7layers

InterLab®

Final Report on

Cinterion Wireless Module PHS8-P
HW: B1
SW: Revision 02.002

Report Reference:	MDE_CINTE_1108_FCCd
	acc. Title 47 CFR chapter I part 22 subpart H
Date:	December 01, 2011

Test Laboratory:
7Layers AG
Borsigstr. 11
40880 Ratingen
Germany

DAkkS
Deutsche
Akkreditierungsstelle
D-PL-12140-01-01

Note:
The following test results relate only to the devices specified in this document. This report shall not be reproduced in parts without the written approval of the test laboratory.

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

1 Administrative Data

1.1 Project Data

Project Responsible:	Mr. René Houx
Date Of Test Report:	2011/12/01
Date of first test:	2011/10/21
Date of last test:	2011/12/01

1.2 Applicant Data

Company Name:	Cinterion Wireless Modules GmbH
Street:	Siemensdamm 50
City:	13629 Berlin
Country:	Germany
Contact Person:	Mr. Thorsten Liebig
Function:	Manager Approval
Phone:	+49 (30) 31102-8241
E-Mail:	thorsten.liebig@cinterion.com

1.3 Test Laboratory Data

The following list shows all places and laboratories involved for test result generation:

7 layers DE

Company Name :	7 layers AG
Street :	Borsigstrasse 11
City :	40880 Ratingen
Country :	Germany
Contact Person :	Mr. Michael Albert
Phone :	+49 2102 749 201
Fax :	+49 2102 749 444
E Mail :	michael.albert@7Layers.de

Laboratory Details

Lab ID	Identification	Responsible	Accreditation Info
Lab 1	Radiated Emissions	Mr. Robert Machulec Mr. Andreas Petz	DAkkS-Registration no. D-PL-12140-01-01
Lab 2	Radio Lab	Mr. Robert Machulec Mr. Andreas Petz	DAkkS-Registration no. D-PL-12140-01-01

1.4 Signature of the Testing Responsible

7 layers AG, Borsigstr. 11
40880 Ratingen, Germany
Phone +49 (0)2102 749 0

Andreas Petz
responsible for tests performed in: Lab 1, Lab 2

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

1.5 Signature of the Accreditation Responsible

B. Ruh [B RETKA]

Accreditation scope responsible person
responsible for Lab 1, Lab 2

7 layers AG, Borsigstr. 11
40880 Ratingen, Germany
Phone +49 (0) 2102 749 0

2 Test Object Data

2.1 General OUT Description

The following section lists all OUTs (Object's Under Test) involved during testing.

OUT: PHS8-P

Type / Model / Family:	Cinterion Wireless Module PHS8-P HW: B1 SW: Revision 02.002
Product Category:	Module

Manufacturer:

Company Name:	Cinterion Wireless Modules GmbH
Street:	Siemensdamm 50
City:	13629 Berlin
Country:	Germany
Contact Person:	Mr. Thorsten Liebig
Function:	Manager Approval
Department:	Approvals & Standardization
Phone:	+49 (30) 31102-8241
Mobile:	+49 (160) 7074027
E-Mail:	thorsten.liebig@cinterion.com

Parameter List:

Parameter name	Value
Parameter for Scope FCC_v2:	
Antenna gain 1900 band	not specified (dBi)
Antenna gain 850 band	not specified (dBi)
DC Power Supply	4.2 (V)
highest channel	251 (848.8MHz) for GSM850, 810 (1909.8MHz) for GSM1900, 4233 (846.6MHz) for FDD5, 9538 (1907.6MHz) for FDD2
lowest channel	128 (824.2MHz) for GSM850, 512 (1850.2MHz) for GSM1900, 4132 (826.4MHz) for FDD5, 9262 (1852.4MHz) for FDD2 (MHz)
mid channel	190 (836.6MHz) for GSM850, 661 (1880.0MHz) for GSM1900, 4183 (836.6MHz) for FDD5, 9400 (1880MHz) for FDD2

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

2.2 Detailed Description of OUT Samples

Sample : C01

OUT Identifier	PHS8-P		
Sample Description	Sample #03		
HW Status	B1		
SW Status	Revision 02.000		
Date of Receipt	2011/10/10		
Low Voltage	3.3 V	*Low Temp.*	-10 °C
High Voltage	4.2 V	*High Temp.*	+55 °C
Nominal Voltage	4.2 V	*Normal Temp.*	+20 °C

Parameter List:

Parameter Description	*Value*
Parameter for Scope FCC_v2	
IMEI	004401080650142

Sample : F03

OUT Identifier	PHS8-P		
Sample Description	Sample #06		
HW Status	B1		
SW Status	Revision 02.002		
Date of Receipt	2011/11/24		
Low Voltage	3.3 V	*Low Temp.*	-10 °C
High Voltage	4.2 V	*High Temp.*	+55 °C
Nominal Voltage	4.2 V	*Normal Temp.*	+20 °C

Parameter List:

Parameter Description	*Value*
Parameter for Scope FCC_v2	
IMEI	004401080662097

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

2.3 OUT Features

Features for OUT: **PHS8-P**

Designation	Description	Allowed Values	Supported Value(s)
Features for scope: FCC_v2			
AC	The OUT is powered by or connected to AC Mains		
DC	The OUT is powered by or connected to DC Mains		
EDGE850	EUT supports EDGE in the band 824 MHz - 849 MHz		
EDGE1900	EUT supports EDGE in the band 1850 MHz - 1910 MHz		
FDD2	EUT supports UMTS FDD2 in the band 1850 MHz - 1910 MHz		
FDD5	EUT supports UMTS FDD5 in the band 824 MHz - 849 MHz		
GSM850	EUT supports GSM850 band 824MHz - 849MHz		
HSDPA-FDD2	EUT supports UMTS FDD2 HSDPA in the band 1850 MHz - 1910 MHz		
HSDPA-FDD5	EUT supports UMTS FDD5 HSDPA in the band 824 MHz - 849 MHz		
HSUPA-FDD2	EUT supports UMTS FDD2 HSUPA in the band 1850 MHz - 1910 MHz		
HSUPA-FDD5	EUT supports UMTS FDD5 HSUPA in the band 824 MHz - 849 MHz		
PantC	permanent fixed antenna connector, which may be built-in, designed as an indispensable part of the equipment		
PCS1900	EUT supports PCS1900 band 1850MHz - 1910MHz		

2.4 Auxiliary Equipment

AE No.	Type Designation	Serial No.	HW Status	SW Status	Description
AE 02	-	-	-	-	Flex cable
AE Ant1	-	-	-	-	GSM/UMTS antenna
AE 04	-	-	-	-	Shielded housing
AE Ant2	-	-	-	-	UMTS antenna
AE Ant3	ANN-MS-0-005 M827B	601657	-	-	GPS antenna
AE 01	DSB75_B1.1_0152	-	-	-	Evaluation board

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

2.5   Setups used for Testing

For each setup a relation is given to determine if and which samples and auxiliary equipment is used.
The left side list all OUT samples and the right side lists all auxiliary equipment for the given setup.

Setup No.	List of OUT samples		List of auxiliary equipment	
Sample No.		Sample Description	AE No.	AE Description
C01_cond	**(Sample #03)**			
Sample:	C01	Sample #03	AE 02	Flex cable
			AE 01	Evaluation board
C01_rad	**(Sample #03)**			
Sample:	C01	Sample #03	AE 02	Flex cable
			AE Ant1	GSM/UMTS antenna
			AE 04	Shielded housing
			AE Ant2	UMTS antenna
			AE Ant3	GPS antenna
			AE 01	Evaluation board
F03_cond	**(Sample #06)**			
Sample:	F03	Sample #06	AE 02	Flex cable
			AE 01	Evaluation board

3   Results

3.1   General

Documentation of tested devices:	Available at the test laboratory.
Interpretation of the test results:	The results of the inspection are described on the following pages, where 'Conformity' or 'Passed' means that the certification criteria were verified and that the tested device is conform to the applied standard.
	In cases where 'Declaration' is printed, the required documents are available in the manufacturers product documentation.
	In cases where 'not applicable' is printed, the test case requirements are not relevant to the specific equipment implementation.
Note:	This Test Report replaces the Test Report MDE_CINTE_1108_FCCb.

3.2   List of the Applicable Body

(Body for Scope: FCC_v2)

Designation	Description
FCC47CFRChIPART22PUBLIC MOBILE SERVICES	Part 22, Subpart H - Cellular Radiotelephone Service

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

3.3   List of Test Specification

Test Specification:	**FCC part 2 and 22**
Version	10-1-10 Edition
Title:	PART 2 - GENERAL RULES AND REGULATIONS
	PART 22 - PUBLIC MOBILE SERVICES

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

3.4 Summary

Test Case Identifier / Name Test (condition)	Result	Date of Test	Lab Ref.	Setup
22.1 RF Power Output §2.1046, §22.913				
22.1; Frequency Band = 850, Mode = EDGE, Channel = 128, Frequency = 824.2MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = 850, Mode = EDGE, Channel = 190, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = 850, Mode = EDGE, Channel = 251, Frequency = 848.8MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = 850, Mode = GSM, Channel = 128, Frequency = 824.2MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = 850, Mode = GSM, Channel = 190, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = 850, Mode = GSM, Channel = 251, Frequency = 848.8MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond

acc. Title 47 CFR chapter I part 22 subpart H

| Test Case Identifier / Name | | | Lab | |
Test (condition)	Result	Date of Test	Ref.	Setup
22.1 RF Power Output §2.1046, §22.913				
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.1; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz, Method = conducted	Passed	2011/12/01	Lab 2	F03_cond
22.2 Frequency stability §2.1055				
22.2; Frequency Band = 850, Mode = EDGE, Channel = 190, Frequency = 836.6MHz	Passed	2011/10/31	Lab 2	C01_cond
22.2; Frequency Band = 850, Mode = GSM, Channel = 190, Frequency = 836.6MHz	Passed	2011/10/31	Lab 2	C01_cond
22.2; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/31	Lab 2	C01_cond
22.2; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/31	Lab 2	C01_cond
22.2; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/31	Lab 2	C01_cond

acc. Title 47 CFR chapter I part 22 subpart H

Test Case Identifier / Name			Lab	
Test (condition)	Result	Date of Test	Ref.	Setup
22.3 Spurious emissions at antenna terminals §2.1051, §22.917				
22.3; Frequency Band = 850, Mode = EDGE, Channel = 128, Frequency = 824.2MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = 850, Mode = EDGE, Channel = 190, Frequency = 836.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = 850, Mode = EDGE, Channel = 251, Frequency = 848.8MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = 850, Mode = GSM, Channel = 128, Frequency = 824.2MHz,	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = 850, Mode = GSM, Channel = 190, Frequency = 836.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = 850, Mode = GSM, Channel = 251, Frequency = 848.8MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/25	Lab 2	C01_cond

acc. Title 47 CFR chapter I part 22 subpart H

Test Case Identifier / Name			Lab	
Test (condition)	Result	Date of Test	Ref.	Setup
22.4 Field strength of spurious radiation §2.1053, §22.917				
22.4; Frequency Band = 850, Mode = EDGE, Channel = 128, Frequency = 824.2MHz	Passed	2011/10/27	Lab 1	C01_rad
22.4; Frequency Band = 850, Mode = EDGE, Channel = 190, Frequency = 836.6MHz	Passed	2011/10/27	Lab 1	C01_rad
22.4; Frequency Band = 850, Mode = EDGE, Channel = 251, Frequency = 848.8MHz	Passed	2011/10/27	Lab 1	C01_rad
22.4; Frequency Band = 850, Mode = GSM, Channel = 128, Frequency = 824.2MHz	Passed	2011/10/23	Lab 1	C01_rad
22.4; Frequency Band = 850, Mode = GSM, Channel = 190, Frequency = 836.6MHz	Passed	2011/10/21	Lab 1	C01_rad
22.4; Frequency Band = 850, Mode = GSM, Channel = 251, Frequency = 848.8MHz	Passed	2011/10/23	Lab 1	C01_rad
22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/27	Lab 1	C01_rad
22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/27	Lab 1	C01_rad
22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/27	Lab 1	C01_rad
22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/27	Lab 1	C01_rad
22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/27	Lab 1	C01_rad
22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/27	Lab 1	C01_rad
22.4; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/23	Lab 1	C01_rad
22.4; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/23	Lab 1	C01_rad
22.4; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/23	Lab 1	C01_rad

Test Case Identifier / Name			Lab	
Test (condition)	Result	Date of Test	Ref.	Setup
22.5 Emission and Occupied Bandwidth §2.1049, §22.917				
22.5; Frequency Band = 850, Mode = EDGE, Channel = 128, Frequency = 824.2MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = 850, Mode = EDGE, Channel = 190, Frequency = 836.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = 850, Mode = EDGE, Channel = 251, Frequency = 848.8MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = 850, Mode = GSM, Channel = 128, Frequency = 824.2MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = 850, Mode = GSM, Channel = 190, Frequency = 836.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = 850, Mode = GSM, Channel = 251, Frequency = 848.8MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/25	Lab 2	C01_cond

acc. Title 47 CFR chapter I part 22 subpart H

Test Case Identifier / Name			Lab	
Test (condition)	Result	Date of Test	Ref.	Setup
22.6 Band edge compliance §2.1053, §22.917				
22.6; Frequency Band = 850, Mode = EDGE, Channel = 128, Frequency = 824.2MHz	Passed	2011/10/25	Lab 2	C01_cond
22.6; Frequency Band = 850, Mode = EDGE, Channel = 251, Frequency = 848.8MHz	Passed	2011/10/25	Lab 2	C01_cond
22.6; Frequency Band = 850, Mode = GSM, Channel = 128, Frequency = 824.2MHz	Passed	2011/10/25	Lab 2	C01_cond
22.6; Frequency Band = 850, Mode = GSM, Channel = 251, Frequency = 848.8MHz	Passed	2011/10/25	Lab 2	C01_cond
22.6; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/25	Lab 2	C01_cond
22.6; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.6; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/25	Lab 2	C01_cond
22.6; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/25	Lab 2	C01_cond
22.6; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz	Passed	2011/10/25	Lab 2	C01_cond
22.6; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz	Passed	2011/10/25	Lab 2	C01_cond

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

3.5   Detailed Results

3.5.1   22.1   RF Power Output §2.1046, §22.913

Test: 22.1; Frequency Band = 850, Mode = EDGE, Channel = 128, Frequency = 824.2MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:42
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	30.3	passed
average	27.1	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
10.29   dBi

Test: 22.1; Frequency Band = 850, Mode = EDGE, Channel = 190, Frequency = 836.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:42
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	30.3	passed
average	27.1	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
10.29   dBi

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Test: 22.1; Frequency Band = 850, Mode = EDGE, Channel = 251, Frequency = 848.8MHz, Method = conducted

Result:	Passed	
Setup No.:	F03_cond	
Date of Test:	2011/12/01 12:41	
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES	
Test Specification:	FCC part 2 and 22	

Detailed Results:

detector	conducted value /dBm	verdict
peak	30.3	passed
average	27.1	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
10.29   dBi

Test: 22.1; Frequency Band = 850, Mode = GSM, Channel = 128, Frequency = 824.2MHz, Method = conducted

Result:	Passed	
Setup No.:	F03_cond	
Date of Test:	2011/12/01 12:43	
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES	
Test Specification:	FCC part 2 and 22	

Detailed Results:

detector	conducted value /dBm	verdict
peak	33.8	passed
average	33.5	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
6.79   dBi

Test: 22.1; Frequency Band = 850, Mode = GSM, Channel = 190, Frequency = 836.6MHz, Method = conducted

Result:	Passed	
Setup No.:	F03_cond	
Date of Test:	2011/12/01 12:44	
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES	
Test Specification:	FCC part 2 and 22	

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	33.4	passed
average	33.1	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than

7.19   dBi

Test: 22.1; Frequency Band = 850, Mode = GSM, Channel = 251, Frequency = 848.8MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:44
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	33.5	passed
average	33.3	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than

7.09   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:48
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.2	passed
average	23.5	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.41   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4183, Frequency = 836.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:48
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.1	passed
average	23.5	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.46   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_1, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:49
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.0	passed
average	23.4	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.61   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:50
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.7	passed
average	23.7	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.88   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4183, Frequency = 836.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:49
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.6	passed
average	23.6	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.95   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_2, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result: Passed

Setup No.:   F03_cond

Date of Test: 2011/12/01 12:50

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.5	passed
average	23.4	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.12   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result: Passed

Setup No.:   F03_cond

Date of Test: 2011/12/01 12:51

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.5	passed
average	23.2	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.05   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4183, Frequency = 836.6MHz, Method = conducted

Result: Passed

Setup No.:   F03_cond

Date of Test: 2011/12/01 12:51

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.4	passed
average	23.1	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.17   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_3, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result: Passed

Setup No.:   F03_cond

Date of Test: 2011/12/01 12:52

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.3	passed
average	23.1	passed

no external antenna gain is specified, the verdict is valid for external antenna gains equal or less than

13.26   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:52
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.6	passed
average	23.2	passed

no external antenna gain is specified, the verdict is valid for external antenna gains equal or less than

12.95   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4183, Frequency = 836.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:52
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.6	passed
average	23.2	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.03   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSDPA_subtest_4, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result: Passed

Setup No.:   F03_cond

Date of Test: 2011/12/01 12:53

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.4	passed
average	23.0	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.17   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result: Passed

Setup No.:   F03_cond

Date of Test: 2011/12/01 12:54

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	28.1	passed
average	22.5	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.49   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4183, Frequency = 836.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:54
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	28.4	passed
average	23.0	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.21   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_1, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:55
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	28.1	passed
average	22.6	passed

no external antenna gain is specified, the verdict is valid for external antenna gains equal or less than

12.47   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:56
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.6	passed
average	21.7	passed

no external antenna gain is specified, the verdict is valid for external antenna gains equal or less than

13.04   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4183, Frequency = 836.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:55
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.4	passed
average	21.4	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.22   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_2, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result: Passed

Setup No.:   F03_cond

Date of Test: 2011/12/01 12:56

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.4	passed
average	21.5	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.17   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result: Passed

Setup No.:   F03_cond

Date of Test: 2011/12/01 12:57

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	28.1	passed
average	21.9	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.51   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4183, Frequency = 836.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:57
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	28.1	passed
average	21.9	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.47   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_3, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:58
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	28.2	passed
average	22.0	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.41   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result: Passed

Setup No.:   F03_cond

Date of Test: 2011/12/01 12:59

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.9	passed
average	21.7	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.7   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4183, Frequency = 836.6MHz, Method = conducted

Result: Passed

Setup No.:   F03_cond

Date of Test: 2011/12/01 12:58

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.9	passed
average	21.7	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.65   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_4, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:59
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.9	passed
average	21.8	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.66   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 13:00
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	28.0	passed
average	22.5	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.55   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4183, Frequency = 836.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 13:00
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	28.3	passed
average	23.0	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
12.33   dBi

Test: 22.1; Frequency Band = FDD5, Mode = HSUPA_subtest_5, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 13:01
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Test: 22.1; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:46
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.2	passed
average	23.5	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.42   dBi

Test: 22.1; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:46
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.2	passed
average	23.3	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.43   dBi

Test: 22.1; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz, Method = conducted

Result:	Passed
Setup No.:	F03_cond
Date of Test:	2011/12/01 12:47
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	conducted value /dBm	verdict
peak	27.2	passed
average	23.8	passed

no external antenna gain is specified, the verdict is valid
for external antenna gains equal or less than
13.38   dBi

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

3.5.2   22.2   Frequency stability §2.1055

Test: 22.2; Frequency Band = 850, Mode = EDGE, Channel = 190, Frequency = 836.6MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/31 7:14
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

Temp. °C	Duration min	Voltage	Limit Hz	Freq. error Average (Hz)	Freq. error Max. (Hz)	Verdict
-30	0			26	37	passed
-30	5	normal	2095.5	22	32	passed
-30	10			13	22	passed
-20	0			22	29	passed
-20	5	normal	2095.5	-6	-13	passed
-20	10			-11	-20	passed
-10	0			-3	-13	passed
-10	5	normal	2095.5	-21	-28	passed
-10	10			23	31	passed
0	0			-7	-15	passed
0	5	normal	2095.5	-6	-15	passed
0	10			24	29	passed
10	0			-32	-38	passed
10	5	normal	2095.5	-31	-37	passed
10	10			-1	-8	passed
20	0			40	48	passed
20	5	low	2095.5	40	47	passed
20	10			35	42	passed
20	0	normal		-42	-52	passed
20	5	=	2095.5	-21	-25	passed
20	10	high [1]		-18	-25	passed
20	0			-	-	-
20	5	high	2095.5	-	-	-
20	10			-	-	-
30	0			-50	-65	passed
30	5	normal	2095.5	-45	-66	passed
30	10			6	29	passed
40	0			-46	-52	passed
40	5	normal	2095.5	-40	-45	passed
40	10			-11	-17	passed
50	0			-48	-55	passed
50	5	normal	2095.5	-35	-42	passed
50	10			-16	-21	passed

1) The manufacturer declared that normal voltage is equivalent with high voltage.

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Test: 22.2; Frequency Band = 850, Mode = GSM, Channel = 190, Frequency = 836.6MHz

Result:	Passed	
Setup No.:	C01_cond	
Date of Test:	2011/10/31 7:12	
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES	
Test Specification:	FCC part 2 and 22	

Detailed Results:

Temp. °C	Duration min	Voltage	Limit Hz	Freq. error Average (Hz)	Freq. error Max. (Hz)	Verdict
-30	0	normal	2095.5	7	22	passed
-30	5			-4	-8	passed
-30	10			3	9	passed
-20	0	normal	2095.5	9	17	passed
-20	5			-3	-10	passed
-20	10			6	14	passed
-10	0	normal	2095.5	5	11	passed
-10	5			9	12	passed
-10	10			20	25	passed
0	0	normal	2095.5	-7	-13	passed
0	5			5	10	passed
0	10			18	24	passed
10	0	normal	2095.5	-4	-10	passed
10	5			-10	-14	passed
10	10			-1	-6	passed
20	0	low	2095.5	18	29	passed
20	5			15	18	passed
20	10			11	15	passed
20	0	normal = high [1]	2095.5	-35	-40	passed
20	5			-16	-20	passed
20	10			-11	-14	passed
20	0	high	2095.5	-	-	-
20	5			-	-	-
20	10			-	-	-
30	0	normal	2095.5	-27	-33	passed
30	5			-4	-13	passed
30	10			-8	-17	passed
40	0	normal	2095.5	-35	-39	passed
40	5			-16	-20	passed
40	10			-4	-8	passed
50	0	normal	2095.5	-31	-35	passed
50	5			-29	-33	passed
50	10			-9	-13	passed

1) The manufacturer declared that normal voltage is equivalent with high voltage.

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Test: 22.2; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/31 7:16
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

Temp. °C	Duration min	Voltage	Limit Hz	Freq. error Average (Hz)	Freq. error Max. (Hz)	Verdict
-30	0			-5	-12	passed
-30	5	normal	2095.5	-3	-10	passed
-30	10			-2	-10	passed
-20	0			-2	-5	passed
-20	5	normal	2095.5	-2	-8	passed
-20	10			-3	-8	passed
-10	0			-7	-15	passed
-10	5	normal	2095.5	-2	-6	passed
-10	10			-3	-7	passed
0	0			-4	-9	passed
0	5	normal	2095.5	-2	-7	passed
0	10			-3	-10	passed
10	0			-5	-10	passed
10	5	normal	2095.5	-3	-8	passed
10	10			-4	-11	passed
20	0			7	15	passed
20	5	low	2095.5	-4	-11	passed
20	10			-5	-14	passed
20	0	normal		-5	-18	passed
20	5	=	2095.5	-3	-11	passed
20	10	high [1]		-3	-7	passed
20	0			-	-	-
20	5	high	2095.5	-	-	-
20	10			-	-	-
30	0			-5	-14	passed
30	5	normal	2095.5	-6	-19	passed
30	10			-4	-12	passed
40	0			-6	-15	passed
40	5	normal	2095.5	-7	-15	passed
40	10			-3	-13	passed
50	0			-4	-15	passed
50	5	normal	2095.5	-3	-13	passed
50	10			-2	-10	passed

1) The manufacturer declared that normal voltage is equivalent with high voltage.

