TEST REPORT

No. I17Z61611-WMD01

for

Ericsson AB (1900MHz) Radio 2212 B2 B25 KRC 161 688/1 and KRC 161 688/3

Remote Radio Unit

FCC ID: TA8AKRC161688

IC: 287AB-AS161688

In accordance with FCC CFR 47 Part 24 and

IC RSS-133: Issue 6

Issued Date: 2017-10-09

TESTING
NVLAP LAB CODE 600118-0

Note:

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The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S.Government.

Test Laboratory:

ISEDC(IC) accredited test site number: 12389B-1

CTTL, Telecommunication Technology Labs, CAICT

No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191.

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I17Z61611-WMD01	Rev.0	1st edition	2017-10-09

CONTENTS

1. Test Laboratory

1.1. Testing Location

Location 1: CTTL(Kangding Road)

Address: No. 18, Kangding Road, Yizhuang, Beijing, P. R. China 100176

Location 2: CTTL(Shouxiang)

Address: No. 51 Shouxiang Science Building, Xueyuan Road, Haidian District, Beijing, P. R. China 100191

1.2. Project data

Testing Start Date: 2017-09-19

Testing End Date: 2017-10-09

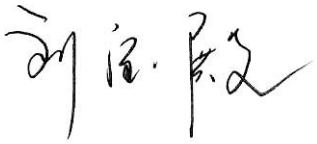
1.3. Signature

Shen Yi

(Prepared this test report)

Zhou Yu

(Reviewed this test report)



Liu Baodian

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	Ericsson (China) Communications Company Ltd.
Address /Post:	Ericsson Tower, Lize East Street, Chaoyang District, Beijing 100102, P.R.China
Contact:	Xiaoying Jiang
Email:	Xiaoying.jiang@ericsson.com
Telephone:	+86 10 8476 7125

2.2. Manufacturer Information

Company Name:	Ericsson AB
Address /Post:	Isafjordsgatan 10, 164 80 Stockholm Sweden
Contact:	/
Email:	/
Telephone:	/

3. Equipment UnderTest (EUT)

3.1. About EUT

Description	Remote Radio Unit
Product Name	Radio 2212 B2 B25
Product Number	KRC 161 688/1 and KRC 161 688/3
FCC ID	TA8AKRC161688
IC	287AB-AS161688
Antenna	N/A
Output power	Maximum 49.0dBm (80W) per port
Power source	-48V DC
Serial Number	D826318010
Hardware Version	R1A
Sofware Version	PIS: CXP 901 7316/7 rev R67HF LTE (for NB-IoT): CXP 102 051/27 rev R24A13
Frequency range	TX: 1930-1995MHz
Supported TX/RX configuration	2 TX / 2 RX
Maximum RF bandwidth (IBW)	WCDMA SR: 65MHz LTE SR: 65 MHz valid for LTE BW>3 MHz, 20 MHz valid for LTE BW≤3 MHz, LTE+WCDMA Mix Mode: 65 MHz valid for LTE BW>3 MHz, 40 MHz valid for LTE carriers BW≤3 MHz
Total number of supported carriers per port	6 DL / 12 UL
Supported modulations	WCDMA: QPSK, 16QAM, 64QAM LTE: QPSK, 16QAM, 64QAM, 256QAM
Date of receipt	2017-09-19

3.2. General Description

The Equipment Under Test (EUT) is an Ericsson Remote Radio Unit working in the public mobile service 1900MHz band which provides communication connections to 1900MHz network in WCDMA / LTE / NB-IoT modes and WCDMA & LTE MSR modes. The Radio 2212 B2 B25 KRC 161 688/1 and KRC 161 688/3 operates from a -48V DC supply.

The EUT includes two TX/RX ports and it can be configured to transmit in MIMO mode for WCDMA or LTE carriers, and MIMO mode for WCDMA or LTE was used for measurements as the worst configuration. The complete testing was performed with the EUT transmitting at maximum RF power unless otherwise stated.

The Equipment Under Test (EUT) is shown in the photograph below. A full technical description can be found in the Manufacturer's documentation.

Equipment Under Test

3.3. Configuration Description

The following settings were used to representative for all traffic scenarios when settings with different modulations, channel bandwidths, number for carriers and RF configurations have been tested to find the worst case setting. The settings below were used for all measurements unless otherwise noted:

Configuration	Carrier(s)	Description
WCDMA-1C	1 Carrier	WCDMA Single Antenna Single Carrier
WCDMA-2C	2 Carriers	WCDMA Single Antenna Multi Carrier x2
WCDMA-6C	6 Carriers	WCDMA Single Antenna Multi Carrier x6
WCDMA-MIMO-1C	1 Carrier	WCDMA MIMO Single Carrier
WCDMA-MIMO-2C	2 Carriers	WCDMA MIMO Multi Carrier x2
WCDMA-MIMO-6C	6 Carriers	WCDMA MIMO Multi Carrier x6
LTE-MIMO-1C	1 Carrier	LTE MIMO Single Carrier
LTE-MIMO-2C	2 Carriers	LTE MIMO Multi Carrier x2
LTE-MIMO-3C	3 Carriers	LTE MIMO Multi Carrier x3
LTE-MIMO-4C	4 Carriers	LTE MIMO Multi Carrier x4
LTE-MIMO-6C	6 Carriers	LTE MIMO Multi Carrier x6
NB-IoT	1 Carrier	In-Band NB-IoT, Single Carrier
WCDMA+LTE-MC-1	1WCDMA+1LTE	WCDMA+LTE Single Antenna One Tx
WCDMA+LTE-MC-2	3WCDMA+3LTE	WCDMA+LTE Single Antenna One Tx
WCDMA+LTE-MC-3	3WCDMA+2LTE	WCDMA+LTE Single Antenna One Tx
WCDMA+LTE-MIMO-MC-1	1WCDMA+1LTE	WCDMA+LTE MIMO
WCDMA+LTE-MIMO-MC-2	3WCDMA+3LTE	WCDMA+LTE MIMO
WCDMA+LTE-MIMO-MC-3	3WCDMA+2LTE	WCDMA+LTE MIMO
WCDMA+LTE-MIMO-MC-4	2WCDMA+1LTE	WCDMA+LTE MIMO
WCDMA-2C-BE	2 Carriers	WCDMA Single Antenna Multi Carrier x2, for Band Edge measurement
WCDMA-MIMO-2C-BE	2 Carriers	WCDMA Single Antenna Multi Carrier x2, for Band Edge measurement
LTE-MIMO-2C-BE	2 Carriers	LTE MIMO Multi Carrier x2, for Band Edge measurement
WCDMA+LTE-MIMO-MC-1-BE	1WCDMA+1LTE	WCDMA+LTE MIMO, for Band Edge measurement
WCDMA+LTE-MIMO-MC-2-BE	2WCDMA+1LTE	WCDMA+LTE MIMO, for Band Edge measurement

4. Reference Documents

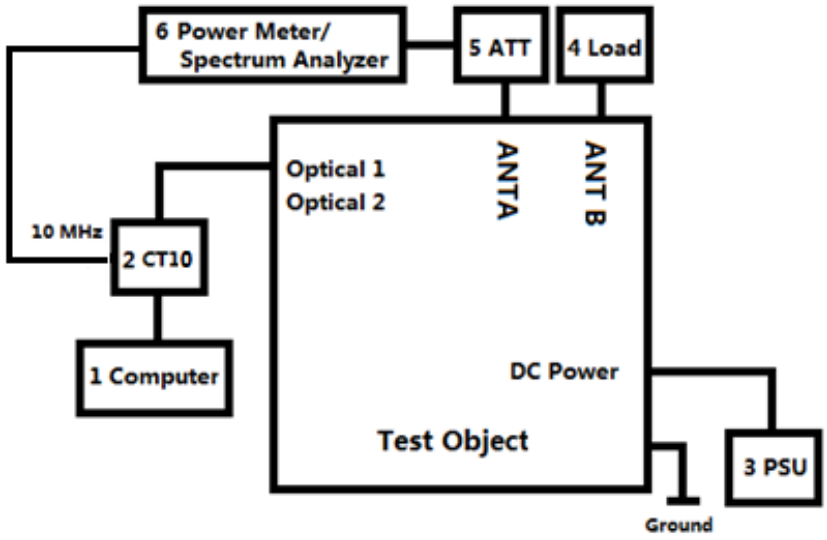
4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

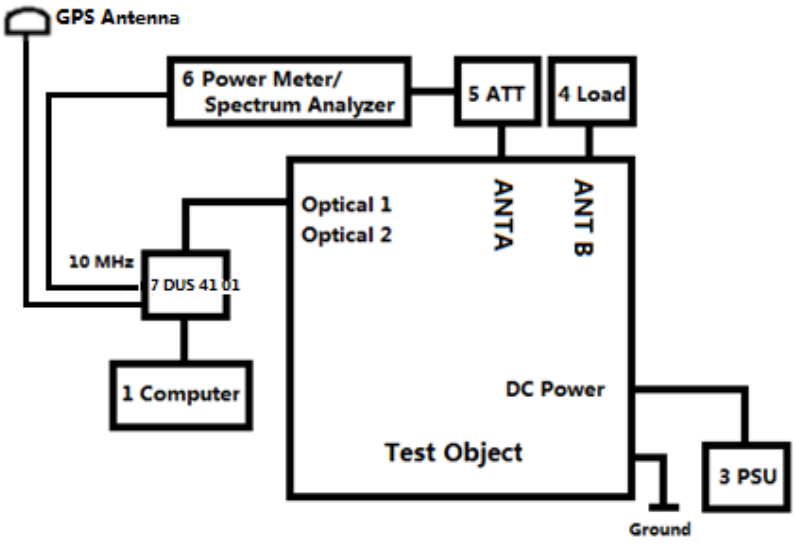
Reference	Title	Version
FCC Part 24	PERSONAL COMMUNICATIONS SERVICES	10-1-16 Edition
FCC Part 2	FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS	10-1-16 Edition
ANSI/TIA-603-E	Land Mobile FM or PM Communications Equipment Measurement and Performance Standards	2016
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 KHz to 40 GHz	2014
ANSI 63.26	IEEE/ANSI Standard for Compliance Testing of Transmitters Used in Licensed Radio Services	2015
KDB 971168 D01	MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS	v02r02
KDB 662911 D01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band	v02r01
IC RSS-GEN Issue 4	General Requirements for Compliance of Radio Apparatus	2014
IC RSS 133 Issue 6	2 GHz Personal Communications Services	2013

5. TEST SETUP

Test Setup, Conducted Measurement (Non-NB-IoT):

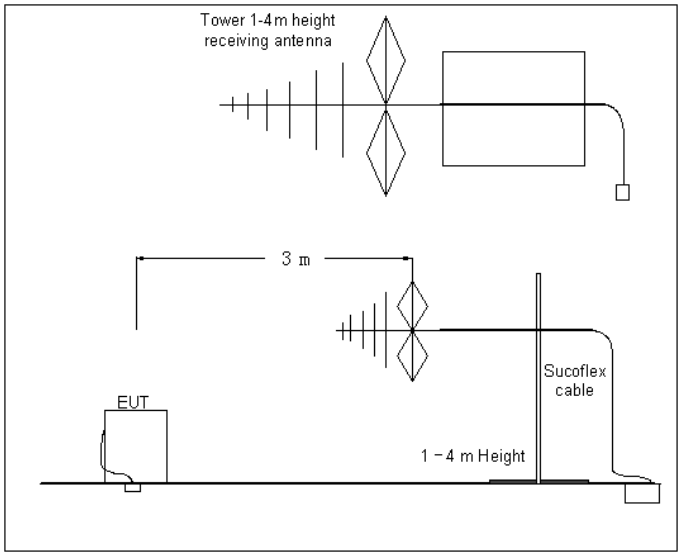


Test Setup, Conducted Measurement (NB-IoT):



No.	Auxilliary Equipment	Model Type	Version
1	Computer	HP EliteBook 8540w	-
2	CT10	LPC 102 487/1	R1C
4	Load	TF150	-
5	40dB Attenuator	Aeroflex / Weinschel	-
7	DUS 41 01	KDU 137 624/1	R5A/A

Test Setup, Radiated Measurement:



6. LABORATORY ENVIRONMENT

Control room / conducted chamber did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ˚C, Max. = 35 ˚C
Relative humidity	Min. =20 %, Max. = 80 %
Shielding effectiveness	> 110 dB
Electrical insulation	>2 MΩ
Ground system resistance	< 0.5 Ω

Semi-anechoic chamber (10 meters×6.7 meters×6.15 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ˚C**,** Max. = 30 ˚C
Relative humidity	Min. = 35 %**,** Max. = 60 %
Shielding effectiveness	> 100 dB
Electrical insulation	>2 MΩ
Ground system resistance	< 0.5 Ω
Normalised site attenuation (NSA)	**<±**3.5 dB, 3 m distance
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 18GHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 3000 MHz

7. SUMMARY OF TEST RESULTS

Items	Test Name	Clause in FCC rules	Clause in IC rules	Verdict
1	Maximum Output Power and Peak-to-Average Power Ratio	24.232(a),(d), 2.1046	RSS-133 6.4	Pass
2	Equivalent Isotropically Radiated Power (EIRP)	-	-	N/A^1
3	Occupied Bandwidth	24.238(b), 2.1049(h)	RSS-133 6.6	Pass
4	Spurious Emissions at Band Edge	24.238(b), 2.1051	RSS-133 6.5	Pass
5	Conducted Spurious Emission	24.238(a), 2.1051	RSS-133 6.5	Pass
6	Radiated Spurious Emission	24.238(a), 2.1053	RSS-133 6.5	Pass
7	Frequency Stability	24.235, 2.1055	RSS-133 6.3	Pass
8	Receiver Spurious Emission	-	-	N/A

N/A^1 - Not Applicable, due to no integrated antenna

N/A – Not Applicable

8. TestEquipments Utilized

NO.	Description	TYPE	series number	MANUFACTURE	CAL DUE DATE
1	AC Power Supply	PCR2000M	PJ000583	Kikusui	2018-02-05
2	Load	TF150	11081907	Shanghai Huaxiang	-
3	40dB Attenuator	66-40-33	CD4019	Aeroflex / Weinschel	-
4	40dB Attenuator	TSG150R-4-40N11	1511040001	Nanjing Jiexi Technologies	-
5	Spectrum Analyzer	N9030	MY54490239	Keysight	2018-08-02
6	Power Sensor	NRP-Z91	103104	Rohde & Schwarz	2018-02-12
7	Power Sensor	NRP-Z21	102432	Rohde & Schwarz	2018-08-04
8	Power Meter	NRP2	105423-GL	Rohde & Schwarz	2018-08-15
9	EMI Antenna	3115	00167250	ETS-LINDGREN	2020-05-21
10	EMI Antenna	3116	2661	ETS-LINDGREN	2020-07-27
11	EMI Antenna	VULB 9163	9163-514	SCHWARZBECK	2017-11-23
12	Test Receiver	ESU26	100376	Rohde & Schwarz	2017-11-30
13	Climate Chamber	GPS-4	0010-003512	ESPEC	2018-05-23

9. MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Discipline	Measurement Uncertainty
Conducted Maximum Peak Output Power	0.5dB
Occupied Bandwidth	1.1Hz
Conducted Spurious Emissions	2.3dB
Band Edge	2.3dB
Radiated Spurious Emissions	5.4dB
Frequency Stability	$<\pm 1 \times 10^{-7}$

ANNEX A: MEASUREMENT RESULS

A.1 Maximum Output Power and Peak-to-Average Power Ratio

A.1.1 Reference

FCC CFR 47 Part 2, Clause 2.1046
FCC CFR 47 Part 24, Clause 24.232 (a) (d)
IC RSS-133, Clause 6.4

A.1.2 Method of Measurements

During the process of testing, the EUT was configured to transmit on maximum power and proper modulation. In case of the EUT was configured to MIMO mode, since the EUT transmits on two antennas simultaneously in the same frequency range, using the Measure-and-Sum approach, the output power at both antennas were tested, and the total output power were then summed mathematically in linear power units according to FCC KDB 662911 D01.

A peak to average ratio measurement is performed at the conducted ports of the EUT for single carrier for single RAT mode. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) was used and 0.1% probability value recorded.

A.1.3 Limit

Output Power:

FCC: (EIRP) 1640 W or 62.15 dBm for emission bandwidth ≤ 1MHz
1640 W/MHz or 62.15 dBm/MHz for emission bandwidth > 1MHz

IC: (e.i.r.p) 1640 W/MHz or 62.15 dBm/MHz

Peak to Average Ratio: 13 dB

A.1.4 Measurement result

Configuration WCDMA-1C
Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1932.4			Channel position M (MHz) 1962.6			Channel position T (MHz) 1992.6		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/5.0	48.26	40.87	7.34	48.78	41.58	7.33	48.41	41.35	7.35

Configuration WCDMA-2C

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.4 + 1992.6			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/5.0	-	-	-	48.44	-	-	-	-	-

Configuration WCDMA-6C

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.4 + 1937.4 + 1942.4 + 1992.6 + 1987.6 + 1982.6			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/5.0	-	-	-	48.69	-	-	-	-	-

Configuration WCDMA-MIMO-1C

Maximum Output Power 47.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1932.4			Channel position M (MHz) 1962.6			Channel position T (MHz) 1992.6		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/5.0	46.89	39.89	7.10	46.82	39.97	7.30	46.82	39.81	7.31
B		46.91	39.15	7.32	46.78	39.23	7.31	46.78	39.26	7.33
Total		49.91	42.54	-	49.81	42.62	-	49.81	42.55	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1932.4			Channel position M (MHz) 1962.6			Channel position T (MHz) 1992.6		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/5.0	46.87	40.31	7.31	46.77	40.55	7.30	46.81	40.56	7.32
B		46.94	40.81	7.31	46.83	40.71	7.31	46.83	40.79	7.31
Total		49.91	43.57	-	49.81	43.64	-	49.83	43.68	-

Configuration WCDMA-MIMO-2C

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.4 + 1992.6			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/5.0	-	-	-	48.41	-	-	-	-	-
B		-	-	-	48.44	-	-	-	-	-
Total		-	-	-	51.43	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.4 + 1992.6			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/5.0	-	-	-	48.41	-	-	-	-	-
B		-	-	-	48.44	-	-	-	-	-
Total		-	-	-	51.43	-	-	-	-	-

Configuration WCDMA-MIMO-6C

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.4 + 1937.4 + 1942.4 + 1992.6 + 1987.6 + 1982.6			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/5.0	-	-	-	48.67	-	-	-	-	-
B		-	-	-	48.66	-	-	-	-	-
Total		-	-	-	51.67	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.4 + 1937.4 + 1942.4 + 1992.6 + 1987.6 + 1982.6			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/5.0	-	-	-	48.67	-	-	-	-	-
B		-	-	-	48.65	-	-	-	-	-
Total		-	-	-	51.67	-	-	-	-	-

Configuration LTE-MIMO-1C

Maximum Output Power 43.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7			Channel position M (MHz) 1962.5			Channel position T (MHz) 1994.3		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/1.4	42.94	41.24	8.36	42.82	41.37	8.36	42.76	41.19	8.35
B		42.89	41.42	8.25	42.93	41.26	8.26	42.72	41.15	8.25
Total		45.92	44.34	-	45.88	44.32	-	45.75	44.18	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7			Channel position M (MHz) 1962.5			Channel position T (MHz) 1994.3		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/1.4	-	-	-	42.79	40.65	8.31	-	-	-
B		-	-	-	42.92	41.11	7.92	-	-	-
Total		-	-	-	45.86	43.89	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7			Channel position M (MHz) 1962.5			Channel position T (MHz) 1994.3		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/1.4	-	-	-	42.78	41.29	8.35	-	-	-
B		-	-	-	42.92	41.22	8.01	-	-	-
Total		-	-	-	45.86	44.26	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7			Channel position M (MHz) 1962.5			Channel position T (MHz) 1994.3		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /1.4	-	-	-	42.79	41.83	8.34	-	-	-
B		-	-	-	42.92	42.02	8.16	-	-	-
Total		-	-	-	45.86	44.93	-	-	-	-

Maximum Output Power 43.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1993.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/3.0	42.95	38.57	8.34	42.98	38.54	8.35	42.85	38.41	8.33
B		42.96	38.72	8.40	42.99	38.24	8.39	42.74	38.66	8.37
Total		45.96	41.65	-	45.99	41.40	-	45.80	41.54	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1993.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/3.0	-	-	-	43.03	38.91	8.35	-	-	-
B		-	-	-	43.01	38.12	8.65	-	-	-
Total		-	-	-	46.03	41.54	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1993.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/3.0	-	-	-	43.01	38.45	8.28	-	-	-
B		-	-	-	42.98	38.46	8.47	-	-	-
Total		-	-	-	46.00	41.46	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1993.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /3.0	-	-	-	43.04	39.01	8.36	-	-	-
B		-	-	-	42.96	38.57	8.50	-	-	-
Total		-	-	-	46.01	41.80	-	-	-	-

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1932.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1992.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/5.0	48.36	41.47	7.30	49.03	42.14	7.29	48.46	41.64	7.30
B		48.35	41.56	7.33	48.98	42.12	7.33	48.41	41.29	7.35
Total		51.36	44.52	-	52.01	45.14	-	51.44	44.47	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1932.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1992.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/5.0	-	-	-	49.04	42.63	7.29	-	-	-
B		-	-	-	48.95	42.23	7.36	-	-	-
Total		-	-	-	52.00	45.44	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1932.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1992.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/5.0	-	-	-	49.05	42.22	7.30	-	-	-
B		-	-	-	48.98	42.07	7.39	-	-	-
Total		-	-	-	52.02	45.15	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1932.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1992.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /5.0	-	-	-	49.02	42.11	7.32	-	-	-
B		-	-	-	48.95	41.64	7.38	-	-	-
Total		-	-	-	51.99	44.89	-	-	-	-

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1935.0			Channel position M (MHz) 1962.5			Channel position T (MHz) 1990		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ 10.0	48.52	38.96	7.35	48.95	39.39	7.27	48.62	39.02	7.32
B		48.52	38.76	7.33	48.92	38.84	7.29	48.54	38.64	7.35
Total		51.53	41.87	-	51.94	42.13	-	51.59	41.84	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1935.0			Channel position M (MHz) 1962.5			Channel position T (MHz) 1990		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ 10.0	-	-	-	48.95	38.97	7.27	-	-	-
B		-	-	-	48.92	39.41	7.31	-	-	-
Total		-	-	-	51.94	42.20	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1935.0			Channel position M (MHz) 1962.5			Channel position T (MHz) 1990		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/ 10.0	-	-	-	48.94	39.36	7.28	-	-	-
B		-	-	-	48.93	39.29	7.32	-	-	-
Total		-	-	-	51.94	42.33	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1935.0			Channel position M (MHz) 1962.5			Channel position T (MHz) 1990		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /10.0	-	-	-	48.91	38.93	7.29	-	-	-
B		-	-	-	48.88	39.01	7.31	-	-	-
Total		-	-	-	51.90	41.98	-	-	-	-

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1937.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1987.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ 15.0	48.61	37.01	7.41	48.92	37.35	7.27	48.66	37.08	7.36
B		48.57	37.08	7.41	48.91	37.38	7.33	48.62	37.17	7.40
Total		51.60	40.05	-	51.92	40.37	-	51.65	40.13	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1937.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1987.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ 15.0	-	-	-	48.92	36.83	7.27	-	-	-
B		-	-	-	48.92	37.36	7.30	-	-	-
Total		-	-	-	51.93	40.11	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1937.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1987.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/ 15.0	-	-	-	48.92	37.41	7.29	-	-	-
B		-	-	-	48.91	37.45	7.32	-	-	-
Total		-	-	-	51.92	40.44	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1937.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1987.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /15.0	-	-	-	48.92	37.31	7.30	-	-	-
B		-	-	-	48.91	36.79	7.34	-	-	-
Total		-	-	-	51.92	40.06	-	-	-	-

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1940.0			Channel position M (MHz) 1962.5			Channel position T (MHz) 1985.0		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ 20.0	48.73	35.52	7.49	48.91	35.72	7.29	48.75	35.55	7.38
B		48.73	35.71	7.47	48.89	36.16	7.31	48.75	35.77	7.44
Total		51.74	38.62	-	51.91	38.95	-	51.76	38.67	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1940.0			Channel position M (MHz) 1962.5			Channel position T (MHz) 1985.0		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ 20.0	-	-	-	48.93	35.95	7.27	-	-	-
B		-	-	-	48.92	36.07	7.29	-	-	-
Total		-	-	-	51.93	39.02	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1940.0			Channel position M (MHz) 1962.5			Channel position T (MHz) 1985.0		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/ 20.0	-	-	-	48.89	35.78	7.29	-	-	-
B		-	-	-	48.92	35.65	7.30	-	-	-
Total		-	-	-	51.91	38.72	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1940.0			Channel position M (MHz) 1962.5			Channel position T (MHz) 1985.0		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /20.0	-	-	-	48.92	36.25	7.29	-	-	-
B		-	-	-	48.92	35.91	7.30	-	-	-
Total		-	-	-	51.93	39.09	-	-	-	-

