ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 22 SUBPART H, PART 24 SUBPART E and PART 27 SUBPART C & SUBPART L REQUIREMENT

OF

Product Name:	**Tablet PC**
Brand Name:	**hp**
Model No.:	**HSTNN-Q93C**
FCC ID:	**B94HNQ93CSPNAC**
Report No.:	**E2/2015/30017**
Issue Date:	**Apr. 30, 2015**
FCC Rule Part:	**2 , 22H & 24E & 27C & L**
Prepared for:	**Hewlett-Packard Company 1501 Page Mill Road, M/S1419, Palo Alto, CA 94304, United States**
Prepared by:	**SGS Taiwan Ltd. Electronics & Communication Laboratory No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333**

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VERIFICATION OF COMPLIANCE

Applicant:	Hewlett-Packard Company 1501 Page Mill Road, M/S1419, Palo Alto, CA, 94304, United States
Product Name:	Tablet PC
Brand Name:	hp
Model No.:	HSTNN-Q93C
FCC ID:	B94HNQ93CSPNAC
File Number:	E2/2015/30017
Date of test:	Mar. 16, 2015 ~ Apr. 24, 2015
Date of EUT Received:	Mar. 16, 2015

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in TIA/EIA-603-C-2004 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits.
The test results of this report relate only to the tested sample identified in this report.

Test By:	Jazz Huang	***Date:***	Apr. 30, 2015
	Jazz Huang /Asst. Supervisor		
Prepared By:	Violetta Tang	***Date:***	Apr. 30, 2015
	Violetta Tang / Clerk		
Approved By:	Jim Chang	***Date:***	Apr. 30, 2015
	Jim Chang / Asst. Manager		

Revision History

Report Number	Revision	Description	Issue Date
E2/2015/30017	Rev.00	Initial creation of document	Apr. 30, 2015

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1. GENERAL PRODUCT INFORMATION

1.1. Product Description

General:

Product Name:	Tablet PC	
Brand Name:	hp	
Model No.:	HSTNN-Q93C	
Product SW/HW version	Win 8.1 / 1.0	
Radio SW/HW version	7.7.2.0 / 1.0	
Power Supply:	3.8Vdc form Rechargeable Li-ion Battery or 5.25V from AC/DC Adapter	
	Battery:	1. Model No.: HSTNH-C408M-SD, Supplier: Dynapack
		2. Model No.: HSTNH-C408M-SS, Supplier: SDI (SQ)
	Adapter:	1. Model No.: TPN-AA01, Supplier: AcBel
		2. Model No.: TPN-DA01, Supplier: Delta
		3. Model No.: TPN-LA01, Supplier: Lite-On
IMEI:	359339050034502, 35933905009353	

GPRS / WCDMA/ CDMA:

	Operating Frequency		Rated Power
Cellular Phone Standards Frequency Range and Power	GPRS 850	824.2 MHz– 848.8 MHz	33dBm
	EDGE 850	824.2 MHz– 848.8 MHz	27dBm
	GPRS 1900	1850.2MHz – 1909.8MHz	30dBm
	EDGE 1900	1850.2MHz – 1909.8MHz	26dBm
	WCDMA/HSUPA/HSDPA /HSPA+ Band II	1852.4MHz – 1907.6MHz	24dBm
	WCDMA/HSUPA/HSDPA /HSPA+ Band IV	1712.4MHz - 1752.6MHz	24dBm
	WCDMA/HSUPA/HSDPA /HSPA+ Band V	826.4MHz - 846.6MHz	24dBm
	CDMA/EVDO BC0	824.7 MHz– 848.31MHz	24dBm
	CDMA/EVDO BC1	1851.25MHz-1908.75MHz	24dBm

LTE:

	Operating Frequency		Rated Power
Cellular Phone Standards Frequency Range and Power	LTE-Band 2 (Bandwidth 1.4MHz)	1850.7MHz– 1909.3MHz	23dBm
	LTE-Band 2 (Bandwidth 3MHz)	1851.5MHz – 1908.5MHz	23dBm
	LTE-Band 2 (Bandwidth 5MHz)	1852.5MHz – 1907.5MHz	23dBm
	LTE-Band 2 (Bandwidth 10MHz)	1855.0MHz – 1905.0MHz	23dBm
	LTE-Band 2 (Bandwidth 15MHz)	1857.5MHz – 1902.5MHz	23dBm
	LTE-Band 2 (Bandwidth 20MHz)	1860.0MHz – 1900.0MHz	23dBm
	LTE-Band 4 (Bandwidth 1.4MHz)	1710.7MHz– 1754.3MHz	23dBm
	LTE-Band 4 (Bandwidth 3MHz)	1711.5MHz – 1753.5MHz	23dBm
	LTE-Band 4 (Bandwidth 5MHz)	1712.5MHz – 1752.5MHz	23dBm
	LTE-Band 4 (Bandwidth 10MHz)	1715.0MHz – 1750.0MHz	23dBm
	LTE-Band 4 (Bandwidth 15MHz)	1717.5MHz – 1747.5MHz	23dBm
	LTE-Band 4 (Bandwidth 20MHz)	1720.0MHz – 1745.0MHz	23dBm
	LTE-Band 5 (Bandwidth 1.4MHz)	824.7MHz – 848.3MHz	23dBm
	LTE-Band 5 (Bandwidth 3MHz)	825.5MHz – 848.3MHz	23dBm
	LTE-Band 5 (Bandwidth 5MHz)	826.5MHz – 846.5MHz	23dBm
	LTE-Band 5 (Bandwidth 10MHz)	829.0MHz – 844.0MHz	23dBm
	LTE-Band 13 (Bandwidth 5MHz)	779.5MHz – 784.5MHz	23dBm
	LTE-Band 13 (Bandwidth 10MHz)	782.0MHz – 782.0MHz	23dBm
	LTE-Band 17 (Bandwidth 5MHz)	706.5MHz – 713.5MHz	23dBm
	LTE-Band 17 (Bandwidth 10MHz)	709.0MHz –711.0MHz	23dBm
	LTE-Band 25 (Bandwidth 1.4MHz)	1850.7MHz– 1914.3MHz	23dBm
	LTE-Band 25 (Bandwidth 3MHz)	1851.5MHz – 1913.5MHz	23dBm
	LTE-Band 25 (Bandwidth 5MHz)	1852.5MHz – 1912.5MHz	23dBm
	LTE-Band 25 (Bandwidth 10MHz)	1855.0MHz – 1910.0MHz	23dBm
	LTE-Band 25 (Bandwidth 15MHz)	1857.5MHz – 1907.5MHz	23dBm
	LTE-Band 25 (Bandwidth 20MHz)	1860.0MHz – 1905.0MHz	23dBm

Type of Emission:	GPRS 850	246KGXW
	EDGE 850	245KG7W
	GPRS 1900	245KGXW
	EDGE 1900	248KG7W
	WCDMA Band II	4M16F9W
	HSDPA Band II	4M15F9W
	HSUPA Band II	4M14F9W
	WCDMA Band IV	4M15F9W
	HSDPA Band IV	4M16F9W
	HSUPA Band IV	4M16F9W
	WCDMA Band V	4M16F9W
	HSDPA Band V	4M17F9W
	HSUPA Band V	4M16F9W
	CDMA BC0	1M27F9W
	EVDO BC0	1M27F9W
	CDMA BC1	1M29F9W
	EVDO BC1	1M29F9W
	LTE-Band 2 (Bandwidth 1.4MHz) QPSK	1M10G7D
	LTE-Band 2 (Bandwidth 1.4MHz) 16QAM	1M10D7W
	LTE-Band 2 (Bandwidth 3MHz) QPSK	2M71G7D
	LTE-Band 2 (Bandwidth 3MHz) 16QAM	2M70D7W
	LTE-Band 2 (Bandwidth 5MHz) QPSK	4M51G7D
	LTE-Band 2 (Bandwidth 5MHz) 16QAM	4M49D7W
	LTE-Band 2 (Bandwidth 10MHz) QPSK	9M00G7D
	LTE-Band 2 (Bandwidth 10MHz) 16QAM	8M99D7W
	LTE-Band 2 (Bandwidth 15MHz) QPSK	13M5G7D
	LTE-Band 2 (Bandwidth 15MHz) 16QAM	13M5D7W
	LTE-Band 2 (Bandwidth 20MHz) QPSK	18M1G7D
	LTE-Band 2 (Bandwidth 20MHz) 16QAM	18M0D7W
	LTE-Band 4 (Bandwidth 1.4MHz) QPSK	1M10G7D
	LTE-Band 4 (Bandwidth 1.4MHz) 16QAM	1M10D7W
	LTE-Band 4 (Bandwidth 3MHz) QPSK	2M71G7D
	LTE-Band 4 (Bandwidth 3MHz) 16QAM	2M70D7W
	LTE-Band 4 (Bandwidth 5MHz) QPSK	4M51G7D
	LTE-Band 4 (Bandwidth 5MHz) 16QAM	4M49D7W
	LTE-Band 4 (Bandwidth 10MHz) QPSK	9M00G7D
	LTE-Band 4 (Bandwidth 10MHz) 16QAM	9M00D7W
	LTE-Band 4 (Bandwidth 15MHz) QPSK	13M5G7D
	LTE-Band 4 (Bandwidth 15MHz) 16QAM	13M5D7W
	LTE-Band 4 (Bandwidth 20MHz) QPSK	18M1G7D
	LTE-Band 4 (Bandwidth 20MHz) 16QAM	18M0D7W

Type of Emission:	LTE-Band 5 (Bandwidth 1.4MHz) QPSK	1M10G7D
	LTE-Band 5 (Bandwidth 1.4MHz) 16QAM	1M10D7W
	LTE-Band 5 (Bandwidth 3MHz) QPSK	2M71G7D
	LTE-Band 5 (Bandwidth 3MHz) 16QAM	2M70D7W
	LTE-Band 5 (Bandwidth 5MHz) QPSK	4M51G7D
	LTE-Band 5 (Bandwidth 5MHz) 16QAM	4M49D7W
	LTE-Band 5 (Bandwidth 10MHz) QPSK	9M00G7D
	LTE-Band 5 (Bandwidth 10MHz) 16QAM	8M99D7W
	LTE-Band 13 (Bandwidth 5MHz) QPSK	4M52G7D
	LTE-Band 13 (Bandwidth 5MHz) 16QAM	4M50D7W
	LTE-Band 13 (Bandwidth 10MHz) QPSK	9M03G7D
	LTE-Band 13 (Bandwidth 10MHz) 16QAM	9M02D7W
	LTE-Band 17 (Bandwidth 5MHz) QPSK	4M51G7D
	LTE-Band 17 (Bandwidth 5MHz) 16QAM	4M50D7W
	LTE-Band 17 (Bandwidth 10MHz) QPSK	8M95G7D
	LTE-Band 17 (Bandwidth 10MHz) 16QAM	8M95D7W
	LTE-Band 25 (Bandwidth 1.4MHz) QPSK	1M10G7D
	LTE-Band 25 (Bandwidth 1.4MHz) 16QAM	1M10D7W
	LTE-Band 25 (Bandwidth 3MHz) QPSK	2M71G7D
	LTE-Band 25 (Bandwidth 3MHz) 16QAM	2M70D7W
	LTE-Band 25 (Bandwidth 5MHz) QPSK	4M52G7D
	LTE-Band 25 (Bandwidth 5MHz) 16QAM	4M50D7W
	LTE-Band 25 (Bandwidth 10MHz) QPSK	9M00G7D
	LTE-Band 25 (Bandwidth 10MHz) 16QAM	8M99D7W
	LTE-Band 25 (Bandwidth 15MHz) QPSK	13M5G7D
	LTE-Band 25 (Bandwidth 15MHz) 16QAM	13M5D7W
	LTE-Band 25 (Bandwidth 20MHz) QPSK	18M1G7D
	LTE-Band 25 (Bandwidth 20MHz) 16QAM	17M9D7W

Max ERP/EIRP measurement result:

	dBm		W
GPRS 850 Band	29.30	ERP	0.851
EDGE 850 Band	22.07	ERP	0.161
GPRS 1900 Band	29.98	EIRP	0.995
EDGE 1900 Band	29.80	EIRP	0.955
WCDMA Band II	25.61	EIRP	0.364
HSDPA Band II	20.76	EIRP	0.119
HSUPA Band II	22.12	EIRP	0.163
WCDMA Band IV	23.40	EIRP	0.219
HSDPA Band IV	21.68	EIRP	0.147
HSUPA Band IV	23.30	EIRP	0.214
WCDMA Band V	19.93	ERP	0.098
HSDPA Band V	20.30	ERP	0.107
HSUPA Band V	21.35	ERP	0.136
CDMA 2000 BC0	21.70	ERP	0.148
EVDO 2000 BC0	20.82	ERP	0.121
CDMA 2000 BC1	21.51	EIRP	0.142
EVDO 2000 BC1	21.01	EIRP	0.126
LTE Band 2/1.4MMz /QPSK RB 1 Offset 0	25.83	EIRP	0.383
LTE Band 2/1.4MMz /16QAM RB 1 Offset 5	26.34	EIRP	0.431
LTE Band 2/3MMz /QPSK RB 1 Offset 0	25.42	EIRP	0.348
LTE Band 2/3MMz /16QAM RB 1 Offset 0	25.52	EIRP	0.356
LTE Band 2/5MMz /QPSK RB 1 Offset 0	25.53	EIRP	0.357
LTE Band 2/5MMz /16QAM RB 1 Offset 0	25.79	EIRP	0.379
LTE Band 2/10MMz /QPSK RB 1 Offset 0	26.11	EIRP	0.408
LTE Band 2/10MMz /16QAM RB 1 Offset 0	26.23	EIRP	0.420
LTE Band 2/15MMz /QPSK RB 1 Offset 0	26.44	EIRP	0.441
LTE Band 2/15MMz /16QAM RB 1 Offset 0	26.56	EIRP	0.453
LTE Band 2/20MMz /QPSK RB 1 Offset 0	26.32	EIRP	0.429
LTE Band 2/20MMz /16QAM RB 1 Offset 0	26.48	EIRP	0.445

LTE Band 4/1.4MMz /QPSK RB 1 Offset 0	25.14	EIRP	0.327
LTE Band 4/1.4MMz /16QAM RB 1 Offset 0	23.71	EIRP	0.235
LTE Band 4/3MMz /QPSK RB 1 Offset 0	23.42	EIRP	0.220
LTE Band 4/3MMz /16QAM RB 1 Offset 0	23.57	EIRP	0.228
LTE Band 4/5MMz /QPSK RB 1 Offset 0	23.35	EIRP	0.216
LTE Band 4/5MMz /16QAM RB 1 Offset 0	23.48	EIRP	0.223
LTE Band 4/10MMz /QPSK RB 1 Offset 0	23.44	EIRP	0.221
LTE Band 4/10MMz /16QAM RB 1 Offset 0	23.49	EIRP	0.223
LTE Band 4/15MMz /QPSK RB 1 Offset 0	23.20	EIRP	0.209
LTE Band 4/15MMz /16QAM RB 1 Offset 0	23.38	EIRP	0.218
LTE Band 4/20MMz /QPSK RB 1 Offset0	23.17	EIRP	0.207
LTE Band 4/20MMz /16QAM RB 1 Offset 0	23.16	EIRP	0.207
LTE Band 5/1.4MMz /QPSK RB 1 Offset 5	22.42	ERP	0.175
LTE Band 5/1.4MMz /16QAM RB 1 Offset 0	22.38	ERP	0.173
LTE Band 5/3MMz /QPSK RB 1 Offset 14	23.32	ERP	0.215
LTE Band 5/3MMz /16QAM RB 1 Offset 14	23.49	ERP	0.223
LTE Band 5/5MMz /QPSK RB 1 Offset 24	23.51	ERP	0.224
LTE Band 5/5MMz /16QAM RB 1 Offset 24	23.77	ERP	0.238
LTE Band 5/10MMz /QPSK RB 1 Offset 0	22.51	ERP	0.178
LTE Band 5/10MMz /16QAM RB 1 Offset 0	22.56	ERP	0.180
LTE Band 13/5MMz /QPSK RB 1 Offset 0	19.85	ERP	0.097
LTE Band 13/5MMz /16QAM RB 1 Offset 0	20.21	ERP	0.105
LTE Band 13/10MMz /QPSK RB 1 Offset 49	18.66	ERP	0.073
LTE Band 13/10MMz /16QAM RB 1 Offset 49	18.99	ERP	0.079
LTE Band 17/5MMz /QPSK RB 1 Offset 0	15.85	ERP	0.038
LTE Band 17/5MMz /16QAM RB 1 Offset 0	16.32	ERP	0.043
LTE Band 17/10MMz /QPSK RB 1 Offset 0	15.94	ERP	0.039
LTE Band 17/10MMz /16QAM RB 1 Offset 0	16.19	ERP	0.042
LTE Band 25/1.4MMz /QPSK RB 1 Offset 0	25.62	EIRP	0.365
LTE Band 25/1.4MMz /16QAM RB 1 Offset 0	25.85	EIRP	0.385
LTE Band 25/3MMz /QPSK RB 1 Offset 0	25.64	EIRP	0.366
LTE Band 25/3MMz /16QAM RB 1 Offset 0	25.87	EIRP	0.386
LTE Band 25/5MMz /QPSK RB 1 Offset 0	25.62	EIRP	0.365
LTE Band 25/5MMz /16QAM RB 1 Offset 0	25.86	EIRP	0.385
LTE Band 25/10MMz /QPSK RB 1 Offset 0	25.64	EIRP	0.366
LTE Band 25/10MMz /16QAM RB 1 Offset 0	25.76	EIRP	0.377
LTE Band 25/15MMz /QPSK RB 1 Offset 0	25.84	EIRP	0.384
LTE Band 25/15MMz /16QAM RB 1 Offset 0	25.94	EIRP	0.393
LTE Band 25/20MMz /QPSK RB 1 Offset 0	25.78	EIRP	0.378
LTE Band 25/20MMz /16QAM RB 1 Offset 0	25.88	EIRP	0.387

1.2. Product Feature of Equipment Under Test

The equipment under Test (Hereafter Called: EUT) is Tablet PC supporting, GSM / WCDMA / CDMA / LTE, Wi-Fi 802.11abgn & ac, Bluetooth with NFC and GPS features, and below is details of information.

Product Feature	
Product Name:	Tablet PC
Brand Name:	hp
Model No.:	HSTNN-Q93C
FCC ID	B94HNQ93CSPNAC
GSM Operating Band(s)	GSM 850/1900MHz
GPRS / EGPRS Multi Slot Class	GPRS Class 12 / Class 12
CDMA / EVDO	BC0 / BC1
WCDMA Operating Band(s)	FDD Band II / IV / V
WCDMA Rel. Version	Rel.8
LTE Operating Band(s)	FCC Band 2 / 4 / 5 / 13 / 17 / 25
LTE Rel. Version	Rel.9
Wi-Fi Specification	802.11a/b/g/n/ac
Bluetooth Version	V4.0 dual mode + HS
NFC Specification	NFC

Note: The above EUT information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.3. Test Methodology of Applied Standards

FCC 47 CFR Part 2, 22, 24, 27.

ANSI / TIA / EIA 603C-C-2004

KDB971168 D01 Power Meas license Digital System v02r01

KDB941225 of the Output power Procedure of (SAR Measurement Procedures for 3G Devices, WCDMA / HSPA) was used for EUT and Base station setting.

TS 151 010-1 is used to set, and measure the output power.

Note:

1. All test items have been performed and record as per the above standards.
2. The composite system is compliance with FCC Subpart B is authorized under the certification procedure.

1.4. Test Facility

SGS Taiwan Ltd. Electronics & Communication Laboratory No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333. (TAF code 0513)

FCC Registration Numbers are: 990257

Canada Registration Number: 4620A-5

1.5. Special Accessories

No special accessories were used during testing.

1.6. Equipment Modifications

There were no modifications incorporated into the EUT.

2. SYSTEM TEST CONFIGURATION

2.1. EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2. EUT Exercise

The EUT (Transmitter) was operated in the continuous transmission mode employed with the simulator of the Base Station that fixates at test default channels to fix the Tx frequency which was for the purpose of the measurements.

2.3. Test Procedure

2.3.1 Conducted Measurement at Antenna Port

According to measurement procured TIA/EIA 603C, the EUT is placed on a turn table which is 0.8 m above ground plane. A low loss of RF cable was used to connect the antenna port of EUT to measurement equipment.

2.3.2 Radiated Emissions (ERP/EIRP)

According to measurement procured TIA/EIA 603C, The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both Horizontal and Vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made “while keeping the antenna in the ‘cone of radiation’ from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response.” is still within the 3dB illumination BW of the measurement antenna according to the requirements in Section 8 and 13.

2.4. Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

Note:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Following shows an offset computation example with cable loss and attenuator.

Low Band: Offset = RF cable loss (dB) + attenuation factor (dB) = 0.9(dB)

High Band: Offset = RF cable loss (dB) + attenuation factor (dB) = 1.1(dB)

2.5. Final Amplifier Voltage and Current Information:

Test Mode	DC voltage (V)	DC current (mA)
GSM 850	3.8V	750
GSM 1900	3.8V	760
EDGE 850	3.8V	720
EDGE 1900	3.8V	780
HSDPA B2	3.8V	1350
WCDMA B4	3.8V	1260
HSDPA B5	3.8V	1050
EVDO BC0	3.8V	810
EVDO BC1	3.8V	830
LTE Band 2	3.8V	1350
LTE Band 4	3.8V	1210
LTE Band 5	3.8V	1100
LTE Band 13	3.8V	1210
LTE Band 17	3.8V	1100
LTE Band 25	3.8V	1360

2.6. Configuration of Tested System

Fig. 2-1 Configuration of Tested System (Fixed Channel-Conducted)

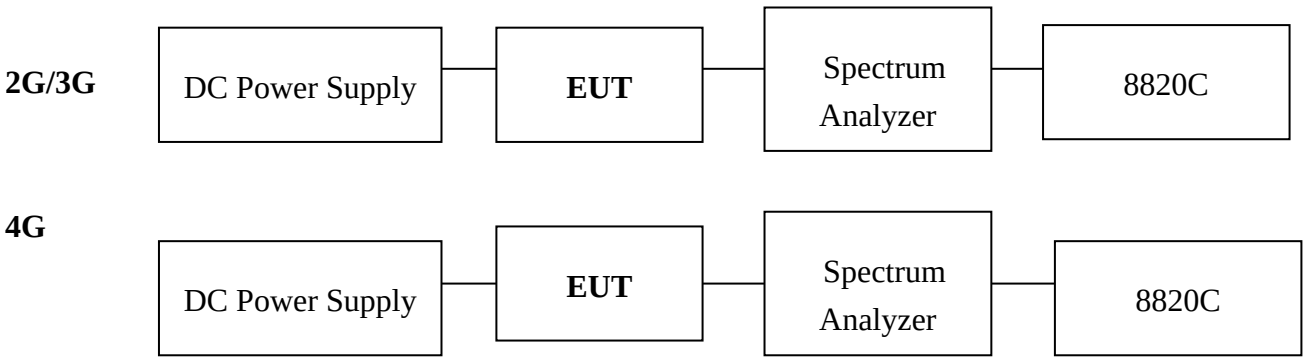


Fig. 2-2 Configuration of Tested System (Fixed Channel-Radiated)

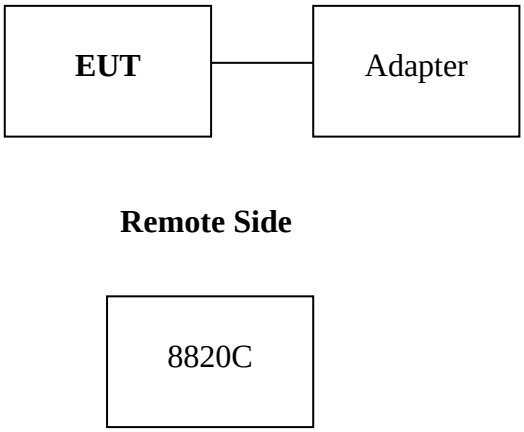


Table 2-1 Equipment Used in

Item	Equipment	Mfr/Brand	Model/ Type No.	Series No.	Data Cable	Power Cord
1.	Radio Communication Analyzer	Anritsu	8820C	6201107337	shielded	Un-shielded
2.	DC Power Supply	Agilent	E3640A	MY53140006	shielded	Un-shielded
3.	Test Software	DRTU	N/A	N/A	N/A	N/A

3. SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§2.1046(a)	RF Power Output	Compliant
§2.1046(a) §22.913(a)(2) §24.232(c) §27.50(h)(2)	ERP/ EIRP measurement	Compliant
§2.1049(h)	Occupied Bandwidth	Compliant
§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.50(c)(5) §27.53(h) §27.53(m)(4)	Out of Band Emissions at Antenna Terminals and Band Edge	Compliant
§2.1053 §22.917(a) §24.238(a) §27.50(c)(5) §27.53(g) §27.53(h) §27.53(f) §27.53(m)(4)	Field Strength of Spurious Radiation	Compliant
§24.232(d) §27.53(d) (5) §27.50(i) (B)	Peak to Average Ratio	Compliant
§2.1055(a)(1) §22.355 §24.235 §27.54	Frequency Stability	Compliant

4. DESCRIPTION OF TEST MODES

4.1. The Worst Test Modes and Channel Details

1. The EUT has been tested under operating condition.
2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found as listed below. Following channel(s) was (were) selected for the final test as listed below:

BAND	ERP/EIRP	RADIATED EMISSION
GPRS/EDGE 850	H-plan	H-plan
GPRS/EDGE 1900	H-plan	H-plan
WCDMA/HSPA Band II	H-plan	H-plan
WCDMA/HSPA Band IV	H-plan	H-plan
WCDMA/HSPA Band V	H-plan	H-plan
CDMA / EVDO BC 0	E2-plan	E2-plan
CDMA / EVDO BC 1	H-plan	H-plan
LTE Band 2 / 4 / 25	E1-plan	E1-plan
LTE Band 5/ 13 /17	E2-plan	E2-plan

GSM/GPRS/EDGE MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
ERP	128 to 251	128, 190, 251	GPRS/EDGE 850
EIRP	512 to 810	512, 661, 810	GPRS/EDGE 1900
FREQUENCY STABILITY	128 to 251 512 to 810	190 661	GPRS 850 GPRS 1900
OCCUPIED BANDWIDTH	128 to 251 512 to 810	128, 190, 251 512, 661, 810	GPRS/EDGE 850 GPRS/EDGE 1900
PEAK TO AVERAGE RATIO	128 to 251 512 to 810	128, 190, 251 512, 661, 810	GPRS/EDGE 850 GPRS/EDGE 1900
BAND EDGE	128 to 251 512 to 810	128, 251 512, 810	GPRS/EDGE 850 GPRS/EDGE 1900
CONDUCTED EMISSION	128 to 251 512 to 810	128, 190, 251 512, 661, 810	GPRS/EDGE 850 GPRS/EDGE 1900
RADIATED EMISSION	128 to 251 512 to 810	128, 190, 251 512, 661, 810	GPRS 850 GPRS 1900

WCDMA/HSPA MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
ERP	4132 to 4233	4132, 4183, 4233	WCDMA/HSPA Band V
EIRP	9262 to 9538	9262, 9400, 9583	WCDMA/HSPA Band II
	1312 to 1513	1312, 1413, 1513	WCDMA/HSPA Band IV
FREQUENCY STABILITY	4132 to 4233	4183	WCDMA Band II
	1312 to 1513	1413	WCDMA Band IV
	9262 to 9538	9400	WCDMA Band V
OCCUPIED BANDWIDTH	4132 to 4233	9262, 9400, 9583	WCDMA/HSPA Band II
	1312 to 1513	1312, 1413, 1513	WCDMA/HSPA Band IV
	9262 to 9538	4132, 4183, 4233	WCDMA/HSPA Band V
PEAK TO AVERAGE RATIO	4132 to 4233	4132, 4183, 4233	WCDMA/HSPA Band II
	1312 to 1513	1312, 1413, 1513	WCDMA/HSPA Band IV
	9262 to 9538	9262, 9400, 9583	WCDMA/HSPA Band V
BAND EDGE	4132 to 4233	4132, 4233	WCDMA Band II
	1312 to 1513	1312, 1513	WCDMA Band IV
	9262 to 9538	9262, 9583	WCDMA Band V
CONDUCTED EMISSION	4132 to 4233	4132, 4183, 4233	WCDMA Band II
	1312 to 1513	1312, 1413, 1513	WCDMA Band IV
	9262 to 9538	9262, 9400, 9583	WCDMA Band V
RADIATED EMISSION	4132 to 4233	4132, 4183, 4233	WCDMA Band II
	1312 to 1513	1312, 1413, 1513	WCDMA Band IV
	9262 to 9538	9262, 9400, 9583	HSUPA Band V

CDMA/EVDO MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
ERP	1013 to 777	1013, 384, 777	CDMA/EVDO BC0
EIRP	25 to 1175	25, 600, 1175	CDMA/EVDO BC1
FREQUENCY STABILITY	1013 to 777 25 to 1175	1013, 384, 777 25, 600, 1175	CDMA BC0 CDMA BC1
OCCUPIED BANDWIDTH	1013 to 777 25 to 1175	1013, 384, 777 25, 600, 1175	CDMA/EVDO BC0 CDMA/EVDO BC1
PEAK TO AVERAGE RATIO	1013 to 777 25 to 1175	1013, 384, 777 25, 600, 1175	CDMA/EVDO BC0 CDMA/EVDO BC1
BAND EDGE	1013 to 777 25 to 1175	1013, 384, 777 25, 600, 1175	CDMA BC0 CDMA BC1
CONDUCTED EMISSION	1013 to 777 25 to 1175	1013, 384, 777 25, 600, 1175	CDMA BC0 CDMA BC1
EMISSION MASK	1013 to 777 25 to 1175	1013, 384, 777 25, 600, 1175	CDMA BC0 CDMA BC1
RADIATED EMISSION	1013 to 777 25 to 1175	1013, 384, 777 25, 600, 1175	CDMA BC0 CDMA BC1

LTE Band 2 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offset
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offset
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offset
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offset
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offset
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offset
FREQUENCY STABILITY	18650 to 19150	18900	10MHz	QPSK,	Full RB
OCCUPIED BANDWIDTH	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	Full RB
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	Full RB
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	Full RB
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	Full RB
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	Full RB
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	Full RB
PEAK TO AV-ERAGE RATIO	18607 to 19193	18607, 18900, 19193	1.4MHz	16QAM	Full RB
	18615 to 19185	18615, 18900, 19185	3MHz	16QAM	Full RB
	18625 to 19175	18625, 18900, 19175	5MHz	16QAM	Full RB
	18650 to 19150	18650, 18900, 19150	10MHz	16QAM	Full RB
	18675 to 19125	18675, 18900, 19125	15MHz	16QAM	Full RB
	18700 to 19100	18700, 18900, 19100	20MHz	16QAM	Full RB
BAND EDGE	18607 to 19193	18607, 19193	1.4MHz	QPSK,	1 RB/ 0,5 RB Offset Full RB
	18615 to 19185	18615, 19185	3MHz	QPSK,	1 RB/ 0,14 RB Offset Full RB
	18625 to 19175	18625, 19175	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
	18650 to 19150	18650, 19150	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
	18675 to 19125	18675, 19125	15MHz	QPSK,	1 RB/ 0,74 RB Offset Full RB
	18700 to 19100	18700, 19100	20MHz	QPSK,	1 RB/ 0,99 RB Offset Full RB
CONDUCTED EMISSION	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK,	1 RB, 0 RB Offset
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK,	1 RB, 0 RB Offset
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK,	1 RB, 0 RB Offset
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK,	1 RB, 0 RB Offset
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK,	1 RB, 0 RB Offset
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	18607 to 19193	18675, 18900, 19125	15MHz	16QAM	1 RB/ 0 RB Offset

LTE Band 4 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	19957 to 19393	19957, 20175, 19393	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offset
	19965 to 22385	19965, 20175, 22385	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offset
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offset
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offset
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offset
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offset
FREQUENCY STABILITY	20000 to 20350	20175	10MHz	QPSK,	Full RB
OCCUPIED BANDWIDTH	19957 to 19393	19957, 20175, 19393	1.4MHz	QPSK, 16QAM	Full RB
	19965 to 22385	19965, 20175, 22385	3MHz	QPSK, 16QAM	Full RB
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM	Full RB
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM	Full RB
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM	Full RB
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM	Full RB
PEAK TO AV-ERAGE RATIO	19957 to 19393	19957, 20175, 19393	1.4MHz	16QAM	Full RB
	19965 to 22385	19965, 20175, 22385	3MHz	16QAM	Full RB
	19975 to 20375	19975, 20175, 20375	5MHz	16QAM	Full RB
	20000 to 20350	20000, 20175, 20350	10MHz	16QAM	Full RB
	20025 to 20325	20025, 20175, 20325	15MHz	16QAM	Full RB
	20050 to 20300	20050, 20175, 20300	20MHz	16QAM	Full RB
BAND EDGE	19957 to 19393	19957, 19393	1.4MHz	QPSK,	1 RB/ 0,5 RB Offset Full RB
	19965 to 22385	19965, 22385	3MHz	QPSK,	1 RB/ 0,14 RB Offset Full RB
	19975 to 20375	19975, 20375	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
	20000 to 20350	20000, 20350	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
	20025 to 20325	20025, 20325	15MHz	QPSK,	1 RB/ 0,74 RB Offset Full RB
	20050 to 20300	20050, 20300	20MHz	QPSK,	1 RB/ 0,99 RB Offset Full RB
CONDUCTED EMISSION	19957 to 19393	19957, 20175, 19393	1.4MHz	QPSK,	1 RB, 0 RB Offset
	19965 to 22385	19965, 20175, 22385	3MHz	QPSK,	1 RB, 0 RB Offset
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK,	1 RB, 0 RB Offset
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK,	1 RB, 0 RB Offset
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK,	1 RB, 0 RB Offset
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	19975 to 20375	19957, 20175, 19393	1.4MHz	QPSK,	1 RB/ 0 RB Offset

LTE Band 5 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offset
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offset
	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offset
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offset
FREQUENCY STABILITY	20450 to 20600	20450, 20525, 20600	10MHz	QPSK,	Full RB
OCCUPIED BANDWIDTH	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK, 16QAM	Full RB
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	Full RB
	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	Full RB
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	Full RB
PEAK TO AV-ERAGE RATIO	20470 to 20643	20470, 20525, 20643	1.4MHz	16QAM	Full RB
	20415 to 20635	20415, 20525, 20635	3MHz	16QAM	Full RB
	20425 to 20625	20425, 20525, 20625	5MHz	16QAM	Full RB
	20450 to 20600	20450, 20525, 20600	10MHz	16QAM	Full RB
BAND EDGE	20470 to 20643	20470, 20643	1.4MHz	QPSK,	1 RB/ 0,5 RB Offset Full RB
	20415 to 20635	20415, 20635	3MHz	QPSK,	1 RB/ 0,14 RB Offset Full RB
	20425 to 20625	20425, 20625	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
	20450 to 20600	20450, 20600	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
CONDUCTED EMISSION	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK,	1 RB, 0 RB Offset
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK,	1 RB, 0 RB Offset
	20425 to 20625	20425, 20525, 20625	5MHz	QPSK,	1 RB, 0 RB Offset
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	20415 to 20635	20425, 20525, 20625	5MHz	16QAM,	1 RB/ 24 RB Offset

LTE Band 13 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offset
	23230	23230	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offset
FREQUENCY STABILITY	23230	23230	10MHz	QPSK,	Full RB
OCCUPIED BANDWIDTH	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM	Full RB
	23230	23230	10MHz	QPSK, 16QAM	Full RB
PEAK TO AV-ERAGE RATIO	23205 to 23255	23205, 23230, 23255	5MHz	16QAM	Full RB
	23230	23230	10MHz	16QAM	Full RB
BAND EDGE	23205 to 23255	23205, 23255	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
	23230	23230	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
CONDUCTED EMISSION	23205 to 23255	23205, 23230, 23255	5MHz	QPSK,	1 RB, 0 RB Offset
	23230	23230	10MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	23230	23230	5MHz	16QAM,	1 RB/ 0 RB Offset

LTE Band 17 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	23755 to 23825	23755, 23790, 23825	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offset
	23780 to 23800	23780, 23790, 23800	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offset
FREQUENCY STABILITY	23780 to 23800	23790	10MHz	QPSK,	Full RB
OCCUPIED BANDWIDTH	23755 to 23825	23755, 23790, 23825	5MHz	QPSK, 16QAM	Full RB
	23780 to 23800	23780, 23790, 23800	10MHz	QPSK, 16QAM	Full RB
PEAK TO AV-ERAGE RATIO	23755 to 23825	23755, 23790, 23825	5MHz	16QAM	Full RB
	23780 to 23800	23780, 23790, 23800	10MHz	16QAM	Full RB
BAND EDGE	23755 to 23825	23755, 23825	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
	23780 to 23800	23780, 23800	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
CONDUCTED EMISSION	23755 to 23825	23755, 23790, 23825	5MHz	QPSK,	1 RB, 0 RB Offset
	23780 to 23800	23780, 23790, 23800	10MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	23755 to 23825	23755, 23790, 23825	5MHz	16QAM,	1 RB/ 0 RB Offset

LTE Band 25 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	27047 to 26683	27047, 26365, 26683	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offset
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offset
	26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offset
	26096 to 26640	26096, 26365, 26640	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offset
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offset
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offset
FREQUENCY STABILITY	26096 to 26640	26365	10MHz	QPSK,	Full RB
OCCUPIED BANDWIDTH	27047 to 26683	27047, 26365, 26683	1.4MHz	QPSK, 16QAM	Full RB
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK, 16QAM	Full RB
	26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM	Full RB
	26096 to 26640	26096, 26365, 26640	10MHz	QPSK, 16QAM	Full RB
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK, 16QAM	Full RB
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	Full RB
PEAK TO AV-ERAGE RATIO	27047 to 26683	27047, 26365, 26683	1.4MHz	16QAM	Full RB
	26055 to 26675	26055, 26365, 26675	3MHz	16QAM	Full RB
	26065 to 26665	26065, 26365, 26665	5MHz	16QAM	Full RB
	26096 to 26640	26096, 26365, 26640	10MHz	16QAM	Full RB
	26115 to 26615	26115, 26365, 26615	15MHz	16QAM	Full RB
	26140 to 26590	26140, 26365, 26590	20MHz	16QAM	Full RB
BAND EDGE	27047 to 26683	27047, 26683	1.4MHz	QPSK,	1 RB/ 0,5 RB Offset Full RB
	26055 to 26675	26055, 26675	3MHz	QPSK,	1 RB/ 0,14 RB Offset Full RB
	26065 to 26665	26065, 26665	5MHz	QPSK,	1 RB/ 0,24 RB Offset Full RB
	26096 to 26640	26096, 26640	10MHz	QPSK,	1 RB/ 0,49 RB Offset Full RB
	26115 to 26615	26115, 26615	15MHz	QPSK,	1 RB/ 0,74 RB Offset Full RB
	26140 to 26590	26140, 26590	20MHz	QPSK,	1 RB/ 0,99 RB Offset Full RB
CONDUCTED EMISSION	27047 to 26683	27047, 26365, 26683	1.4MHz	QPSK,	1 RB, 0 RB Offset
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK,	1 RB, 0 RB Offset
	26065 to 26665	26065, 26365, 26665	5MHz	QPSK,	1 RB, 0 RB Offset
	26096 to 26640	26096, 26365, 26640	10MHz	QPSK,	1 RB, 0 RB Offset
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK,	1 RB, 0 RB Offset
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK,	1 RB, 0 RB Offset
RADIATED EMISSION	26065 to 26665	26115, 26365, 26615	15MHz	16QAM,	1 RB/ 0 RB Offset

5. MEASUREMENT UNCERTAINTY

Test Items	Uncertainty
RF Power Output	+/- 1.10 dB
ERP/ EIRP measurement	Vertical Polarization = +/- 4.74dB Horizontal Polarization =+/- 4.62dB
99% Occupied Bandwidth	+/- 5.19 Hz
Out of Band Emissions at Antenna Terminals and Band Edge	+/- 0.70 dB
Peak to Average Ratio	+/- 0.70 dB
Frequency Stability vs. Temperature	+/- 5.19 Hz
Frequency Stability vs. Voltage	+/- 5.19 Hz
Temperature	+/- 0.65 °C
Humidity	+/- 4.6 %
DC / AC Power Source	DC= +/- 0.13%, AC=+/- 0.2%

Radiated Spurious Emission:

Measurement uncertainty (Polarization : **Vertical**)	30MHz - 180MHz: +/- 3.37dB
	180MHz -417MHz: +/- 3.19dB
	0.417GHz-1GHz: +/- 3.19dB
	1GHz - 18GHz: +/- 4.04dB
	18GHz - 40GHz: +/- 4.04dB

Measurement uncertainty (Polarization : **Horizontal**)	30MHz - 167MHz: +/- 4.22dB
	167MHz -500MHz: +/- 3.44dB
	0.5GHz-1GHz: +/- 3.39dB
	1GHz - 18GHz: +/- 4.08dB
	18GHz - 40GHz: +/- 4.08dB

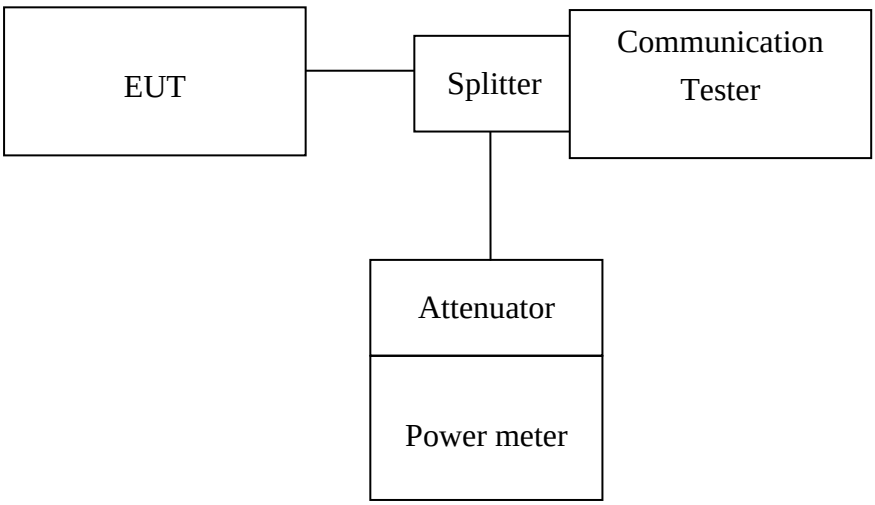
This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

6. RF CONDUCTED OUTPUT POWER MEASUREMENT

6.1. Standard Applicable

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals.

6.2. Test Set-up



Note: *Measurement setup for testing on Antenna connector*

6.3. Measurement Procedure

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading. TS 151 010-1 is reference to conduct the test measurement of output power.

The Procedure of KDB941225 (SAR Measurement Procedures for 3G devices, (WCDMA/HSPA) was used for EUT and Base station setting. RMC 12.2kps is used for this testing, and KDB 971168 D01 Power Meas License Digital System as the supplemental test methodology to adjust the proper setting obtaining the measurement results

6.4. Measurement Equipment Used

Conducted Emission Test Site					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Agilent	N9010A	MY53400256	10/15/2014	10/14/2015
Communication Tester	Anritsu	MT8820C	6201107337	06/03/2014	06/02/2015
Temperature Chamber	TERCHY	MHK-120LK	1020582	06/18/2014	06/17/2015
DC Block	PASTERNACK	PE8210	RF29	12/19/2014	12/18/2015
Splitter	RF-LAMBAD	RFLT2W1G18G	RF35	12/19/2014	12/18/2015
Attenuator	WOKEN	218FS-10	RF23	12/19/2014	12/18/2015
DC Power Supply	Agilent	E3640A	MY53140006	05/31/2014	05/30/2015

6.5. Measurement Result

RF Conducted Output Power

GPRS/EDGE (GMSK; 8-PSK) Result:

EUT Mode	Frequency (MHz)	CH	Peak Power (4DN 1UP) Class 8 (dBm)	Average Burst Power (4DN 1UP) Class 8 (dBm)	Peak Power (4DN 2UP) Class 10 (dBm)	Average Burst Power (4DN 2UP) Class 10 (dBm)	Peak Power (4DN 3UP) Class 12 (dBm)	Average Burst Power (4DN 3UP) Class 12 (dBm)	Peak Power (4DN 4UP) Class 12 (dBm)	Average Burst Power (4DN 4UP) Class 12 (dBm)
GPRS 850	824.2	128	33.00	32.80	32.80	32.60	29.50	29.30	28.70	28.60
	836.6	190	32.90	32.70	32.80	32.60	29.60	29.50	28.70	28.60
	848.8	251	**33.10**	32.90	33.00	32.80	29.70	29.60	29.10	29.00
GPRS 1900	1850.2	512	**30.50**	30.20	30.30	30.10	27.20	27.10	25.30	25.10
	1880.0	661	29.90	29.70	30.10	29.90	27.30	27.10	25.10	24.90
	1909.8	810	30.40	30.10	30.00	29.90	27.60	27.40	25.40	25.20

EUT Mode	Frequency (MHz)	CH	Peak Power (4DN 1UP) Class 8 (dBm)	Average Burst Power (4DN 1UP) Class 8 (dBm)	Peak Power (4DN 2UP) Class 10 (dBm)	Average Burst Power (4DN 2UP) Class 10 (dBm)	Peak Power (4DN 3UP) Class 12 (dBm)	Average Burst Power (4DN 3UP) Class 12 (dBm)	Peak Power (4DN 4UP) Class 12 (dBm)	Average Burst Power (4DN 4UP) Class 12 (dBm)
EDGE 850	824.2	128	30.00	26.60	29.20	26.00	29.00	25.80	27.00	23.80
	836.6	190	29.90	26.50	29.00	25.80	28.90	25.60	26.80	23.60
	848.8	251	**30.20**	26.90	29.30	26.10	29.10	25.90	27.00	23.80
EDGE 1900	1850.2	512	**29.00**	25.80	28.30	25.00	28.20	25.00	26.10	22.80
	1880.0	661	28.70	25.50	28.10	24.80	28.00	24.70	25.90	22.60
	1909.8	810	28.90	25.70	28.30	25.10	28.20	25.00	26.20	22.90

CDMA2000/EVDO Result:

EUT Mode	Frequency (MHz)	CH	CDMA	EVDO
			Avg. Power (dBm)	Avg. Power (dBm)
BC0	824.7	1013	22.95	23.46
	836.52	384	23.15	23.55
	848.31	777	23.55	**23.71**
BC1	1851.25	25	23.88	23.91
	1880	600	23.97	**24.00**
	1908.75	1175	23.75	23.84

WCDMA MODE:

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 V8.4.0 specification. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7). RMC 12.2kps is used for this testing.

Results:

EUT Mode		WCDMA Band II		HSDPA Band II		HSUPA Band II	
Frequency (MHz)	CH	Peak Power (dBm)	Avg. Power (dBm)	Peak Power (dBm)	Avg. Power (dBm)	Peak Power (dBm)	Avg. Power (dBm)
1852.4	9262	**27.02**	23.55	26.57	22.73	25.81	22.04
1880.0	9400	26.92	23.63	26.27	22.55	25.62	21.92
1907.6	9538	26.86	23.98	26.35	22.92	25.77	22.25

EUT Mode		WCDMA Band IV		HSDPA Band IV		HSUPA Band IV	
Frequency (MHz)	CH	Peak Power (dBm)	Avg. Power (dBm)	Peak Power (dBm)	Avg. Power (dBm)	Peak Power (dBm)	Avg. Power (dBm)
1712.4	1312	**26.96**	23.58	26.31	22.53	25.67	21.86
1732.6	1412	26.76	23.37	26.21	22.35	25.66	21.79
1752.6	1513	26.71	23.65	26.25	22.61	25.71	22.00

EUT Mode		WCDMA Band V		HSDPA Band V		HSUPA Band V	
Frequency (MHz)	CH	Peak Power (dBm)	Avg. Power (dBm)	Peak Power (dBm)	Avg. Power (dBm)	Peak Power (dBm)	Avg. Power (dBm)
826.4	4132	27.30	23.96	26.53	22.88	25.89	22.17
836.6	4183	**27.65**	24.39	26.82	23.19	26.26	22.48
846.6	4233	27.26	23.90	26.45	22.85	25.74	22.18

Note: The results above reflect max power with all up bits.

Cable loss offset: Low Band: 0.9dB, High Band: 1.1dB

LTE Result:

LTE Band 2

LTE Band 2_Uplink frequency band : 1850 to 1910 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 18607	Channel (Mid) 18900	Channel (High) 19193	Channel (Low) 18607	Channel (Mid) 18900	Channel (High) 19193
1.4	1	0	**22.90**	22.54	22.90	21.54	21.62	21.83
	1	5	22.83	22.52	22.72	21.21	21.48	22.14
	3	2	22.85	22.56	22.76	21.97	21.69	21.87
	6	0	21.80	21.61	21.83	20.90	20.72	20.87

LTE Band 2_Uplink frequency band : 1850 to 1910 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 18615	Channel (Mid) 18900	Channel (High) 19185	Channel (Low) 18615	Channel (Mid) 18900	Channel (High) 19185
3	1	0	23.28	23.07	**23.46**	22.37	21.93	22.00
	1	14	23.19	23.00	23.35	22.53	22.31	22.28
	8	4	22.32	22.10	22.23	21.18	21.05	21.23
	15	0	22.15	22.03	22.41	21.15	21.04	21.31

LTE Band 2_Uplink frequency band : 1850 to 1910 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 18625	Channel (Mid) 18900	Channel (High) 19175	Channel (Low) 18625	Channel (Mid) 18900	Channel (High) 19175
5	1	0	23.26	23.05	**23.43**	22.54	22.00	22.14
	1	24	23.23	23.13	22.28	21.97	22.29	22.15
	12	6	22.26	22.09	22.23	21.36	21.25	21.23
	25	0	22.02	21.92	22.02	21.11	20.89	20.98

LTE Band 2_Uplink frequency band : 1850 to 1910 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 18650	Channel (Mid) 18900	Channel (High) 19150	Channel (Low) 18650	Channel (Mid) 18900	Channel (High) 19150
10	1	0	23.39	22.99	22.81	22.26	22.37	21.86
	1	49	23.04	23.03	**23.44**	22.10	22.24	22.29
	25	12	22.06	22.00	22.20	21.15	20.94	21.24
	50	0	21.99	21.78	21.96	20.85	20.75	21.07

LTE Band 2_Uplink frequency band : 1850 to 1910 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 18675	Channel (Mid) 18900	Channel (High) 19125	Channel (Low) 18675	Channel (Mid) 18900	Channel (High) 19125
15	1	0	23.32	23.02	22.28	22.10	21.95	21.74
	1	74	23.10	23.24	**23.51**	21.99	21.86	22.68
	36	19	21.97	21.80	22.19	21.04	20.90	21.27
	75	0	21.89	21.73	22.05	20.87	20.69	20.88

LTE Band 2_Uplink frequency band : 1850 to 1910 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 18700	Channel (Mid) 18900	Channel (High) 19100	Channel (Low) 18700	Channel (Mid) 18900	Channel (High) 19100
20	1	0	23.44	23.02	23.01	22.60	22.21	22.01
	1	99	23.04	22.75	**23.73**	21.84	22.28	22.16
	50	25	21.88	21.90	21.80	21.16	20.89	20.81
	100	0	22.13	21.81	21.91	21.08	20.80	20.94

LTE Band 4

LTE Band 4_Uplink frequency band : 1710 to 1755 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 19957	Channel (Mid) 20175	Channel (High) 20393	Channel (Low) 19957	Channel (Mid) 20175	Channel (High) 20393
1.4	1	0	22.58	22.27	22.74	21.85	21.11	21.48
	1	5	22.59	22.51	**22.85**	21.74	21.41	21.80
	3	2	22.63	22.19	22.81	21.58	21.35	21.93
	6	0	21.68	21.36	21.85	20.56	20.46	20.97

LTE Band 4_Uplink frequency band : 1710 to 1755 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 19965	Channel (Mid) 20175	Channel (High) 20385	Channel (Low) 19965	Channel (Mid) 20175	Channel (High) 20385
3	1	0	22.88	22.84	**23.21**	22.05	21.96	21.93
	1	14	22.99	22.87	23.06	22.04	21.69	22.00
	8	4	21.94	21.71	22.12	20.91	20.73	20.89
	15	0	21.84	21.65	22.04	20.74	20.72	21.04

LTE Band 4_Uplink frequency band : 1710 to 1755 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 19975	Channel (Mid) 20175	Channel (High) 20375	Channel (Low) 19975	Channel (Mid) 20175	Channel (High) 20375
5	1	0	22.79	22.88	**22.93**	21.84	21.92	22.09
	1	24	22.77	22.81	22.85	21.83	22.05	21.74
	12	6	21.74	21.72	22.07	20.78	20.83	21.15
	25	0	21.93	21.59	21.93	20.66	20.65	20.89

LTE Band 4_Uplink frequency band : 1710 to 1755 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 20000	Channel (Mid) 20175	Channel (High) 20350	Channel (Low) 20000	Channel (Mid) 20175	Channel (High) 20350
10	1	0	22.88	22.76	**22.94**	21.75	21.51	21.73
	1	49	22.81	22.68	22.92	21.59	21.73	21.98
	25	12	21.76	21.71	21.77	20.75	20.61	20.82
	50	0	21.55	21.54	21.65	20.54	20.42	20.67

LTE Band 4_Uplink frequency band : 1710 to 1755 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 20025	Channel (Mid) 20175	Channel (High) 20325	Channel (Low) 20025	Channel (Mid) 20175	Channel (High) 20325
15	1	0	22.81	22.83	23.02	22.11	21.45	21.95
	1	74	22.93	22.97	**23.15**	21.73	21.60	22.21
	36	19	21.66	21.59	21.95	20.68	20.59	20.99
	75	0	21.61	21.60	21.89	20.69	20.61	20.49

LTE Band 4_Uplink frequency band : 1710 to 1755 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 20050	Channel (Mid) 20175	Channel (High) 20300	Channel (Low) 20050	Channel (Mid) 20175	Channel (High) 20300
20	1	0	22.93	22.88	22.89	21.78	22.16	22.20
	1	99	22.85	22.71	**22.95**	21.58	21.87	22.26
	50	25	21.62	21.54	21.55	20.64	20.34	20.54
	100	0	21.69	21.75	21.57	20.59	20.62	20.58

LTE Band 5

LTE Band 5_Uplink frequency band : 824 to 849 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 20407	Channel (Mid) 20525	Channel (High) 20643	Channel (Low) 20407	Channel (Mid) 20525	Channel (High) 20643
1.4	1	0	22.37	22.88	22.34	21.01	21.78	21.36
	1	5	22.51	**22.91**	22.28	21.25	22.07	21.08
	3	2	22.42	22.87	22.35	21.52	21.99	21.20
	6	0	21.42	22.05	21.34	20.45	20.94	20.27

LTE Band 5_Uplink frequency band : 824 to 849 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 20415	Channel (Mid) 20525	Channel (High) 20635	Channel (Low) 20415	Channel (Mid) 20525	Channel (High) 20635
3	1	0	22.43	22.90	22.68	21.85	21.58	21.57
	1	14	22.52	**23.16**	22.37	21.50	22.11	21.36
	8	4	21.66	22.10	21.66	20.61	21.01	20.57
	15	0	21.58	21.91	21.44	20.50	20.95	20.53

LTE Band 5_Uplink frequency band : 824 to 849 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 20425	Channel (Mid) 20525	Channel (High) 20625	Channel (Low) 20425	Channel (Mid) 20525	Channel (High) 20625
5	1	0	22.62	22.89	22.68	21.73	22.19	21.63
	1	24	22.63	**23.25**	22.47	21.95	22.50	21.60
	12	6	21.58	22.09	21.63	20.76	21.04	20.66
	25	0	21.57	21.85	21.52	20.62	20.93	20.49

LTE Band 5_Uplink frequency band : 824 to 849 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 20450	Channel (Mid) 20525	Channel (High) 20600	Channel (Low) 20450	Channel (Mid) 20525	Channel (High) 20600
10	1	0	22.59	22.68	23.06	21.84	22.01	22.20
	1	49	22.95	**23.28**	22.56	22.10	22.28	21.48
	25	12	21.53	21.89	21.81	20.57	20.85	20.74
	50	0	21.40	21.73	21.66	20.38	20.73	20.55

LTE Band 13

LTE Band 13_Uplink frequency band : 777 to 787 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 23205	Channel (Mid) 23230	Channel (High) 23255	Channel (Low) 23205	Channel (Mid) 23230	Channel (High) 23255
5	1	0	22.63	22.90	22.91	21.27	21.6	21.89
	1	24	23.17	23.02	22.81	22.27	21.91	21.68
	12	6	21.90	22.01	21.84	20.98	21.07	20.95
	25	0	21.77	21.90	21.69	20.63	20.75	20.65

LTE Band 13_Uplink frequency band : 777 to 787 MHz				
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)	
			QPSK	16QAM
			Channel 23230	Channel 23230
10	1	0	22.82	21.35
	1	49	**23.09**	21.63
	25	12	22.01	20.95
	50	0	21.76	20.78

LTE Band 17

LTE Band 17_Uplink frequency band : 704 to 716 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 23755	Channel (Mid) 20790	Channel (High) 20825	Channel (Low) 23755	Channel (Mid) 20790	Channel (High) 20825
5	1	0	22.54	22.31	22.45	21.25	21.30	21.55
	1	24	22.51	22.62	**22.64**	21.69	21.51	21.53
	12	6	21.59	21.42	21.33	20.67	20.54	20.38
	25	0	21.40	21.30	21.29	20.31	20.33	20.33

LTE Band 17_Uplink frequency band : 704 to 716 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 23780	Channel (Mid) 23790	Channel (High) 23800	Channel (Low) 23780	Channel (Mid) 23790	Channel (High) 23800
10	1	0	22.39	22.48	22.37	21.12	21.81	21.42
	1	49	22.50	22.55	**22.66**	21.33	21.77	21.53
	25	12	21.27	21.26	21.33	20.38	20.23	20.37
	50	0	21.23	21.26	21.19	20.32	20.17	20.09

LTE Band 25

LTE Band 25_Uplink frequency band : 1850 to 1915 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 26047	Channel (Mid) 26365	Channel (High) 26683	Channel (Low) 26047	Channel (Mid) 26365	Channel (High) 26683
1.4	1	0	22.88	22.94	22.12	22.33	21.90	21.04
	1	5	**22.96**	22.81	22.02	21.71	21.71	21.07
	3	2	22.87	22.88	21.17	21.99	21.77	20.34
	6	0	21.94	21.90	21.04	20.98	20.98	20.09

LTE Band 25_Uplink frequency band : 1850 to 1915 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 26055	Channel (Mid) 26365	Channel (High) 26675	Channel (Low) 26055	Channel (Mid) 26365	Channel (High) 26675
3	1	0	23.74	**23.78**	22.62	22.80	22.83	21.96
	1	14	23.77	23.66	22.02	22.73	22.86	21.13
	8	4	22.69	22.54	21.21	21.60	21.51	20.26
	15	0	22.62	22.48	21.18	21.75	21.47	20.28

LTE Band 25_Uplink frequency band : 1850 to 1915 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 26065	Channel (Mid) 26365	Channel (High) 26665	Channel (Low) 26065	Channel (Mid) 26365	Channel (High) 26665
5	1	0	23.69	23.75	23.39	22.96	22.54	22.34
	1	24	**23.87**	23.40	22.11	22.52	22.53	21.11
	12	6	22.70	22.59	21.61	21.91	21.58	20.77
	25	0	22.46	22.40	21.55	21.56	21.45	20.58

LTE Band 25_Uplink frequency band : 1850 to 1915 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 26090	Channel (Mid) 26365	Channel (High) 226640	Channel (Low) 26090	Channel (Mid) 26365	Channel (High) 226640
10	1	0	23.61	23.76	**23.84**	22.73	22.95	22.98
	1	49	23.62	23.52	22.04	22.87	22.35	21.23
	25	12	22.56	22.40	22.47	21.59	21.41	21.48
	50	0	22.39	22.27	22.05	21.35	21.30	21.23

LTE Band 25_Uplink frequency band : 1850 to 1915 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 26115	Channel (Mid) 26365	Channel (High) 26615	Channel (Low) 26115	Channel (Mid) 26365	Channel (High) 26615
15	1	0	**23.73**	23.46	23.47	22.60	22.76	22.33
	1	74	23.54	23.37	22.01	22.43	22.74	21.02
	36	19	22.49	22.38	22.59	21.45	21.40	21.63
	75	0	22.36	22.40	22.35	21.31	21.41	21.34

LTE Band 25_Uplink frequency band : 1850 to 1915 MHz								
BW (MHz)	RB Size	RB Offset	Conducted power (dBm)					
			QPSK			16QAM		
			Channel (Low) 26140	Channel (Mid) 26365	Channel (High) 26590	Channel (Low) 26140	Channel (Mid) 26365	Channel (High) 26590
20	1	0	**24.00**	23.51	23.17	22.97	22.70	22.01
	1	99	23.68	23.21	22.18	22.63	22.82	21.39
	50	25	22.40	22.33	22.58	21.26	21.41	21.61
	100	0	22.39	22.24	22.43	21.39	21.26	21.37

HSDPA Release 8 MODE:

The following 4 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX RMS power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C10.1.4 & C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing.

