PCTEST ENGINEERING LABORATORY, INC.
18855 Adams Court, Morgan Hill, CA 95037 USA
Tel. 410.290.6652 / Fax 410.290.6654
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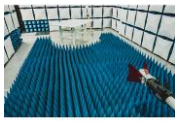

MEASUREMENT REPORT
LTE

Applicant Name:
Apple Inc.
One Apple Park Way
Cupertino, CA 95014
United States

Date of Testing:
5/25 - 8/18/2018
Test Site/Location:
PCTEST Lab. Morgan Hill, CA, USA
Test Report Serial No.:
1C1806040006-03-R1.BCG

FCC ID:	**BCG-A1976**
APPLICANT:	**Apple Inc.**

Application Type:	Certification
Model:	A1976
EUT Type:	Watch
FCC Classification:	PCS Licensed Transmitter Worn on Body (PCT)
FCC Rule Part(s):	22, 24, & 27
Test Procedure(s):	ANSI C63.26-2015, ANSI/TIA-603-E-2016, KDB 971168 D01 v03r01, KDB 648474 D03 v01r04

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947. Test results reported herein relate only to the item(s) tested.

This revised Test Report (S/N: 1C1806040006-03-R1.BCG) supersedes and replaces the previously issued test report (S/N: 1C1806040006-03.BCG) on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Randy Ortanez
President

ACCREDITED
TESTING CERT#2041.02

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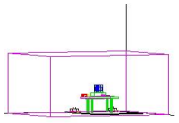
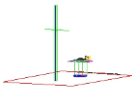


MEASUREMENT REPORT
FCC Part 22, 24, & 27



Mode	FCC Rule Part	Tx Frequency (MHz)	ERP		EIRP		Emission Designator	Modulation
			Max. Power (W)	Max. Power (dBm)	Max. Power (W)	Max. Power (dBm)		
LTE Band 12	27	699.7 - 715.3	0.000404	-3.94	0.000662	-1.79	1M09G7W	QPSK
LTE Band 12	27	699.7 - 715.3	0.000340	-4.69	0.000557	-2.54	1M09D7W	16QAM
LTE Band 12	27	700.5 - 714.5	0.000396	-4.02	0.000650	-1.87	2M74G7W	QPSK
LTE Band 12	27	700.5 - 714.5	0.000339	-4.70	0.000556	-2.55	2M73D7W	16QAM
LTE Band 12	27	701.5 - 713.5	0.000404	-3.94	0.000662	-1.79	4M54G7W	QPSK
LTE Band 12	27	701.5 - 713.5	0.000343	-4.65	0.000562	-2.50	4M53D7W	16QAM
LTE Band 12	27	704 - 711	0.000414	-3.83	0.000679	-1.68	9M11G7W	QPSK
LTE Band 12	27	704 - 711	0.000356	-4.48	0.000585	-2.33	5M40D7W	16QAM
LTE Band 17	27	706.5 - 713.5	0.000422	-3.75	0.000692	-1.60	4M55G7W	QPSK
LTE Band 17	27	706.5 - 713.5	0.000340	-4.68	0.000558	-2.53	4M55D7W	16QAM
LTE Band 17	27	709 - 711	0.000422	-3.75	0.000692	-1.60	9M11G7W	QPSK
LTE Band 17	27	709 - 711	0.000339	-4.70	0.000556	-2.55	5M53D7W	16QAM
LTE Band 13	27	779.5 - 784.5	0.000556	-2.55	0.000912	-0.40	4M55G7W	QPSK
LTE Band 13	27	779.5 - 784.5	0.000457	-3.40	0.000750	-1.25	4M54D7W	16QAM
LTE Band 13	27	782	0.000556	-2.55	0.000912	-0.40	9M09G7W	QPSK
LTE Band 13	27	782	0.000455	-3.42	0.000746	-1.27	5M51D7W	16QAM
LTE Band 5	22H	824.7 - 848.3	0.000392	-4.07	0.000643	-1.92	1M11G7W	QPSK
LTE Band 5	22H	824.7 - 848.3	0.000348	-4.59	0.000570	-2.44	1M11D7W	16QAM
LTE Band 5	22H	825.5 - 847.5	0.000398	-4.00	0.000653	-1.85	2M72G7W	QPSK
LTE Band 5	22H	825.5 - 847.5	0.000345	-4.62	0.000566	-2.47	2M73D7W	16QAM
LTE Band 5	22H	826.5 - 846.5	0.000394	-4.05	0.000646	-1.90	4M56G7W	QPSK
LTE Band 5	22H	826.5 - 846.5	0.000352	-4.54	0.000577	-2.39	4M54D7W	16QAM
LTE Band 5	22H	829 - 844	0.000404	-3.94	0.000662	-1.79	9M16G7W	QPSK
LTE Band 5	22H	829 - 844	0.000349	-4.57	0.000573	-2.42	5M50D7W	16QAM
LTE Band 26	22H	824.7 - 848.3	0.000393	-4.06	0.000644	-1.91	1M11G7W	QPSK
LTE Band 26	22H	824.7 - 848.3	0.000337	-4.73	0.000552	-2.58	1M11D7W	16QAM
LTE Band 26	22H	825.5 - 847.5	0.000401	-3.97	0.000658	-1.82	2M73G7W	QPSK
LTE Band 26	22H	825.5 - 847.5	0.000332	-4.79	0.000545	-2.64	2M72D7W	16QAM
LTE Band 26	22H	826.5 - 846.5	0.000401	-3.97	0.000658	-1.82	4M55G7W	QPSK
LTE Band 26	22H	826.5 - 846.5	0.000340	-4.69	0.000557	-2.54	4M53D7W	16QAM
LTE Band 26	22H	829 - 844	0.000394	-4.05	0.000646	-1.90	9M12G7W	QPSK
LTE Band 26	22H	829 - 844	0.000351	-4.55	0.000575	-2.40	5M42D7W	16QAM

EUT Overview (<1GHz)

Mode	FCC Rule Part	Tx Frequency (MHz)	EIRP		Emission Designator	Modulation
			Max. Power (W)	Max. Power (dBm)		
LTE Band 4	27	1710.7 - 1754.3	0.01000	10.00	1M10G7W	QPSK
LTE Band 4	27	1710.7 - 1754.3	0.00938	9.72	1M11D7W	16QAM
LTE Band 4	27	1711.5 - 1753.5	0.00995	9.98	2M74G7W	QPSK
LTE Band 4	27	1711.5 - 1753.5	0.00925	9.66	2M73D7W	16QAM
LTE Band 4	27	1712.5 - 1752.5	0.01000	10.00	4M55G7W	QPSK
LTE Band 4	27	1712.5 - 1752.5	0.00942	9.74	4M53D7W	16QAM
LTE Band 4	27	1715 - 1750	0.00998	9.99	9M11G7W	QPSK
LTE Band 4	27	1715 - 1750	0.00951	9.78	5M41D7W	16QAM
LTE Band 4	27	1717.5 - 1747.5	0.01000	10.00	13M6G7W	QPSK
LTE Band 4	27	1717.5 - 1747.5	0.00948	9.77	5M33D7W	16QAM
LTE Band 4	27	1720 - 1745	0.01000	10.00	18M1G7W	QPSK
LTE Band 4	27	1720 - 1745	0.00920	9.64	5M53D7W	16QAM
LTE Band 2	24E	1850.7 - 1909.3	0.00755	8.78	1M11G7W	QPSK
LTE Band 2	24E	1850.7 - 1909.3	0.00675	8.29	1M11D7W	16QAM
LTE Band 2	24E	1851.5 - 1908.5	0.00738	8.68	2M72G7W	QPSK
LTE Band 2	24E	1851.5 - 1908.5	0.00661	8.20	2M73D7W	16QAM
LTE Band 2	24E	1852.5 - 1907.5	0.00760	8.81	4M55G7W	QPSK
LTE Band 2	24E	1852.5 - 1907.5	0.00675	8.29	4M56D7W	16QAM
LTE Band 2	24E	1855 - 1905	0.00745	8.72	9M12G7W	QPSK
LTE Band 2	24E	1855 - 1905	0.00596	7.75	5M37D7W	16QAM
LTE Band 2	24E	1857.5 - 1902.5	0.00733	8.65	13M6G7W	QPSK
LTE Band 2	24E	1857.5 - 1902.5	0.00658	8.18	5M28D7W	16QAM
LTE Band 2	24E	1860 - 1900	0.00769	8.86	18M1G7W	QPSK
LTE Band 2	24E	1860 - 1900	0.00708	8.50	5M46D7W	16QAM
LTE Band 25	24E	1850.7 - 1914.3	0.00750	8.75	1M11G7W	QPSK
LTE Band 25	24E	1850.7 - 1914.3	0.00646	8.10	1M11D7W	16QAM
LTE Band 25	24E	1851.5 - 1913.5	0.00743	8.71	2M73G7W	QPSK
LTE Band 25	24E	1851.5 - 1913.5	0.00653	8.15	2M74D7W	16QAM
LTE Band 25	24E	1852.5 - 1912.5	0.00728	8.62	4M55G7W	QPSK
LTE Band 25	24E	1852.5 - 1912.5	0.00653	8.15	4M54D7W	16QAM
LTE Band 25	24E	1855 - 1910	0.00773	8.88	9M10G7W	QPSK
LTE Band 25	24E	1855 - 1910	0.00682	8.34	5M49D7W	16QAM
LTE Band 25	24E	1857.5 - 1907.5	0.00733	8.65	13M6G7W	QPSK
LTE Band 25	24E	1857.5 - 1907.5	0.00641	8.07	5M35D7W	16QAM
LTE Band 25	24E	1860 - 1905	0.00741	8.70	18M1G7W	QPSK
LTE Band 25	24E	1860 - 1905	0.00649	8.12	5M44D7W	16QAM
LTE Band 41	27	2498.5 - 2687.5	0.01288	11.10	4M53G7W	QPSK
LTE Band 41	27	2498.5 - 2687.5	0.01047	10.20	4M54D7W	16QAM
LTE Band 41	27	2501 - 2685	0.01291	11.11	9M19G7W	QPSK
LTE Band 41	27	2501 - 2685	0.01096	10.40	5M37D7W	16QAM
LTE Band 41	27	2503.5 - 2682.5	0.01288	11.10	13M6G7W	QPSK
LTE Band 41	27	2503.5 - 2682.5	0.01161	10.65	5M31D7W	16QAM
LTE Band 41	27	2506 - 2680	0.01211	10.83	18M1G7W	QPSK
LTE Band 41	27	2506 - 2680	0.01096	10.40	5M47D7W	16QAM

EUT Overview (>1GHz)

1.0 INTRODUCTION

1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

1.2 PCTEST Test Location

These measurement tests were conducted at the PCTEST Engineering Laboratory, Inc. facility located at 18855 Adams Court, Morgan Hill, CA 95037. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014 and KDB 414788 D01 v01r01.

1.3 Test Facility / Accreditations

Measurements were performed at PCTEST Engineering Lab located in Morgan Hill, CA 95037, U.S.A.

- PCTEST is an ISO 17025-2005 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.02 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.

- PCTEST TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).

- PCTEST facility is a registered (22831) test laboratory with the site description on file with ISED.

2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Apple Watch FCC ID: BCG-A1976**. The test data contained in this report pertains only to the emissions due to the EUT's LTE function.

Test Device Serial No.: C89WP002K47D, C89WM010K47K

2.2 Device Capabilities

This device contains the following capabilities:

850/1700/1900 WCDMA/HSPA, Multi-band LTE, 802.11b/g/n WLAN, Bluetooth (1x, EDR, HDR4, HDR8, LE), NFC

2.3 Antenna Description

Following antenna was used for the testing.

Frequency [MHz]	Antenna Gain (dBi)
698-716	-26.6
777-787	-25.4
814-824	-26.5
824-849	-26.7
1710-1755	-13.5
1850-1915	-14.6
2490-2690	-11.6

Table 2-1. Antenna Peak Gain

2.4 Test Support Equipment

1	Apple MacBook	Model:	A1398	S/N:	C2QKP008F6F3
	w/AC/DC Adapter	Model:	A1435	S/N:	
2	Apple USB Cable	Model:	Kanzi	S/N:	316F8A
	w/ Charging Dock	Model:	FAPS73	S/N:	17242000868
	w/ Dock	Model:	X241	S/N:	GW17E01ST28
3	USB Lightning Cable	Model:	N/A	S/N:	N/A
	w/ AC Adapter	Model:	A1265	S/N:	1X0450PGS8QZ
4	Wireless Charging Pad (WCP)	Model:	DVT-2a	S/N:	DLC824400H9J0V64U
	Wireless Charging Pad (WCP)	Model:	DVT-1d	S/N:	DLC824401XHJLW04U
5	Test Pathfinder Mogao Board	Model:	X920	S/N:	920-04087-03
	w/ EVT SiP Cradle	Model:	X920	S/N:	PF 2016
6	DC Power Supply	Model:	KPS3010D	S/N:	N/A

Table 2-2. Test Support Equipment Used

2.5 Test Configuration

The EUT was tested per the guidance of ANSI/TIA-603-E-2016 and KDB 971168 D01 v03r01. See Section 7.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

The worst case configuration was investigated for all combinations of the two materials, aluminum and stainless steel, and various types of wristbands, metal and non-metal wristbands The store display sample was investigated and determined as not the worst case. The EUT was also investigated with and without wireless charger. The worst case configuration found was used for all testing.

The emissions below 1GHz and above 18GHz were tested with the highest transmitting power channel and the worst case configuration.

The EUT was manipulated through three orthogonal planes of X-orientation (flatbed), Y-orientation (landscape), and Z-orientation (portrait) during the testing. Only the worst case emissions were reported in this test report.

16-QAM Modulation uplink is only supported for RBs of 27 or less.

2.6 Software and Firmware

The test was conducted with firmware version wOS 5.0 installed on the EUT.

2.7 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

3.0 DESCRIPTION OF TESTS

3.1 Measurement Procedure

The measurement procedures described in the document titled "Land Mobile FM or PM – Communications Equipment – Measurements and Performance Standards" (ANSI/TIA-603-E-2016) and "Procedures for Compliance Measurement of the Fundamental Emission Power of Licensed Wideband (> 1 MHz) Digital Transmission Systems" (KDB 971168 D01 v03r01) were used in the measurement of the EUT**.**

3.2 Block C Frequency Range

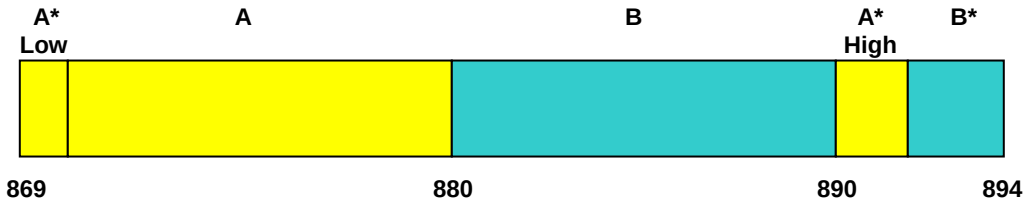
Two paired channels of 11 megahertz each are available for assignment in Block C in the 746-757 MHz and 776-787 MHz bands. In the event that no licenses for two channels in this Block C are assigned based on the results of the first auction in which such licenses were offered because the auction results do not satisfy the applicable reserve price, the spectrum in the 746-757 MHz and 776-787 MHz bands will instead be made available for assignment at a subsequent auction as follows: (i) Two paired channels of 6 megahertz each available for assignment in Block C1 in the 746-752 MHz and 776-782 MHz bands. (ii) Two paired channels of 5 megahertz each available for assignment in Block C2 in the 752-757 MHz and 782-787 MHz bands.

3.3 Block A Frequency Range

698-746 MHz band. The following frequencies are available for licensing pursuant to this part in the 698-746 MHz band: (1) Three paired channel blocks of 12 megahertz each are available for assignment as follows:

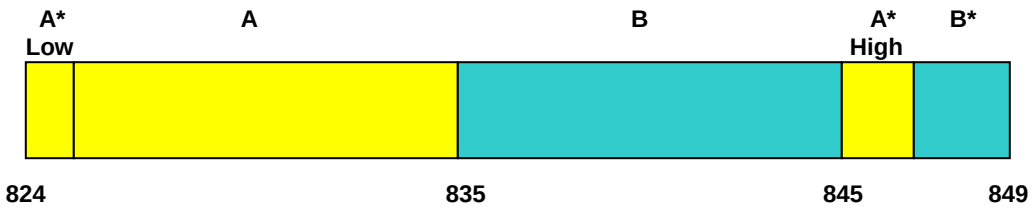
Block A: 698-704 MHz and 728-734 MHz;
Block B: 704-710 MHz and 734-740 MHz; and
Block C: 710-716 MHz and 740-746 MHz.

3.4 Cellular - Base Frequency Blocks



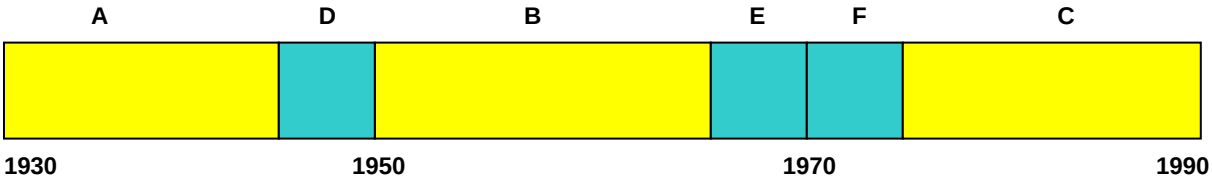
BLOCK 1: 869 – 880 MHz (A* Low + A)
BLOCK 2: 880 – 890 MHz (B)
BLOCK 3: 890 – 891.5 MHz (A* High)
BLOCK 4: 891.5 – 894 MHz (B*)

3.5 Cellular - Mobile Frequency Blocks



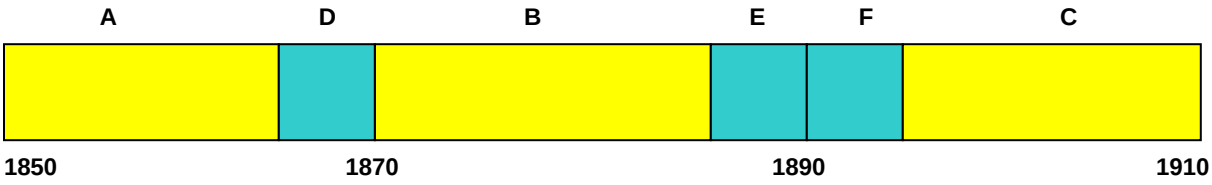
BLOCK 1: 824 – 835 MHz (A* Low + A)
BLOCK 2: 835 – 845 MHz (B)
BLOCK 3: 845 – 846.5 MHz (A* High)
BLOCK 4: 846.5 – 849 MHz (B*)

3.6 PCS - Base Frequency Blocks



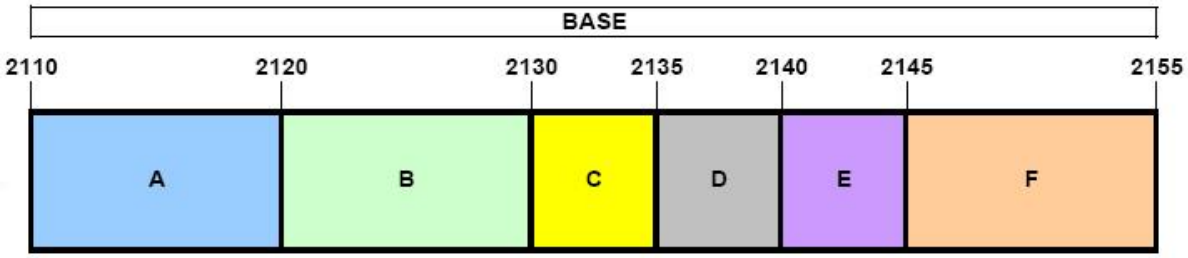
BLOCK 1: 1930 – 1945 MHz (A)
BLOCK 2: 1945 – 1950 MHz (D)
BLOCK 3: 1950 – 1965 MHz (B)
BLOCK 4: 1965 – 1970 MHz (E)
BLOCK 5: 1970 – 1975 MHz (F)
BLOCK 6: 1975 – 1990 MHz (C)

3.7 PCS - Mobile Frequency Blocks



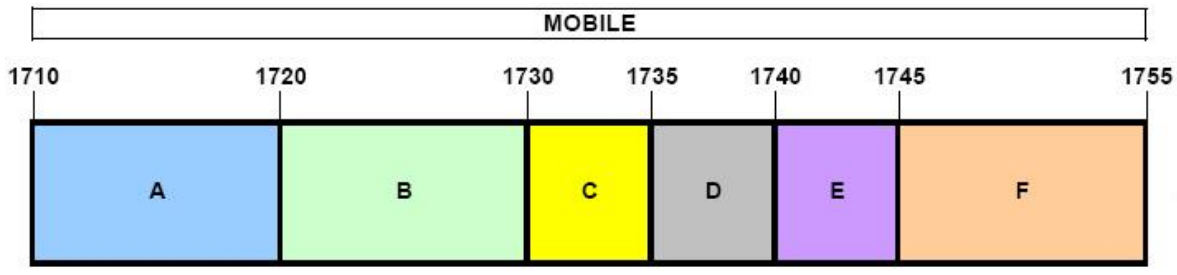
BLOCK 1: 1850 – 1865 MHz (A)
BLOCK 2: 1865 – 1870 MHz (D)
BLOCK 3: 1870 – 1885 MHz (B)
BLOCK 4: 1885 – 1890 MHz (E)
BLOCK 5: 1890 – 1895 MHz (F)
BLOCK 6: 1895 – 1910 MHz (C)

3.8 AWS - Base Frequency Blocks



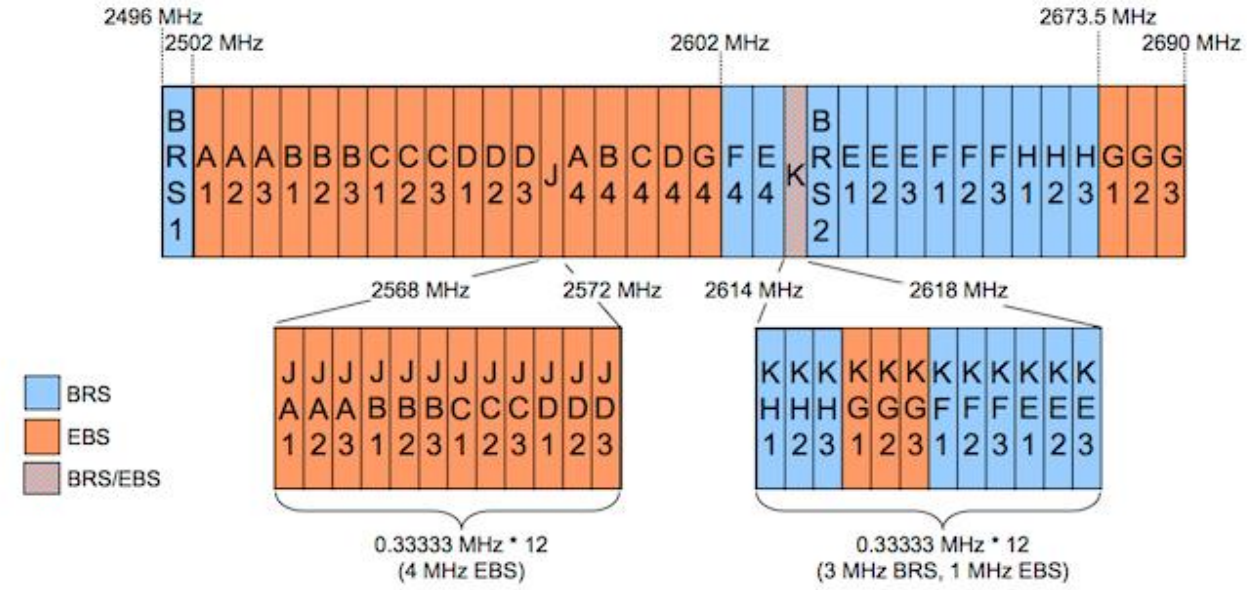
BLOCK 1: 2110 – 2120 MHz (A)
BLOCK 2: 2120 – 2130 MHz (B)
BLOCK 3: 2130 – 2135 MHz (C)
BLOCK 4: 2135 – 2140 MHz (D)
BLOCK 5: 2140 – 2145 MHz (E)
BLOCK 6: 2145 – 2155 MHz (F)

3.9 AWS - Mobile Frequency Blocks



BLOCK 1: 1710 – 1720 MHz (A)
BLOCK 2: 1720 – 1730 MHz (B)
BLOCK 3: 1730 – 1735 MHz (C)
BLOCK 4: 1735 – 1740 MHz (D)
BLOCK 5: 1740 – 1745 MHz (E)
BLOCK 6: 1745 – 1755 MHz (F)

3.10 BRS/EBS Frequency Block



3.11 Radiated Power and Radiated Spurious Emissions

§2.1053 §22.913(a.2) §22.917(a) §24.232(c) §24.238(a) §27.50(b.10) §27.50(c.10) §27.50(d.4) §27.53(f) §27.53(g) §27.53(h) §27.53(m)

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4-2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. For measurements below 1GHz, the absorbers are removed. A raised turntable is used for radiated measurement. The turn table is a continuously rotatable, remote-controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm tall test table made of Styrodur is placed on top of the turn table. A Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

Per the guidance of ANSI/TIA-603-E-2016, 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 with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer level previously recorded from the spurious emission from the EUT. The power of the emission is calculated using the following formula:

$$P_{d\ [dBm]} = P_{g\ [dBm]} - \text{cable loss}_{\ [dB]} + \text{antenna gain}_{\ [dBd/dBi]}$$

Where, P_d is the dipole equivalent power, P_g is the generator output into the substitution antenna, and the antenna gain is the gain of the substitute antenna used relative to either a half-wave dipole (dBd) or an isotropic source (dBi). The substitute level is equal to $P_{g\ [dBm]}$ – cable loss $_{[dB]}$.

The calculated P_d levels are then compared to the absolute spurious emission limit of -13dBm which is equivalent to the required minimum attenuation of 43 + $10\log_{10}$(Power $_{[Watts]}$). For Band 41, the calculated P_d levels are compared to the absolute spurious emission limit of -25dBm which is equivalent to the required minimum attenuation of 55 + $10\log_{10}$(Power $_{[Watts]}$).

4.0 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 uncertainty shown below 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.

Contribution	Expanded Uncertainty (±dB)
Conducted Bench Top Measurements	1.13
Radiated Disturbance (<1GHz)	4.98
Radiated Disturbance (>1GHz)	5.07
Radiated Disturbance (>18GHz)	5.09

5.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
COM-POWER	LIN-120A	LISN	3/7/2018	Annual	3/7/2019	241296
Keysight Technologies	N9030A	3Hz-44GHz PXA Signal Analyzer	2/27/2018	Annual	2/27/2019	MY49430244
Maturo	NCD/264/205616	Mast/TT controller	N/A	N/A	N/A	NCD_264
Rohde & Schwarz	ESW44	EMI Test Receiver	12/20/2017	Annual	12/20/2018	101668
Rohde & Schwarz	ESW44	EMI Test Receiver	11/16/2017	Annual	11/16/2018	101570
Rohde & Schwarz	FSV40	Signal Analyzer (10Hz-40GHz)	2/6/2018	Annual	2/6/2019	101619
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	6/11/2018	Annual	6/11/2019	161675
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	4/16/2018	Annual	4/16/2019	161617
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	12/8/2017	Annual	12/8/2018	164175
Rohde & Schwarz	SFUNIT-RX	Shielded Filter Unit	9/11/2017	Annual	9/11/2018	102132
Rohde & Schwarz	SFUNIT-RX	Shielded Filter Unit	12/11/2017	Annual	12/11/2018	102136
Rohde & Schwarz	TS-PR1840	Pre-Amplifier (18GHz - 40GHz)	6/11/2018	Annual	6/11/2019	100051
Rohde & Schwarz	TS-PR8	Pre-Amplifier (30MHz - 8GHz)	1/25/2018	Annual	1/25/2019	102333
ATM	180-442A-KF	20dB Nominal Gain Horn Antenna	3/13/2018	Annual	3/13/2019	T058601-02
Rohde & Schwarz	HL562E	Ultra Broadband Antenna (30MHz - 6GHz)	6/8/2018	Annual	6/8/2019	100810
Rohde & Schwarz	TC-TA18	ross Polarized Vivaldi Antenna(400MHz-18GHz	11/13/2017	Annual	11/13/2018	101057
Rohde & Schwarz	TC-TA18	ross Polarized Vivaldi Antenna (400MHz-18GHz	11/29/2017	Annual	11/29/2018	101063
ESPEC	SU-241	Temperature Chamber	8/10/2018	Annual	8/10/2019	92009574

Table 5-1. Test Equipment

Notes:

1. For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.

2. Equipment with a calibration date of “N/A” shown in this list was not used to make direct calibrated measurements.

6.0 SAMPLE CALCULATIONS

Emission Designator

QPSK Modulation

Emission Designator = 8M62G7W

LTE BW = 8.62 MHz
G = Phase Modulation
7 = Quantized/Digital Info
W = Combination of Any

QAM Modulation

Emission Designator = 8M45W7W

LTE BW = 8.45 MHz
W = Amplitude/Angle Modulated
7 = Quantized/Digital Info
W = Combination of Any

Spurious Radiated Emission – LTE Band

Example: Middle Channel LTE Mode 2nd Harmonic (1564 MHz)

The average spectrum analyzer reading at 3 meters with the EUT on the turntable was –81.0 dBm. The gain of the substituted antenna is 8.1 dBi. The signal generator connected to the substituted antenna terminals is adjusted to produce a reading of –81.0 dBm on the spectrum analyzer. The loss of the cable between the signal generator and the terminals of the substituted antenna is 2.0 dB at 1564 MHz. So 6.1 dB is added to the signal generator reading of –30.9 dBm yielding –24.80 dBm. The fundamental EIRP was 25.501 dBm so this harmonic was 25.501 dBm – (-24.80).

7.0 TEST RESULTS

7.1 Summary

Company Name: Apple Inc.

FCC ID: BCG-A1976

FCC Classification: PCS Licensed Transmitter Worn on Body (PCT)

Mode(s): LTE

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
2.1049	Occupied Bandwidth	N/A	CONDUCTED	PASS	Section 7.2
2.1051 2.917(a) 24.238(a) 27.53(c) 27.53(g) 27.53(h)	Out of Band Emissions	> 43 + 10log$_{10}$ (P[Watts]) at Band Edge and for all out-of-band emissions		PASS	Section 7.3, 7.4
27.53(m)	Out of Band Emissions	Undesirable emissions must meet the limits detailed in 27.53(m)		PASS	Section 7.3, 7.4
27.53(a)	Out of Band Emissions	Undesirable emissions must meet the limits detailed in 27.53(a)		PASS	Section 7.3, 7.4
24.232(d)	Peak-Average Ratio	< 13 dB		PASS	Section 7.5
2.1046	Transmitter Conducted Output Power	N/A		PASS	Section 7.6
2.1055 22.355 24.235 27.54	Frequency Stability	< 2.5 ppm (Part 22) and fundamental emissions stay within authorized frequency block (Part 24, 27)		PASS	Section 7.8

Table 7-1. Summary of Conducted Test Results

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
22.913(a)(5)	Effective Radiated Power / Equivalent Isotropic Radiated Power (Band 5, 26)	< 7 Watts max. ERP	RADIATED	PASS	Section 7.6
27.50(b)(10) 27.50(c)(10)	Effective Radiated Power / Equivalent Isotropic Radiated Power (Band 12, 17, 13)	< 3 Watts max. ERP		PASS	Section 7.6
24.232(c) 27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2, 25, 41)	< 2 Watts max. EIRP		PASS	Section 7.6
27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	< 1 Watts max. EIRP		PASS	Section 7.6
2.1053 22.917(a) 24.238(a) 27.53(c) 27.53(g) 27.53(h)	Undesirable Emissions	> 43 + 10log$_{10}$ (P[Watts]) for all out-of-band emissions		PASS	Section 7.7
27.53(f)	Undesirable Emissions (Band 13)	< -70 dBW/MHz (for wideband signals) < -80 dBW (for discrete emissions less than 700Hz BW) For all emissions in the band 1559 – 1610 MHz		PASS	Section 7.7
27.53(m)	Undesirable Emissions	Undesirable emissions must meet the limits detailed in 27.53(m)		PASS	Section 7.7

Table 7-2. Summary of Radiated Test Results

Notes:

1) All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
2) The analyzer plots (Sections 7.2, 7.3, 7.4, 7.5) were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables, directional couplers, and attenuators used as part of the system to maintain a link between the call box and the EUT at all frequencies of interest.
3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables, attenuators, and couplers.
4) For conducted spurious emissions, automated test software was used to measure emissions and capture the corresponding plots necessary to show compliance. The measurement software utilized is PCTEST "LTE Automation," Version 4.13.
5) For operation <1GHz, the EIRP limits in the table above are referenced to the specifications written in the relevant Radio Standards Specifications for Innovation, Science, and Economic Development Canada.

7.2 Occupied Bandwidth

Test Overview

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 4.2

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

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

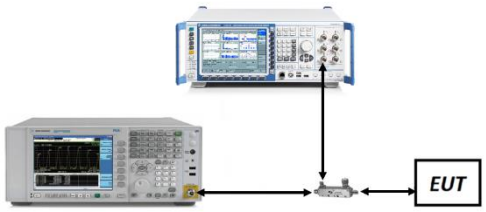
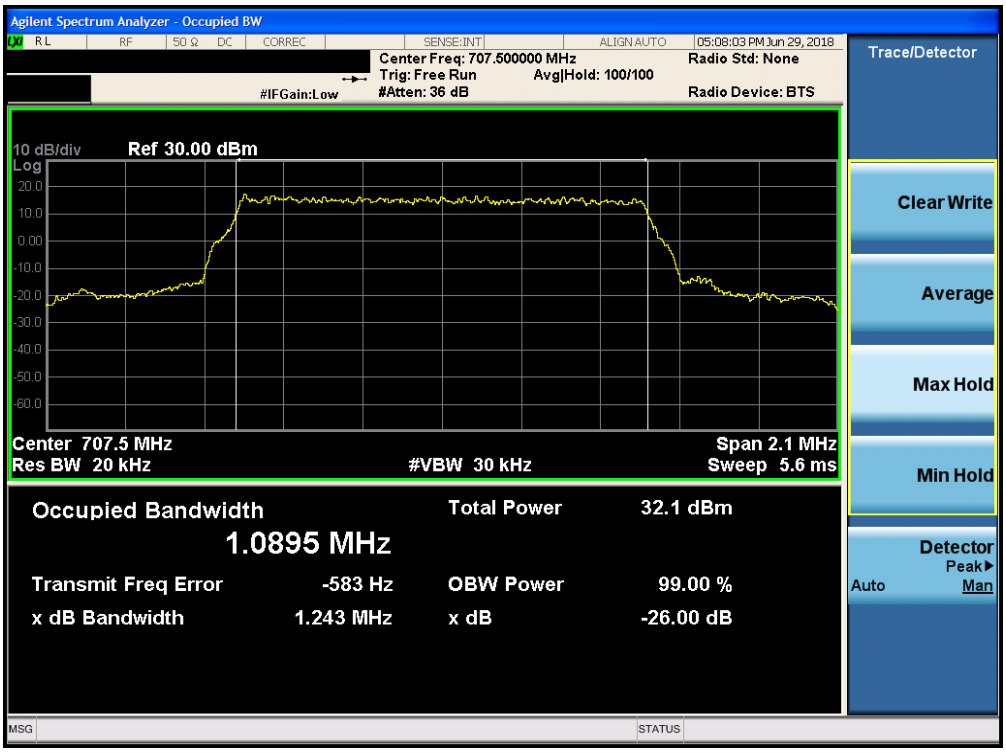


Figure 7-1. Test Instrument & Measurement Setup

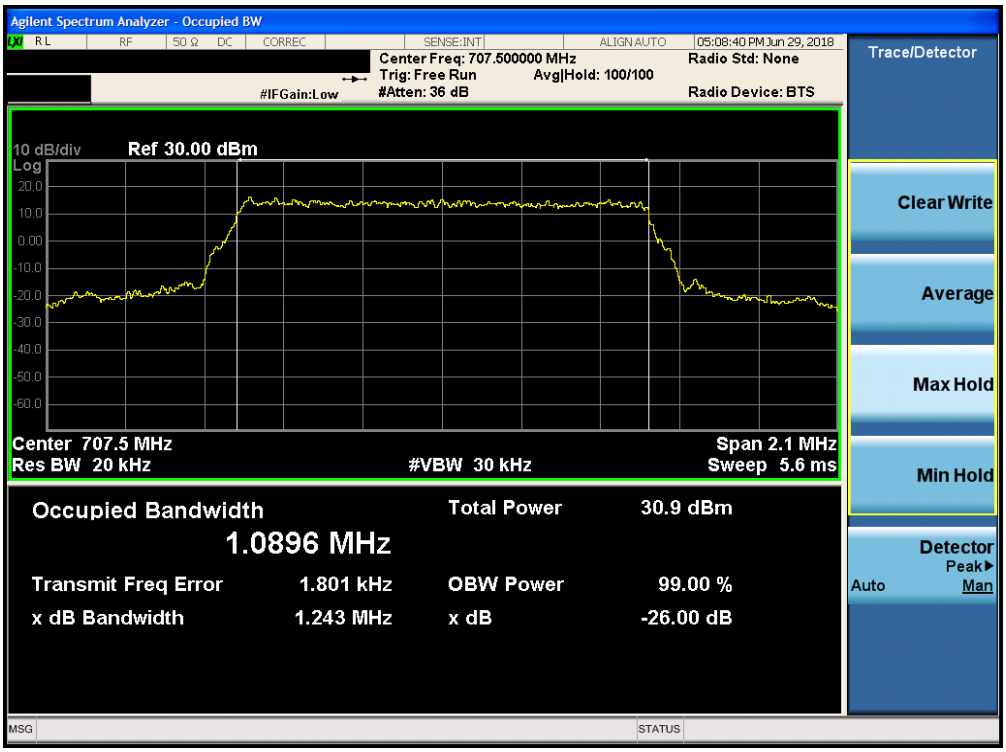
Test Notes

16-QAM Modulation uplink is only supported for RBs of 27 or less.

