



TEST REPORT
No. I17Z61374-WMD02

for

Reliance Communications, LLC

GSM/CDMA/WCDMA/LTE mobile phone

Model Name: RC555L

FCC ID: 2AGBH-RC555L

with

Hardware Version: V2.0

Software Version: Orbic-RC555L-V1.6.3

Issued Date: 2017-10-16



Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

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:

Test Firm Designation Number:CN5017

CTTL, Telecommunication Technology Labs, CAICT

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

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: ctl_terminals@caict.ac.cn, website: www.caict.ac.cn



REPORT HISTORY

Report Number	Revision	Description	Issue Date
I17Z61374-WMD02	Rev.0	1 st edition	2017-09-26
I17Z61374-WMD02	Rev.1	Add FCC list No.	2017-10-16



CONTENTS

1. TEST LABORATORY	4
1.1. TESTING LOCATION	4
1.2. TESTING ENVIRONMENT	4
1.3. PROJECT DATA.....	4
1.4. SIGNATURE.....	4
2. CLIENT INFORMATION	5
2.1. APPLICANT INFORMATION.....	5
2.2. MANUFACTURER INFORMATION.....	5
3. EQUIPMENT UNDERTEST (EUT) AND ANCILLARY EQUIPMENT (AE)	6
3.1. ABOUT EUT	6
3.2. INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	6
3.3. INTERNAL IDENTIFICATION OF AE USED DURING THE TEST	6
3.4. NORMAL ACCESSORY SETTING	7
3.5. GENERAL DESCRIPTION	7
4. REFERENCE DOCUMENTS	8
4.1. REFERENCE DOCUMENTS FOR TESTING.....	8
5. SUMMARY OF TEST RESULTS	9
6. TESTEQUIPMENTS UTILIZED	10
ANNEX A: MEASUREMENT RESULTS	11
A.1 OUTPUT POWER.....	11
A.2 FREQUENCY STABILITY	12
A.3 OCCUPIED BANDWIDTH.....	15
A.4 EMISSION BANDWIDTH.....	22
A.5 BAND EDGE COMPLIANCE.....	28
A.6 CONDUCTED SPURIOUS EMISSION	32
A.7 PEAK-TO-AVERAGE POWER RATIO	57
ANNEX B: ACCREDITATION CERTIFICATE	58

1. Test Laboratory

1.1. Testing Location

Location 1: CTTL(huayuan North Road)

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

Location 2: CTTL(Shouxiang)

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

1.2. Testing Environment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2017-08-17

Testing End Date: 2017-09-26

1.4. Signature



Shen Yi

(Prepared this test report)



Zhou Yu

(Reviewed this test report)



Zhao Hui Lin

Deputy Director of the laboratory

(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name: Reliance Communications, LLC
Address /Post: 555 Wireless BLVD, Hauppauge NY 11788
Contact: Saqib Ghouri /Chandler Chen
Email: saqib.ghouri@reliance.us/chandler.chen@reliance.us
Telephone: +92-317-512-6111/+86 185-7557-6433
Fax: \

2.2. Manufacturer Information

Company Name: Unimaxcomm
Address /Post: Room 602, Building-B, Shenzhen Software Park T3, Hi-Tech Park
South, Nan Shan District, Shenzhen, China
Contact: Chunli.He
Email: hchunli@unimaxcomm.com
Telephone: 130 7785 5257
Fax: \



3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	GSM/CDMA/WCDMA/LTE mobile phone
Model Name	RC555L
FCC ID	2AGBH-RC555L
Antenna	Integrated
Extreme vol. Limits	3.6VDC to 4.3VDC (nominal: 3.8VDC)
Extreme temp. Tolerance	-10°C to +40°C

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of CTTL, Telecommunication Technology Labs, Academy of Telecommunication Research, MIIT

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version	Date of receipt
UT08a	358924080002271	V2.0	Orbic-RC555L-V1.6.3	2017-08-17

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE used during the test

AE ID*	Description	SN
AE1	Battery	/
AE2	Normal Charger	/
AE1		
Model	RC555L	
Manufacturer	Veken	
Capacitance	3000mAh	
Nominal Voltage	3.8V	
AE2		
Model	RC555L	
Manufacturer	BLJ	

*AE ID: is used to identify the test sample in the lab internally.



3.4. Normal Accessory setting

Fully charged battery was used during the test.

3.5. General Description

The Equipment Under Test (EUT) is a model of GSM/CDMA/WCDMA/LTE mobile phone with integrated antenna. Manual and specifications of the EUT were provided to fulfil the test.



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 22	PUBLIC MOBILE SERVICES	10-1-16 Edition
ANSI/TIA-603-D	Land Mobile FM or PM Communications Equipment Measurement and Performance Standards	2010
FCC Part 27	MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES	10-1-16 Edition
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
KDB 971168 D01	MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS	v02r02



5. SUMMARY OF TEST RESULTS

WCDMA Band II

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	24.232(c)	P
2	Emission Limit	24.238, 2.1051	P
3	Frequency Stability	24.235, 2.1055	P
4	Occupied Bandwidth	2.1049(h)(i)	P
5	Emission Bandwidth	24.238(b)	P
6	Band Edge Compliance	24.238(b)	P
7	Conducted Spurious Emission	24.238, 2.1057	P
8	Peak-to-Average Power Ratio	24.232(d)	P

WCDMA Band V

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	§2.1046(a), 22.913(a)	P
2	Emission Limit	22.917, 2.1051	P
3	Frequency Stability	22.235, 2.1055	P
4	Occupied Bandwidth	2.1049(h)(i)	P
5	Emission Bandwidth	22.917(b)	P
6	Band Edge Compliance	22.917(b)	P
7	Conducted Spurious Emission	22.917, 2.1057	P

WCDMA Band IV

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50(d)(4)	P
2	Emission Limit	27.53(h), 2.1051	P
3	Frequency Stability	27.54, 2.1055	P
4	Occupied Bandwidth	2.1049(h)(i)	P
5	Emission Bandwidth	27.53(h)	P
6	Band Edge Compliance	27.53(h)	P
7	Conducted Spurious Emission	27.53(h), 2.1057	P
8	Peak-to-Average Power Ratio	27.50(a)	P



6. Test Equipments Utilized

NO.	Description	TYPE	series number	MANUFACTURE	CAL DUE DATE	Calibration interval
1	Universal Radio Communication Tester	CMW500	159082	R&S	2017-12-06	1 year
2	Spectrum Analyzer	FSU26	200030	R&S	2018-06-20	1 year
3	Climate chamber	SH-241	92007454	ESPEC	2017-12-14	2 year

ANNEX A: MEASUREMENT RESULTS

A.1 OUTPUT POWER

A.1.1 Summary

During the process of testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication tester (CMU-200) to ensure max power transmission and proper modulation. This result contains peak output power and EIRP measurements for the EUT. In all cases, output power is within the specified limits.

A.1.2 Conducted

A.1.2.1 Method of Measurements

The EUT was set up for the max output power with pseudo random data modulation. These measurements were done at 3 frequencies, 1852.4 MHz, 1880.0MHz and 1907.6MHz for WCDMA Band II; 826.4MHz, 836.6MHz and 846.6MHz for WCDMA Band V (bottom, middle and top of operational frequency range).

Limit

According to FCC§2.1046.

WCDMA Band II

Measurement result

	CH	Frequency(MHz)	output power(dBm)
WCDMA (Band II)	9262	1852.4	22.69
	9400	1880.0	22.64
	9538	1907.6	22.65

WCDMA Band V

Measurement result

	CH	Frequency(MHz)	output power(dBm)
WCDMA (Band V)	4132	826.4	22.88
	4183	836.6	22.92
	4233	846.6	22.86

WCDMA Band IV

Measurement result

	CH	Frequency(MHz)	output power(dBm)
WCDMA (Band IV)	1312	1712.4	22.53
	1450	1740.0	22.57
	1513	1752.6	22.78

A.2 FREQUENCY STABILITY

A.2.1 Method of Measurement

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a "call mode". This is accomplished with the use of R&S CMU200 DIGITAL RADIO COMMUNICATION TESTER.

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -10°C .
3. With the EUT, powered via nominal voltage, connected to the CMU200 and in a simulated call on mid channel of WCDMA Band II and WCDMA Band V, WCDMA Band IV, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
4. Repeat the above measurements at 10°C increments from -10°C to $+40^{\circ}\text{C}$. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.
5. Remeasure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments remeasuring carrier frequency at each voltage. Pause at nominal voltage for 1 1/2 hours unpowered, to allow any self-heating to stabilize, before continuing.
6. Subject the EUT to overnight soak at $+40^{\circ}\text{C}$.
7. With the EUT, powered via nominal voltage, connected to the CMU200 and in a simulated call on the centre channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
8. Repeat the above measurements at 10°C increments from -10°C to $+40^{\circ}\text{C}$. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to $\pm 0.5^{\circ}\text{C}$ during the measurement procedure.

A.2.2 Measurement Limit

A.2.2.1 For Hand carried battery powered equipment

According to the JTC standard the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of between 3.6VDC and 4.3VDC, with a nominal voltage of 3.8VDC. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress.

A.2.2.2 For equipment powered by primary supply voltage

According to the JTC standard the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. For this EUT section 2.1055(d)(1) applies.



A.2.3 Measurement results

WCDMA Band II

Frequency Error vs Voltage

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.6	-6	0.003
3.8	-3	0.002
4.3	-3	0.002

Frequency Error vs Temperature

temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	4	0.002
0	-5	0.003
10	3	0.002
20	3	0.001
30	-4	0.002
40	4	0.002

WCDMA Band V

Frequency Error vs Voltage

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.6	-5	0.006
3.8	-4	0.005
4.3	-5	0.006

Frequency Error vs Temperature

temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	-3	0.004
0	-4	0.005
10	-6	0.007
20	-3	0.004
30	-3	0.003
40	-3	0.004

**WCDMA Band IV****Frequency Error vs Voltage**

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.6	-8	0.005
3.8	-4	0.003
4.3	-8	0.005

Frequency Error vs Temperature

temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	-6	0.004
0	-9	0.005
10	-8	0.005
20	-6	0.004
30	-8	0.004
40	-6	0.004



A.3 OCCUPIED BANDWIDTH

Reference

FCC: CFR Part 2.1049(h)(i)

A.3.1 Occupied Bandwidth Results

Occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the extreme and mid frequencies of the US Cellular/PCS frequency bands. The table below lists the measured 99% BW. Spectrum analyzer plots are included on the following pages.

The measurement method is from KDB 971168:

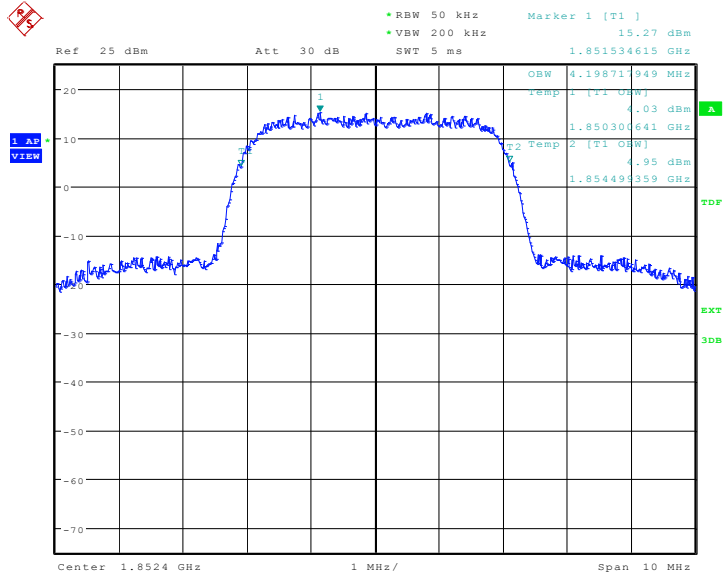
- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (i.e., two to five times the OBW).
- b) The nominal IF filter bandwidth (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.

WCDMA Band II(99% BW)

Frequency(MHz)	Occupied Bandwidth (99% BW)(MHz)
1852.4	4.199
1880.0	4.151
1907.6	4.295

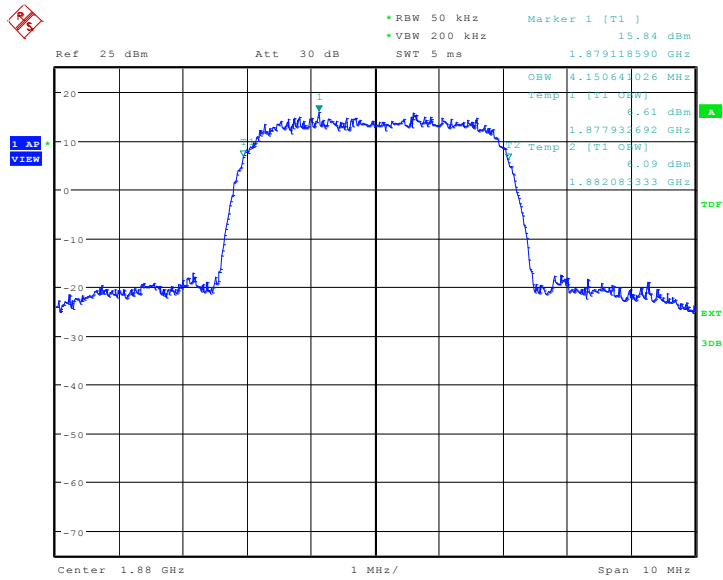
WCDMA Band II

Channel 9262-Occupied Bandwidth (99% BW)



Date: 4.SEP.2017 13:24:05

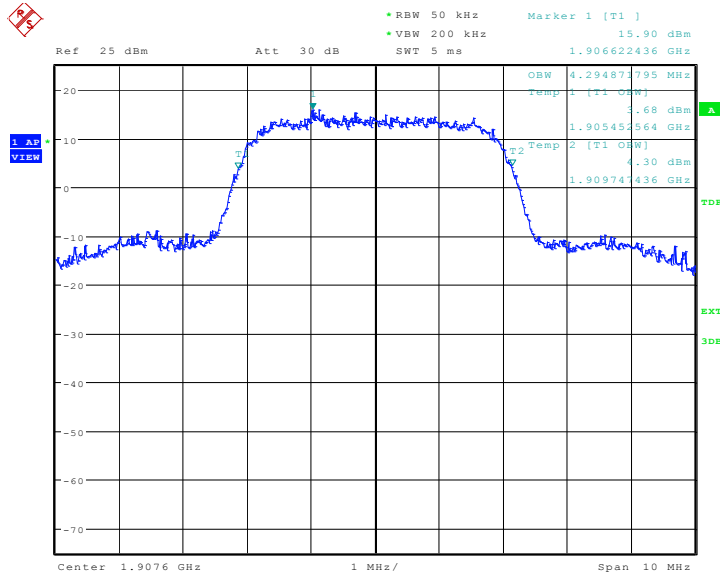
Channel 9400-Occupied Bandwidth (99% BW)



Date: 4.SEP.2017 13:24:40



Channel 9538-Occupied Bandwidth (99% BW)