HSDPA SUB-TEST Setting

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH(FOR HSDPA)

Sub-test	β_c	β_d	β_d ***(SF)***	β_c/β_d	β_{HS} (*Note1, Note 2*)	**CM (dB)** *(Note 3)*	**MPR (dB)** *(Note 3)*	**RMC (Kbps)**
1	2/15	15/15	64	2/15	4/15	0.0	0.0	12.2
2	12/15 *(Note 4)*	15/15 *(Note 4)*	64	12/15 *(Note 4)*	24/15	1.0	0.0	12.2
3	15/15	8/15	64	15/8	30/15	1.5	0.5	12.2
4	15/15	4/15	64	15/4	30/15	1.5	0.5	12.2

Note: The recommended HSDPA MPRs are implemented as per following sub-tests.

Results:

Mode	Sub-test	Avg. Power (dBm) Channel			Power Class 3 Limitation (dBm)	Comments
		9262	9400	9538		
HSDPA (B2)	1	23.73	23.52	**23.84**	20.3dBm – 25.7dBm	**Pass**
	2	23.43	23.49	23.83	20.3dBm – 25.7dBm	**Pass**
	3	23.24	23.07	23.31	19.8dBm – 25.7dBm	**Pass**
	4	23.31	23.08	23.43	19.8dBm – 25.7dBm	**Pass**

Mode	Sub-test	RMS Power (dBm) Channel			Power Class 3 Limitation (dBm)	Comments
		1312	1413	1513		
HSDPA (B4)	1	23.29	23.47	23.49	20.3dBm – 25.7dBm	**Pass**
	2	23.46	23.23	**23.50**	20.3dBm – 25.7dBm	**Pass**
	3	22.81	23.02	22.96	19.8dBm – 25.7dBm	**Pass**
	4	22.88	23.03	23.08	19.8dBm – 25.7dBm	**Pass**

Mode	Sub-test	Avg. Power (dBm) Channel			Power Class 3 Limitation (dBm)	Comments
		4132	4183	4233		
HSDPA (B5)	1	23.75	24.25	24.02	20.3dBm – 25.7dBm	**Pass**
	2	23.89	**24.28**	23.77	20.3dBm – 25.7dBm	**Pass**
	3	23.29	23.77	23.53	19.8dBm – 25.7dBm	**Pass**
	4	23.34	23.81	23.59	19.8dBm – 25.7dBm	**Pass**

HSPA (HSDPA & HSUPA) Release 8 MODE

The following 5 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX RMS power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing

HSPA SUB-TEST Setting

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH(FOR HSUPA)

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS}	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (Codes)	CM (dB)	MPR (dB)	AG Index	E-TFCI	RMC (Kbps)
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/225	1309/225	4	1	1.0	0.0	20	75	12.2
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67	12.2
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed}1$: 47/15 $\beta_{ed}2$: 47/15	4 4	2	2.0	1.0	15	92	12.2
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71	12.2
5	15/15 (Note 4)	15/15 (Note 4)	64	15/15 (Note 4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81	12.2

Note: The recommended HSUPA MPRs are implemented as per following sub-tests.

Results:

Mode	Sub-test	Avg. Power (dBm) Channel			Power Class 3 Limitation (dBm)	Comments
		9262	9400	9538		
HSUPA(B2)	1	23.47	23.61	**23.92**	18.8dBm – 25.7dBm	**Pass**
	2	21.52	21.68	21.96	16.8dBm – 25.7dBm	**Pass**
	3	22.53	22.63	23.00	17.8dBm – 25.7dBm	**Pass**
	4	21.65	21.73	22.00	16.8dBm – 25.7dBm	**Pass**
	5	23.36	23.47	23.83	18.8dBm – 25.7dBm	**Pass**

Mode	Sub-test	RMS Power (dBm) Channel			Power Class 3 Limitation (dBm)	Comments
		1312	1413	1513		
HSUPA (B4)	1	23.50	23.35	**23.59**	18.8dBm – 25.7dBm	**Pass**
	2	21.55	21.42	21.63	16.8dBm – 25.7dBm	**Pass**
	3	22.56	22.37	22.67	17.8dBm – 25.7dBm	**Pass**
	4	21.68	21.47	21.67	16.8dBm – 25.7dBm	**Pass**
	5	23.39	23.21	23.50	18.8dBm – 25.7dBm	**Pass**

Mode	Sub-test	Avg. Power (dBm) Channel			Power Class 3 Limitation (dBm)	Comments
		4132	4183	4233		
HSUPA(B5)	1	23.92	**24.32**	23.82	18.8dBm – 25.7dBm	**Pass**
	2	21.98	22.40	21.86	16.8dBm – 25.7dBm	**Pass**
	3	22.96	23.38	22.90	17.8dBm – 25.7dBm	**Pass**
	4	22.03	22.46	21.94	16.8dBm – 25.7dBm	**Pass**
	5	23.78	24.15	23.71	18.8dBm – 25.7dBm	**Pass**

Minimum Communications Power Measurement

PCS 1900 band

PCL	0	1	2	3	4	5	6	7	8
Output power (dBm)	28.5	27.7	24.4	23.7	21.7	19.7	17.7	15.9	13.9

PCL	9	10	11	12	13	14	15
Output power (dBm)	12.1	10	8.1	5.9	4	2.1	1.8

Note: The EUT output power was controlled by simulator. Set Communication Tester CMU200 PCL as above, and get the mobile phone output power reading.

WCDMA/HSDPA/HSUPA band II, IV, V

The EUT output power was controlled by simulator. Set Communication Tester CMU200 function key “UE Power Control” and enter max rated power 24dBm. The EUT is going to be set to max output power to 24dBm. Then record the read (see page 33 for measurement data). The min. power was measures by a function key “minimum power” then record the read. It is -52.3dBm. The power variation can be 0.1dB step by setting.

7. EFFECTIVE RADIATED POWER AND EQUIVALENT ISOTROPIC RADIATED POWER MEASUREMENT

7.1. Standard Applicable

FCC 22.913(a) Mobile station is limited to 7W.

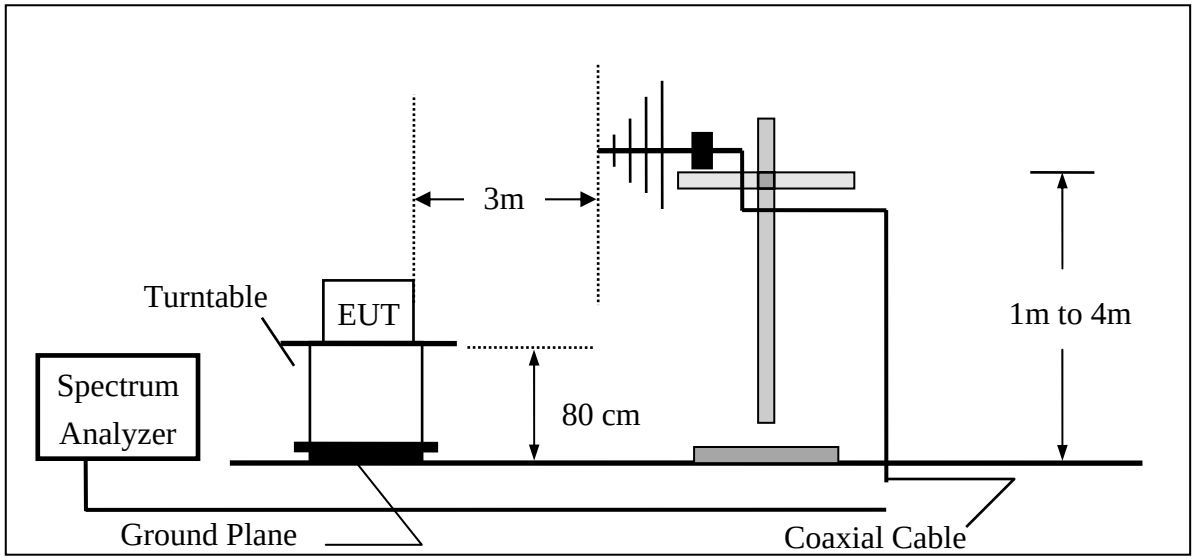
FCC 24.232(b) Mobile station is limited to 2W.

FCC 27, 50(d)(4) Portable stations are limited to 1W

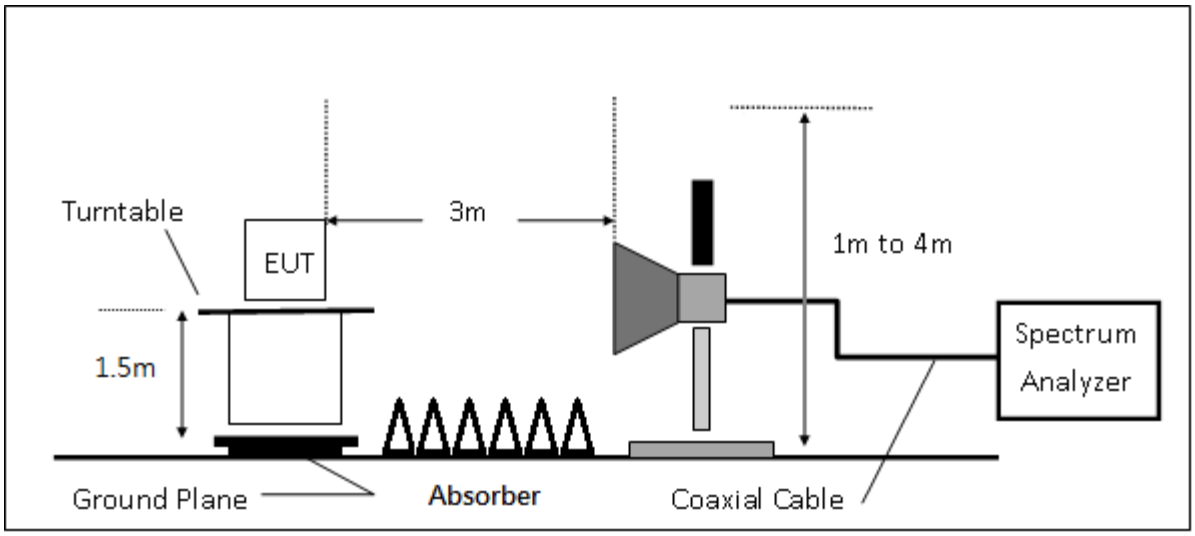
Part 27, 50(d)(4) Portable stations are limited to 1W

7.2. Test SET-UP

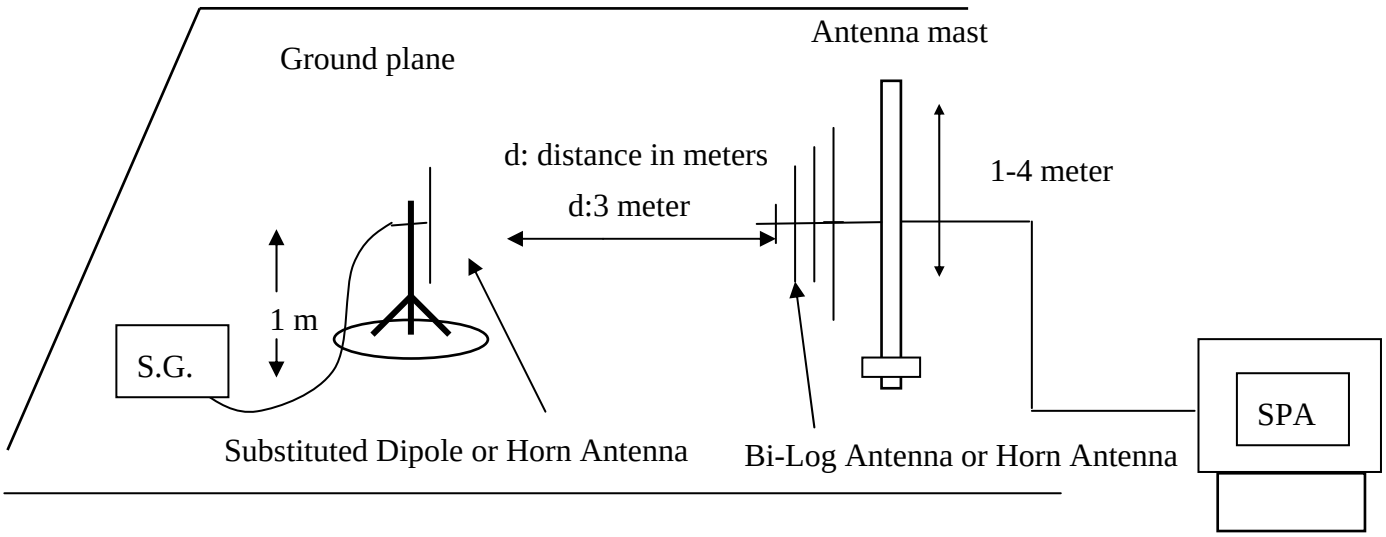
(A) Radiated Power Test Set-Up, Frequency Below 1000MHz



(B) Radiated Power Test Set-UP Frequency Over 1 GHz



(C) Substituted Method Test Set-UP



7.3. Measurement Procedure

1. The testing follows the Measurement Procedure of FCC KDB 971168 D01
2. The EUT was placed on a non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.
3. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated
4. The testing follows the Measurement Procedure of FCC KDB 971168 D01
5. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step b. Record the power level of S.G.
6. ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable Loss (dB)
7. ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable Loss (dB)
8. Spectrum setting:

   (1) Detector = Peak, marker the highest value of the detector by maximum hold, set RBW wide enough to capture the entire signal of emission, and VBW > =3xRBW.

   (2) KDB 971168 D01 is adopted, and the procedure as lists under item 4, Measurement of the Average Power over the Fundamental Signal Bandwidth, is followed to set correspondingly for the acquisition of proper measurement data.

   Set frequency = nominal signal center frequency;

   Set span = 2 X occupied BW;

   Set RBW ≈ 1~5% of the span, not to exceed 1 MHz

   Set VBW = 3 x RBW;

   Select average power (RMS) detector

   Set sweep time and number of measurement points to achieve a minimum of 1 millisecond/pt integration time (ex. Point = 601points, then sweet time = 601*10^-3 = 6s.

Activate trace averaging routine over a minimum of 10 sweeps;
Activate marker/span pair and set span = signal or channel bandwidth;
Activate the band/interval power marker function;
Record the band power level;

Record adjusted value as the average signal power level. Then activate the occupied bandwidth measurement function.

The proper adjustment due to limitation of spectrum capability is given compensated to spectrum with conversion factor of 10*log (TBW/RBW), where TBW is the transmission of UE exceeding the maximum BW UE can extends, and RBW is the resolution BW in UE.

7.4. Measurement Equipment Used

SGS 966 Chamber No.C					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
EMI Test Receiver	R&S	ESU 40	100363	04/09/2015	04/08/2016
Broadband Antenna	TESEQ	CBL 6112D	35240	12/05/2014	12/04/2015
Broadband Antenna	TESEQ	CBL 6112D	35243	11/14/2014	11/13/2015
Horn Antenna	ETS-Lindgren	3117	00143272	12/08/2014	12/07/2015
Horn Antenna	ETS-Lindgren	3117	00143280	09/23/2014	09/22/2015
Horn Antenna	ETS-Lindgren	3160-09	00117911	11/13/2014	11/12/2015
Horn Antenna	ETS-Lindgren	3160-09	00117910	11/13/2014	11/12/2015
Pre Amplifier	EMC Instruments	EMC330	980096	12/19/2014	12/18/2015
Pre Amplifier	EMC Instruments	EMC0011830	980199	12/19/2014	12/18/2015
Pre Amplifier	R&S	SCU-18	10204	12/19/2014	12/18/2015
Pre Amplifier	R&S	SCU-26	100780	12/19/2014	12/18/2015
Pre Amplifier	EMC Instruments	EMC184045B	980135	12/19/2014	12/18/2015
Coaxial Cable	Huber+Suhner	RG 214/U	966Rx 9K-30M	12/19/2014	12/18/2015
Coaxial Cable	Huber+Suhner	RG 214/U SUCOFLEX 104	966Rx 30M-3G	12/19/2014	12/18/2015
Coaxial Cable	Huber+Suhner	SUCOFLEX 104	966Rx 1G-18G	12/19/2014	12/18/2015
Coaxial Cable	Huber+Suhner	mini 141-12 SUCOFLEX 104	966Rx 18G-40G	12/19/2014	12/18/2015
Coaxial Cable	Huber+Suhner	SUCOFLEX 104	966Tx 30M-18G	12/19/2014	12/18/2015
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	966Tx 18G-40G	12/19/2014	12/18/2015
Attenuator	WOKEN	218FS-10	RF27	12/19/2014	12/18/2015
Communication Tester	Anritsu	MT8820C	6201107337	06/03/2014	06/02/2015
Site NSA	SGS	966 Chamber C	SAC-C	03/04/2015	03/03/2016
Site VSWR	SGS	966 Chamber C	SAC-C	03/04/2015	03/03/2016
DC Power Supply	HOLA	DP-3003	D7070035	05/31/2014	05/30/2015
Controller	MF	MF-7802	N/A	N.C.R.	N.C.R.
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.
Turn Table	MF	N/A	N/A	N.C.R.	N.C.R.
Test Software	World-Pallas	Dr. E	V 3.0 Lite	N.C.R.	N.C.R.

7.5. Measurement Result: (Peak) –using option of peak measurement

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
GPRS 850	824.2	128	V	23.47	5.13	-4.73	23.88	38.45
			H	27.92	5.13	-4.73	28.37	38.45
	836.6	190	V	25.51	5.09	-4.48	26.12	38.45
			H	28.69	5.09	-4.48	**29.30**	38.45
	848.8	251	V	24.37	5.05	-4.62	24.80	38.45
			H	27.23	5.05	-4.62	27.65	38.45

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
EDGE 850	824.2	128	V	17.67	5.13	-4.72	18.08	38.45
			H	20.85	5.13	-4.72	21.26	38.45
	836.6	190	V	17.99	5.09	-4.49	18.59	38.45
			H	20.72	5.09	-4.86	21.33	38.45
	848.8	251	V	18.70	5.05	-4.63	19.12	38.45
			H	21.65	5.05	-4.63	**22.07**	38.45

Remark：

(1) The RBW,VBW of SPA for frequency RBW=300 KHz, VBW=1MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
GPRS 1900	1850.2	512	V	29.16	5.36	-5.35	29.16	33.01
			H	24.79	5.36	-5.35	24.79	33.01
	1880.0	661	V	30.10	5.28	-5.41	**29.98**	33.01
			H	23.93	5.28	-5.41	23.81	33.01
	1909.8	810	V	29.94	5.21	-5.39	29.76	33.01
			H	25.38	5.21	-5.39	25.20	33.01

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
EDGE 1900	1850.2	512	V	28.93	5.35	-5.35	28.93	33.01
			H	24.85	5.35	-5.35	24.85	33.01
	1880.0	661	V	28.49	5.28	-5.41	28.37	33.01
			H	24.32	5.28	-5.41	24.20	33.01
	1909.8	810	V	29.98	5.21	-5.39	**29.80**	33.01
			H	25.44	5.21	-5.39	25.26	33.01

Remark：

(1) The RBW,VBW of SPA for frequency RBW=300 KHz, VBW=1MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
WCDMA B2	1852.4	9262	V	16.99	5.35	-5.35	16.98	33.01
			H	10.39	5.35	-5.35	10.38	33.01
	1880.0	9400	V	25.73	5.28	-5.41	**25.61**	33.01
			H	17.98	5.28	-5.41	17.86	33.01
	1907.6	9538	V	20.10	5.22	-5.39	19.93	33.01
			H	12.58	5.22	-5.39	12.41	33.01

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
HSDPA B2	1852.4	9262	V	17.61	5.35	-5.35	17.61	33.01
			H	10.74	5.35	-5.35	10.74	33.01
	1880.0	9400	V	17.39	5.28	-5.40	17.27	33.01
			H	10.33	5.28	-5.40	10.21	33.01
	1907.6	9538	V	20.93	5.22	-5.39	**20.76**	33.01
			H	11.61	5.22	-5.39	11.44	33.01

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
HSUPA B2	1852.4	9262	V	19.04	5.35	-5.35	19.04	33.01
			H	13.29	5.35	-5.35	13.29	33.01
	1880.0	9400	V	19.50	5.28	-5.40	19.38	33.01
			H	12.63	5.28	-5.40	12.51	33.01
	1907.6	9538	V	22.29	5.22	-5.39	**22.12**	33.01
			H	13.90	5.22	-5.39	13.73	33.01

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 5MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
WCDMA B4	1712.4	1312	V	22.53	5.69	-5.18	**23.40**	33.01
			H	16.69	5.69	-5.18	16.69	33.01
	1732.6	1413	V	22.00	5.64	-5.24	22.39	33.01
			H	15.4	5.64	-5.24	15.79	33.01
	1752.6	1513	V	22.64	5.59	-5.30	22.93	33.01
			H	16.83	5.59	-5.30	17.12	33.01

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
HSDPA B4	1712.4	1312	V	21.17	5.68	-5.17	**21.68**	33.01
			H	14.58	5.69	-5.17	15.09	33.01
	1732.6	1413	V	21.14	5.64	-5.24	21.54	33.01
			H	14.50	5.64	-5.24	14.89	33.01
	1752.6	1513	V	21.38	5.59	-5.30	21.67	33.01
			H	16.07	5.59	-5.30	16.37	33.01

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
HSUPA B4	1712.4	1312	V	22.46	5.69	-5.17	22.97	33.01
			H	15.90	5.69	-5.17	16.41	33.01
	1732.6	1413	V	22.52	5.64	-5.24	22.92	33.01
			H	15.84	5.64	-5.24	16.24	33.01
	1752.6	1513	V	22.75	5.59	-5.30	**23.30**	33.01
			H	17.31	5.59	-5.30	17.61	33.01

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 5MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
WCDMA B5	826.4	4132	V	19.21	5.13	-4.73	19.61	38.45
			H	16.99	5.12	-4.73	17.39	38.45
	836.6	4183	V	19.28	5.09	-4.44	**19.93**	38.45
			H	15.82	5.09	-4.47	16.42	38.45
	846.6	4233	V	19.07	5.06	-4.52	19.61	38.45
			H	16.18	5.06	-4.52	16.72	38.45

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
HSDPA B5	826.4	4132	V	19.90	5.12	-4.72	**20.30**	38.45
			H	17.17	5.13	-4.73	17.56	38.45
	836.6	4183	V	18.81	5.09	-4.47	19.43	38.45
			H	15.74	5.09	-4.47	16.36	38.45
	846.6	4233	V	17.74	5.06	-4.53	18.26	38.45
			H	14.83	5.05	-4.54	15.34	38.45

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
HSUPA B5	826.4	4132	V	20.93	5.12	-4.71	**21.35**	38.45
			H	19.57	5.13	-4.73	19.97	38.45
	836.6	4183	V	20.22	5.09	-4.46	20.85	38.45
			H	17.25	5.09	-4.46	17.88	38.45
	846.6	4233	V	19.18	5.05	-4.54	19.7	38.45
			H	16.52	5.05	-4.57	17.00	38.45

Remark：

(1) The RBW,VBW of SPA for frequency RBW=5MHz, VBW=8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
CDMA BC0	824.7	1013	V	7.89	5.13	-3.49	11.12	38.45
			H	19.21	5.13	-3.49	20.85	38.45
	836.52	384	V	7.60	5.09	-3.37	9.32	38.45
			H	19.98	5.09	-3.37	**21.70**	38.45
	848.31	777	V	6.18	5.05	-3.43	7.80	38.45
			H	18.49	5.05	-3.51	20.03	38.45

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
EVDO 2000 BC0	824.7	1013	V	7.54	5.13	-3.41	9.26	38.45
			H	19.09	5.13	-3.49	20.74	38.45
	836.52	384	V	8.13	5.09	-3.37	9.85	38.45
			H	19.10	5.09	-3.37	**20.82**	38.45
	848.31	777	V	6.49	5.05	-3.51	8.030	38.45
			H	17.92	5.05	-3.51	19.46	38.45

Remark：

(1) The RBW,VBW of SPA for frequency RBW=5MHz, VBW=8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
CDMA BC1	1851.25	25	V	19.39	5.35	-5.72	19.02	33.00
			H	21.30	5.35	-5.72	20.94	33.00
	1880.0	600	V	18.57	5.28	-5.77	18.08	33.00
			H	20.11	5.28	-5.77	19.62	33.00
	1908.75	1175	V	19.29	5.22	-5.81	18.70	33.00
			H	22.11	5.21	-5.81	**21.51**	33.00

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
EVDO 2000 BC1	1851.25	25	V	19.20	5.35	-5.72	18.84	33.00
			H	21.13	5.35	-5.72	20.77	33.00
	1880.0	600	V	18.52	5.28	-5.77	18.03	33.00
			H	20.19	5.28	-5.77	19.70	33.00
	1908.75	1175	V	19.09	5.21	-5.81	18.50	33.00
			H	21.61	5.21	-5.81	**21.01**	33.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW=5MHz, VBW=8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 2 BW: 1.4M QPSK RB: 1,0	1850.7	18607	V	24.86	5.36	-5.36	24.86	33.01
			H	23.53	5.36	-5.36	23.53	33.01
	1880.0	18900	V	25.95	5.29	-5.41	**25.83**	33.01
			H	24.66	5.29	-5.41	24.54	33.01
	1909.3	19193	V	24.93	5.22	-5.39	25.10	33.01
			H	23.27	5.22	-5.39	23.10	33.01
BAND 2 BW: 1.4M QPSK RB: 1,5	1850.7	18607	V	24.72	5.36	-5.36	24.72	33.01
			H	23.15	5.36	-5.36	23.15	33.01
	1880.0	18900	V	25.20	5.29	-5.41	**25.07**	33.01
			H	24.20	5.29	-5.41	24.08	33.01
	1909.3	19193	V	25.13	5.33	-5.29	24.95	33.01
			H	22.91	5.22	-5.39	22.73	33.01
BAND 2 BW: 1.4M 16QAM RB: 1,0	1850.7	18607	V	24.72	5.36	-5.36	24.72	33.01
			H	23.33	5.36	-5.36	23.33	33.01
	1880.0	18900	V	25.56	5.29	-5.41	**25.44**	33.01
			H	24.51	5.29	-5.42	24.38	33.01
	1909.3	19193	V	25.21	5.22	-5.39	25.04	33.01
			H	23.36	5.22	-5.39	23.18	33.01
BAND 2 BW: 1.4M 16QAM RB: 1,5	1850.7	18607	V	24.55	5.36	-5.36	24.55	33.01
			H	23.30	5.36	-5.36	23.30	33.01
	1880.0	18900	V	25.47	5.29	-5.47	**26.34**	33.01
			H	24.51	5.29	-5.41	24.39	33.01
	1909.3	19193	V	25.24	5.24	-5.39	25.07	33.01
			H	23.09	5.22	-5.39	22.92	33.01

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 2 BW: 3M QPSK RB: 1,0	1851.5	18615	V	24.85	5.36	-5.36	24.85	33.01
			H	23.01	5.36	-5.36	23.01	33.01
	1880.0	18900	V	25.54	5.29	-5.41	**25.42**	33.01
			H	24.23	5.29	-5.41	24.12	33.01
	1908.5	19185	V	25.16	5.22	-5.39	24.99	33.01
			H	23.72	5.22	-5.39	23.55	33.01
BAND 2 BW: 3M QPSK RB: 1,14	1851.5	18615	V	24.28	5.35	-5.36	24.27	33.01
			H	22.82	5.35	-5.36	22.82	33.01
	1880.0	18900	V	25.36	5.28	-5.42	**25.22**	33.01
			H	24.12	5.28	-5.42	23.99	33.01
	1908.5	19185	V	25.27	5.22	-5.39	25.10	33.01
			H	22.82	5.22	-5.39	22.65	33.01
BAND 2 BW: 3M 16QAM RB: 1,0	1851.5	18615	V	24.79	5.36	-5.36	24.79	33.01
			H	23.12	5.36	-5.36	23.12	33.01
	1880.0	18900	V	25.64	5.29	-5.41	**25.52**	33.01
			H	24.34	5.29	-5.41	24.22	33.01
	1908.5	19185	V	25.34	5.22	-5.39	25.17	33.01
			H	23.80	5.22	-5.39	23.63	33.01
BAND 2 BW: 3M 16QAM RB: 1,14	1851.5	18615	V	24.43	5.35	-5.36	24.43	33.01
			H	22.97	5.35	-5.36	22.96	33.01
	1880.0	18900	V	25.49	5.28	-5.42	**25.35**	33.01
			H	24.24	5.28	-5.42	24.10	33.01
	1908.5	19185	V	25.36	5.22	-5.39	25.18	33.01
			H	22.95	5.22	-5.39	22.78	33.01

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 2 BW: 5M QPSK RB: 1,0	1852.5	18625	V	24.72	5.36	-5.36	24.72	33.01
			H	22.98	5.36	-5.36	22.98	33.01
	1880.0	18900	V	25.64	5.29	-5.40	**25.53**	33.01
			H	24.03	5.29	-5.40	23.92	33.01
	1907.5	19175	V	25.10	5.23	-5.39	25.26	33.01
			H	23.92	5.23	-5.39	23.75	33.01
BAND 2 BW: 5M QPSK RB: 1,24	1852.5	18625	V	24.27	5.35	-5.36	24.26	33.01
			H	22.67	5.35	-5.36	22.66	33.01
	1880.0	18900	V	25.28	5.28	-5.42	**25.14**	33.01
			H	23.76	5.28	-5.42	23.62	33.01
	1907.5	19175	V	25.25	5.22	-5.39	25.08	33.01
			H	22.72	5.22	-5.39	22.55	33.01
BAND 2 BW: 5M 16QAM RB: 1,0	1852.5	18625	V	24.76	5.36	-5.36	24.76	33.01
			H	23.07	5.36	-5.36	23.07	33.01
	1880.0	18900	V	25.89	5.29	-5.40	**25.79**	33.01
			H	24.12	5.29	-5.41	24.01	33.01
	1907.5	19175	V	25.39	5.23	-5.39	25.23	33.01
			H	23.94	5.23	-5.39	23.78	33.01
BAND 2 BW: 5M 16QAM RB: 1,24	1852.5	18625	V	24.41	5.35	-5.36	24.40	33.01
			H	22.83	5.35	-5.36	22.82	33.01
	1880.0	18900	V	23.54	5.28	-5.42	**25.39**	33.01
			H	24.01	5.28	-5.42	23.87	33.01
	1907.5	19175	V	25.35	5.22	-5.39	25.17	33.01
			H	22.79	5.22	-5.39	22.61	33.01

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 2 BW: 10M QPSK RB: 1,0	1855.0	18650	V	24.66	5.36	-5.36	24.65	33.01
			H	22.89	5.36	-5.36	22.89	33.01
	1880.0	18900	V	25.71	5.30	-5.39	25.62	33.01
			H	23.60	5.30	-5.39	23.50	33.01
	1905.0	19150	V	26.26	5.24	-5.39	**26.11**	33.01
			H	23.55	5.24	-5.39	23.40	33.01
BAND 2 BW: 10M QPSK RB: 1,49	1855.0	18650	V	24.66	5.34	-5.35	24.65	33.01
			H	22.33	5.34	-5.35	22.31	33.01
	1880.0	18900	V	25.73	5.28	-5.43	25.58	33.01
			H	23.10	5.28	-5.43	22.95	33.01
	1905.0	19150	V	25.77	5.22	-5.39	**25.59**	33.01
			H	22.69	5.22	-5.39	22.52	33.01
BAND 2 BW: 10M 16QAM RB: 1,0	1855.0	18650	V	24.75	5.36	-5.36	24.75	33.01
			H	23.01	5.36	-5.36	23.01	33.01
	1880.0	18900	V	25.97	5.3	-5.39	25.88	33.01
			H	23.62	5.30	-5.39	23.53	33.01
	1905.0	19150	V	26.38	5.24	-5.39	**26.23**	33.01
			H	23.59	5.24	-5.39	23.44	33.01
BAND 2 BW: 10M 16QAM RB: 1,49	1855.0	18650	V	24.77	5.34	-5.35	24.75	33.01
			H	22.43	5.34	-5.35	22.41	33.01
	1880.0	18900	V	26.01	5.28	-5.43	**25.85**	33.01
			H	23.31	5.28	-5.43	23.16	33.01
	1905.0	19150	V	25.81	5.22	-5.39	25.64	33.01
			H	22.80	5.22	-5.39	22.63	33.01

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 2 BW: 15M QPSK RB: 1,0	1857.5	18675	V	24.11	5.36	-5.36	24.11	33.01
			H	22.73	5.36	-5.36	22.72	33.01
	1880.0	18900	V	25.80	5.30	-5.38	25.72	33.01
			H	23.16	5.30	-5.38	23.08	33.01
	1902.5	19125	V	26.60	5.25	-5.40	**26.44**	33.01
			H	22.50	5.25	-5.40	22.35	33.01
BAND 2 BW: 15M QPSK RB: 1,74	1857.5	18675	V	24.84	5.33	-5.35	24.81	33.01
			H	22.34	5.33	-5.35	22.32	33.01
	1880.0	18900	V	26.03	5.27	-5.42	**25.88**	33.01
			H	22.65	5.27	-5.42	22.50	33.01
	1902.5	19125	V	25.75	5.22	-5.39	25.58	33.01
			H	22.72	5.22	-5.39	22.54	33.01
BAND 2 BW: 15M 16QAM RB: 1,0	1857.5	18675	V	24.27	5.36	-5.36	24.27	33.01
			H	23.00	5.36	-5.36	23.00	33.01
	1880.0	18900	V	25.99	5.30	-5.38	25.91	33.01
			H	23.21	5.30	-5.38	23.14	33.01
	1902.5	19125	V	26.71	5.25	-5.40	**26.56**	33.01
			H	22.62	5.25	-5.40	22.47	33.01
BAND 2 BW: 15M 16QAM RB: 1,74	1857.5	18675	V	24.94	5.33	-5.35	24.91	33.01
			H	22.43	5.33	-5.35	22.41	33.01
	1880.0	18900	V	26.15	5.27	-5.42	**26.00**	33.01
			H	22.82	5.27	-5.42	22.66	33.01
	1902.5	19125	V	25.90	5.22	-5.39	25.72	33.01
			H	22.85	5.22	-5.39	22.68	33.01

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 2 BW: 20M QPSK RB: 1,0	1860.0	18700	V	24.08	5.36	-5.36	24.07	33.01
			H	22.73	5.36	-5.36	22.72	33.01
	1880.0	18900	V	25.33	5.31	-5.37	25.27	33.01
			H	22.63	5.31	-5.37	22.57	33.01
	1900.0	19100	V	26.47	5.26	-5.41	**26.32**	33.01
			H	22.04	5.26	-5.41	21.89	33.01
BAND 2 BW: 20M QPSK RB: 1,99	1860.0	18700	V	25.04	5.31	-5.36	25.00	33.01
			H	22.44	5.31	-5.36	22.40	33.01
	1880.0	18900	V	26.21	5.27	-5.42	**26.06**	33.01
			H	22.18	5.27	-5.42	22.03	33.01
	1900.0	19100	V	25.79	5.22	-5.39	25.62	33.01
			H	22.70	5.22	-5.39	22.53	33.01
BAND 2 BW: 20M 16QAM RB: 1,0	1860.0	18700	V	24.26	5.36	-5.36	24.26	33.01
			H	22.94	5.36	-5.36	22.94	33.01
	1880.0	18900	V	25.48	5.31	-5.37	25.42	33.01
			H	22.63	5.31	-5.37	22.57	33.01
	1900.0	19100	V	26.63	5.26	-5.41	**26.48**	33.01
			H	22.22	5.26	-5.41	22.07	33.01
BAND 2 BW: 20M 16QAM RB: 1,99	1860.0	18700	V	25.17	5.31	-5.36	25.12	33.01
			H	22.48	5.32	-5.36	22.44	33.01
	1880.0	18900	V	26.42	5.27	-5.42	**26.26**	33.01
			H	22.37	5.27	-5.42	22.21	33.01
	1900.0	19100	V	25.92	5.22	-5.39	25.75	33.01
			H	22.90	5.22	-5.39	22.73	33.01

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 4 BW: 1.4M QPSK RB: 1,0	1710.7	19957	V	20.92	5.69	-5.18	21.43	30.00
			H	24.62	5.69	-5.18	**25.14**	30.00
	1732.5	20175	V	21.47	5.64	-5.25	21.87	30.00
			H	20.82	5.64	-5.25	21.22	30.00
	1754.3	20393	V	20.25	5.59	-5.29	20.54	30.00
			H	21.83	5.59	-5.29	22.13	30.00
BAND 4 BW: 1.4M QPSK RB: 1,5	1710.7	19957	V	21.55	5.69	-5.18	22.07	30.00
			H	21.01	5.69	-5.18	21.52	30.00
	1732.5	20175	V	21.69	5.64	-5.25	**22.08**	30.00
			H	21.15	5.64	-5.25	21.54	30.00
	1754.3	20393	V	20.38	5.59	-5.29	20.68	30.00
			H	21.69	5.59	-5.29	21.99	30.00
BAND 4 BW: 1.4M 16QAM RB: 1,0	1710.7	19957	V	21.96	5.70	-5.18	22.48	30.00
			H	23.19	5.69	-5.18	**23.71**	30.00
	1732.5	20175	V	21.59	5.64	-5.25	21.99	30.00
			H	20.86	5.64	-5.25	21.26	30.00
	1754.3	20393	V	20.49	5.59	-5.30	20.78	30.00
			H	22.03	5.59	-5.29	22.33	30.00
BAND 4 BW: 1.4M 16QAM RB: 1,5	1710.7	19957	V	21.82	5.69	-5.18	22.33	30.00
			H	23.11	5.69	-5.18	**23.63**	30.00
	1732.5	20175	V	21.84	5.64	-5.25	22.23	30.00
			H	21.21	5.64	-5.25	21.60	30.00
	1754.3	20393	V	20.60	5.59	-5.29	20.89	30.00
			H	21.88	5.59	-5.29	22.18	30.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 4 BW: 3M QPSK RB: 1,0	1711.5	19965	V	20.49	5.59	-5.30	20.78	30.00
			H	22.90	5.70	-5.18	**23.42**	30.00
	1732.5	20175	V	21.30	5.64	-5.24	21.70	30.00
			H	20.50	5.64	-5.24	20.90	30.00
	1753.5	20385	V	20.29	5.59	-5.30	20.58	30.00
			H	22.05	5.59	-5.30	22.35	30.00
BAND 4 BW: 3M QPSK RB: 1,14	1711.5	19965	V	21.14	5.69	-5.18	21.65	30.00
			H	22.15	5.69	-5.18	**22.66**	30.00
	1732.5	20175	V	21.95	5.64	-5.25	22.34	30.00
			H	21.37	5.64	-5.25	21.76	30.00
	1753.5	20385	V	20.55	5.59	-5.29	20.85	30.00
			H	21.65	5.59	-5.29	21.95	30.00
BAND 4 BW: 3M 16QAM RB: 1,0	1711.5	19965	V	21.95	5.69	-5.18	22.47	30.00
			H	23.05	5.70	-5.18	**23.57**	30.00
	1732.5	20175	V	21.34	5.64	-5.24	21.74	30.00
			H	20.47	5.64	-5.24	20.88	30.00
	1753.5	20385	V	20.36	5.59	-5.30	20.65	30.00
			H	22.26	5.60	-5.30	22.55	30.00
BAND 4 BW: 3M 16QAM RB: 1,14	1711.5	19965	V	21.37	5.69	-5.18	21.88	30.00
			H	22.38	5.69	-5.18	**22.89**	30.00
	1732.5	20175	V	22.00	5.64	-5.25	22.38	30.00
			H	21.28	5.64	-5.25	21.67	30.00
	1753.5	20385	V	20.55	5.59	-5.29	20.85	30.00
			H	21.73	5.59	-5.29	22.03	30.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 4 BW: 5M QPSK RB: 1,0	1712.5	19975	V	21.82	5.69	-5.18	22.33	30.00
			H	22.84	5.69	-5.18	**23.35**	30.00
	1732.5	20175	V	21.00	5.65	-5.24	21.40	30.00
			H	20.20	5.65	-5.24	20.61	30.00
	1752.5	20375	V	20.20	5.60	-5.31	20.49	30.00
			H	22.43	5.60	-5.31	22.72	30.00
BAND 4 BW: 5M QPSK RB: 1,24	1712.5	19975	V	20.62	5.69	-5.18	21.12	30.00
			H	21.51	5.68	-5.18	22.01	30.00
	1732.5	20175	V	22.08	5.64	-5.26	**22.45**	30.00
			H	21.76	5.64	-5.26	22.14	30.00
	1752.5	20375	V	20.34	5.59	-5.29	20.64	30.00
			H	21.73	5.59	-5.29	22.02	30.00
BAND 4 BW: 5M 16QAM RB: 1,0	1712.5	19975	V	21.95	5.69	-5.18	22.47	30.00
			H	22.97	5.69	-5.18	**23.48**	30.00
	1732.5	20175	V	21.01	5.65	-5.24	21.42	30.00
			H	20.29	5.65	-5.24	20.70	30.00
	1752.5	20375	V	20.42	5.60	-5.31	20.71	30.00
			H	22.62	5.60	-5.31	22.91	30.00
BAND 4 BW: 5M 16QAM RB: 1,24	1712.5	19975	V	20.81	5.68	-5.18	21.31	30.00
			H	21.71	5.68	-5.18	22.21	30.00
	1732.5	20175	V	22.09	5.64	-5.26	**22.47**	30.00
			H	21.75	5.64	-5.26	22.13	30.00
	1752.5	20375	V	20.46	5.59	-5.29	20.75	30.00
			H	21.83	5.59	-5.29	22.12	30.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 4 BW: 10M QPSK RB: 1,0	1715.0	20000	V	21.74	5.69	-5.18	22.26	30.00
			H	22.92	5.69	-5.18	**23.44**	30.00
	1732.0	20175	V	20.24	5.65	-5.23	20.67	30.00
			H	19.59	5.65	-5.23	20.01	30.00
	1750.0	20350	V	20.92	5.61	-5.31	21.22	30.00
			H	22.61	5.61	-5.31	22.91	30.00
BAND 4 BW: 10M QPSK RB: 1,49	1715.0	20000	V	19.55	5.67	-5.20	20.02	30.00
			H	20.18	5.67	-5.20	20.65	30.00
	1732.0	20175	V	22.09	5.63	-5.27	22.46	30.00
			H	22.24	5.63	-5.27	**22.60**	30.00
	1750.0	20350	V	20.33	5.59	-5.29	20.63	30.00
			H	21.77	5.59	-5.29	22.07	30.00
BAND 4 BW: 10M 16QAM RB: 1,0	1715.0	20000	V	21.85	5.69	-5.18	22.36	30.00
			H	22.97	5.70	-5.18	**23.49**	30.00
	1732.0	20175	V	20.27	5.65	-5.23	20.69	30.00
			H	19.63	5.65	-5.23	20.05	30.00
	1750.0	20350	V	21.14	5.61	-5.31	21.44	30.00
			H	22.82	5.61	-5.31	23.12	30.00
BAND 4 BW: 10M 16QAM RB: 1,49	1715.0	20000	V	19.62	5.67	-5.20	20.09	30.00
			H	20.28	5.67	-5.20	20.75	30.00
	1732.0	20175	V	22.26	5.63	-5.27	22.62	30.00
			H	22.34	5.63	-5.27	**22.71**	30.00
	1750.0	20350	V	20.35	5.59	-5.29	20.64	30.00
			H	21.82	5.59	-5.29	22.12	30.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
BAND 4 BW: 15M QPSK RB: 1,0	1717.5	20025	V	21.60	5.69	-5.18	22.11	30.00
			H	22.69	5.69	-5.18	**23.20**	30.00
	1732.5	20175	V	19.55	5.66	-5.22	19.98	30.00
			H	19.28	5.66	-5.22	19.72	30.00
	1747.5	20325	V	21.66	5.62	-5.29	21.99	30.00
			H	22.55	5.62	-5.29	22.89	30.00
BAND 4 BW: 15M QPSK RB: 1,74	1717.5	20025	V	19.32	5.66	-5.22	19.77	30.00
			H	19.39	5.66	-5.22	19.84	30.00
	1732.5	20175	V	21.96	5.62	-5.28	22.30	30.00
			H	22.50	5.63	-5.28	**22.85**	30.00
	1747.5	20325	V	20.31	5.59	-5.29	20.61	30.00
			H	21.75	5.59	-5.29	22.04	30.00
BAND 4 BW: 15M 16QAM RB: 1,0	1717.5	20025	V	21.85	5.70	-5.18	22.37	30.00
			H	22.87	5.69	-5.18	**23.38**	30.00
	1732.5	20175	V	19.67	5.66	-5.22	20.10	30.00
			H	19.34	5.66	-5.22	19.78	30.00
	1747.5	20325	V	21.87	5.62	-5.29	22.21	30.00
			H	22.79	5.62	-5.29	23.12	30.00
BAND 4 BW: 15M 16QAM RB: 1,74	1717.5	20025	V	19.38	5.66	-5.21	19.83	30.00
			H	19.46	5.66	-5.22	19.90	30.00
	1732.5	20175	V	22.12	5.63	-5.28	22.47	30.00
			H	22.69	5.63	-5.28	**23.04**	30.00
	1747.5	20325	V	20.43	5.59	-5.29	20.72	30.00
			H	21.92	5.59	-5.29	22.22	30.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
BAND 4 BW: 20M QPSK RB: 1,0	1720.0	20050	V	21.58	5.69	-5.18	22.09	30.00
			H	22.65	5.69	-5.18	**23.17**	30.00
	1732.5	20175	V	19.26	5.66	-5.21	19.71	30.00
			H	19.42	5.66	-5.21	19.87	30.00
	1745.0	20300	V	22.23	5.63	-5.26	22.60	30.00
			H	22.11	5.63	-5.27	22.48	30.00
BAND 4 BW: 20M QPSK RB: 1,99	1720.0	20050	V	20.58	5.65	-5.23	21.00	30.00
			H	19.82	5.65	-5.23	20.24	30.00
	1732.5	20175	V	21.56	5.62	-5.29	21.89	30.00
			H	22.57	5.62	-5.29	**22.90**	30.00
	1745.0	20300	V	20.24	5.59	-5.30	20.54	30.00
			H	21.77	5.59	-5.29	22.07	30.00
BAND 4 BW: 20M 16QAM RB: 1,0	1720.0	20050	V	21.78	5.69	-5.18	22.29	30.00
			H	22.64	5.69	-5.18	**23.16**	30.00
	1732.5	20175	V	19.29	5.66	-5.21	19.75	30.00
			H	19.52	5.66	-5.21	19.96	30.00
	1745.0	20300	V	22.19	5.63	-5.27	22.56	30.00
			H	22.06	5.63	-5.26	22.43	30.00
BAND 4 BW: 15M 16QAM RB: 1,99	1720.0	20050	V	20.55	5.65	-5.23	20.97	30.00
			H	19.81	5.65	-5.23	20.23	30.00
	1732.5	20175	V	21.74	5.62	-5.29	22.07	30.00
			H	22.74	5.62	-5.29	**23.07**	30.00
	1745.0	20300	V	20.42	5.59	-5.30	20.71	30.00
			H	21.95	5.59	-5.30	22.24	30.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
BAND 5 BW: 1.4M QPSK RB: 1,0	824.7	20407	V	15.18	5.14	-3.52	16.79	38.45
			H	20.77	5.14	-3.53	**22.38**	38.45
	836.5	20525	V	14.62	5.10	-3.35	16.36	38.45
			H	19.46	5.10	-3.33	21.23	38.45
	848.3	20643	V	15.09	5.06	-3.41	16.74	38.45
			H	19.33	5.06	-3.41	20.98	38.45
BAND 5 BW: 1.4M QPSK RB: 1,5	824.7	20407	V	15.41	5.13	-3.38	17.17	38.45
			H	20.82	5.14	-3.54	**22.42**	38.45
	836.5	20525	V	14.65	5.10	-3.37	16.38	38.45
			H	19.39	5.10	-3.37	21.11	38.45
	848.3	20643	V	14.81	5.06	-3.49	16.37	38.45
			H	18.98	5.06	-3.49	20.55	38.45
BAND 5 BW: 1.4M 16QAM RB: 1,0	824.7	20407	V	15.04	5.14	-3.50	16.68	38.45
			H	20.75	5.14	-3.51	**22.38**	38.45
	836.5	20525	V	14.82	5.10	-3.35	16.57	38.45
			H	19.61	5.10	-3.34	21.38	38.45
	848.3	20643	V	15.30	5.06	-3.41	16.94	38.45
			H	19.78	5.06	-3.42	21.42	38.45
BAND 5 BW: 1.4M 16QAM RB: 1,5	824.7	20407	V	15.35	5.13	-3.37	17.11	38.45
			H	20.72	5.14	-3.47	**22.38**	38.45
	836.5	20525	V	14.77	5.10	-3.38	16.49	38.45
			H	19.55	5.10	-3.37	21.28	38.45
	848.3	20643	V	15.15	5.06	-3.49	16.72	38.45
			H	19.51	5.05	-3.51	21.05	38.45

