000	-0.003
100%		0	1914 300 011	4.2	0.000 000	0.002
100%		+10	1914 299 999	-7.4	0.000 000	-0.004
100%		+30	1914 300 011	4.5	0.000 000	0.002
100%		+40	1914 300 000	-6.3	0.000 000	-0.003
100%		+50	1914 300 015	8.4	0.000 000	0.004
Batt. Endpoint	7.300	+20	1914 299 998	-8.4	0.000 000	-0.004



▣ MODE: LTE B25/B2

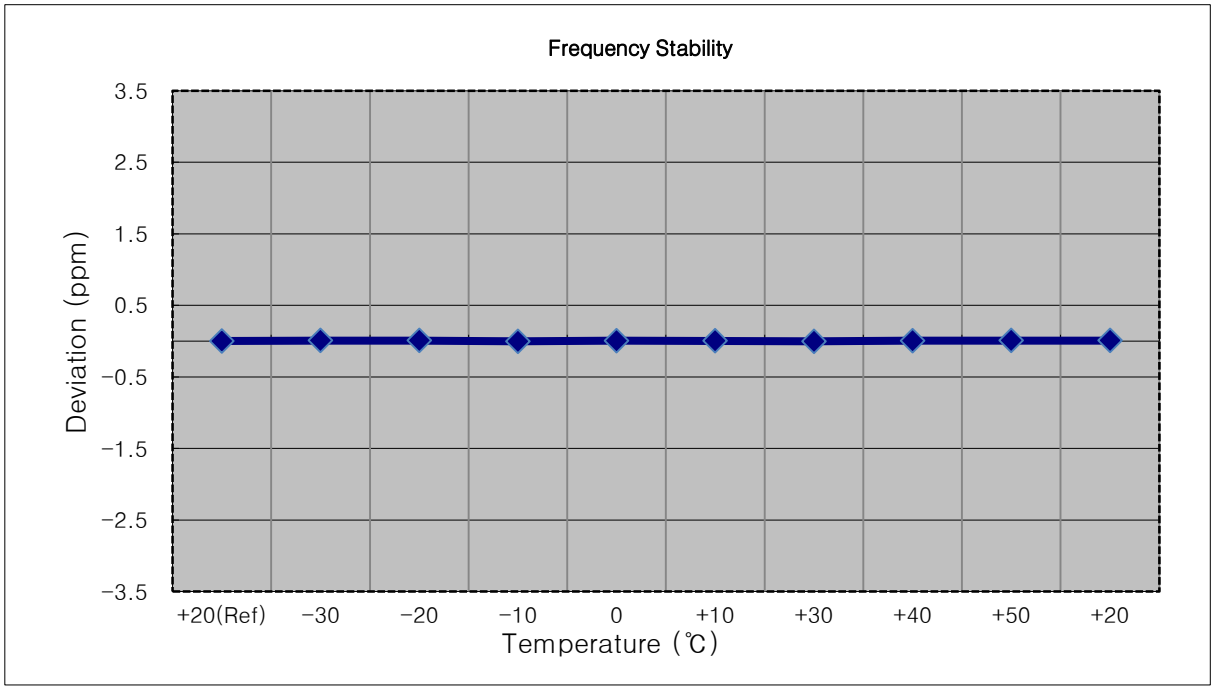
▣ OPERATING FREQUENCY: 1913,500,000 Hz

▣ CHANNEL: 26675 (3 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1913 500 015	0.0	0.000 000	0.000
100%		-30	1913 500 032	16.8	0.000 001	0.009
100%		-20	1913 500 031	16.3	0.000 001	0.009
100%		-10	1913 500 007	-8.0	0.000 000	-0.004
100%		0	1913 500 024	9.5	0.000 000	0.005
100%		+10	1913 500 022	6.7	0.000 000	0.004
100%		+30	1913 500 009	-5.7	0.000 000	-0.003
100%		+40	1913 500 025	10.6	0.000 001	0.006
100%		+50	1913 500 030	15.1	0.000 001	0.008
Batt. Endpoint	7.300	+20	1913 500 030	15.4	0.000 001	0.008



▣ MODE: LTE B25/B2

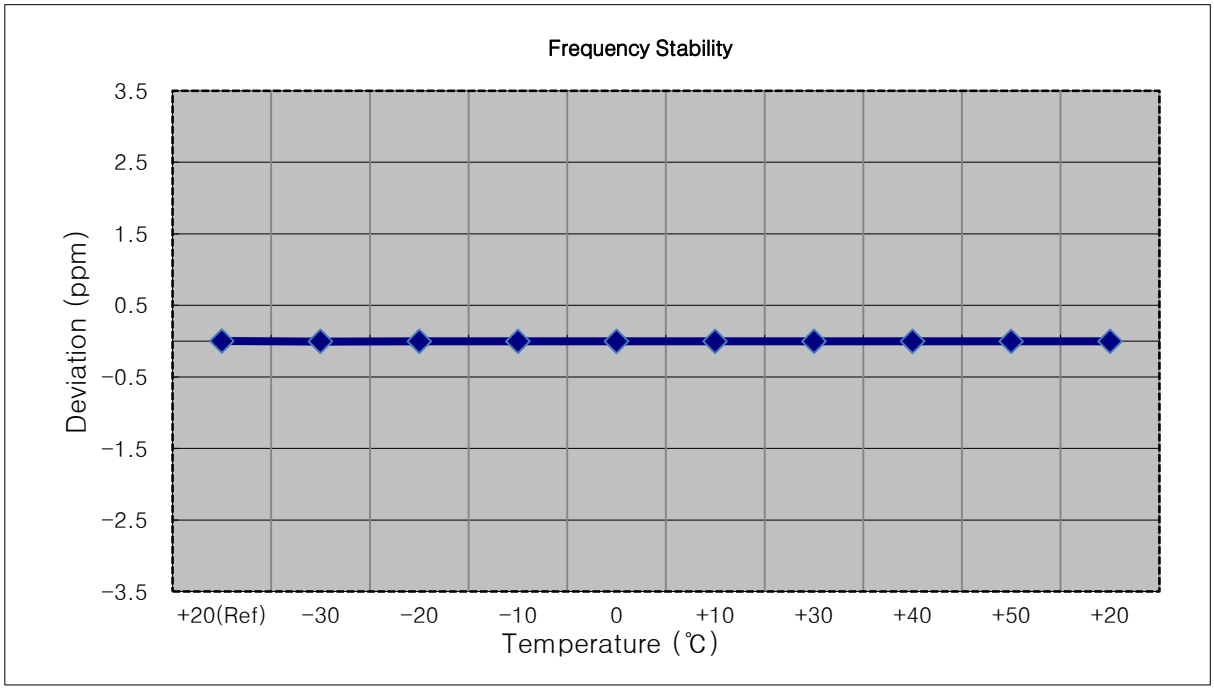
▣ OPERATING FREQUENCY: 1912,500,000 Hz

▣ CHANNEL: 26665 (5 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1912 499 996	0.0	0.000 000	0.000
100%		-30	1912 499 986	-9.8	-0.000 001	-0.005
100%		-20	1912 499 988	-7.6	0.000 000	-0.004
100%		-10	1912 499 988	-7.8	0.000 000	-0.004
100%		0	1912 499 990	-5.3	0.000 000	-0.003
100%		+10	1912 499 991	-4.8	0.000 000	-0.003
100%		+30	1912 499 990	-6.1	0.000 000	-0.003
100%		+40	1912 499 990	-5.6	0.000 000	-0.003
100%		+50	1912 499 988	-7.3	0.000 000	-0.004
Batt. Endpoint	7.300	+20	1912 499 990	-6.0	0.000 000	-0.003



▣ MODE: LTE B25/B2

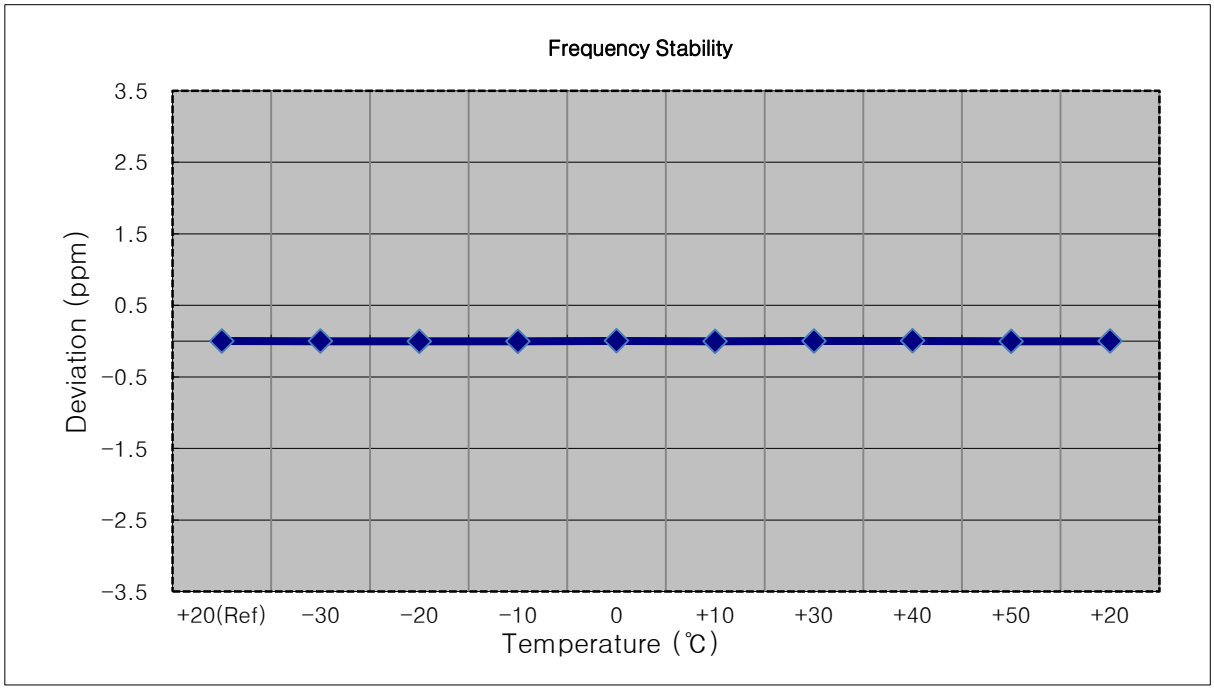
▣ OPERATING FREQUENCY: 1910,000,000 Hz

▣ CHANNEL: 26640 (10 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1909 999 995	0.0	0.000 000	0.000
100%		-30	1909 999 991	-3.4	0.000 000	-0.002
100%		-20	1909 999 990	-5.1	0.000 000	-0.003
100%		-10	1909 999 989	-5.6	0.000 000	-0.003
100%		0	1909 999 999	4.3	0.000 000	0.002
100%		+10	1909 999 988	-6.3	0.000 000	-0.003
100%		+30	1909 999 998	3.0	0.000 000	0.002
100%		+40	1909 999 999	4.3	0.000 000	0.002
100%		+50	1909 999 989	-5.5	0.000 000	-0.003
Batt. Endpoint	7.300	+20	1909 999 991	-3.4	0.000 000	-0.002



▣ MODE: LTE B25/B2

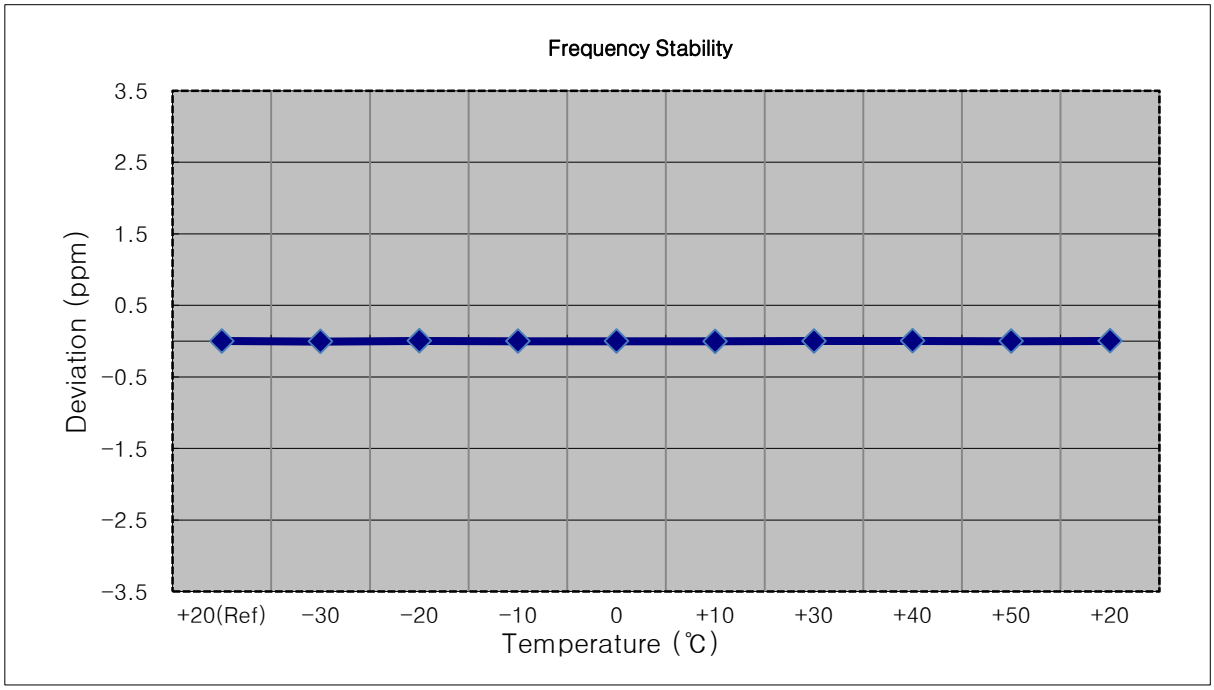
▣ OPERATING FREQUENCY: 1907,500,000 Hz

▣ CHANNEL: 26615 (15 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1907 500 006	0.0	0.000 000	0.000
100%		-30	1907 499 996	-9.5	0.000 000	-0.005
100%		-20	1907 500 011	5.1	0.000 000	0.003
100%		-10	1907 500 002	-4.2	0.000 000	-0.002
100%		0	1907 500 002	-3.5	0.000 000	-0.002
100%		+10	1907 499 998	-8.1	0.000 000	-0.004
100%		+30	1907 500 009	3.1	0.000 000	0.002
100%		+40	1907 500 011	4.9	0.000 000	0.003
100%		+50	1907 500 002	-4.3	0.000 000	-0.002
Batt. Endpoint	7.300	+20	1907 500 010	4.5	0.000 000	0.002



▣ MODE: LTE B25/B2

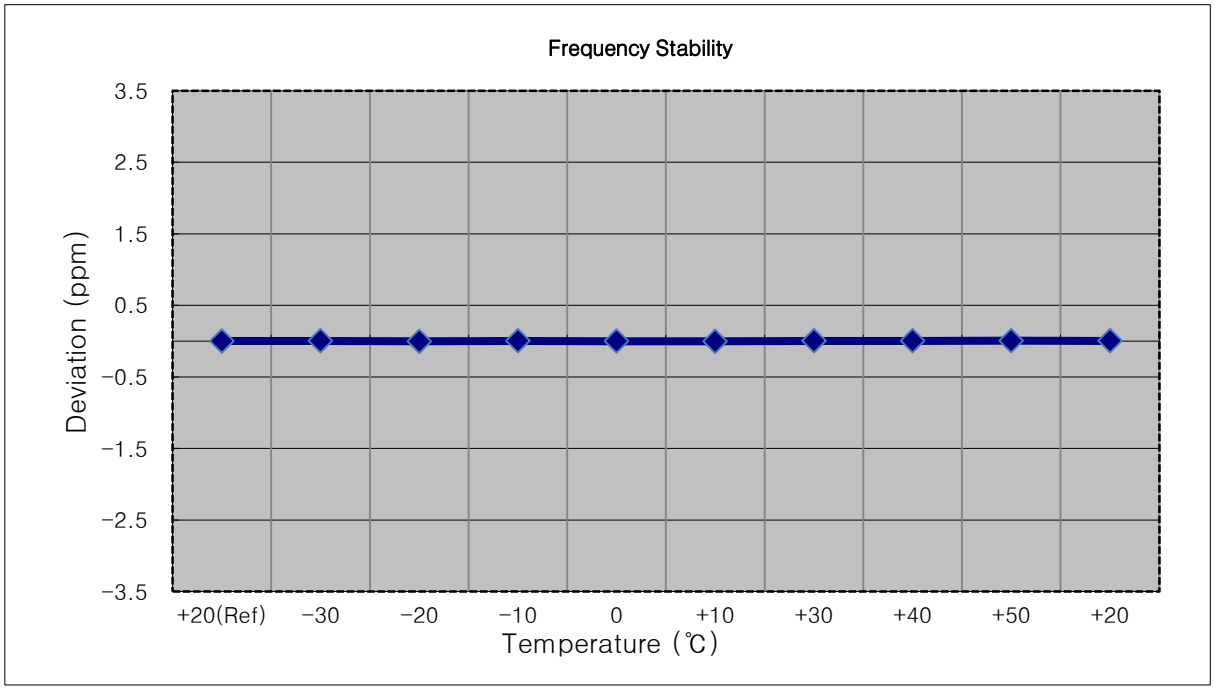
▣ OPERATING FREQUENCY: 1905,000,000 Hz

▣ CHANNEL: 26590 (20 MHz)

▣ REFERENCE VOLTAGE: 7.70 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100%	7.700	+20(Ref)	1904 999 995	0.0	0.000 000	0.000
100%		-30	1905 000 001	5.8	0.000 000	0.003
100%		-20	1904 999 990	-5.1	0.000 000	-0.003
100%		-10	1905 000 001	5.3	0.000 000	0.003
100%		0	1904 999 991	-4.4	0.000 000	-0.002
100%		+10	1904 999 990	-5.4	0.000 000	-0.003
100%		+30	1905 000 000	4.6	0.000 000	0.002
100%		+40	1905 000 000	4.6	0.000 000	0.002
100%		+50	1905 000 005	9.6	0.000 001	0.005
Batt. Endpoint	7.300	+20	1905 000 000	4.1	0.000 000	0.002



8.8 RECEIVER SPURIOUS EMISSIONS

Frequency Range : 30 MHz ~ 1 GHz

Frequency	Reading	Ant. factor+Cable loss- Amp Gain	Ant. POL	Total	Limit	Margin
MHz	dBμV	dB /m	(H/V)	dBμV/m	dBμV/m	dB
No Peak Found						

Frequency Range : Above 1 GHz

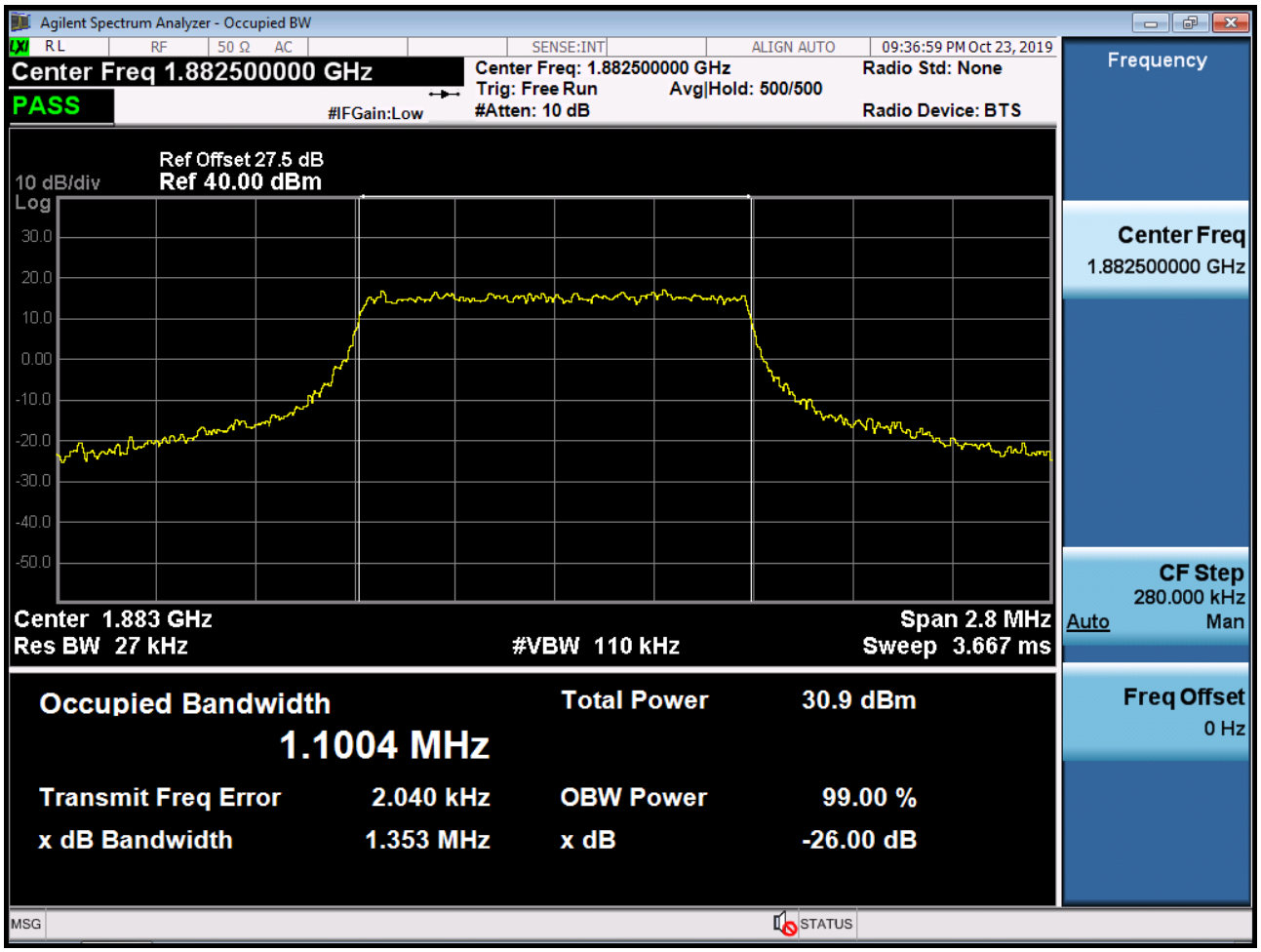
Frequency	Reading	Ant. factor+Cable loss- Amp Gain	Ant. POL	Total	Limit	Margin
MHz	dBμV	dB /m	(H/V)	dBμV/m	dBμV/m	dB
No Peak Found						

Limit

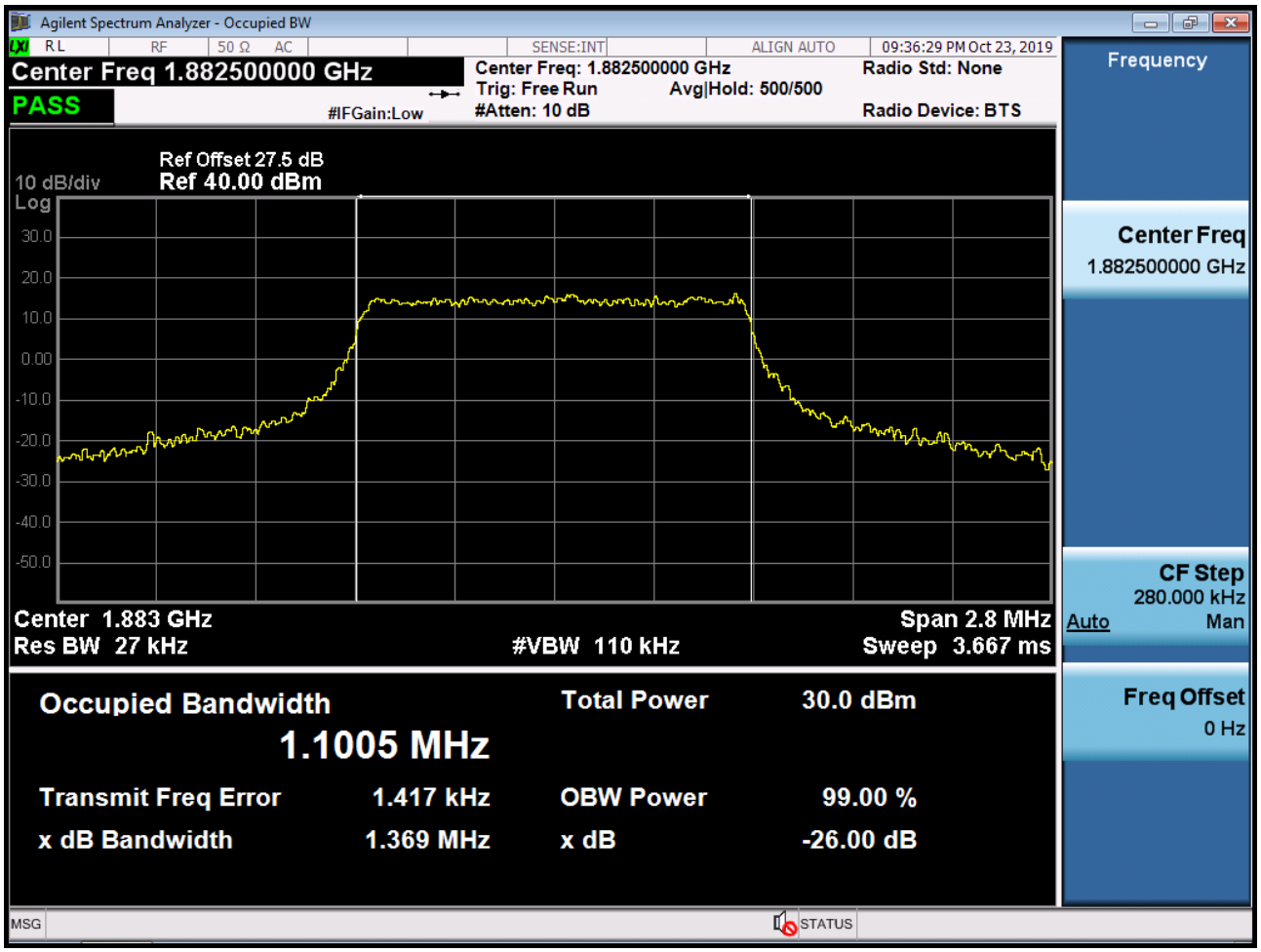
Frequency (MHz)	Field Strength (μv/m at 3 meters)
30 – 88	100
88 - 216	150
216 – 960	200
Above 960	500

9. TEST PLOTS

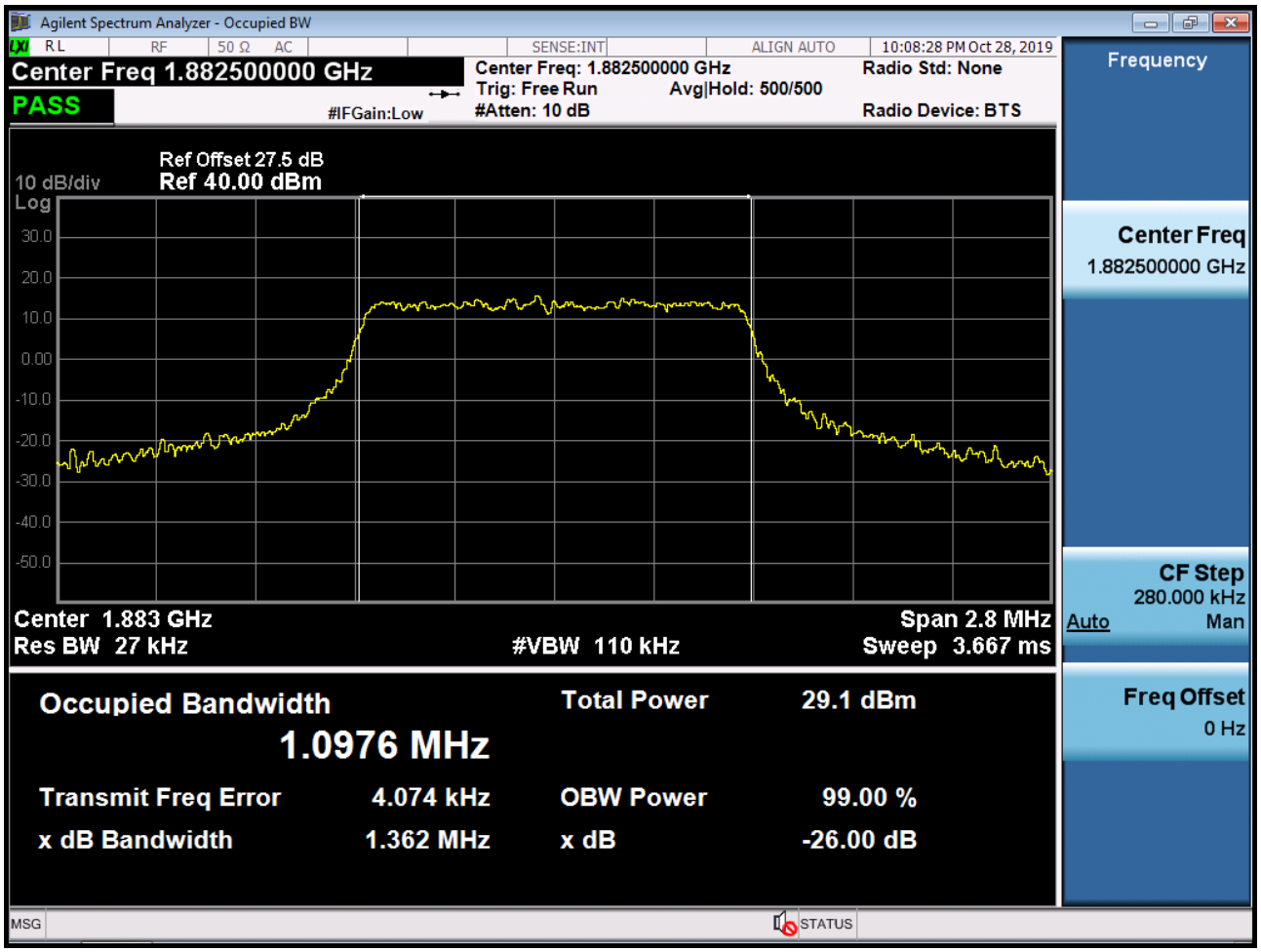
BAND 25/2. Occupied Bandwidth Plot (1.4M BW Ch.26365 QPSK RB 6_0)