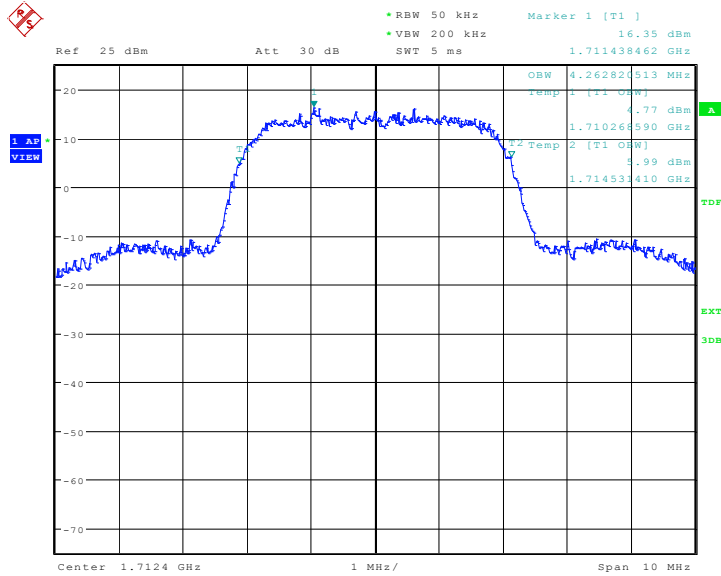
Date: 4.SEP.2017 13:25:14

WCDMA Band IV(99% BW)

Frequency(MHz)	Occupied Bandwidth (99% BW)(MHz)
1712.4	4.263
1740.0	4.183
1752.6	4.247

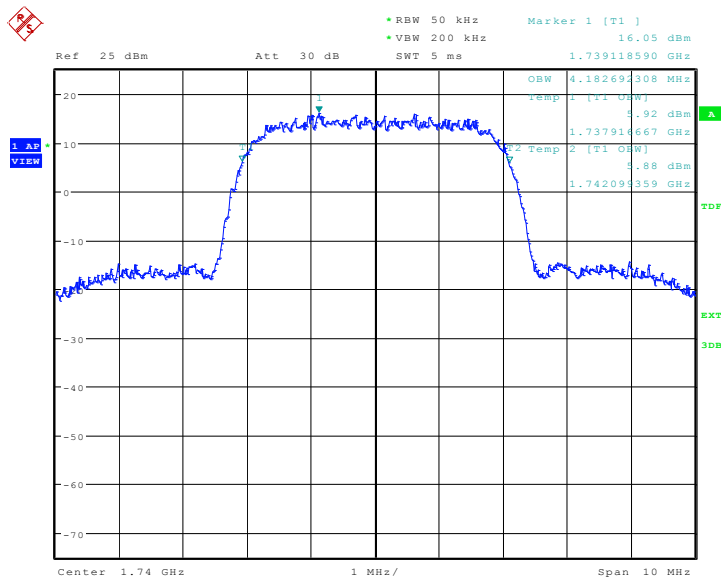
WCDMA Band IV

Channel 1312-Occupied Bandwidth (99% BW)



Date: 11.SEP.2017 09:33:37

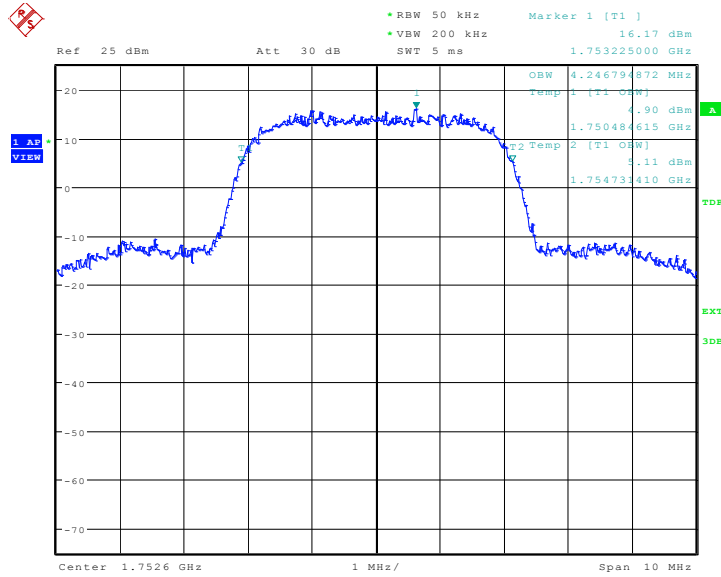
Channel 1450-Occupied Bandwidth (99% BW)



Date: 11.SEP.2017 09:34:12



Channel 1513-Occupied Bandwidth (99% BW)



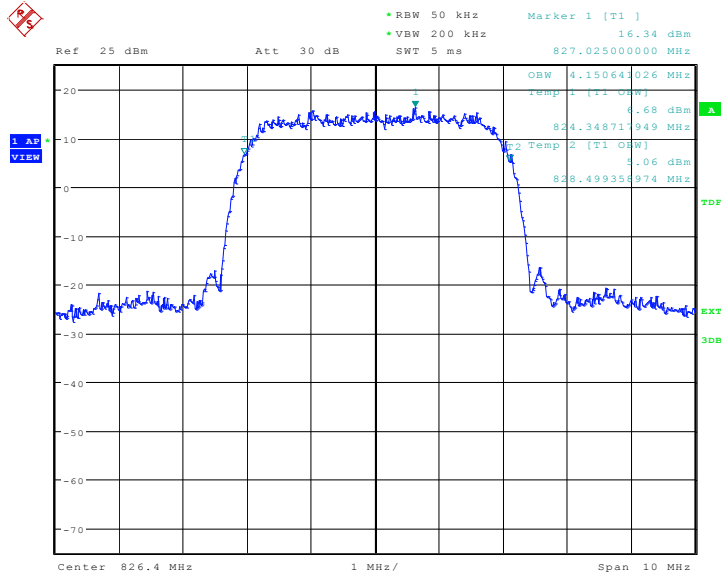
Date: 11.SEP.2017 09:34:47

WCDMA Band V(99% BW)

Frequency(MHz)	Occupied Bandwidth (99% BW)(MHz)
826.4	4.151
836.6	4.135
846.6	4.135

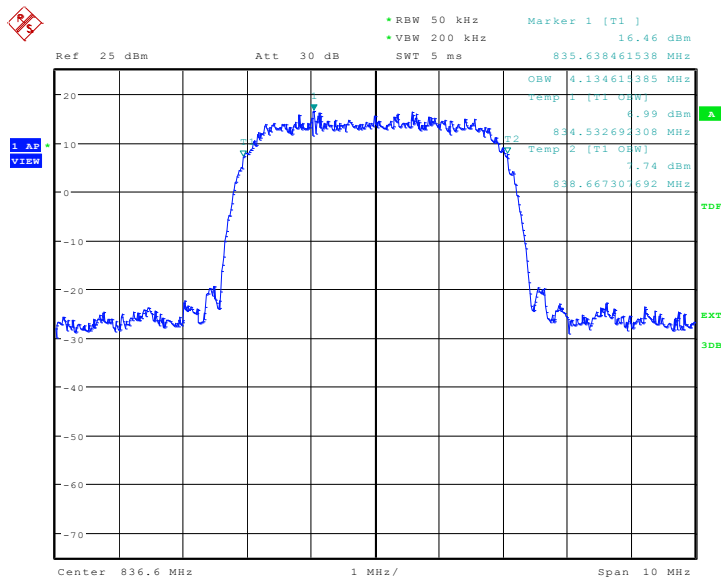
WCDMA Band V

Channel 4132-Occupied Bandwidth (99% BW)



Date: 4.SEP.2017 14:32:20

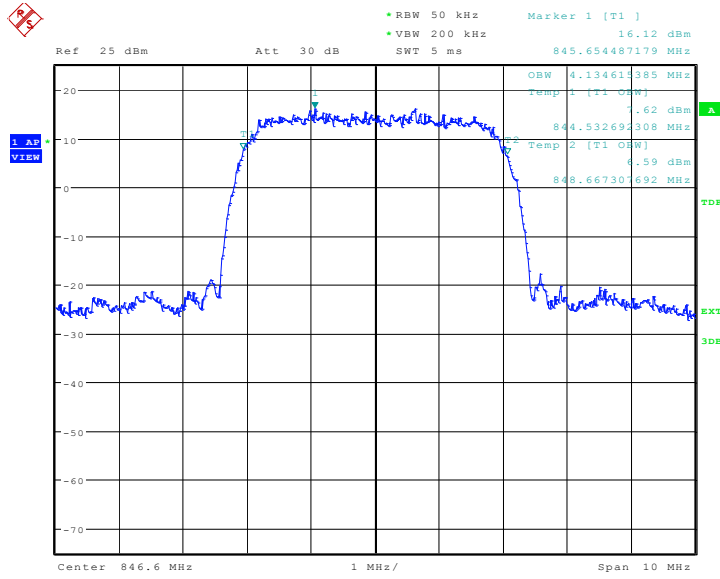
Channel 4183-Occupied Bandwidth (99% BW)



Date: 4.SEP.2017 14:32:55



Channel 4233-Occupied Bandwidth (99% BW)



Date: 4.SEP.2017 14:33:30

A.4 EMISSION BANDWIDTH

Reference

FCC: CFR Part 22.917(b), 24.238(a), 27.53(h)

A.4.1 Emission Bandwidth Results

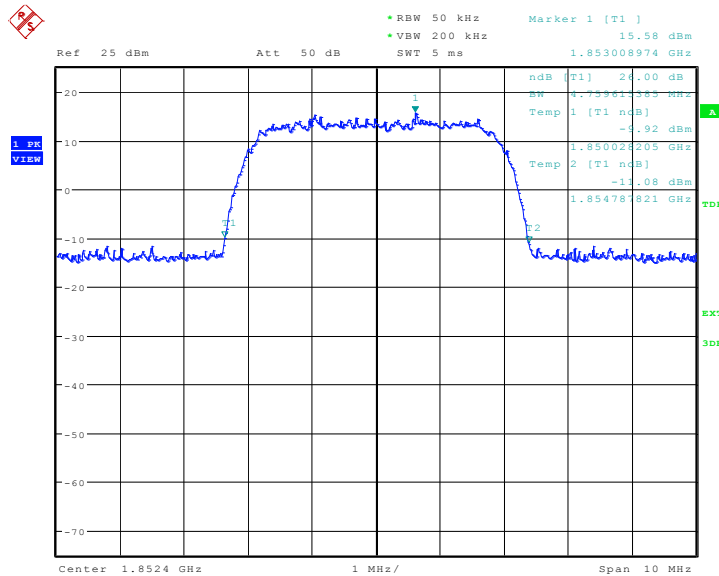
The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

