FCC Part 22/24/27/90 Compliance Test Report

Test Report no.:	FCC22&24&27&90 RM-1078_07	**Date of Report:**	10-Sep-2014
Number of pages:	81	**Customer's Contact person:**	Hu Dongji
Testing laboratory:	TCC Microsoft Beijing Laboratory Beijing Economic and Technological Development Area No.5 Donghuan Zhonglu Beijing PRC China 100176 Tel. +86 10 8711 8888 Fax. +86 10 8711 4550	**Customer:**	Microsoft Beijing Economic and Technological Development Area No.5 Donghuan Zhonglu Beijing PRC China 100176 Tel. +86 10 8711 8888 Fax. +86 10 8711 4550
FCC listing no.: **IC recognition no.:**	975940 661AH-1		
Tested devices/ accessories:	**Phone RM-1078 / Battery BL-5H / Headset WH-108 / AC-Charger AC-20U / Dummy Battery SD-128**		
FCC ID:	QTLRM-1078	**IC:**	
Supplement reports:	-		
Testing has been carried out in accordance with:	**CFR 47, FCC rules Parts 22/24/27/90, TIA-603-C-2004 and IC standards, RSS-GEN (Issue 3, December 2010), RSS-132 (Issue 2, September 2005), RSS-133 (Issue 5, February 2009). Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method and limit".**		
Documentation:	The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 15 years at TCC Microsoft.		
Test Results:	**The EUT complies with the requirements in respect of all parameters subject to the test.** The test results relate only to devices specified in this document		
Date and signature for the contents:	Fu Roger Digitally signed by Fu Roger DN: cn=Fu Roger, o=Microsoft, ou=TCC RCL, email=Roger.fu@microsoft.com, c=CN Date: 2014.09.10 17:48:28 +08'00'		

Fu Roger, Engineer, EMC

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1. Summary for FCC Part 22/24/27/90 Compliance Test Report

Date of receipt	31-Jul-2014
Testing completed	05-Sep-2014
The customer's contact person	Hu Dongji
Test Plan referred to	T:\Projects\RM-1078\TestPlan\RS_Testplan_RM-1078.xlsm
Notes	-
Document name	FCC22&24&27&90 RM-1078_07.docx

1.1. EUT and Accessory Information

The EUT is a mobile phone with following features:
GSM/CDMA/WCDMA/LTE/WLAN/Bluetooth
The EUT is tested with maximum rated TX power.

Devices under tests

Product	Type	SN	HW	MV	SW	DUT
Phone	RM-1078	355129060007158	0201	-	02035.00000.14295.07001	54578
Battery	BL-5H	4175354275C20304014;0670699	-	-	-	54577
Headset	WH-108	3293L71	-	-	-	54240
AC-Charger	AC-20U	486867311234050997O;0675629	-	-	-	53340
Phone	RM-1078	355129060007299	0201	-	02035.00000.14295.07001	54582
AC-Charger	AC-20U	486867246245050027O;0675629	-	-	-	54581
Battery	BL-5H	4175354275C20304003;0670699	-	-	-	54583
Headset	WH-108	3022D71	-	-	-	54459
Dummy Battery	SD-128	03618	-	-	-	54585

1.2. Summary of Test Results

GSM 1900:

Section in CFR 47	Section in RSS-GEN or RSS-133	Name of the test	Result
§2.1046(a)	6.4	Conducted RF output power	NP
§24.232(b)	6.4	Radiated RF output power	NP
§2.1049(h)	4.6.1	99 % occupied bandwidth	PASSED
§24.238(a)	6.5	Band edge compliance	PASSED
§24.238(a), §2.1051	6.5	Spurious emissions at antenna terminals	NP
§24.238(a), §2.1053	6.5	Spurious radiated emissions	PASSED
§2.1055(a)	6.3	Frequency stability, temperature variation	PASSED
§2.1055(d)	6.3	Frequency stability, voltage variation	PASSED

GSM 850:

Section in CFR 47	Section in RSS-GEN or RSS-132	Name of the test	Result
§2.1046(a), 22.913(a)	4.4	Conducted RF output power	NP
§22.913(a)	4.4	Radiated RF output power	NP
§2.1049(h)	4.6.1	99 % occupied bandwidth	PASSED
§22.917(a)	4.5	Band edge compliance	PASSED
§22.917(a), §2.1051	4.5	Spurious emissions at antenna terminals	NP
§22.917(a), §2.1053	4.5	Spurious radiated emissions	PASSED
§2.1055(a)	4.3	Frequency stability, temperature variation	PASSED
§2.1055(d)	4.3	Frequency stability, voltage variation	PASSED

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CDMA 800:

Section in CFR 47	Section in RSS-GEN or RSS-132	Name of the test	Result
§2.1046(a), 22.913(a)	4.4	Conducted RF output power	NP
§22.913(a)	4.4	Radiated RF output power	NP
§2.1049(h)	4.6.1	99 % occupied bandwidth	PASSED
§22.917(a)	4.5	Band edge compliance	PASSED
§22.917(a), §2.1051	4.5	Spurious emissions at antenna terminals	NP
§22.917(a), §2.1053	4.5	Spurious radiated emissions	PASSED
§2.1055(a)	4.3	Frequency stability, temperature variation	NP
§2.1055(d)	4.3	Frequency stability, voltage variation	NP

CDMA BC10, subclass 2/3:

Section in CFR 47	Not allowed in Canada	Name of the test	Result
§90.635(b)		Conducted RF output power	NP
§90.635(b)		Radiated RF output power	NP
§2.1049(h)		99 % occupied bandwidth	PASSED
§90.691(a)(2)		Band edge compliance	PASSED
§90.691(a)(2)		Spurious emissions at antenna terminals	NP
§90.691(a)(2)		Spurious radiated emissions	PASSED
§90.213(a)		Frequency stability, temperature variation	NP
§90.213(a)		Frequency stability, voltage variation	NP

CDMA 1900:

Section in CFR 47	Section in RSS-GEN or RSS-133	Name of the test	Result
§2.1046(a)	6.4	Conducted RF output power	NP
§24.232(b)	6.4	Radiated RF output power	NP
§2.1049(h)	4.6.1	99 % occupied bandwidth	PASSED
§24.238(a)	6.5	Band edge compliance	PASSED
§24.238(a), §2.1051	6.5	Spurious emissions at antenna terminals	NP
§24.238(a), §2.1053	6.5	Spurious radiated emissions	PASSED
§2.1055(a)	6.3	Frequency stability, temperature variation	NP
§2.1055(d)	6.3	Frequency stability, voltage variation	NP

WCDMA 1900:

Section in CFR 47	Section in RSS-GEN or RSS-133	Name of the test	Result
§2.1046(a)	6.4	Conducted RF output power	NP
§24.232(b)	6.4	Radiated RF output power	NP
§2.1049(h)	4.6.1	99 % occupied bandwidth	PASSED
§24.238(a)	6.5	Band edge compliance	PASSED
§24.238(a), §2.1051	6.5	Spurious emissions at antenna terminals	NP
§24.238(a), §2.1053	6.5	Spurious radiated emissions	PASSED
§2.1055(a)	6.3	Frequency stability, temperature variation	NP
§2.1055(d)	6.3	Frequency stability, voltage variation	NP

WCDMA 850:

Section in CFR 47	Section in RSS-GEN or RSS-132	Name of the test	Result
§2.1046(a), 22.913(a)	4.4	Conducted RF output power	NP
§22.913(a)	4.4	Radiated RF output power	NP
§2.1049(h)	4.6.1	99 % occupied bandwidth	PASSED
§22.917(a)	4.5	Band edge compliance	PASSED

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§22.917(a), §2.1051	4.5	Spurious emissions at antenna terminals	NP
§22.917(a), §2.1053	4.5	Spurious radiated emissions	PASSED
§2.1055(a)	4.3	Frequency stability, temperature variation	NP
§2.1055(d)	4.3	Frequency stability, voltage variation	NP

LTE25:

Section in CFR 47	Section in RSS-GEN or RSS-133	Name of the test	Result
§2.1046(a)	6.4	Conducted RF output power	NP
§24.232(c)	6.4	Radiated RF output power	NP
§2.1049(h)	4.6.1	99 % occupied bandwidth	PASSED
§24.238(a)	6.5	Band edge compliance	PASSED
§24.238(a)	6.5	Spurious emissions at antenna terminals	NP
§24.238(a)	6.5	Spurious radiated emissions	PASSED
§24.235	6.3	Frequency stability, temperature variation	PASSED
§24.235	6.3	Frequency stability, voltage variation	PASSED

LTE26 lower:

Section in CFR 47	Not allowed in Canada	Name of the test	Result
§90.635(b)		Conducted RF output power	NP
§90.635(b)		Radiated RF output power	NP
§2.1049(h)		99 % occupied bandwidth	PASSED
§90.691(a)(2)		Band edge compliance	PASSED
§90.691(a)(2)		Spurious emissions at antenna terminals	NP
§90.691(a)(2)		Spurious radiated emissions	PASSED
§90.213(a)		Frequency stability, temperature variation	PASSED
§90.213(a)		Frequency stability, voltage variation	PASSED

LTE26 upper:

Section in CFR 47	Section in RSS-GEN or RSS-132	Name of the test	Result
§2.1046(a), 22.913(a)	4.4	Conducted RF output power	NP
§22.913(a)	4.4	Radiated RF output power	NP
§2.1049(h)	4.6.1	99 % occupied bandwidth	PASSED
§22.917(a)	4.5	Band edge compliance	PASSED
§22.917(a), §2.1051	4.5	Spurious emissions at antenna terminals	NP
§22.917(a), §2.1053	4.5	Spurious radiated emissions	PASSED
§2.1055(a)	4.3	Frequency stability, temperature variation	PASSED
§2.1055(d)	4.3	Frequency stability, voltage variation	PASSED

LTE41:

Section in CFR 47	Not allowed in Canada	Name of the test	Result
§2.1046(a)		Conducted RF output power	NP
§27.50(h)(2)		Radiated RF output power	NP
§2.1049(h)		99 % occupied bandwidth	PASSED
§27.53(l)		Band edge compliance	PASSED
§27.53(h), §2.1051		Spurious emissions at antenna terminals	NP
§27.53(l), §2.1053		Spurious radiated emissions	PASSED
§27.54		Frequency stability, temperature variation	PASSED
§27.54		Frequency stability, voltage variation	PASSED

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PASSED	The EUT complies with the essential requirements in the standard.
FAILED	The EUT does not comply with the essential requirements in the standard.
NP	The test was not performed by the TCC Microsoft Laboratory.

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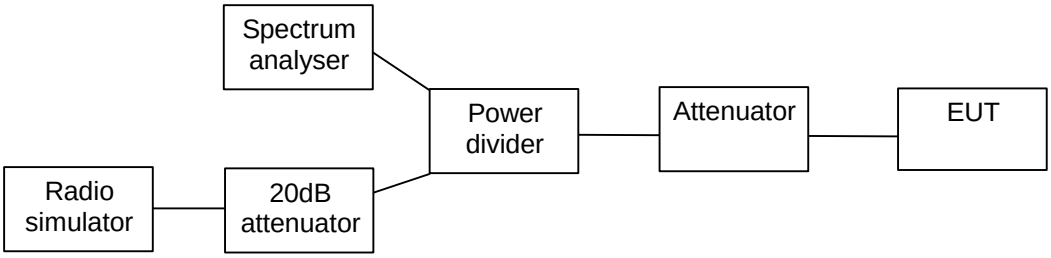
2. 99 % occupied bandwidth

(FCC §2.1049(h), RSS-133 4.6.1, RSS-132 4.6.1)

EUT with DUT number	RM-1078, DUT 54582
Accessories with DUT numbers	AC-20U, DUT 54581 ; BL-5H, DUT 54583 ; WH-108, DUT 54459
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	23/53/100.6 to 24/57/100.7
Date of measurements	13-Aug-2014 to 05-Sep-2014
Measured by	Dou Rubo

2.1. Test Setup



2.2. Test method and limit

The measurement is made according to applicable FCC rule parts and IC standards.

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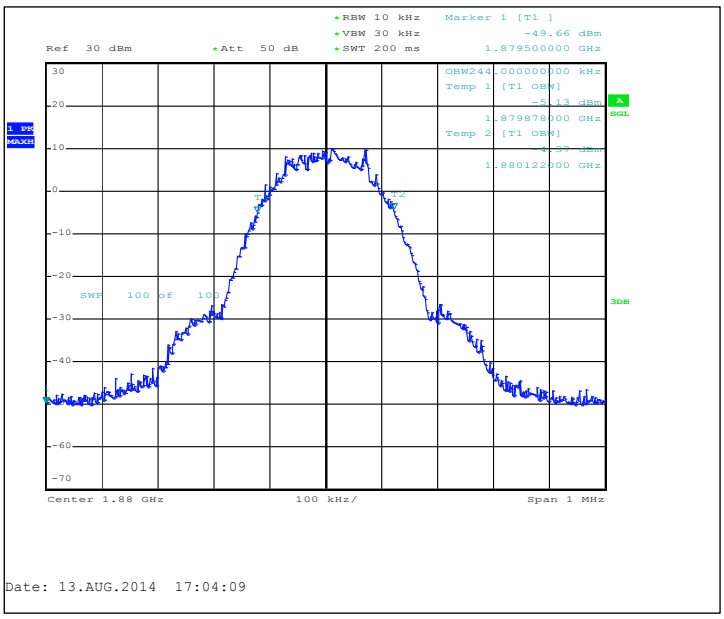
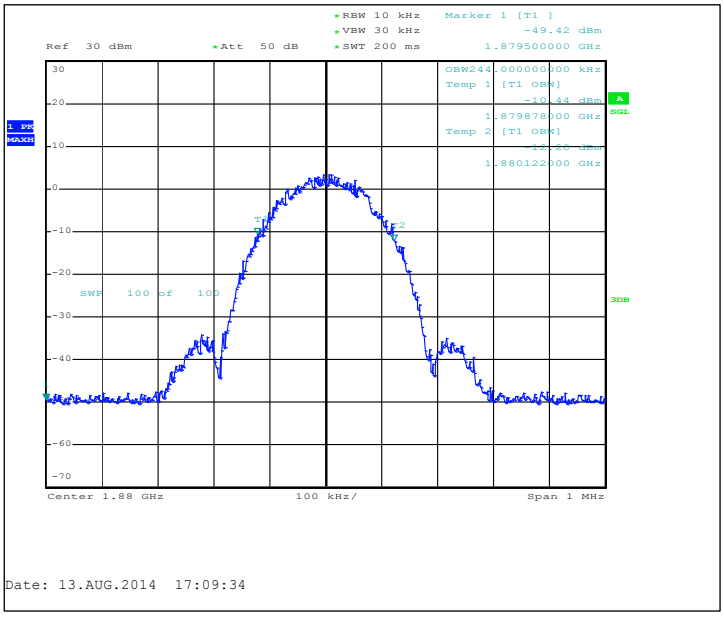
2.3. GSM 1900 Test results

Operation mode (TX on)	99% Occupied bandwidth [kHz]
GSM	244
EGPRS	244

GSM, Channel 661 / 1880.0 MHz



EGPRS, Channel 661 / 1880.0 MHz



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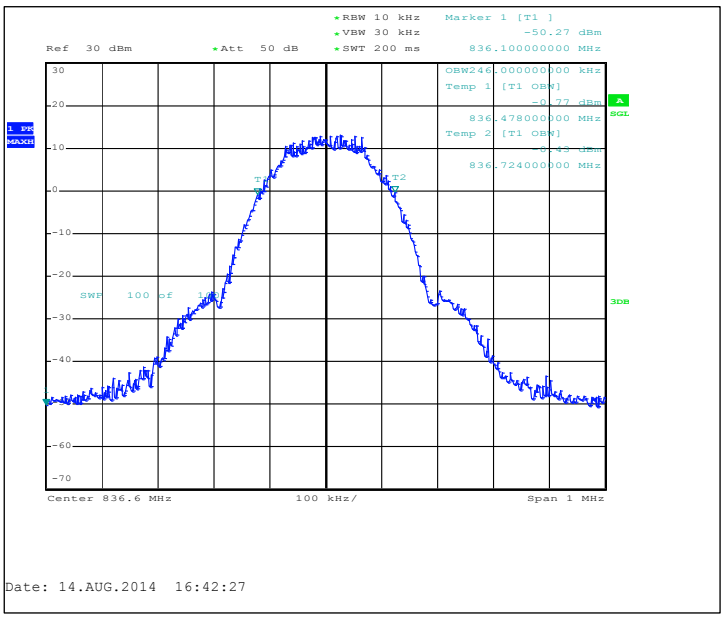
2.4. GSM 850 Test results

Operation mode (TX on)	99% Occupied bandwidth [kHz]
GSM	246
EGPRS	250

GSM, Channel 190 / 836.6 MHz



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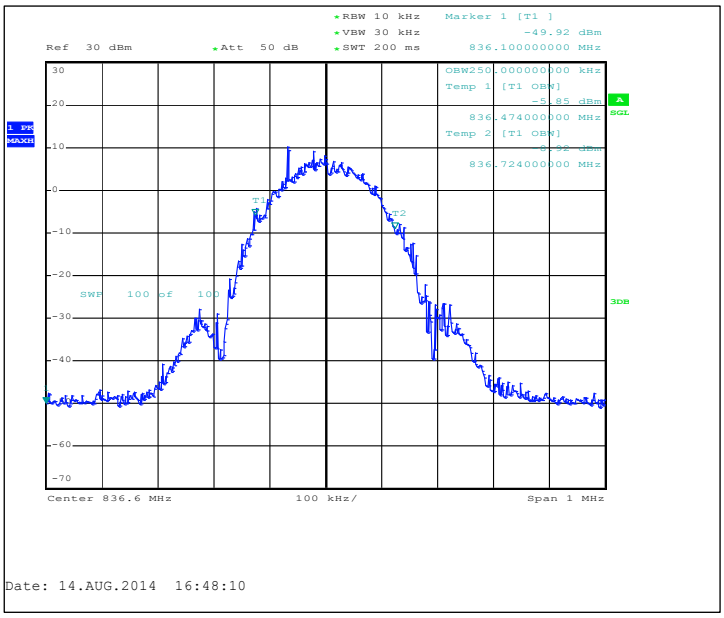
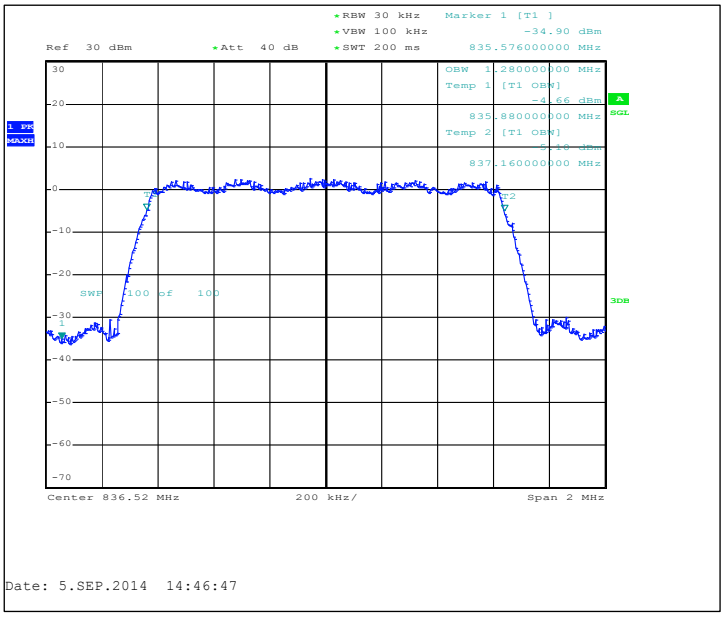
EGPRS, Channel 190 / 836.6 MHz



2.5. CDMA 800 Test results

Operation mode (TX on)	99% Occupied bandwidth [kHz]
CDMA	1280

CDMA, Channel 384 / 836.52 MHz



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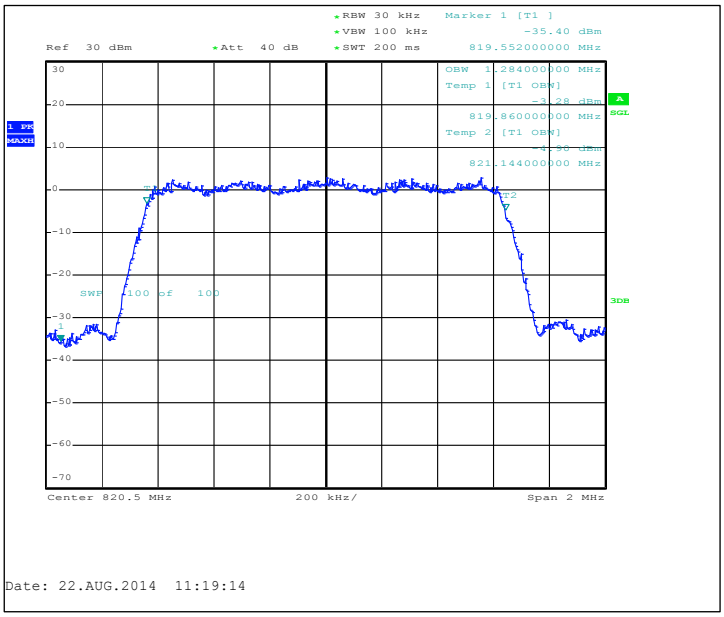
2.6. CDMA BC10, subclass 2/3 Test results

Operation mode (TX on)	99% Occupied bandwidth [kHz]
CDMA	1284

CDMA, Channel 580 / 820.5 MHz



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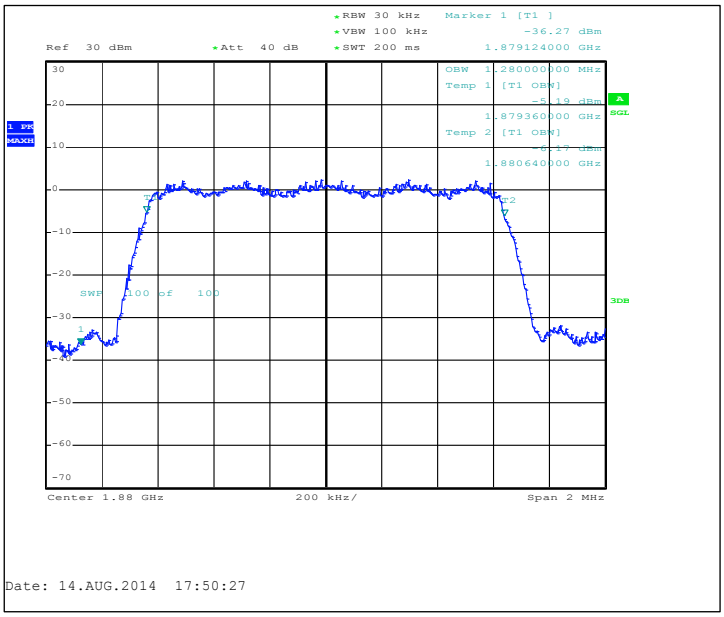
2.7. CDMA 1900 Test results

Operation mode (TX on)	99% Occupied bandwidth [kHz]
CDMA	1280

CDMA, Channel 600 / 1880.0 MHz



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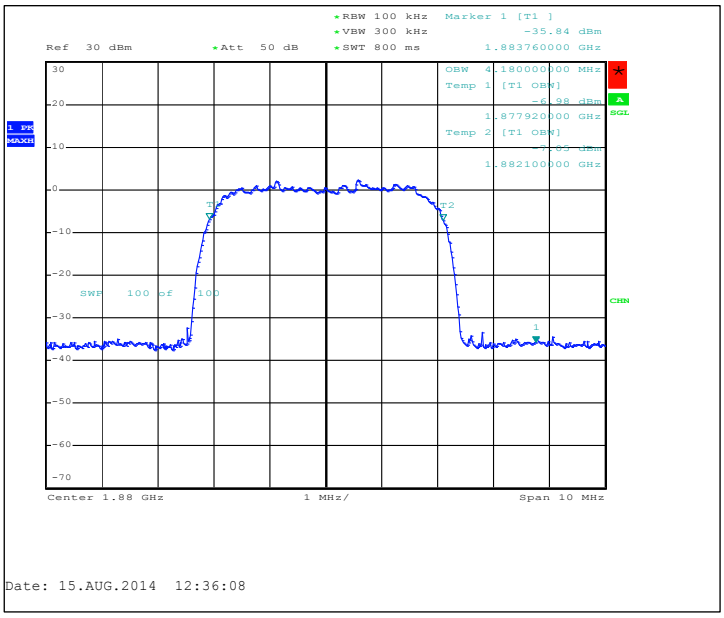
2.8. WCDMA 1900 Test results

Operation mode (TX on)	99% Occupied bandwidth [kHz]
FDD	4180

FDD, Channel 9400 / 1880.0 MHz, antenna1



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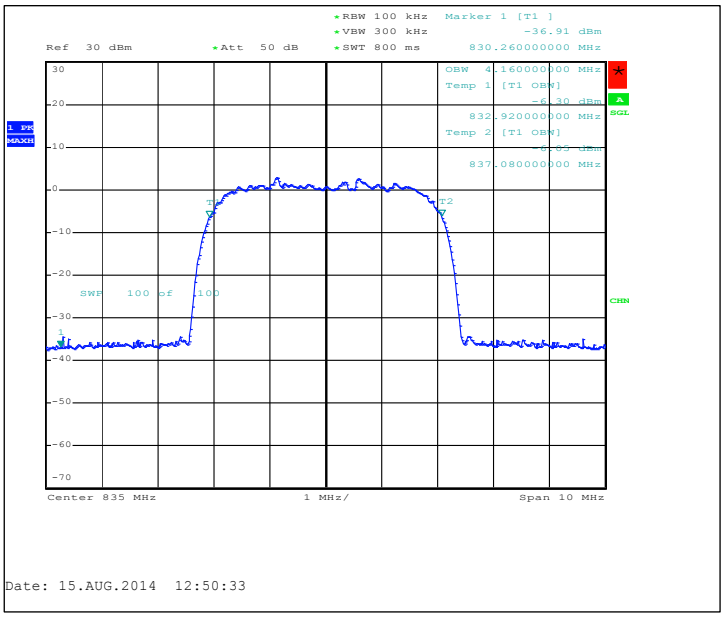
2.9. WCDMA 850 Test results

Operation mode (TX on)	99% Occupied bandwidth [kHz]
FDD	4160

FDD, Channel 4175 / 835.0 MHz, antenna2



2.10. LTE25 Test results

Operation mode (TX on)	99% Occupied bandwidth [kHz]
FDD, CBW 1.4MHz, QPSK, 6 RB	1112
FDD, CBW 3MHz, QPSK, 15 RB	2696
FDD, CBW 5MHz, QPSK, 25 RB	4508
FDD, CBW 10MHz, QPSK, 50 RB	8970
FDD, CBW 15MHz, QPSK, 75 RB	13440
FDD, CBW 20MHz, QPSK, 100 RB	17900
FDD, CBW 1.4MHz, 16QAM, 6 RB	1112
FDD, CBW 3MHz, 16QAM, 15 RB	2688
FDD, CBW 5MHz, 16QAM, 25 RB	4480
FDD, CBW 10MHz, 16QAM, 50 RB	8970
FDD, CBW 15MHz, 16QAM, 75 RB	13400
FDD, CBW 20MHz, 16QAM, 100 RB	17900