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
BAND 5 BW: 3M QPSK RB: 1,0	825.5	20415	V	14.68	5.14	-3.48	16.34	38.45
			H	20.65	5.14	-3.52	**22.27**	38.45
	836.5	20525	V	14.60	5.10	-3.35	16.35	38.45
			H	19.69	5.11	-3.44	21.36	38.45
	847.5	20635	V	15.49	5.06	-3.41	17.15	38.45
			H	20.06	5.07	-3.41	21.72	38.45
BAND 5 BW: 3M QPSK RB: 1,14	825.5	20415	V	15.87	5.13	-3.36	17.64	38.45
			H	21.52	5.13	-3.33	**23.32**	38.45
	836.5	20525	V	14.63	5.09	-3.42	16.30	38.45
			H	19.54	5.09	-3.42	21.21	38.45
	847.5	20635	V	14.70	5.06	-3.49	16.27	38.45
			H	19.04	5.05	-3.51	20.59	38.45
BAND 5 BW: 3M 16QAM RB: 1,0	825.5	20415	V	14.78	5.14	-3.48	16.44	38.45
			H	20.67	5.14	-3.55	**22.27**	38.45
	836.5	20525	V	14.70	5.09	-3.42	16.37	38.45
			H	19.62	5.10	-3.40	21.31	38.45
	847.5	20635	V	15.99	5.06	-3.41	17.64	38.45
			H	20.51	5.06	-3.40	22.17	38.45
BAND 5 BW: 3M 16QAM RB: 1,14	825.5	20415	V	16.00	5.13	-3.35	17.78	38.45
			H	21.69	5.13	-3.33	**23.49**	38.45
	836.5	20525	V	14.76	5.10	-3.37	16.49	38.45
			H	19.80	5.10	-3.36	21.55	38.45
	847.5	20635	V	14.81	5.06	-3.45	16.42	38.45
			H	19.31	5.06	-3.46	20.91	38.45

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
BAND 5 BW: 5M QPSK RB: 1,0	826.5	20425	V	14.78	5.14	-3.48	16.44	38.45
			H	20.57	5.14	-3.53	22.17	38.45
	836.5	20525	V	14.91	5.11	-3.45	16.56	38.45
			H	20.16	5.11	-3.44	21.82	38.45
	846.5	20625	V	16.24	5.07	-3.41	17.90	38.45
			H	20.85	5.07	-3.40	**22.52**	38.45
BAND 5 BW: 5M QPSK RB: 1,24	826.5	20425	V	16.20	5.12	-3.43	17.89	38.45
			H	21.82	5.12	-3.43	**23.51**	38.45
	836.5	20525	V	14.82	5.09	-3.43	16.48	38.45
			H	19.70	5.09	-3.43	21.37	38.45
	846.5	20625	V	14.64	5.06	-3.50	16.20	38.45
			H	19.11	5.05	-3.53	20.64	38.45
BAND 5 BW: 5M 16QAM RB: 1,0	826.5	20425	V	14.86	5.14	-3.47	16.52	38.45
			H	20.57	5.14	-3.53	22.18	38.45
	836.5	20525	V	15.11	5.11	-3.48	16.73	38.45
			H	20.33	5.11	-3.51	21.93	38.45
	846.5	20625	V	16.65	5.07	-3.41	18.32	38.45
			H	21.35	5.07	-3.41	**23.02**	38.45
BAND 5 BW: 5M 16QAM RB: 1,24	826.5	20425	V	16.45	5.12	-3.43	18.14	38.45
			H	22.08	5.12	-3.43	**23.77**	38.45
	836.5	20525	V	14.87	5.09	-3.43	16.54	38.45
			H	19.80	5.09	-3.43	21.46	38.45
	846.5	20625	V	14.97	5.06	-3.50	16.52	38.45
			H	19.41	5.05	-3.52	20.95	38.45

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
BAND 5 BW: 10M QPSK RB: 1,0	829.0	20450	V	14.89	5.13	-3.41	16.62	38.45
			H	20.85	5.14	-3.48	**22.51**	38.45
	836.5	20525	V	15.55	5.11	-3.56	17.10	38.45
			H	20.71	5.11	-3.55	22.28	38.45
	844.0	20600	V	15.16	5.09	-3.49	16.76	38.45
			H	19.93	5.09	-3.48	21.54	38.45
BAND 5 BW: 10M QPSK RB: 1,49	829.0	20450	V	15.26	5.11	-3.56	16.81	38.45
			H	20.35	5.11	-3.48	21.98	38.45
	836.5	20525	V	15.94	5.08	-3.63	17.39	38.45
			H	20.63	5.08	-3.64	**22.08**	38.45
	844.0	20600	V	14.65	5.06	-3.44	16.27	38.45
			H	18.97	5.06	-3.45	20.57	38.45
BAND 5 BW: 10M 16QAM RB: 1,0	829.0	20450	V	15.04	5.14	-3.49	16.68	38.45
			H	20.81	5.13	-3.48	22.47	38.45
	836.5	20525	V	15.89	5.11	-3.56	17.44	38.45
			H	20.99	5.11	-3.55	**22.56**	38.45
	844.0	20600	V	15.21	5.09	-3.47	16.82	38.45
			H	19.96	5.09	-3.47	21.57	38.45
BAND 5 BW: 10M 16QAM RB: 1,49	829.0	20450	V	15.28	5.11	-3.50	16.88	38.45
			H	20.45	5.11	-3.56	22.01	38.45
	836.5	20525	V	16.01	5.08	-3.69	17.40	38.45
			H	20.66	5.08	-3.67	**22.08**	38.45
	844.0	20600	V	14.84	5.06	-3.43	16.47	38.45
			H	19.18	5.06	-3.48	20.76	38.45

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
BAND 13 BW: 5M QPSK RB: 1,0	779.5	23205	V	14.41	5.19	-3.22	16.39	34.77
			H	15.58	5.19	-3.21	17.56	34.77
	782.0	23230	V	16.16	5.20	-3.27	18.09	34.77
			H	16.83	5.20	-3.28	18.75	34.77
	784.5	23255	V	17.17	5.20	-3.34	19.03	34.77
			H	18.07	5.20	-3.42	**19.85**	34.77
BAND 13 BW: 5M QPSK RB: 1,24	779.5	23205	V	17.16	5.20	-3.30	19.05	34.77
			H	17.59	5.20	-3.33	**19.46**	34.77
	782.0	23230	V	16.86	5.20	-3.48	18.57	34.77
			H	17.65	5.20	-3.50	19.35	34.77
	784.5	23255	V	15.58	5.20	-3.33	17.45	34.77
			H	16.67	5.20	-3.33	18.54	34.77
BAND 13 BW: 5M 16QAM RB: 1,0	779.5	23205	V	14.45	5.19	-3.22	16.43	34.77
			H	15.19	5.19	-3.22	17.16	34.77
	782.0	23230	V	16.17	5.20	-3.28	18.09	34.77
			H	16.92	5.20	-3.28	18.84	34.77
	784.5	23255	V	17.69	5.20	-3.43	19.46	34.77
			H	18.35	5.20	-3.34	**20.21**	34.77
BAND 13 BW: 5M 16QAM RB: 1,24	779.5	23205	V	17.2	5.2	-3.28	19.12	34.77
			H	18.02	5.2	-3.34	**19.88**	34.77
	782.0	23230	V	17.21	5.2	-3.5	18.91	34.77
			H	18.13	5.2	-3.51	19.83	34.77
	784.5	23255	V	15.77	5.2	-3.33	17.65	34.77
			H	16.95	5.2	-3.33	18.82	34.77

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	**Fundamental Frequency**	**CH**	**Antenna Pol.**	**S.G. Output**	**Antenna Gain**	**Cable Loss**	**ERP**	**Limit**
	MHz		**V/H**	**dBm**	**dBd**	**dB**	**dBm**	**dBm**
BAND 13 BW: 10M QPSK RB: 1,0	782.0	23230	V	14.26	5.19	-3.22	16.24	34.77
			H	15.05	5.19	-3.21	**17.03**	34.77
BAND 13 BW: 10M QPSK RB: 1,49	782.0	23230	V	15.75	5.20	-3.37	17.58	34.77
			H	16.79	5.20	-3.33	**18.66**	34.77
BAND 13 BW: 10M 16QAM RB: 1,0	782.0	23230	V	14.62	5.19	-3.21	16.60	34.77
			H	15.28	5.19	-3.21	**17.27**	34.77
BAND 13 BW: 10M 16QAM RB: 1,49	782.0	23230	V	17.12	5.20	-3.33	**18.99**	34.77
			H	16.00	5.20	-3.33	17.87	34.77

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
BAND 17 BW: 5M QPSK RB: 1,0	706.5	23755	V	12.40	5.07	-3.16	14.31	34.77
			H	13.65	5.07	-3.18	15.54	34.77
	710.0	23790	V	13.88	5.08	-3.30	15.66	34.77
			H	14.09	5.08	-3.31	**15.85**	34.77
	713.5	23825	V	11.68	5.08	-3.08	13.67	34.77
			H	12.01	5.08	-3.09	14.01	34.77
BAND 17 BW: 5M QPSK RB: 1,24	706.5	23755	V	13.34	5.08	-3.30	15.12	34.77
			H	13.67	5.08	-3.28	**15.47**	34.77
	710.0	23790	V	11.38	5.08	-3.10	13.37	34.77
			H	11.89	5.08	-3.10	13.87	34.77
	713.5	23825	V	12.43	5.09	-3.25	14.27	34.77
			H	12.91	5.09	-3.23	14.77	34.77
BAND 17 BW: 5M 16QAM RB: 1,0	706.5	23755	V	13.56	5.07	-3.18	15.45	34.77
			H	13.59	5.07	-3.18	15.48	34.77
	710.0	23790	V	14.39	5.08	-3.32	16.15	34.77
			H	14.56	5.08	-3.32	**16.32**	34.77
	713.5	23825	V	11.86	5.08	-3.08	13.86	34.77
			H	12.22	5.08	-3.08	14.22	34.77
BAND 17 BW: 5M 16QAM RB: 1,24	706.5	23755	V	13.68	5.08	-3.27	15.49	34.77
			H	13.92	5.08	-3.27	**15.73**	34.77
	710.0	23790	V	11.58	5.08	-3.10	13.56	34.77
			H	12.02	5.08	-3.09	14.02	34.77
	713.5	23825	V	12.66	5.09	-3.31	14.44	34.77
			H	13.13	5.09	-3.29	14.93	34.77

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
BAND 17 BW: 10M QPSK RB: 1,0	709.0	23780	V	13.53	5.07	-3.18	15.42	34.77
			H	13.50	5.07	-3.18	15.39	34.77
	710.0	23790	V	13.87	5.07	-3.19	15.75	34.77
			H	14.05	5.07	-3.19	**15.94**	34.77
	711.0	23800	V	13.64	5.07	-3.26	15.46	34.77
			H	14.02	5.07	-3.24	15.85	34.77
BAND 17 BW: 10M QPSK RB: 1,49	709.0	23780	V	11.03	5.09	-3.11	13.01	34.77
			H	11.81	5.09	-3.11	13.79	34.77
	710.0	23790	V	11.49	5.09	-3.14	13.44	34.77
			H	12.12	5.09	-3.12	14.09	34.77
	711.0	23800	V	11.94	5.09	-3.23	13.80	34.77
			H	12.71	5.09	-3.29	**14.51**	34.77
BAND 17 BW: 10M 16QAM RB: 1,0	709.0	23780	V	13.32	5.07	-3.18	15.21	34.77
			H	13.66	5.07	-3.18	15.55	34.77
	710.0	23790	V	13.72	5.07	-3.19	15.59	34.77
			H	14.30	5.07	-3.18	**16.19**	34.77
	711.0	23800	V	14.03	5.07	-3.23	15.88	34.77
			H	12.81	5.09	-3.22	14.68	34.77
BAND 17 BW: 10M 16QAM RB: 1,49	709.0	23780	V	11.22	5.09	-3.11	13.19	34.77
			H	11.98	5.09	-3.11	13.96	34.77
	710.0	23790	V	11.59	5.09	-3.12	13.55	34.77
			H	12.31	5.09	-3.14	14.25	34.77
	711.0	23800	V	12.09	5.09	-3.25	13.93	34.77
			H	12.85	5.09	-3.31	**14.63**	34.77

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 25 BW: 1.4M QPSK RB: 1,0	1850.7	26047	V	23.12	5.36	-5.36	23.12	33.00
			H	24.49	5.36	-5.36	24.49	33.00
	1882.5	26365	V	24.78	5.28	-5.42	24.65	33.00
			H	25.76	5.28	-5.42	**25.62**	33.00
	1914.3	26683	V	24.14	5.21	-5.39	23.95	33.00
			H	25.61	5.21	-5.39	25.43	33.00
BAND 25 BW: 1.4M QPSK RB: 1,5	1850.7	26047	V	23.12	5.36	-5.36	23.12	33.00
			H	24.31	5.36	-5.36	24.31	33.00
	1882.5	26365	V	24.77	5.28	-5.42	24.63	33.00
			H	25.77	5.28	-5.43	**25.62**	33.00
	1914.3	26683	V	24.13	5.20	-5.39	23.95	33.00
			H	25.64	5.20	-5.39	25.45	33.00
BAND 25 BW: 1.4M 16QAM RB: 1,0	1850.7	26047	V	23.35	5.36	-5.36	23.35	33.00
			H	24.59	5.36	-5.36	24.59	33.00
	1882.5	26365	V	25.05	5.28	-5.42	24.91	33.00
			H	25.99	5.28	-5.42	**25.85**	33.00
	1914.3	26683	V	24.25	5.21	-5.39	24.07	33.00
			H	25.72	5.21	-5.39	25.54	33.00
BAND 25 BW: 1.4M 16QAM RB: 1,5	1850.7	26047	V	23.29	5.36	-5.36	23.29	33.00
			H	24.47	5.36	-5.36	24.46	33.00
	1882.5	26365	V	25.05	5.28	-5.43	24.91	33.00
			H	25.96	5.28	-5.43	**25.81**	33.00
	1914.3	26683	V	24.23	5.20	-5.39	24.05	33.00
			H	25.77	5.20	-5.39	25.58	33.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 25 BW: 3M QPSK RB: 1,0	1851.5	26055	V	23.31	5.36	-5.36	23.31	33.00
			H	24.52	5.36	-5.36	24.52	33.00
	1882.5	26365	V	24.79	5.28	-5.42	24.66	33.00
			H	25.77	5.29	-5.42	**25.64**	33.00
	1913.5	26675	V	24.18	5.21	-5.39	24.00	33.00
			H	25.45	5.21	-5.39	25.27	33.00
BAND 25 BW: 3M QPSK RB: 1,14	1851.5	26055	V	23.30	5.35	-5.36	23.30	33.00
			H	24.29	5.35	-5.36	24.29	33.00
	1882.5	26365	V	24.90	5.28	-5.43	24.75	33.00
			H	25.79	5.28	-5.43	**25.64**	33.00
	1913.5	26675	V	24.22	5.20	-5.39	24.03	33.00
			H	25.70	5.20	-5.39	25.51	33.00
BAND 25 BW: 3M 16QAM RB: 1,0	1851.5	26055	V	23.41	5.36	-5.36	23.41	33.00
			H	24.66	5.36	-5.36	24.66	33.00
	1882.5	26365	V	25.02	5.28	-5.42	24.88	33.00
			H	26.00	5.28	-5.42	**25.87**	33.00
	1913.5	26675	V	24.29	5.21	-5.39	24.11	33.00
			H	25.54	5.21	-5.39	25.36	33.00
BAND 25 BW: 3M 16QAM RB: 1,14	1851.5	26055	V	23.43	5.35	-5.36	23.43	33.00
			H	24.40	5.35	-5.36	24.39	33.00
	1882.5	26365	V	25.09	5.28	-5.43	24.94	33.00
			H	25.95	5.28	-5.43	**25.81**	33.00
	1913.5	26675	V	24.30	5.20	-5.39	24.11	33.00
			H	25.77	5.20	-5.39	25.58	33.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 25 BW: 5M QPSK RB: 1,0	1852.5	26065	V	24.01	5.36	-5.36	24.01	33.00
			H	24.52	5.36	-5.36	24.52	33.00
	1882.5	26365	V	25.02	5.29	-5.41	24.90	33.00
			H	25.74	5.29	-5.41	**25.62**	33.00
	1912.5	26665	V	24.46	5.22	-5.39	24.29	33.00
			H	25.23	5.21	-5.39	25.05	33.00
BAND 25 BW: 5M QPSK RB: 1,24	1852.5	26065	V	23.89	5.35	-5.36	23.89	33.00
			H	24.33	5.35	-5.36	24.33	33.00
	1882.5	26365	V	25.22	5.28	-5.43	25.07	33.00
			H	25.77	5.28	-5.43	**25.62**	33.00
	1912.5	26665	V	24.38	5.20	-5.39	24.19	33.00
			H	25.71	5.20	-5.39	25.52	33.00
BAND 25 BW: 5M 16QAM RB: 1,0	1852.5	26065	V	23.74	5.36	-5.36	23.74	33.00
			H	24.65	5.36	-5.36	24.65	33.00
	1882.5	26365	V	25.27	5.29	-5.41	25.15	33.00
			H	25.98	5.29	-5.41	**25.86**	33.00
	1912.5	26665	V	24.56	5.21	-5.39	24.39	33.00
			H	25.31	5.21	-5.39	25.13	33.00
BAND 25 BW: 5M 16QAM RB: 1,24	1852.5	26065	V	24.02	5.35	-5.36	24.01	33.00
			H	24.50	5.35	-5.36	24.49	33.00
	1882.5	26365	V	25.38	5.28	-5.43	25.23	33.00
			H	25.96	5.28	-5.43	**25.81**	33.00
	1912.5	26665	V	24.43	5.20	-5.39	24.24	33.00
			H	25.79	5.20	-5.39	25.61	33.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 25 BW: 10M QPSK RB: 1,0	1855.0	26090	V	23.59	5.36	-5.36	23.59	33.00
			H	24.54	5.36	-5.36	24.54	33.00
	1882.5	26365	V	25.22	5.29	-5.40	25.12	33.00
			H	25.74	5.29	-5.40	**25.64**	33.00
	1910.0	26640	V	24.93	5.23	-5.39	24.77	33.00
			H	25.35	5.23	-5.39	25.18	33.00
BAND 25 BW: 10M QPSK RB: 1,49	1855.0	26090	V	24.39	5.34	-5.35	24.37	33.00
			H	24.59	5.34	-5.35	24.57	33.00
	1882.5	26365	V	25.29	5.27	-5.42	25.14	33.00
			H	25.76	5.27	-5.42	**25.61**	33.00
	1910.0	26640	V	24.33	5.21	-5.39	24.14	33.00
			H	25.69	5.20	-5.39	25.51	33.00
BAND 25 BW: 10M 16QAM RB: 1,0	1855.0	26090	V	23.72	5.36	-5.36	23.72	33.00
			H	24.67	5.36	-5.36	24.67	33.00
	1882.5	26365	V	25.28	5.29	-5.40	25.17	33.00
			H	25.87	5.29	-5.40	**25.76**	33.00
	1910.0	26640	V	25.06	5.23	-5.39	24.90	33.00
			H	25.49	5.23	-5.39	25.33	33.00
BAND 25 BW: 10M 16QAM RB: 1,49	1855.0	26090	V	24.43	5.34	-5.35	24.42	33.00
			H	24.66	5.34	-5.35	24.64	33.00
	1882.5	26365	V	25.45	5.27	-5.42	25.30	33.00
			H	25.91	5.27	-5.42	**25.75**	33.00
	1910.0	26640	V	24.41	5.21	-5.39	24.23	33.00
			H	25.77	5.21	-5.39	25.58	33.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 25 BW: 15M QPSK RB: 1,0	1857.5	26115	V	23.58	5.36	-5.36	23.58	33.00
			H	24.46	5.36	-5.36	24.46	33.00
	1882.5	26365	V	25.24	5.30	-5.39	25.14	33.00
			H	25.57	5.30	-5.39	25.47	33.00
	1907.5	26615	V	25.38	5.24	-5.39	25.23	33.00
			H	25.99	5.24	-5.39	**25.84**	33.00
BAND 25 BW: 15M QPSK RB: 1,74	1857.5	26115	V	24.52	5.33	-5.35	24.50	33.00
			H	24.93	5.33	-5.35	24.90	33.00
	1882.5	26365	V	25.19	5.27	-5.42	25.04	33.00
			H	25.65	5.27	-5.42	**25.49**	33.00
	1907.5	26615	V	24.39	5.21	-5.39	24.21	33.00
			H	25.62	5.20	-5.39	25.43	33.00
BAND 25 BW: 15M 16QAM RB: 1,0	1857.5	26115	V	23.76	5.36	-5.36	23.75	33.00
			H	24.62	5.36	-5.36	24.62	33.00
	1882.5	26365	V	25.41	5.30	-5.39	25.32	33.00
			H	25.75	5.30	-5.40	25.65	33.00
	1907.5	26615	V	25.48	5.24	-5.39	25.33	33.00
			H	26.09	5.24	-5.39	**25.94**	33.00
BAND 25 BW: 15M 16QAM RB: 1,74	1857.5	26115	V	24.58	5.33	-5.35	24.56	33.00
			H	25.01	5.33	-5.35	24.99	33.00
	1882.5	26365	V	25.32	5.26	-5.42	25.17	33.00
			H	25.77	5.27	-5.42	**25.62**	33.00
	1907.5	26615	V	24.47	5.21	-5.39	24.28	33.00
			H	25.69	5.20	-5.39	25.51	33.00

Remark：

(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

EUT			Measurement					
Operation Band	Fundamental Frequency	CH	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
BAND 25 BW: 20M QPSK RB: 1,0	1860.0	26140	V	23.56	5.36	-5.36	23.56	33.00
			H	24.41	5.36	-5.36	24.41	33.00
	1882.5	26365	V	25.26	5.30	-5.38	25.19	33.00
			H	25.52	5.30	-5.38	25.44	33.00
	1905.0	26590	V	25.36	5.25	-5.40	25.21	33.00
			H	25.93	5.25	-5.40	**25.78**	33.00
BAND 25 BW: 20M QPSK RB: 1,99	1860.0	26140	V	24.77	5.31	-5.36	24.72	33.00
			H	25.31	5.32	-5.36	25.26	33.00
	1882.5	26365	V	25.17	5.26	-5.41	25.01	33.00
			H	25.62	5.26	-5.41	**25.47**	33.00
	1905.0	26590	V	24.40	5.21	-5.39	24.22	33.00
			H	25.59	5.21	-5.39	25.41	33.00
BAND 25 BW: 20M 16QAM RB: 1,0	1860.0	26140	V	23.72	5.36	-5.36	23.72	33.00
			H	24.54	5.36	-5.36	24.54	33.00
	1882.5	26365	V	25.34	5.30	-5.38	25.26	33.00
			H	25.64	5.30	-5.38	25.56	33.00
	1905.0	26590	V	25.44	5.25	-5.40	25.29	33.00
			H	26.03	5.25	-5.40	**25.88**	33.00
BAND 25 BW: 20M 16QAM RB: 1,99	1860.0	26140	V	24.76	5.31	-5.36	24.72	33.00
			H	25.33	5.31	-5.36	25.29	33.00
	1882.5	26365	V	25.31	5.26	-5.41	25.16	33.00
			H	25.77	5.26	-5.41	**25.62**	33.00
	1905.0	26590	V	24.46	5.21	-5.39	24.27	33.00
			H	25.68	5.20	-5.39	25.50	33.00

Remark：

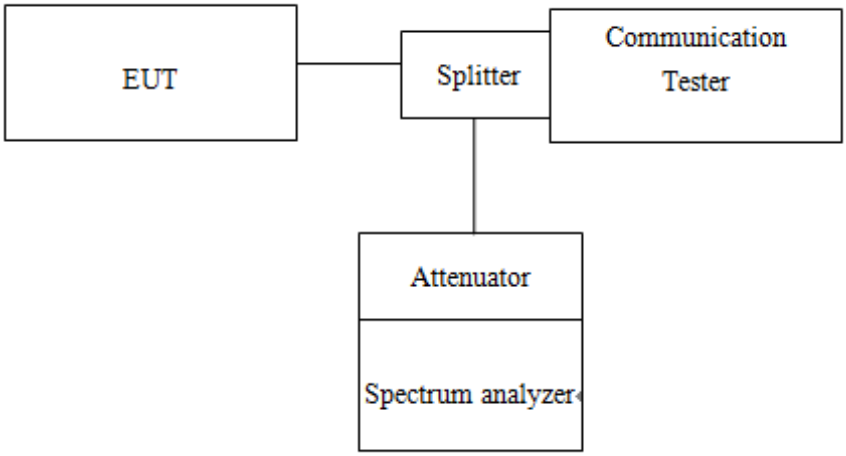
(1) The RBW,VBW of SPA for frequency RBW= 8MHz , VBW= 8MHz

8. OCCUPIED BANDWIDTH MEASUREMENT

8.1. Standard Applicable

The occupied bandwidth 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.

8.2. Test Set-up



8.3. Measurement Procedure

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW was set to about 1% of emission BW, VBW= 3 times RBW, -26dBc display line was placed on the screen (or 26dB bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace. Then set RBW to 99% bandwidth, RBW= 1%, VBW= 3 RBW, with span > 2 * Signal BW, set % Power = 99%.

NOTE: For the plot of bandwidth measurement, the marker of the 99% bandwidth is diamond-shape while the marker of the 26dB BW is arrow-mark

8.4. Measurement Equipment Used

Conducted Emission Test Site					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Agilent	N9010A	MY53400256	10/15/2014	10/14/2015
Communication Tester	Anritsu	MT8820C	6201107337	06/03/2014	06/02/2015
Temperature Chamber	TERCHY	MHK-120LK	1020582	06/18/2014	06/17/2015
DC Block	PASTERNACK	PE8210	RF29	12/19/2014	12/18/2015
Splitter	RF-LAMBAD	RFLT2W1G18G	RF35	12/19/2014	12/18/2015
Attenuator	WOKEN	218FS-10	RF23	12/19/2014	12/18/2015
DC Power Supply	Agilent	E3640A	MY53140006	05/31/2014	05/30/2015

8.5. Measurement Result

99% Bandwidth

Frequency (MHz)	CH	99% Bandwidth (kHz)	
		GPRS 850	EDGE 850
824.20	128	**246.14**	243.15
836.60	190	243.41	244.70
848.80	251	243.34	**245.26**

Frequency (MHz)	CH	99% Bandwidth (kHz)	
		GPRS 1900	EDGE 1900
1850.20	512	244.37	243.24
1880.00	661	241.36	**247.89**
1909.80	810	**245.26**	242.95

Frequency (MHz)	CH	99% Bandwidth (MHz)		
		WCDMA II	HSDPA II	HSUPA II
1850.20	9262	**4.1640**	**4.1499**	**4.1407**
1880.00	9400	4.1561	4.1494	4.1364
1909.80	9538	4.1480	4.1332	4.1332

Frequency (MHz)	CH	99% Bandwidth (MHz)		
		WCDMA IV	HSDPA IV	HSUPA IV
1712.4	1312	4.1496	**4.1570**	4.1385
1732.6	1413	**4.1542**	4.1464	**4.1636**
1752.6	1513	4.1467	4.1516	4.1486

Frequency (MHz)	CH	99% Bandwidth (MHz)		
		WCDMA V	HSDPA V	HSUPA V
826.40	4132	4.1544	**4.1697**	4.1443
836.60	4183	4.1507	4.1643	**4.1592**
846.60	4233	**4.1583**	4.1534	4.1445

Frequency (MHz)	CH	99% Bandwidth (MHz)	
		CDMA BC0	EVDO BC0
824.7	1013	1.2684	**1.2711**
836.52	384	**1.2701**	1.2668
848.31	777	1.2674	1.2663

Frequency (MHz)	CH	99% Bandwidth (MHz)	
		CDMA BC1	EVDO BC1
1851.25	25	1.2705	1.2727
1880	600	1.2740	1.2754
1908.75	1175	**1.2870**	**1.2886**

LTE BAND 2							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Frequency (MHz)	CH	99% Bandwidth (MHz)		Frequency (MHz)	CH	99% Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1850.7	18607	**1.1037**	**1.0995**	1851.5	18615	2.7072	**2.6990**
1880.0	18900	1.0985	1.0976	1880.0	18900	**2.7073**	2.6952
1909.3	19193	1.1025	1.0979	1908.5	19185	2.7069	2.6968

LTE BAND 2							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Frequency (MHz)	CH	99% Bandwidth (MHz)		Frequency (MHz)	CH	99% Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1852.5	18625	**4.5108**	**4.4935**	1855.0	18650	**8.9985**	**8.9929**
1880.0	18900	4.5076	4.4856	1880.0	18900	8.9739	8.9676
1907.5	19175	4.4989	4.4838	1905.0	19150	8.9502	8.9548

LTE BAND 2							
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz			
Frequency (MHz)	CH	99% Bandwidth (MHz)		Frequency (MHz)	CH	99% Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1857.5	18675	**13.473**	**13.472**	1860.0	18700	**18.050**	**17.984**
1880.0	18900	13.402	13.413	1880.0	18900	17.884	17.832
1902.5	19125	13.408	13.415	1900.0	19100	17.962	17.955

LTE BAND 4							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Frequency (MHz)	CH	99% Bandwidth (MHz)		Frequency (MHz)	CH	99% Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1710.7	19957	1.1040	1.0988	1711.5	19965	2.7094	2.6952
1732.5	20175	**1.1043**	**1.1013**	1732.5	20175	**2.7124**	**2.7033**
1754.3	20393	1.1027	1.0974	1753.5	20385	2.7091	2.6966

LTE BAND 4							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Frequency (MHz)	CH	99% Bandwidth (MHz)		Frequency (MHz)	CH	99% Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1712.5	19957	4.5060	**4.4920**	1715.0	20000	8.9754	8.9728
1732.5	20175	**4.5105**	4.4888	1732.5	20175	**8.9981**	**8.9977**
1752.5	20375	4.5066	4.4918	1750.0	20350	8.9929	8.9857

LTE BAND 4							
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz			
Frequency (MHz)	CH	99% Bandwidth (MHz)		Frequency (MHz)	CH	99% Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1717.5	20025	13.443	13.439	1720.0	20050	17.993	17.877
1732.5	20175	**13.463**	**13.475**	1732.5	20175	**18.088**	**17.967**
1747.5	20325	13.444	13.446	1745.0	20300	17.985	17.912

LTE BAND 5							
Channel bandwidth: 1.4MHz				**Channel bandwidth: 3MHz**			
Frequency (MHz)	**CH**	**99% Bandwidth (MHz)**		**Frequency (MHz)**	**CH**	**99% Bandwidth (MHz)**	
		QPSK	16QAM			QPSK	16QAM
824.7	20407	1.1020	1.0962	825.5	20415	2.7067	2.6937
836.5	20525	**1.1025**	1.0964	836.5	20525	**2.7079**	2.6939
848.3	20643	1.1021	**1.0966**	847.5	20635	2.7074	**2.6976**

LTE BAND 5							
Channel bandwidth: 5MHz				**Channel bandwidth: 10MHz**			
Frequency (MHz)	**CH**	**99% Bandwidth (MHz)**		**Frequency (MHz)**	**CH**	**99% Bandwidth (MHz)**	
		QPSK	16QAM			QPSK	16QAM
826.5	20425	4.5036	4.4795	829.0	20450	**8.9956**	**8.9924**
836.5	20525	4.5018	4.4830	836.5	20525	8.9670	8.9622
846.5	20625	**4.5110**	**4.4875**	844.0	20600	8.9678	8.9631

LTE BAND 13							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Frequency (MHz)	CH	99% Bandwidth (MHz)		Frequency (MHz)	CH	99% Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
779.5	23205	**4.5245**	**4.5043**	23230	782	**9.0256**	**9.0159**
782.0	23230	4.5128	4.4993				
784.5	23255	4.5097	4.4926				

LTE BAND 17							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Frequency (MHz)	CH	99% Bandwidth (MHz)		Frequency (MHz)	CH	99% Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
706.5	23755	4.5063	4.4819	709	23780	8.9410	8.9427
710.0	23790	4.5047	4.4822	710	23790	**8.9450**	**8.9533**
713.5	23825	**4.5137**	**4.4964**	711	23800	8.9330	8.9473

LTE BAND 25							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Frequency (MHz)	CH	99% Bandwidth (MHz)		Frequency (MHz)	CH	99% Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1850.7	26047	1.0971	1.0978	1851.5	26055	2.7097	2.6996
1882.5	26365	1.1026	1.0975	1882.5	26365	2.7078	2.6957
1914.3	26683	**1.1045**	**1.1001**	1913.5	26675	**2.7123**	**2.7005**

LTE BAND 25							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Frequency (MHz)	CH	99% Bandwidth (MHz)		Frequency (MHz)	CH	99% Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1852.5	26065	4.5107	4.4964	1855.0	26090	**9.0043**	**8.9943**
1882.5	26365	4.5072	4.4837	1882.5	26365	8.9608	8.9730
1912.5	26665	**4.5177**	**4.5034**	1910.0	26640	8.9632	8.9774

LTE BAND 25							
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz			
Frequency (MHz)	CH	99% Bandwidth (MHz)		Frequency (MHz)	CH	99% Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1857.5	26115	**13.470**	**13.468**	1860.0	26140	**18.086**	**17.947**
1882.5	26365	13.419	13.408	1882.5	26365	17.866	17.831
1907.5	26615	13.376	13.391	1905.0	26590	17.837	17.803

26dB Bandwidth

Frequency (MHz)	CH	26dB Bandwidth (kHz)	
		GPRS 850	EDGE 850
824.20	128	**323.6**	**319.8**
836.60	190	315.5	313.8
848.80	251	315.3	319.5

Frequency (MHz)	CH	26dB Bandwidth (kHz)	
		GPRS 1900	EDGE 1900
1850.20	512	313.6	**319.7**
1880.00	661	**318.6**	309.5
1909.80	810	314.3	318.6

Frequency (MHz)	CH	26dB Bandwidth (MHz)		
		WCDMA II	HSDPA II	HSUPA II
1850.20	9262	4.619	4.611	**4.620**
1880.00	9400	4.630	**4.617**	4.619
1909.80	9538	**4.632**	4.614	4.614

Frequency (MHz)	CH	26dB Bandwidth (MHz)		
		WCDMA IV	HSDPA IV	HSUPA IV
1712.4	1312	4.613	**4.628**	4.618
1732.6	1413	**4.622**	4.620	**4.629**
1752.6	1513	4.619	4.619	4.621

Frequency (MHz)	CH	26dB Bandwidth (MHz)		
		WCDMA V	HSDPA V	HSUPA V
826.40	4132	4.624	**4.625**	4.613
836.60	4183	4.626	4.624	4.620
846.60	4233	**4.632**	4.619	**4.621**

Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		CDMA BC0	EVDO BC0
824.7	1013	**1.415**	1.410
836.52	384	1.403	1.410
848.31	777	1.410	**1.411**

Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		CDMA BC1	EVDO BC1
1851.25	25	1.425	1.417
1880	600	1.433	1.422
1908.75	1175	**1.450**	**1.450**

LTE BAND 2							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1850.7	18607	**1.321**	**1.317**	1851.5	18615	3.075	**3.048**
1880.0	18900	1.309	1.316	1880.0	18900	**3.082**	3.046
1909.3	19193	1.317	1.311	1908.5	19185	3.061	3.029

LTE BAND 2							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1852.5	18625	5.045	**5.008**	1855.0	18650	**9.989**	**9.997**
1880.0	18900	**5.061**	4.997	1880.0	18900	9.951	9.974
1907.5	19175	5.056	4.999	1905.0	19150	9.946	9.951

LTE BAND 2							
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1857.5	18675	**14.97**	**14.89**	1860.0	18700	19.82	**19.61**
1880.0	18900	14.88	14.81	1880.0	18900	19.66	19.46
1902.5	19125	14.79	14.79	1900.0	19100	**19.86**	19.40

LTE BAND 4							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1710.7	19957	1.335	**1.338**	1711.5	19965	3.077	3.058
1732.5	20175	**1.336**	1.332	1732.5	20175	**3.078**	**3.085**
1754.3	20393	1.318	1.322	1753.5	20385	3.033	3.038

LTE BAND 4							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1712.5	19957	**5.082**	5.015	1715.0	20000	9.923	9.930
1732.5	20175	5.078	**5.016**	1732.5	20175	**10.00**	**9.974**
1752.5	20375	5.043	5.002	1750.0	20350	9.987	9.888

LTE BAND 4							
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1717.5	20025	**14.96**	14.81	1720.0	20050	**19.79**	19.42
1732.5	20175	14.88	**14.85**	1732.5	20175	19.75	**19.65**
1747.5	20325	14.86	14.75	1745.0	20300	19.77	19.53

LTE BAND 5							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
824.7	20407	1.307	1.312	825.5	20415	3.065	**3.041**
836.5	20525	1.309	**1.316**	836.5	20525	**3.100**	3.036
848.3	20643	**1.311**	1.310	847.5	20635	3.064	3.039

LTE BAND 5							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
826.5	20425	**5.052**	4.991	829.0	20450	**10.02**	**9.932**
836.5	20525	5.052	4.979	836.5	20525	9.973	9.889
846.5	20625	5.018	**4.993**	844.0	20600	9.933	9.929

LTE BAND 13							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
779.5	23205	5.098	5.046	23230	782	**10.03**	**9.947**
782.0	23230	**5.143**	**5.047**				
784.5	23255	5.099	5.024				

LTE BAND 17							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
706.5	23755	5.075	**5.036**	709	23780	**9.927**	9.884
710.0	23790	**5.076**	4.989	710	23790	9.861	9.868
713.5	23825	5.014	5.034	711	23800	9.914	**9.891**

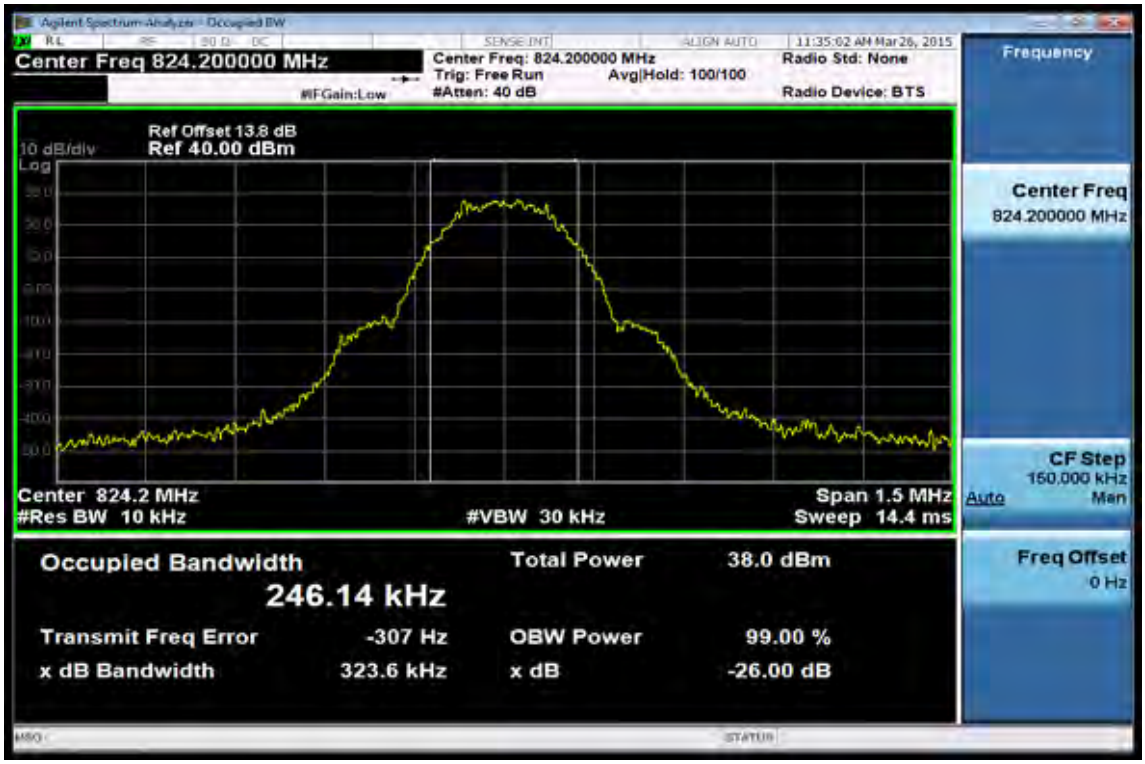
LTE BAND 25							
Channel bandwidth: 1.4MHz				Channel bandwidth: 3MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1850.7	26047	1.311	1.311	1851.5	26055	**3.087**	**3.055**
1882.5	26365	1.313	1.314	1882.5	26365	3.063	3.036
1914.3	26683	**1.317**	**1.328**	1913.5	26675	3.069	3.049

LTE BAND 25							
Channel bandwidth: 5MHz				Channel bandwidth: 10MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1852.5	26065	5.014	**5.045**	1855.0	26090	**9.960**	**10.03**
1882.5	26365	5.066	4.991	1882.5	26365	9.899	9.858
1912.5	26665	**5.100**	5.025	1910.0	26640	9.890	9.852

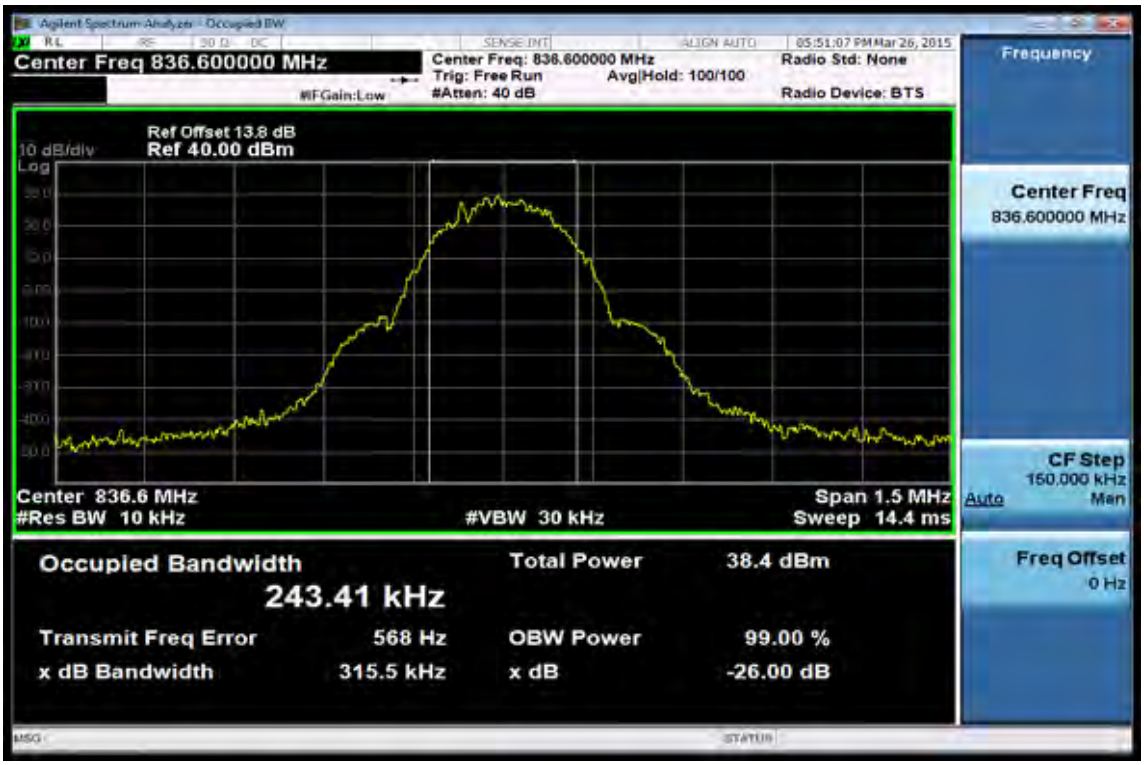
LTE BAND 25							
Channel bandwidth: 15MHz				Channel bandwidth: 20MHz			
Frequency (MHz)	CH	26dB Bandwidth (MHz)		Frequency (MHz)	CH	26dB Bandwidth (MHz)	
		QPSK	16QAM			QPSK	16QAM
1857.5	26115	**14.88**	**14.83**	1860.0	26140	**19.95**	**19.57**
1882.5	26365	14.81	14.79	1882.5	26365	19.45	19.28
1907.5	26615	14.73	14.62	1905.0	26590	19.60	19.30

99% Bandwidth Test Data

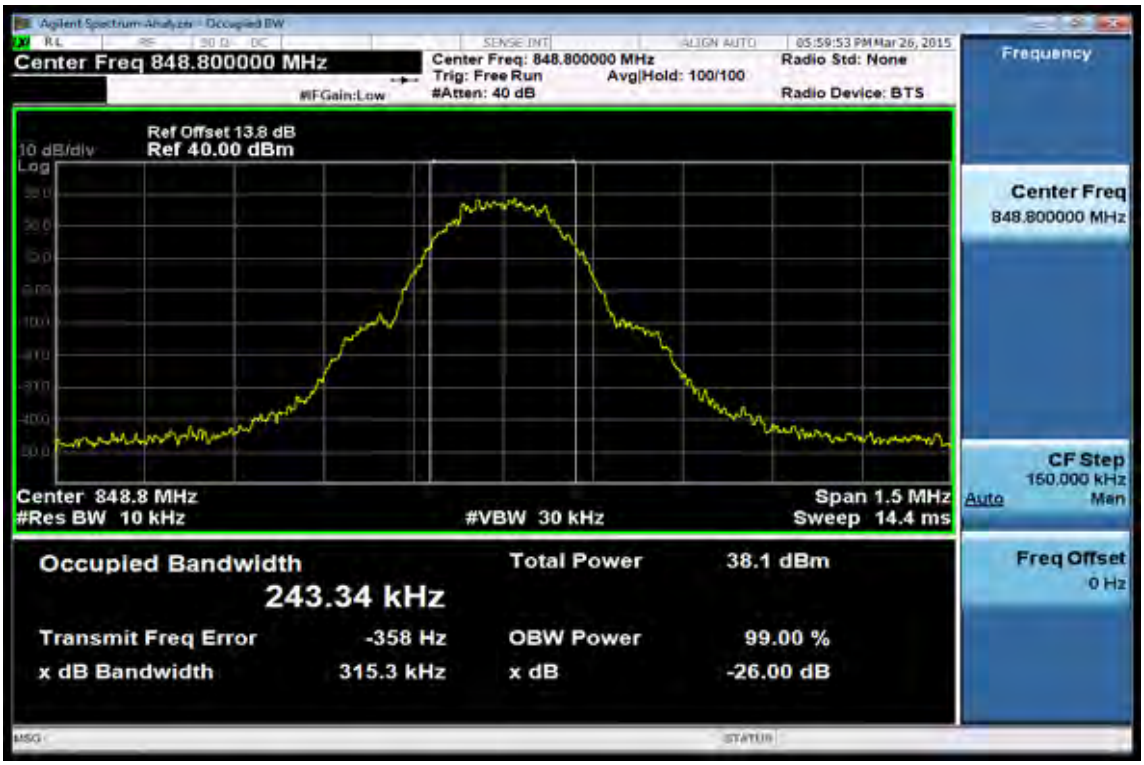
GPRS 850 Channel Low



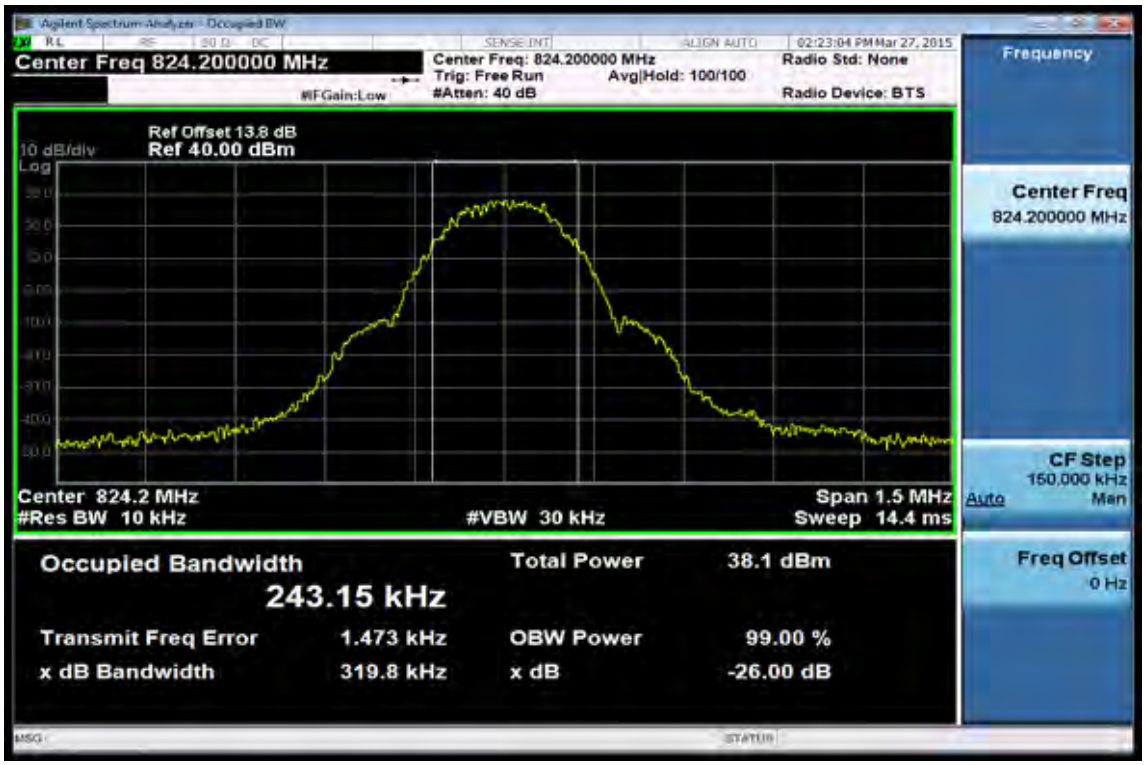
GPRS 850 Channel Mid



GPRS 850 Channel High



EDGE 850 Channel Low



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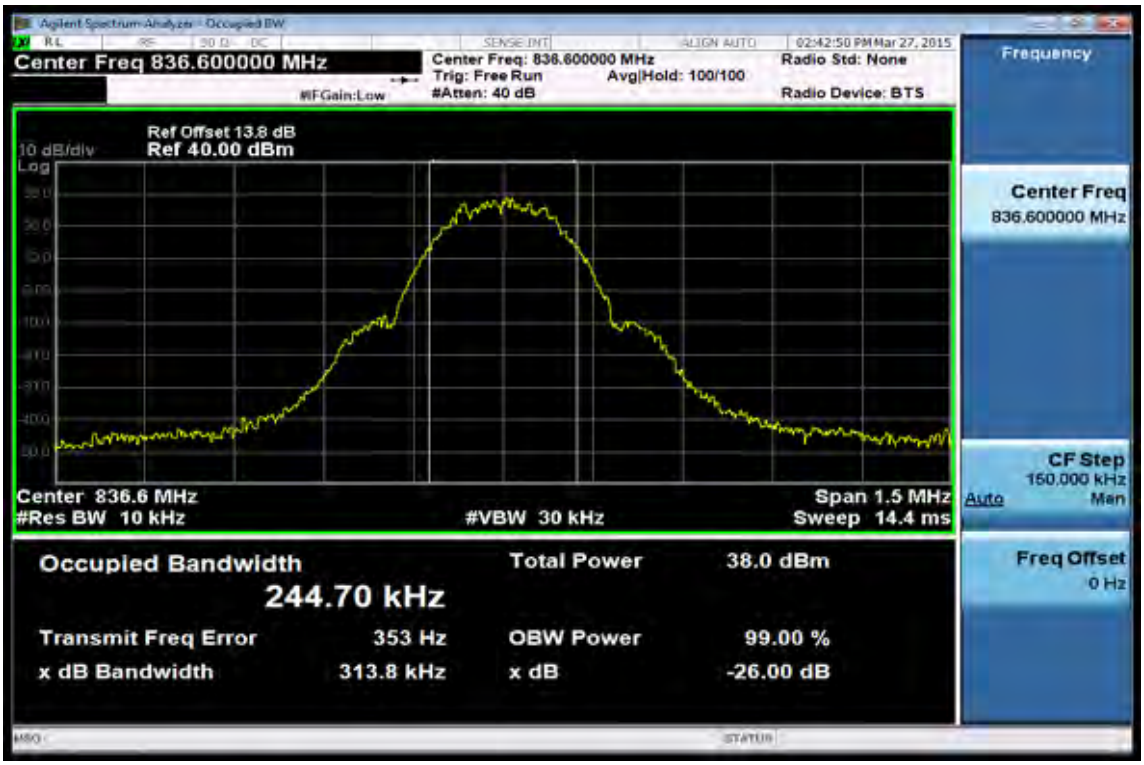

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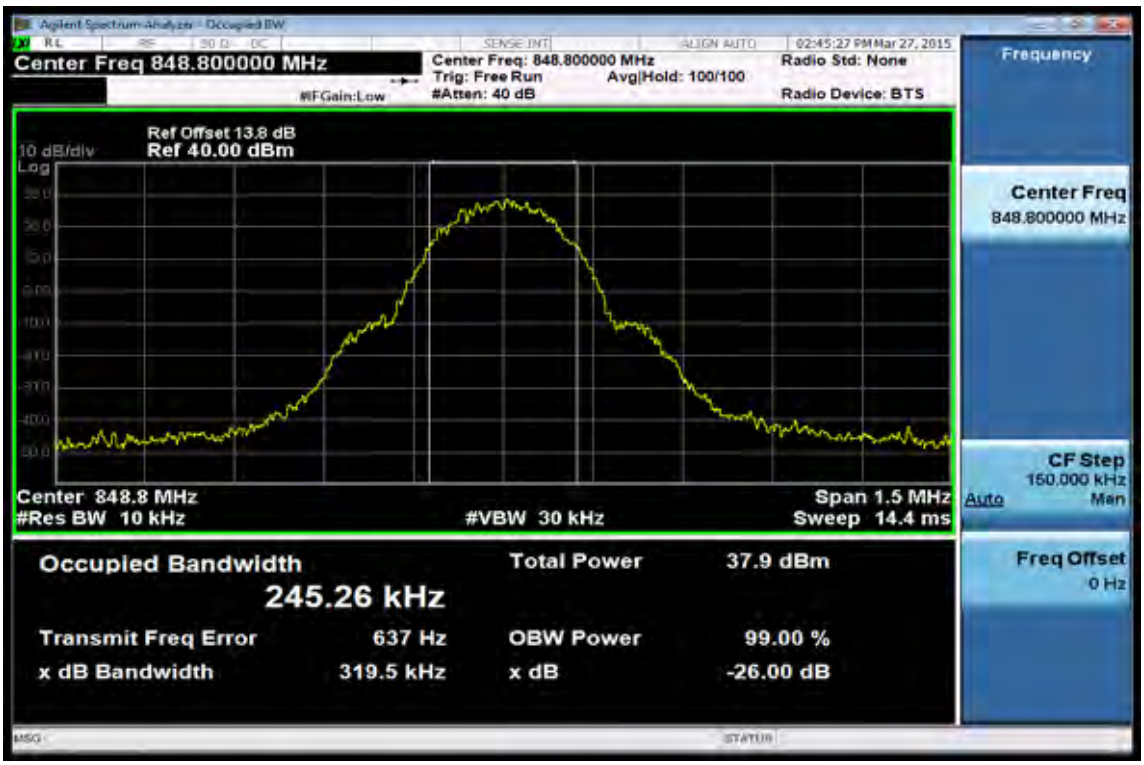