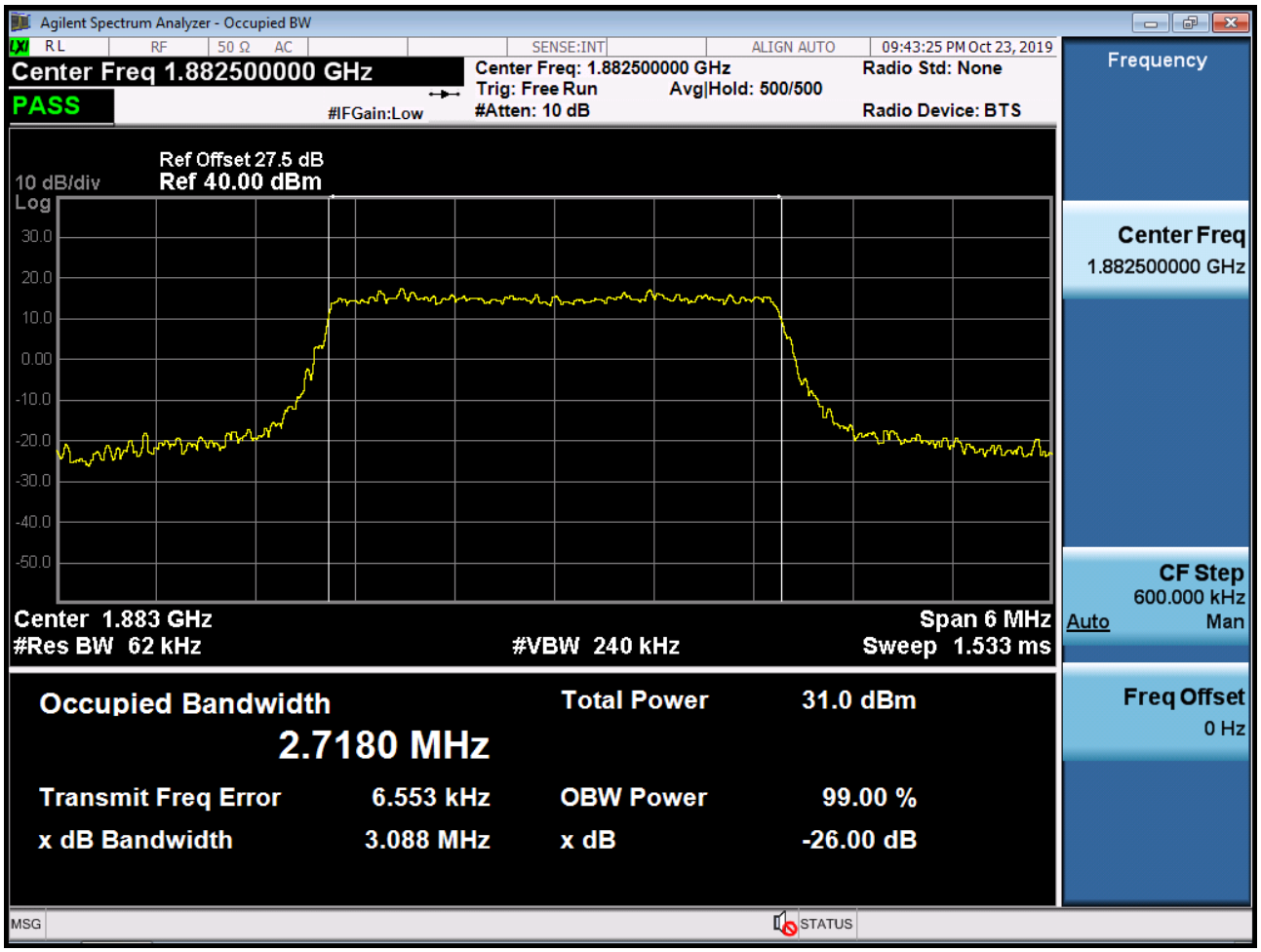
BAND 25/2. Occupied Bandwidth Plot (1.4M BW Ch.26365 16QAM RB 6_0)



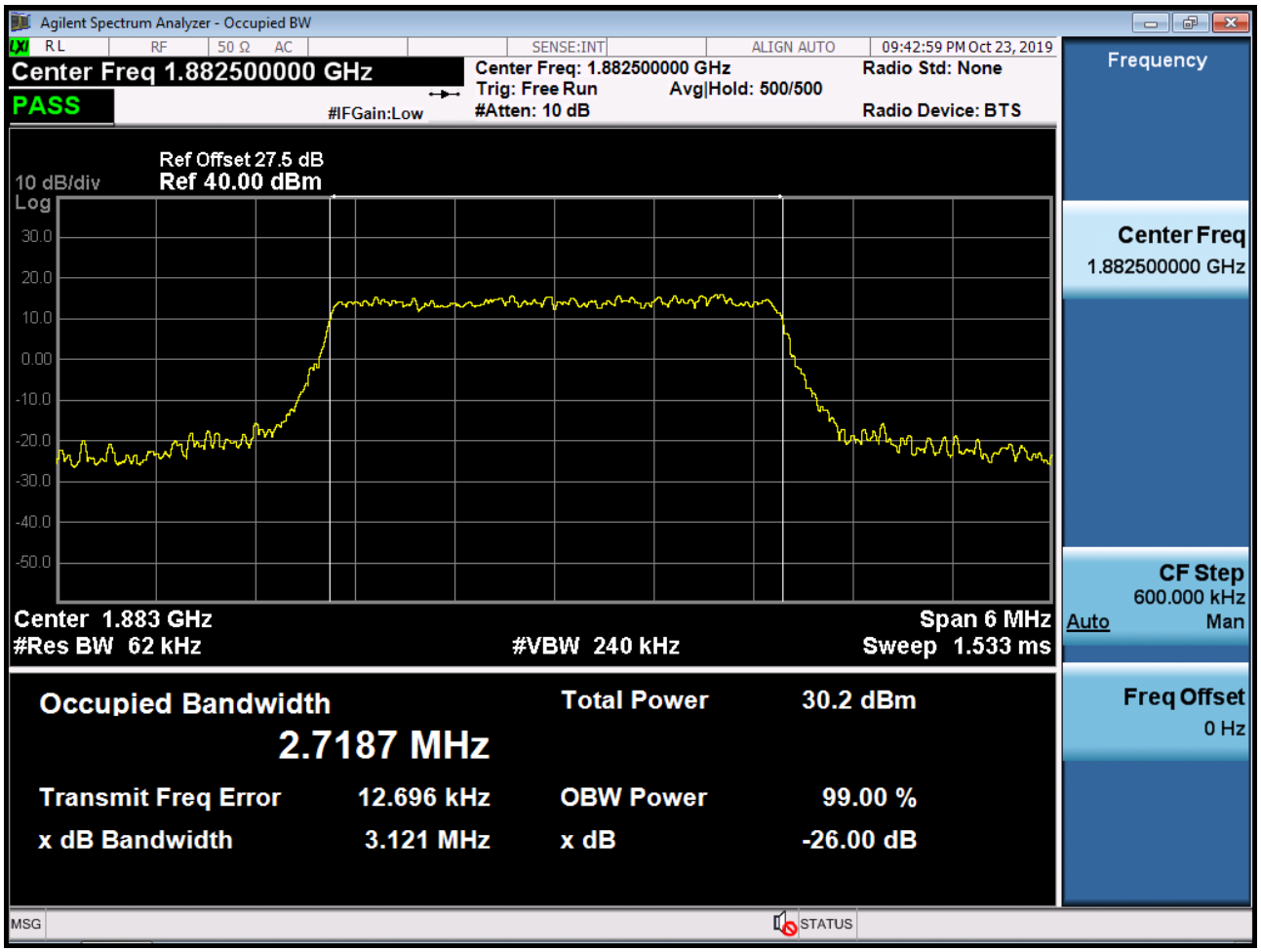
BAND 25/2. Occupied Bandwidth Plot (1.4M BW Ch.26365 64QAM RB 6_0)



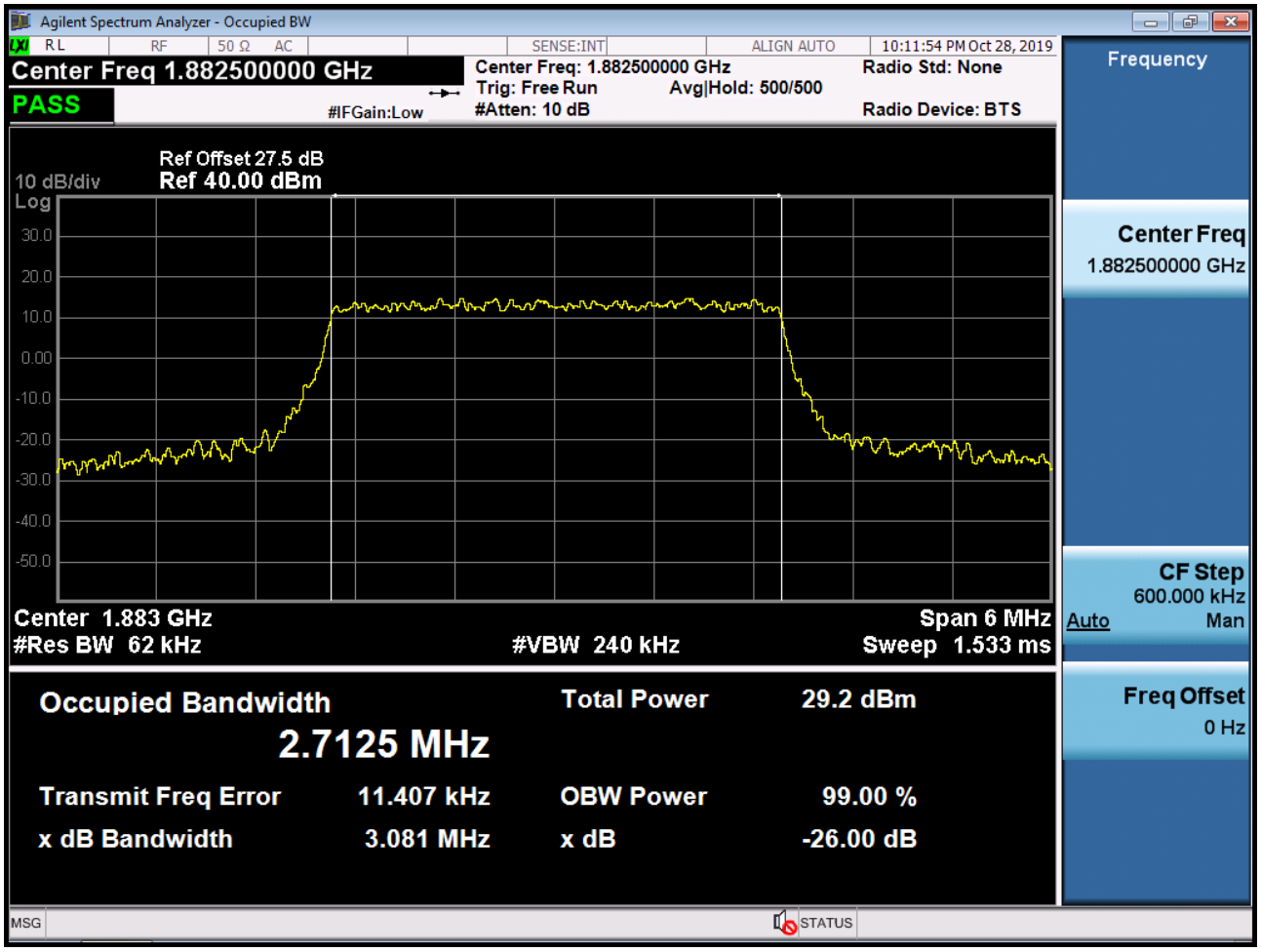
BAND 25/2. Occupied Bandwidth Plot (3M BW Ch.26365 QPSK RB 15_0)



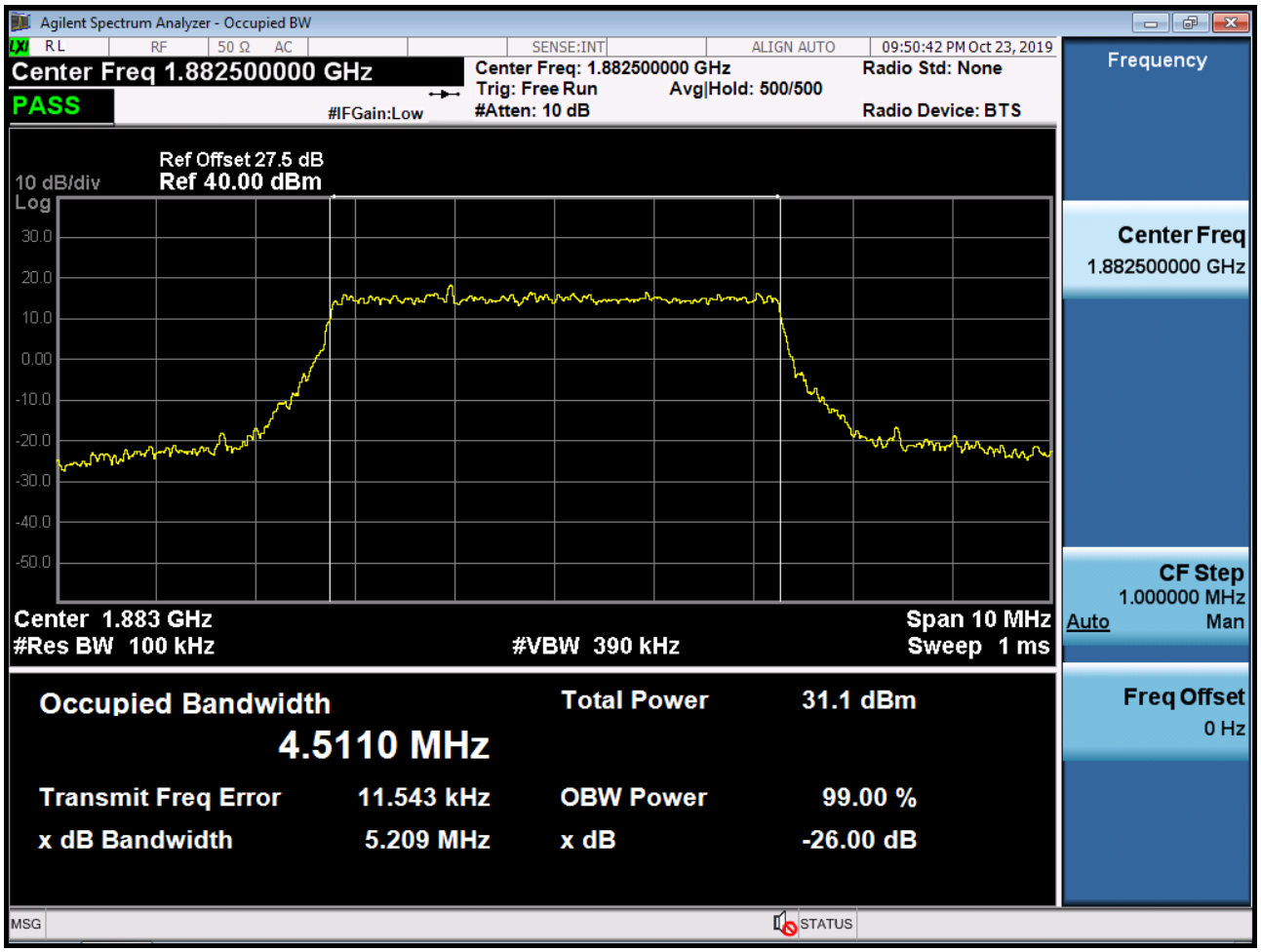
BAND 25/2. Occupied Bandwidth Plot (3M BW Ch.26365 16QAM RB 15_0)



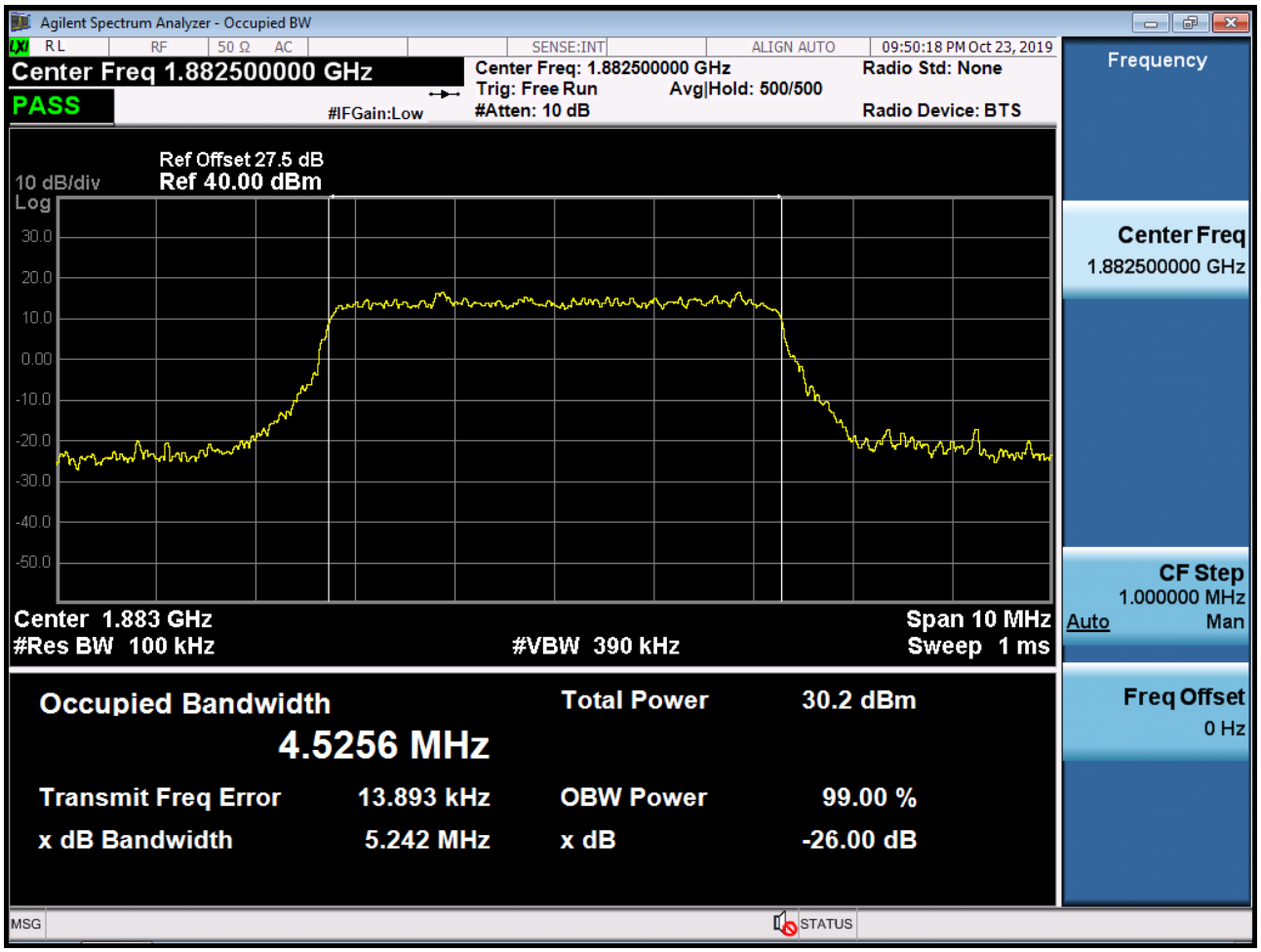
BAND 25/2. Occupied Bandwidth Plot (3M BW Ch.26365 64QAM RB 15_0)



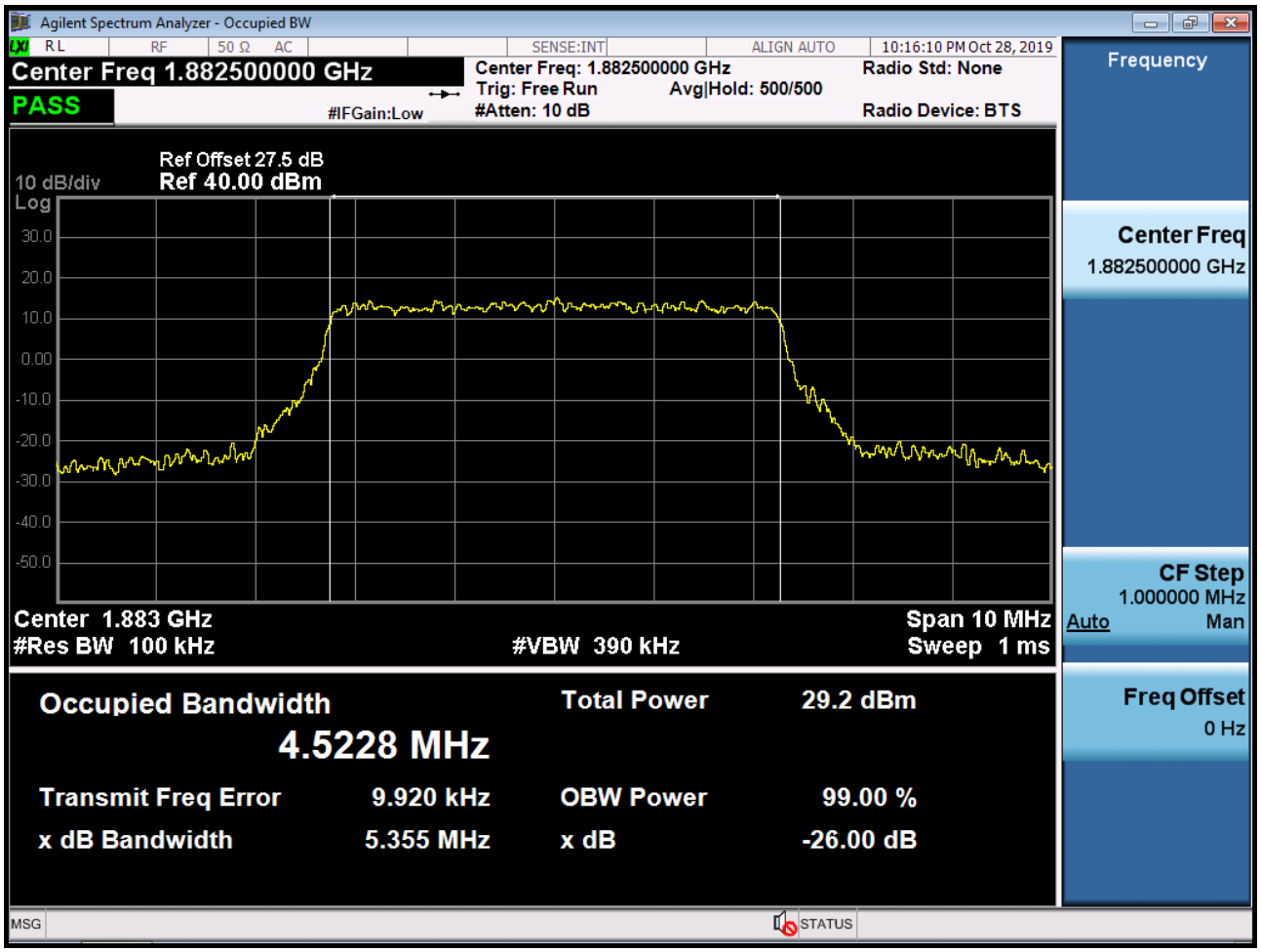
BAND 25/2. Occupied Bandwidth Plot (5M BW Ch.26365 QPSK RB 25_0)



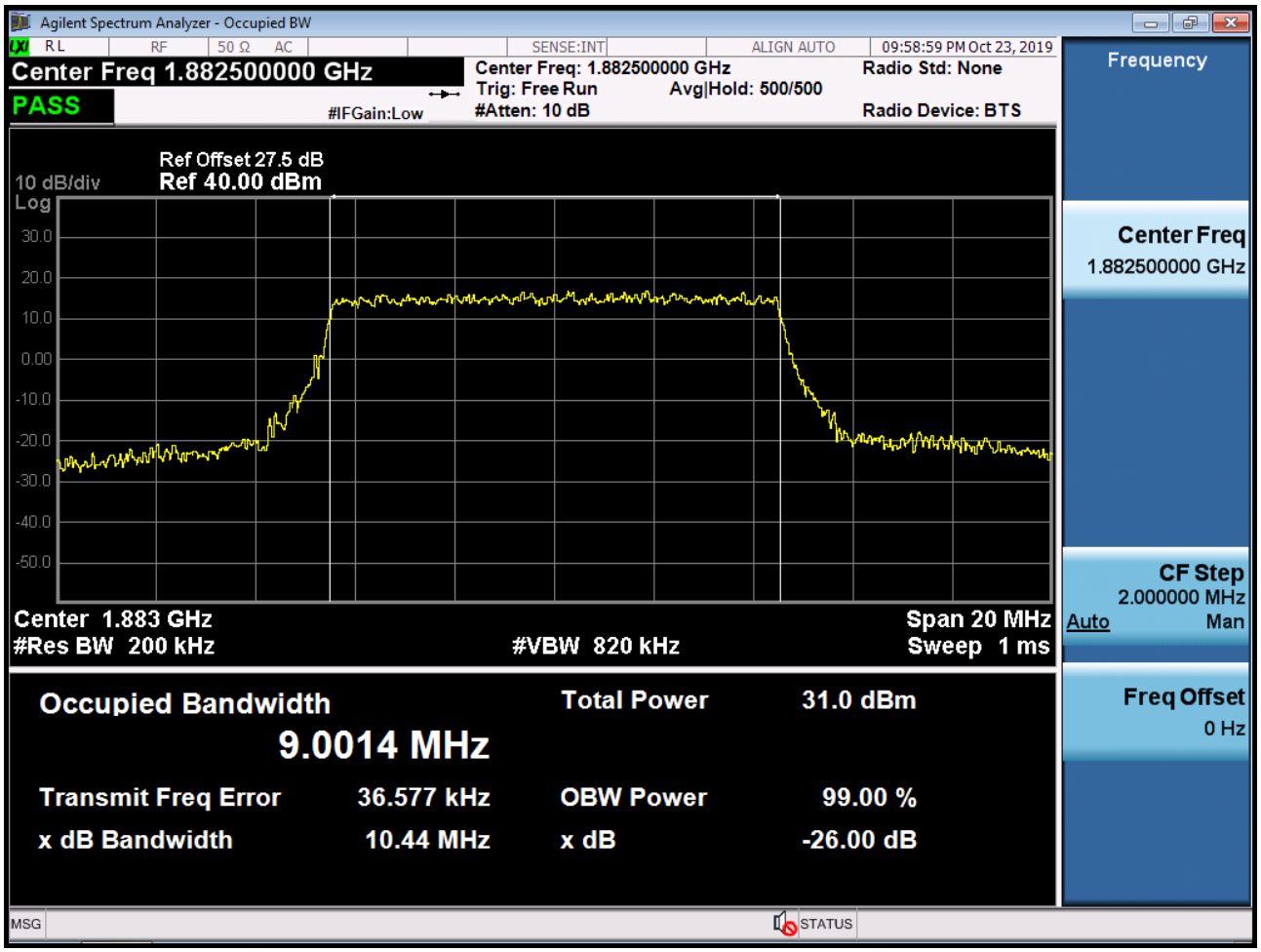
BAND 25/2. Occupied Bandwidth Plot (5M BW Ch.26365 16QAM RB 25_0)