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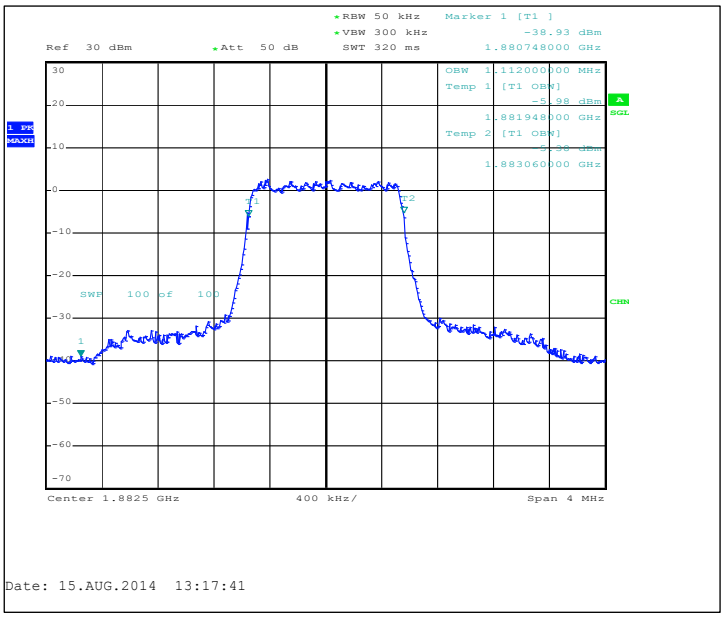
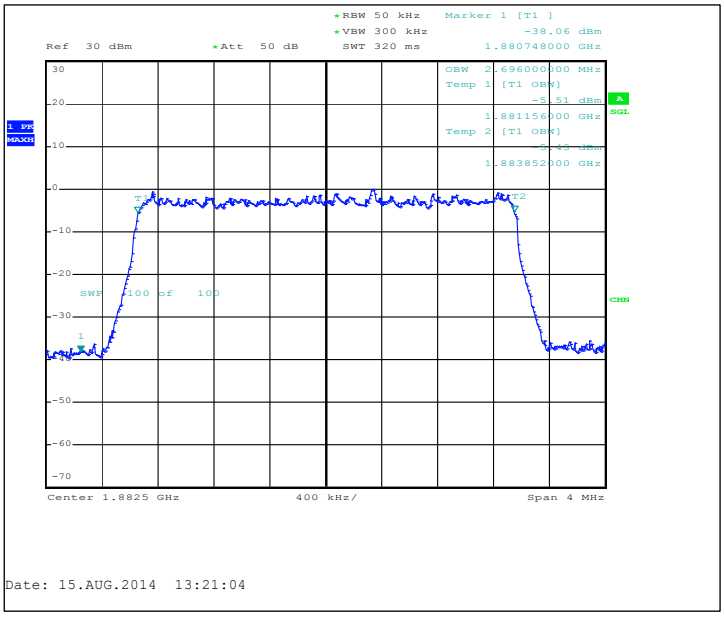
FDD, CBW 1.4MHz, QPSK, 6 RB, Channel 26365 / 1882.5 MHz



FDD, CBW 3MHz, QPSK, 15 RB, Channel 26365 / 1882.5 MHz



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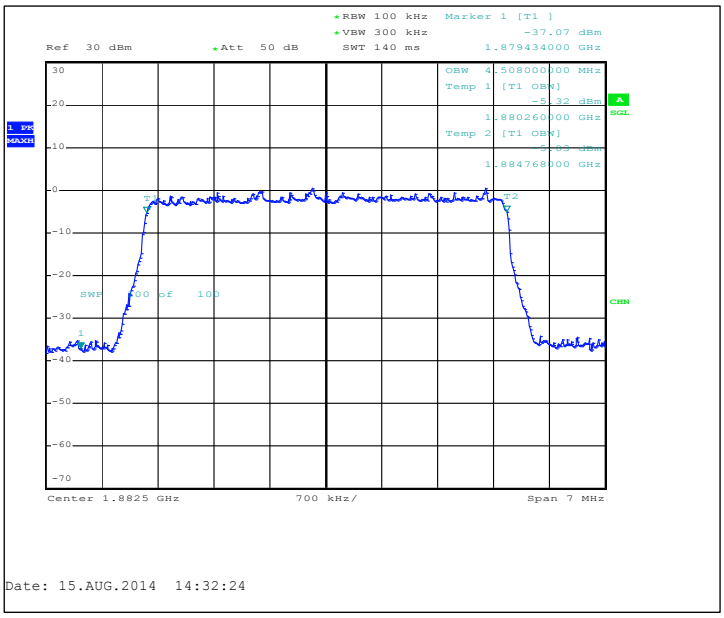
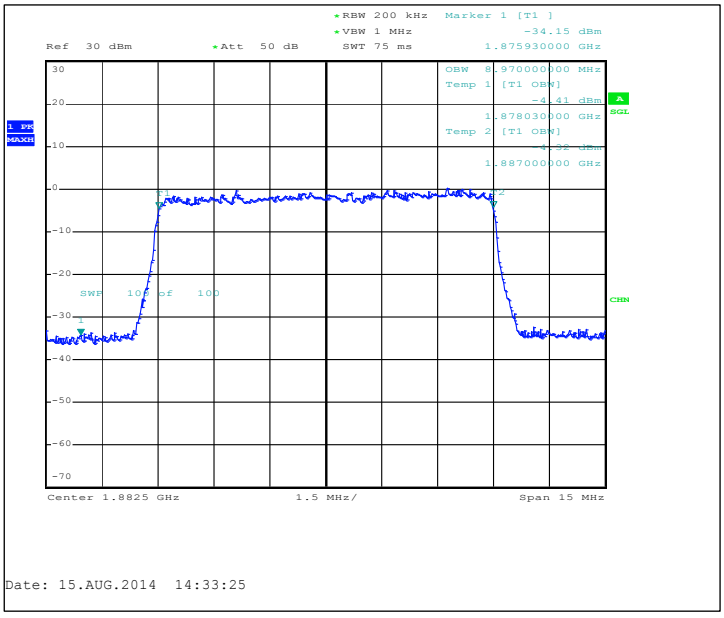
FDD, CBW 5MHz, QPSK, 25 RB, Channel 26365 / 1882.5 MHz



FDD, CBW 10MHz, QPSK, 50 RB, Channel 26365 / 1882.5 MHz



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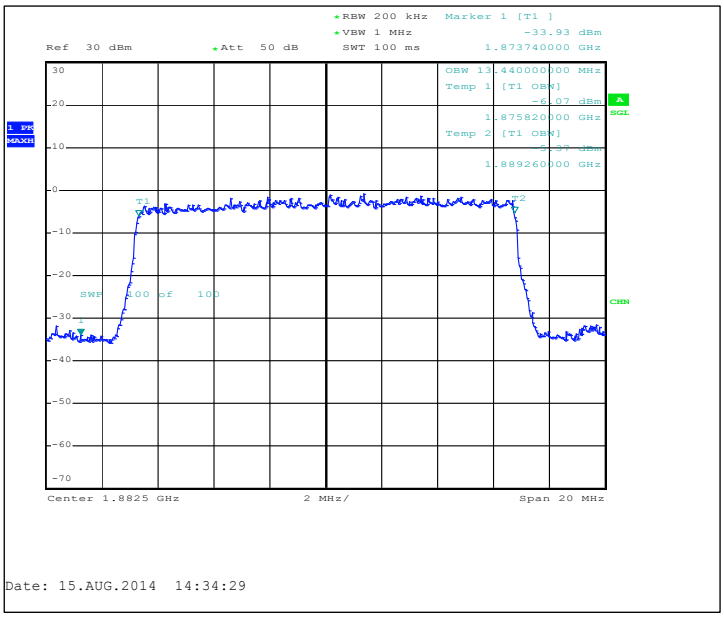
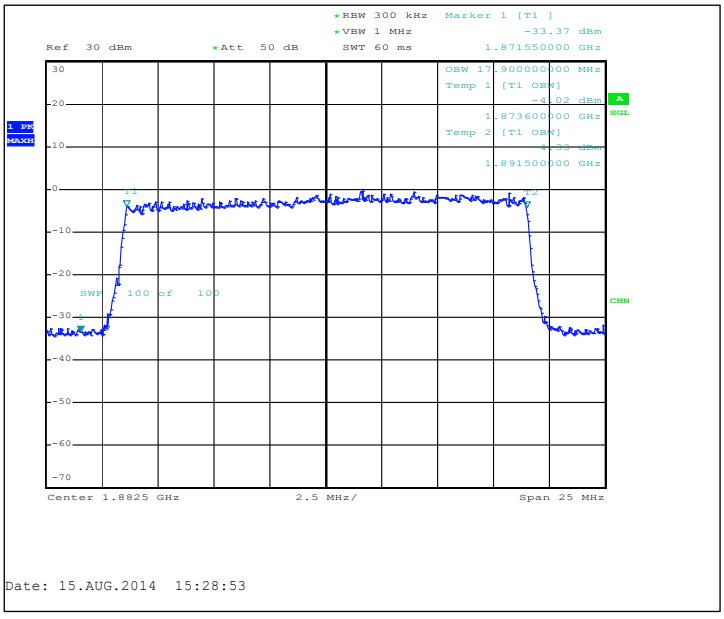
FDD, CBW 15MHz, QPSK, 75 RB, Channel 26365 / 1882.5 MHz



FDD, CBW 20MHz, QPSK, 100 RB, Channel 26365 / 1882.5 MHz



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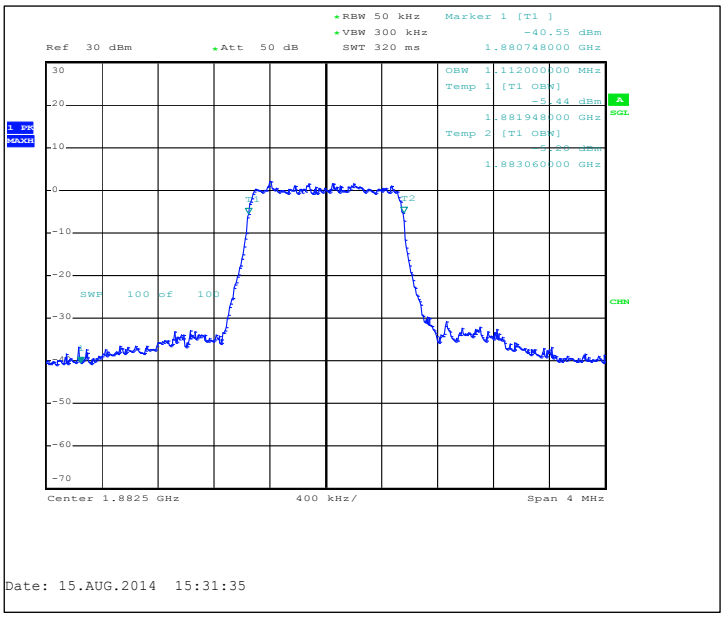
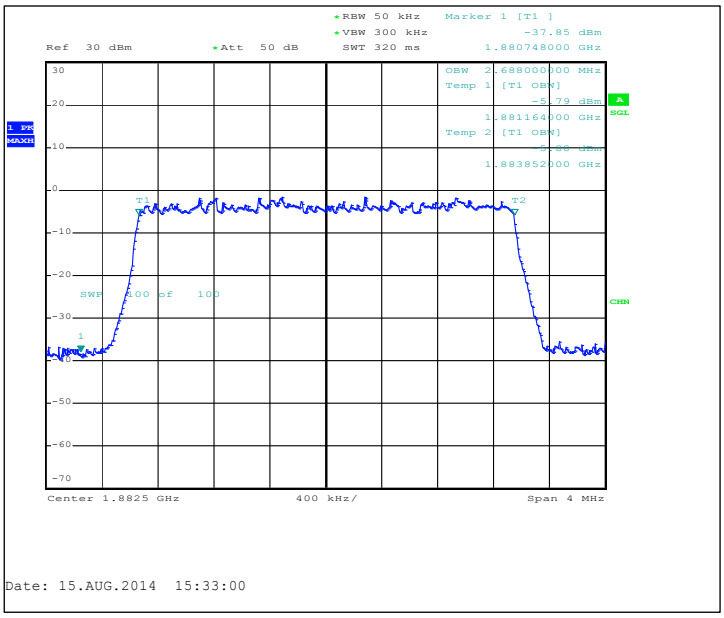
FDD, CBW 1.4MHz, 16QAM, 6 RB, Channel 26365 / 1882.5 MHz



FDD, CBW 3MHz, 16QAM, 15 RB, Channel 26365 / 1882.5 MHz



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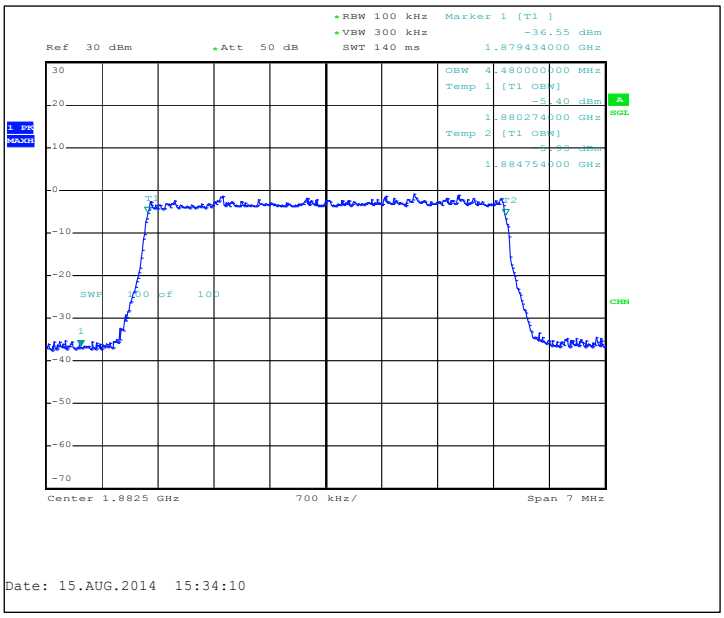
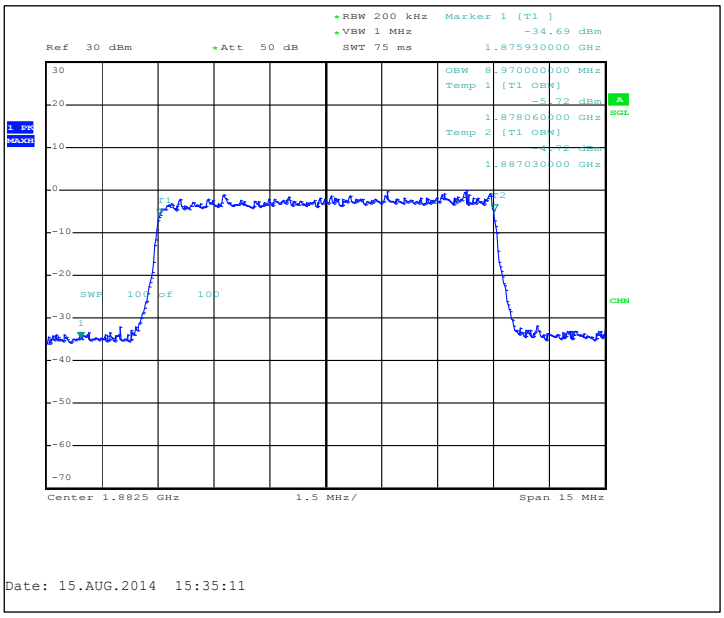
FDD, CBW 5MHz, 16QAM, 25 RB, Channel 26365 / 1882.5 MHz



FDD, CBW 10MHz, 16QAM, 50 RB, Channel 26365 / 1882.5 MHz



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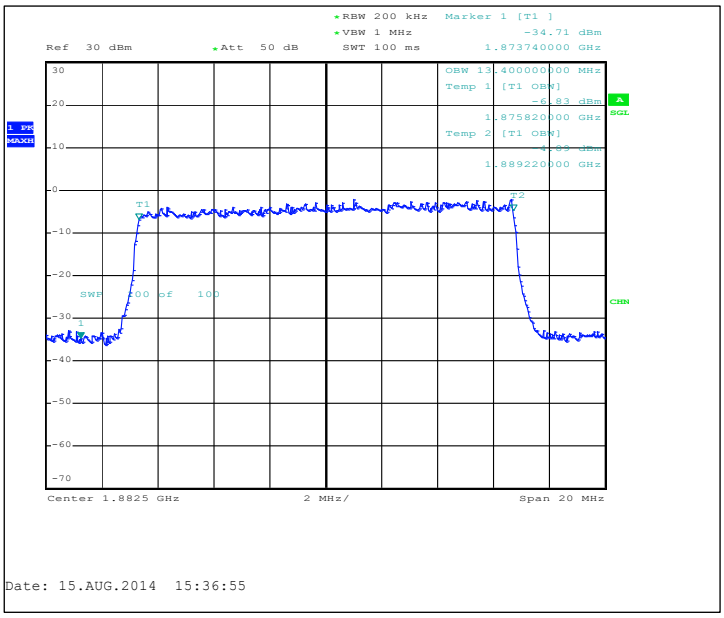
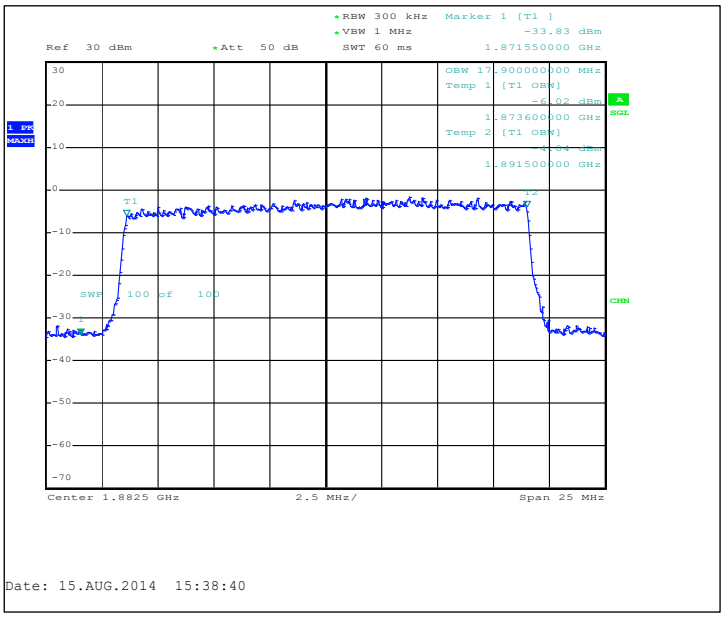
FDD, CBW 15MHz, 16QAM, 75 RB, Channel 26365 / 1882.5 MHz



FDD, CBW 20MHz, 16QAM, 100 RB, Channel 26365 / 1882.5 MHz



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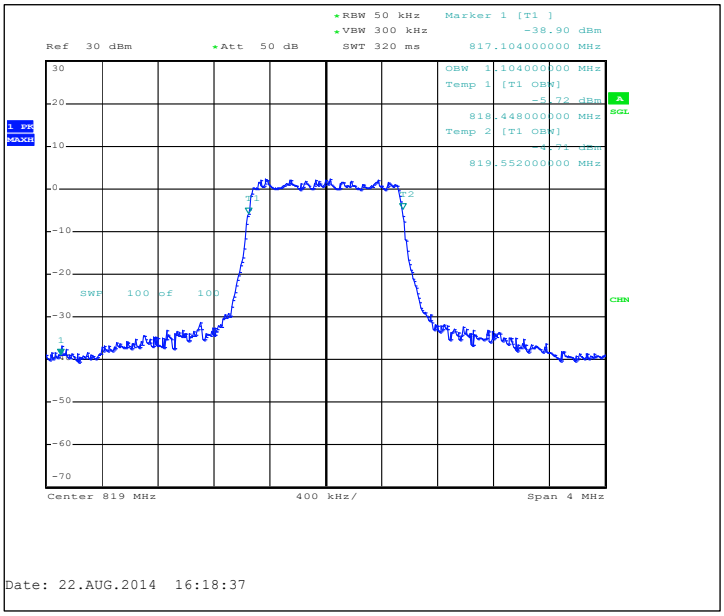
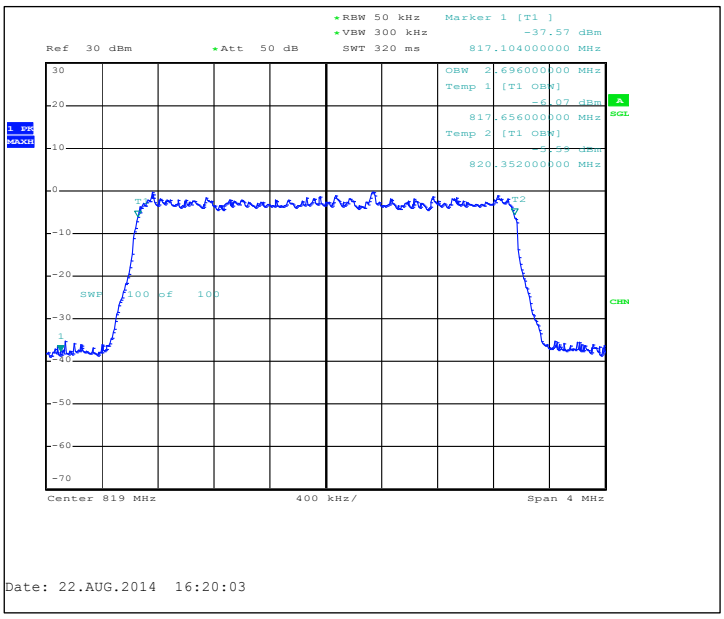
2.11. LTE26_lower test results

Operation mode (TX on)	99% Occupied bandwidth [kHz]
FDD, CBW 1.4MHz, QPSK, 6 RB	1104
FDD, CBW 3MHz, QPSK, 15 RB	2696
FDD, CBW 5MHz, QPSK, 25 RB	4494
FDD, CBW 10MHz, QPSK, 50 RB	9000
FDD, CBW 1.4MHz, 16QAM, 6 RB	1112
FDD, CBW 3MHz, 16QAM, 15 RB	2688
FDD, CBW 5MHz, 16QAM, 25 RB	4494
FDD, CBW 10MHz, 16QAM, 50 RB	8970

FDD, CBW 1.4MHz, QPSK, 6 RB,



FDD, CBW 3MHz, QPSK, 15 RB,



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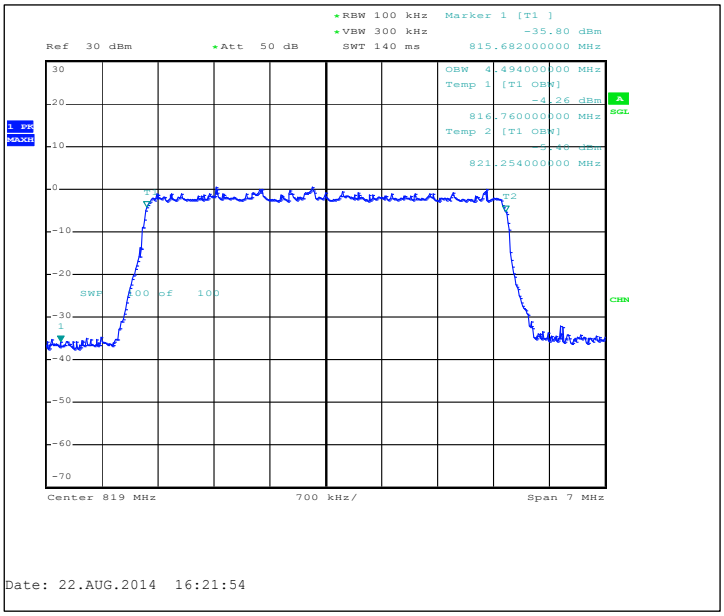
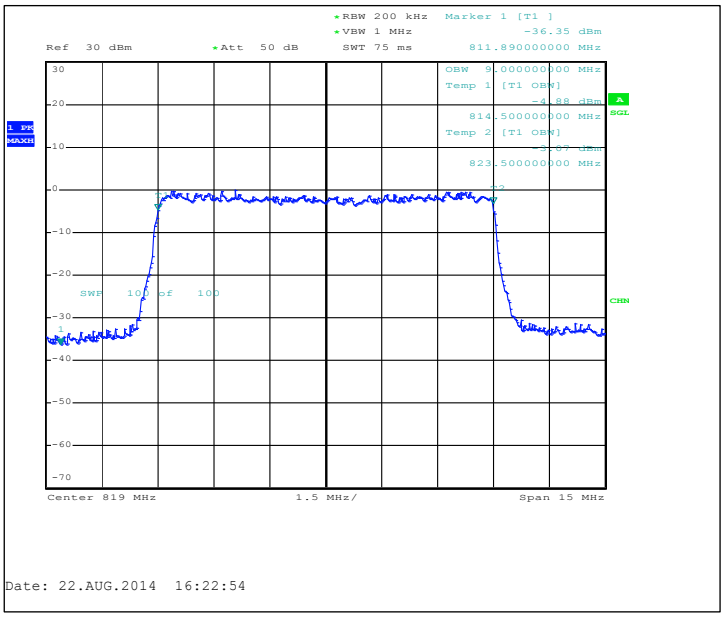
FDD, CBW 5MHz, QPSK, 25 RB,



FDD, CBW 10MHz, QPSK, 50 RB,



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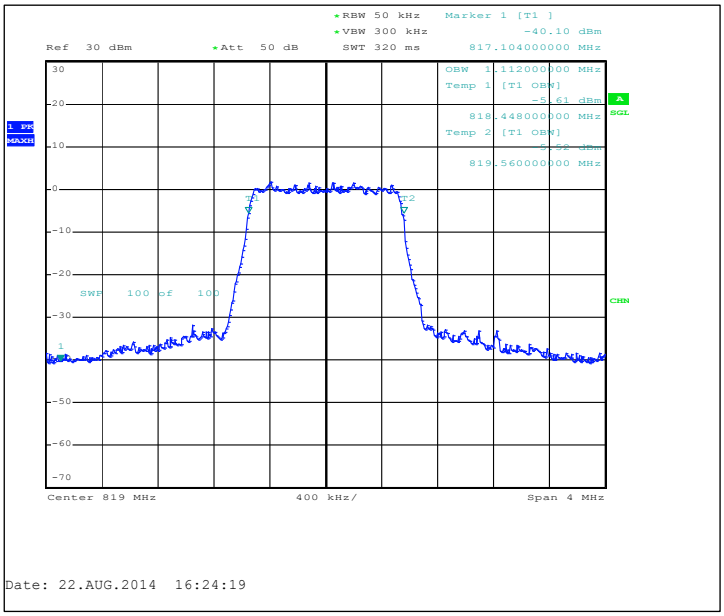
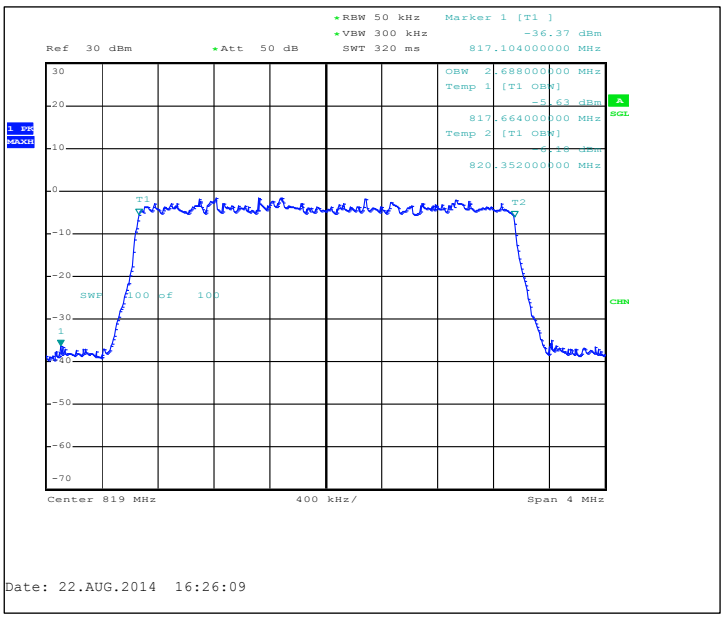
FDD, CBW 1.4MHz, 16QAM, 6 RB,



FDD, CBW 3MHz, 16QAM, 15 RB,



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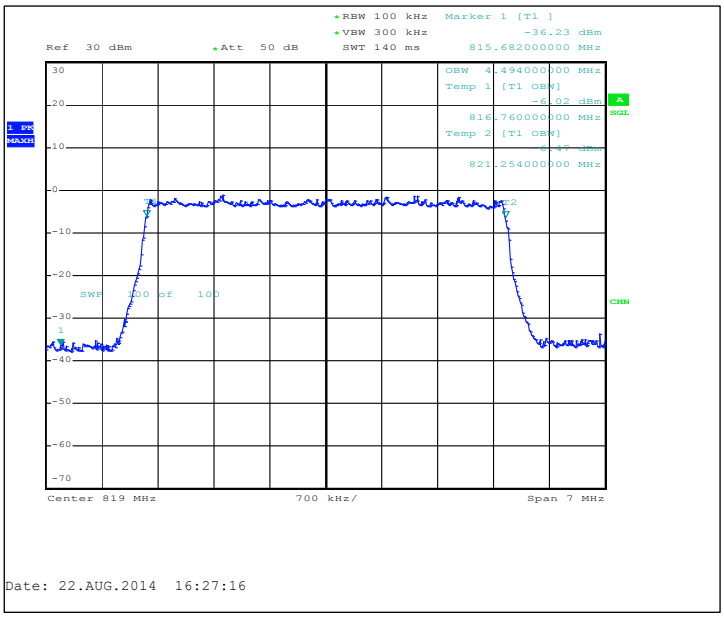
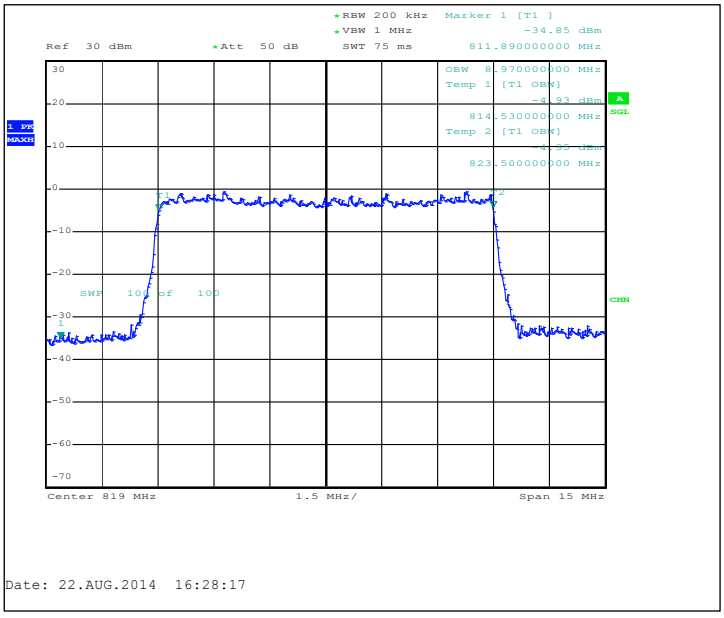
FDD, CBW 5MHz, 16QAM, 25 RB,