Test: 22.2; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/31 7:15
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

Temp. °C	Duration min	Voltage	Limit Hz	Freq. error Average (Hz)	Freq. error Max. (Hz)	Verdict
-30	0			-4	-7	passed
-30	5	normal	2095.5	-6	-9	passed
-30	10			-3	-5	passed
-20	0			-4	-8	passed
-20	5	normal	2095.5	-3	-9	passed
-20	10			-2	-9	passed
-10	0			-5	-11	passed
-10	5	normal	2095.5	-3	-8	passed
-10	10			-1	-7	passed
0	0			-3	-9	passed
0	5	normal	2095.5	-5	-11	passed
0	10			-5	-10	passed
10	0			-2	-7	passed
10	5	normal	2095.5	-5	-9	passed
10	10			-3	-10	passed
20	0			-6	-13	passed
20	5	low	2095.5	-5	-12	passed
20	10			-4	-12	passed
20	0	normal		-6	-15	passed
20	5	=	2095.5	-4	-11	passed
20	10	high [1]		-4	-10	passed
20	0			-	-	-
20	5	high	2095.5	-	-	-
20	10			-	-	-
30	0			-3	-9	passed
30	5	normal	2095.5	-2	-11	passed
30	10			-6	-12	passed
40	0			-4	-14	passed
40	5	normal	2095.5	-3	-11	passed
40	10			-4	-8	passed
50	0			-7	-15	passed
50	5	normal	2095.5	-5	-16	passed
50	10			-4	-12	passed

1) The manufacturer declared that normal voltage is equivalent with high voltage.

Test: 22.2; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz

Result:		Passed
Setup No.:		C01_cond
Date of Test:		2011/10/31 7:14
Body:		FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:		FCC part 2 and 22

Detailed Results:

Temp. °C	Duration min	Voltage	Limit Hz	Freq. error Average (Hz)	Freq. error Max. (Hz)	Verdict
-30	0			-5	-17	passed
-30	5	normal	2095.5	-6	-12	passed
-30	10			-5	-16	passed
-20	0			-3	-14	passed
-20	5	normal	2095.5	-5	-18	passed
-20	10			-3	-12	passed
-10	0			-4	-13	passed
-10	5	normal	2095.5	-4	-9	passed
-10	10			-6	-19	passed
0	0			-1	-14	passed
0	5	normal	2095.5	-1	-8	passed
0	10			-9	-17	passed
10	0			-3	-8	passed
10	5	normal	2095.5	-5	-13	passed
10	10			-4	-16	passed
20	0			-8	-23	passed
20	5	low	2095.5	-8	-18	passed
20	10			-9	-22	passed
20	0	normal		-4	-22	passed
20	5	=	2095.5	-2	-15	passed
20	10	high [1]		-2	-18	passed
20	0			-	-	-
20	5	high	2095.5	-	-	-
20	10			-	-	-
30	0			-7	-23	passed
30	5	normal	2095.5	-6	-13	passed
30	10			-5	-14	passed
40	0			-7	-20	passed
40	5	normal	2095.5	-9	-24	passed
40	10			-8	-26	passed
50	0			1	22	passed
50	5	normal	2095.5	2	18	passed
50	10			-2	-19	passed

1) The manufacturer declared that normal voltage is equivalent with high voltage.

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

3.5.3   22.3   Spurious emissions at antenna terminals §2.1051, §22.917

Test: 22.3; Frequency Band = 850, Mode = EDGE, Channel = 128, Frequency = 824.2MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 7:09
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
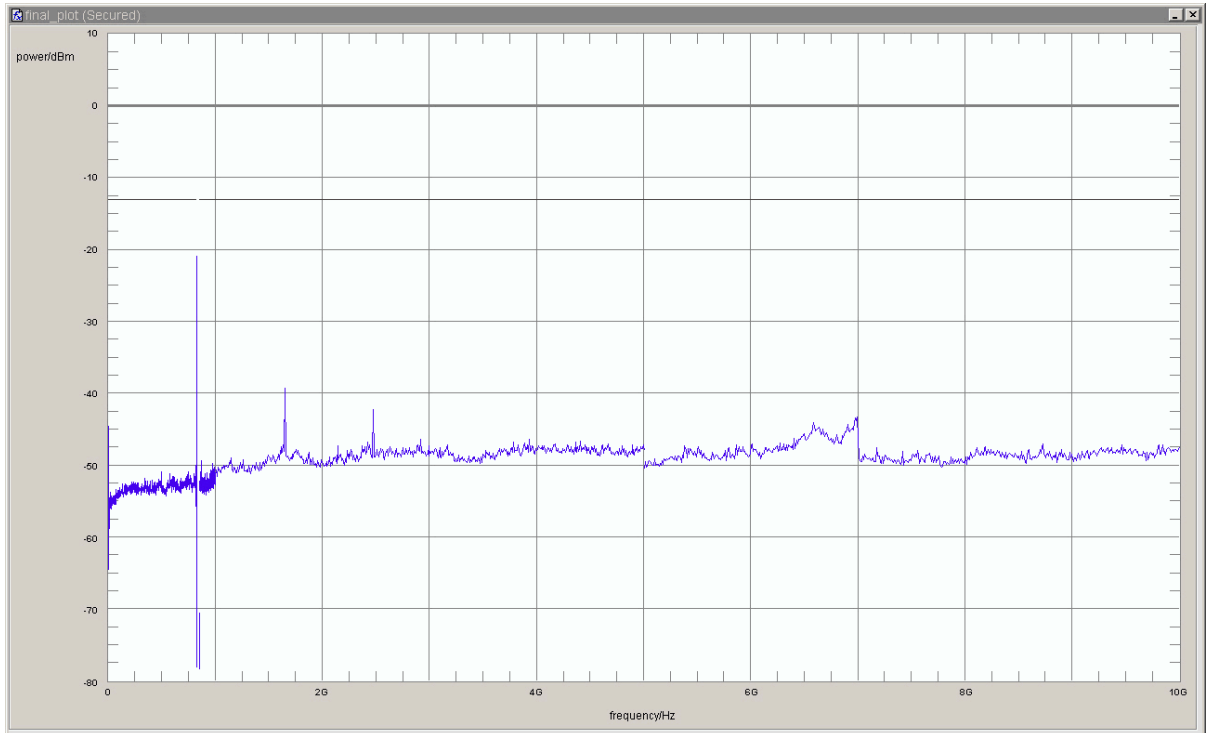
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	3	823.9339	-24.1	11.1	-13.0	passed
peak	maxhold	3	823.9619	-24.2	11.2	-13.0	passed
peak	maxhold	3	823.9719	-22.5	9.5	-13.0	passed
peak	maxhold	3	823.9940	-20.9	7.9	-13.0	passed
peak	maxhold	3	824.0000	-22.2	9.2	-13.0	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = 850, Mode = EDGE, Channel = 190, Frequency = 836.6MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 6:54
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
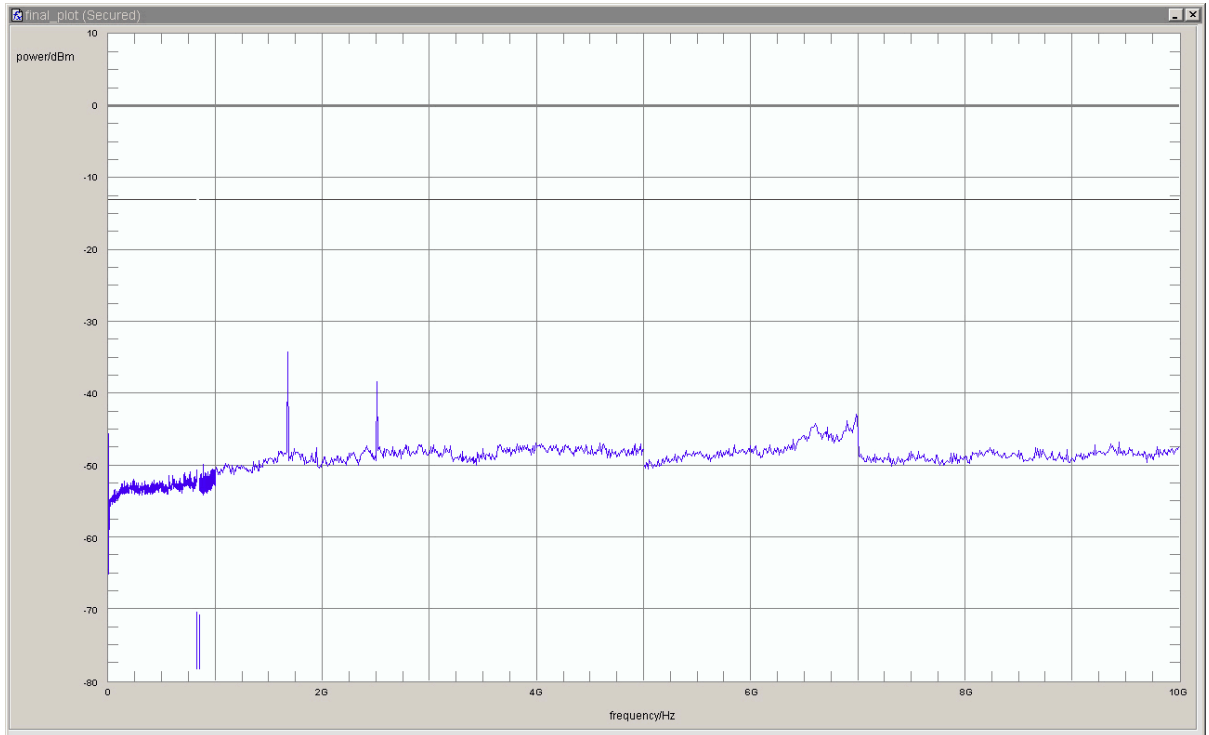
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	100	1673.347	-34.23	21.23	-13	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = 850, Mode = EDGE, Channel = 251, Frequency = 848.8MHz

Result: Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25 7:31

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
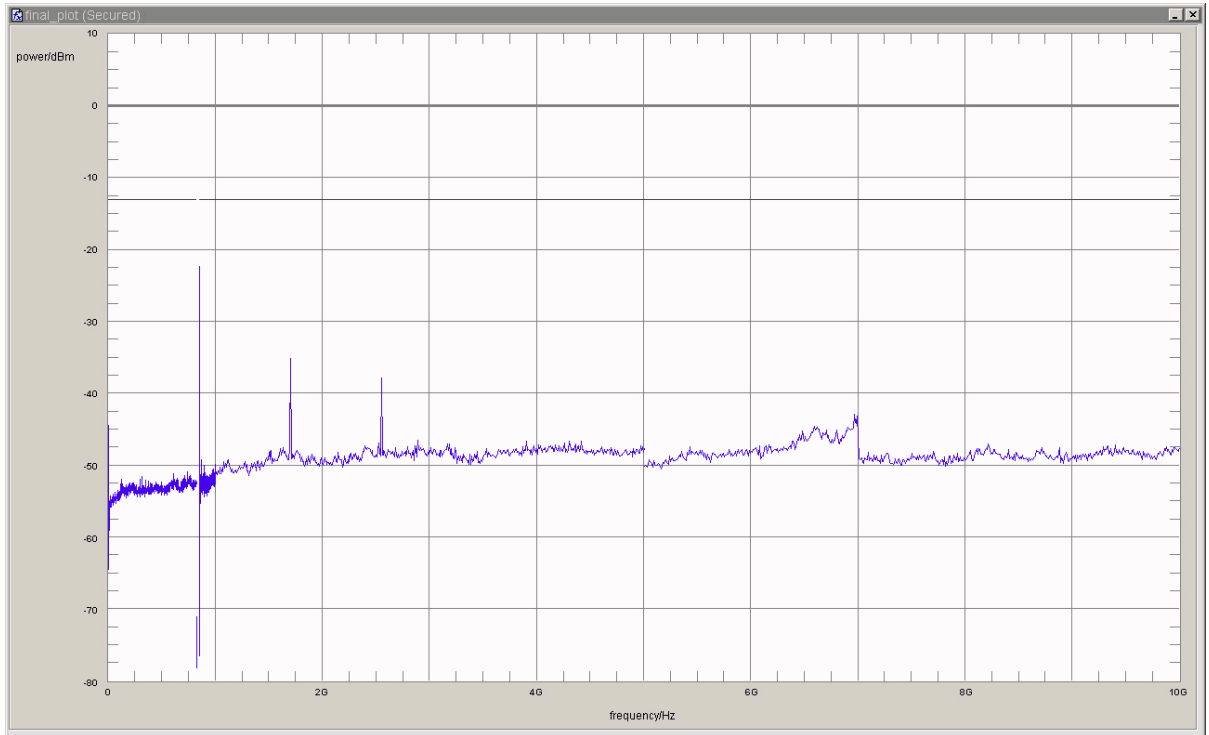
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	3	849.0000	-26.0	13.0	-13.0	passed
peak	maxhold	3	849.0120	-23.8	10.8	-13.0	passed
peak	maxhold	3	849.0341	-23.6	10.6	-13.0	passed
peak	maxhold	3	849.0421	-22.4	9.4	-13.0	passed
peak	maxhold	3	849.0561	-27.1	14.1	-13.0	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = 850, Mode = GSM, Channel = 128, Frequency = 824.2MHz,

Result: Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25   6:38

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
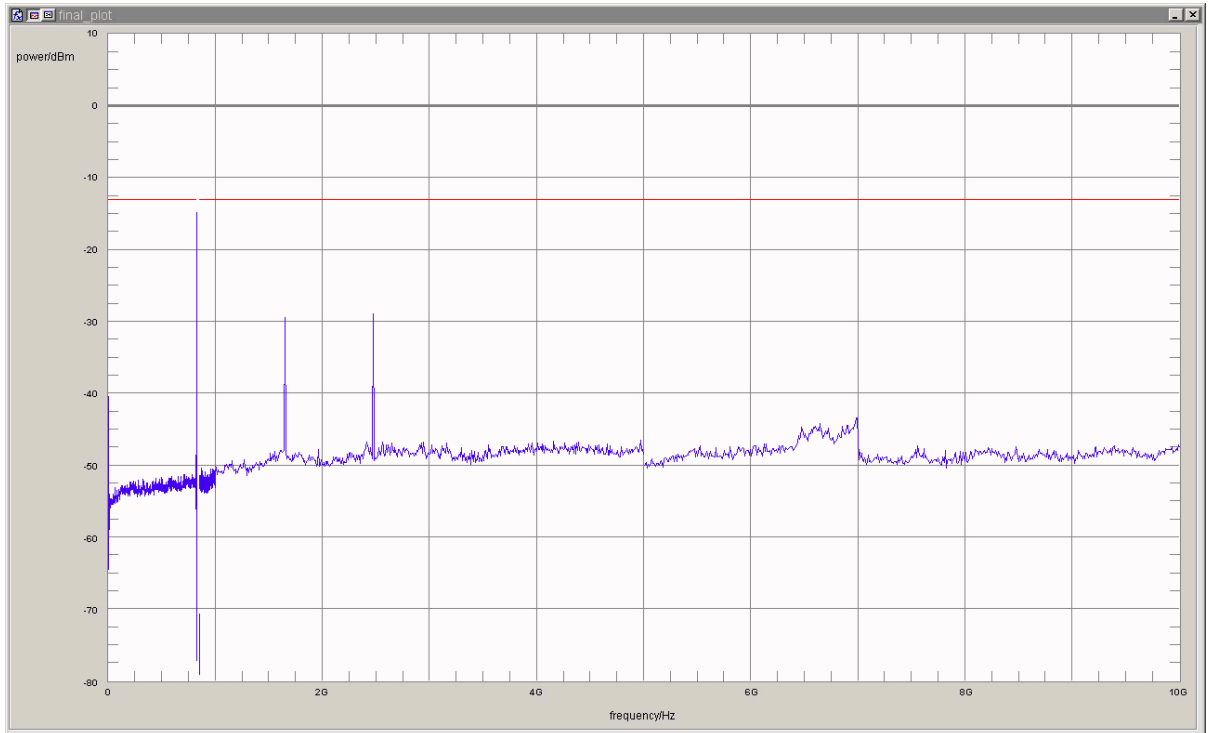
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	3	823.9018	-29.7	16.7	-13.0	passed
peak	maxhold	3	823.9178	-25.6	12.6	-13.0	passed
peak	maxhold	3	823.9259	-25.7	12.7	-13.0	passed
peak	maxhold	3	823.9459	-20.8	7.8	-13.0	passed
peak	maxhold	3	823.9599	-17.9	4.9	-13.0	passed
peak	maxhold	3	823.9699	-15.2	2.2	-13.0	passed
peak	maxhold	3	823.9780	-14.8	1.8	-13.0	passed
peak	maxhold	100	1649.30	-29.4	16.4	-13.0	passed
peak	maxhold	100	2474.95	-28.9	15.9	-13.0	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = 850, Mode = GSM, Channel = 190, Frequency = 836.6MHz

Result: Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25 5:41

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
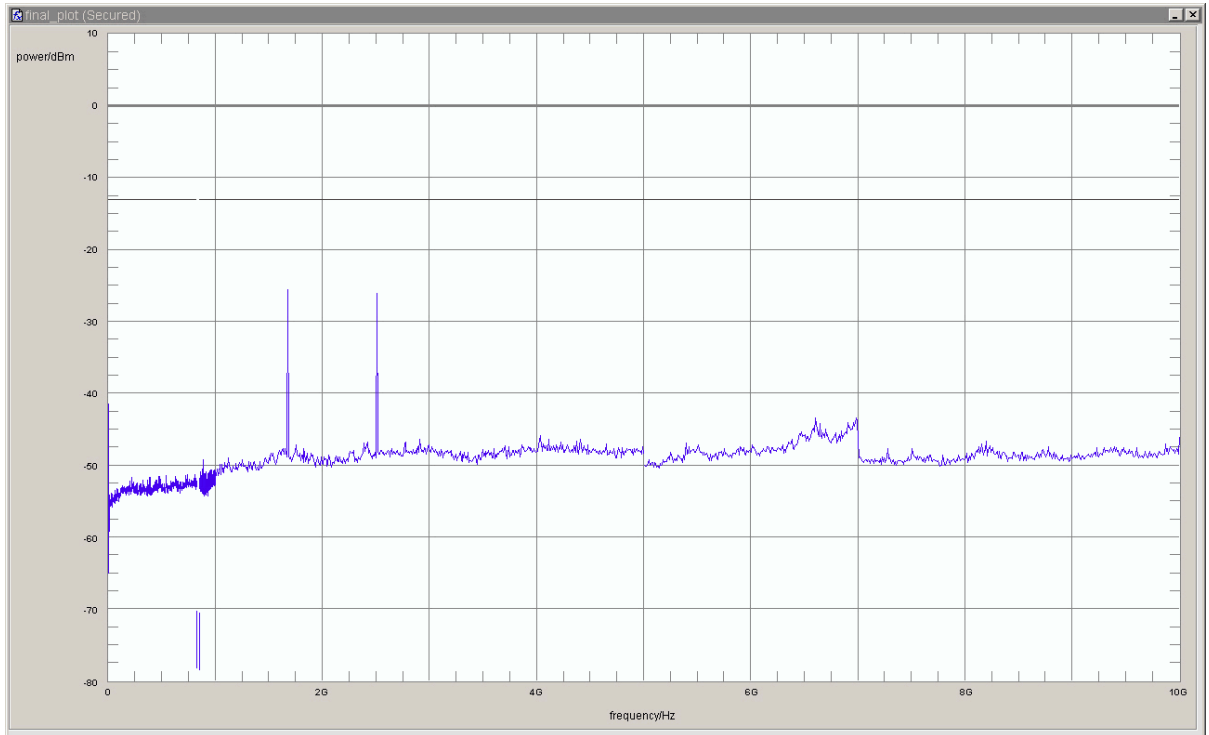
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	100	1673.35	-25.5	12.5	-13.0	passed
peak	maxhold	100	2507.01	-26.1	13.1	-13.0	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = 850, Mode = GSM, Channel = 251, Frequency = 848.8MHz

Result: Passed

Setup No.:   C01_cond

*Date of Test:*   2011/10/25   6:13

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

*Test Specification:*   FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
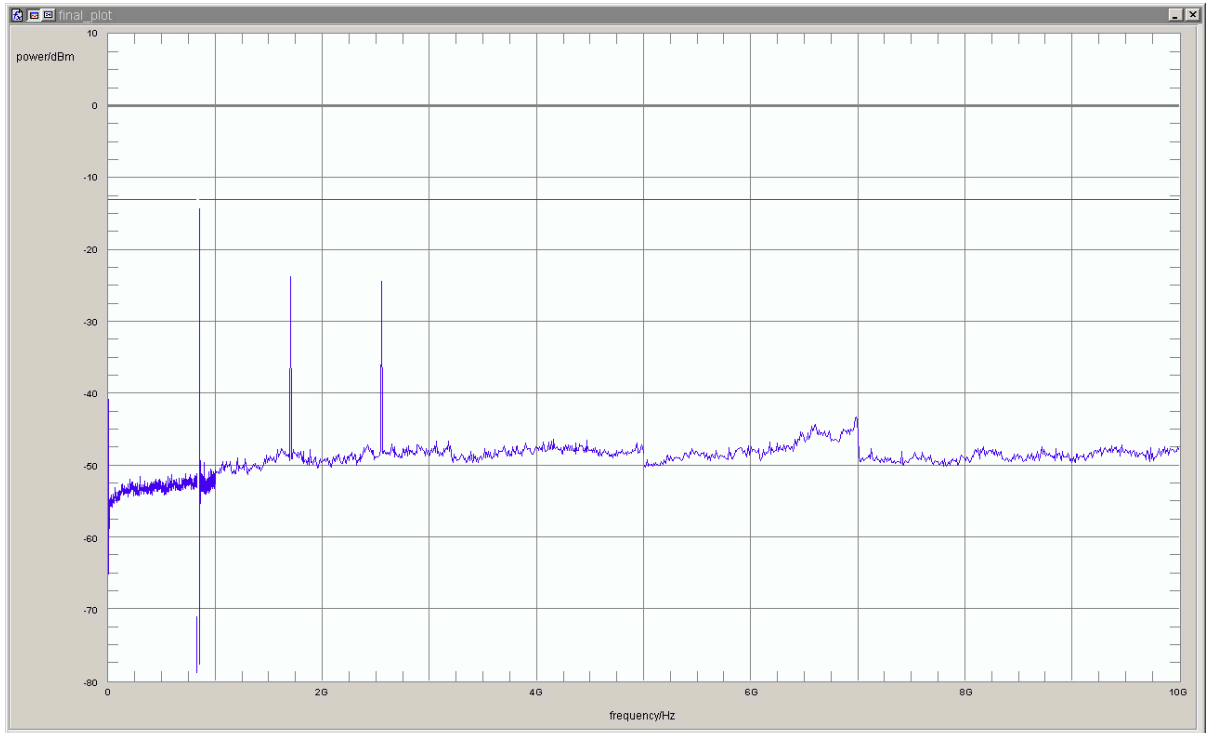
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	3	849.0020	-15.2	2.2	-13.0	passed
peak	maxhold	3	849.0220	-14.3	1.3	-13.0	passed
peak	maxhold	3	849.0281	-15.9	2.9	-13.0	passed
peak	maxhold	3	849.0381	-17.5	4.5	-13.0	passed
peak	maxhold	3	849.0561	-24.7	11.7	-13.0	passed
peak	maxhold	3	849.0661	-20.6	7.6	-13.0	passed
peak	maxhold	3	849.0842	-23.5	10.5	-13.0	passed
peak	maxhold	3	849.0942	-28.3	15.3	-13.0	passed
peak	maxhold	3	849.1202	-32.9	19.9	-13.0	passed
peak	maxhold	100	1697.39	-23.8	10.8	-13.0	passed
peak	maxhold	100	2547.09	-24.3	11.3	-13.0	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 10:34
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
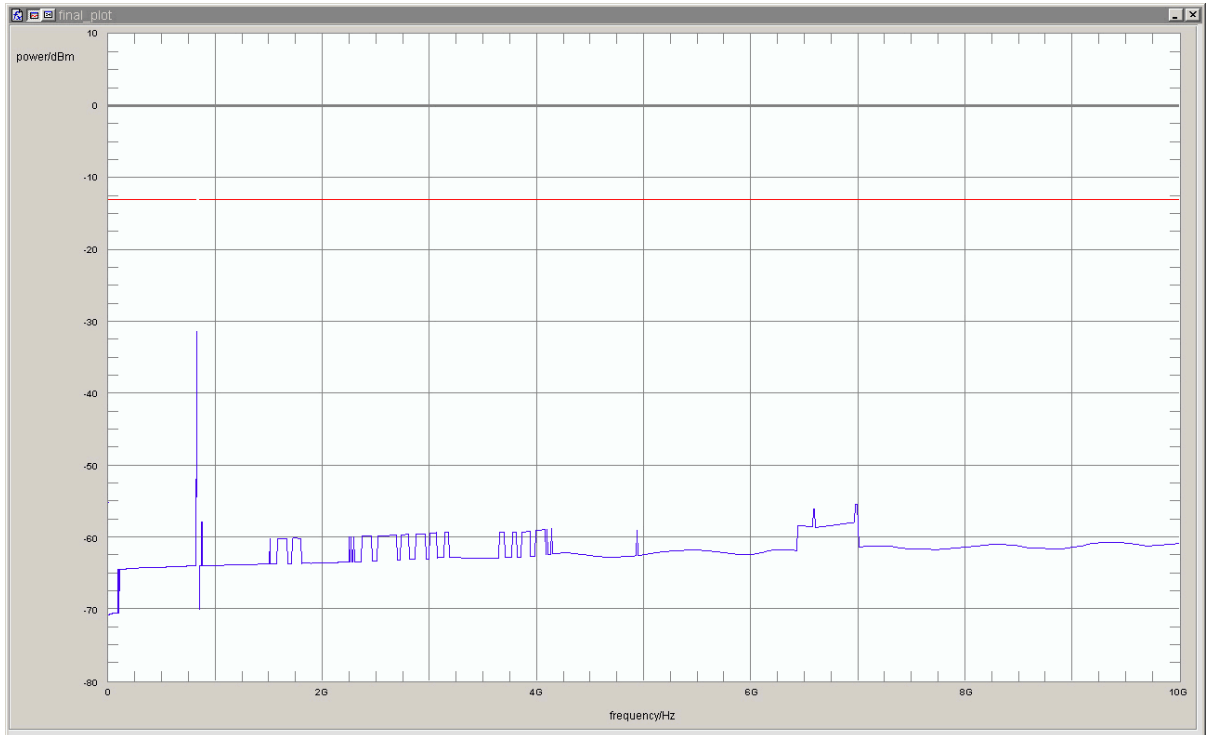
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	50	823.97	-31.4	18.4	-13.0	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz