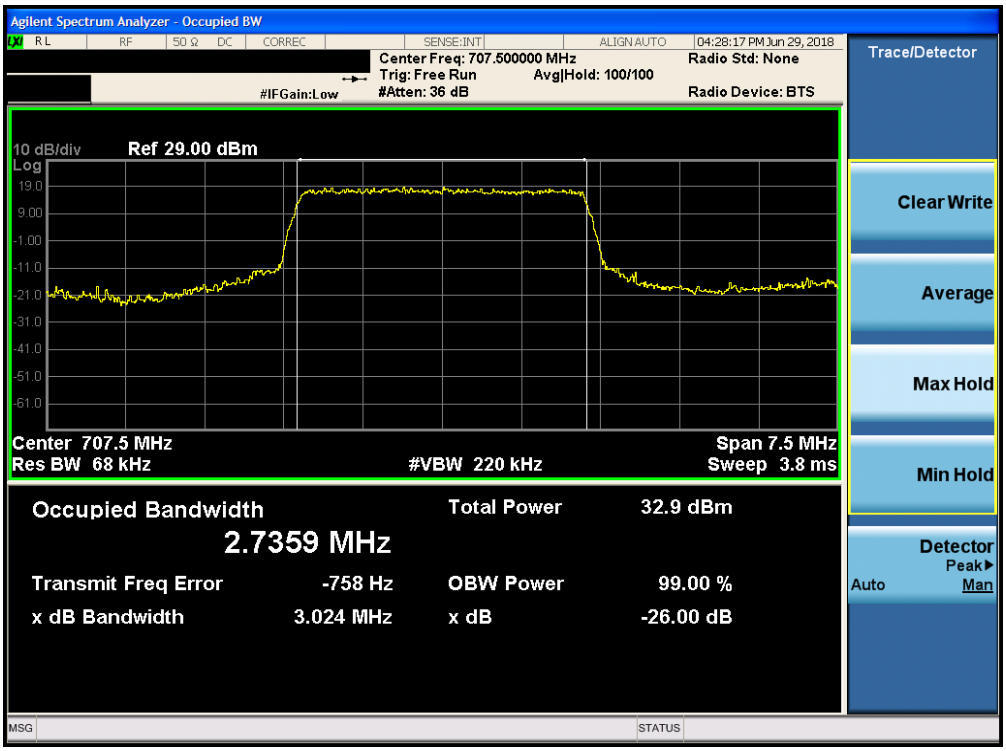
Band 12



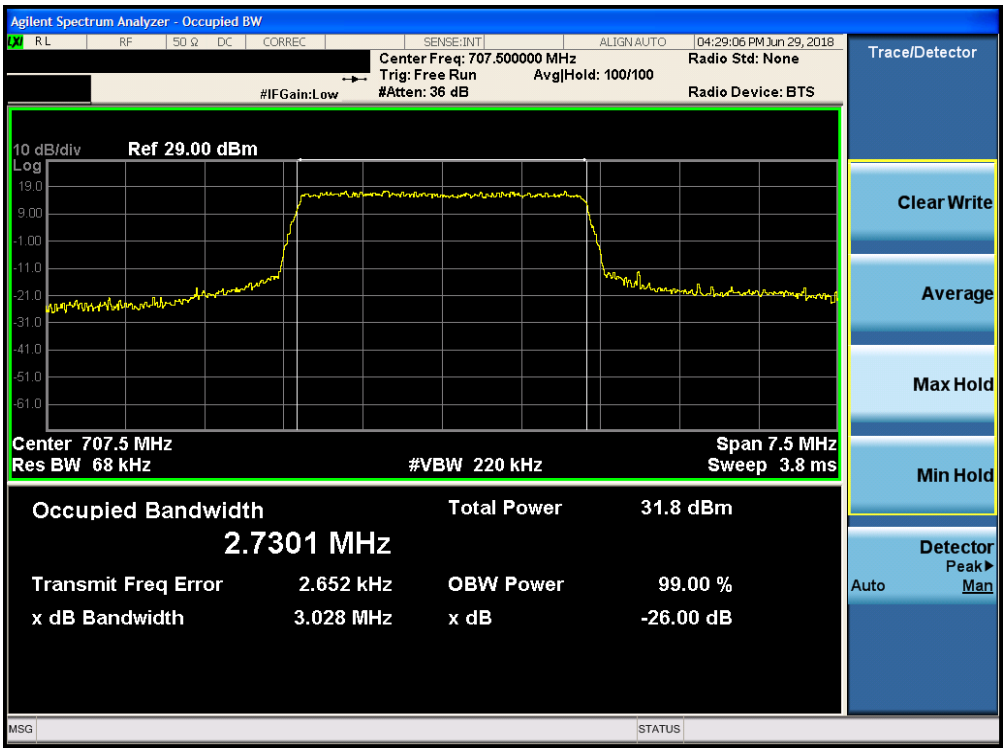
Plot 7-1. Occupied Bandwidth Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)



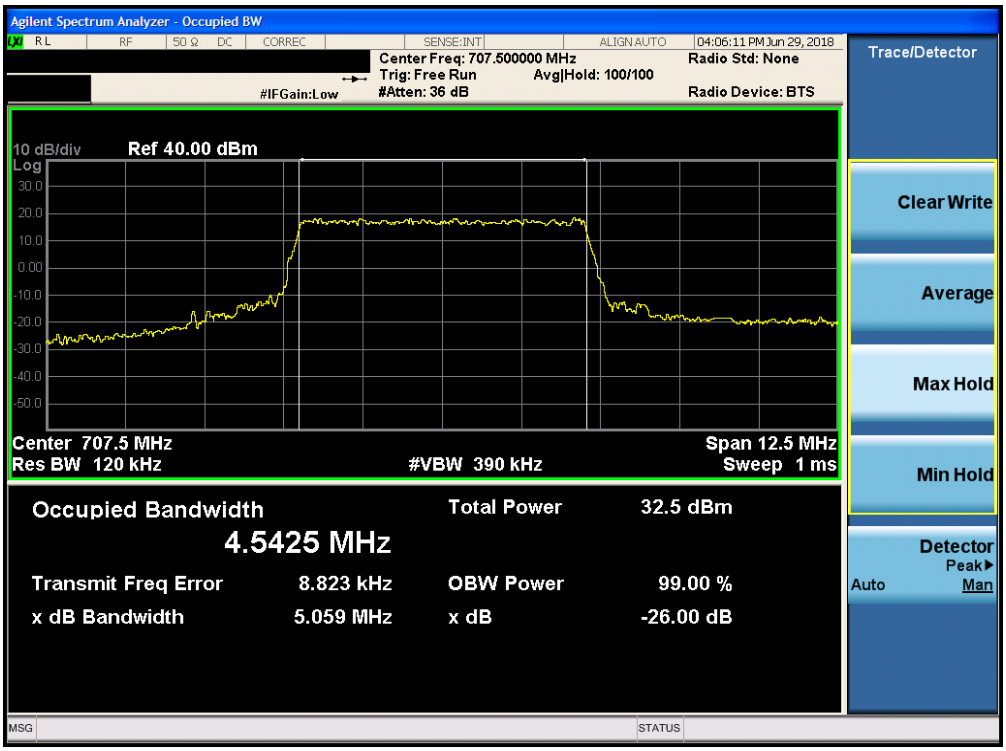
Plot 7-2. Occupied Bandwidth Plot (Band 12 - 1.4MHz 16-QAM - Full RB Configuration)



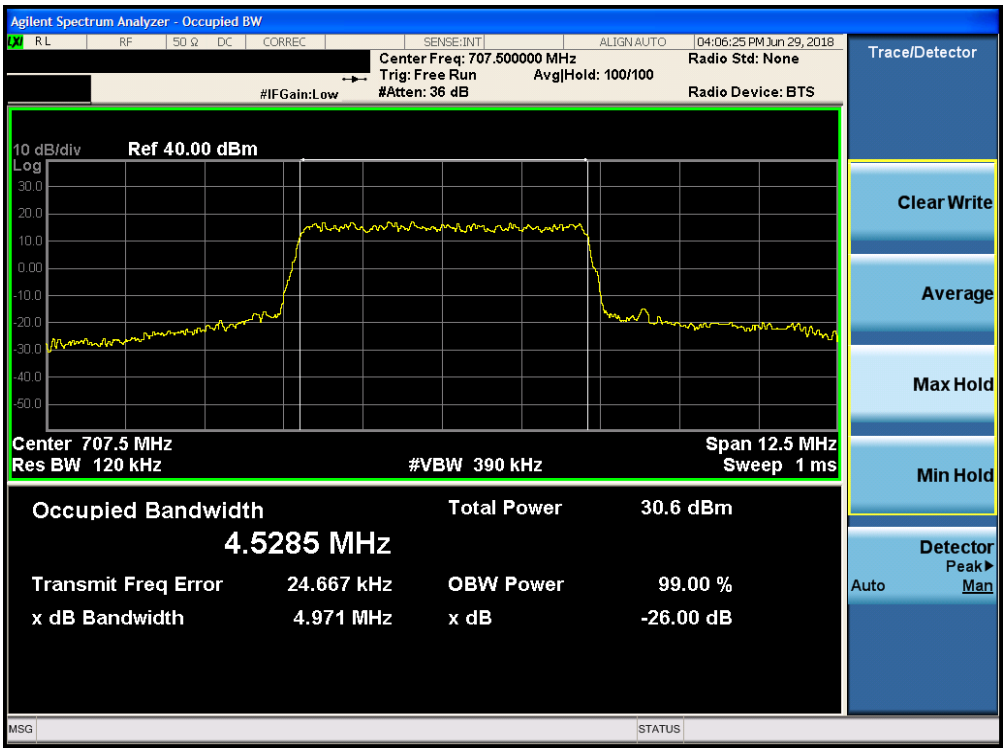
Plot 7-3. Occupied Bandwidth Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)



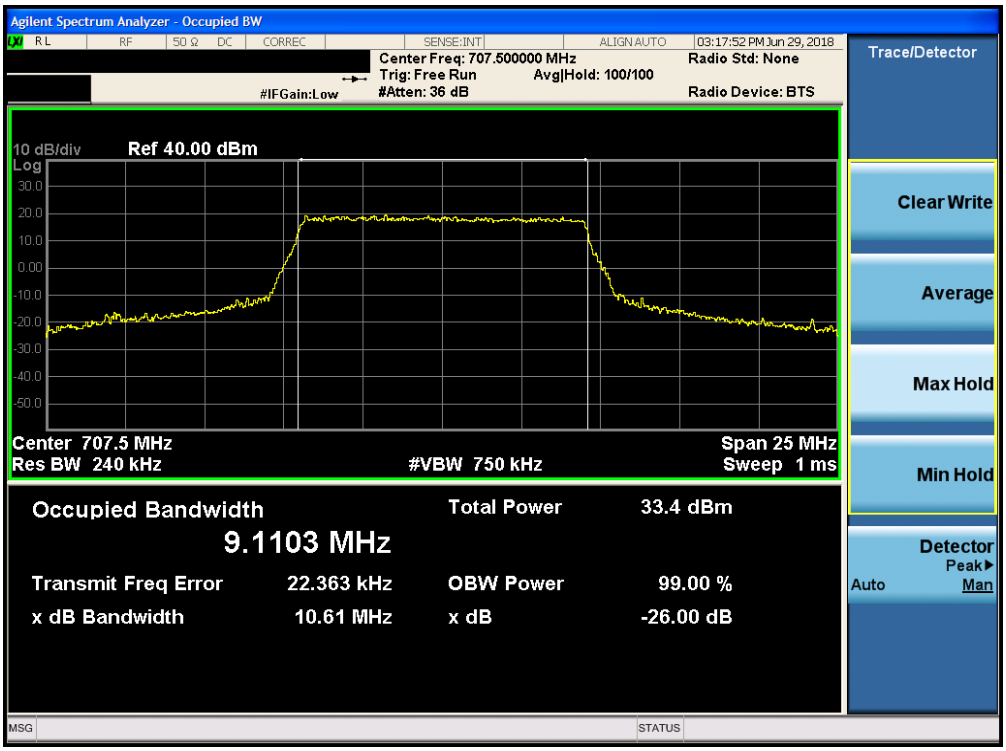
Plot 7-4. Occupied Bandwidth Plot (Band 12 - 3.0MHz 16-QAM - Full RB Configuration)



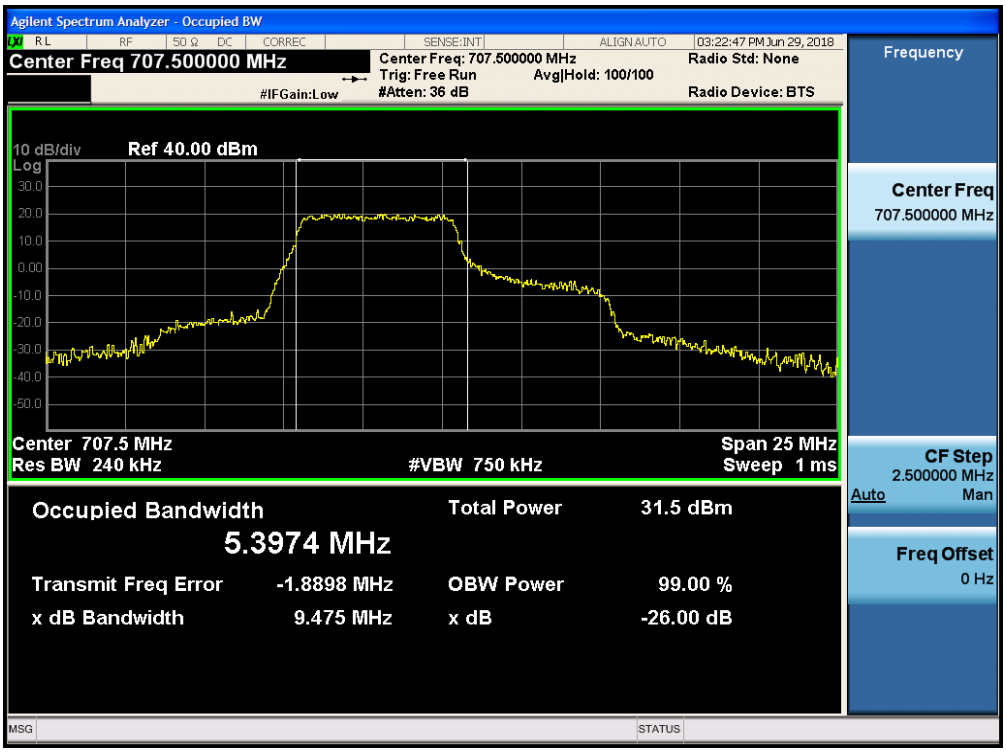
Plot 7-5. Occupied Bandwidth Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-6. Occupied Bandwidth Plot (Band 12 - 5.0MHz 16-QAM - Full RB Configuration)

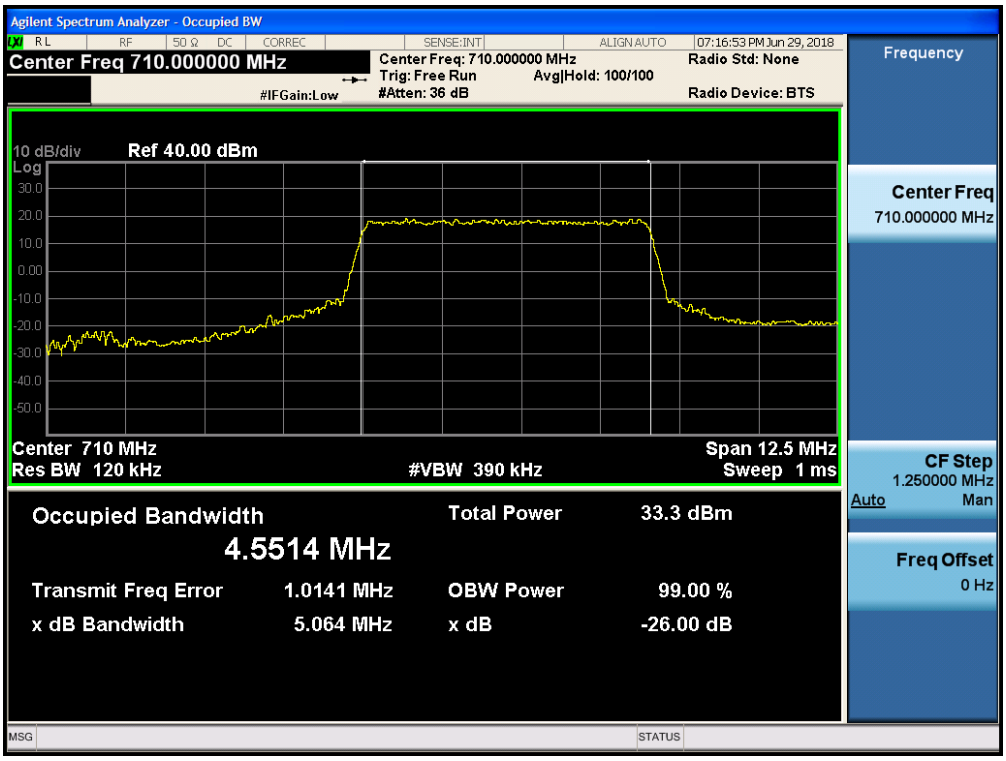


Plot 7-7. Occupied Bandwidth Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)

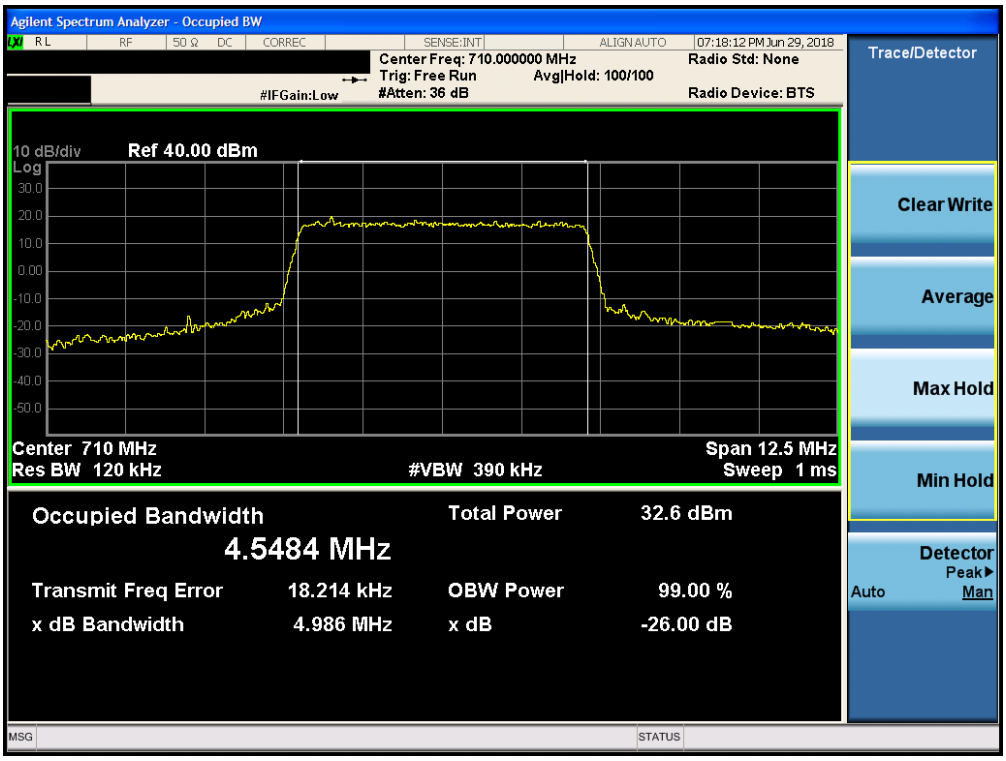


Plot 7-8. Occupied Bandwidth Plot (Band 12 - 10.0MHz 16-QAM – RB Size 27, RB Offset 0 Configuration)

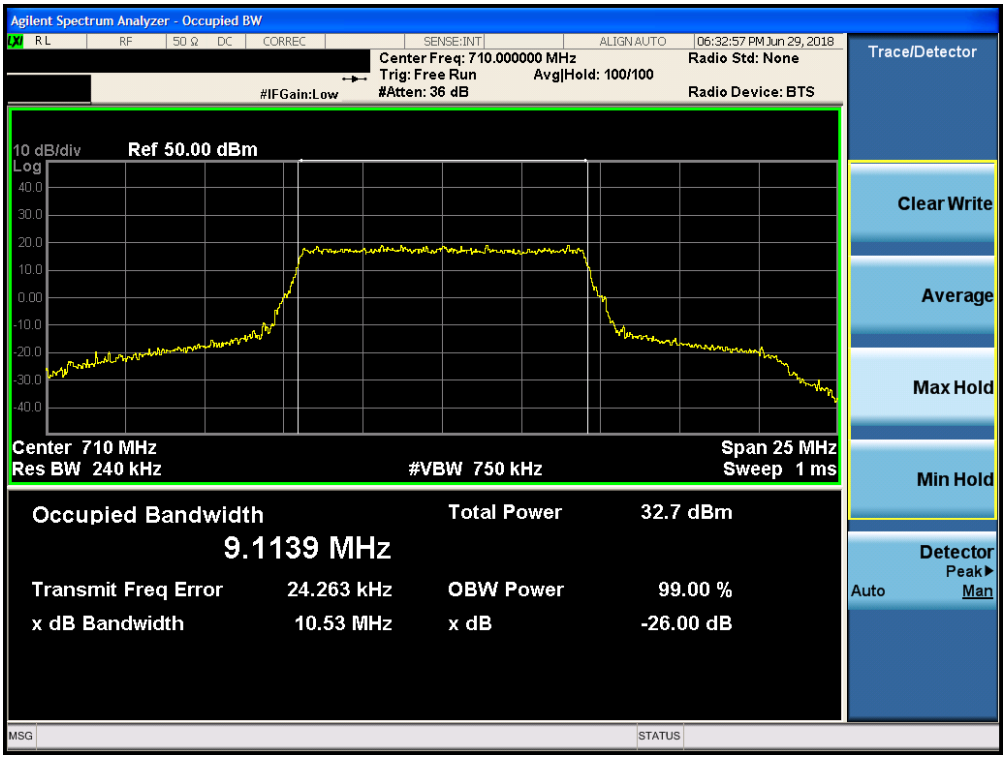
Band 17



Plot 7-9. Occupied Bandwidth Plot (Band 17 - 5.0MHz QPSK - Full RB Configuration)



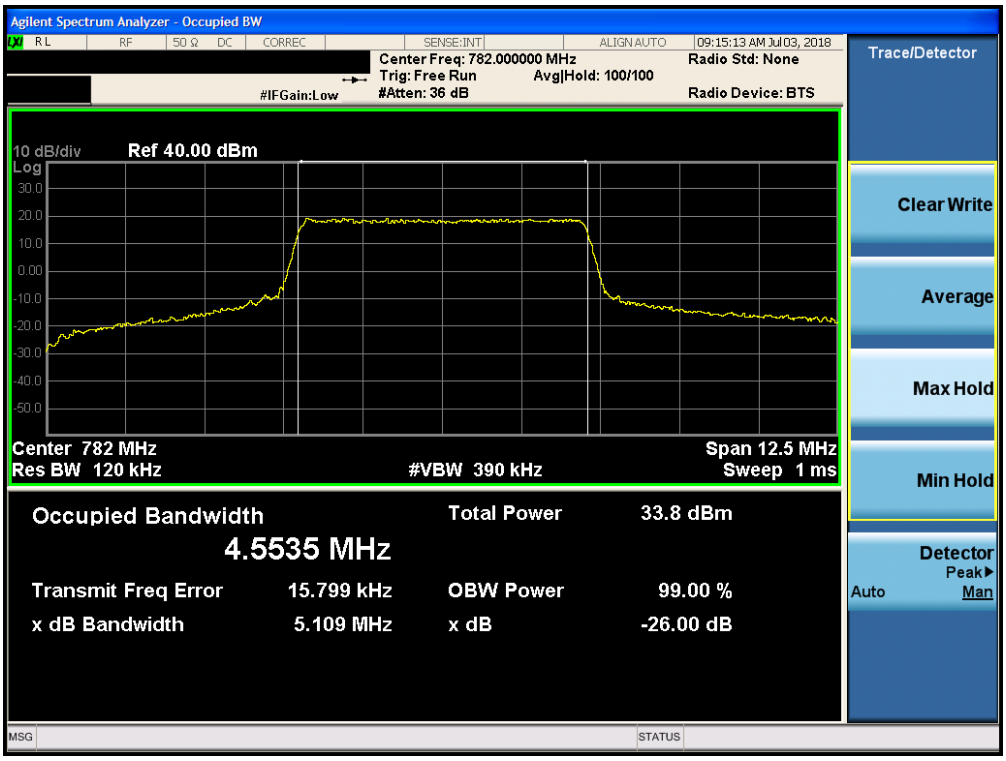
Plot 7-10. Occupied Bandwidth Plot (Band 17 - 5.0MHz 16-QAM - Full RB Configuration)



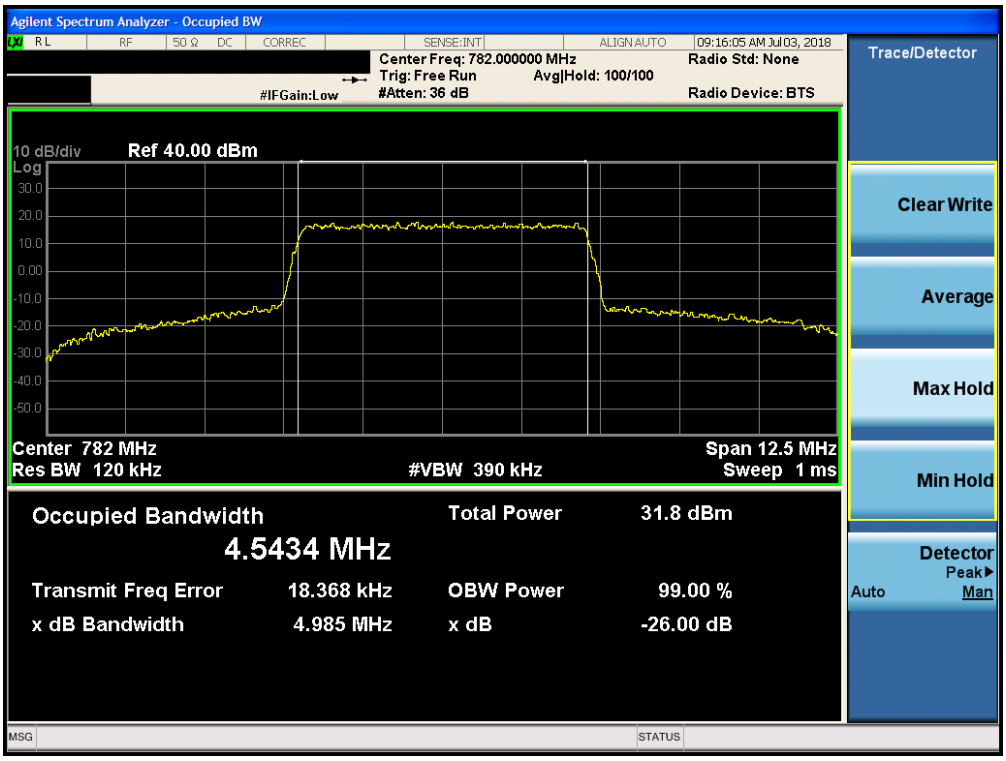
Plot 7-11. Occupied Bandwidth Plot (Band 17 - 10.0MHz QPSK - Full RB Configuration)

Plot 7-12. Occupied Bandwidth Plot (Band 17 - 10.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

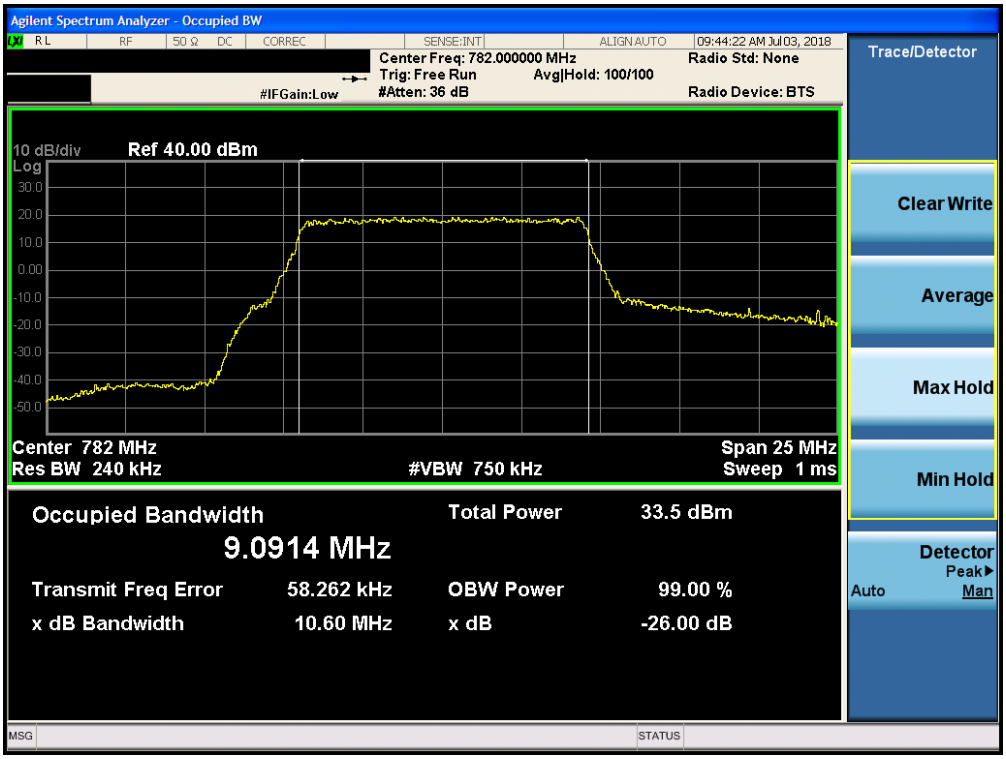
Band 13



Plot 7-13. Occupied Bandwidth Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)



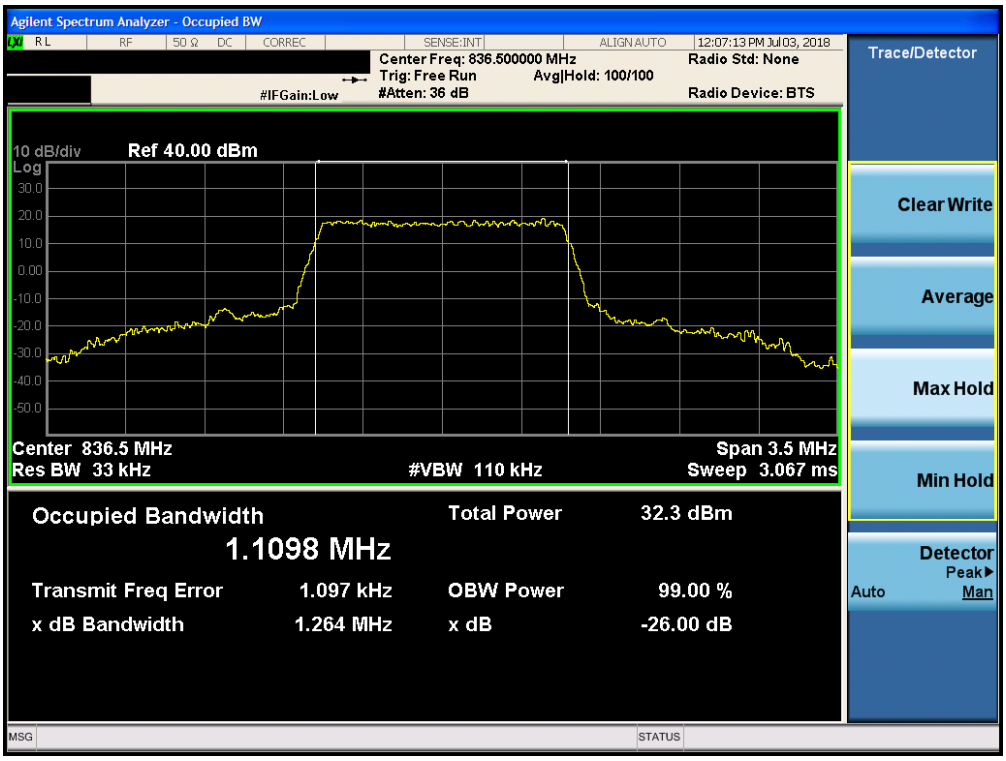
Plot 7-14. Occupied Bandwidth Plot (Band 13 - 5.0MHz 16-QAM - Full RB Configuration)



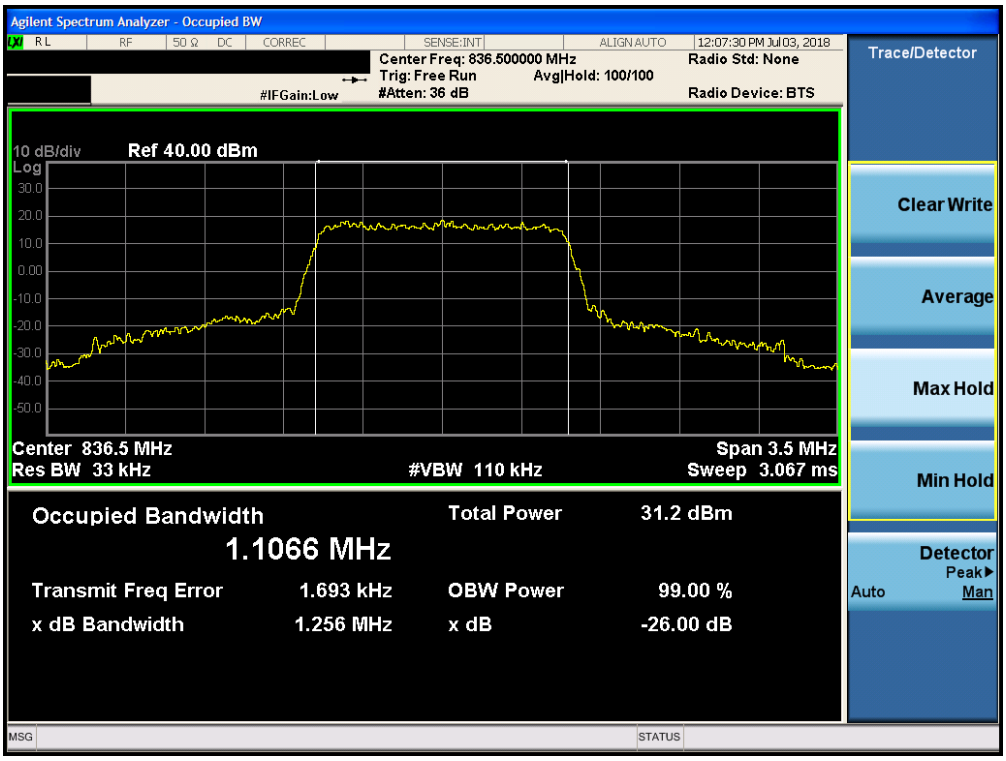
Plot 7-15. Occupied Bandwidth Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

Plot 7-16. Occupied Bandwidth Plot (Band 13 - 10.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

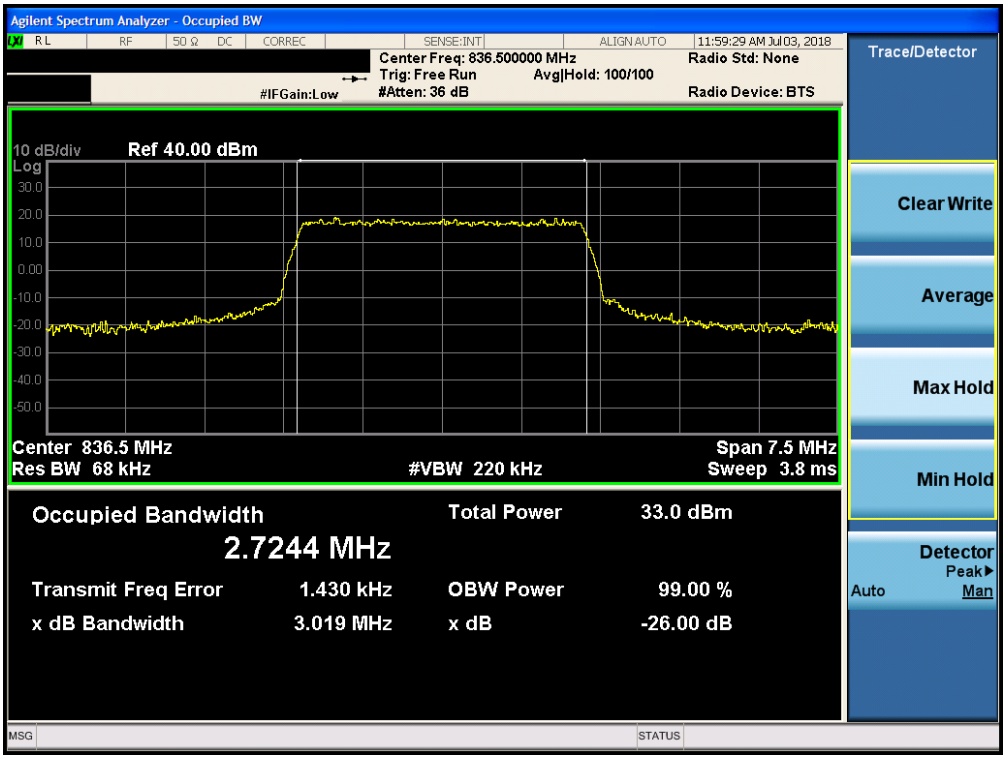
Band 5



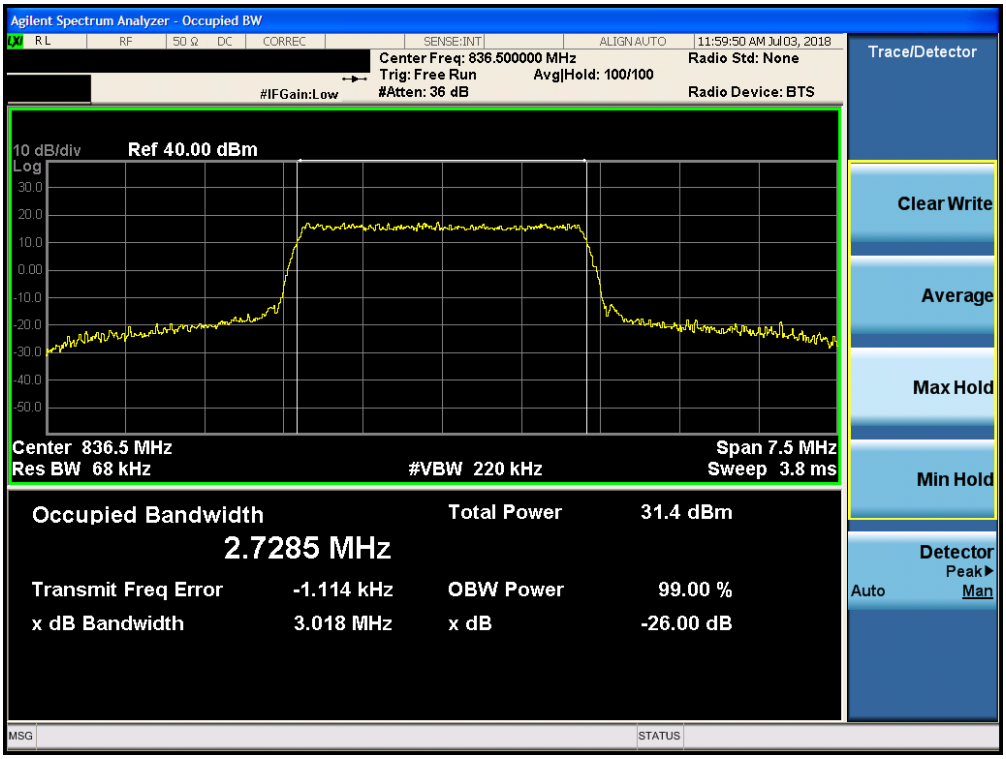
Plot 7-17. Occupied Bandwidth Plot (Band 5 - 1.4MHz QPSK - Full RB Configuration)