FDD, CBW 10MHz, 16QAM, 50 RB,



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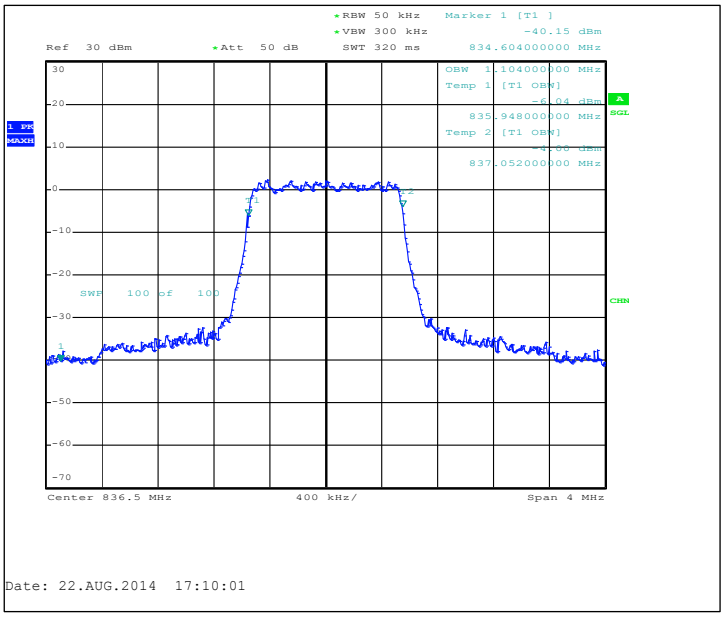
2.12. LTE26_upper test results

Operation mode (TX on)	99% Occupied bandwidth [kHz]
FDD, CBW 1.4MHz, QPSK, 6 RB	1104
FDD, CBW 3MHz, QPSK, 15 RB	2696
FDD, CBW 5MHz, QPSK, 25 RB	4494
FDD, CBW 10MHz, QPSK, 50 RB	8970
FDD, CBW 15MHz, QPSK, 75 RB	13440
FDD, CBW 1.4MHz, 16QAM, 6 RB	1104
FDD, CBW 3MHz, 16QAM, 15 RB	2688
FDD, CBW 5MHz, 16QAM, 25 RB	4494
FDD, CBW 10MHz, 16QAM, 50 RB	9000
FDD, CBW 15MHz, 16QAM, 75 RB	13440

FDD, CBW 1.4MHz, QPSK, 6 RB,



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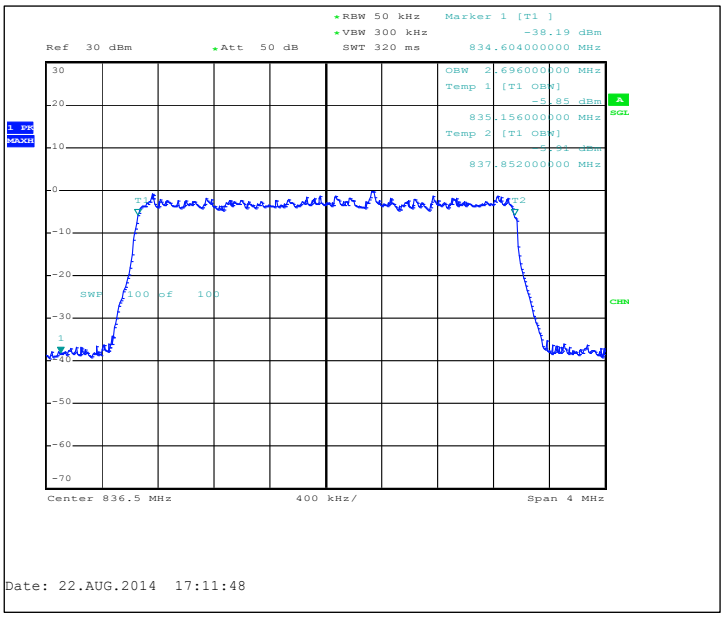
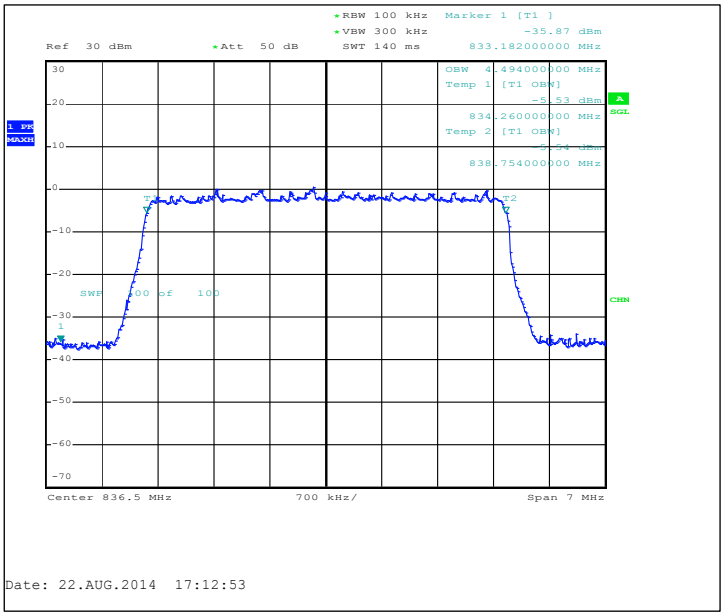
FDD, CBW 3MHz, QPSK, 15 RB,



FDD, CBW 5MHz, QPSK, 25 RB,



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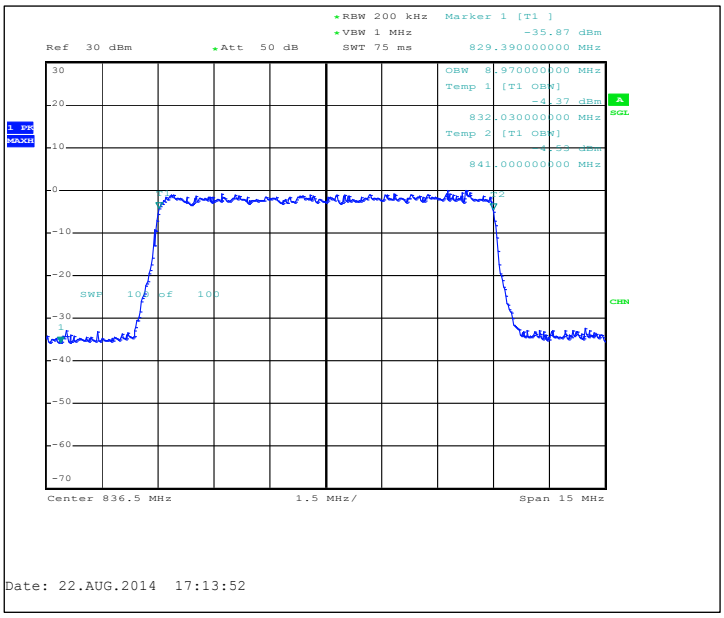
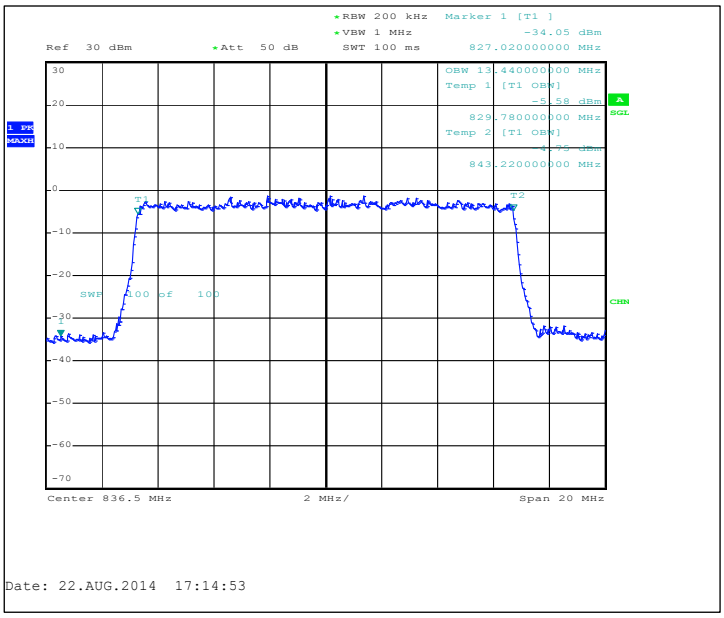
FDD, CBW 10MHz, QPSK, 50 RB,



FDD, CBW 15MHz, QPSK, 75 RB,



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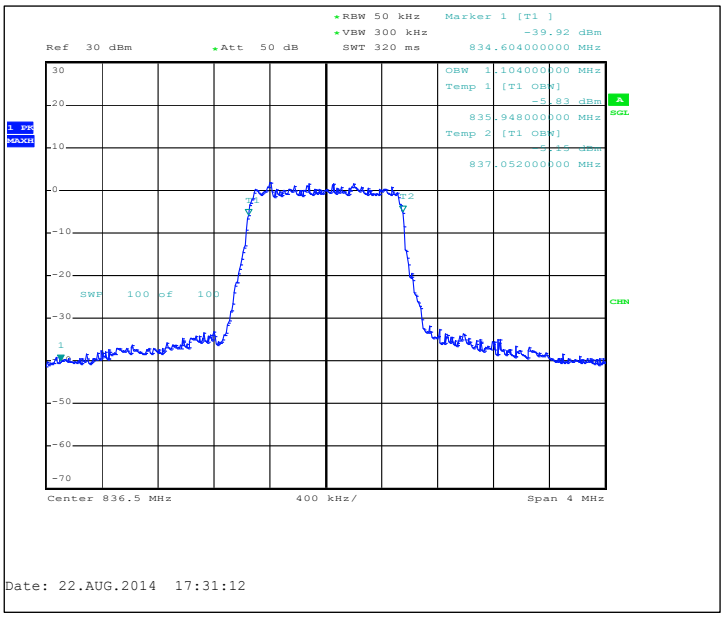
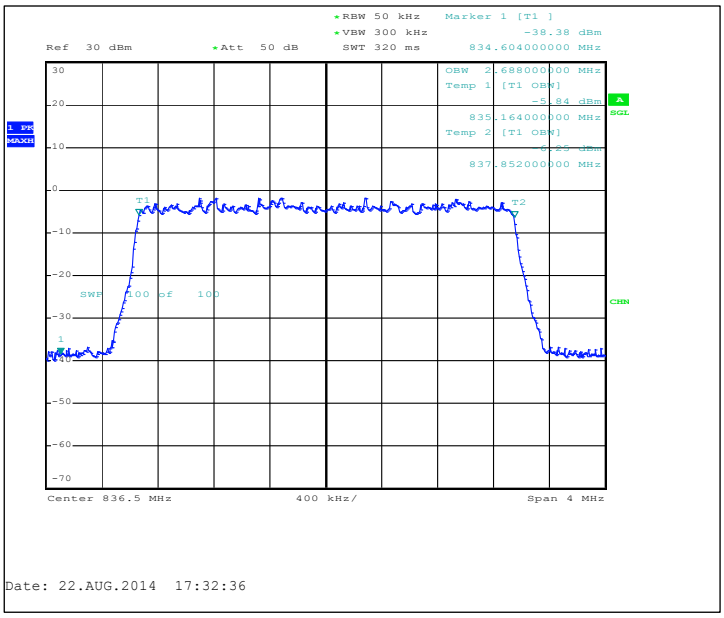
FDD, CBW 1.4MHz, 16QAM, 6 RB,



FDD, CBW 3MHz, 16QAM, 15 RB,



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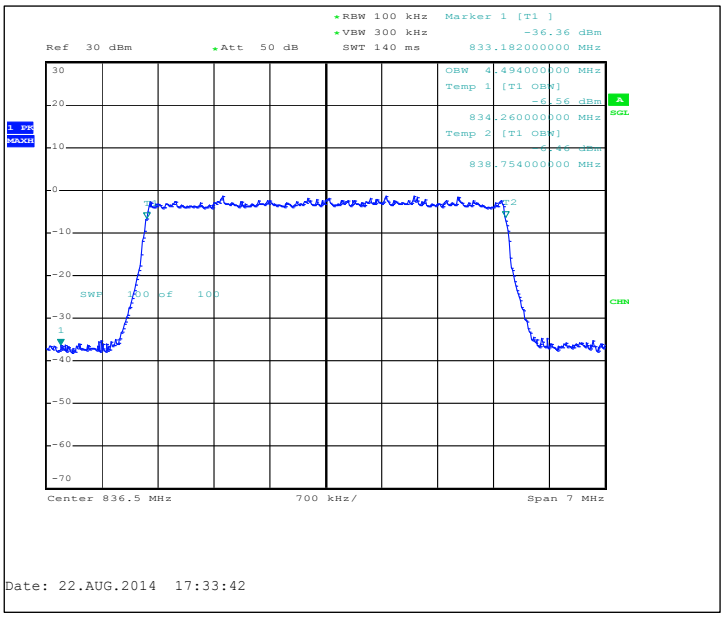
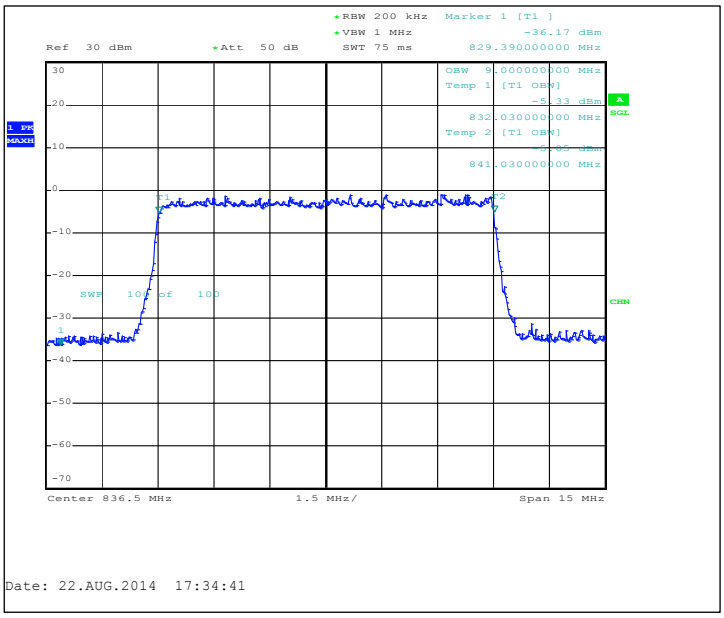
FDD, CBW 5MHz, 16QAM, 25 RB,



FDD, CBW 10MHz, 16QAM, 50 RB,



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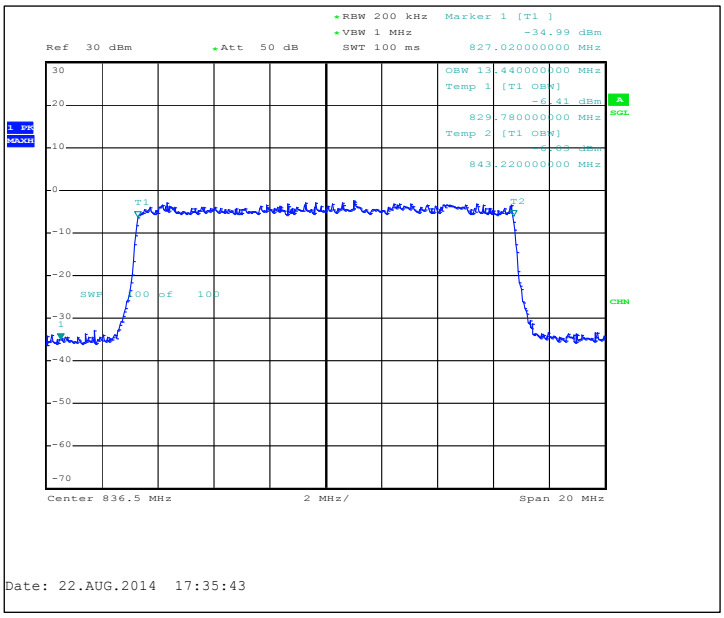
FDD, CBW 15MHz, 16QAM, 75 RB,



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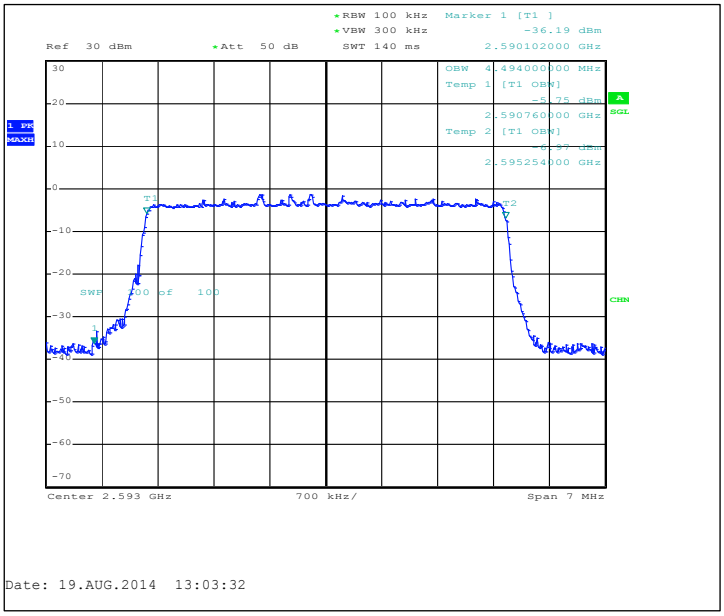
2.13. LTE41 Test results

Operation mode (TX on)	99% Occupied bandwidth [kHz]
TDD, CBW 5MHz, QPSK, 25 RB	4494
TDD, CBW 10MHz, QPSK, 50 RB	8970
TDD, CBW 15MHz, QPSK, 75 RB	13400
TDD, CBW 20MHz, QPSK, 100 RB	17850
TDD, CBW 5MHz, 16QAM, 25 RB	4494
TDD, CBW 10MHz, 16QAM, 50 RB	8970
TDD, CBW 15MHz, 16QAM, 75RB	13440
TDD, CBW 20MHz, 16QAM, 100 RB	17850

TDD, CBW 5MHz, QPSK, 25 RB, Channel 40620 / 2593.0 MHz



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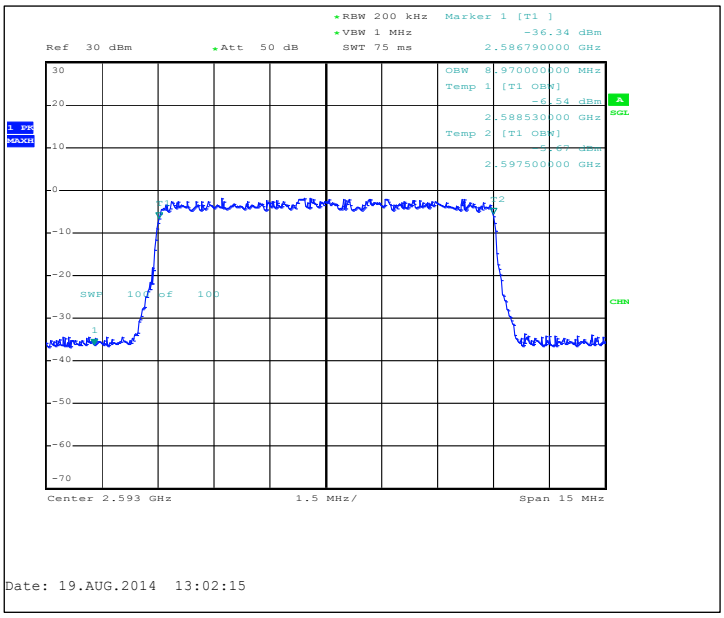
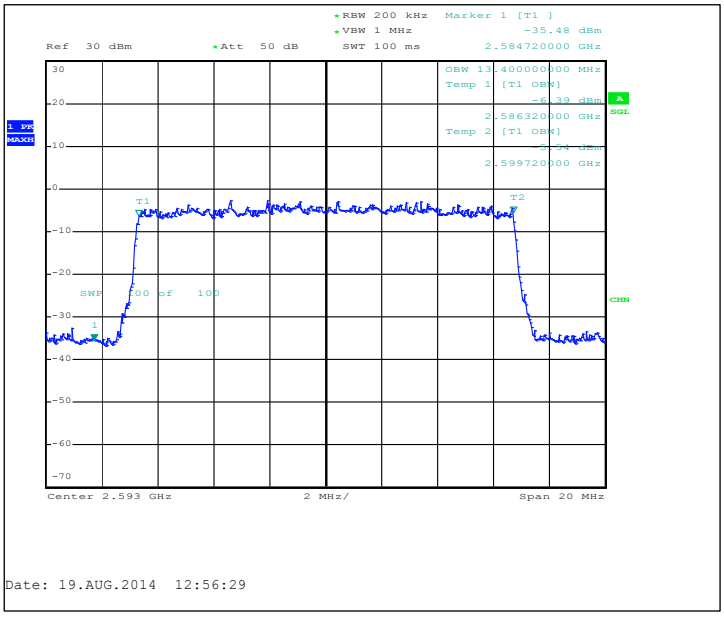
TDD, CBW 10MHz, QPSK, 50 RB, Channel 40620 / 2593.0 MHz



TDD, CBW 15MHz, QPSK, 75 RB, Channel 40620 / 2593.0 MHz



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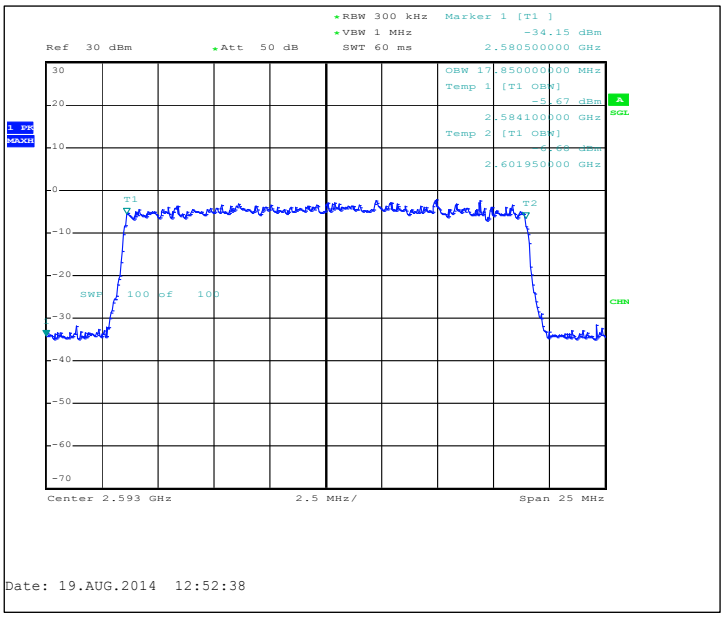
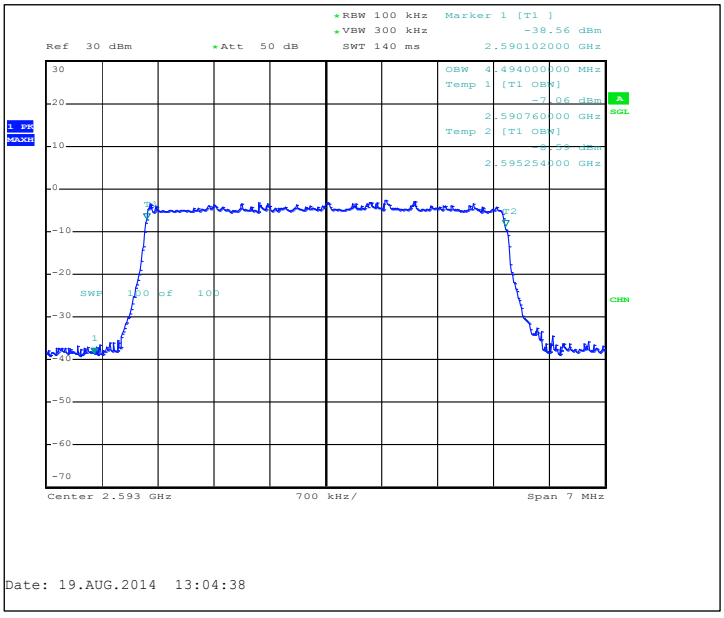
TDD, CBW 20MHz, QPSK, 100 RB, Channel 40620 / 2593.0 MHz



TDD, CBW 5MHz, 16QAM, 25 RB, Channel 40620 / 2593.0 MHz



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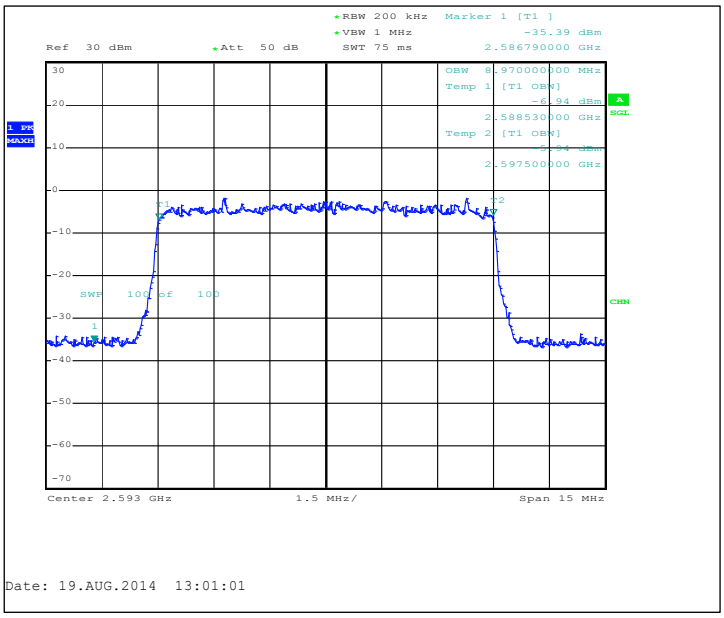
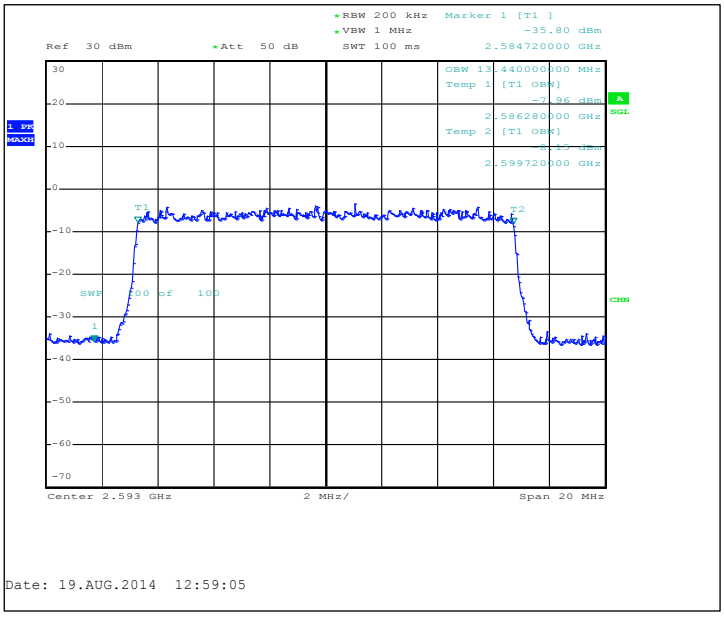
TDD, CBW 10MHz, 16QAM, 50 RB, Channel 40620 / 2593.0 MHz



TDD, CBW 15MHz, 16QAM, 75 RB, Channel 40620 / 2593.0 MHz



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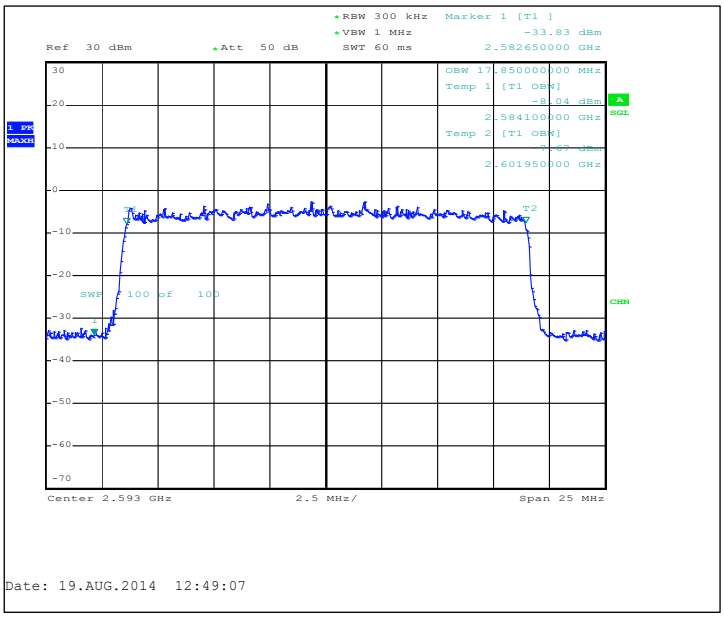
TDD, CBW 20MHz, 16QAM, 100 RB, Channel 40620 / 2593.0 MHz



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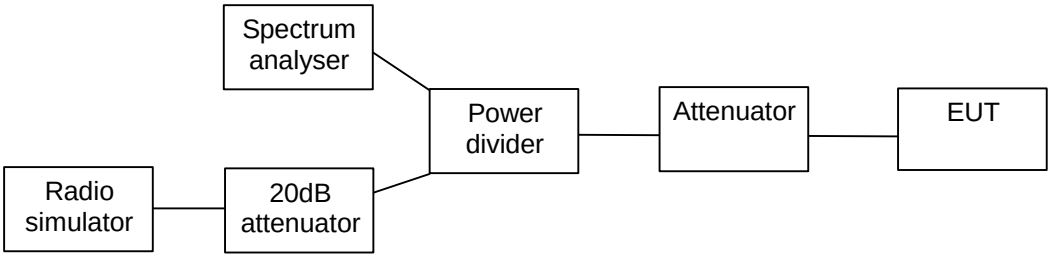
3. Band edge compliance

(FCC §24.238(a), §27.53(l), §90.691(a)(2), §22.917(a), RSS-133 6.5, RSS-132 4.5)

EUT with DUT number	RM-1078, DUT 54582
Accessories with DUT numbers	AC-20U, DUT 54581 ; BL-5H, DUT 54583 ; WH-108, DUT 54459
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	23/53/100.6 to 24/50/101
Date of measurements	13-Aug-2014 to 27-Aug-2014
Measured by	Dou Rubo

3.1. Test Setup



3.2. Test method and limit

The measurement is made according to applicable FCC rule parts and IC standards.