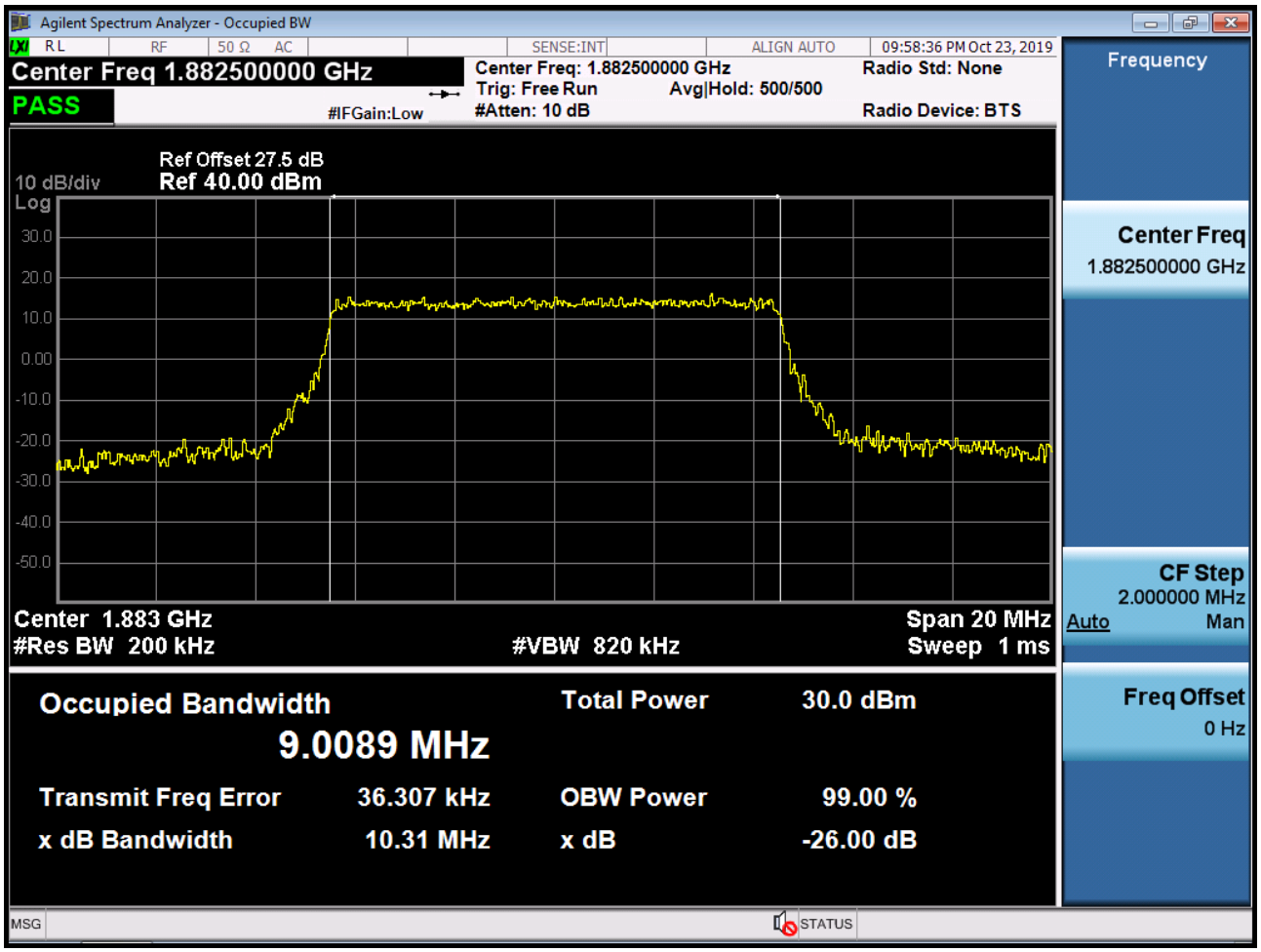
BAND 25/2. Occupied Bandwidth Plot (5M BW Ch.26365 64QAM RB 25_0)



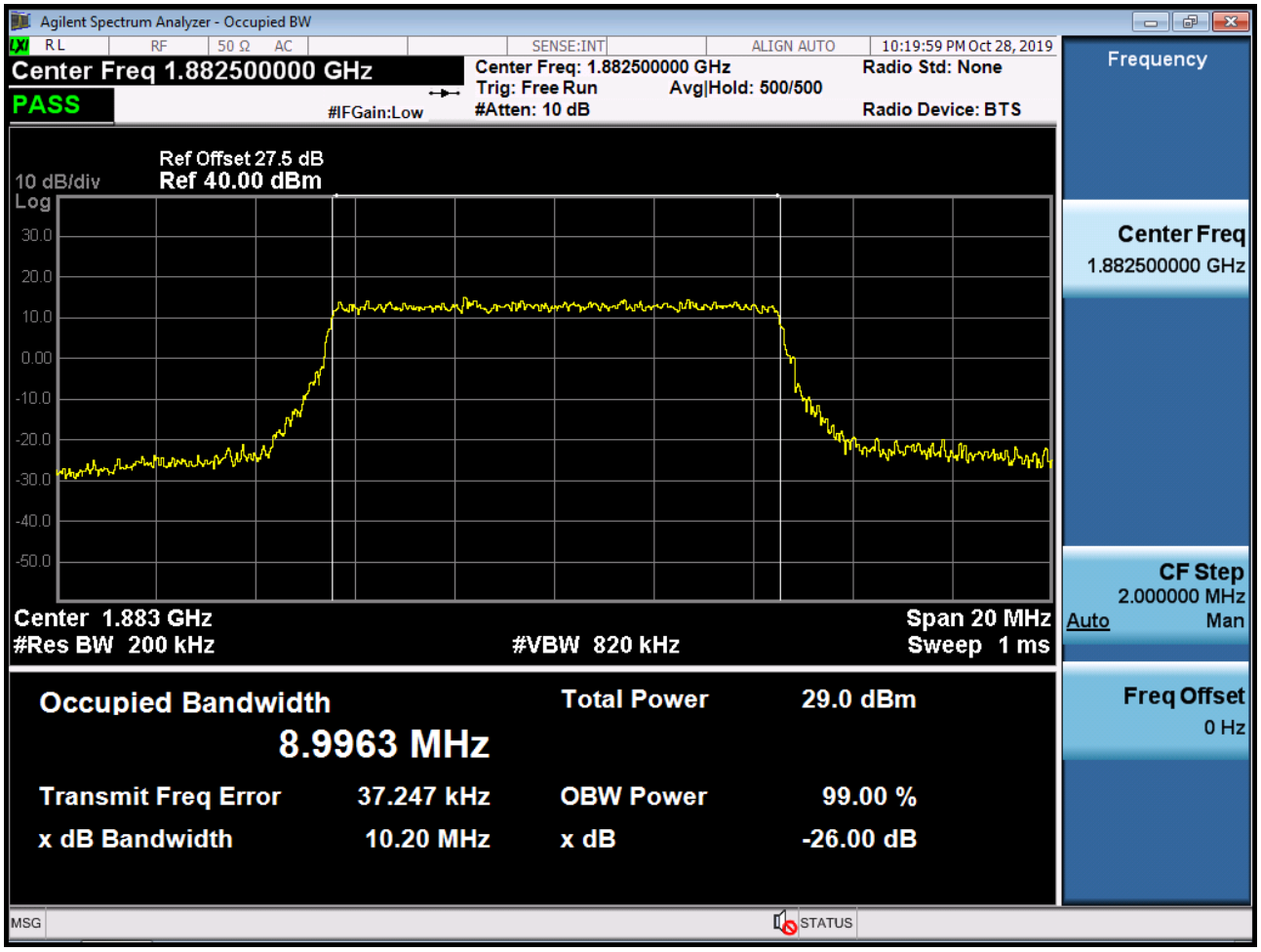
BAND 25/2. Occupied Bandwidth Plot (10M BW Ch.26365 QPSK RB 50_0)



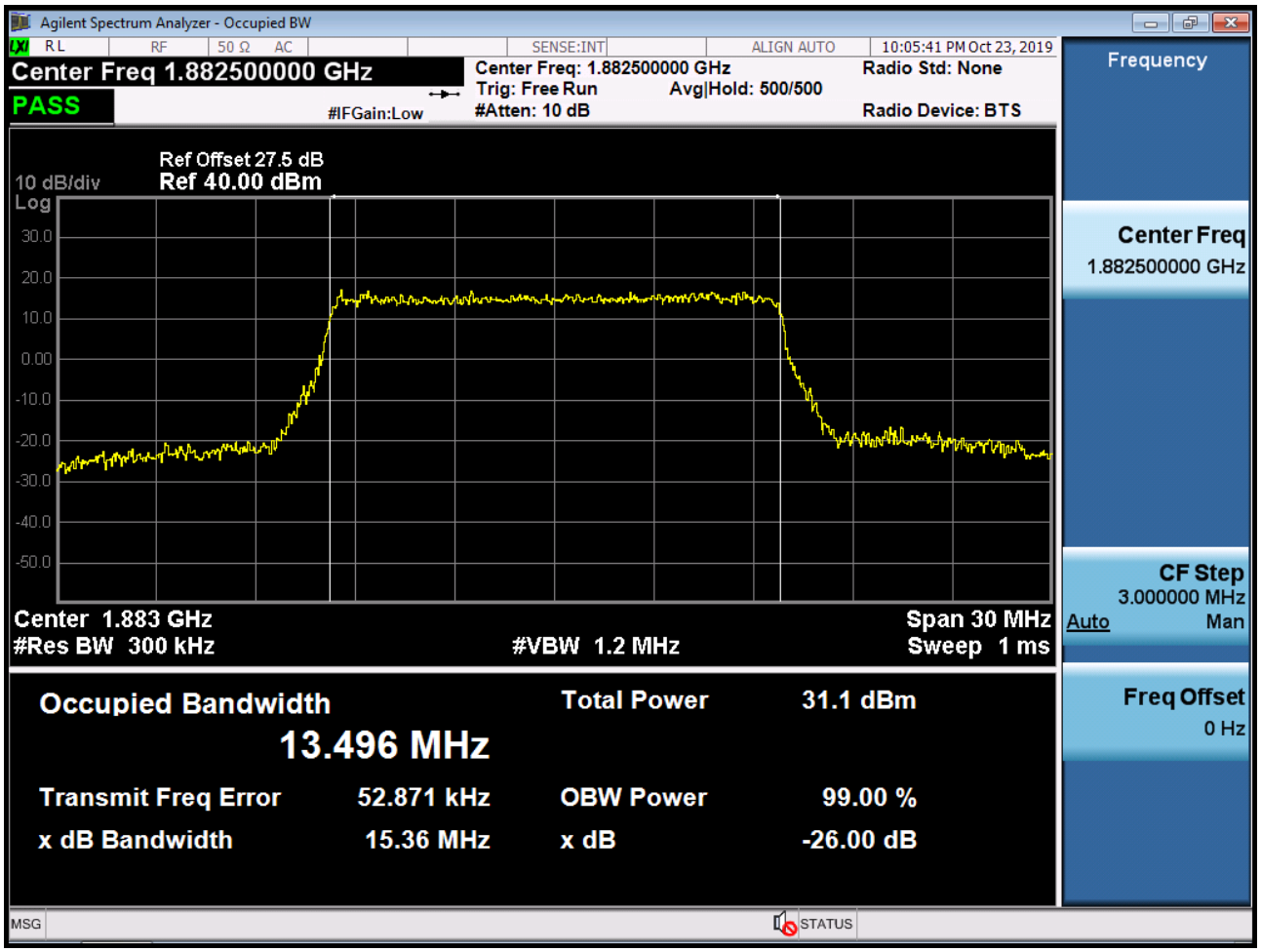
BAND 25/2. Occupied Bandwidth Plot (10M BW Ch.26365 16QAM RB 50_0)



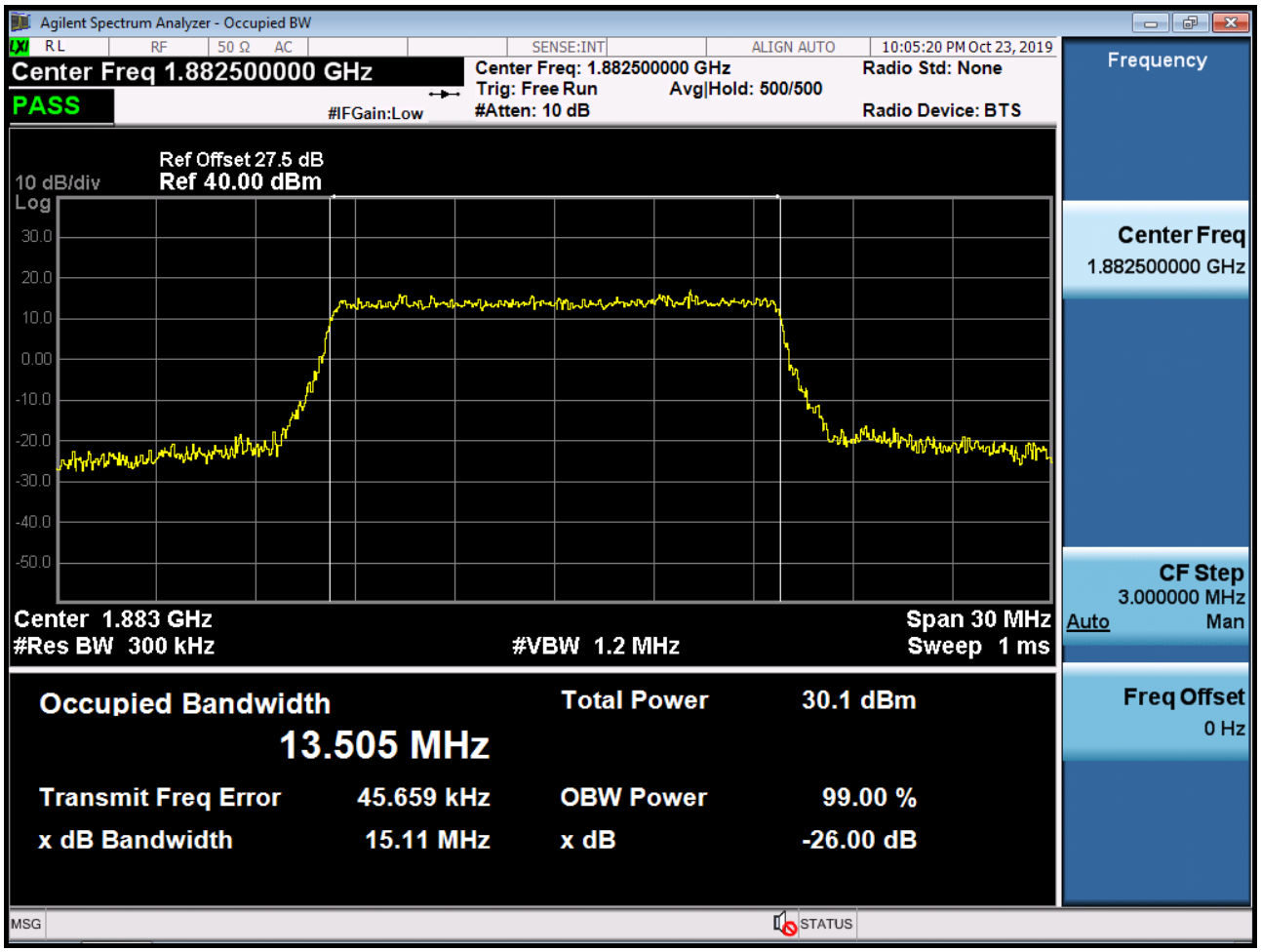
BAND 25/2. Occupied Bandwidth Plot (10M BW Ch.26365 64QAM RB 50_0)



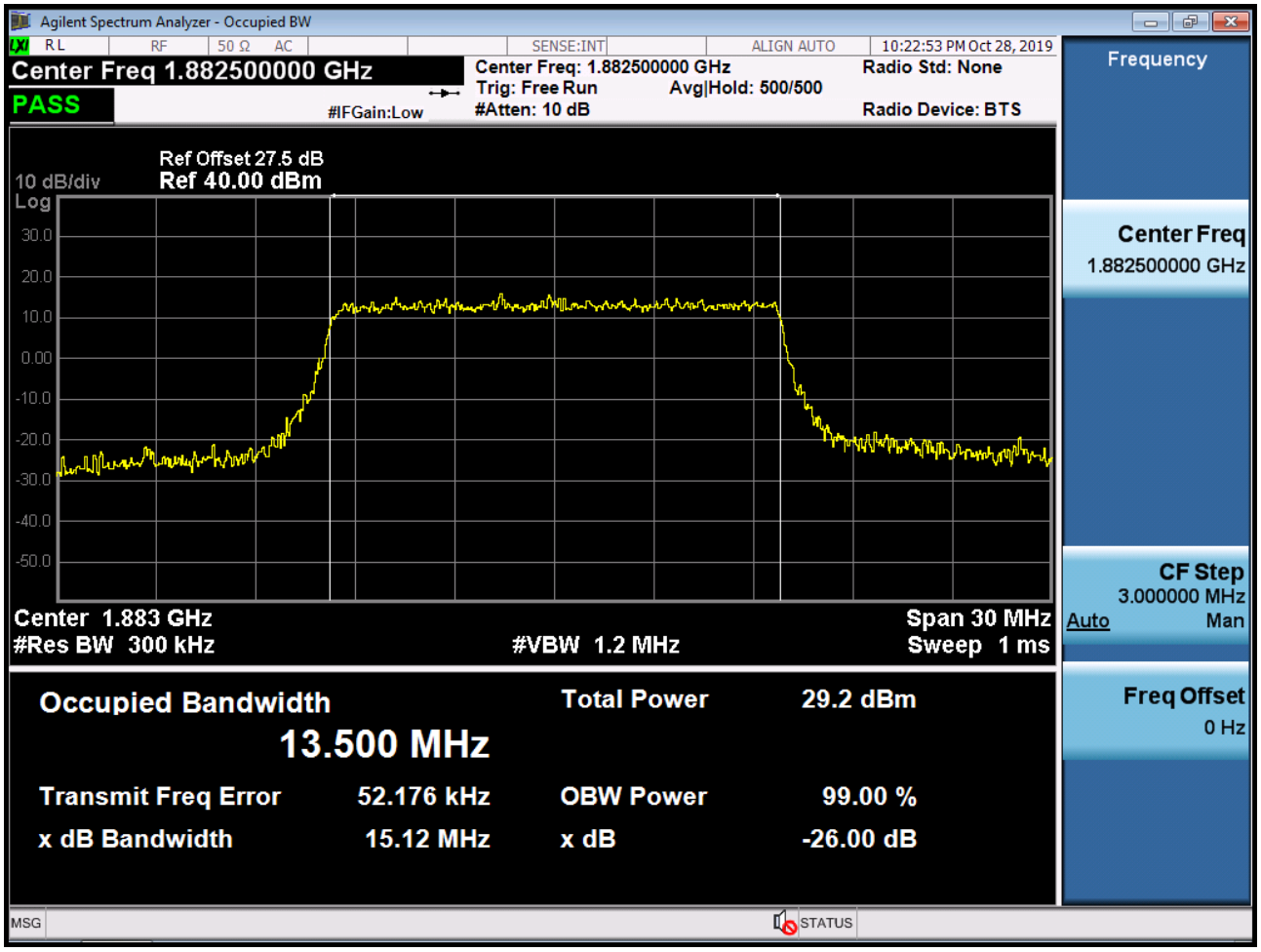
BAND 25/2. Occupied Bandwidth Plot (15M BW Ch.26365 QPSK RB 75_0)



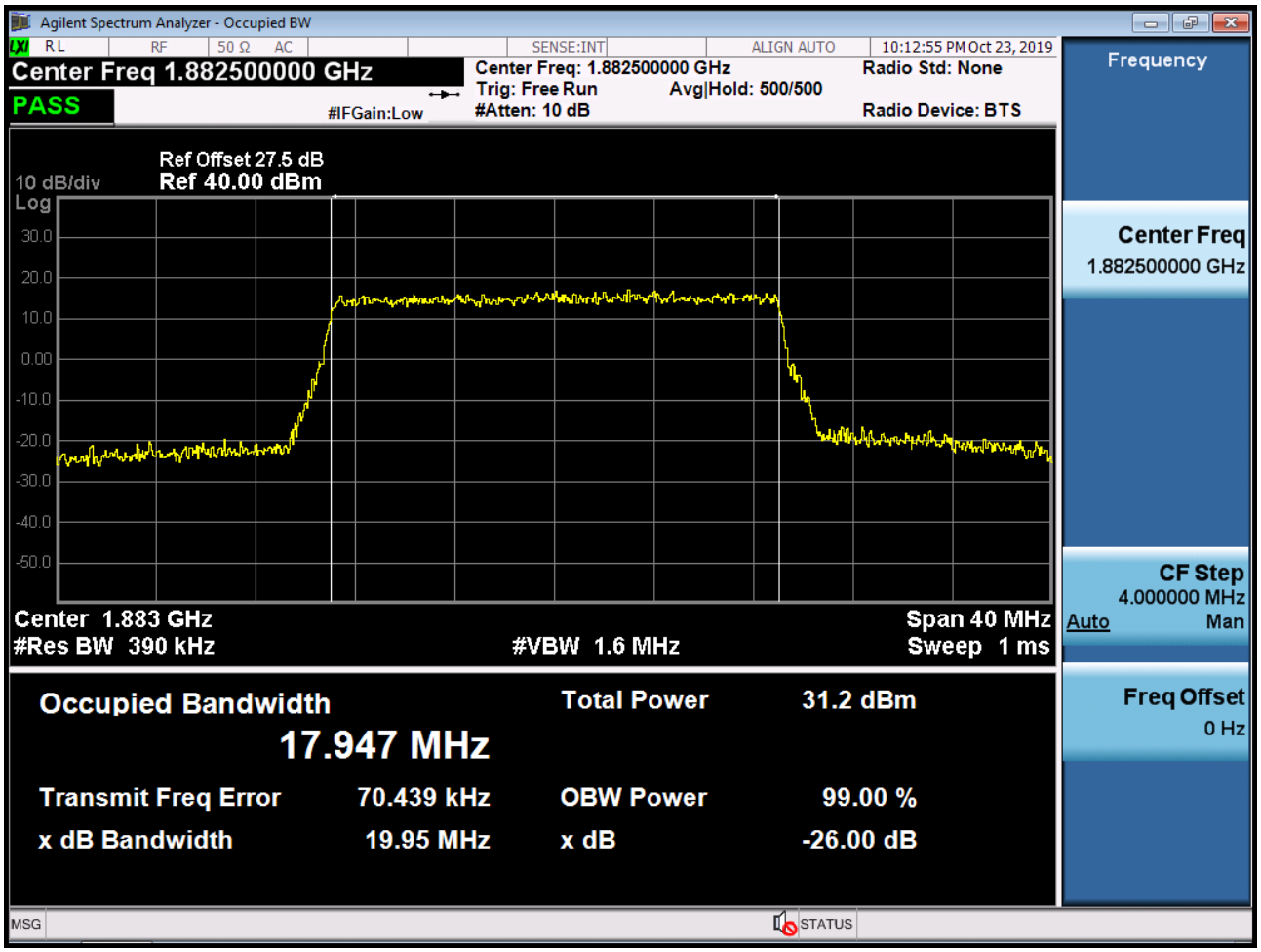
BAND 25/2. Occupied Bandwidth Plot (15M BW Ch.26365 16QAM RB 75_0)



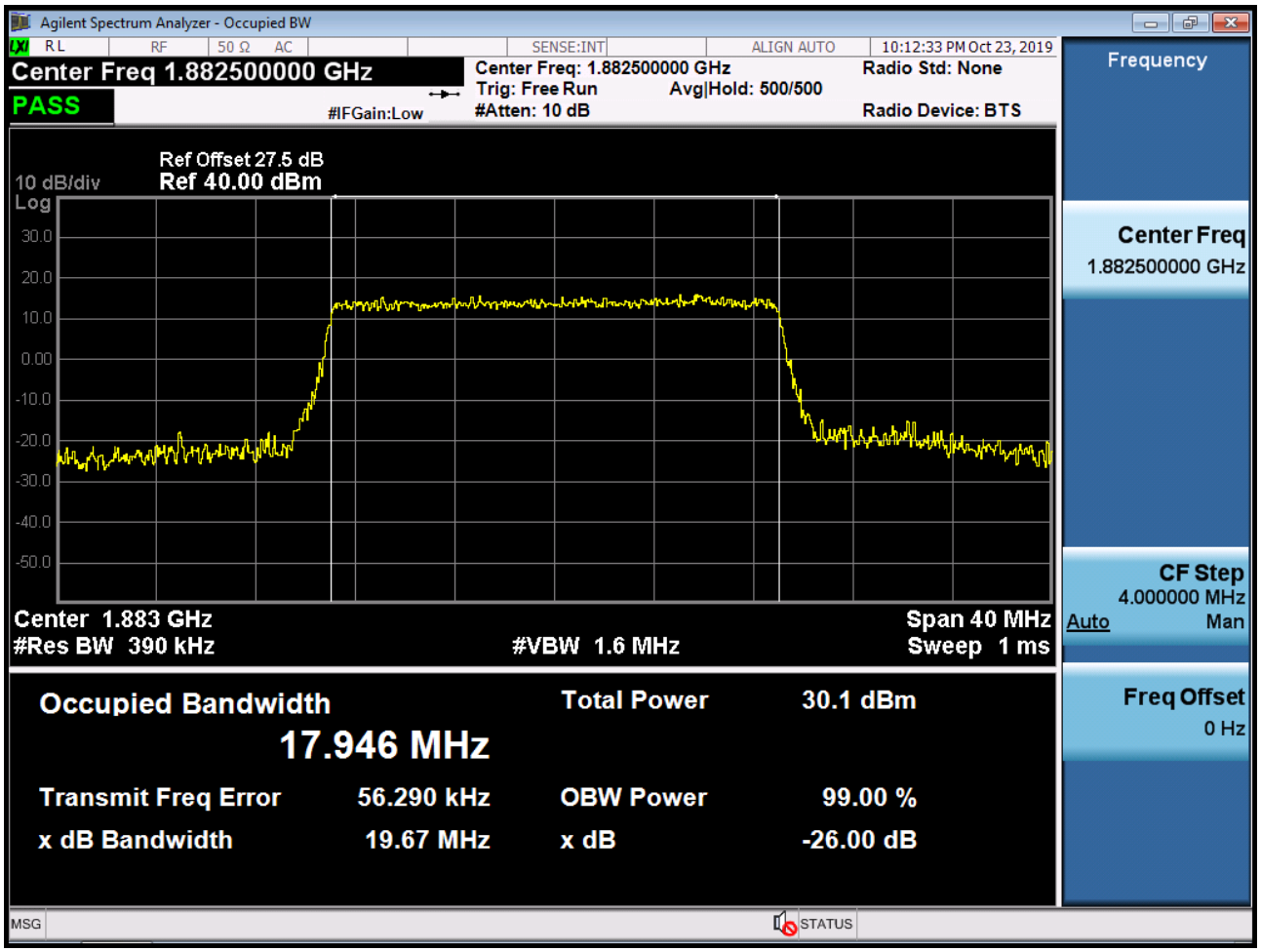
BAND 25/2. Occupied Bandwidth Plot (15M BW Ch.26365 64QAM RB 75_0)



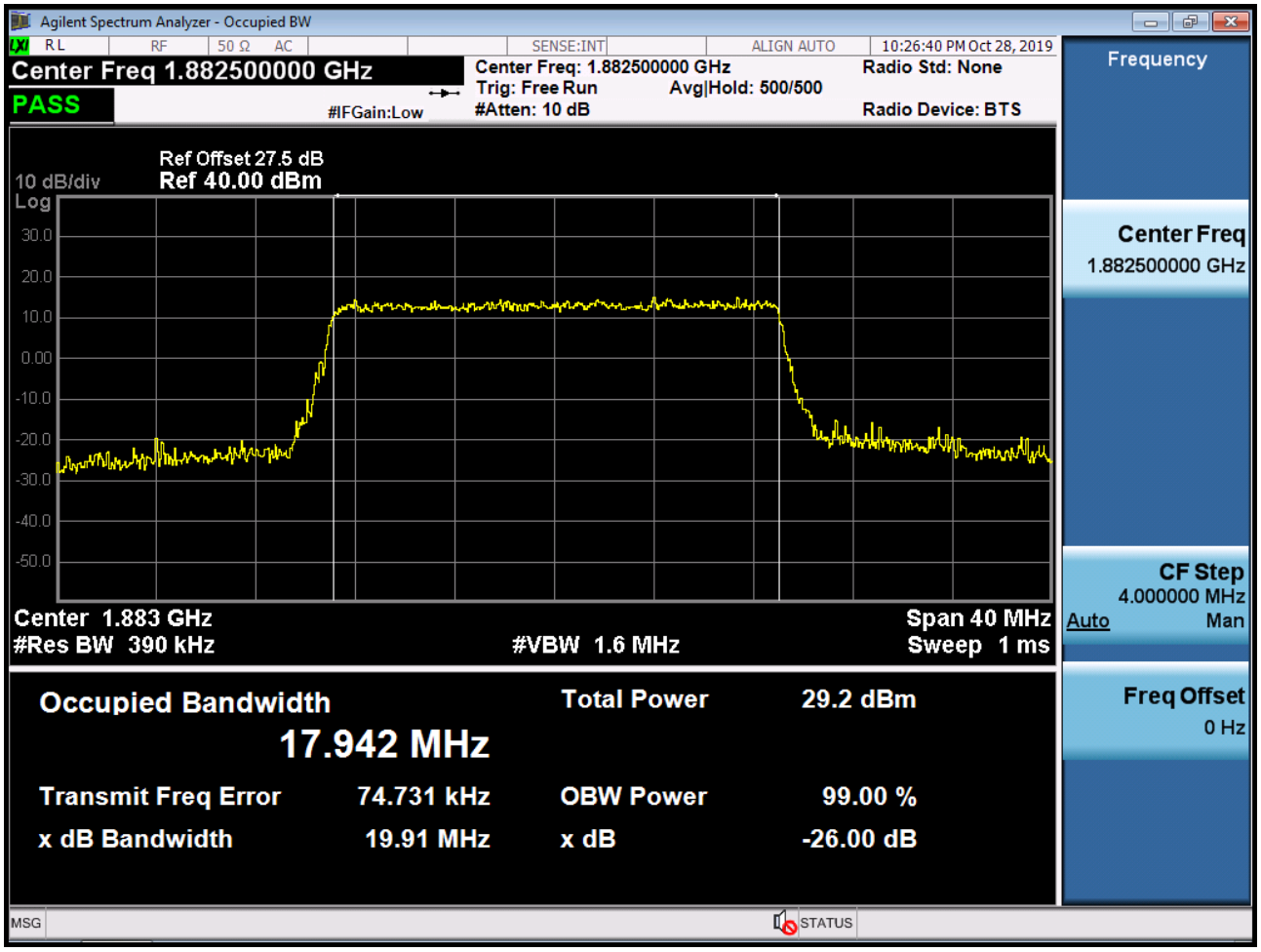
BAND 25/2. Occupied Bandwidth Plot (20M BW Ch.26365 QPSK RB 100_0)