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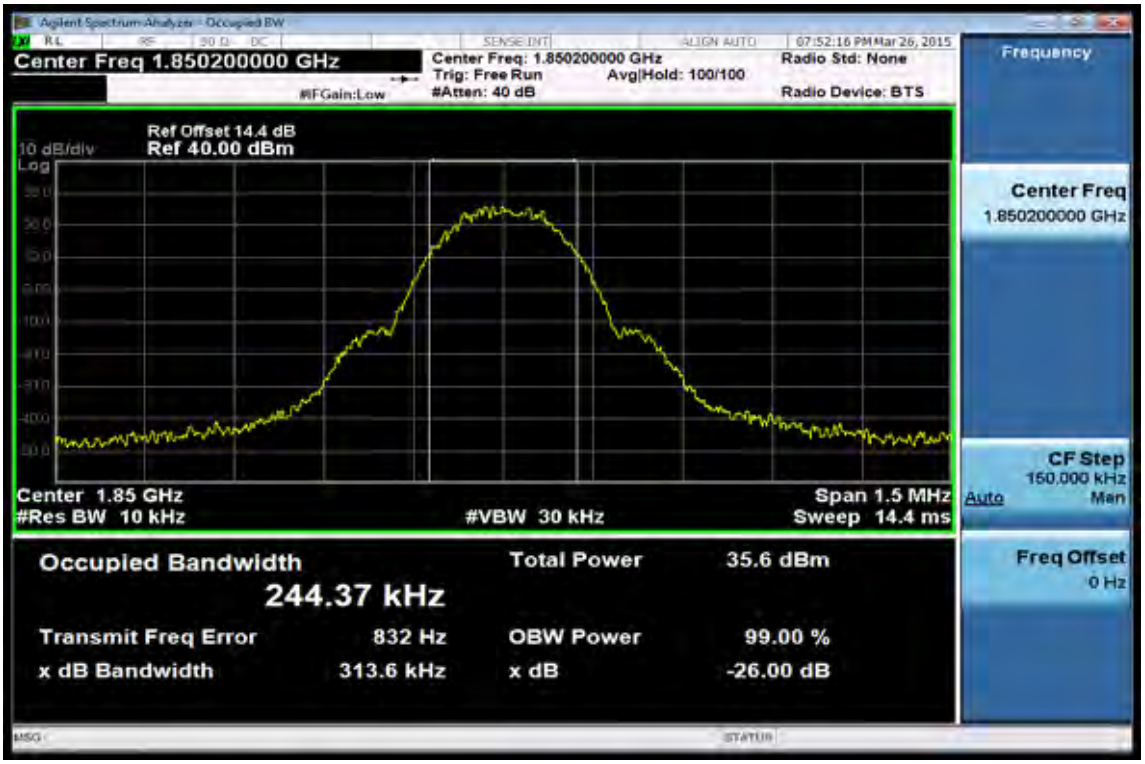

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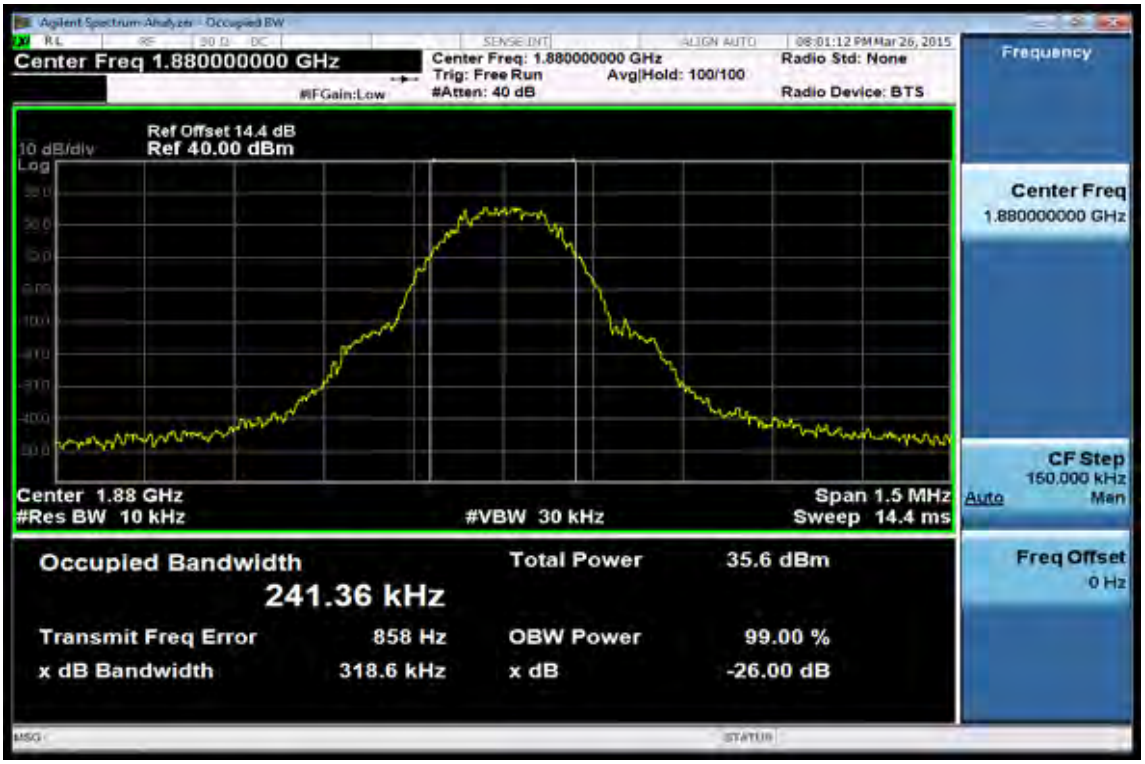

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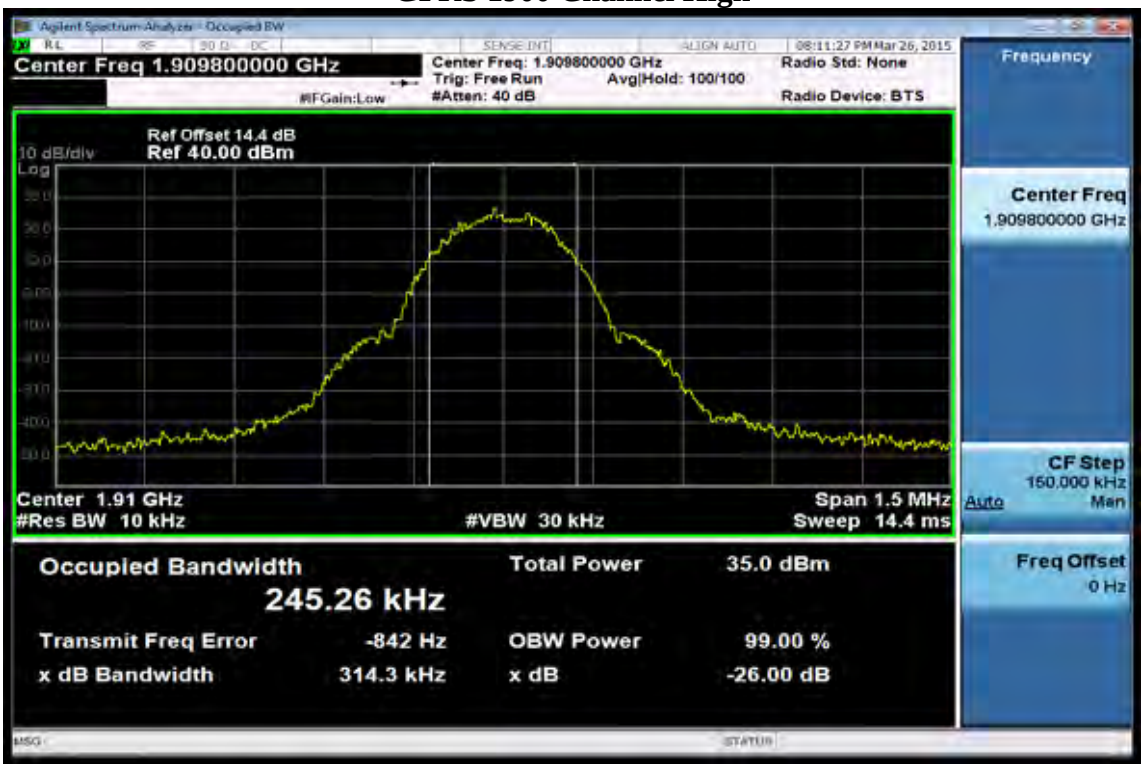

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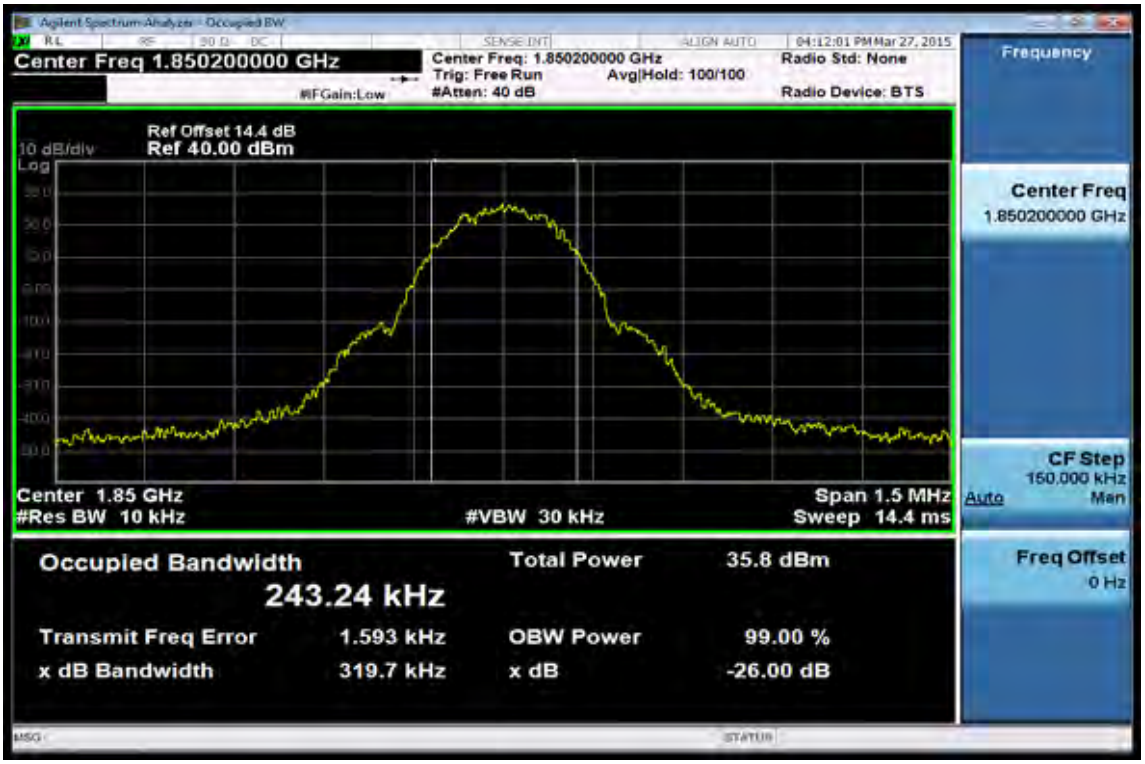

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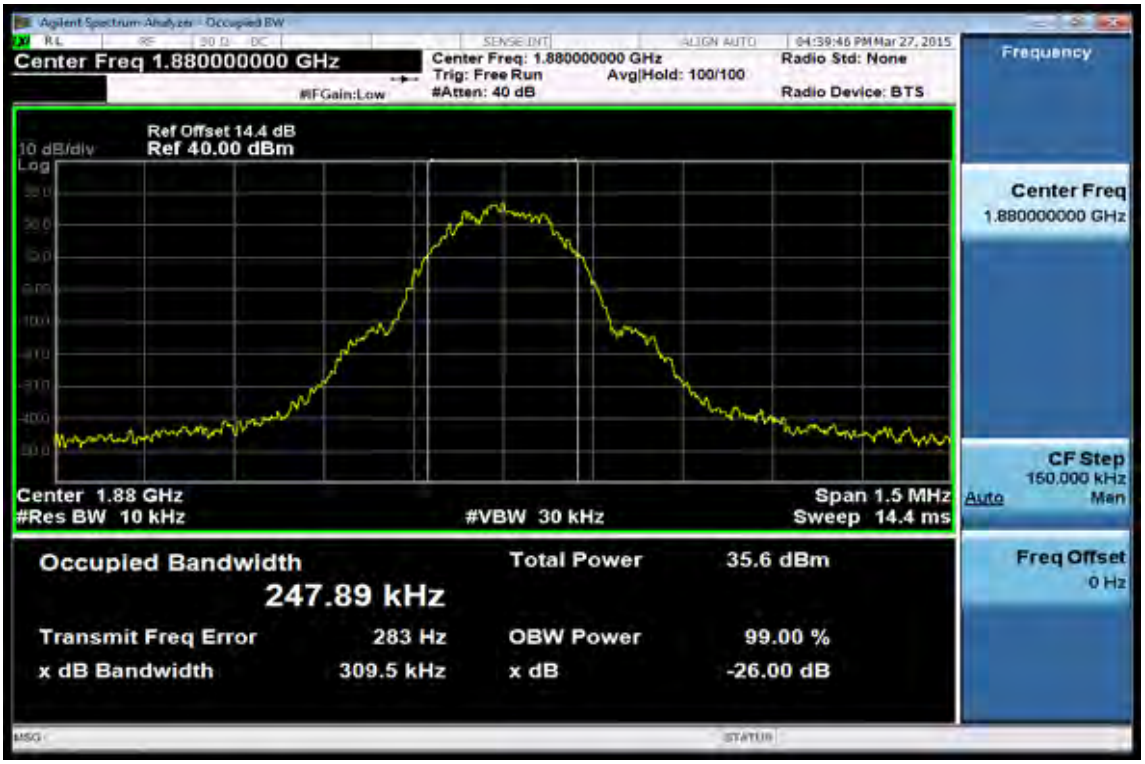

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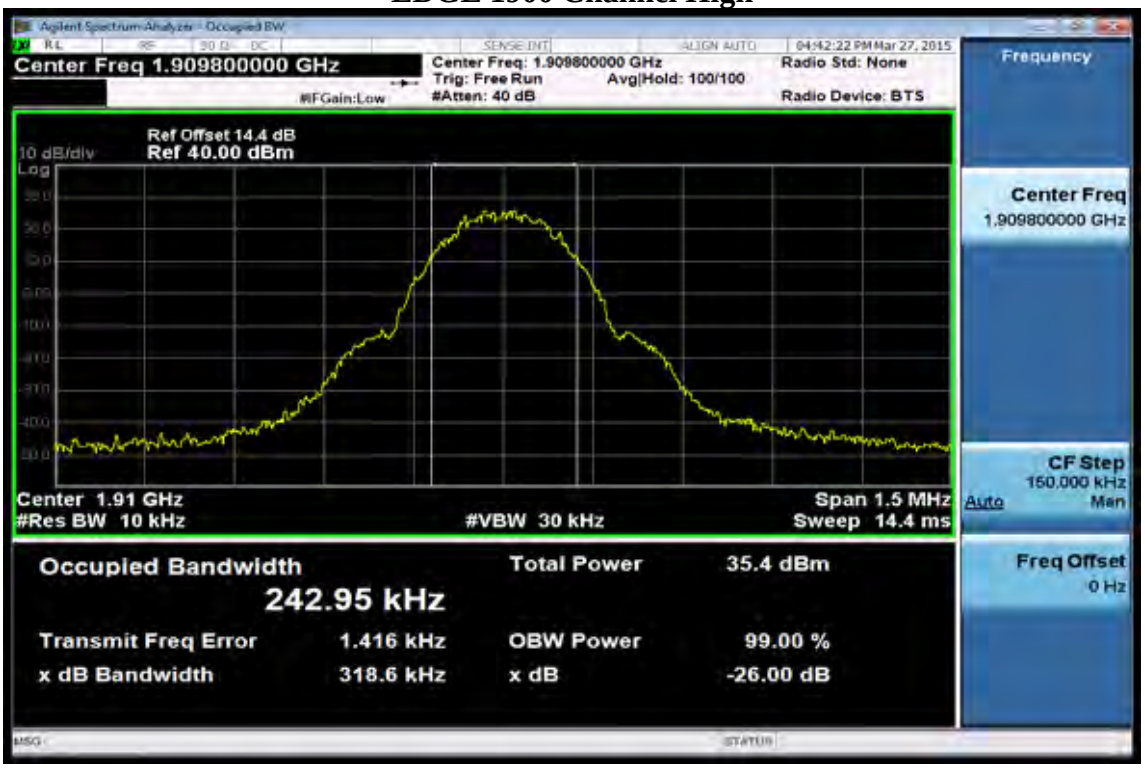
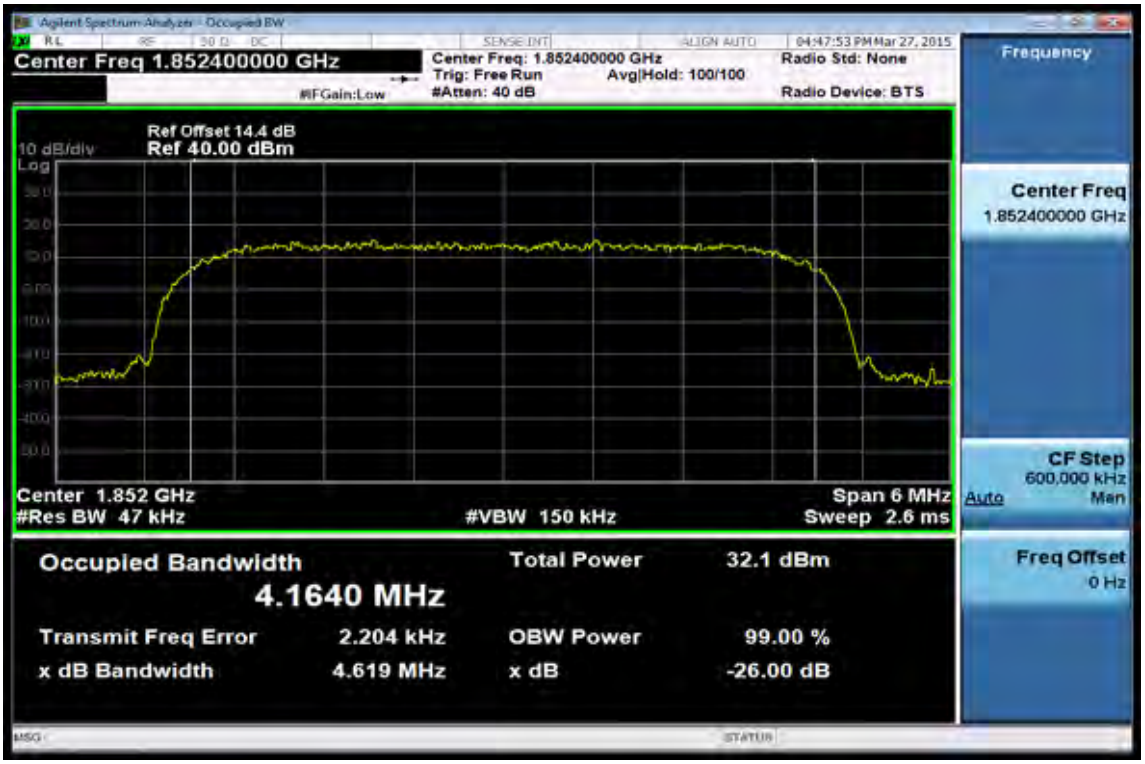


WCDMA II Channel Low



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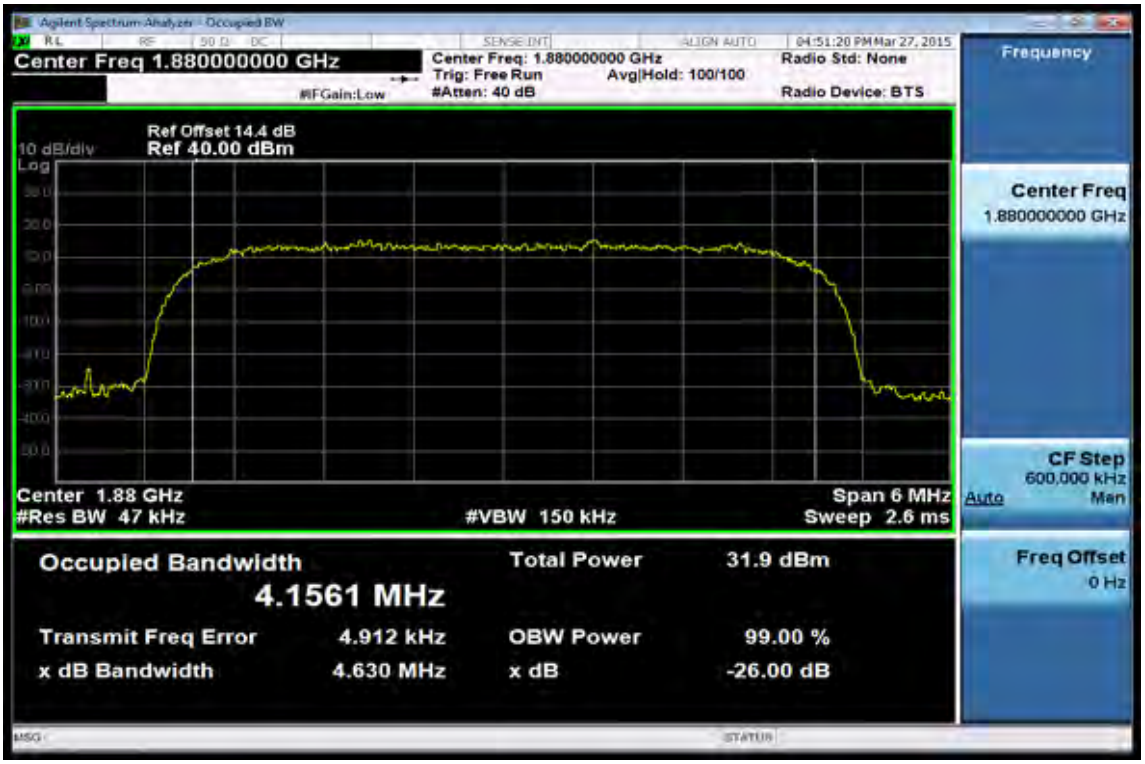

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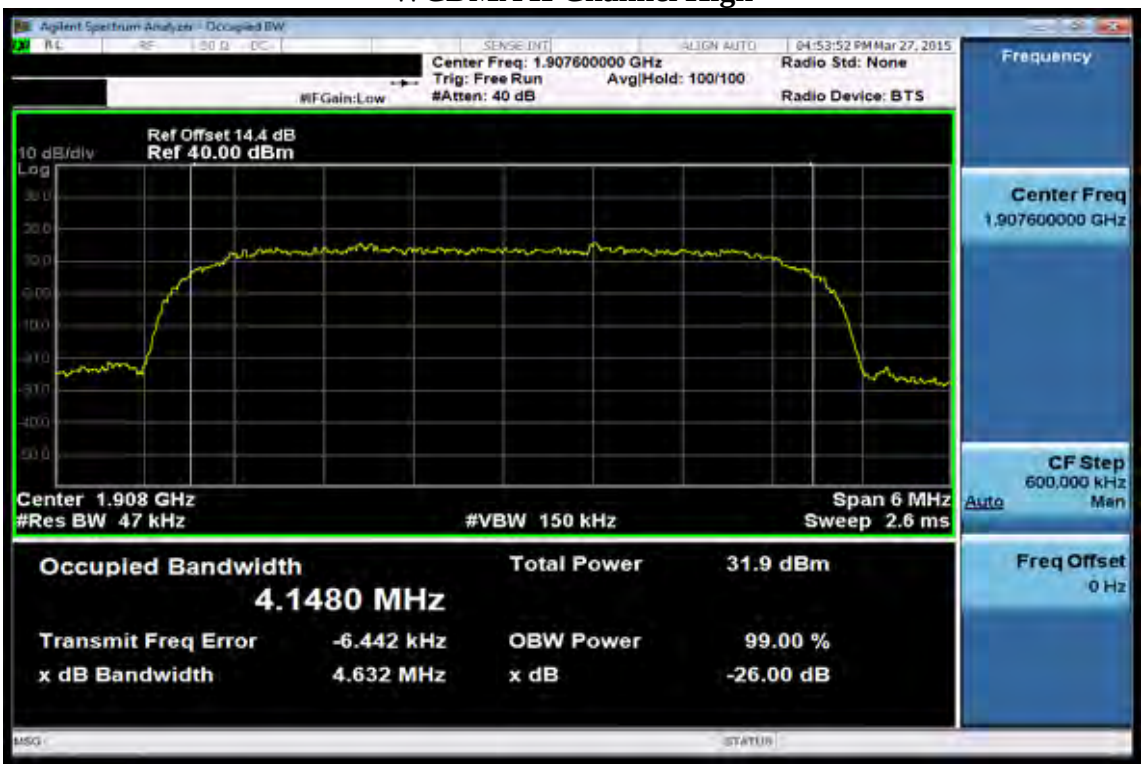
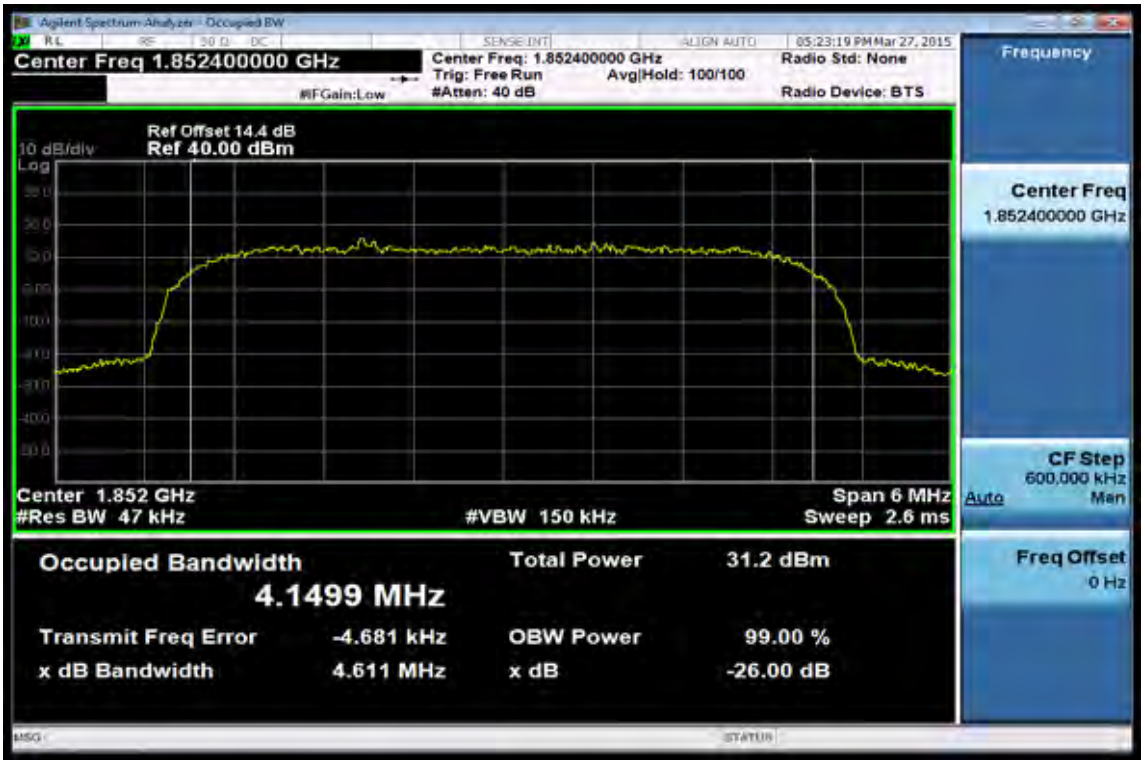


HSDPA II Channel Low



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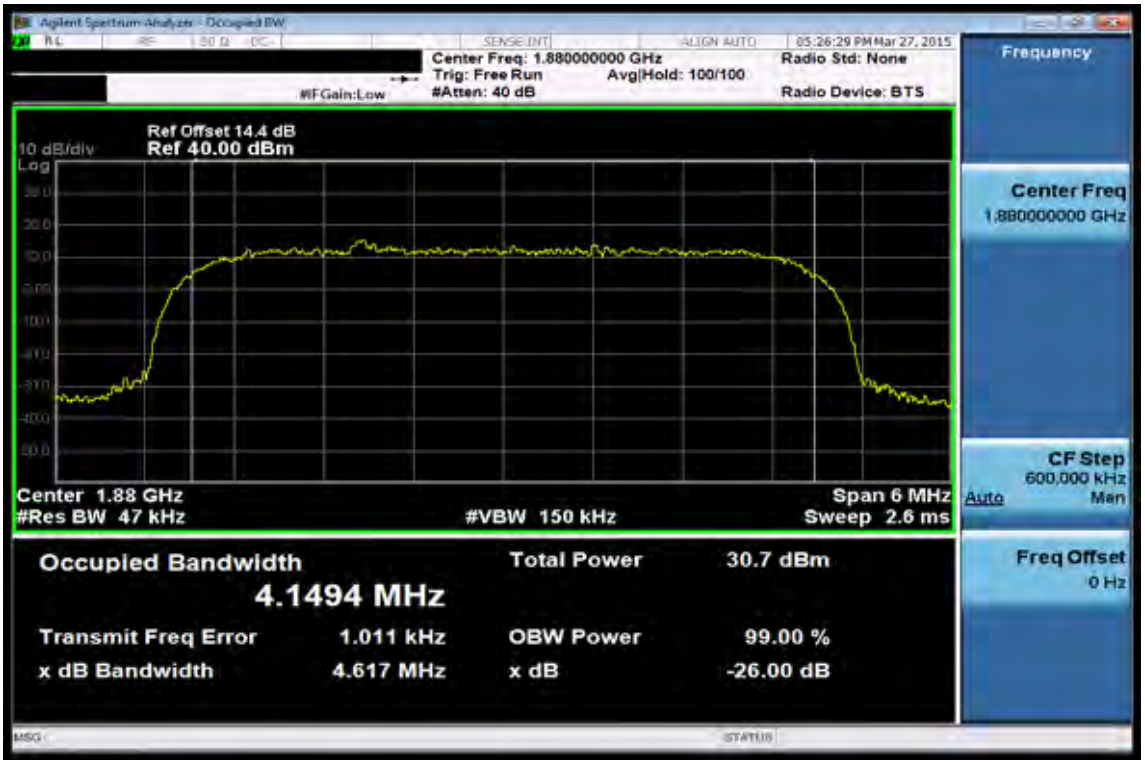

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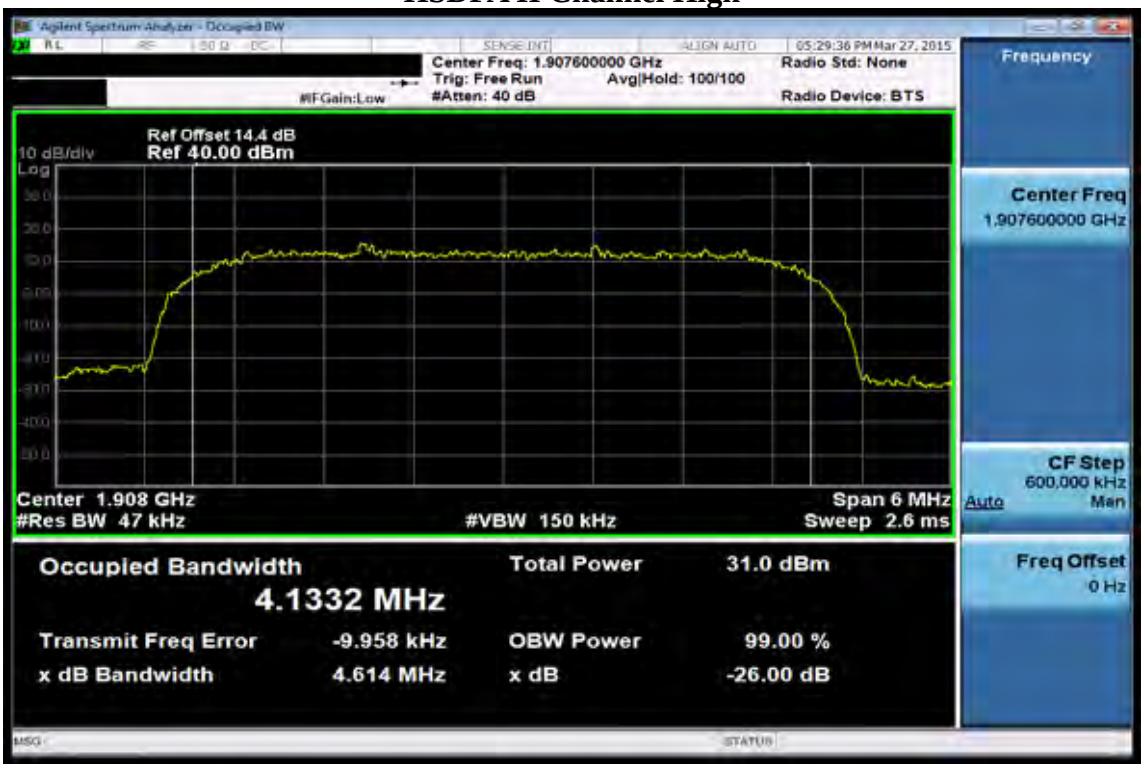

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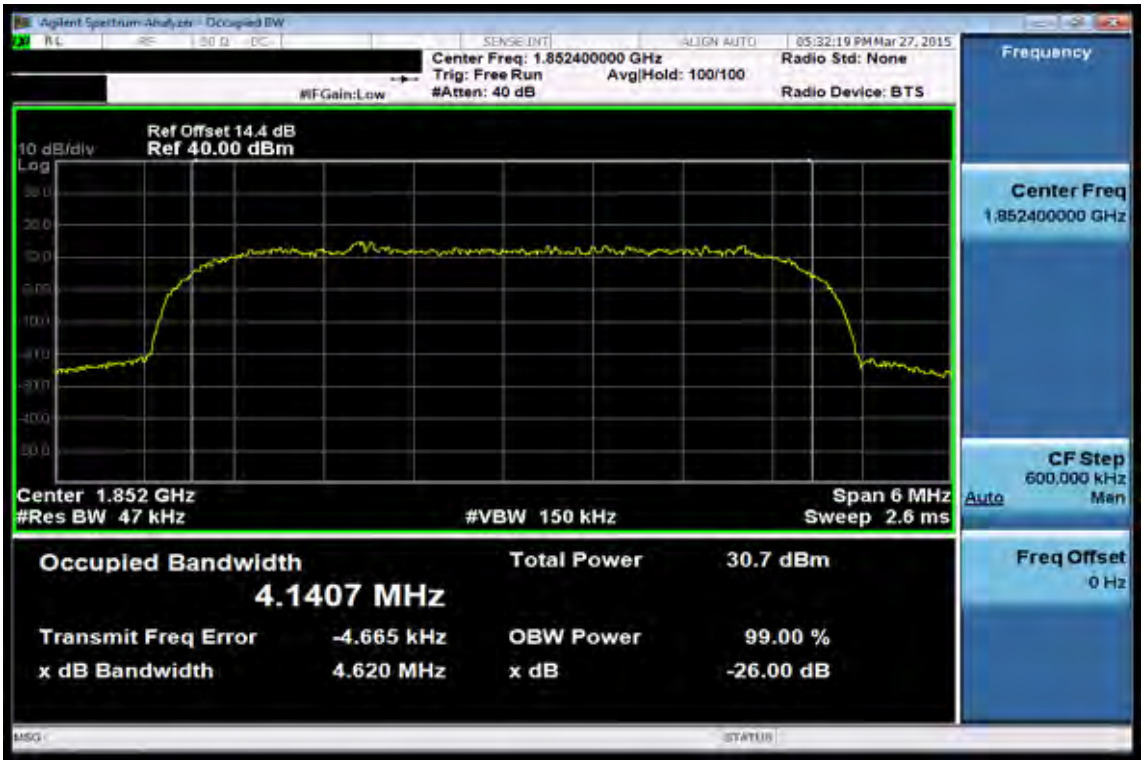

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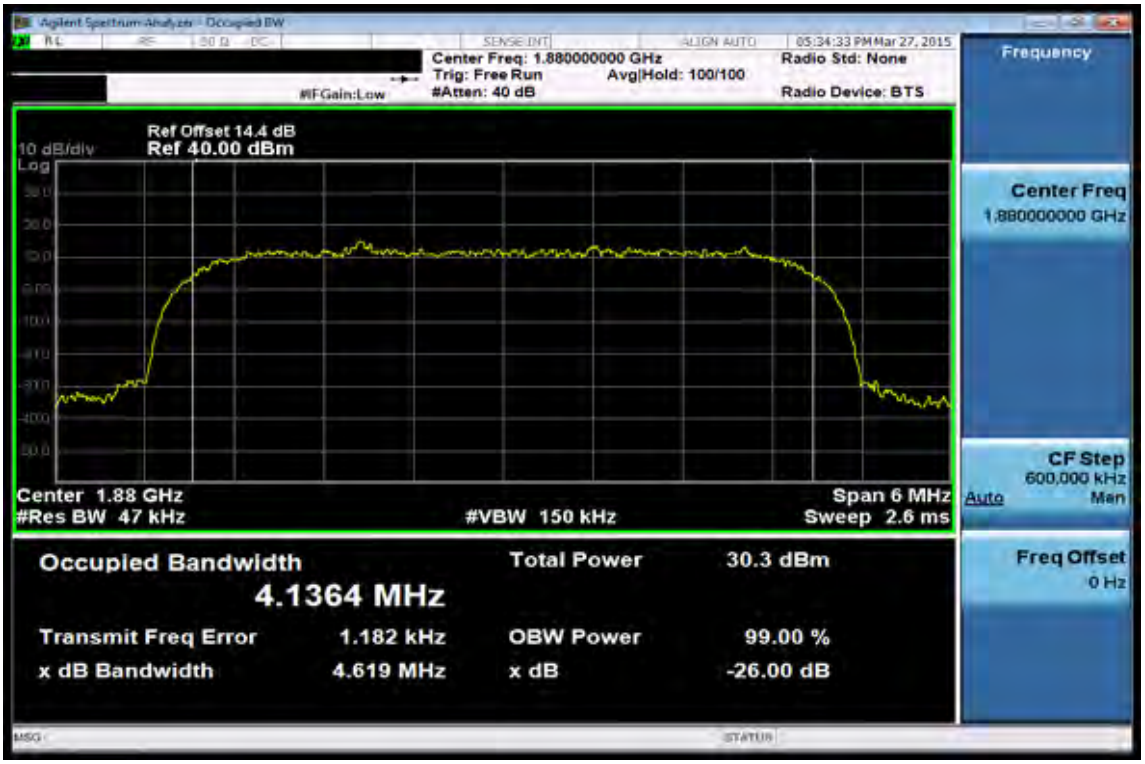

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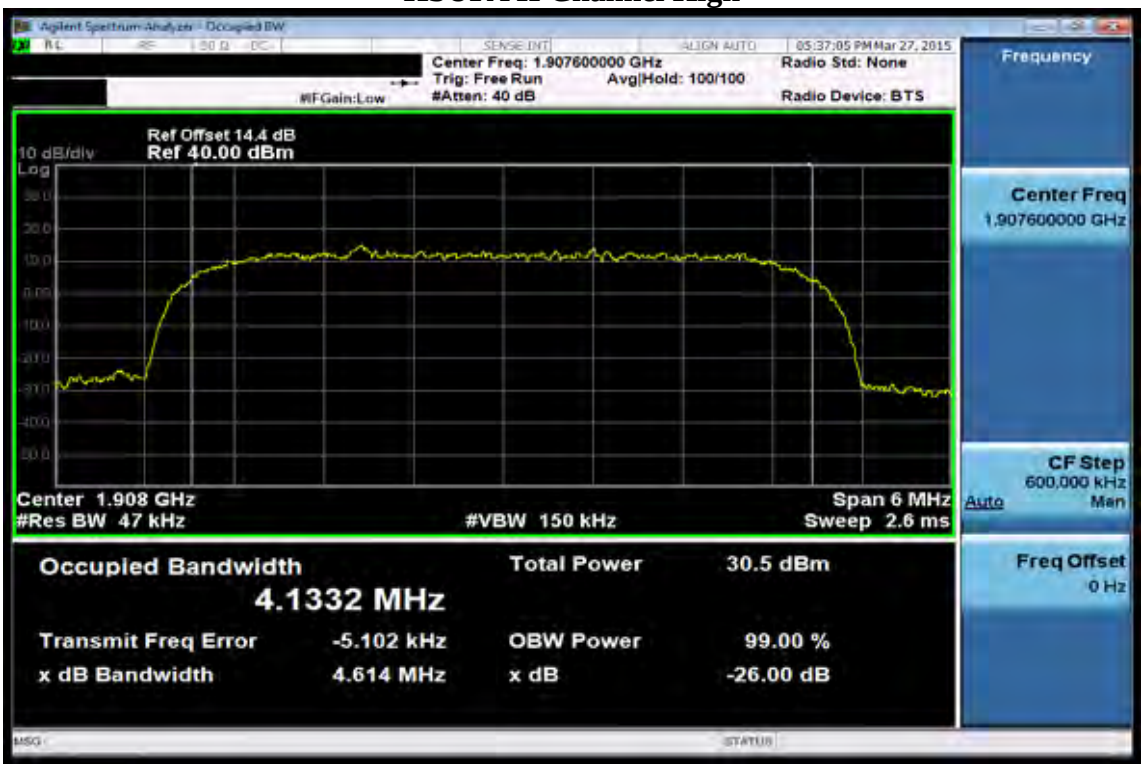

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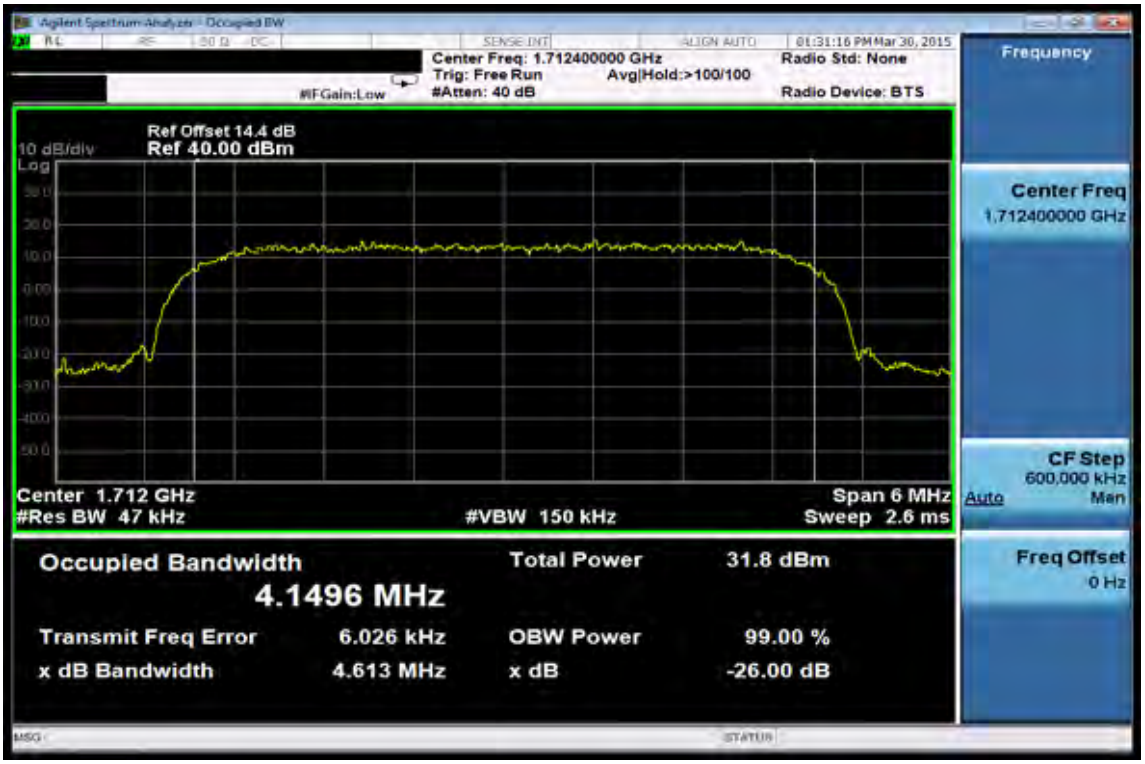
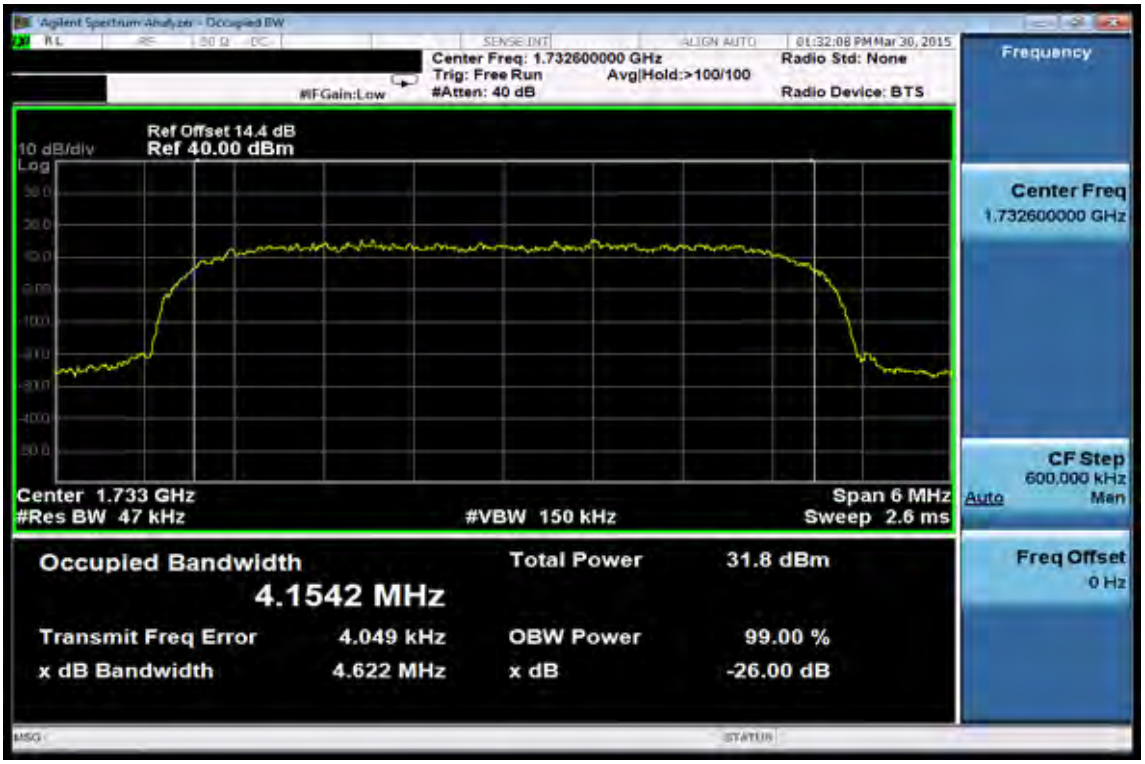
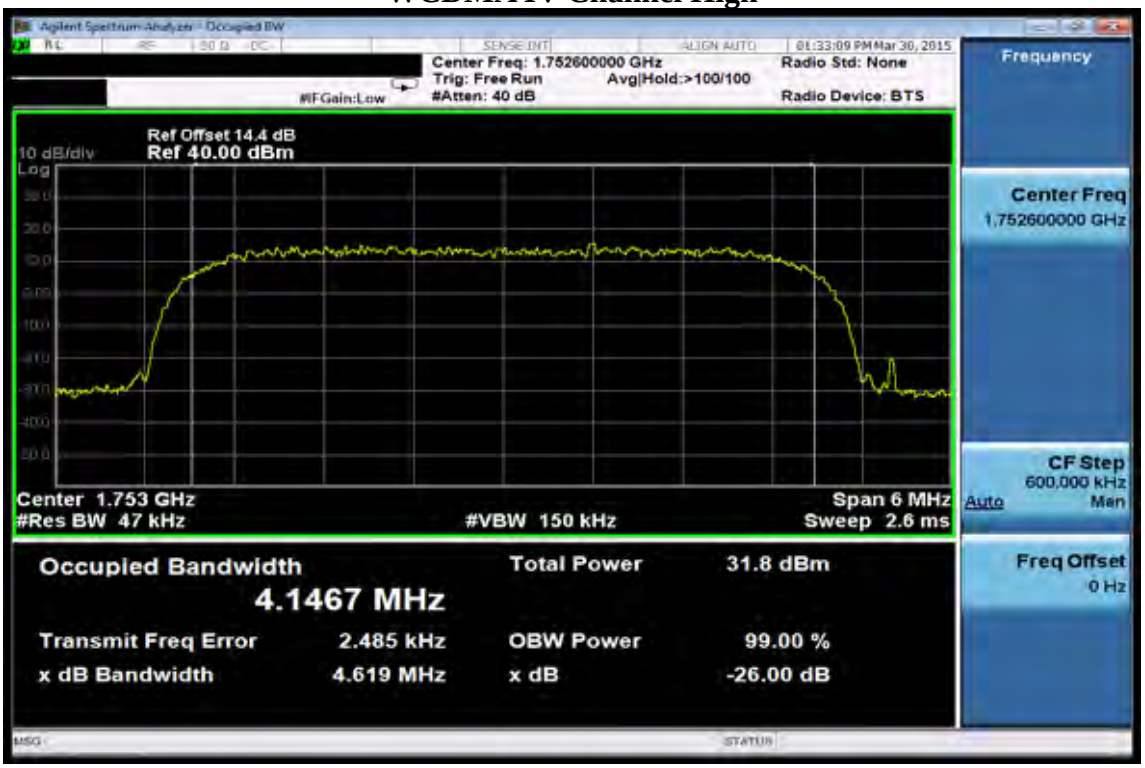