Limits for band edge compliance measurements

Operation band	Frequency range [MHz]	Limit [dBm]
GSM 1900	Below 1850 and above 1910	-13
GSM 850	Below 824 and above 849	-13
CDMA 800	Below 824 and above 849	-13
CDMA BC10, subclass 2/3	Below 815.9625 and above 824.0375	-13
CDMA 1900	Below 1850 and above 1910	-13
WCDMA 1900	Below 1850 and above 1910	-13
WCDMA 850	Below 824 and above 849	-13
LTE25	1849 – 1850 and 1915 – 1916 Below 1849 and above 1916.0	-13 (RBW = 200 kHz, VBW = 1 MHz) -13 (RBW = 1 MHz, VBW = 3 MHz)
LTE26 lower part	813.9 – 814.0 and 824.0 – 824.1 Below 813.9 and above 824.1	-13 (RBW = 200 kHz, VBW = 1 MHz) -13 (RBW = 100 kHz, VBW = 300 kHz)
LTE26 upper part	Below 824 and above 849	-13 (RBW = 100 kHz, VBW = 300KHz)
LTE41	2495 – 2496 and 2690 – 2691 Below 2495 and above 2691	--13 (RBW = 200 kHz, VBW = 1 MHz) -13 (RBW = 1 MHz, VBW = 3 MHz)

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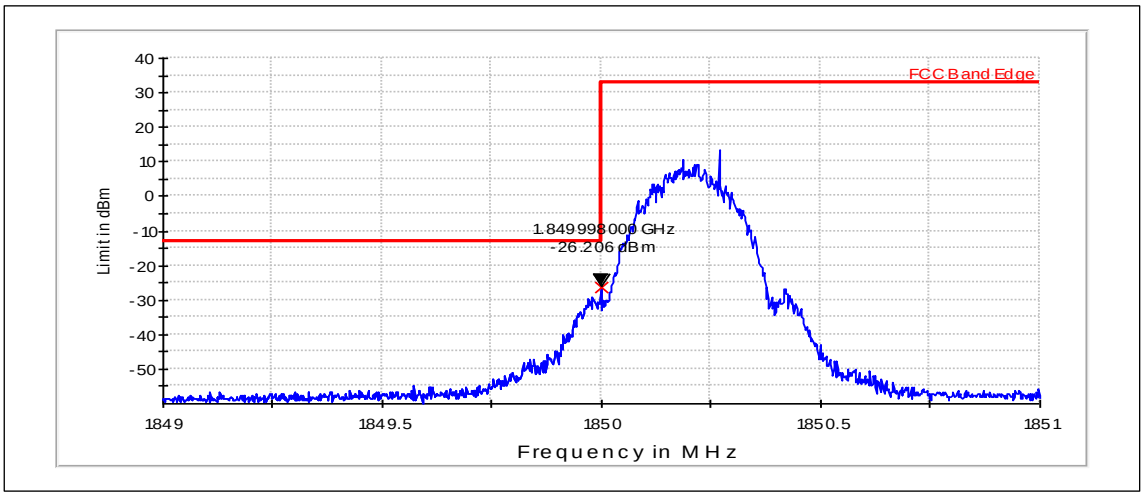
3.3. GSM 1900 Test results

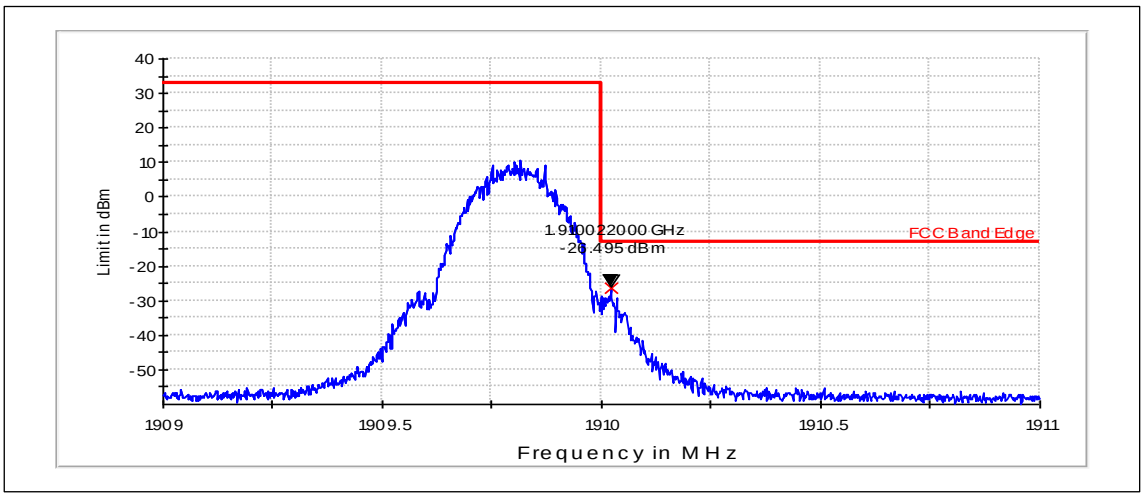
Channel 512 / 1850.2 MHz



RMS (RBW: 3 kHz, VBW: 3 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
GSM	1849.998	-26.21	PASSED

Channel 810 / 1909.8 MHz



RMS (RBW: 3 kHz, VBW: 3 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
GSM	1910.022	-26.50	PASSED

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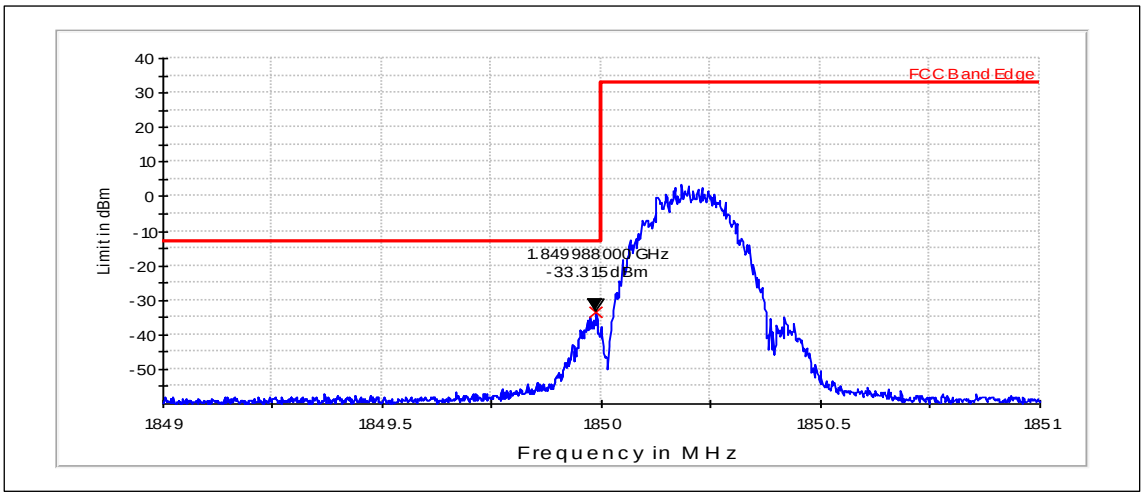
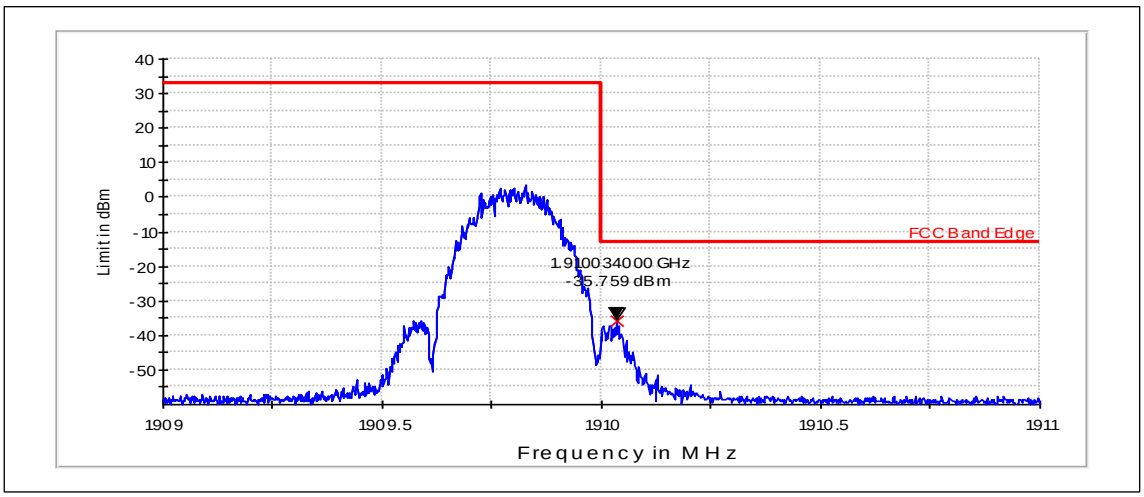
Channel 512 / 1850.2 MHz



RMS (RBW: 3 kHz, VBW: 3 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
EGPRS	1849.988	-33.32	PASSED

Channel 810 / 1909.8 MHz



RMS (RBW: 3 kHz, VBW: 3 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
EGPRS	1910.034	-35.76	PASSED

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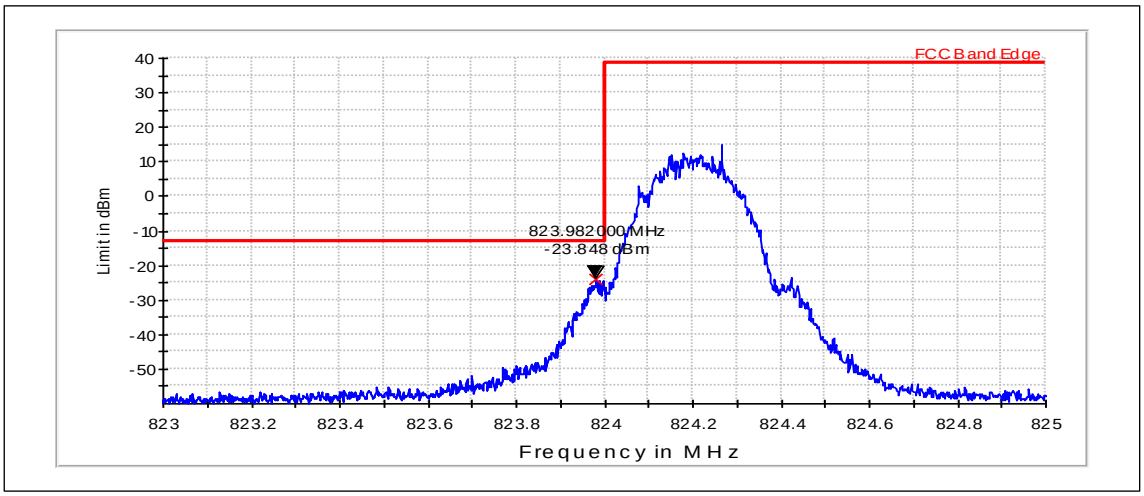
3.4. GSM 850 Test results

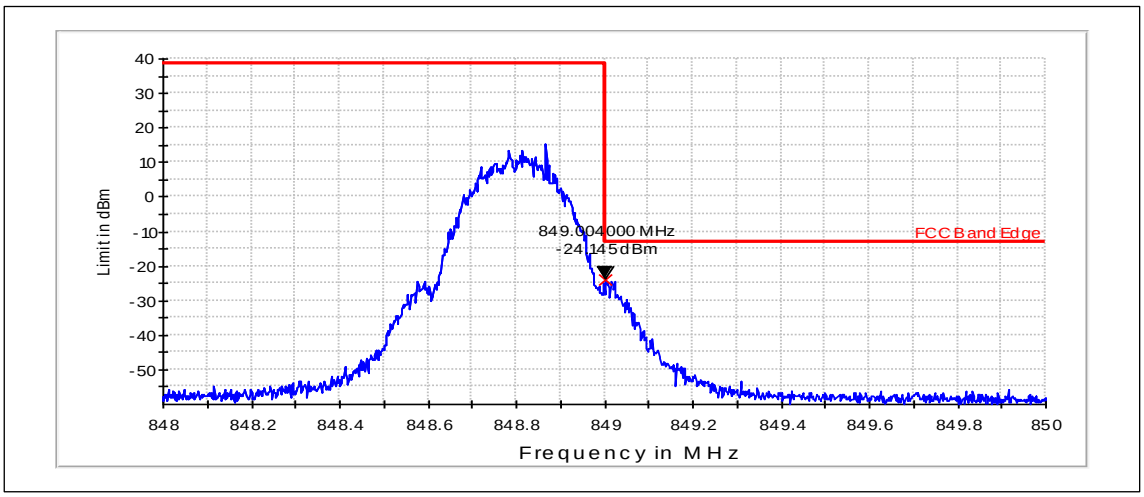
Channel 128 / 824.2 MHz



RMS (RBW: 3 kHz, VBW: 3 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
GSM	823.982	-23.85	PASSED

Channel 251 / 848.8 MHz



RMS (RBW: 3 kHz, VBW: 3 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
GSM	849.004	-24.15	PASSED

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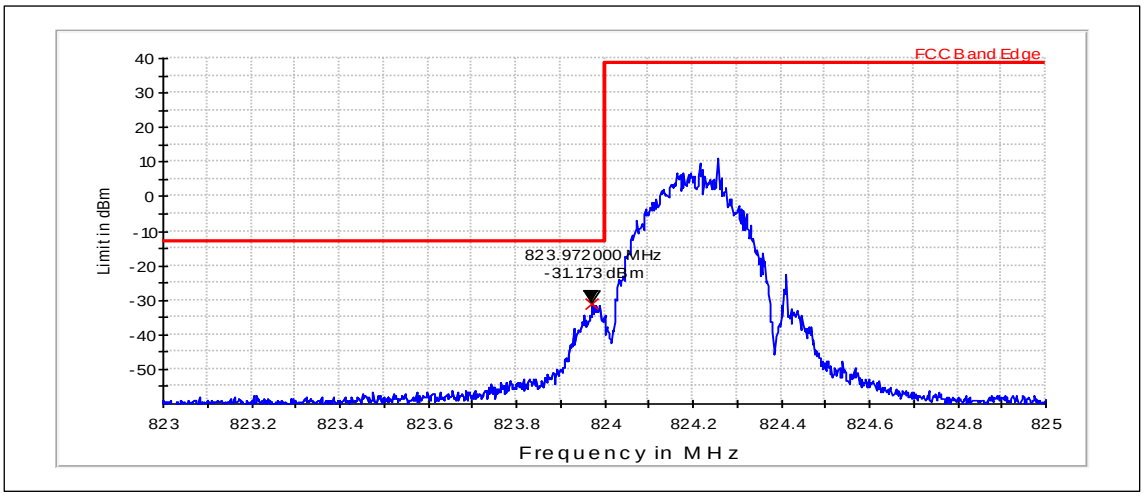
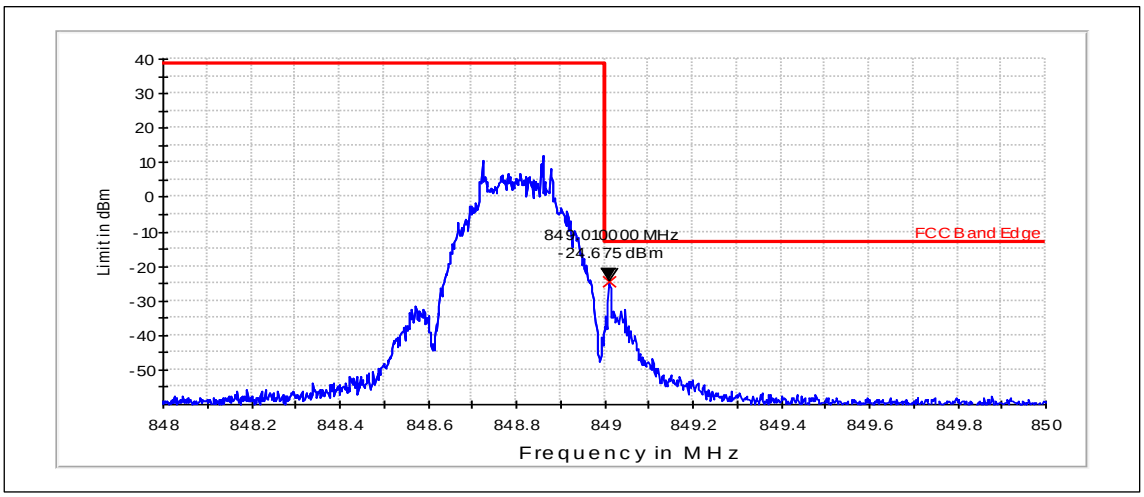
Channel 128 / 824.2 MHz



RMS (RBW: 3 kHz, VBW: 3 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
EGPRS	823.972	-31.17	PASSED

Channel 251 / 848.8 MHz



RMS (RBW: 3 kHz, VBW: 3 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
EGPRS	849.010	-24.68	PASSED

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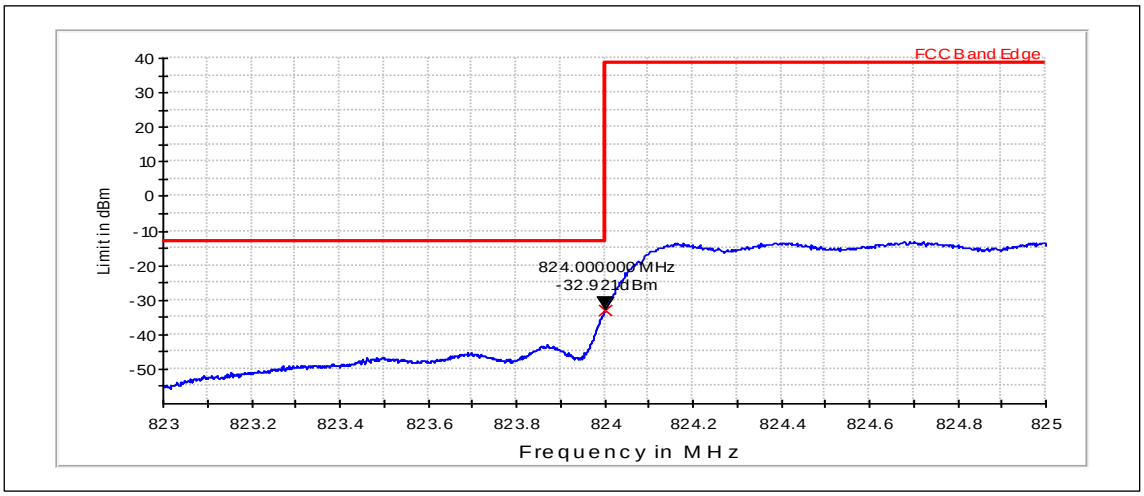
3.5. CDMA 800 Test results

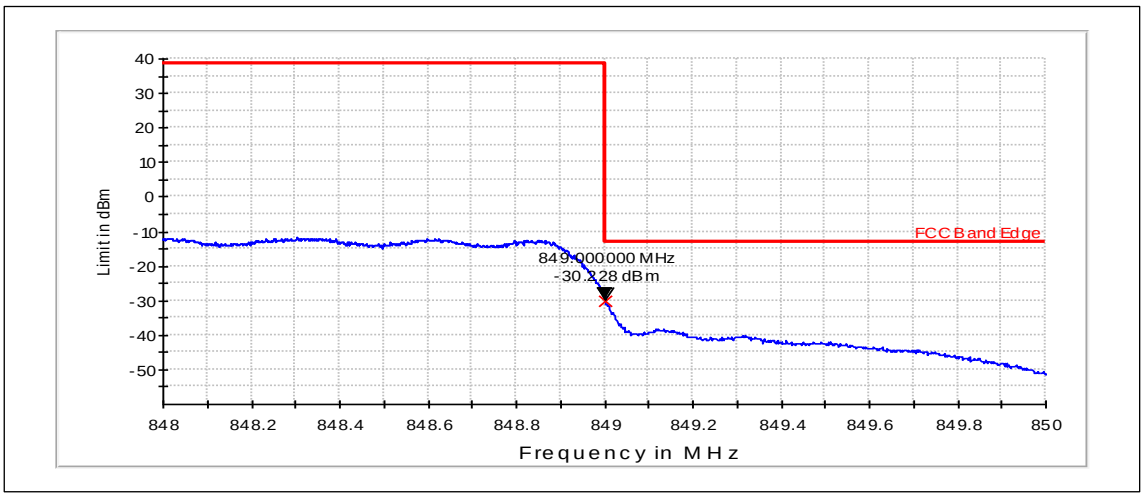
Channel 1013 / 824.7 MHz



RMS (RBW: 15 kHz, VBW: 30 kHz, video averaging)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
CDMA	824.000	-32.92	PASSED

Channel 777 / 848.31 MHz



RMS (RBW: 15 kHz, VBW: 30 kHz, video averaging)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
CDMA	849.000	-30.23	PASSED

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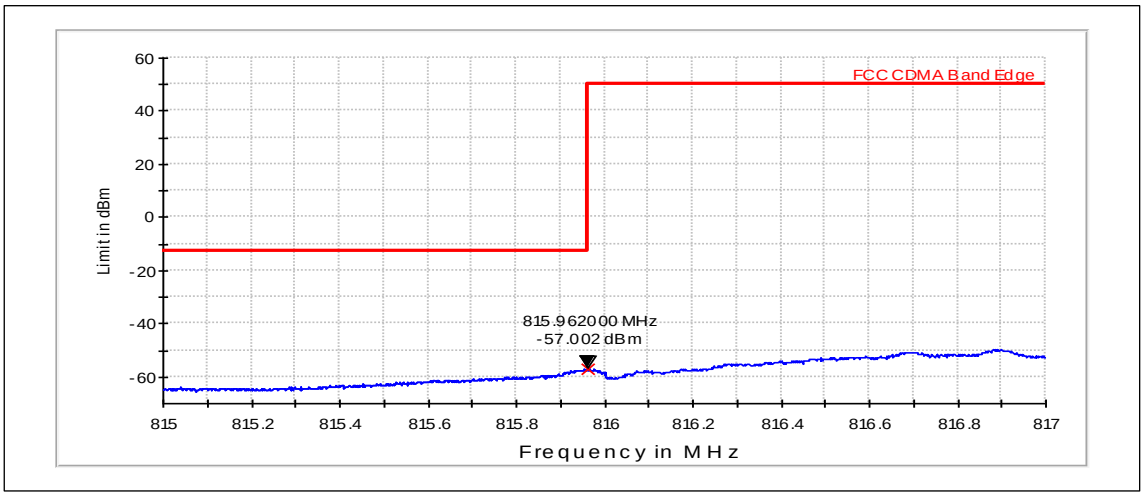
3.6. CDMA BC10, subclass 2/3 Test results

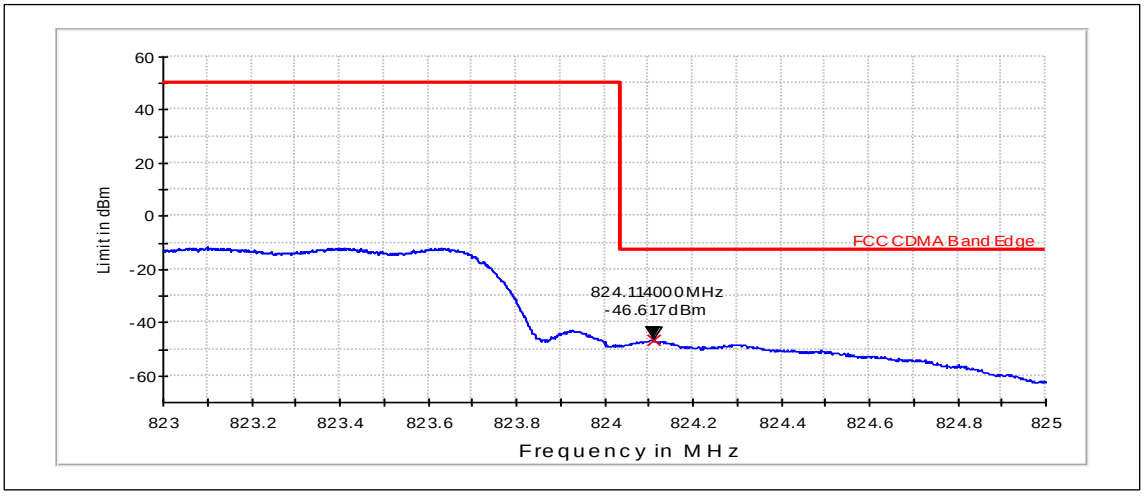
Channel 476 / 817.9 MHz



RMS (RBW: 15 kHz, VBW: 30 kHz, video averaging)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
CDMA	815.962	-57.00	PASSED

Channel 684 / 823.1 MHz



RMS (RBW: 15 kHz, VBW: 30 kHz, video averaging)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
CDMA	824.114	-46.62	PASSED