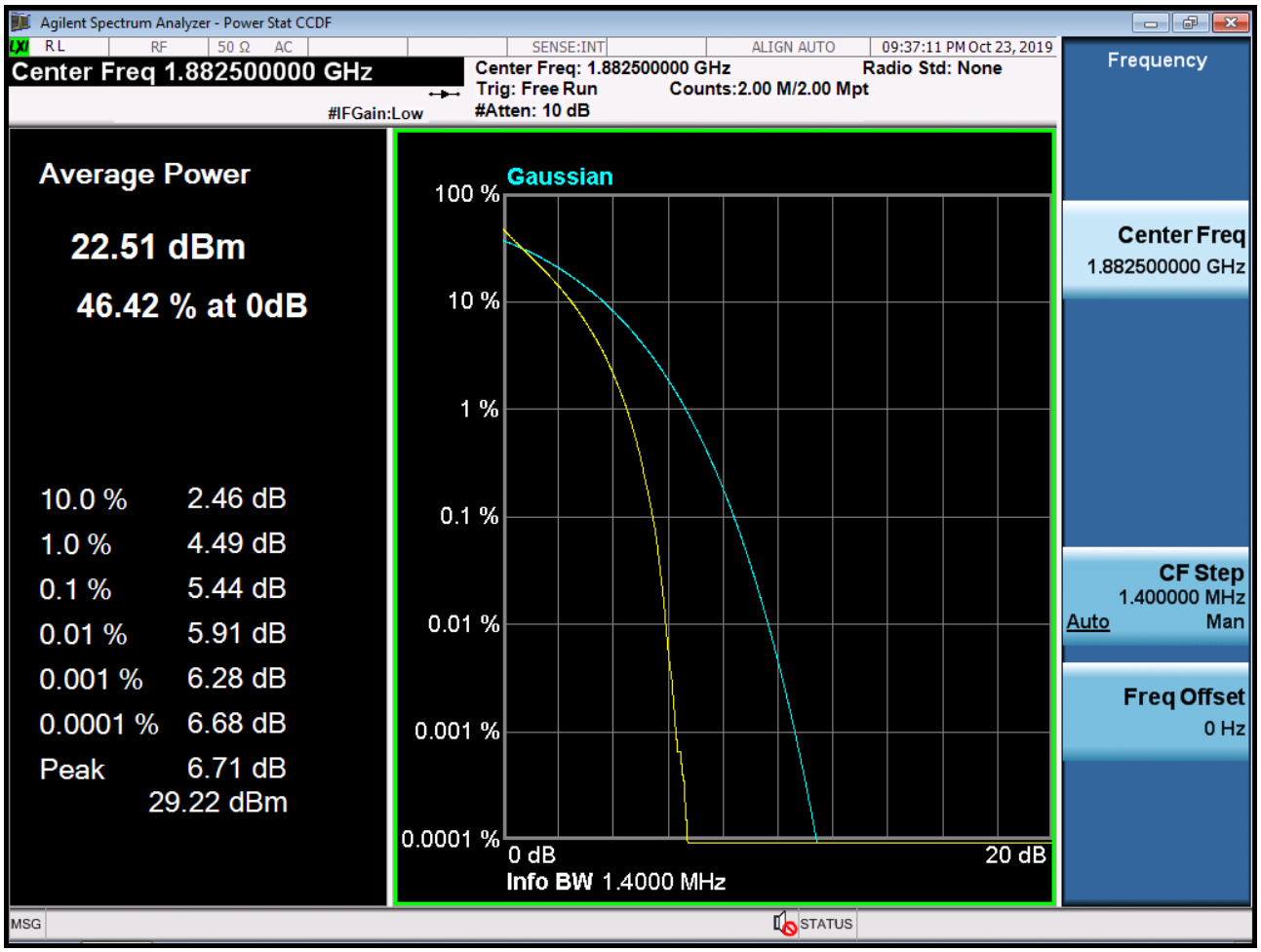
BAND 25/2. Occupied Bandwidth Plot (20M BW Ch.26365 16QAM RB 100_0)



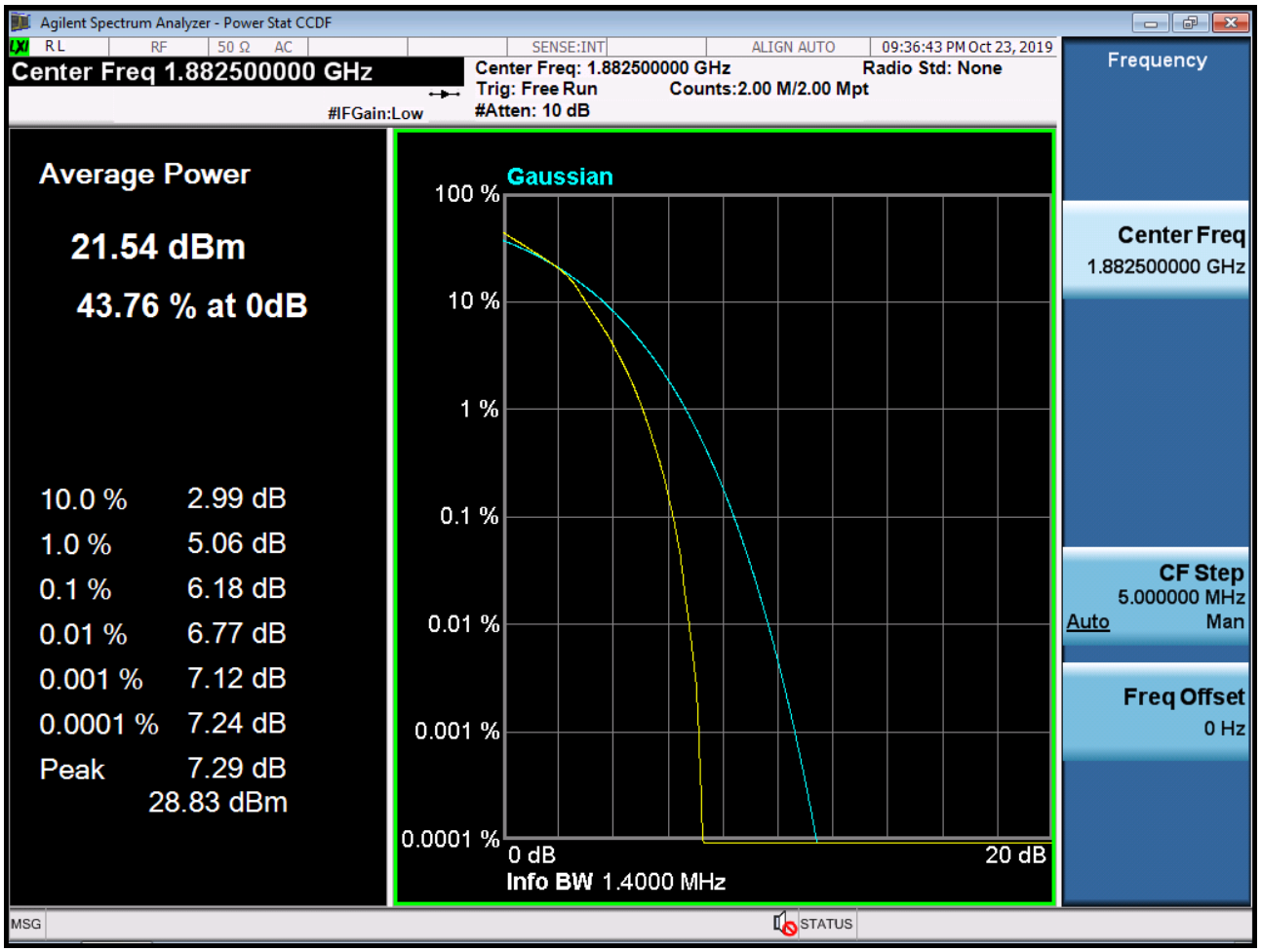
BAND 25/2. Occupied Bandwidth Plot (20M BW Ch.26365 64QAM RB 100_0)



BAND 25/2. PAR Plot (1.4M BW Ch.26365 QPSK RB 6_0)

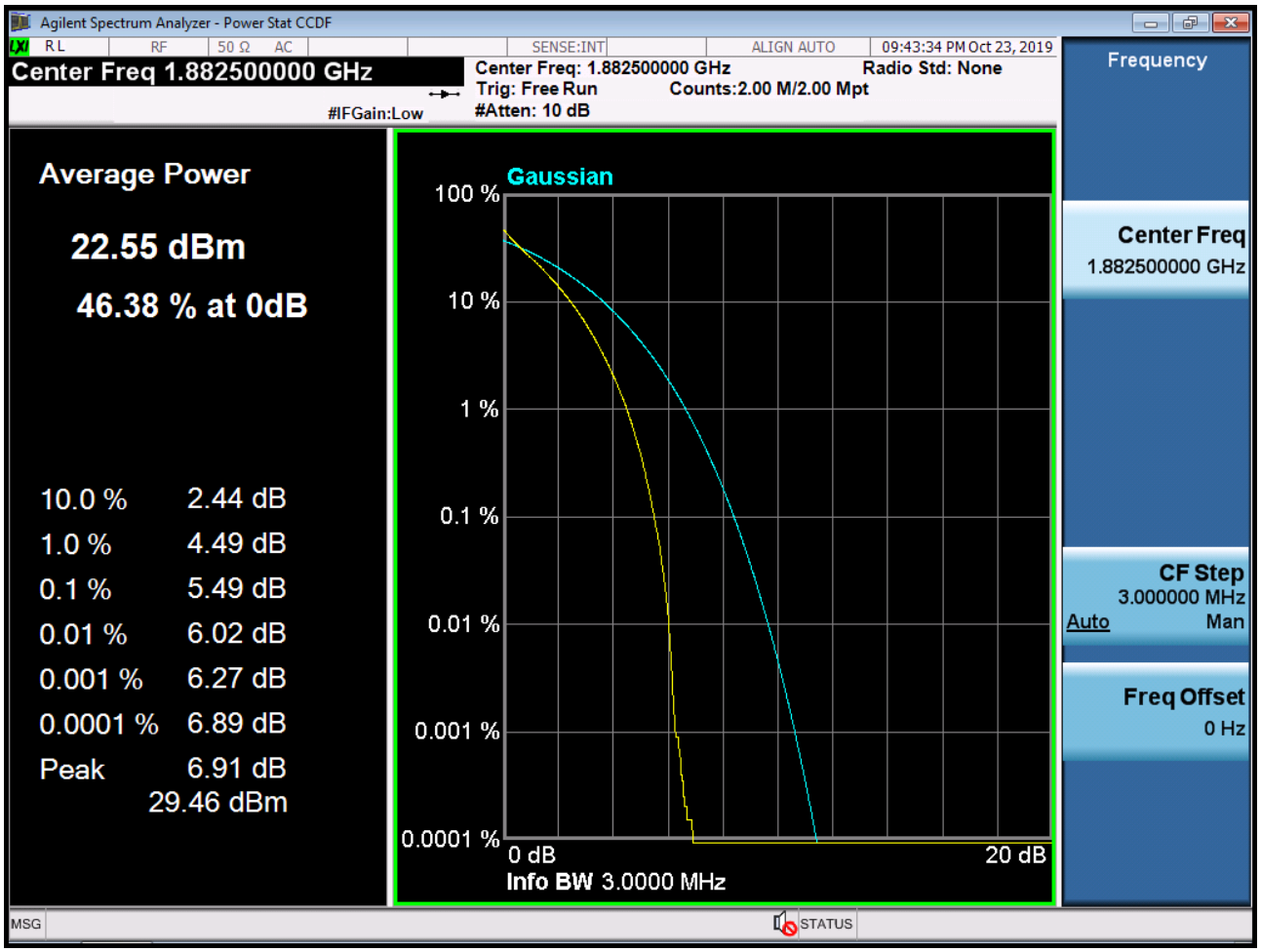


BAND 25/2. PAR Plot (1.4M BW Ch.26365 16QAM RB 6_0)



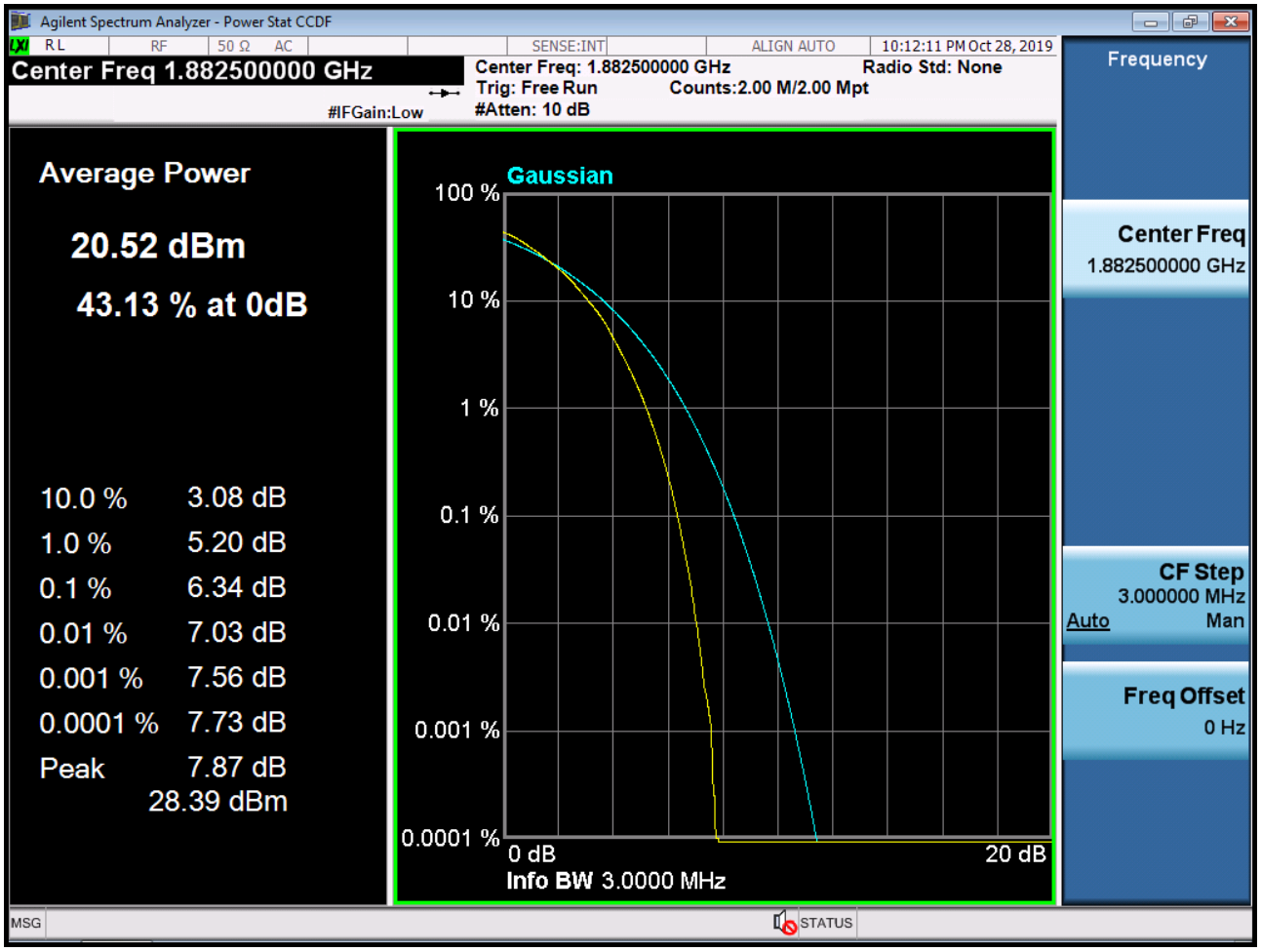
BAND 25/2. PAR Plot (1.4M BW Ch.26365 64QAM RB 6_0)

BAND 25/2. PAR Plot (3M BW Ch.26365 QPSK RB 15_0)



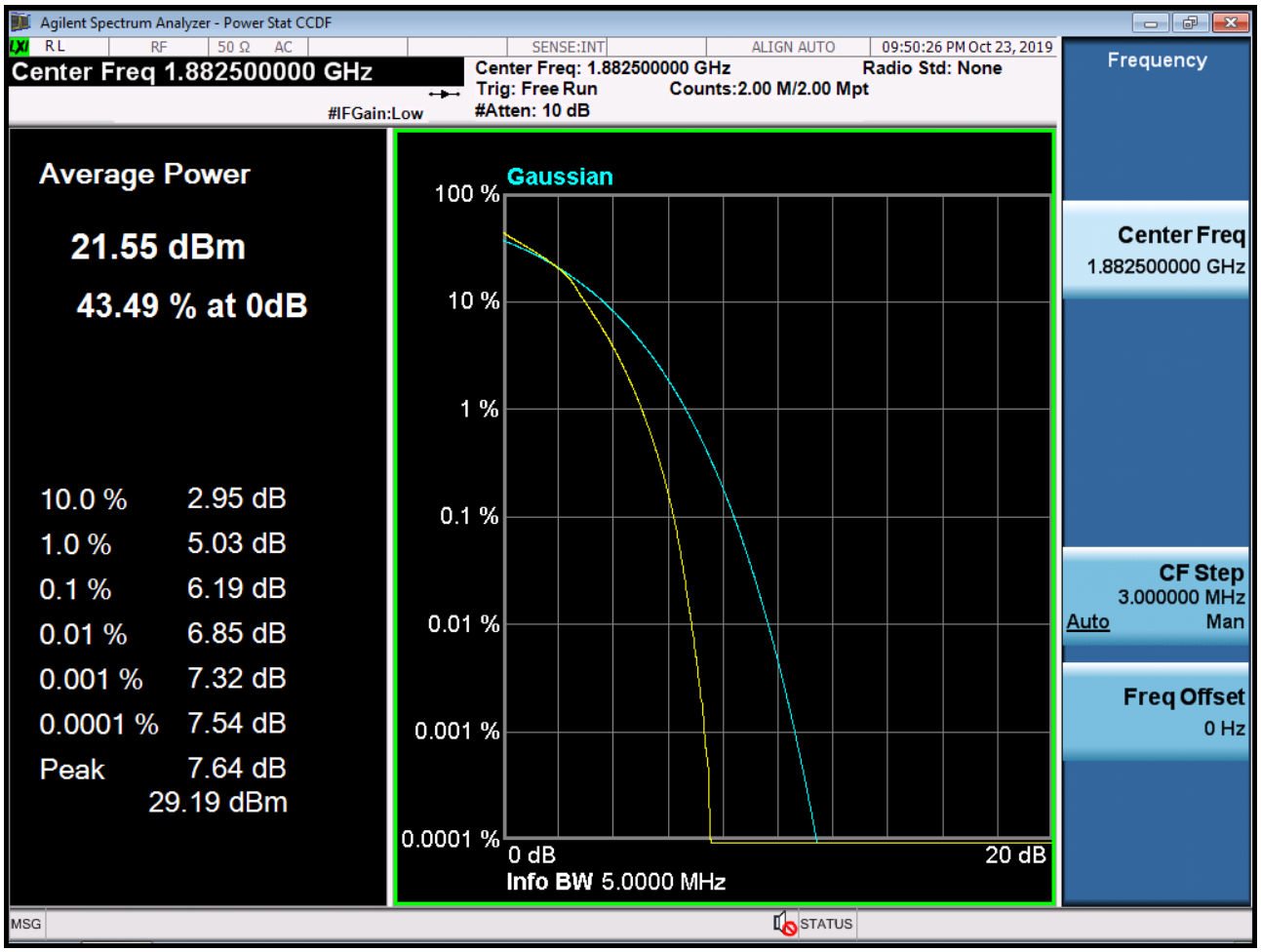
BAND 25/2. PAR Plot (3M BW Ch.26365 16QAM RB 15_0)

BAND 25/2. PAR Plot (3M BW Ch.26365 64QAM RB 15_0)



BAND 25/2. PAR Plot (5M BW Ch.26365 QPSK RB 25_0)

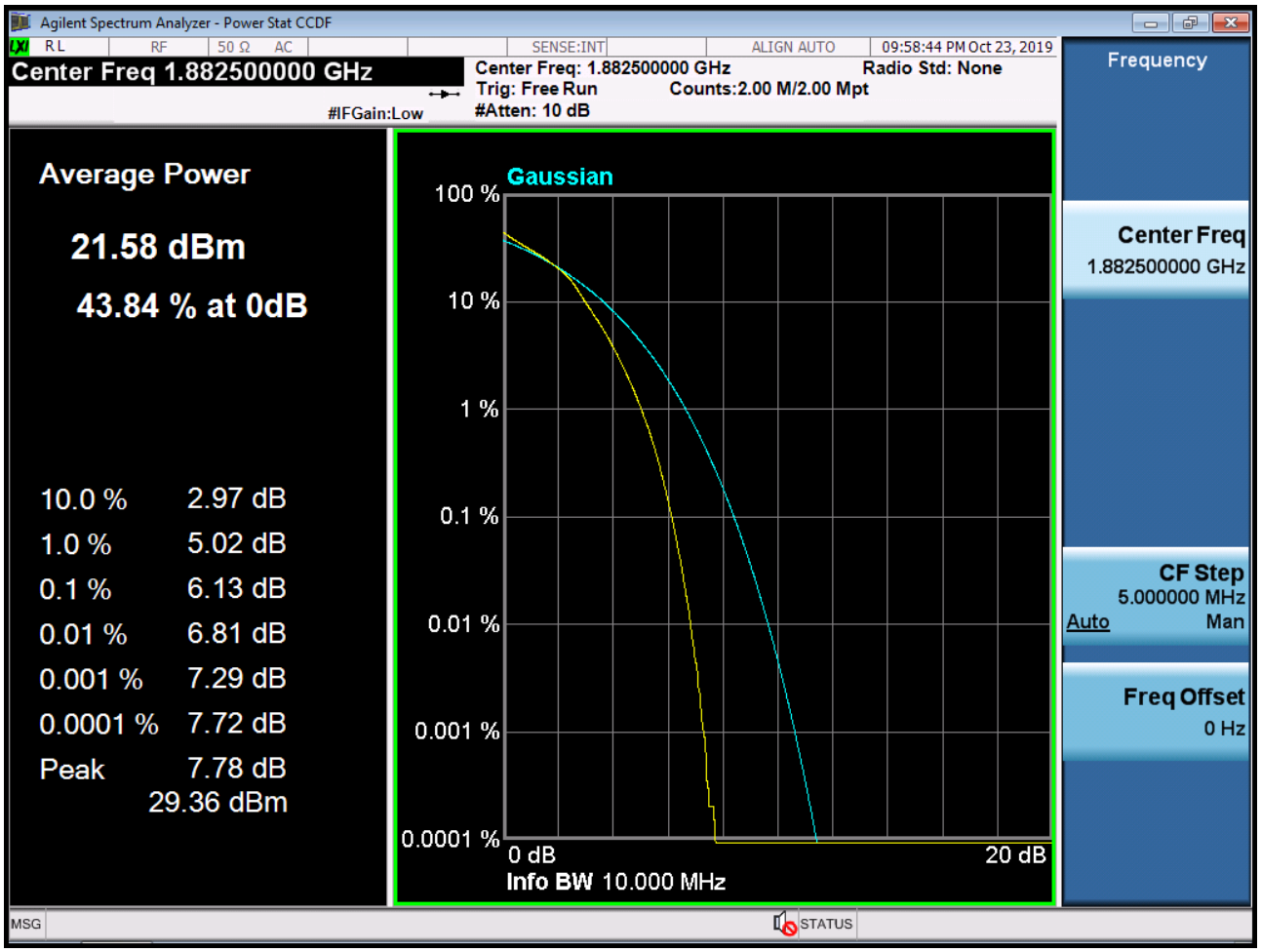
BAND 25/2. PAR Plot (5M BW Ch.26365 16QAM RB 25_0)



BAND 25/2. PAR Plot (5M BW Ch.26365 64QAM RB 25_0)

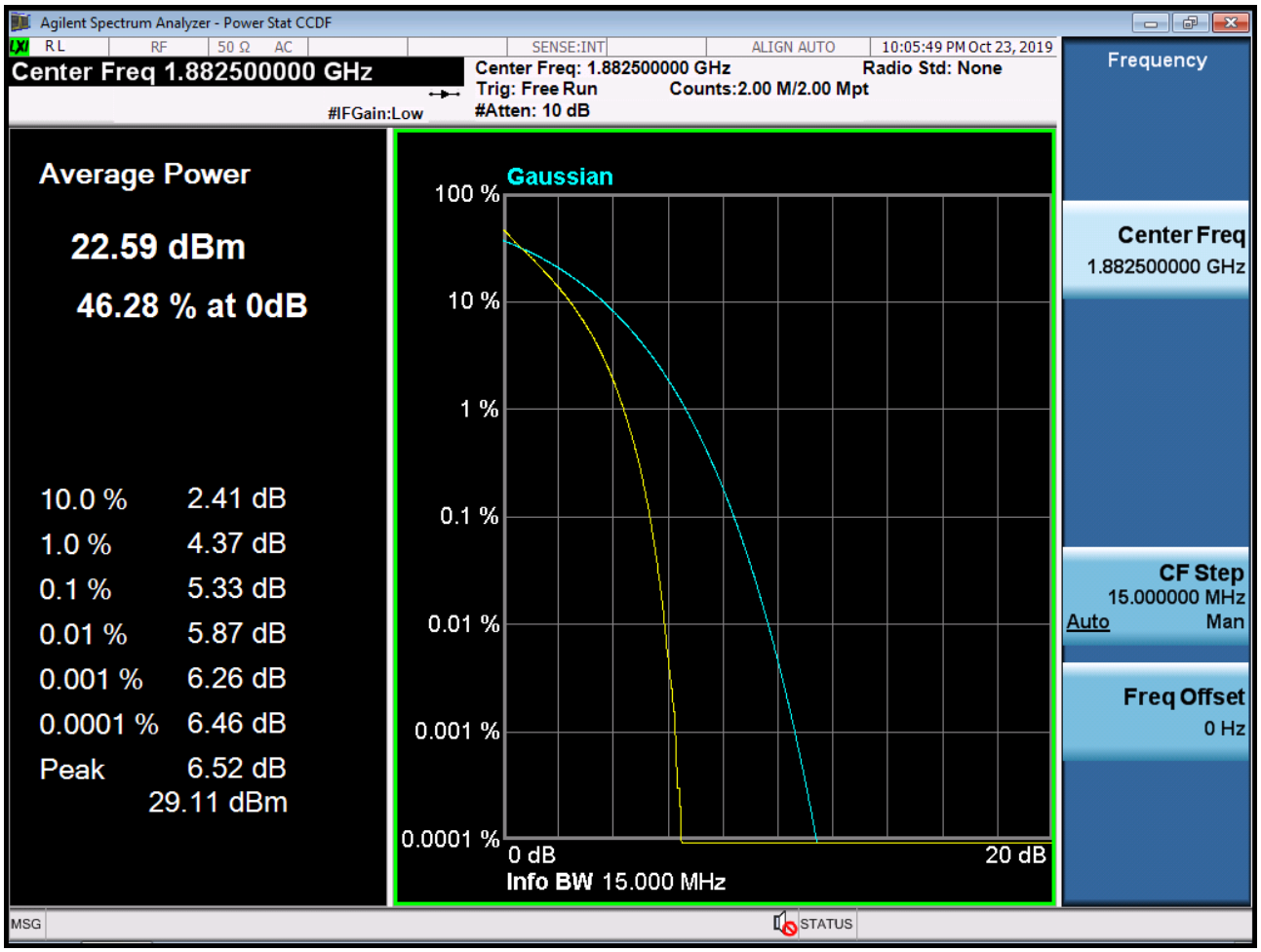
BAND 25/2. PAR Plot (10M BW Ch.26365 QPSK RB 50_0)

BAND 25/2. PAR Plot (10M BW Ch.26365 16QAM RB 50_0)

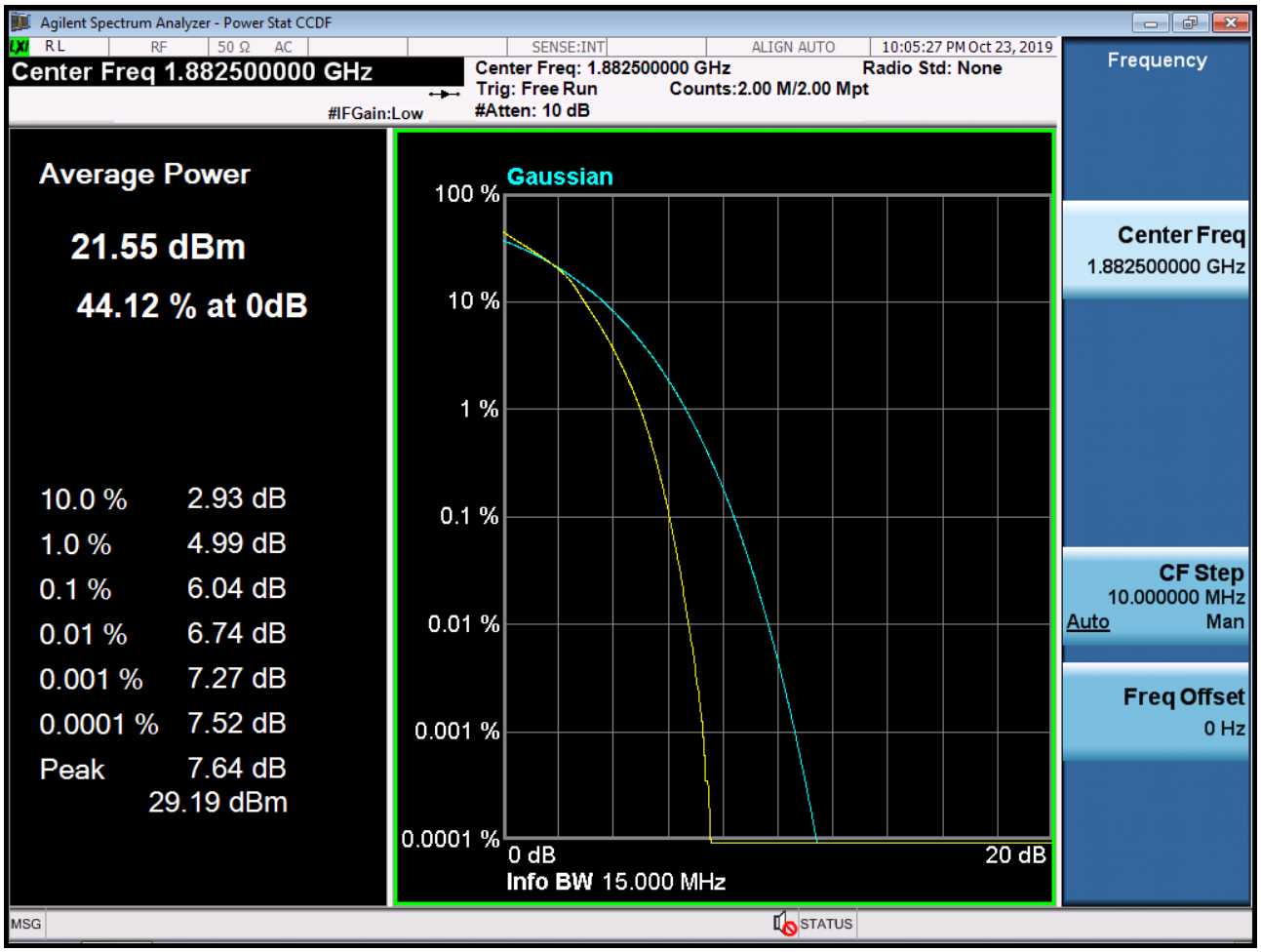


BAND 25/2. PAR Plot (10M BW Ch.26365 64QAM RB 50_0)