WCDMA Band II

Frequency(MHz)	Emission Bandwidth (MHz)
1852.4	4.76
1880.0	4.73
1907.6	4.78

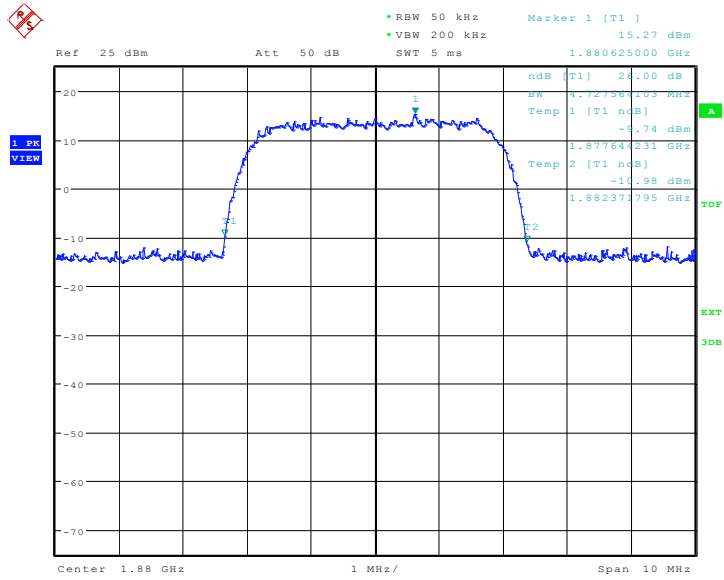
WCDMA Band II

Channel 9262-Emission Bandwidth

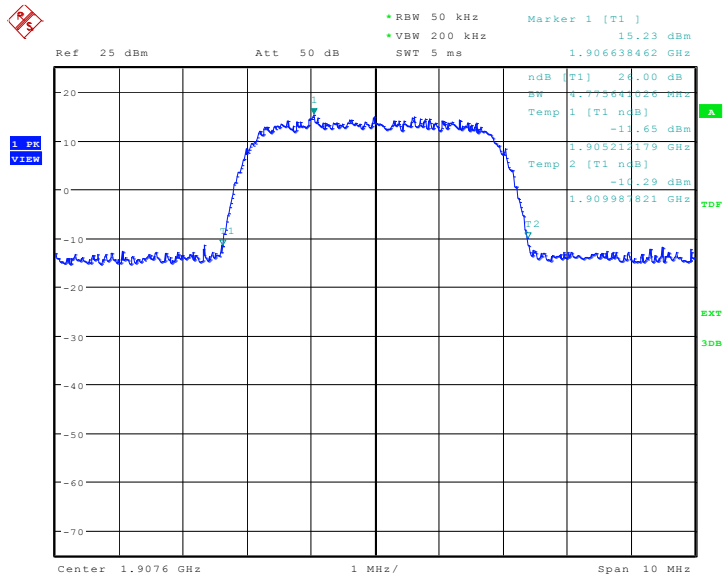


Date: 13.SEP.2017 08:45:12

Channel 9400-Emission Bandwidth



Channel 9538-Emission Bandwidth



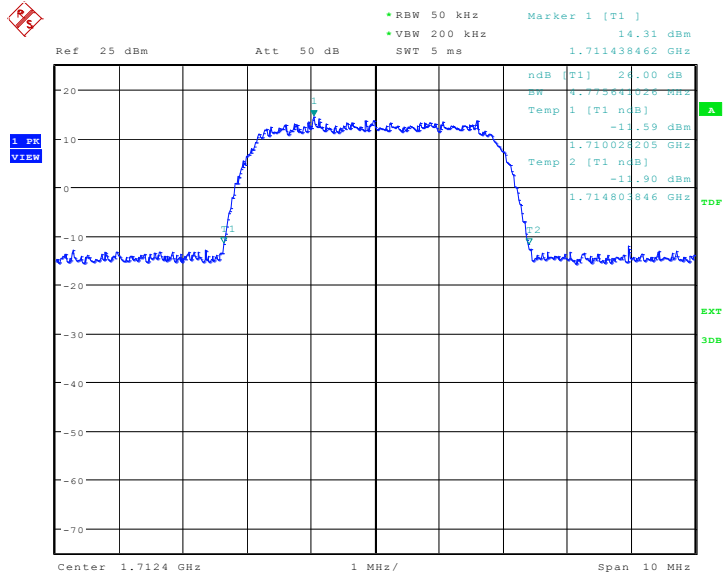


WCDMA Band IV

Frequency(MHz)	Emission Bandwidth (MHz)
1712.4	4.78
1740	4.76
1752.6	4.78

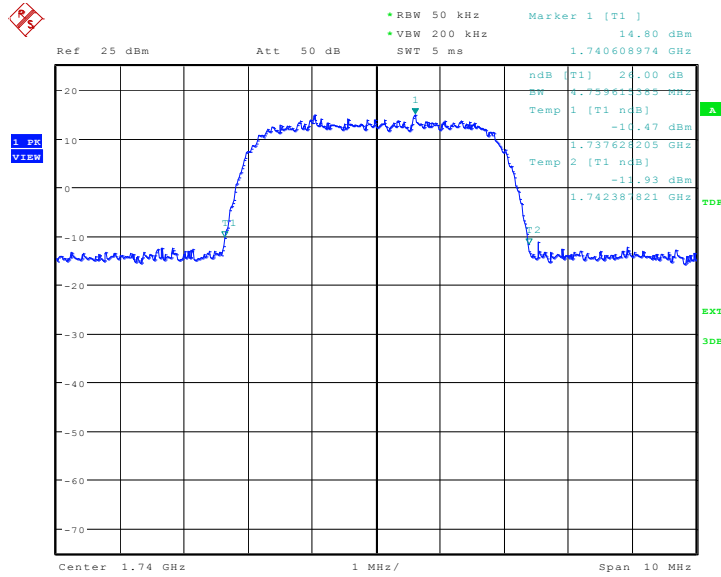
WCDMA Band IV

Channel 1312-Emission Bandwidth



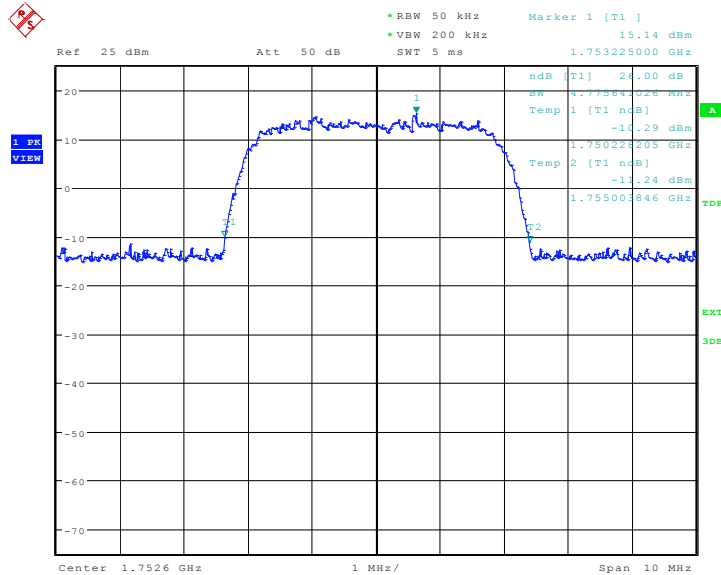
Date: 13.SEP.2017 09:00:41

Channel 1450-Emission Bandwidth



Date: 13.SEP.2017 09:01:51

Channel 1513-Emission Bandwidth



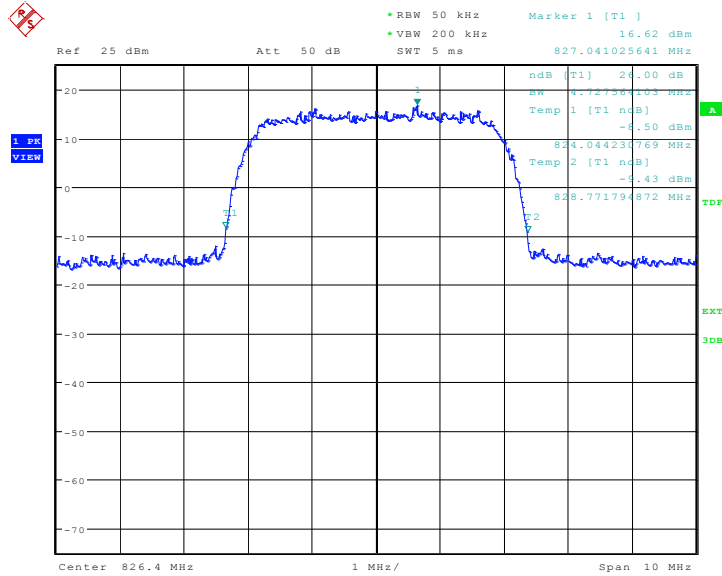
Date: 13.SEP.2017 09:03:01

WCDMA Band V

Frequency(MHz)	Emission Bandwidth (MHz)
826.40	4.73
836.60	4.73
846.60	4.71

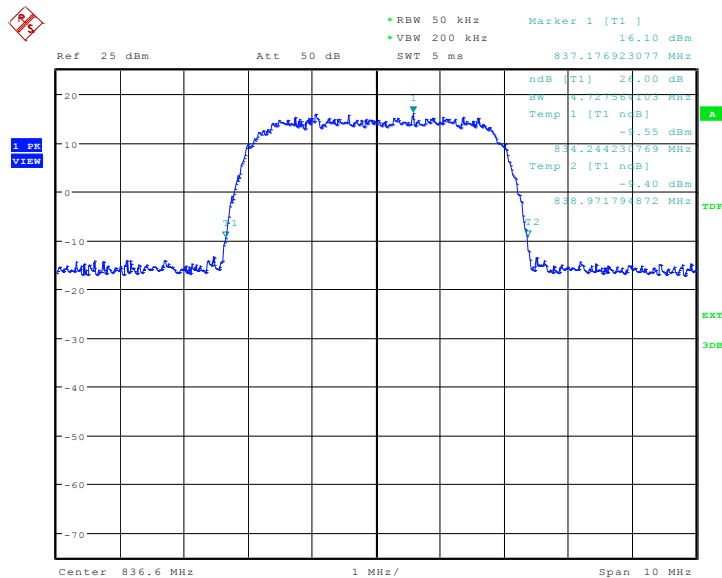
WCDMA Band V

Channel 4132-Emission Bandwidth



Date: 4.SEP.2017 14:34:40

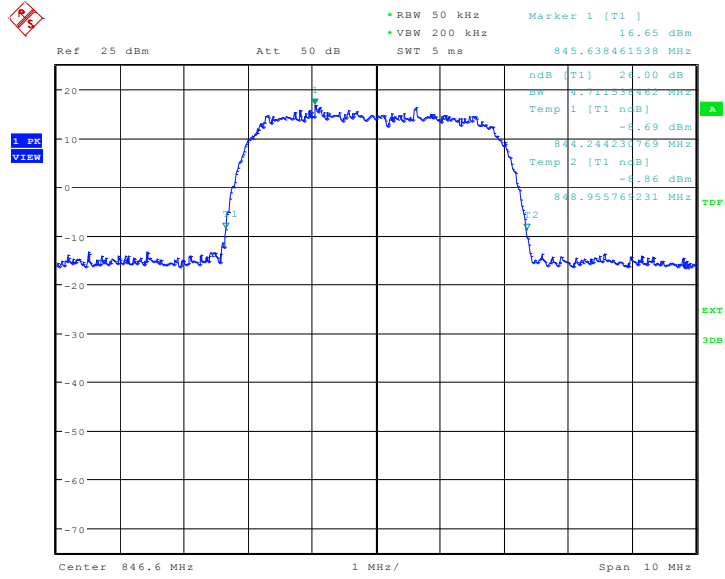
Channel 4183-Emission Bandwidth



Date: 4.SEP.2017 14:35:50



Channel 4233-Emission Bandwidth



Date: 4.SEP.2017 14:37:00

A.5 BAND EDGE COMPLIANCE

Reference

FCC: CFR Part 22.917(b), 24.238(a), 27.53(h).

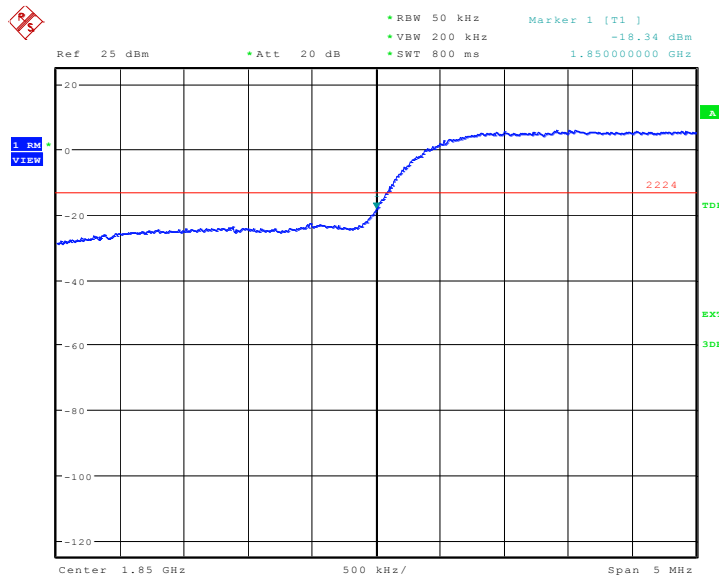
A.5.1 Measurement limit

On any frequency outside frequency band of the US Cellular/PCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least $43+10\log(P)$ dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm. According to KDB 971168, a relaxation of the reference bandwidth is often provided for measurements within a specified frequency range at the edge of the authorized frequency block/band. This is often implemented by permitting the use of a narrower RBW (typically limited to a minimum RBW of 1% of the OBW) for measuring the out-of-band emissions without a requirement to integrate the result over the full reference bandwidth.

A.6.2 Measurement result

WCDMA Band II

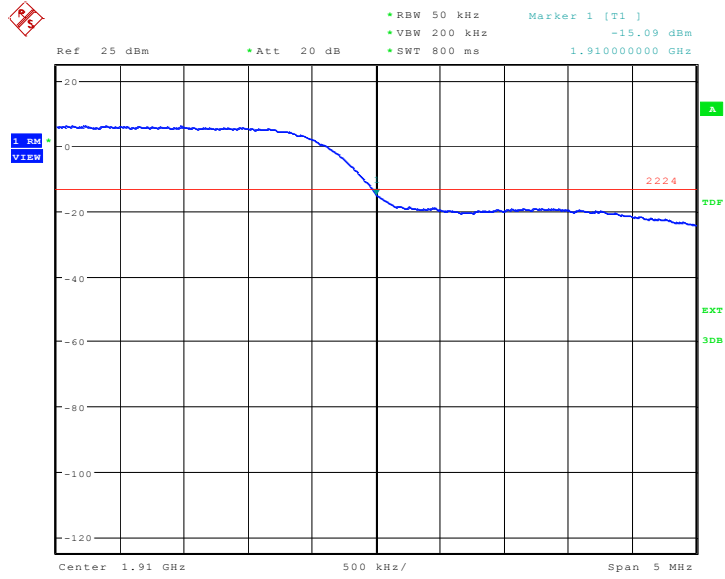
LOW BAND EDGE BLOCK-A (WCDMA Band II)-Channel 9262



Date: 4.SEP.2017 13:28:57



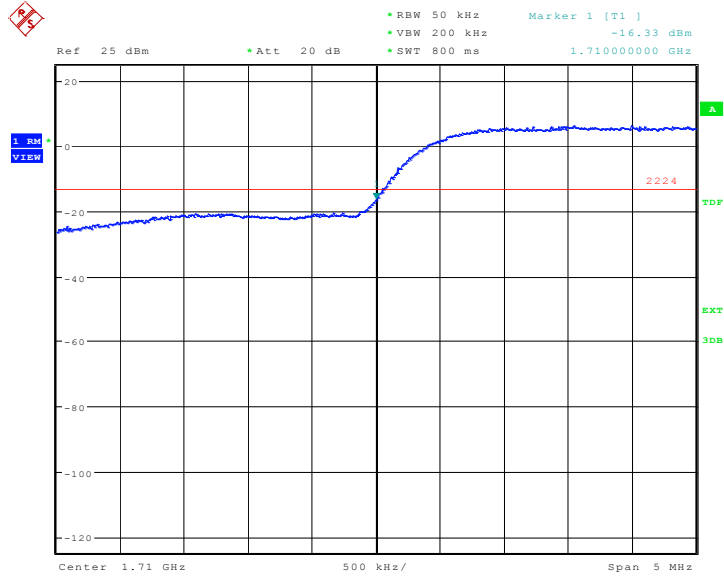
HIGH BAND EDGE BLOCK-C (WCDMA Band II) –Channel 9538



Date: 4.SEP.2017 13:31:03

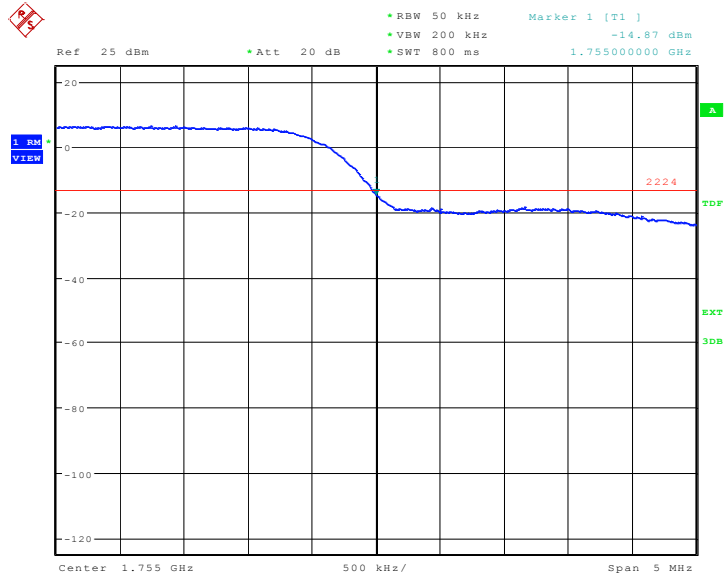


WCDMA Band IV LOW BAND EDGE BLOCK-A (WCDMA Band IV)-Channel 1312



Date: 11.SEP.2017 09:38:29

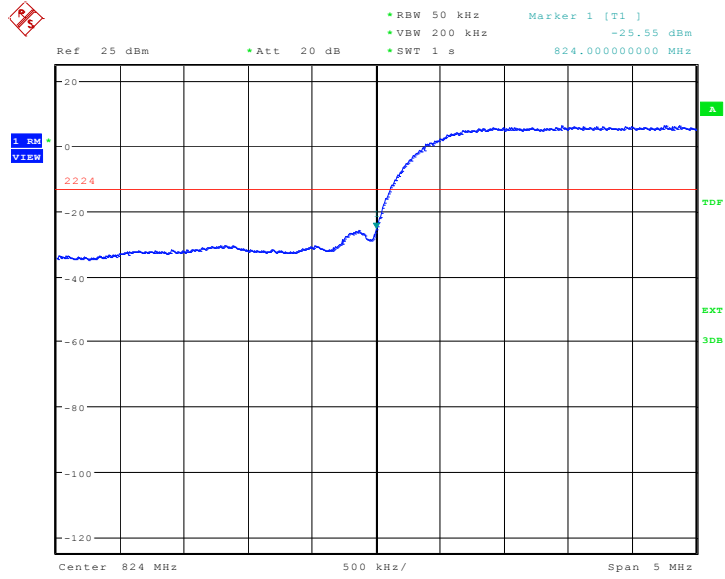
HIGH BAND EDGE BLOCK-C (WCDMA Band IV)-Channel 1513



Date: 11.SEP.2017 09:40:36

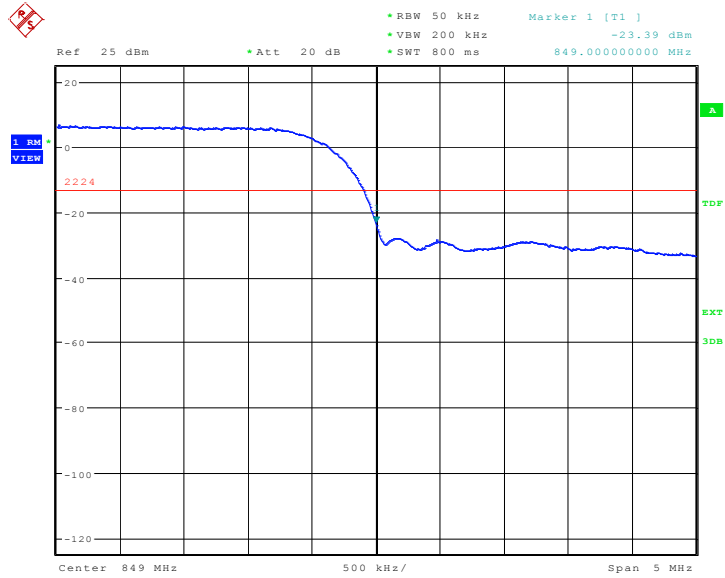


WCDMA Band V LOW BAND EDGE BLOCK-A (WCDMA Band V)-Channel 4132



Date: 4.SEP.2017 14:37:11

HIGH BAND EDGE BLOCK-C (WCDMA Band V) -Channel 4233



Date: 4.SEP.2017 14:39:18



A.6 CONDUCTED SPURIOUS EMISSION

Reference

FCC: CFR Part 2.1057, 22.917, 24.238, 27.53(h).