Configuration LTE-MIMO-2C

Maximum Output Power 46.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7 + 1949.3			Channel position M (MHz) 1953.2 + 1971.8			Channel position T (MHz) 1994.3 + 1975.7		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/1.4	45.82	-	-	45.91	-	-	45.71	-	-
B		45.85	-	-	45.91	-	-	45.80	-	-
Total		48.84	-	-	48.92	-	-	48.76	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7 + 1949.3			Channel position M (MHz) 1953.2 + 1971.8			Channel position T (MHz) 1994.3 + 1975.7		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ 1.4	-	-	-	45.89	-	-	-	-	-
B		-	-	-	45.94	-	-	-	-	-
Total		-	-	-	48.92	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7 + 1949.3			Channel position M (MHz) 1953.2 + 1971.8			Channel position T (MHz) 1994.3 + 1975.7		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/ 1.4	-	-	-	45.86	-	-	-	-	-
B		-	-	-	45.91	-	-	-	-	-
Total		-	-	-	48.89	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7 + 1949.3			Channel position M (MHz) 1953.2 + 1971.8			Channel position T (MHz) 1994.3 + 1975.7		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /1.4	-	-	-	45.85	-	-	-	-	-
B		-	-	-	45.91	-	-	-	-	-
Total		-	-	-	48.89	-	-	-	-	-

Maximum Output Power 46.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5 + 1948.5			Channel position M (MHz) 1954 + 1971			Channel position T (MHz) 1993.5 + 1976.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/3.0	45.86	-	-	45.91	-	-	45.78	-	-
B		45.87	-	-	45.92	-	-	45.83	-	-
Total		48.87	-	-	48.92	-	-	48.81	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5 + 1948.5			Channel position M (MHz) 1954 + 1971			Channel position T (MHz) 1993.5 + 1976.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/3.0	-	-	-	45.94	-	-	-	-	-
B		-	-	-	45.91	-	-	-	-	-
Total		-	-	-	48.93	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5 + 1948.5			Channel position M (MHz) 1954 + 1971			Channel position T (MHz) 1993.5 + 1976.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/3.0	-	-	-	45.88	-	-	-	-	-
B		-	-	-	45.88	-	-	-	-	-
Total		-	-	-	48.89	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5 + 1948.5			Channel position M (MHz) 1954 + 1971			Channel position T (MHz) 1993.5 + 1976.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /3.0	-	-	-	45.88	-	-	-	-	-
B		-	-	-	45.86	-	-	-	-	-
Total		-	-	-	48.88	-	-	-	-	-

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.5 + 1992.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/5.0	-	-	-	48.14	-	-	-	-	-
B		-	-	-	48.15	-	-	-	-	-
Total		-	-	-	51.15	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.5 + 1992.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/5.0	-	-	-	48.15	-	-	-	-	-
B		-	-	-	48.13	-	-	-	-	-
Total		-	-	-	51.15	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.5 + 1992.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/5.0	-	-	-	48.16	-	-	-	-	-
B		-	-	-	48.16	-	-	-	-	-
Total		-	-	-	51.17	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.5 + 1992.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /5.0	-	-	-	48.11	-	-	-	-	-
B		-	-	-	48.14	-	-	-	-	-
Total		-	-	-	51.13	-	-	-	-	-

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1935.0 + 1990.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ 10.0	-	-	-	48.37	-	-	-	-	-
B		-	-	-	48.37	-	-	-	-	-
Total		-	-	-	51.38	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1935.0 + 1990.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ 10.0	-	-	-	48.36	-	-	-	-	-
B		-	-	-	48.38	-	-	-	-	-
Total		-	-	-	51.38	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1935.0 + 1990.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/ 10.0	-	-	-	48.36	-	-	-	-	-
B		-	-	-	48.39	-	-	-	-	-
Total		-	-	-	51.38	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1935.0 + 1990.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /10.0	-	-	-	48.34	-	-	-	-	-
B		-	-	-	48.38	-	-	-	-	-
Total		-	-	-	51.37	-	-	-	-	-

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1937.5 + 1987.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ 15.0	-	-	-	48.44	-	-	-	-	-
B		-	-	-	48.46	-	-	-	-	-
Total		-	-	-	51.46	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1937.5 + 1987.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ 15.0	-	-	-	48.45	-	-	-	-	-
B		-	-	-	48.43	-	-	-	-	-
Total		-	-	-	51.45	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1937.5 + 1987.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/ 15.0	-	-	-	48.45	-	-	-	-	-
B		-	-	-	48.45	-	-	-	-	-
Total		-	-	-	51.46	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1937.5 + 1987.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /15.0	-	-	-	48.45	-	-	-	-	-
B		-	-	-	48.46	-	-	-	-	-
Total		-	-	-	51.46	-	-	-	-	-

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1940.0 + 1985.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ 20.0	-	-	-	48.51	-	-	-	-	-
B		-	-	-	48.52	-	-	-	-	-
Total		-	-	-	51.52	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1940.0 + 1985.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ 20.0	-	-	-	48.52	-	-	-	-	-
B		-	-	-	48.53	-	-	-	-	-
Total		-	-	-	51.53	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1940.0 + 1985.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/ 20.0	-	-	-	48.51	-	-	-	-	-
B		-	-	-	48.51	-	-	-	-	-
Total		-	-	-	51.52	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1940.0 + 1985.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /20.0	-	-	-	48.51	-	-	-	-	-
B		-	-	-	48.51	-	-	-	-	-
Total		-	-	-	51.52	-	-	-	-	-

Configuration LTE-MIMO-6C

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7 + 1932.1 + 1933.5 + 1949.3 + 1947.9 + 1946.5			Channel position M (MHz) 1953.2 + 1954.6 + 1956.0 + 1969.0 + 1970.4 + 1971.8			Channel position T (MHz) 1994.3 + 1992.9 + 1991.5 + 1975.7 + 1977.1 + 1978.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/1.4	48.34	-	-	48.56	-	-	48.34	-	-
B		48.33	-	-	48.56	-	-	48.27	-	-
Total		51.34	-	-	51.57	-	-	51.31	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7 + 1932.1 + 1933.5 + 1949.3 + 1947.9 + 1946.5			Channel position M (MHz) 1953.2 + 1954.6 + 1956.0 + 1969.0 + 1970.4 + 1971.8			Channel position T (MHz) 1994.3 + 1992.9 + 1991.5 + 1975.7 + 1977.1 + 1978.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ 1.4	-	-	-	48.54	-	-	-	-	-
B		-	-	-	48.47	-	-	-	-	-
Total		-	-	-	51.51	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7 + 1932.1 + 1933.5 + 1949.3 + 1947.9 + 1946.5			Channel position M (MHz) 1953.2 + 1954.6 + 1956.0 + 1969.0 + 1970.4 + 1971.8			Channel position T (MHz) 1994.3 + 1992.9 + 1991.5 + 1975.7 + 1977.1 + 1978.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/ 1.4	-	-	-	48.52	-	-	-	-	-
B		-	-	-	48.48	-	-	-	-	-
Total		-	-	-	51.51	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1930.7 + 1932.1 + 1933.5 + 1949.3 + 1947.9 + 1946.5			Channel position M (MHz) 1953.2 + 1954.6 + 1956.0 + 1969.0 + 1970.4 + 1971.8			Channel position T (MHz) 1994.3 + 1992.9 + 1991.5 + 1975.7 + 1977.1 + 1978.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /1.4	-	-	-	48.52	-	-	-	-	-
B		-	-	-	48.48	-	-	-	-	-
Total		-	-	-	51.51	-	-	-	-	-

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5 + 1934.5 + 1937.5 + 1948.5 + 1945.5 + 1942.5			Channel position M (MHz) 1954.0 + 1957.0 + 1960.0 + 1965.0 + 1968.0 + 1971.0			Channel position T (MHz) 1993.5 + 1990.5 + 1987.5 + 1976.5 + 1979.5 + 1982.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/3.0	48.67	-	-	48.86	-	-	48.67	-	-
B		48.64	-	-	48.84	-	-	48.66	-	-
Total		51.66	-	-	51.86	-	-	51.67	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5 + 1934.5 + 1937.5 + 1948.5 + 1945.5 + 1942.5			Channel position M (MHz) 1954.0 + 1957.0 + 1960.0 + 1965.0 + 1968.0 + 1971.0			Channel position T (MHz) 1993.5 + 1990.5 + 1987.5 + 1976.5 + 1979.5 + 1982.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/3.0	-	-	-	48.86	-	-	-	-	-
B		-	-	-	48.82	-	-	-	-	-
Total		-	-	-	51.85	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5 + 1934.5 + 1937.5 + 1948.5 + 1945.5 + 1942.5			Channel position M (MHz) 1954.0 + 1957.0 + 1960.0 + 1965.0 + 1968.0 + 1971.0			Channel position T (MHz) 1993.5 + 1990.5 + 1987.5 + 1976.5 + 1979.5 + 1982.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/3.0	-	-	-	48.86	-	-	-	-	-
B		-	-	-	48.86	-	-	-	-	-
Total		-	-	-	51.85	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1931.5 + 1934.5 + 1937.5 + 1948.5 + 1945.5 + 1942.5			Channel position M (MHz) 1954.0 + 1957.0 + 1960.0 + 1965.0 + 1968.0 + 1971.0			Channel position T (MHz) 1993.5 + 1990.5 + 1987.5 + 1976.5 + 1979.5 + 1982.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /3.0	-	-	-	48.86	-	-	-	-	-
B		-	-	-	48.86	-	-	-	-	-
Total		-	-	-	51.87	-	-	-	-	-

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.5 + 1937.5 + 1942.5 + 1992.5 + 1987.5 + 1982.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/5.0	-	-	-	48.24	-	-	-	-	-
B		-	-	-	48.24	-	-	-	-	-
Total		-	-	-	51.25	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.5 + 1937.5 + 1942.5 + 1992.5 + 1987.5 + 1982.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/5.0	-	-	-	48.25	-	-	-	-	-
B		-	-	-	48.23	-	-	-	-	-
Total		-	-	-	51.25	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.5 + 1937.5 + 1942.5 + 1992.5 + 1987.5 + 1982.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/5.0	-	-	-	48.22	-	-	-	-	-
B		-	-	-	48.21	-	-	-	-	-
Total		-	-	-	51.22	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1932.5 + 1937.5 + 1942.5 + 1992.5 + 1987.5 + 1982.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /5.0	-	-	-	48.23	-	-	-	-	-
B		-	-	-	48.20	-	-	-	-	-
Total		-	-	-	51.22	-	-	-	-	-

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1935.0 + 1945.0 + 1955.0 + 1990.0 + 1980.0 + 1970.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ 10.0	-	-	-	48.54	-	-	-	-	-
B		-	-	-	48.54	-	-	-	-	-
Total		-	-	-	51.55	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1935.0 + 1945.0 + 1955.0 + 1990.0 + 1980.0 + 1970.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ 10.0	-	-	-	48.52	-	-	-	-	-
B		-	-	-	48.51	-	-	-	-	-
Total		-	-	-	51.52	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1935.0 + 1945.0 + 1955.0 + 1990.0 + 1980.0 + 1970.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/ 10.0	-	-	-	48.54	-	-	-	-	-
B		-	-	-	48.51	-	-	-	-	-
Total		-	-	-	51.53	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1935.0 + 1945.0 + 1955.0 + 1990.0 + 1980.0 + 1970.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /10.0	-	-	-	48.52	-	-	-	-	-
B		-	-	-	48.52	-	-	-	-	-
Total		-	-	-	51.53	-	-	-	-	-

Configuration LTE-MIMO-4C

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1937.5 + 1952.5 + 1972.5 + 1987.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ 15.0	-	-	-	48.56	-	-	-	-	-
B		-	-	-	48.52	-	-	-	-	-
Total		-	-	-	51.55	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1937.5 + 1952.5 + 1972.5 + 1987.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ 15.0	-	-	-	48.54	-	-	-	-	-
B		-	-	-	48.55	-	-	-	-	-
Total		-	-	-	51.55	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1937.5 + 1952.5 + 1972.5 + 1987.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/ 15.0	-	-	-	48.53	-	-	-	-	-
B		-	-	-	48.56	-	-	-	-	-
Total		-	-	-	51.55	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1937.5 + 1952.5 + 1972.5 + 1987.5			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /15.0	-	-	-	48.53	-	-	-	-	-
B		-	-	-	48.54	-	-	-	-	-
Total		-	-	-	51.54	-	-	-	-	-

Configuration LTE-MIMO-3C

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1940.0 + 1960.0 + 1985.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ 20.0	-	-	-	48.54	-	-	-	-	-
B		-	-	-	48.55	-	-	-	-	-
Total		-	-	-	51.55	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1940.0 + 1960.0 + 1985.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ 20.0	-	-	-	48.56	-	-	-	-	-
B		-	-	-	48.57	-	-	-	-	-
Total		-	-	-	51.57	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1940.0 + 1960.0 + 1985.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	64QAM/ 20.0	-	-	-	48.54	-	-	-	-	-
B		-	-	-	48.53	-	-	-	-	-
Total		-	-	-	51.54	-	-	-	-	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz) 1940.0 + 1960.0 + 1985.0			Channel position T (MHz)		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	256QAM /20.0	-	-	-	48.54	-	-	-	-	-
B		-	-	-	48.55	-	-	-	-	-
Total		-	-	-	51.55	-	-	-	-	-

Configuration NB-IoT

Maximum Output Power 49.0dBm per port

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1932.5			Channel position M (MHz) 1962.5			Channel position T (MHz) 1992.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/5.0	47.50	40.37	8.60	48.32	41.32	7.72	47.56	40.60	8.02
B		47.58	40.73	8.06	48.37	41.38	7.76	47.64	40.65	8.07
Total		50.55	43.56	-	51.35	44.36	-	50.61	43.63	-

Antenna	Modulation/ Carrier Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz) 1940.0			Channel position M (MHz) 1962.5			Channel position T (MHz) 1985.0		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/20.0	48.19	35.36	7.75	48.25	35.59	7.65	48.10	35.20	7.73
B		48.34	35.47	7.80	48.42	35.51	7.72	48.24	35.18	7.73
Total		51.27	38.42	-	51.34	38.56	-	51.18	38.20	-

Configuration WCDMA+LTE-MC-1 (1WCDMA+1LTE)

Maximum Output Power 49.0dBm per port

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		(W)1932.4+(L)1969.3			(W)1945.0+(L)1981.8			(W)1957.4+(L)1994.3		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 1.4	48.51	-	-	48.82	-	-	48.86	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		(W)1932.4+(L)1968.5			(W)1945.0+(L)1981.0			(W)1957.4+(L)1993.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 3.0	48.57	-	-	48.85	-	-	48.91	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(L)1992.5			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 5.0	-	-	-	48.48	-	-	-	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(L)1990.0			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 10	-	-	-	48.55	-	-	-	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(L)1987.5			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 15	-	-	-	48.61	-	-	-	-	-

Antenna	WCDMA Mod./ LTE Mod.	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(L)1985.0			-		
	Bandwidth (MHz)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 20	-	-	-	48.63	-	-	-	-	-

Configuration WCDMA+LTE-MC-2 (3WCDMA+3LTE)

Maximum Output Power 49.0dBm per port

Antenna	WCDMA Mod./ LTE Mod.	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		(W)1932.4+(W)1937.4 +(W) 1942.4+(L)1966.5+(L) 1967.9+(L)1969.3			(W)1945+(W)1950+(W) 1955+(L)1979+(L) 1980.4+(L)1981.8			(W)1957.4+(W)1962.4+(W) 1967.4+(L)1991.5+(L) 1992.9+(L)1994.3		
	Bandwidth (MHz)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 1.4	48.54	-	-	48.63	-	-	48.56	-	-

Antenna	WCDMA Mod./ LTE Mod.	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		(W)1932.4+(W)1937.4 +(W) 1942.4+(L)1962.5+(L) 1965.5+(L)1968.5			(W)1945.0+(W)1950.0+(W) 1955.0+(L)1975.0+(L) 1978.0+(L)1981.0			(W)1957.4+(W)1962.4+(W) 1967.4+(L)1987.5+(L) 1990.5+(L)1993.5		
	Bandwidth (MHz)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 3.0	48.52	-	-	48.59	-	-	48.61	-	-

Antenna	WCDMA Mod./ LTE Mod.	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(W)1937.4+(W)1942.4 +(L)1982.5+(L)1987.5+(L)1992.5			-		
	Bandwidth (MHz)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 5.0	-	-	-	48.66	-	-	-	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(W)1937.4+(W)1942.4 +(L)1970.0+(L)1980.0+(L)1990.0			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 10.0	-	-	-	48.74	-	-	-	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(W)1937.4+(W)1942.4 +(L)1957.5+(L)1972.5+(L)1987.5			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 15.0	-	-	-	48.75	-	-	-	-	-

Configuration WCDMA+LTE-MC-3 (3WCDMA+2LTE)

Maximum Output Power 49.0dBm per port

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(W)1937.4+(W) 1942.4+(L)1965.0+(L) 1985.0			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	QPSK/ QPSK 20.0	-	-	-	48.68	-	-	-	-	-

Configuration WCDMA+LTE-MIMO-MC-1 (1WCDMA+1LTE)

Maximum Output Power 48.5dBm per port

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		(W)1932.4+(L)1969.3			(W)1945.0+(L)1981.8			(W)1957.4+(L)1994.3		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/	48.02	-	-	48.32	-	-	48.35	-	-
B	QPSK 1.4	48.07	-	-	48.26	-	-	48.34	-	-
Total		51.06	-	-	51.30	-	-	51.36	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		(W)1932.4+(L)1968.5			(W)1945.0+(L)1981.0			(W)1957.4+(L)1993.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/	48.37	-	-	48.30	-	-	48.40	-	-
B	QPSK 3.0	48.36	-	-	48.29	-	-	48.36	-	-
Total		51.38	-	-	51.31	-	-	51.39	-	-

Maximum Output Power 49.0dBm per port

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(L)1992.5			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/	-	-	-	48.51	-	-	-	-	-
B	QPSK 5.0	-	-	-	48.43	-	-	-	-	-
Total		-	-	-	51.48	-	-	-	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(L)1990.0			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/	-	-	-	48.58	-	-	-	-	-
B	QPSK 10.0	-	-	-	48.52	-	-	-	-	-
Total		-	-	-	51.56	-	-	-	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(L)1987.5			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/	-	-	-	48.58	-	-	-	-	-
B	QPSK 15.0	-	-	-	48.55	-	-	-	-	-
Total		-	-	-	51.57	-	-	-	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(L)1985.0			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/	-	-	-	48.61	-	-	-	-	-
B	QPSK 20.0	-	-	-	48.57	-	-	-	-	-
Total		-	-	-	51.60	-	-	-	-	-

Configuration WCDMA+LTE-MIMO-MC-2 (3WCDMA+3LTE)

Maximum Output Power 49.0dBm per port

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		(W)1932.4+(W)1937.4 +(W) 1942.4+(L)1966.5+(L) 1967.9+(L)1969.3			(W)1945+(W)1950+(W) 1955+(L)1979+(L) 1980.4+(L)1981.8			(W)1957.4+(W)1962.4+(W) 1967.4+(L)1991.5+(L) 1992.9+(L)1994.3		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/	48.54	-	-	48.12	-	-	48.37	-	-
B	QPSK 1.4	48.53	-	-	48.08	-	-	48.34	-	-
Total			-	-		-	-		-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		(W)1932.4+(W)1937.4 +(W) 1942.4+(L)1962.5+(L) 1965.5+(L)1968.5			(W)1945.0+(W)1950.0+(W) 1955.0+(L)1975.0+(L) 1978.0+(L)1981.0			(W)1957.4+(W)1962.4+(W) 1967.4+(L)1987.5+(L) 1990.5+(L)1993.5		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/	48.55	-	-	48.65	-	-	48.54	-	-
B	QPSK 3.0	48.50	-	-	48.57	-	-	48.51	-	-
Total			-	-		-	-		-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(W)1937.4+(W)1942.4 +(L)1982.5+(L)1987.5+(L)1992.5			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ QPSK 5.0	-	-	-	48.66	-	-	-	-	-
B		-	-	-	48.60	-	-	-	-	-
Total		-	-	-	51.64	-	-	-	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(W)1937.4+(W)1942.4 +(L)1970.0+(L)1980.0+(L)1990.0			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ QPSK 10.0	-	-	-	48.71	-	-	-	-	-
B		-	-	-	48.66	-	-	-	-	-
Total		-	-	-	51.69	-	-	-	-	-

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(W)1937.4+(W)1942.4 +(L)1957.5+(L)1972.5+(L)1987.5			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ QPSK 15.0	-	-	-	48.75	-	-	-	-	-
B		-	-	-	48.67	-	-	-	-	-
Total		-	-	-	51.72	-	-	-	-	-

Configuration WCDMA+LTE-MIMO-MC-3 (3WCDMA+2LTE)

Antenna	WCDMA Mod./ LTE Mod. Bandwidth (MHz)	Output Power / Peak to Average Ratio (PAR)								
		Channel position B (MHz)			Channel position M (MHz)			Channel position T (MHz)		
		-			(W)1932.4+(W)1937.4+(W) 1942.4+(L)1965.0+(L) 1985.0			-		
		POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)	POWER (dBm)	POWER (dBm/MHz)	PAR (db)
A	16QAM/ QPSK 20.0	-	-	-	48.72	-	-	-	-	-
B		-	-	-	48.65	-	-	-	-	-
Total		-	-	-	51.69	-	-	-	-	-

NOTE:
The DUT is tested without antenna. ERP/EIRP compliance is addressed at the time of licensing, as required by the responsible FCC/IC Bureau(s). Licensee's are required to take into account maximum allowed antenna gain used in combination with above power settings to prevent the radiated output power to exceed the limits.

A.2 Occupied Bandwidth

A.2.1 Reference

FCC CFR 47 Part 2, Clause 2.1049(h)
FCC CFR 47 Part 24, Clause 24.238 (b)
IC RSS-GEN, Clause 6.6

A.2.2 Method of Measurements

The EUT was set to transmit at maximum power and testing was carried out on bottom, middle and top channels. Using the Occupied Bandwidth measurement function in the spectrum analyser, the 26dB bandwidth was measured in accordance with FCC KDB 971168 D01 Power Meas License Digital Systems v02r02 Clause 4.2. In addition, measurements of 99% occupied bandwidths were made in accordance with IC RSS-GEN Clause 6.6.