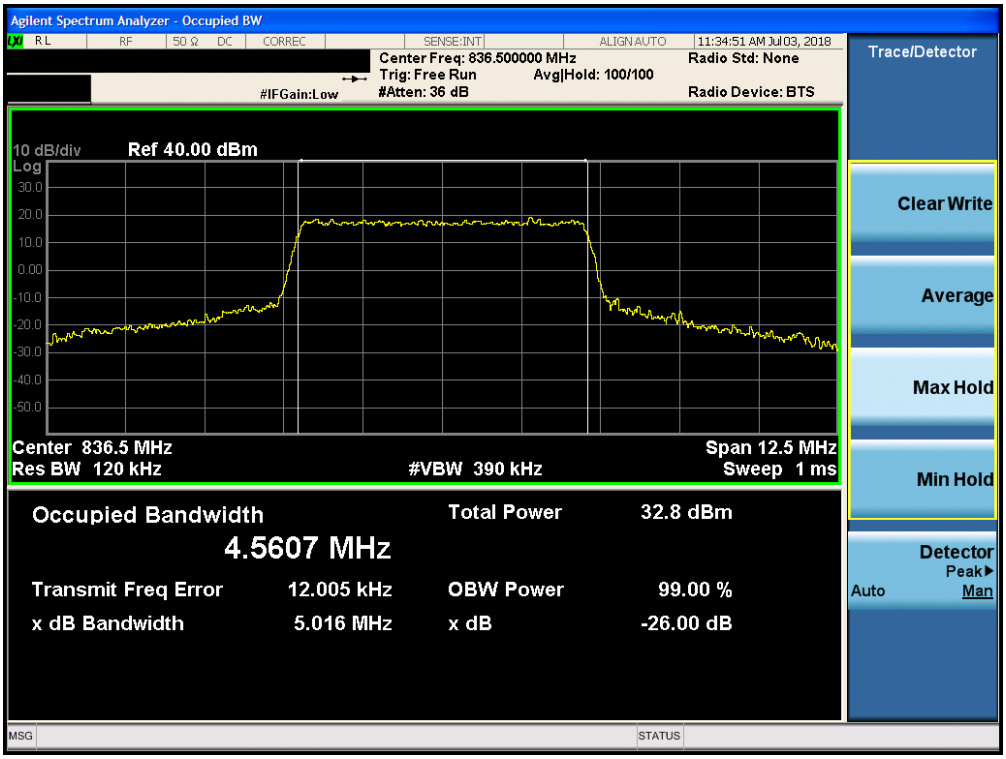
Plot 7-18. Occupied Bandwidth Plot (Band 5 - 1.4MHz 16-QAM - Full RB Configuration)



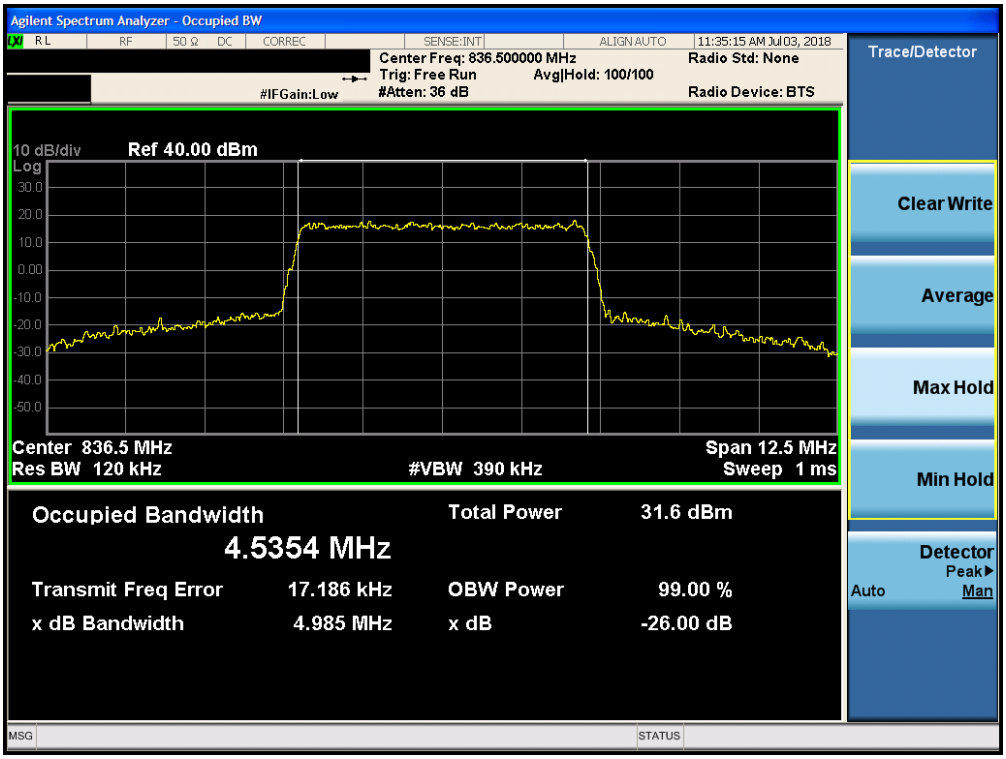
Plot 7-19. Occupied Bandwidth Plot (Band 5 - 3.0MHz QPSK - Full RB Configuration)



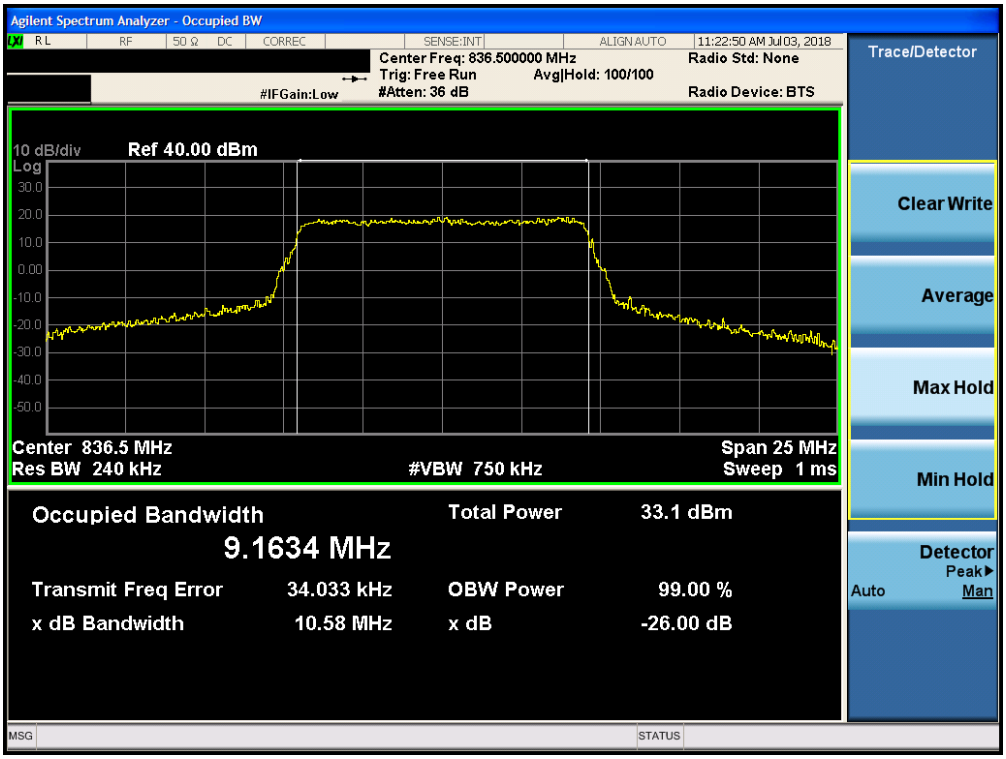
Plot 7-20. Occupied Bandwidth Plot (Band 5 - 3.0MHz 16-QAM - Full RB Configuration)



Plot 7-21. Occupied Bandwidth Plot (Band 5 - 5.0MHz QPSK - Full RB Configuration)



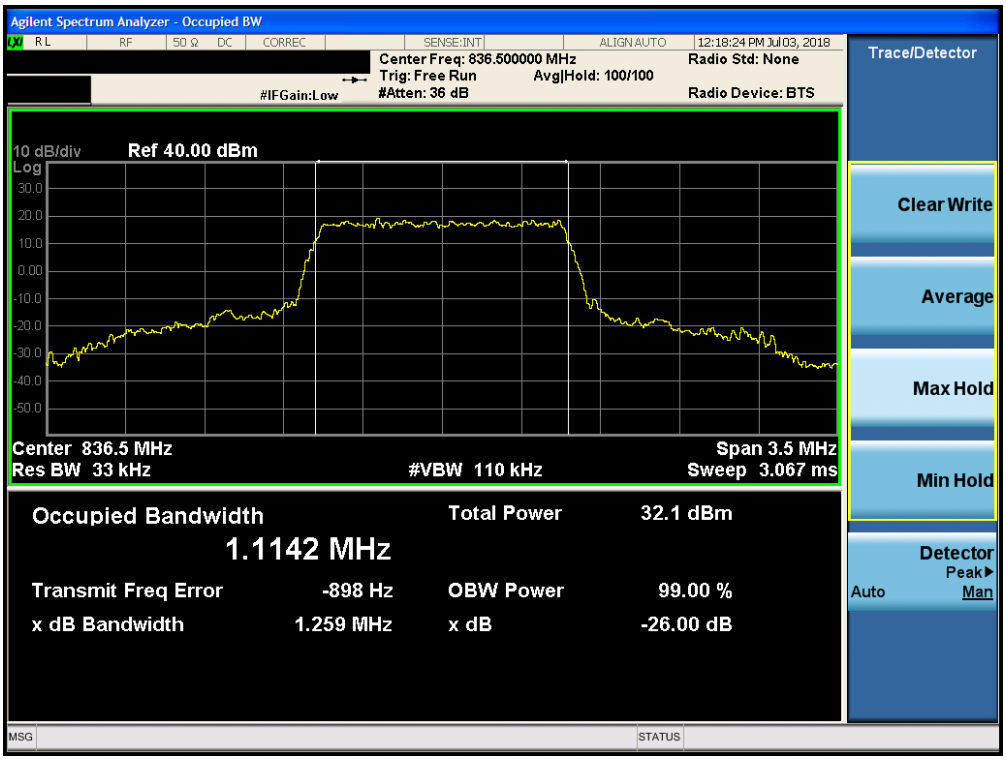
Plot 7-22. Occupied Bandwidth Plot (Band 5 - 5.0MHz 16-QAM - Full RB Configuration)



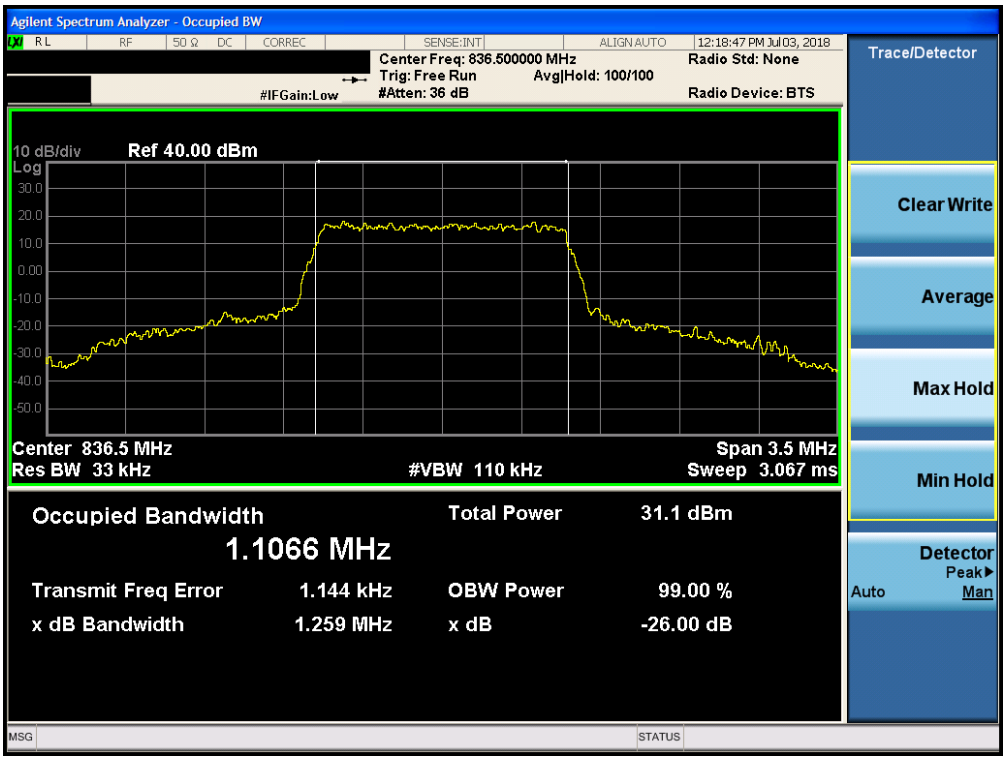
Plot 7-23. Occupied Bandwidth Plot (Band 5 - 10.0MHz QPSK - Full RB Configuration)

Plot 7-24. Occupied Bandwidth Plot (Band 5 - 10.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

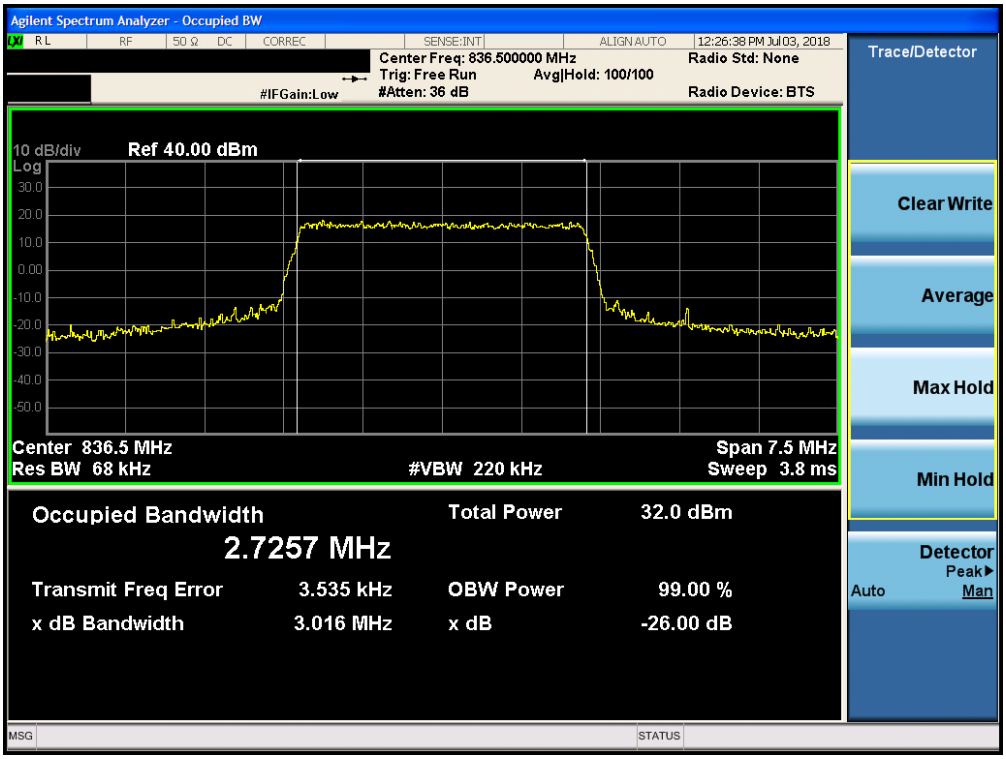
Band 26



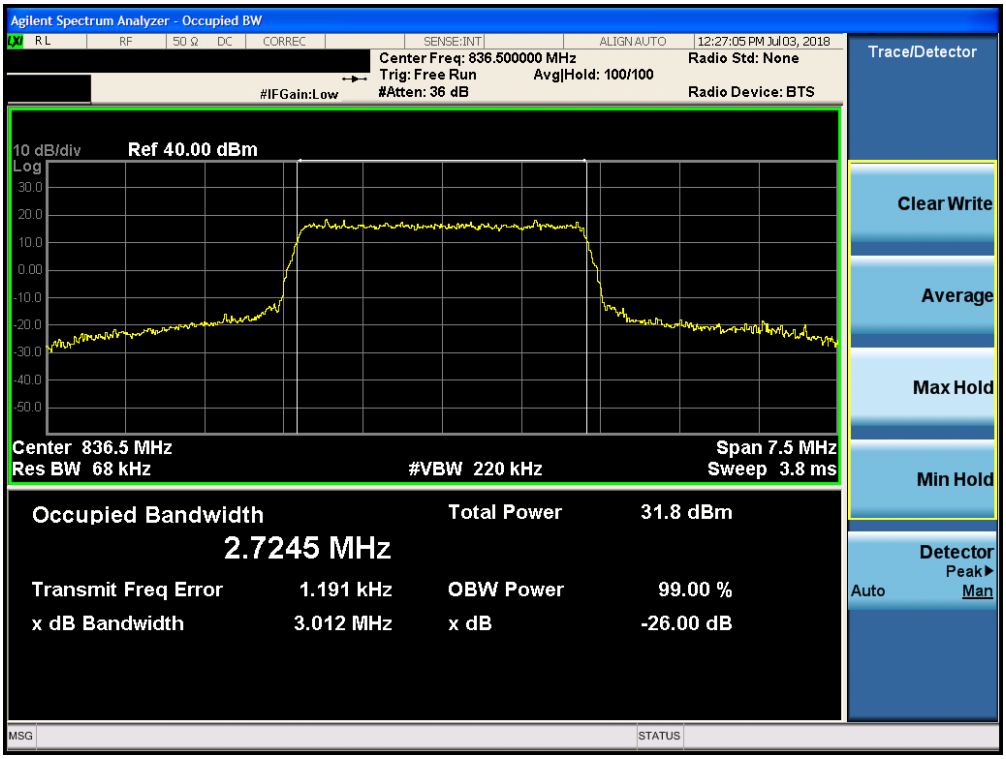
Plot 7-25. Occupied Bandwidth Plot (Band 26 - 1.4MHz QPSK - Full RB Configuration)



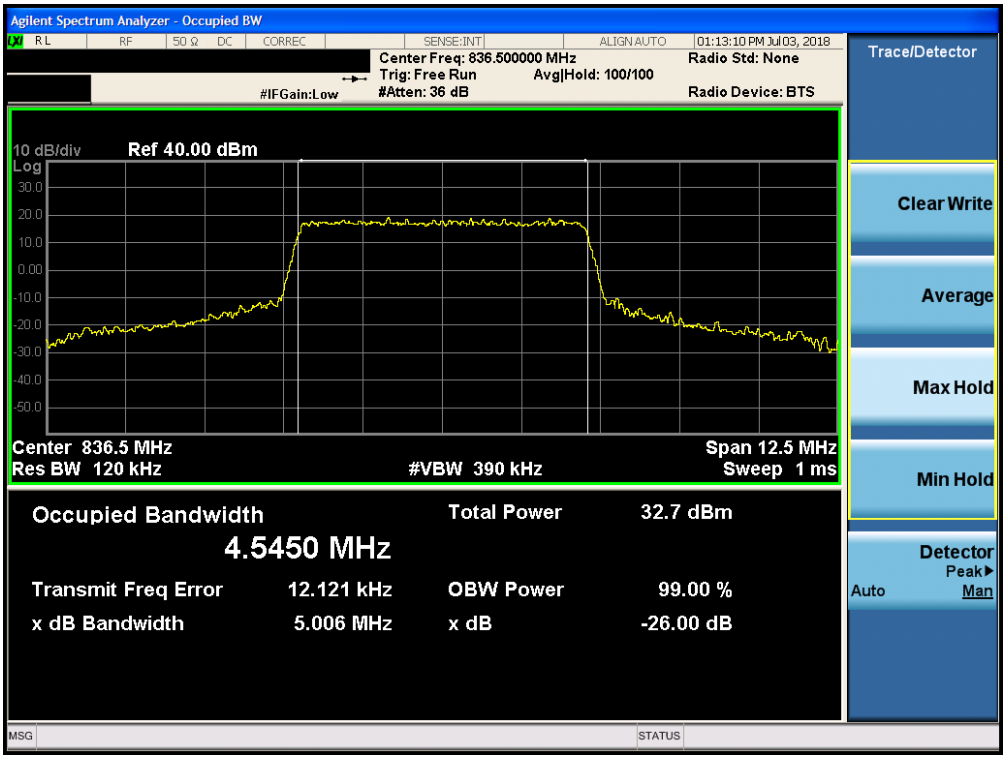
Plot 7-26. Occupied Bandwidth Plot (Band 26 - 1.4MHz 16-QAM - Full RB Configuration)



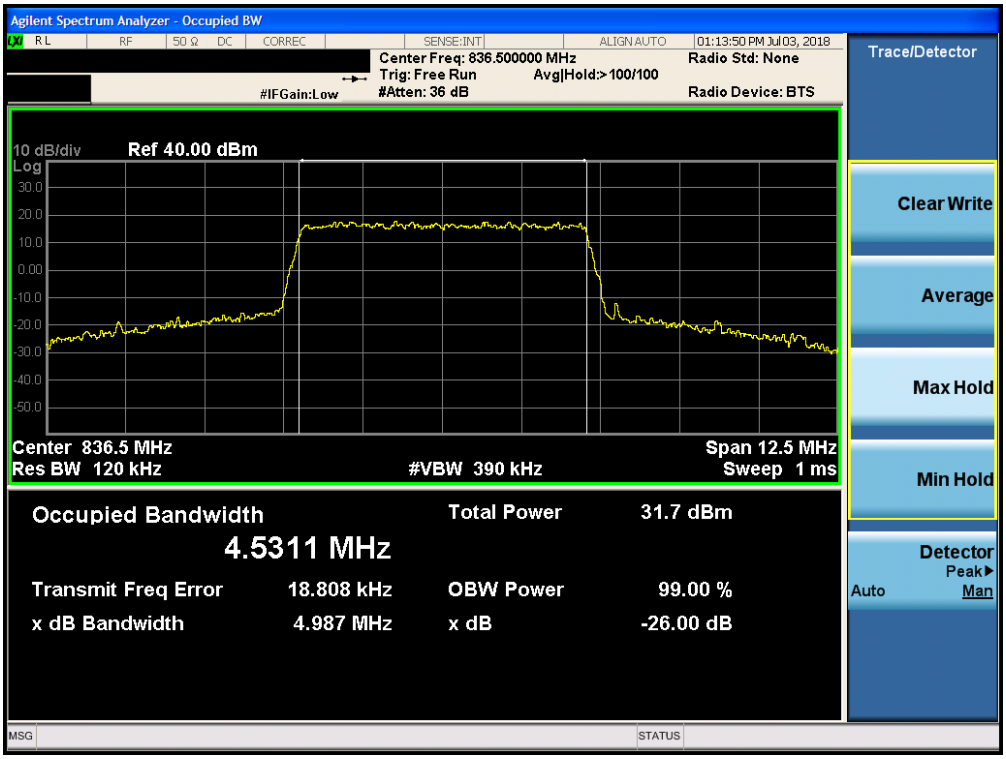
Plot 7-27. Occupied Bandwidth Plot (Band 26 - 3.0MHz QPSK - Full RB Configuration)



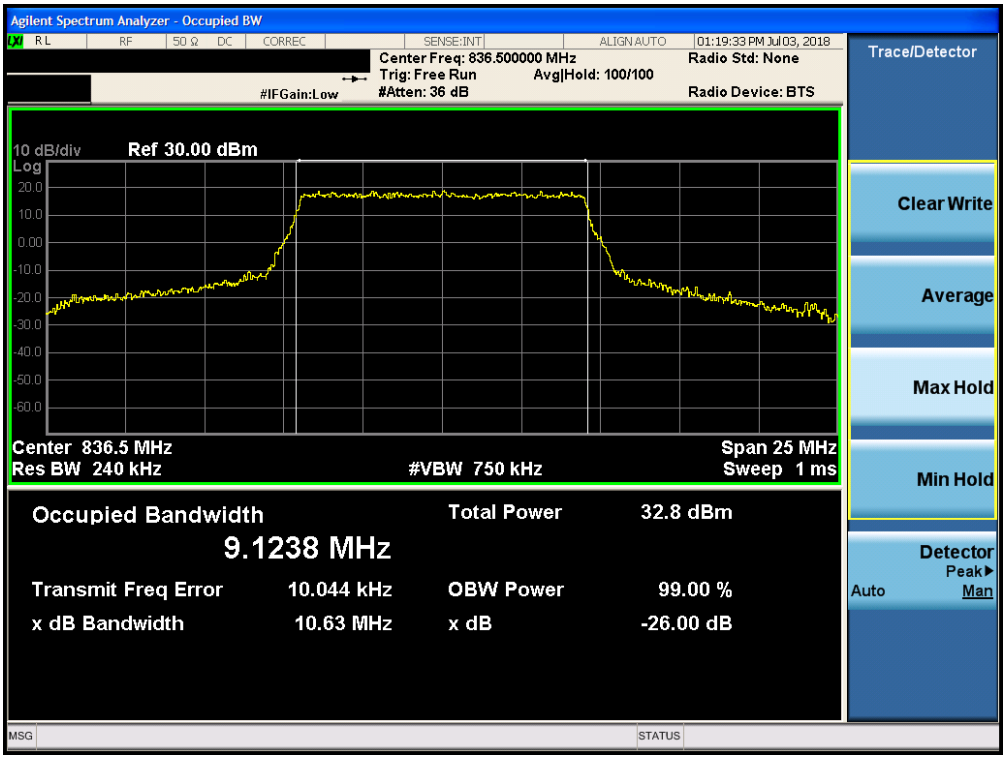
Plot 7-28. Occupied Bandwidth Plot (Band 26 - 3.0MHz 16-QAM - Full RB Configuration)



Plot 7-29. Occupied Bandwidth Plot (Band 26 - 5.0MHz QPSK - Full RB Configuration)

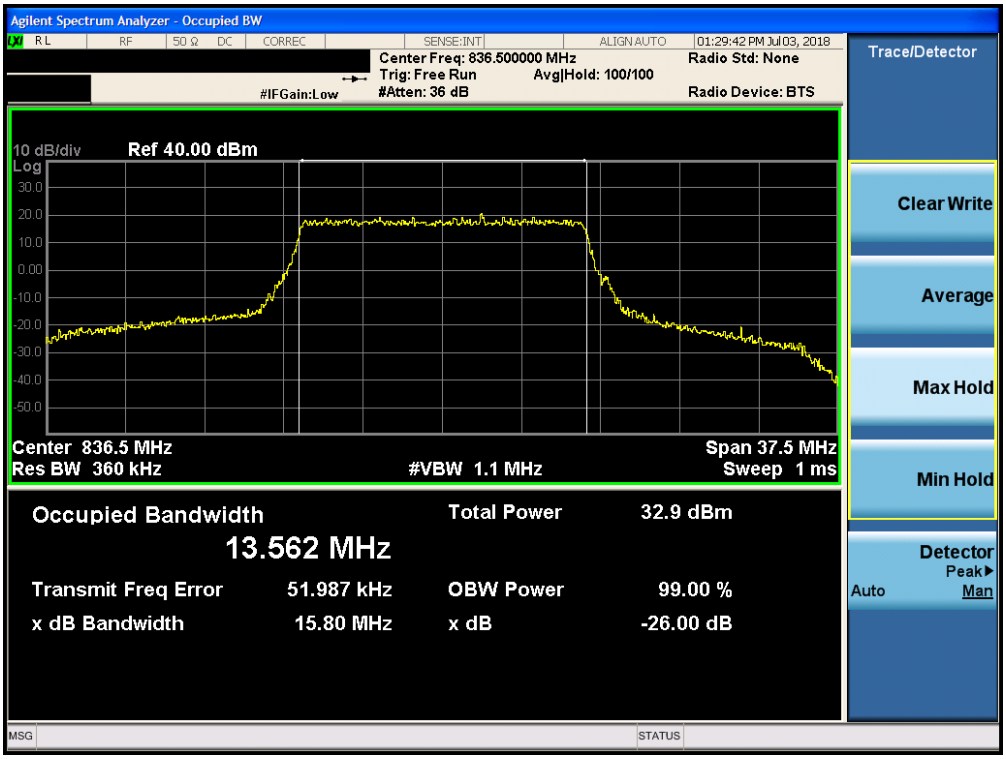


Plot 7-30. Occupied Bandwidth Plot (Band 26 - 5.0MHz 16-QAM - Full RB Configuration)

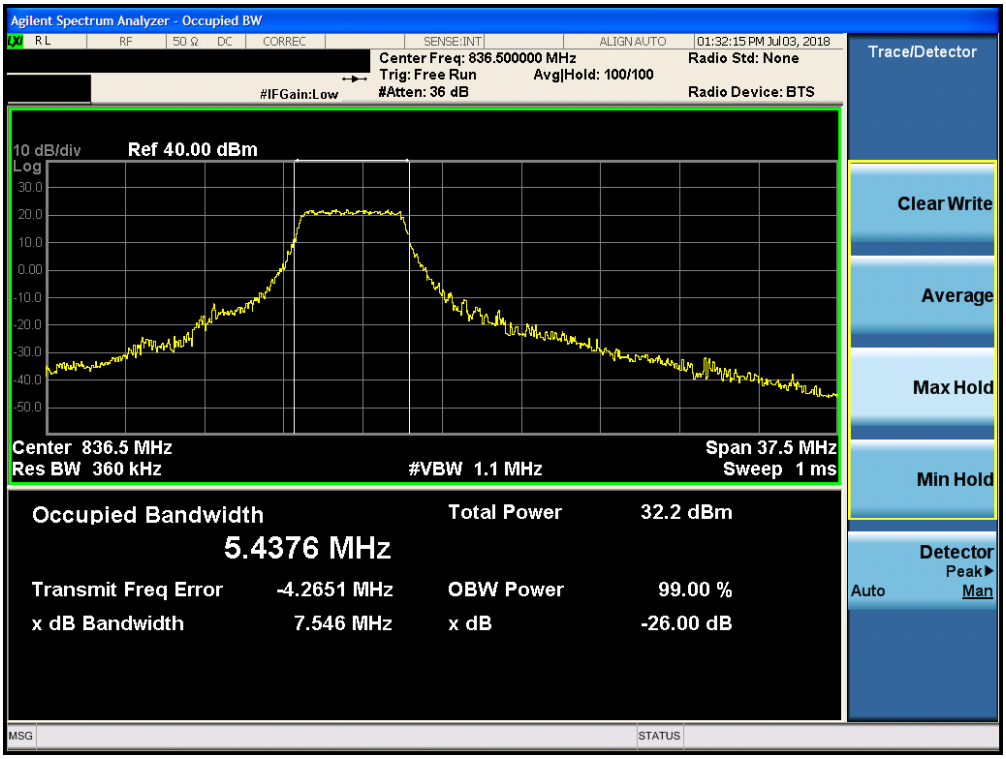


Plot 7-31. Occupied Bandwidth Plot (Band 26 - 10.0MHz QPSK - Full RB Configuration)

Plot 7-32. Occupied Bandwidth Plot (Band 26 - 10.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

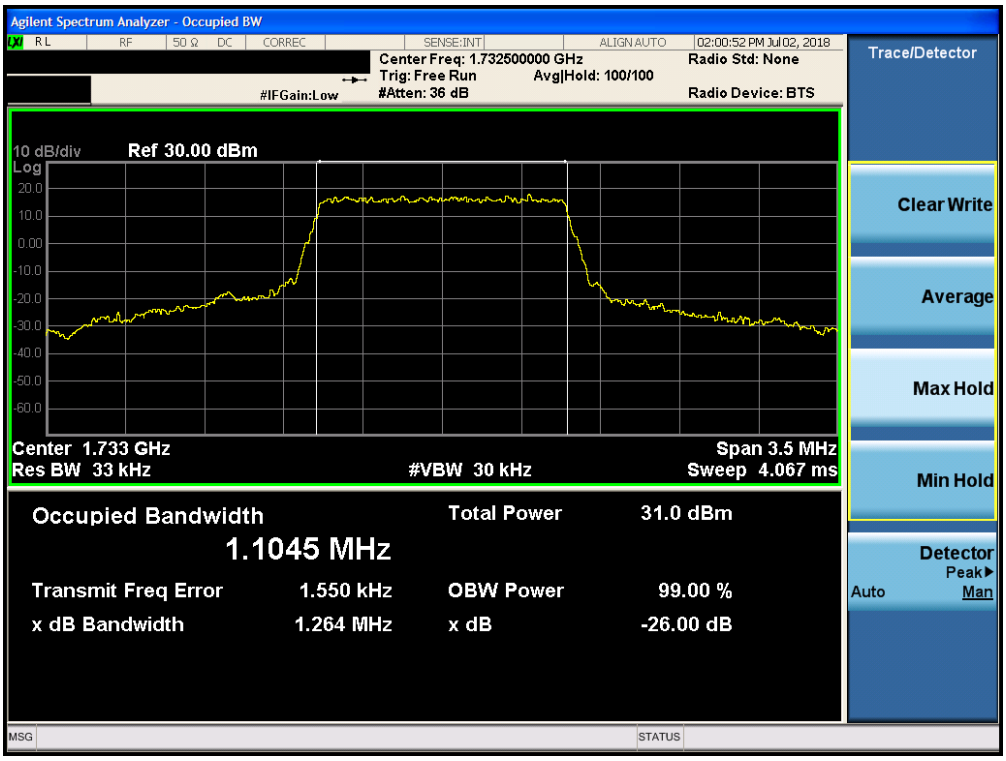


Plot 7-33. Occupied Bandwidth Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)

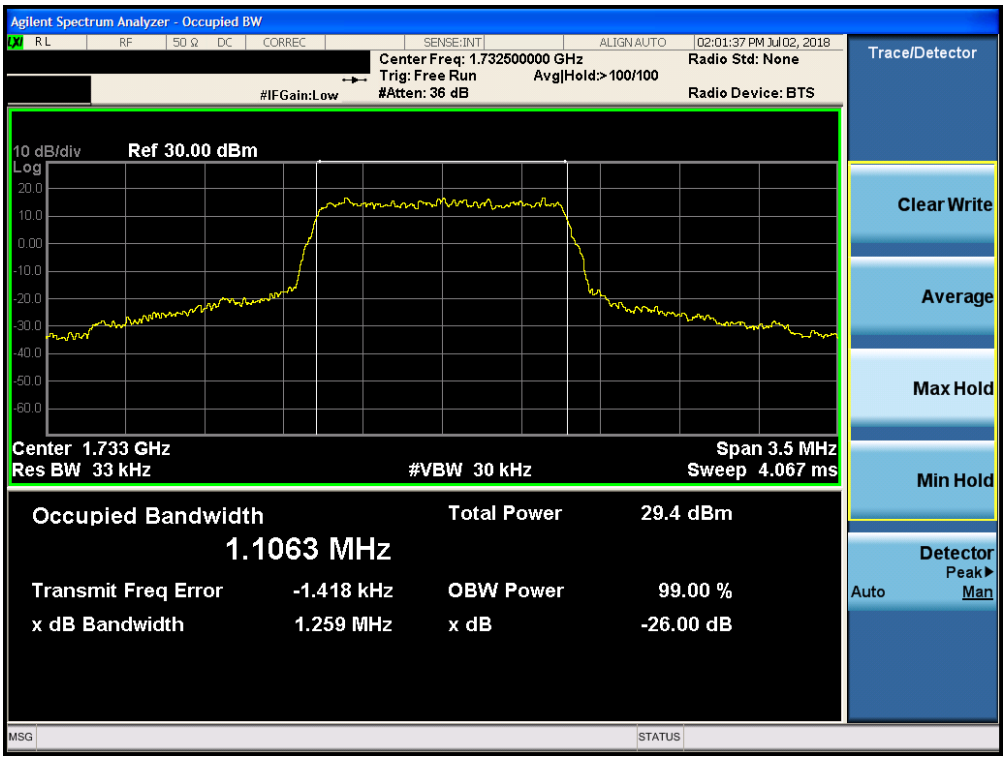


Plot 7-34. Occupied Bandwidth Plot (Band 26 - 15.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