Result: Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25 10:40

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	1	0.009	-55.22	42.22	-13	passed

no further values have been found with a margin of less than 20 dB
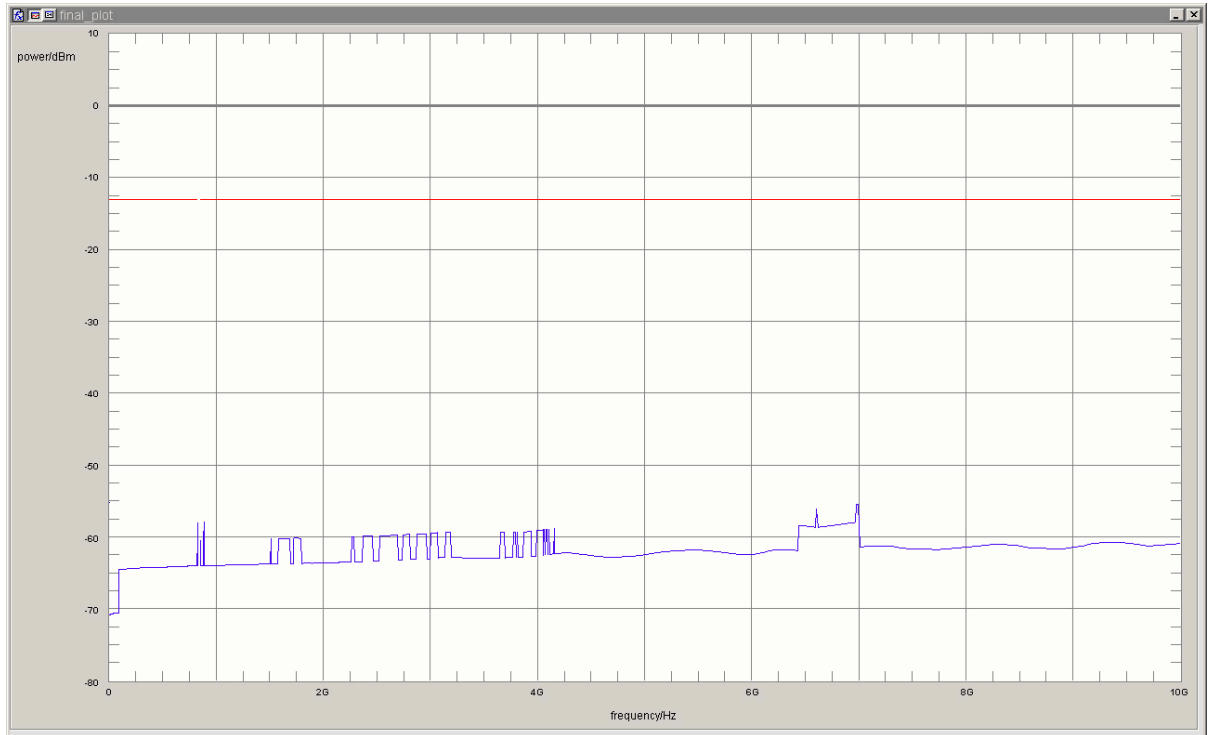
Test: 22.3; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz

Result: Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25 10:46

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
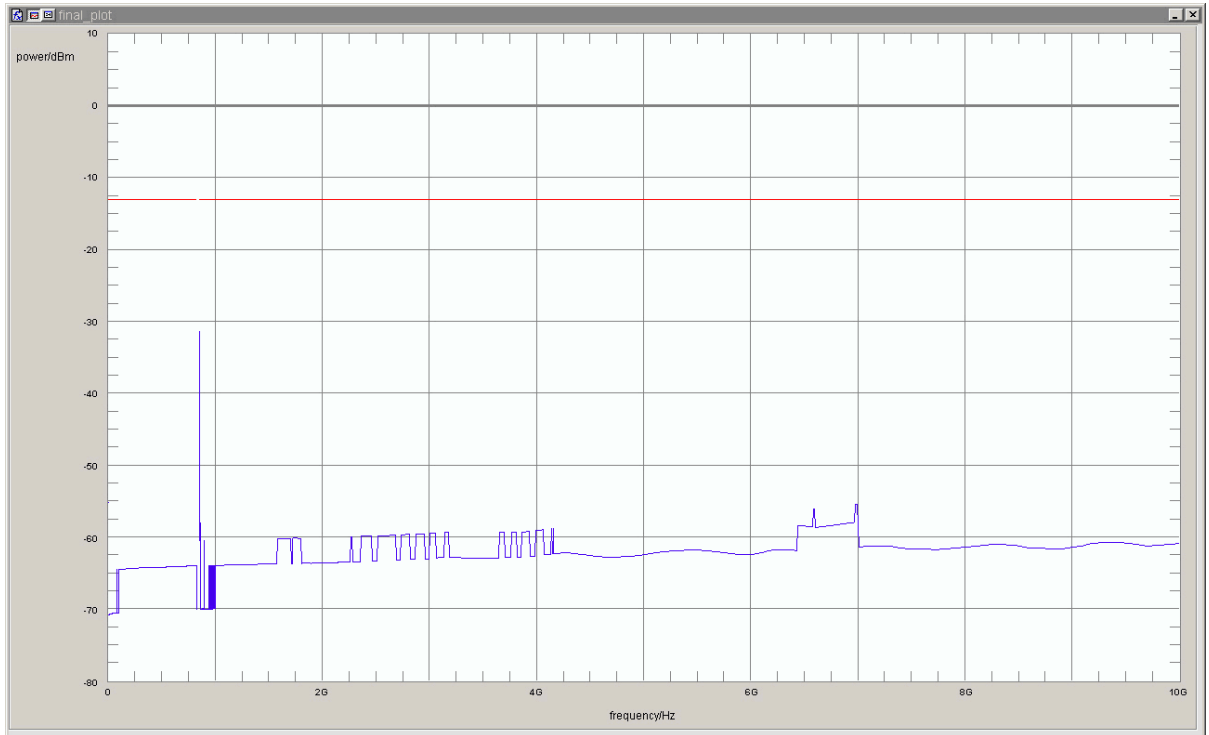
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	50	849.03	-31.4	18.4	-13.0	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz

Result: Passed

Setup No.: C01_cond

Date of Test: 2011/10/25 11:05

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	50	823.97	-32.2	19.2	-13.0	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz

Result: Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25 11:13

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	1	0.009	-55.22	42.22	-13	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz

Result: Passed

*Setup No.:*   C01_cond

Date of Test: 2011/10/25 11:19

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
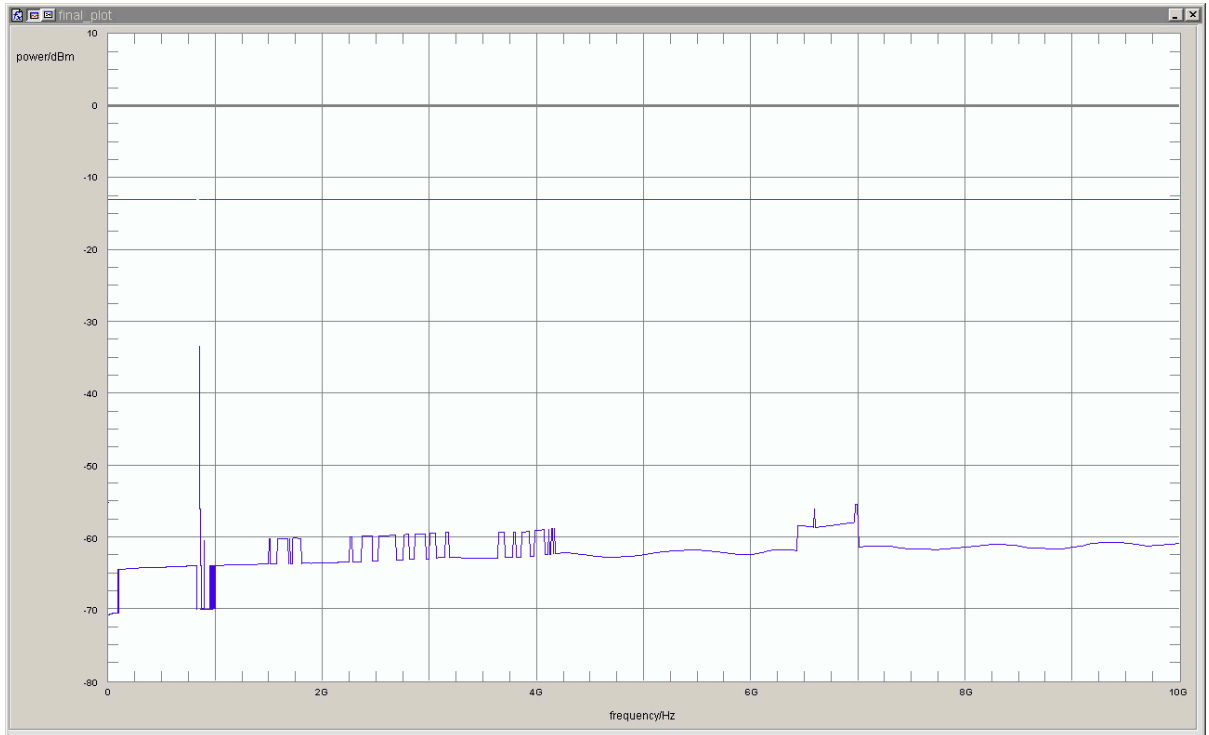
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	50	849.016	-33.48	20.48	-13	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz

Result: Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25   7:38

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
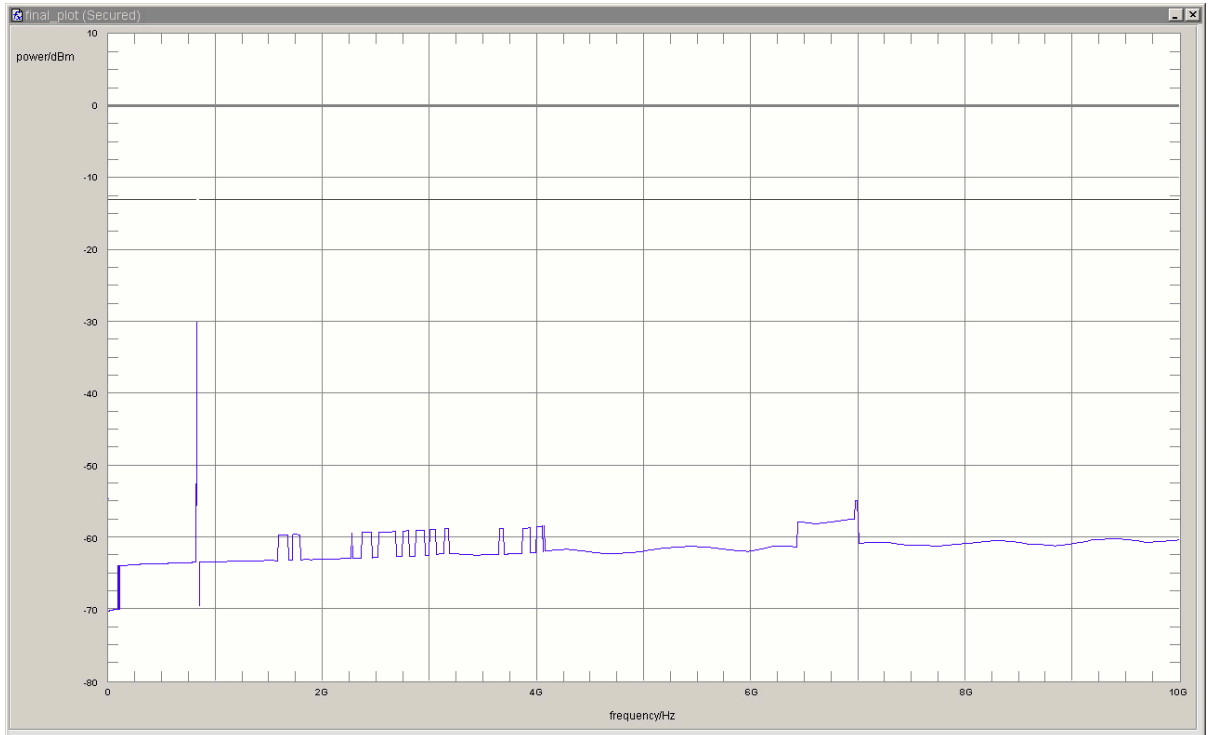
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	50	823.98	-30.1	17.1	-13.0	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 8:06
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
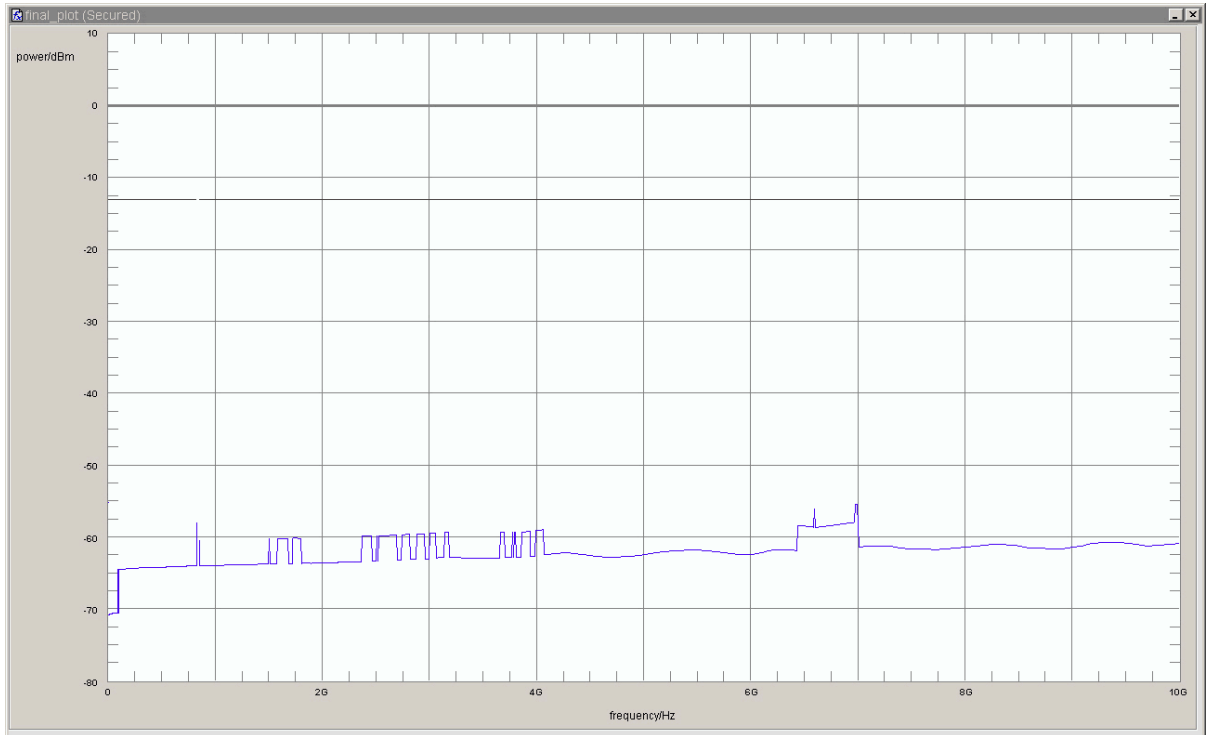
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	1	0.009	-55.22	42.22	-13	passed

no further values have been found with a margin of less than 20 dB

Test: 22.3; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 8:09
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
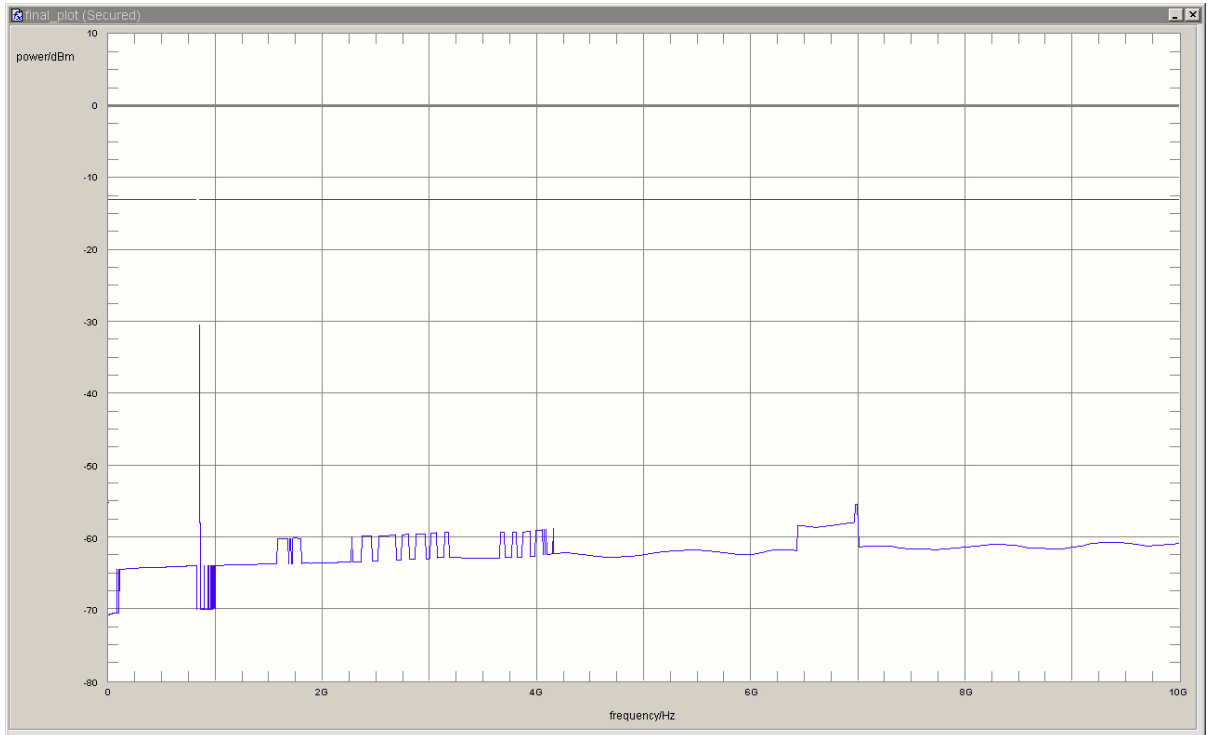
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
rms	maxhold	50	849.04	-30.5	17.5	-13.0	passed

no further values have been found with a margin of less than 20 dB

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

3.5.4   22.4   Field strength of spurious radiation §2.1053, §22.917

Test: 22.4; Frequency Band = 850, Mode = EDGE, Channel = 128, Frequency = 824.2MHz

Result:	Passed
Setup No.:	C01_rad
Date of Test:	2011/10/27 12:07
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

spurious emissions radiated, CZ800, C01_rad, 22_4_EDGE_128, maxhold over all antenna polarizations and EUT orientations (X-,Y-,Z-axis)
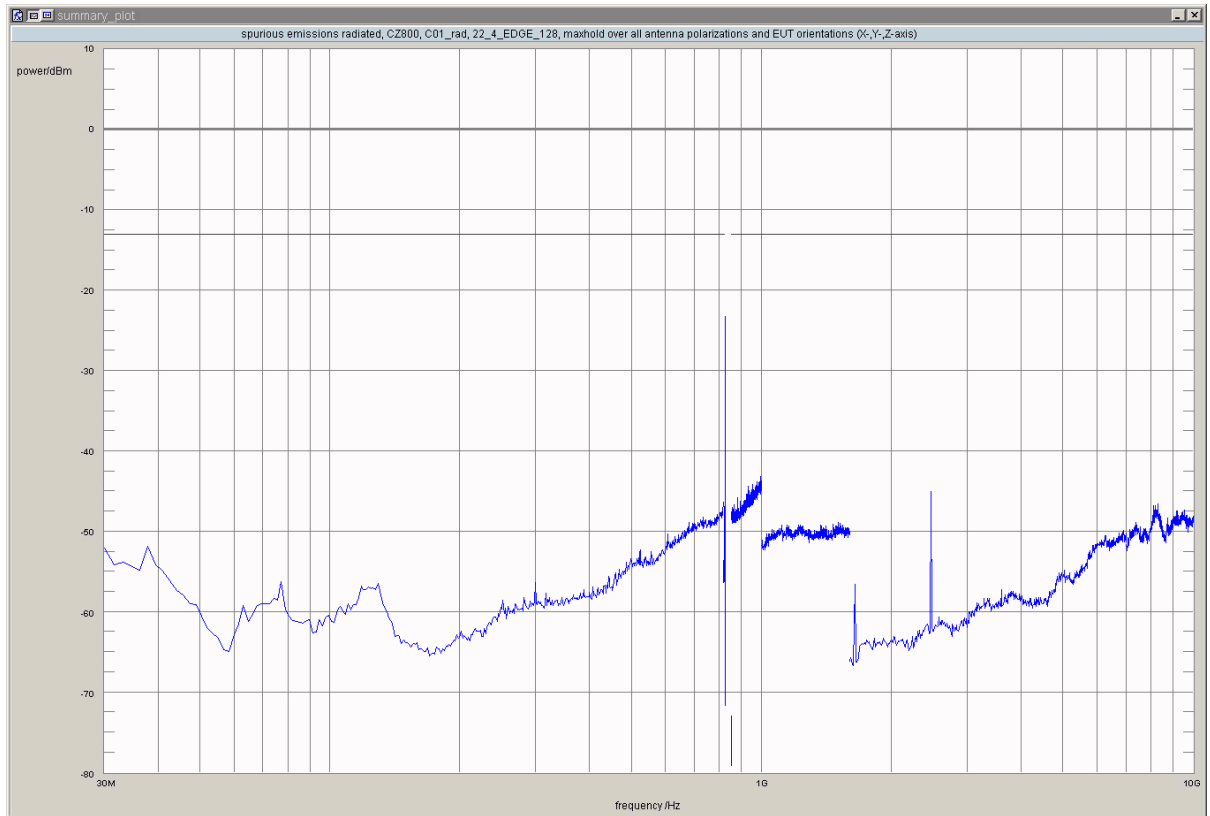
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	3	823.9279	-32.65	-13.00	19.65	0.0	vertical	horizontal	passed
peak	maxhold	3	823.9339	-30.04	-13.00	17.04	-90.0	horizontal	vertical	passed
peak	maxhold	3	823.9439	-31.54	-13.00	18.54	0.0	vertical	horizontal	passed
peak	maxhold	3	823.9499	-29.89	-13.00	16.89	-90.0	horizontal	vertical	passed
peak	maxhold	3	823.9559	-29.57	-13.00	16.57	0.0	vertical	horizontal	passed
peak	maxhold	3	823.9639	-27.52	-13.00	14.52	0.0	vertical	horizontal	passed
peak	maxhold	3	823.9679	-28.92	-13.00	15.92	0.0	horizontal	vertical	passed
peak	maxhold	3	823.9739	-29.78	-13.00	16.78	90.0	vertical	vertical	passed
peak	maxhold	3	823.9820	-23.27	-13.00	10.27	0.0	vertical	horizontal	passed
peak	maxhold	3	824.0000	-31.08	-13.00	18.08	0.0	horizontal	horizontal	passed

no further values have been found with a margin of less than 20 dB

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Test: 22.4; Frequency Band = 850, Mode = EDGE, Channel = 190, Frequency = 836.6MHz