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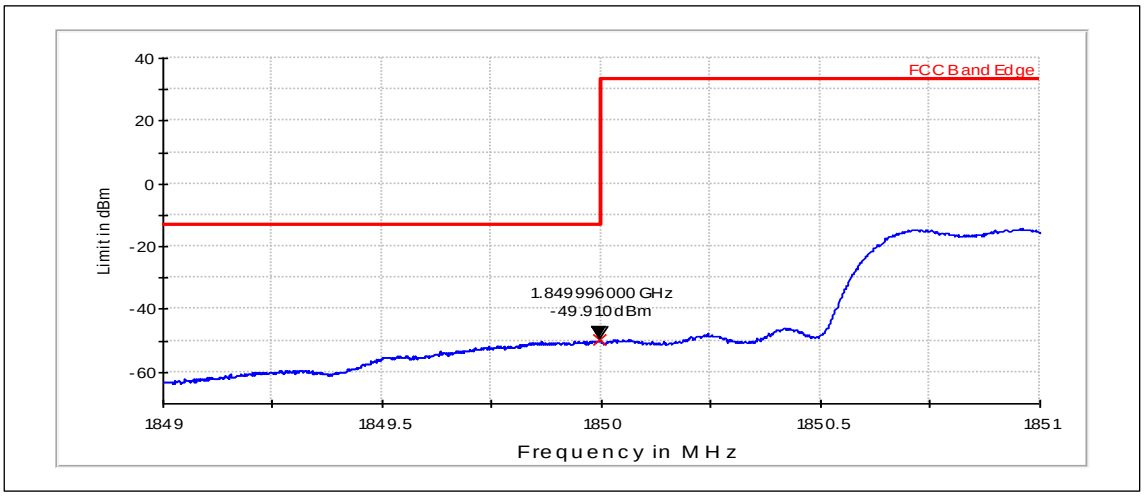
3.7. CDMA 1900 Test results

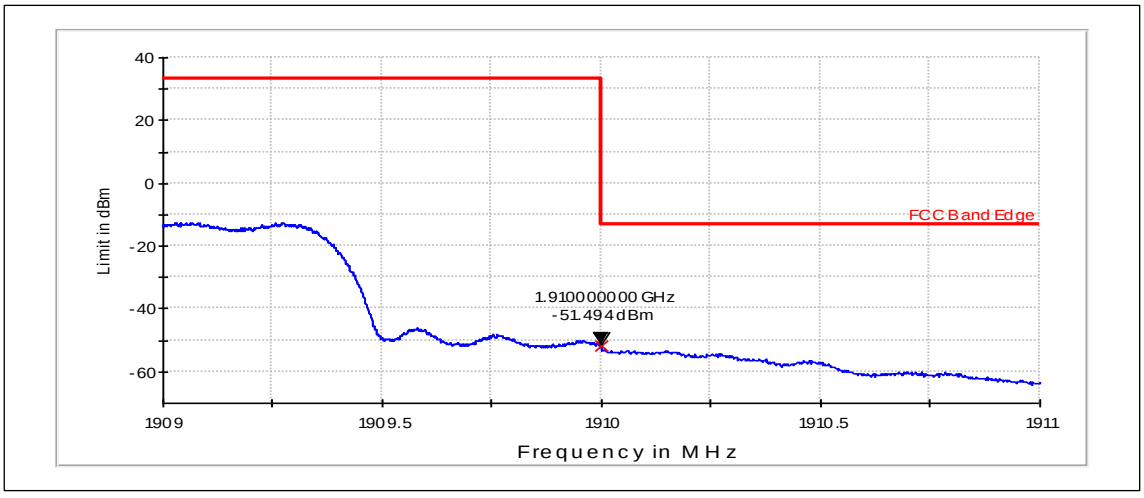
Channel 25 / 1851.25 MHz



RMS (RBW: 15 kHz, VBW: 30 kHz, video averaging)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
CDMA	1849.996	-49.91	PASSED

Channel 1175 / 1908.75 MHz



RMS (RBW: 15 kHz, VBW: 30 kHz, video averaging)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
CDMA	1910.000	-51.49	PASSED

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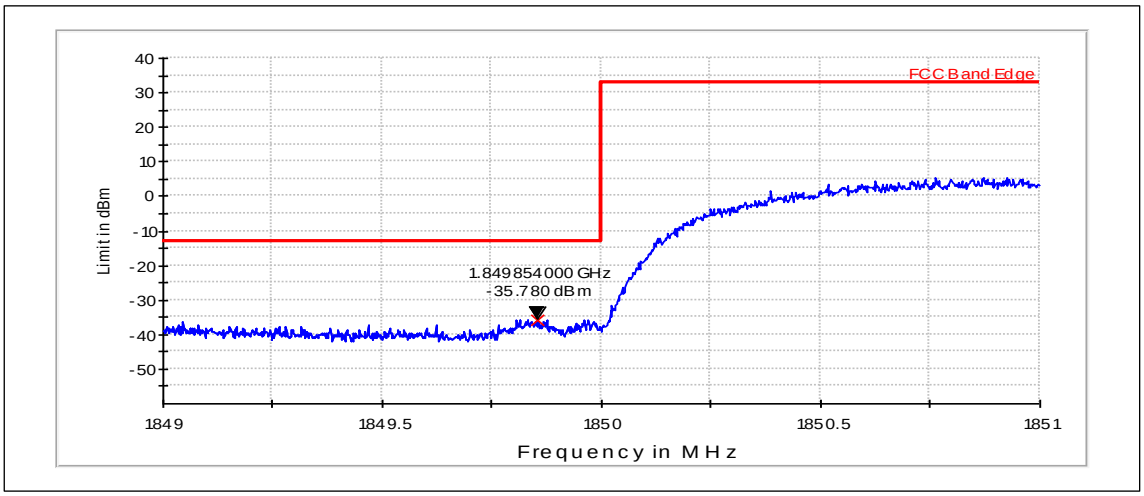
3.8. WCDMA 1900 Test results

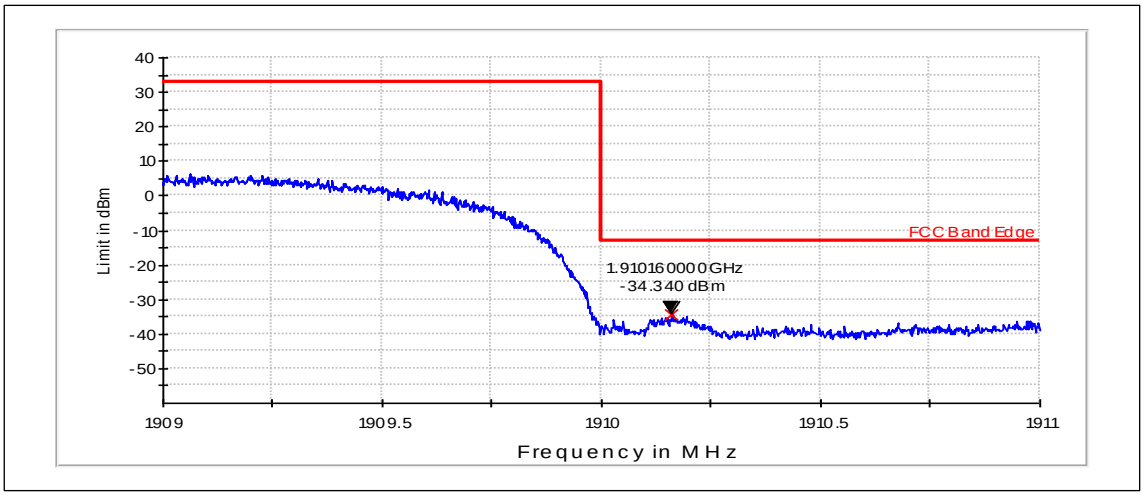
Channel 9262 / 1852.4 MHz, antenna1



RMS (RBW: 50 kHz, VBW: 50 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD	1849.854	-35.78	PASSED

Channel 9538 / 1907.6 MHz, antenna1



RMS (RBW: 50 kHz, VBW: 50 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD	1910.160	-34.34	PASSED

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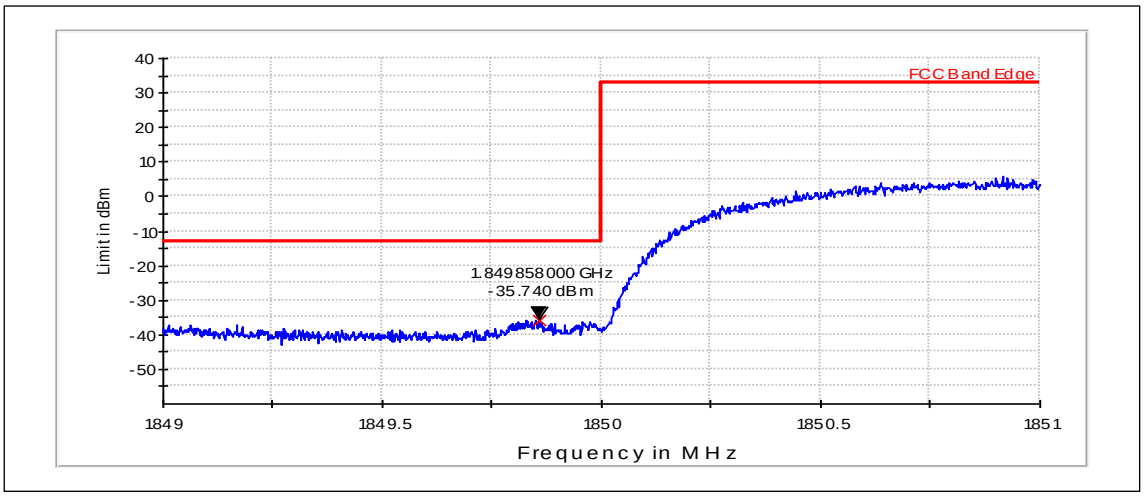
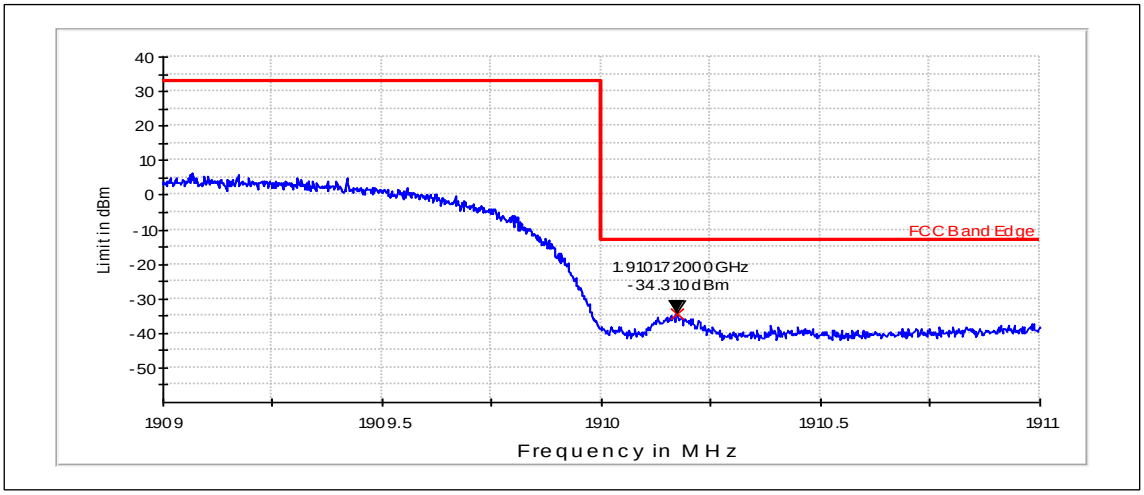
Channel 9262 / 1852.4 MHz, antenna2



RMS (RBW: 50 kHz, VBW: 50 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD	1849.858	-35.74	PASSED

Channel 9538 / 1907.6 MHz, antenna2



RMS (RBW: 50 kHz, VBW: 50 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD	1910.172	-34.31	PASSED

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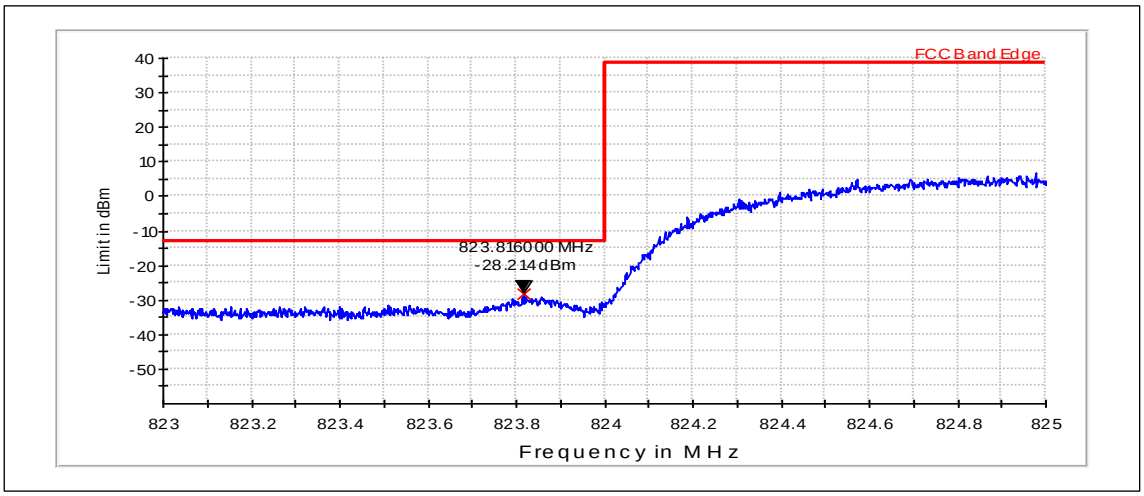
3.9. WCDMA 850 Test results

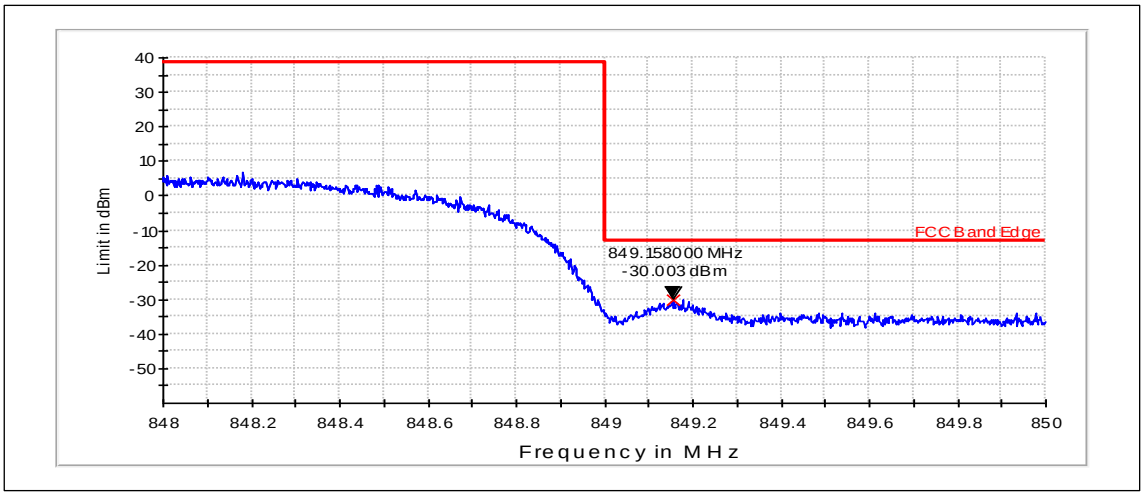
Channel 4132 / 826.4 MHz, antenna2



RMS (RBW: 50 kHz, VBW: 50 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD	823.816	-28.21	PASSED

Channel 4233 / 846.6 MHz, antenna2



RMS (RBW: 50 kHz, VBW: 50 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD	849.158	-30.00	PASSED

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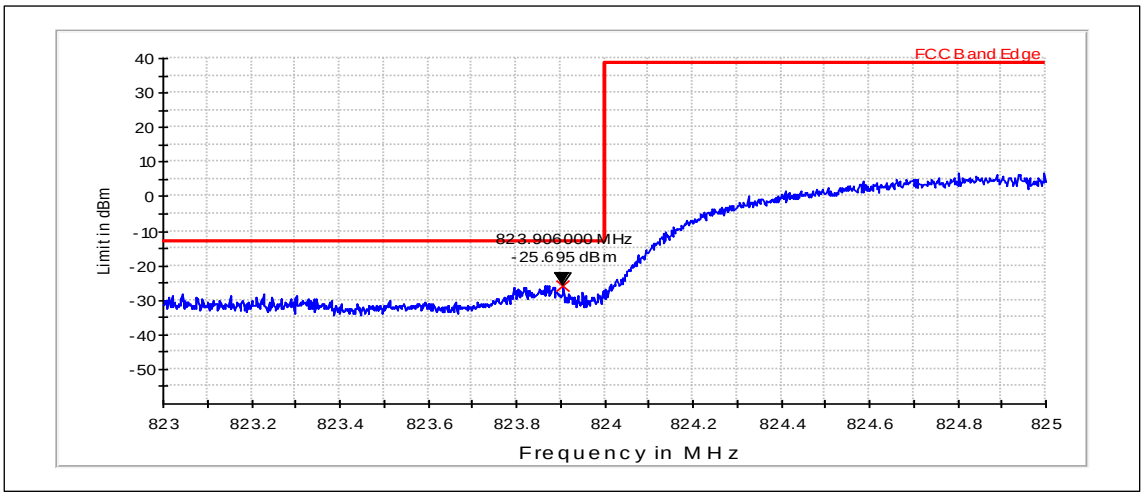
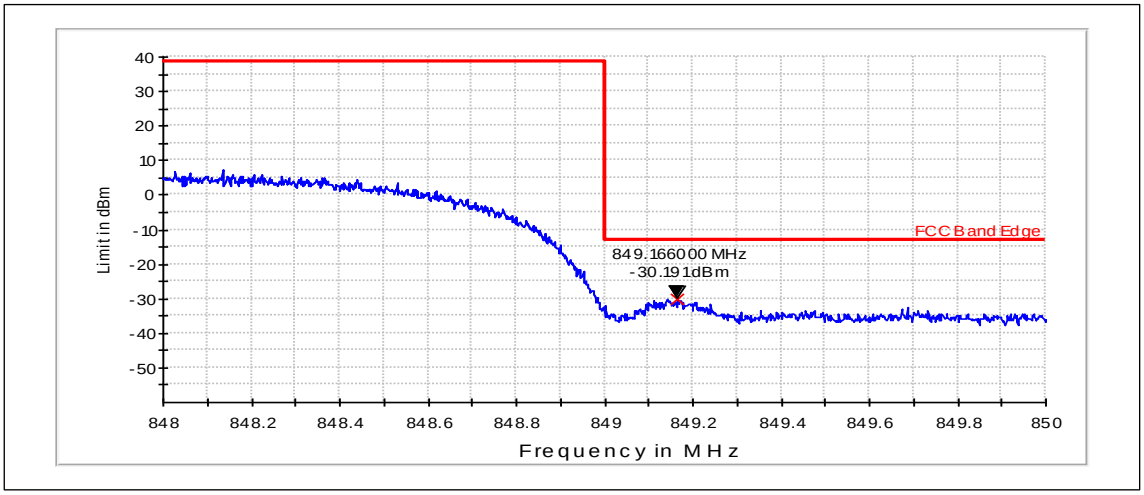
Channel 4132 / 826.4 MHz, antenna1



RMS (RBW: 50 kHz, VBW: 50 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD	823.906	-25.70	PASSED

Channel 4233 / 846.6 MHz, antenna1



RMS (RBW: 50 kHz, VBW: 50 kHz, Max hold)

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD	849.166	-30.19	PASSED

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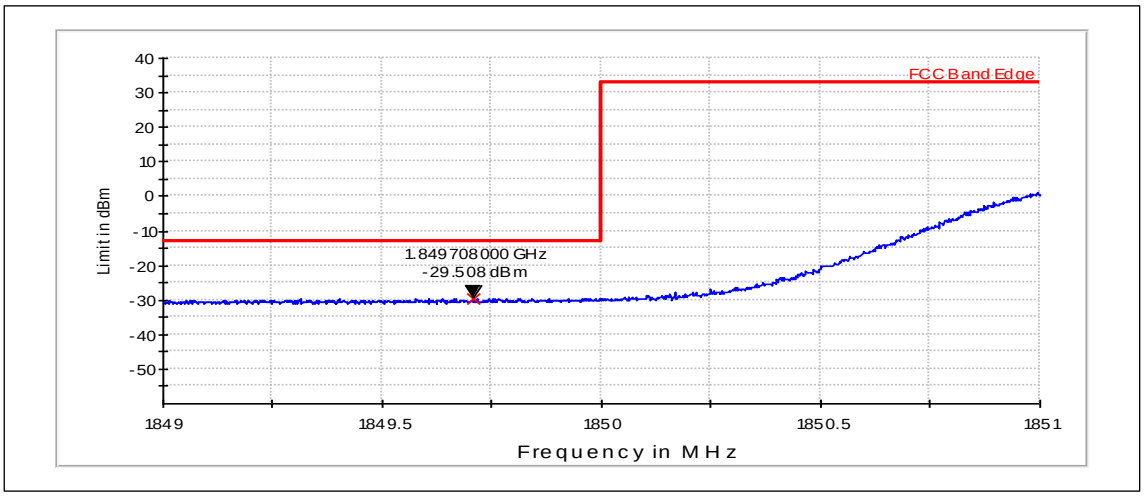
3.10. LTE25 Test results

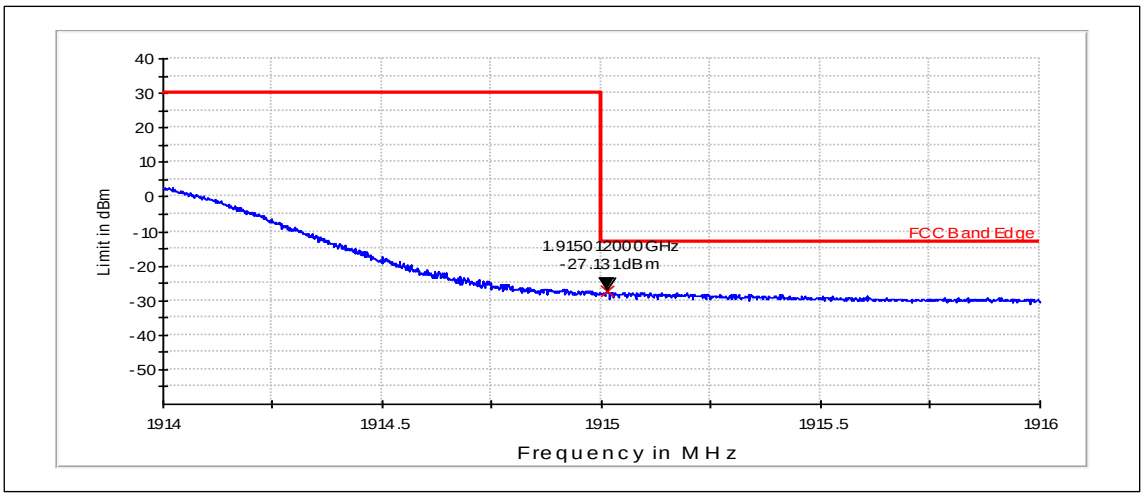
Channel 26140 / 1860 MHz, antenna1



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, QPSK, 100 RB	1849.708	-29.51	PASSED

Channel 26590 / 1905 MHz, antenna1



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, QPSK, 100 RB	1915.012	-27.13	PASSED

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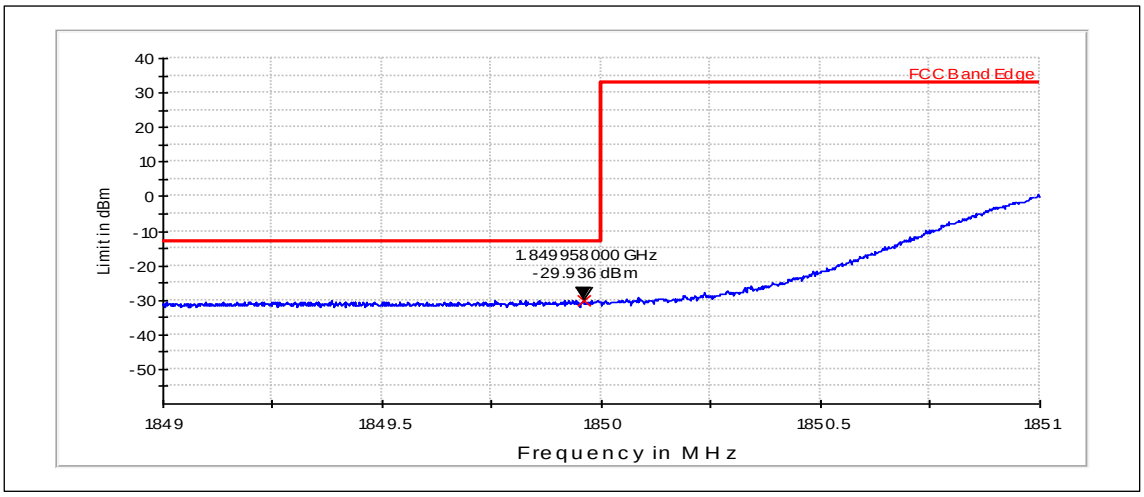
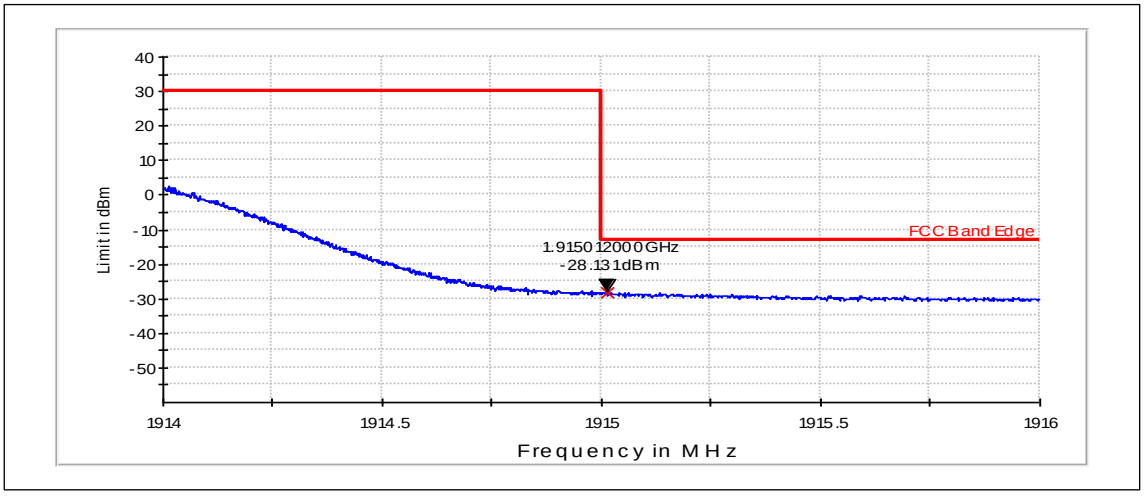
Channel 26140 / 1860 MHz, antenna1



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, 16QAM, 100 RB	1849.958	-29.94	PASSED

Channel 26590 / 1905 MHz, antenna1



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, 16QAM, 100 RB	1915.012	-28.13	PASSED

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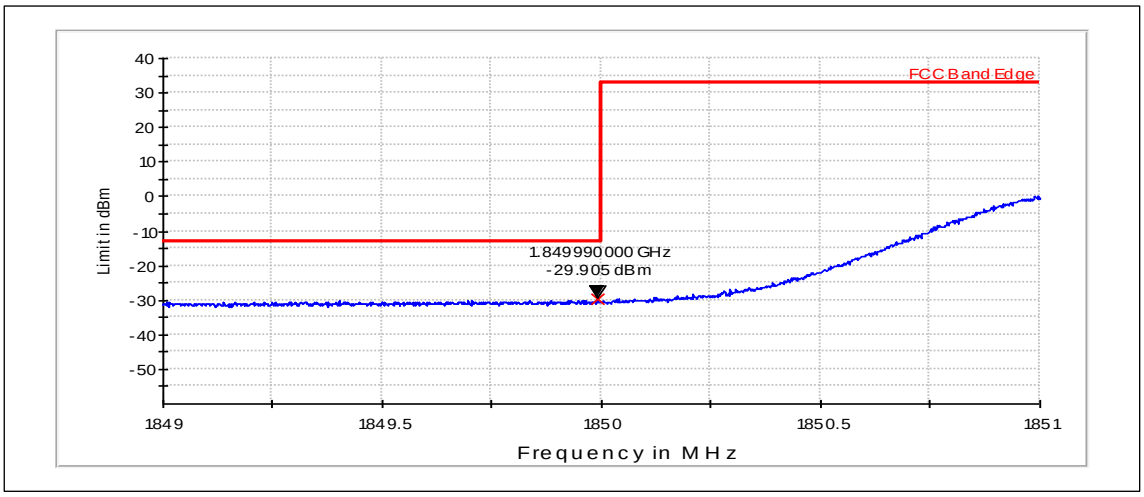
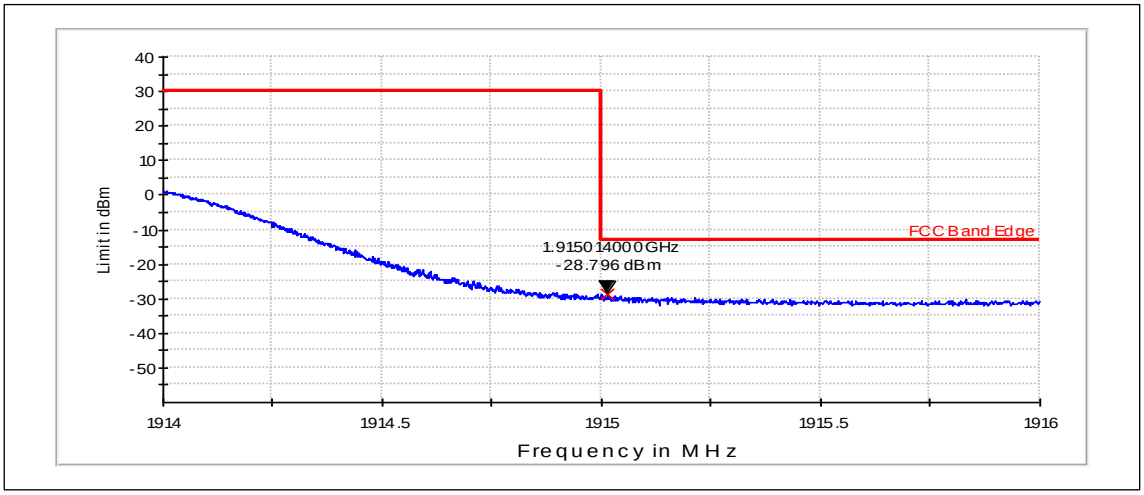
Channel 26140 / 1860 MHz, antenna2