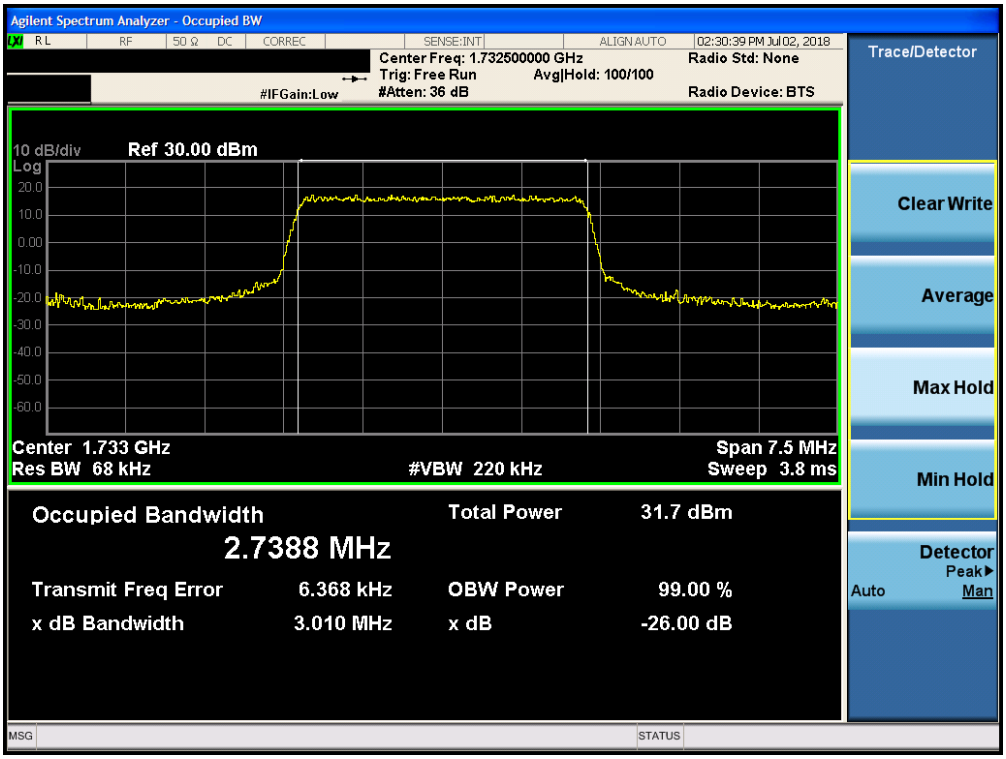
Band 4



Plot 7-35. Occupied Bandwidth Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

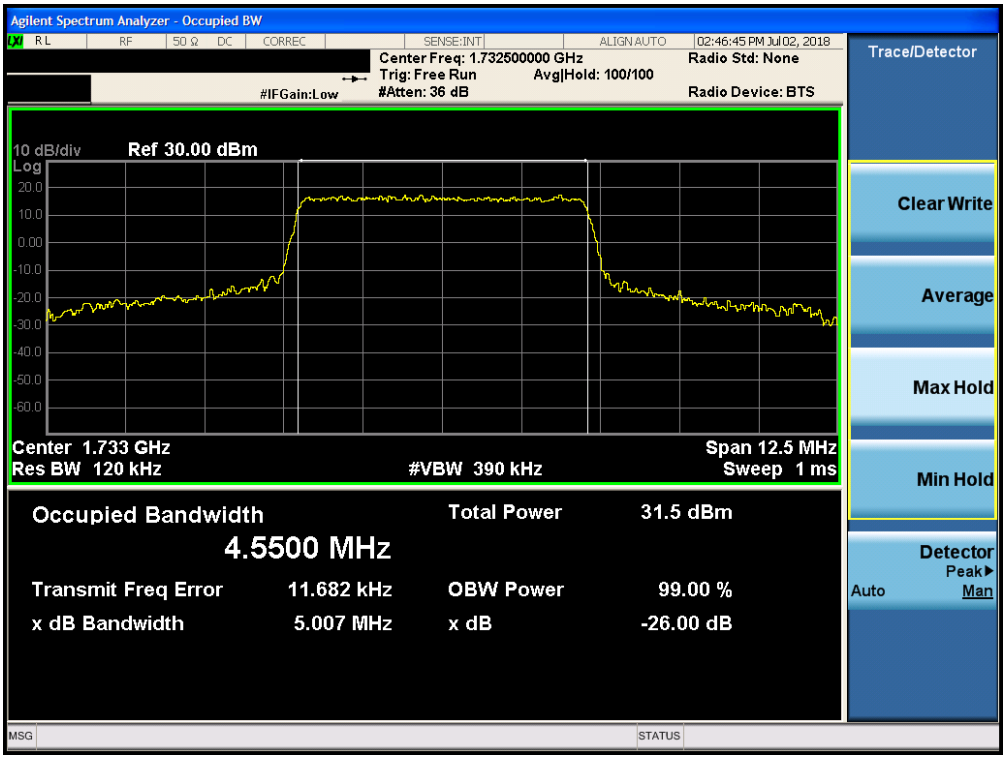


Plot 7-36. Occupied Bandwidth Plot (Band 4 - 1.4MHz 16-QAM - Full RB Configuration)

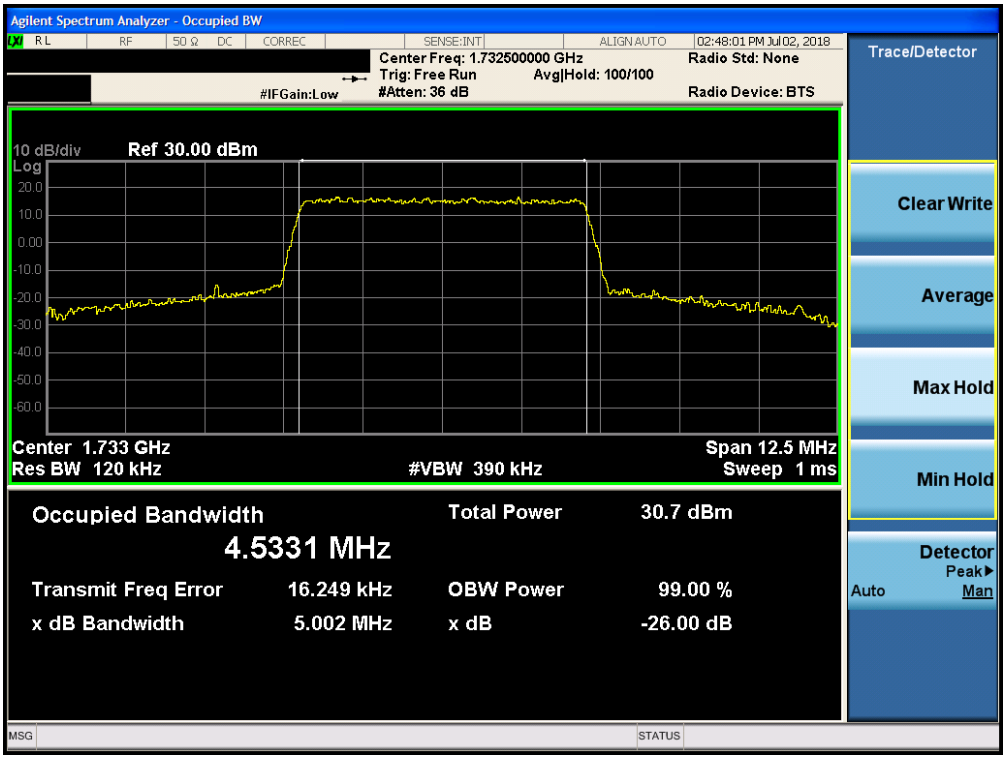


Plot 7-37. Occupied Bandwidth Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

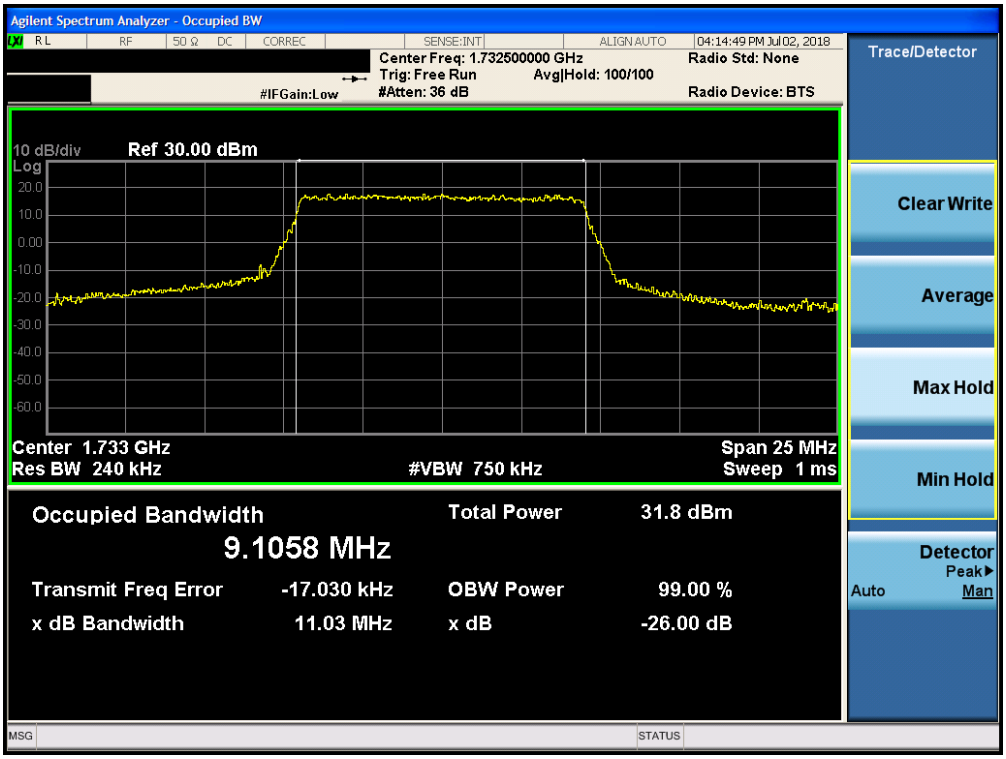
Plot 7-38. Occupied Bandwidth Plot (Band 4 - 3.0MHz 16-QAM - Full RB Configuration)



Plot 7-39. Occupied Bandwidth Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

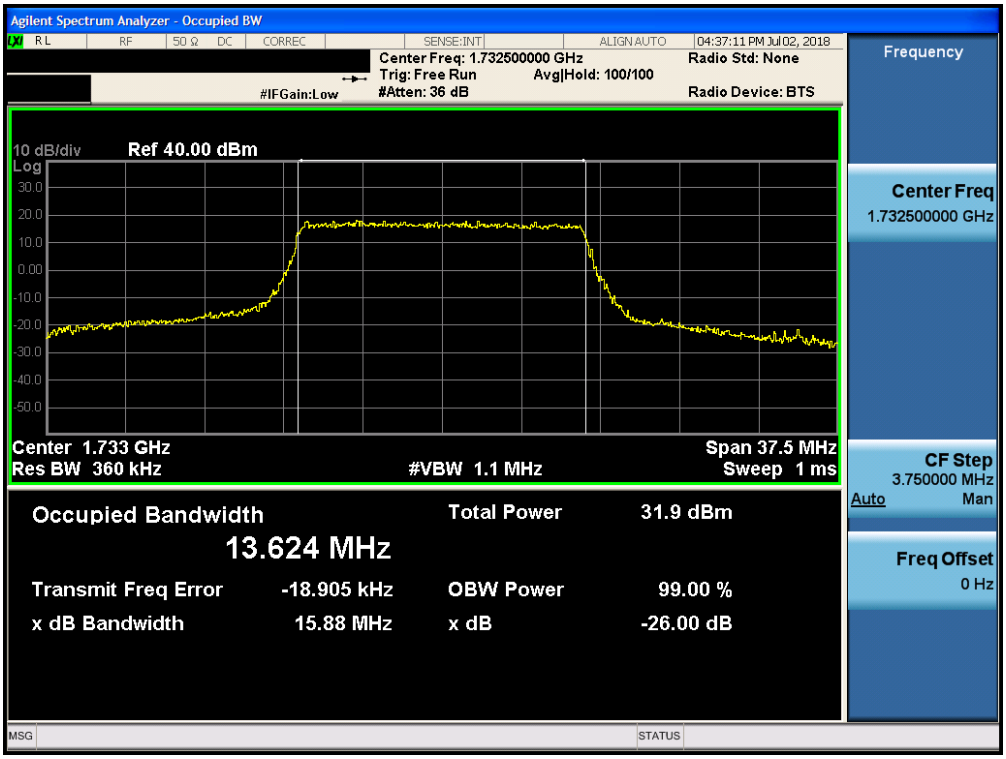


Plot 7-40. Occupied Bandwidth Plot (Band 4 - 5.0MHz 16-QAM - Full RB Configuration)

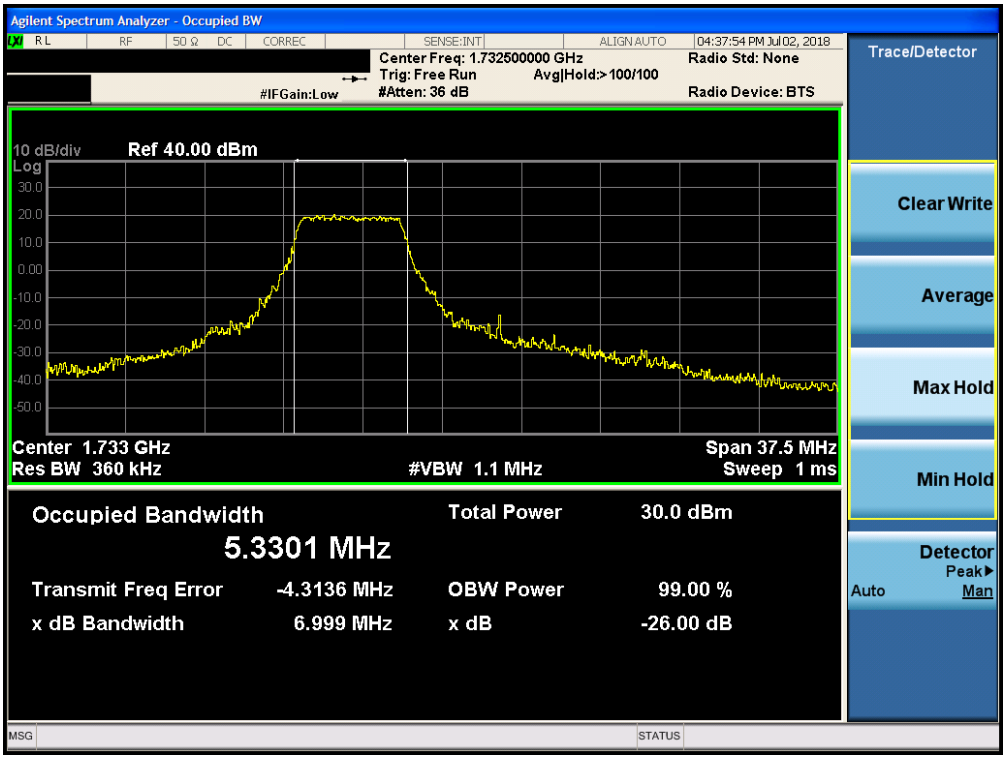


Plot 7-41. Occupied Bandwidth Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

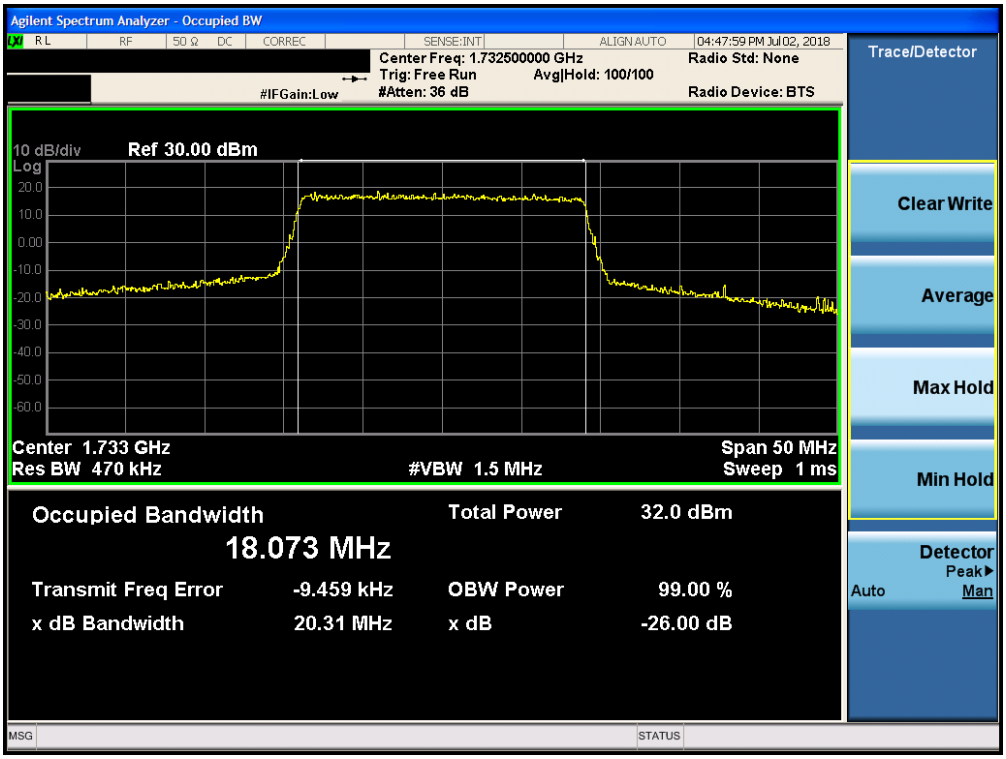
Plot 7-42. Occupied Bandwidth Plot (Band 4 - 10.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)



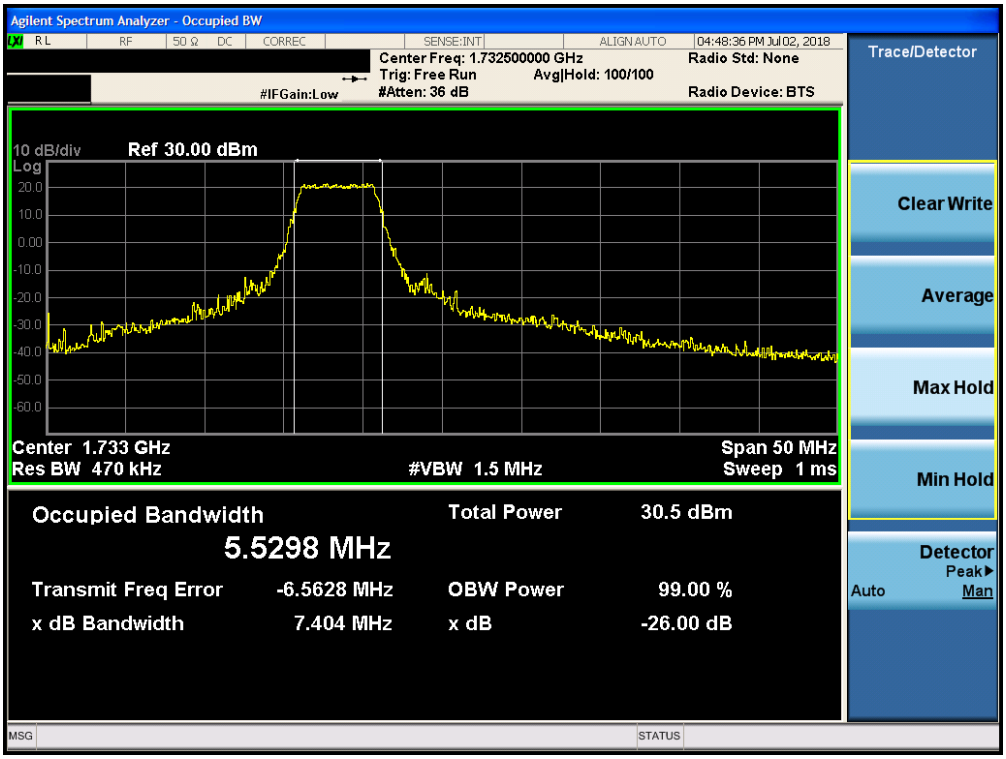
Plot 7-43. Occupied Bandwidth Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-44. Occupied Bandwidth Plot (Band 4 - 15.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

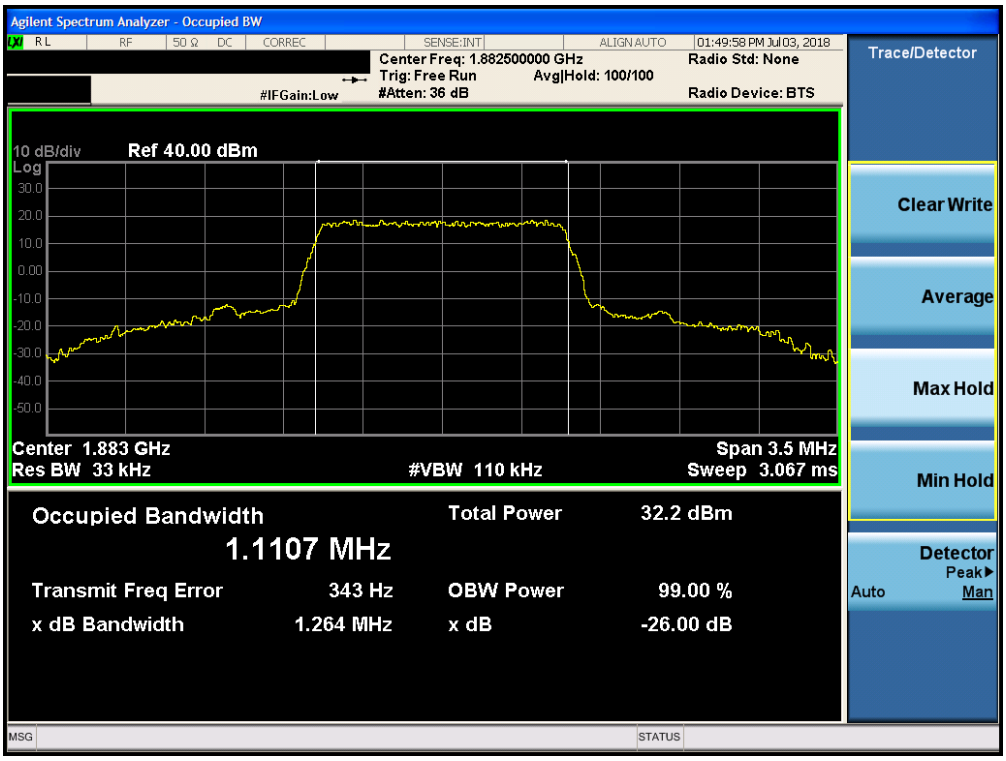


Plot 7-45. Occupied Bandwidth Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

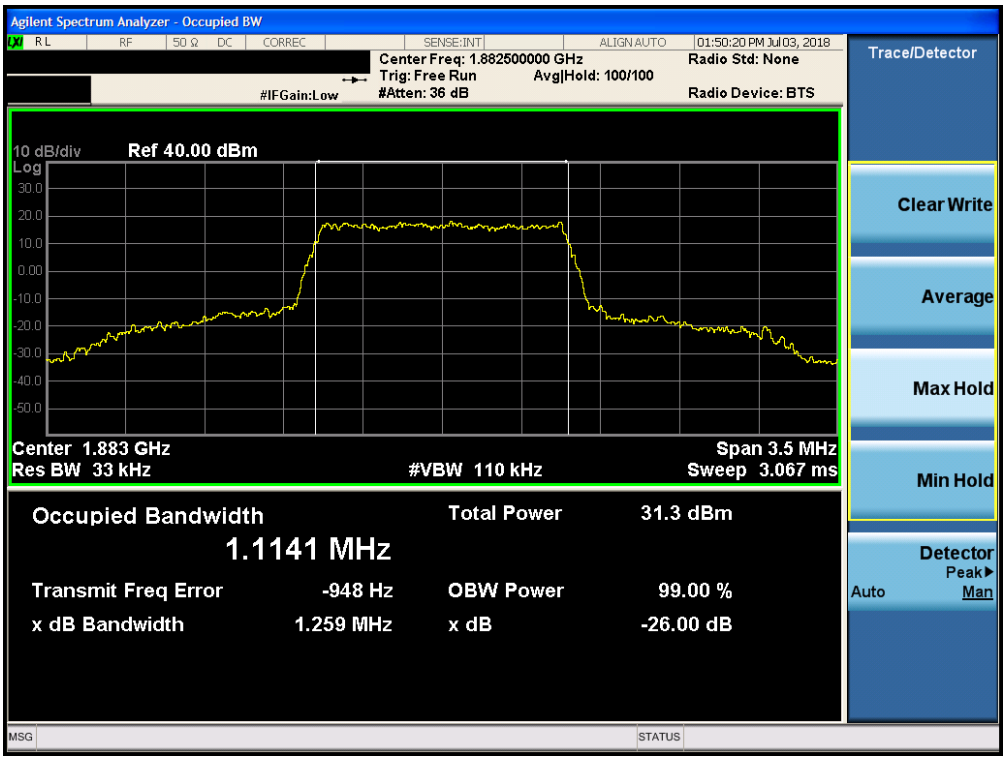


Plot 7-46. Occupied Bandwidth Plot (Band 4 - 20.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

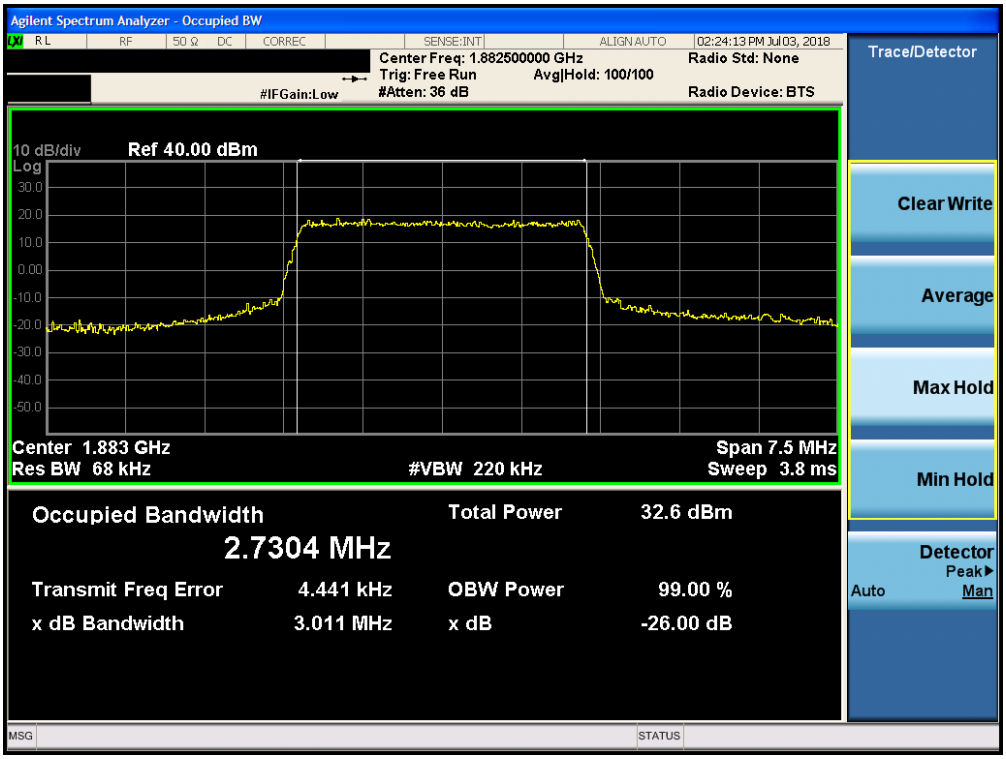
Band 25



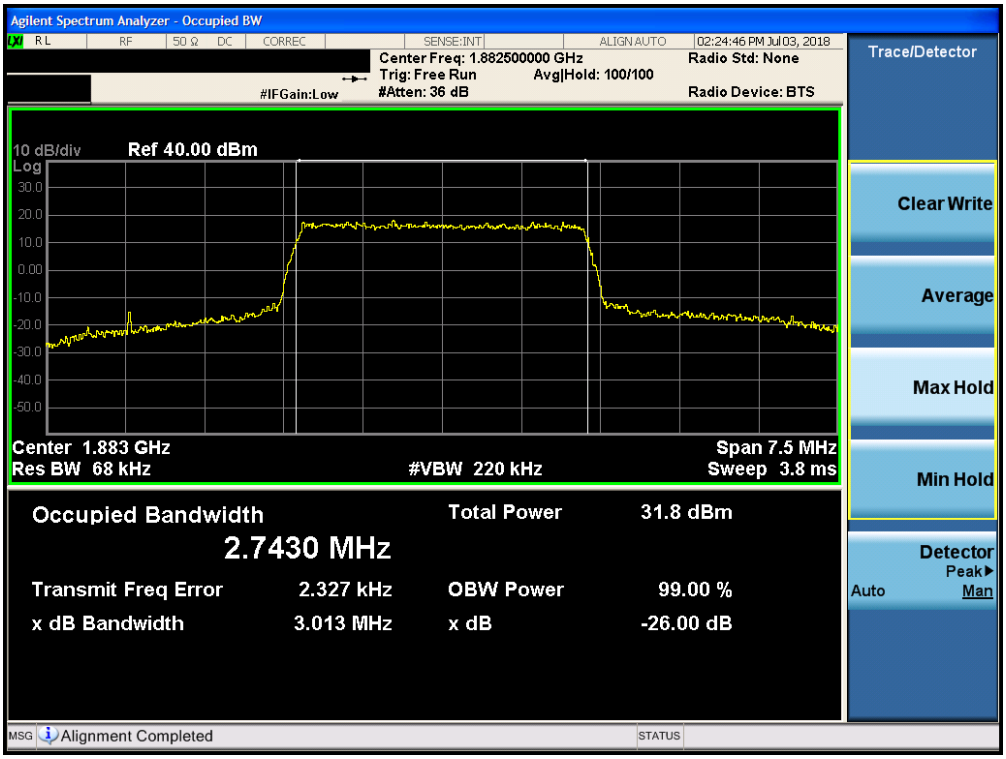
Plot 7-47. Occupied Bandwidth Plot (Band 25 - 1.4MHz QPSK - Full RB Configuration)



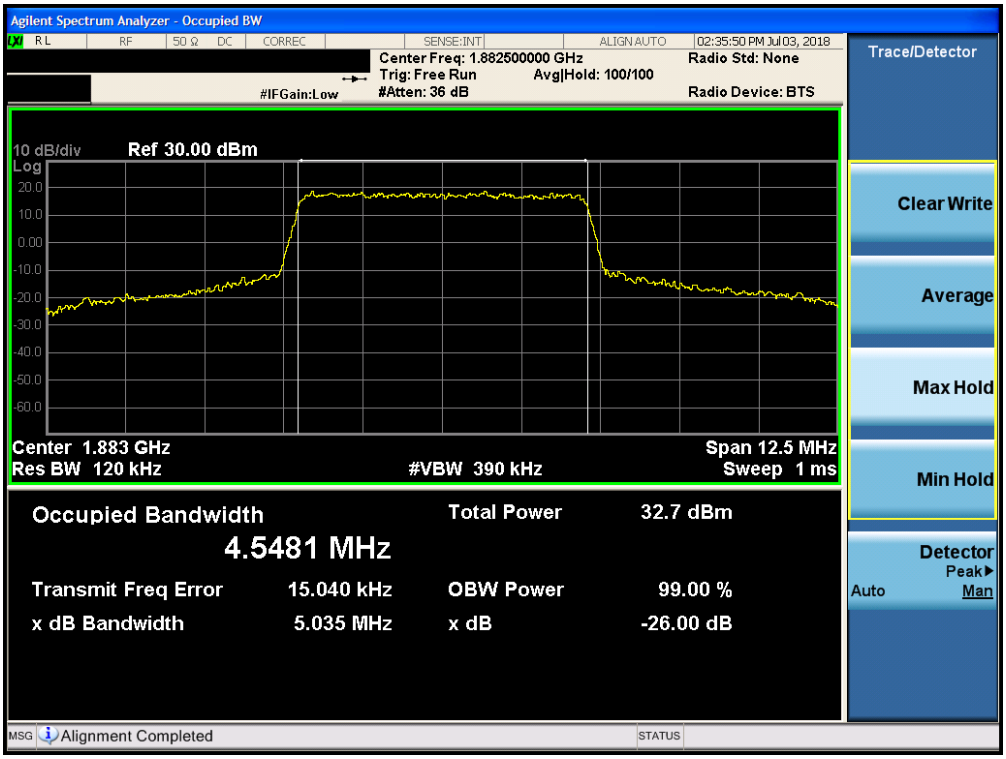
Plot 7-48. Occupied Bandwidth Plot (Band 25 - 1.4MHz 16-QAM - Full RB Configuration)



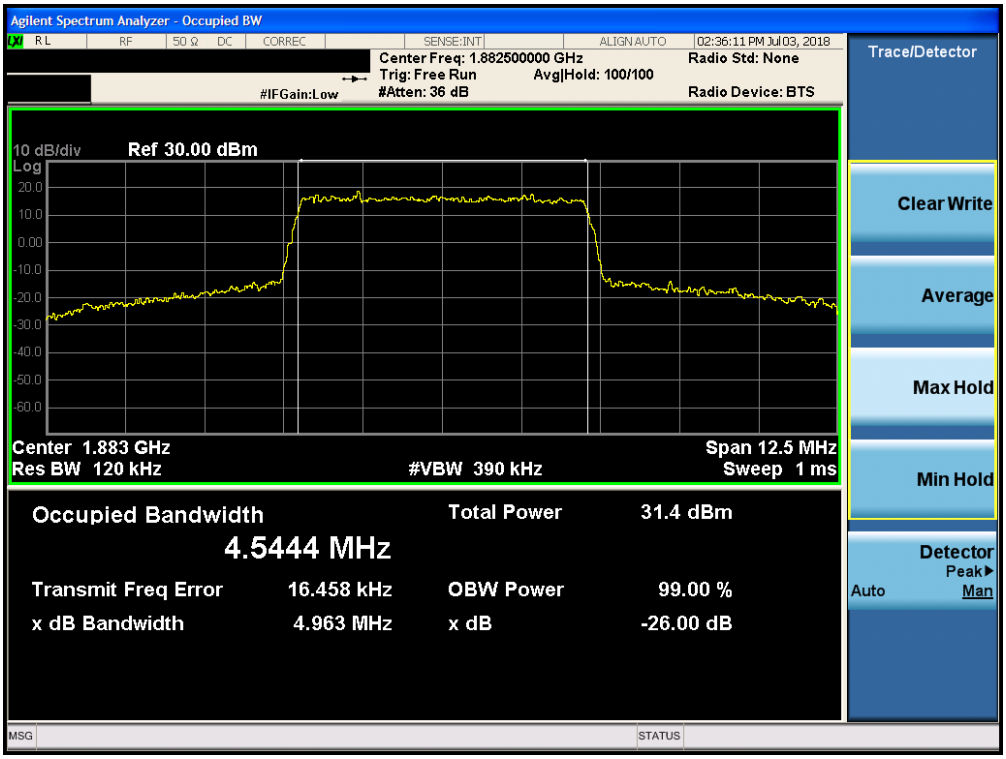
Plot 7-49. Occupied Bandwidth Plot (Band 25 - 3.0MHz QPSK - Full RB Configuration)



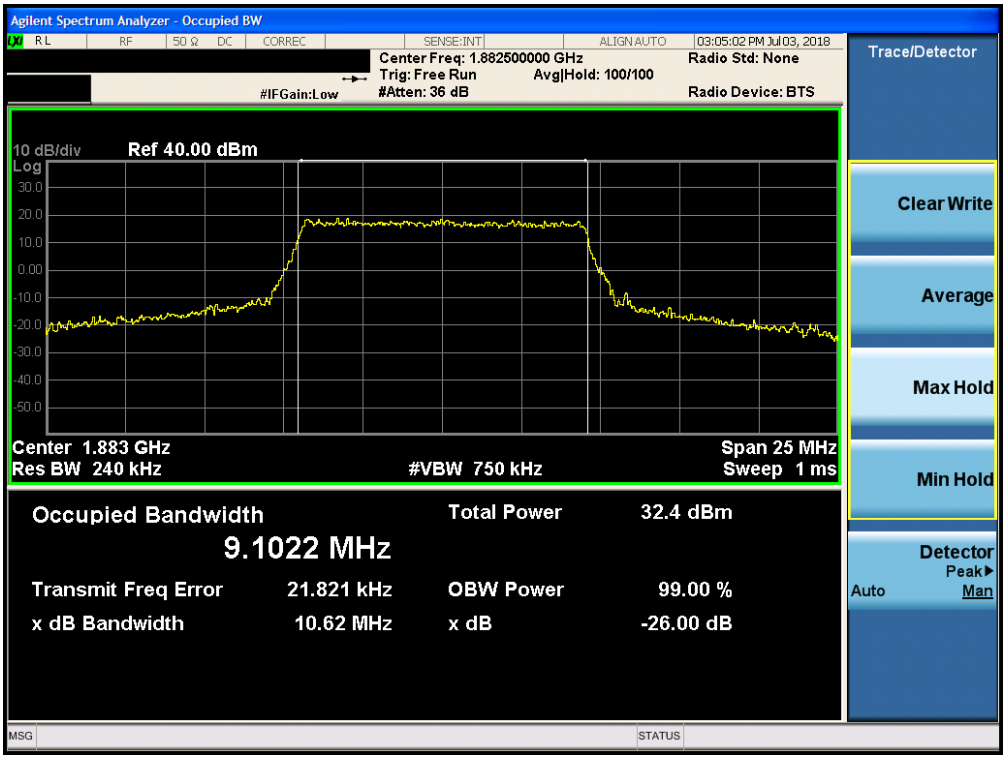
Plot 7-50. Occupied Bandwidth Plot (Band 25 - 3.0MHz 16-QAM - Full RB Configuration)