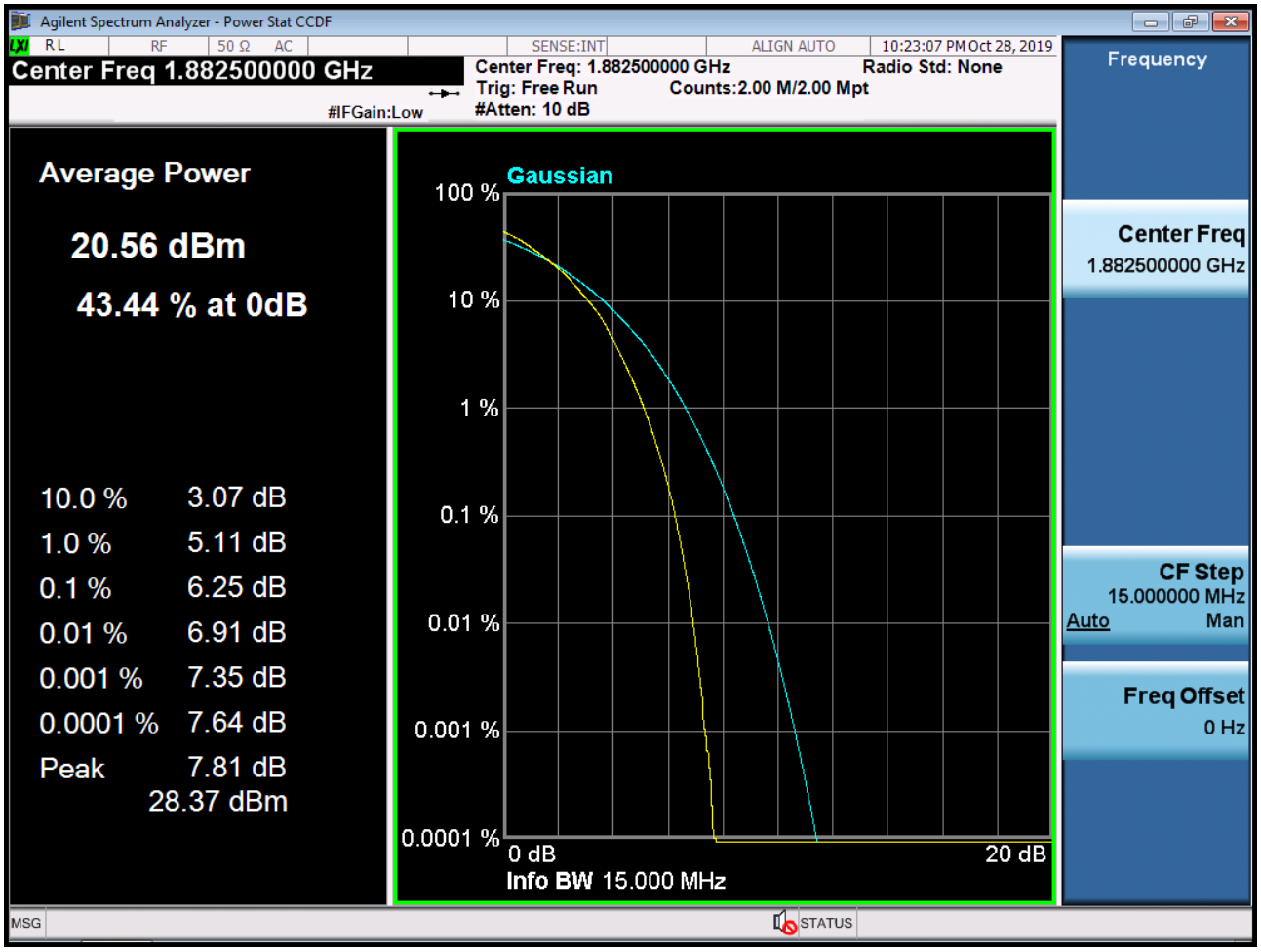
BAND 25/2. PAR Plot (15M BW Ch.26365 QPSK RB 75_0)



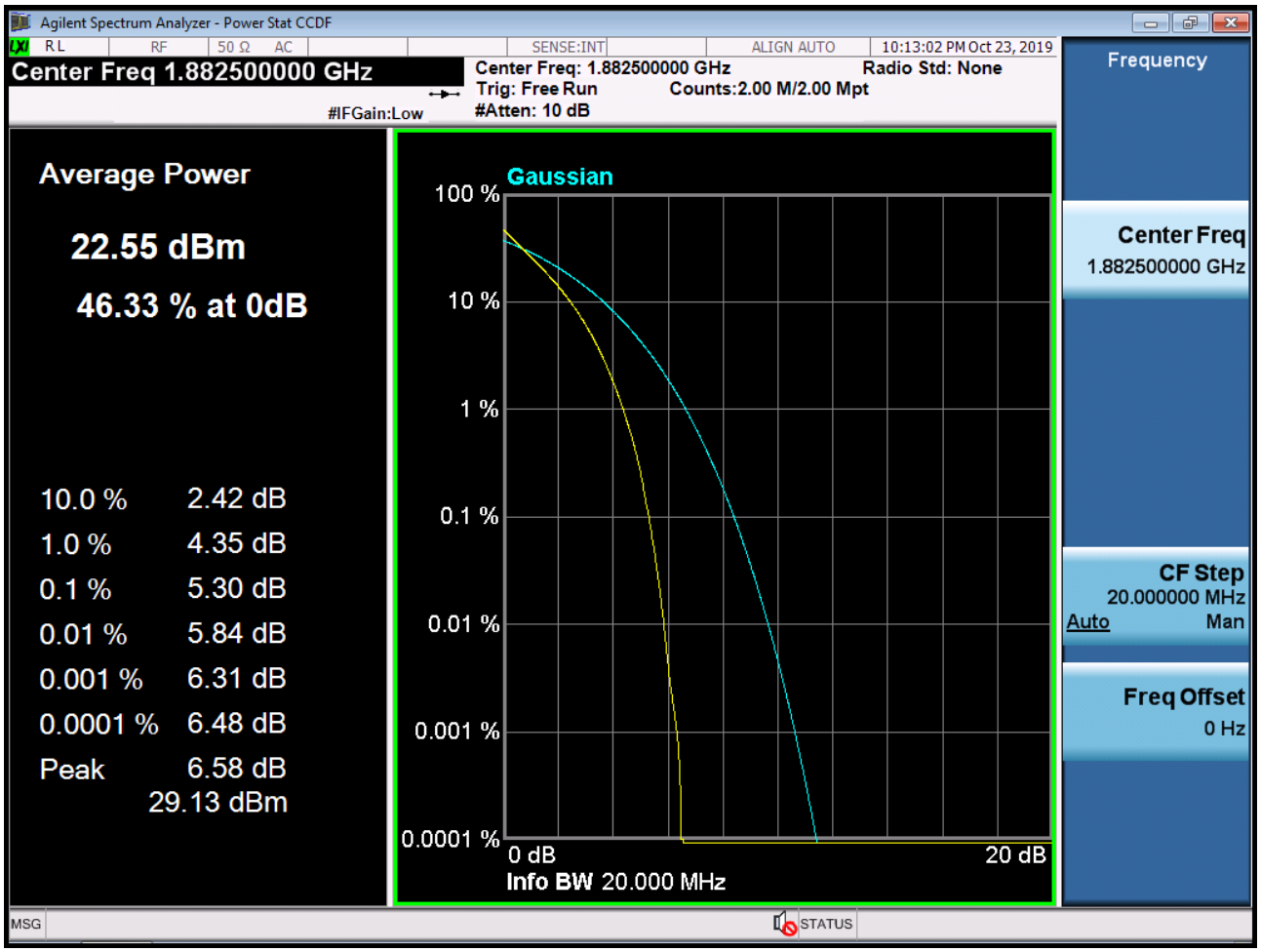
BAND 25/2. PAR Plot (15M BW Ch.26365 16QAM RB 75_0)



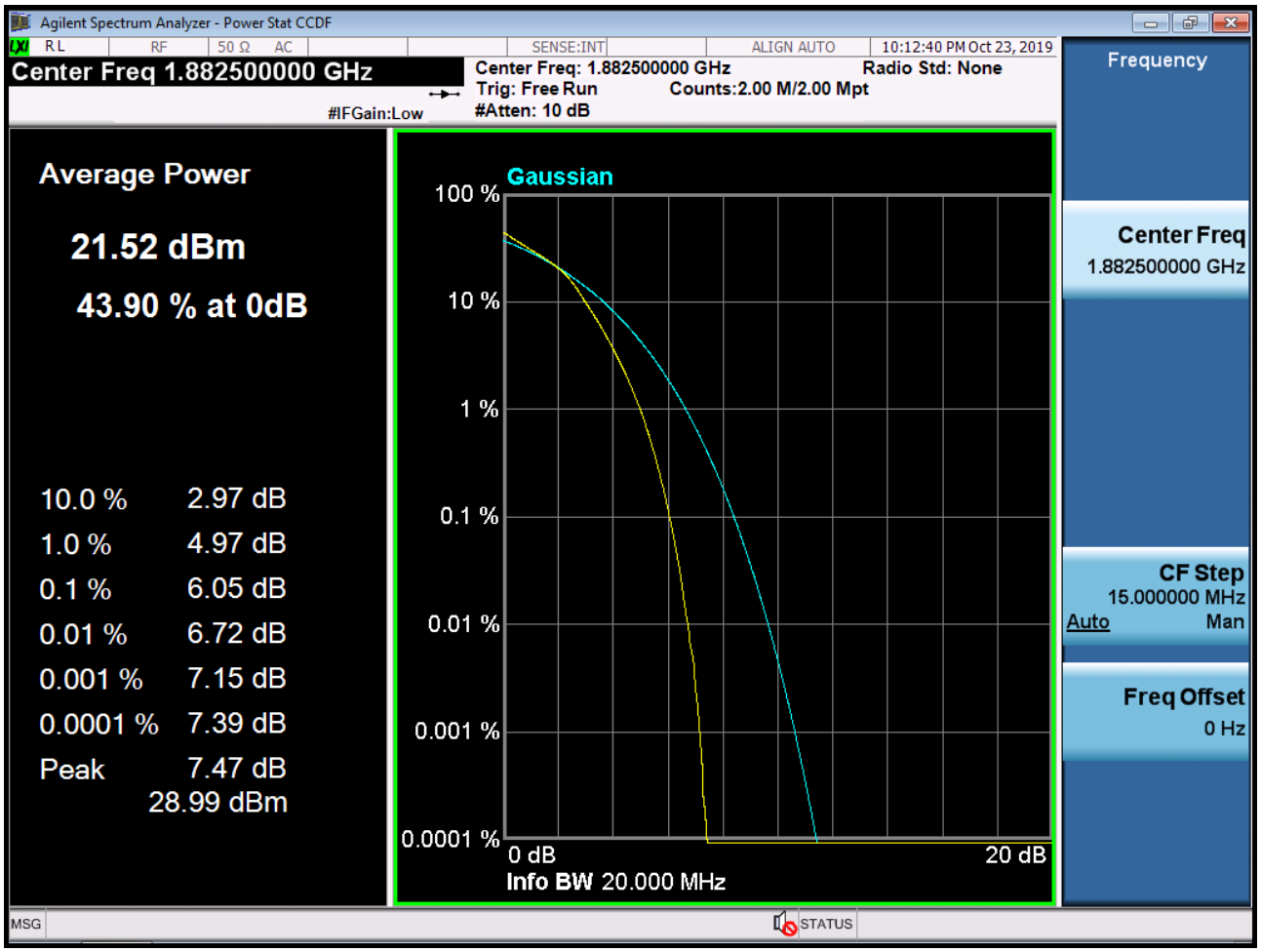
BAND 25/2. PAR Plot (15M BW Ch.26365 64QAM RB 75_0)



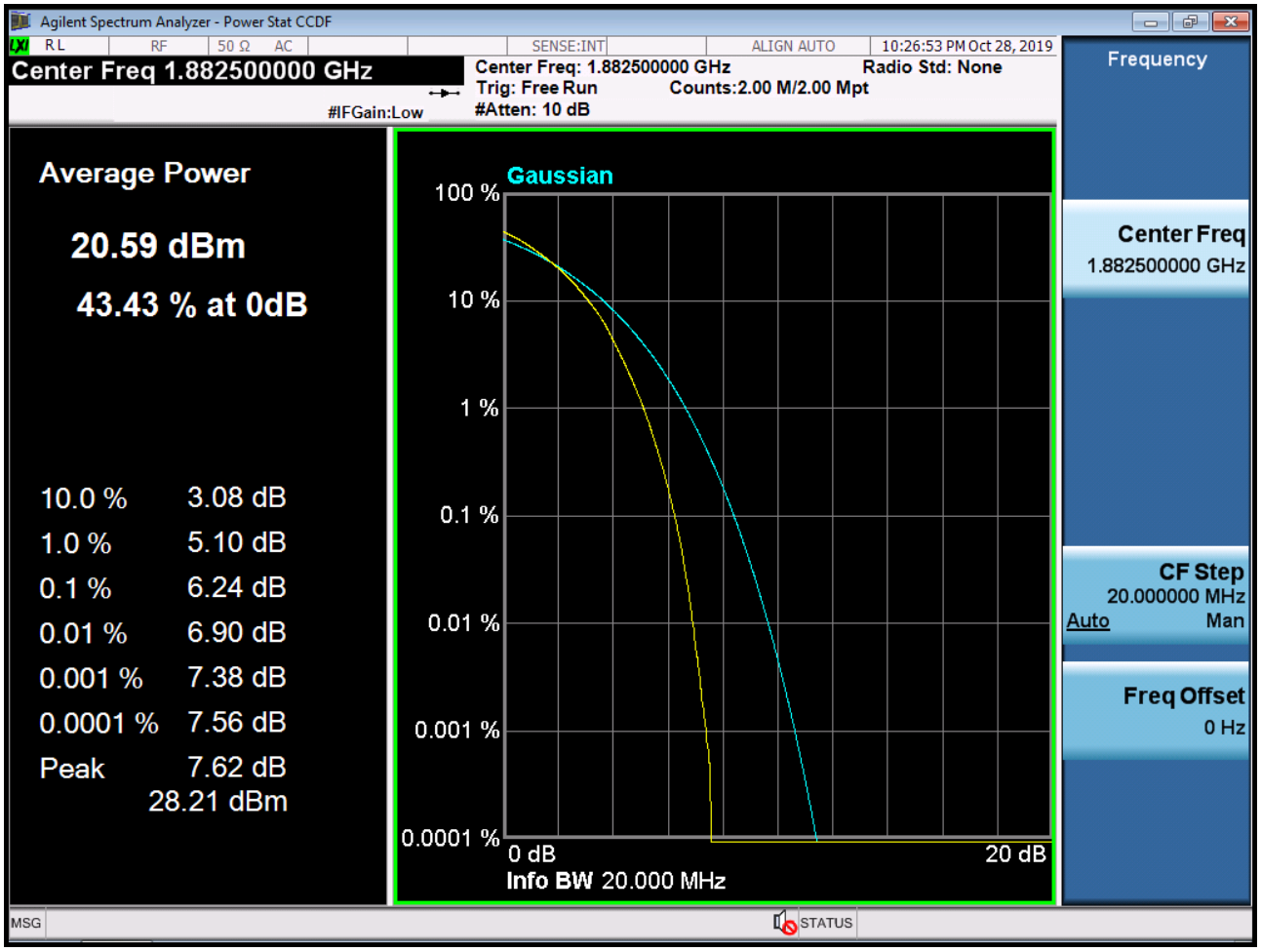
BAND 25/2. PAR Plot (20M BW Ch.26365 QPSK RB 100_0)



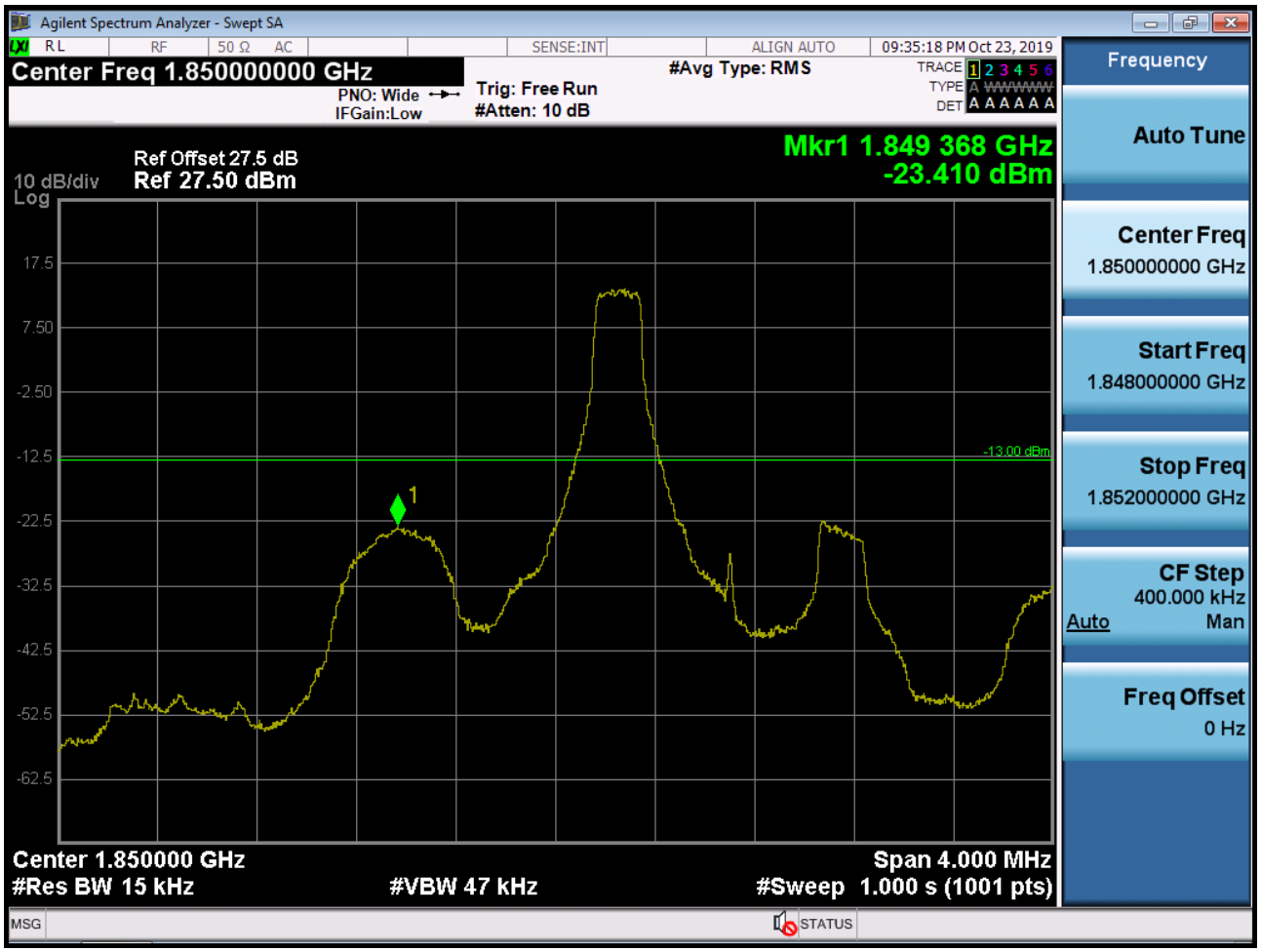
BAND 25/2. PAR Plot (20M BW Ch.26365 16QAM RB 100_0)



BAND 25/2. PAR Plot (20M BW Ch.26365 64QAM RB 100_0)