A.6.1 Measurement Method

The following steps outline the procedure used to measure the conducted emissions from the EUT.

1. Determine frequency range for measurements: From CFR 2.1057 the spectrum should be investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency. For the mobile station equipment tested, this equates to a frequency range of 13 MHz to 9 GHz, data taken from 10 MHz to 25 GHz.
2. Determine EUT transmit frequencies: below outlines the band edge frequencies pertinent to conducted emissions testing.
3. According to KDB 971168 v02r01 6.0, the applicable rule part specifies the reference bandwidth for measuring unwanted emission levels (typically, 100 kHz if the authorized frequency band/block is at or below 1 GHz and 1 MHz if the authorized frequency band/block is above 1 GHz)

WCDMA Band II Transmitter

Channel	Frequency (MHz)
9262	1852.40
9400	1880.00
9538	1907.60

WCDMA Band IV Transmitter

Channel	Frequency (MHz)
1312	1712.40
1450	1740.00
1513	1752.60

WCDMA Band V Transmitter

Channel	Frequency (MHz)
4132	826.40
4183	836.60
4233	846.60

A. 6.2 Measurement Limit

Part 24.238, Part 22.917 and Part 27.53(h) specify that 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 $43 + 10 \log(P)$ dB.

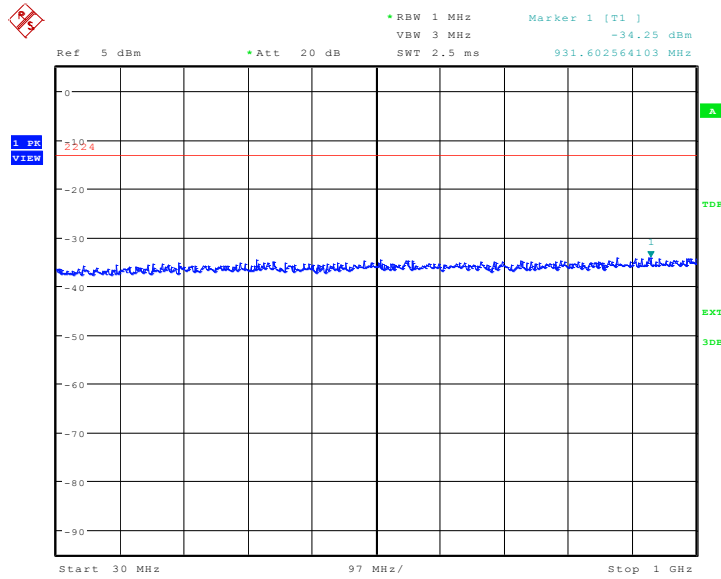
The specification that emissions shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

A.6.3 Measurement result

WCDMA Band II

Channel 9262: 30MHz –1GHz

Spurious emission limit –13dBm.

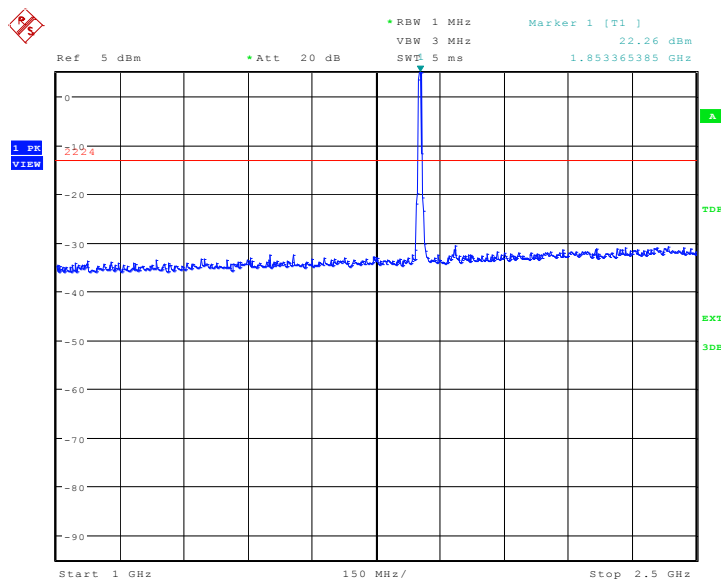


Date: 15.SEP.2017 08:52:44

Channel 9262: 1GHz –2.5GHz

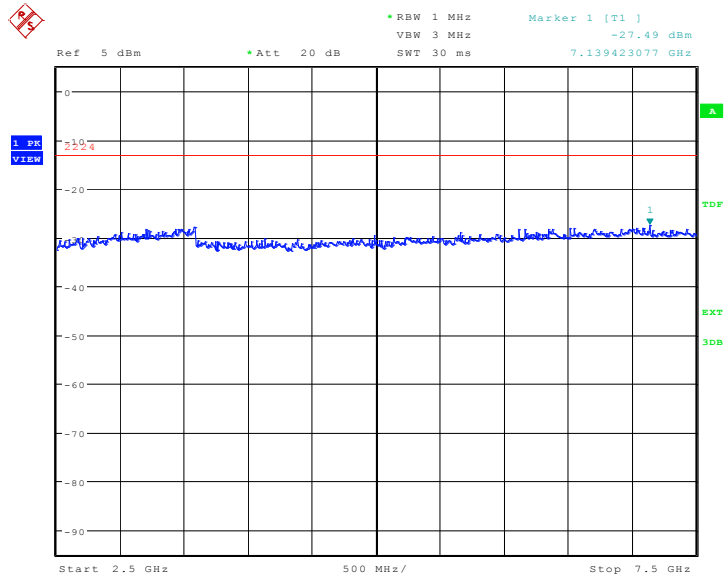
Spurious emission limit –13dBm.

NOTE: peak above the limit line is the carrier frequency.



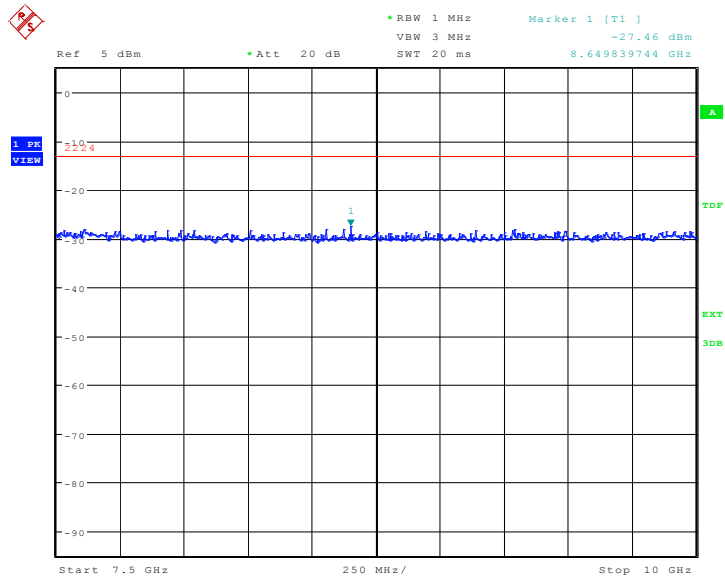
Date: 15.SEP.2017 08:53:12

Channel 9262: 2.5GHz –7.5GHz
Spurious emission limit –13dBm.



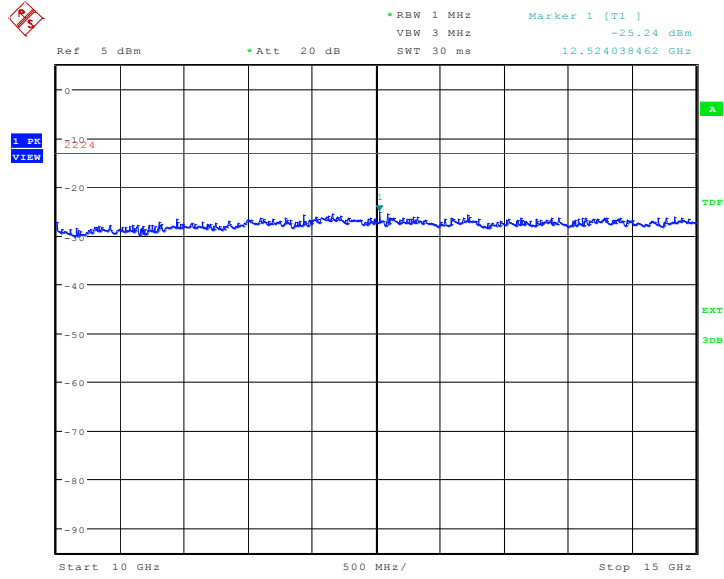
Date: 15.SEP.2017 08:53:40

Channel 9262: 7.5GHz –10GHz
Spurious emission limit –13dBm.



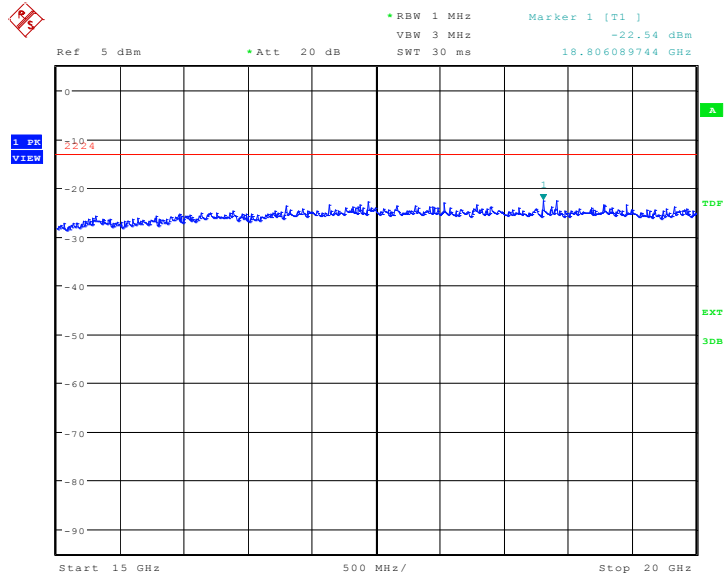
Date: 15.SEP.2017 08:54:09

Channel 9262: 10GHz –15GHz
Spurious emission limit –13dBm.



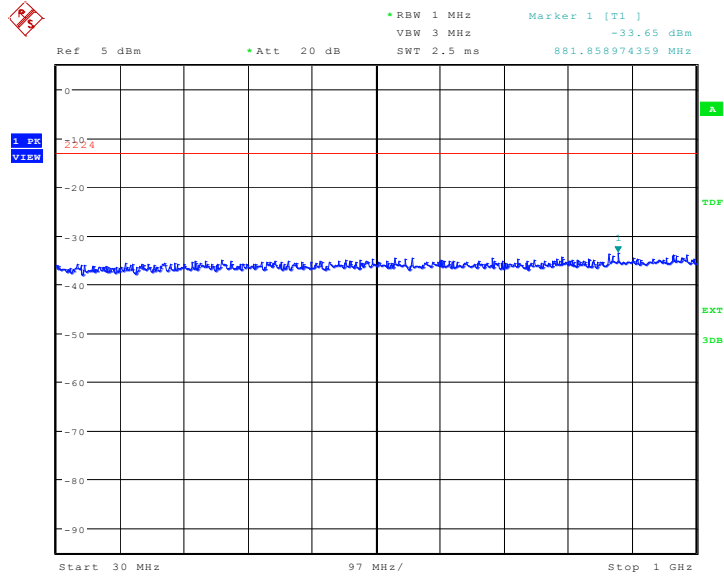
Date: 15.SEP.2017 08:54:37

Channel 9262: 15GHz –20GHz
Spurious emission limit –13dBm.



Date: 15.SEP.2017 08:55:05

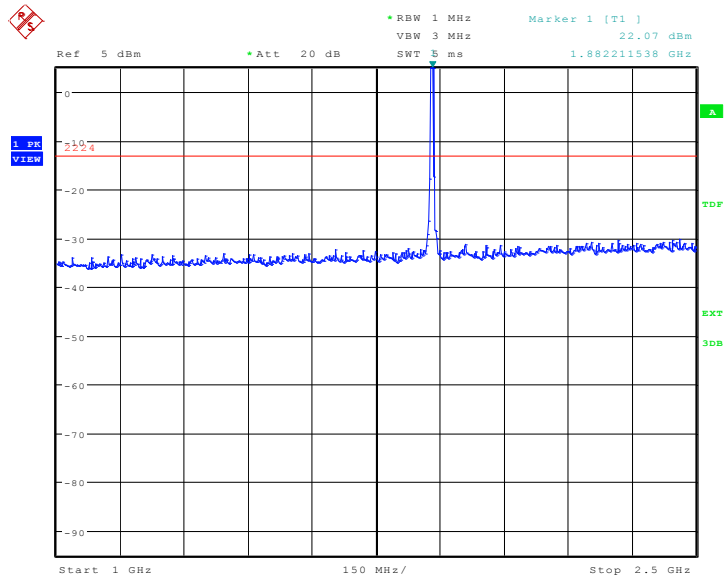
Channel 9400: 30MHz –1GHz
Spurious emission limit –13dBm.