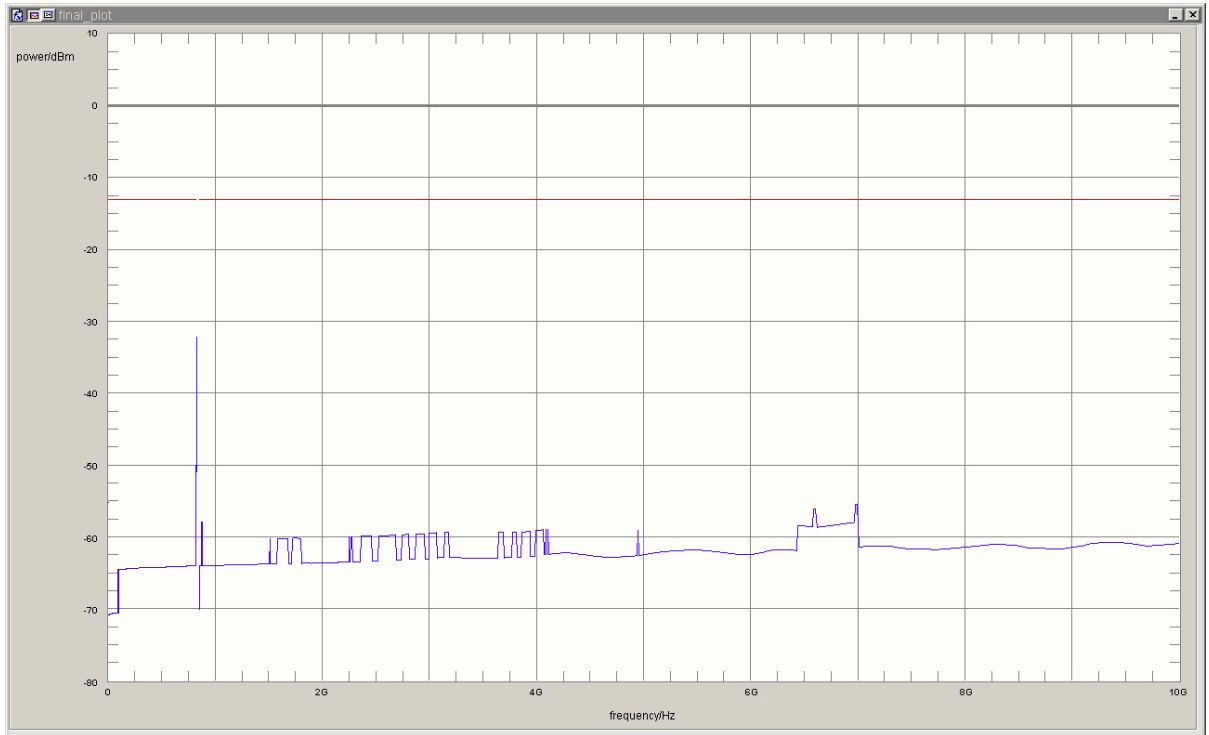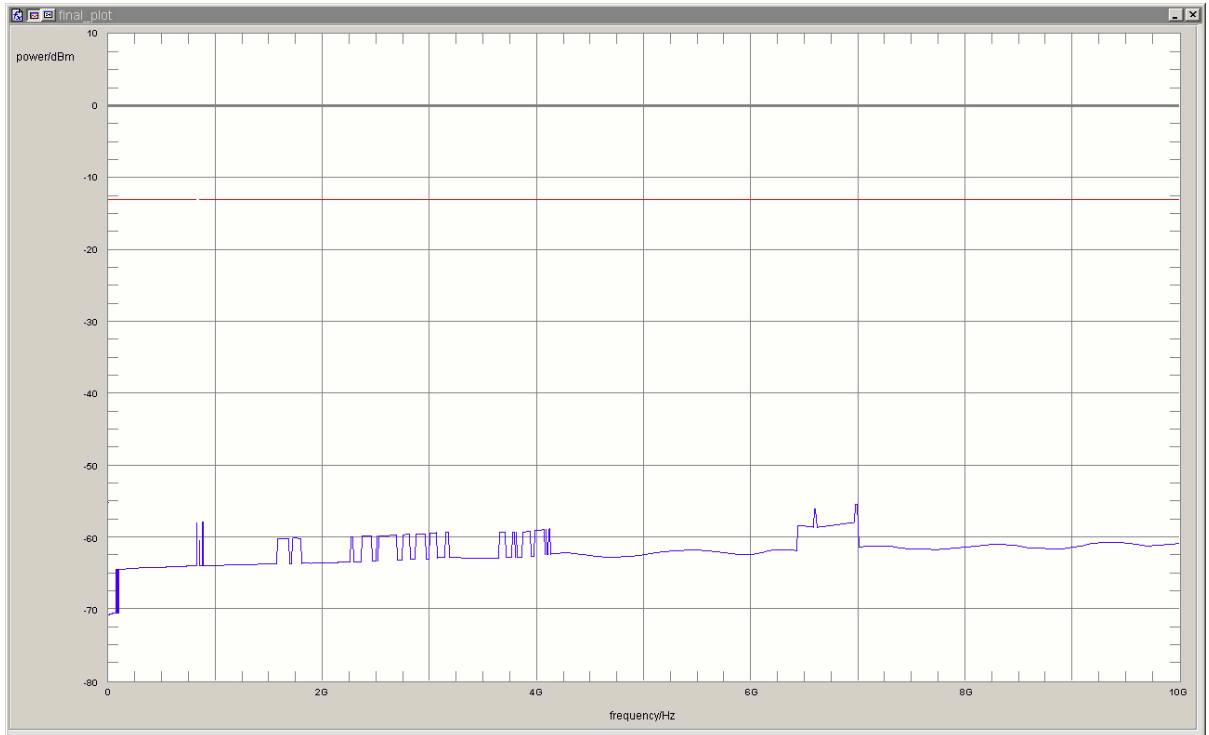|	
Result:	Passed
Setup No.:	C01_rad
Date of Test:	2011/10/27 11:07
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Detailed Results:

spurious emissions radiated, CZ800, C01_rad, 22_4_EDGE_190, maxhold over all antenna polarizations and EUT orientations (X-,Y-,Z-axis)

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	1000	998.8	-43.00	-13.00	30.00	0.0	horizontal	horizontal	passed

no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = 850, Mode = EDGE, Channel = 251, Frequency = 848.8MHz

Result:	Passed
Setup No.:	C01_rad
Date of Test:	2011/10/27 13:09
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
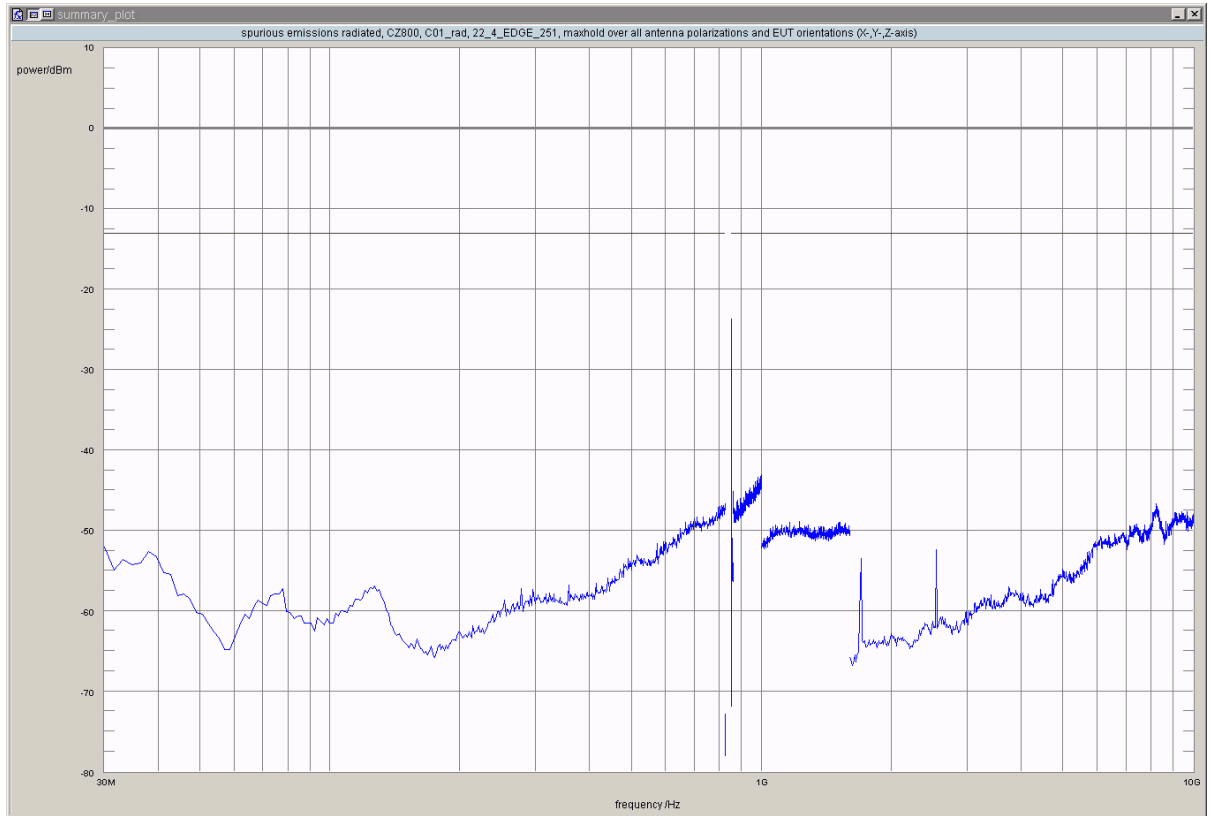
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	3	849.0040	-24.52	-13.00	11.52	90.0	horizontal	vertical	passed
peak	maxhold	3	849.0120	-23.63	-13.00	10.63	90.0	horizontal	vertical	passed
peak	maxhold	3	849.0180	-27.54	-13.00	14.54	0.0	horizontal	horizontal	passed
peak	maxhold	3	849.0240	-27.39	-13.00	14.39	0.0	vertical	horizontal	passed
peak	maxhold	3	849.0361	-25.02	-13.00	12.02	90.0	horizontal	vertical	passed
peak	maxhold	3	849.0421	-31.74	-13.00	18.74	0.0	vertical	horizontal	passed
peak	maxhold	3	849.0501	-30.35	-13.00	17.35	-90.0	horizontal	vertical	passed
peak	maxhold	3	849.0581	-31.44	-13.00	18.44	90.0	horizontal	vertical	passed
peak	maxhold	3	849.0701	-26.76	-13.00	13.76	90.0	horizontal	vertical	passed

no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = 850, Mode = GSM, Channel = 128, Frequency = 824.2MHz

Result:	Passed
Setup No.:	C01_rad
Date of Test:	2011/10/23 15:59
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

spurious emissions radiated, CZ800, C01_rad, 22_4_GSM_128, maxhold over all antenna polarizations and EUT orientations (X-,Y-,Z-axis)

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	3	823.9078	-30.28	-13.00	17.28	-180.0	vertical	horizontal	passed
peak	maxhold	3	823.9158	-32.60	-13.00	19.60	0.0	horizontal	vertical	passed
peak	maxhold	3	823.9218	-28.69	-13.00	15.69	-180.0	vertical	horizontal	passed
peak	maxhold	3	823.9259	-28.89	-13.00	15.89	90.0	horizontal	vertical	passed
peak	maxhold	3	823.9379	-27.03	-13.00	14.03	-90.0	horizontal	vertical	passed
peak	maxhold	3	823.9439	-22.64	-13.00	9.64	-180.0	vertical	horizontal	passed
peak	maxhold	3	823.9559	-21.95	-13.00	8.95	-180.0	vertical	horizontal	passed
peak	maxhold	3	823.9639	-21.17	-13.00	8.17	90.0	vertical	vertical	passed
peak	maxhold	3	823.9820	-15.54	-13.00	2.54	90.0	horizontal	vertical	passed
peak	maxhold	3	823.9940	-19.61	-13.00	6.61	-180.0	vertical	horizontal	passed

no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = 850, Mode = GSM, Channel = 190, Frequency = 836.6MHz

Result: Passed

Setup No.:   C01_rad

Date of Test: 2011/10/21 10:30

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

spurious emissions radiated, CZ800, C01_rad, 22_4_GSM_190c, maxhold over all antenna polarizations and EUT orientations (X-,Y-,Z-axis)

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	1000	978.1	-42.41	-13.00	29.41	-180.0	horizontal	vertical	passed

no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = 850, Mode = GSM, Channel = 251, Frequency = 848.8MHz

Result: Passed

Setup No.:   C01_rad

Date of Test: 2011/10/23 17:00

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES
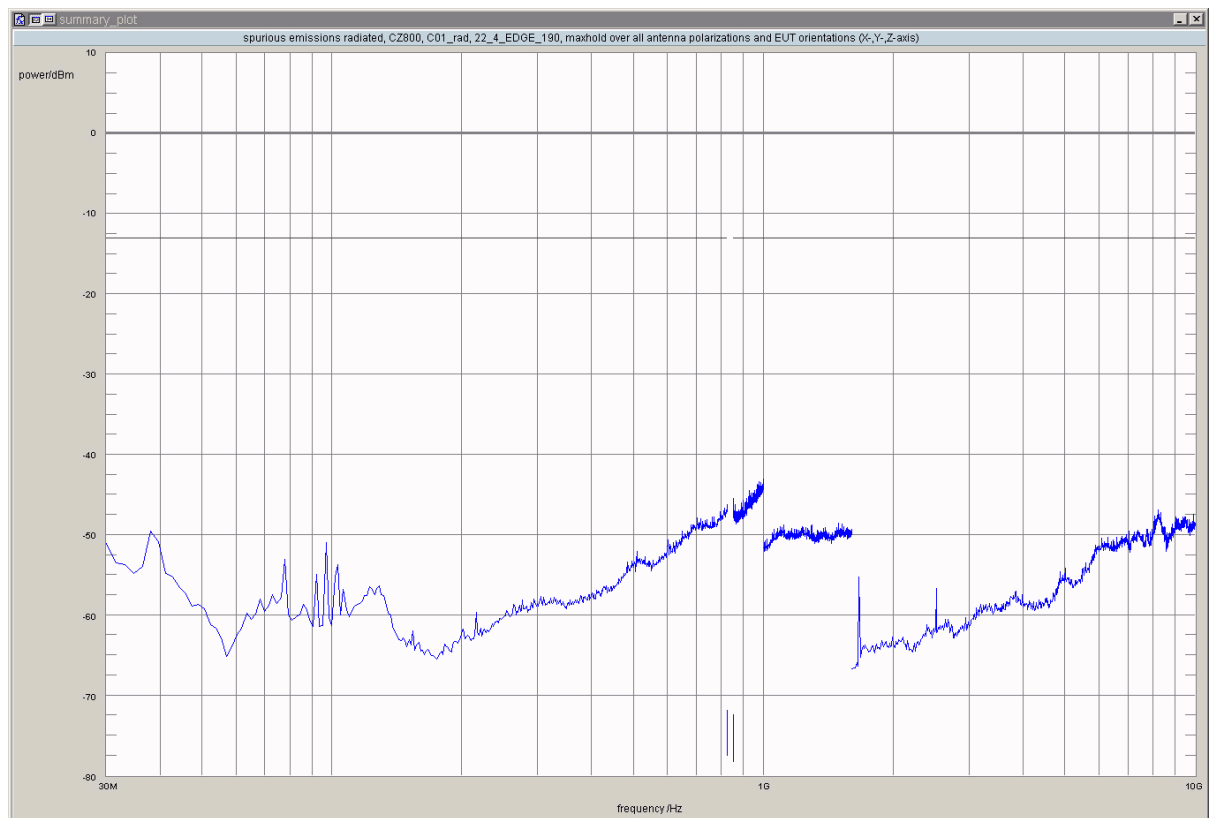
Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
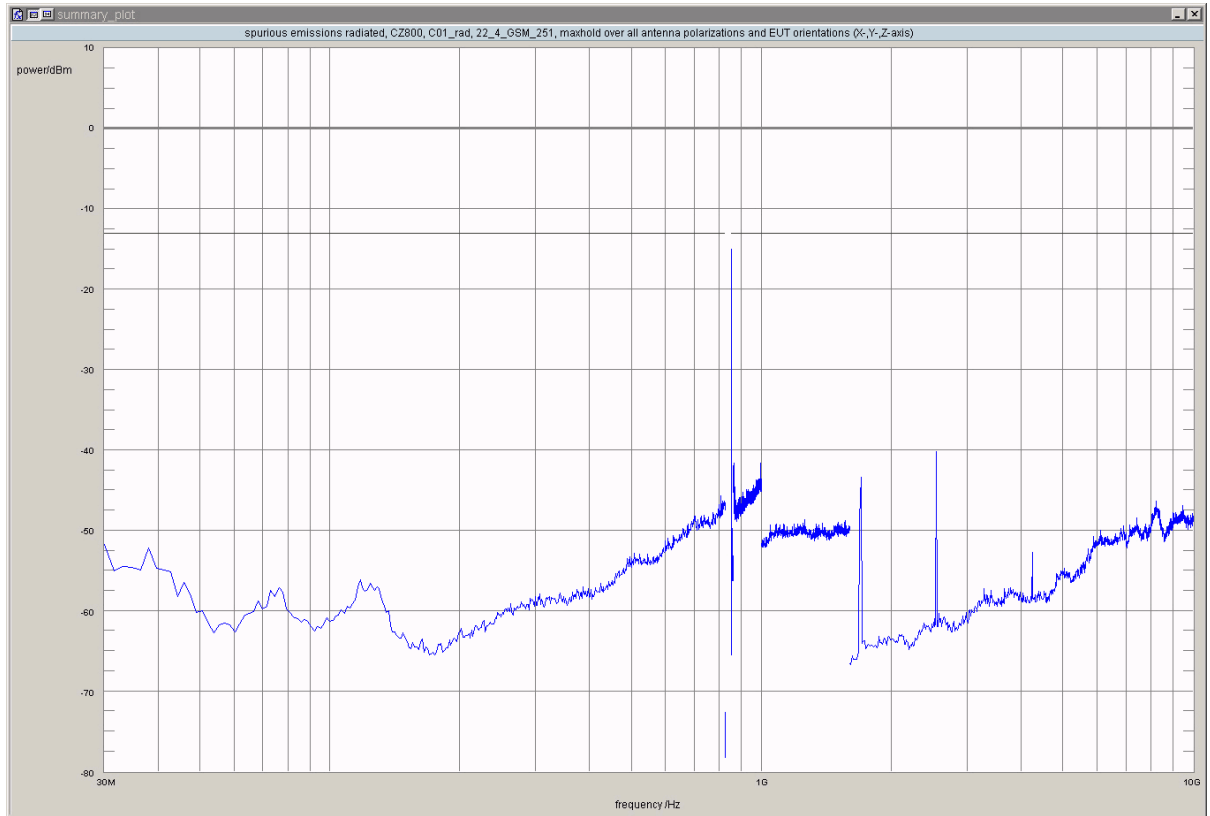
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	3	849.0060	-17.34	-13.00	4.34	-180.0	vertical	horizontal	passed
peak	maxhold	3	849.0160	-14.94	-13.00	1.94	90.0	horizontal	vertical	passed
peak	maxhold	3	849.0220	-19.53	-13.00	6.53	0.0	vertical	horizontal	passed
peak	maxhold	3	849.0301	-19.26	-13.00	6.26	90.0	horizontal	vertical	passed
peak	maxhold	3	849.0381	-16.97	-13.00	3.97	90.0	horizontal	vertical	passed
peak	maxhold	3	849.0521	-25.98	-13.00	12.98	0.0	vertical	horizontal	passed
peak	maxhold	3	849.0561	-20.53	-13.00	7.53	-180.0	vertical	horizontal	passed
peak	maxhold	3	849.0621	-23.84	-13.00	10.84	-180.0	vertical	horizontal	passed
peak	maxhold	3	849.0701	-23.78	-13.00	10.78	-180.0	vertical	horizontal	passed
peak	maxhold	3	849.0802	-32.79	-13.00	19.79	90.0	vertical	vertical	passed
peak	maxhold	3	849.0882	-30.06	-13.00	17.06	-180.0	vertical	horizontal	passed

no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz

Result: Passed

Setup No.:   C01_rad

Date of Test: 2011/10/27 0:51

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

spurious emissions radiated, CZ800, C01_rad, 22_4_HSDPA_4132, maxhold over all antenna polarizations and EUT orientations (X-,Y-,Z-axis)