The measurement method is from KDB 971168 4.2:
a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (i.e., two to five times the OBW).
b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
c) Set the reference level of the instrument as required to keep the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope must be at least 10log (OBW / RBW) below the reference level.
d) Set the detection mode to peak, and the trace mode to max hold.
e) Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

A.2.3 Measurement result

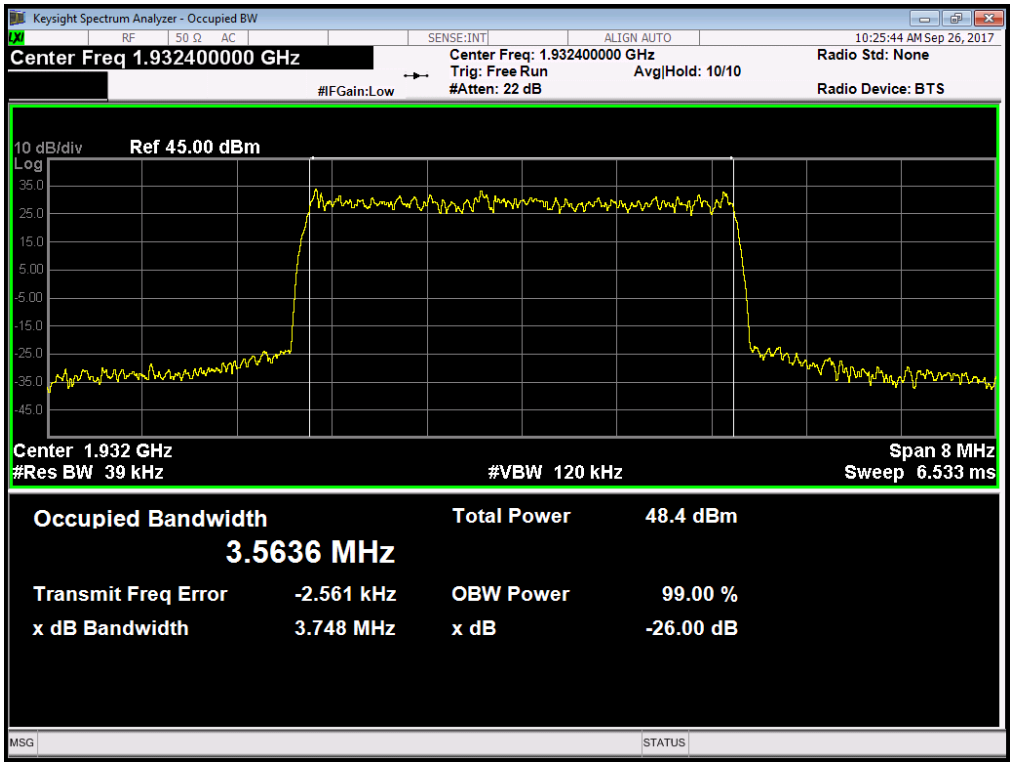
Configuration WCDMA-1C
-26dBc Occupied Bandwidth for FCC requirement

Antenna	Modulation / Bandwidth	Occupied Bandwidth (MHz)		
		Channel Position B 1932.4 MHz	Channel Position M 1962.6 MHz	Channel Position T 1992.6 MHz
A	QPSK/5.0 MHz	4.63	4.66	4.64
	QPSK/3.8 MHz	3.75	3.74	3.75
B	QPSK/5.0 MHz	4.62	4.64	4.62
	QPSK/3.8 MHz	3.75	3.73	3.75

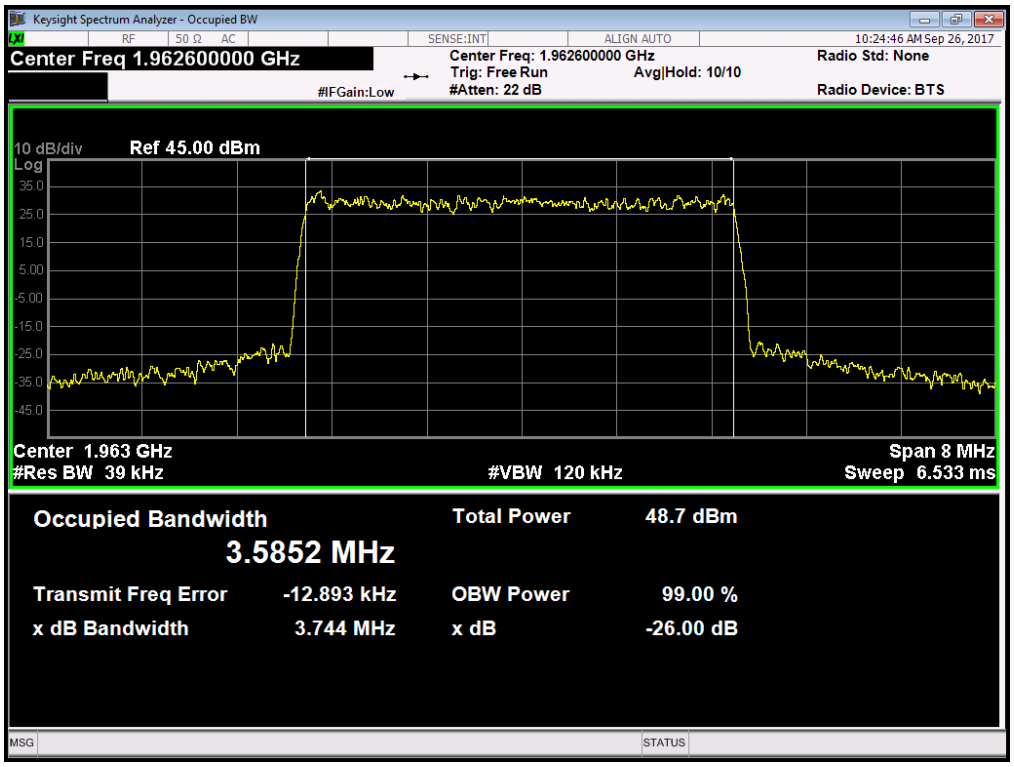
99% Occupied Bandwidth for IC requirement

Antenna	Modulation / Bandwidth	Occupied Bandwidth (MHz)		
		Channel Position B 1932.4 MHz	Channel Position M 1962.6 MHz	Channel Position T 1992.6 MHz
A	QPSK/5.0 MHz	4.17	4.18	4.17
	QPSK/3.8 MHz	3.56	3.59	3.58
B	QPSK/5.0 MHz	4.14	4.17	4.15
	QPSK/3.8 MHz	3.58	3.58	3.57

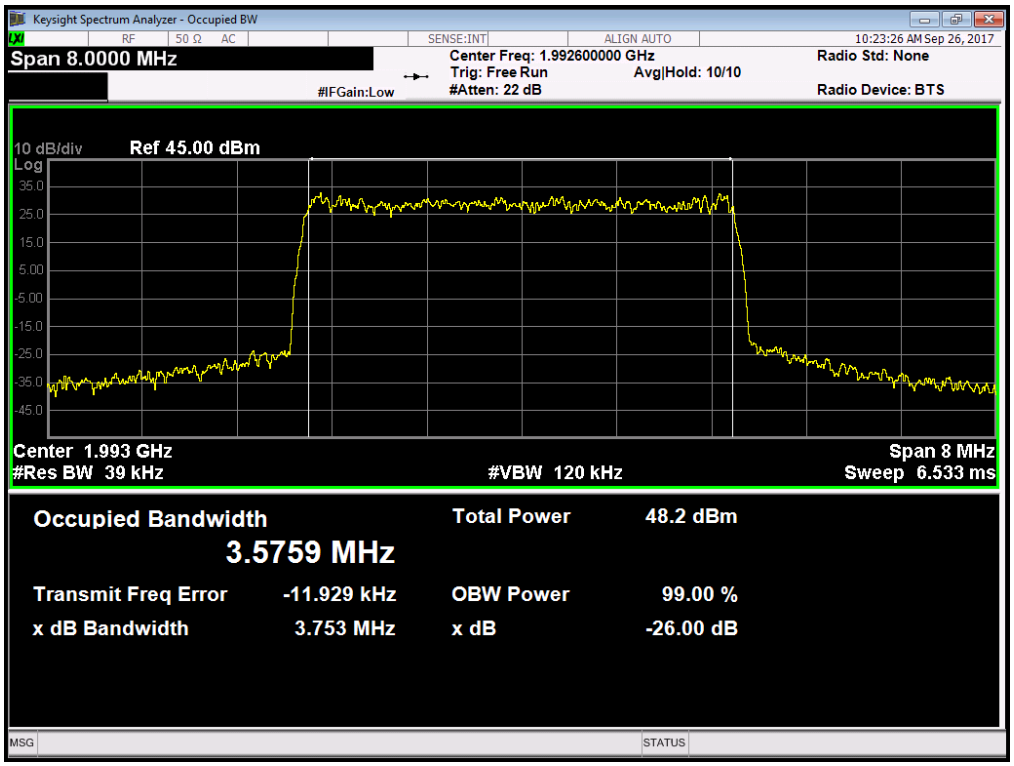
Port A, QPSK/3.8 MHz Channel Position B



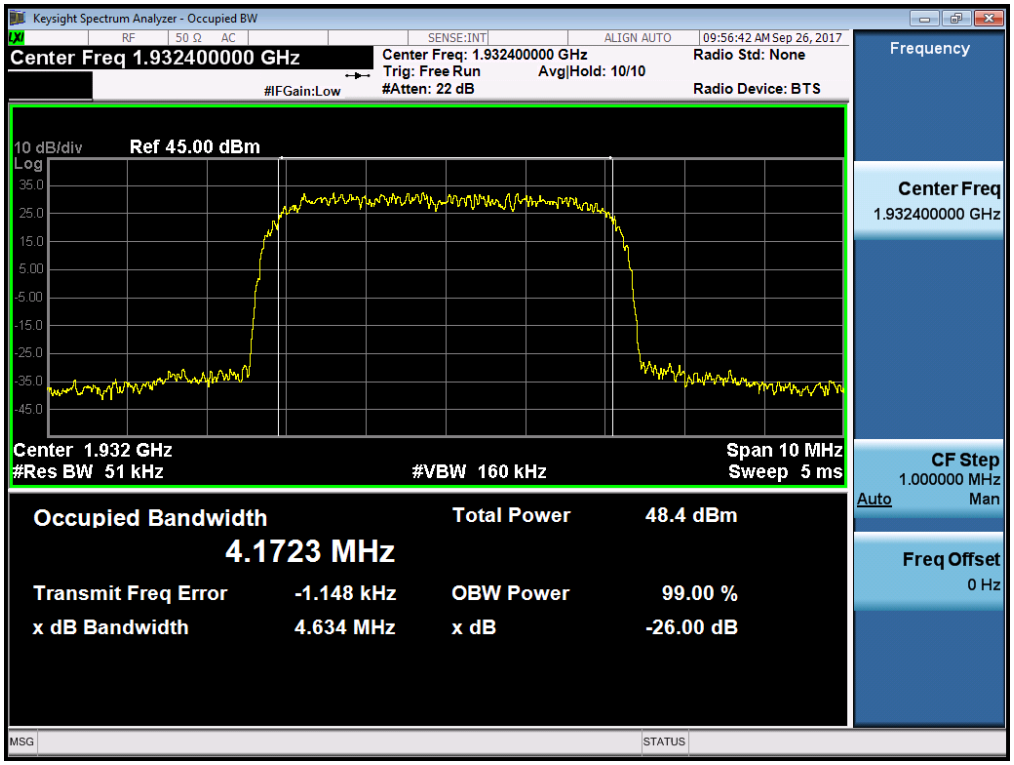
Port A, QPSK/3.8 MHz Channel Position M



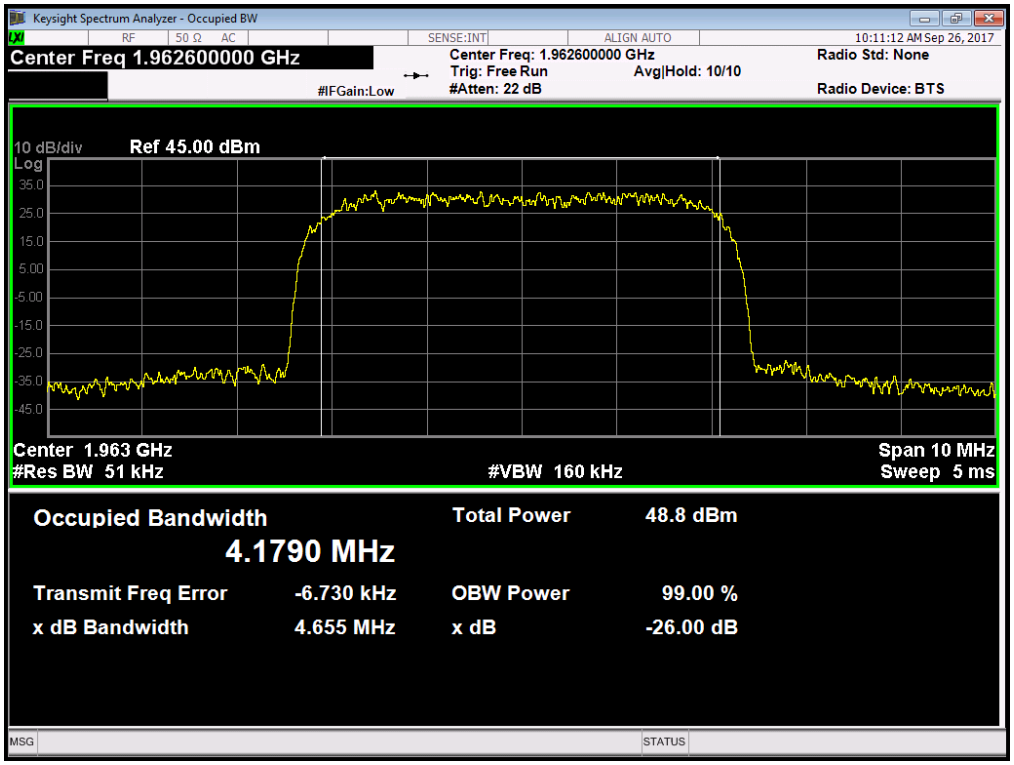
Port A, QPSK/3.8 MHz Channel Position T



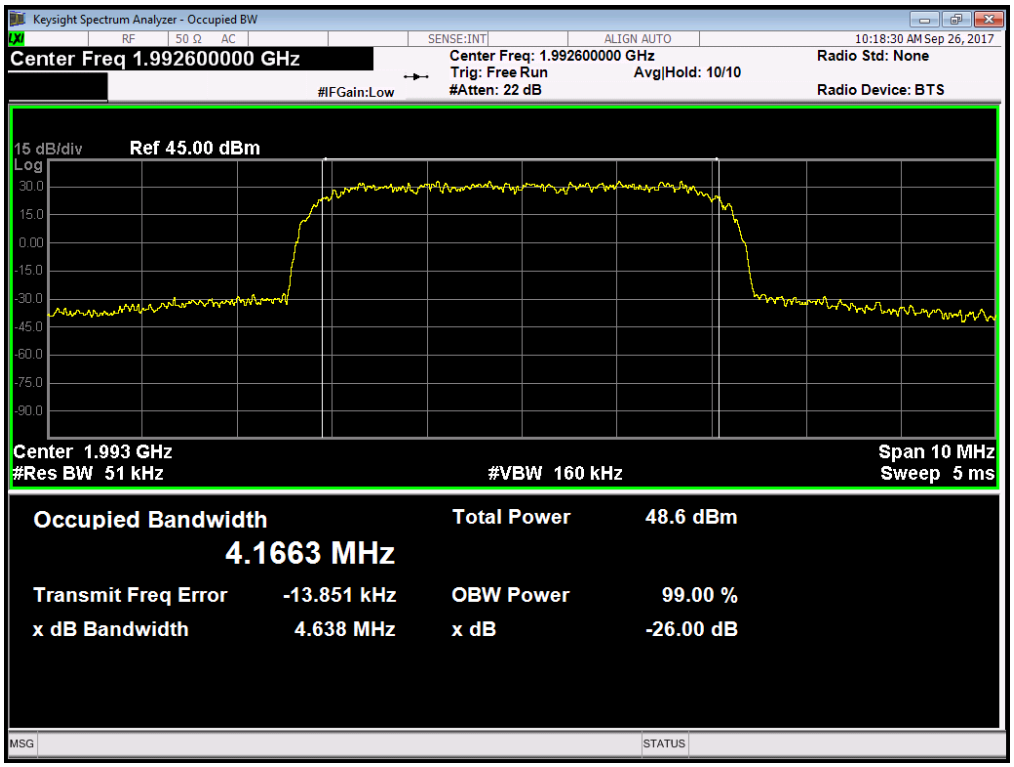
Port A, QPSK/5.0 MHz Channel Position B



Port A, QPSK/5.0 MHz Channel Position M



Port A, QPSK/5.0 MHz Channel Position T



Configuration W-MIMO-1C

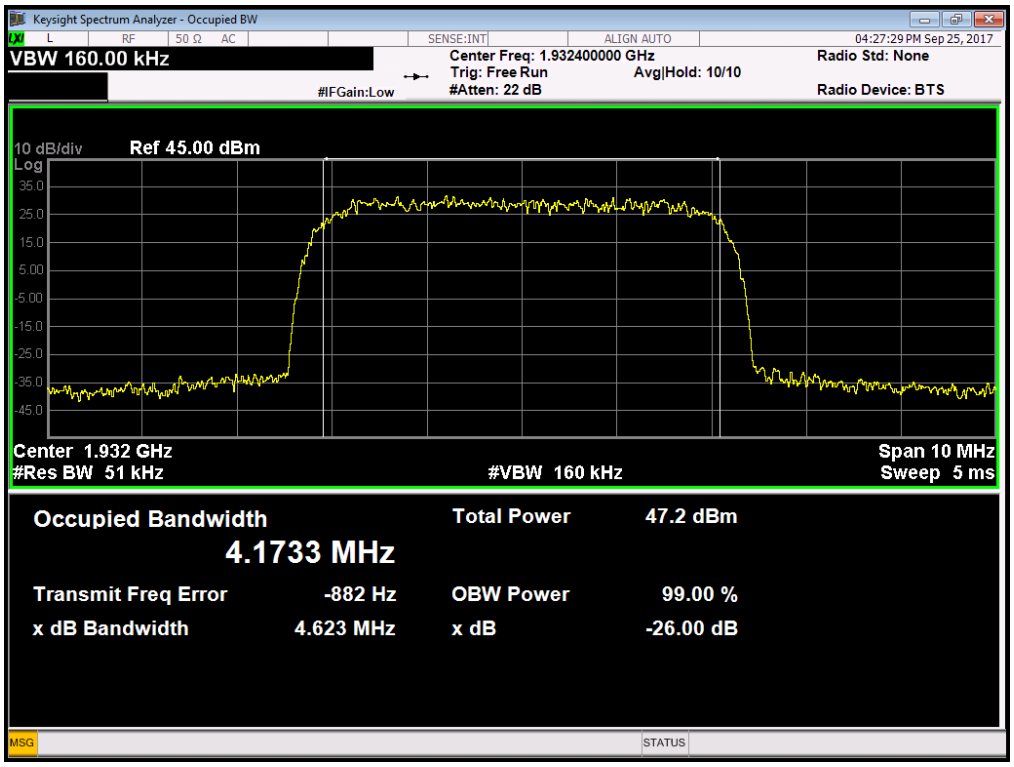
-26dBc Occupied Bandwidth for FCC requirement

Antenna	Modulation / Bandwidth	Occupied Bandwidth (MHz)		
		Channel Position B 1932.4 MHz	Channel Position M 1962.6 MHz	Channel Position T 1992.6 MHz
A	16QAM/ 5.0 MHz	4.62	4.66	4.62
	64QAM/ 5.0 MHz	4.64	4.65	4.65
B	16QAM/ 5.0 MHz	4.64	4.65	4.62
	64QAM/ 5.0 MHz	4.64	4.64	4.65

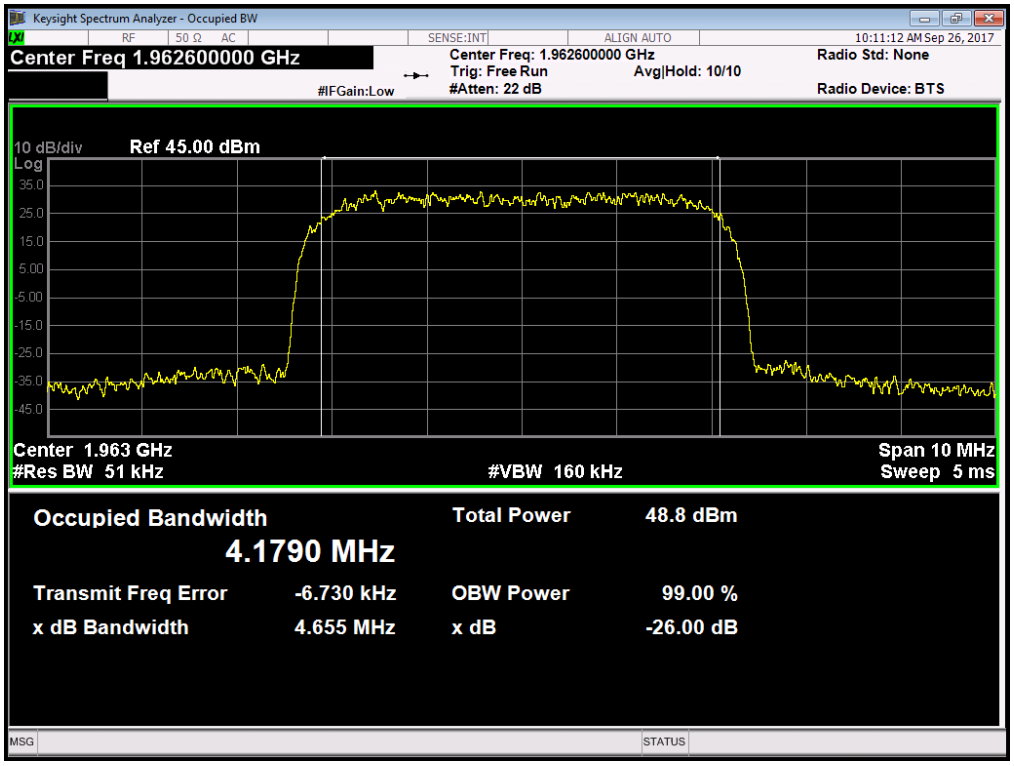
99% Occupied Bandwidth for IC requirement

Antenna	Modulation / Bandwidth	Occupied Bandwidth (MHz)		
		Channel Position B 1932.4 MHz	Channel Position M 1962.6 MHz	Channel Position T 1992.6 MHz
A	16QAM/ 5.0 MHz	4.18	4.18	4.19
	64QAM/ 5.0 MHz	4.19	4.18	4.17
B	16QAM/ 5.0 MHz	4.17	4.16	4.17
	64QAM/ 5.0 MHz	4.14	4.13	4.20

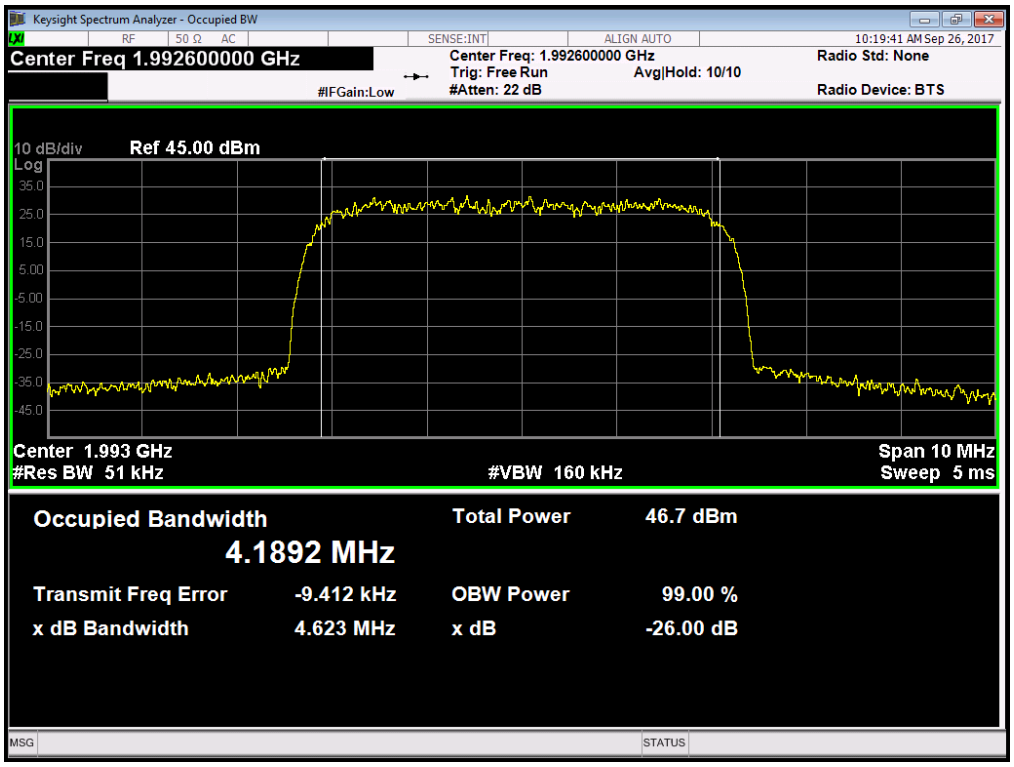
Port A, 16QAM/5.0 MHz Channel Position B