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, QPSK, 100 RB	1849.990	-29.90	PASSED

Channel 26590 / 1905 MHz, antenna2



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, QPSK, 100 RB	1915.014	-28.80	PASSED

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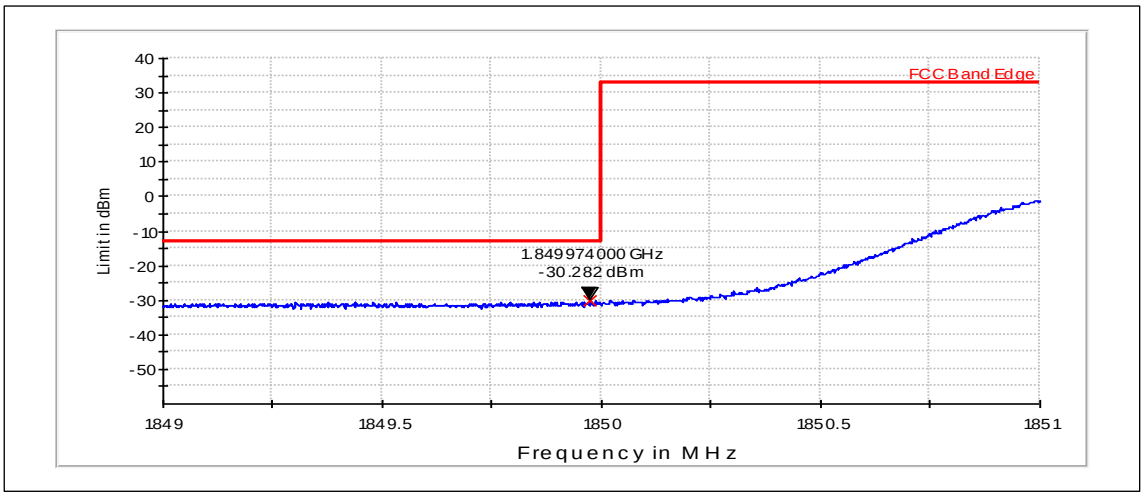
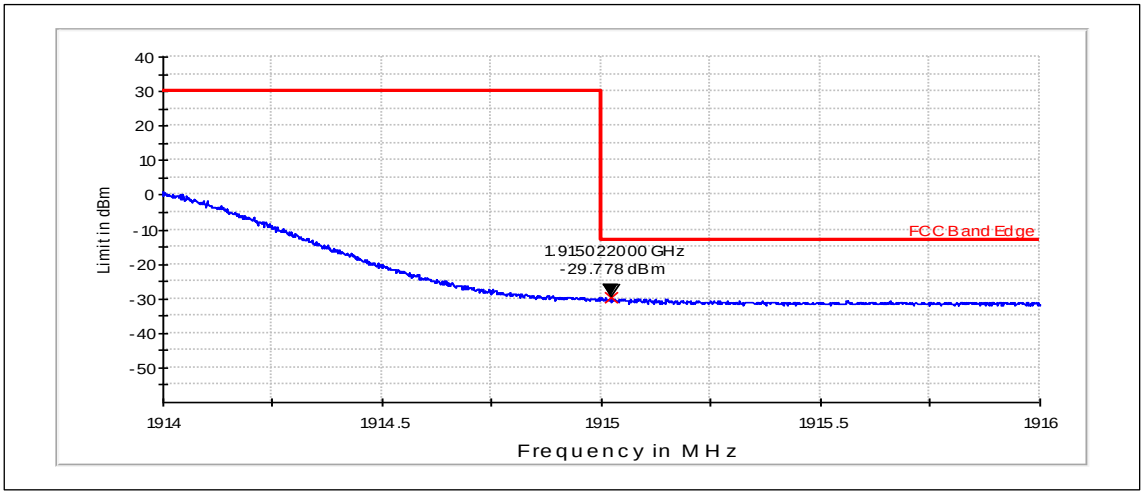
Channel 26140 / 1860 MHz, antenna2



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, 16QAM, 100 RB	1849.974	-30.28	PASSED

Channel 26590 / 1905 MHz, antenna2



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, 16QAM, 100 RB	1915.022	-29.78	PASSED

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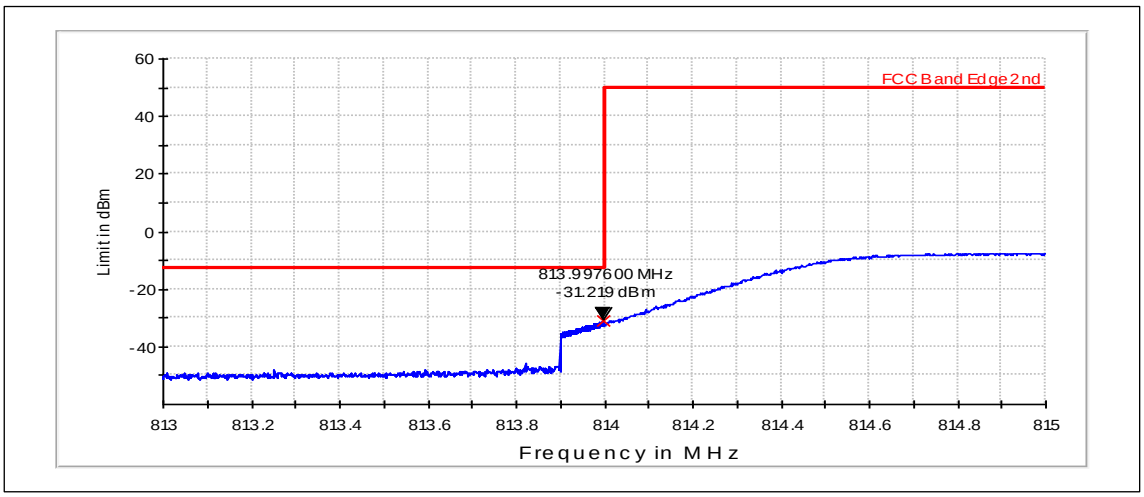
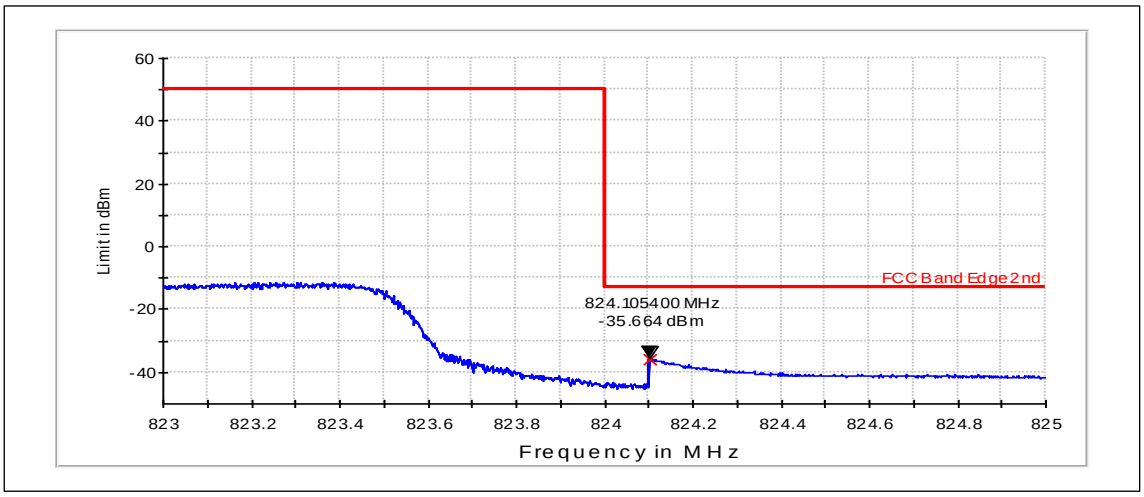
3.11. LTE26_lower test results

Channel 26740 / 819 MHz, antenna1



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 10MHz, QPSK, 50 RB	813.998	-31.22	PASSED

Channel 26740 / 819 MHz, antenna1



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 10MHz, QPSK, 50 RB	824.105	-35.66	PASSED

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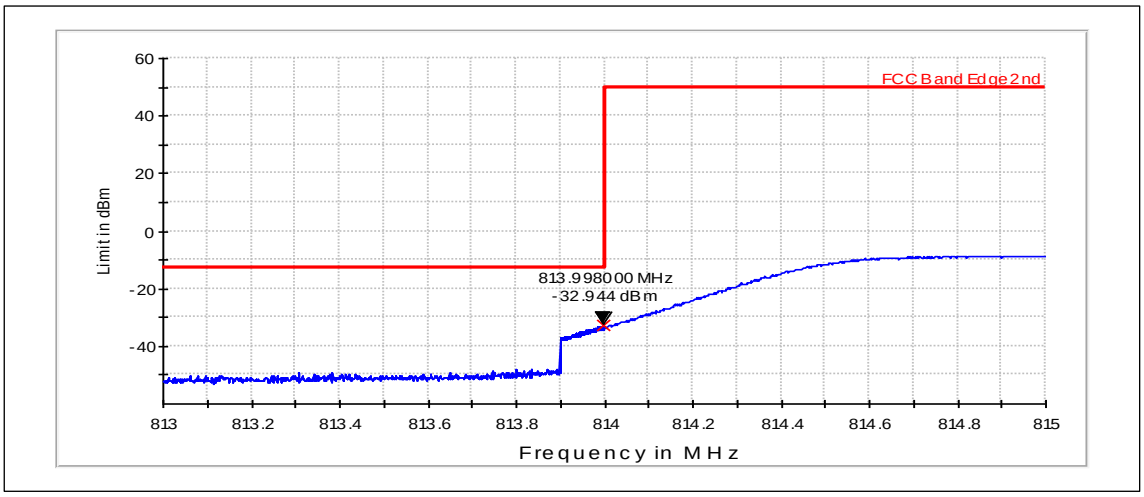
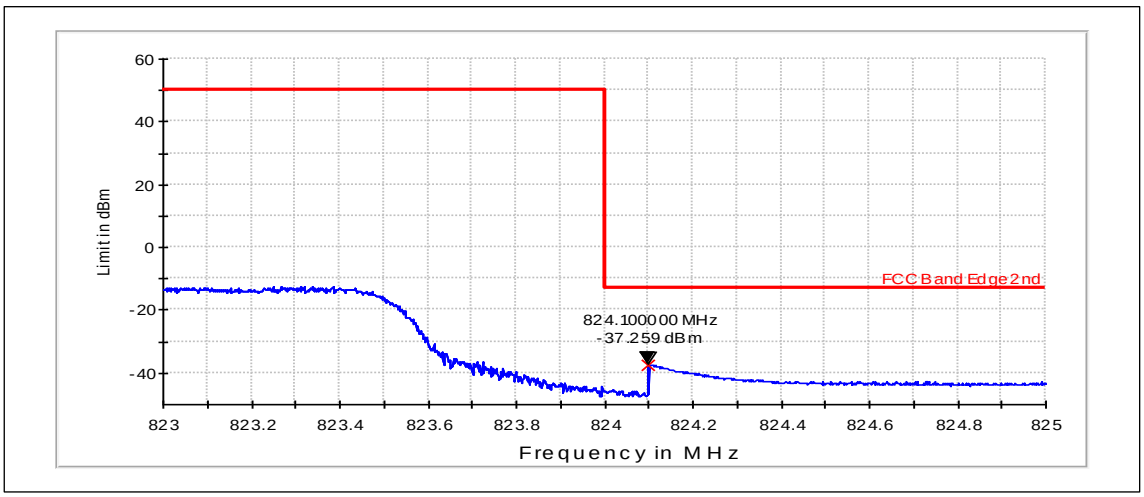
Channel 26740 / 819 MHz, antenna1



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 10MHz, 16QAM, 50 RB	813.998	-32.94	PASSED

Channel 26740 / 819 MHz, antenna1



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 10MHz, 16QAM, 50 RB	824.100	-37.26	PASSED

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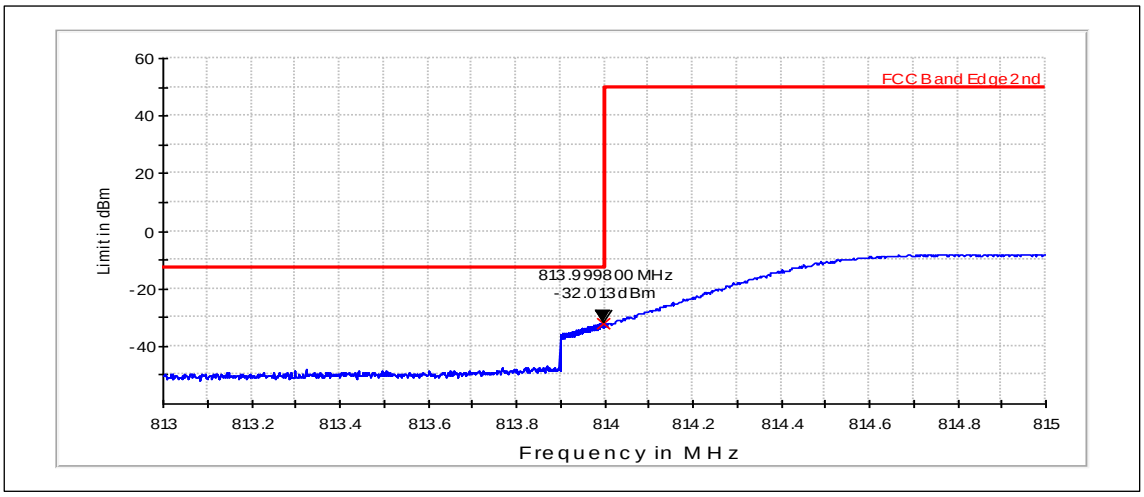
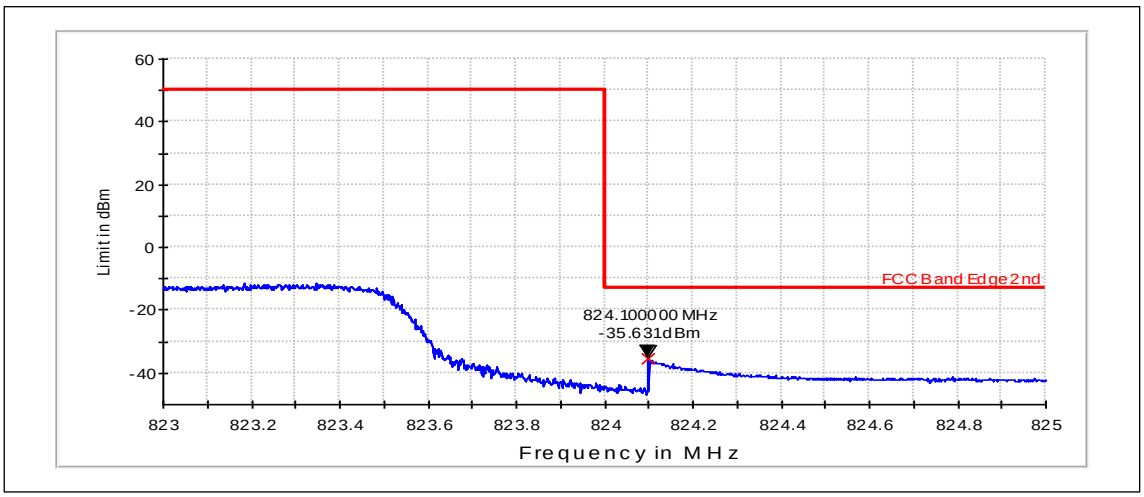
Channel 26740 / 819 MHz, antenna2



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 10MHz, QPSK, 50 RB	814.000	-32.01	PASSED

Channel 26740 / 819 MHz, antenna2



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 10MHz, QPSK, 50 RB	824.100	-35.63	PASSED

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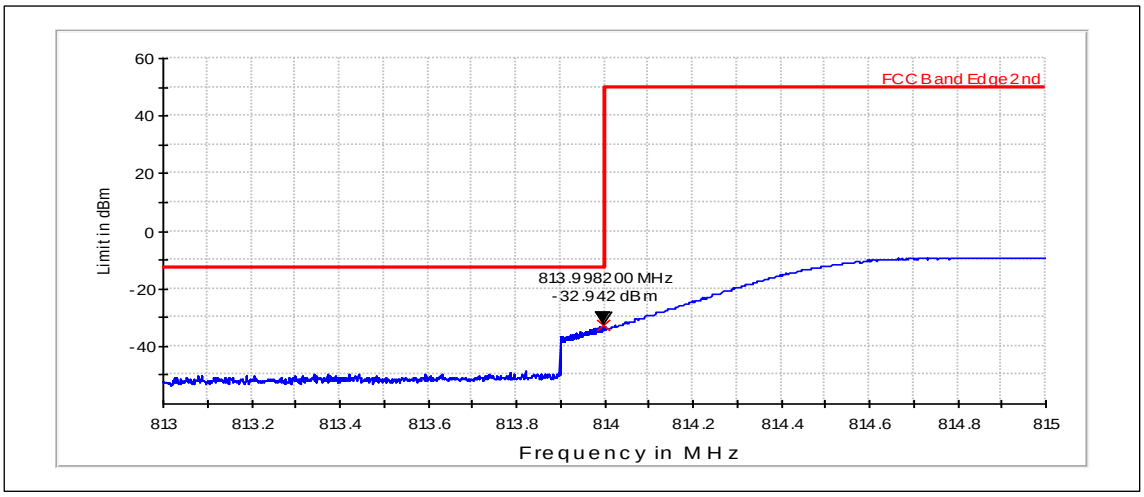
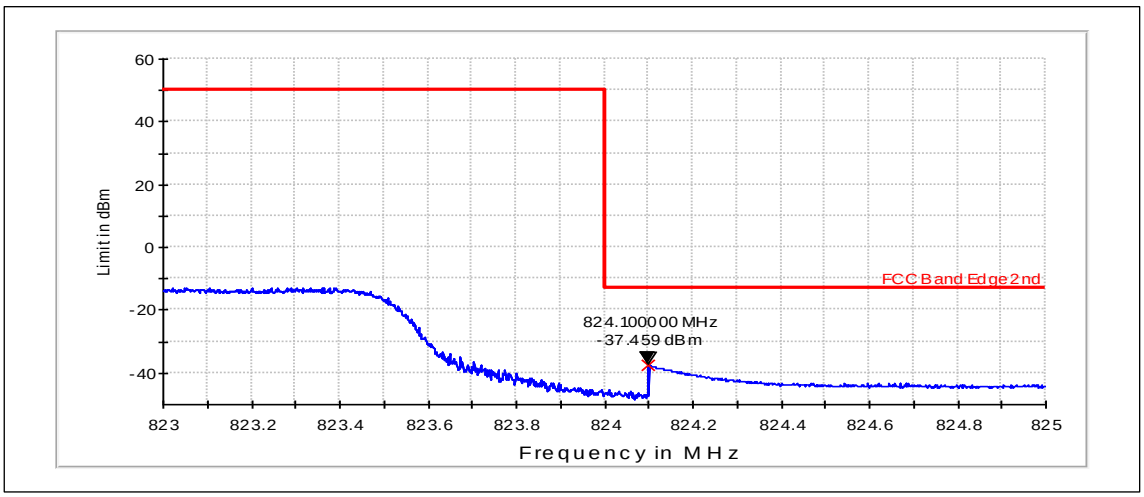
Channel 26740 / 819 MHz, antenna2



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 10MHz, 16QAM, 50 RB	813.998	-32.94	PASSED

Channel 26740 / 819 MHz, antenna2



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 10MHz, 16QAM, 50 RB	824.100	-37.46	PASSED

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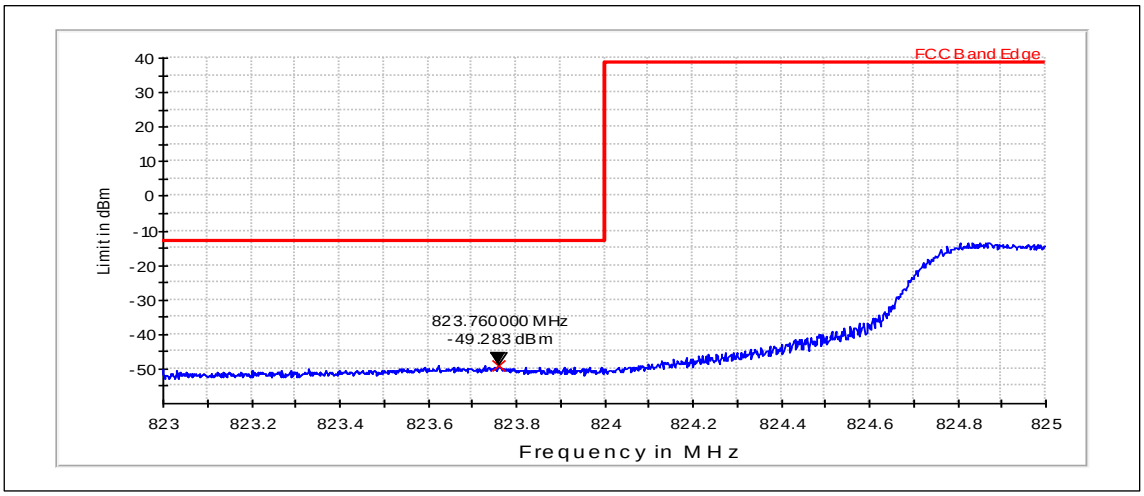
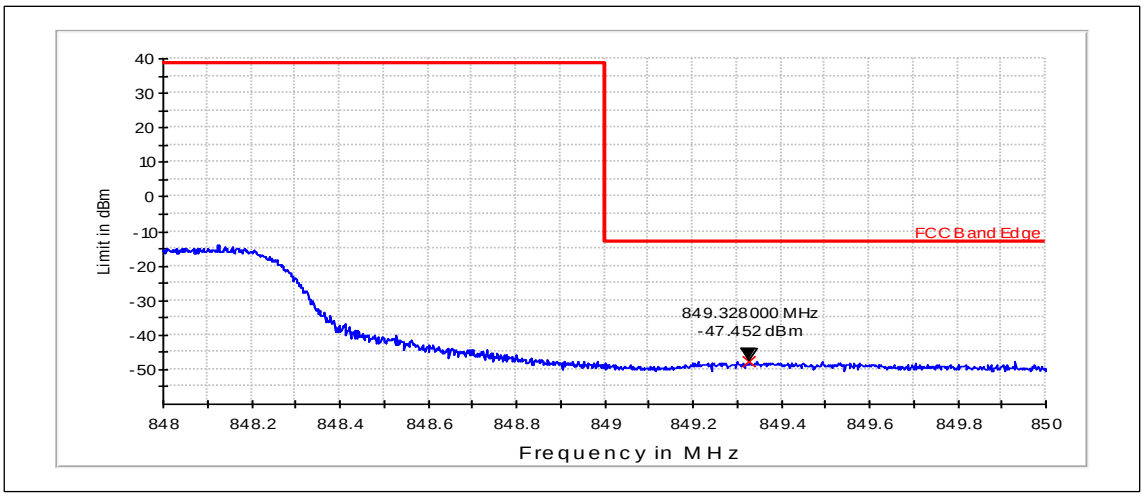
3.12. LTE26_upper test results

Channel 26865 / 831.5 MHz, antenna1



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 15MHz, QPSK, 75 RB	823.760	-49.28	PASSED

Channel 26965 / 841.5 MHz, antenna1



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 15MHz, QPSK, 75 RB	849.328	-47.45	PASSED

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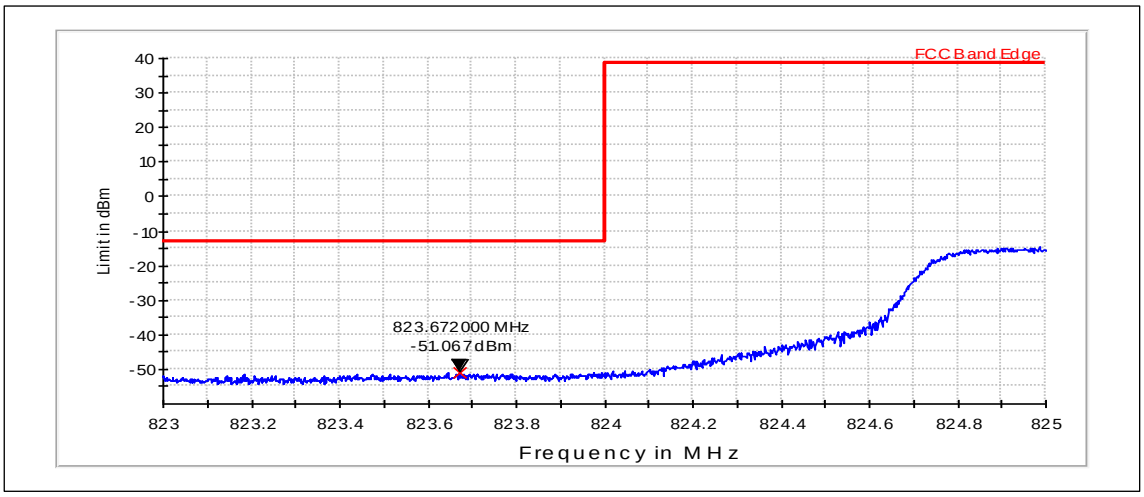
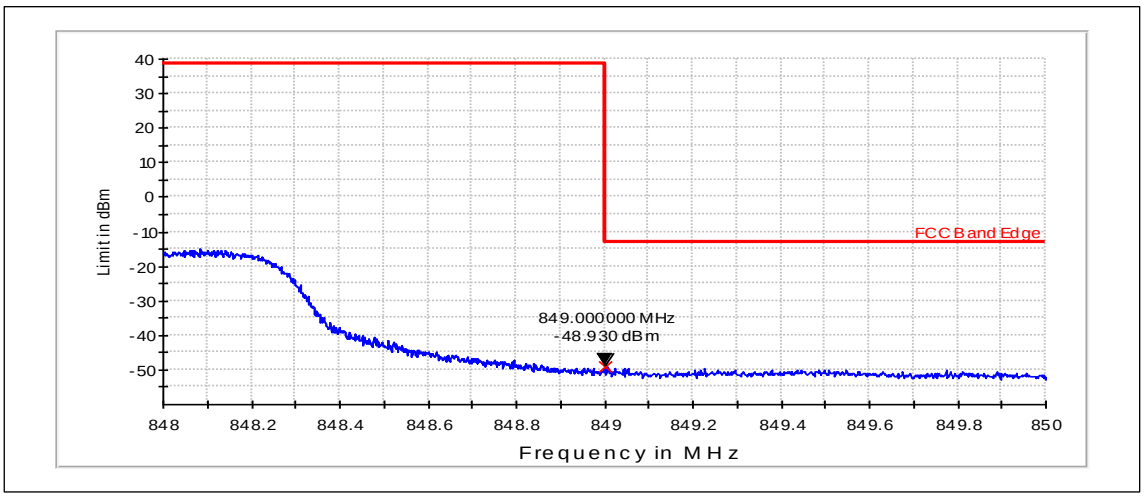
Channel 26865 / 831.5 MHz, antenna1



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 15MHz, 16QAM, 75 RB	823.672	-51.07	PASSED

Channel 26965 / 841.5 MHz, antenna1



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 15MHz, 16QAM, 75 RB	849.000	-48.93	PASSED