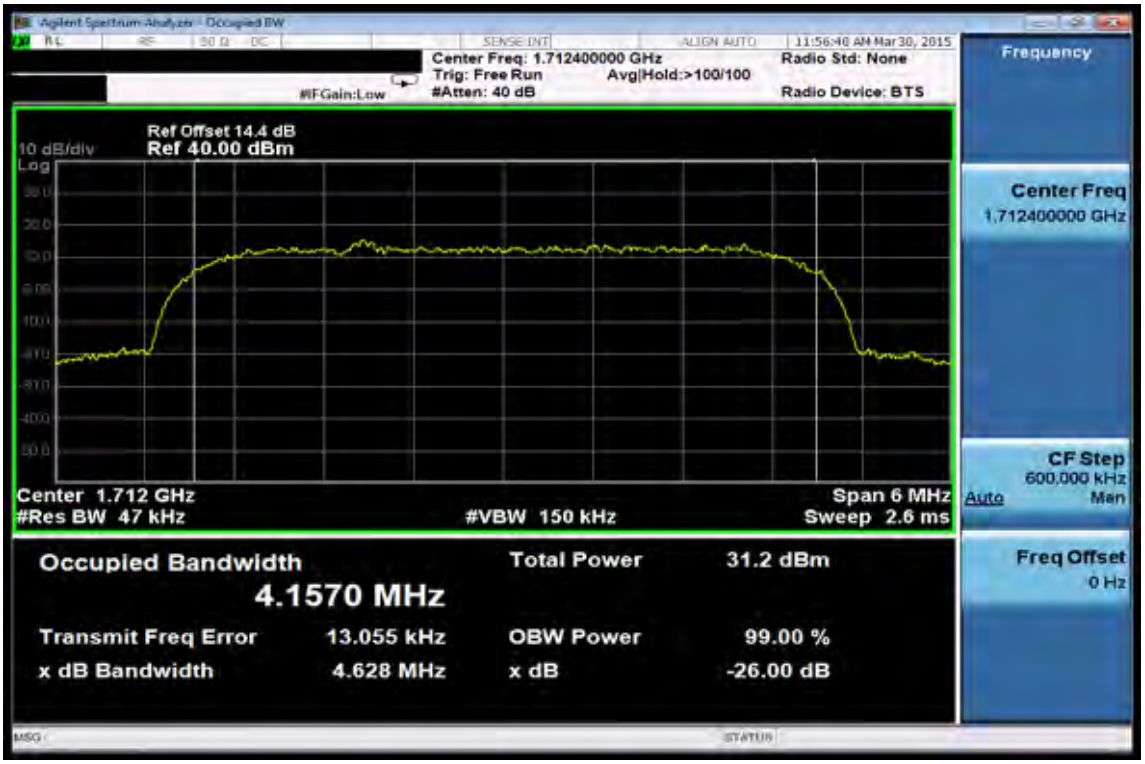
WCDMA IV Channel Mid



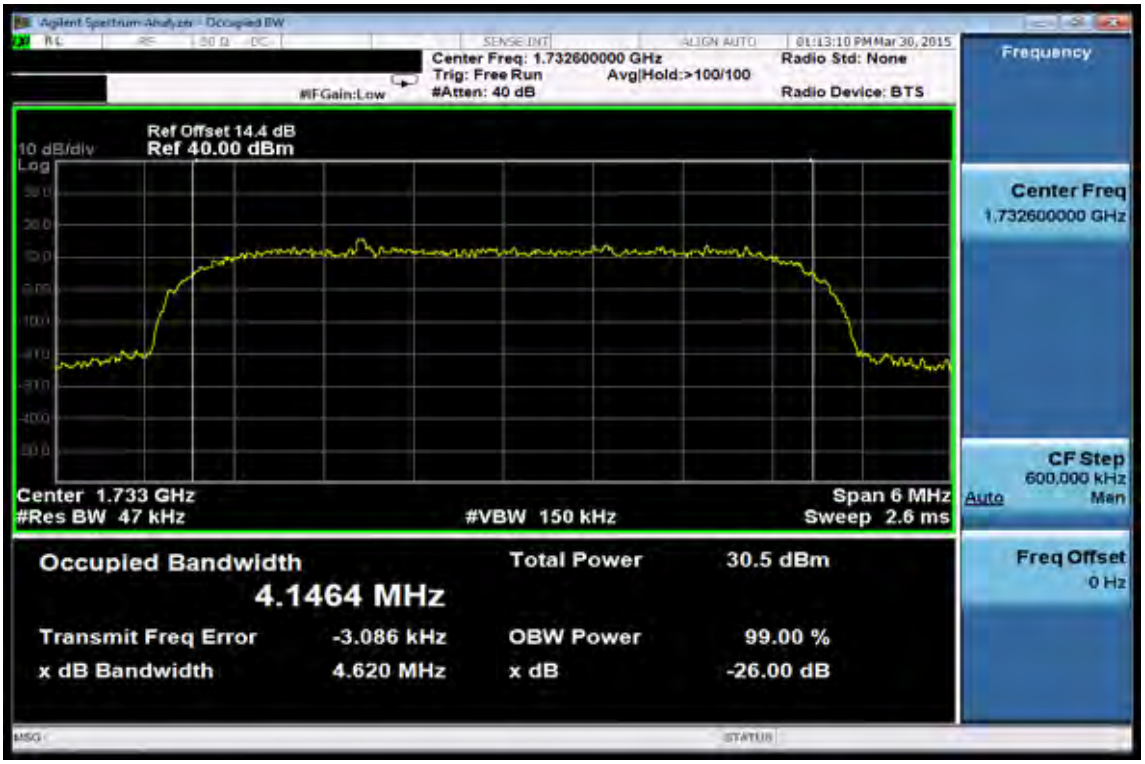
WCDMA IV Channel High



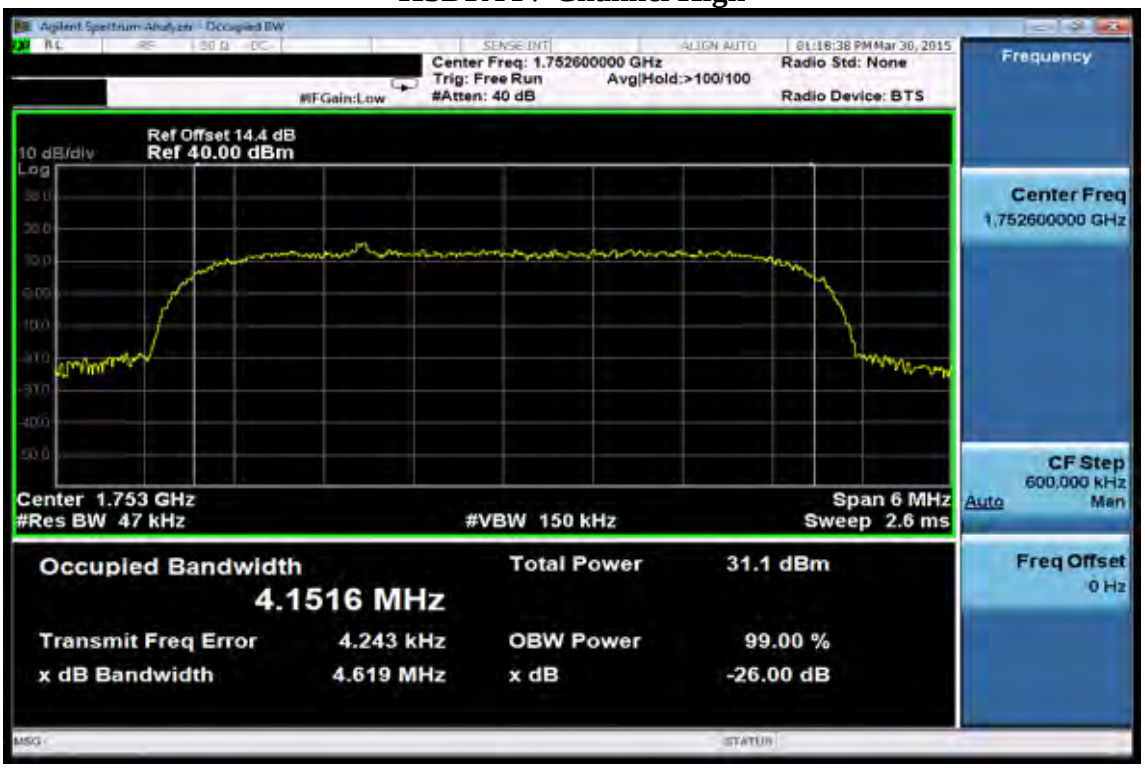
HSDPA IV Channel Low



HSDPA IV Channel Mid



HSDPA IV Channel High



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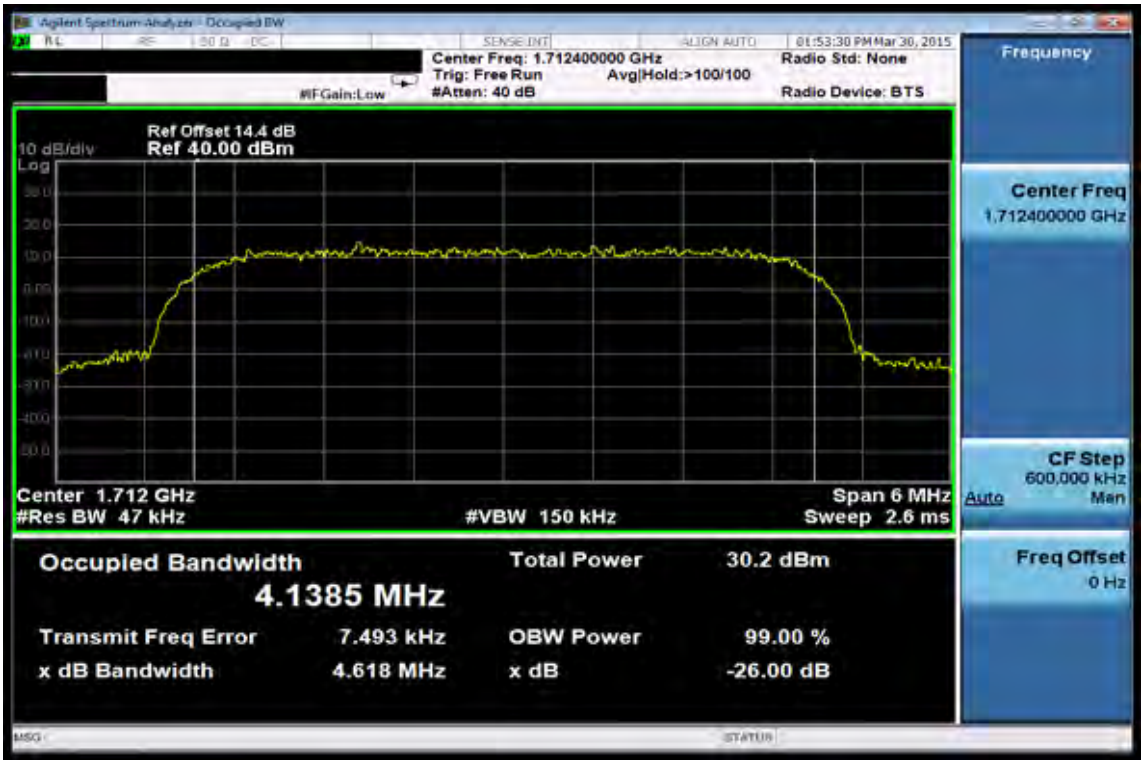

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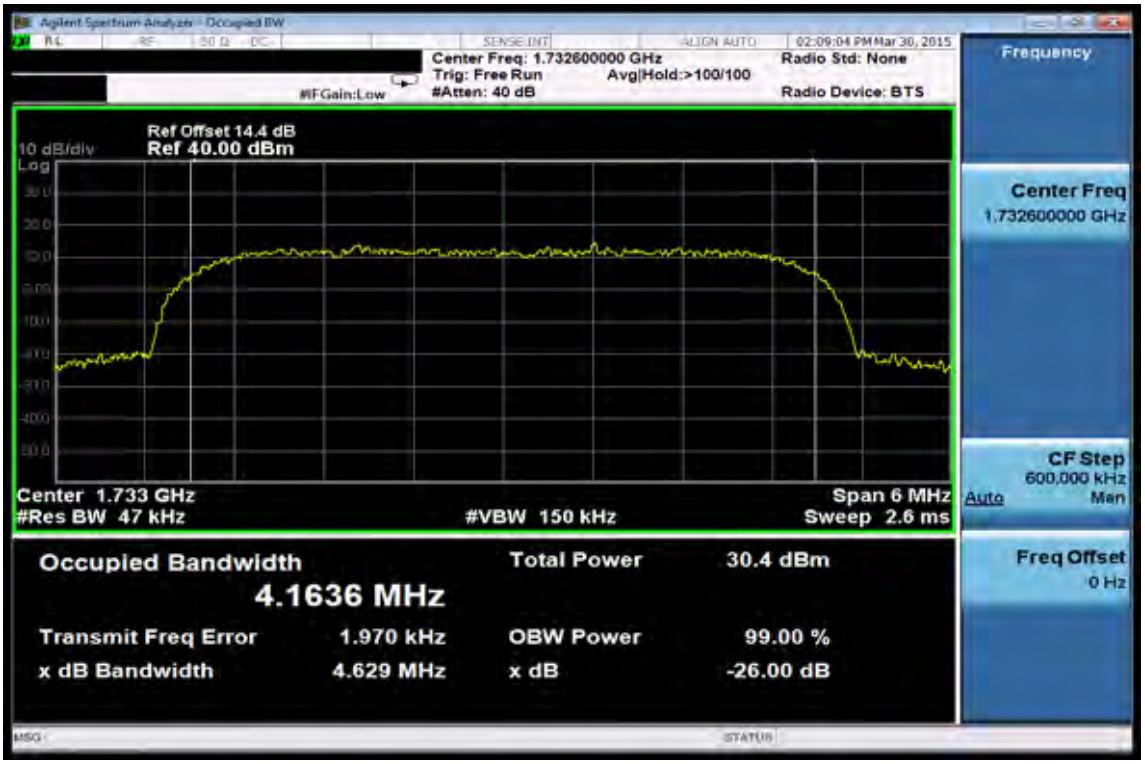

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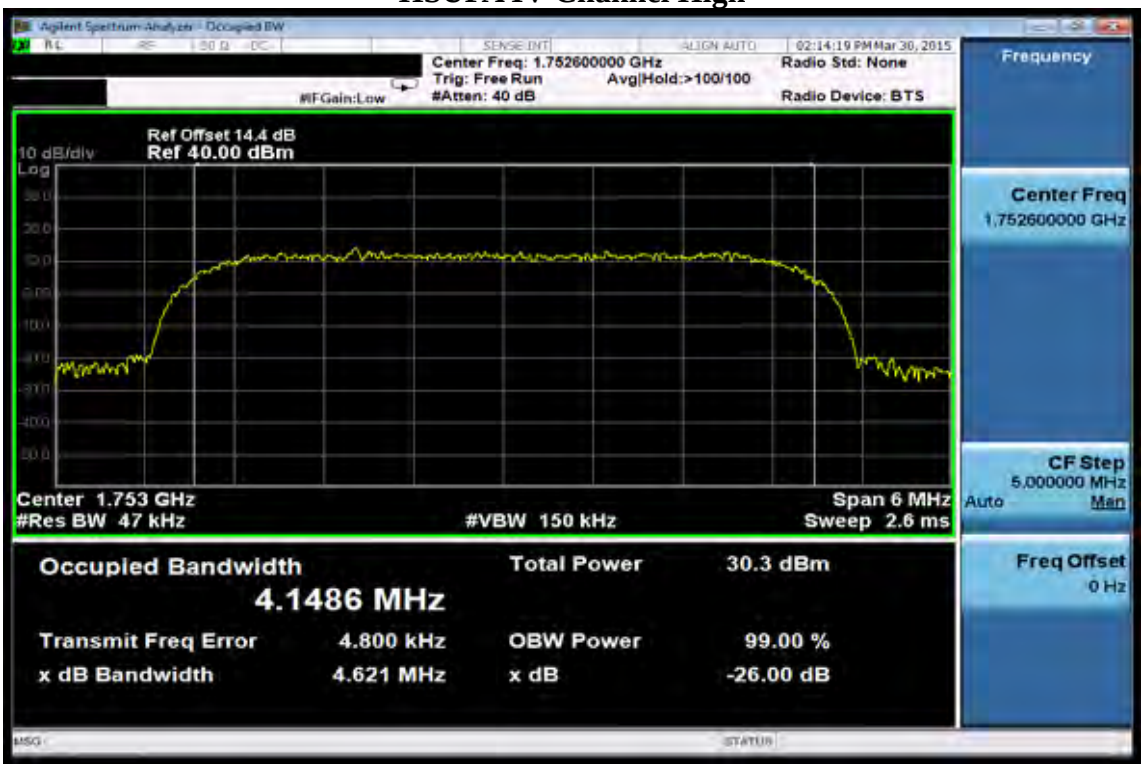
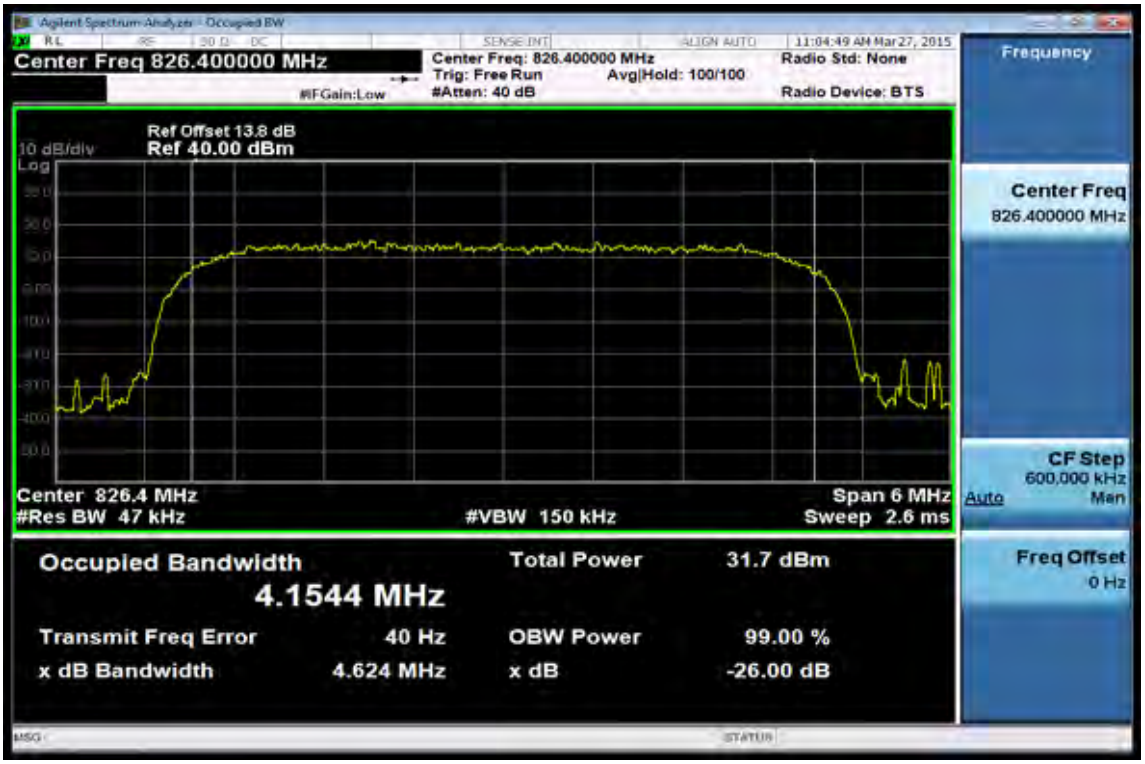
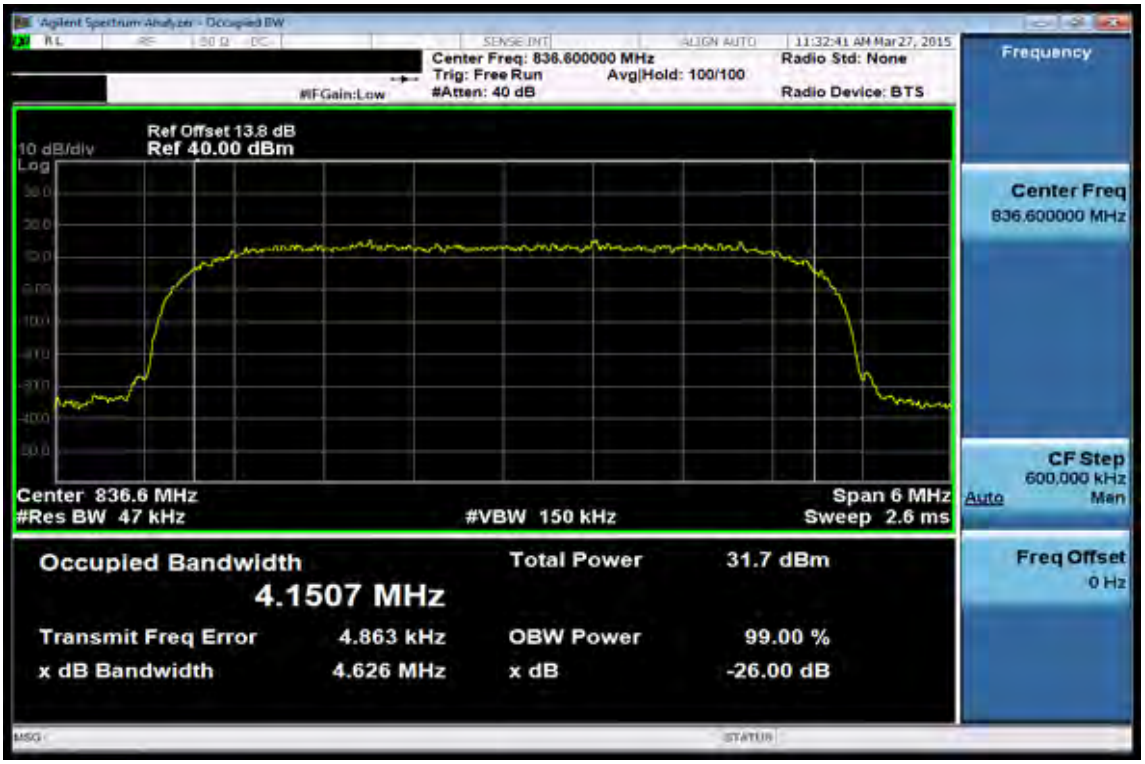


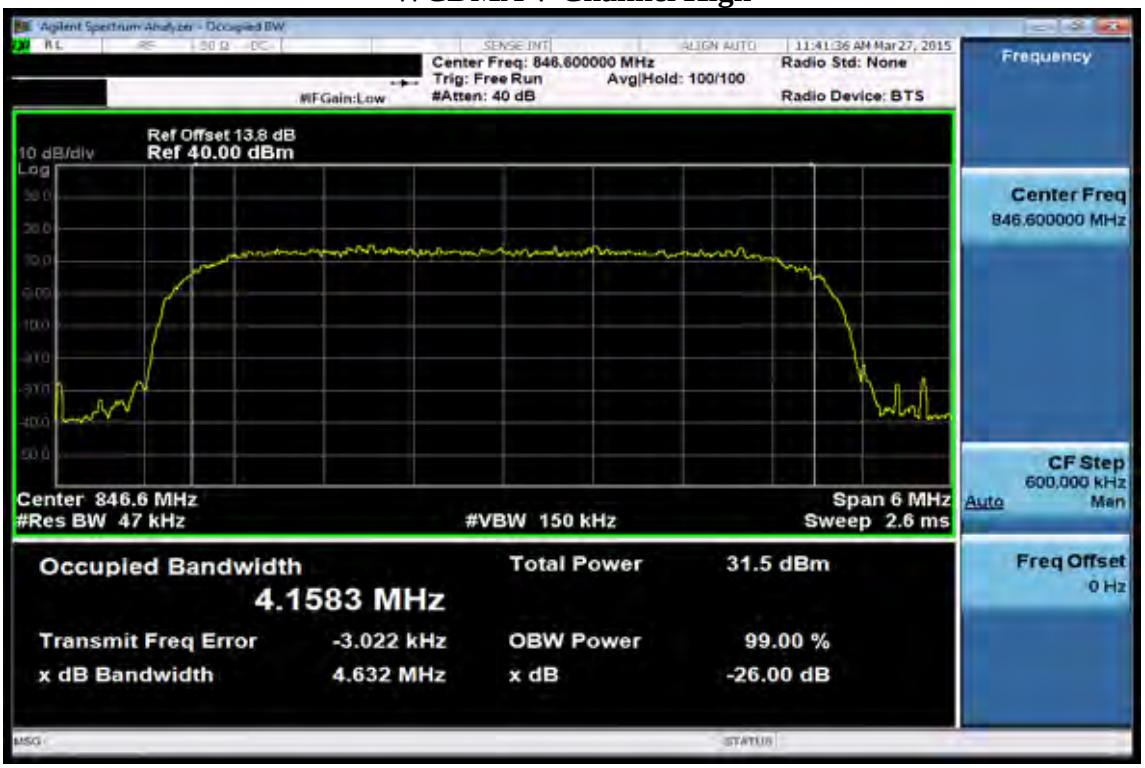
WCDMA V Channel Low



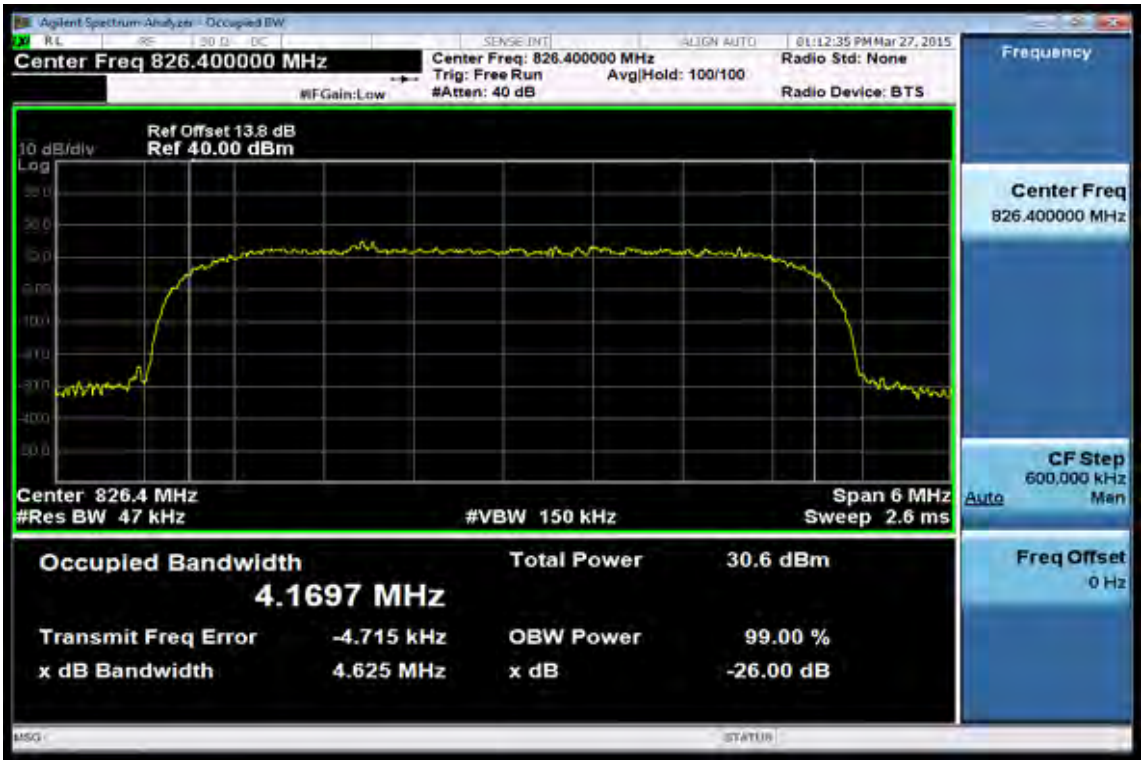
WCDMA V Channel Mid



WCDMA V Channel High



HSDPA V Channel Low



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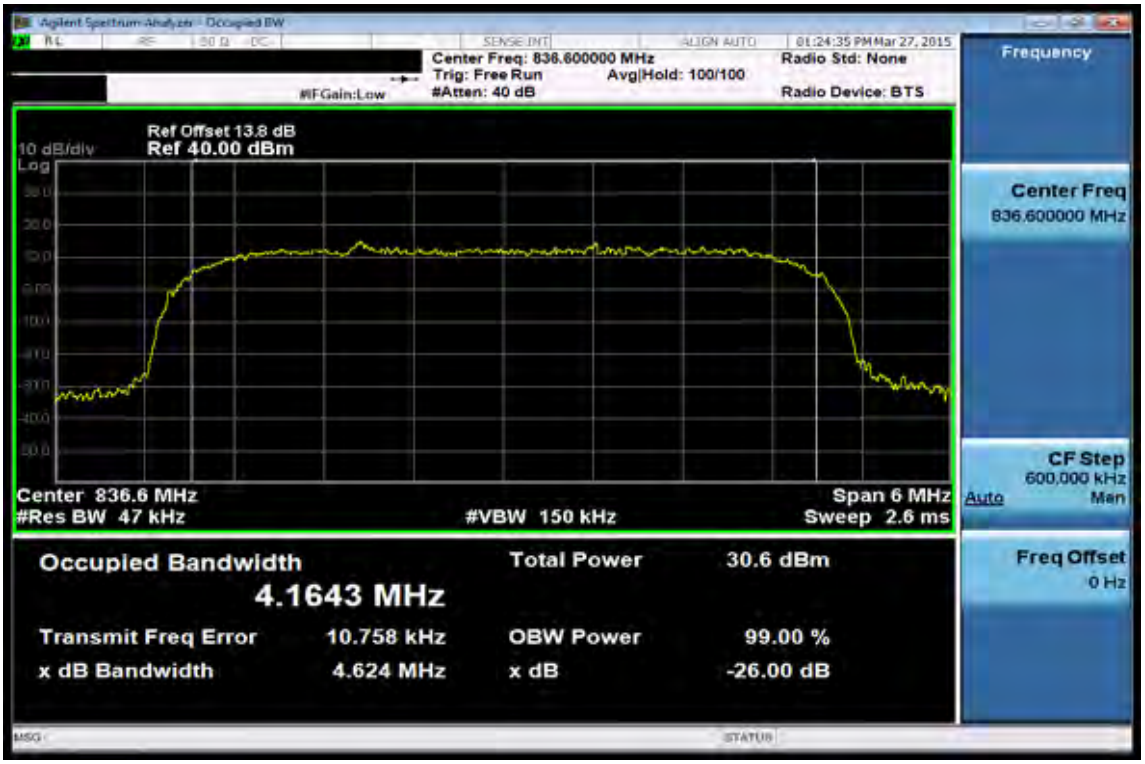

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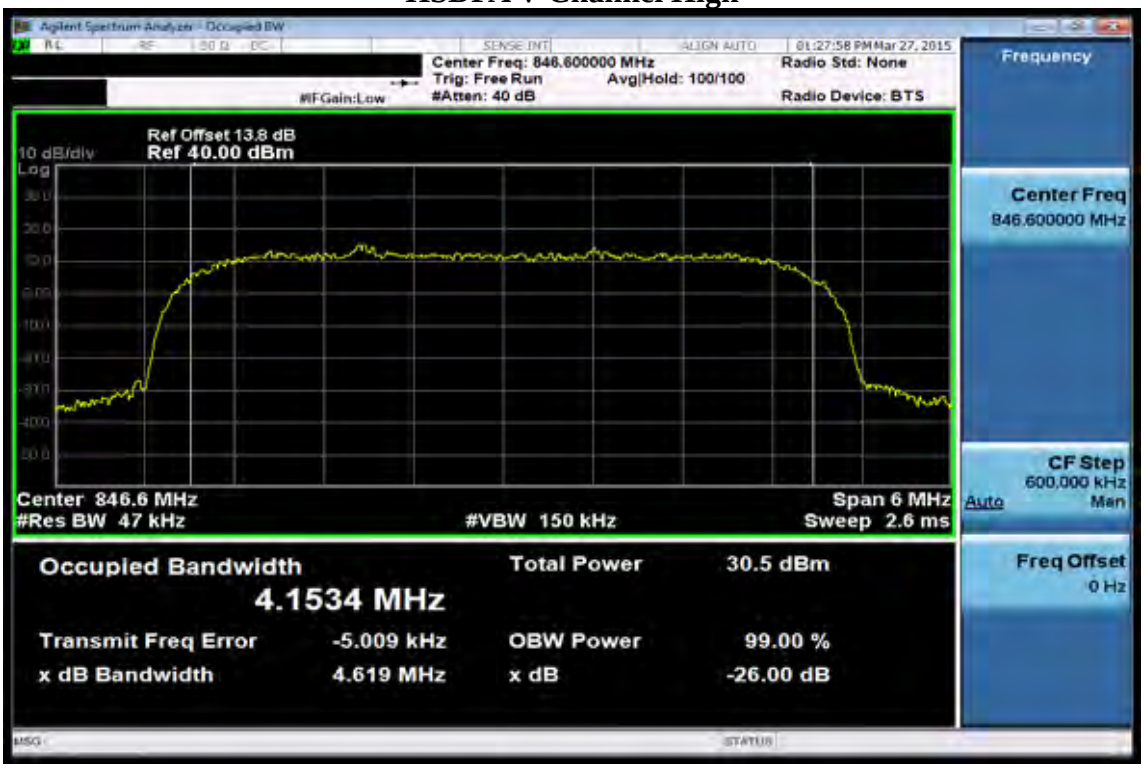

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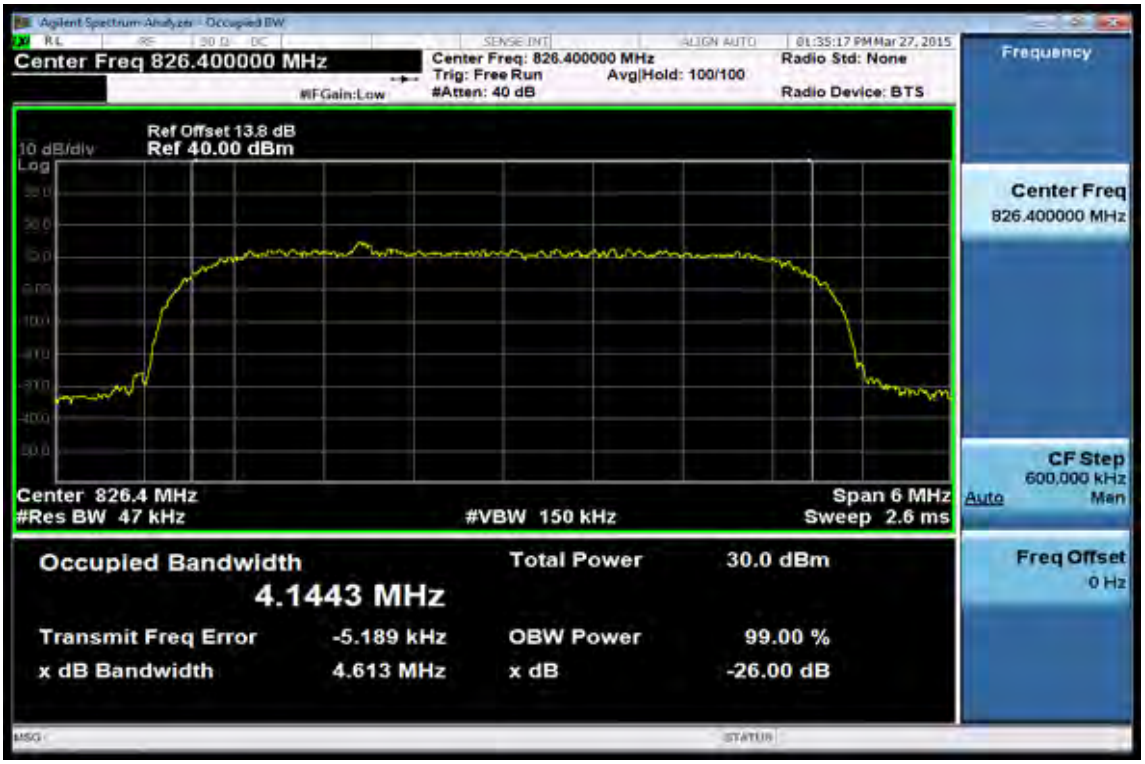

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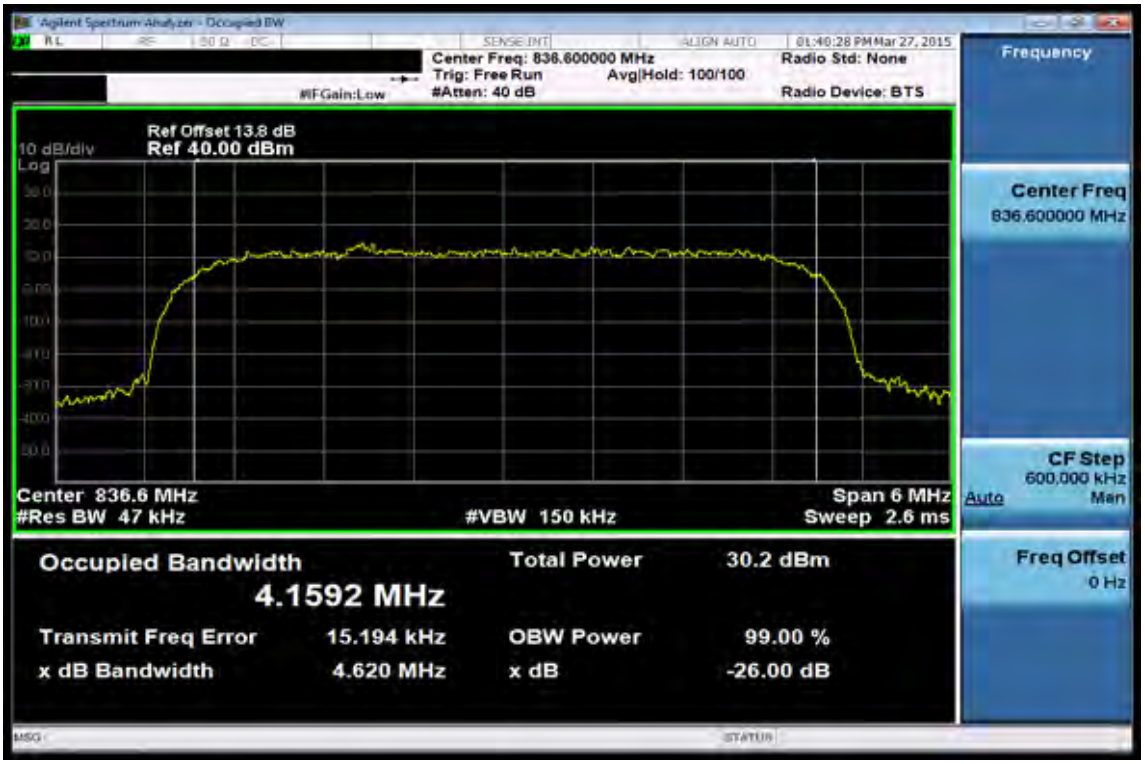

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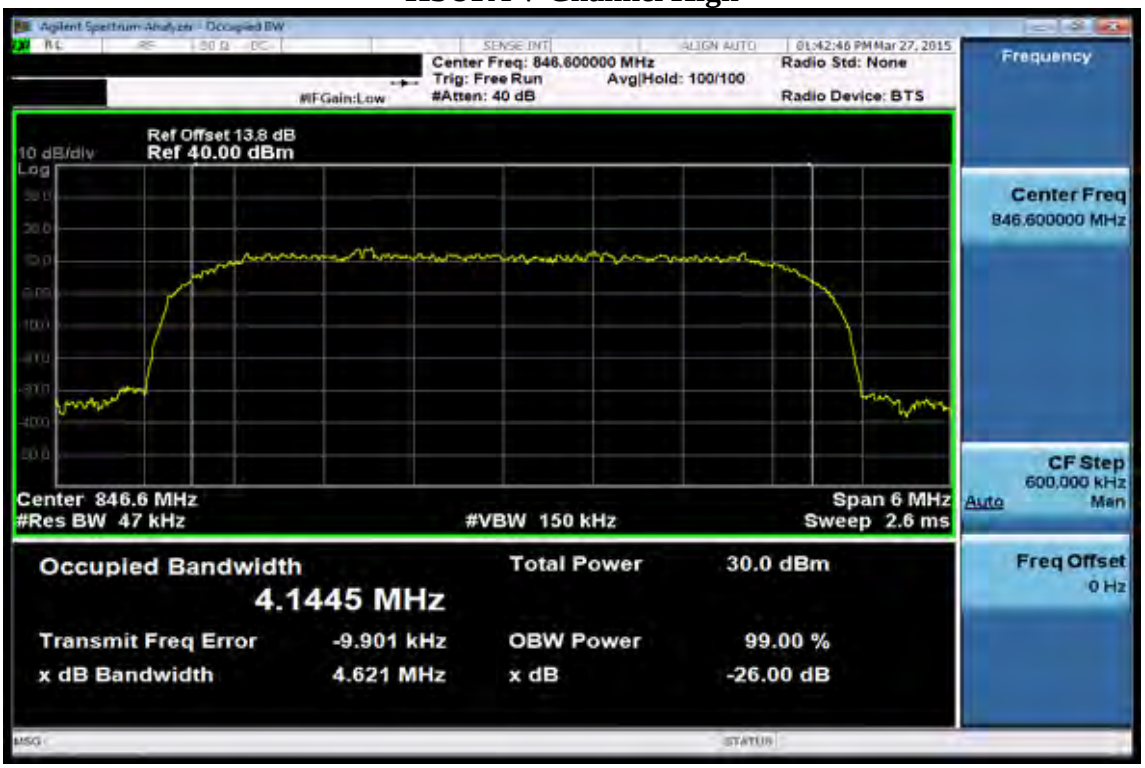
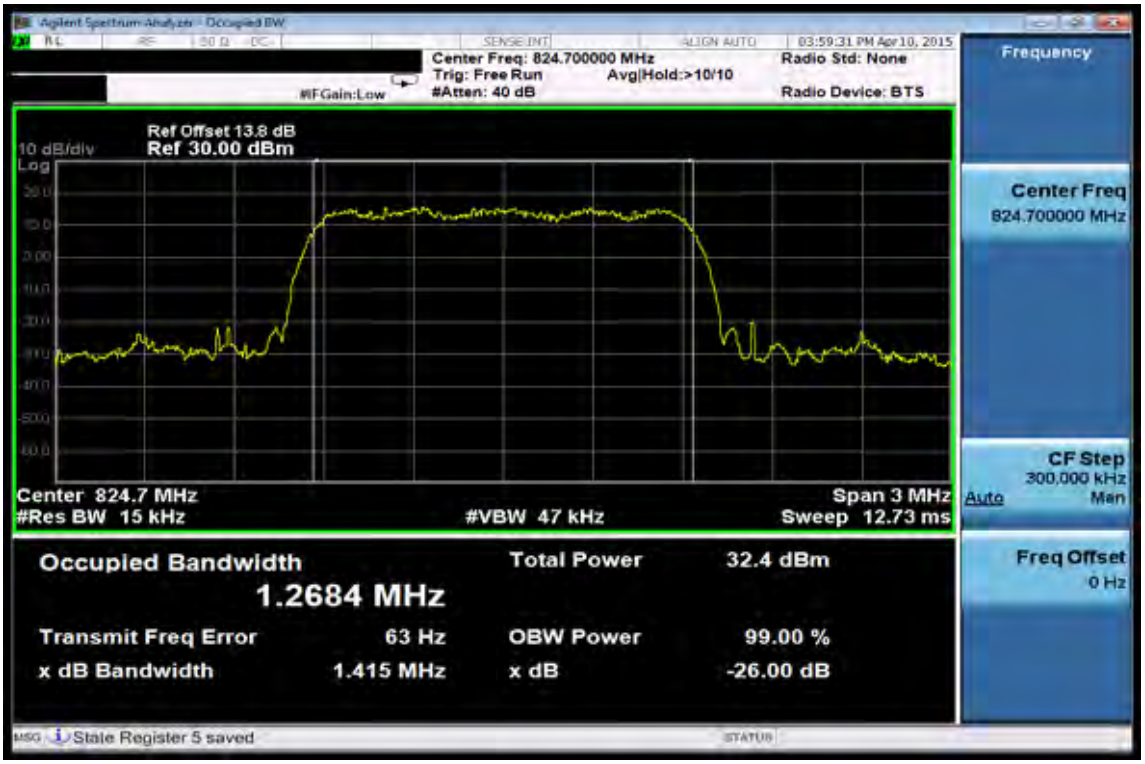
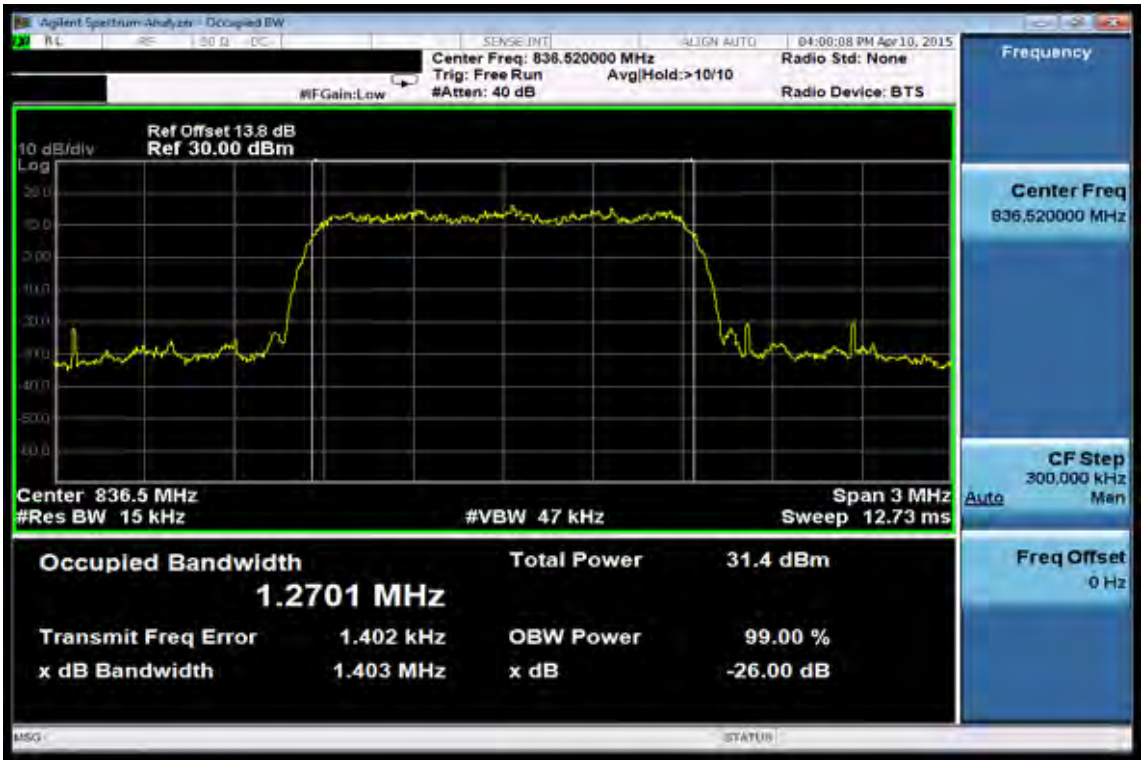