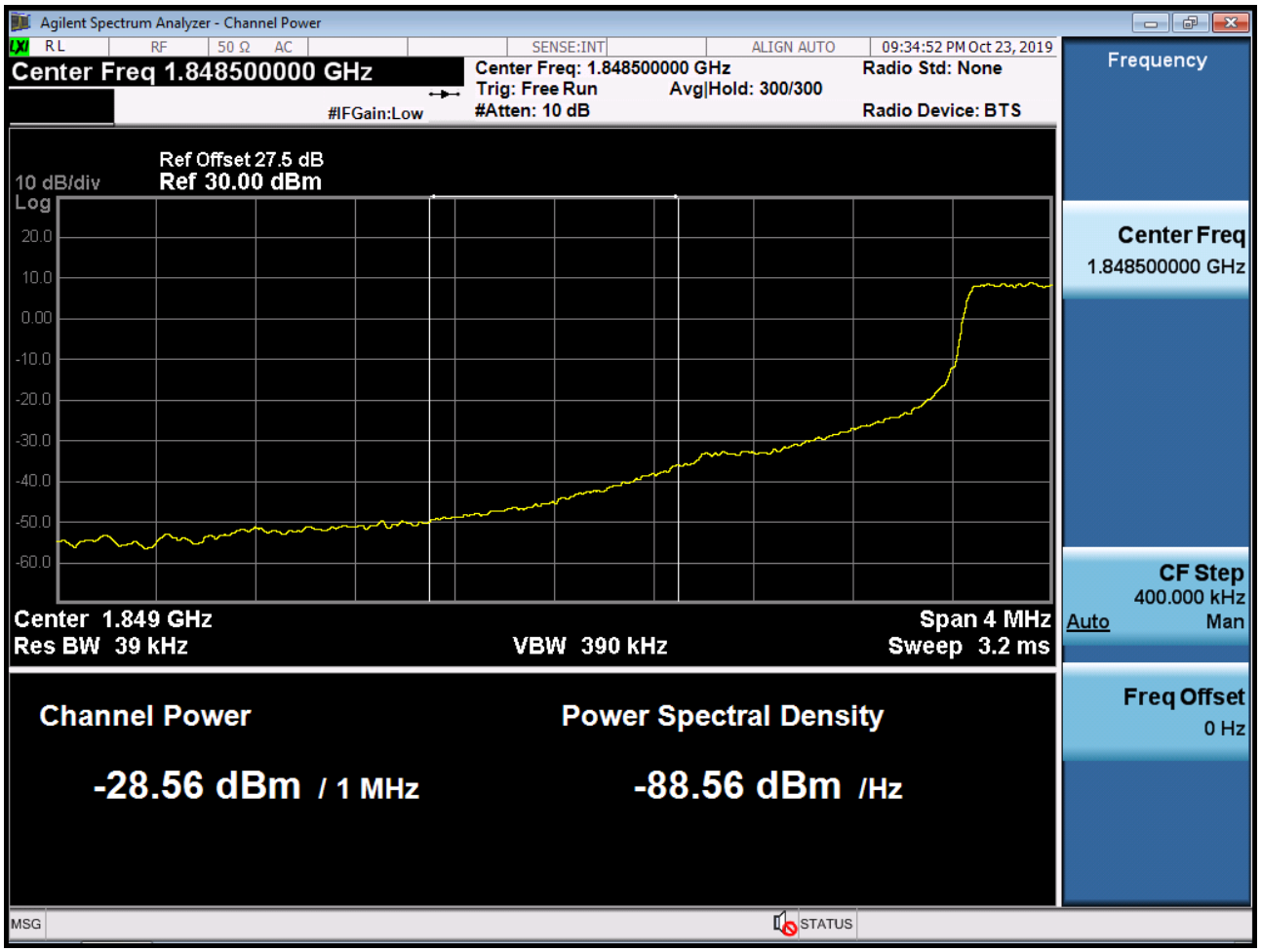


BAND 25/2. Lower Band Edge Plot (1.4M BW Ch.26047 QPSK_RB1_Offset 0) -1

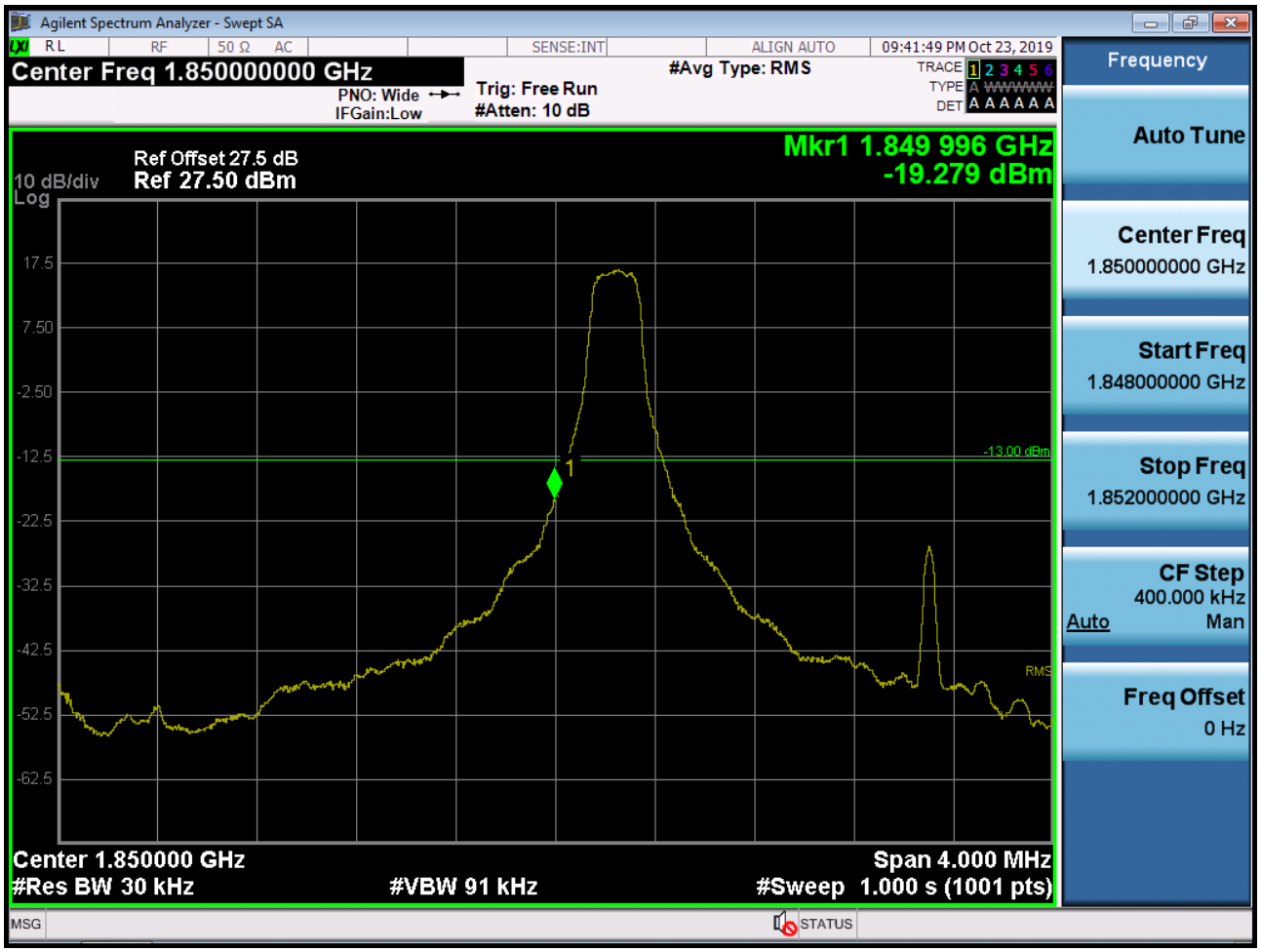


BAND 25/2. Lower Band Edge Plot (1.4M BW Ch.26047 QPSK_RB6_Offset 0) -2

BAND 25/2. Lower Extended Band Edge Plot (1.4M BW Ch.26047 QPSK_RB6_0) -3

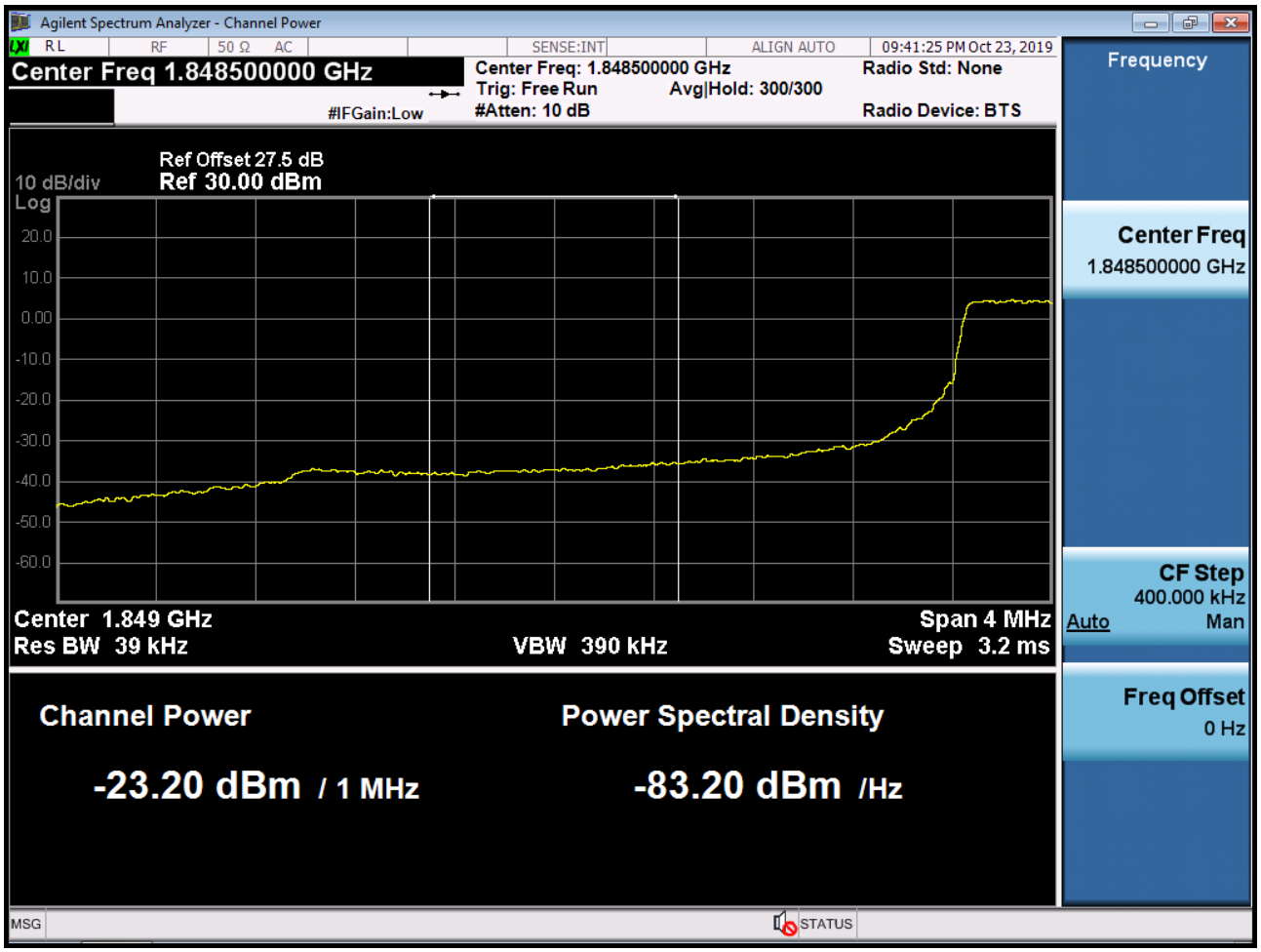


BAND 25/2. Lower Band Edge Plot (3M BW Ch.26055 QPSK_RB1_Offset 0) -1

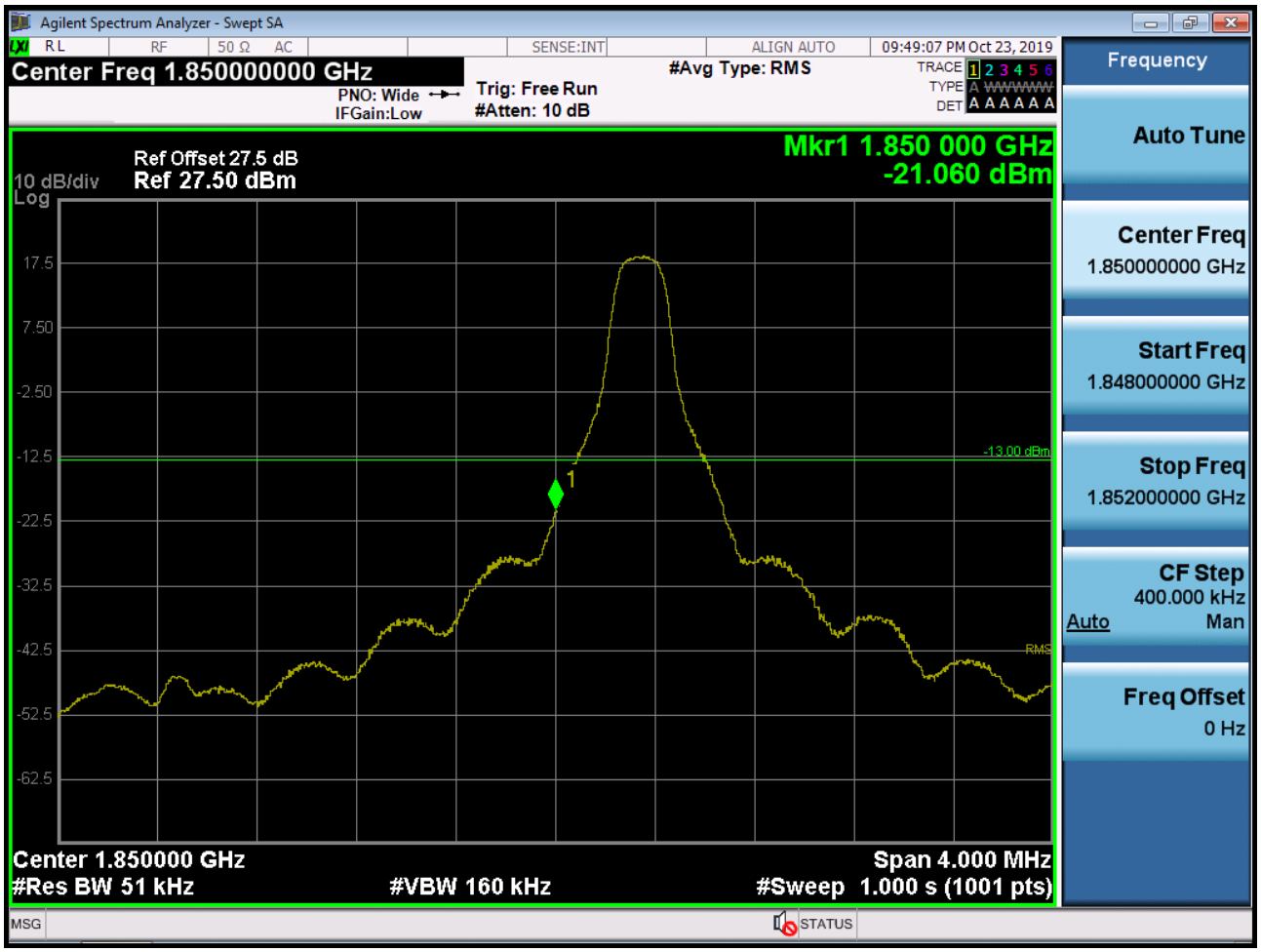


BAND 25/2. Lower Band Edge Plot (3M BW Ch.26055 QPSK_RB15_Offset 0) -2

BAND 25/2. Lower Extended Band Edge Plot (3M BW Ch.26055 QPSK_RB15_0) -3



BAND 25/2. Lower Band Edge Plot (5M BW Ch.26065 QPSK_RB1_Offset 0) -1



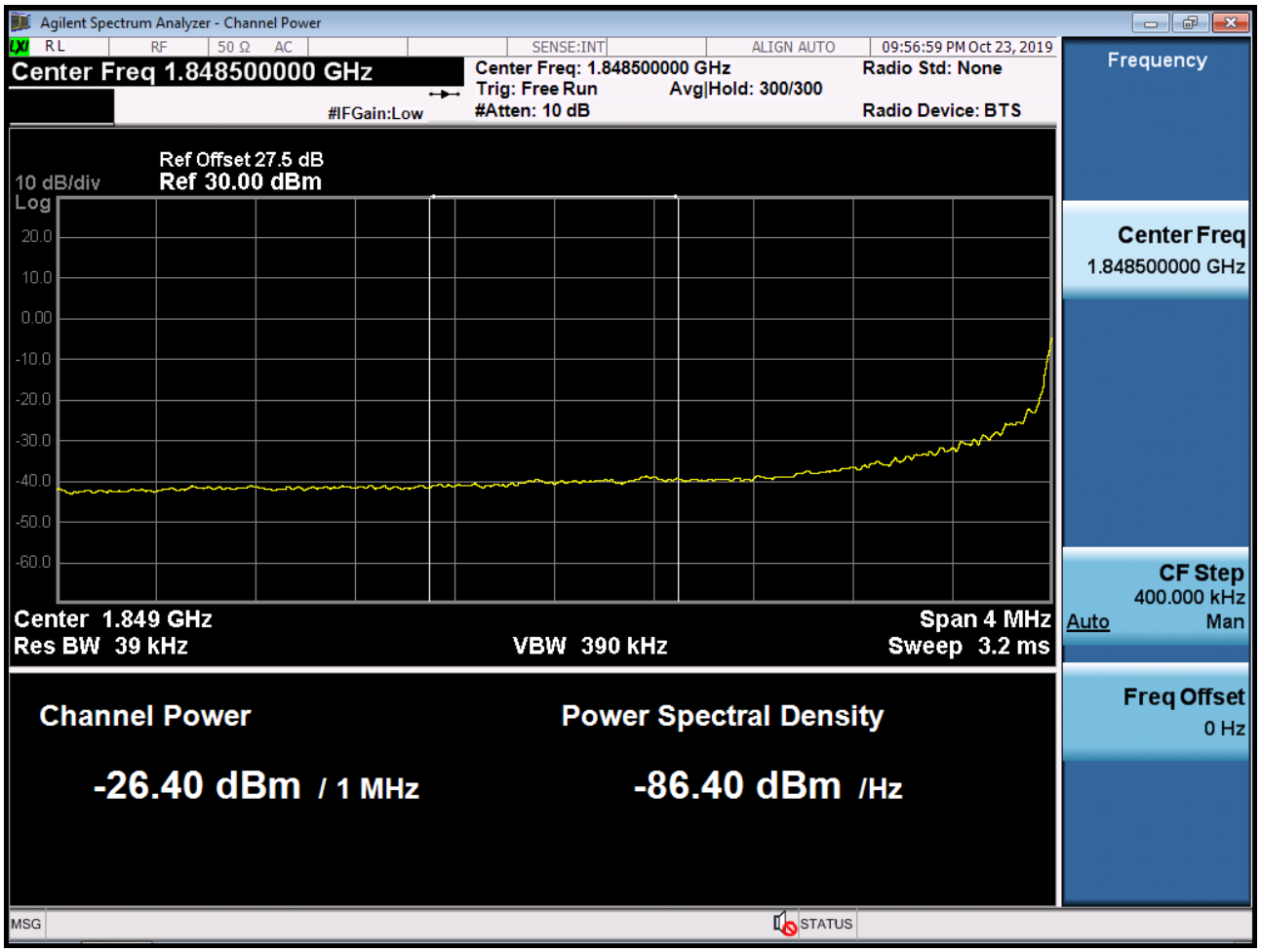
BAND 25/2. Lower Band Edge Plot (5M BW Ch.26065 QPSK_RB255_Offset 0) -2

BAND 25/2. Lower Extended Band Edge Plot (5M BW Ch.26065 QPSK_RB255_0) -3

BAND 25/2. Lower Band Edge Plot (10M BW Ch.26090 QPSK_RB1_Offset 0) -1

BAND 25/2. Lower Band Edge Plot (10M BW Ch.26090 QPSK_RB50_Offset 0) -2

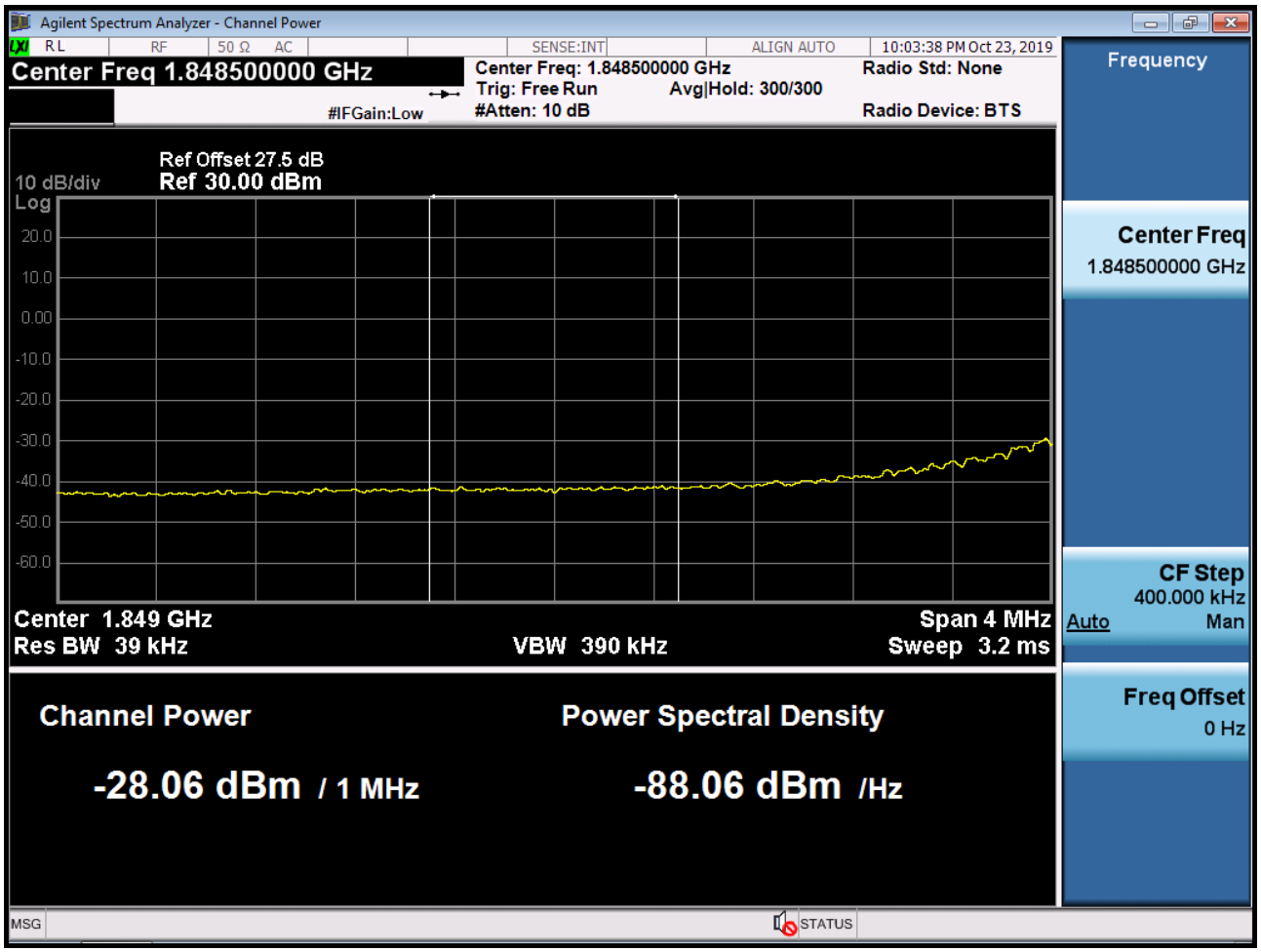
BAND 25/2. Lower Extended Band Edge Plot (10M BW Ch.26090 QPSK_RB50_0) -3



BAND 25/2. Lower Band Edge Plot (15M BW Ch.26115 QPSK_RB75_Offset 0) -1

BAND 25/2. Lower Band Edge Plot (15M BW Ch.26115 QPSK_RB75_Offset 0) -2

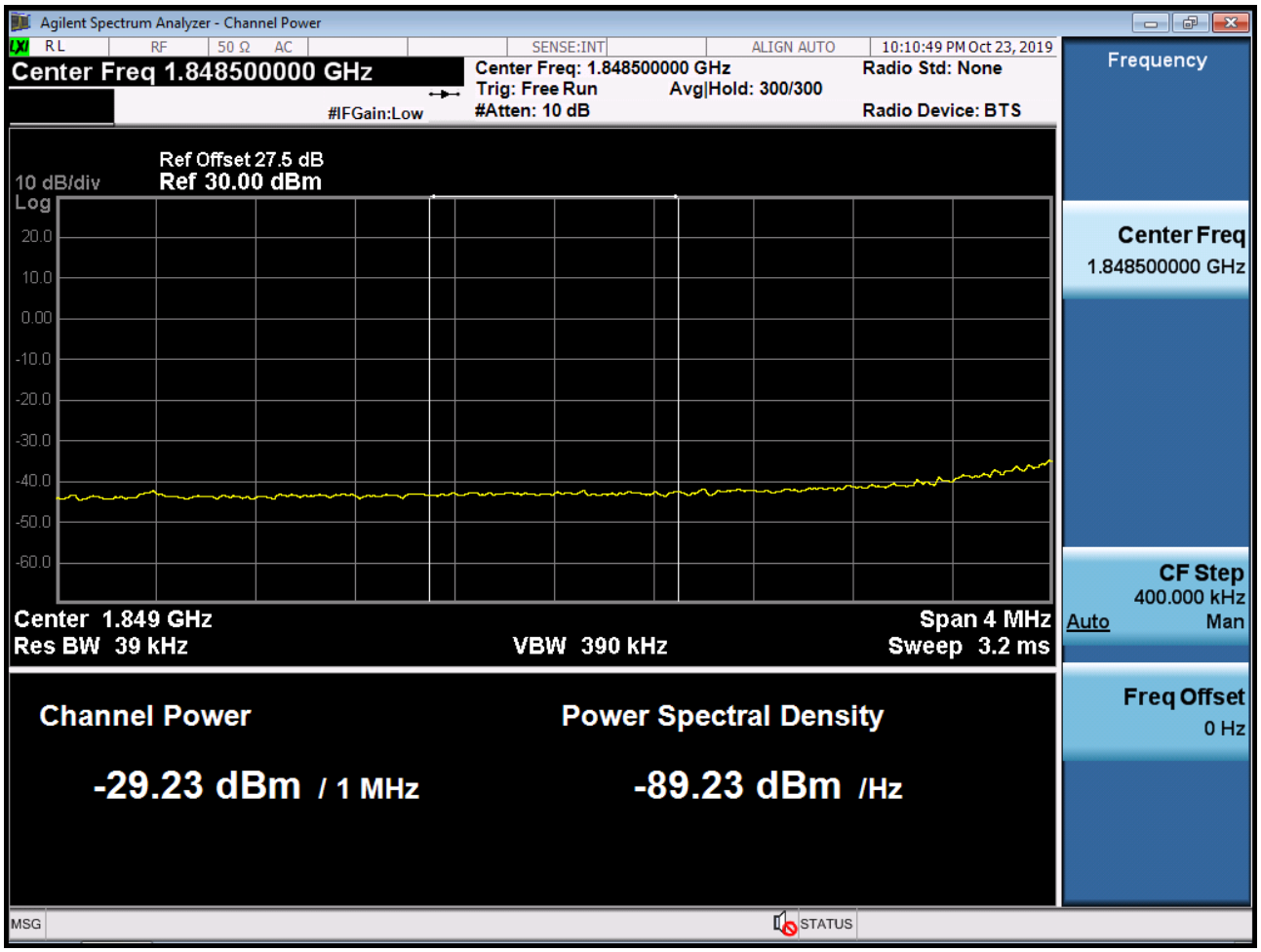
BAND 25/2. Lower Extended Band Edge Plot (15M BW Ch.26115 QPSK_RB75_0) -3



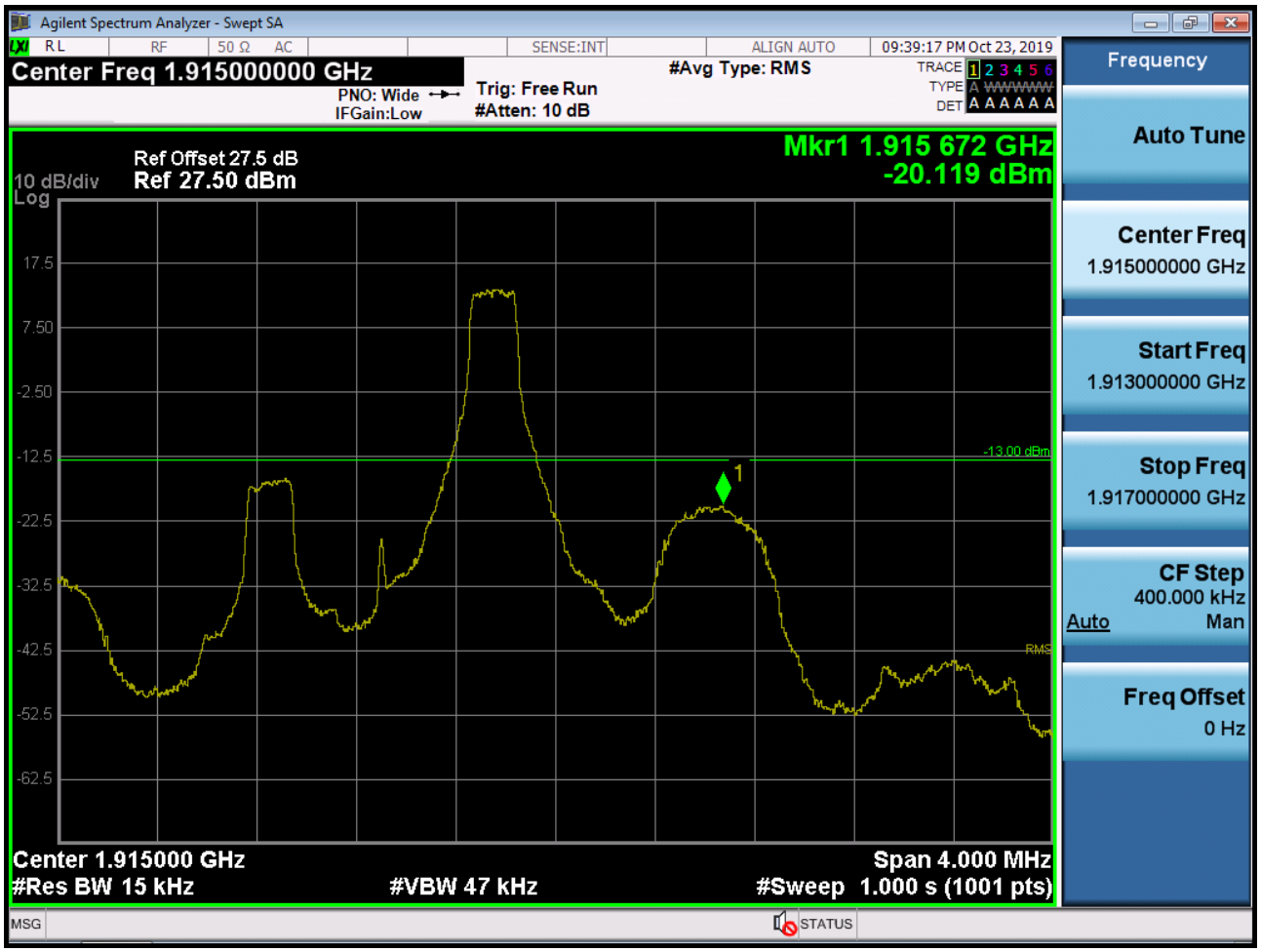
BAND 25/2. Lower Band Edge Plot (20M BW Ch.26140 QPSK_RB1_Offset 0) -1