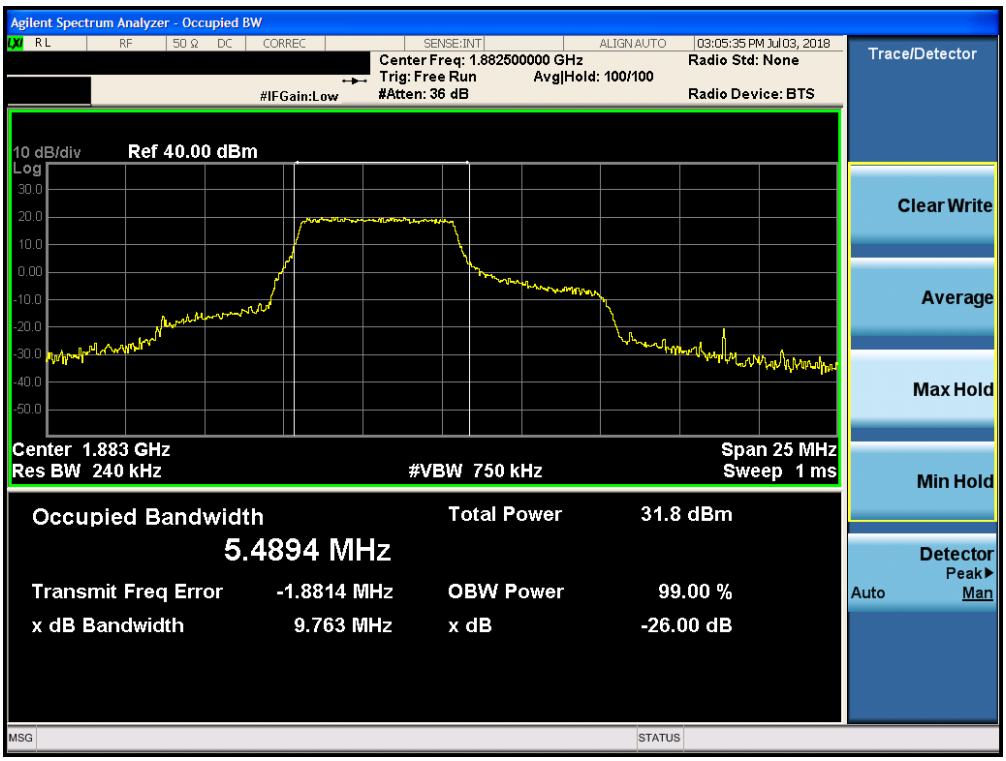
Plot 7-51. Occupied Bandwidth Plot (Band 25 - 5.0MHz QPSK - Full RB Configuration)



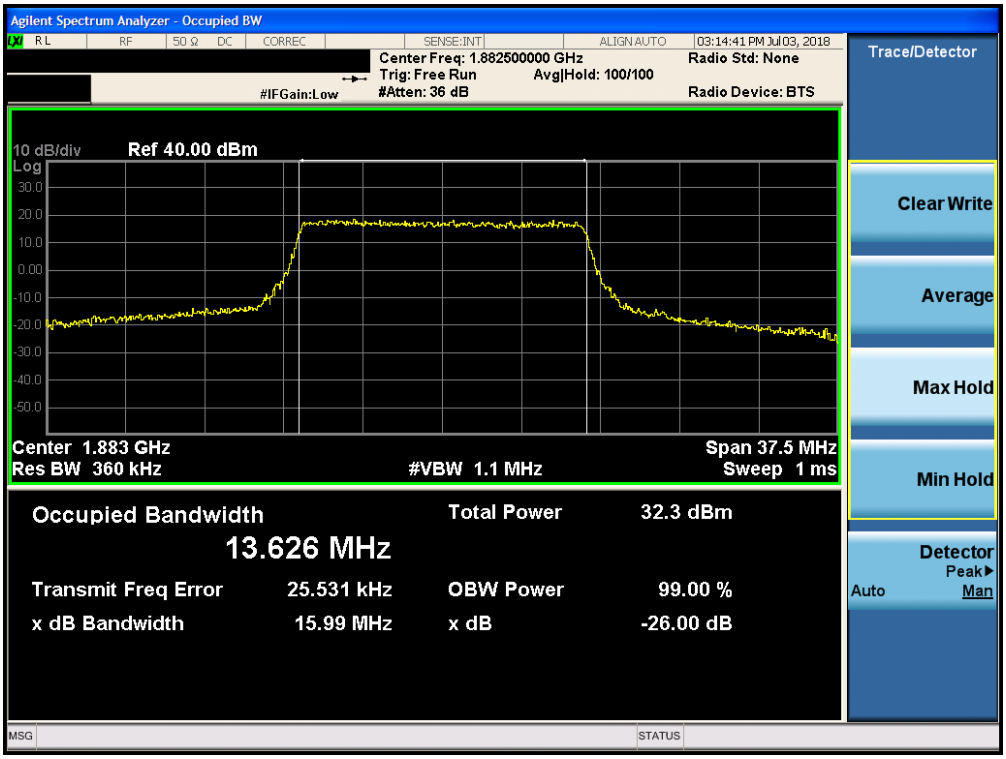
Plot 7-52. Occupied Bandwidth Plot (Band 25 - 5.0MHz 16-QAM - Full RB Configuration)



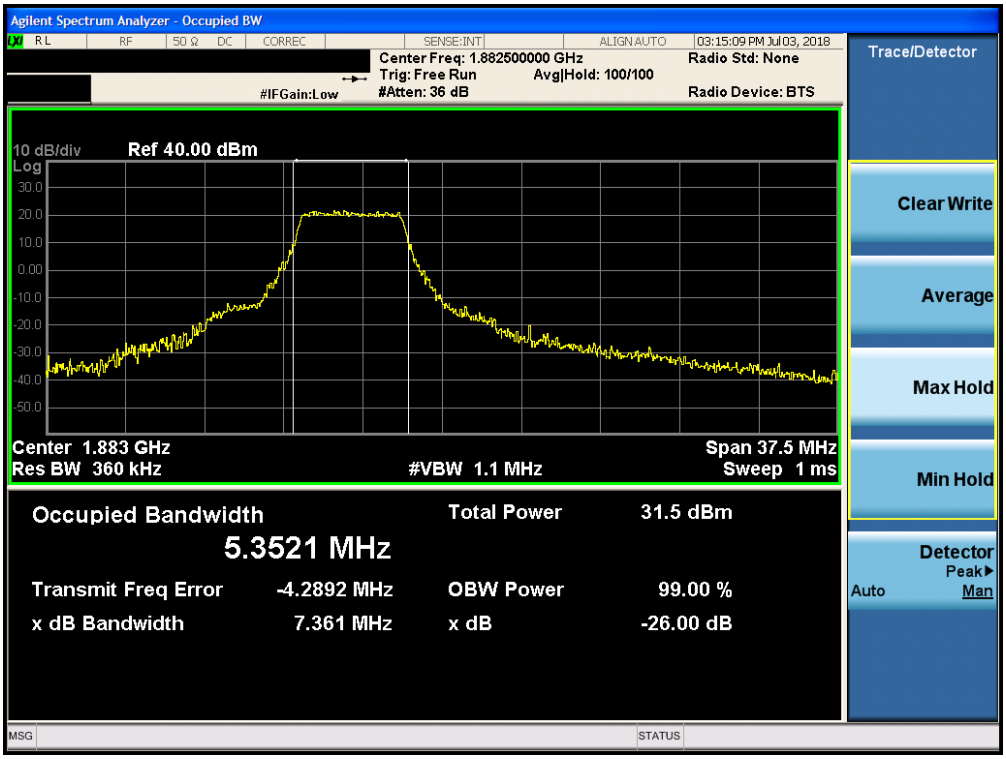
Plot 7-53. Occupied Bandwidth Plot (Band 25 - 10.0MHz QPSK - Full RB Configuration)



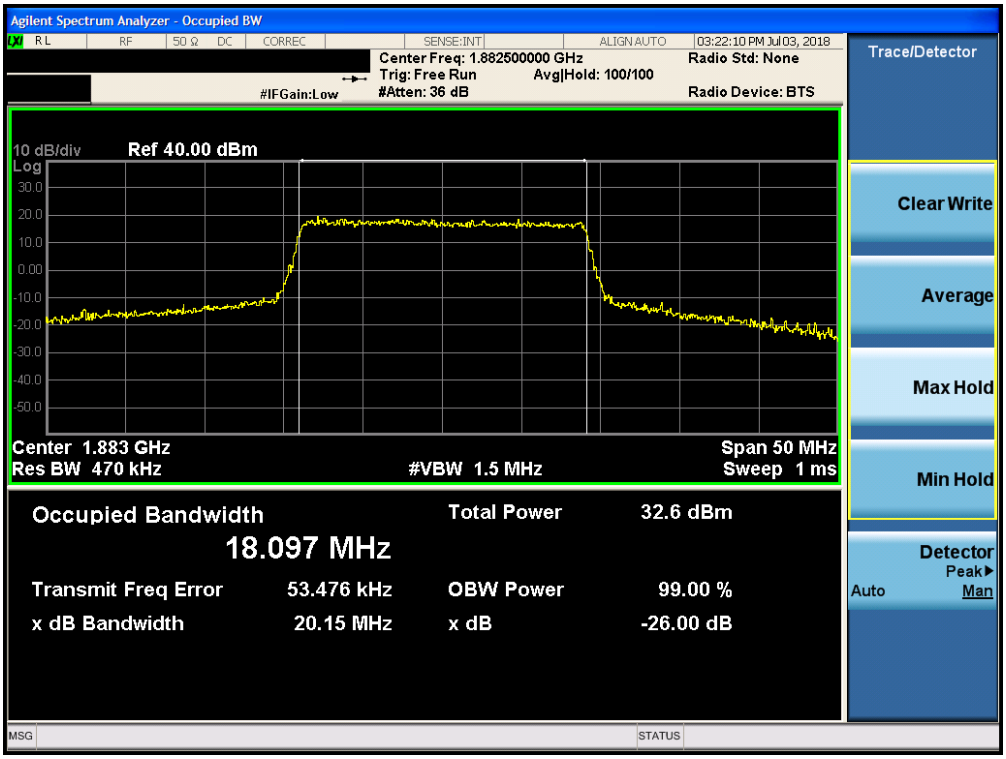
Plot 7-54. Occupied Bandwidth Plot (Band 25 - 10.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)



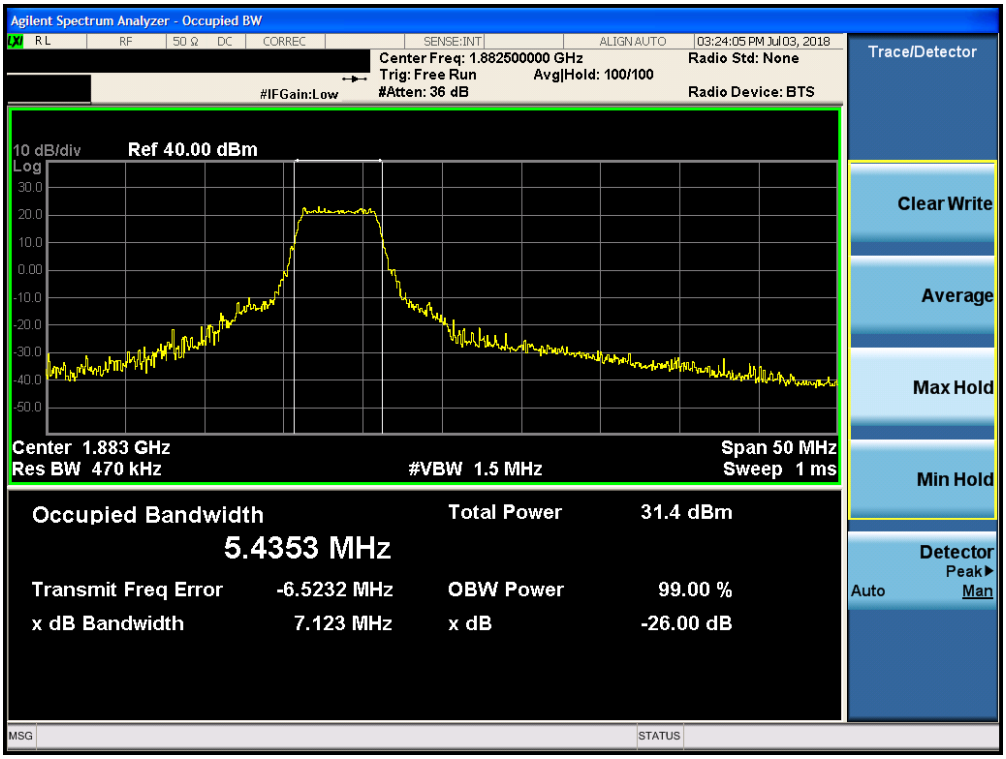
Plot 7-55. Occupied Bandwidth Plot (Band 25 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-56. Occupied Bandwidth Plot (Band 25 - 15.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

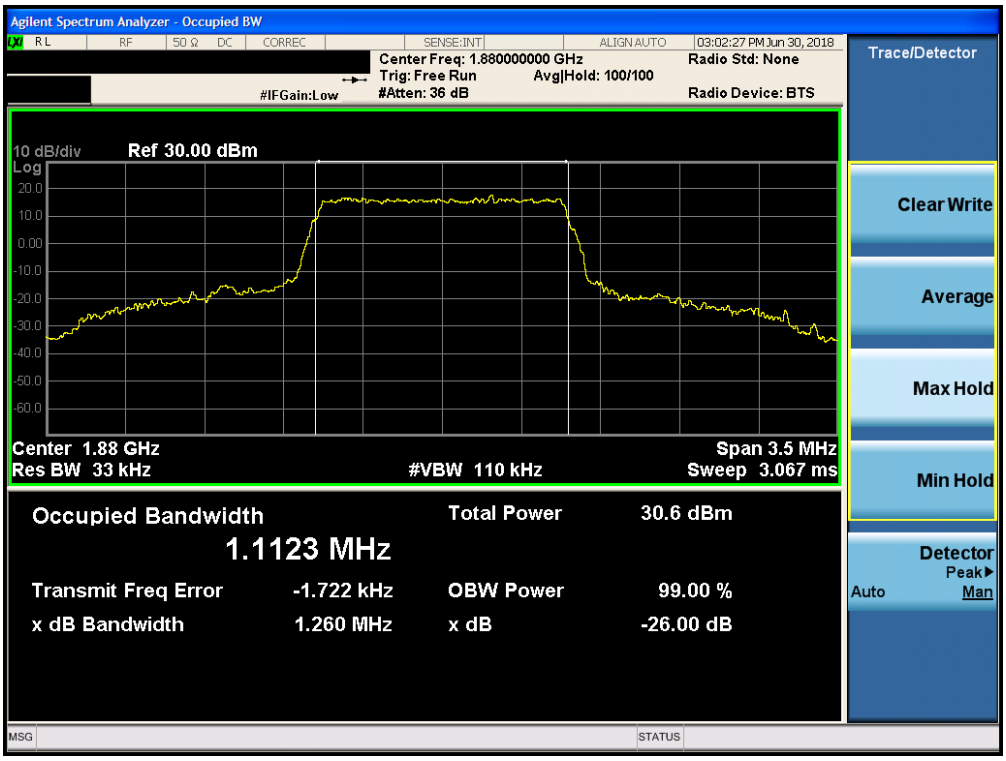


Plot 7-57. Occupied Bandwidth Plot (Band 25 - 20.0MHz QPSK - Full RB Configuration)



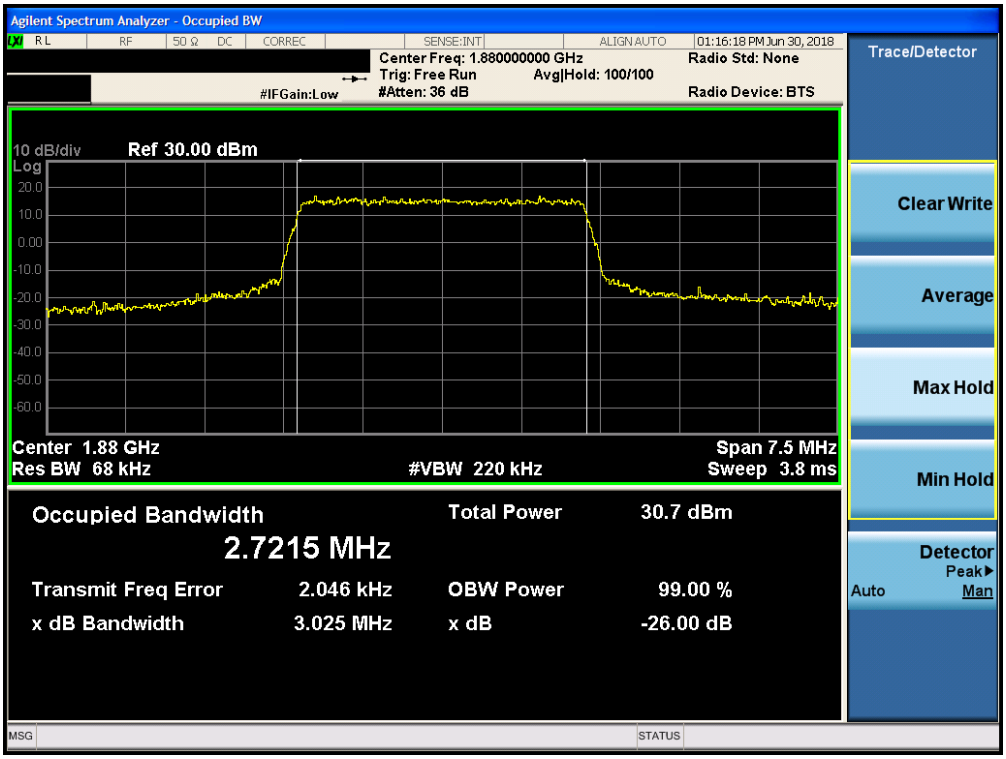
Plot 7-58. Occupied Bandwidth Plot (Band 25 - 20.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

Band 2

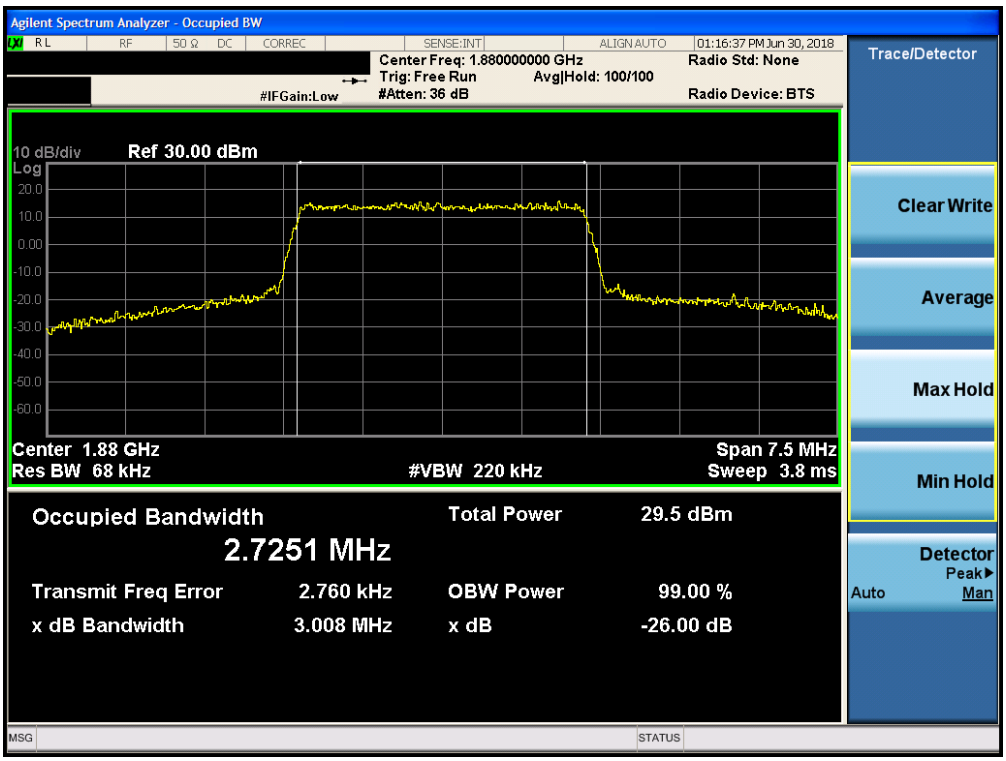


Plot 7-59. Occupied Bandwidth Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

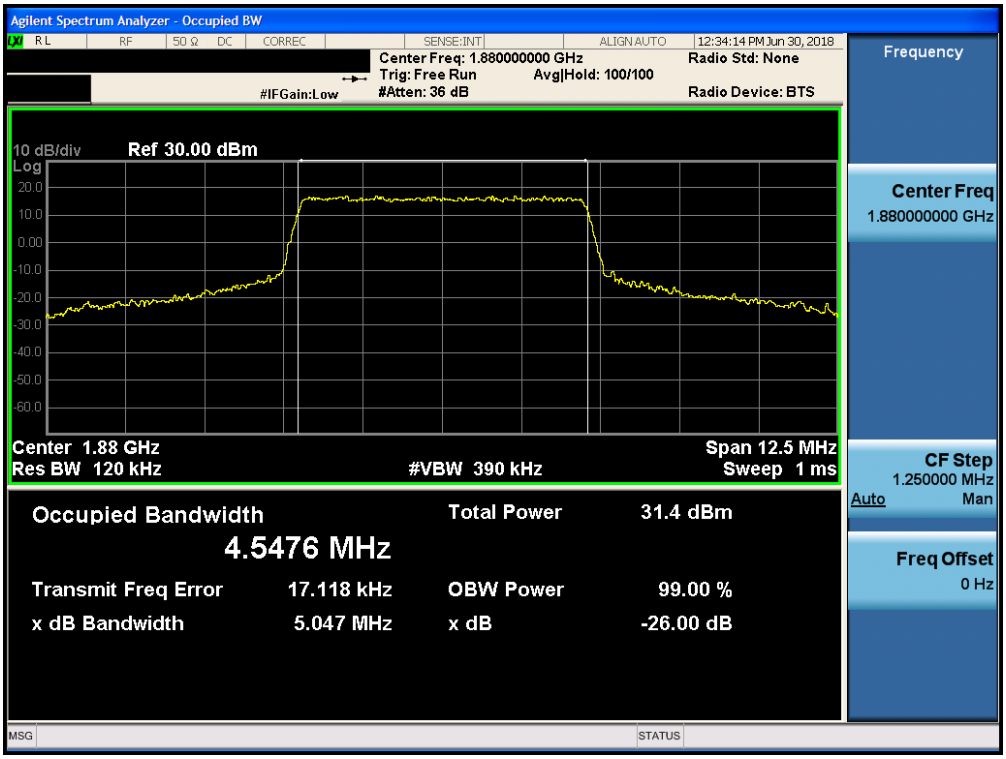
Plot 7-60. Occupied Bandwidth Plot (Band 2 - 1.4MHz 16-QAM - Full RB Configuration)



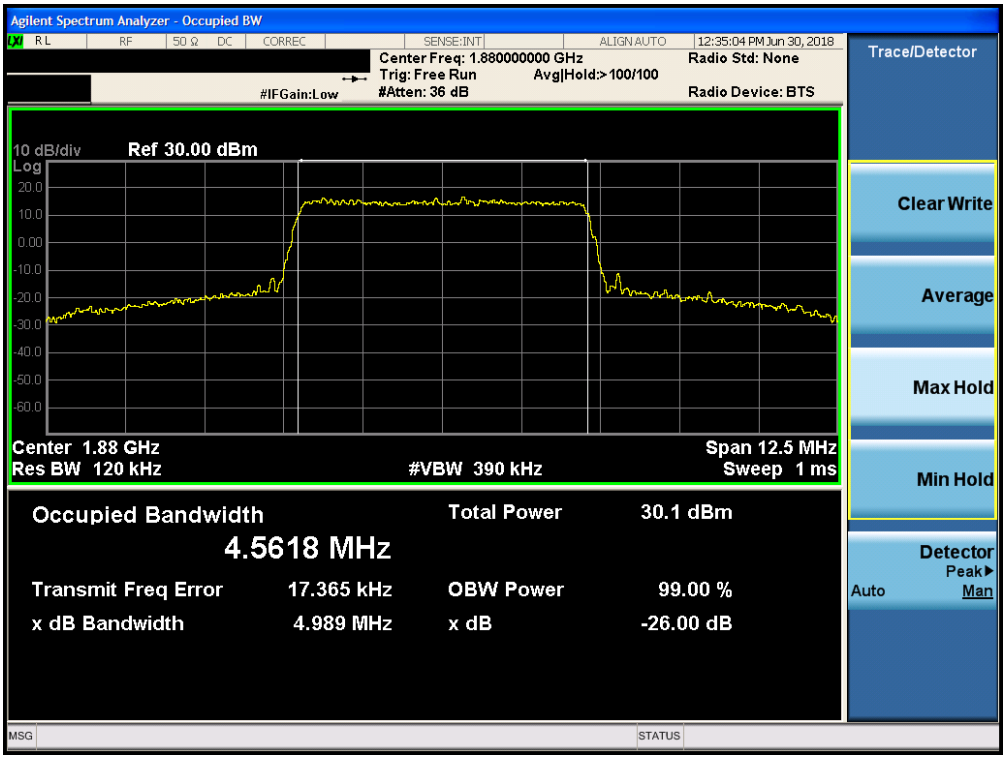
Plot 7-61. Occupied Bandwidth Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-62. Occupied Bandwidth Plot (Band 2 - 3.0MHz 16-QAM - Full RB Configuration)

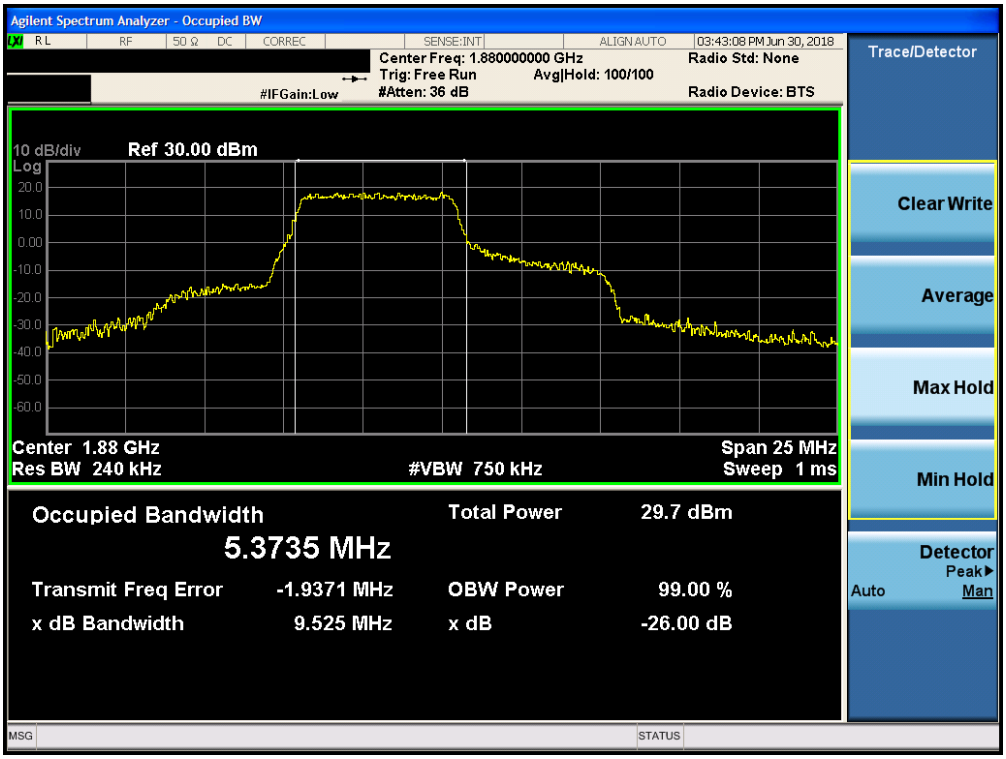


Plot 7-63. Occupied Bandwidth Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

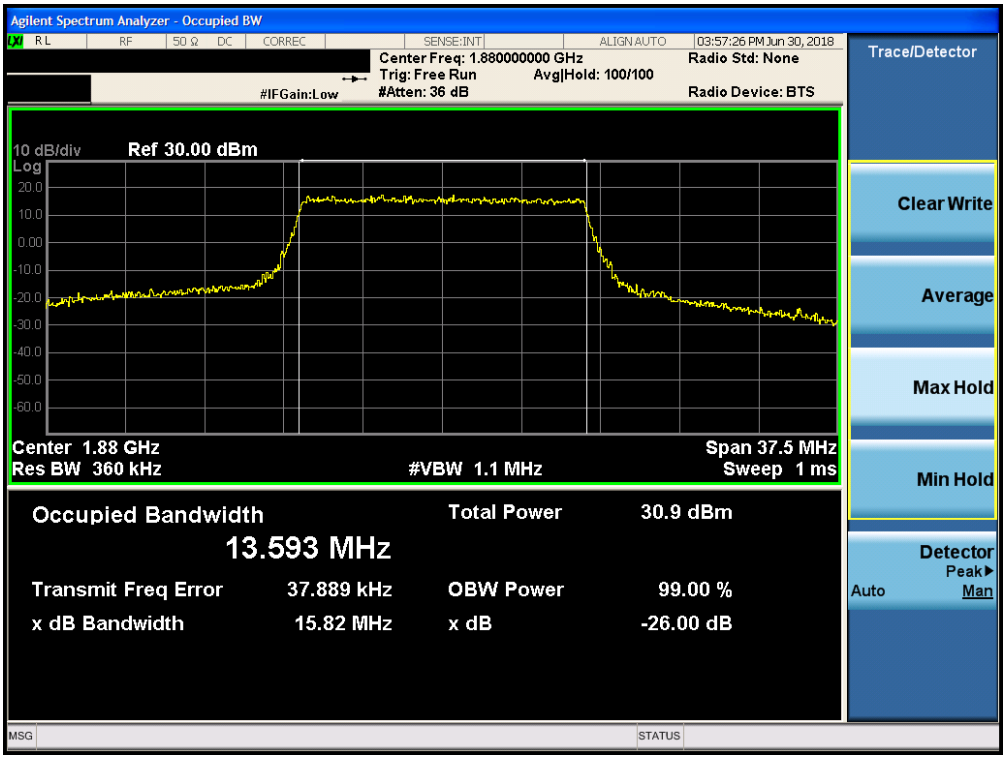


Plot 7-64. Occupied Bandwidth Plot (Band 2 - 5.0MHz 16-QAM - Full RB Configuration)

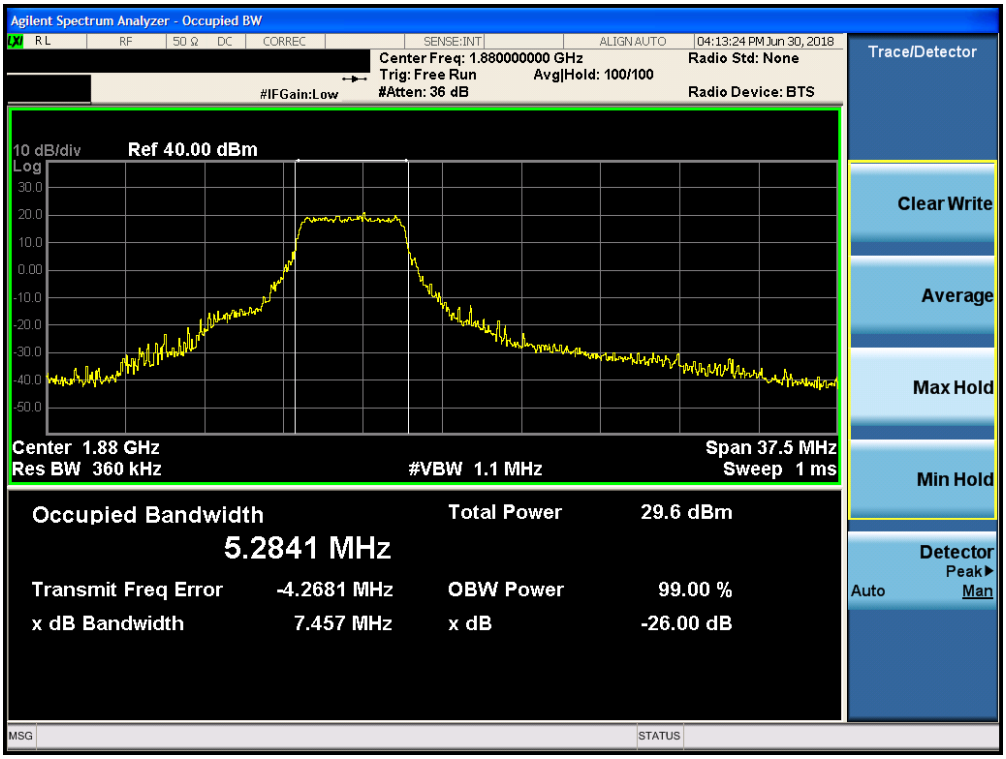
Plot 7-65. Occupied Bandwidth Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)



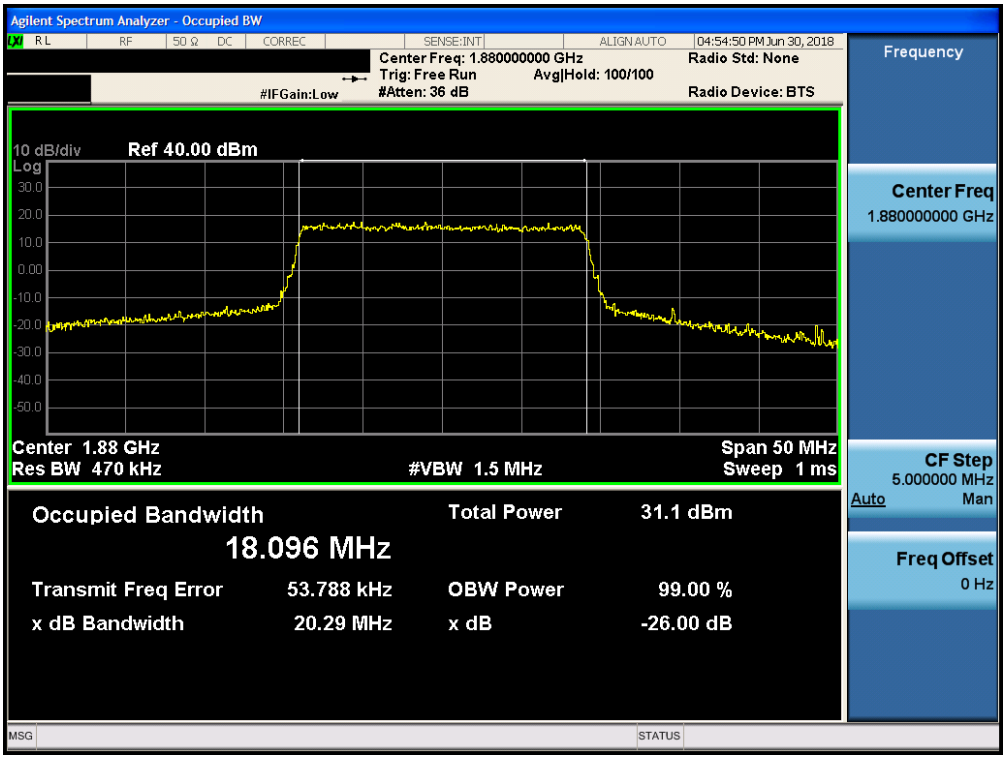
Plot 7-66. Occupied Bandwidth Plot (Band 2 - 10.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)



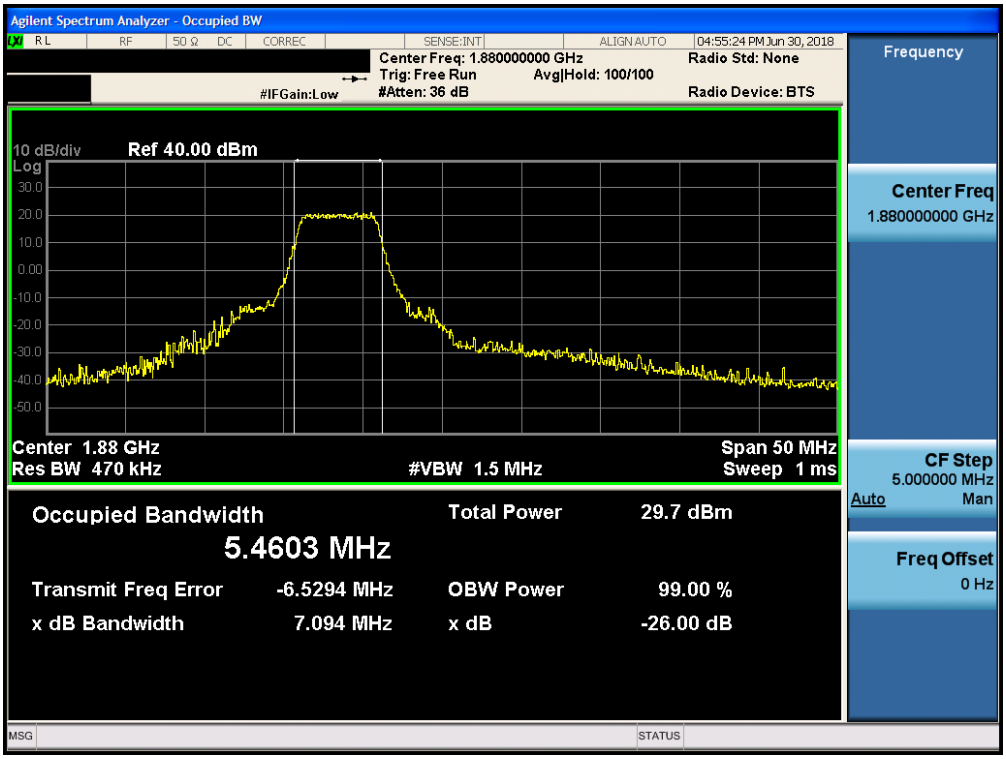
Plot 7-67. Occupied Bandwidth Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-68. Occupied Bandwidth Plot (Band 2 - 15.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