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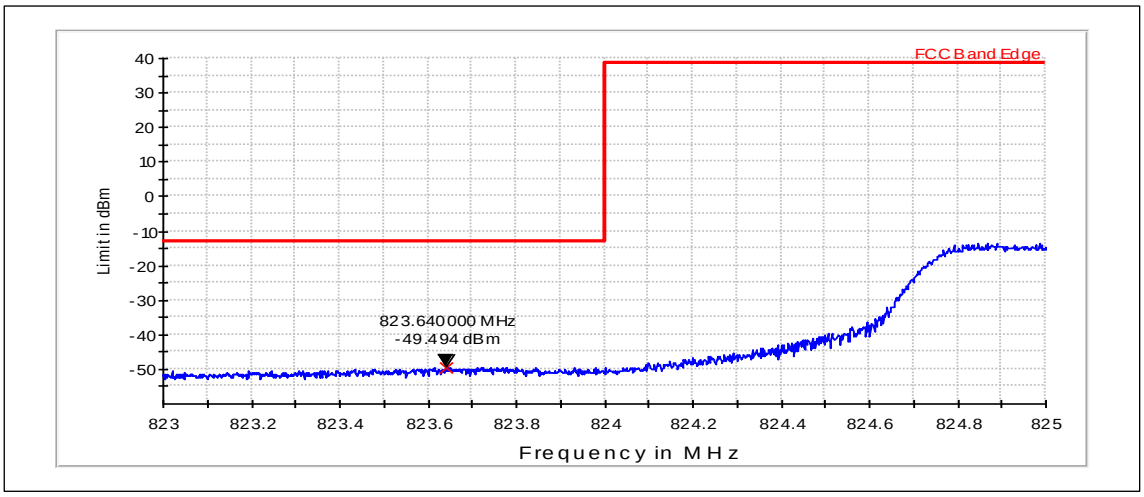
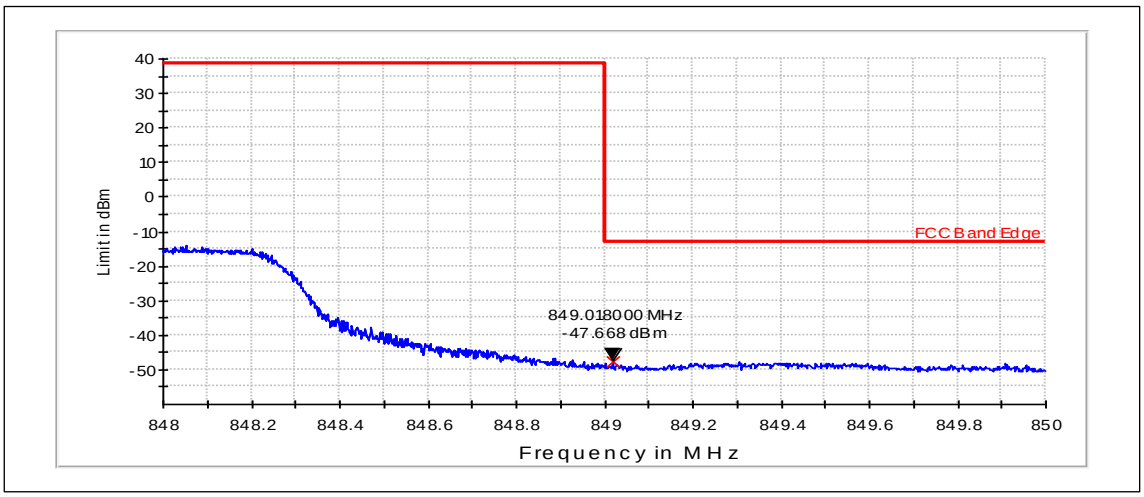
Channel 26865 / 831.5 MHz, antenna2



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 15MHz, QPSK, 75 RB	823.640	-49.49	PASSED

Channel 26965 / 841.5 MHz, antenna2



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 15MHz, QPSK, 75 RB	849.018	-47.67	PASSED

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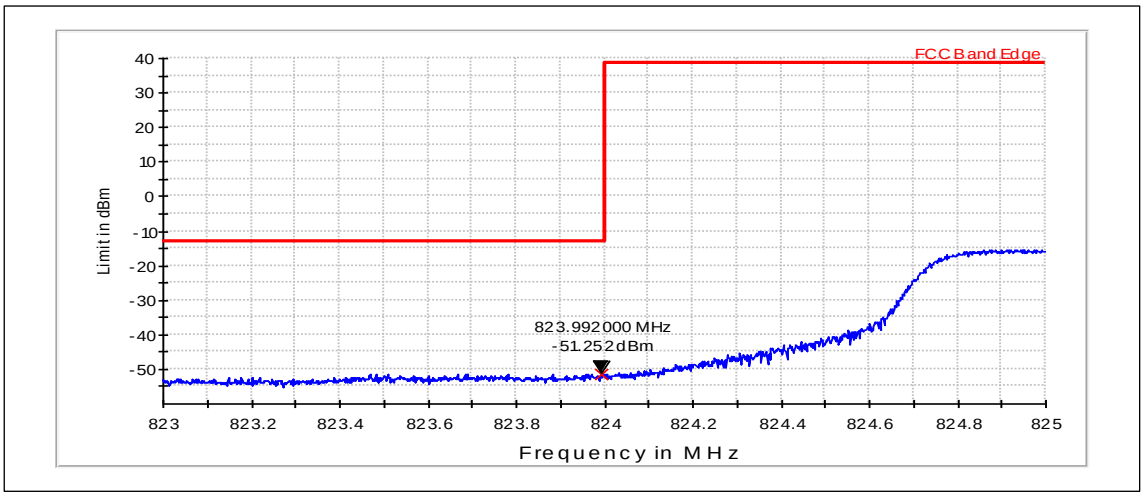
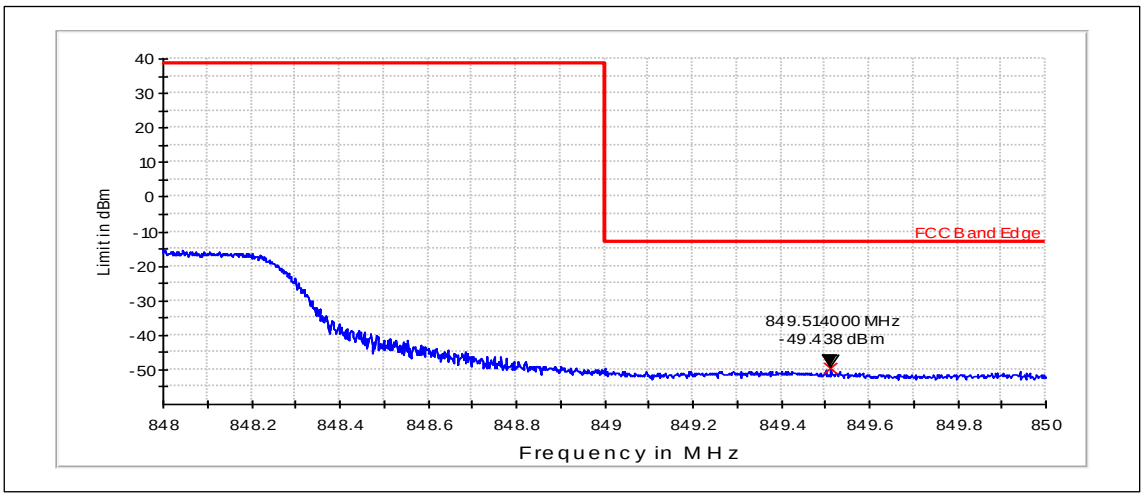
Channel 26865 / 831.5 MHz, antenna2



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 15MHz, 16QAM, 75 RB	823.992	-51.25	PASSED

Channel 26965 / 841.5 MHz, antenna2



Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 15MHz, 16QAM, 75 RB	849.514	-49.44	PASSED

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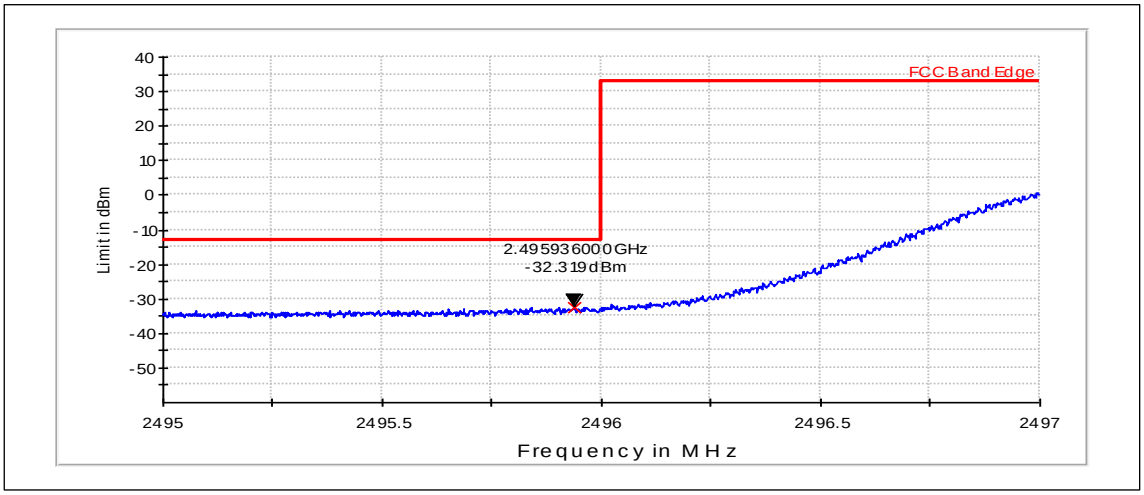
3.13. LTE41 Test results

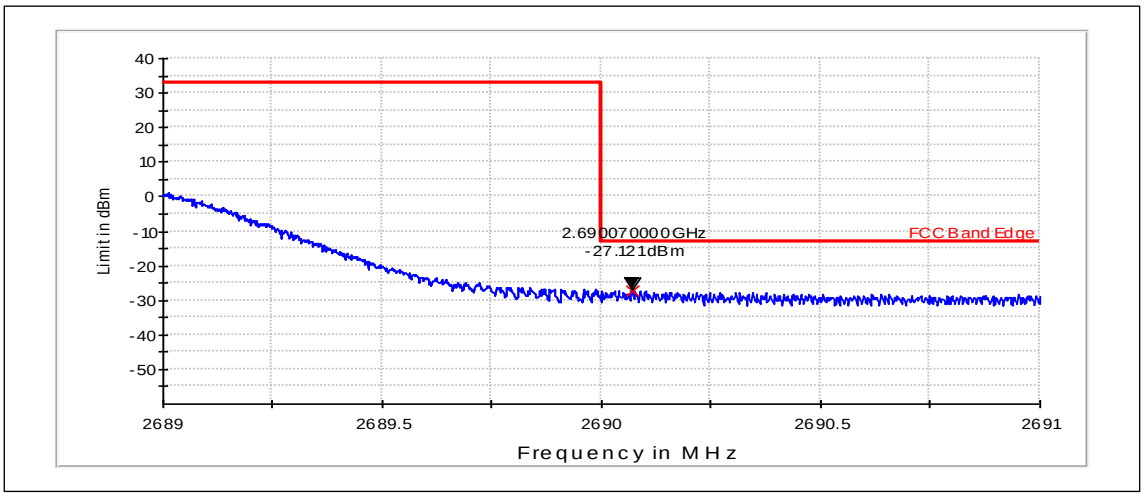
Channel 39750 / 2506 MHz



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, QPSK, 100 RB	2495.936	-32.32	PASSED

Channel 41490 / 2680 MHz



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, QPSK, 100 RB	2690.070	-27.12	PASSED

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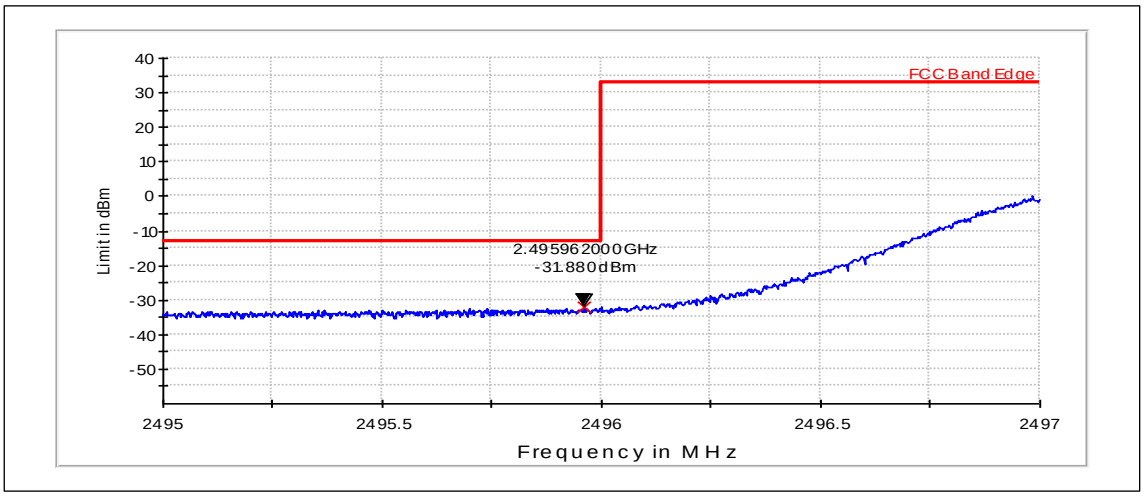
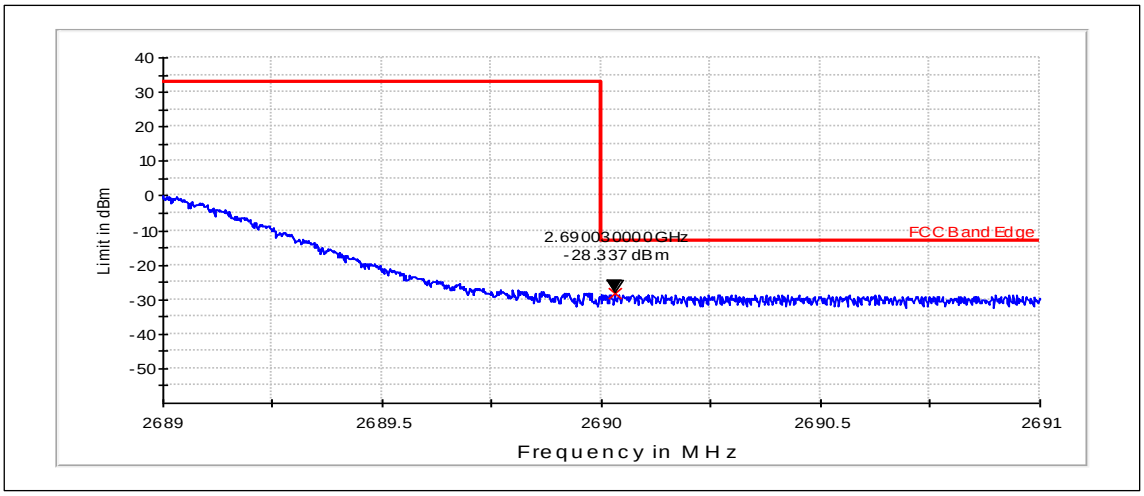
Channel 39750 / 2506 MHz



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, 16QAM, 100 RB	2495.962	-31.88	PASSED

Channel 41490 / 2680 MHz



RMS detector, Max hold

Operation mode (TX on)	Frequency [MHz]	Level [dBm]	Result
FDD, CBW 20MHz, 16QAM, 100 RB	2690.030	-28.34	PASSED

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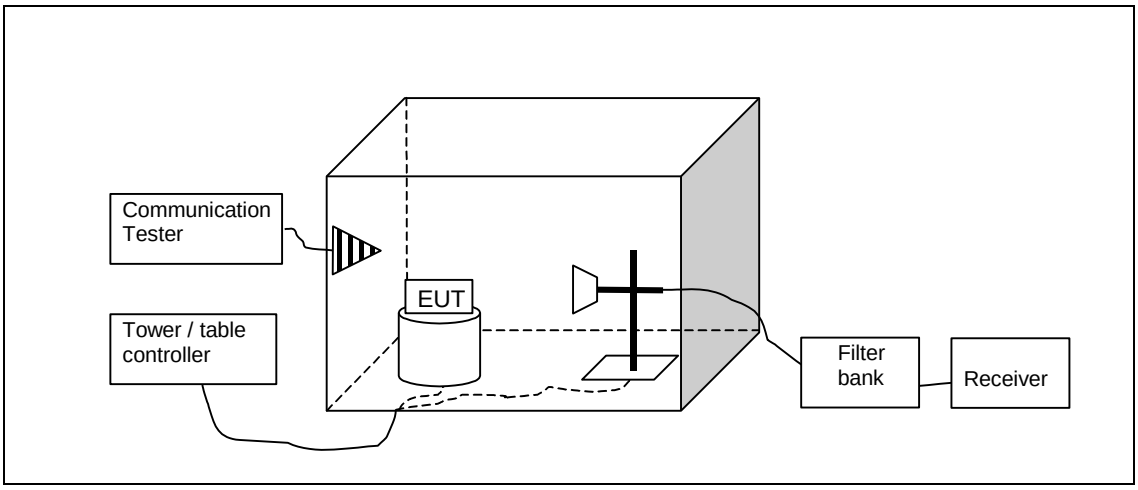
4. Spurious radiated emissions

(FCC §22.917(a), §90.691(a)(2), §27.53(l), §2.1053, §22.917(a), §2.1053, §24.238(a), §2.1053, §2.1053, RSS-132 4.5, RSS-133 6.5)

EUT with DUT number	RM-1078, DUT 54578
Accessories with DUT numbers	BL-5H, DUT 54577 ; AC-20U, DUT 53340 ; WH-108, DUT 54240
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	23/54/100.6 To 24/56/100.8
Date of measurements	13-Aug-2014 to 01-Sep-2014
Measured by	Fu Roger

4.1.1 Test setup



4.2. Test method and limit

The measurement is made according to TIA-603-C-2004 as follows:

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with absorbers on floor and measuring antenna at fixed height using 2-axis EUT position system.

The Final Measurement is performed in the Semi-Anechoic Chamber with conducting metal floor, if the Preliminary Measurement results are closer than 20 dB to the permissible value.

The EUT is placed at nonconductive plate at the turntable center.

For each suspected frequency, the turntable is rotated 360 degrees and antenna is scanned from 1 to 4 m. This is repeated for both horizontal and vertical receive antenna polarizations.

The emissions less than 20 dB below the permissible value are reported.

The substitution method is used. Substitution values at each frequencies are measured beforehand and saved to the test software.The substitution corrections are obtained as described below:

ASUBST = PSUBST TX - PSUBST RX - LSUBST CABLES + GSUBST TX ANT

Where ASUBST is the final substitution correction including receive antenna gain. PSUBST TX is

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signal generator level, PSUBST RX is receiver level, LSUBST CABLES is cable losses including both TX and RX cables and GSUBST TX ANT is substitution antenna gain.

The measurement results are obtained as described below:

P[dBm] = PMEAS + ATOT

Where PMEAS is receiver reading in dBm and ATOT is total correction factor including cable loss and substitution correction (ATOT = LCABLES - GPREAMP + ASUBST).

Limits for spurious radiated emissions measurements

Operation band	Frequency range [MHz]	Limit [dBm]
GSM 850	30 - 8500	-13
GSM 1900	30 - 19100	-13
CDMA 800	30 - 8500	-13
CDMA BC10, subclass 2/3	30 - 8500	-13
CDMA 1900	30 - 19100	-13
WCDMA 1900	30 - 19100	-13
WCDMA 850	30 - 8500	-13
LTE25	30 - 19100	-13
LTE26 lower	30 - 8500	-13
LTE26 upper	30 - 8500	-13
LTE41	30 - 25700	-13

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4.3. GSM 850 E-GPRS (MSC9) test results

Peak detector

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
1673.22	-58.2	0.00151	-62.4	4.2	HORIZONTAL	PASSED
2509.86	-51.51	0.00706	-62.21	10.7	VERTICAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

4.4. GSM 850 test results

Peak detector

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
848.62	-70.89	8E-05	-68.09	-2.8	HORIZONTAL	PASSED
1673.186	-56.27	0.00236	-60.27	4	VERTICAL	PASSED
2509.539	-46.99	0.02	-57.69	10.7	HORIZONTAL	PASSED
2509.78	-48.46	0.01426	-59.16	10.7	HORIZONTAL	PASSED
3306.573	-57.32	0.00185	-65.12	7.8	HORIZONTAL	PASSED
3346.693	-54.39	0.00364	-61.99	7.6	VERTICAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

4.5. GSM 1900 E-GPRS (MSC9) test results

Peak detector

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
3760.1	-49.53	0.01114	-60.33	10.8	VERTICAL	PASSED
5639.739	-47.72	0.0169	-62.22	14.5	VERTICAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

4.6. GSM 1900 test results

Peak detector

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
1910.352	-36.32	0.23335	-45.12	8.8	VERTICAL	PASSED
1910.488	-36.73	0.21232	-45.53	8.8	VERTICAL	PASSED
1910.744	-36.62	0.21777	-45.42	8.8	VERTICAL	PASSED
9842.084	-41.36	0.07311	-67.16	25.8	HORIZONTAL	PASSED
9848.697	-41.94	0.06397	-67.84	25.9	HORIZONTAL	PASSED
9963.928	-41.21	0.07568	-67.21	26	VERTICAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

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4.7. CDMA 800 test results

Channel 384 / 836.52 MHz

Peak detector

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
1672.525	-52.99	0.00502	-56.99	4	VERTICAL	PASSED
1673.501	-53.71	0.00426	-57.71	4	VERTICAL	PASSED
1673.768	-54.33	0.00369	-58.53	4.2	HORIZONTAL	PASSED
2503.207	-52.6	0.0055	-62.8	10.2	HORIZONTAL	PASSED
2512.285	-52.4	0.00575	-63.3	10.9	HORIZONTAL	PASSED
2514.77	-50.9	0.00813	-62	11.1	HORIZONTAL	PASSED
3345.992	-52.08	0.00619	-59.78	7.7	HORIZONTAL	PASSED
3346.02	-51	0.00794	-58.7	7.7	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

4.8. CDMA BC10, subclass 2/3 test results

Channel 580 / 820.5 MHz
Peak detector

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
1641.381	-55.13	0.00307	-59.03	3.9	VERTICAL	PASSED
1658.577	-57.26	0.00188	-61.06	3.8	HORIZONTAL	PASSED
1665.391	-58.22	0.00151	-62.22	4	HORIZONTAL	PASSED
1673.166	-57.76	0.00167	-61.96	4.2	HORIZONTAL	PASSED
2463.564	-52.02	0.00628	-62.62	10.6	VERTICAL	PASSED
2499.659	-51.04	0.00787	-61.74	10.7	VERTICAL	PASSED
2519.98	-52.03	0.00627	-62.93	10.9	VERTICAL	PASSED
3281.98	-50.82	0.00828	-58.32	7.5	HORIZONTAL	PASSED
3353.327	-56.41	0.00229	-64.11	7.7	VERTICAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

4.9. CDMA 1900 test results

Channel 600 / 1880 MHz
Peak detector

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
3760.822	-39.62	0.10914	-50.42	10.8	VERTICAL	PASSED
5640.701	-45.96	0.02535	-60.36	14.4	HORIZONTAL	PASSED
6990.601	-38.43	0.14355	-59.23	20.8	VERTICAL	PASSED
9692.926	-40.11	0.0975	-65.31	25.2	HORIZONTAL	PASSED
9800.862	-40.88	0.08166	-66.58	25.7	VERTICAL	PASSED
9850.361	-41.08	0.07798	-67.18	26.1	VERTICAL	PASSED
9888.477	-40.74	0.08433	-66.74	26	HORIZONTAL	PASSED
9970	-40.99	0.07962	-66.79	25.8	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

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4.10. WCDMA 1900 test results

Channel 9400 / 1880.0 MHz

FDD mode, Peak detector ; Antenna 1

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
1910.141	-48.69	0.01352	-56.89	8.2	VERTICAL	PASSED
3761.463	-43.84	0.0413	-54.64	10.8	VERTICAL	PASSED
5642.104	-47.5	0.01778	-61.9	14.4	HORIZONTAL	PASSED
7519.94	-43.77	0.04198	-66.17	22.4	HORIZONTAL	PASSED
8960.581	-43.39	0.04581	-67.49	24.1	VERTICAL	PASSED
9409.96	-42.18	0.06053	-66.68	24.5	HORIZONTAL	PASSED
9675.491	-41.46	0.07145	-66.86	25.4	HORIZONTAL	PASSED
9767.555	-41.35	0.07328	-67.15	25.8	VERTICAL	PASSED
9846.032	-41.58	0.0695	-67.58	26	VERTICAL	PASSED
9961.583	-40.41	0.09099	-66.11	25.7	HORIZONTAL	PASSED
11288.116	-38.72	0.13428	-67.02	28.3	VERTICAL	PASSED
13169.198	-51.24	0.00752	-72.94	21.7	VERTICAL	PASSED
15037.776	-49.36	0.01159	-72.86	23.5	HORIZONTAL	PASSED
16922.104	-49.91	0.01021	-72.91	23	VERTICAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 9400 / 1880.0 MHz

FDD mode, Peak detector; Antenna 2

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
1911.804	-49.88	0.01028	-58.28	8.4	HORIZONTAL	PASSED
1961.192	-35.96	0.25351	-45.06	9.1	VERTICAL	PASSED
3761.303	-45.96	0.02535	-56.76	10.8	VERTICAL	PASSED
5643.267	-47.29	0.01866	-61.79	14.5	VERTICAL	PASSED
7516.453	-43.91	0.04064	-66.11	22.2	VERTICAL	PASSED
9392.204	-42.52	0.05598	-67.02	24.5	HORIZONTAL	PASSED
9565.952	-42.48	0.05649	-67.68	25.2	VERTICAL	PASSED
9872.525	-41.04	0.0787	-66.64	25.6	HORIZONTAL	PASSED
9891.764	-41.46	0.07145	-67.56	26.1	VERTICAL	PASSED
10001.423	-41.14	0.07691	-67.14	26	VERTICAL	PASSED
11285.792	-39.31	0.11722	-67.61	28.3	VERTICAL	PASSED
13167.756	-51.34	0.00735	-73.04	21.7	VERTICAL	PASSED
15047.114	-49.16	0.01213	-72.56	23.4	HORIZONTAL	PASSED
16926.874	-49.95	0.01012	-73.25	23.3	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

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4.11. WCDMA 850 test results

Channel 4175 / 835.0 MHz

FDD mode, Peak detector; Antenna 1

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
822.159	-46.68	0.02148	-79.58	32.9	VERTICAL	PASSED
850.041	-44.62	0.03451	-78.92	34.3	HORIZONTAL	PASSED
856.779	-46.68	0.02148	-80.38	33.7	HORIZONTAL	PASSED
947.42	-42.37	0.05794	-79.77	37.4	HORIZONTAL	PASSED
949.88	-42.42	0.05728	-79.72	37.3	HORIZONTAL	PASSED
993.787	-42.1	0.06166	-79.5	37.4	HORIZONTAL	PASSED
1671.984	-57.86	0.00164	-62.06	4.2	HORIZONTAL	PASSED
2507.625	-50.28	0.00938	-60.98	10.7	VERTICAL	PASSED
3334.649	-56.5	0.00224	-64	7.5	VERTICAL	PASSED
4167.685	-55.41	0.00288	-65.21	9.8	HORIZONTAL	PASSED
5016.192	-51.68	0.00679	-62.88	11.2	HORIZONTAL	PASSED
5851.473	-49.87	0.0103	-62.57	12.7	HORIZONTAL	PASSED
6682.665	-44.92	0.03221	-62.02	17.1	VERTICAL	PASSED
7512.936	-45.5	0.02818	-65.6	20.1	VERTICAL	PASSED
8342.766	-47.27	0.01875	-67.47	20.2	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 4175 / 835.0 MHz