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	100	821.32	-32.93	-13.00	19.93	90.0	vertical	vertical	passed
peak	maxhold	100	822.26	-28.75	-13.00	15.75	90.0	horizontal	vertical	passed
peak	maxhold	100	822.78	-30.10	-13.00	17.10	0.0	vertical	horizontal	passed
peak	maxhold	50	823.95	-25.92	-13.00	12.92	0.0	vertical	horizontal	passed
peak	maxhold	1000	872.5	-22.20	-13.00	9.20	-180.0	horizontal	horizontal	passed

 no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz

Result: Passed

Setup No.:   C01_rad

Date of Test: 2011/10/27   1:29

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
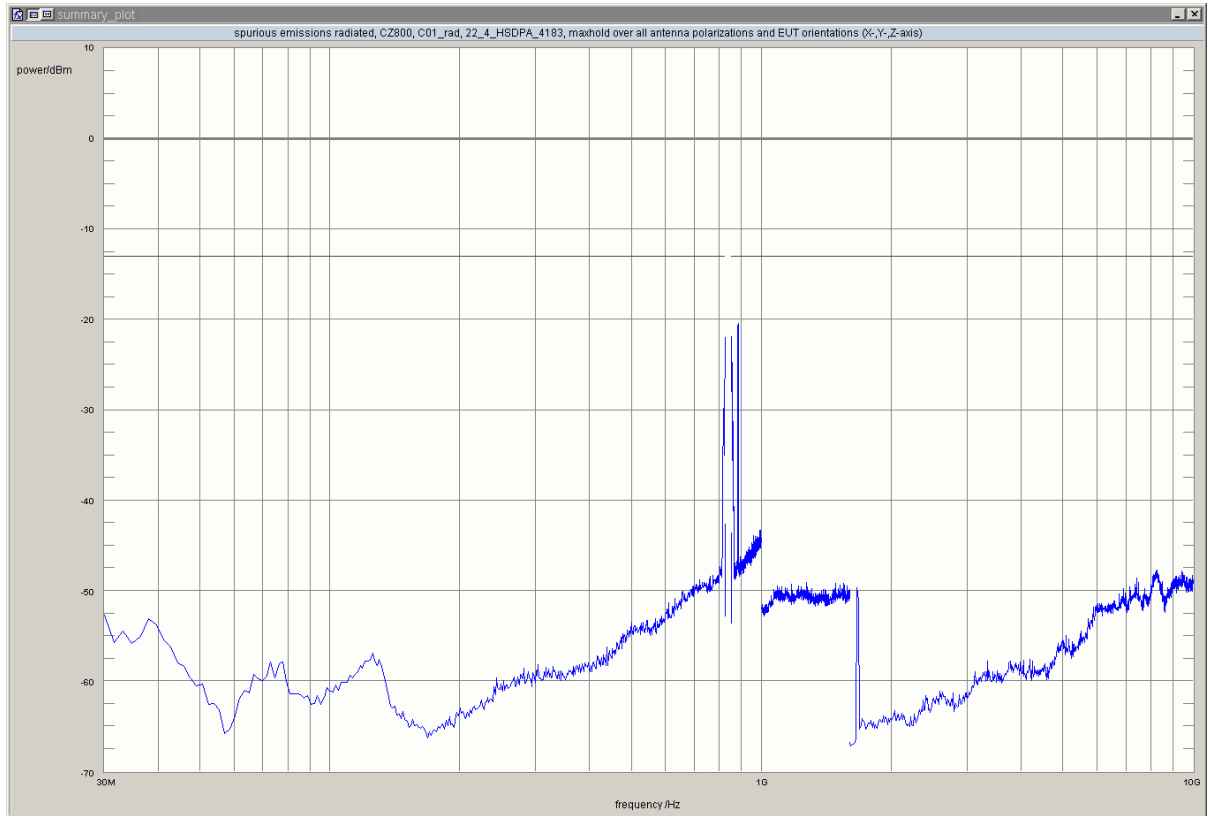
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	1000	815.1	-29.85	-13.00	16.85	90.0	horizontal	vertical	passed
peak	maxhold	1000	819.8	-29.58	-13.00	16.58	0.0	horizontal	horizontal	passed
peak	maxhold	1000	821.4	-23.97	-13.00	10.97	90.0	horizontal	vertical	passed
peak	maxhold	1000	823.0	-21.84	-13.00	8.84	0.0	vertical	horizontal	passed
peak	maxhold	1000	850.9	-21.91	-13.00	8.91	90.0	horizontal	vertical	passed
peak	maxhold	1000	881.6	-20.41	-13.00	7.41	-180.0	horizontal	horizontal	passed

 no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz

Result: Passed

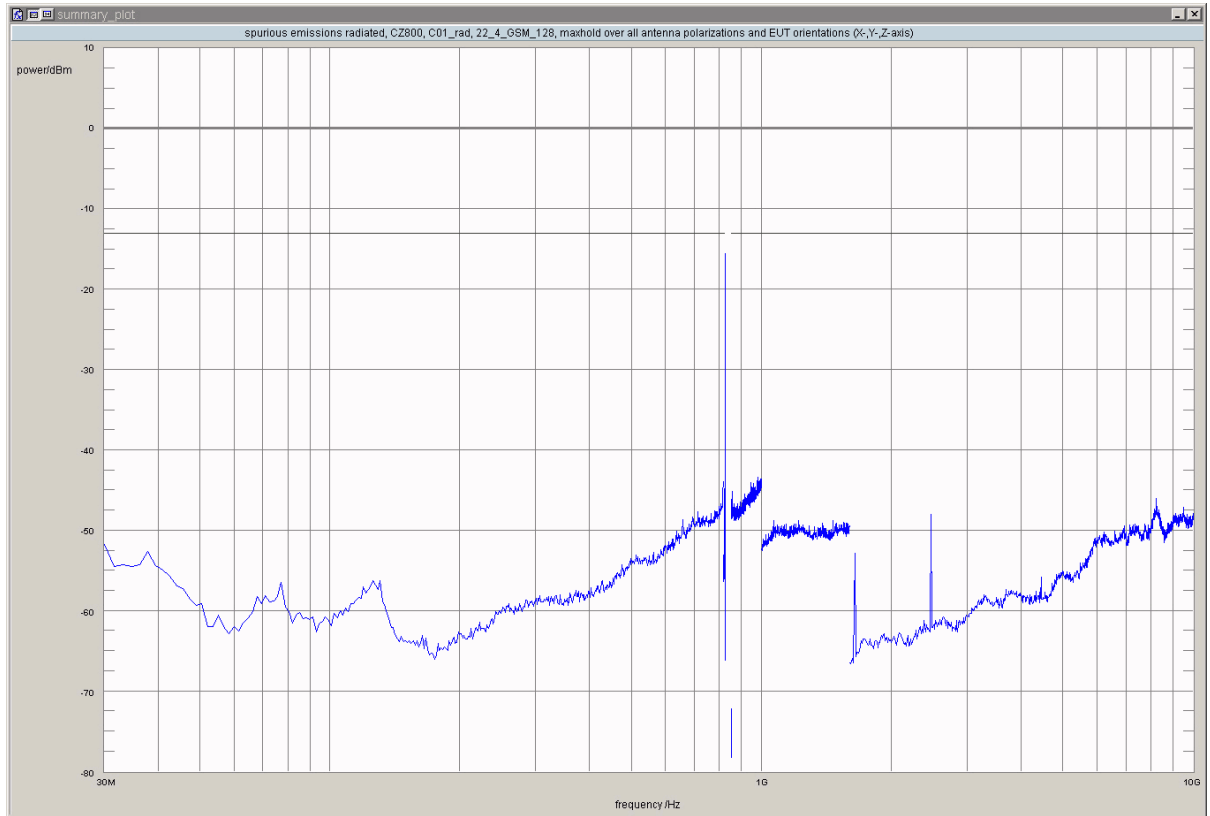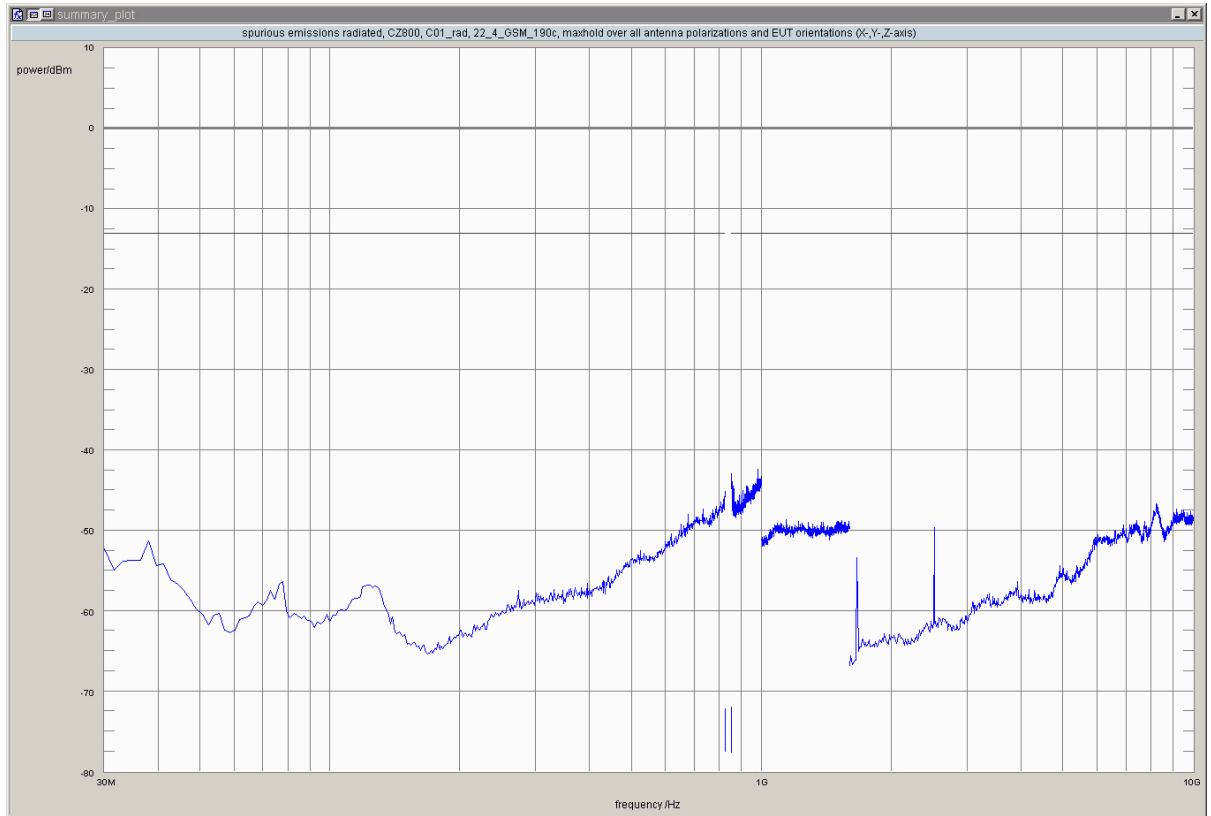*Setup No.:*   C01_rad

Date of Test: 2011/10/27   2:09

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

spurious emissions radiated, CZ800, C01_rad, 22_4_HSDPA_4233, maxhold over all antenna polarizations and EUT orientations (X-,Y-,Z-axis)

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	1000	819.8	-32.49	-13.00	19.49	-180.0	vertical	horizontal	passed
peak	maxhold	1000	821.4	-29.65	-13.00	16.65	0.0	vertical	horizontal	passed
peak	maxhold	1000	823.0	-25.80	-13.00	12.80	90.0	horizontal	vertical	passed
peak	maxhold	50	849.01	-24.15	-13.00	11.15	90.0	horizontal	vertical	passed
peak	maxhold	50	849.21	-27.16	-13.00	14.16	90.0	horizontal	vertical	passed
peak	maxhold	50	849.26	-28.88	-13.00	15.88	0.0	vertical	horizontal	passed
peak	maxhold	50	849.40	-28.91	-13.00	15.91	90.0	horizontal	vertical	passed
peak	maxhold	50	849.55	-32.76	-13.00	19.76	-90.0	horizontal	vertical	passed
peak	maxhold	50	849.85	-32.05	-13.00	19.05	0.0	vertical	horizontal	passed
peak	maxhold	100	850.07	-30.56	-13.00	17.56	0.0	horizontal	horizontal	passed
peak	maxhold	100	850.25	-30.39	-13.00	17.39	0.0	vertical	horizontal	passed
peak	maxhold	100	850.83	-27.57	-13.00	14.57	90.0	horizontal	vertical	passed
peak	maxhold	100	851.93	-32.13	-13.00	19.13	0.0	horizontal	horizontal	passed
peak	maxhold	1000	859.6	-32.50	-13.00	19.50	90.0	horizontal	vertical	passed
peak	maxhold	1000	890.4	-21.01	-13.00	8.01	-180.0	horizontal	horizontal	passed
peak	maxhold	1000	892.3	-24.21	-13.00	11.21	0.0	horizontal	vertical	passed

no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz

Result:	Passed
Setup No.:	C01_rad
Date of Test:	2011/10/27 13:51
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

spurious emissions radiated, CZ800, C01_rad, 22_4_HSUPA_4132, maxhold over all antenna polarizations and EUT orientations (X-,Y-,Z-axis)
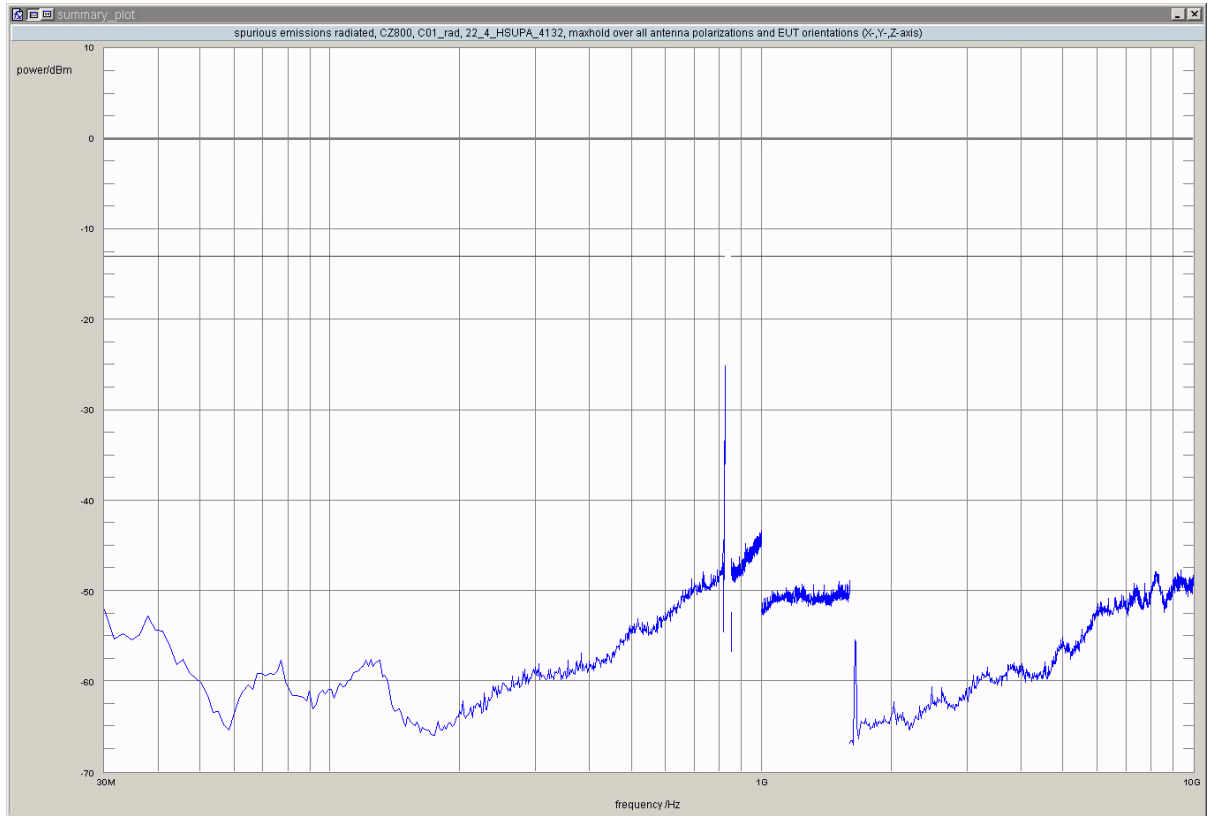
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	100	822.55	-32.80	-13.00	19.80	0.0	horizontal	vertical	passed
peak	maxhold	100	823.00	-29.10	-13.00	16.10	0.0	vertical	horizontal	passed
peak	maxhold	50	823.89	-25.68	-13.00	12.68	0.0	vertical	horizontal	passed
peak	maxhold	50	823.95	-25.15	-13.00	12.15	90.0	horizontal	vertical	passed

no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz

Result: Passed

Setup No.:   C01_rad

Date of Test: 2011/10/27 14:31

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
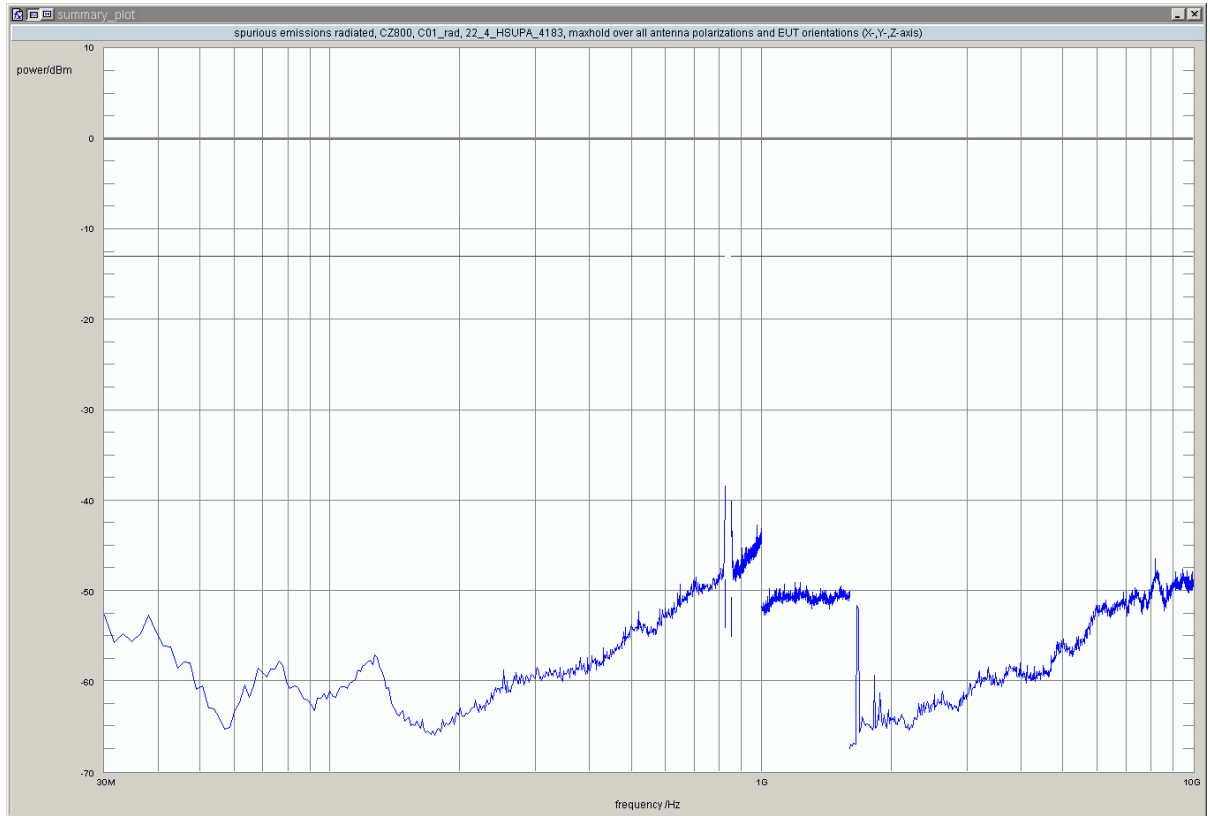
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	1000	823.0	-38.33	-13.00	25.33	90.0	horizontal	vertical	passed

no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz

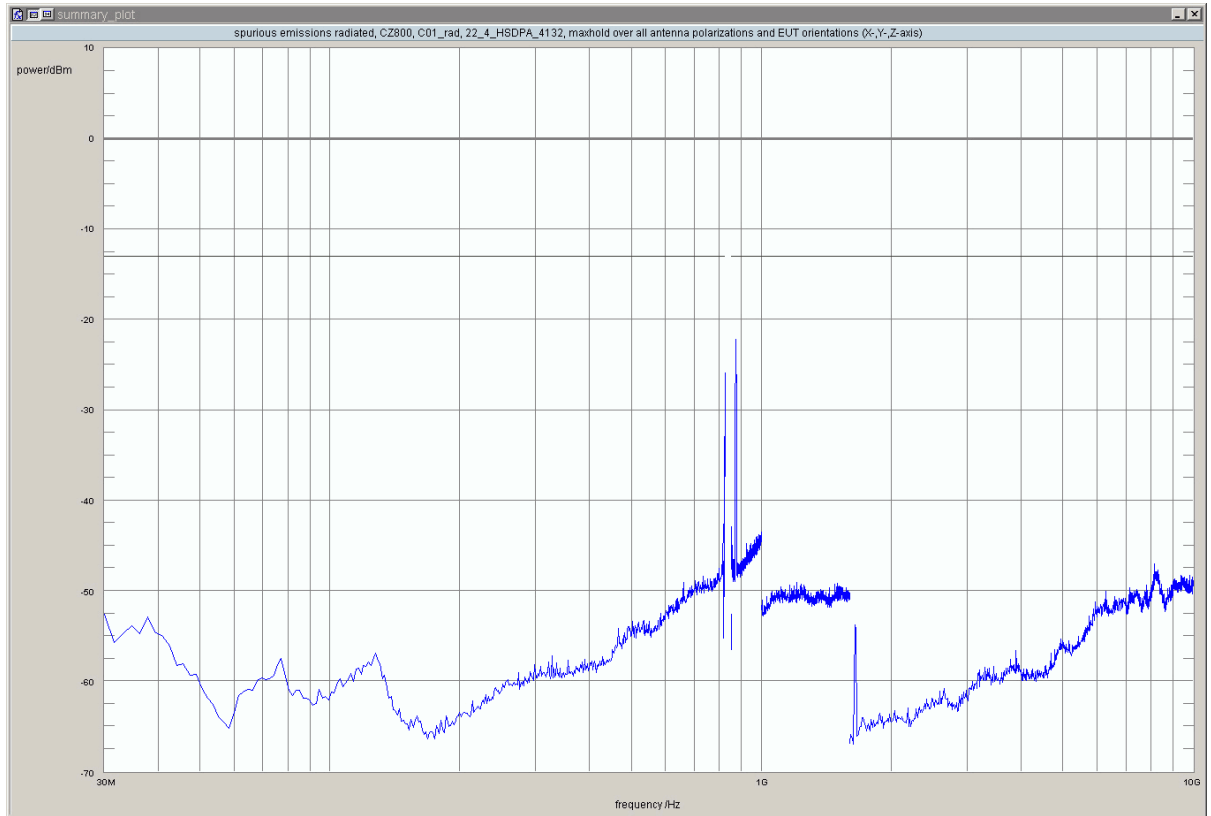|	
Result:	Passed
Setup No.:	C01_rad
Date of Test:	2011/10/27 15:10
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
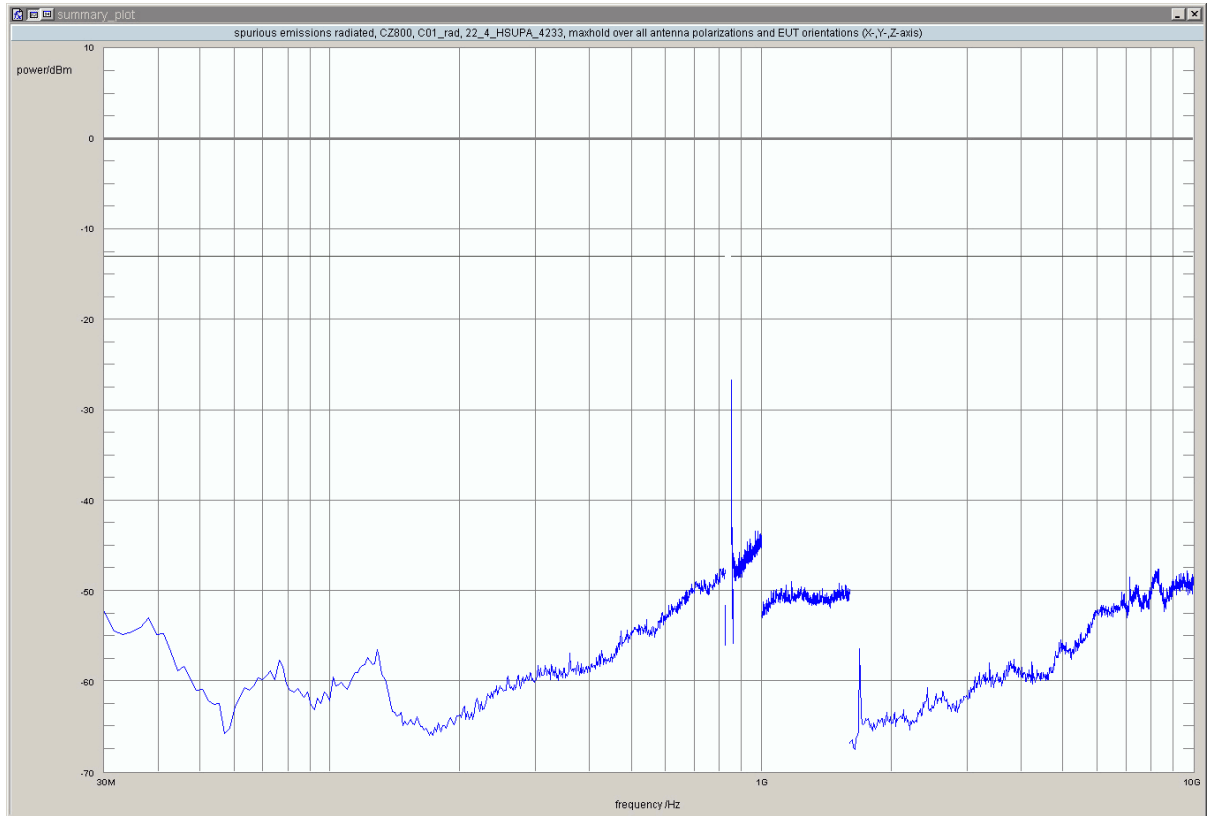
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	50	849.02	-26.63	-13.00	13.63	90.0	horizontal	vertical	passed
peak	maxhold	50	849.27	-27.64	-13.00	14.64	90.0	horizontal	vertical	passed
peak	maxhold	50	849.65	-30.15	-13.00	17.15	-90.0	horizontal	vertical	passed
peak	maxhold	50	849.94	-30.29	-13.00	17.29	-90.0	horizontal	vertical	passed
peak	maxhold	100	850.27	-28.05	-13.00	15.05	90.0	horizontal	vertical	passed
peak	maxhold	100	850.61	-29.39	-13.00	16.39	0.0	vertical	horizontal	passed