Date: 15.SEP.2017 08:55:37

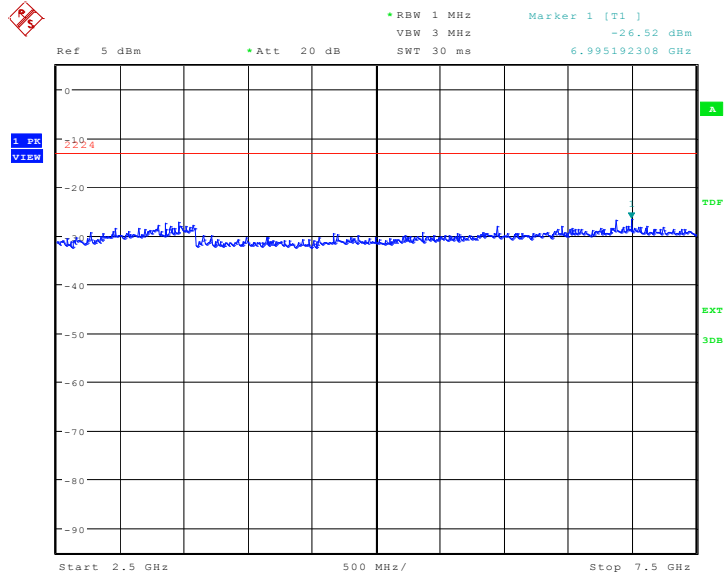
Channel 9400: 1GHz –2.5GHz
Spurious emission limit –13dBm.

NOTE: peak above the limit line is the carrier frequency.



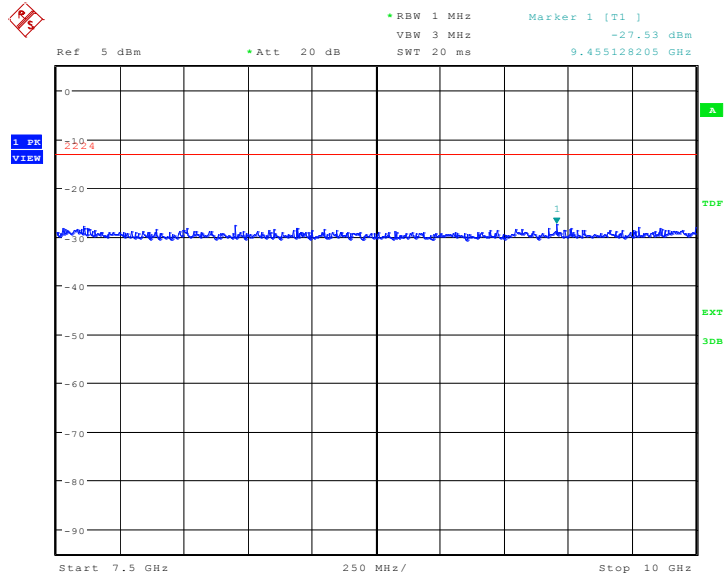
Date: 15.SEP.2017 08:56:05

Channel 9400: 2.5GHz –7.5GHz
Spurious emission limit –13dBm.



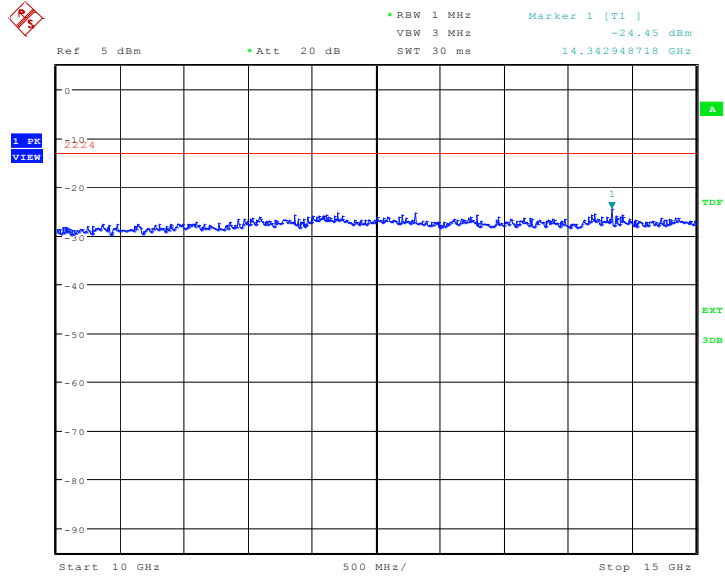
Date: 15.SEP.2017 08:56:33

Channel 9400: 7.5GHz –10GHz
Spurious emission limit –13dBm.



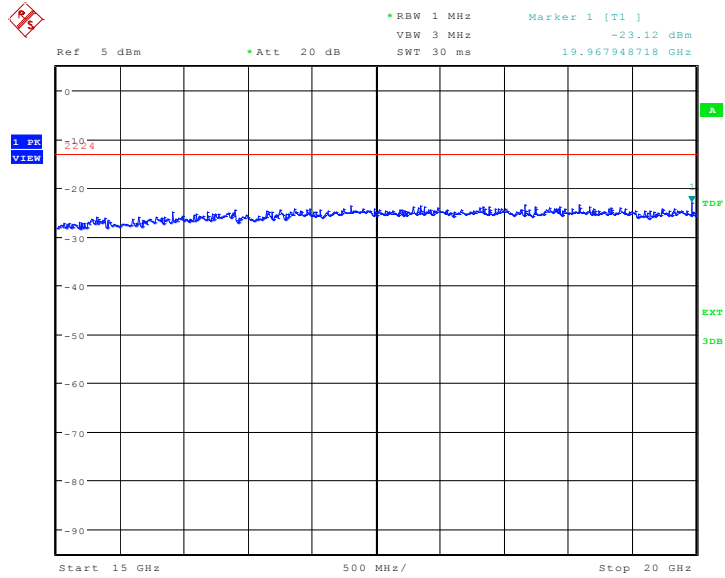
Date: 15.SEP.2017 08:57:02

Channel 9400: 10GHz –15GHz
Spurious emission limit –13dBm.



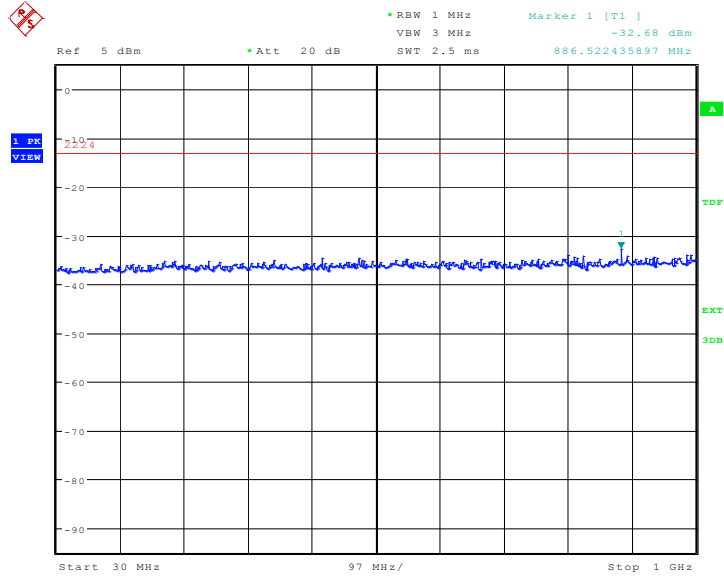
Date: 15.SEP.2017 08:57:30

Channel 9400: 15GHz –20GHz
Spurious emission limit –13dBm.



Date: 15.SEP.2017 08:57:58

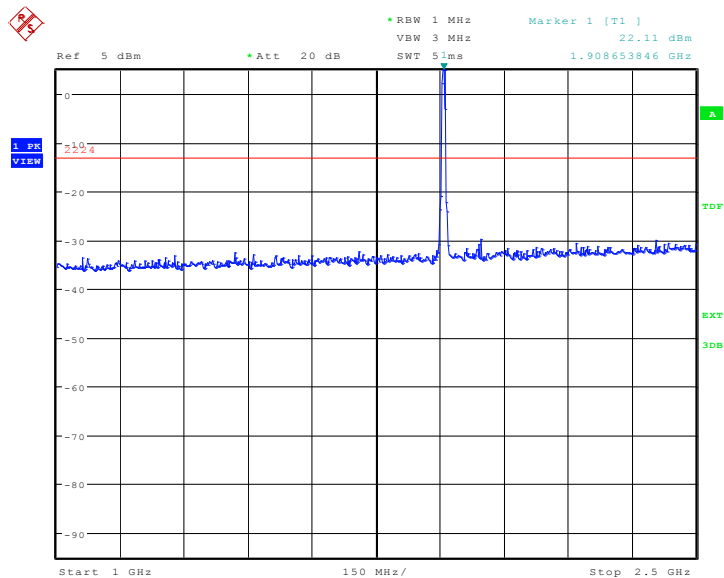
Channel 9538: 30MHz –1GHz
Spurious emission limit –13dBm.



Date: 15.SEP.2017 08:58:30

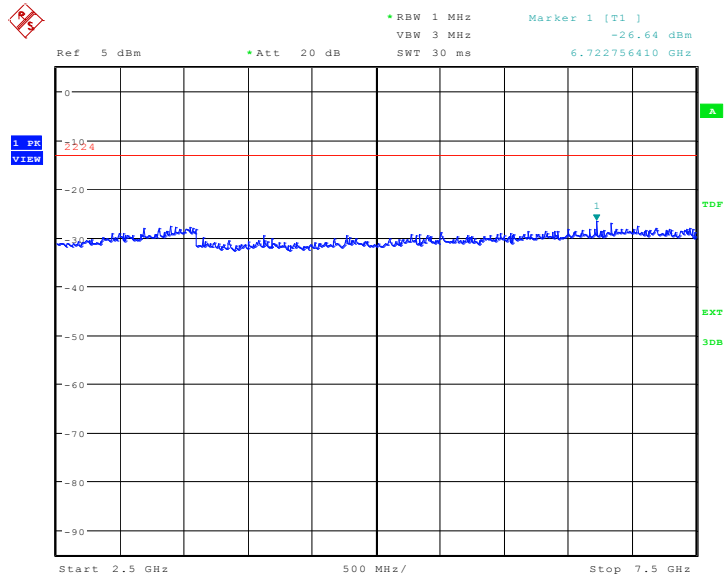
Channel 9538: 1GHz –2.5GHz
Spurious emission limit –13dBm.

NOTE: peak above the limit line is the carrier frequency.



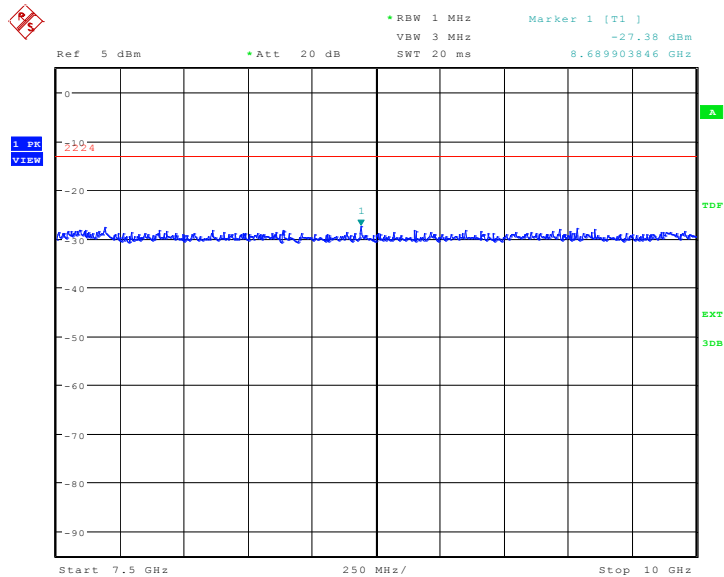
Date: 15.SEP.2017 08:58:58

Channel 9538: 2.5GHz –7.5GHz
Spurious emission limit –13dBm.



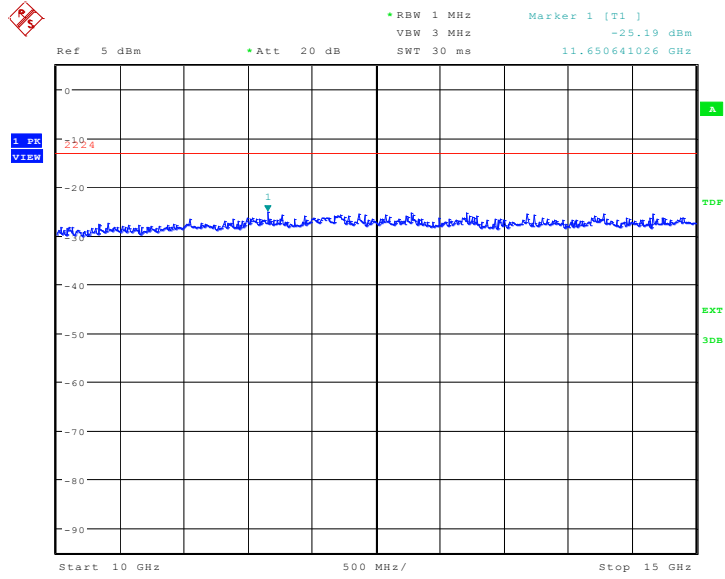
Date: 15.SEP.2017 08:59:26

Channel 9538: 7.5GHz –10GHz
Spurious emission limit –13dBm.



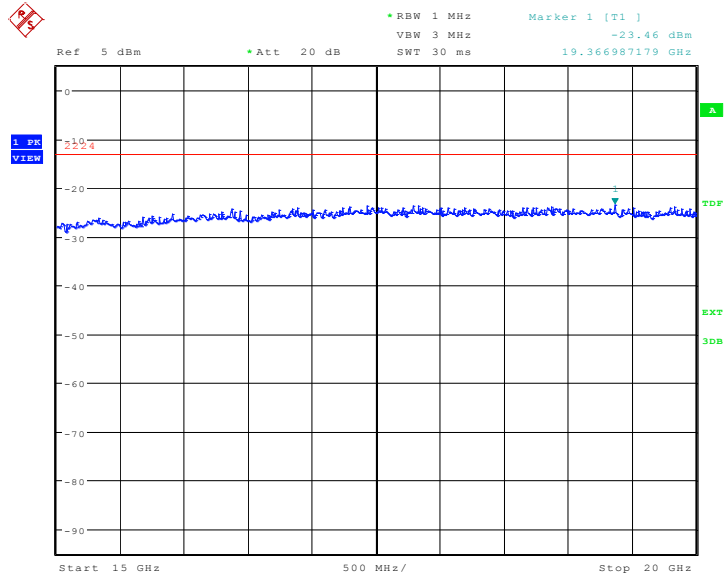
Date: 15.SEP.2017 08:59:55

Channel 9538: 10GHz –15GHz
Spurious emission limit –13dBm.



Date: 15.SEP.2017 09:00:23

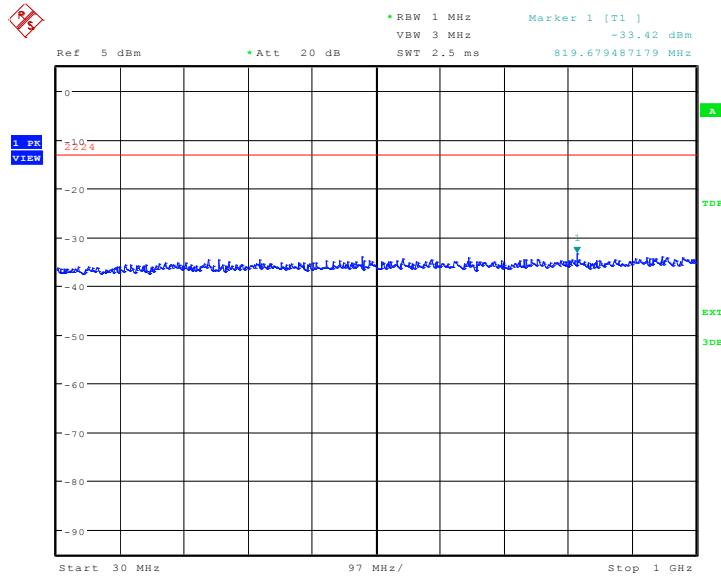
Channel 9538: 15GHz –20GHz
Spurious emission limit –13dBm.