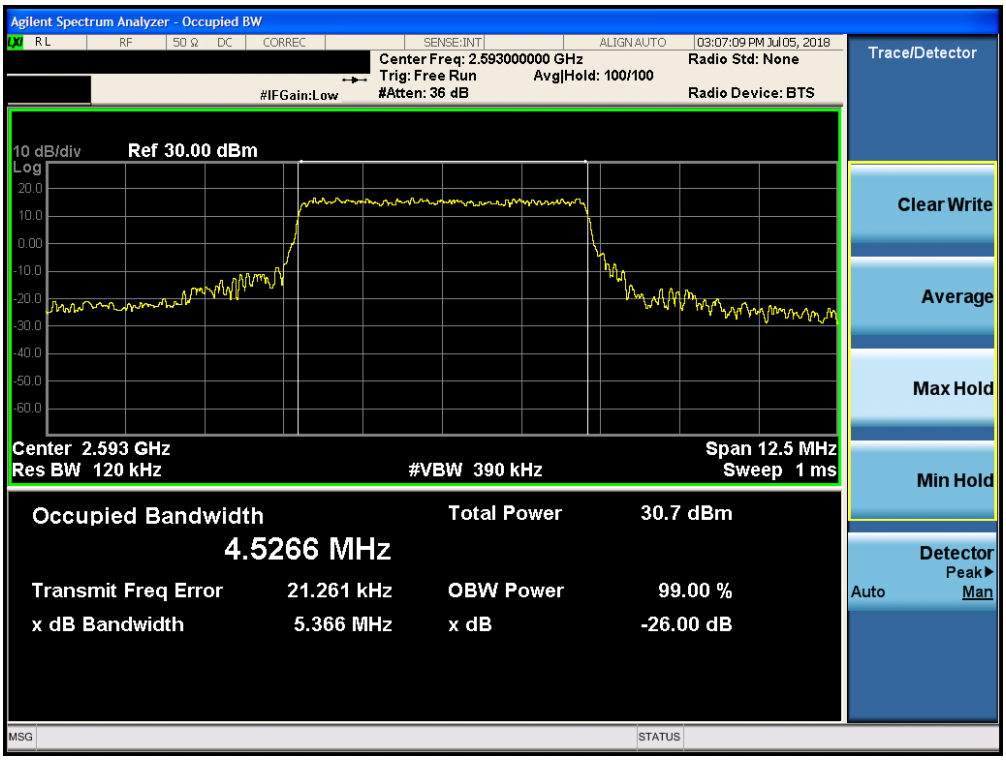


Plot 7-69. Occupied Bandwidth Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

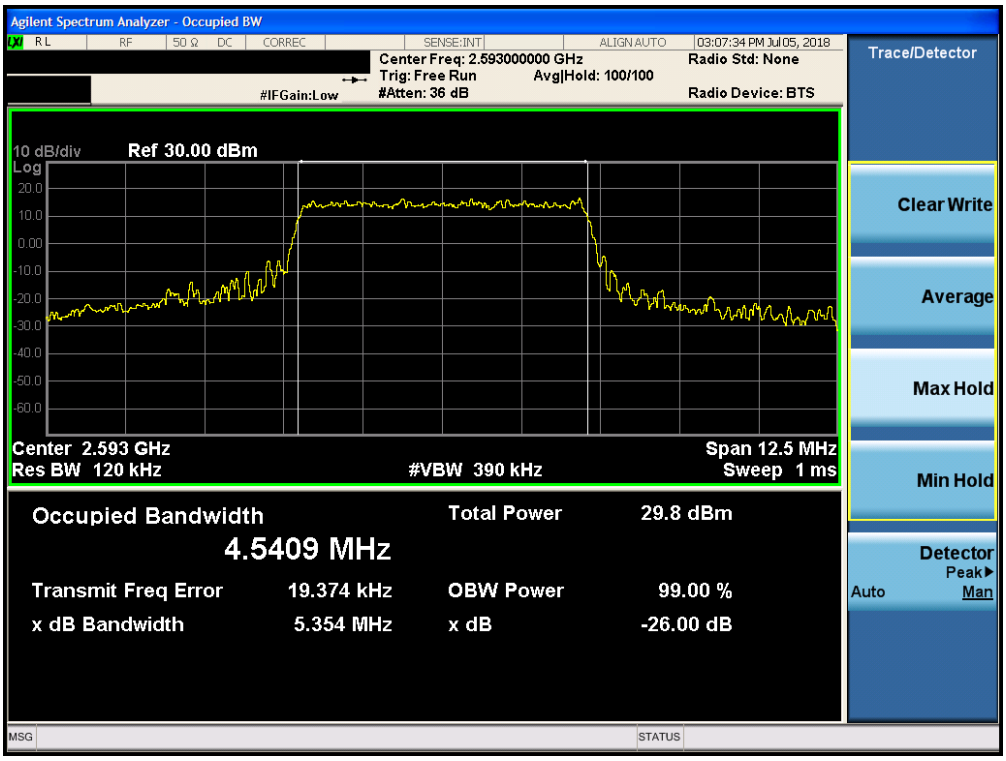


Plot 7-70. Occupied Bandwidth Plot (Band 2 - 20.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

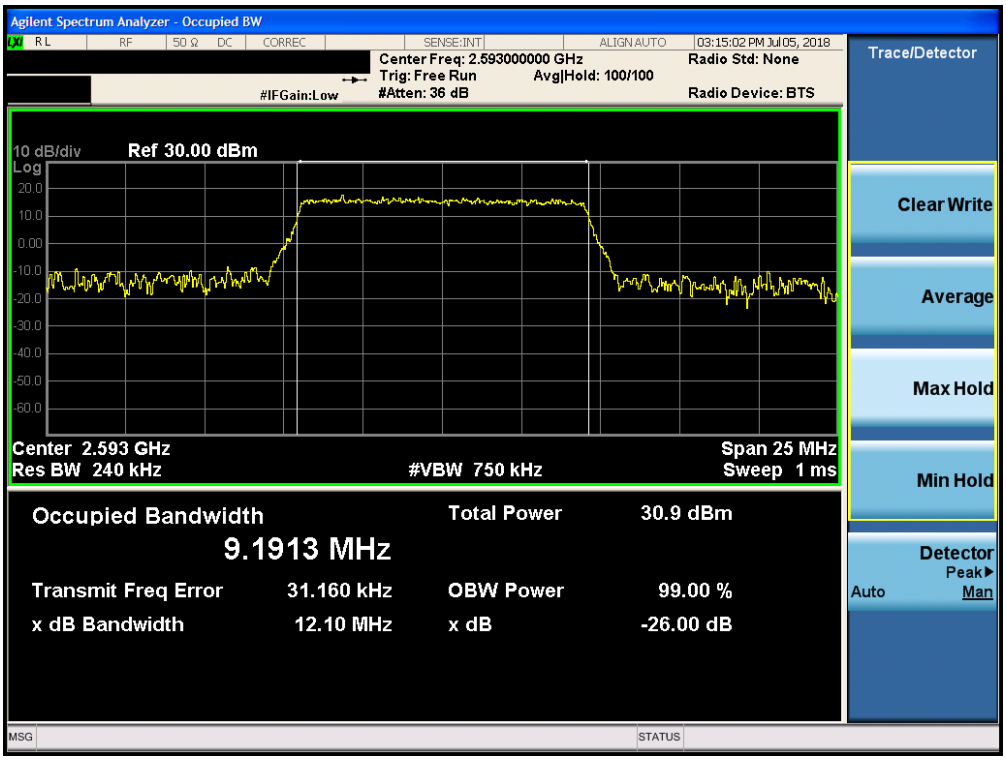
Band 41



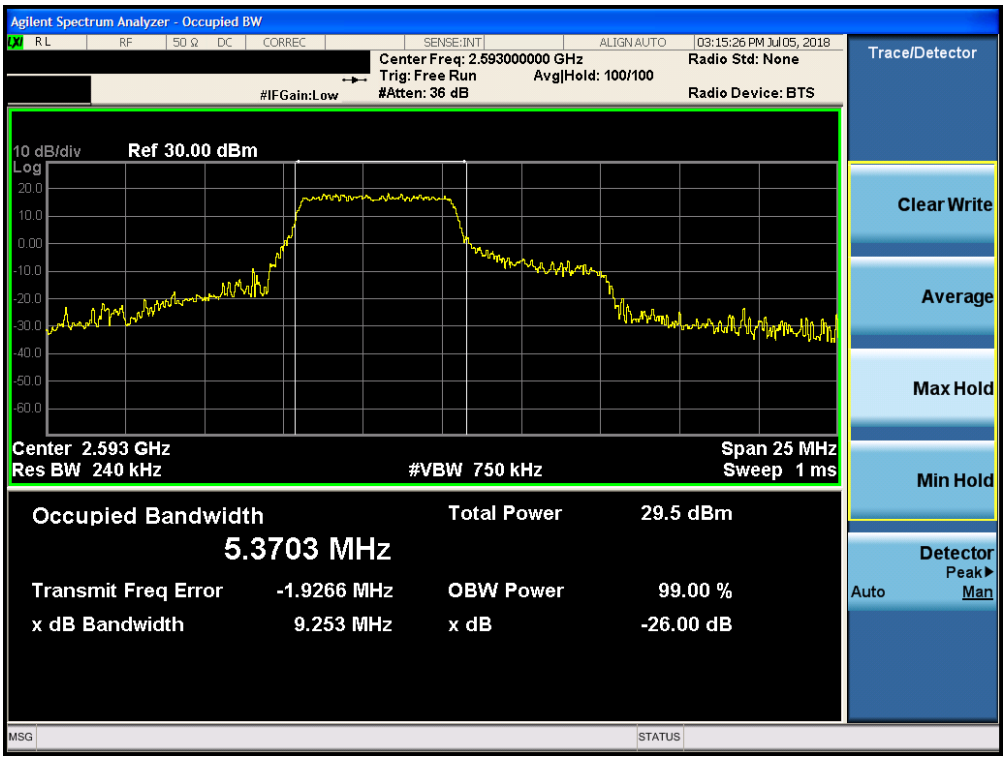
Plot 7-71. Occupied Bandwidth Plot (Band 41 - 5.0MHz QPSK - Full RB Configuration)



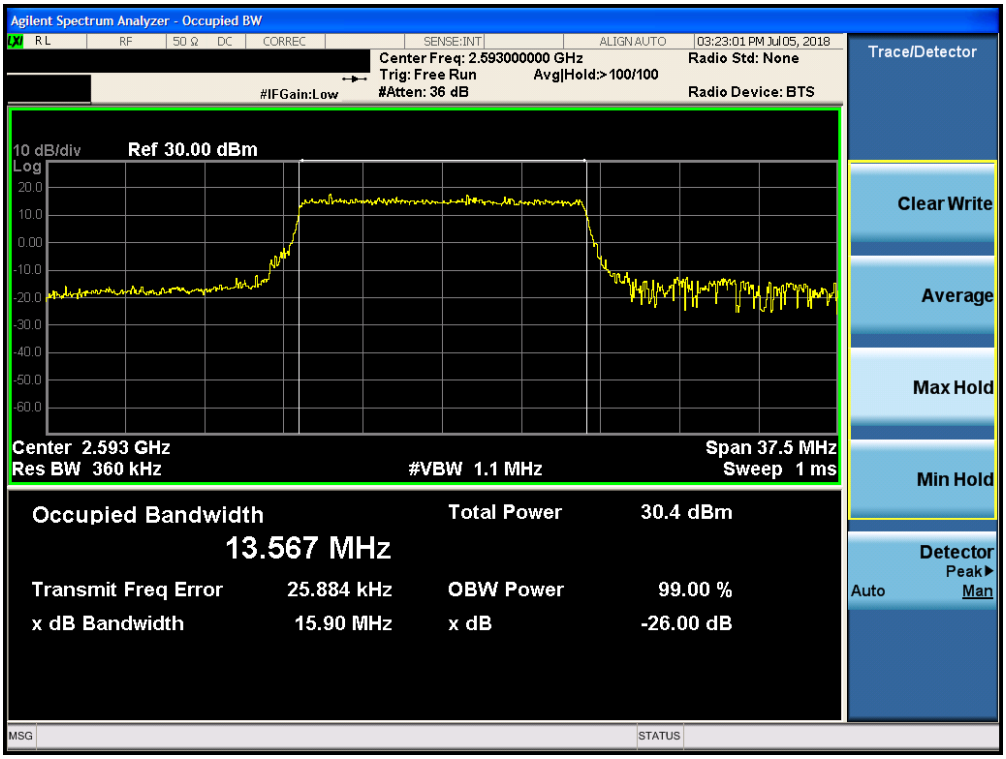
Plot 7-72. Occupied Bandwidth Plot (Band 41 - 5.0MHz 16-QAM - Full RB Configuration)



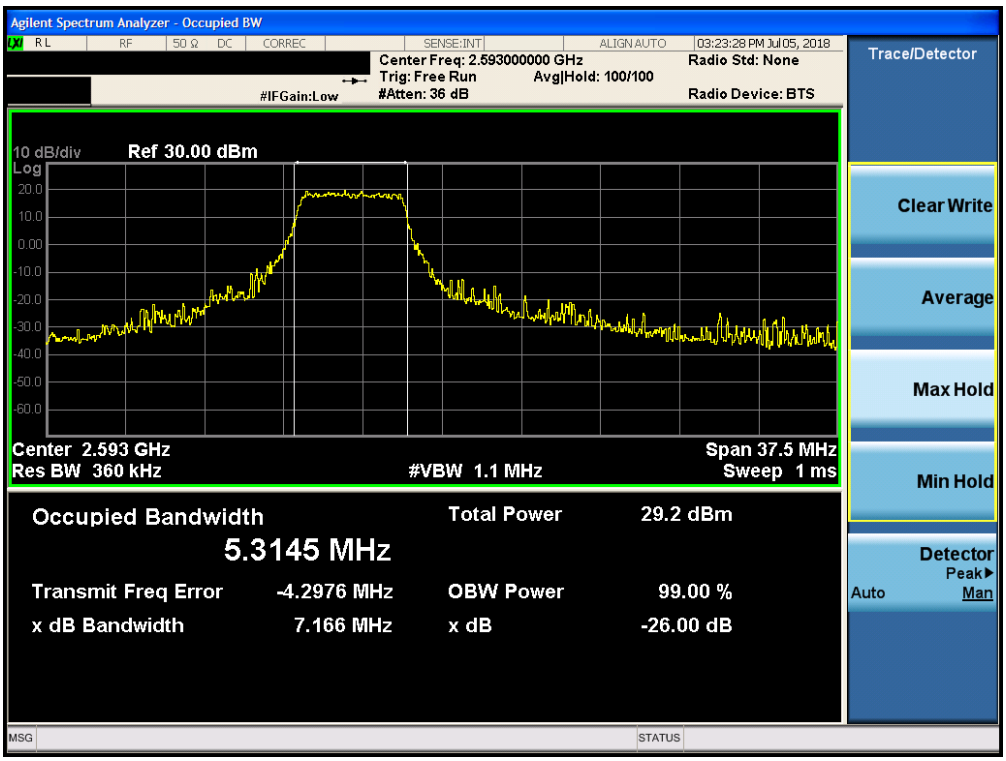
Plot 7-73. Occupied Bandwidth Plot (Band 41 - 10.0MHz QPSK - Full RB Configuration)



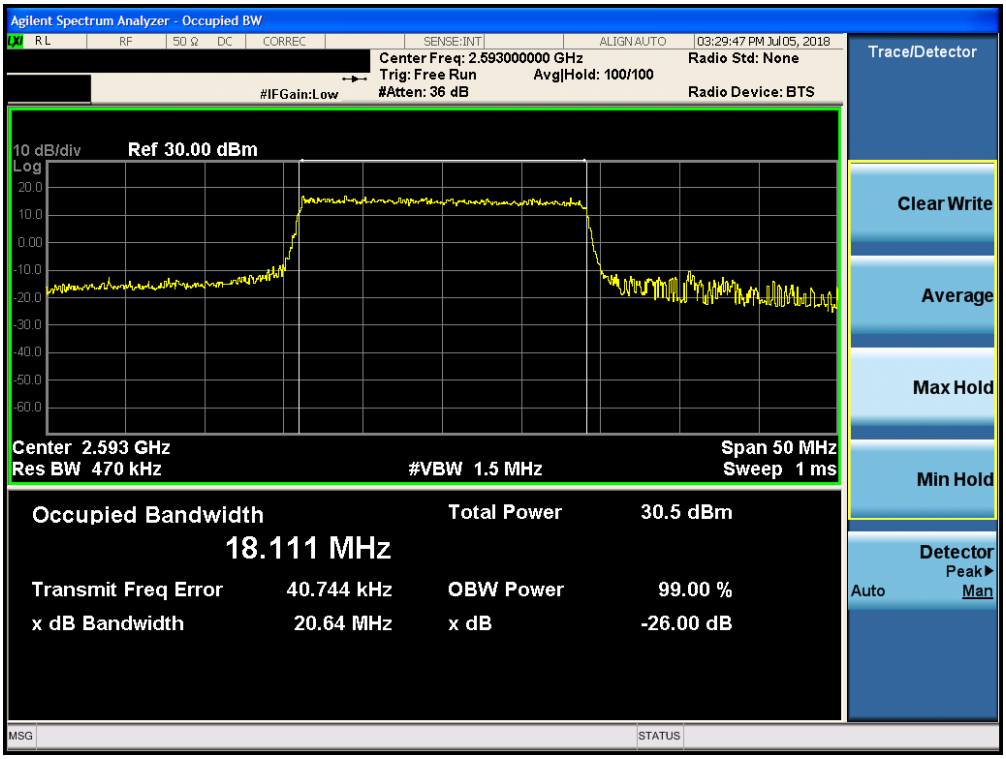
Plot 7-74. Occupied Bandwidth Plot (Band 41 - 10.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)



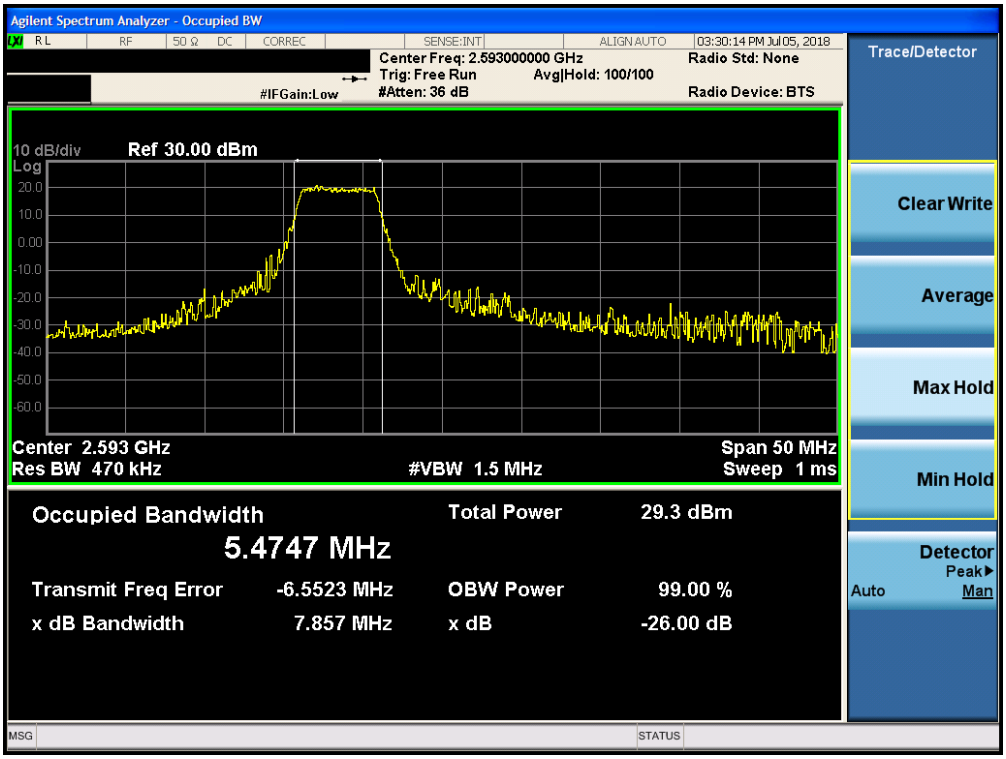
Plot 7-75. Occupied Bandwidth Plot (Band 41 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-76. Occupied Bandwidth Plot (Band 41 - 15.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)



Plot 7-77. Occupied Bandwidth Plot (Band 41 – 20.0MHz QPSK - Full RB Configuration)



Plot 7-78. Occupied Bandwidth Plot (Band 41 - 20.0MHz 16-QAM - RB Size 27, RB Offset 0 Configuration)

7.3 Spurious and Harmonic Emissions at Antenna Terminal

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.

The minimum permissible attenuation level of any spurious emission is 43 + $log_{10}(P_{[Watts]})$, where P is the transmitter power in Watts.

For Band 41, the minimum permissible attenuation level of any spurious emission is 55 + $log_{10}(P_{[Watts]})$.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 6.0

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to at least 10 * the fundamental frequency (separated into at least two plots per channel)
2. Detector = RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

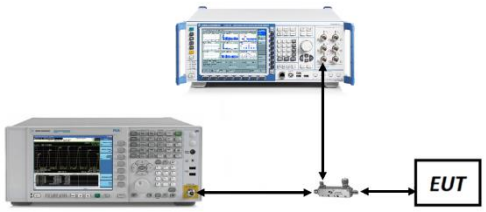
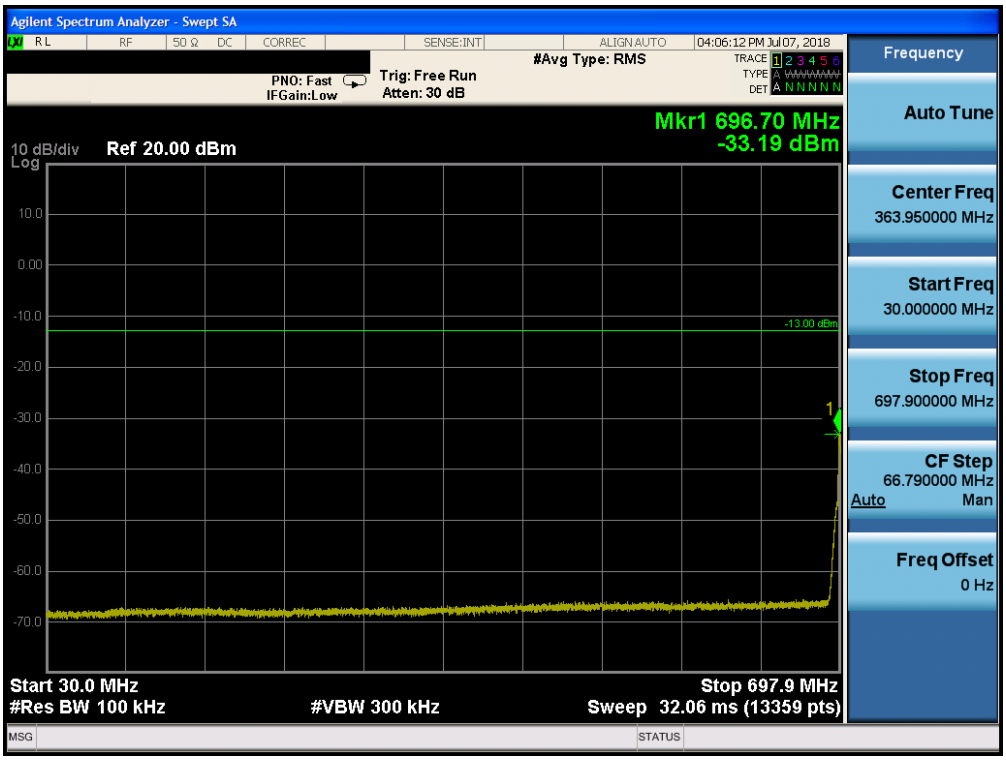


Figure 7-2. Test Instrument & Measurement Setup

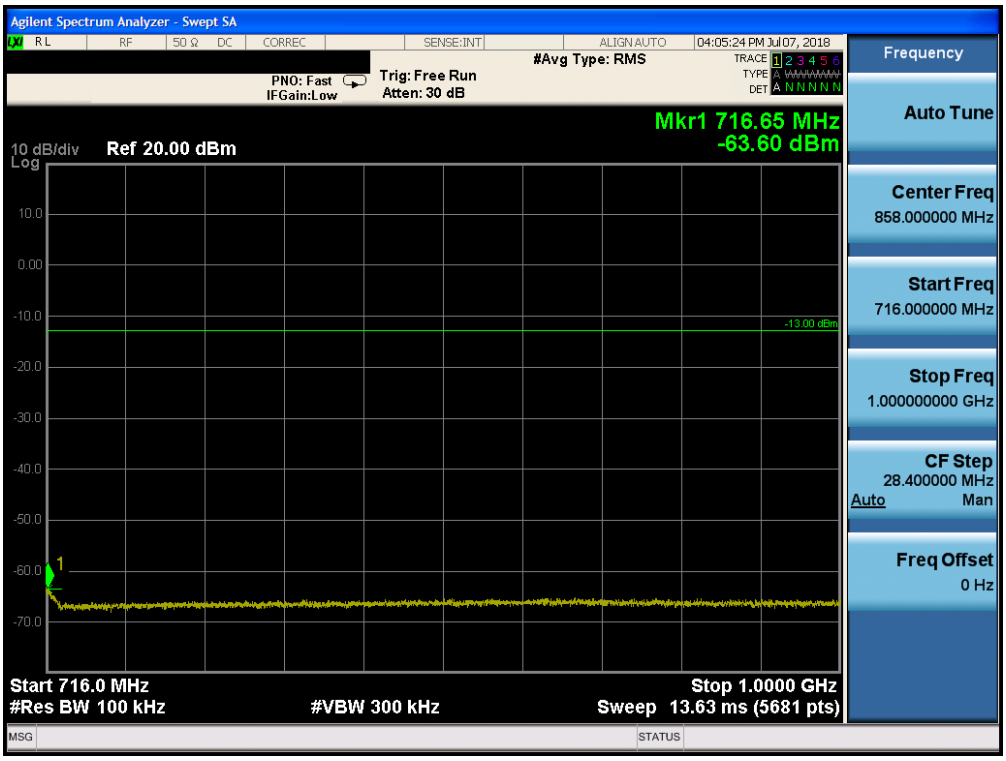
Test Notes

Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. However, 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. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.

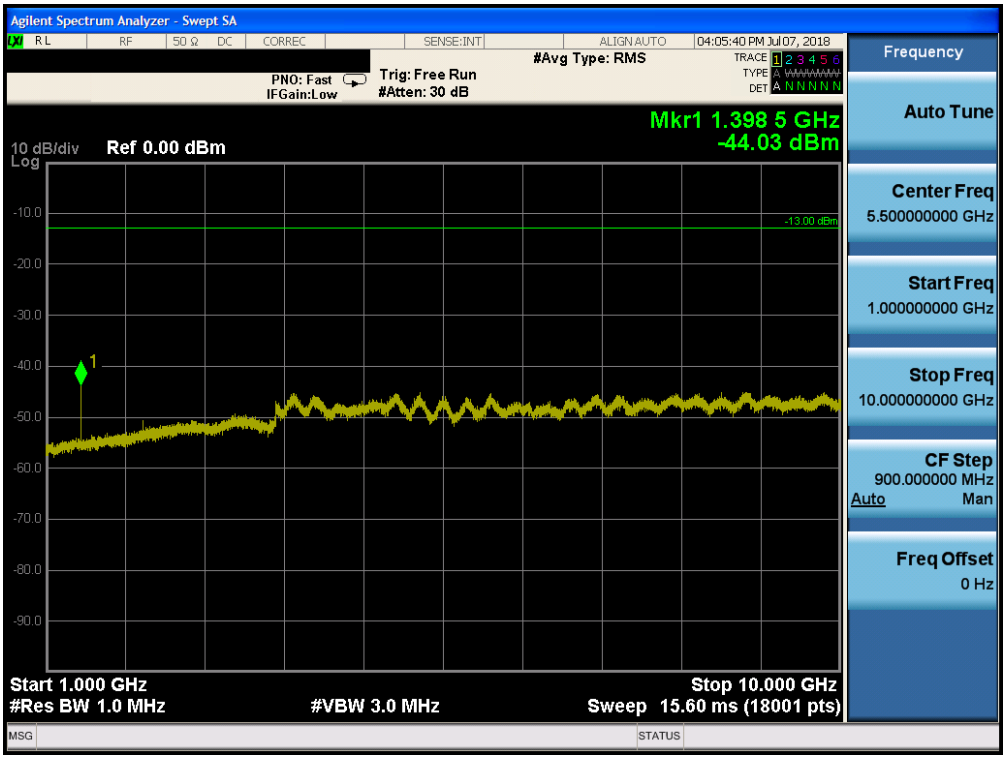
Band 12



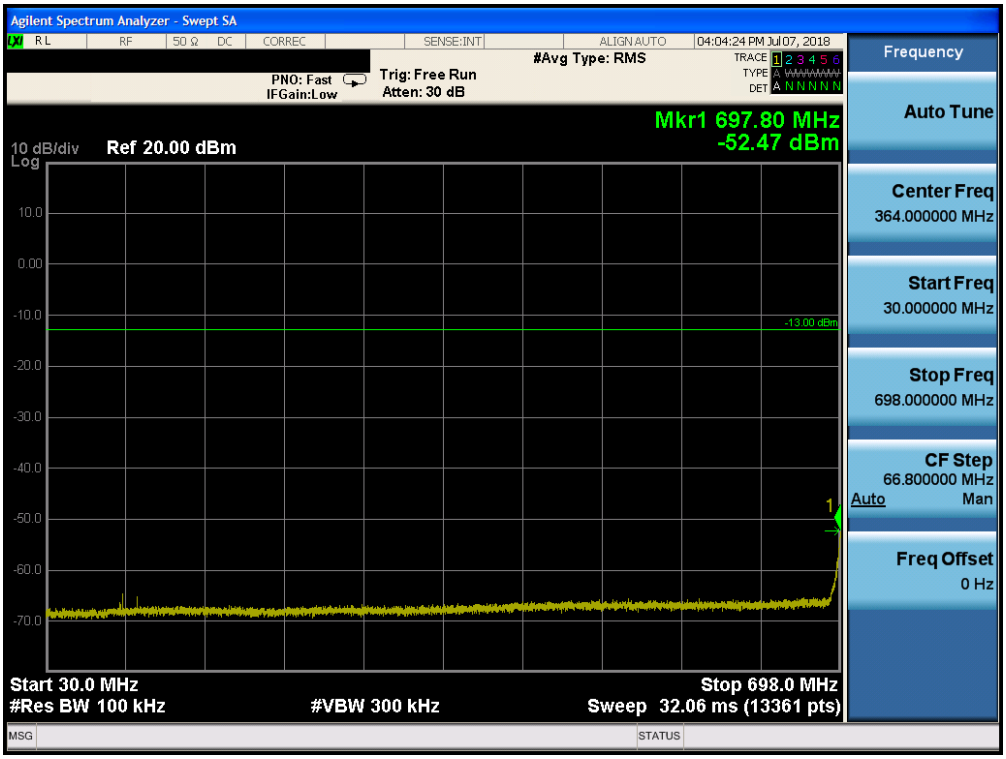
Plot 7-79. Conducted Spurious Plot (Band 12 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



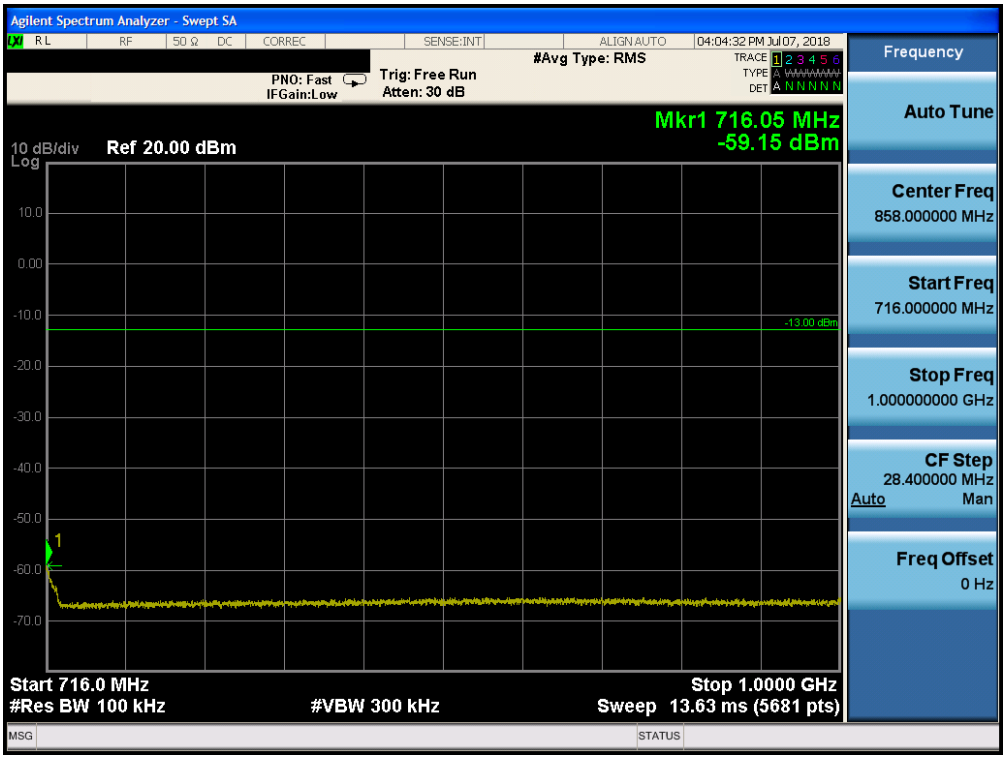
Plot 7-80. Conducted Spurious Plot (Band 12 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



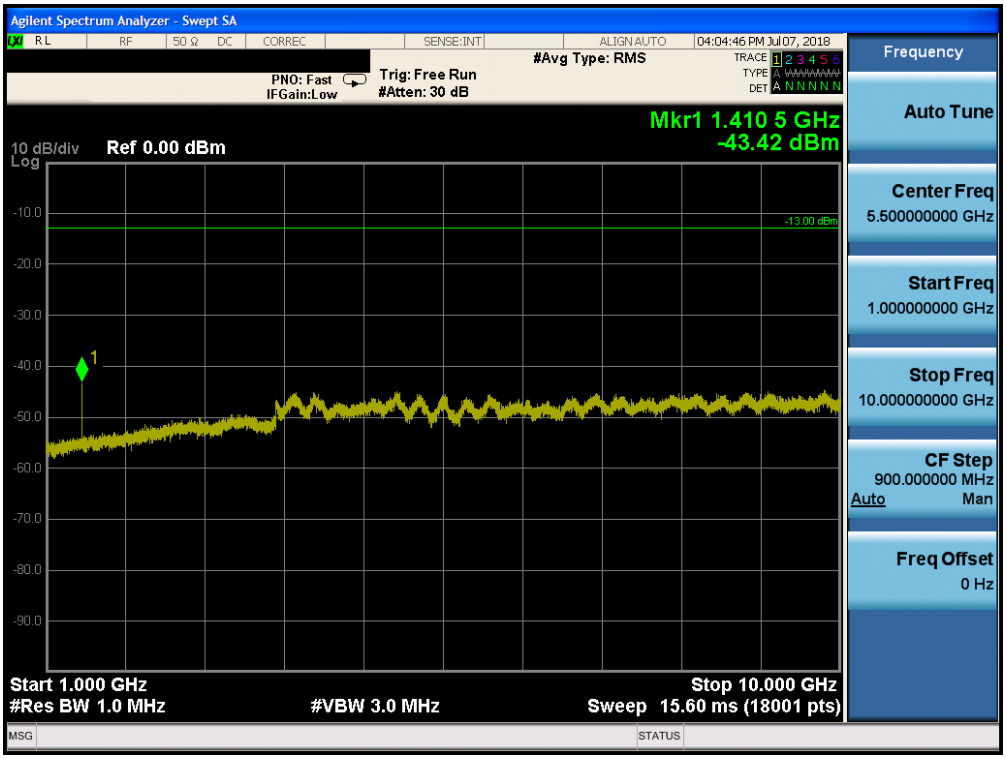
Plot 7-81. Conducted Spurious Plot (Band 12 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



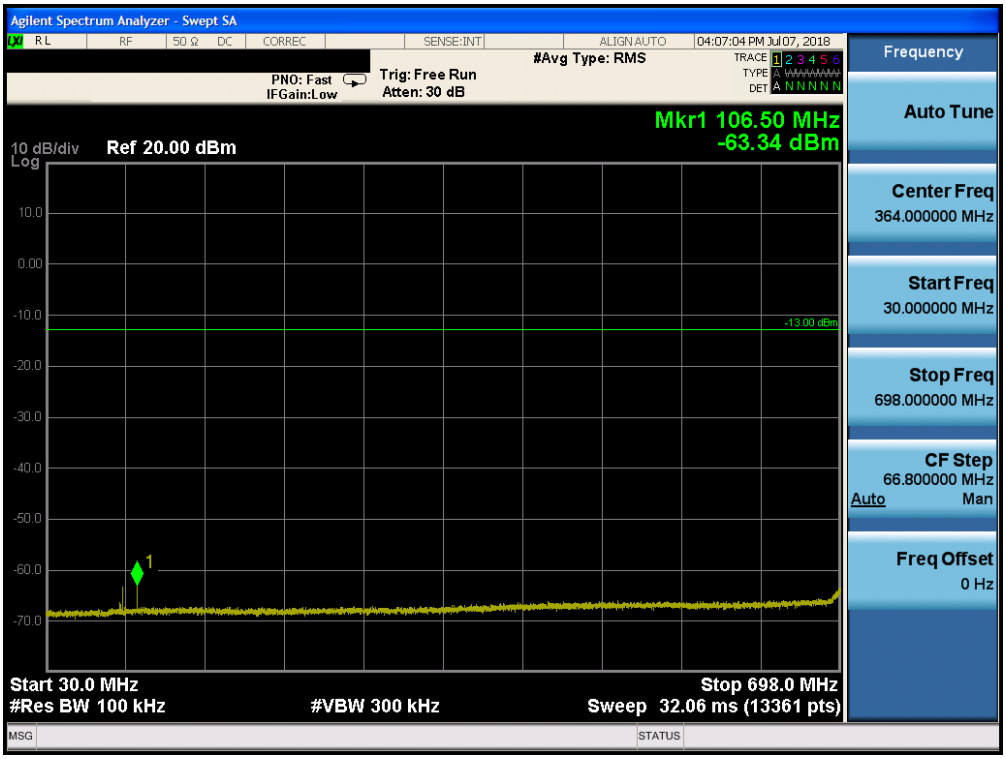
Plot 7-82. Conducted Spurious Plot (Band 12 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