no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz

|	
Result:	Passed
Setup No.:	C01_rad
Date of Test:	2011/10/23 17:50
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
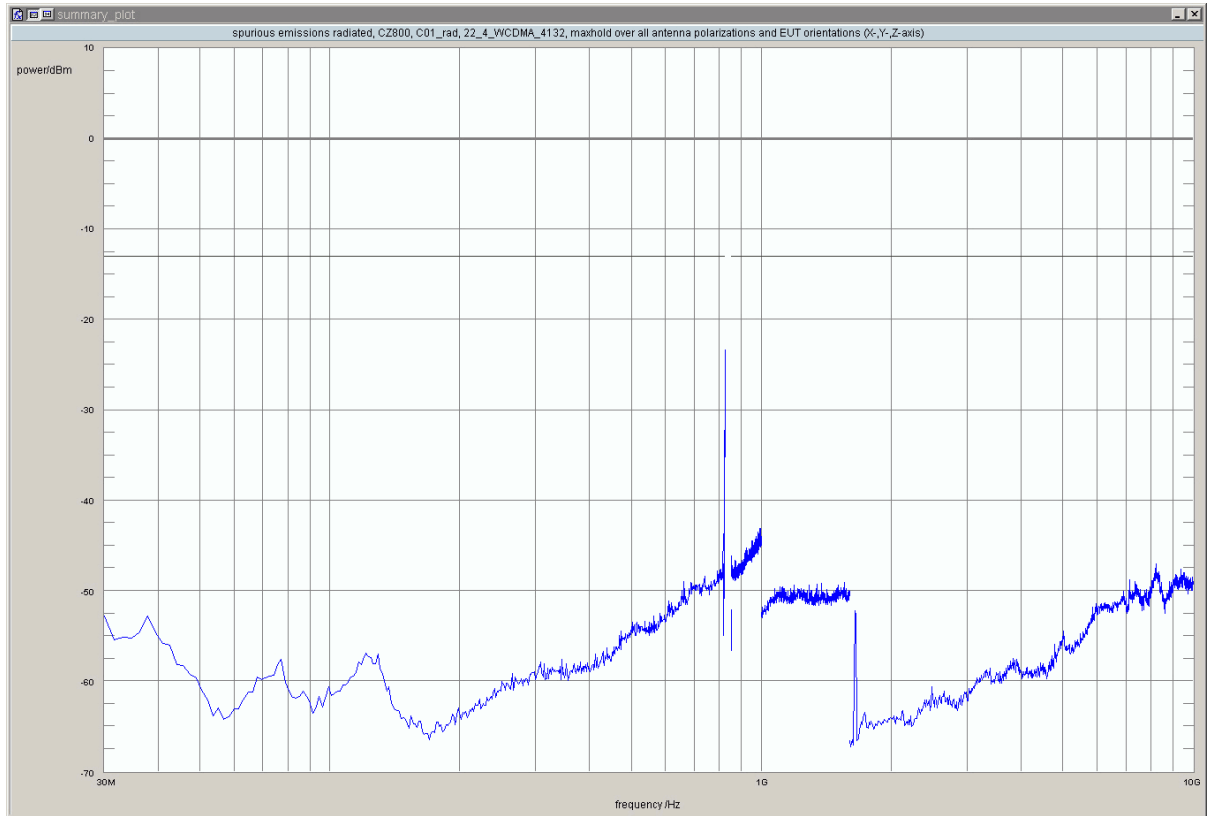
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	100	822.42	-29.37	-13.00	16.37	90.0	vertical	vertical	passed
peak	maxhold	100	822.66	-26.12	-13.00	13.12	-180.0	vertical	horizontal	passed
peak	maxhold	100	822.93	-24.12	-13.00	11.12	-90.0	horizontal	vertical	passed
peak	maxhold	50	823.11	-29.52	-13.00	16.52	90.0	vertical	vertical	passed
peak	maxhold	50	823.37	-27.24	-13.00	14.24	-180.0	vertical	horizontal	passed
peak	maxhold	50	823.97	-23.33	-13.00	10.33	-180.0	vertical	horizontal	passed

no further values have been found with a margin of less than 20 dB

Test: 22.4; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz

Result:	Passed
Setup No.:	C01_rad
Date of Test:	2011/10/23 18:41
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
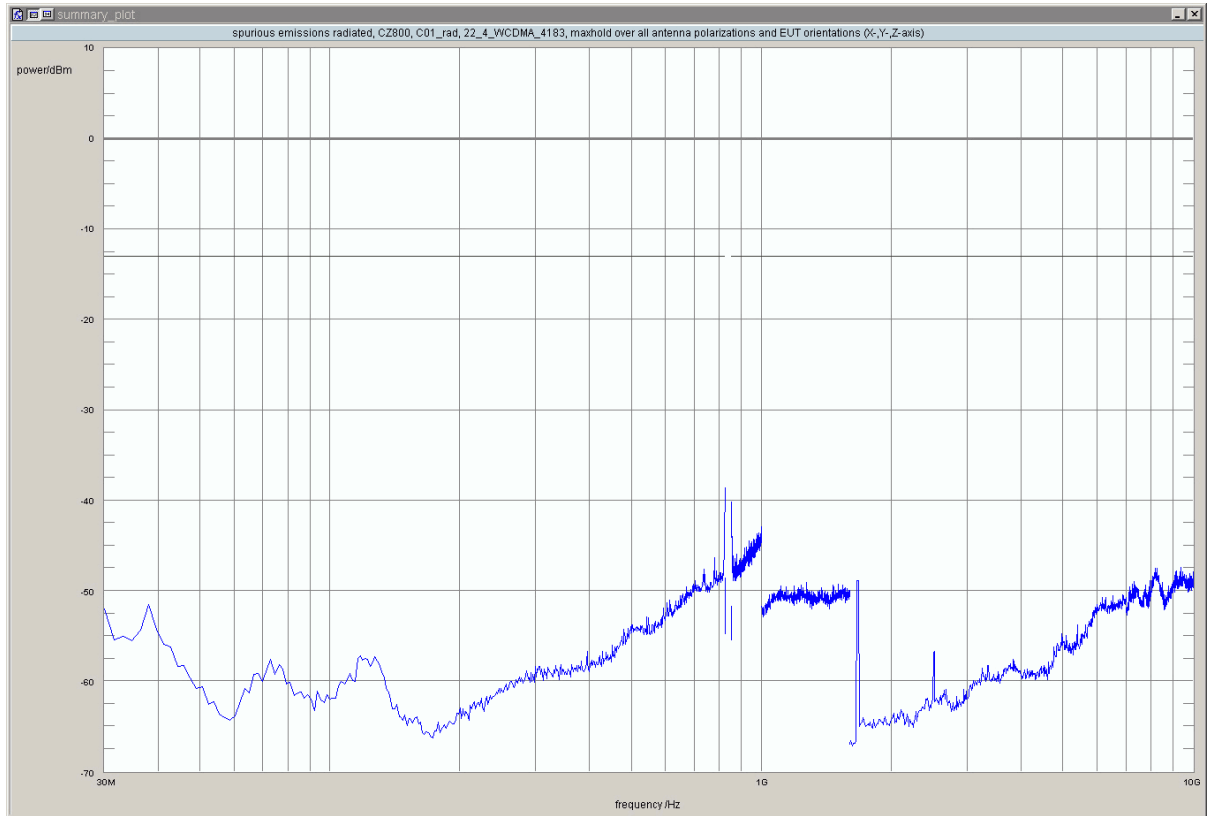
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	1000	823.0	-38.49	-13.00	25.49	-180.0	vertical	horizontal	passed

no further values have been found with a margin of less than 20 dB

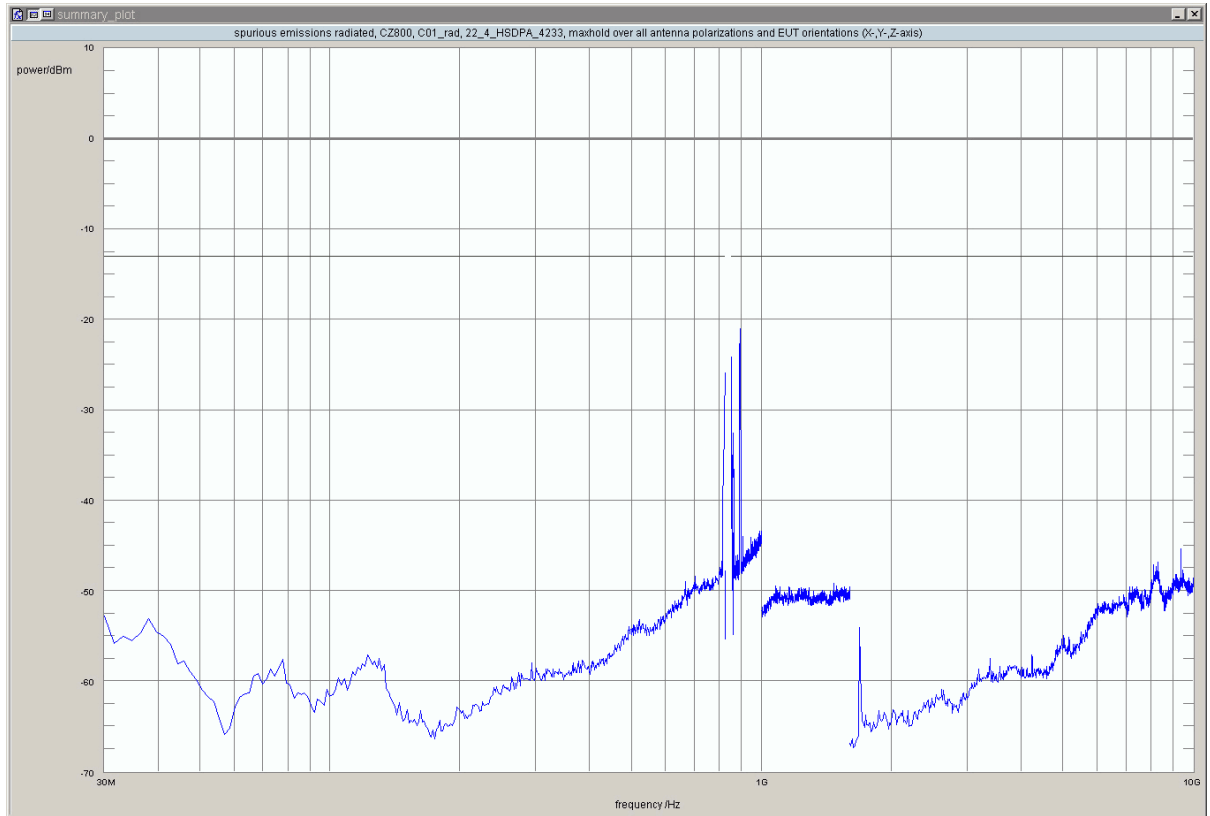**Test: 22.4; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz**

Result:	Passed
Setup No.:	C01_rad
Date of Test:	2011/10/23 19:21
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:
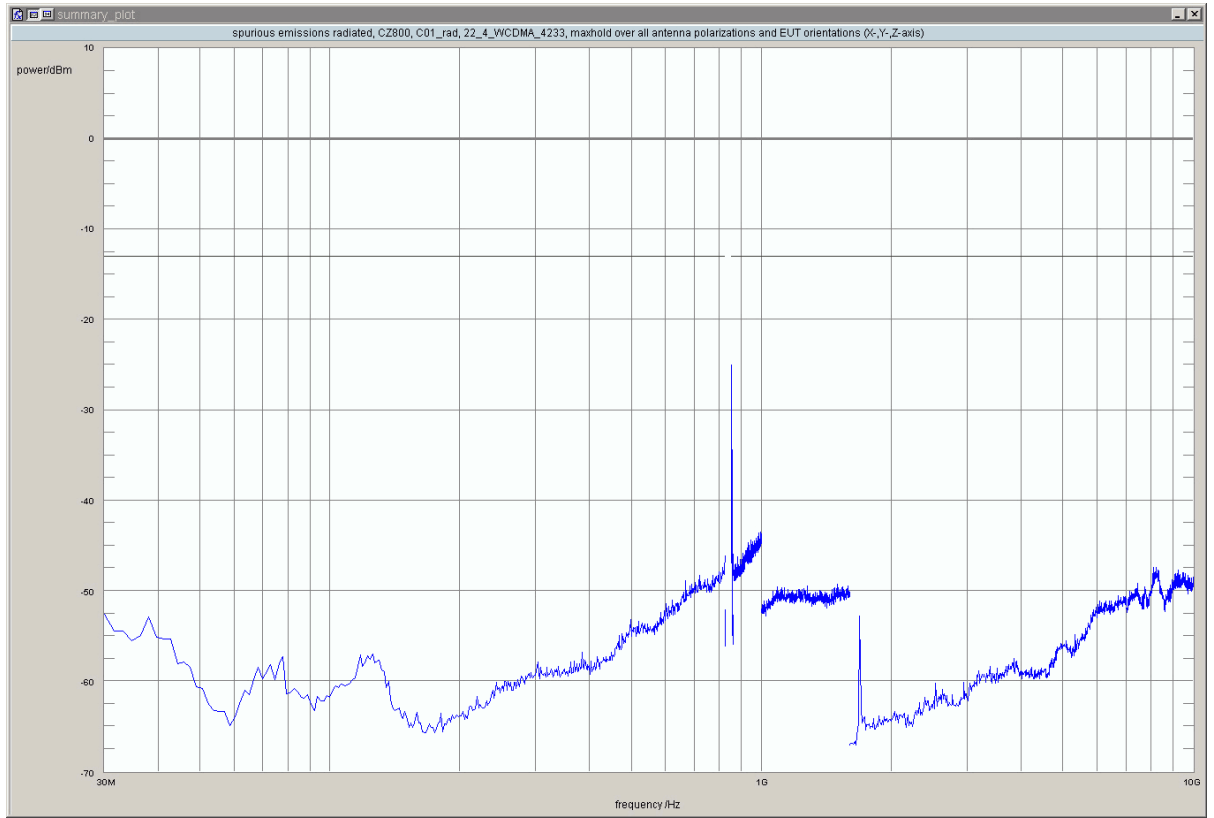
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	limit /dBm	margin to limit /dB	azimuth /°	antenna polarization	EUT orientation	verdict
peak	maxhold	50	849.03	-24.99	-13.00	11.99	-180.0	vertical	horizontal	passed
peak	maxhold	50	849.17	-26.41	-13.00	13.41	90.0	horizontal	vertical	passed
peak	maxhold	50	849.26	-30.62	-13.00	17.62	-90.0	horizontal	vertical	passed
peak	maxhold	50	849.63	-32.08	-13.00	19.08	90.0	vertical	vertical	passed
peak	maxhold	100	850.04	-28.19	-13.00	15.19	90.0	horizontal	vertical	passed
peak	maxhold	100	850.25	-27.89	-13.00	14.89	-180.0	vertical	horizontal	passed
peak	maxhold	100	850.36	-31.77	-13.00	18.77	0.0	vertical	horizontal	passed
peak	maxhold	100	850.52	-31.64	-13.00	18.64	-90.0	horizontal	vertical	passed

no further values have been found with a margin of less than 20 dB

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

3.5.5   22.5   Emission and Occupied Bandwidth §2.1049, §22.917

Test: 22.5; Frequency Band = 850, Mode = EDGE, Channel = 128, Frequency = 824.2MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 7:10
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

		Marker 1 [T1]		RBW	3 kHz	RF Att	20 dB
	Ref Lvl		24.22 dBm	VBW	10 kHz		
	36 dBm		824.19899800 MHz	SWT	5 s	Unit	dBm

Title: bandwidth measurement
Comment A: CZ800, EDGE850, 26dB bandwidth,
             channel 128 (824.2MHz)
Date: 25.OCT.2011 07:14:14

acc. Title 47 CFR chapter I part 22 subpart H

Title: bandwidth measurement
Comment A: CZ800, EDGE850, occupied bandwidth (99%),
             channel 128 (824.2MHz)
Date: 25.OCT.2011   07:14:32

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H
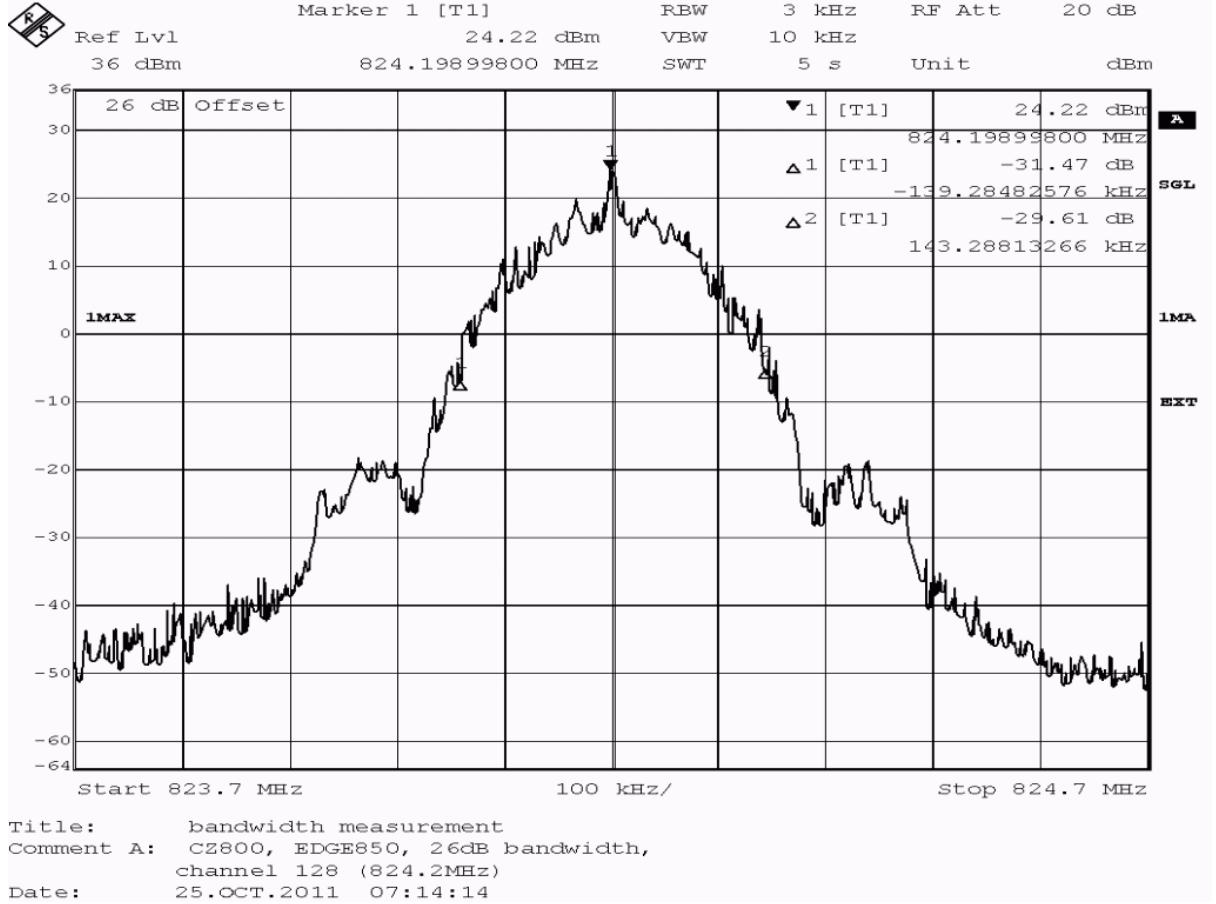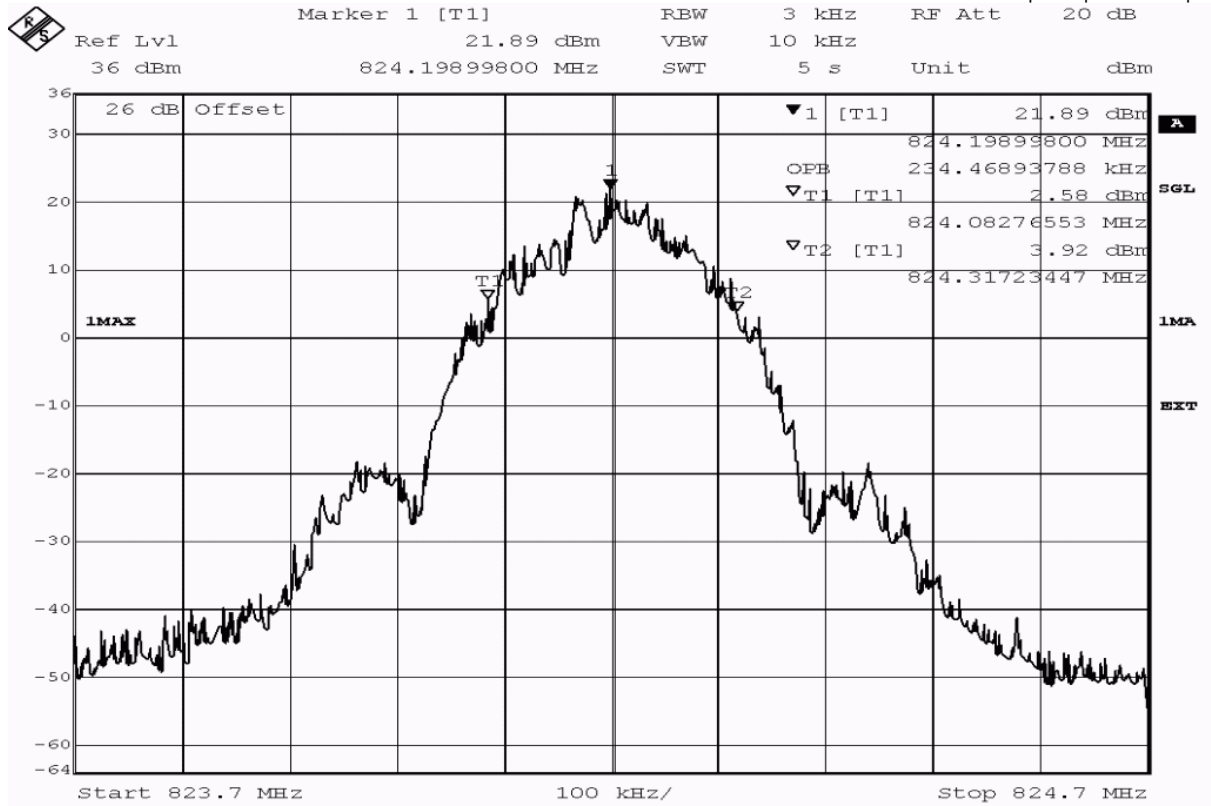
detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	3	-26dB bandwidth	282.6	passed
peak	maxhold	3	99% bandwidth	234.5	passed

Test: 22.5; Frequency Band = 850, Mode = EDGE, Channel = 190, Frequency = 836.6MHz

Result: Passed

*Setup No.:*   C01_cond

Date of Test: 2011/10/25   6:54

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

```
                        Marker 1 [T1]              RBW     3 kHz    RF Att    20 dB
    Ref Lvl                            23.62 dBm    VBW    10 kHz
    36 dBm                  836.59899800 MHz        SWT     5 s     Unit         dBm

36
       26 dB Offset                                  ▼1 [T1]           23.62 dBm     A
30                                                        836.59899800 MHz
                                                     △1 [T1]          -26.17 dB
20                                                      -123.24952028 kHz    SGL
10
                                                     △2 [T1]          -28.16 dB
 0  1MAX                                                141.28522548 kHz
                                                                            1MA
-10
                                                                            EXT
-20
-30
-40
-50
-60
-64
    Start 836.1 MHz              100 kHz/              Stop 837.1 MHz
```

Title: bandwidth measurement
Comment A: CZ800, EDGE850, 26dB bandwidth,
            channel 190 (836.6MHz)
Date: 25.OCT.2011 06:59:10

acc. Title 47 CFR chapter I part 22 subpart H

Title: bandwidth measurement
Comment A: CZ800, EDGE850, occupied bandwidth (99%),
channel 190 (836.6MHz)
Date: 25.OCT.2011 06:59:28