BAND 25/2. Lower Band Edge Plot (20M BW Ch.26140 QPSK_RB100_Offset 0) -2

BAND 25/2. Lower Extended Band Edge Plot (20M BW Ch.26140 QPSK_RB100_0) -3

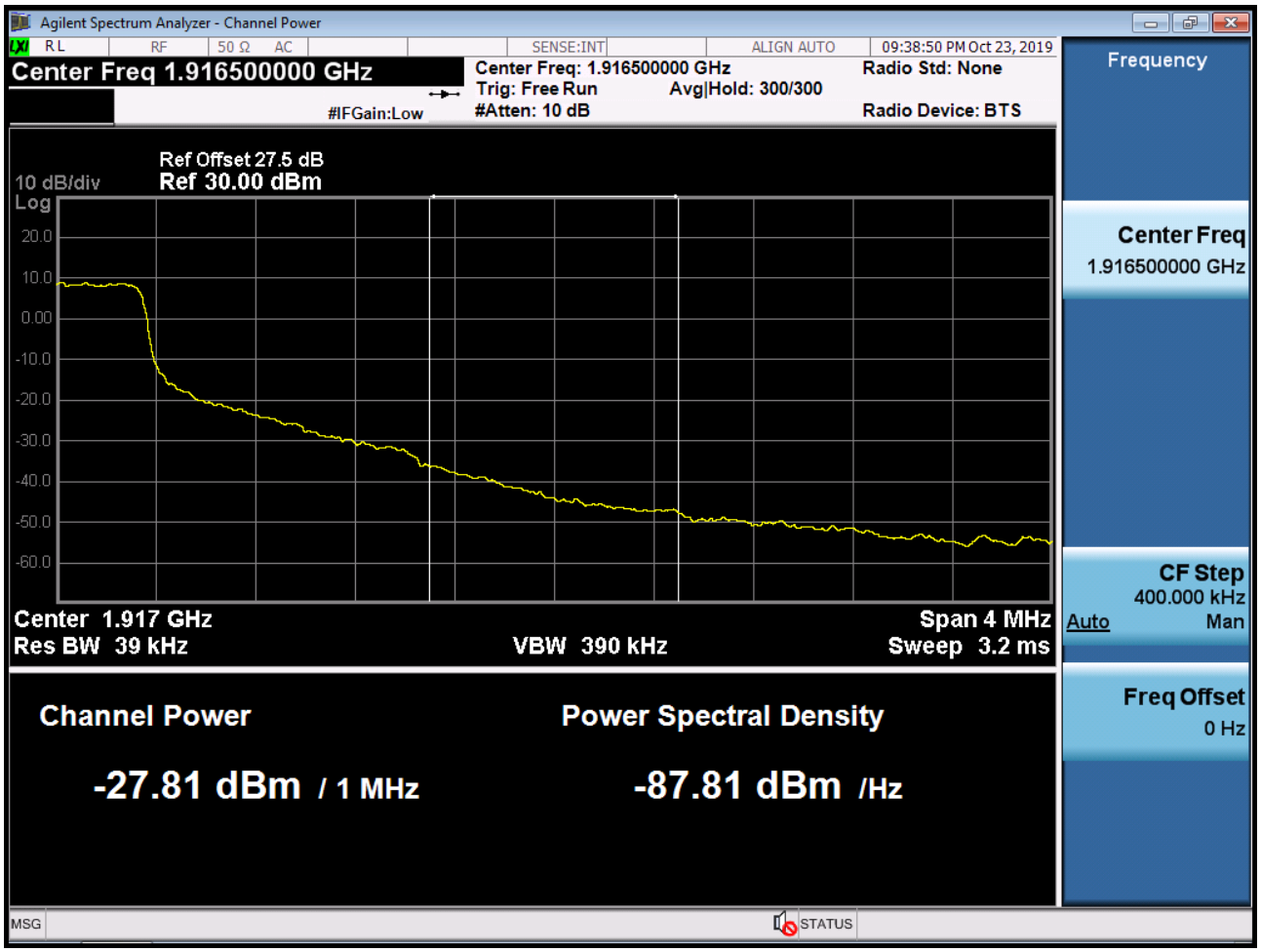


BAND 25/2. Upper Band Edge Plot (1.4M BW Ch.26683 QPSK_RB1_Offset 5) -1

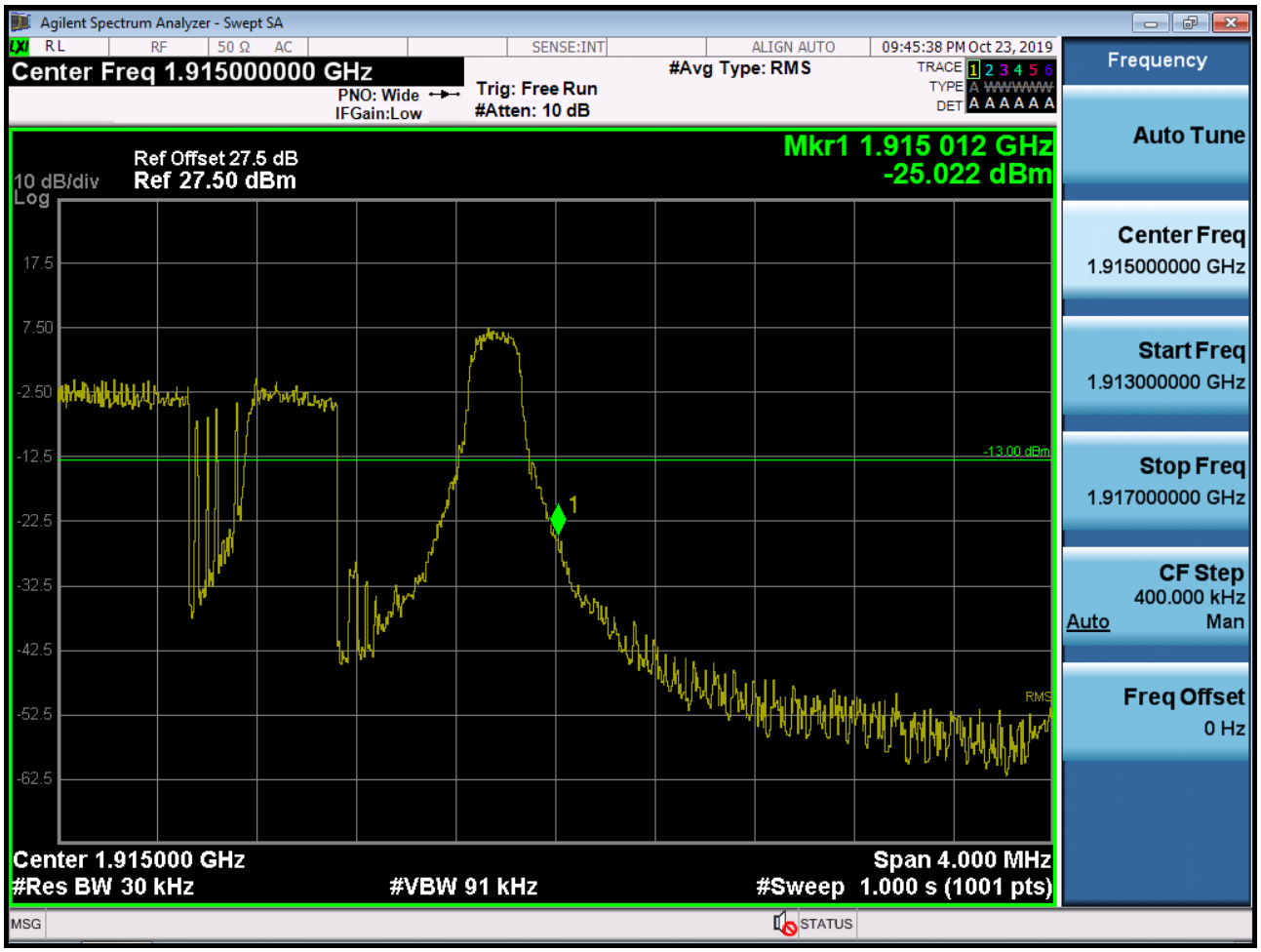


BAND 25/2. Upper Band Edge Plot (1.4M BW Ch.26683 QPSK_RB6_Offset 0) -2

BAND 25/2. Upper Extended Band Edge Plot (1.4M BW Ch.26683 QPSK_RB6_0) -3

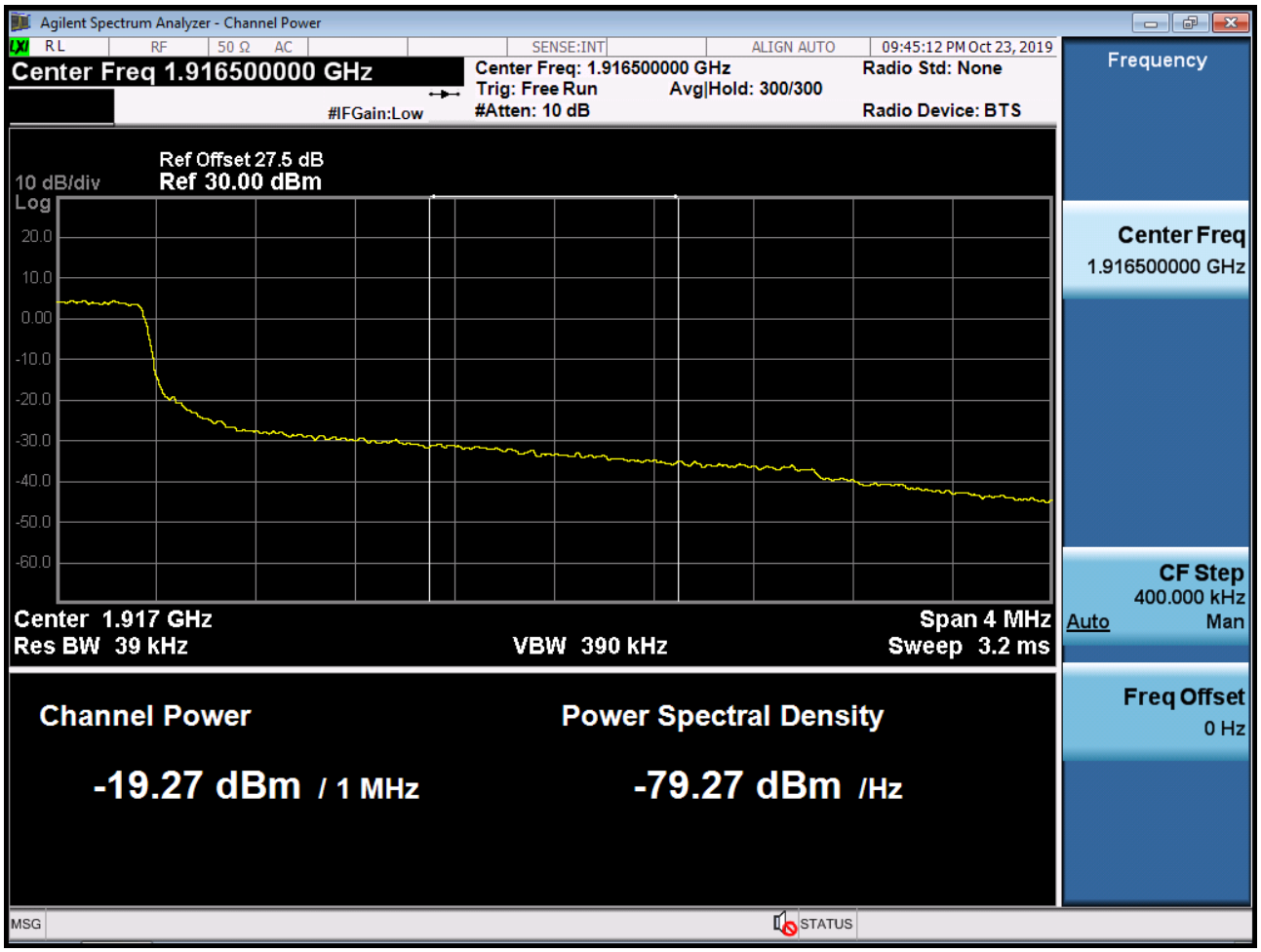


BAND 25/2. Upper Band Edge Plot (3M BW Ch.26675 QPSK_RB1_Offset 14) -1



BAND 25/2. Upper Band Edge Plot (3M BW Ch.26675 QPSK_RB15_Offset 0) -2

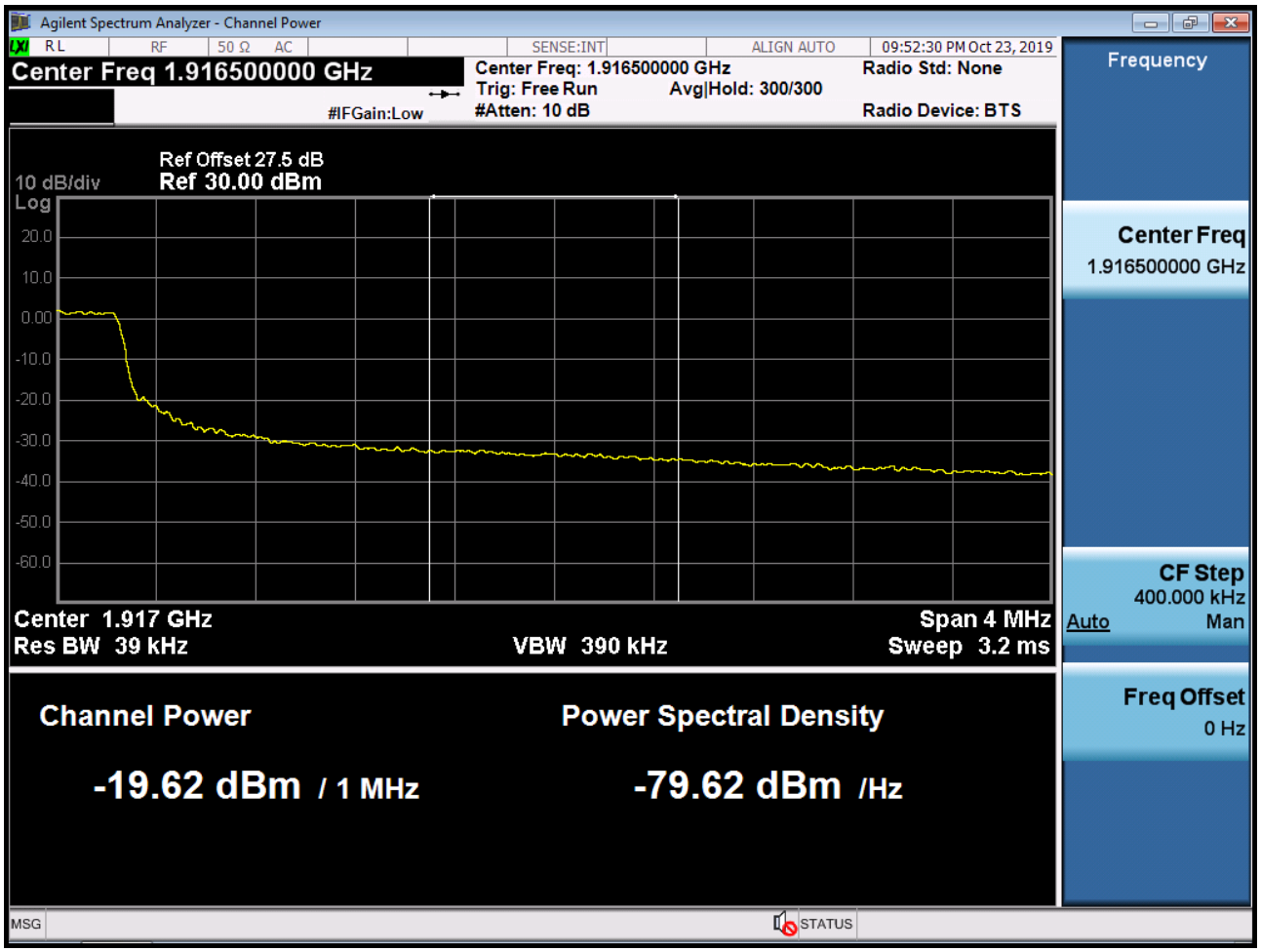
BAND 25/2. Upper Extended Band Edge Plot (3M BW Ch.26675 QPSK_RB15 0) -3



BAND 25/2. Upper Band Edge Plot (5M BW Ch.26665 QPSK_RB1_Offset 24) -1

BAND 25/2. Upper Band Edge Plot (5M BW Ch.26665 QPSK_RB255_Offset 0) -2

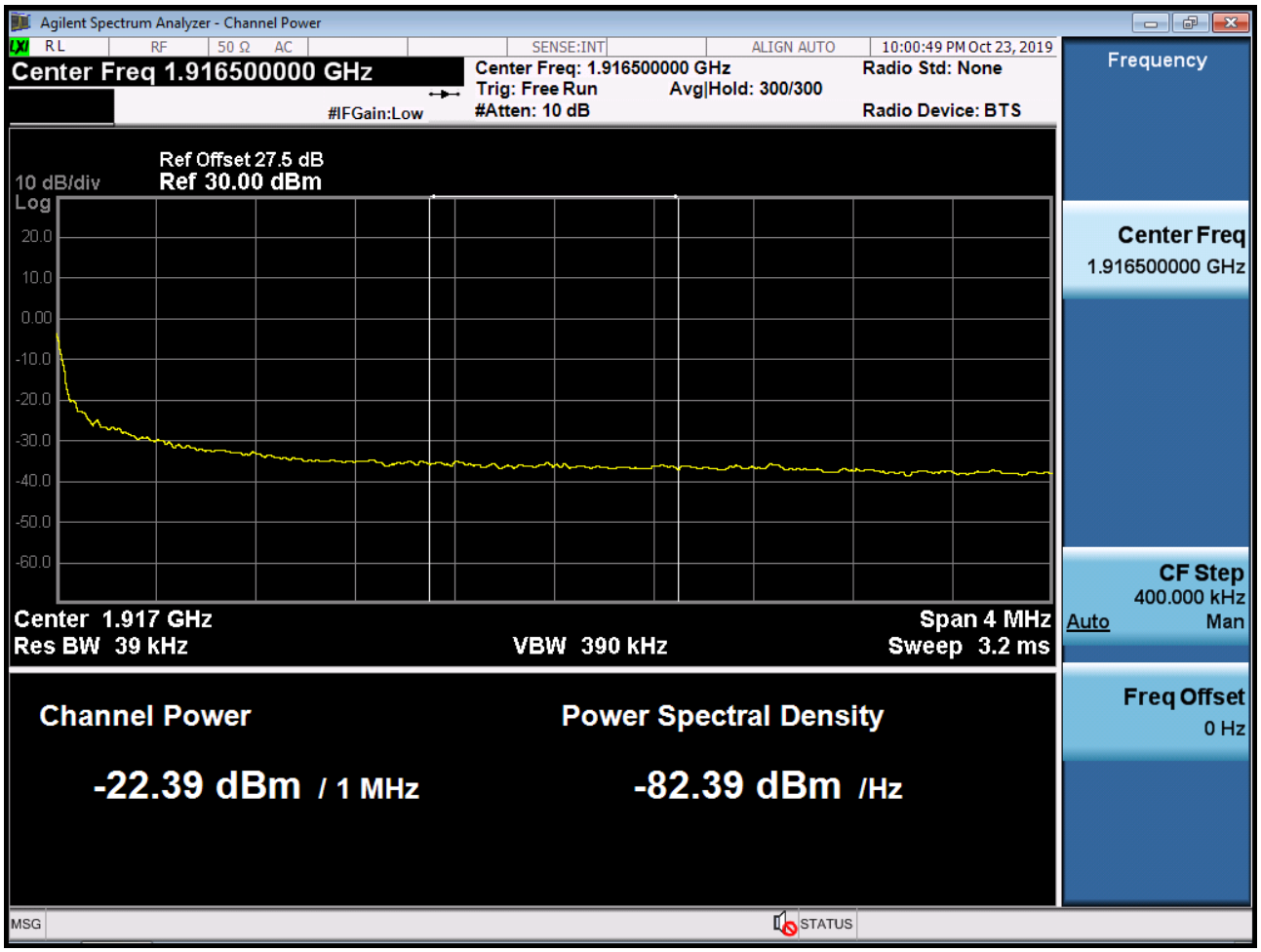
BAND 25/2. Upper Extended Band Edge Plot (5M BW Ch.26665 QPSK_RB255_0) -3



BAND 25/2. Upper Band Edge Plot (10M BW Ch.26640 QPSK_RB1_Offset 49) -1

BAND 25/2. Upper Band Edge Plot (10M BW Ch.26640 QPSK_RB50_Offset 0) -2

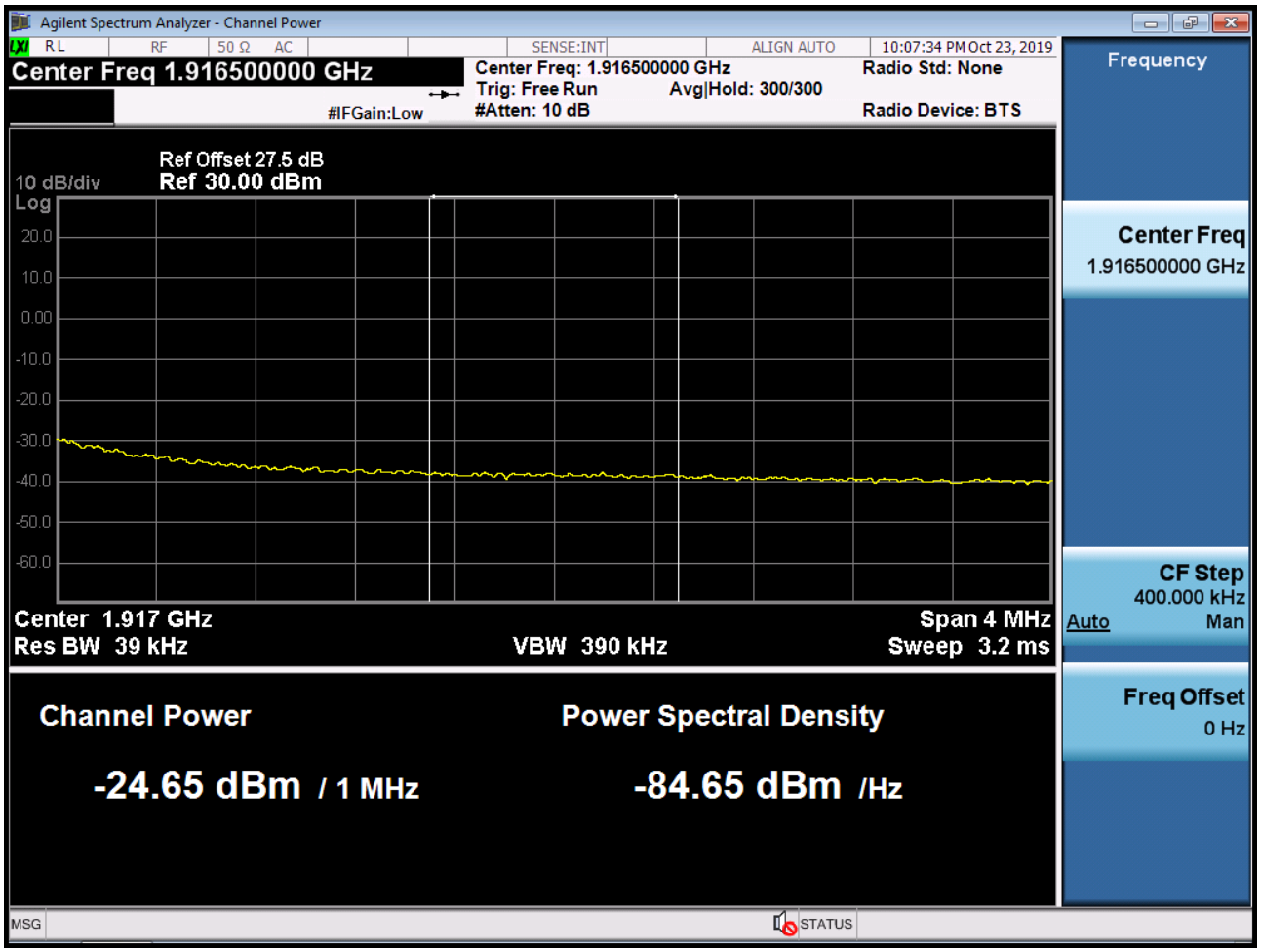
BAND 25/2. Upper Extended Band Edge Plot (10M BW Ch.26640 QPSK_RB50_0) -3



BAND 25/2. Upper Band Edge Plot (15M BW Ch.26615 QPSK_RB1_Offset 74) -1

BAND 25/2. Upper Band Edge Plot (15M BW Ch.26615 QPSK_RB75_Offset 0) -2

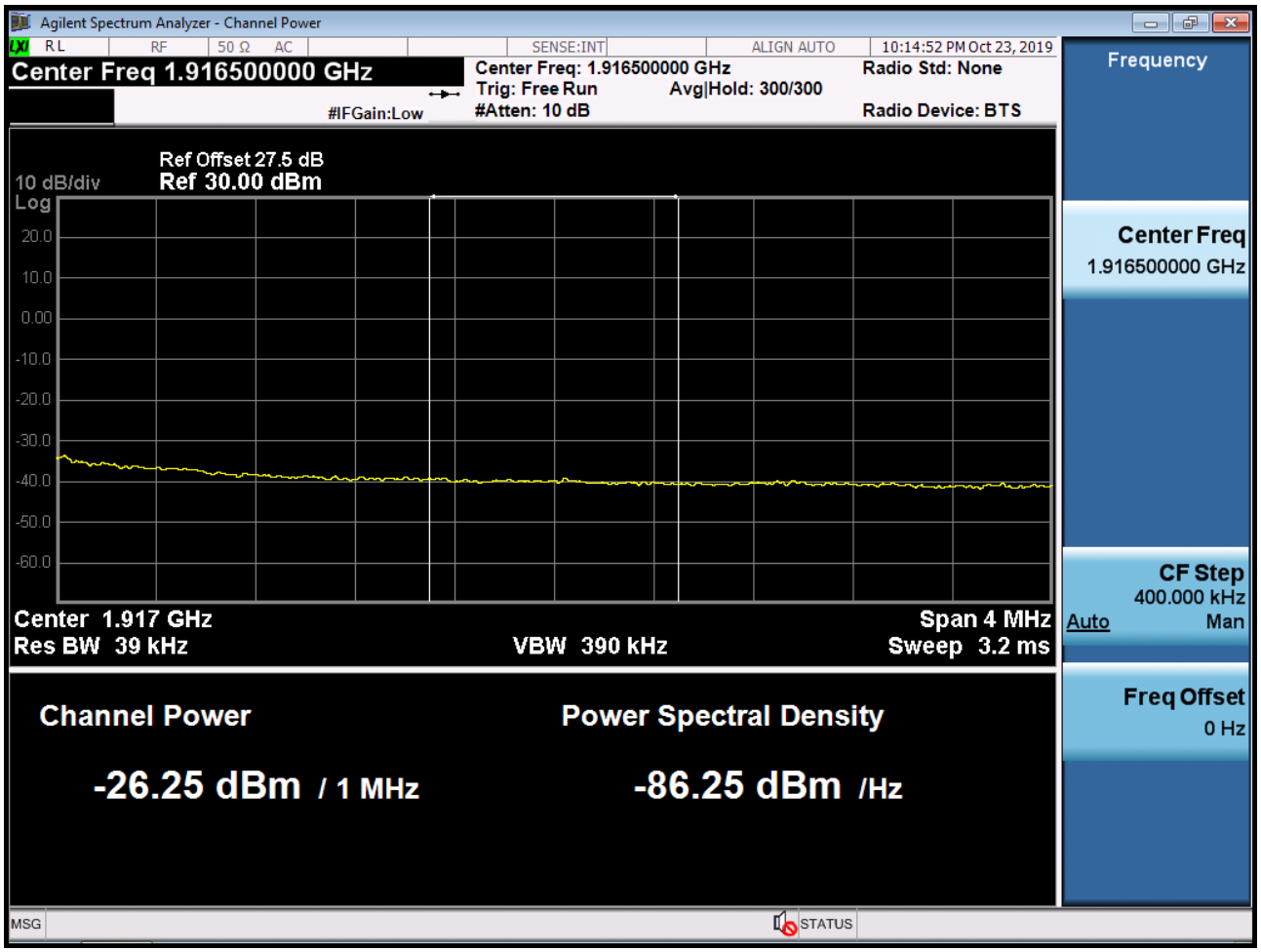
BAND 25/2. Upper Extended Band Edge Plot (15M BW Ch.26615 QPSK_RB75_0) -3



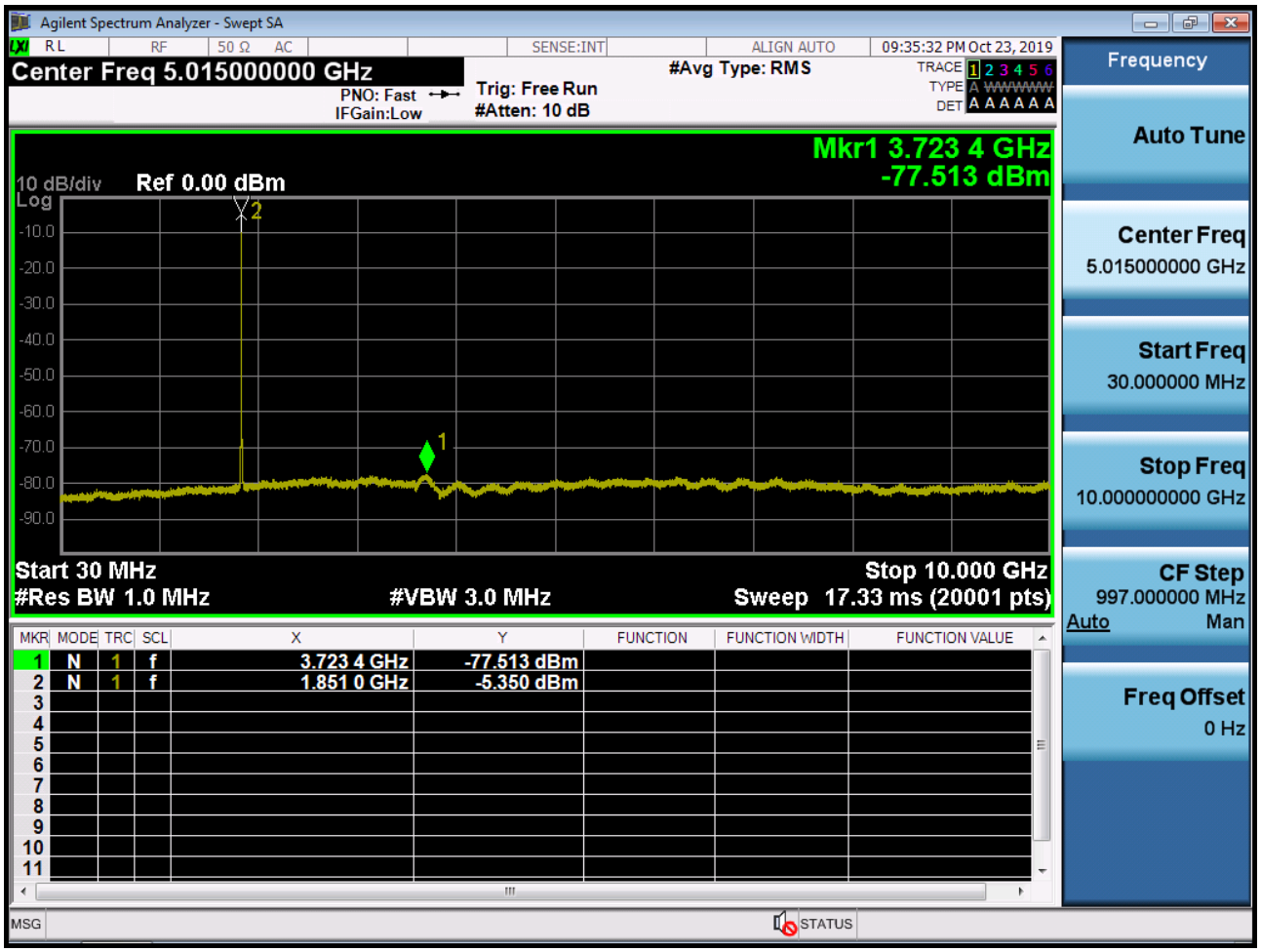
BAND 25/2. Upper Band Edge Plot (20M BW Ch.26590 QPSK_RB1_Offset 99) -1

BAND 25/2. Upper Band Edge Plot (20M BW Ch.26590 QPSK_RB100_Offset 0) -2

BAND 25/2. Upper Extended Band Edge Plot (20M BW Ch.26590 QPSK_RB100_0) -3

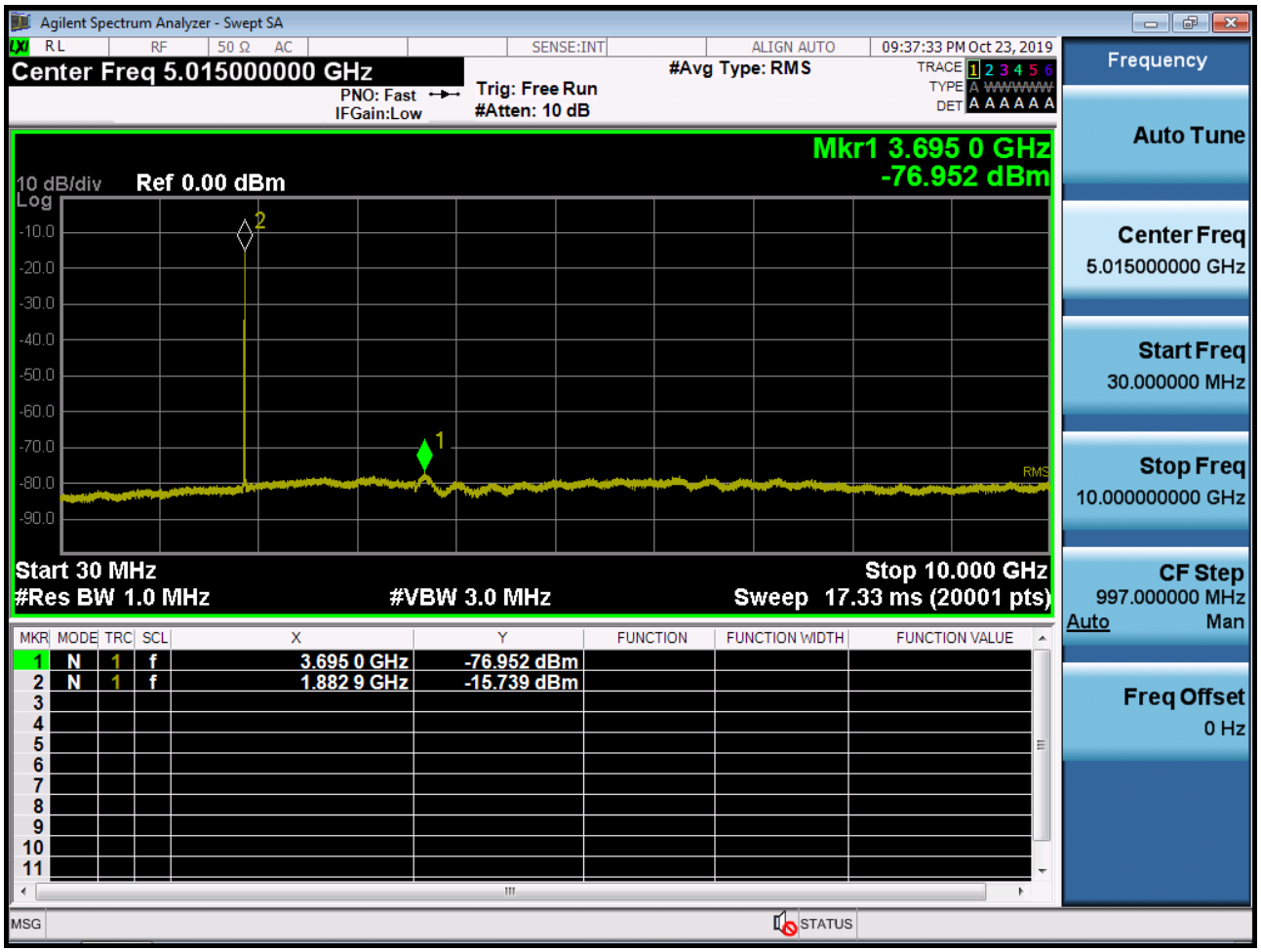


BAND 25/2. Conducted Spurious_1 (26047ch_1.4MHz_QPSK_RB 1_0)