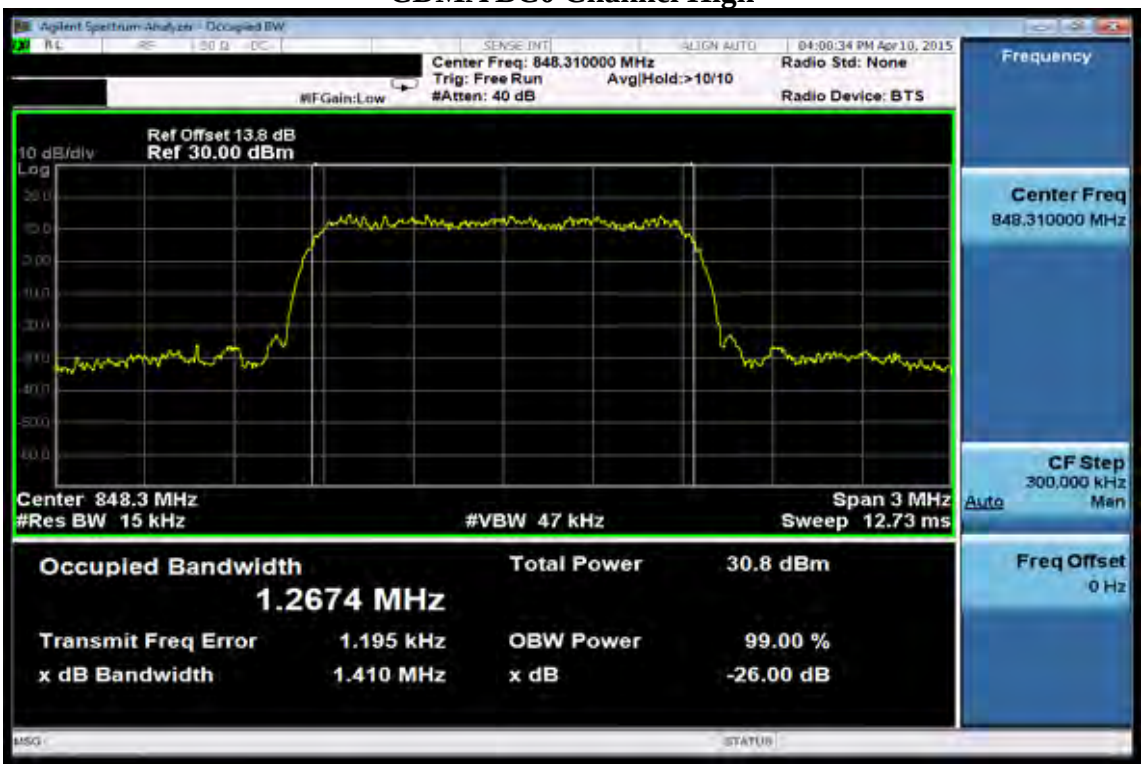
CDMA BC0 Channel Low



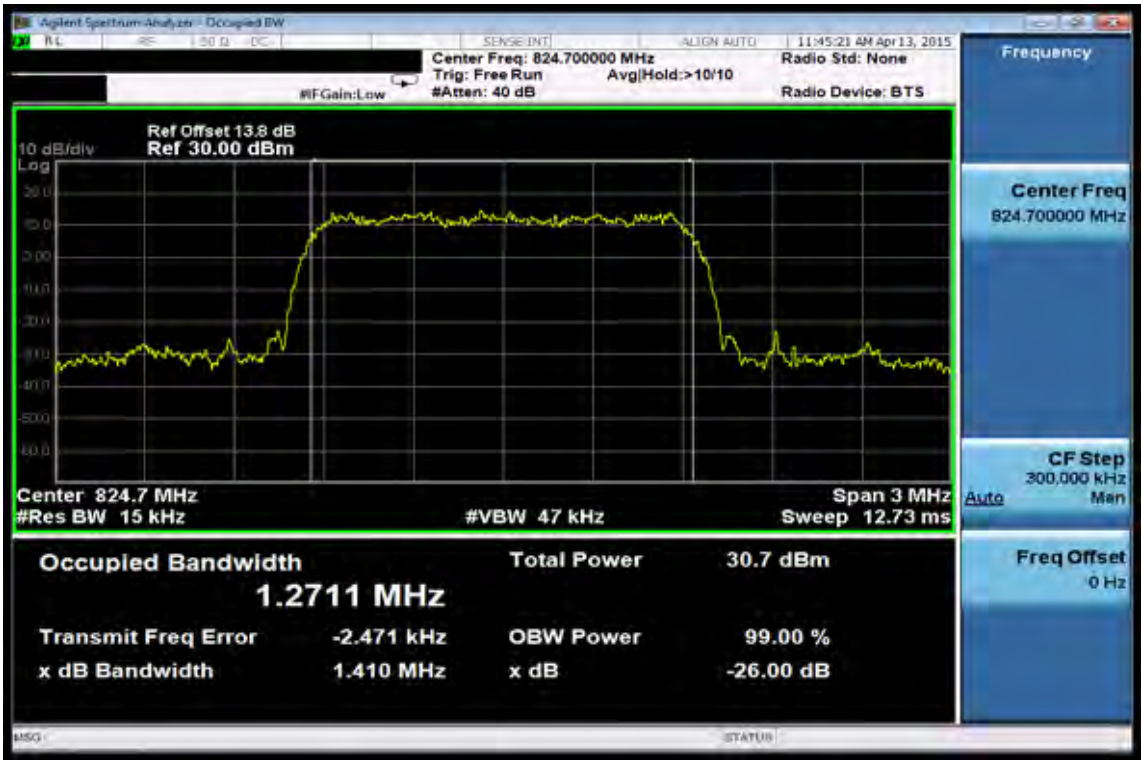
CDMA BC0 Channel Mid



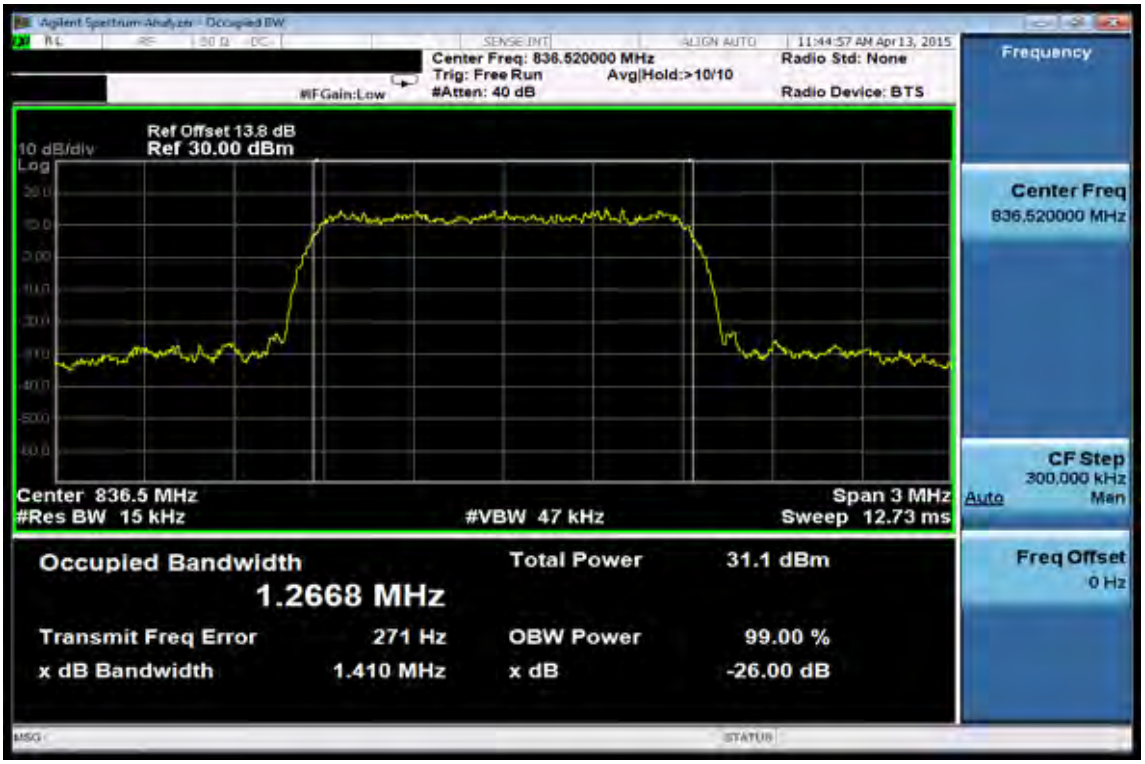
CDMA BC0 Channel High



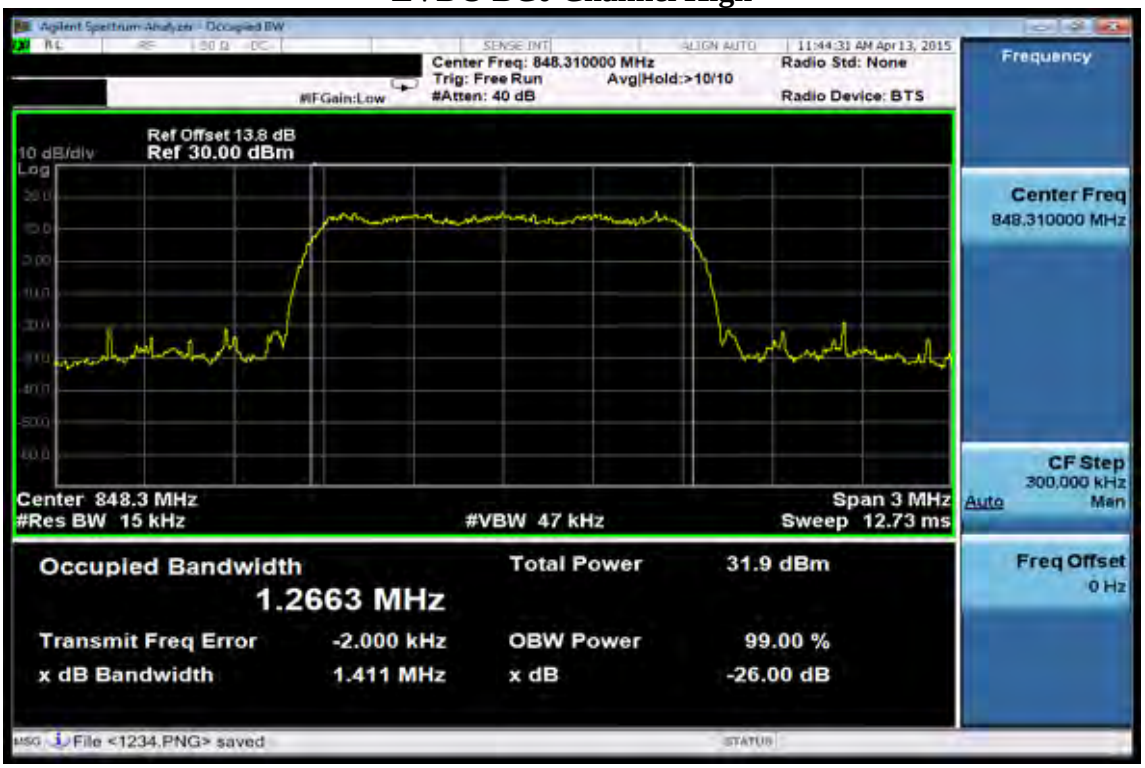
EVDO BC0 Channel Low



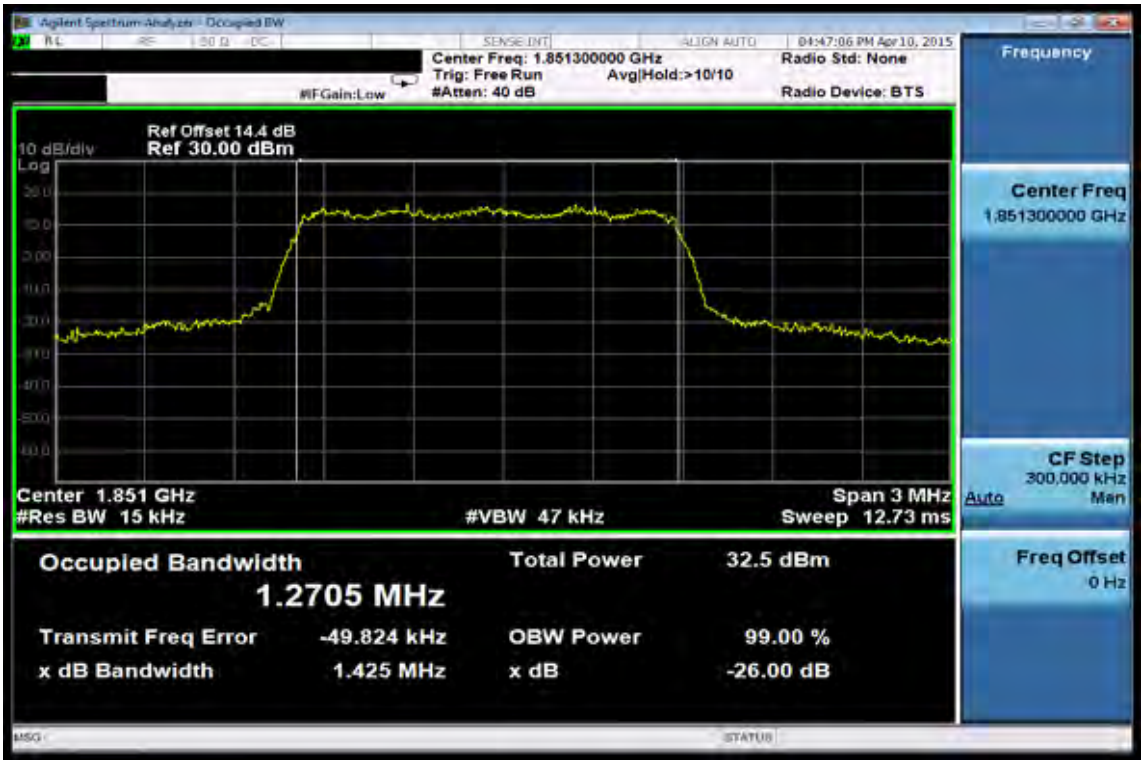
EVDO BC0 Channel Mid



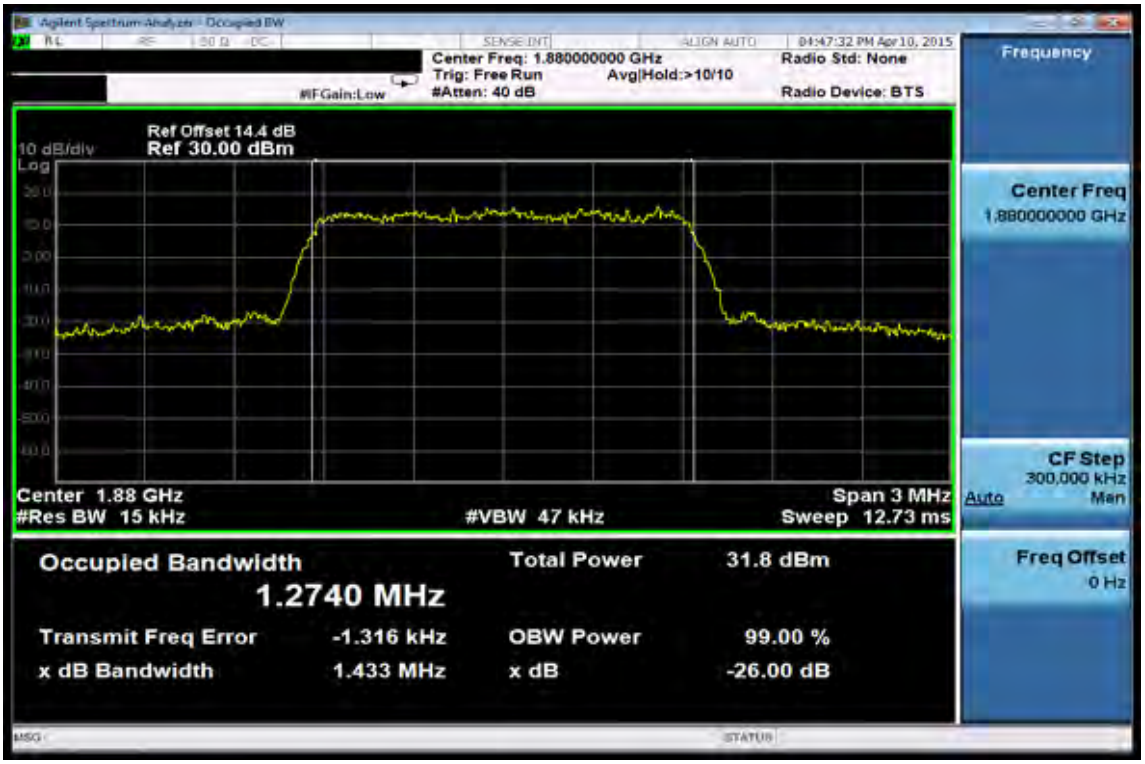
EVDO BC0 Channel High



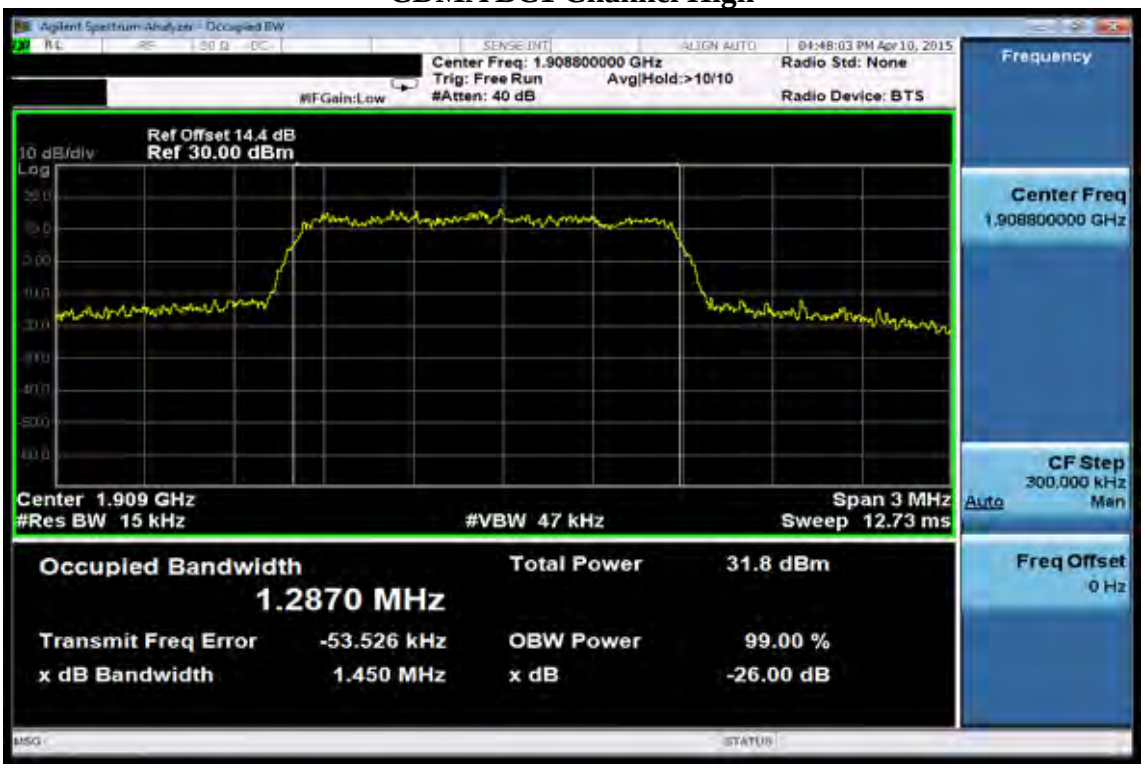
CDMA BC1 Channel Low



CDMA BC1 Channel Mid

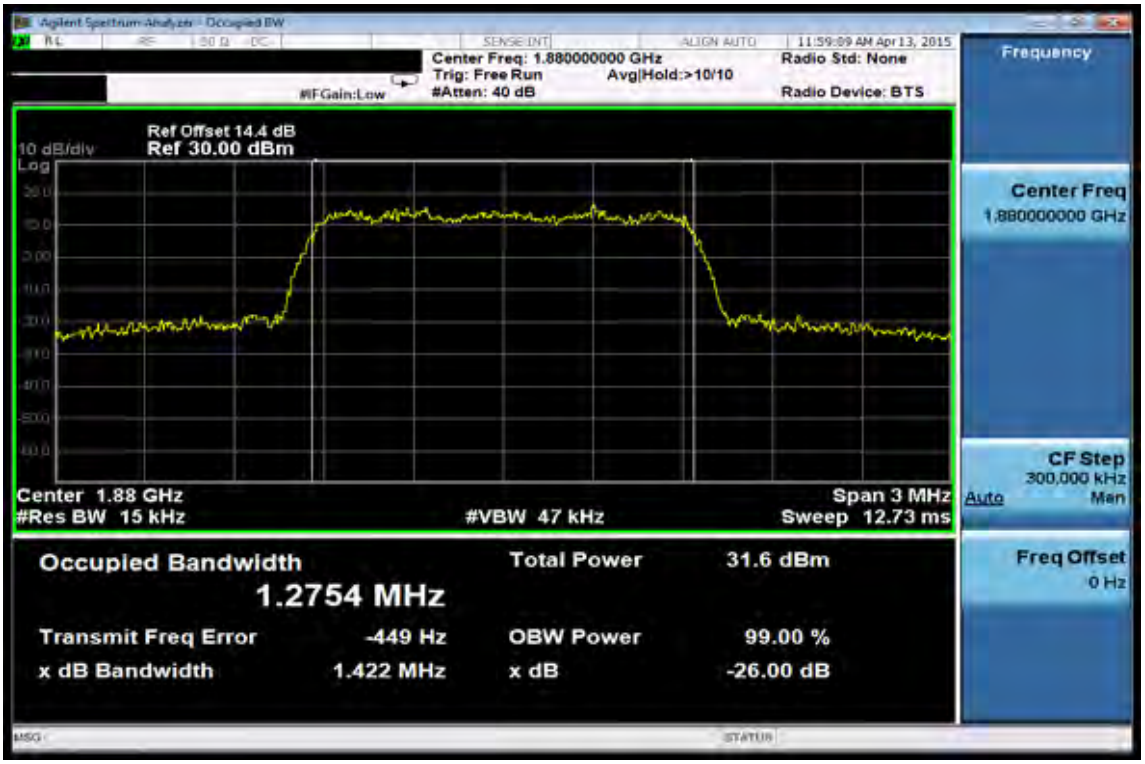


CDMA BC1 Channel High

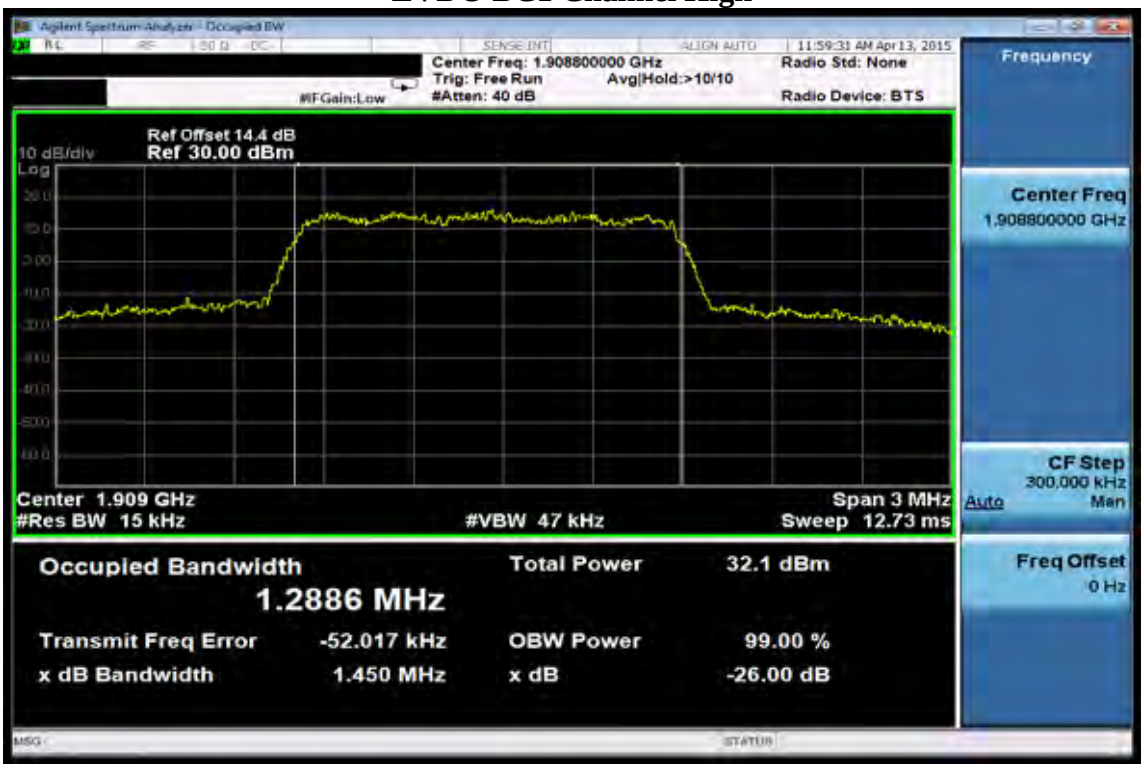


EVDO BC1 Channel Low

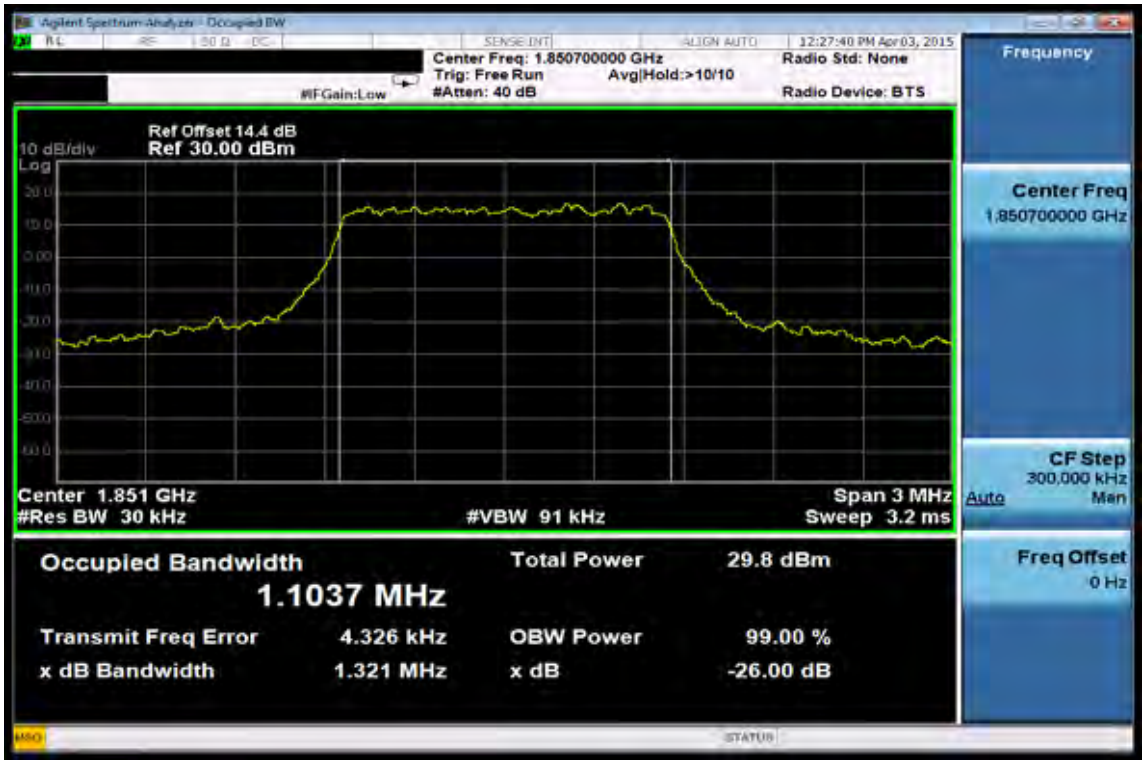
EVDO BC1 Channel Mid



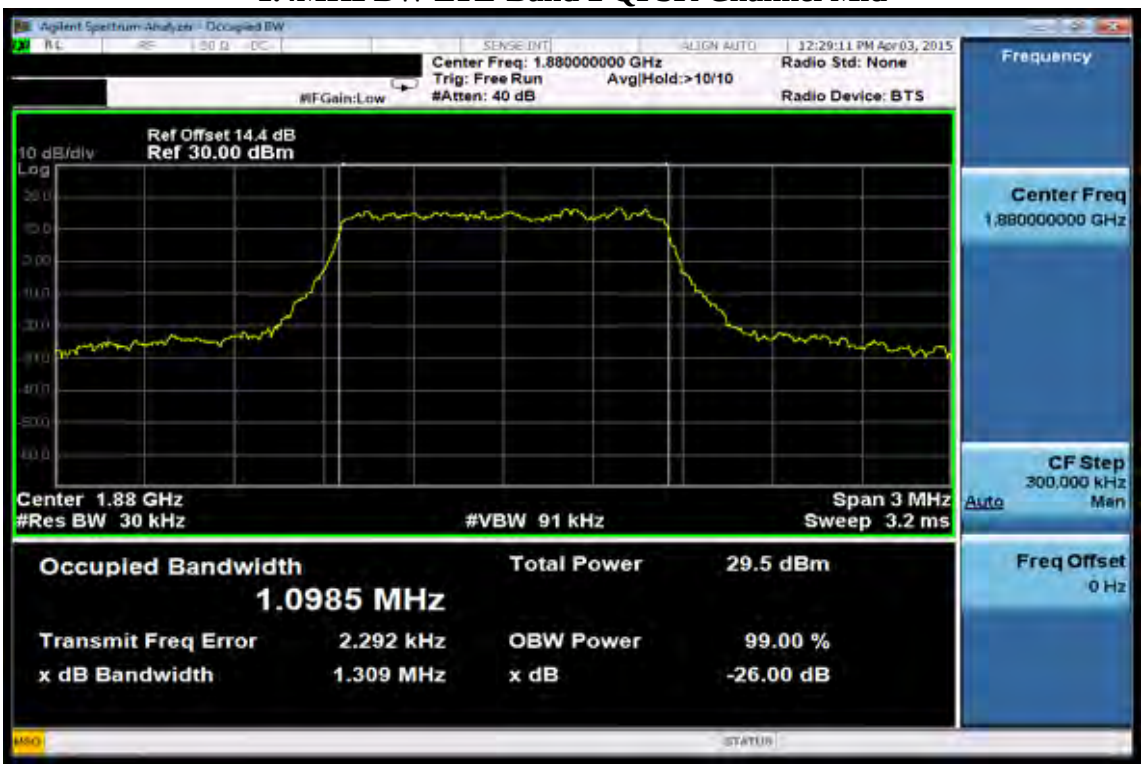
EVDO BC1 Channel High



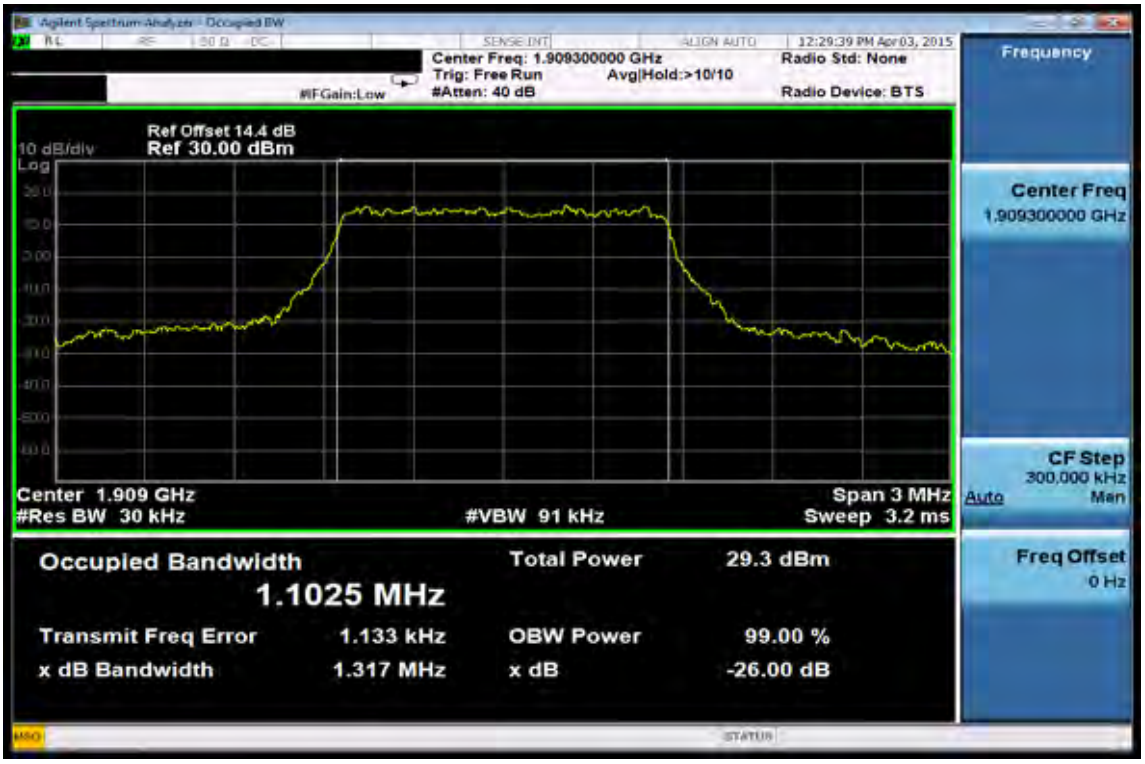
1.4MHz BW LTE-Band 2 QPSK Channel Low



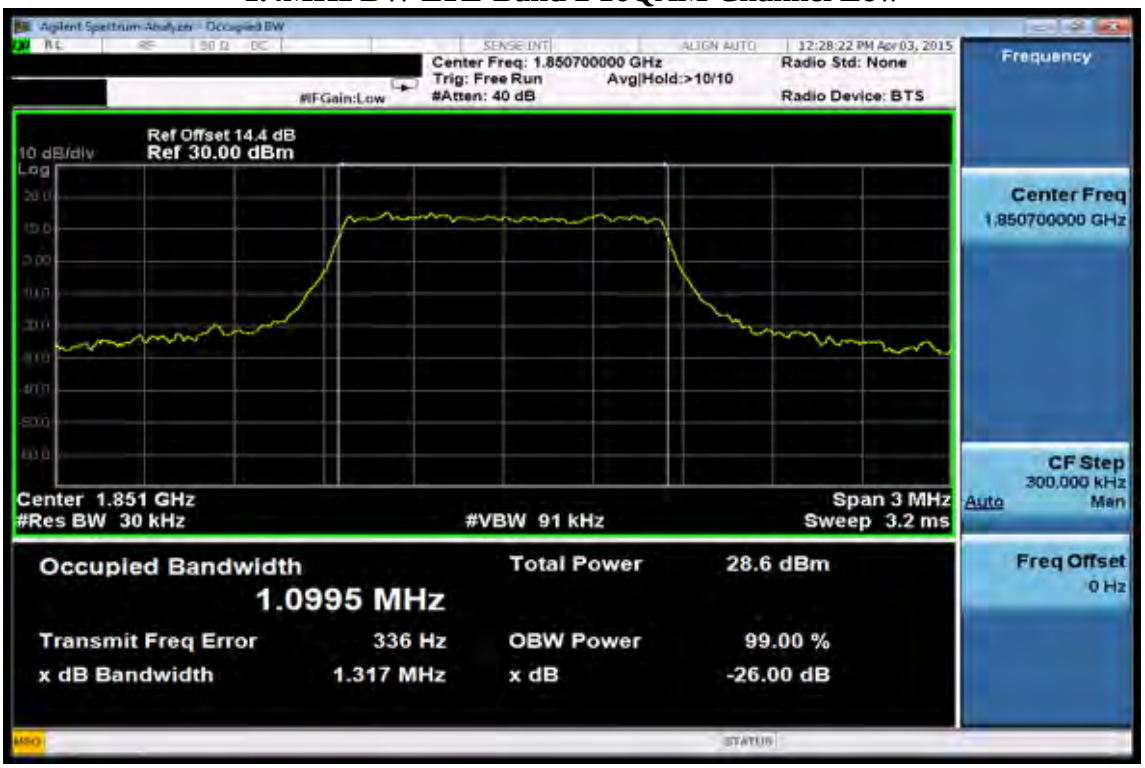
1.4MHz BW LTE-Band 2 QPSK Channel Mid



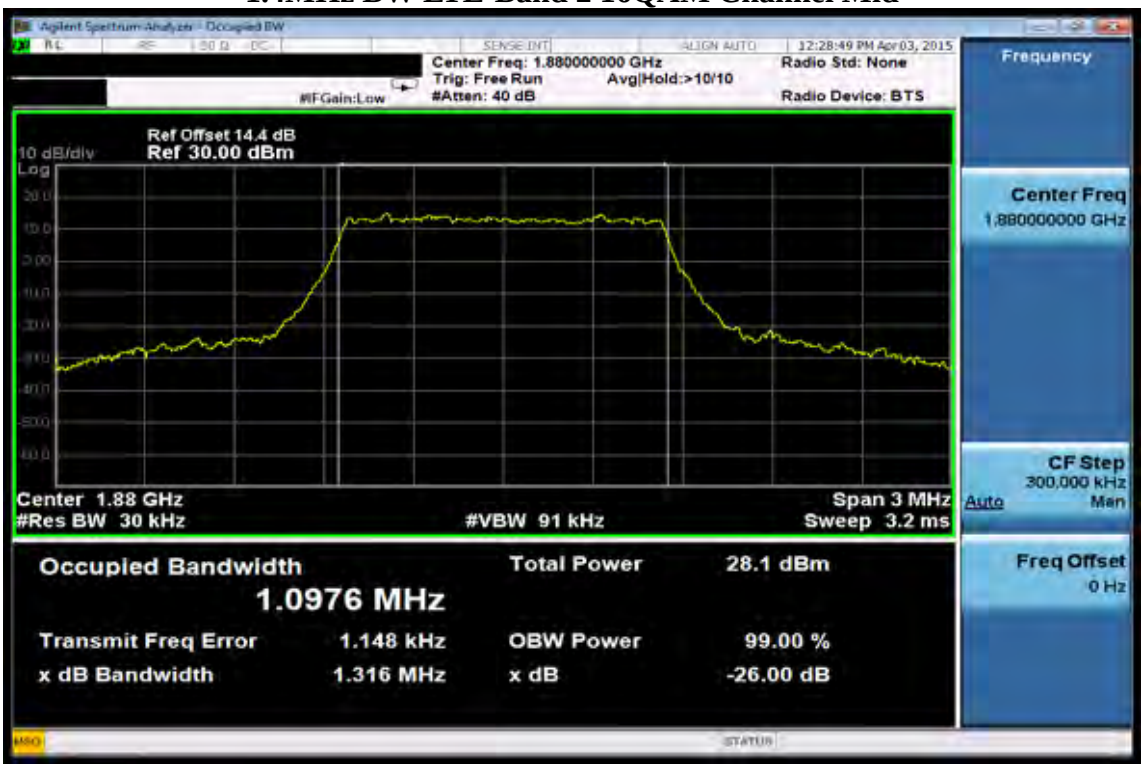
1.4MHz BW LTE-Band 2 QPSK Channel High



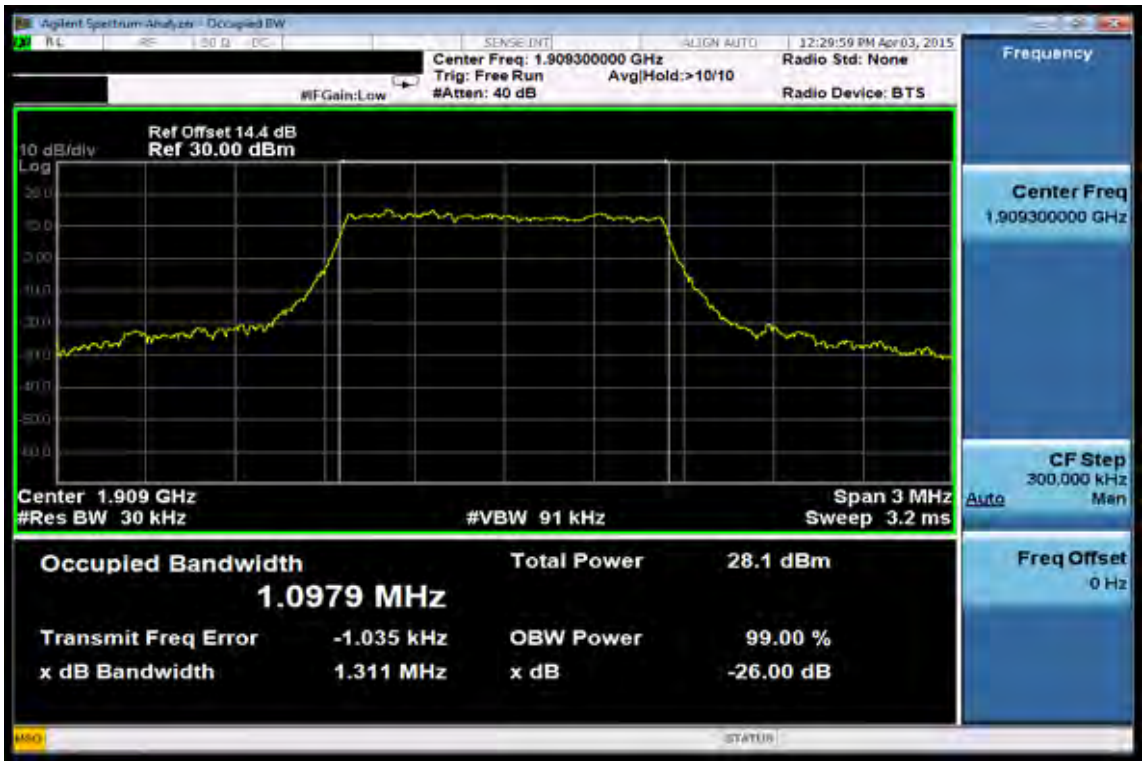
1.4MHz BW LTE-Band 2 16QAM Channel Low



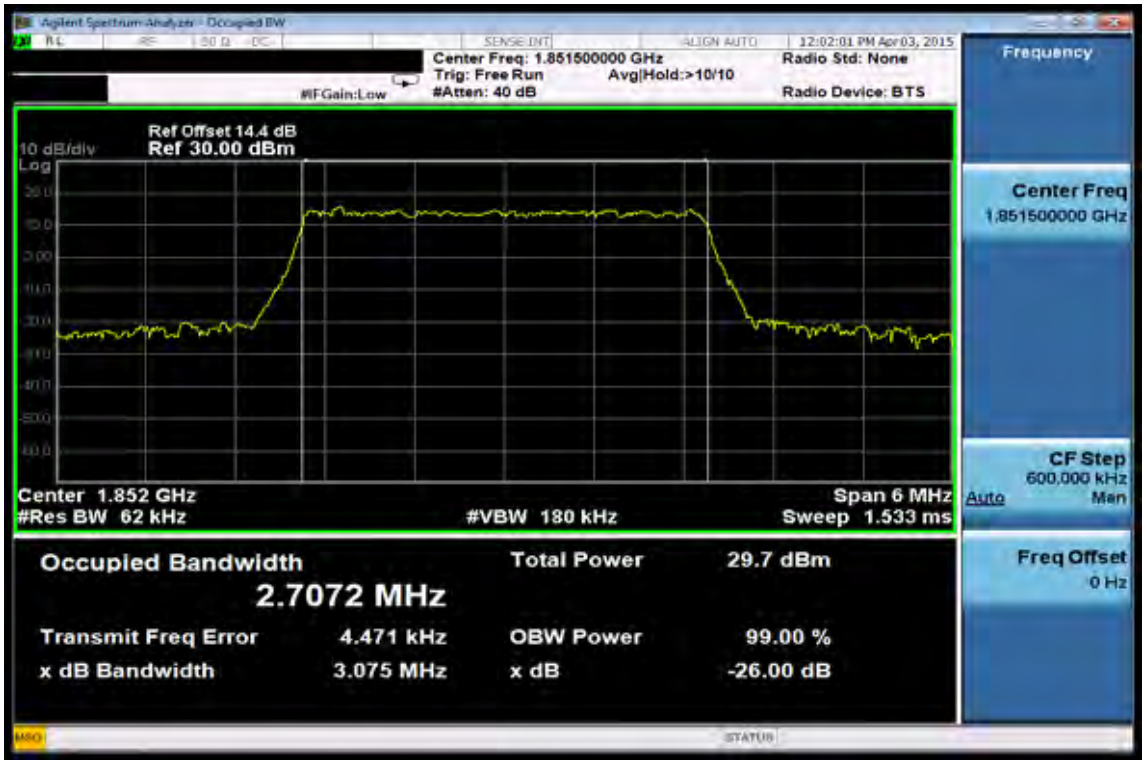
1.4MHz BW LTE-Band 2 16QAM Channel Mid



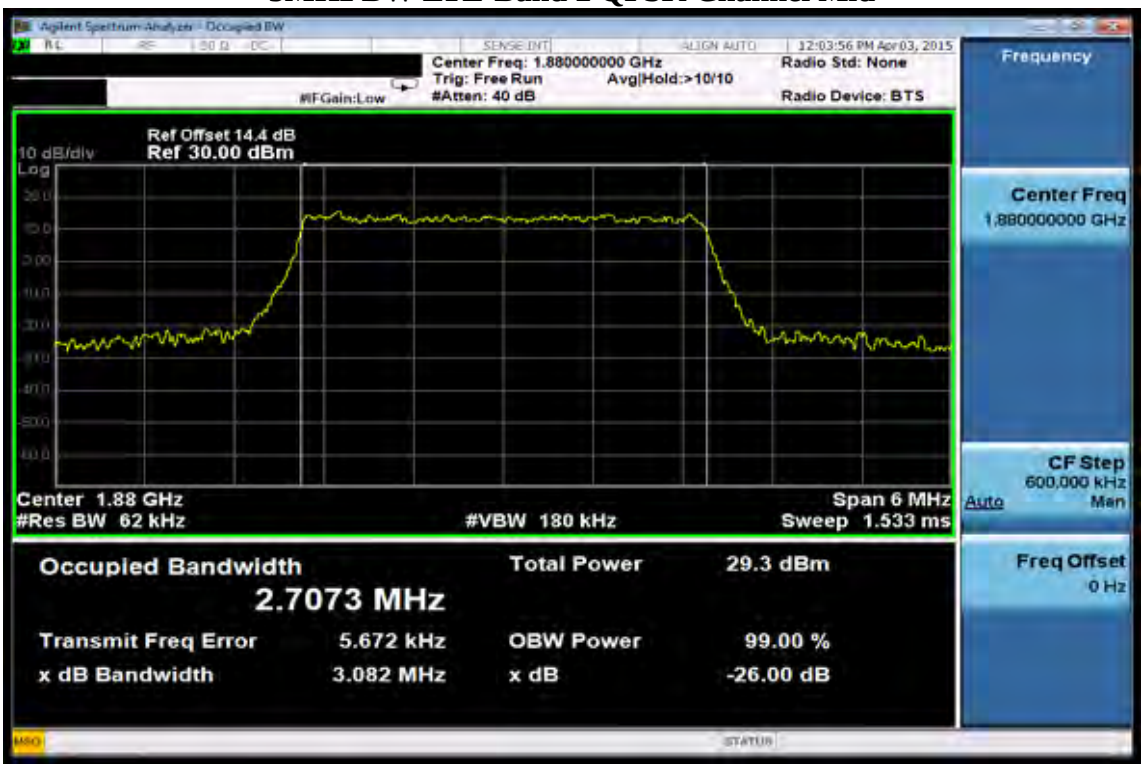
1.4MHz BW LTE-Band 2 16QAM Channel High



3MHz BW LTE-Band 2 QPSK Channel Low

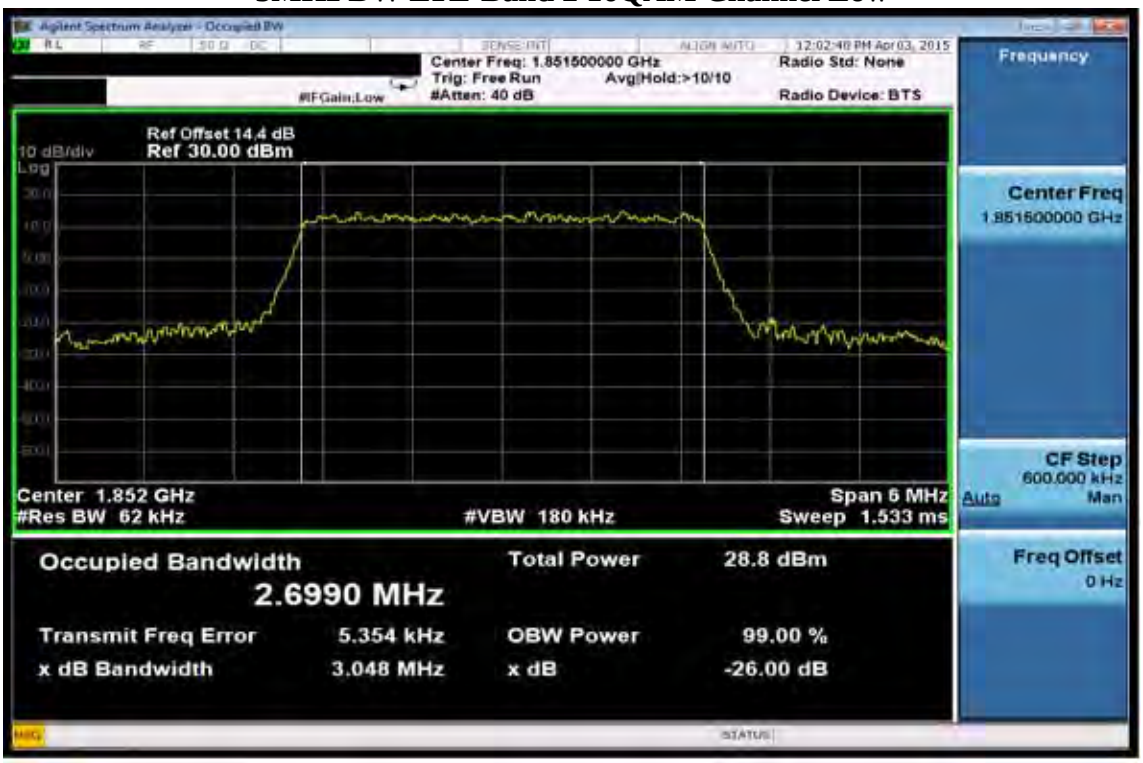


3MHz BW LTE-Band 2 QPSK Channel Mid

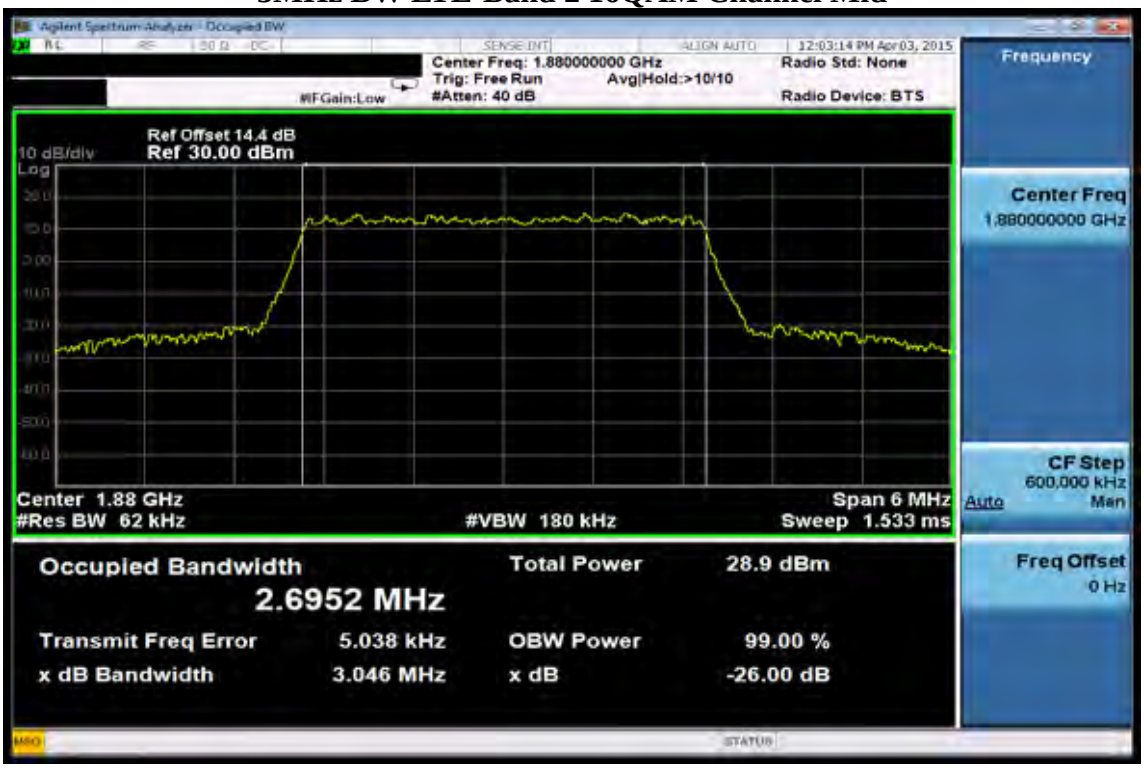


3MHz BW LTE-Band 2 QPSK Channel High

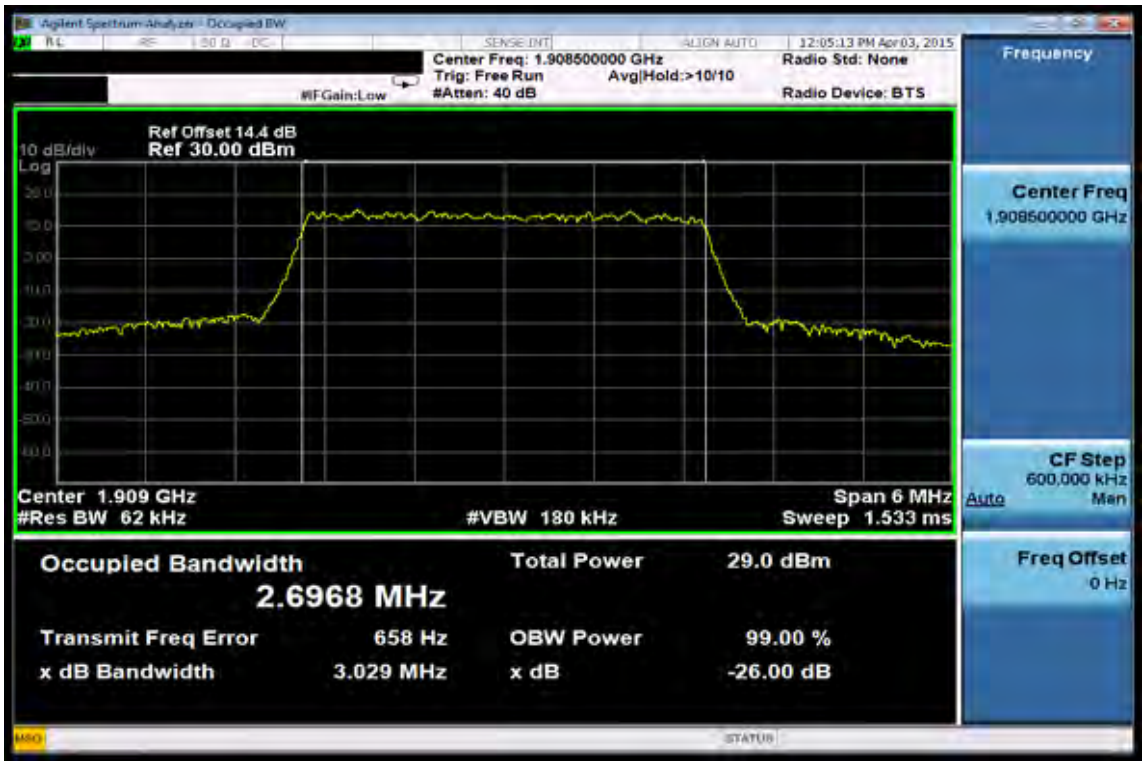
3MHz BW LTE-Band 2 16QAM Channel Low



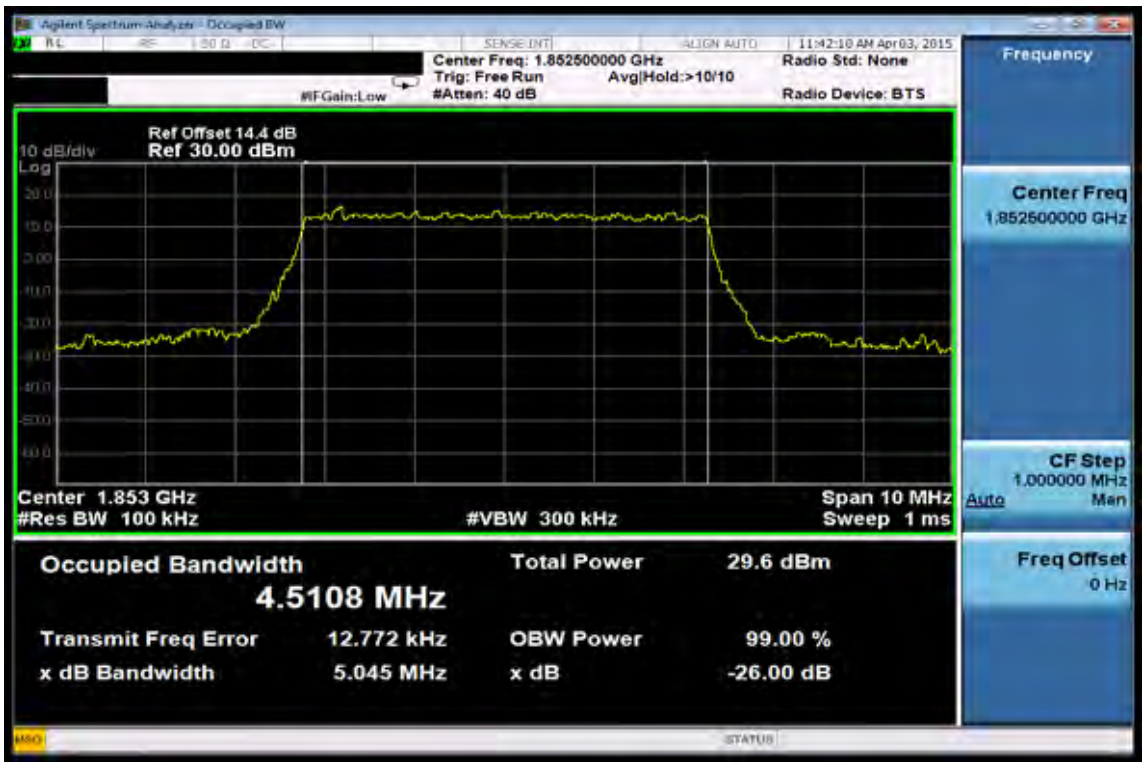
3MHz BW LTE-Band 2 16QAM Channel Mid



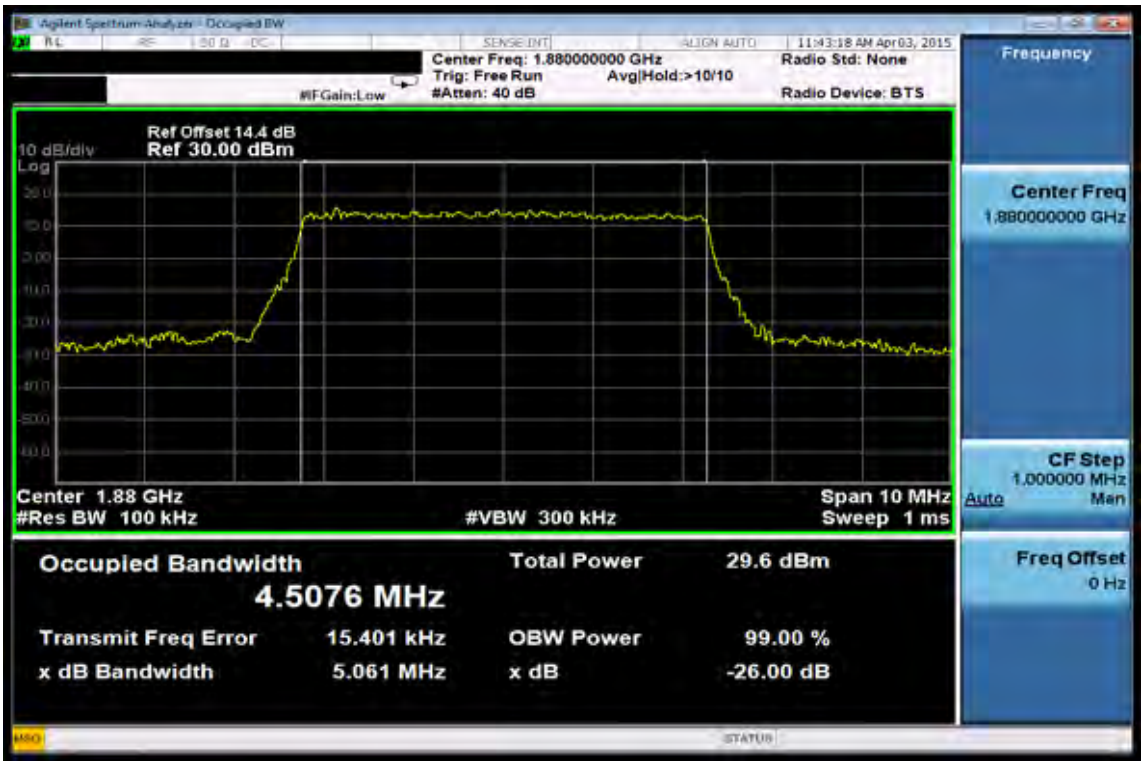
3MHz BW LTE-Band 2 16QAM Channel High



5MHz BW LTE-Band 2 QPSK Channel Low