FDD mode, Peak detector ; Antenna 2

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
822.119	-45.57	0.02773	-80.57	35	HORIZONTAL	PASSED
847.72	-45.15	0.03055	-79.45	34.3	HORIZONTAL	PASSED
848.193	-47.1	0.0195	-80.4	33.3	VERTICAL	PASSED
863.161	-45.63	0.02735	-81.23	35.6	VERTICAL	PASSED
878.637	-38.05	0.15668	-73.05	35	VERTICAL	PASSED
994.929	-42.09	0.0618	-79.59	37.5	HORIZONTAL	PASSED
1671.663	-56.7	0.00214	-60.9	4.2	HORIZONTAL	PASSED
2501.894	-52.49	0.00564	-62.99	10.5	VERTICAL	PASSED
3332.806	-56.21	0.00239	-63.91	7.7	HORIZONTAL	PASSED
4177.986	-56.32	0.00233	-66.32	10	VERTICAL	PASSED
5019.399	-51.1	0.00776	-62.4	11.3	VERTICAL	PASSED
5853.196	-50.39	0.00914	-62.99	12.6	HORIZONTAL	PASSED
6672.725	-44.41	0.03622	-61.41	17	VERTICAL	PASSED
7516.343	-45.8	0.0263	-65.8	20	HORIZONTAL	PASSED
8341.283	-46.81	0.02084	-67.01	20.2	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

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4.12. LTE25 test results

Channel 26340 / 1880.0 MHz

FDD, CBW 5MHz, QPSK, 1 RB, RMS detector; Antenna 1

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
1971.718	-65.17	0.0003	-73.27	8.1	HORIZONTAL	PASSED
3765.351	-45.77	0.02649	-56.47	10.7	HORIZONTAL	PASSED
5648.116	-54.73	0.00337	-69.13	14.4	HORIZONTAL	PASSED
7529.118	-55.19	0.00303	-77.49	22.3	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 26340 / 1880.0 MHz

FDD, CBW 5MHz, 16QAM, 1 RB, RMS detector; Antenna 1

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
1958.708	-54.5	0.00355	-62.7	8.2	HORIZONTAL	PASSED
3760.381	-46.49	0.02244	-57.19	10.7	HORIZONTAL	PASSED
5640.381	-55.92	0.00256	-70.32	14.4	HORIZONTAL	PASSED
7524.269	-55.01	0.00316	-77.41	22.4	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 26340 / 1880.0 MHz

FDD, CBW 5MHz, QPSK, 1 RB, RMS detector; Antenna 2

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
1961.295	-49.15	0.01216	-57.35	8.2	HORIZONTAL	PASSED
3760.341	-44.35	0.03673	-55.05	10.7	HORIZONTAL	PASSED
5640.701	-52.06	0.00622	-66.46	14.4	HORIZONTAL	PASSED
7526.192	-55.06	0.00312	-77.46	22.4	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 26340 / 1880.0 MHz

FDD, CBW 5MHz, 16QAM, 1 RB, RMS detector; Antenna 2

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
1961.757	-50.89	0.00815	-59.09	8.2	HORIZONTAL	PASSED
3760.341	-45.48	0.02831	-56.18	10.7	HORIZONTAL	PASSED
5640.581	-51.53	0.00703	-65.93	14.4	HORIZONTAL	PASSED
7520.1	-55.06	0.00312	-77.46	22.4	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

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4.13. LTE26 lower test results

Channel 26740 / 819.0 MHz

FDD, CBW 5MHz, QPSK, 1 RB, RMS detector;Antenna1

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
835.408	-57.78	0.00167	-92.98	35.2	HORIZONTAL	PASSED
868.352	-56.41	0.00229	-90.51	34.1	HORIZONTAL	PASSED
992.993	-53.18	0.00481	-90.48	37.3	HORIZONTAL	PASSED
1638.261	-68.57	0.00014	-72.47	3.9	HORIZONTAL	PASSED
2457.581	-62.36	0.00058	-72.46	10.1	HORIZONTAL	PASSED
3276.782	-66.43	0.00023	-73.93	7.5	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 26740 / 819.0 MHz

FDD, CBW 5MHz, 16QAM, 1 RB, RMS detector;Antenna1

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
837.372	-57.83	0.00165	-93.03	35.2	HORIZONTAL	PASSED
865.636	-53.1	0.0049	-87	33.9	HORIZONTAL	PASSED
996.228	-53.03	0.00498	-90.53	37.5	HORIZONTAL	PASSED
1638.381	-69.43	0.00011	-73.33	3.9	HORIZONTAL	PASSED
2457.501	-60.22	0.00095	-70.32	10.1	HORIZONTAL	PASSED
3276.822	-67.83	0.00016	-75.33	7.5	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 26740 / 819.0 MHz

FDD, CBW 5MHz, QPSK, 1 RB, RMS detector; Antenna 2

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
833.023	-57.66	0.00171	-93.06	35.4	HORIZONTAL	PASSED
837.172	-55.32	0.00294	-90.52	35.2	HORIZONTAL	PASSED
871.037	-56.17	0.00242	-90.57	34.4	HORIZONTAL	PASSED
992.433	-53.24	0.00474	-90.54	37.3	HORIZONTAL	PASSED
1638.461	-69.43	0.00011	-73.33	3.9	HORIZONTAL	PASSED
2450.327	-71.65	7E-05	-81.75	10.1	HORIZONTAL	PASSED
3276.461	-64.18	0.00038	-71.68	7.5	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 26740 / 819.0 MHz

FDD, CBW 5MHz, 16QAM, 1 RB, RMS detector; Antenna 2

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
832.151	-57.61	0.00173	-93.01	35.4	HORIZONTAL	PASSED
833.071	-57.66	0.00171	-93.06	35.4	HORIZONTAL	PASSED
834.065	-57.72	0.00169	-93.02	35.3	HORIZONTAL	PASSED

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834.538	-57.75	0.00168	-93.05	35.3	HORIZONTAL	PASSED
837.081	-57.81	0.00166	-93.01	35.2	HORIZONTAL	PASSED
872.668	-56	0.00251	-90.5	34.5	HORIZONTAL	PASSED
1638.301	-69.13	0.00012	-73.03	3.9	HORIZONTAL	PASSED
2463.313	-71.55	7E-05	-81.75	10.2	HORIZONTAL	PASSED
3277.022	-65.52	0.00028	-73.02	7.5	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

4.14. LTE26 upper test results

Channel 26915 / 836.5 MHz

FDD, CBW 5MHz, QPSK, 1 RB, RMS detector; Antenna 1

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
849.883	-58.76	0.00133	-93.06	34.3	HORIZONTAL	PASSED
880.368	-52.25	0.00596	-87.05	34.8	HORIZONTAL	PASSED
881.258	-52.18	0.00605	-86.98	34.8	HORIZONTAL	PASSED
996.992	-53.05	0.00495	-90.55	37.5	HORIZONTAL	PASSED
1673.621	-76.74	2E-05	-80.94	4.2	HORIZONTAL	PASSED
2510.001	-60.06	0.00099	-70.76	10.7	HORIZONTAL	PASSED
3346.501	-70.82	8E-05	-78.52	7.7	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 26915 / 836.5 MHz

FDD, CBW 5MHz, 16QAM, 1 RB, RMS detector ; Antenna 1

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
849.843	-58.76	0.00133	-93.06	34.3	HORIZONTAL	PASSED
879.535	-52.28	0.00592	-86.98	34.7	HORIZONTAL	PASSED
879.916	-52.28	0.00592	-86.98	34.7	HORIZONTAL	PASSED
994.319	-53.06	0.00494	-90.56	37.5	HORIZONTAL	PASSED
1673.822	-76.75	2E-05	-80.95	4.2	HORIZONTAL	PASSED
2510.001	-59.41	0.00115	-70.11	10.7	HORIZONTAL	PASSED
3346.741	-69.32	0.00012	-77.02	7.7	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 26915 / 836.5 MHz

FDD, CBW 5MHz, QPSK, 1 RB, RMS detector; Antenna 2

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
824.279	-57.78	0.00167	-92.98	35.2	HORIZONTAL	PASSED
849.041	-58.81	0.00132	-93.01	34.2	HORIZONTAL	PASSED
849.879	-58.76	0.00133	-93.06	34.3	HORIZONTAL	PASSED
880.131	-49.77	0.01054	-84.47	34.7	HORIZONTAL	PASSED
880.633	-49.72	0.01067	-84.52	34.8	HORIZONTAL	PASSED
1673.261	-68.49	0.00014	-72.69	4.2	HORIZONTAL	PASSED
2514.009	-69.97	0.0001	-80.97	11	HORIZONTAL	PASSED

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3346.541	-61.46	0.00071	-69.16	7.7	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 26915 / 836.5 MHz

FDD, CBW 5MHz, 16QAM, 1 RB, RMS detector; Antenna 2

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
824.352	-55.28	0.00296	-90.48	35.2	HORIZONTAL	PASSED
850.043	-56.26	0.00237	-90.56	34.3	HORIZONTAL	PASSED
880.633	-49.72	0.01067	-84.52	34.8	HORIZONTAL	PASSED
883.705	-49.65	0.01084	-84.55	34.9	HORIZONTAL	PASSED
1673.301	-68.78	0.00013	-72.98	4.2	HORIZONTAL	PASSED
2512.366	-70.87	8E-05	-81.77	10.9	HORIZONTAL	PASSED
3346.822	-61.45	0.00072	-69.15	7.7	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

4.15. LTE41 test results

Channel 40620 / 2593.0 MHz

FDD, CBW 5MHz, QPSK, 1 RB, RMS detector

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
2605.734	-59.43	0.00114	-71.23	11.8	HORIZONTAL	PASSED
2605.877	-59.19	0.00121	-70.99	11.8	HORIZONTAL	PASSED
2605.941	-59.19	0.00121	-70.99	11.8	HORIZONTAL	PASSED
2610.514	-60.03	0.00099	-71.93	11.9	HORIZONTAL	PASSED
2638.884	-60.2	0.00095	-72.5	12.3	HORIZONTAL	PASSED
2650.069	-60.62	0.00087	-72.42	11.8	HORIZONTAL	PASSED
5186.501	-41.11	0.07745	-54.71	13.6	HORIZONTAL	PASSED
7785.393	-55.9	0.00257	-77.5	21.6	HORIZONTAL	PASSED
10373.984	-50.47	0.00897	-77.47	27	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

Channel 40620 / 2593.0 MHz

FDD, CBW 5MHz, 16QAM, 1 RB, RMS detector

Frequency [MHz]	P [dBm]	P [µW]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Results
2606.602	-61.82	0.00066	-73.62	11.8	HORIZONTAL	PASSED
2622.184	-59.94	0.00101	-71.94	12	HORIZONTAL	PASSED
2628.363	-59.47	0.00113	-71.67	12.2	HORIZONTAL	PASSED
2637.747	-59.55	0.00111	-71.95	12.4	HORIZONTAL	PASSED
2656.348	-60.97	0.0008	-72.47	11.5	HORIZONTAL	PASSED
2666.11	-60.99	0.0008	-72.49	11.5	HORIZONTAL	PASSED
5186.381	-41.47	0.07129	-55.07	13.6	HORIZONTAL	PASSED
7775.212	-56.65	0.00216	-77.95	21.3	HORIZONTAL	PASSED
10373.182	-50.47	0.00897	-77.47	27	HORIZONTAL	PASSED

*Substitution method could not be utilized as no emissions above noise floor were found during measurements.

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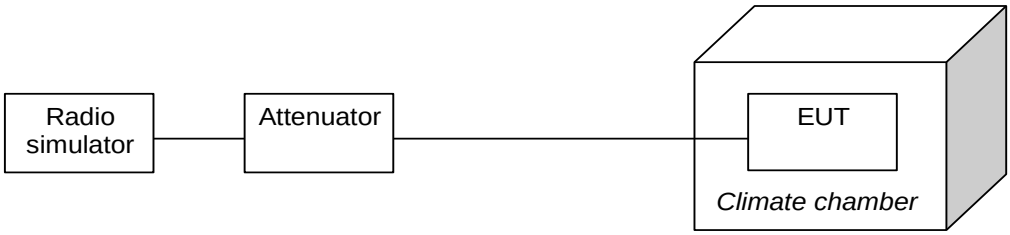
5. Frequency stability, temperature variation
(FCC §2.1055(a), §27.54, §24.235, RSS-133 6.3, RSS-132 4.3)

EUT with DUT number	RM-1078, DUT 54582
Accessories with DUT numbers	AC-20U, DUT 54581 ; BL-5H, DUT 54583 ; WH-108, DUT 54459
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	23/53/100.6 to 24/50/100.7
Date of measurements	13-Aug-2014 to 25-Aug-2014
Measured by	Dou Rubo

5.1. Test Setup



5.2. Test method and limit

The measurement is made according to applicable FCC rule parts and IC standards as follows:

The climate chamber temperature is set to the maximum value and the temperature is allowed to stabilize.
The EUT is placed in the chamber.
The EUT is set in idle mode for 15 minutes.
The EUT is set to transmit.
The transmit frequency error was measured immediately.
The steps c - e were repeated for each temperature.Limits for frequency stability, temperature variation measurements

Frequency deviation [ppm]
+\- 2.5

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5.3. GSM 1900 Test results

GSM, Channel 661 / 1880.0 MHz

Temperature [°C]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
50	1880.00	57.60000	0.0306	PASSED
40	1880.00	44.81000	0.0238	PASSED
30	1880.00	43.00000	0.0229	PASSED
20	1880.00	45.14000	0.024	PASSED
10	1880.00	41.00000	0.0218	PASSED
0	1880.00	50.88000	0.0271	PASSED
-10	1880.00	42.23000	0.0225	PASSED
-20	1880.00	48.04000	0.0256	PASSED
-30	1880.00	57.92000	0.0308	PASSED

5.4. GSM 850 Test results

GSM, Channel 190 / 836.6 MHz

Temperature [°C]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
50	836.60	15.76000	0.0188	PASSED
40	836.60	4.58000	0.0055	PASSED
30	836.60	6.52000	0.0078	PASSED
20	836.60	1.81000	0.0022	PASSED
10	836.60	-0.52000	-0.0006	PASSED
0	836.60	2.07000	0.0025	PASSED
-10	836.60	0.58000	0.0007	PASSED
-20	836.60	-0.52000	-0.0006	PASSED
-30	836.60	8.20000	0.0098	PASSED

5.5. LTE25 Test results

FDD, CBW 20MHz, QPSK, 100 RB, Channel 26365 / 1882.5 MHz

Temperature [°C]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
50	1882.50	-3.73364	-0.002	PASSED
40	1882.50	-1.60217	-0.0008	PASSED
30	1882.50	-1.07288	-0.0006	PASSED
20	1882.50	-1.81675	-0.001	PASSED
10	1882.50	-2.11716	-0.0011	PASSED
0	1882.50	-1.45912	-0.0008	PASSED
-10	1882.50	-1.65939	-0.0009	PASSED
-20	1882.50	-2.24590	-0.0012	PASSED
-30	1882.50	-0.15736	-0.0001	PASSED

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5.6. LTE26_lower test results

FDD, CBW 10MHz, QPSK, 50 RB,

Temperature [°C]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
50	819.00	-2.13146	-0.0026	PASSED
40	819.00	-1.71661	-0.0021	PASSED
30	819.00	-2.18868	-0.0027	PASSED
20	819.00	-1.68800	-0.0021	PASSED
10	819.00	-1.55926	-0.0019	PASSED
0	819.00	-1.14441	-0.0014	PASSED
-10	819.00	-0.72956	-0.0009	PASSED
-20	819.00	-1.28746	-0.0016	PASSED
-30	819.00	-0.88692	-0.0011	PASSED

5.7. LTE26_upper test results

FDD, CBW 15MHz, QPSK, 75 RB,

Temperature [°C]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
50	836.50	-0.72956	-0.0009	PASSED
40	836.50	-2.33173	-0.0028	PASSED
30	836.50	-1.47343	-0.0018	PASSED
20	836.50	-1.01566	-0.0012	PASSED
10	836.50	-0.01431	0	PASSED
0	836.50	-0.92983	-0.0011	PASSED
-10	836.50	-0.37193	-0.0004	PASSED
-20	836.50	-0.82970	-0.001	PASSED
-30	836.50	0.60081	0.0007	PASSED

5.8. LTE41 Test results

FDD, CBW 20MHz, QPSK, 100 RB, Channel 40620 / 2593.0 MHz

Temperature [°C]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
50	2593.00	-1.00000	-0.0004	PASSED
40	2593.00	-1.00000	-0.0004	PASSED
30	2593.00	-1.00000	-0.0004	PASSED
20	2593.00	-1.00000	-0.0004	PASSED
10	2593.00	-1.00000	-0.0004	PASSED
0	2593.00	-1.00000	-0.0004	PASSED
-10	2593.00	-1.00000	-0.0004	PASSED
-20	2593.00	-1.00000	-0.0004	PASSED
-30	2593.00	-1.00000	-0.0004	PASSED

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6. Frequency stability, voltage variation
(FCC §2.1055(d), §24.235, §27.54, RSS-133 6.3, RSS-132 4.3)

EUT with DUT number	RM-1078, DUT 54582
Accessories with DUT numbers	SD-128, DUT 54585
Operation Voltage [V] / [Hz]	Nominal
Results	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	24/55/100.7 to 24/54/100.3
Date of measurements	19-Aug-2014 to 22-Aug-2014
Measured by	Dou Rubo

6.1. Test Setup

6.2. Test method and limit

The measurement is made according to applicable FCC rule parts and IC standards as follows:

The EUT battery was replaced with an adjustable power supply. The frequency stability was measured at nominal voltage and at the battery cut-off point.
Limits for frequency stability, voltage variation measurements

Frequency deviation [ppm]
+\- 2.5

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6.3. GSM 1900 Test results

GSM, Channel 661 / 1880.0 MHz

Voltage level [V]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
Max / 4.1	1880.00	46.81000	0.0249	PASSED
Battery cut-off point / 3.5	1880.00	48.17000	0.0256	PASSED
Nominal / 3.7	1880.00	44.10000	0.0235	PASSED

6.4. GSM 850 Test results

GSM, Channel 190 / 836.6 MHz

Voltage level [V]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
Max / 4.1	836.60	6.07000	0.0073	PASSED
Battery cut-off point / 3.5	836.60	7.75000	0.0093	PASSED
Nominal / 3.7	836.60	4.52000	0.0054	PASSED

6.5. LTE25 Test results

FDD, CBW 20MHz, QPSK, 100 RB, Channel 26365 / 1882.5 MHz

Voltage level [V]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
Max / 4.1	1882.50	-2.23160	-0.0012	PASSED
Battery cut-off point / 3.5	1882.50	-2.33173	-0.0012	PASSED
Nominal / 3.7	1882.50	-3.77655	-0.002	PASSED

6.6. LTE26_lower test results

FDD, CBW 10MHz, QPSK, 50 RB,

Voltage level [V]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
Max / 4.1	819.00	-2.50340	-0.0031	PASSED
Battery cut-off point / 3.5	819.00	-1.40190	-0.0017	PASSED
Nominal / 3.7	819.00	-1.00136	-0.0012	PASSED

6.7. LTE26_Upper test results

FDD, CBW 15MHz, QPSK, 75 RB,

Voltage level [V]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
Max / 4.1	836.50	-1.13010	-0.0014	PASSED
Battery cut-off point / 3.5	836.50	-0.24319	-0.0003	PASSED
Nominal / 3.7	836.50	-2.68936	-0.0032	PASSED

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6.8. LTE41 Test results

TDD, CBW 20MHz, INV, INV RB, Channel 40620 / 2593.0 MHz

Voltage level [V]	Frequency [MHz]	Deviation [Hz]	Deviation [ppm]	Result
Max / 4.1	2593.00	-1.00000	-0.0004	PASSED
Battery cut-off point / 3.5	2593.00	-1.00000	-0.0004	PASSED
Nominal / 3.7	2593.00	-1.00000	-0.0004	PASSED

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7. Test Equipment

7.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
-	BT / WLAN Antenna	SPA 2400/75/9/0/V	Huber-Suhner	15C, 15B
-	BT / WLAN Antenna	SPA 2400/75/9/0/V	Huber-Suhner	15C, 15B
-	RF Emission Software	EMC32 Test Software	R&S	22/24/27, 15C, 15B
BJPCHW0020	DC Power supply	Hp6632B	HP	22/24/27, 15C
BJPCPT0040	Receiver	ESCS30	R&S	15C,15B
BJPCPT0069	LISN 50 µH	ESH3-Z5	R&S	15C,15B
BJPCTC0323	Signal Generator	SMR 27	R&S	22/24/27, 15C, 15B
BJPCPT0073	Signal Generator	SMR 20	R&S	22/24/27, 15C, 15B
BJPCPT0191	Pulse Limiter	ESH3-Z2	R&S	15C,15B
BJPCPT0208	UPS	PULSAR RX10	Merlin gerin	15C.15B
BJPCTC0001	DIGITAL CAMERA	PC1015	CANON	15C.15R
BJPCTC0017	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
BJPCTC0062	AC Power source	6812B	Hp	15C.15B
BJPCTC0067	Bluetooth Tester	CBT	R&S	22/24/27, 15C
BJPCTC0082	Humidity and Temperature Sensor	175-H2	Testo	15B,15C
BJPCTC0088	Absolut pressure meter	testo 511	Testo	22/24/27, 15B,15C
BJPCTC0089	Tempreture Test chamber	VT4002	Votsch industrietechnik	22/24/27, 15C
BJPCTC0090	FSP spectrum analyzer	FSP30	R&S	22/24/27, 15C
BJPCTC0094	GPIB-RS232 convertor	GPIB-RS232	NI	22/24/27, 15C
BJPCTC0112	Power Splitter	11667B	Agilent	22/24/27, 15C
BJPCTC0115	Communication Tester	CMU200	R&S	22/24/27, 15B, 15C
BJPCTC0127	AC Power source	SOYI-500VA	SOYI	15B 15C
BJPCTC0128	Communication antenna	JXTXLB-10180	A-INFOMW	22/24/27 15B 15C
BJPCTC0129	Communication antenna	JXTXLB-10180	A-INFOMW	22/24/27 15B 15C
BJPCTC0131	Communication tester	CMW500	R&S	22/24/27 15B 15C
BJPCTC0136	Communication antenna	JXTXLB-880-NF	A-INFOMW	15B 15C
BJPCTC0306	Power Splitter	11667B	Agilent	22/24/27, 15C
BJPCTC0305	GPIB converter	GPIB-RS232	NI	22/24/27, 15C
BJPCTC0304	Spectrum Analyser	FSV30	R&S	22/24/27, 15C
BJPCTC0309	GPIB-RS232 convertor	RS232	NI	22/24/27, 15C
BJPCTC0307	Dual channel battery/charger simulator	2306	KEITHLEY	22/24/27, 15C
BJPCTC0308	Dual channel battery/charger simulator	2306	KEITHLEY	22/24/27, 15C
BJPCTC0352	Signal Generator 20GHz	MG3692B	Anritsu	22/24/27, 15C
BJBDATC0169	Tempreture Test chamber	VT4002	Votsch	22/24/27, 15C
BJPCTC0334	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
BJPCTC0342	Communication Tester	CMU200	R&S	15B, 15C
BJPCTC0343	Power Spliter	1167A	Agilent	EN300328
BJPCTC0344	Power Spliter	1167A	Agilent	EN300328
BJPCTC0345	Power Spliter	1167A	Agilent	EN300328
BJPCTC0346	Attenuator	8496A	Agilent	EN300328
BJPCTC0347	Directional Coupler	4226-20	Narda	EN300328
BJPCTC0348	Signal generator	E4438C	Agilent	EN300328
BJPCTC0336	Signal Generator	SMP22	R&S	22/24/27, 15C

7.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
-	BT / WLAN Antenna	SPA 2400/75/9/0/V	Huber-Suhner	15C, 15B
-	BT / WLAN Antenna	SPA 2400/75/9/0/V	Huber-Suhner	15C, 15B
-	RF Emission Software	EMC32 Test Software	R&S	22/24/27, 15C, 15B
BJPCPT0072	Receiver	ESI B26	R&S	22/24/27, 15C, 15B

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Eq. No	Equipment	Type	Manufacturer	Used in
BJPCPT0150	High Pass Filter	WHKS1200-10SS	Wainwright	22/24/27, 15C, 15B
BJPCPT0151	Band Reject Filter	WRCD1880/2000-0.2/40-5SSK	Wainwright	24, 15B
BJPCPT0154	Band Reject Filter	WRCT2402/2480-2400/2483.5-30-20SS	Wainwright	15C, 15B
BJPCPT0166	Antenna	VUBA 9117	Swarzbeck	22/24/27
BJPCPT0208	UPS	PULSAR RX10	Merlin gerin	15C.15B
BJPCTC0001	DIGITAL CAMERA	PC1015	CANON	15C.15R
BJPCTC0007	Antenna	HL562	R&S	22/24/27, 15C, 15B
BJPCTC0029	Antenna	HF906	R&S	22/24/27, 15C, 15B
BJPCTC0034	Band Reject Filter	WRCT 800/880-0.2/40-5SSK	Wainwright	22, 15B
BJPCTC0049	Preamplifier	Blma 0118-1A-Bt	Bonn	22/24/27, 15C, 15B
BJPCTC0055	Communication Tester	CMU200	R&S	22/24/27,15C,15B
BJPCTC0058	Bluetooth Tester	CBT	R&S	15C, 15B
BJPCTC0062	AC Power source	6812B	Hp	15C.15B
BJPCTC0064	Band Reject Filter	WRCG1877/1883-1870/1890-40/6SS	Wainwright	24, 15B
BJPCTC0071	Multi-Device Controller	2090	EMCO	22/24/27, 15C, 15B
BJPCTC0072	Anechoic Chamber	3 m Semi / Full Anechoic Chamber	ETS	22/24/27, 15C, 15B
BJPCTC0073	MAST	Model-TR/POL	ETS	22/24/27, 15C, 15B
BJPCTC0074	MAST	Model 2070-2	ETS	22/24/27, 15C, 15B
BJPCTC0075	Turntable	Model 2188	ETS-EMCO	22/24/27, 15C, 15B
BJPCTC0081	Humidity and Temperature Sensor	175-H2	Testo	15B, 15C
BJPCTC0088	Absolut pressure meter	testo 511	Testo	22/24/27, 15B,15C
BJPCTC0113	Receiver	ESI B26	R&S	22/24/27, 15B, 15C
BJPCTC0115	Communication Tester	CMU200	R&S	22/24/27, 15B, 15C
BJPCTC0124	Attenuator	SA18N200W-40	Fairview Microwave	-
BJPCTC0125	Loop Antenna	HFH2-Z2	R&S	15C
BJPCTC0126	Tripod	FHU-Z	R&S	15C
BJPCTC0128	Communication antenna	JXTXLB-10180	A-INFOMW	22/24/27 15B 15C
BJPCTC0129	Communication antenna	JXTXLB-10180	A-INFOMW	22/24/27 15B 15C
BJPCTC0131	Communication tester	CMW500	R&S	22/24/27 15B 15C
BJPCTC0133	Open Swith and contril unit	OSP 150	R&S	15B,15C
BJPCTC0134	Open Swith and contril unit	OSP 150	R&S	15B,15C
BJPCTC0135	Open Swith and contril unit	OSP 130	R&S	15B,15C
BJPCTC0136	Communication antenna	JXTXLB-880-NF	A-INFOMW	15B 15C
BJPCTC0171	Broad-band Horn Antenna	BBHA9120 D	SCHWARZBECK MESS - ELEKTRONIK	22/24/27, 15C, 15B
BJPCTC0310	Horn Antenna	QSH20SMA	Q-par	22/24/27, 15C, 15B
BJPCTC0311	Horn Antenna	QSH18SMA	Q-par	22/24/27, 15C, 15B
BJPCTC0312	Relay Switch Unit	-	-	22/24/27, 15C, 15B
BJPCTC0313	High Pass Filter	WHKX1.0/15G-12SS	Wainwright	22/24/27, 15C, 15B
BJPCTC0314	High Pass Filter	WHKX8.0/18G-88SS	Wainwright	22/24/27, 15C, 15B
BJPCTC0315	High Pass Filter	WHKX3.0/18G-12SS	Wainwright	22/24/27, 15C, 15B
BJPCTC0316	Preamplifier	AMT-5F-18002550-25-108	-	22/24/27, 15C, 15B
BJPCTC0317	Preamplifier	AMF-6D-02001800-29-20P	-	22/24/27, 15C, 15B
BJPCTC0350	Preamplifier	AMF-4D-01000800-30-29P	Miteq	22/24/27, 15C, 15B
BJPCTC0324	Preamplifier	AFS4-00100300-20-23P-6	Miteq	22/24/27, 15C, 15B
BJPCTC0329	Relay Switch Unit	-	-	22/24/27, 15C, 15B
BJPCTC0334	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
BJPCTC0342	Communication Tester	CMU200	R&S	15B, 15C

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Eq. No	Equipment	Type	Manufacturer	Used in
BJPCTC0349	Preamplifier	AMF-4D-01000800-30-79P	Miteg	22/24/27, 15C, 15B
BJPCTC0350	Preamplifier	AMF-4D-01000800-30-29P	Miteg	22/24/27, 15C, 15B
BJPCTC0351	Preamplifier	AFS4-00101800	-	22/24/27, 15C, 15B

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