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	3	-26dB bandwidth	264.5	passed
peak	maxhold	3	99% bandwidth	228.5	passed

Test: 22.5; Frequency Band = 850, Mode = EDGE, Channel = 251, Frequency = 848.8MHz

Result: Passed

*Setup No.:*   C01_cond

Date of Test: 2011/10/25   7:18

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

Marker 1 [T1]	RBW 3 kHz	RF Att 20 dB
Ref Lvl 22.94 dBm	VBW 10 kHz	
36.1 dBm 848.80100200 MHz	SWT 5 s	Unit dBm

```
Title:      bandwidth measurement
Comment A:  CZ800, EDGE850, 26dB bandwidth,
            channel 251 (848.8MHz)
Date:       25.OCT.2011  07:22:11
```

acc. Title 47 CFR chapter I part 22 subpart H
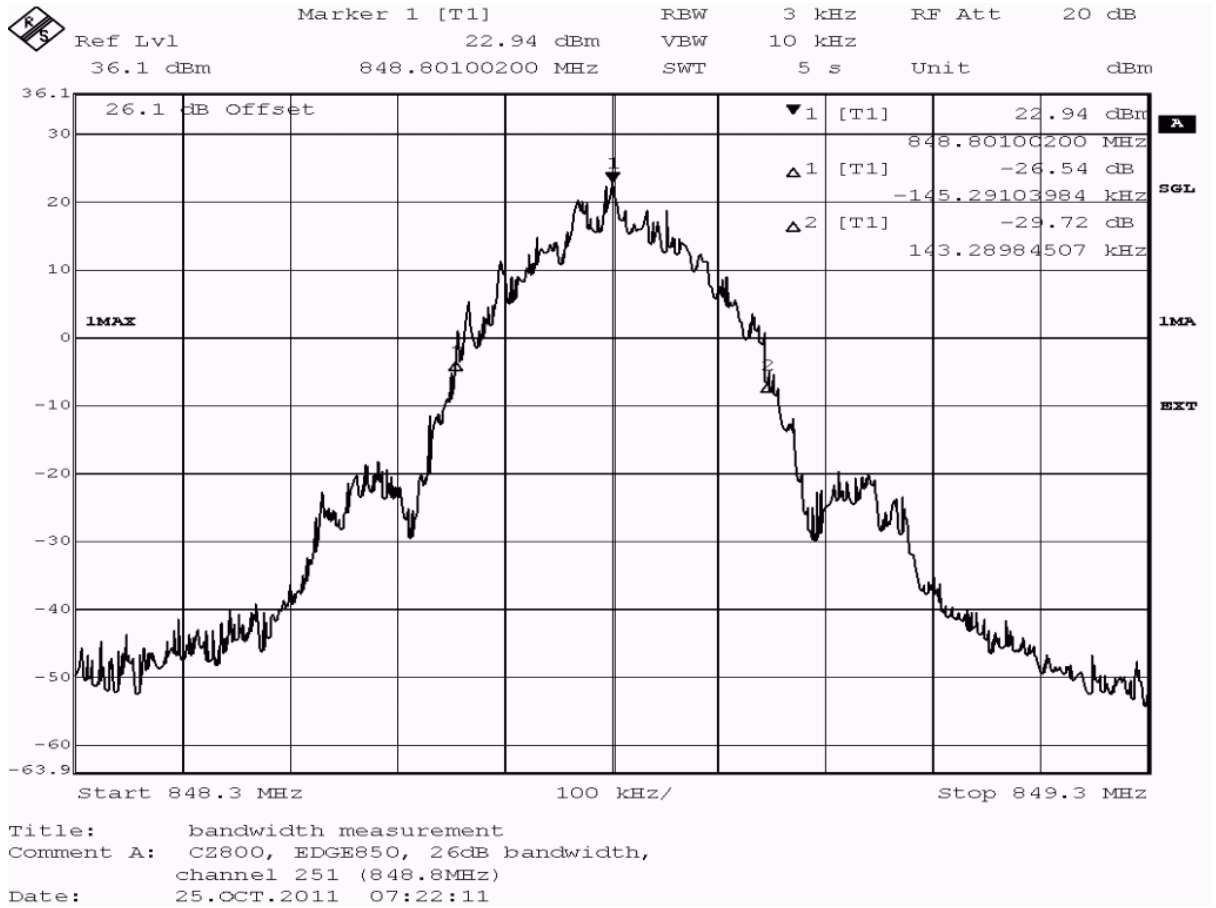
Title: bandwidth measurement
Comment A: CZ800, EDGE850, occupied bandwidth (99%),
             channel 251 (848.8MHz)
Date: 25.OCT.2011   07:22:30

acc. Title 47 CFR chapter I part 22 subpart H
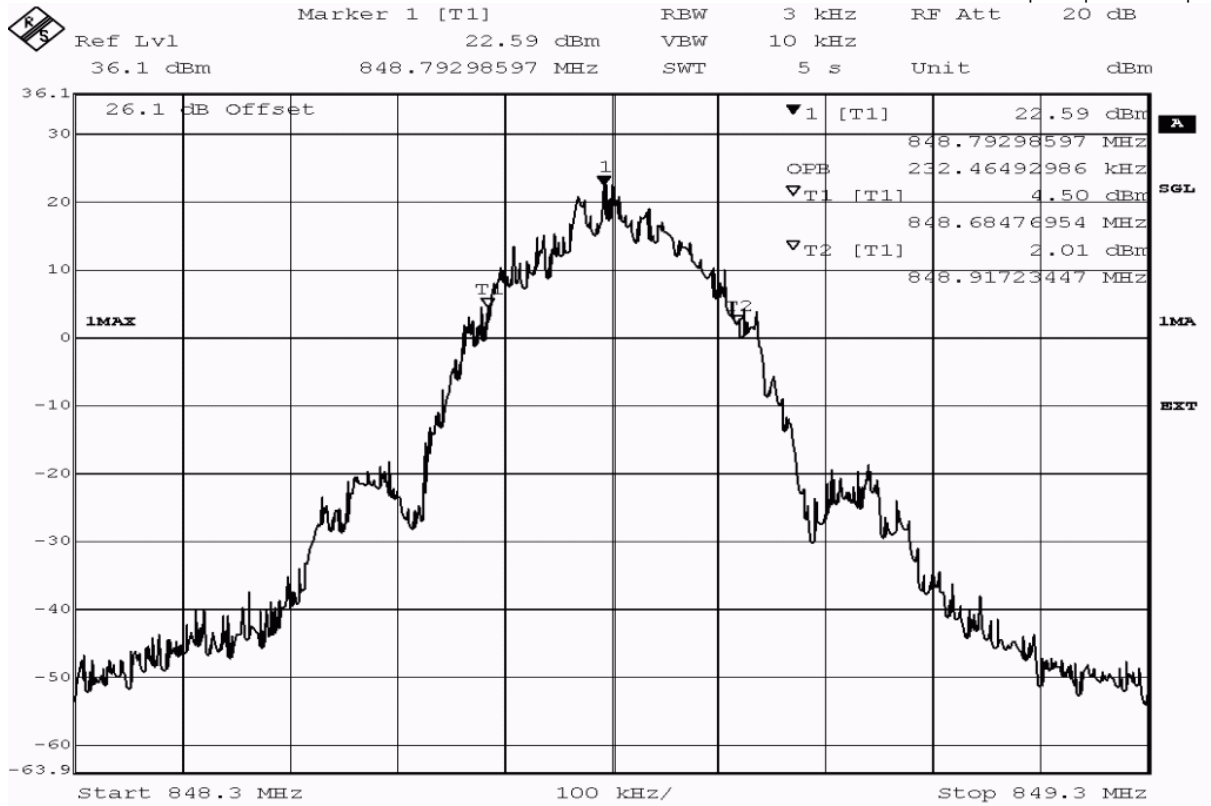
detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	3	-26dB bandwidth	288.6	passed
peak	maxhold	3	99% bandwidth	232.5	passed

Test: 22.5; Frequency Band = 850, Mode = GSM, Channel = 128, Frequency = 824.2MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 6:24
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

	Marker 1 [T1]		RBW	3 kHz	RF Att	20 dB
Ref Lvl		26.94 dBm	VBW	10 kHz	
36 dBm	824.17294589 MHz		SWT	5 s	Unit	dBm


```
26 dB Offset                          ▼1 [T1]           26.94 dBm
                                         824.17294589 MHz
                                      △1 [T1]          -29.27 dB
                                         -133.26861242 kHz
                                      △2 [T1]          -26.43 dB
                                         179.36535302 kHz
1MAX
```

Start 823.7 MHz   100 kHz/   Stop 824.7 MHz

Title: bandwidth measurement
Comment A: CZ800, GSM850, 26dB bandwidth, channel 128
            (824.2MHz)
Date: 25.OCT.2011 06:28:45

acc. Title 47 CFR chapter I part 22 subpart H

Marker 1 [T1]		RBW	3 kHz	RF Att	20 dB	
Ref Lvl	28.08 dBm	VBW	10 kHz			
36 dBm	824.18496994 MHz	SWT	5 s	Unit	dBm	

26 dB Offset

▼1 [T1] 28.08 dBm
824.18496994 MHz
OPB 248.49699399 kHz
▽T1 [T1] 11.06 dBm
824.07675351 MHz
▽T2 [T1] 12.23 dBm
824.32525050 MHz

1MAX

Start 823.7 MHz   100 kHz/   Stop 824.7 MHz

Title: bandwidth measurement
Comment A: CZ800, GSM850, occupied bandwidth (99%),
            channel 128 (824.2MHz)
Date: 25.OCT.2011   06:29:03

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	3	-26dB bandwidth	312.6	passed
peak	maxhold	3	99% bandwidth	248.5	passed

Test: 22.5; Frequency Band = 850, Mode = GSM, Channel = 190, Frequency = 836.6MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 5:42
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:


```
        Marker 1 [T1]              RBW    3 kHz    RF Att    20 dB
  Ref Lvl                          VBW   10 kHz
   36 dBm            836.57695391 MHz    SWT     5 s    Unit       dBm

 36
      26 dB Offset                        ▼1 [T1]          26.82 dBm    A
 30                                            836.57695391 MHz
                                           △1 [T1]          -26.71 dB   SGL
 20                                          -129.25992366 kHz
                                           △2 [T1]          -26.99 dB
 10                                          181.36936104 kHz
                                                                        1MA
  0  1MAX          1                  2
                                                                        EXT
-10

-20

-30

-40

-50

-60
-64
   Start 836.1 MHz           100 kHz/          Stop 837.1 MHz

Title:      bandwidth measurement
Comment A:  CZ800, GSM850, 26dB bandwidth, channel 190
            (836.6MHz)
Date:       25.OCT.2011  05:46:55
```

acc. Title 47 CFR chapter I part 22 subpart H

```
                              Marker 1 [T1]          RBW    3 kHz    RF Att    20 dB
         Ref Lvl                          27.70 dBm  VBW   10 kHz
         36 dBm                    836.55691383 MHz  SWT    5 s     Unit         dBm

  36
         26 dB Offset                                    ▼1 [T1]          27.70 dBm     A
  30                                          1                      836.55691383 MHz
                                                        OPB         244.48897796 kHz   SGL
  20                                                    ▽T1 [T1]          11.12 dBm
                                                                    836.47875752 MHz
  10                                              T2    ▽T2 [T1]          11.17 dBm
                                                                    836.72324649 MHz   1MA
   0
      1MAX                                                                             EXT
 -10

 -20

 -30

 -40

 -50

 -60
 -64
         Start 836.1 MHz                100 kHz/              Stop 837.1 MHz
```

Title: bandwidth measurement
Comment A: CZ800, GSM850, occupied bandwidth (99%),
              channel 190 (836.6MHz)
Date: 25.OCT.2011   05:47:13

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	3	-26dB bandwidth	310.6	passed
peak	maxhold	3	99% bandwidth	244.5	passed

Test: 22.5; Frequency Band = 850, Mode = GSM, Channel = 251, Frequency = 848.8MHz

Result: Passed

Setup No.:   C01_cond
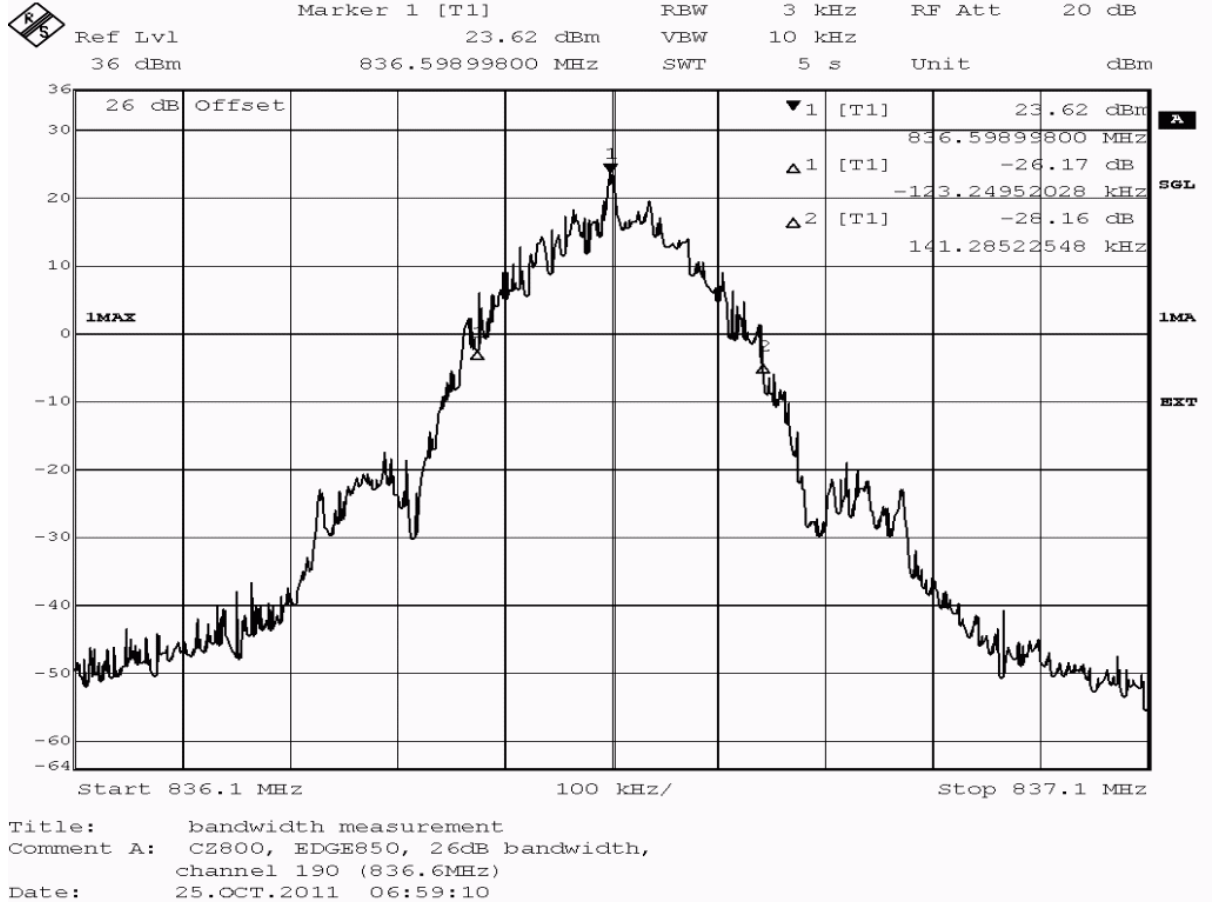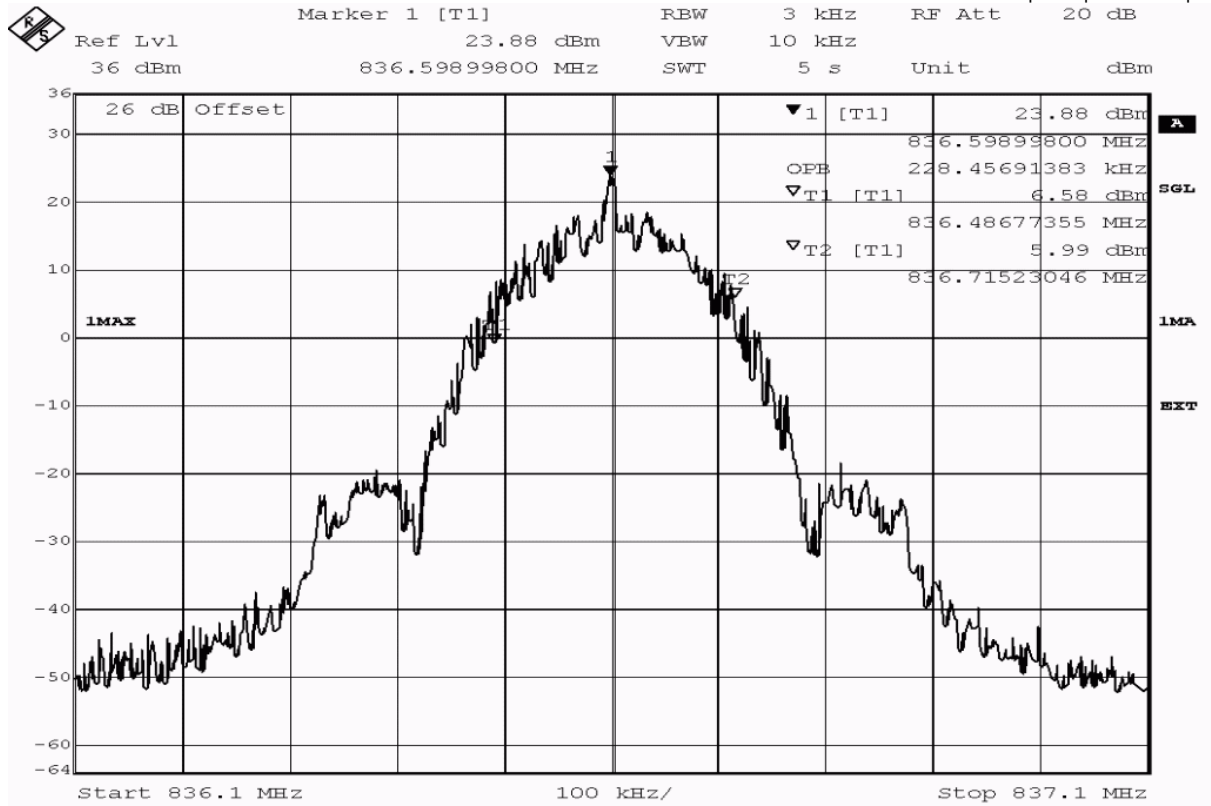
Date of Test: 2011/10/25   5:57

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:


```
        Marker 1 [T1]              RBW    3 kHz    RF Att    20 dB
Ref Lvl                    28.73 dBm    VBW   10 kHz
  36.1 dBm        848.78296593 MHz     SWT     5 s    Unit        dBm
```

Spectrum plot:
- Start 848.3 MHz — 100 kHz/ — Stop 849.3 MHz
- 26.1 dB Offset
- 1MAX
- Markers:
  - ▼1 [T1]   28.73 dBm   848.78296593 MHz
  - △1 [T1]   -28.73 dB   -133.26774857 kHz
  - △2 [T1]   -27.57 dB   161.32857757 kHz
- Right side labels: A, SGL, 1MA, EXT

Title: bandwidth measurement
Comment A: CZ800, GSM850, 26dB bandwidth, channel 251
            (848.8MHz)
Date: 25.OCT.2011   06:02:03

acc. Title 47 CFR chapter I part 22 subpart H

```
                    Marker 1 [T1]           RBW    3 kHz    RF Att    20 dB
   Ref Lvl                       27.19 dBm  VBW   10 kHz
     36.1 dBm            848.81102204 MHz   SWT    5 s     Unit        dBm

 36.1
    30  26.1 dB Offset                              ▼1 [T1]         27.19 dBm   A
                                                            848.81102204 MHz
    20                                          OPB   244.48897796 kHz        SGL
                                                 ▽T1 [T1]         10.23 dBm
    10                                                      848.67875752 MHz
                                                 ▽T2 [T2]         10.26 dBm   1MA
     0                                                      848.92324649 MHz
   1MAX                                                                       EXT
   -10
   -20
   -30
   -40
   -50
   -60
 -63.9
      Start 848.3 MHz            100 kHz/           Stop 849.3 MHz
```

Title: bandwidth measurement
Comment A: CZ800, GSM850, occupied bandwidth (99%),
            channel 251 (848.8MHz)
Date: 25.OCT.2011 06:02:21

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	3	-26dB bandwidth	294.6	passed
peak	maxhold	3	99% bandwidth	244.5	passed

Test: 22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz

Result: Passed

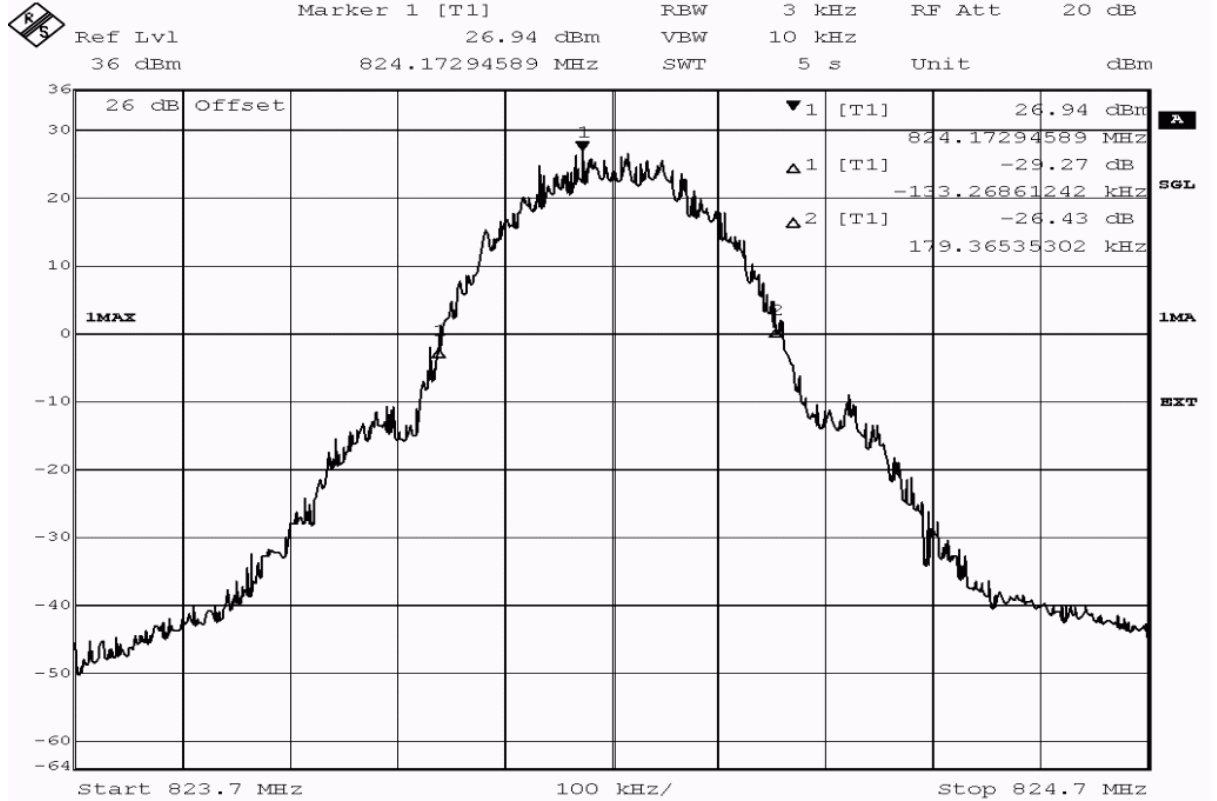*Setup No.:*   C01_cond
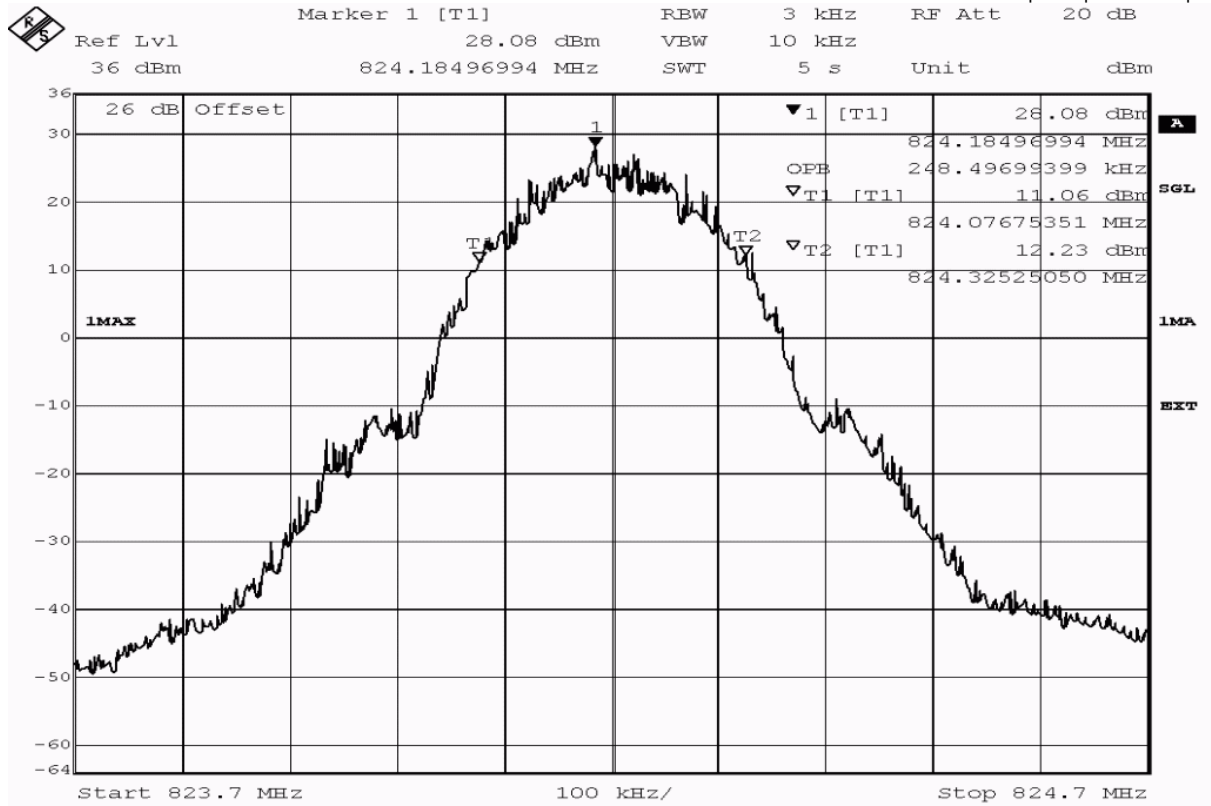
Date of Test: 2011/10/25 10:35