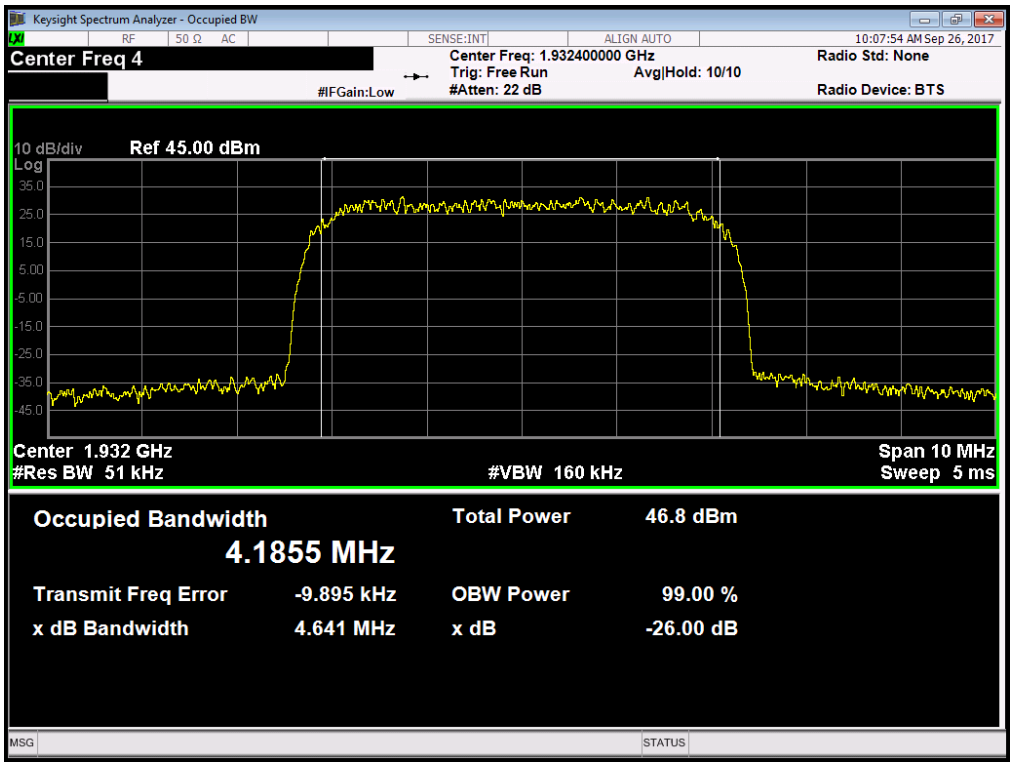
Port A, 16QAM/5.0 MHz Channel Position M



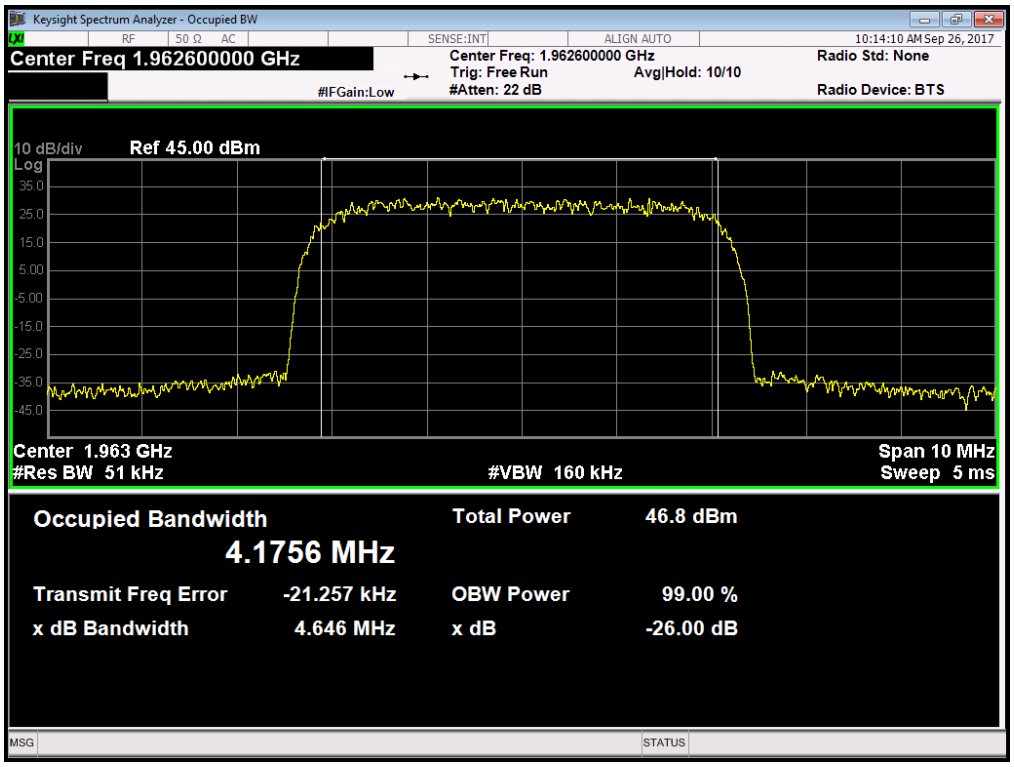
Port A, 16QAM/5.0 MHz Channel Position T



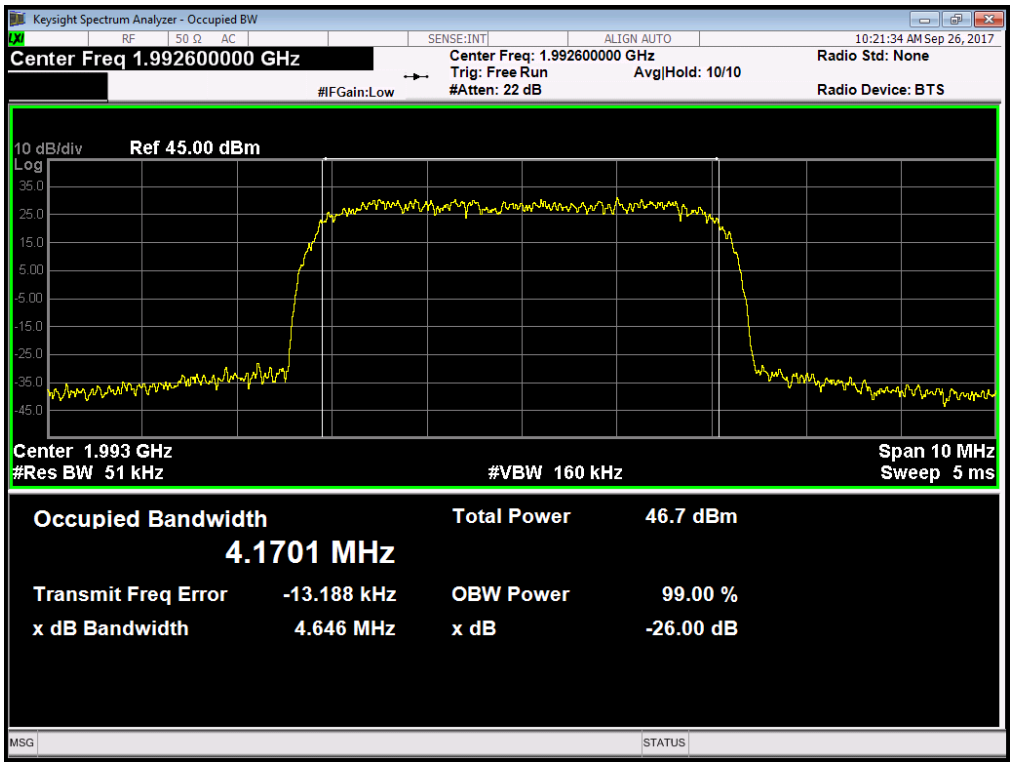
Port A, 64QAM/5.0 MHz Channel Position B



Port A, 64QAM/5.0 MHz Channel Position M



Port A, 64QAM/5.0 MHz Channel Position T



Configuration L-MIMO-1C

-26dBc Occupied Bandwidth for FCC requirement

Antenna	Modulation / Bandwidth	Occupied Bandwidth (MHz)		
		Channel Position B	Channel Position M	Channel Position T
A	QPSK/ 1.4 MHz	1.24	1.24	1.24
	QPSK/ 3.0 MHz	2.87	2.86	2.82
	QPSK/ 5.0 MHz	4.74	4.74	4.75
	QPSK/ 10.0 MHz	9.35	9.36	9.39
	QPSK/ 15.0 MHz	13.98	14.06	13.94
	QPSK/ 20.0 MHz	18.72	18.66	18.63
B	QPSK/ 1.4 MHz	1.22	1.24	1.22
	QPSK/ 3.0 MHz	2.83	2.82	2.83
	QPSK/ 5.0 MHz	4.66	4.67	4.69
	QPSK/ 10.0 MHz	9.32	9.44	9.42
	QPSK/ 15.0 MHz	13.92	13.92	13.93
	QPSK/ 20.0 MHz	18.60	18.46	18.59

-26dBc Occupied Bandwidth for FCC requirement

Antenna	Bandwidth	Occupied Bandwidth (MHz)		
		Modulation 16QAM/ Channel Position M	Modulation 64QAM/ Channel Position M	Modulation 256QAM/ Channel Position M
A	1.4 MHz	1.21	1.22	1.21
	3.0 MHz	2.82	2.85	2.82
	5.0 MHz	4.65	4.73	4.66
	10.0 MHz	9.24	9.32	9.25
	15.0 MHz	13.85	14.15	14.15
	20.0 MHz	18.72	18.49	18.53
B	1.4 MHz	1.23	1.19	1.21
	3.0 MHz	2.84	2.86	2.83
	5.0 MHz	4.69	4.74	4.67
	10.0 MHz	9.35	9.30	9.36
	15.0 MHz	13.88	13.91	13.84
	20.0 MHz	18.64	18.64	18.45

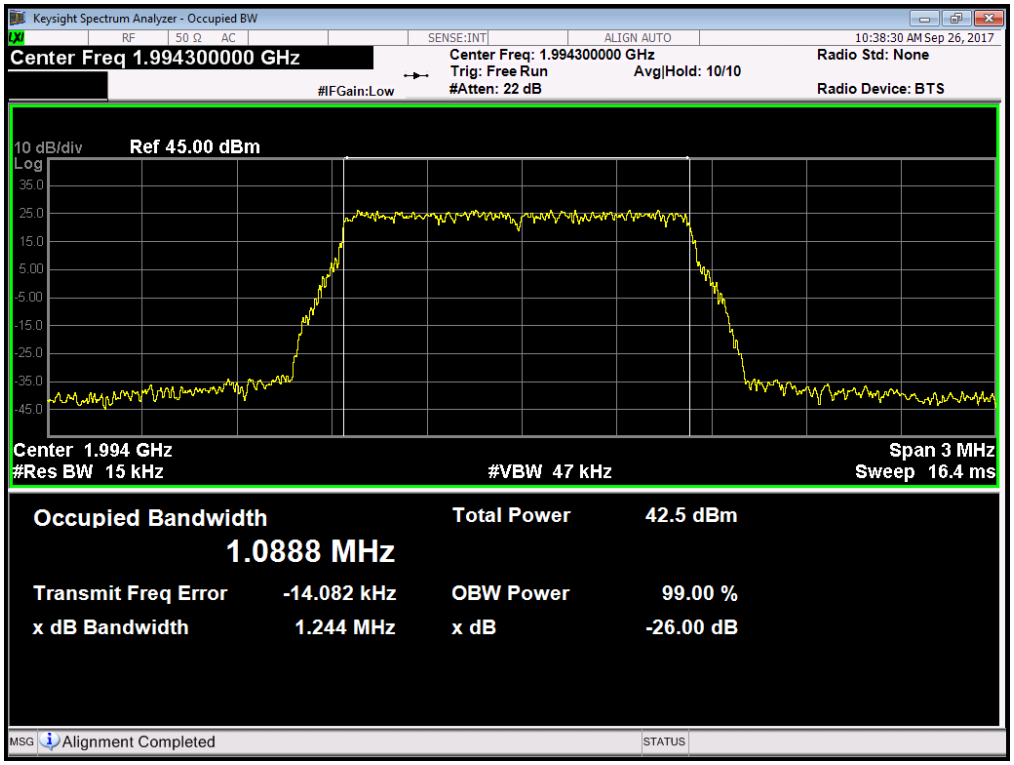
99% Occupied Bandwidth for IC requirement

Antenna	Modulation / Bandwidth	Occupied Bandwidth (MHz)		
		Channel Position B	Channel Position M	Channel Position T
A	QPSK/ 1.4 MHz	1.09	1.09	1.09
	QPSK/ 3.0 MHz	2.69	2.69	2.69
	QPSK/ 5.0 MHz	4.49	4.48	4.48
	QPSK/ 10.0 MHz	8.95	8.91	8.94
	QPSK/ 15.0 MHz	13.43	13.42	13.39
	QPSK/ 20.0 MHz	17.83	17.77	17.82
B	QPSK/ 1.4 MHz	1.09	1.09	1.09
	QPSK/ 3.0 MHz	2.69	2.70	2.69
	QPSK/ 5.0 MHz	4.47	4.46	4.46
	QPSK/ 10.0 MHz	8.95	8.95	8.92
	QPSK/ 15.0 MHz	13.37	13.36	13.40
	QPSK/ 20.0 MHz	17.86	17.84	17.83

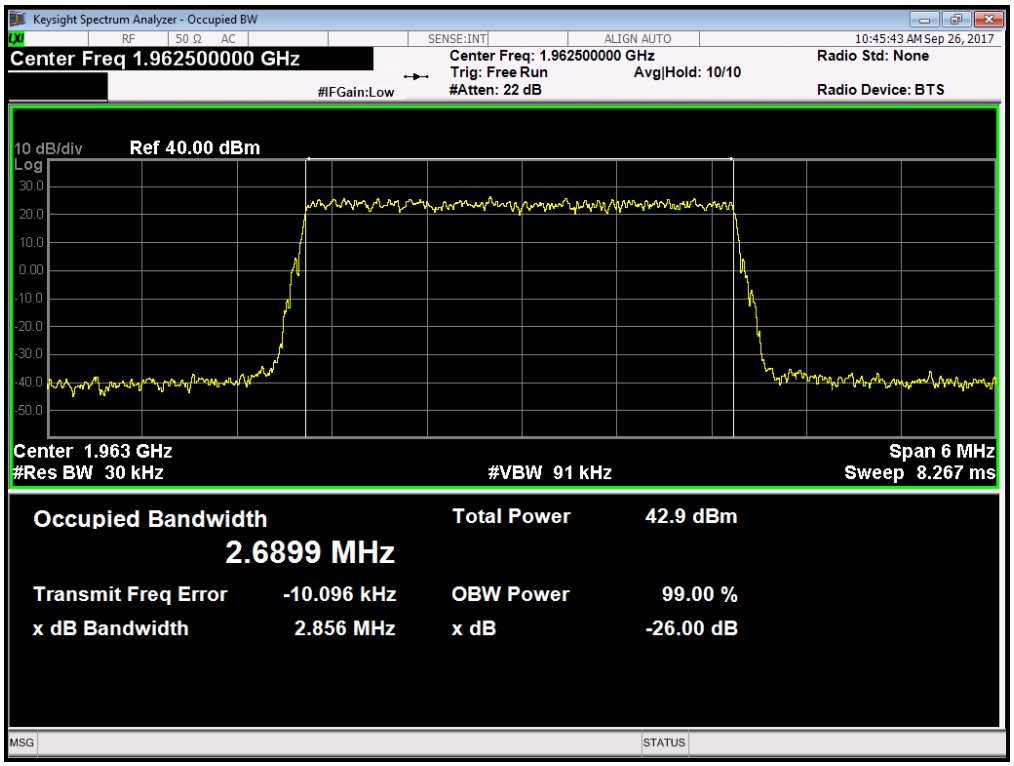
99% Occupied Bandwidth for IC requirement

Antenna	Bandwidth	Occupied Bandwidth (MHz)		
		Modulation 16QAM/ Channel Position M	Modulation 64QAM/ Channel Position M	Modulation 256QAM/ Channel Position M
A	1.4 MHz	1.09	1.08	1.09
	3.0 MHz	2.70	2.69	2.68
	5.0 MHz	4.43	4.48	4.47
	10.0 MHz	8.94	8.92	8.95
	15.0 MHz	13.38	13.35	13.40
	20.0 MHz	17.75	17.83	17.85
B	1.4 MHz	1.09	1.09	1.09
	3.0 MHz	2.68	2.69	2.68
	5.0 MHz	4.44	4.47	4.48
	10.0 MHz	8.90	8.90	8.93
	15.0 MHz	13.39	13.35	13.37
	20.0 MHz	17.81	17.84	17.87