Date: 15.SEP.2017 09:00:51

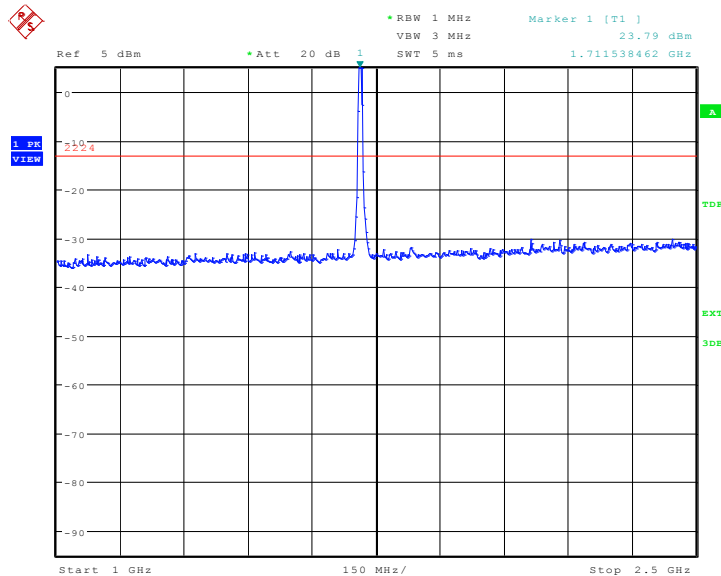


WCDMA Band IV
Channel 1312: 30MHz –1GHz
Spurious emission limit –13dBm.



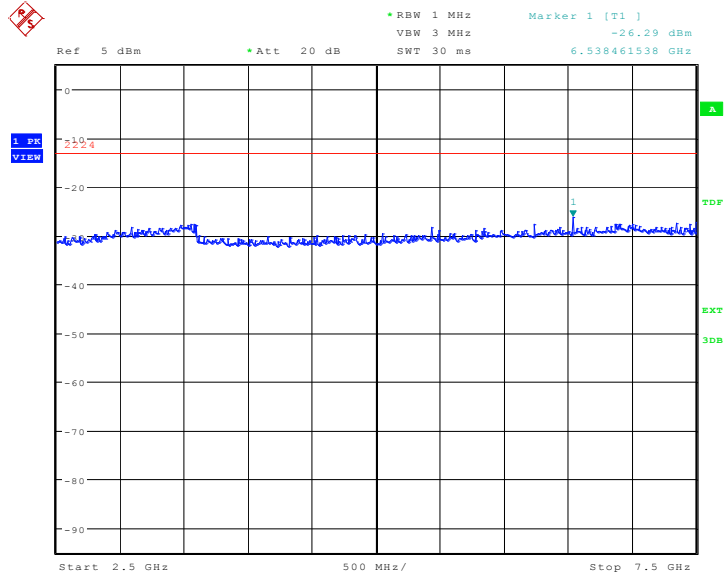
Date: 11.SEP.2017 10:00:11

Channel 1312: 1GHz –2.5GHz
Spurious emission limit –13dBm.
NOTE: peak above the limit line is the carrier frequency.



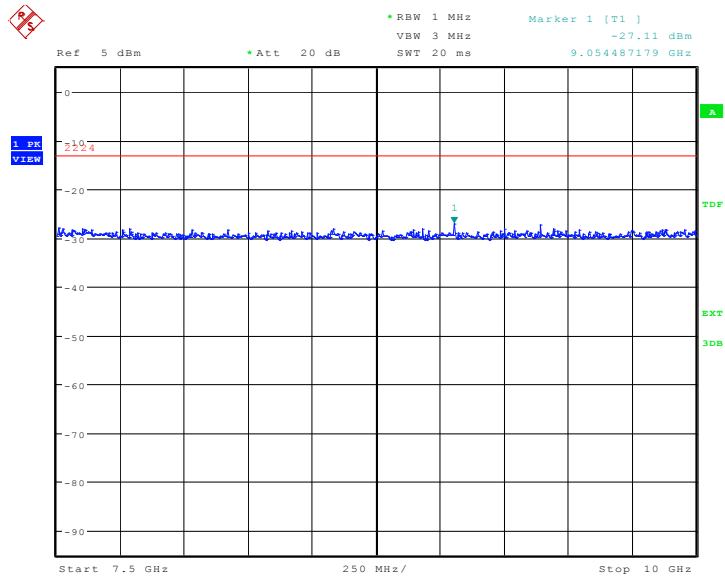
Date: 11.SEP.2017 10:00:40

Channel 1312: 2.5GHz –7.5GHz
Spurious emission limit –13dBm.



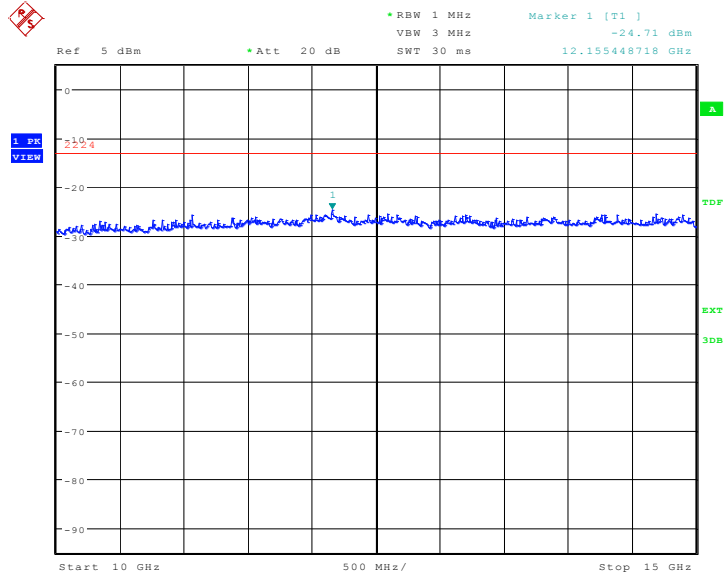
Date: 11.SEP.2017 10:01:08

Channel 1312: 7.5GHz –10GHz
Spurious emission limit –13dBm.



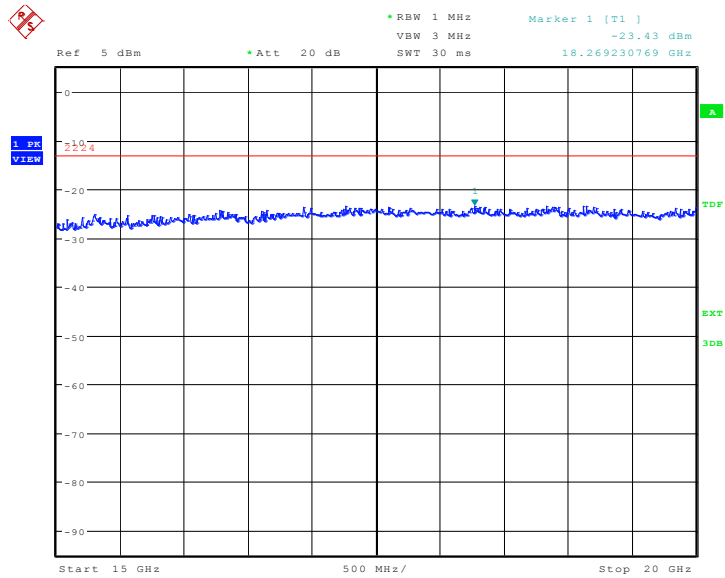
Date: 11.SEP.2017 10:01:36

Channel 1312: 10GHz –15GHz
Spurious emission limit –13dBm.



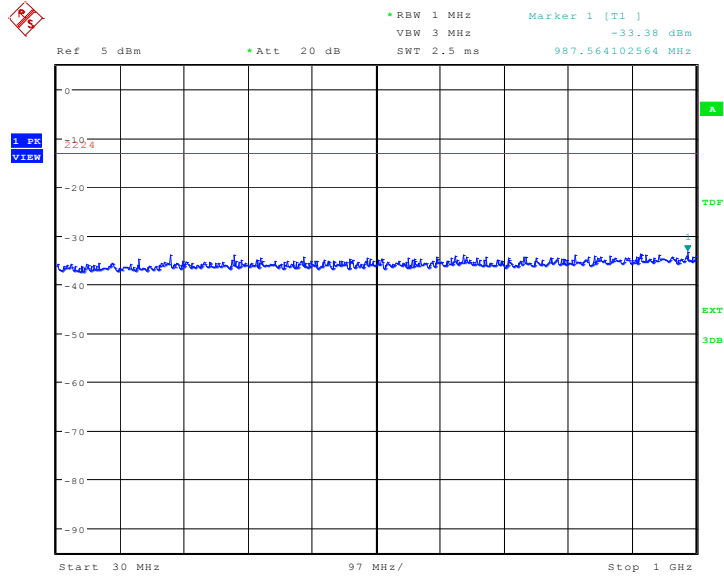
Date: 11.SEP.2017 10:02:04

Channel 1312: 15GHz –20GHz
Spurious emission limit –13dBm.



Date: 11.SEP.2017 10:02:32

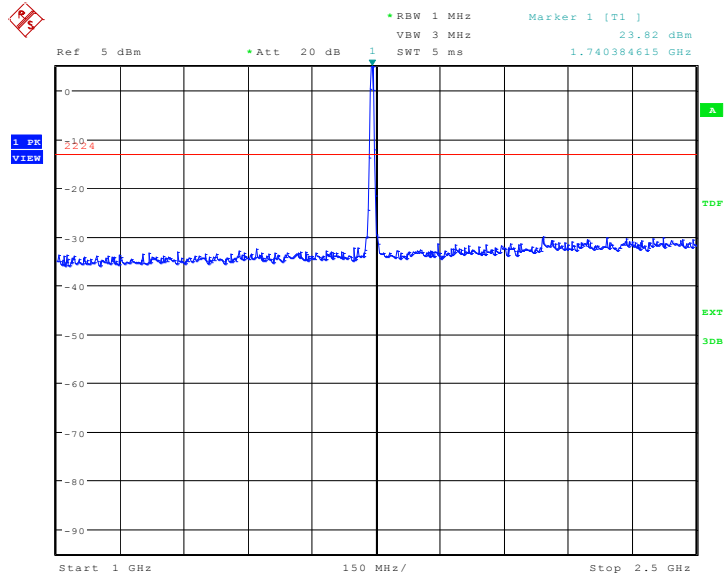
Channel 1450: 30MHz –1GHz
Spurious emission limit –13dBm.



Date: 11.SEP.2017 10:03:03

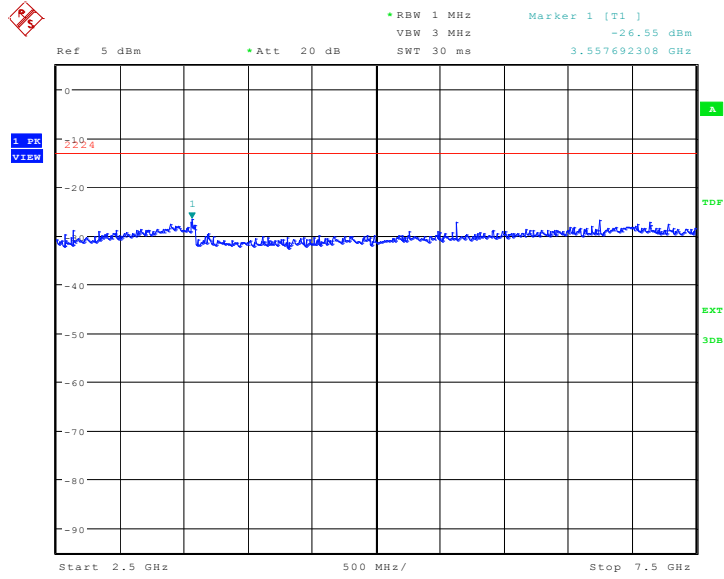
Channel 1450: 1GHz –2.5GHz
Spurious emission limit –13dBm.

NOTE: peak above the limit line is the carrier frequency.



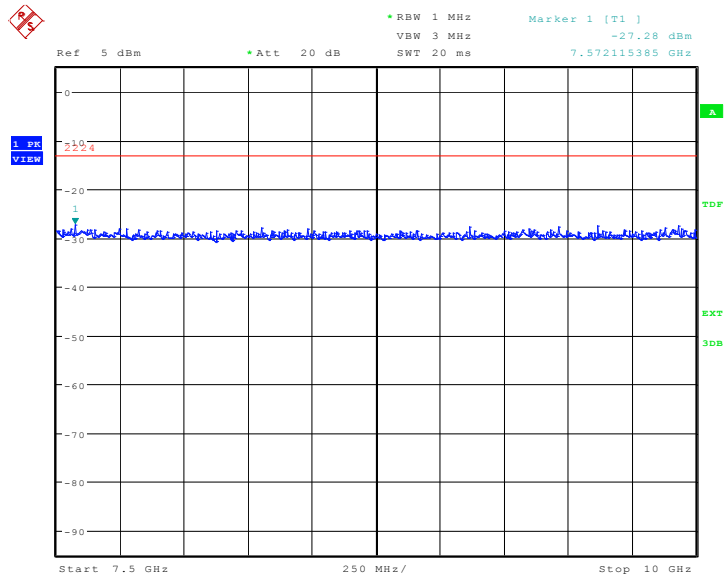
Date: 11.SEP.2017 10:03:31

Channel 1450: 2.5GHz –7.5GHz
Spurious emission limit –13dBm.



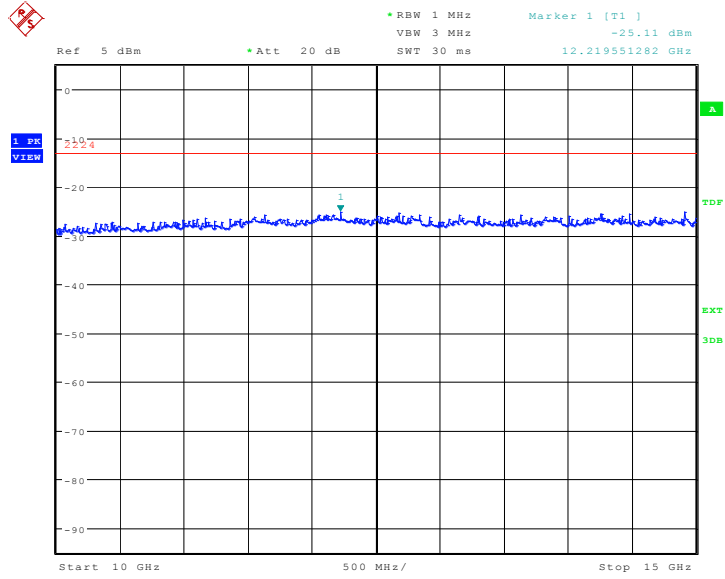
Date: 11.SEP.2017 10:03:59

Channel 1450: 7.5GHz –10GHz
Spurious emission limit –13dBm.