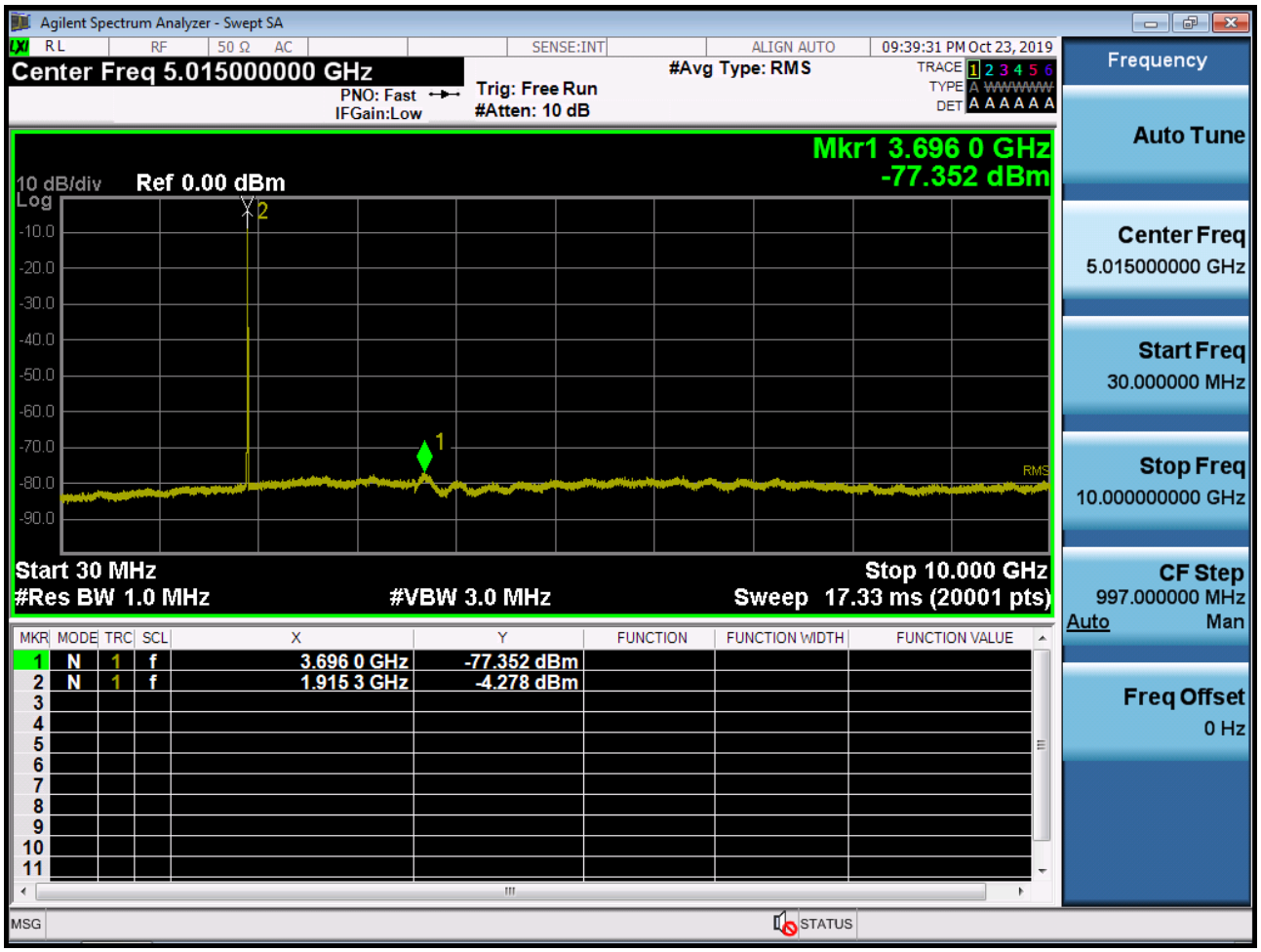
BAND 25/2. Conducted Spurious_2 (26047ch_1.4MHz_QPSK_RB 1_0)

BAND 25/2. Conducted Spurious_1 (26365ch_1.4MHz_QPSK_RB 1_0)



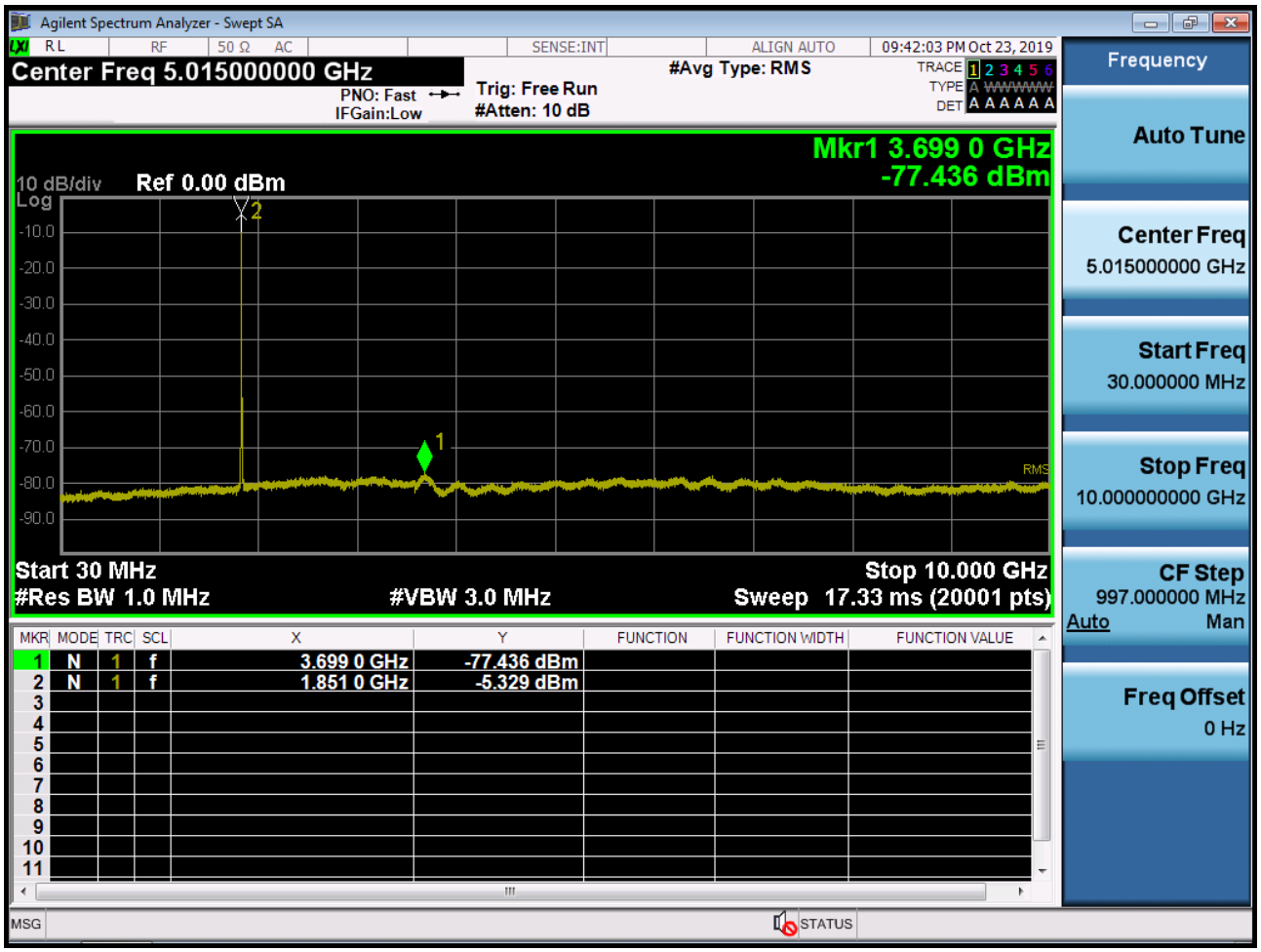
BAND 25/2. Conducted Spurious_2 (26365ch_1.4MHz_QPSK_RB 1_0)

BAND 25/2. Conducted Spurious_1 (26683ch_1.4MHz_QPSK_RB 1_0)



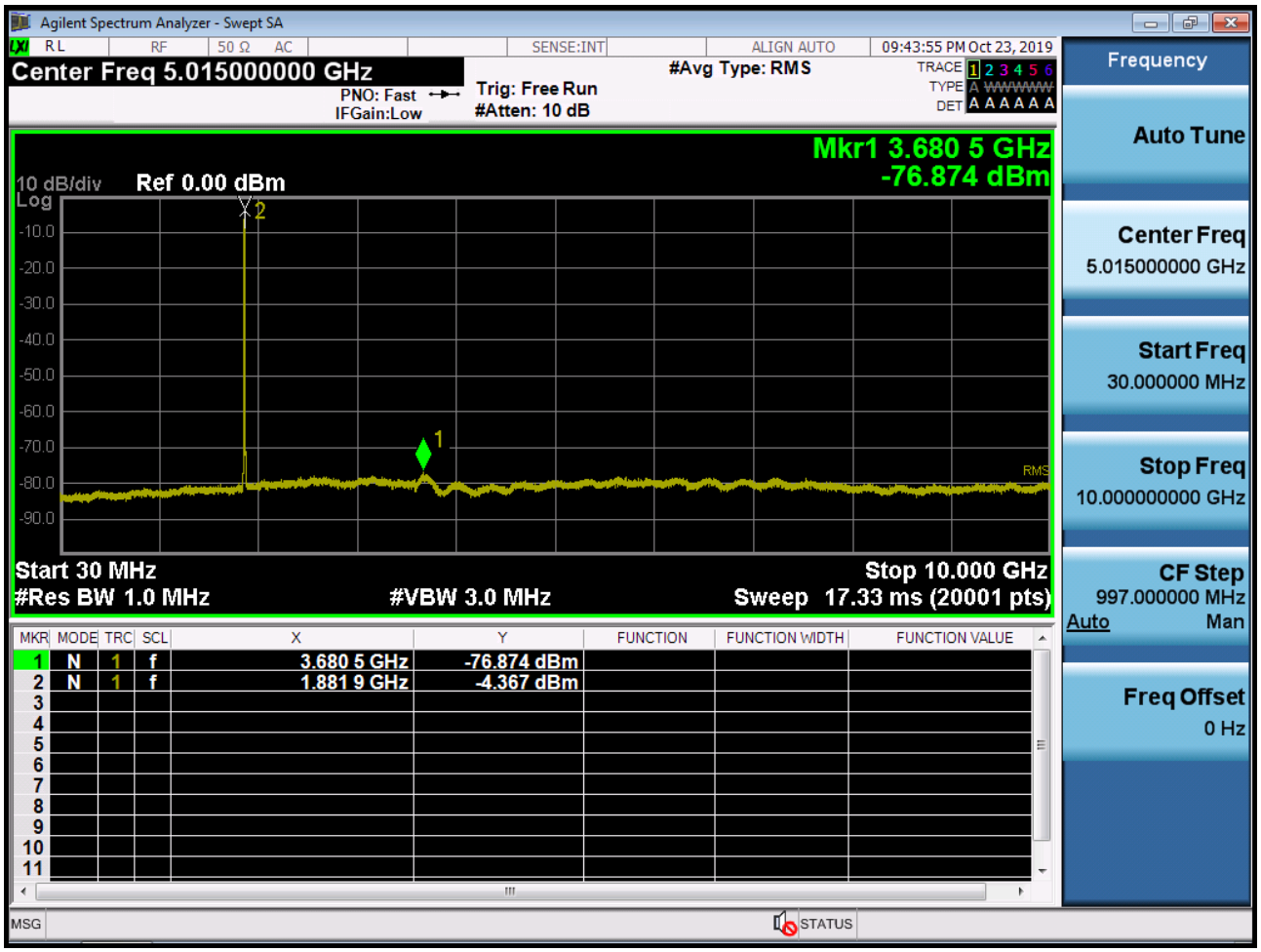
BAND 25/2. Conducted Spurious_2 (26683ch_1.4MHz_QPSK_RB 1_0)

BAND 25/2. Conducted Spurious_1 (26055ch_3MHz_QPSK_RB 1_0)



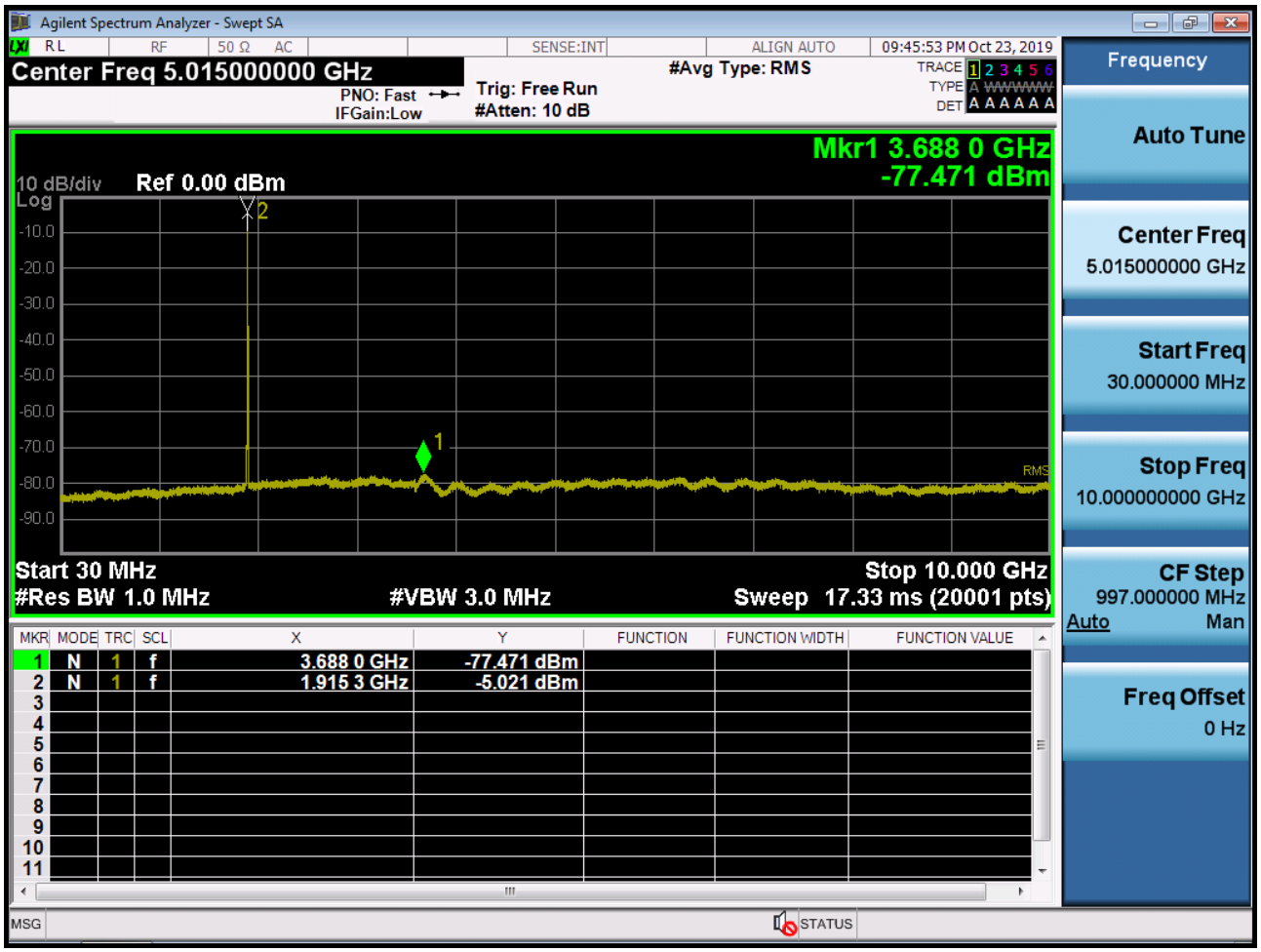
BAND 25/2. Conducted Spurious_2 (26055ch_3MHz_QPSK_RB 1_0)

BAND 25/2. Conducted Spurious_1 (26365ch_3MHz_QPSK_RB 1_0)



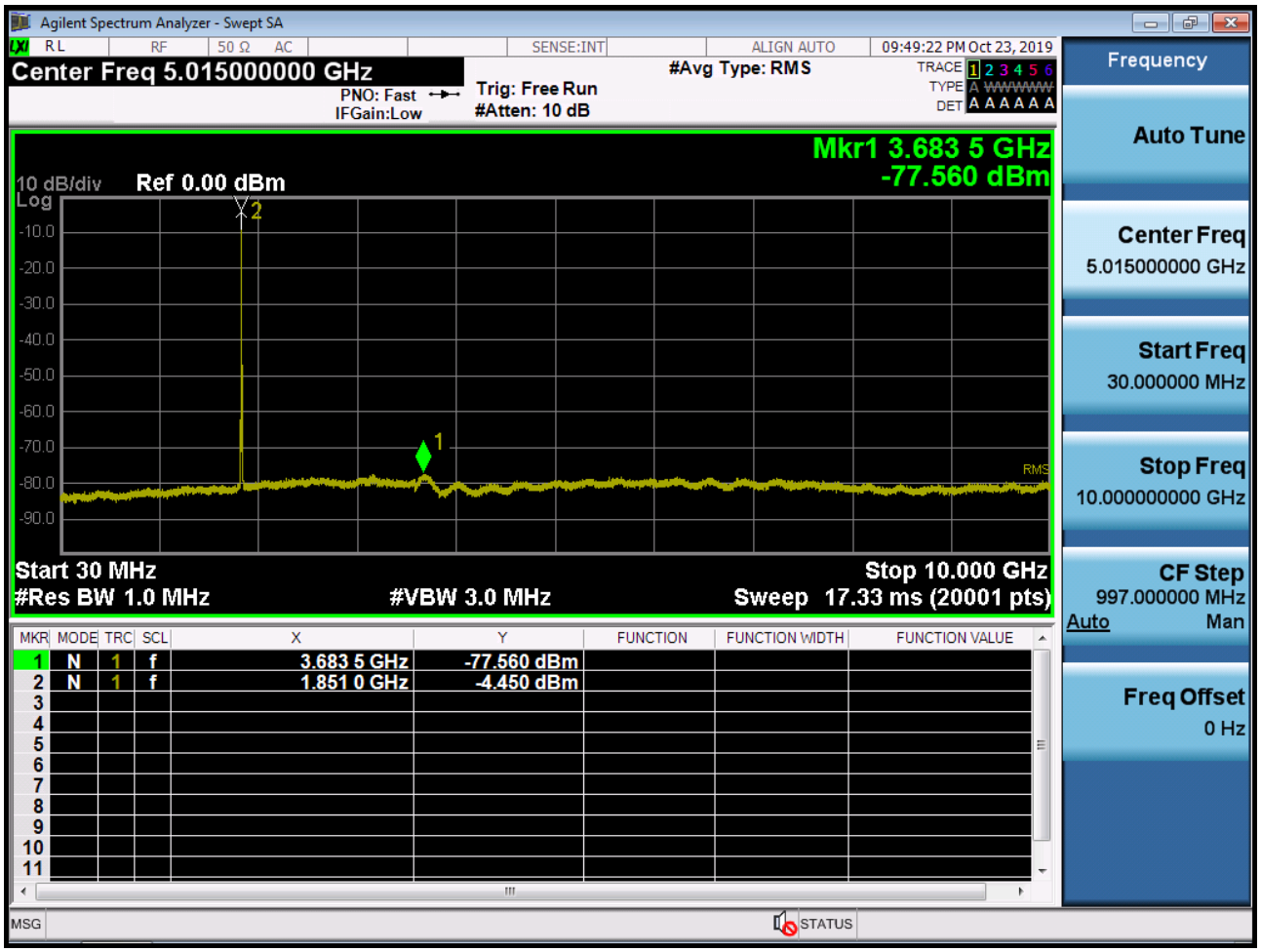
BAND 25/2. Conducted Spurious_2 (26365ch_3MHz_QPSK_RB 1_0)

BAND 25/2. Conducted Spurious_1 (26675ch_3MHz_QPSK_RB 1_0)



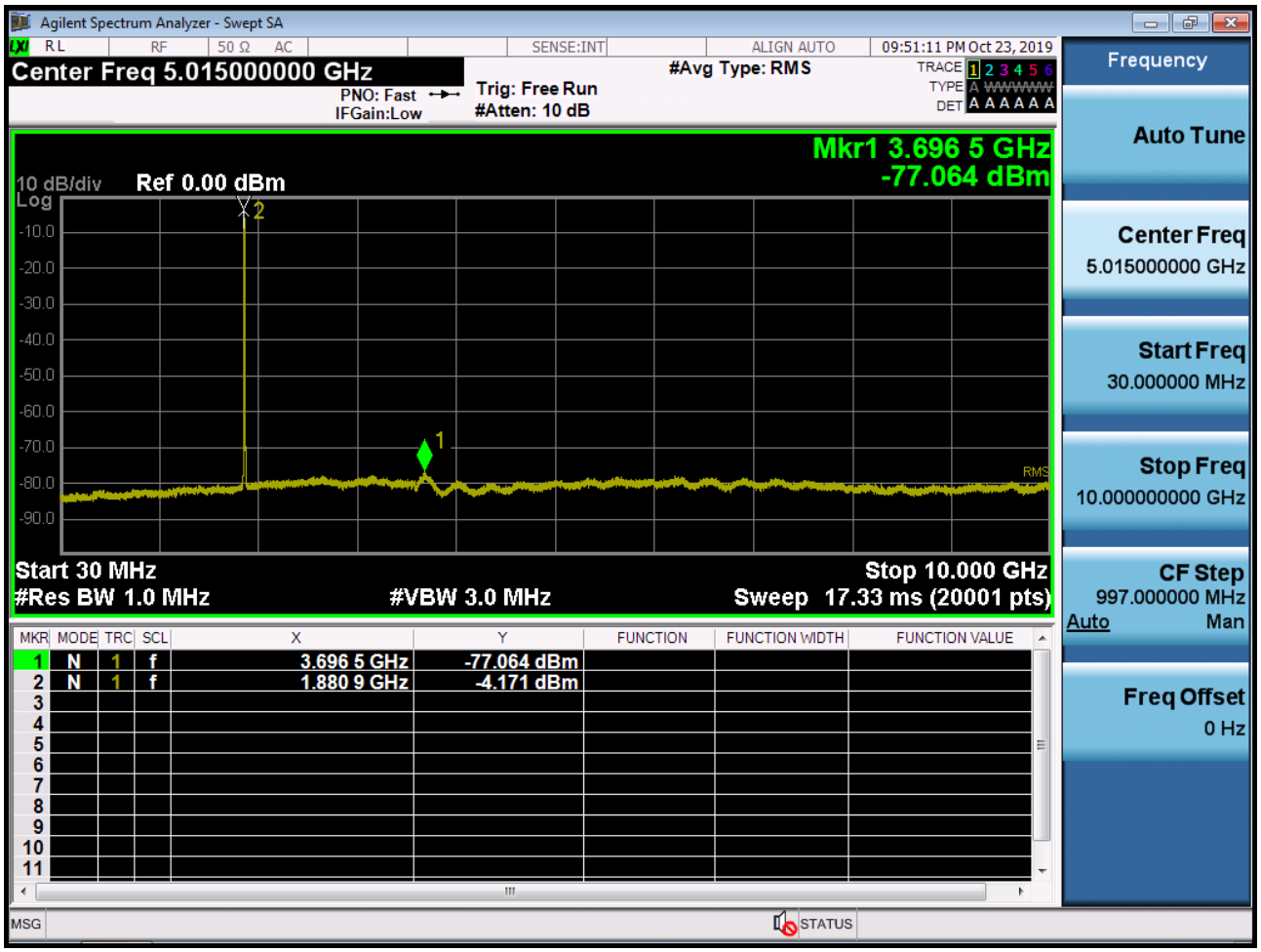
BAND 25/2. Conducted Spurious_2 (26675ch_3MHz_QPSK_RB 1_0)

BAND 25/2. Conducted Spurious_1 (26065ch_5MHz_QPSK_RB 1_0)



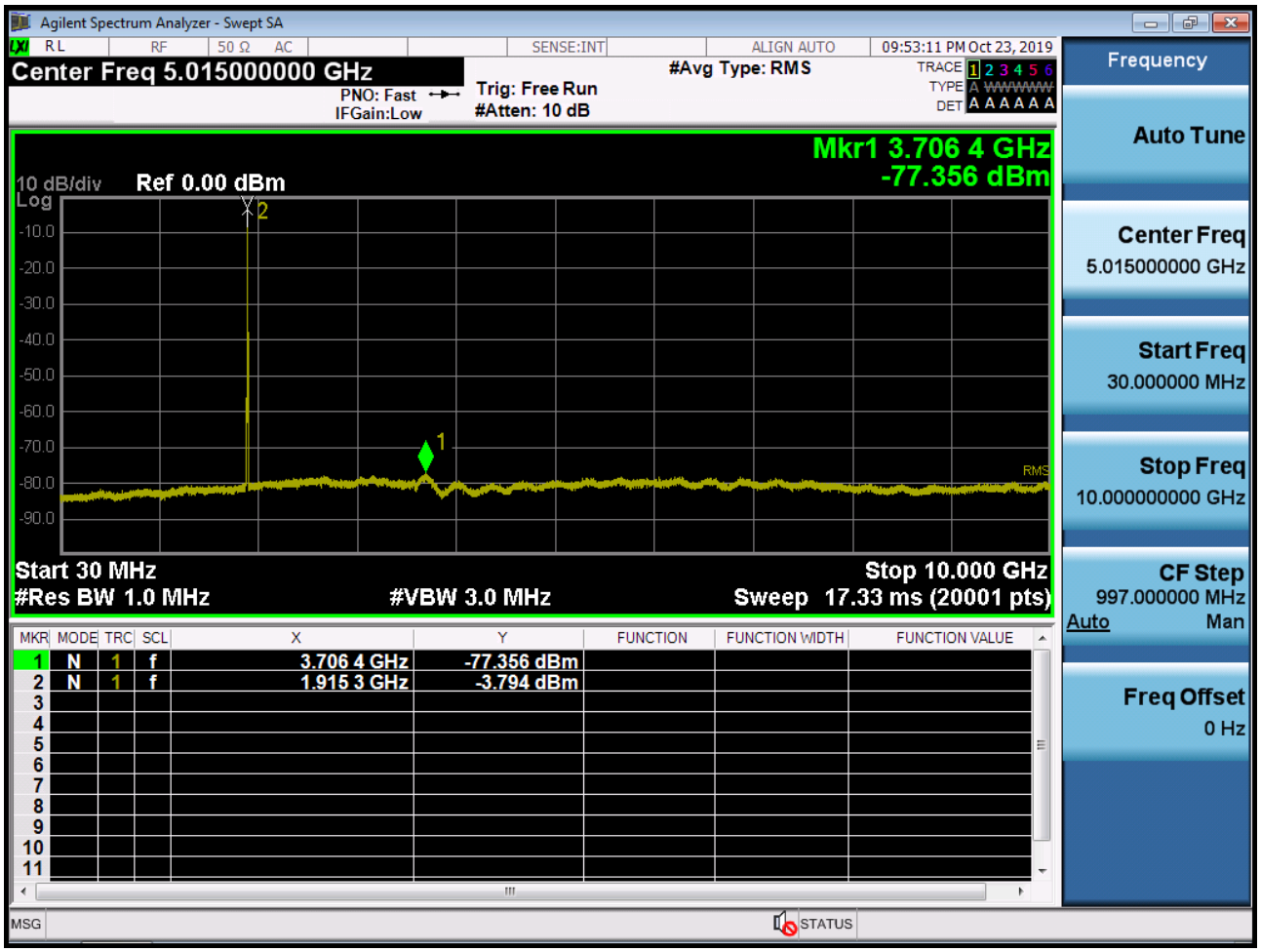
BAND 25/2. Conducted Spurious_2 (26065ch_5MHz_QPSK_RB 1_0)

BAND 25/2. Conducted Spurious_1 (26365ch_5MHz_QPSK_RB 1_0)



BAND 25/2. Conducted Spurious_2 (26365ch_5MHz_QPSK_RB 1_0)

BAND 25/2. Conducted Spurious_1 (26665ch_5MHz_QPSK_RB 1_0)



BAND 25/2. Conducted Spurious_2 (26665ch_5MHz_QPSK_RB 1_0)