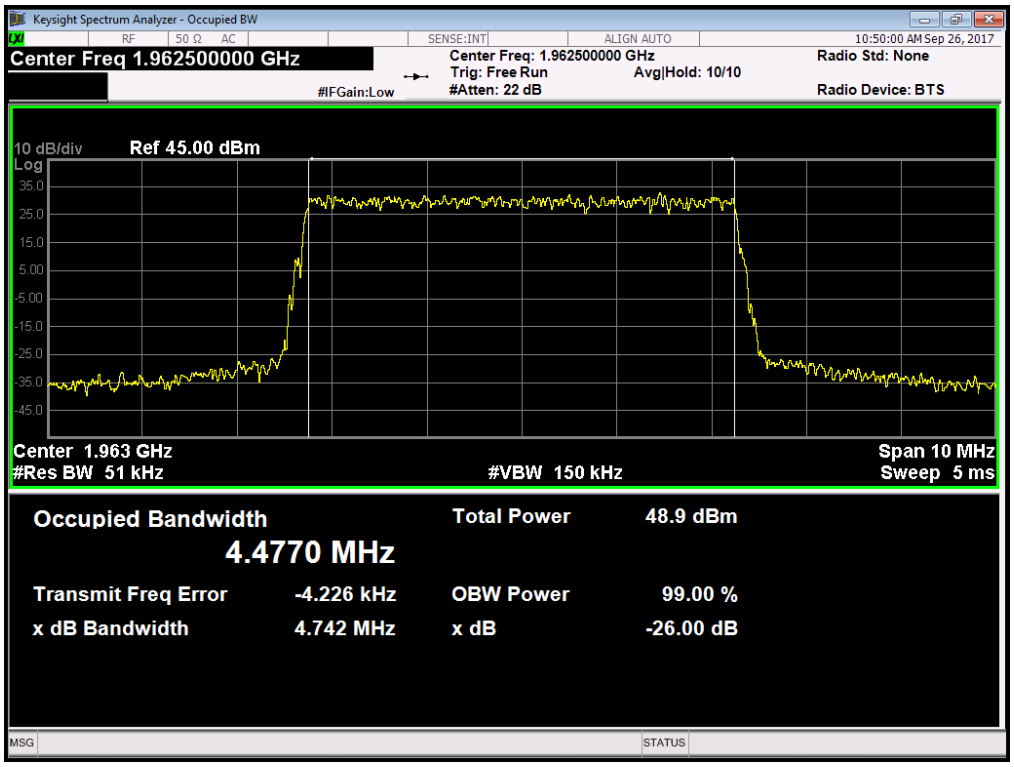
Port A, QPSK 1.4M Channel position T



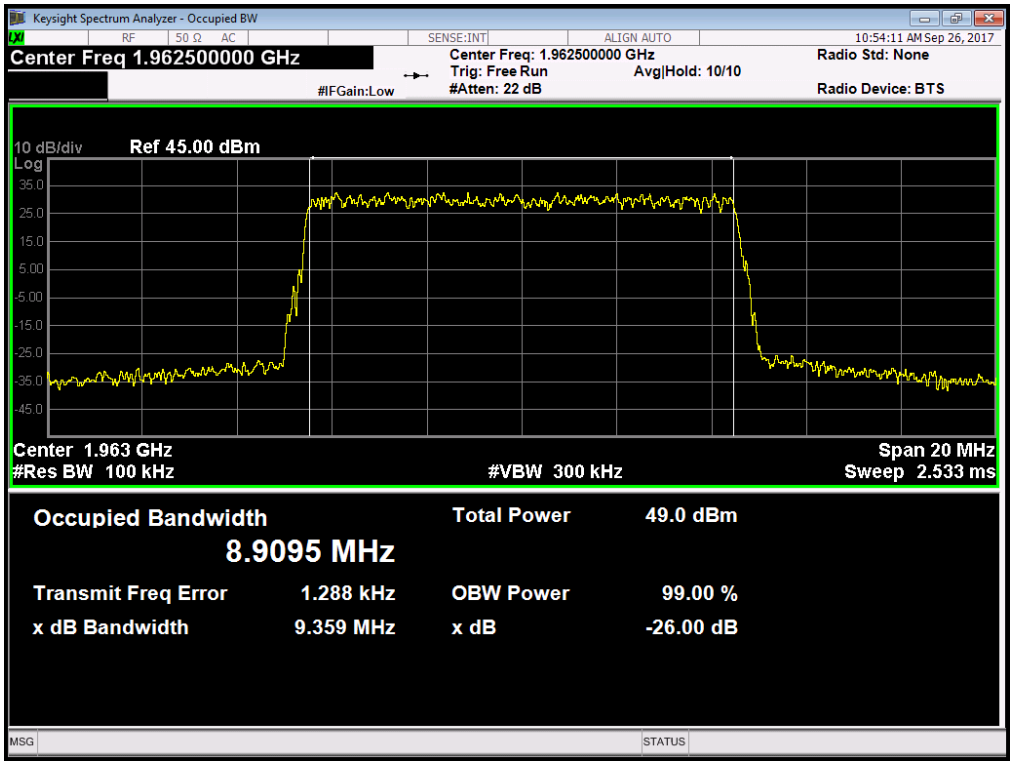
Port A, QPSK 3.0M Channel Position M



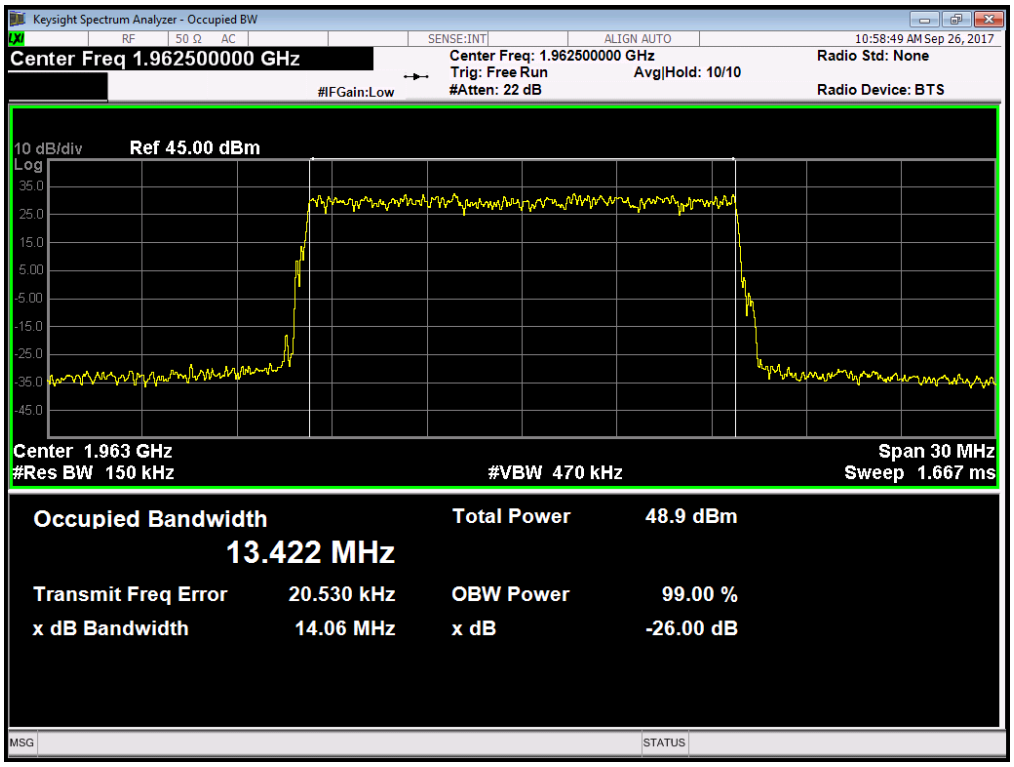
Port A, QPSK 5.0M Channel Position M



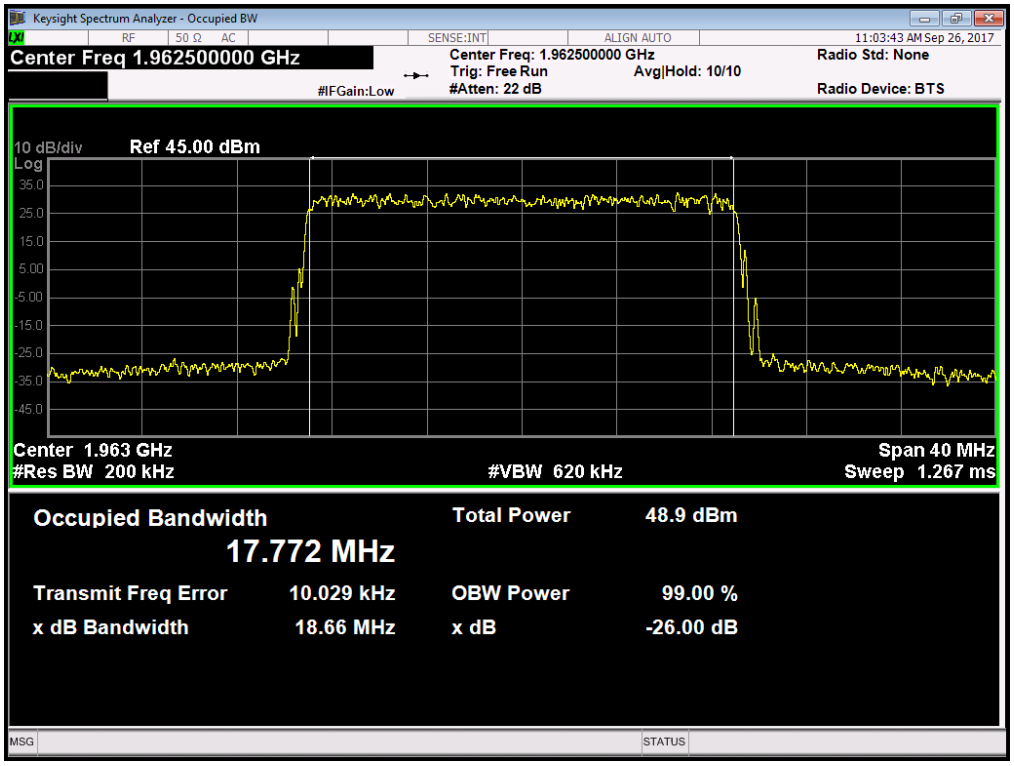
Port A, QPSK 10.0M Channel Position M



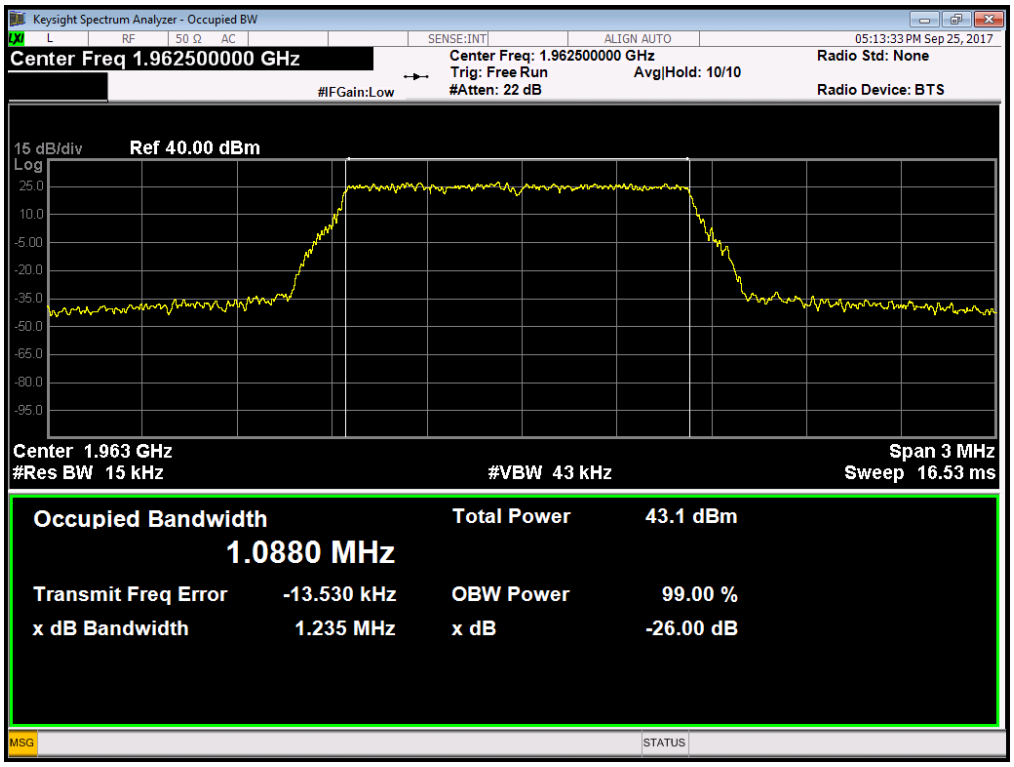
Port A, QPSK 15.0M Channel Position M



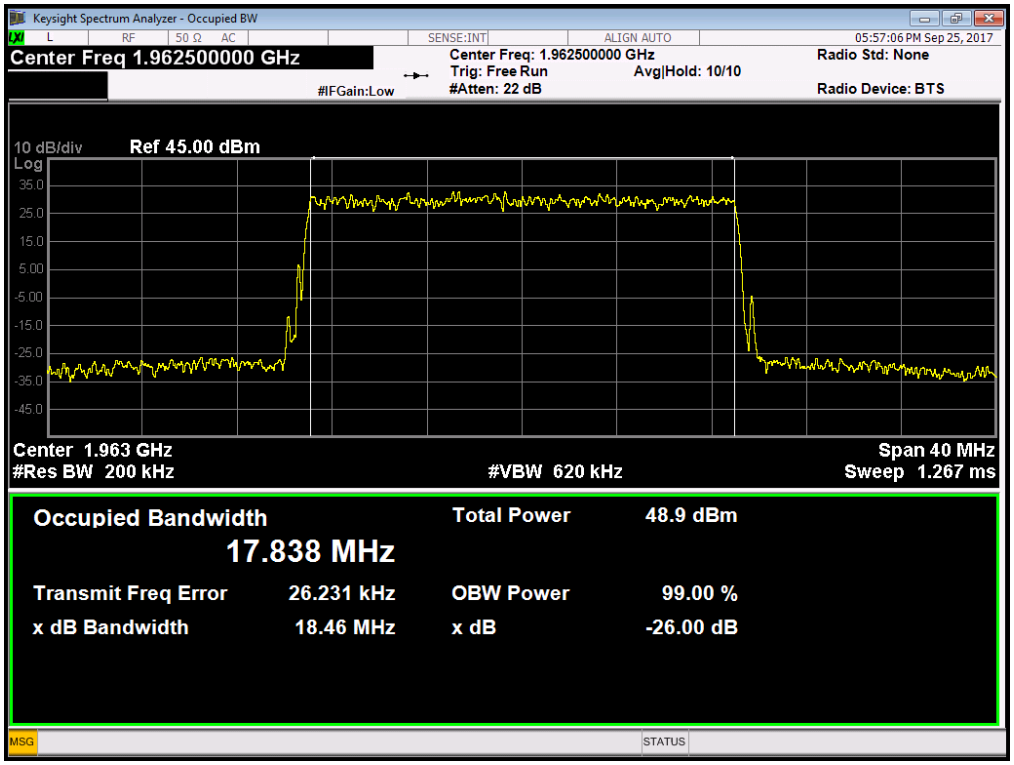
Port A, QPSK 20.0M Channel Position M



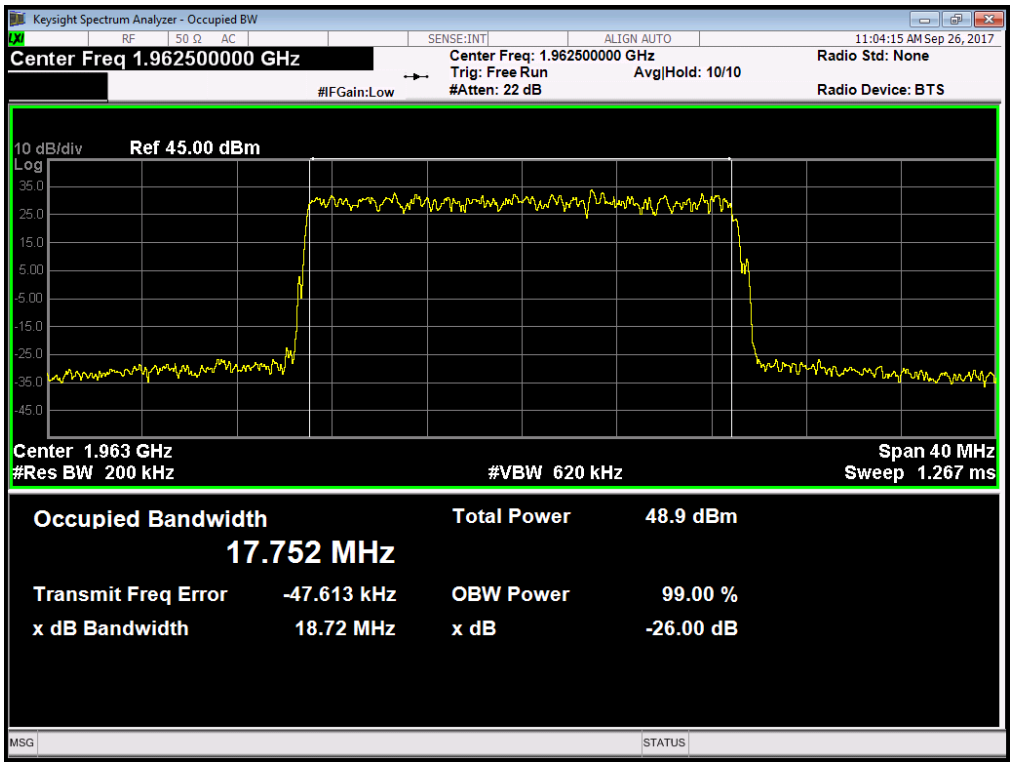
Port B, QPSK 1.4M Channel Position M



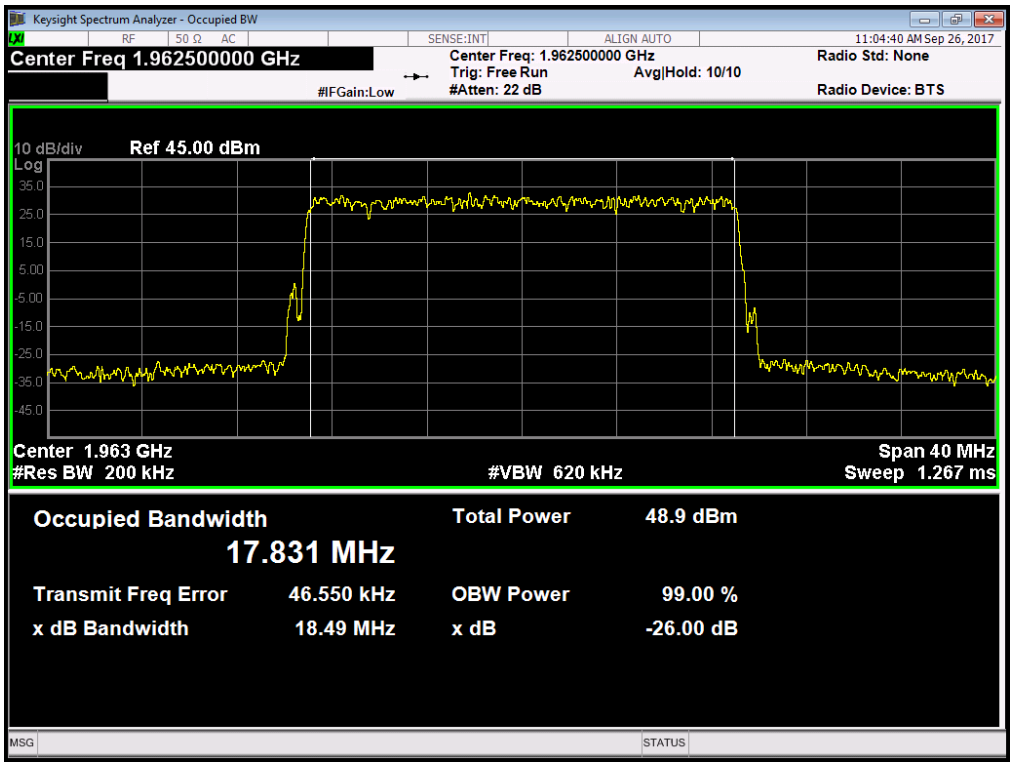
Port B, QPSK 20.0M Channel Position M



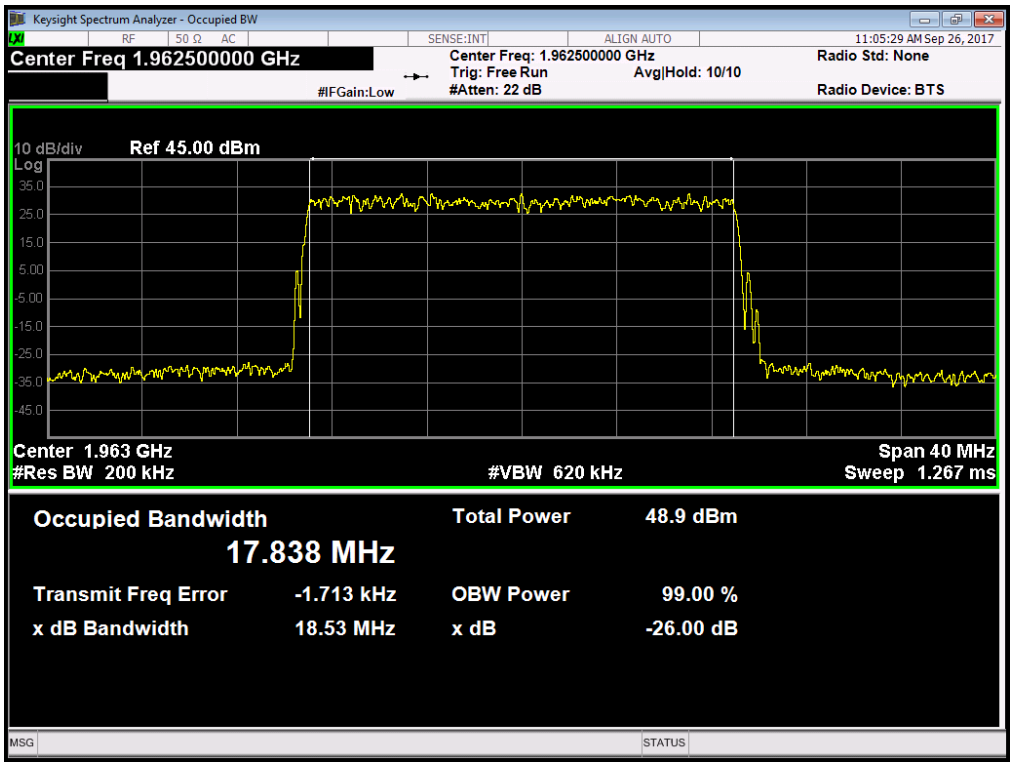
Port A, 16QAM 20.0M Channel Position M



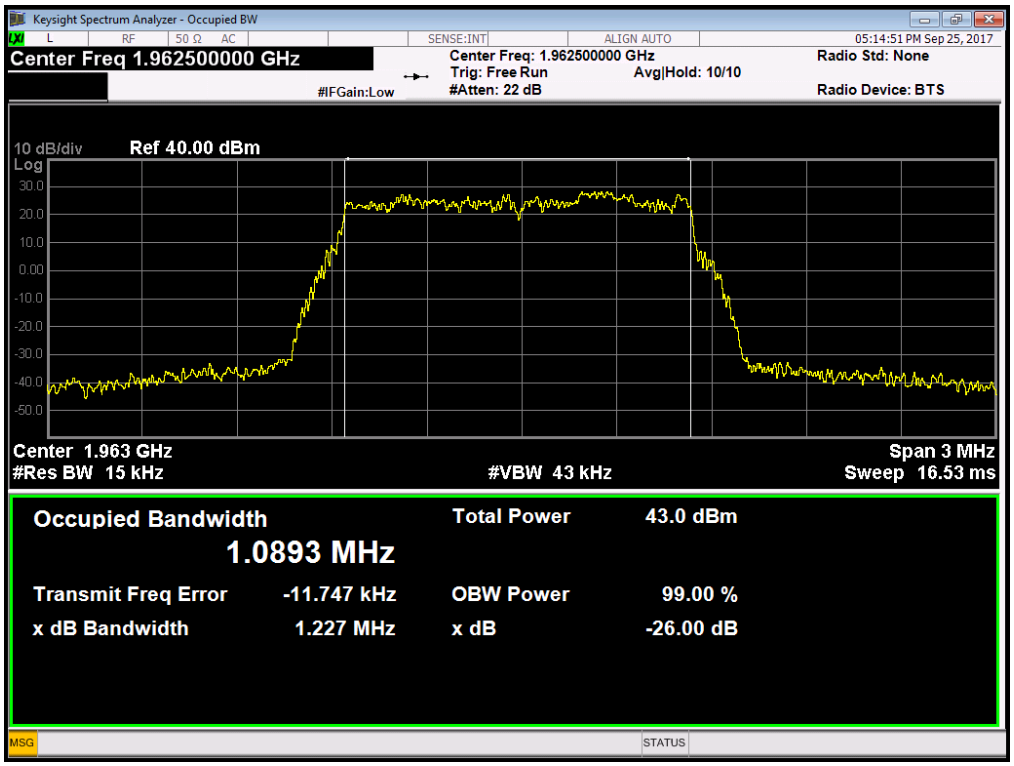
Port A, 64QAM 20.0M Channel Position M



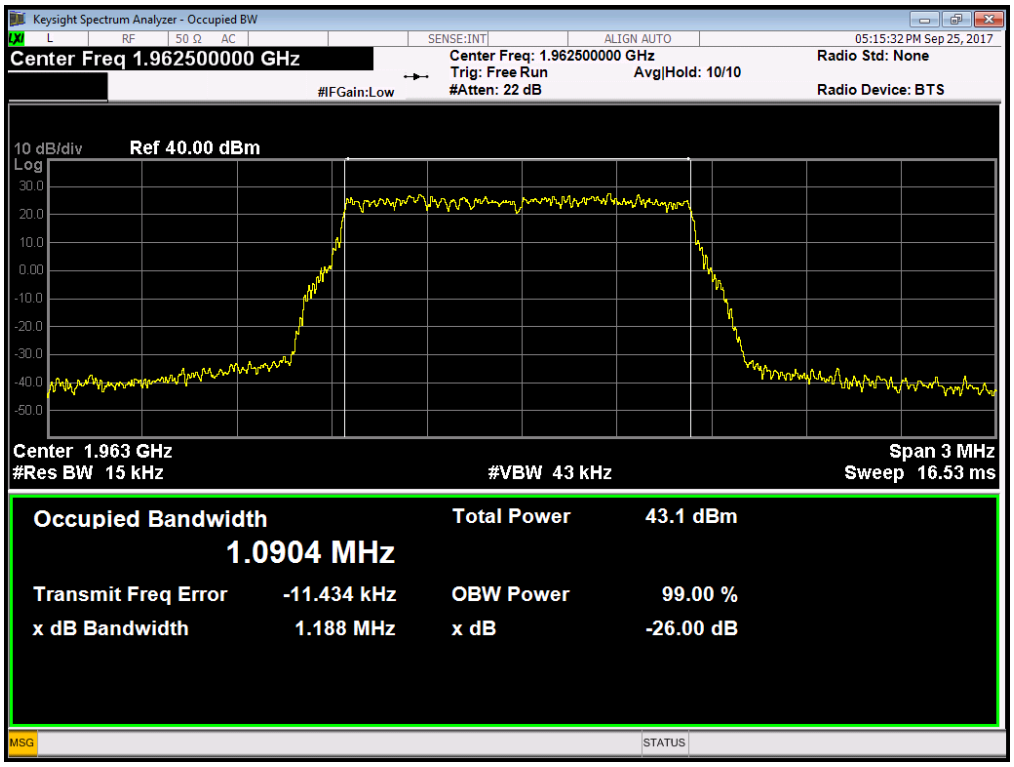
Port A, 256QAM 20.0M Channel Position M



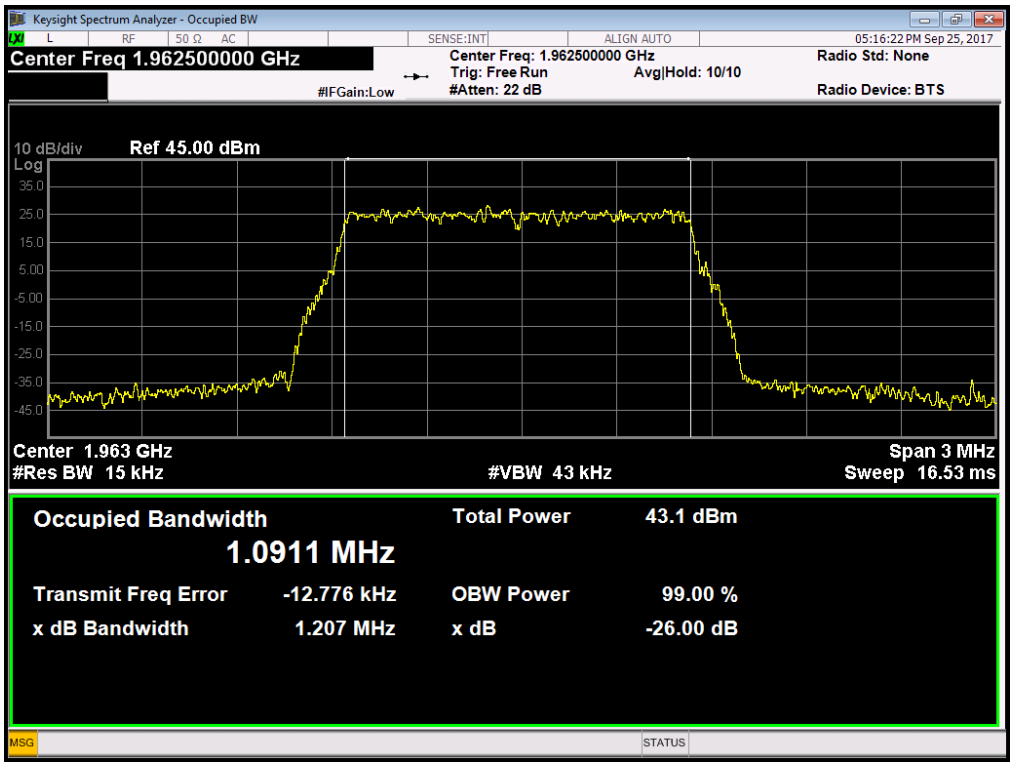
Port B, 16QAM 1.4M Channel Position M



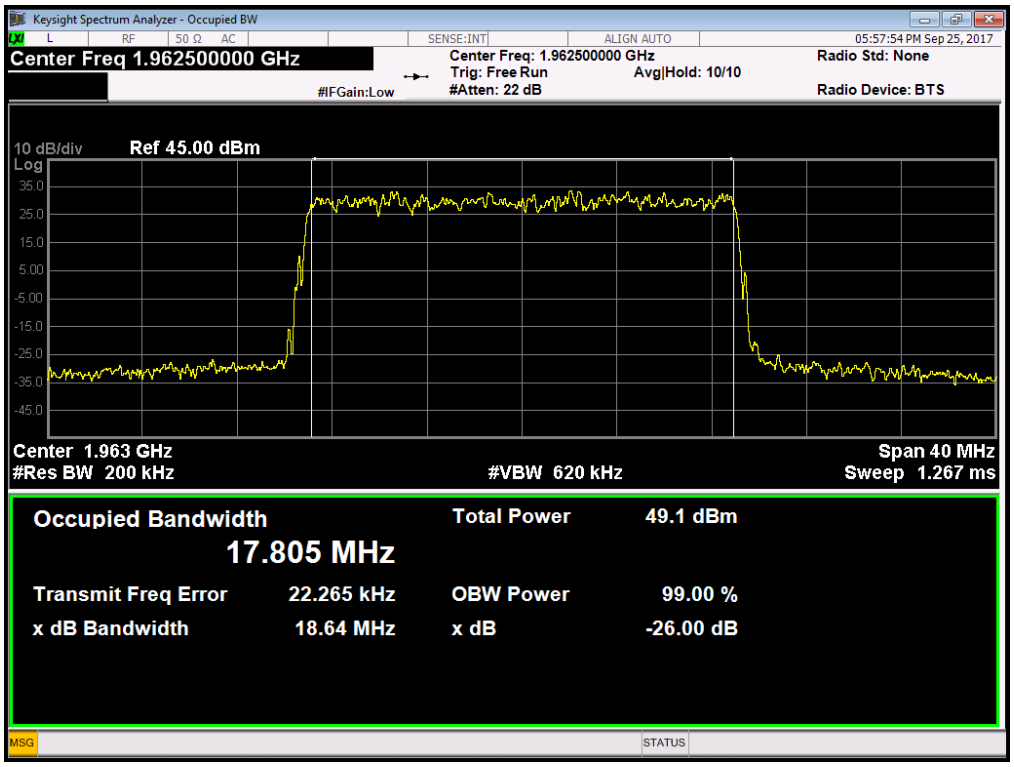
Port B, 64QAM 1.4M Channel Position M



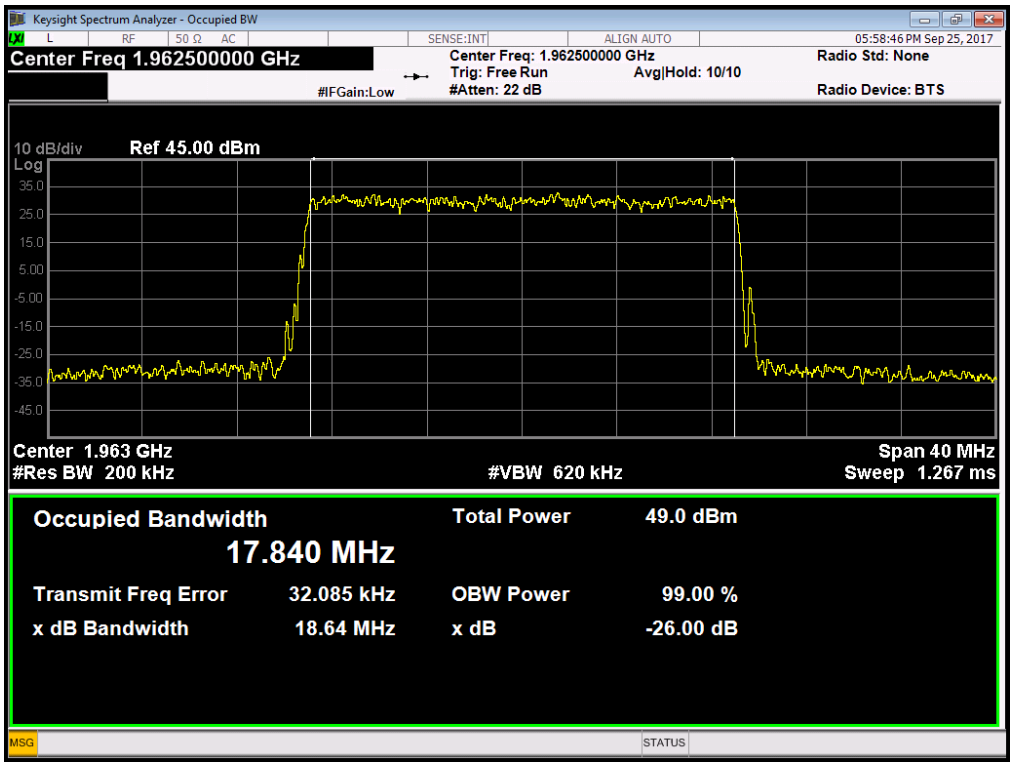
Port B, 256QAM 1.4M Channel Position M



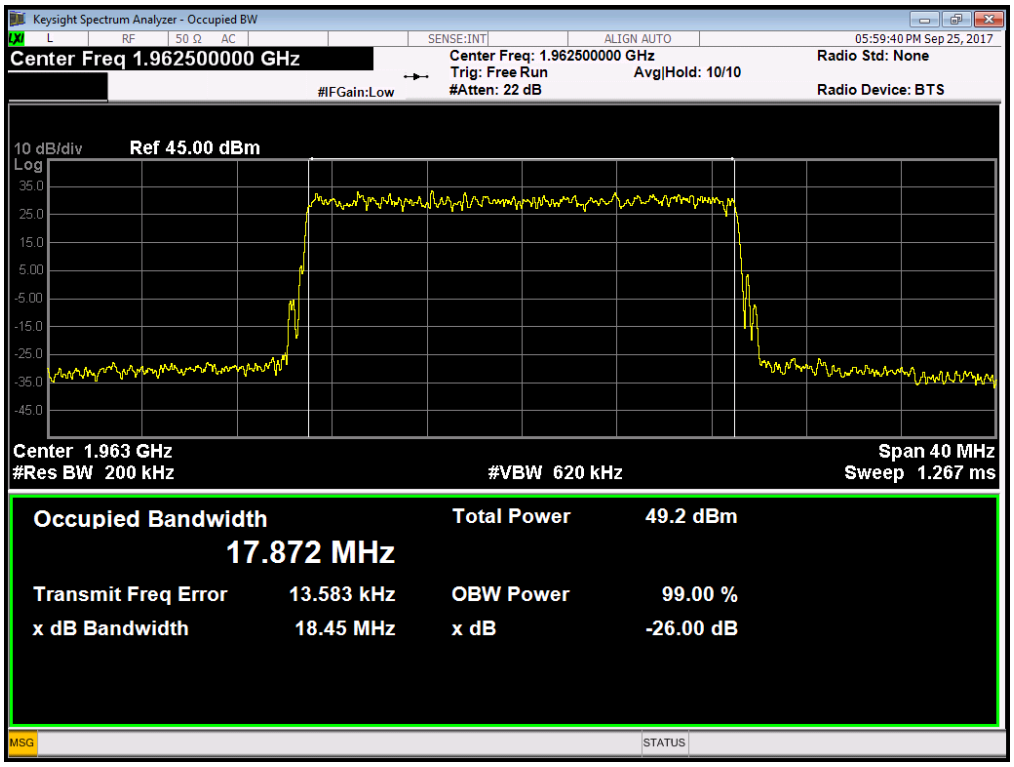
Port B, 16QAM 20.0M Channel Position M



Port B, 64QAM 20.0M Channel Position M



Port B, 256QAM 20.0M Channel Position M



Configuration NB-IoT

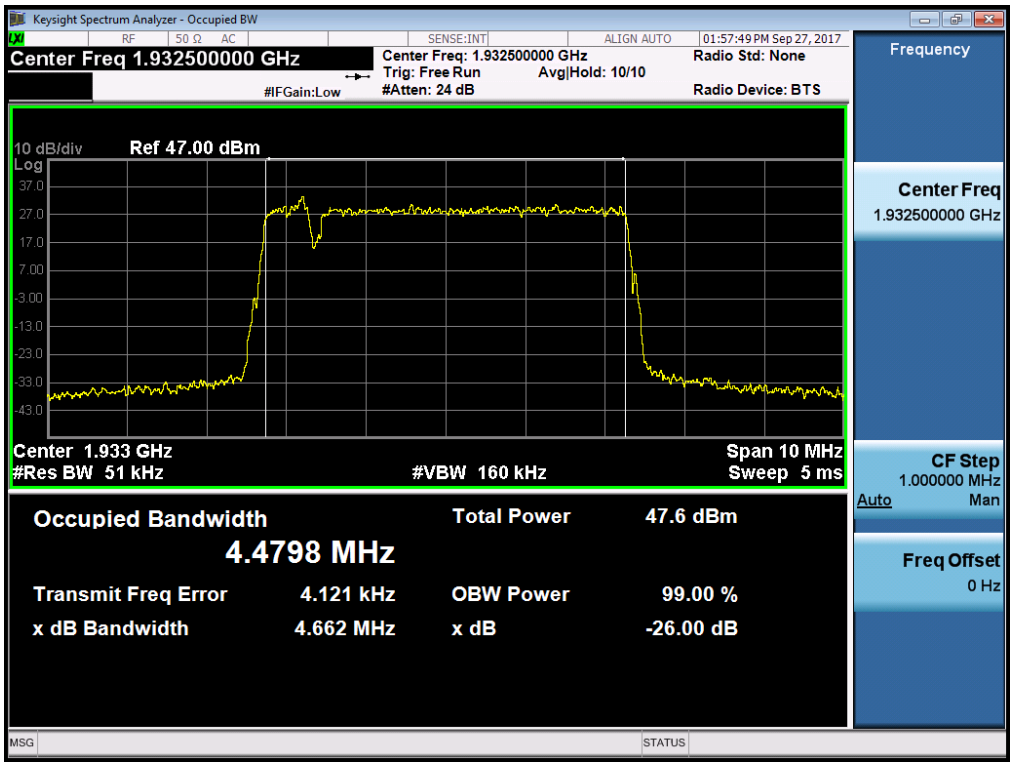
-26dBc Occupied Bandwidth for FCC requirement

Antenna	Modulation / Bandwidth	Occupied Bandwidth (MHz)		
		Channel Position B 1932.4 MHz	Channel Position M 1962.5 MHz	Channel Position T 1992.5 MHz
A	QPSK/ 5.0 MHz	4.66	4.63	4.72
	QPSK/ 20.0 MHz	18.58	18.45	18.50
B	QPSK/ 5.0 MHz	4.69	4.63	4.69
	QPSK/ 20.0 MHz	18.64	18.57	18.49

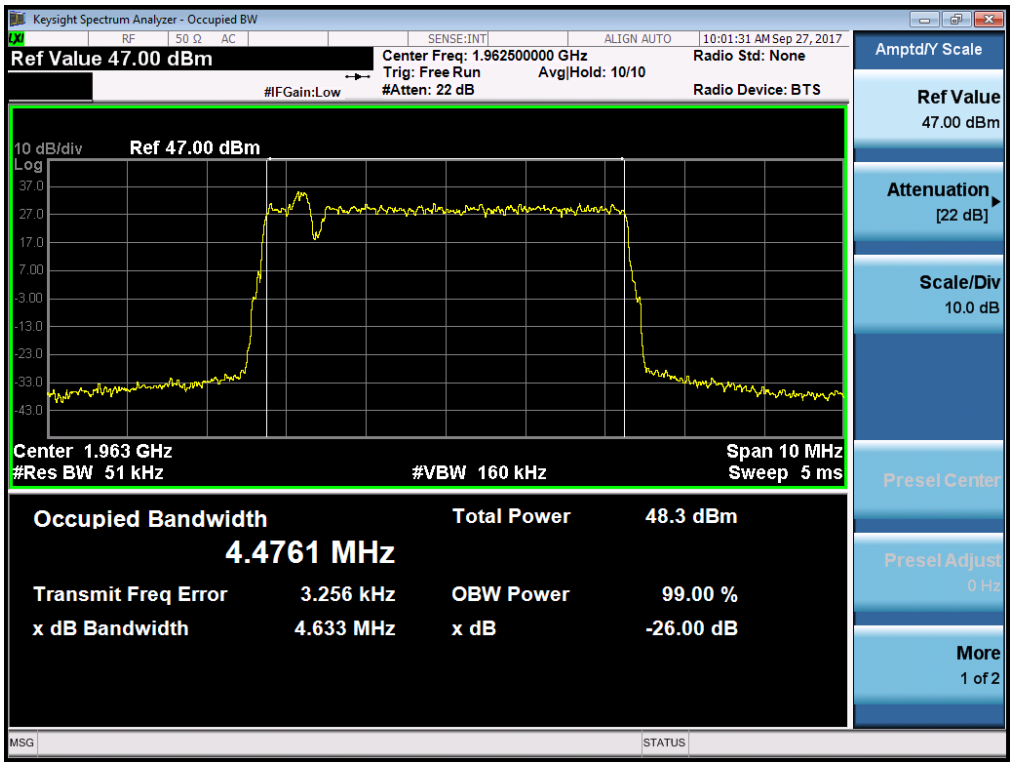
99% Occupied Bandwidth for IC requirement

Antenna	Modulation / Bandwidth	Occupied Bandwidth (MHz)		
		Channel Position B 1932.5 MHz	Channel Position M 1962.5 MHz	Channel Position T 1992.5 MHz
A	QPSK/ 5.0 MHz	4.48	4.48	4.47
	QPSK/ 20.0 MHz	17.79	17.89	17.85