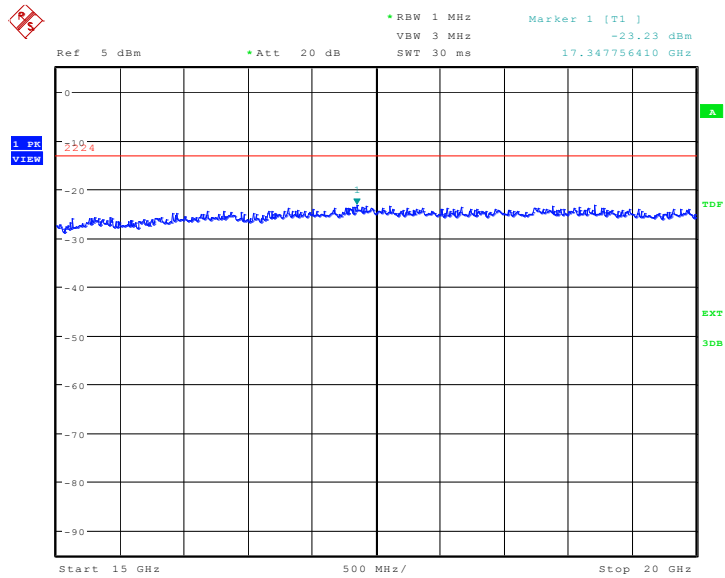
Date: 11.SEP.2017 10:04:27

Channel 1450: 10GHz –15GHz
Spurious emission limit –13dBm.



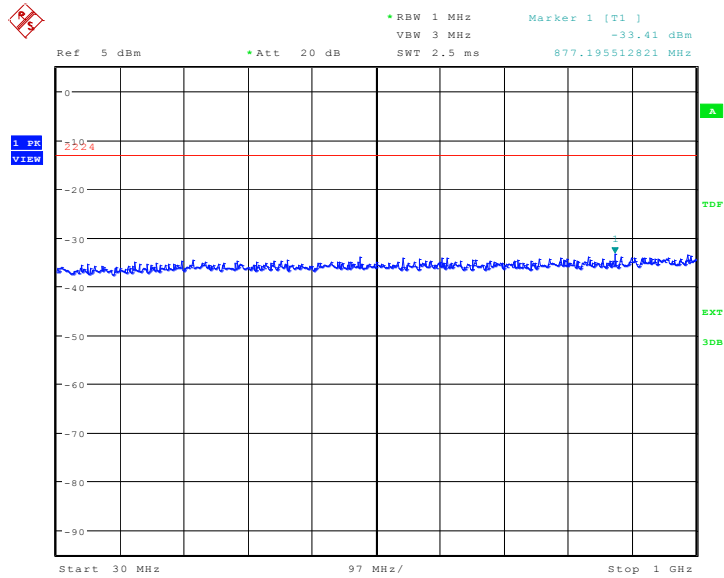
Date: 11.SEP.2017 10:04:56

Channel 1450: 15GHz –20GHz
Spurious emission limit –13dBm.



Date: 11.SEP.2017 10:05:24

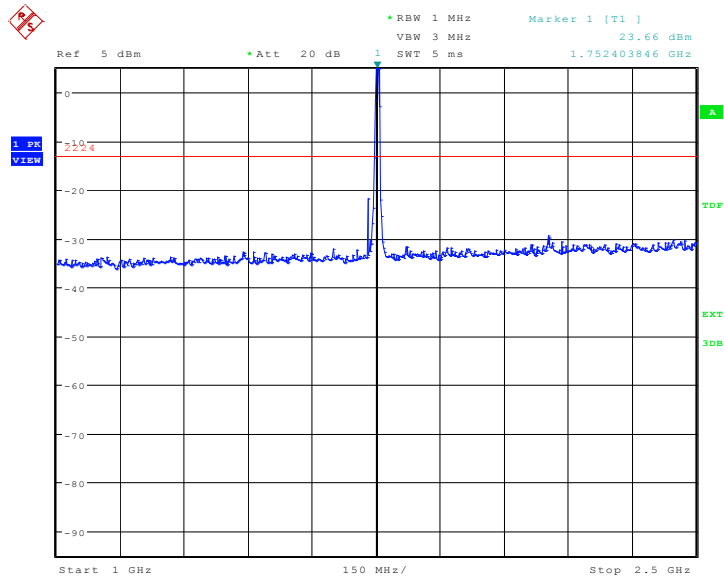
Channel 1513: 30MHz –1GHz
Spurious emission limit –13dBm.



Date: 11.SEP.2017 10:05:55

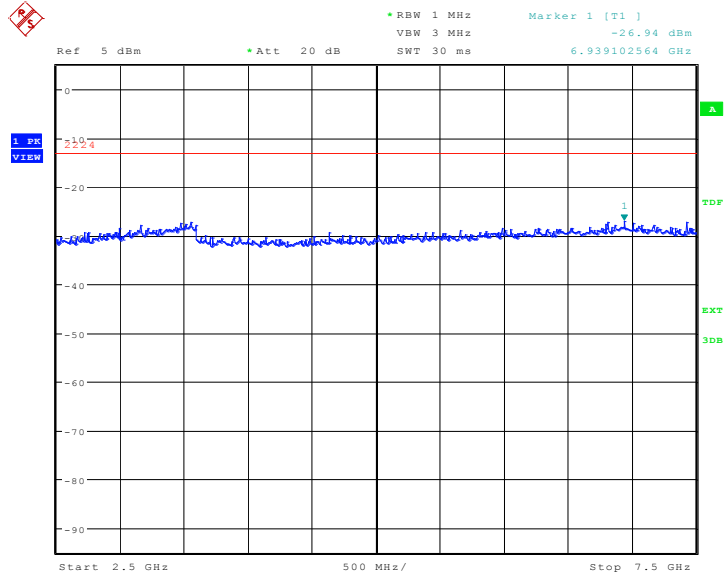
Channel 1513: 1GHz –2.5GHz
Spurious emission limit –13dBm.

NOTE: peak above the limit line is the carrier frequency.



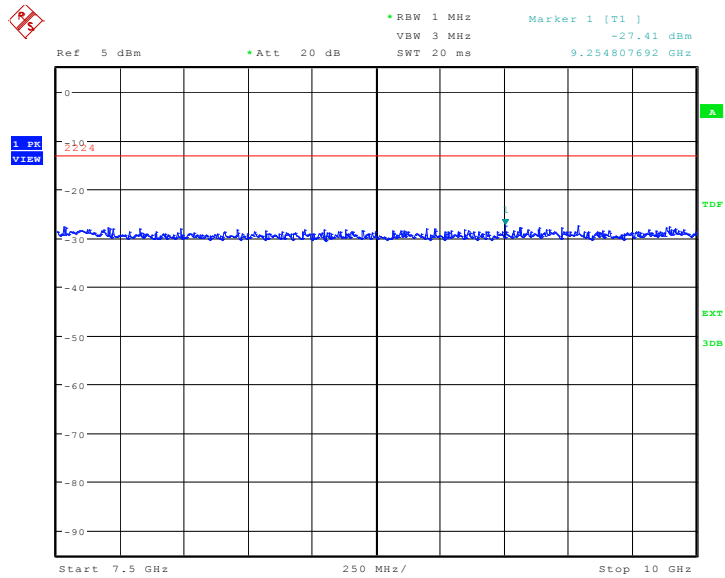
Date: 11.SEP.2017 10:06:23

Channel 1513: 2.5GHz –7.5GHz
Spurious emission limit –13dBm.



Date: 11.SEP.2017 10:06:51

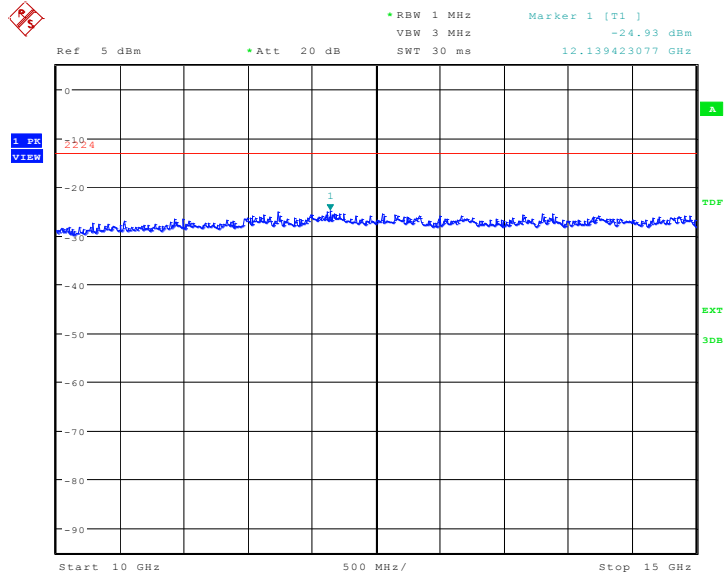
Channel 1513: 7.5GHz –10GHz
Spurious emission limit –13dBm.



Date: 11.SEP.2017 10:07:19

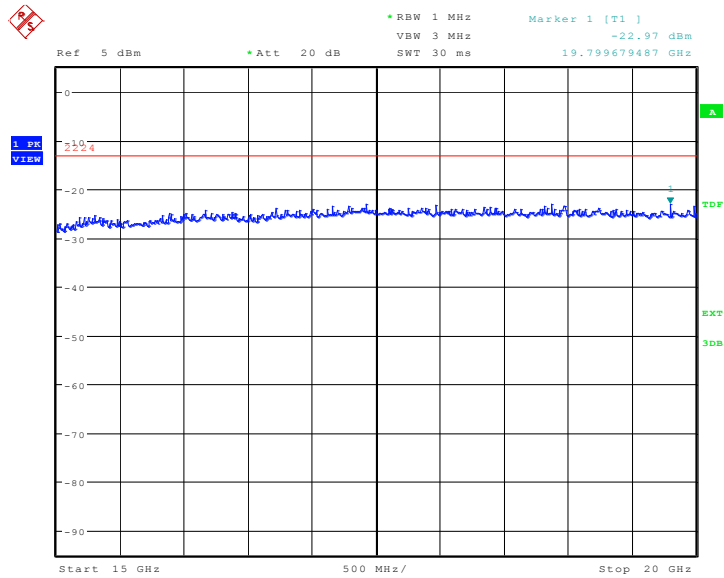


Channel 1513: 10GHz –15GHz
Spurious emission limit –13dBm.



Date: 11.SEP.2017 10:07:47

Channel 1513: 15GHz –20GHz
Spurious emission limit –13dBm.



Date: 11.SEP.2017 10:08:15

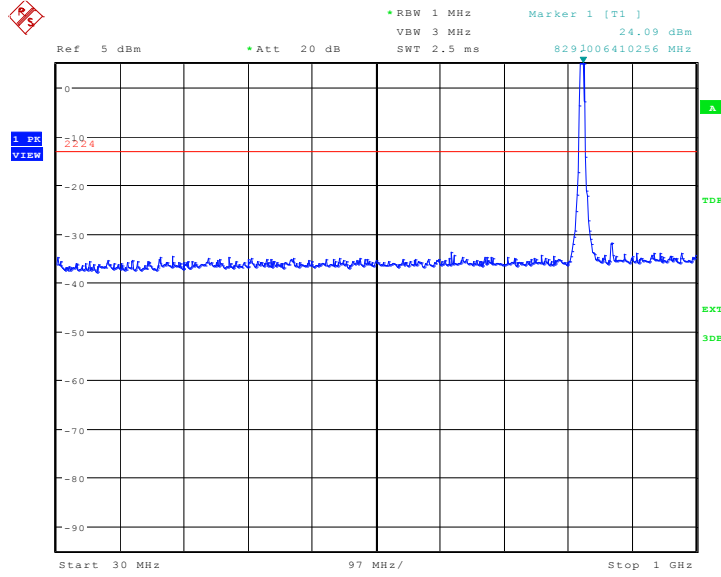


WCDMA Band V

Channel 4132: 30MHz –1GHz

Spurious emission limit –13dBm.

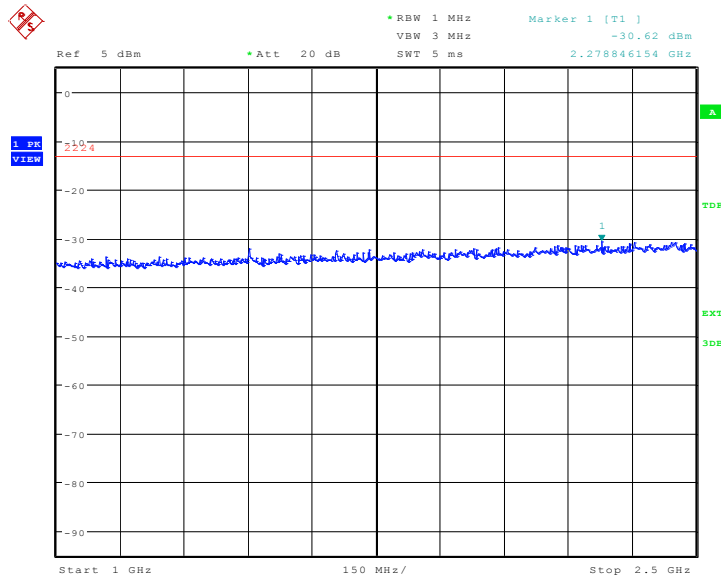
NOTE: peak above the limit line is the carrier frequency.



Date: 4.SEP.2017 14:41:59

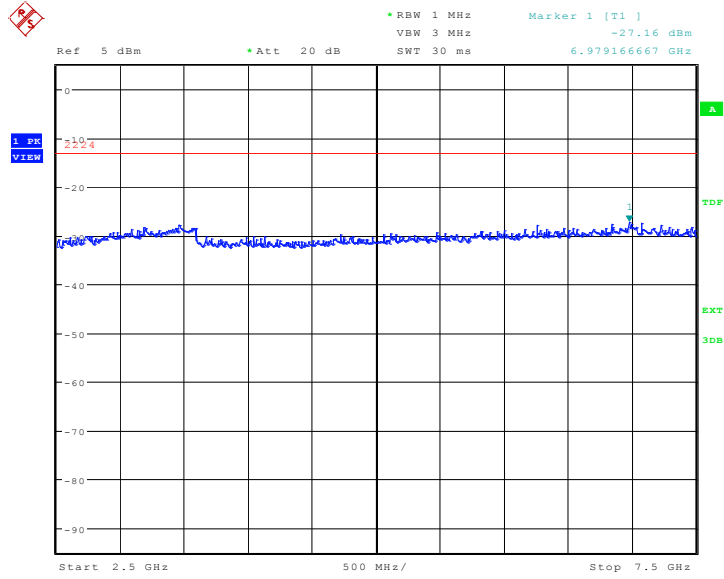
Channel 4132: 1GHz – 2.5GHz

Spurious emission limit –13dBm.