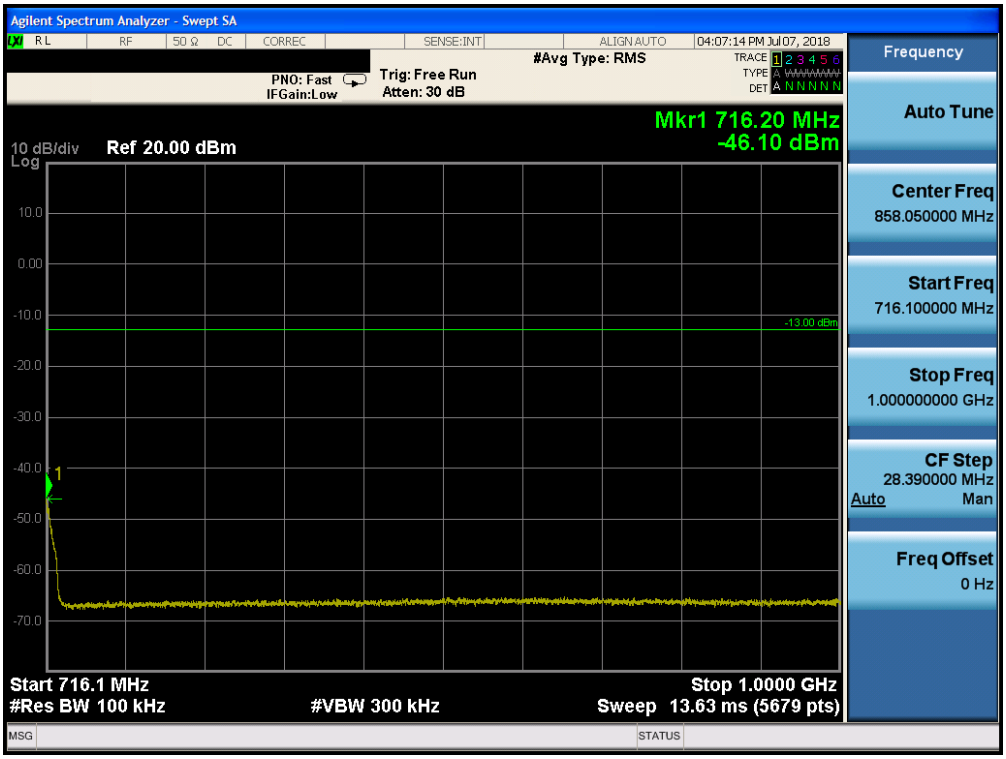
Plot 7-83. Conducted Spurious Plot (Band 12 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



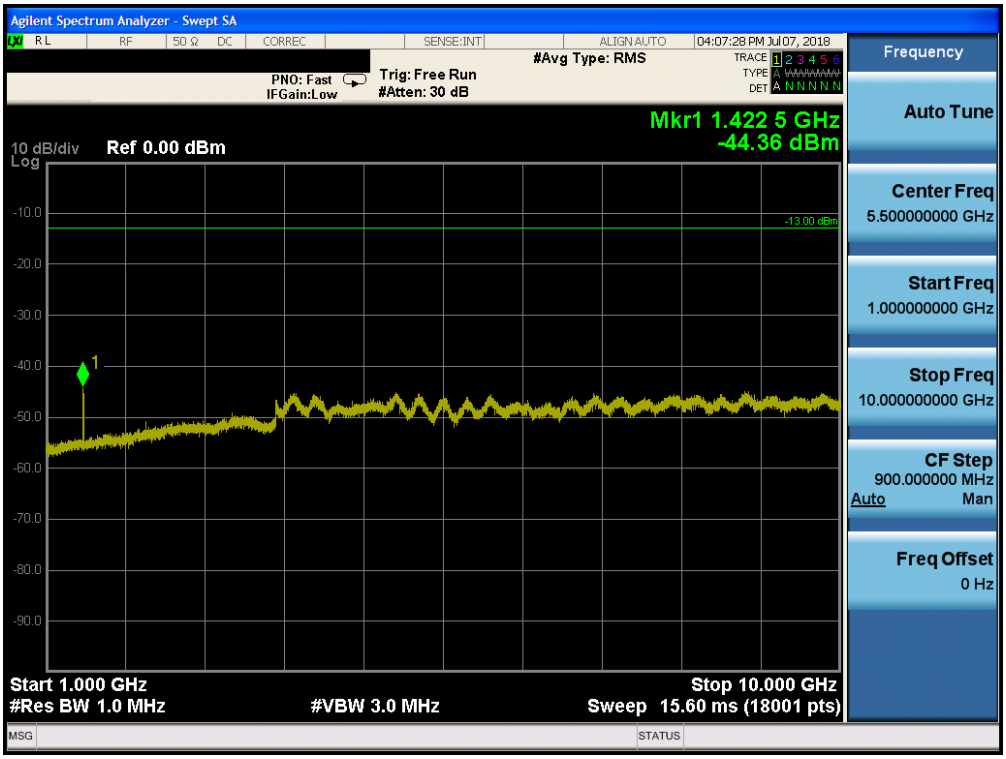
Plot 7-84. Conducted Spurious Plot (Band 12 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-85. Conducted Spurious Plot (Band 12 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

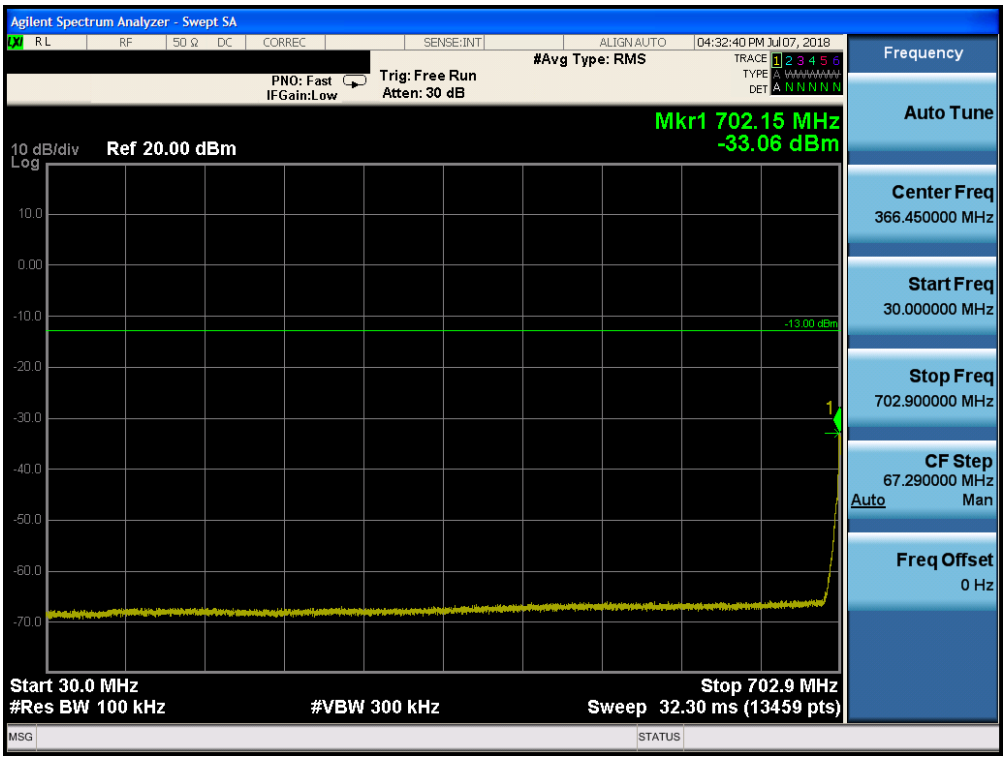


Plot 7-86. Conducted Spurious Plot (Band 12 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

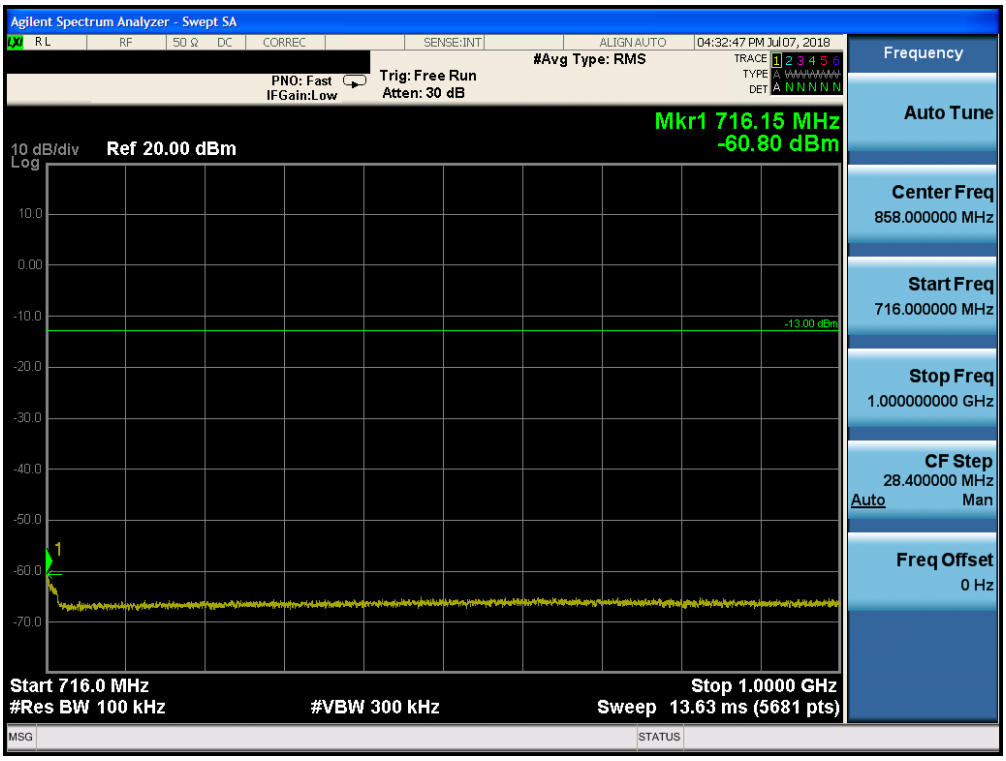


Plot 7-87. Conducted Spurious Plot (Band 12 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

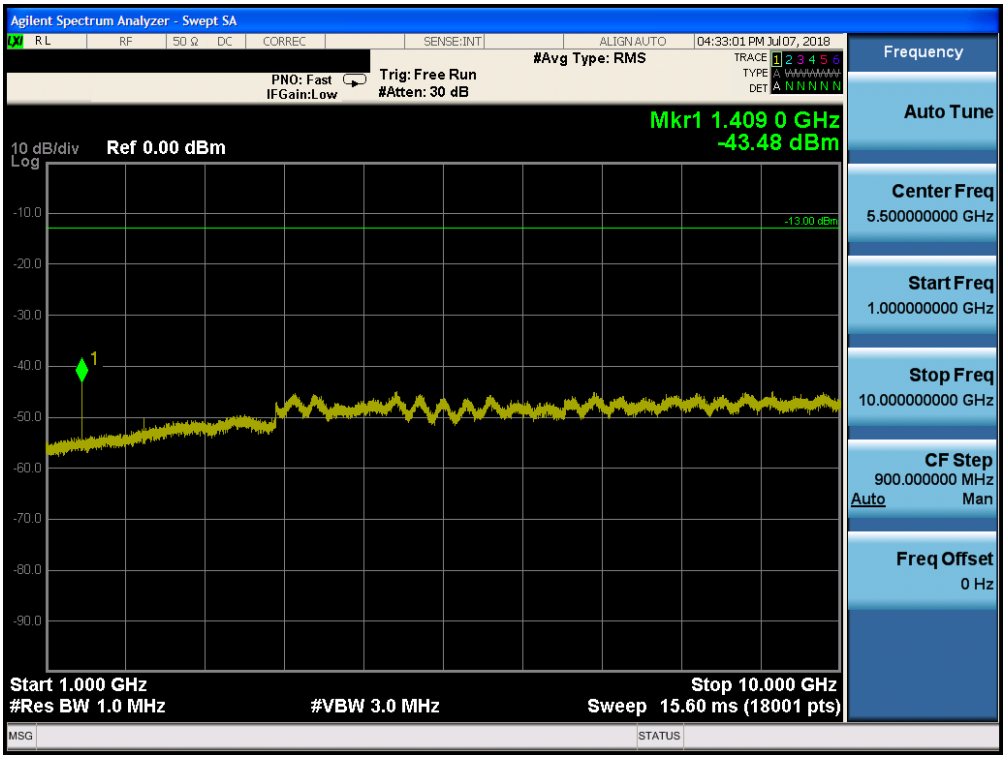
Band 17



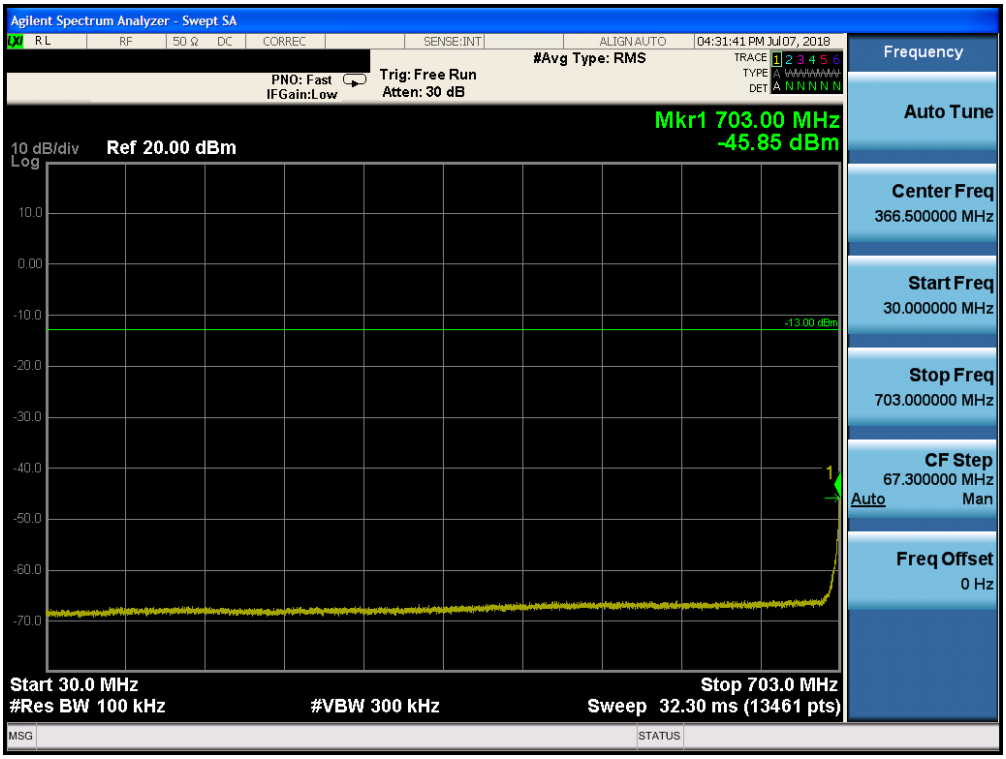
Plot 7-88. Conducted Spurious Plot (Band 17 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



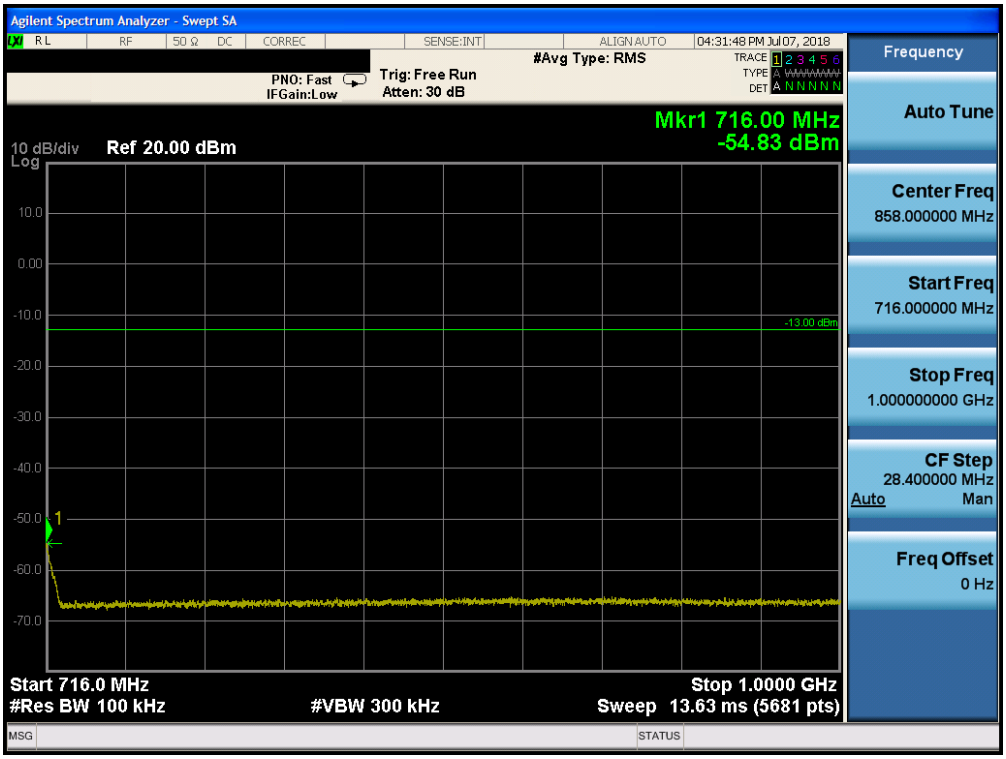
Plot 7-89. Conducted Spurious Plot (Band 17 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



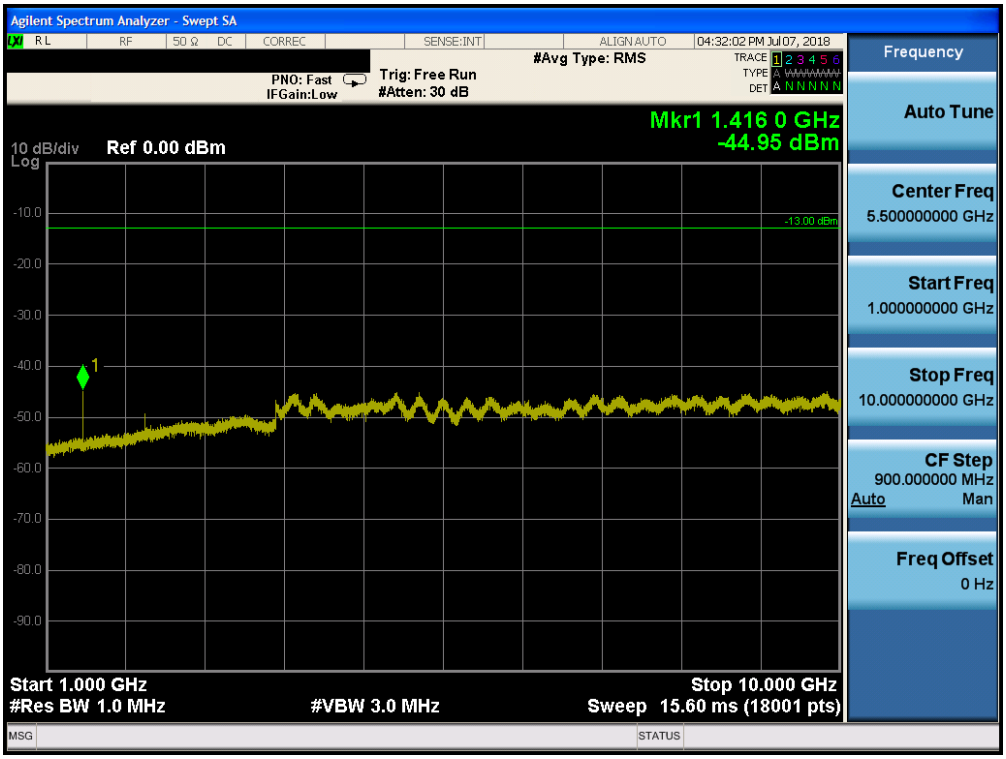
Plot 7-90. Conducted Spurious Plot (Band 17 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



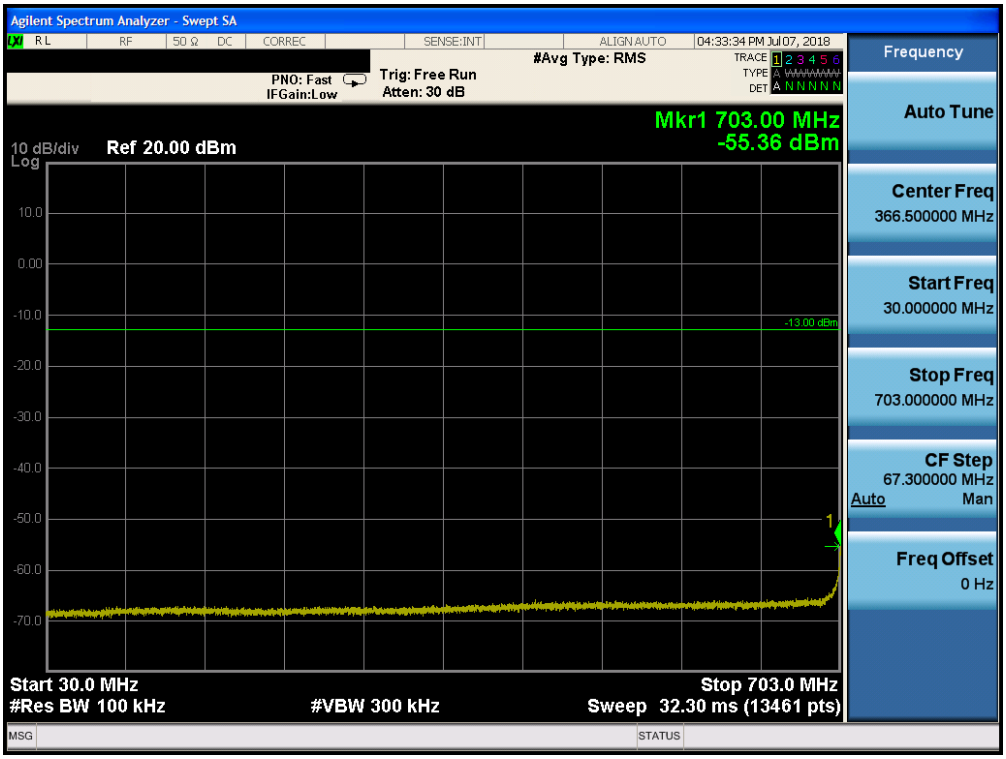
Plot 7-91. Conducted Spurious Plot (Band 17 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



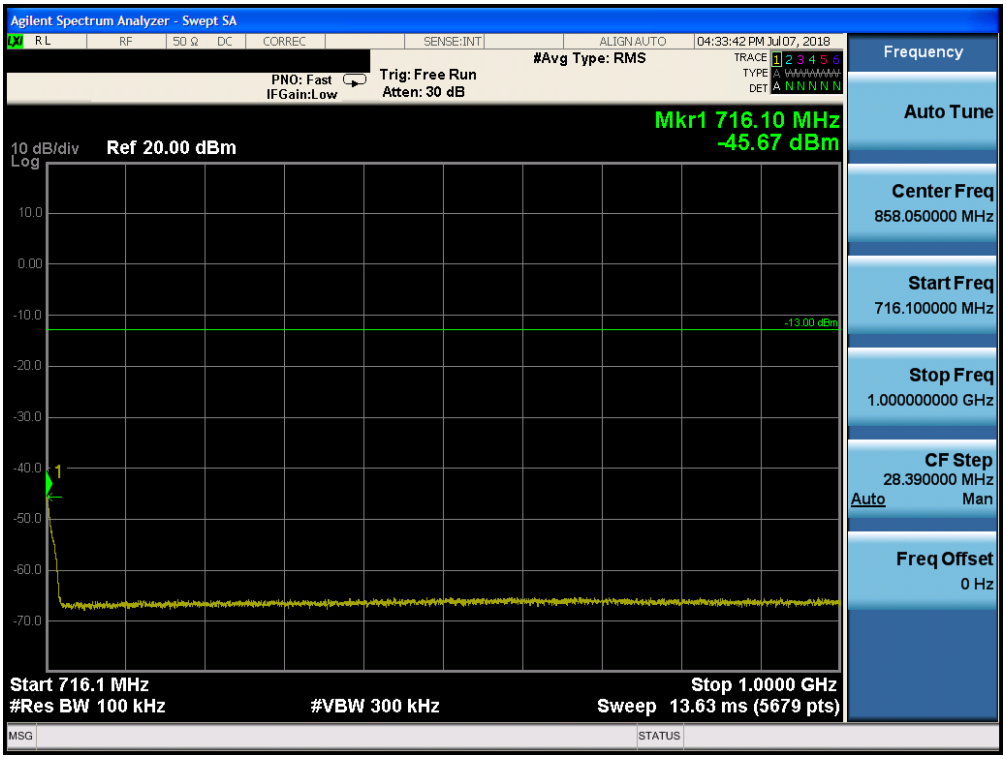
Plot 7-92. Conducted Spurious Plot (Band 17 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



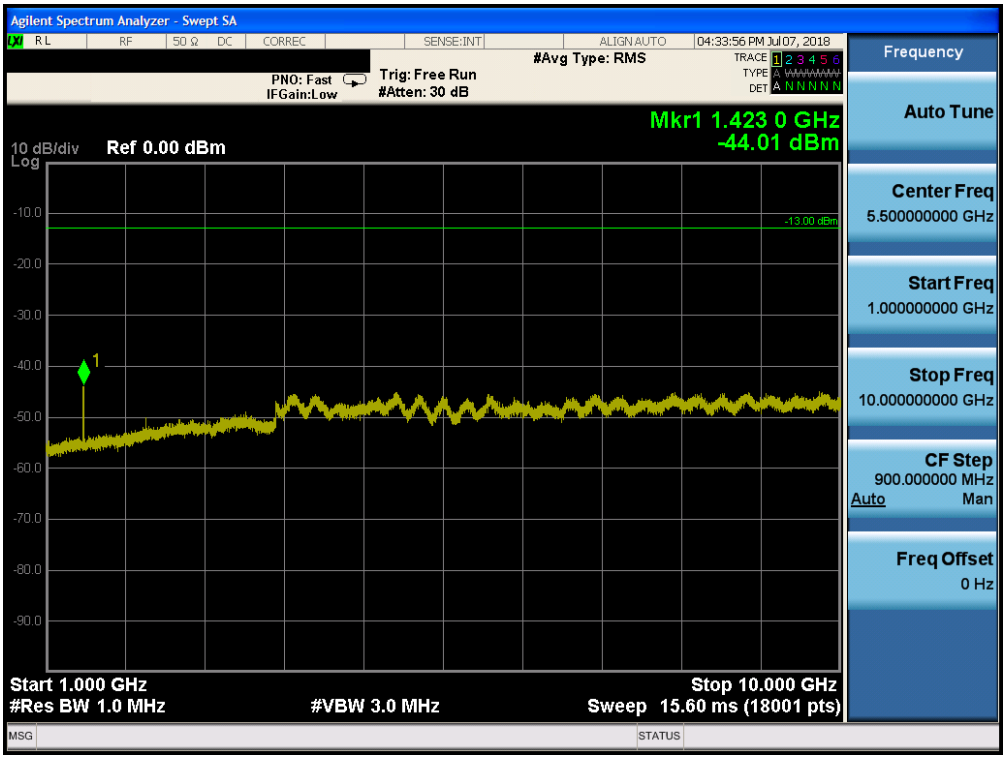
Plot 7-93. Conducted Spurious Plot (Band 17 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-94. Conducted Spurious Plot (Band 17 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

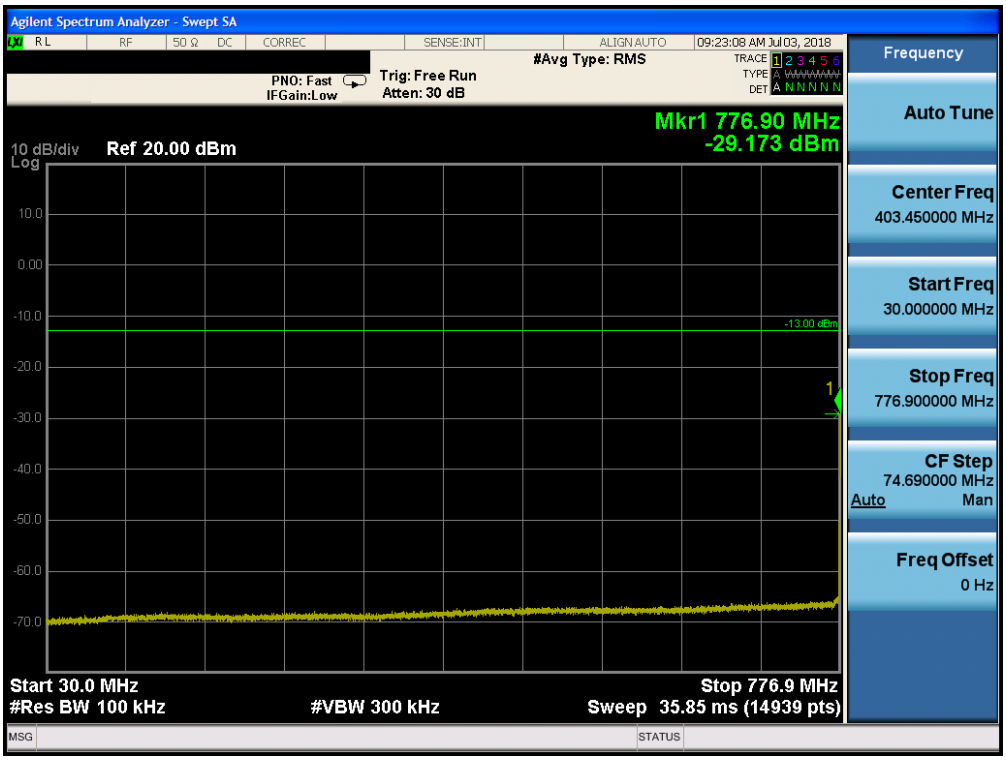


Plot 7-95. Conducted Spurious Plot (Band 17 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

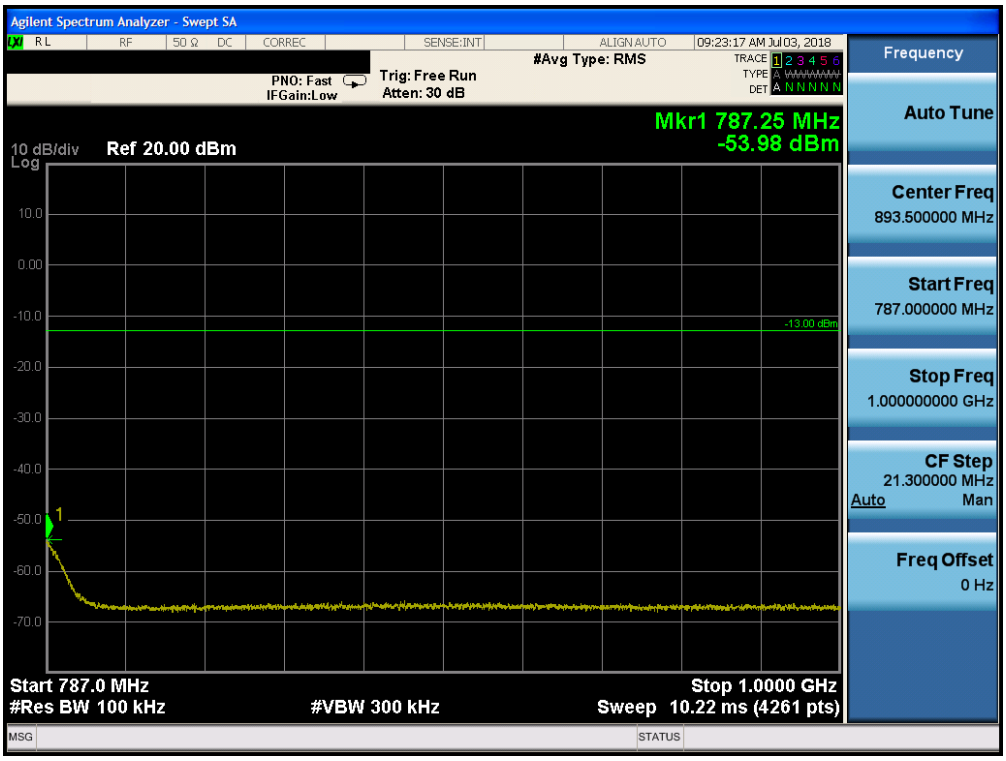


Plot 7-96. Conducted Spurious Plot (Band 17 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

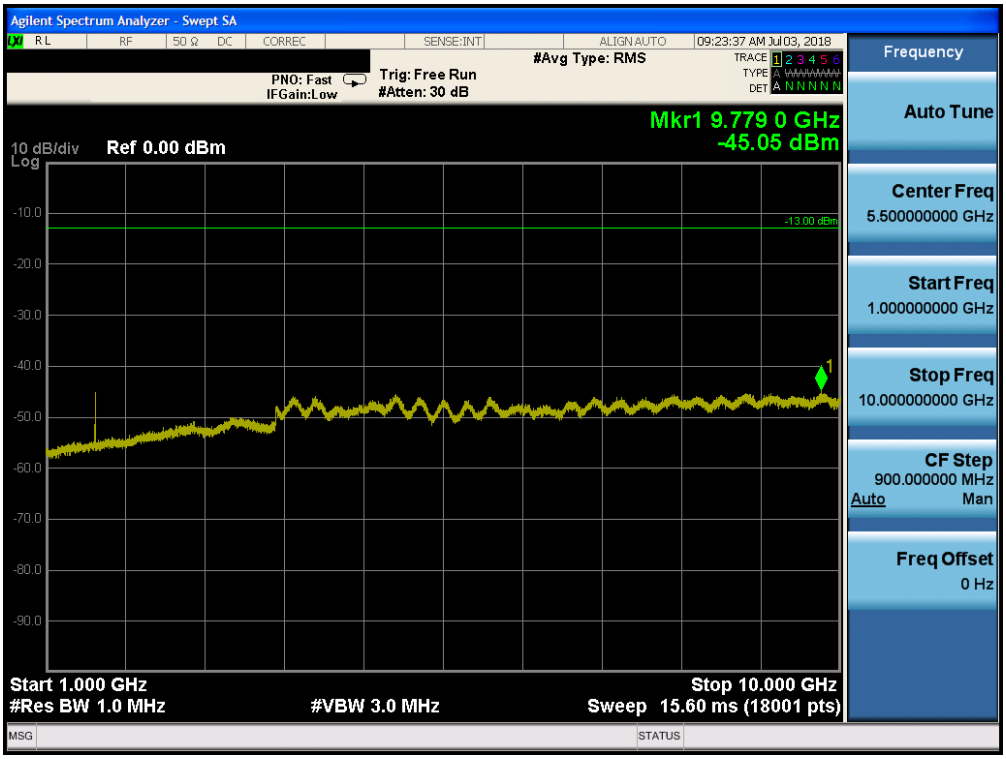
Band 13



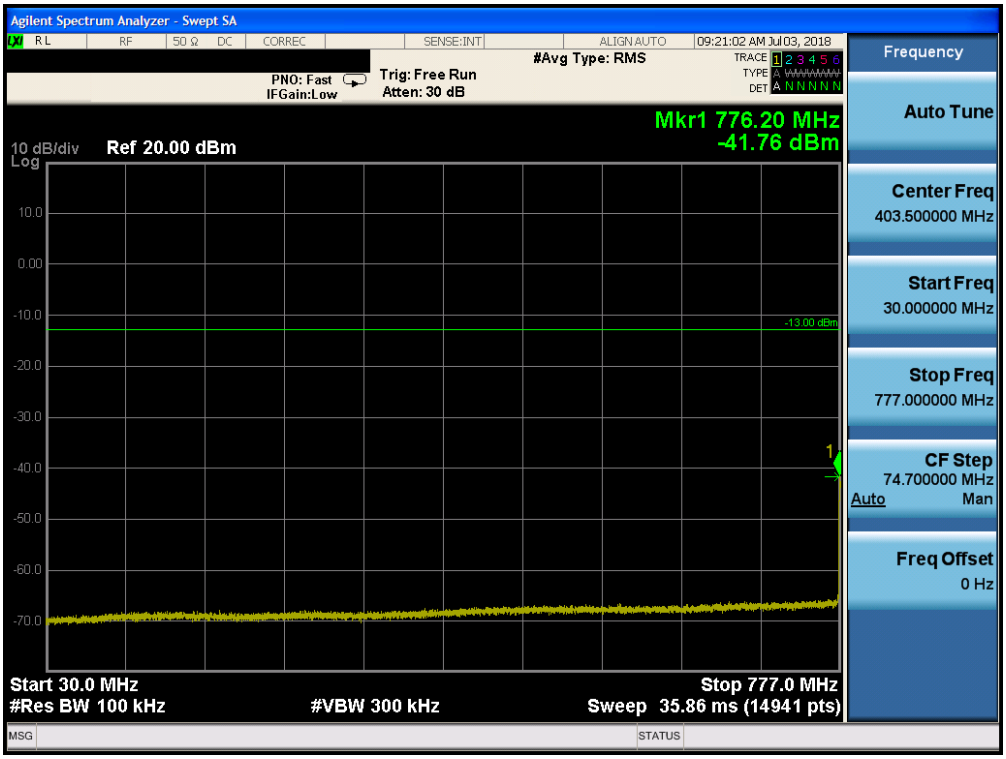
Plot 7-97. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



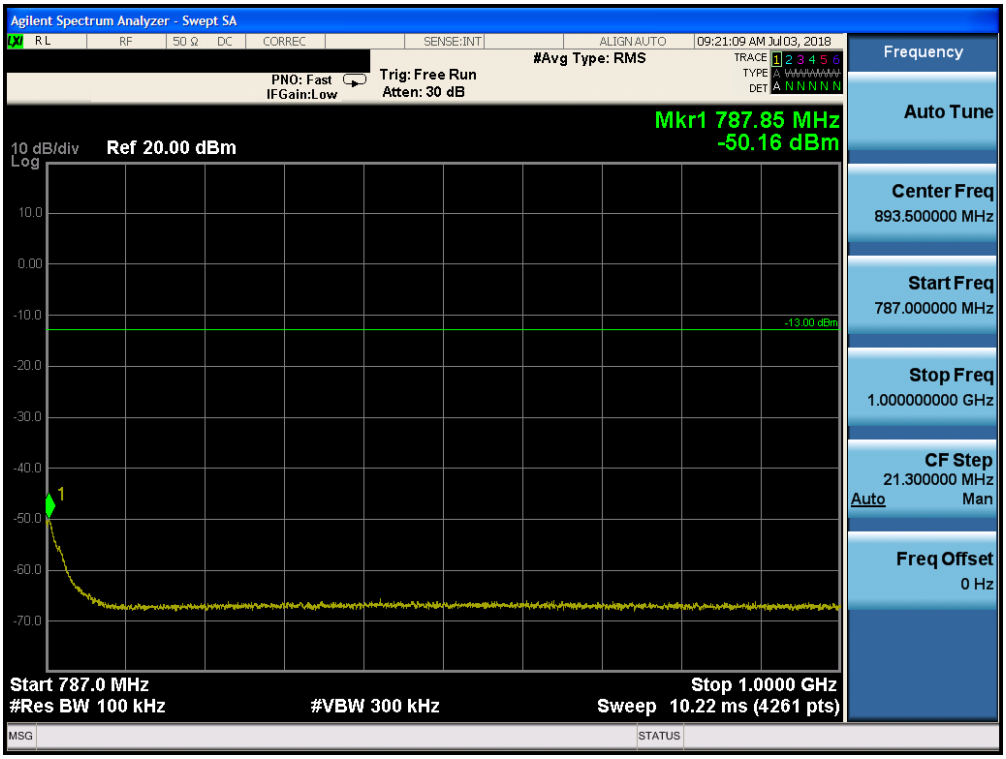
Plot 7-98. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