B	QPSK/ 5.0 MHz	4.47	4.49	4.47
	QPSK/ 20.0 MHz	17.83	17.82	17.88

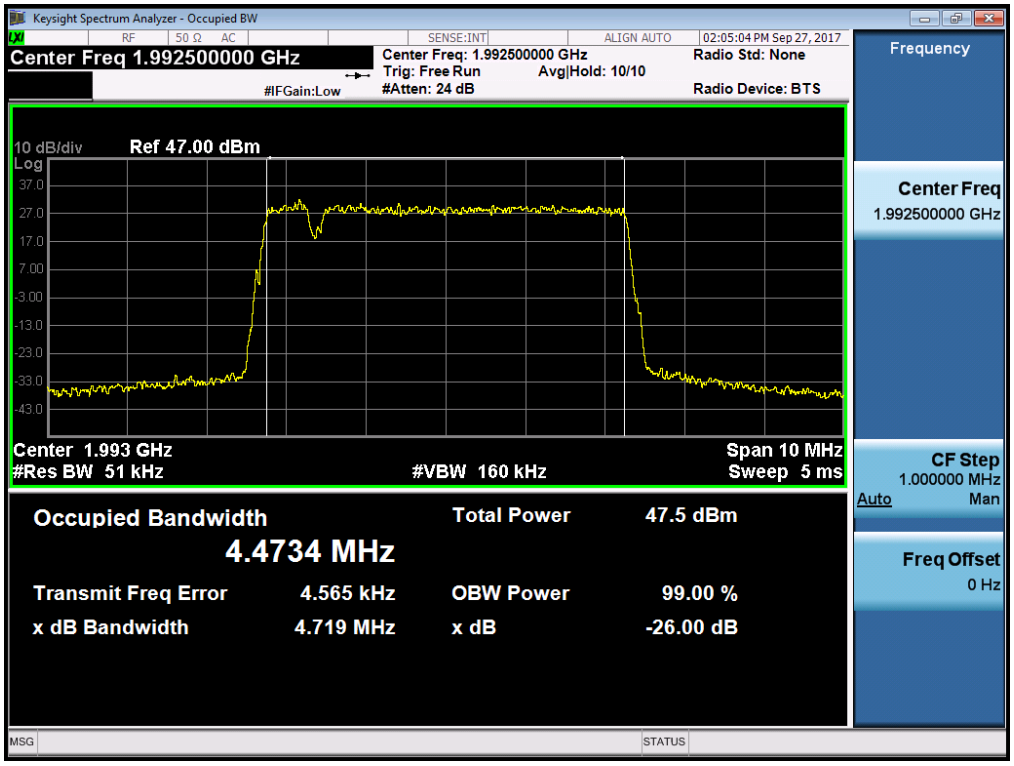
Port A, QPSK 5.0M Channel Position B



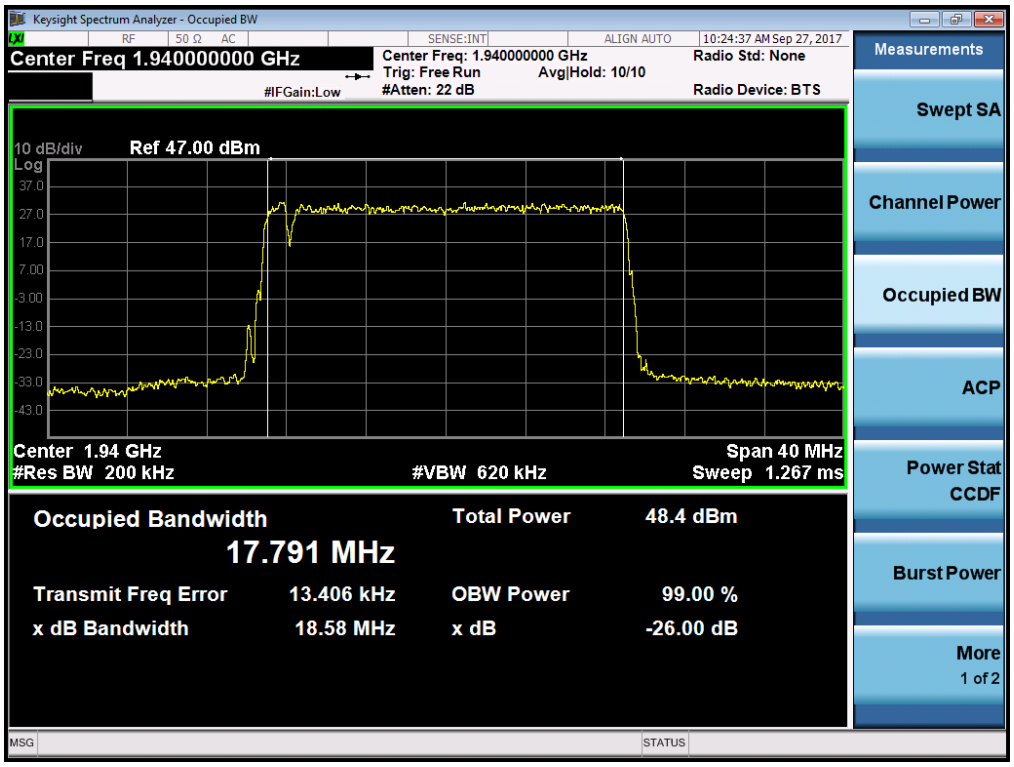
Port A, QPSK 5.0M Channel Position M



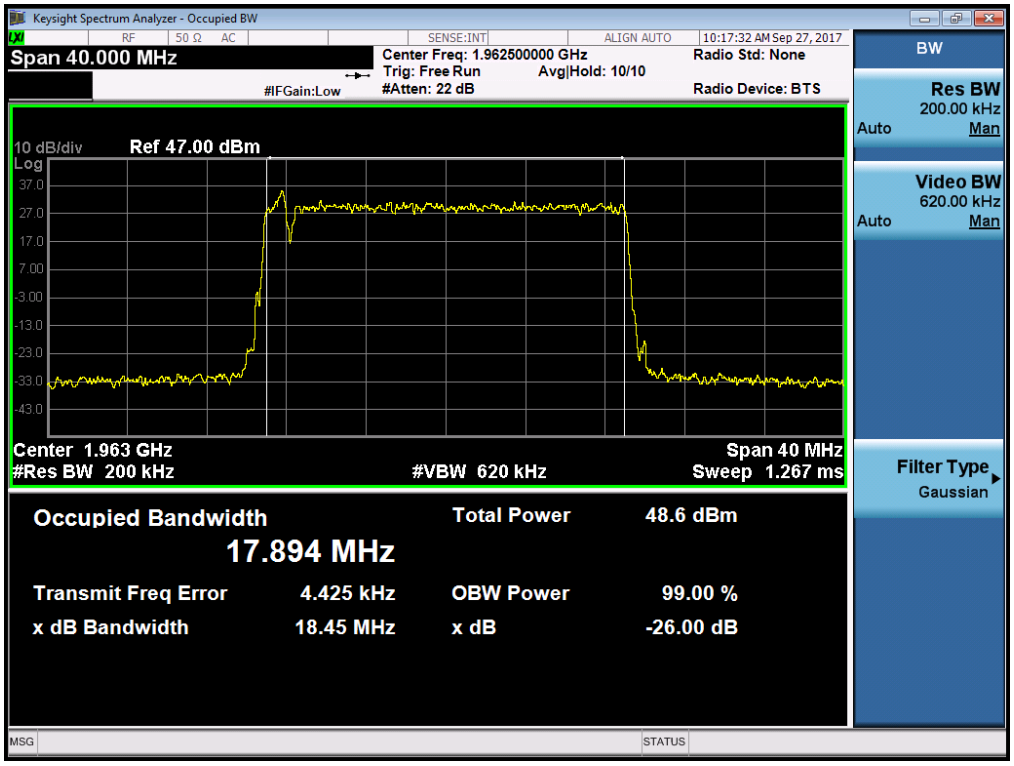
Port A, QPSK 5.0M Channel Position T



Port A, QPSK 20.0M Channel Position B

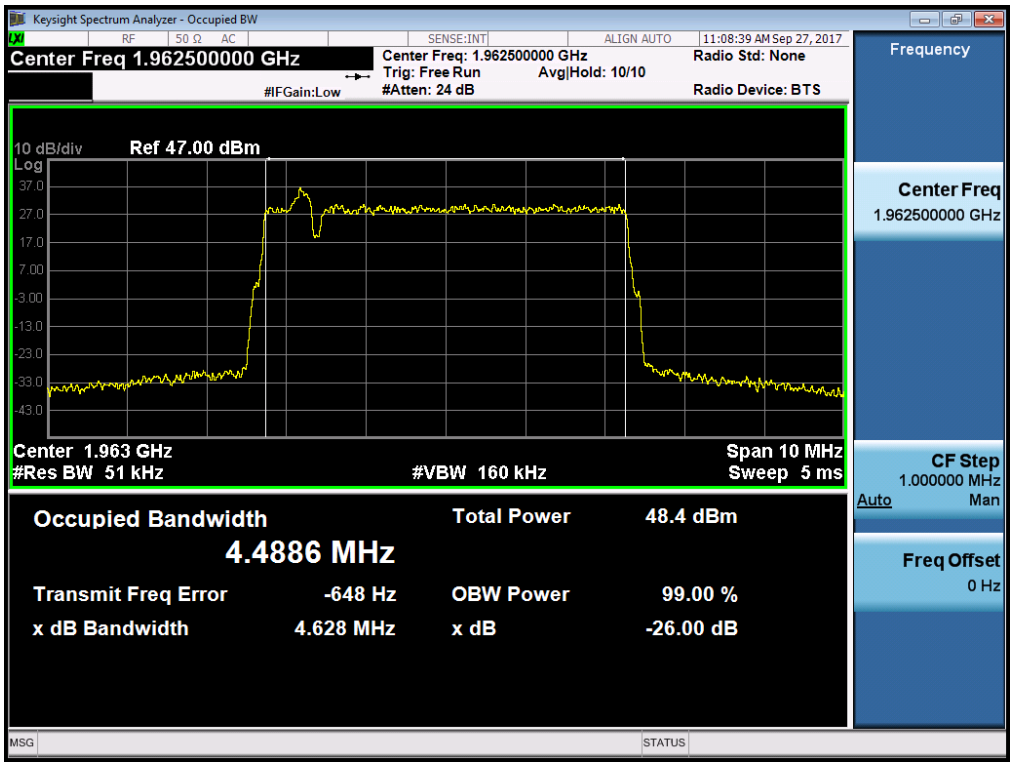


Port A, QPSK 20.0M Channel Position M



Port A, QPSK 20.0M Channel Position T

Port B, QPSK 5.0M Channel Position M



Port B, QPSK 20.0M Channel Position M

A.3 Spurious Emissions at Band Edge

A.3.1 Reference

FCC CFR 47 Part 2, Clause 2.1051
FCC CFR 47 Part 24, Clause 24.238 (b)
IC RSS-133, Clause 6.5

A.3.2 Method of measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10log(P) dB.

For MIMO mode configurations, the limit was adjusted with a correction of -3.01dB [10Log2] by using the Measure and Add 10Log(N) dB technique according to FCC KDB 662911 D01 Multiple Transmitter Output v02r01 accounting for simultaneous transmission from antenna ports RF A and RF B.

According to FCC rules, in the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed and a RBW of 1MHz for measurements of emissions > 1MHz away from the band edges. The limit was adjusted with -3.98dB [10Log(20/50)] to compensate for the reduce mesurement bandwidth 20KHz for emission in the 1MHz immediately outside and adjacent to the frequency block for WCDMA. The limit was adjusted with -13.01dB [10Log(50/1000)] to compensate for the reduce mesurement bandwidth 50KHz for emission more than 1MHz away from the band edges. For MIMO mode, the limit of -29.02dBm was used for emission more than 1MHz away from the band edges. For Non-MIMO mode, the limit of -26.01dBm was used for emission more than 1MHz away from the band edges. Spectrum analyser detector was set as RMS.

A.3.3 Measurement limit

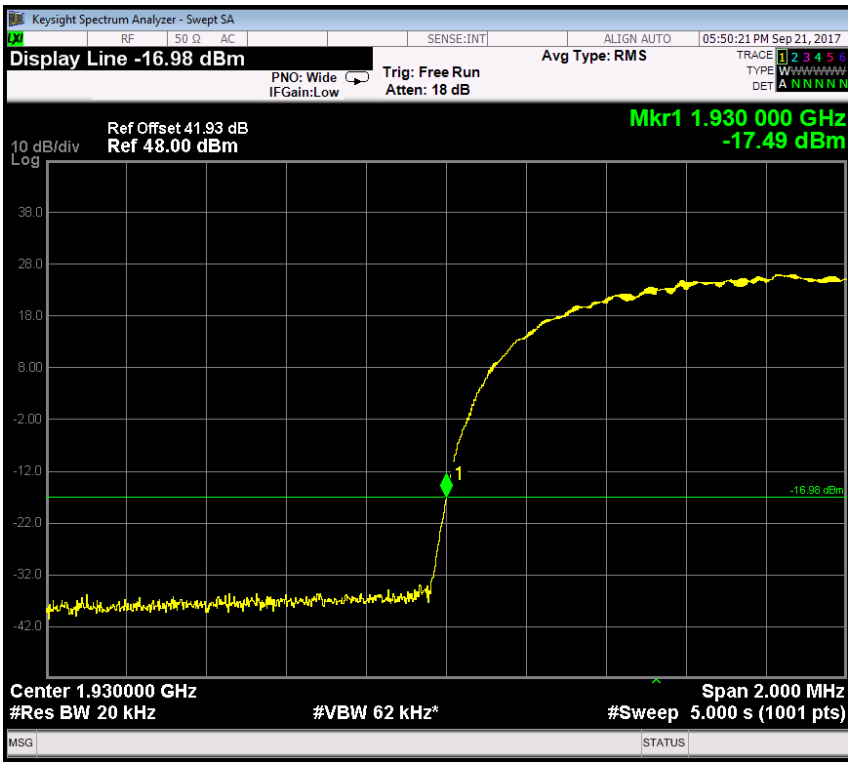
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10log(P) dB.