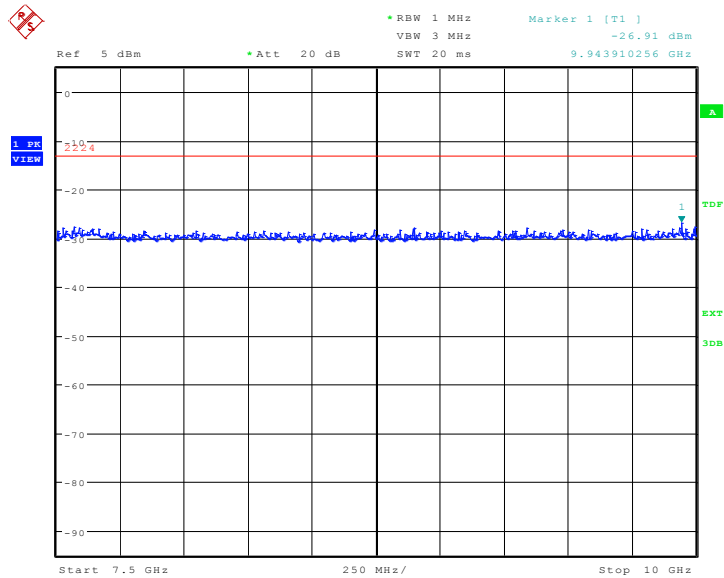
Date: 4.SEP.2017 14:42:28

Channel 4132: 2.5GHz –7.5GHz
Spurious emission limit –13dBm.



Date: 4.SEP.2017 14:42:56

Channel 4132: 7.5GHz – 10GHz
Spurious emission limit –13dBm.

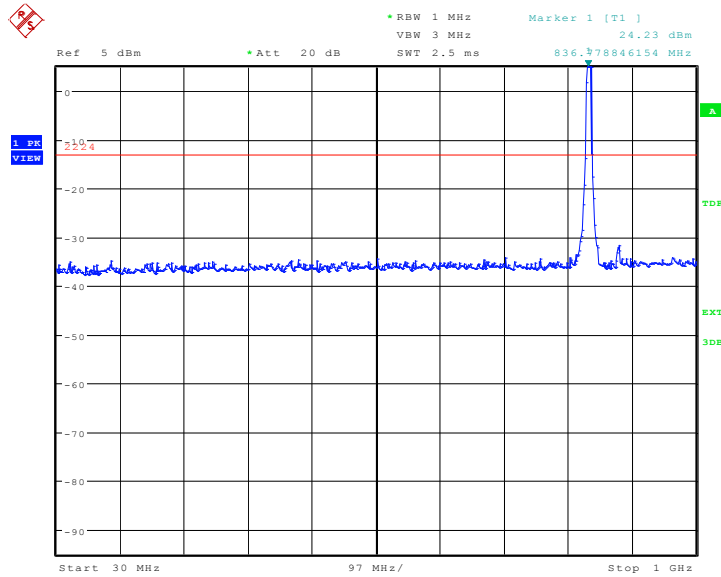


Date: 4.SEP.2017 14:43:24

Channel 4183: 30MHz –1GHz

Spurious emission limit –13dBm.

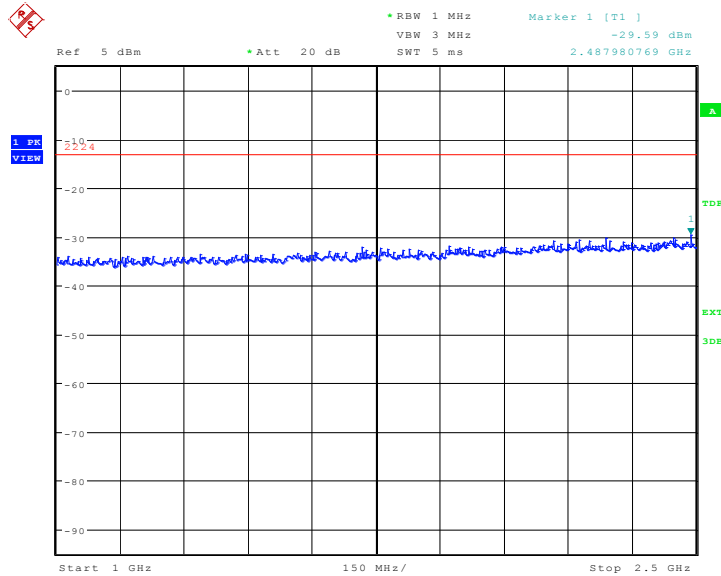
NOTE: peak above the limit line is the carrier frequency.



Date: 4.SEP.2017 14:43:55

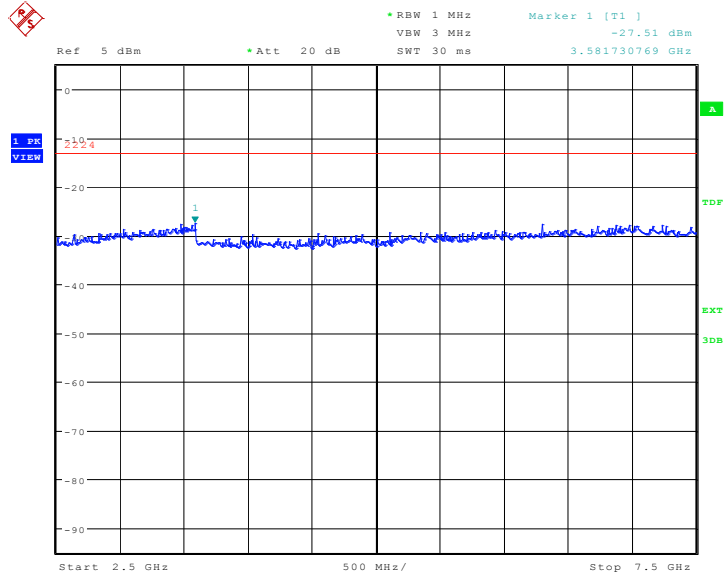
Channel 4183: 1GHz – 2.5GHz

Spurious emission limit –13dBm.



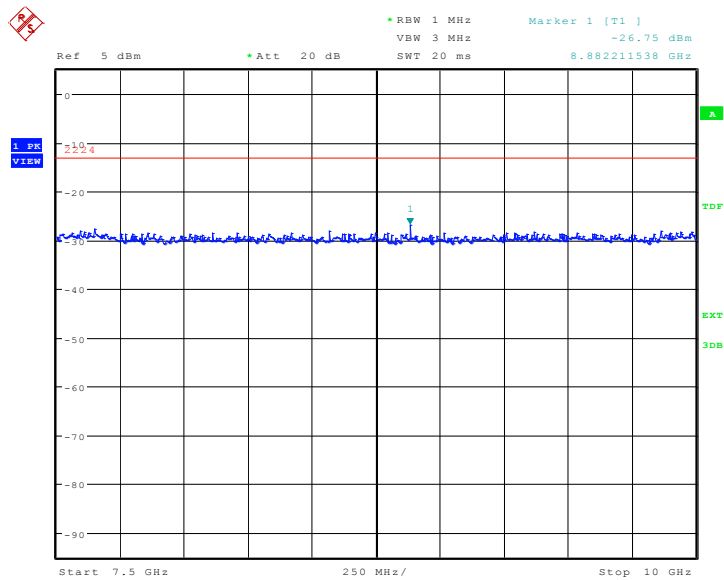
Date: 4.SEP.2017 14:44:23

Channel 4183: 2.5GHz –7.5GHz
Spurious emission limit –13dBm.



Date: 4.SEP.2017 14:44:51

Channel 4183: 7.5GHz – 10GHz
Spurious emission limit –13dBm.

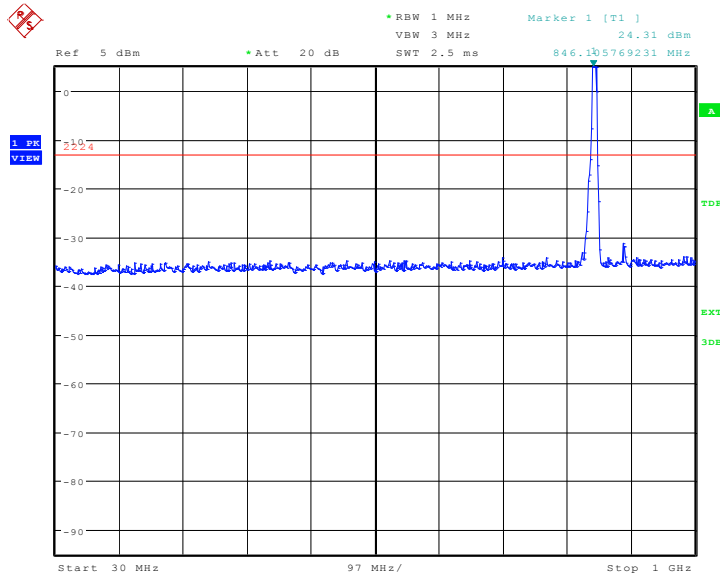


Date: 4.SEP.2017 14:45:19

Channel 4233: 30MHz –1GHz

Spurious emission limit –13dBm.

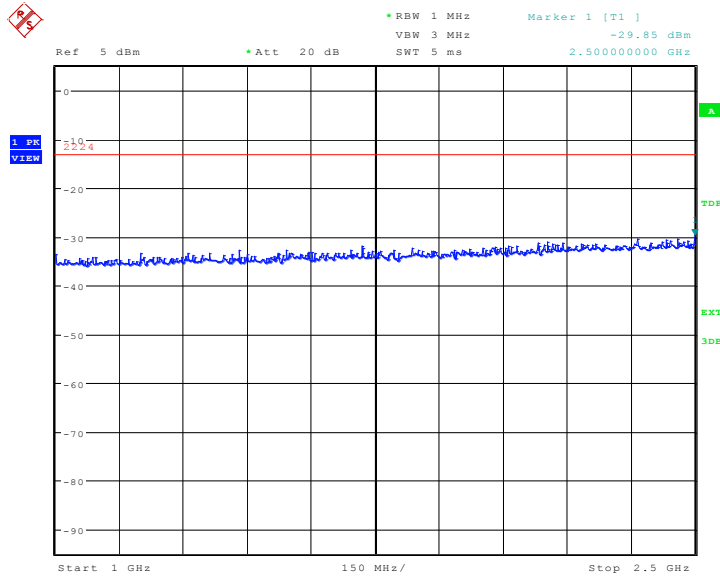
NOTE: peak above the limit line is the carrier frequency.



Date: 4.SEP.2017 14:45:50

Channel 4233: 1GHz – 2.5GHz

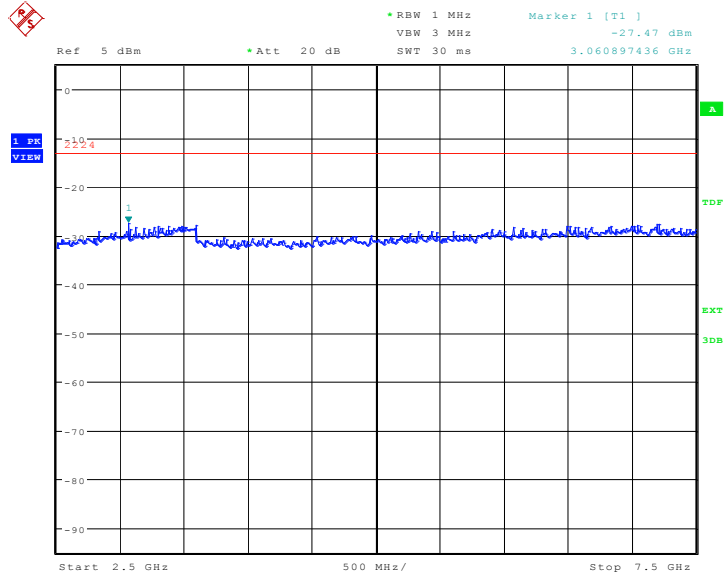
Spurious emission limit –13dBm.



Date: 4.SEP.2017 14:46:18

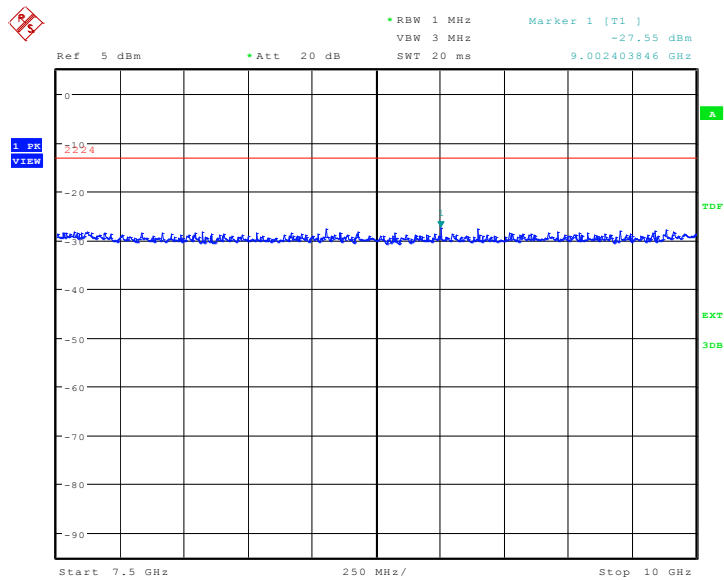


Channel 4233: 2.5GHz –7.5GHz
Spurious emission limit –13dBm.



Date: 4.SEP.2017 14:46:46

Channel 4233: 7.5GHz – 10GHz
Spurious emission limit –13dBm.



Date: 4.SEP.2017 14:47:14



A.7 PEAK-TO-AVERAGE POWER RATIO

Reference

FCC: CFR Part 24.232 (d), 27.50(a)

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.

According to KDB 971168:

- a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;
- b) Set resolution/measurement bandwidth \geq signal's occupied bandwidth;
- c) Set the number of counts to a value that stabilizes the measured CCDF curve;
- d) Set the measurement interval to 1 ms
- e) Record the maximum PAPR level associated with a probability of 0.1%

A.7.1 Measurement limit

not exceed 13 dB

A.7.2 Measurement results

WCDMA Band II

Measurement result


WCDMA (Band II)	CH	Frequency(MHz)	PAPR(dB)
	9262	1852.4	3.43
	9400	1880.0	3.62
	9538	1907.6	3.24

WCDMA Band IV

Measurement result

WCDMA (Band IV)	CH	Frequency(MHz)	PAPR(dB)
	1312	1712.4	3.11
	1450	1740.0	3.24
	1513	1752.6	3.17

ANNEX B: Accreditation Certificate

<p>United States Department of Commerce National Institute of Standards and Technology</p> 	
<hr/> <p>Certificate of Accreditation to ISO/IEC 17025:2005</p> <hr/>	
<p>NVLAP LAB CODE: 600118-0</p>	
<p>Telecommunication Technology Labs, CAICT Beijing China</p>	
<p><i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i></p>	
<p>Electromagnetic Compatibility & Telecommunications</p>	
<p><i>This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).</i></p>	
<hr/> <p>2016-09-29 through 2017-09-30 <i>Effective Dates</i></p>	 <hr/> <p><i>[Signature]</i> For the National Voluntary Laboratory Accreditation Program</p>

END OF REPORT