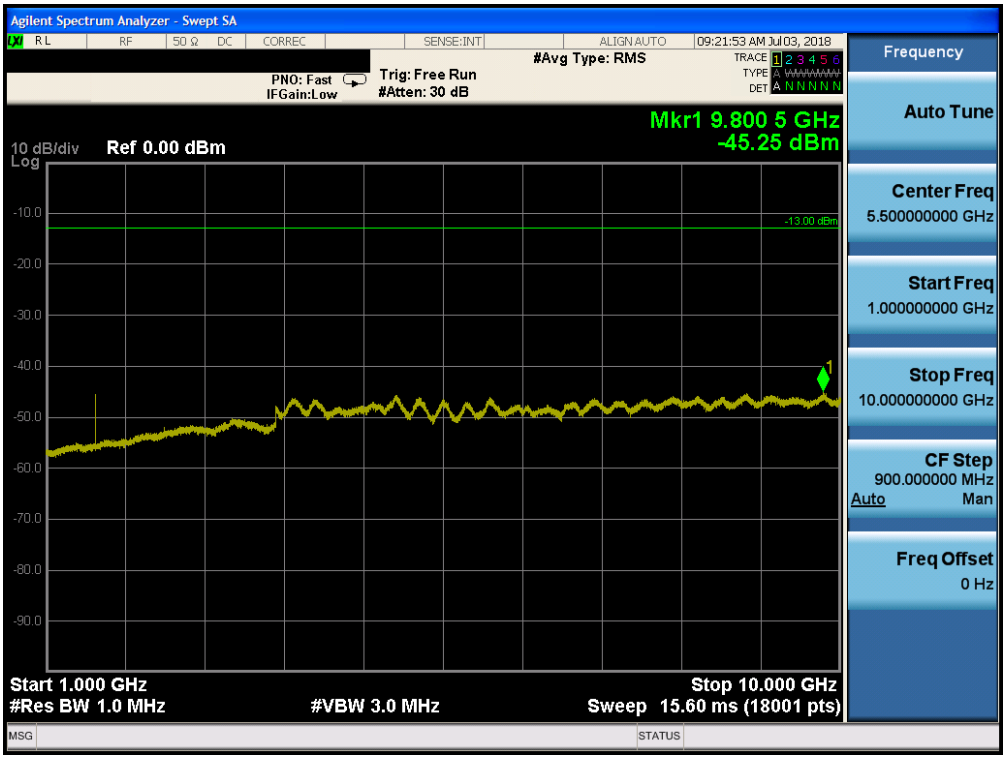
Plot 7-99. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



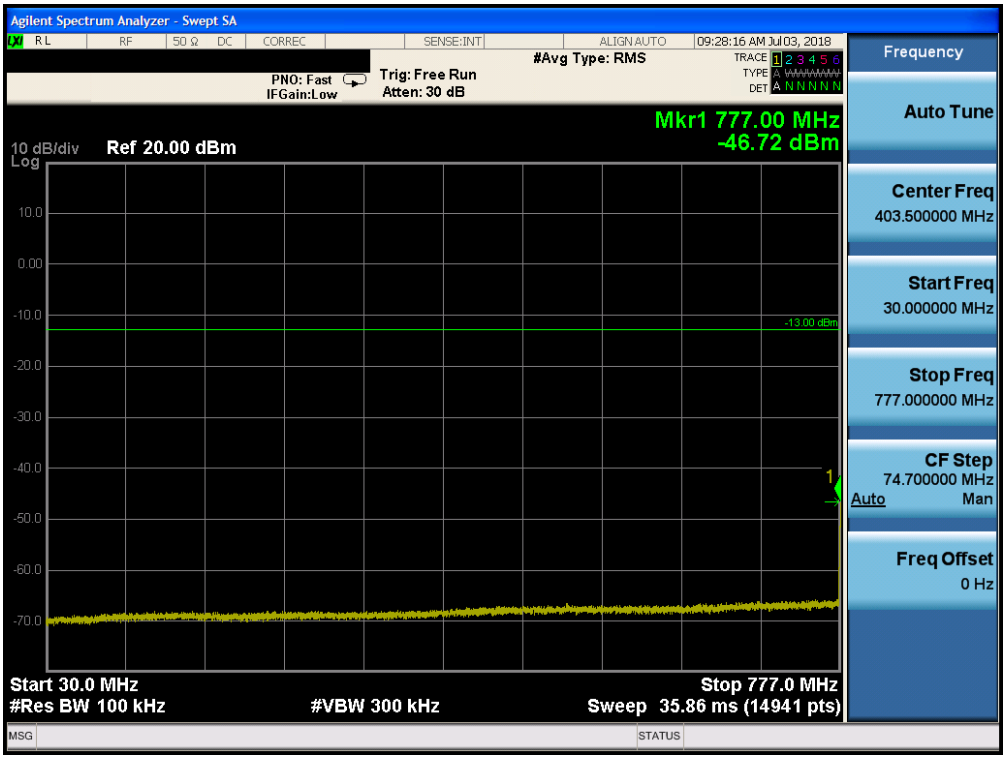
Plot 7-100. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



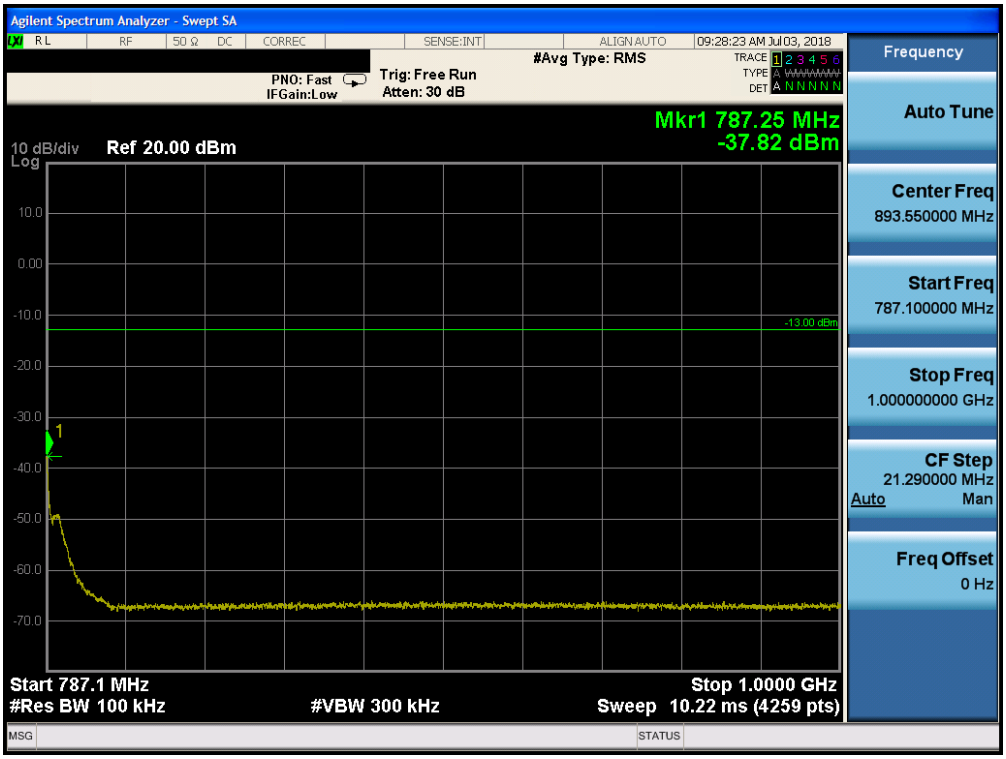
Plot 7-101. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



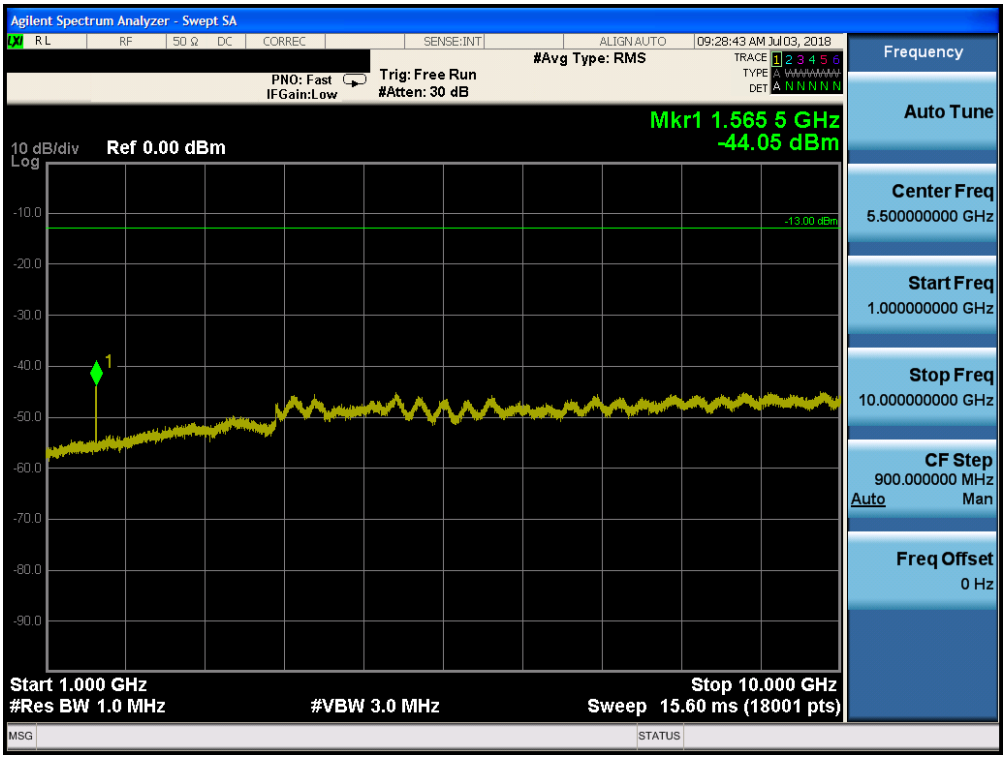
Plot 7-102. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-103. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

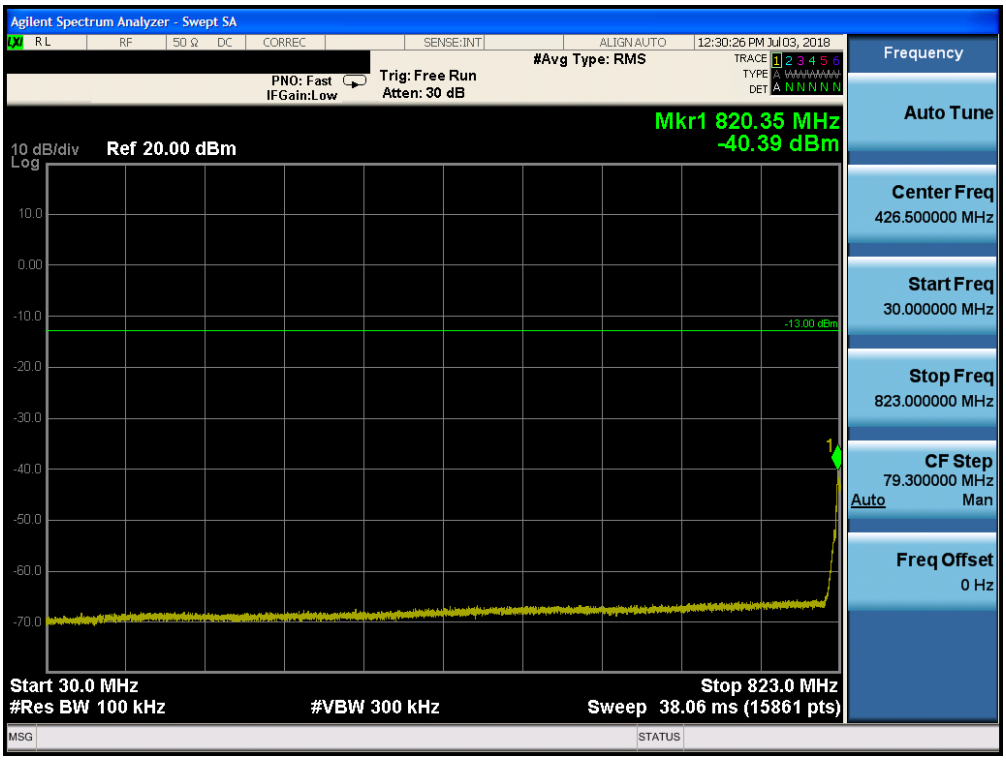


Plot 7-104. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

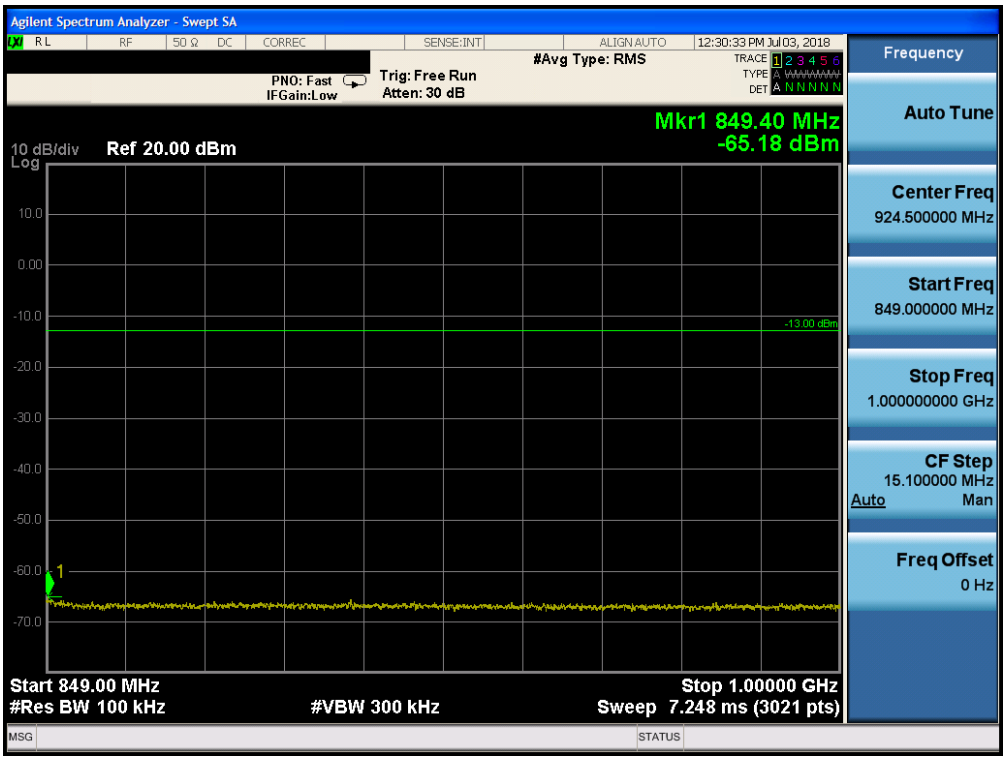


Plot 7-105. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

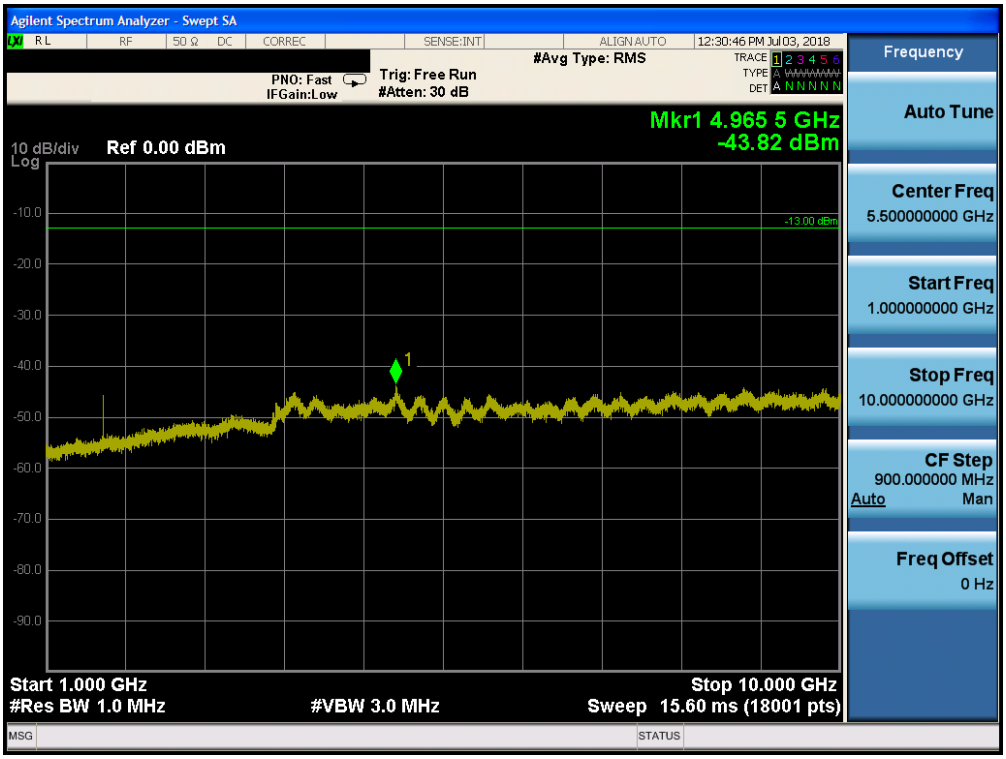
Band 26



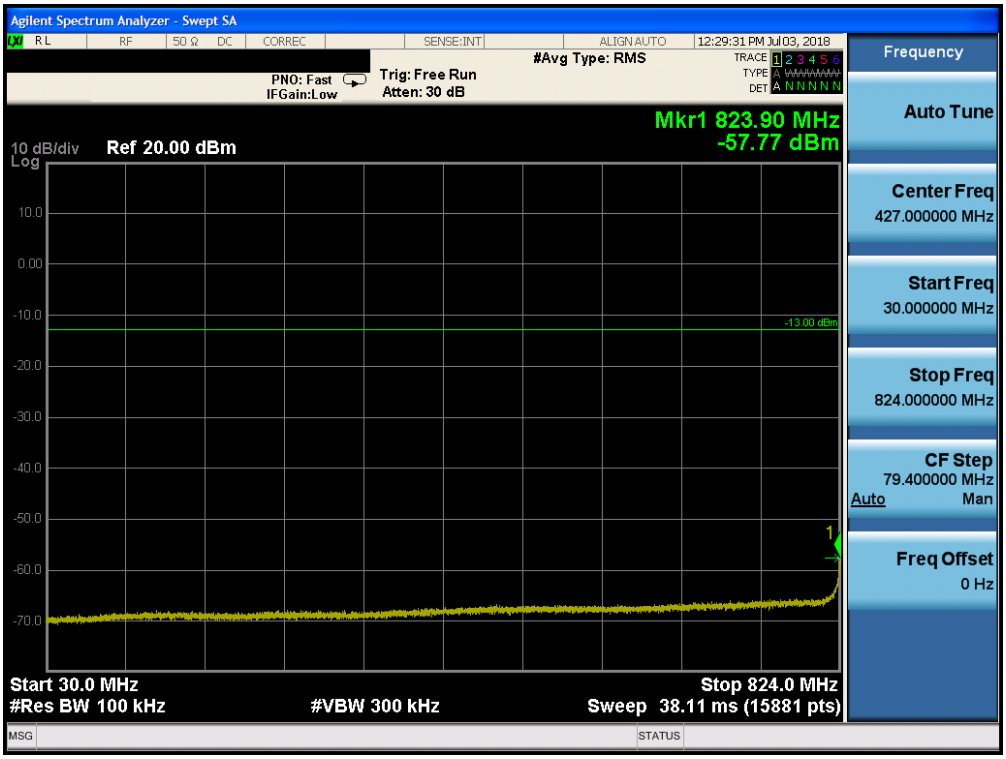
Plot 7-106. Conducted Spurious Plot (Band 26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



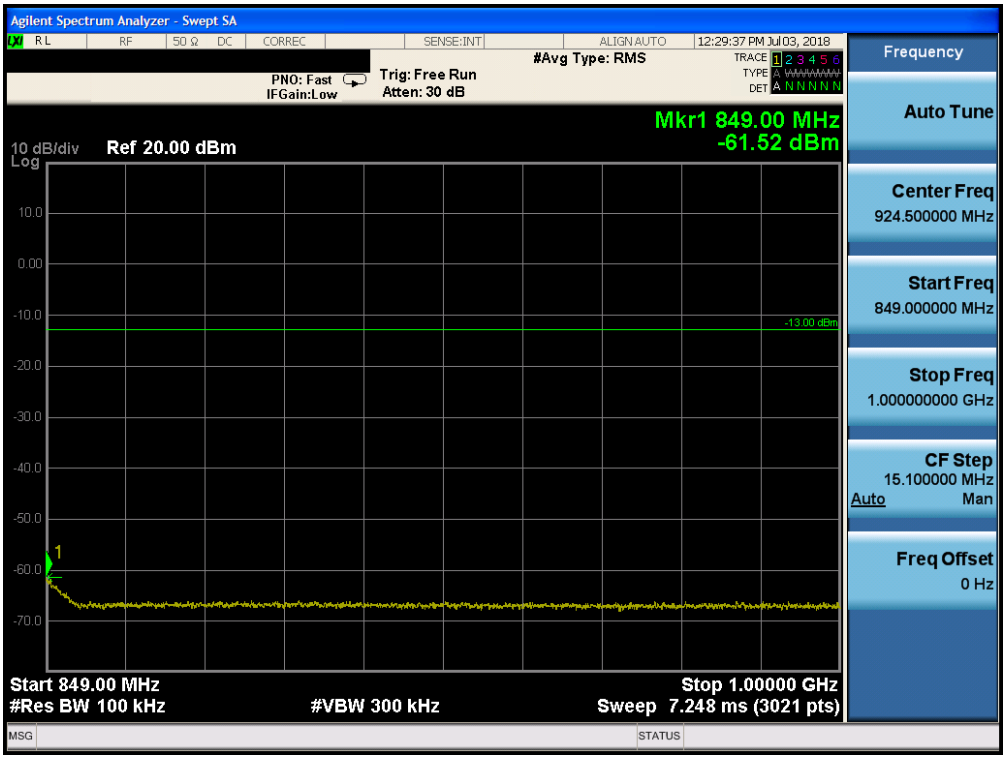
Plot 7-107. Conducted Spurious Plot (Band 26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



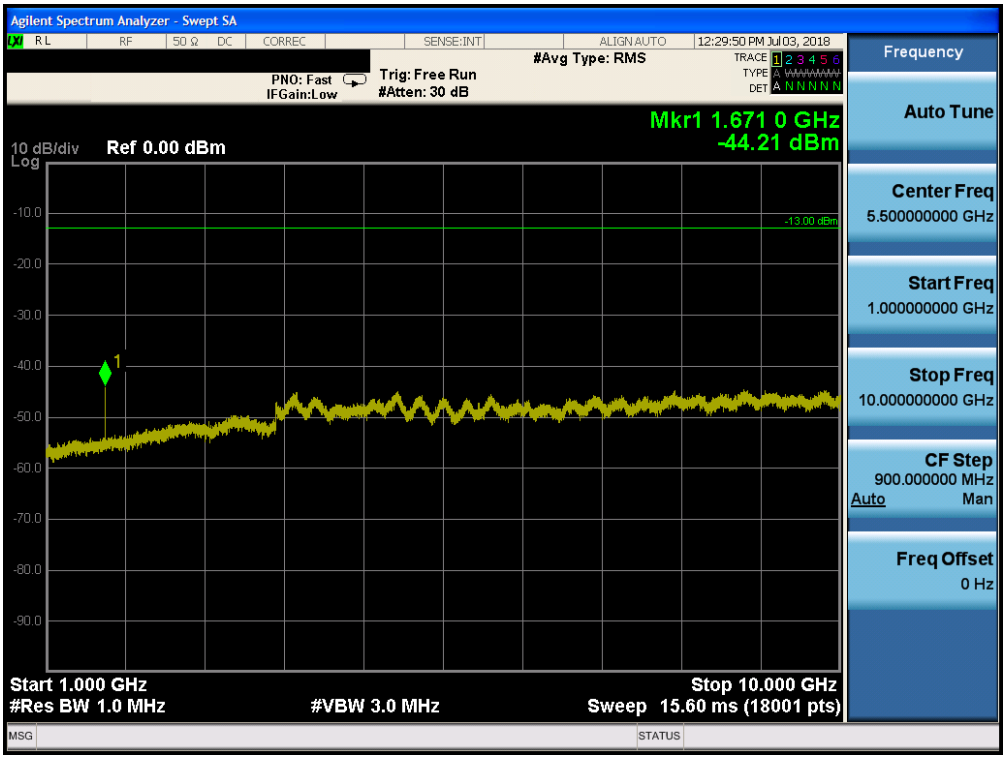
Plot 7-108. Conducted Spurious Plot (Band 26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



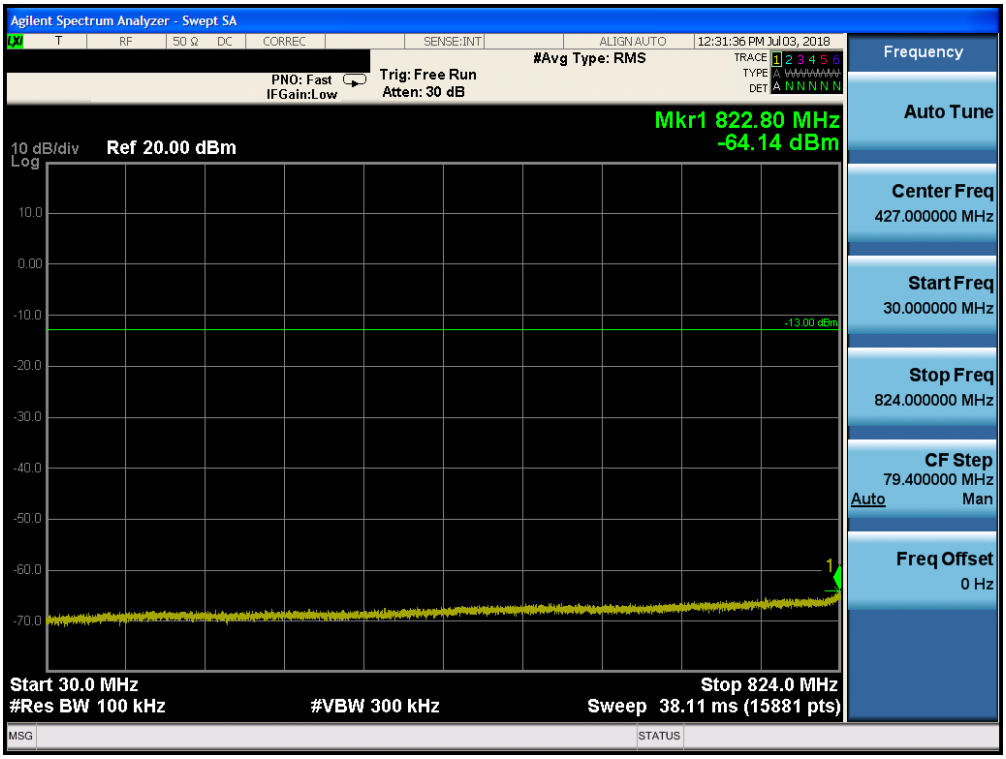
Plot 7-109. Conducted Spurious Plot (Band 26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



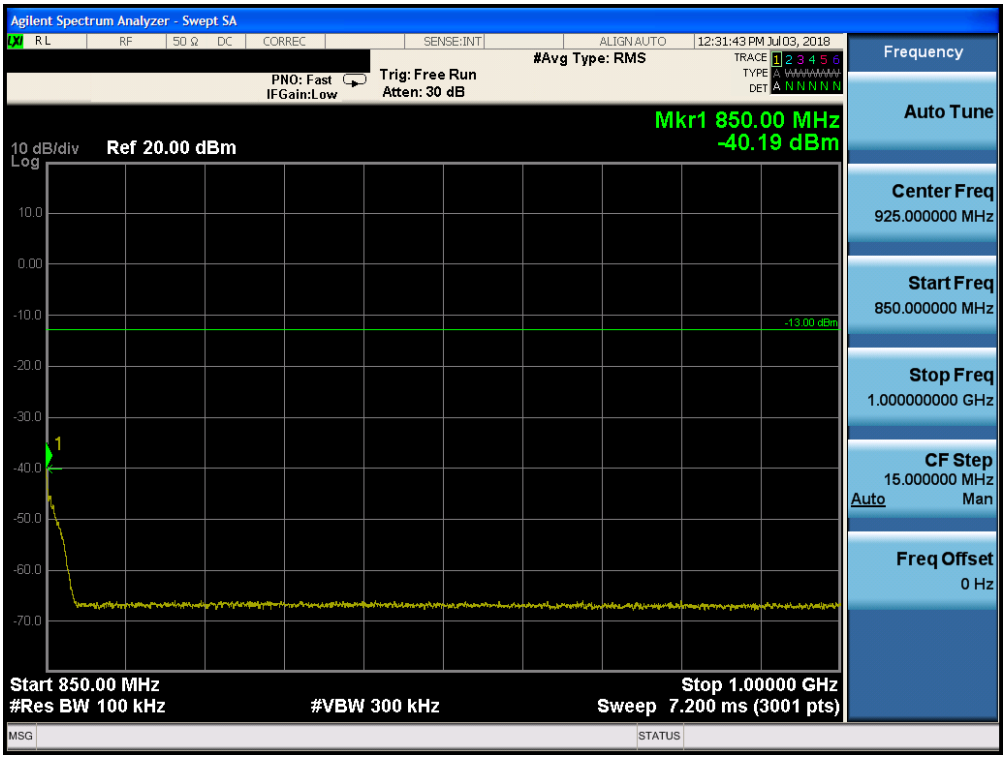
Plot 7-110. Conducted Spurious Plot (Band 26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



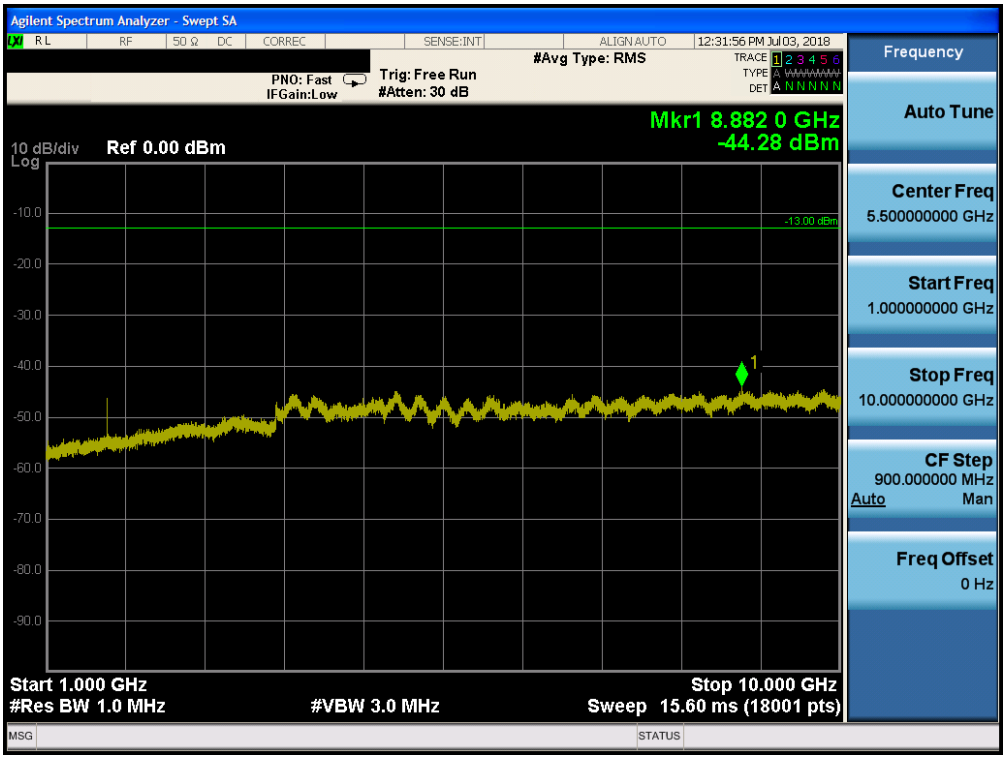
Plot 7-111. Conducted Spurious Plot (Band 26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-112. Conducted Spurious Plot (Band 26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

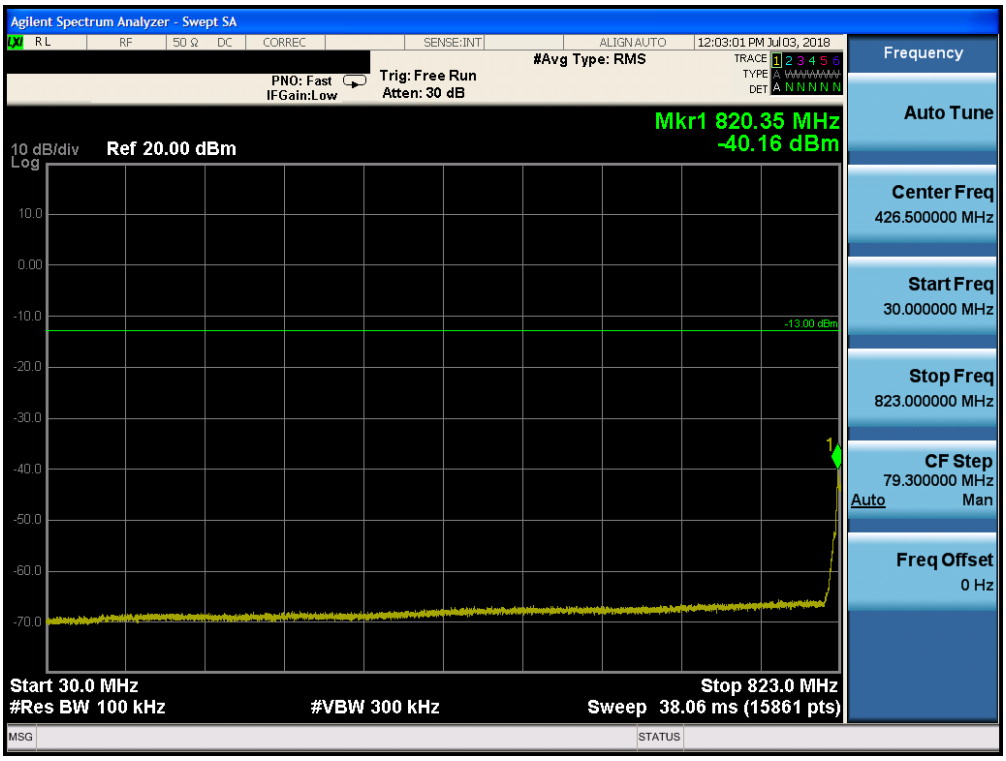


Plot 7-113. Conducted Spurious Plot (Band 26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

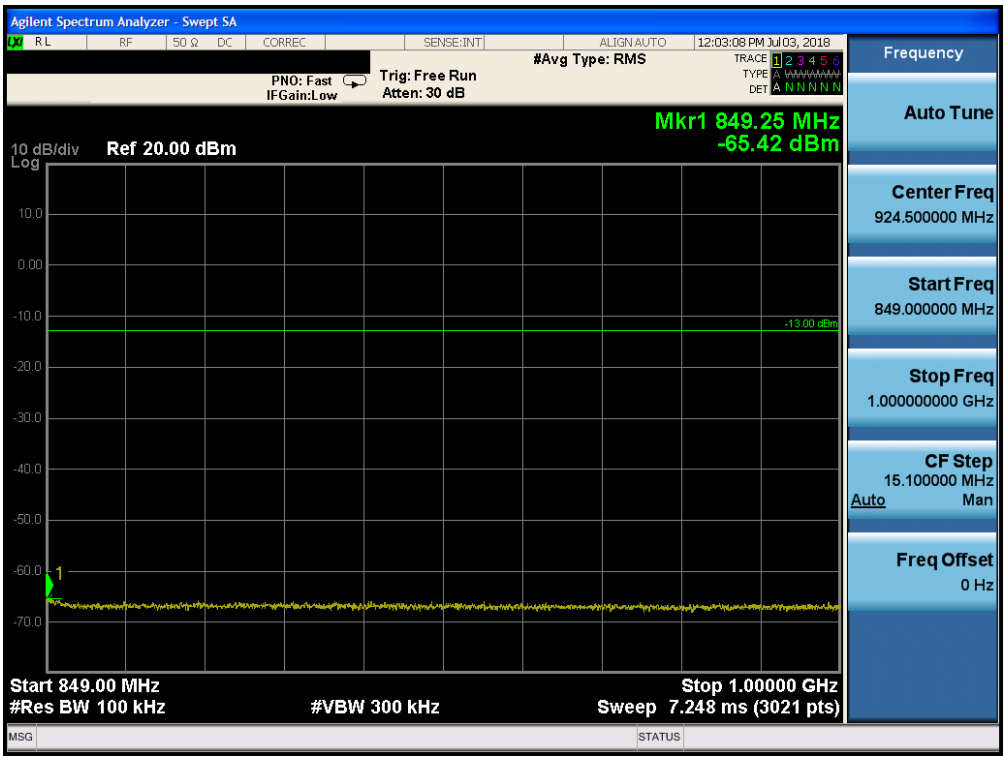


Plot 7-114. Conducted Spurious Plot (Band 26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

Band 5



Plot 7-115. Conducted Spurious Plot (Band 5 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-116. Conducted Spurious Plot (Band 5 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)