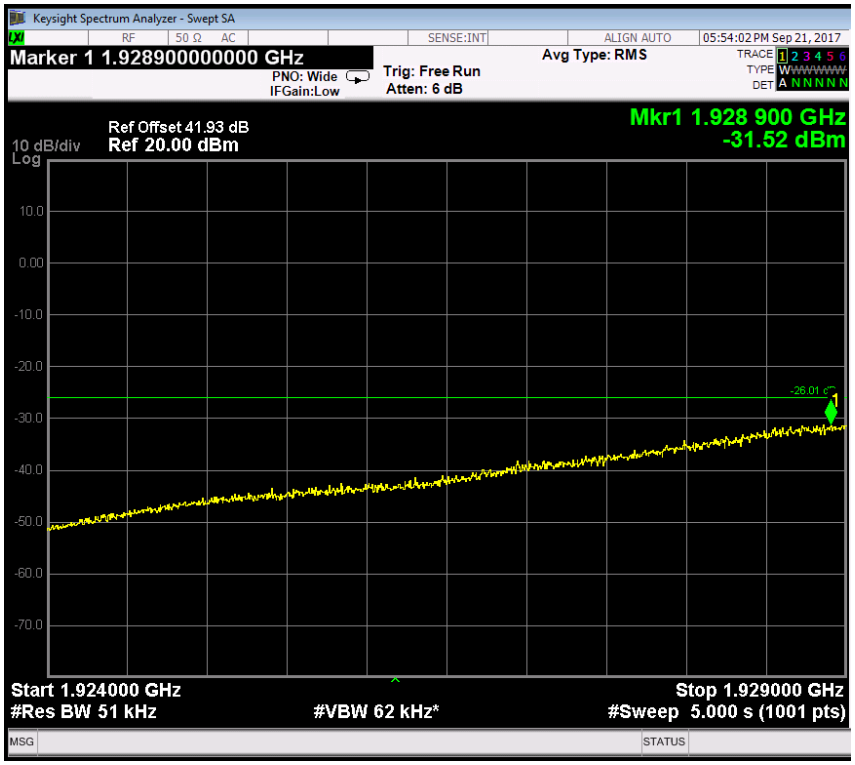
A.3.4 Measurement result

Configuration WCDMA-1C QPSK

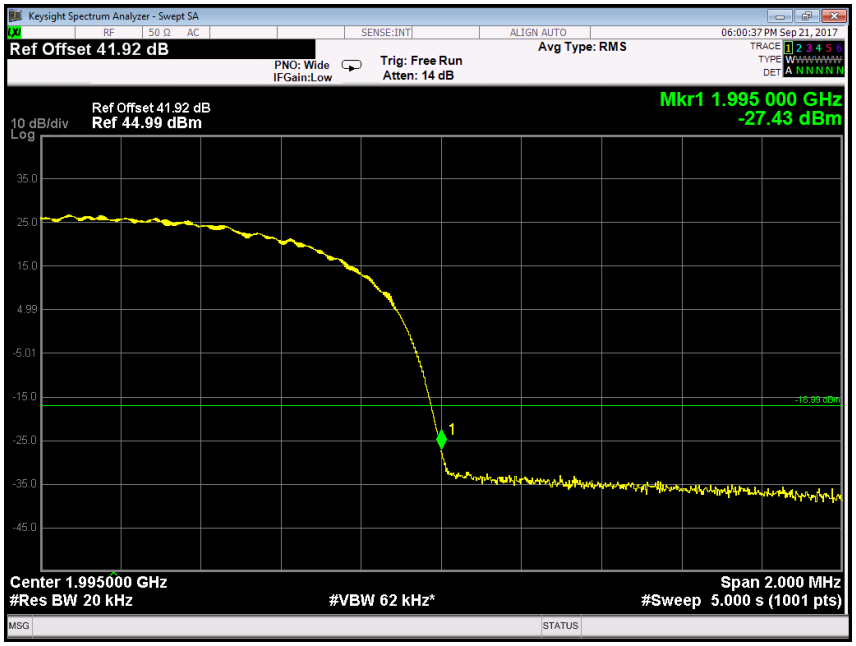
Band Edge Frequency	Channel Frequency	Channel Bandwidth	RBW(KHz)	Limit(dBm)
Channel Position B 1930.0MHz	1932.4MHz	5.0MHz	20	-16.98
Channel Position T 1995.0MHz	1992.6MHz	5.0MHz	20	-16.98

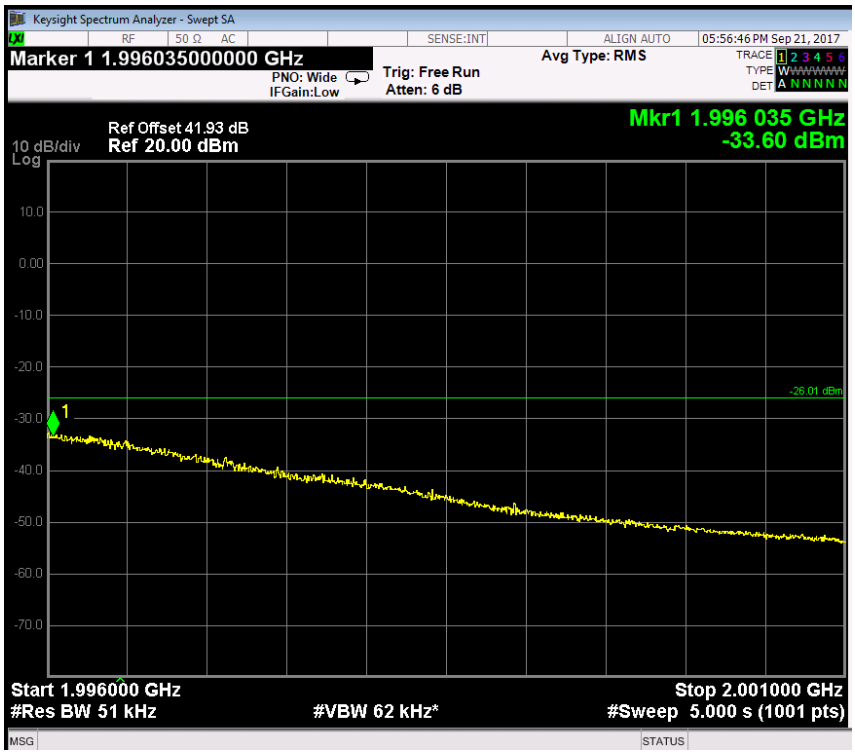
Port A, Channel Position B 1932.4MHz





Port A, Channel Position T 1992.6MHz

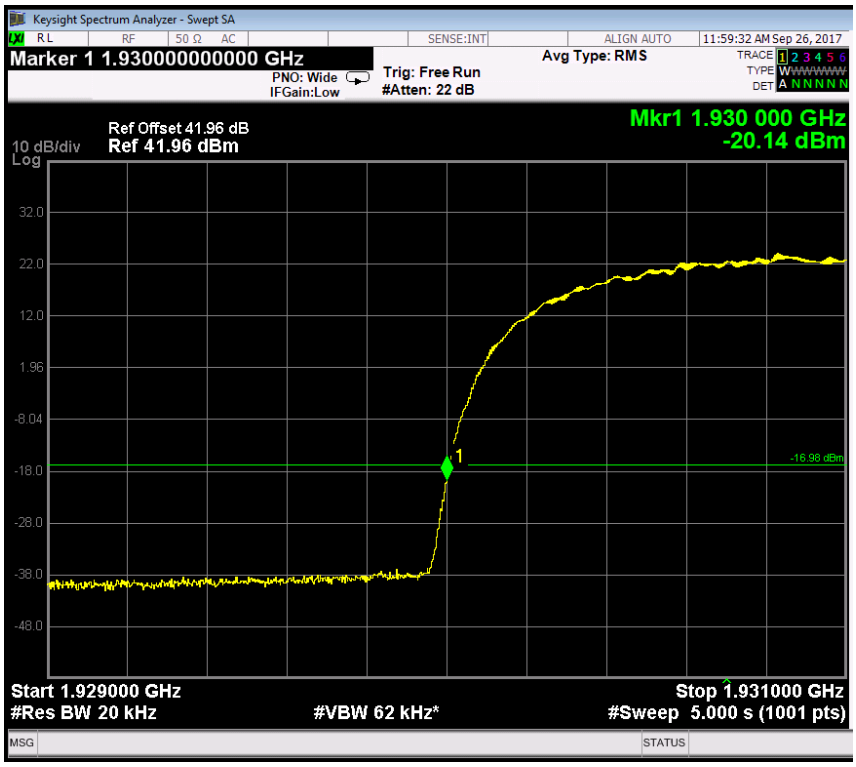


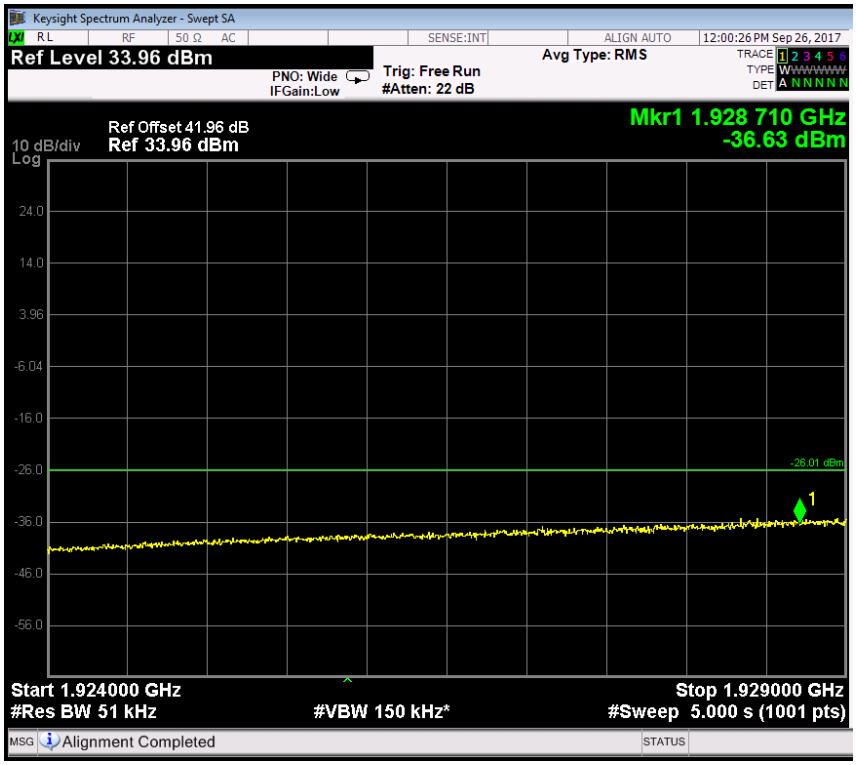


Configuration WCDMA-2C-BE QPSK

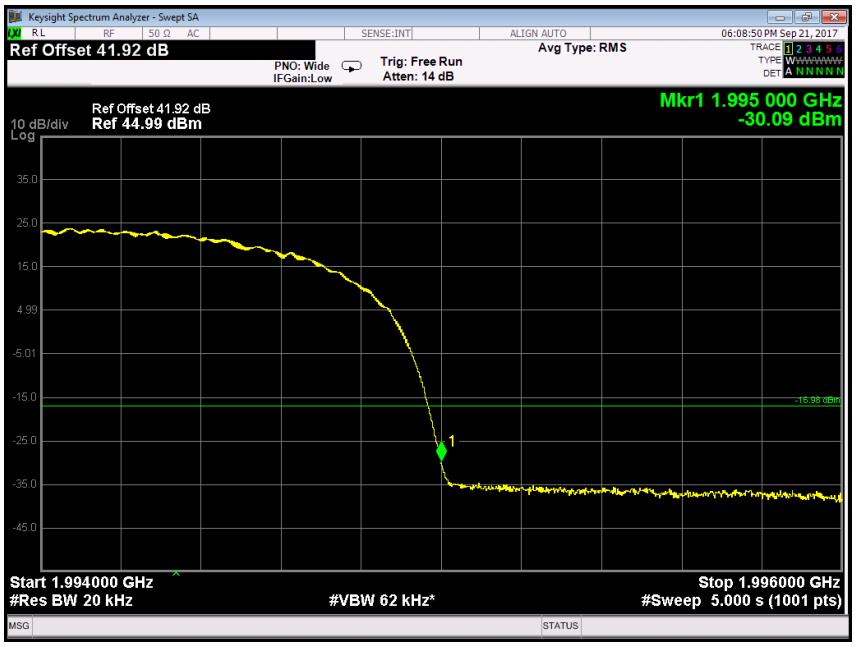
Band Edge Frequency	Channel Frequency	Channel Bandwidth	RBW (KHz)	Limit (dBm)
Channel Position B 1930.0MHz	1932.4MHz + 1937.4MHz	5.0MHz	20	16.98
Channel Position T 1995.0MHz	1987.6MHz + 1992.6MHz	5.0MHz	20	16.98

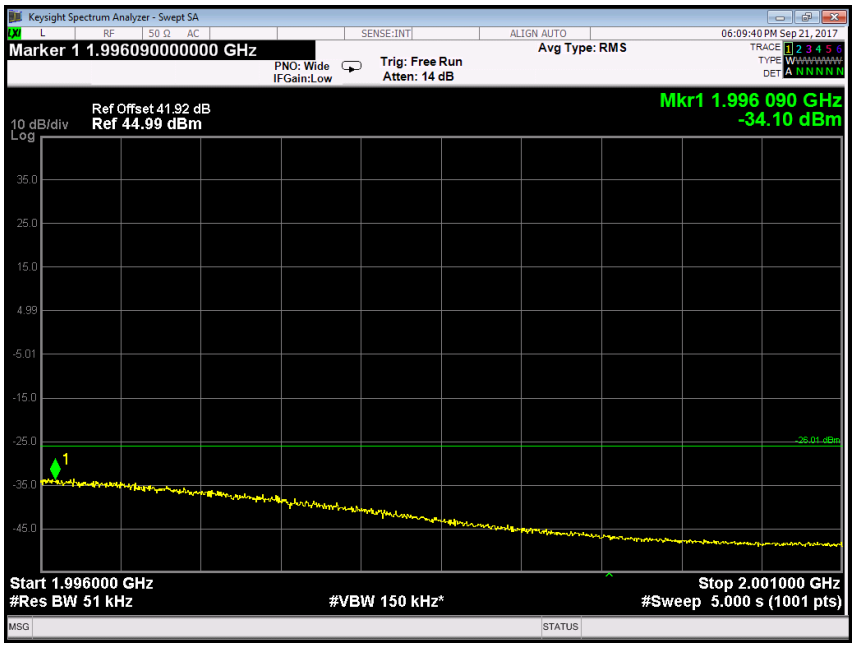
Port A, Channel Position B 1932.4MHz + 1937.4MHz





Port A, Channel Position T 1987.6MHz + 1992.6MHz

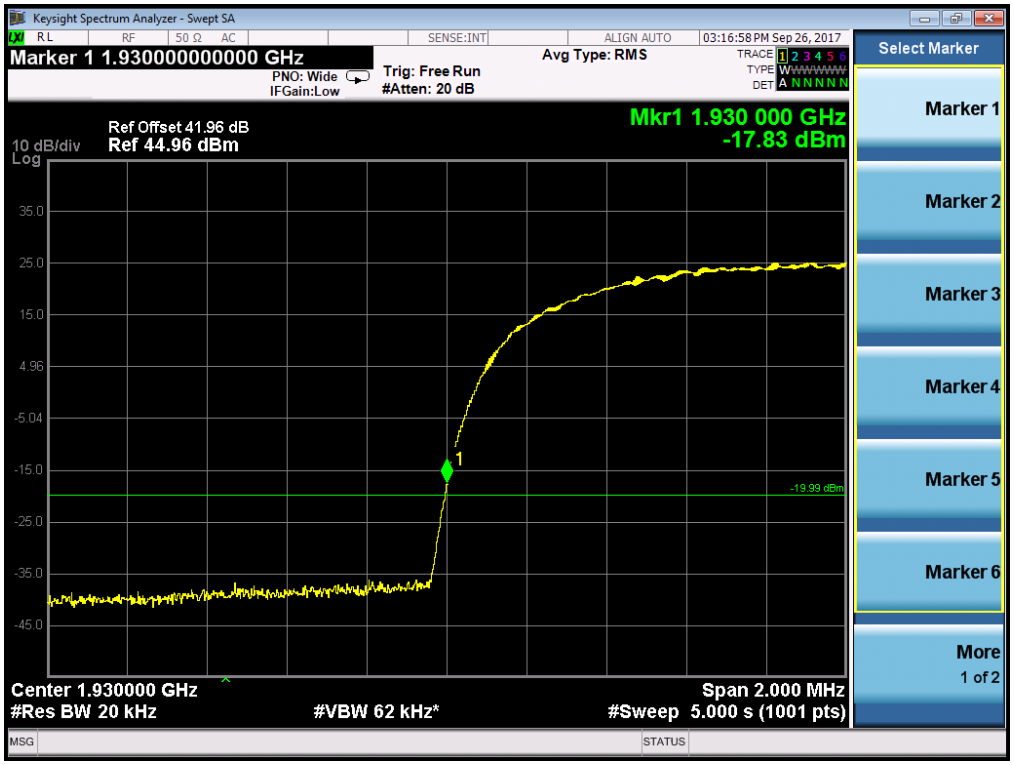




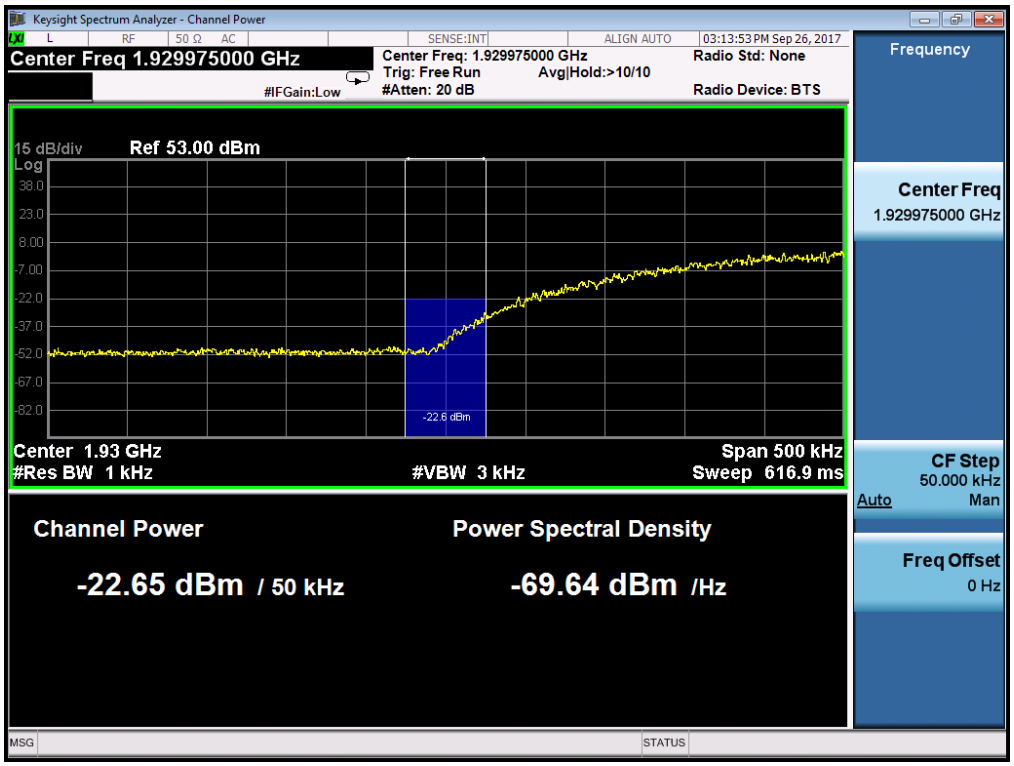
Configuration WCDMA-MIMO-1C

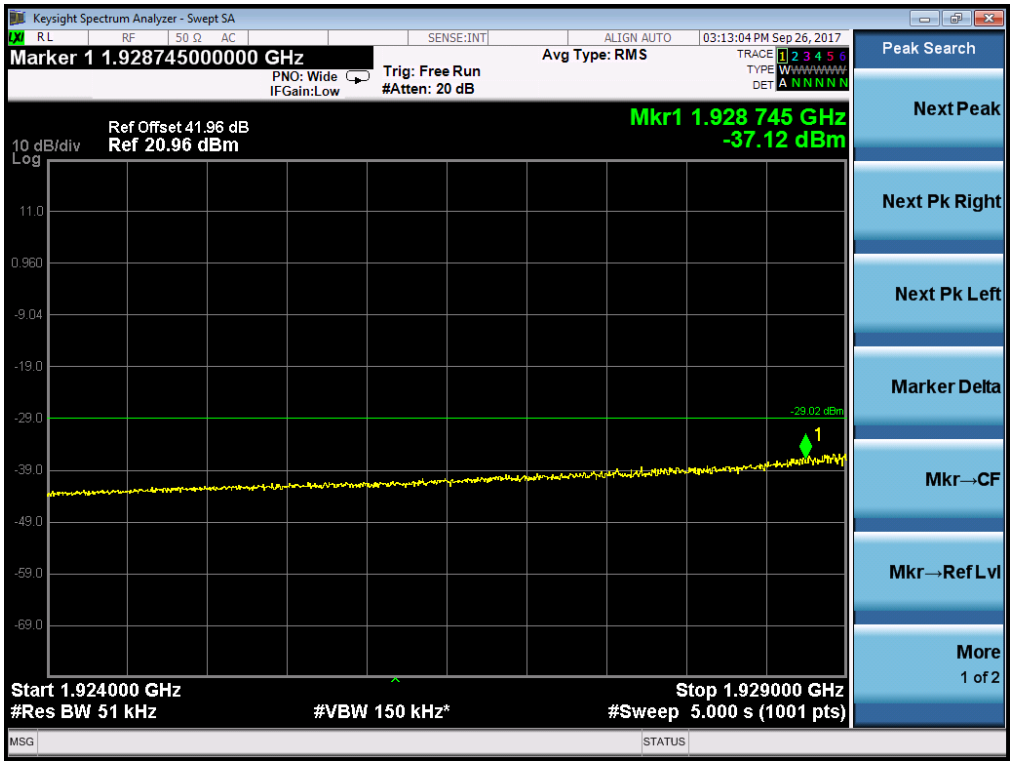
Modulation	Band Edge Frequency	Channel Frequency	Channel Bandwidth	RBW (KHz)	Limit (dBm)
16QAM	Channel Position B 1930.0MHz	1932.4MHz	5.0MHz	20	-19.99
	Channel Position T 1995.0MHz	1992.6MHz	5.0MHz	20	-19.99
64QAM	Channel Position B 1930.0MHz	1932.4MHz	5.0MHz	20	-19.99
	Channel Position T 1995.0MHz	1992.6MHz	5.0MHz	20	-19.99

Port A, Channel Position B 5.0 MHz 1932.4MHz, 16QAM

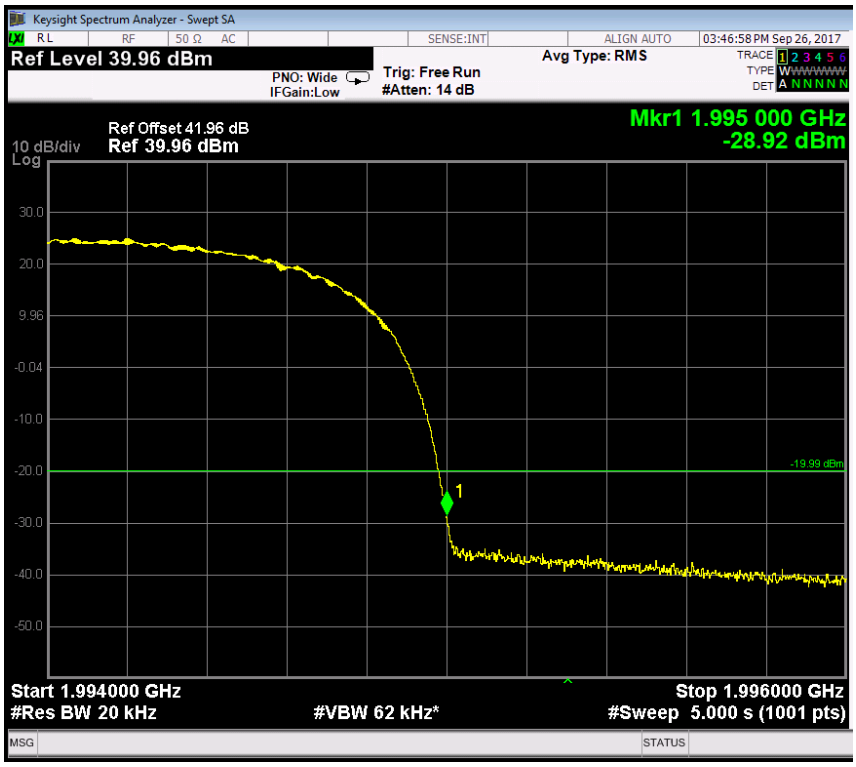


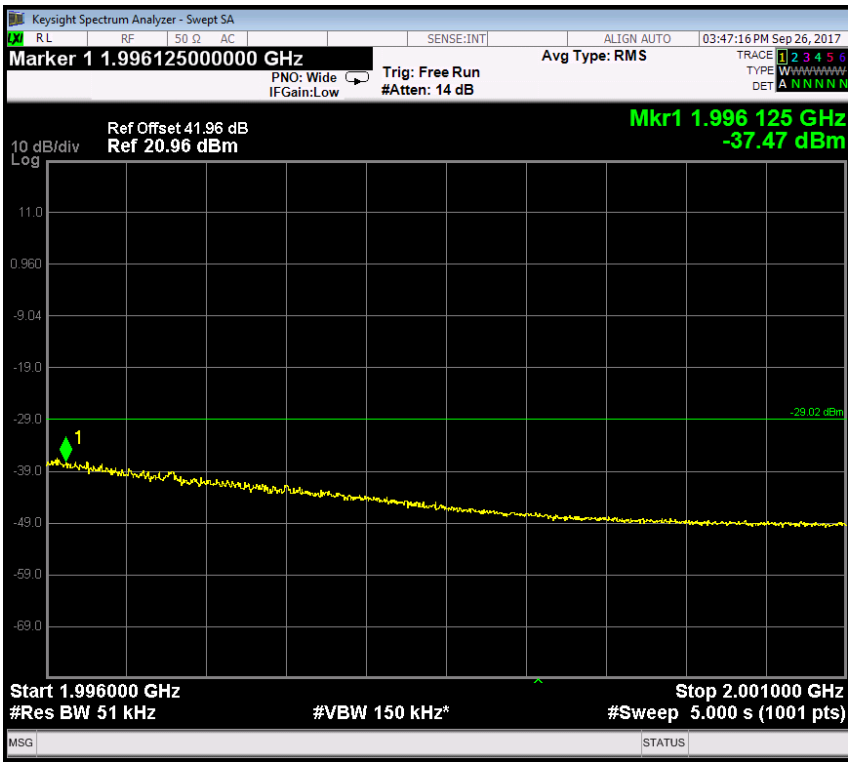
The channel power of 50KHz for 1929.975MHz is -22.65dBm, which is within the limit of -16.01dBm.