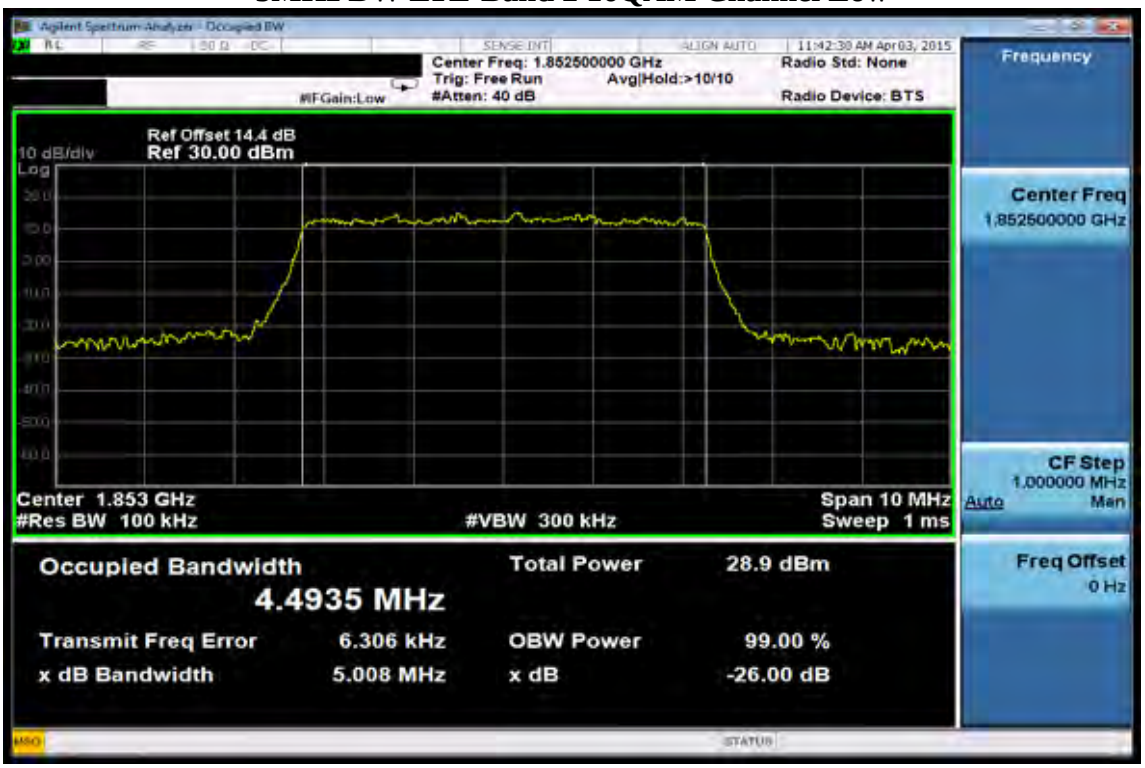


5MHz BW LTE-Band 2 QPSK Channel Mid

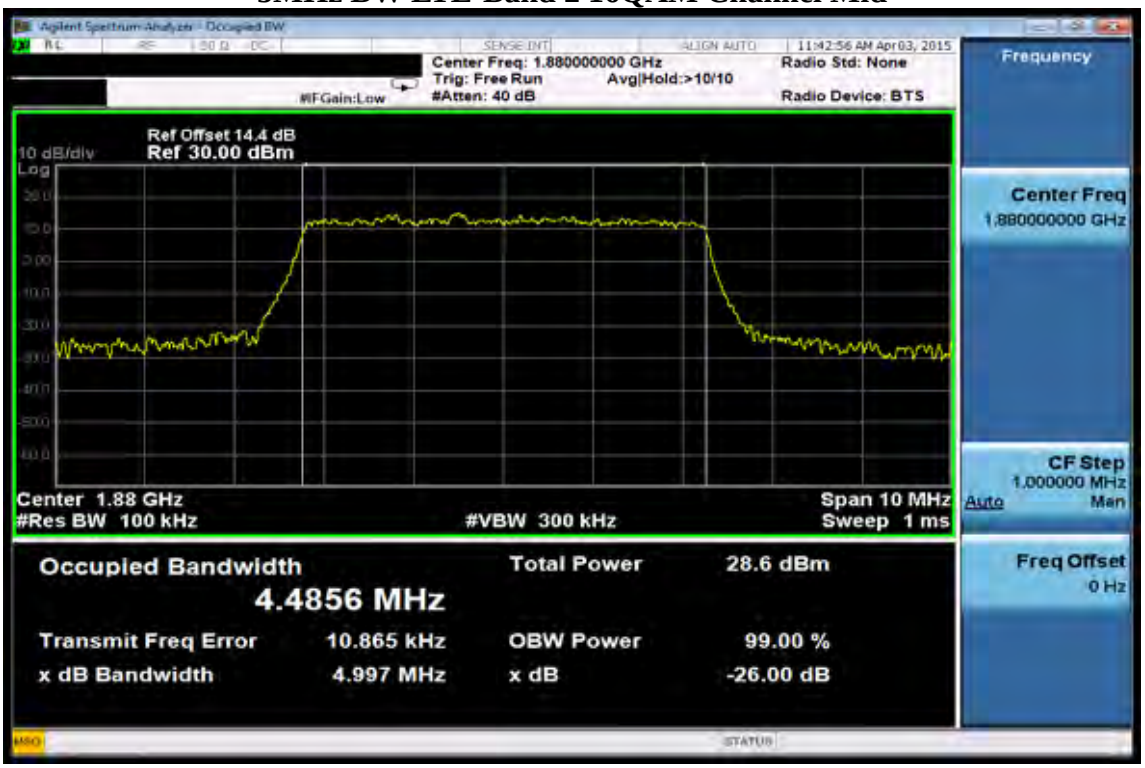


5MHz BW LTE-Band 2 QPSK Channel High

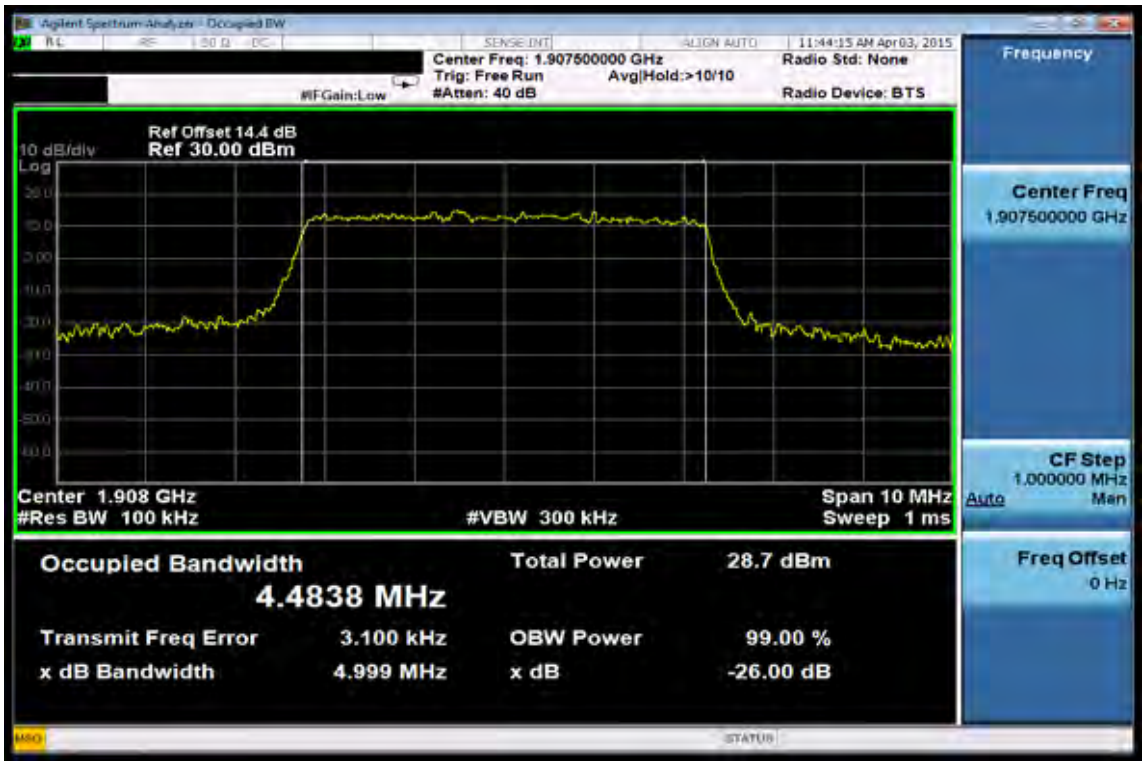
5MHz BW LTE-Band 2 16QAM Channel Low



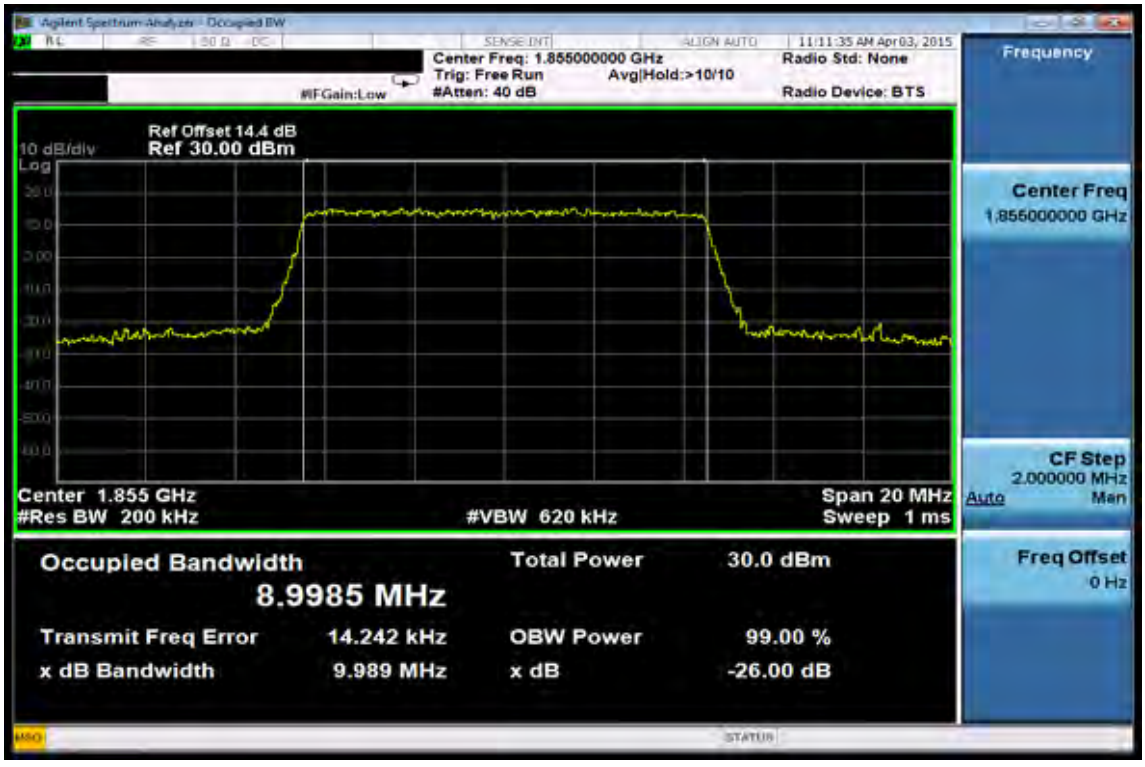
5MHz BW LTE-Band 2 16QAM Channel Mid



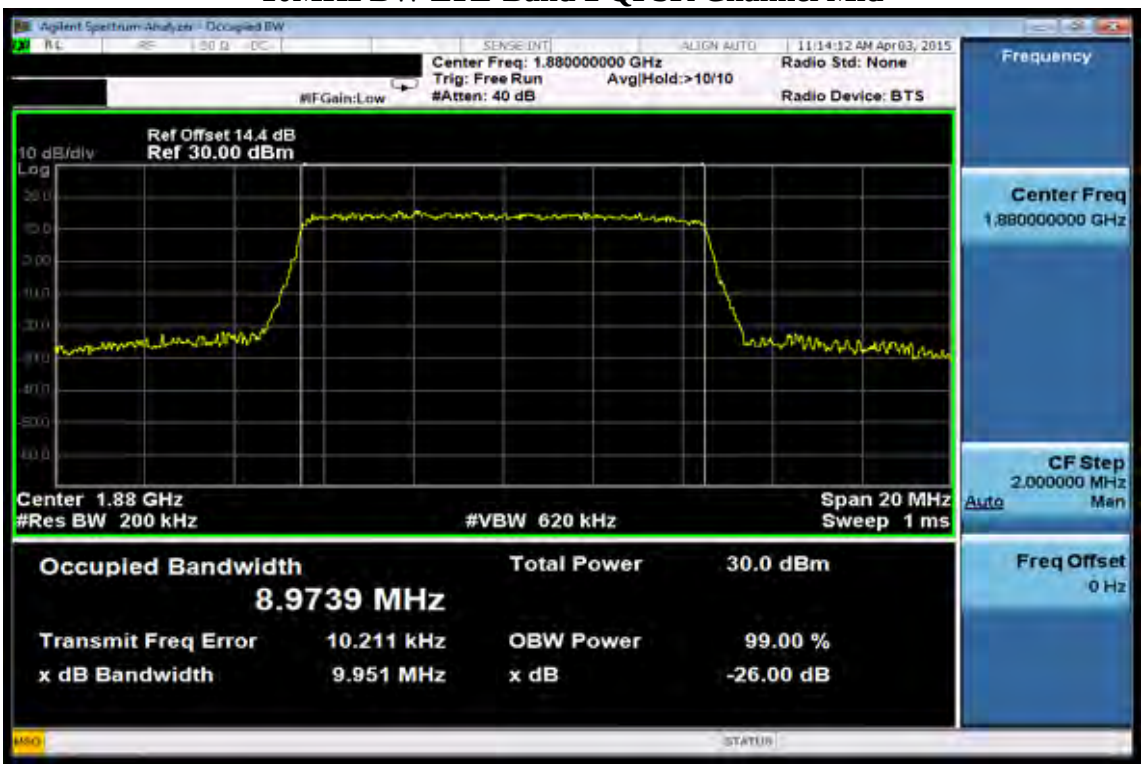
5MHz BW LTE-Band 2 16QAM Channel High



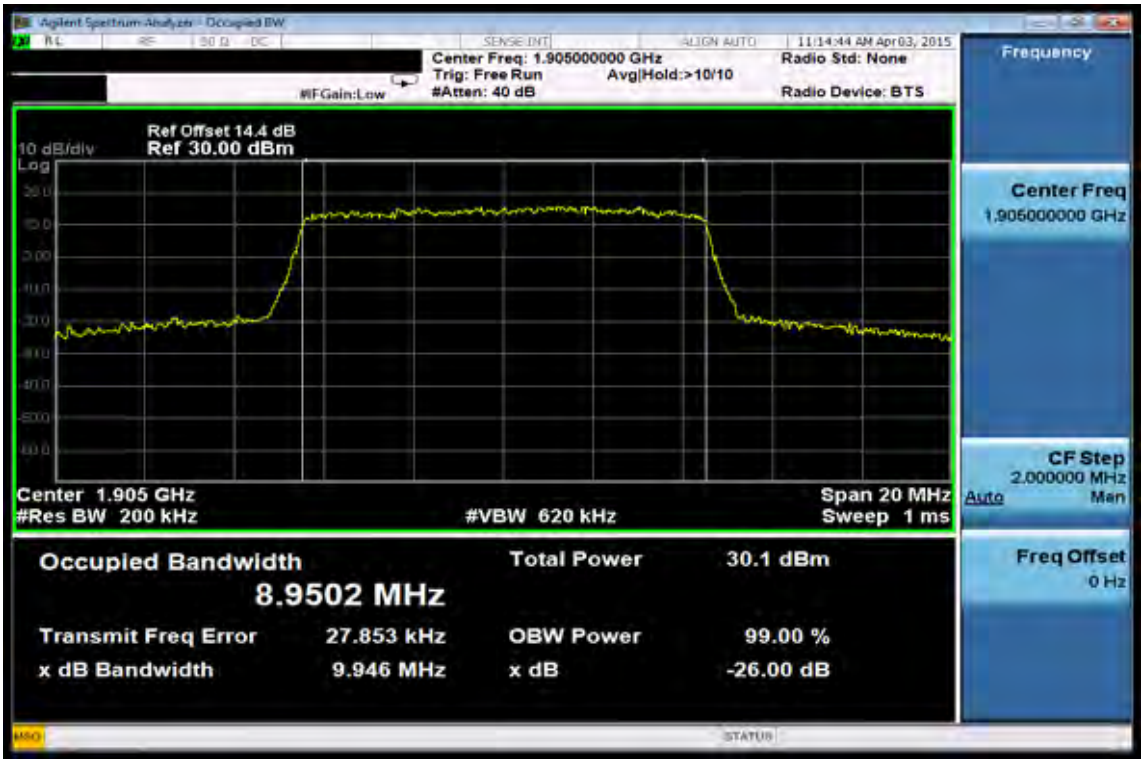
10MHz BW LTE-Band 2 QPSK Channel Low



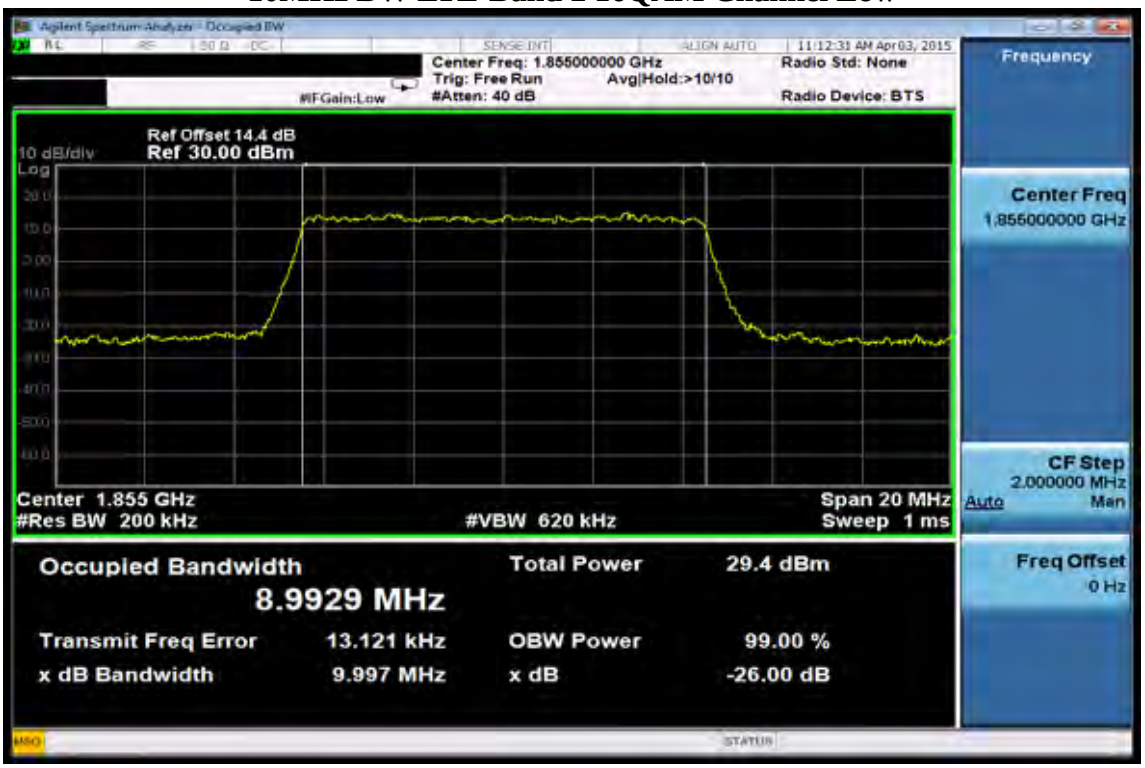
10MHz BW LTE-Band 2 QPSK Channel Mid



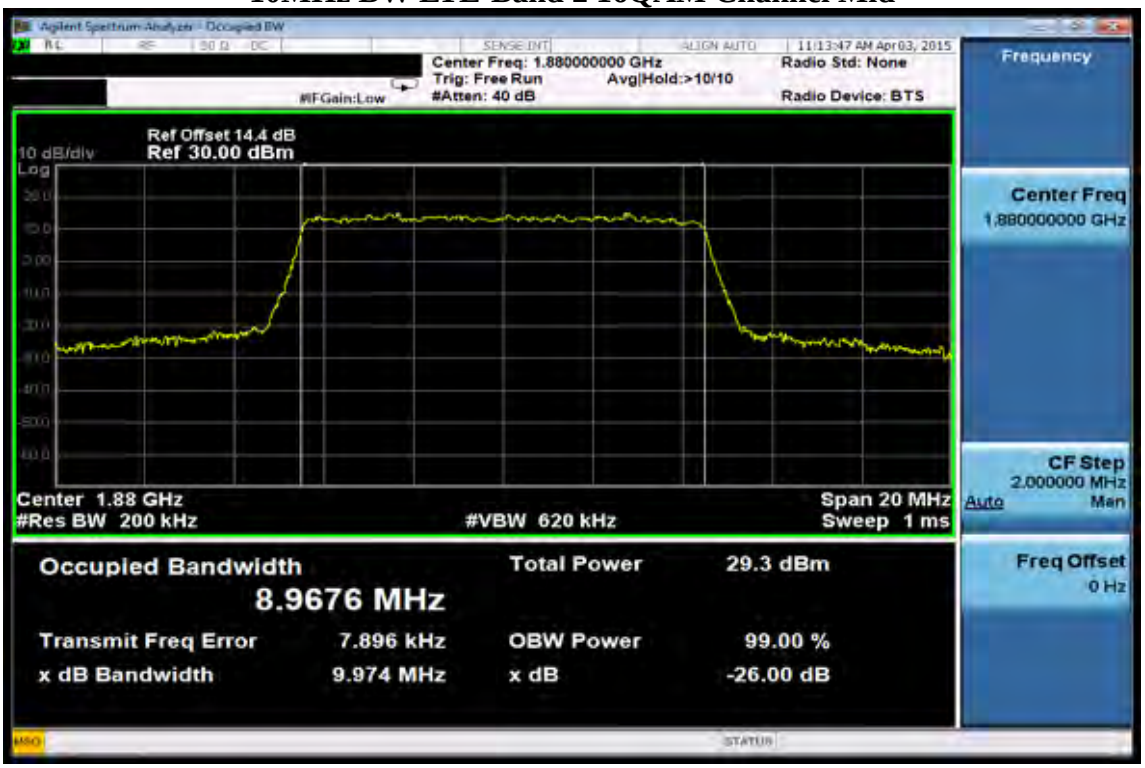
10MHz BW LTE-Band 2 QPSK Channel High



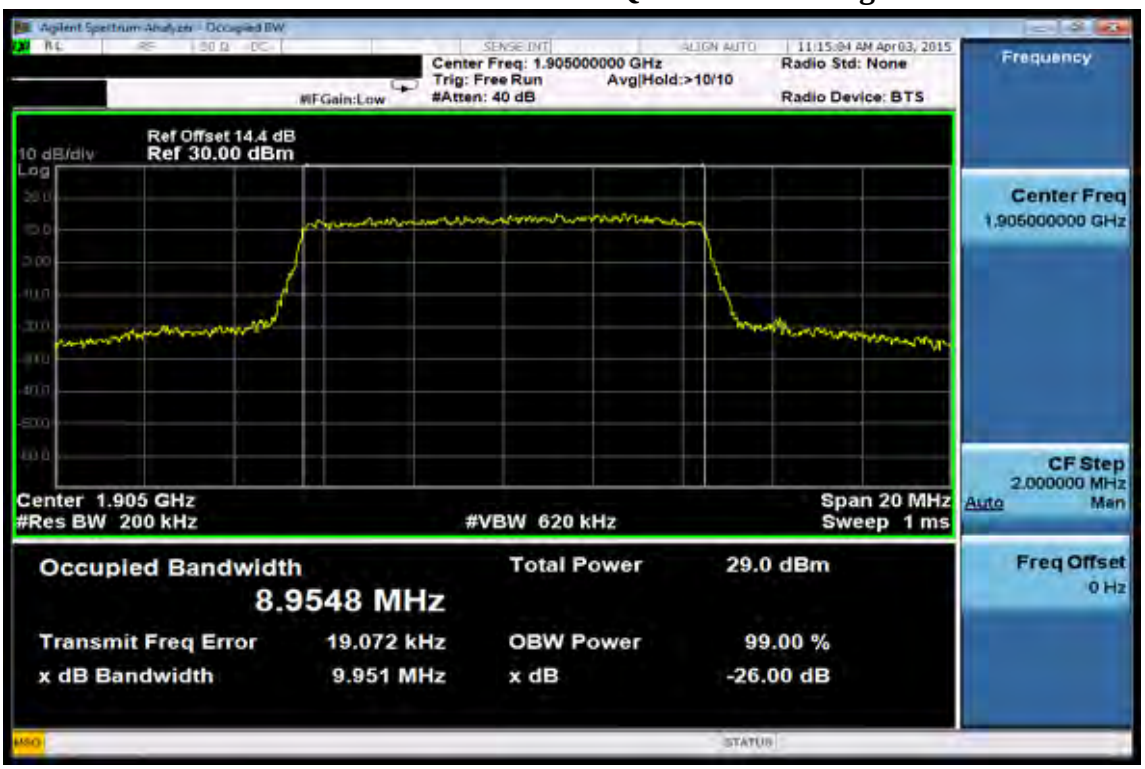
10MHz BW LTE-Band 2 16QAM Channel Low



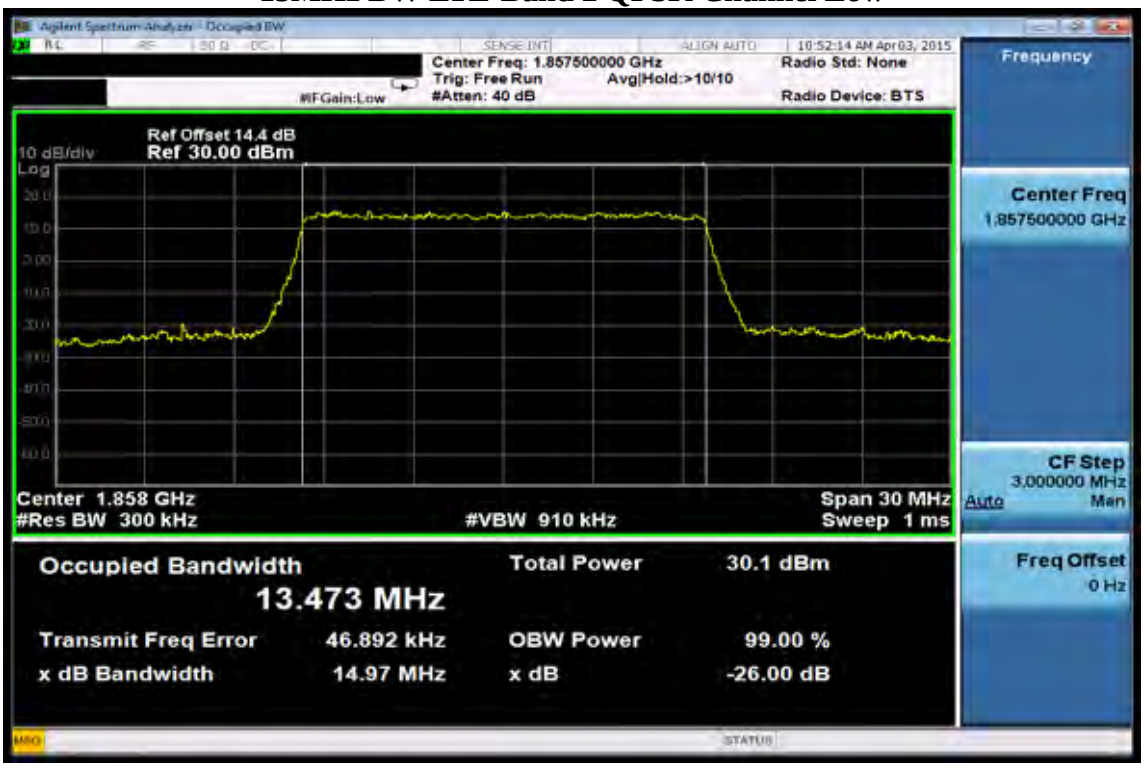
10MHz BW LTE-Band 2 16QAM Channel Mid



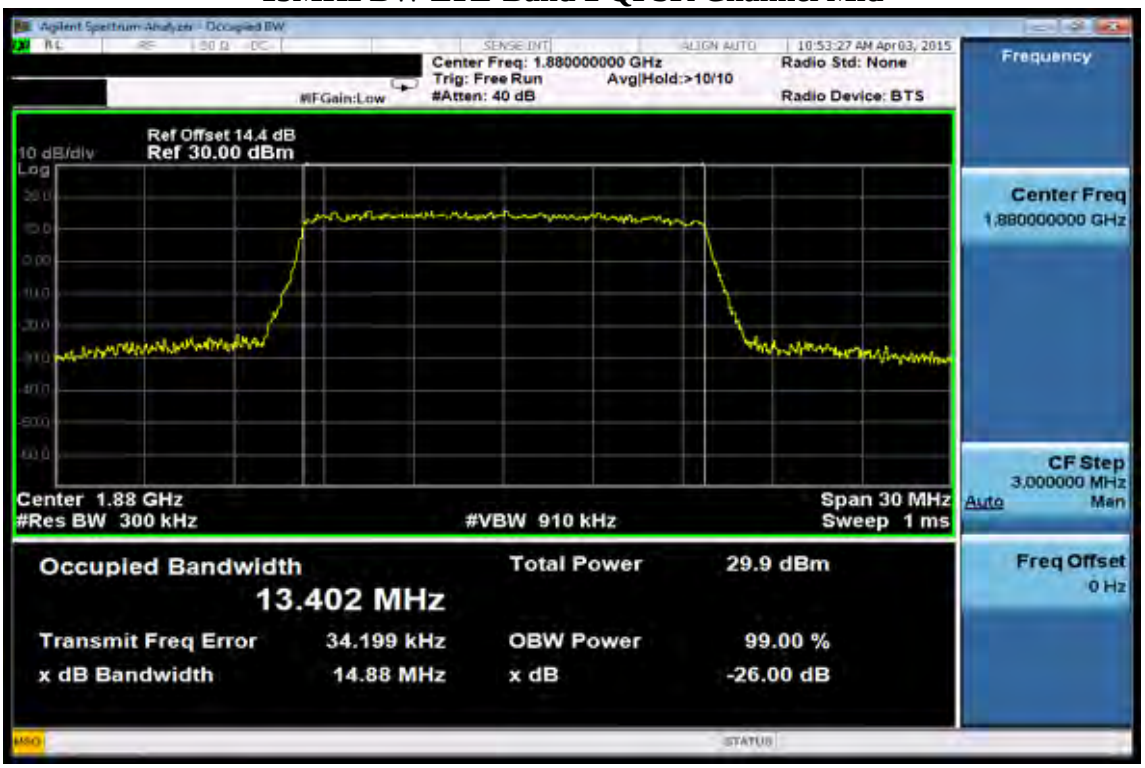
10MHz BW LTE-Band 2 16QAM Channel High



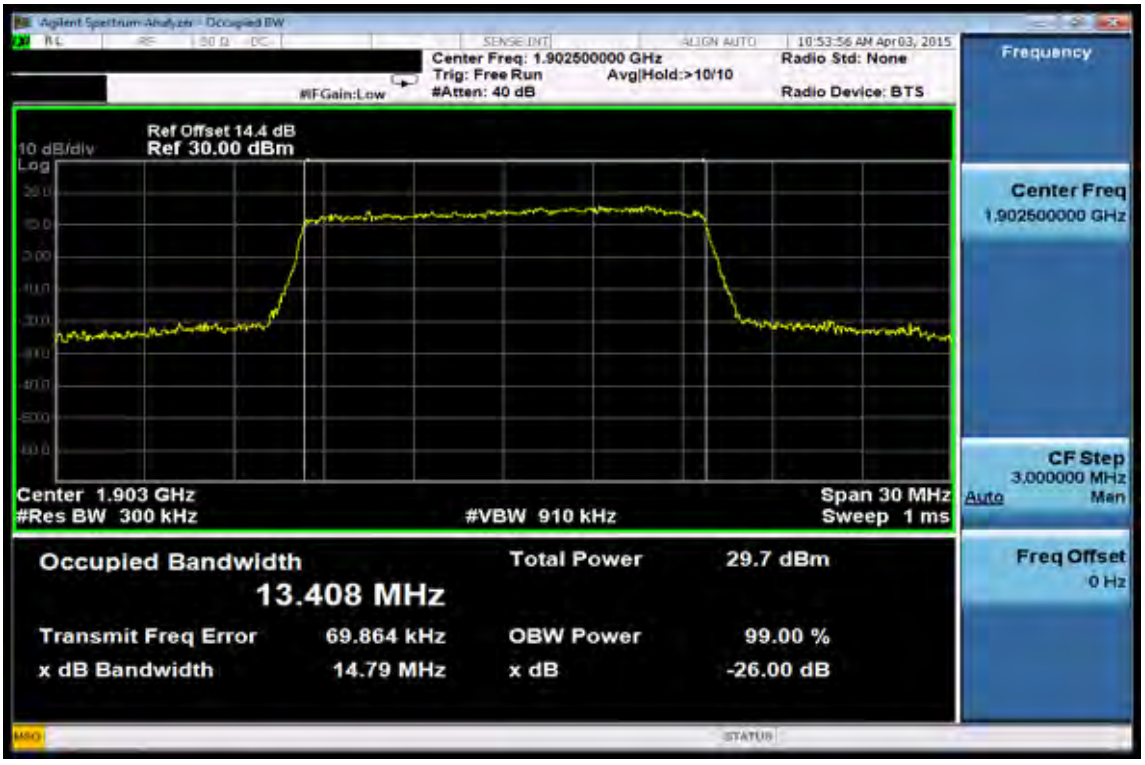
15MHz BW LTE-Band 2 QPSK Channel Low



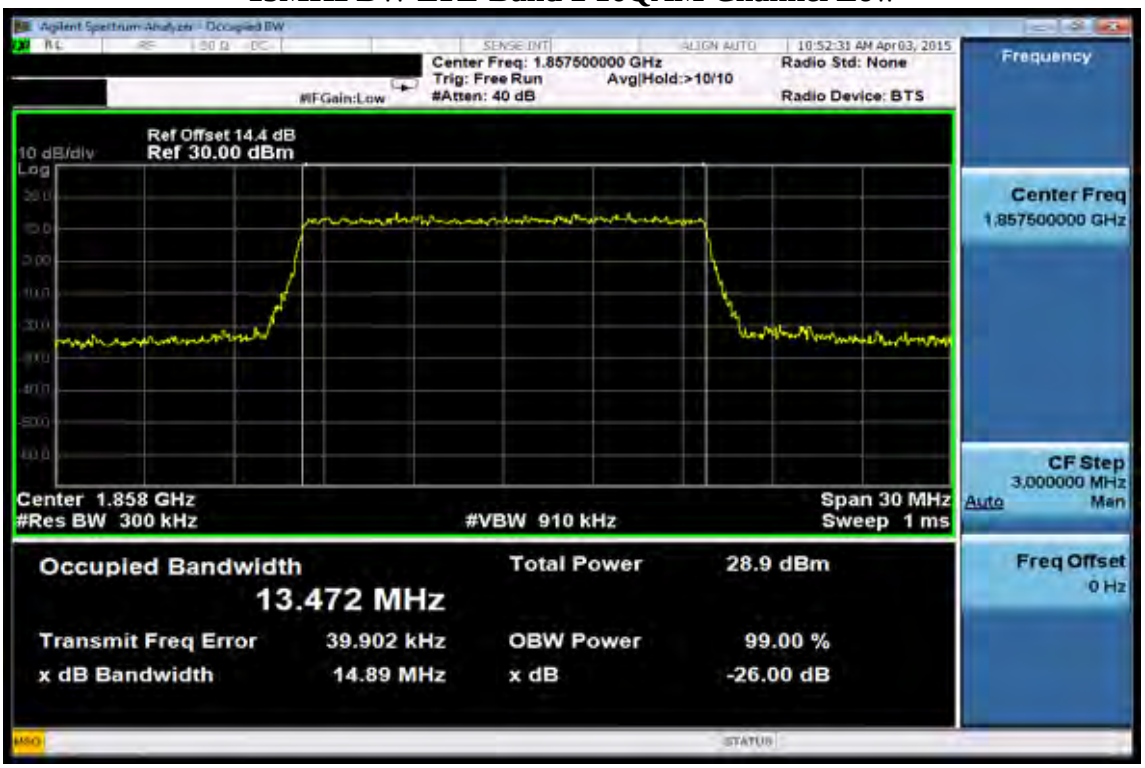
15MHz BW LTE-Band 2 QPSK Channel Mid



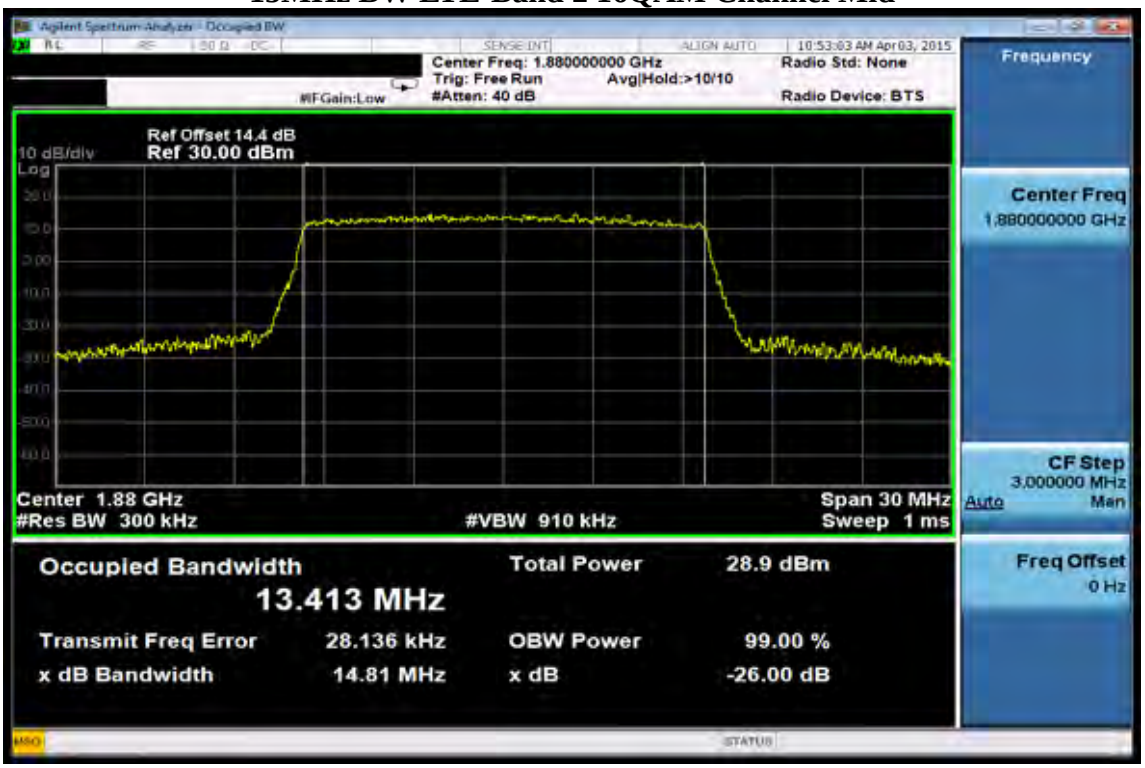
15MHz BW LTE-Band 2 QPSK Channel High



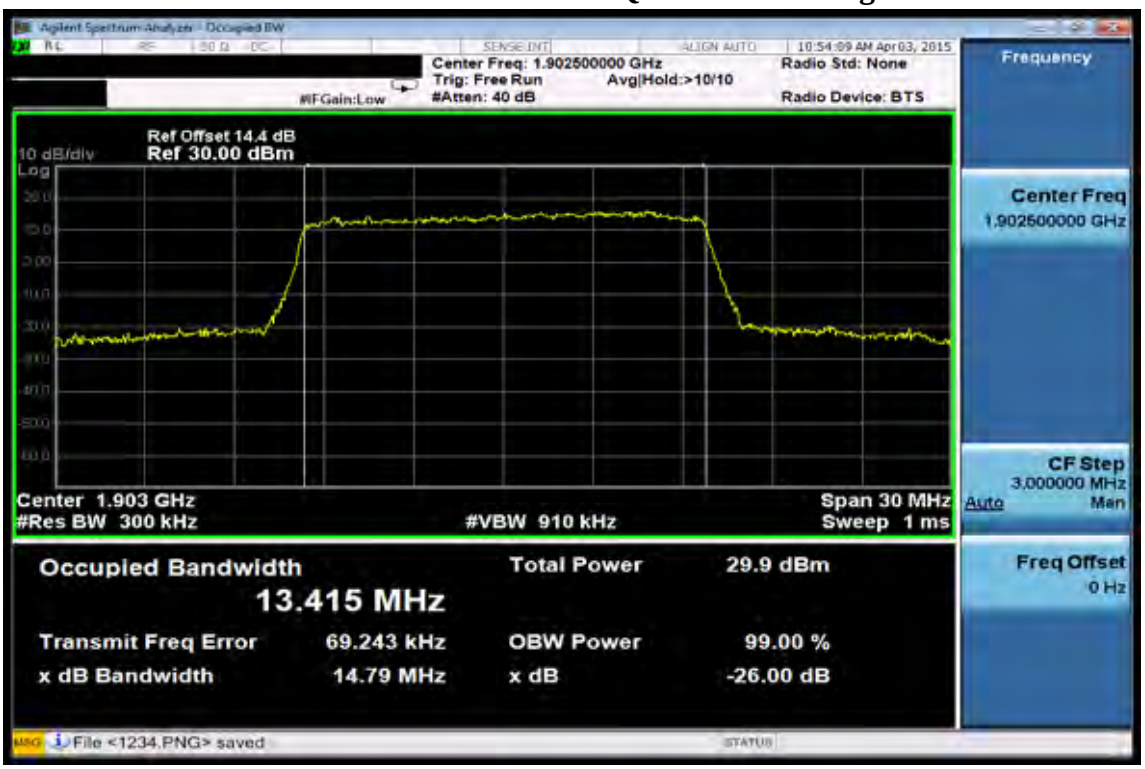
15MHz BW LTE-Band 2 16QAM Channel Low



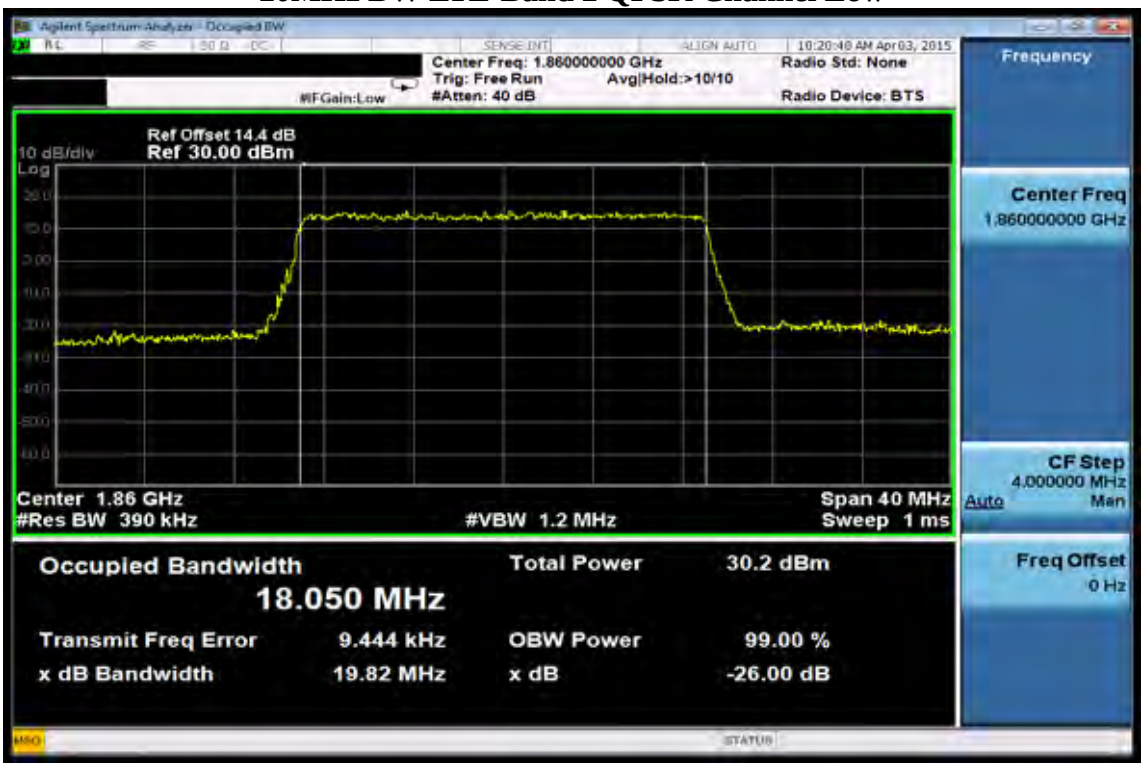
15MHz BW LTE-Band 2 16QAM Channel Mid



15MHz BW LTE-Band 2 16QAM Channel High

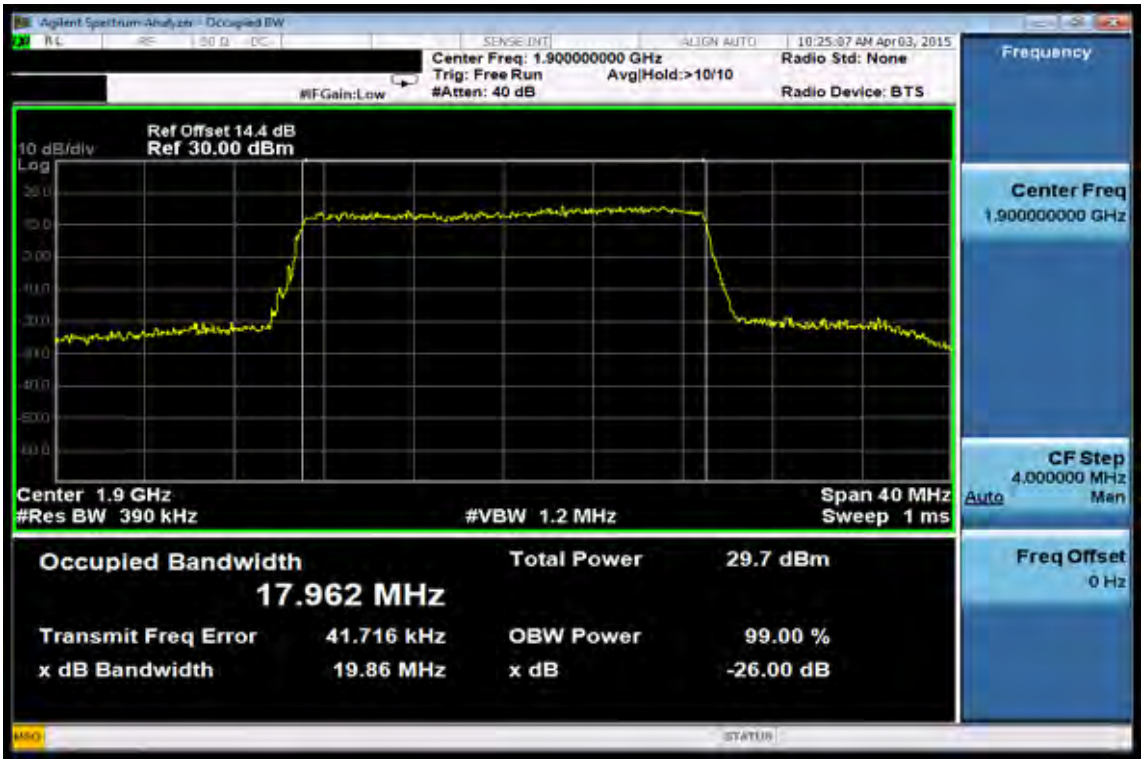


20MHz BW LTE-Band 2 QPSK Channel Low

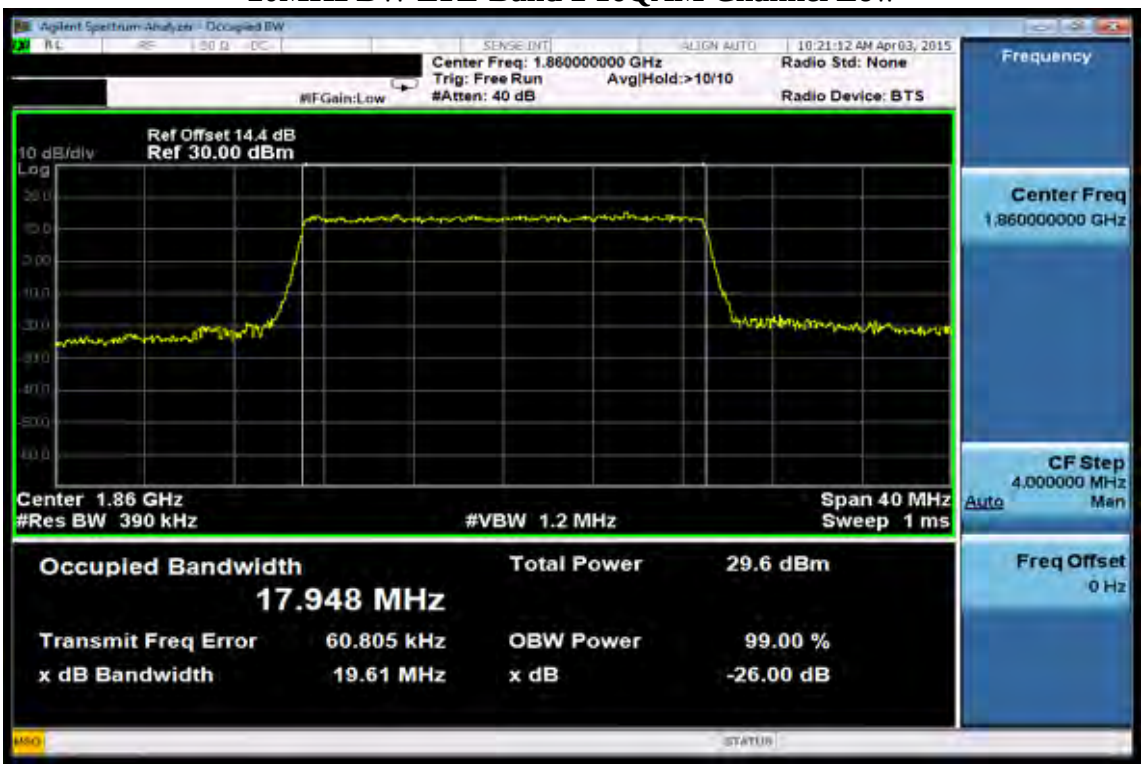


20MHz BW LTE-Band 2 QPSK Channel Mid

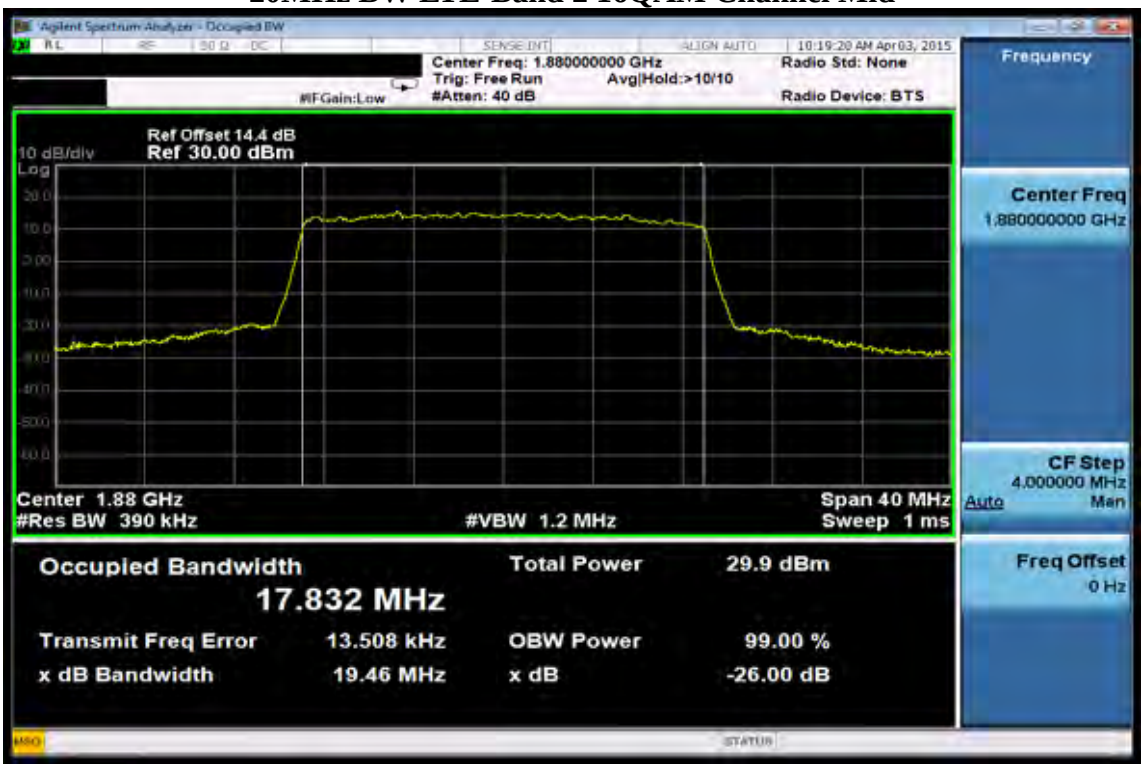
20MHz BW LTE-Band 2 QPSK Channel High



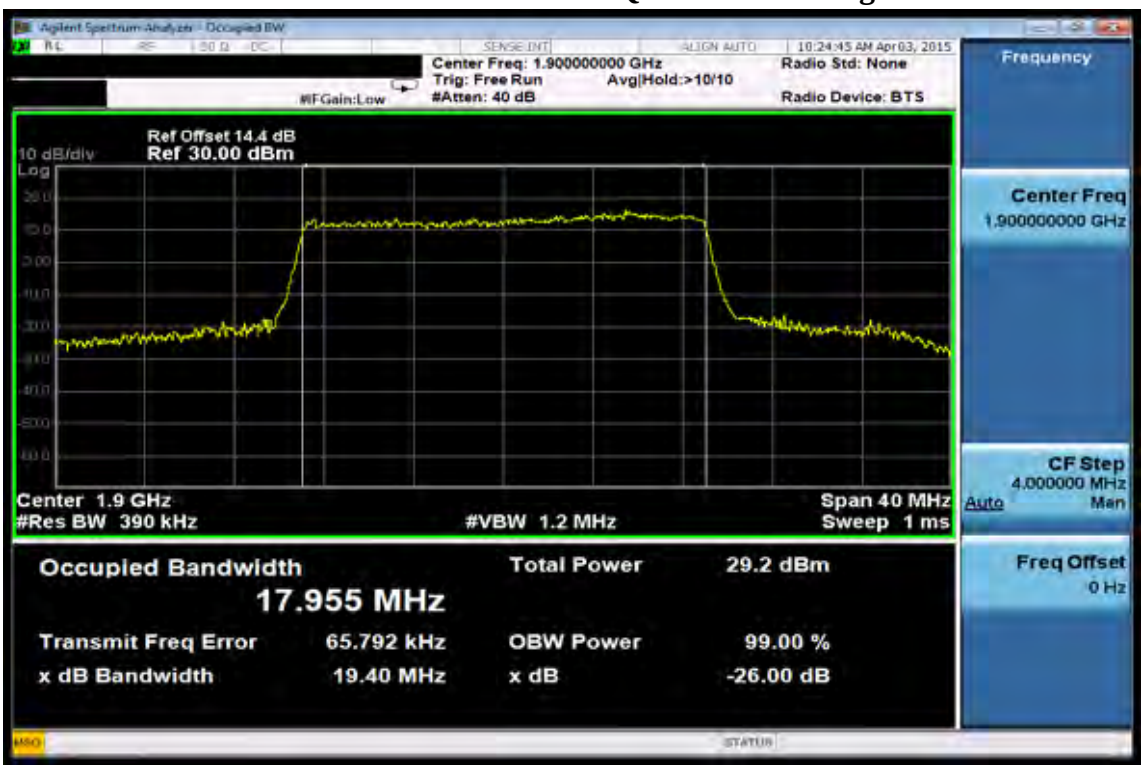
20MHz BW LTE-Band 2 16QAM Channel Low



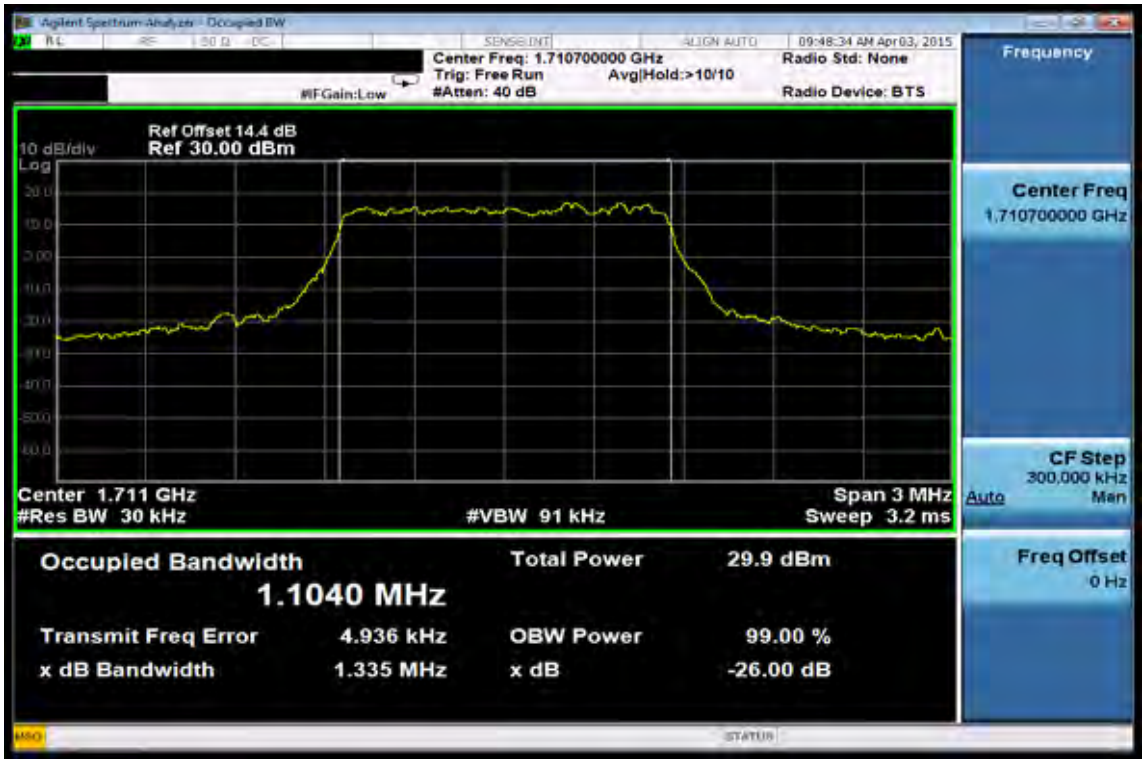