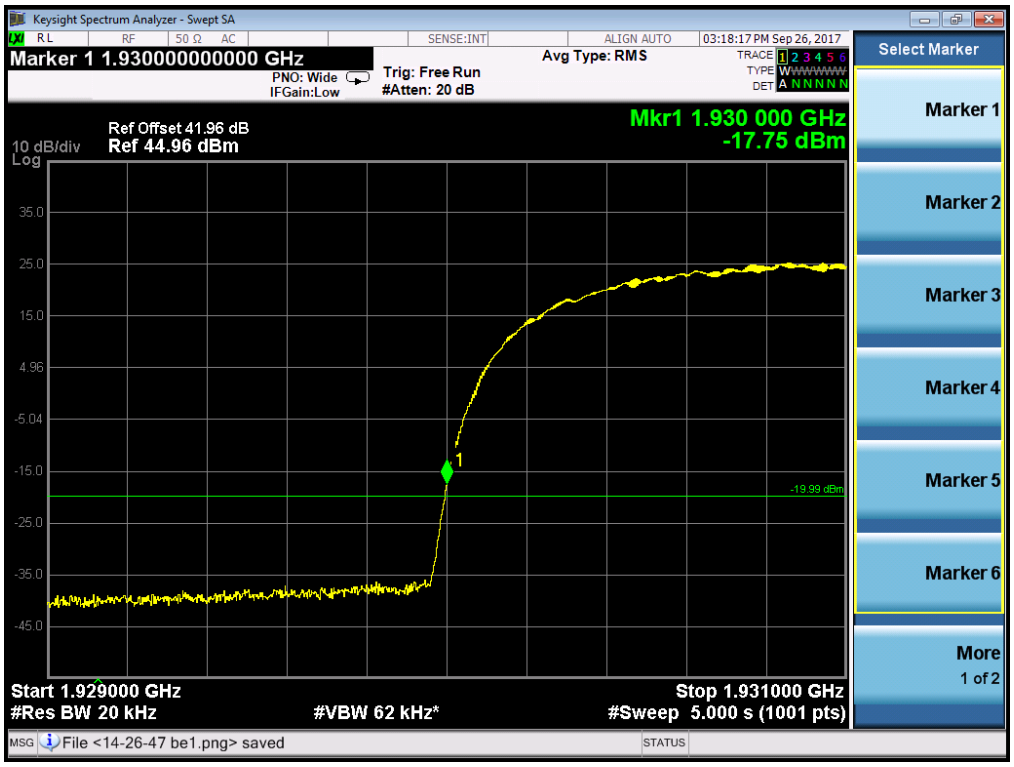


Port A, Channel Position T 5.0 MHz 1992.6MHz, 16QAM

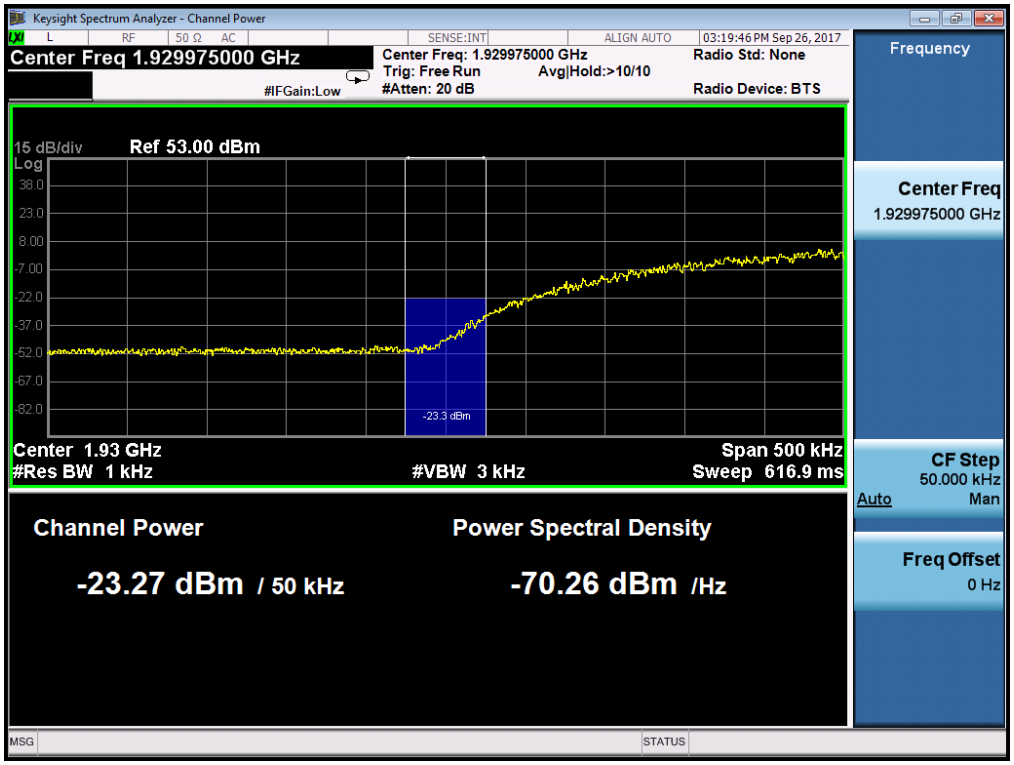


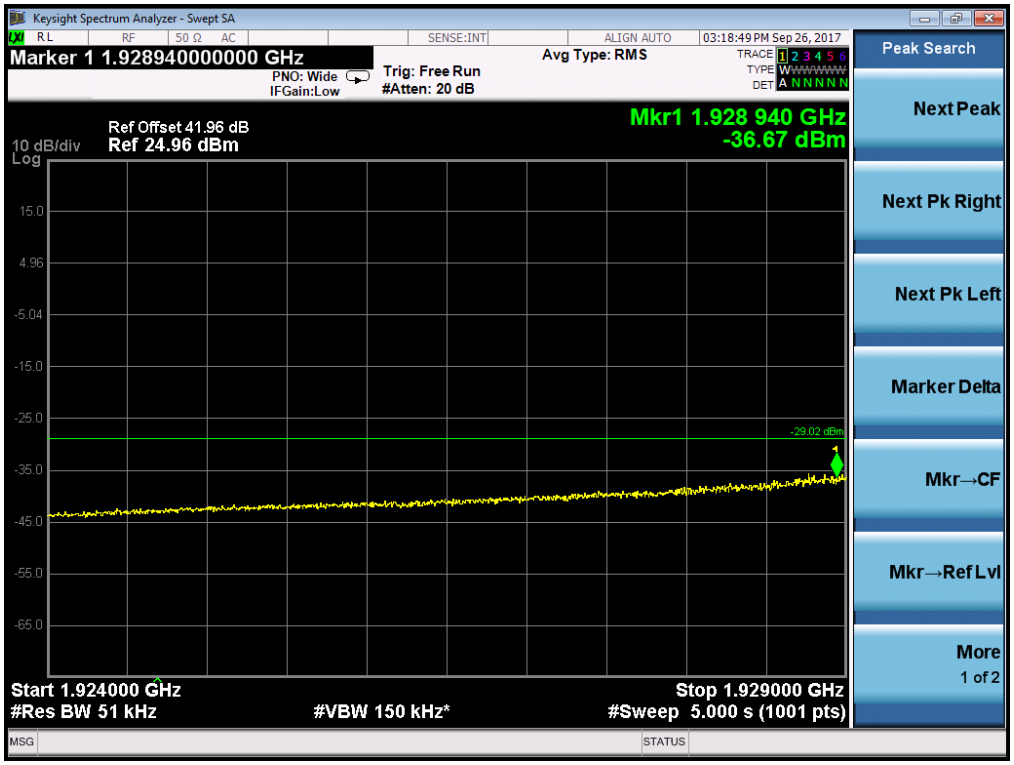


Port A, Channel Position B 5.0 MHz 1932.4MHz, 64QAM

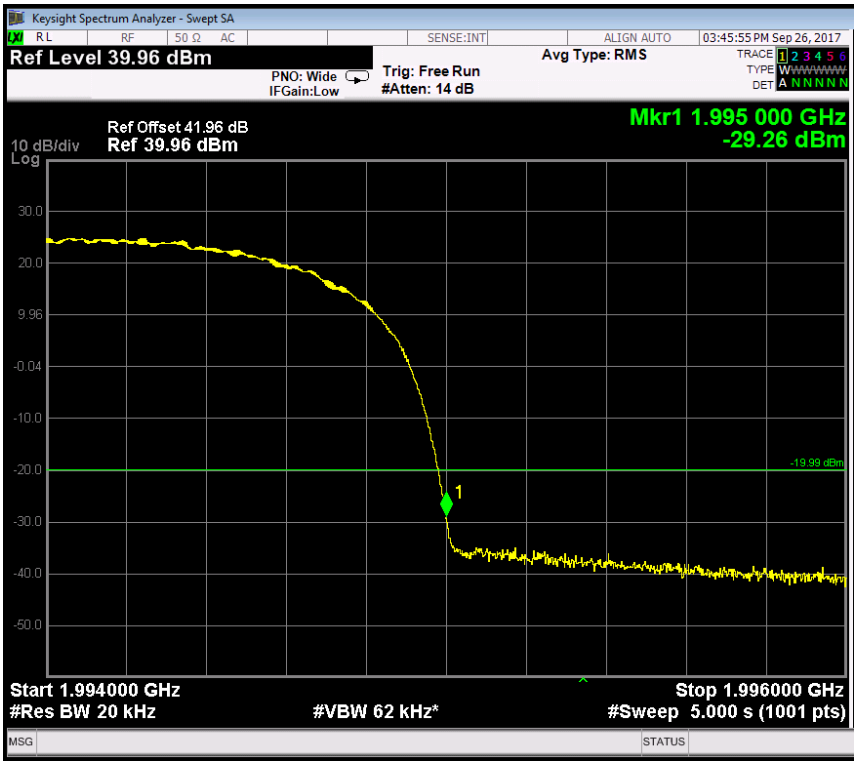


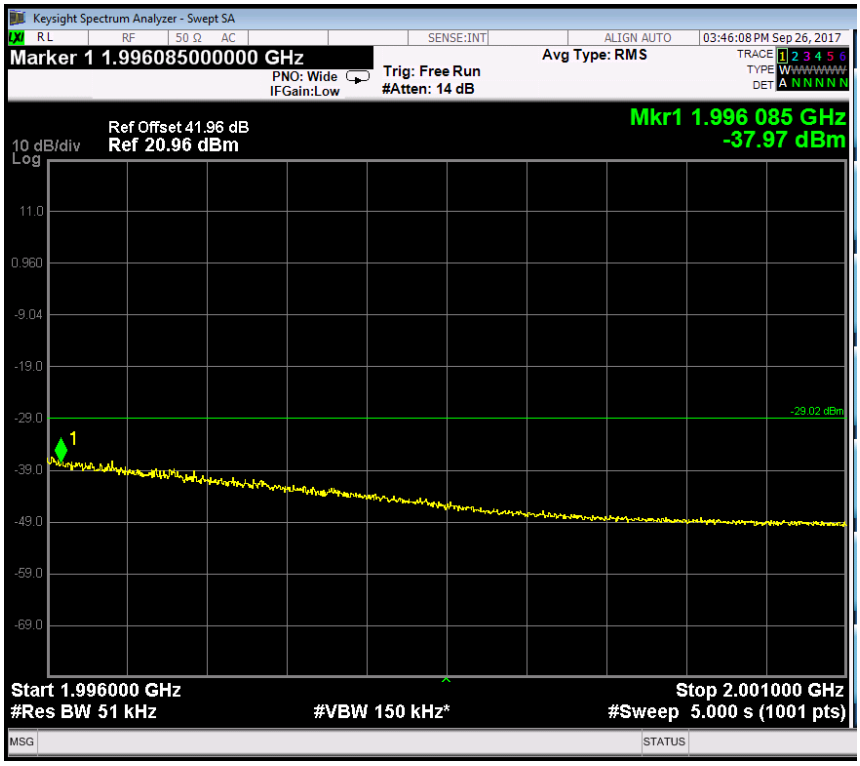
The channel power of 50KHz for 1929.975MHz is -23.27dBm, which is within the limit of -16.01dBm.





Port A, Channel Position T 5.0 MHz 1992.6MHz, 64QAM

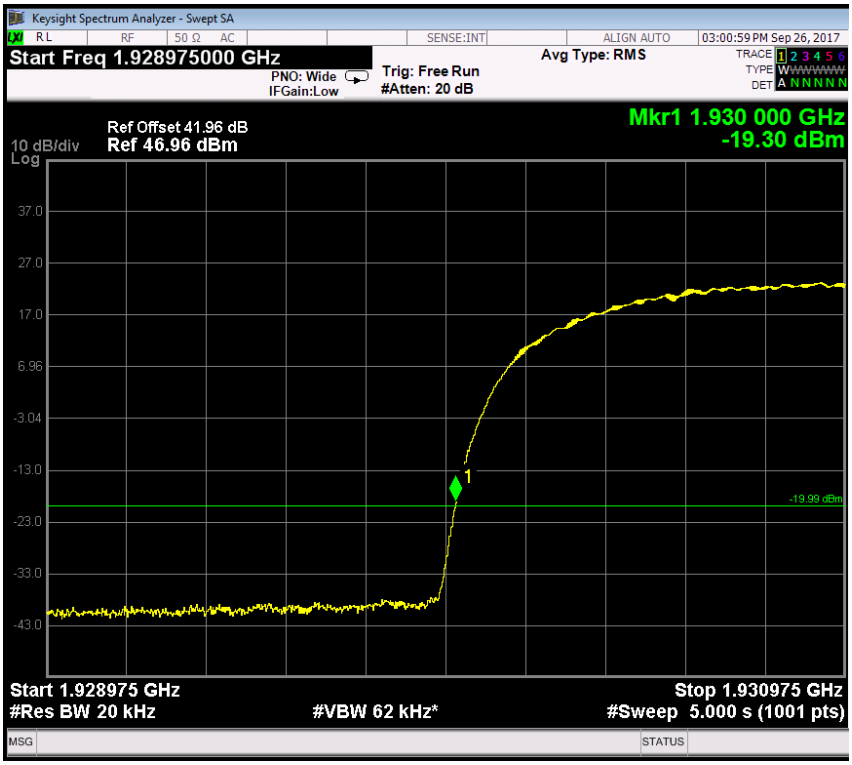




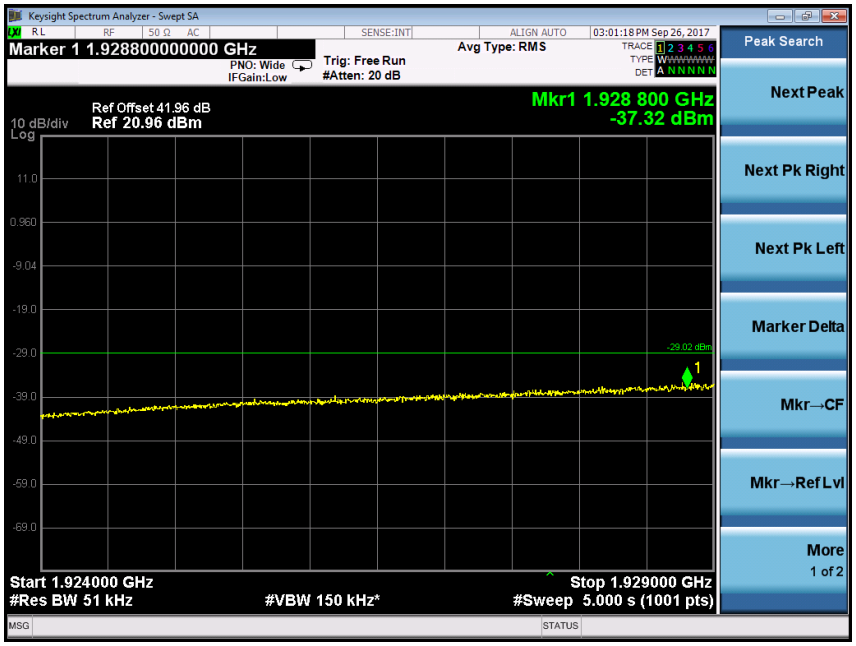
Configuration WCDMA-MIMO-2C-BE

Modulation	Band Edge Frequency	Channel Frequency	Channel Bandwidth	RBW (KHz)	Limit (dBm)
16QAM	Channel Position B 1930.0MHz	1932.4MHz + 1937.4MHz	5.0MHz	20	-19.99
	Channel Position T 1995.0MHz	1987.6MHz + 1992.6MHz	5.0MHz	20	-19.99
64QAM	Channel Position B 1930.0MHz	1932.4MHz + 1937.4MHz	5.0MHz	20	-19.99
	Channel Position T 1995.0MHz	1987.6MHz + 1992.6MHz	5.0MHz	20	-19.99

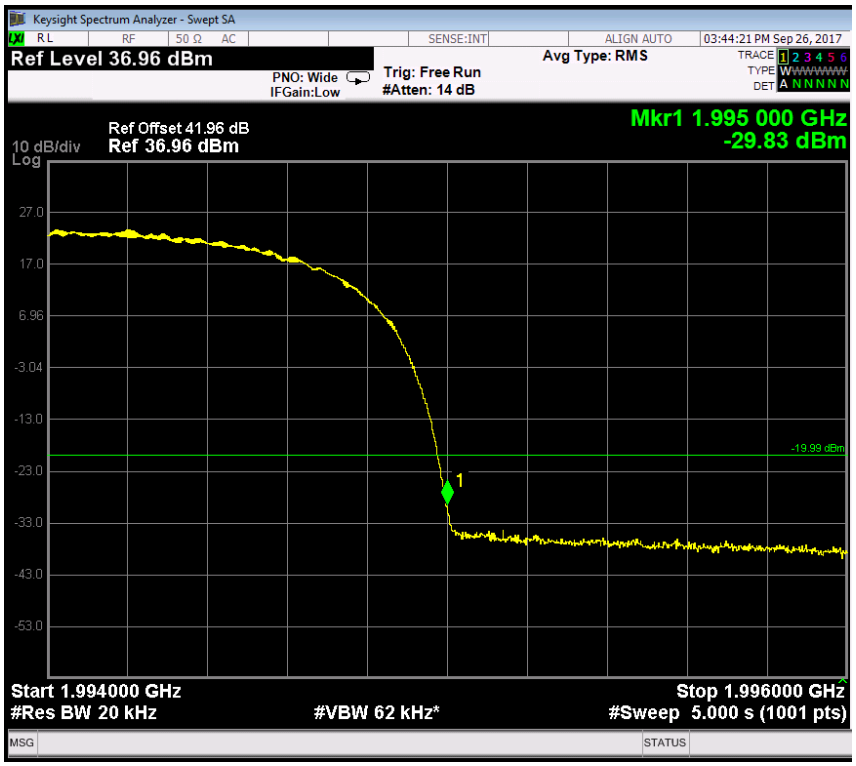
Port A, Channel Position B 1932.4MHz + 1937.4MHz, 16QAM

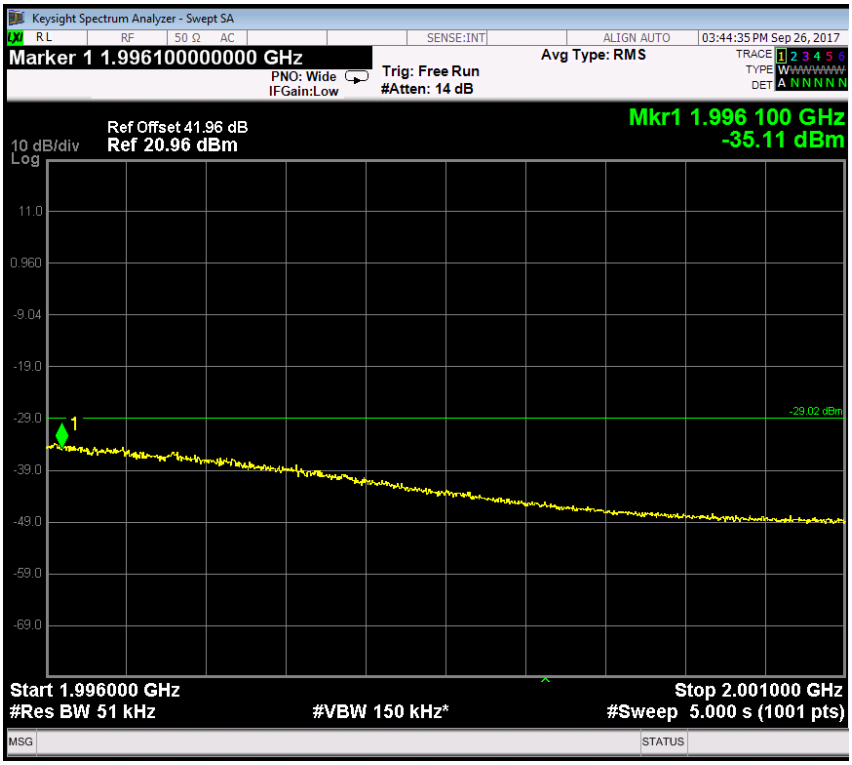


The channel power of 50KHz for 1929.975MHz is -24.29dBm, which is within the limit of -16.01dBm.



Port A, Channel Position T 1987.6MHz + 1992.6MHz, 16QAM





Port A, Channel Position B 1932.4MHz + 1937.4MHz, 64QAM