20MHz BW LTE-Band 2 16QAM Channel Mid



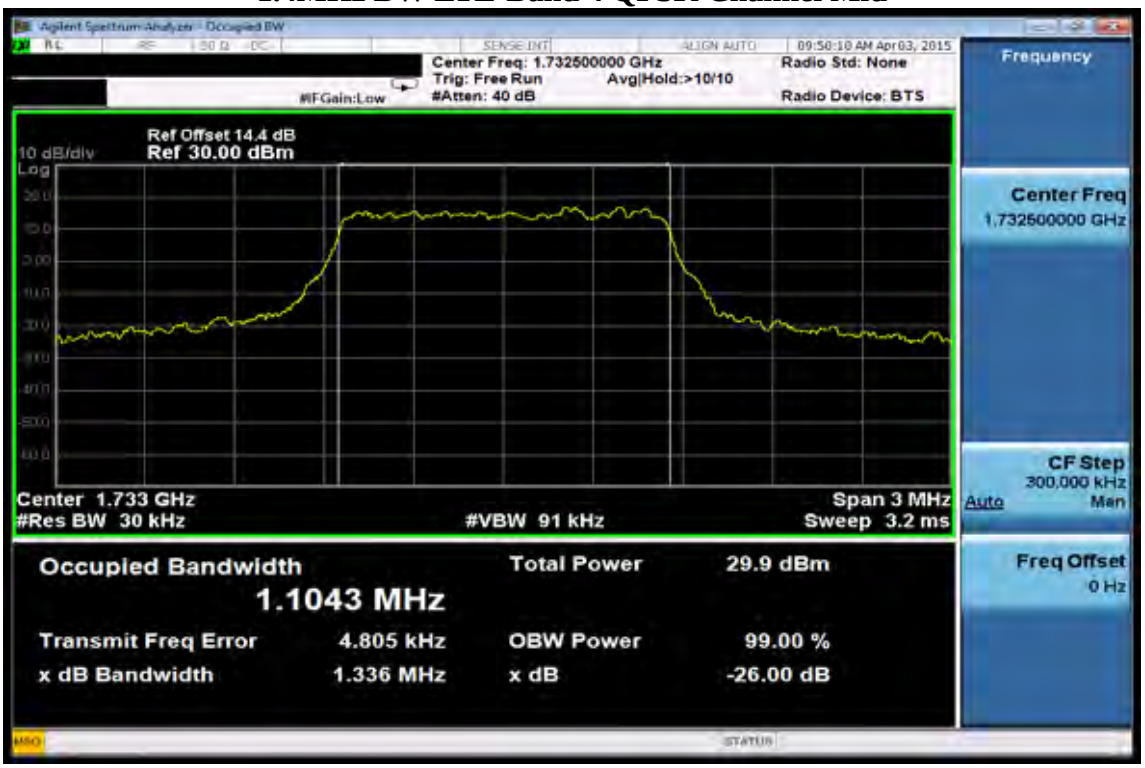
20MHz BW LTE-Band 2 16QAM Channel High



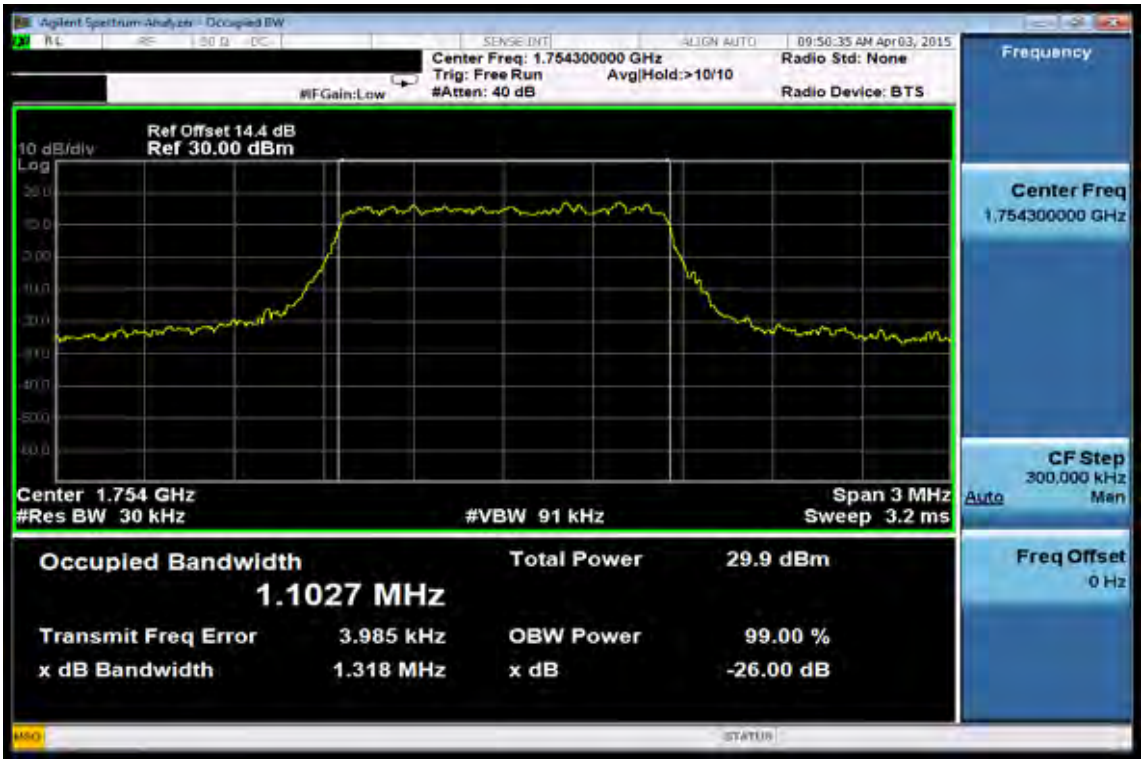
1.4MHz BW LTE-Band 4 QPSK Channel Low



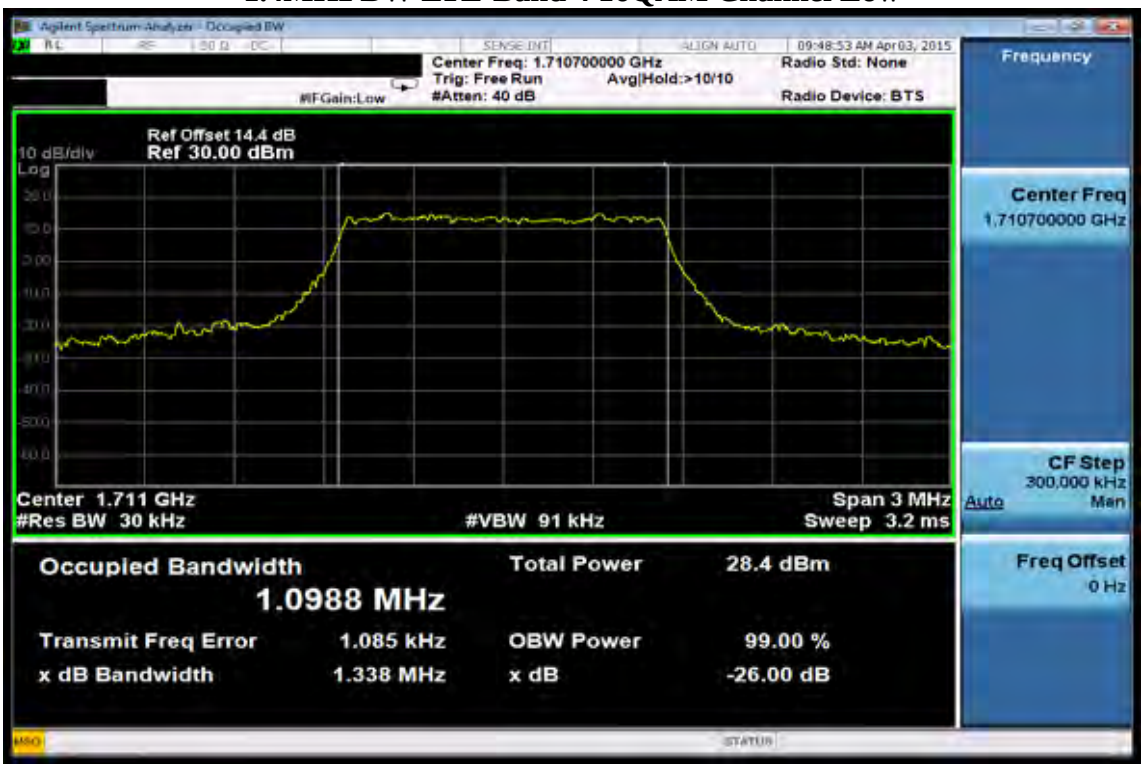
1.4MHz BW LTE-Band 4 QPSK Channel Mid



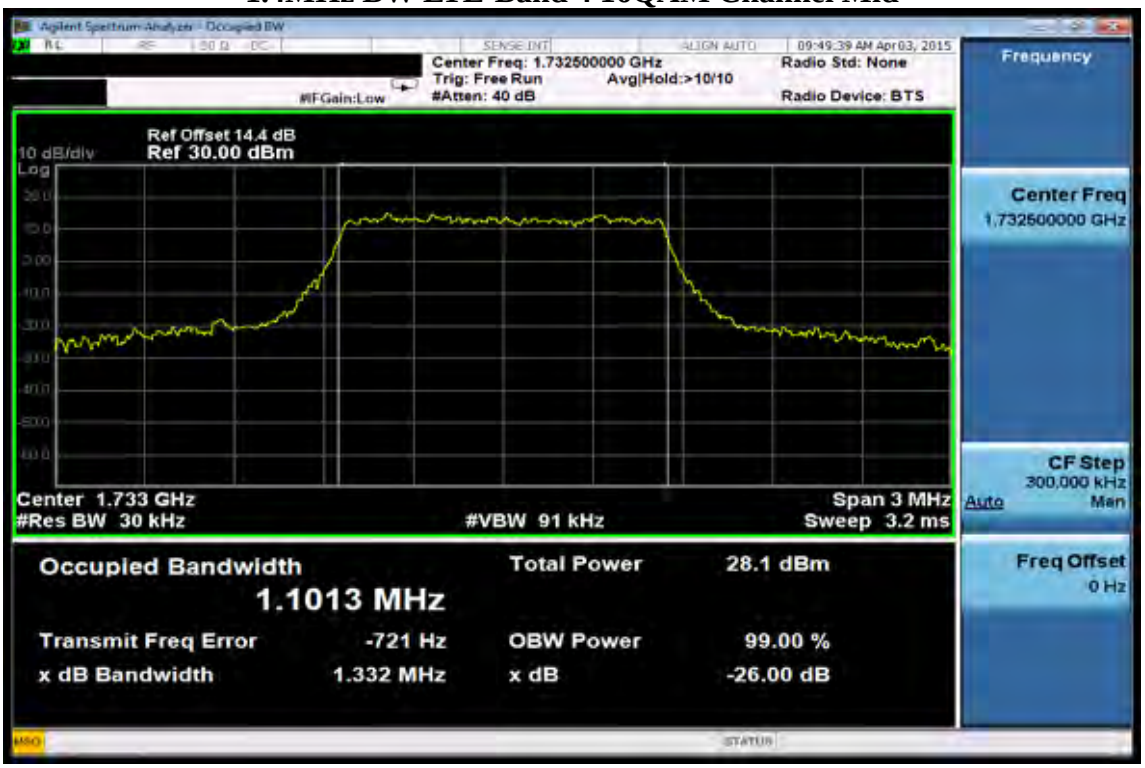
1.4MHz BW LTE-Band 4 QPSK Channel High



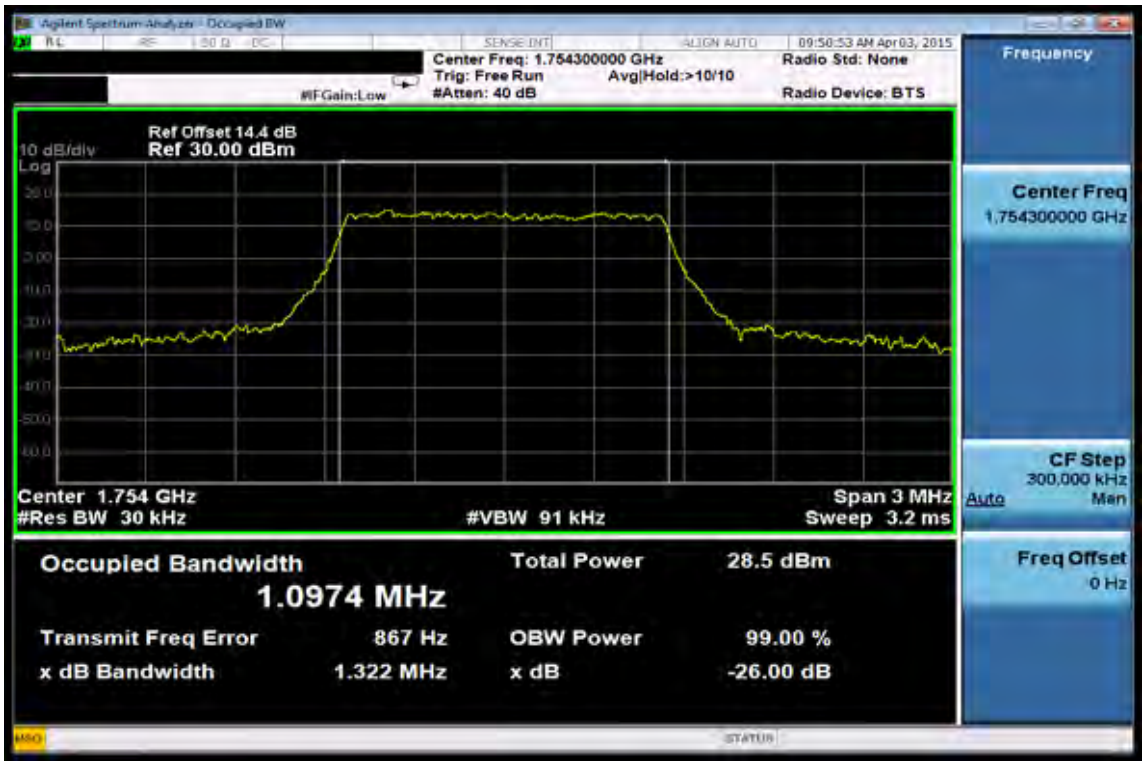
1.4MHz BW LTE-Band 4 16QAM Channel Low



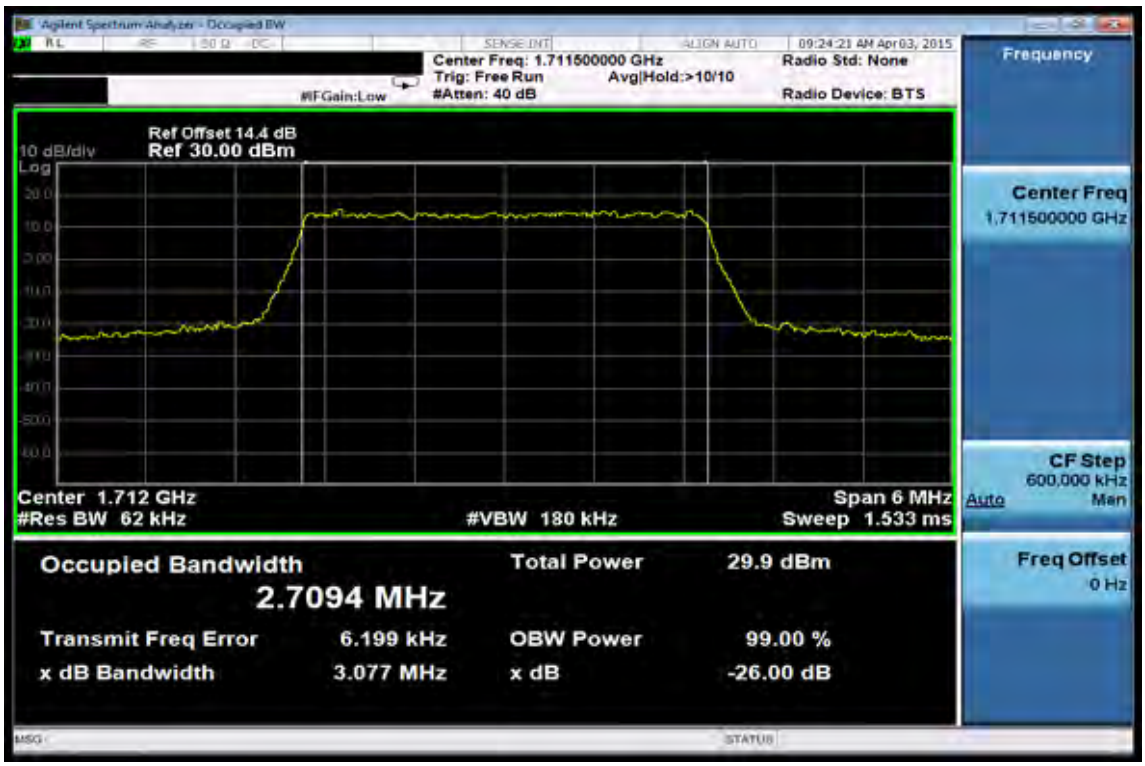
1.4MHz BW LTE-Band 4 16QAM Channel Mid



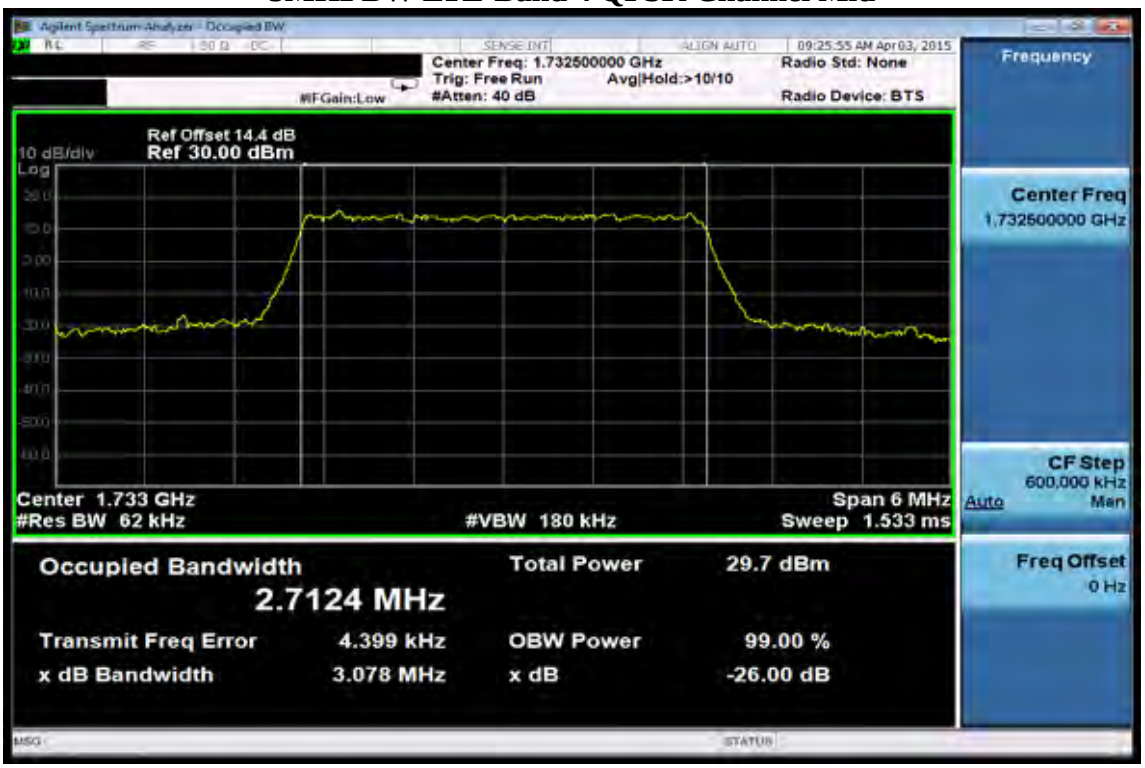
1.4MHz BW LTE-Band 4 16QAM Channel High



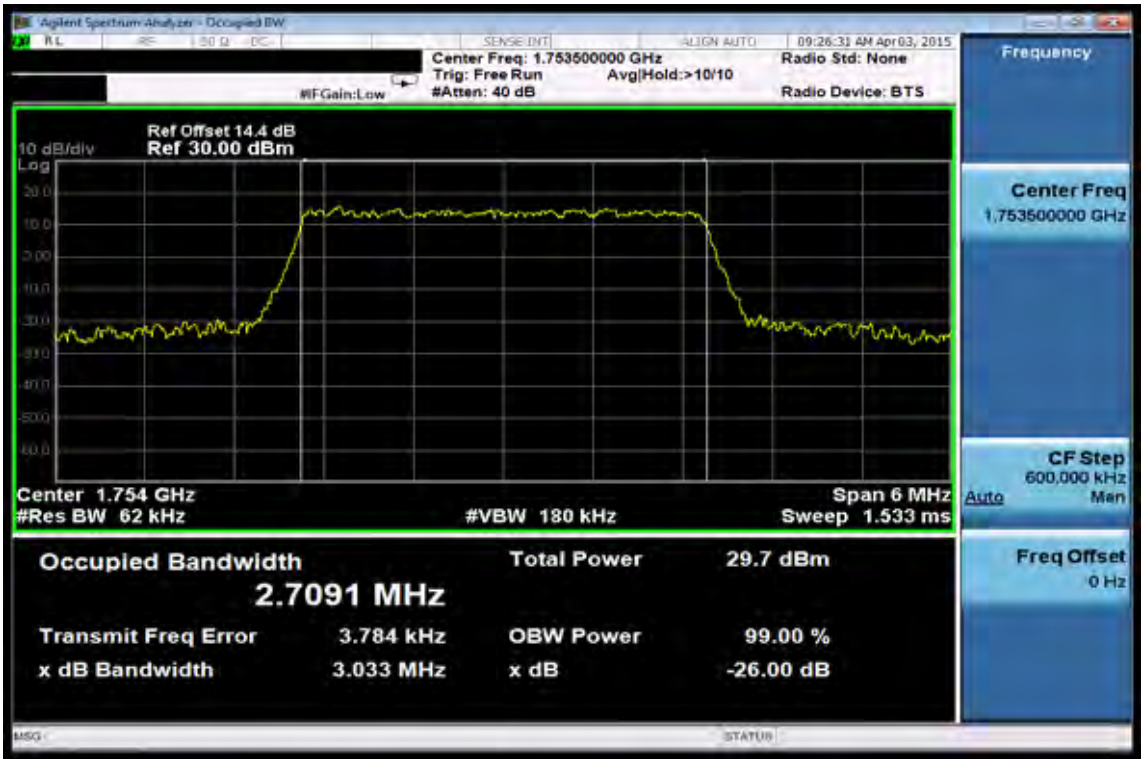
3MHz BW LTE-Band 4 QPSK Channel Low



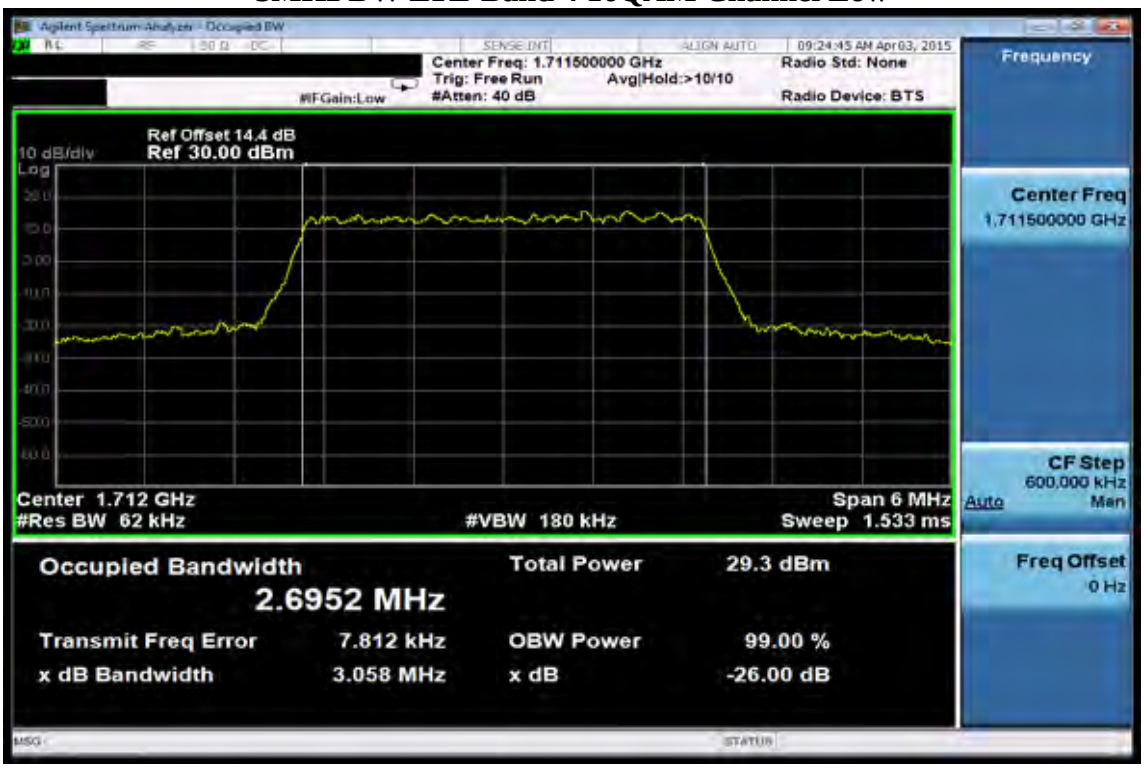
3MHz BW LTE-Band 4 QPSK Channel Mid



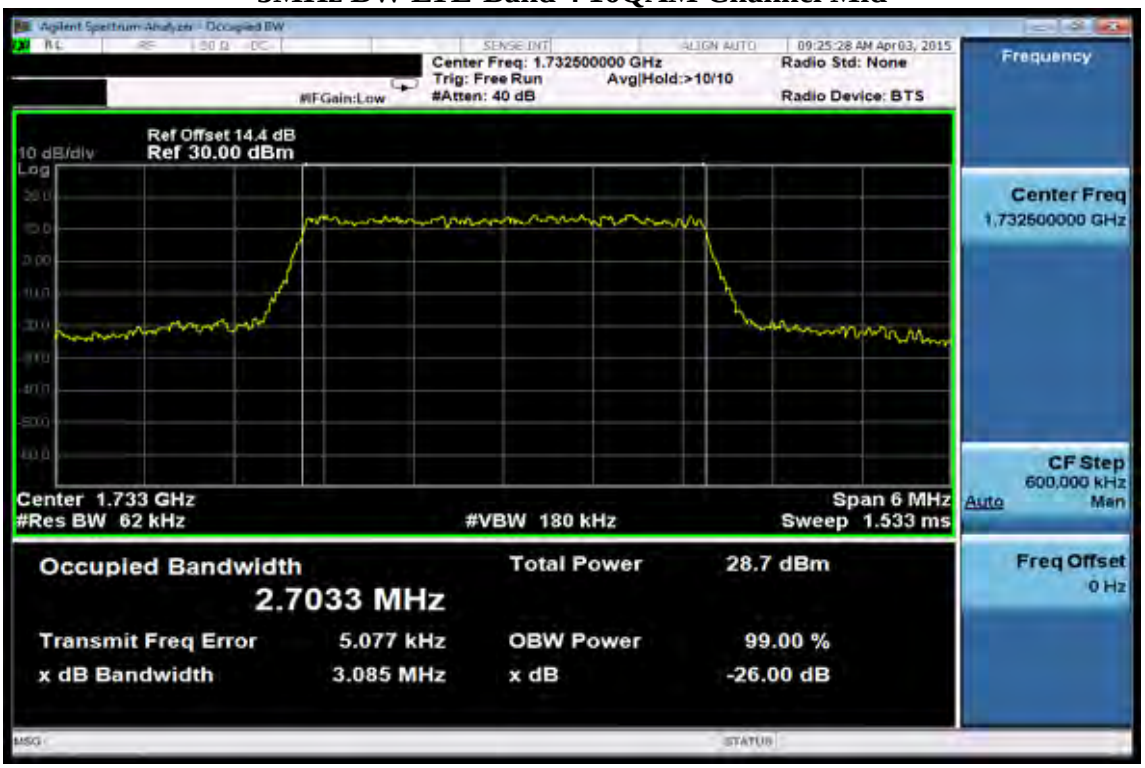
3MHz BW LTE-Band 4 QPSK Channel High



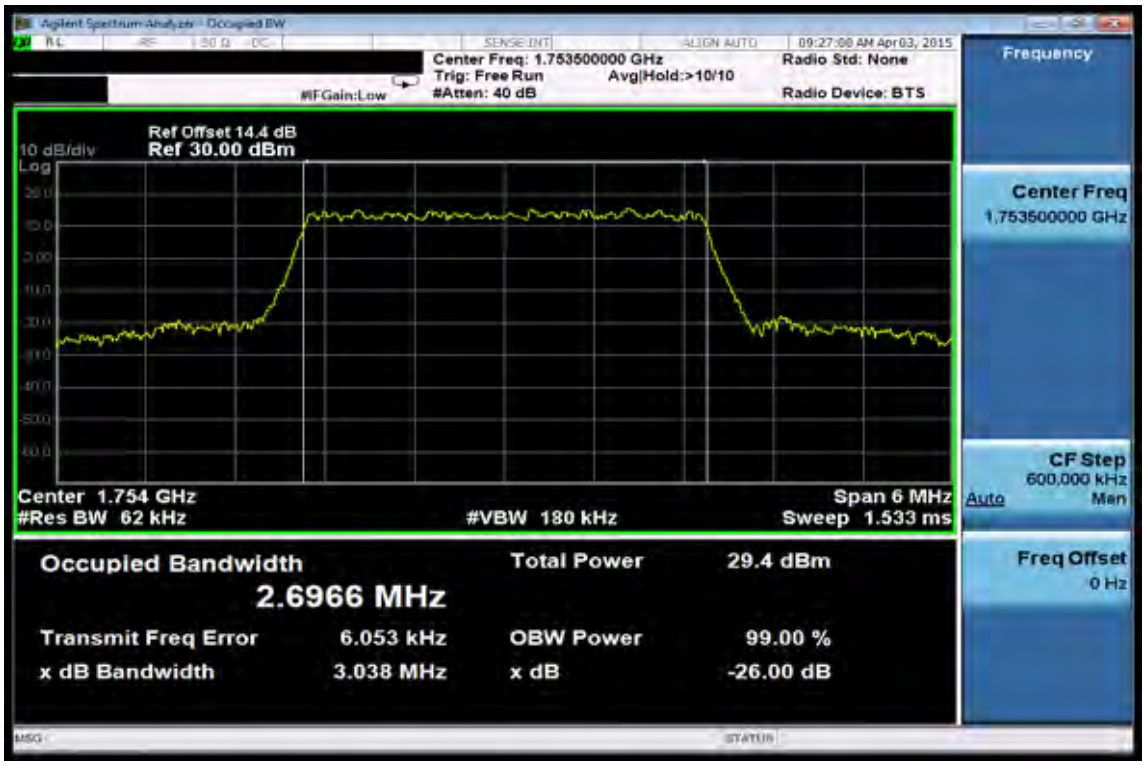
3MHz BW LTE-Band 4 16QAM Channel Low



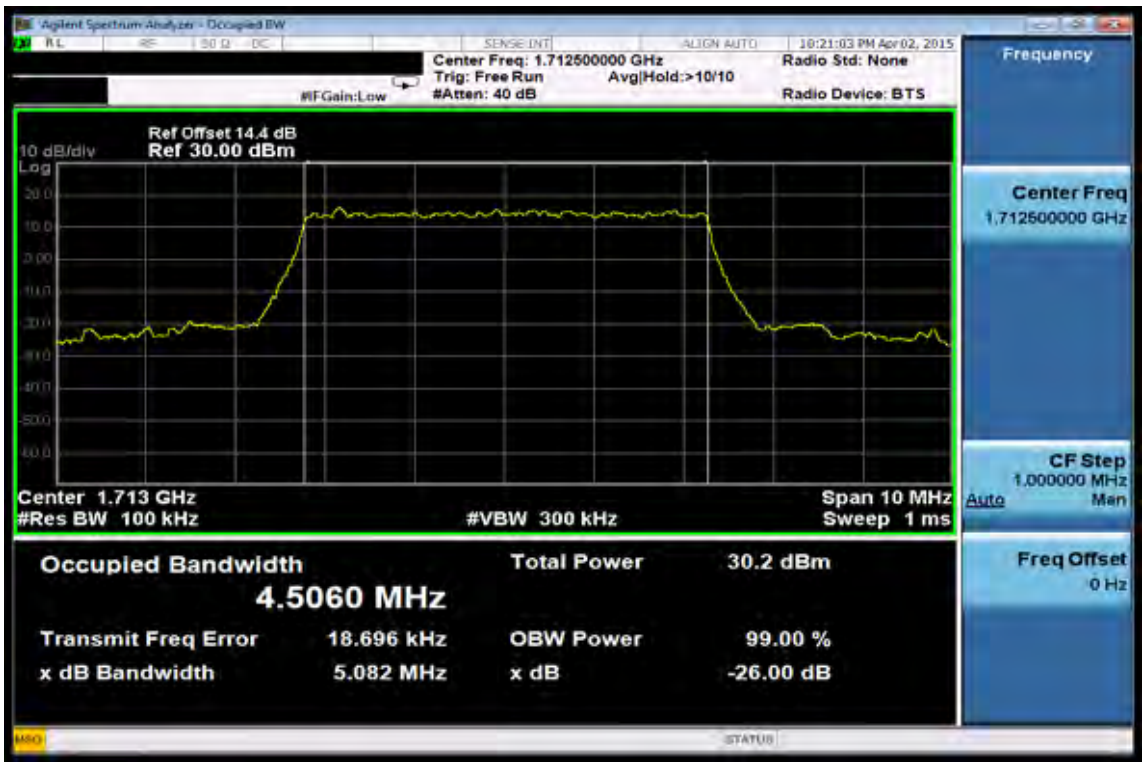
3MHz BW LTE-Band 4 16QAM Channel Mid



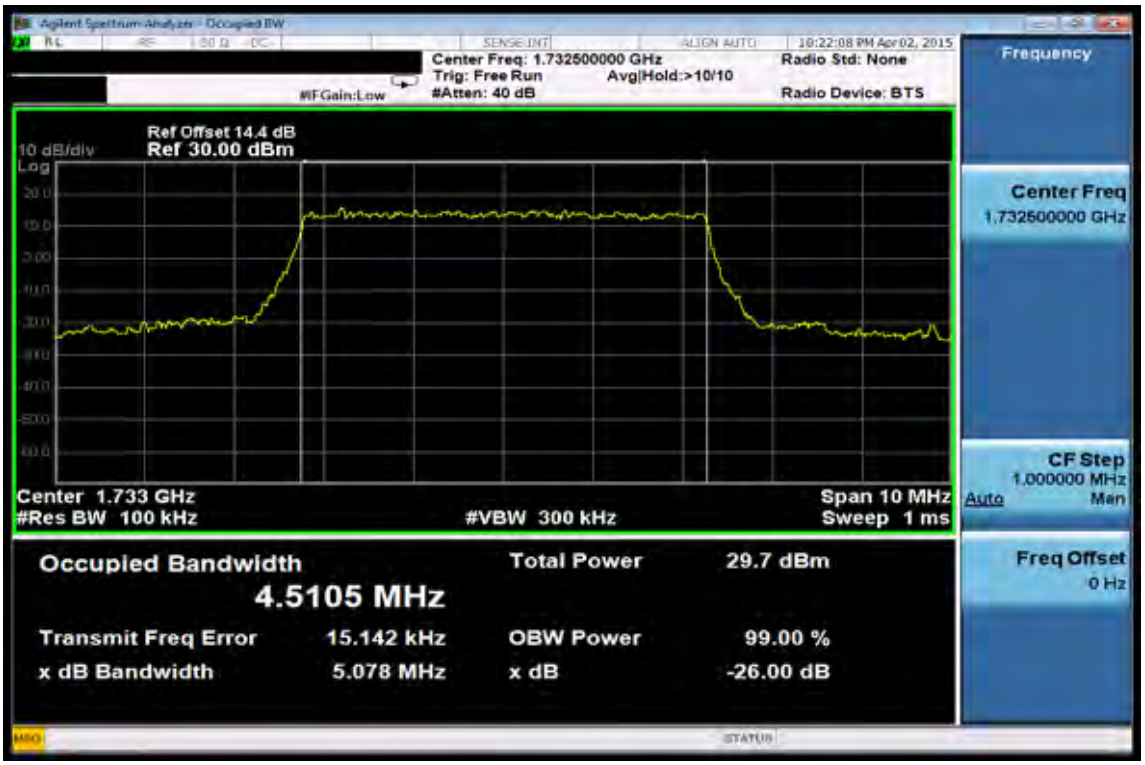
3MHz BW LTE-Band 4 16QAM Channel High



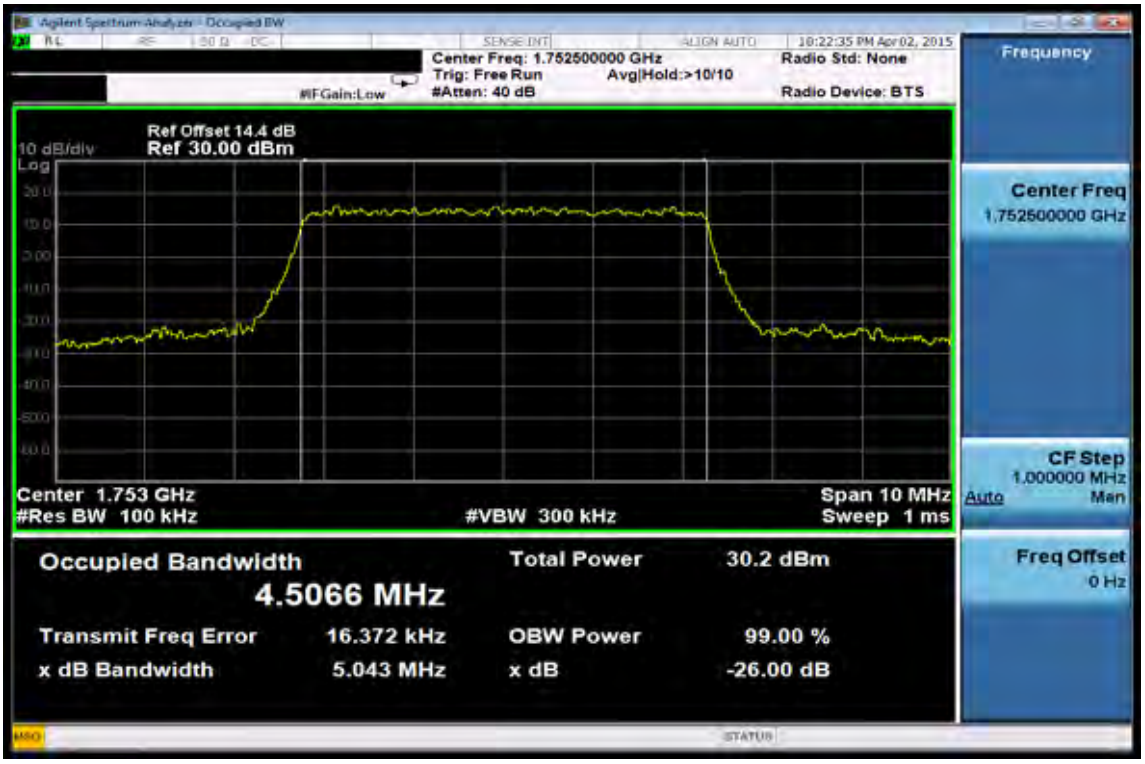
5MHz BW LTE-Band 4 QPSK Channel Low



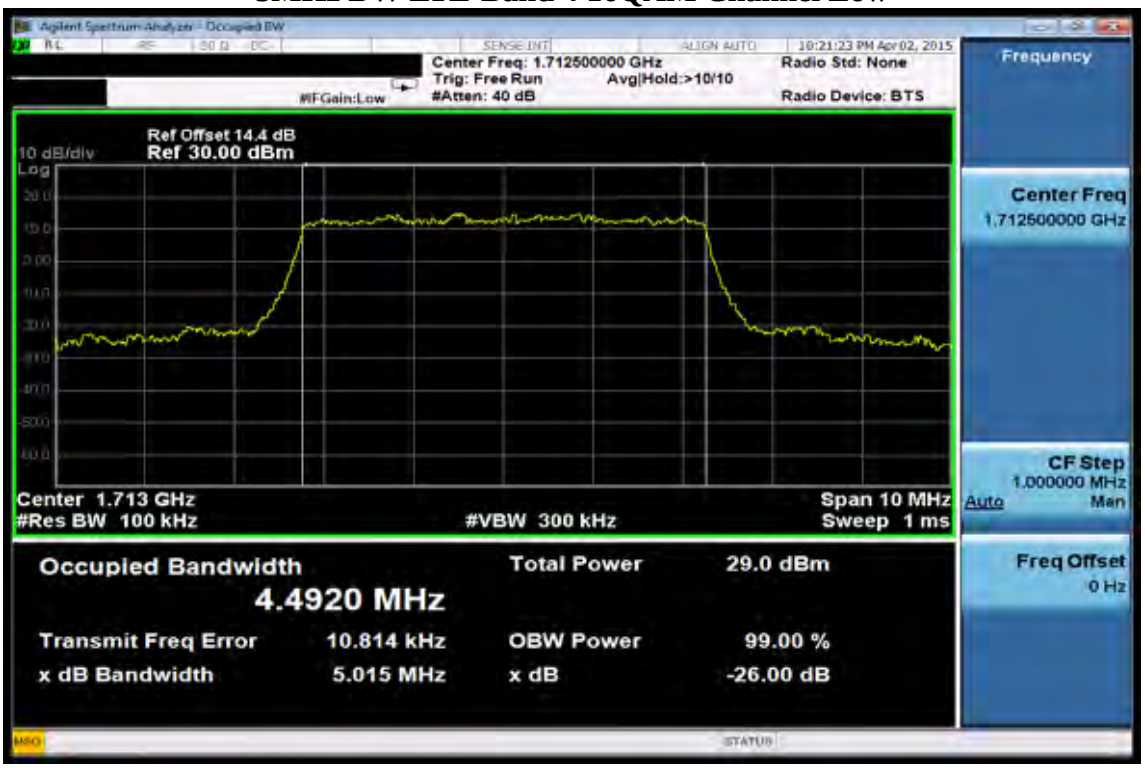
5MHz BW LTE-Band 4 QPSK Channel Mid



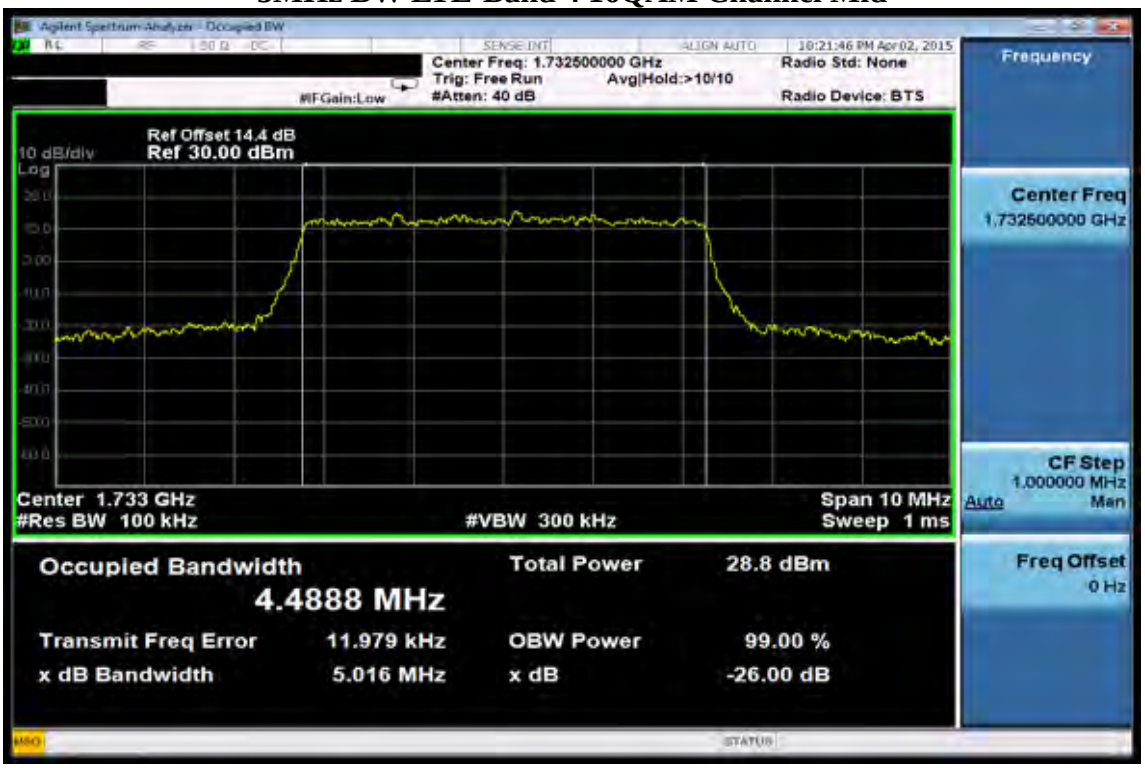
5MHz BW LTE-Band 4 QPSK Channel High



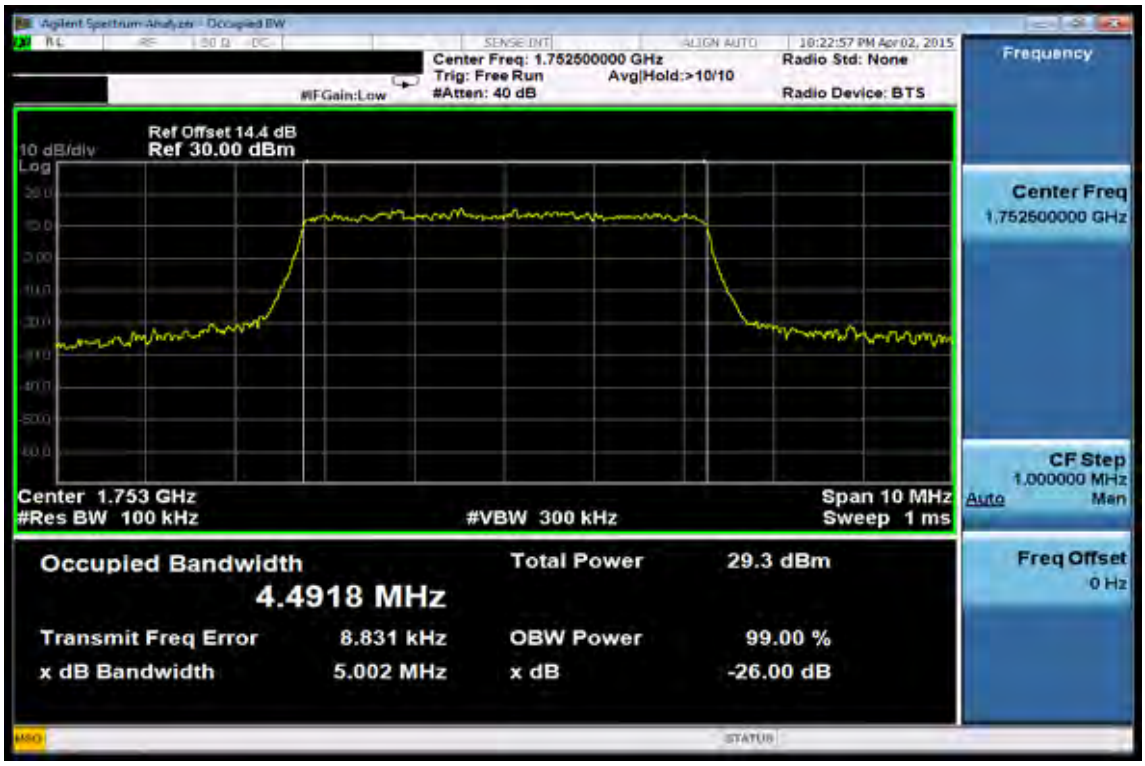
5MHz BW LTE-Band 4 16QAM Channel Low



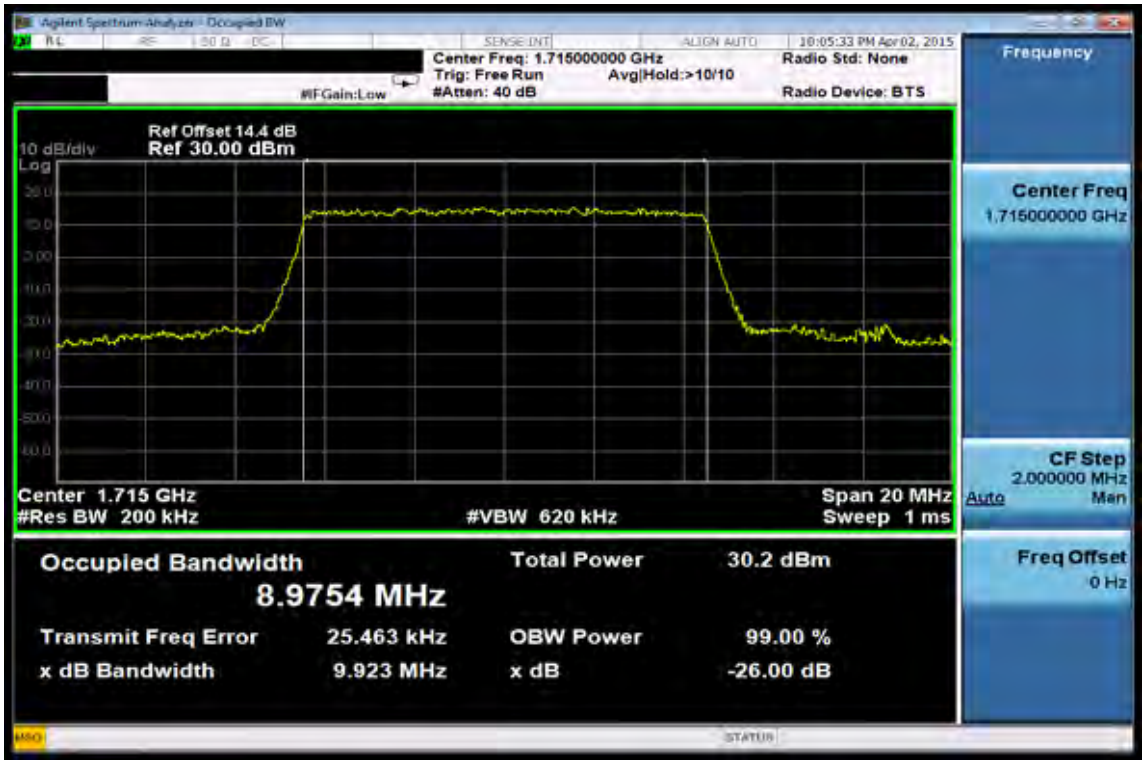
5MHz BW LTE-Band 4 16QAM Channel Mid



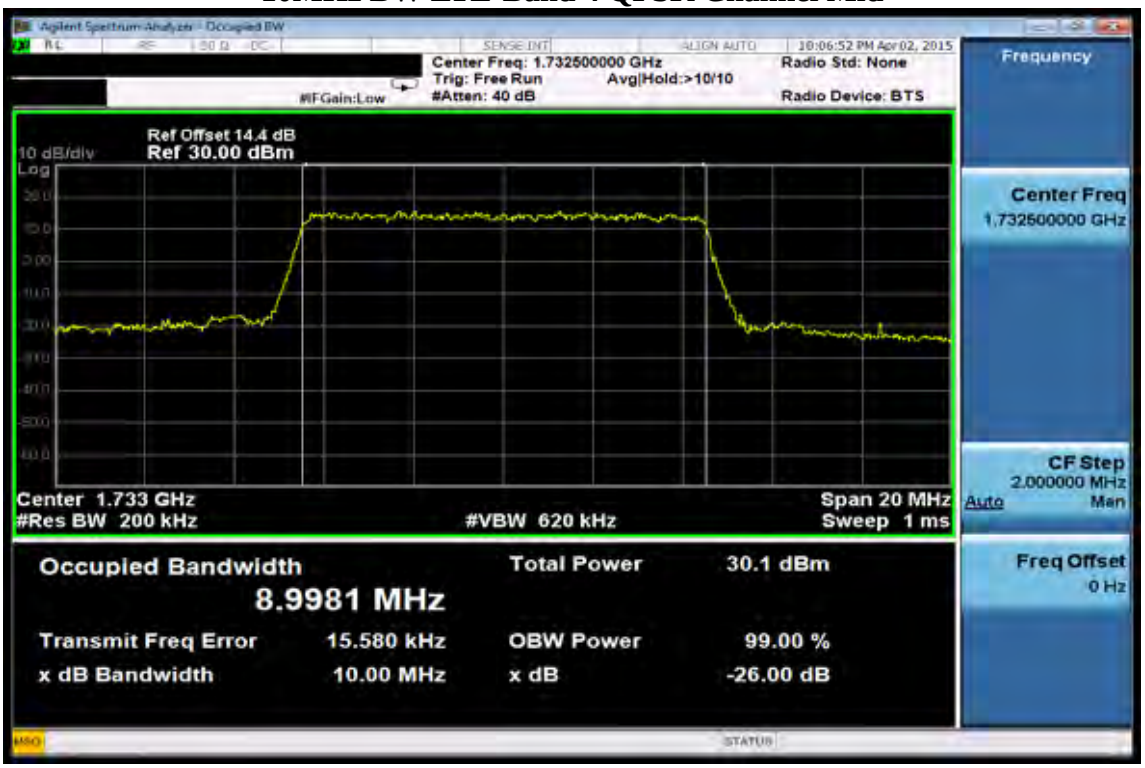
5MHz BW LTE-Band 4 16QAM Channel High



10MHz BW LTE-Band 4 QPSK Channel Low



10MHz BW LTE-Band 4 QPSK Channel Mid



10MHz BW LTE-Band 4 QPSK Channel High