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:


```
                        Marker 1 [T1]          RBW   100 kHz    RF Att    20 dB
        Ref Lvl                     20.41 dBm  VBW   300 kHz
        35.5 dBm          827.11142285 MHz     SWT    5 s       Unit       dBm

35.5
  30     25.5 dB Offset                             ▼1 [T1]            20.41 dBm   A
                                                        827.11142285 MHz
  20                                          1     △1 [T1]            -27.10 dB   SGL
                                                        -3.05611691 MHz
  10                                               △2 [T1]            -26.76 dB
                                                        1.63327120 MHz
   0  1MAX                                                                        1MA

 -10                                                                             EXT

 -20

 -30

 -40

 -50

 -60
-64.5
      Start 821.4 MHz                      1 MHz/              Stop 831.4 MHz
```

Title: bandwidth measurement
Comment A: CZ800, FDD V, 26dB bandwidth,
              channel 4132 (826.4MHz)
Date: 25.OCT.2011 10:39:49

Title: bandwidth measurement
Comment A: CZ800, FDD V, occupied bandwidth (99%),
            channel 4132 (826.4MHz)
Date: 25.OCT.2011 10:40:07

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	100	-26dB bandwidth	4689.4	passed
peak	maxhold	100	99% bandwidth	4148.3	passed

Test: 22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4183, Frequency = 836.6MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 10:41
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:


```
       Marker 1 [T1]            RBW   100 kHz    RF Att    20 dB
Ref Lvl                 20.25 dBm    VBW   300 kHz
  35.6 dBm      837.27134269 MHz    SWT     5 s    Unit        dBm
```

25.6 dB Offset	▼1 [T1] 20.25 dBm
	837.27134269 MHz
	△1 [T1] −28.04 dB
	−3.01603239 MHz
	△2 [T1] −27.59 dB
	1.67335373 MHz

1MAX

Start 831.6 MHz   1 MHz/   Stop 841.6 MHz

```
Title:      bandwidth measurement
Comment A:  CZ800, FDD V, 26dB bandwidth,
            channel 4183 (836.6MHz)
Date:       25.OCT.2011  10:45:53
```

acc. Title 47 CFR chapter I part 22 subpart H

Title: bandwidth measurement
Comment A: CZ800, FDD V, occupied bandwidth (99%),
            channel 4183 (836.6MHz)
Date: 25.OCT.2011 10:46:12

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	100	-26dB bandwidth	4689.4	passed
peak	maxhold	100	99% bandwidth	4148.3	passed

Test: 22.5; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz

Result: Passed

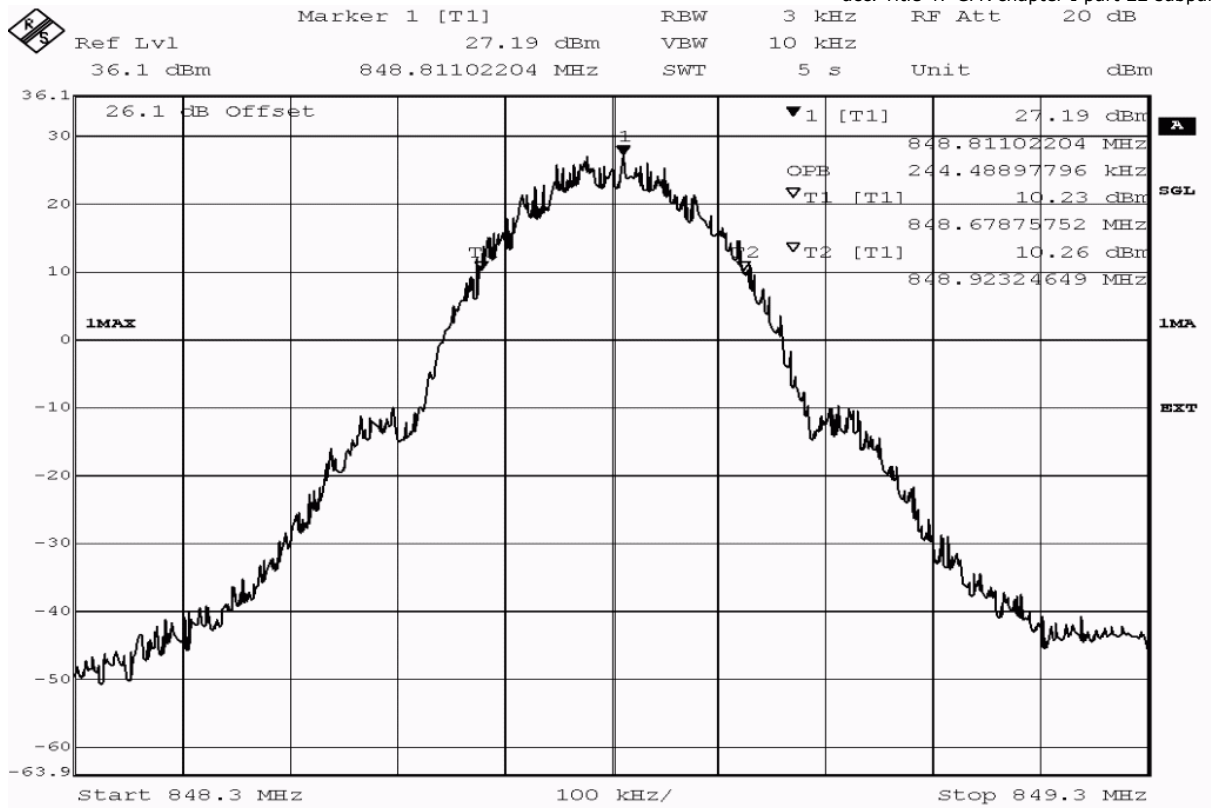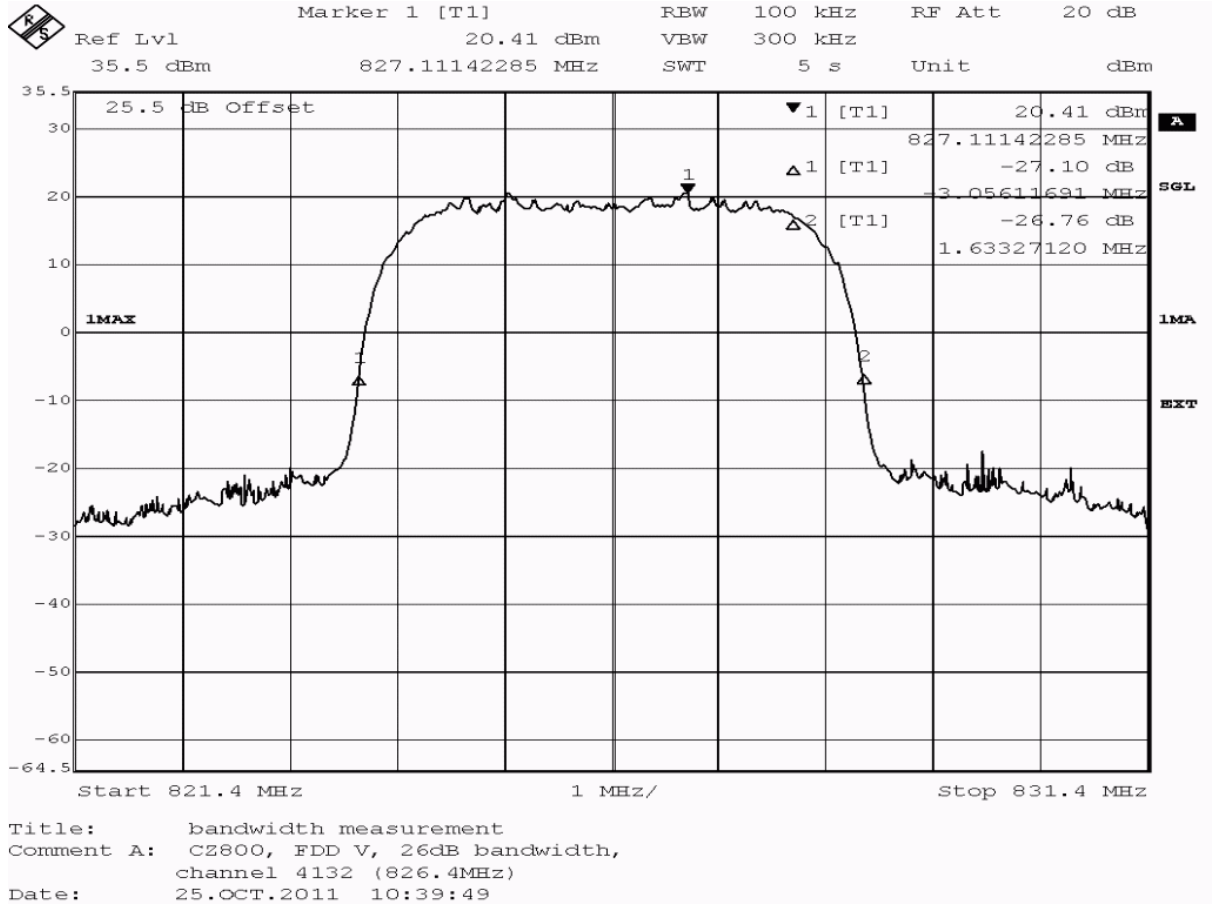*Setup No.:*   C01_cond

Date of Test: 2011/10/25 10:47

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:


```
                        Marker 1 [T1]          RBW   100 kHz    RF Att    20 dB
   Ref Lvl                            20.40 dBm  VBW   300 kHz
   35.6 dBm              845.72825651 MHz        SWT     5 s     Unit      dBm
```

Title: bandwidth measurement
Comment A: CZ800, FDD V, 26dB bandwidth,
            channel 4233 (846.6MHz)
Date: 25.OCT.2011 10:51:32

Title: bandwidth measurement
Comment A: CZ800, FDD V, occupied bandwidth (99%),
channel 4233 (846.6MHz)
Date: 25.OCT.2011 10:51:51

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	100	-26dB bandwidth	4689.4	passed
peak	maxhold	100	99% bandwidth	4128.3	passed

Test: 22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz

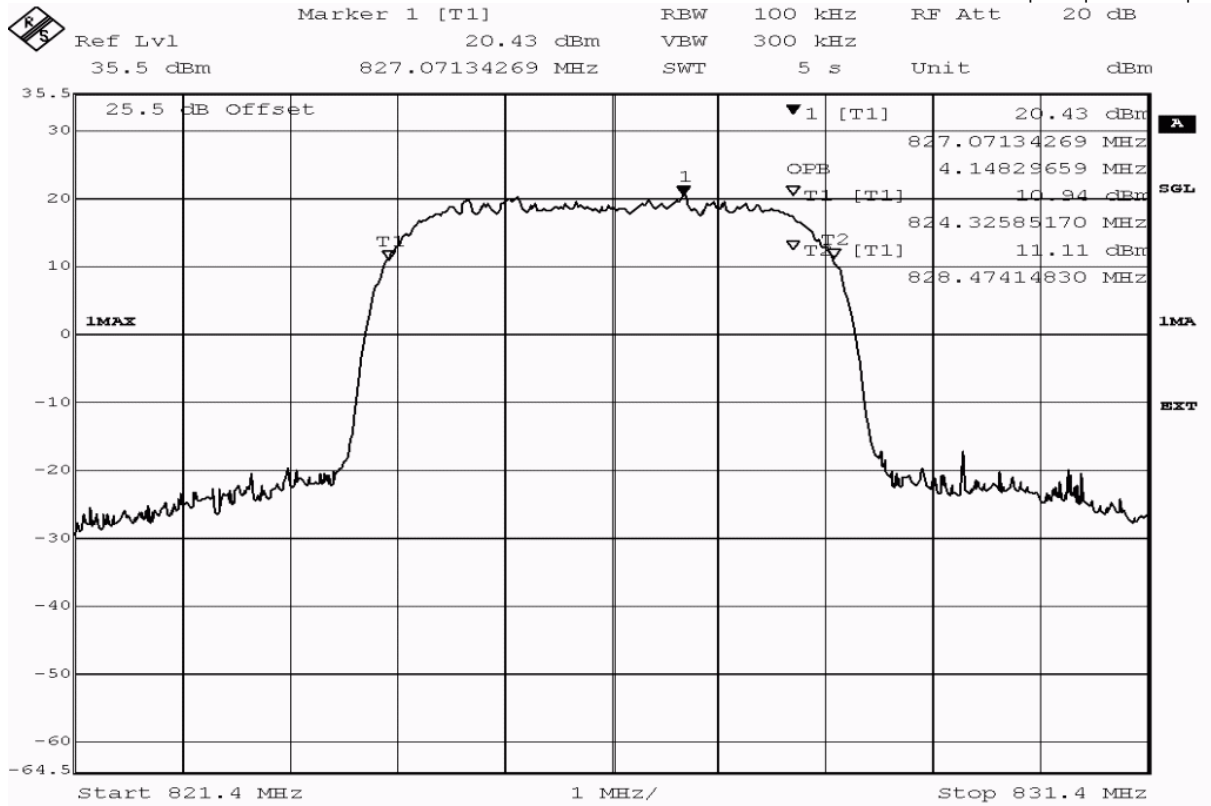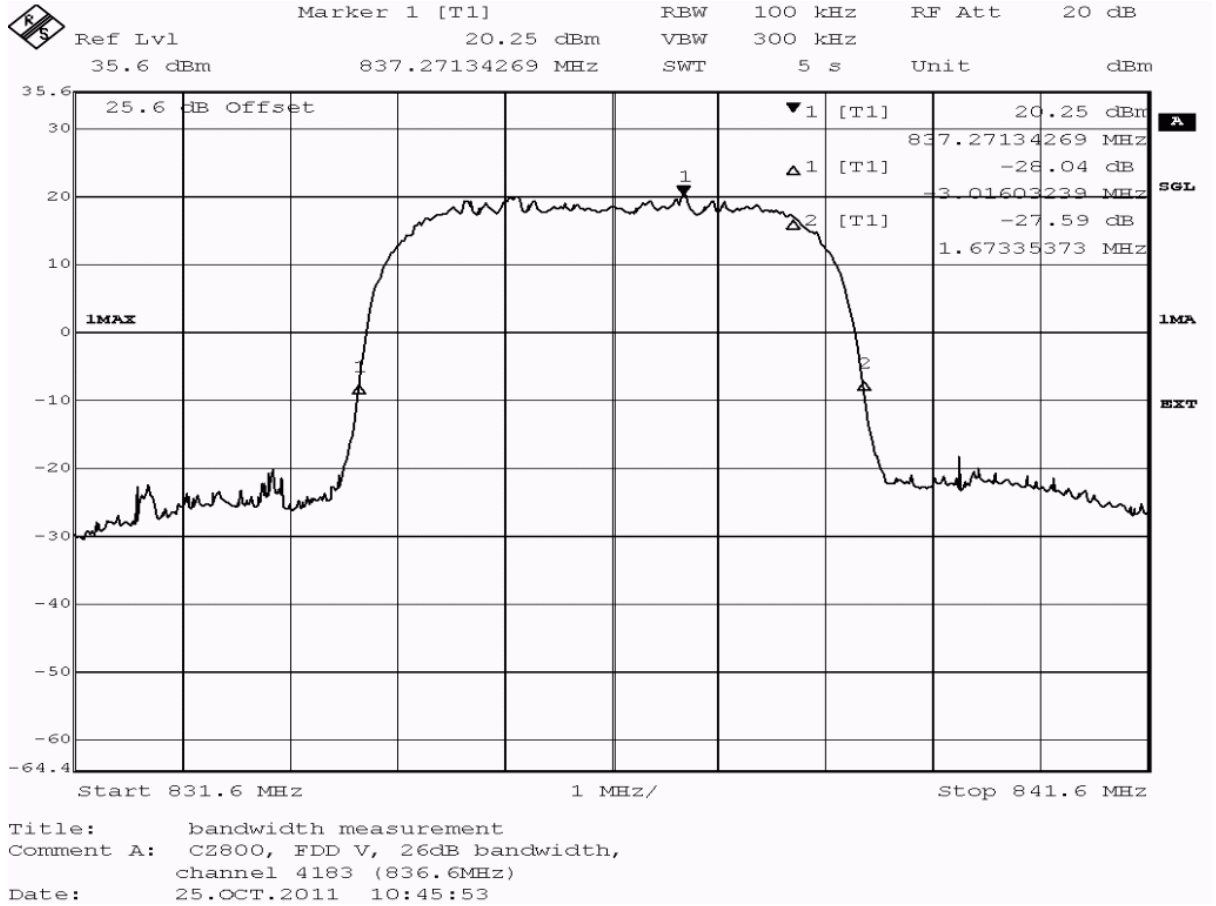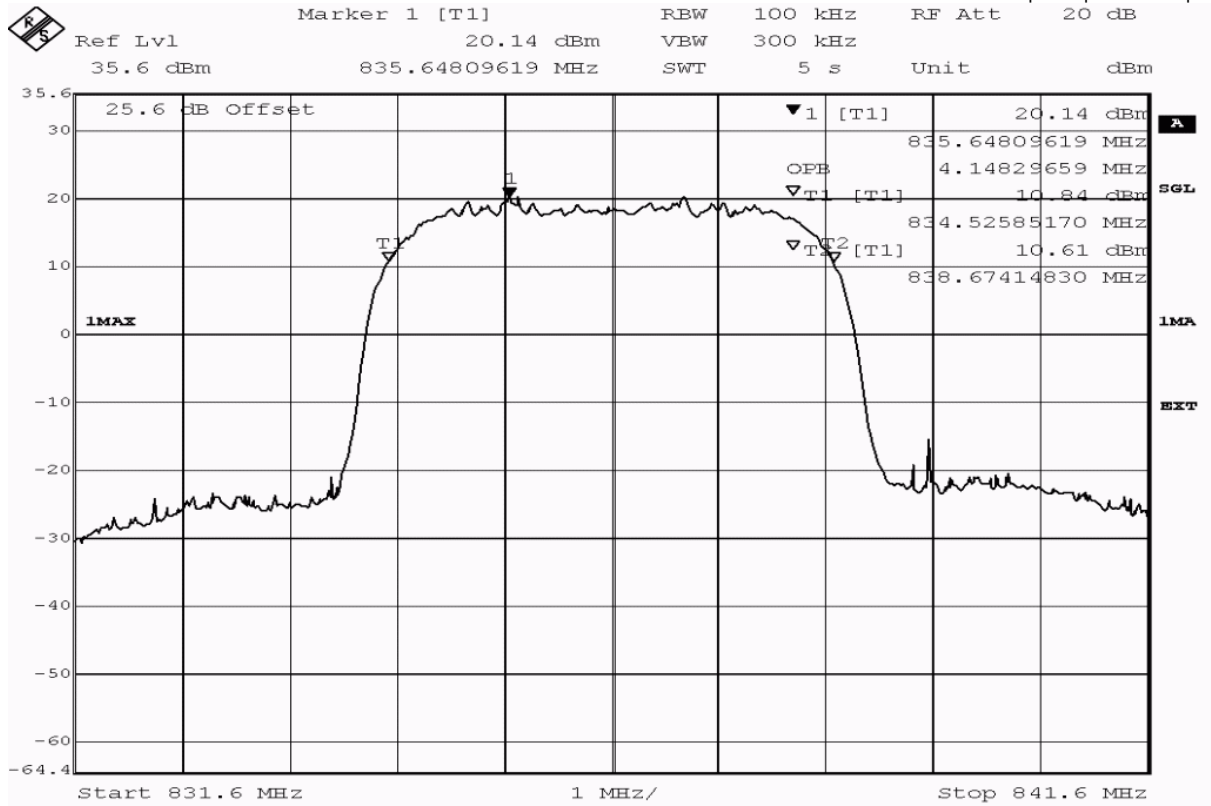*Result:*   Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25 11:06

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

	Marker 1 [T1]		RBW	100 kHz	RF Att	20 dB
Ref Lvl		19.52 dBm	VBW	300 kHz		
35.5 dBm	825.60841683 MHz		SWT	5 s	Unit	dBm

```
35.5
   30     25.5 dB Offset                              ▼1 [T1]            19.52 dBm     A
                                                           825.60841683 MHz
   20                                                 △1 [T1]           -27.24 dB     SGL
                                                          -1.55310831 MHz
   10
                                                      △2 [T1]           -27.60 dB
    0   1MAX                                               3.13627261 MHz            1MA
  -10
                                                                                     EXT
  -20
  -30
  -40
  -50
  -60
-64.5
      Start 821.4 MHz              1 MHz/              Stop 831.4 MHz
```

Title: bandwidth measurement
Comment A: CZ800, FDD V, 26dB bandwidth,
            channel 4132 (826.4MHz)
Date: 25.OCT.2011 11:11:03

acc. Title 47 CFR chapter I part 22 subpart H

Marker 1 [T1]   RBW   100 kHz   RF Att   20 dB
Ref Lvl   19.31 dBm   VBW   300 kHz
35.5 dBm   827.57234469 MHz   SWT   5 s   Unit   dBm

25.5 dB Offset   ▼1 [T1]   19.31 dBm
                                                         827.57234469 MHz
                                             OPB   4.16833667 MHz
                                             ▽T1 [T1]   10.85 dBm
                                                         824.30581162 MHz
                                             ▽T2 [T1]   10.80 dBm
                                                         828.47414830 MHz

1MAX

Start 821.4 MHz   1 MHz/   Stop 831.4 MHz

Title: bandwidth measurement
Comment A: CZ800, FDD V, occupied bandwidth (99%),
             channel 4132 (826.4MHz)
Date: 25.OCT.2011   11:11:21

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	100	-26dB bandwidth	4689.4	passed
peak	maxhold	100	99% bandwidth	4168.3	passed

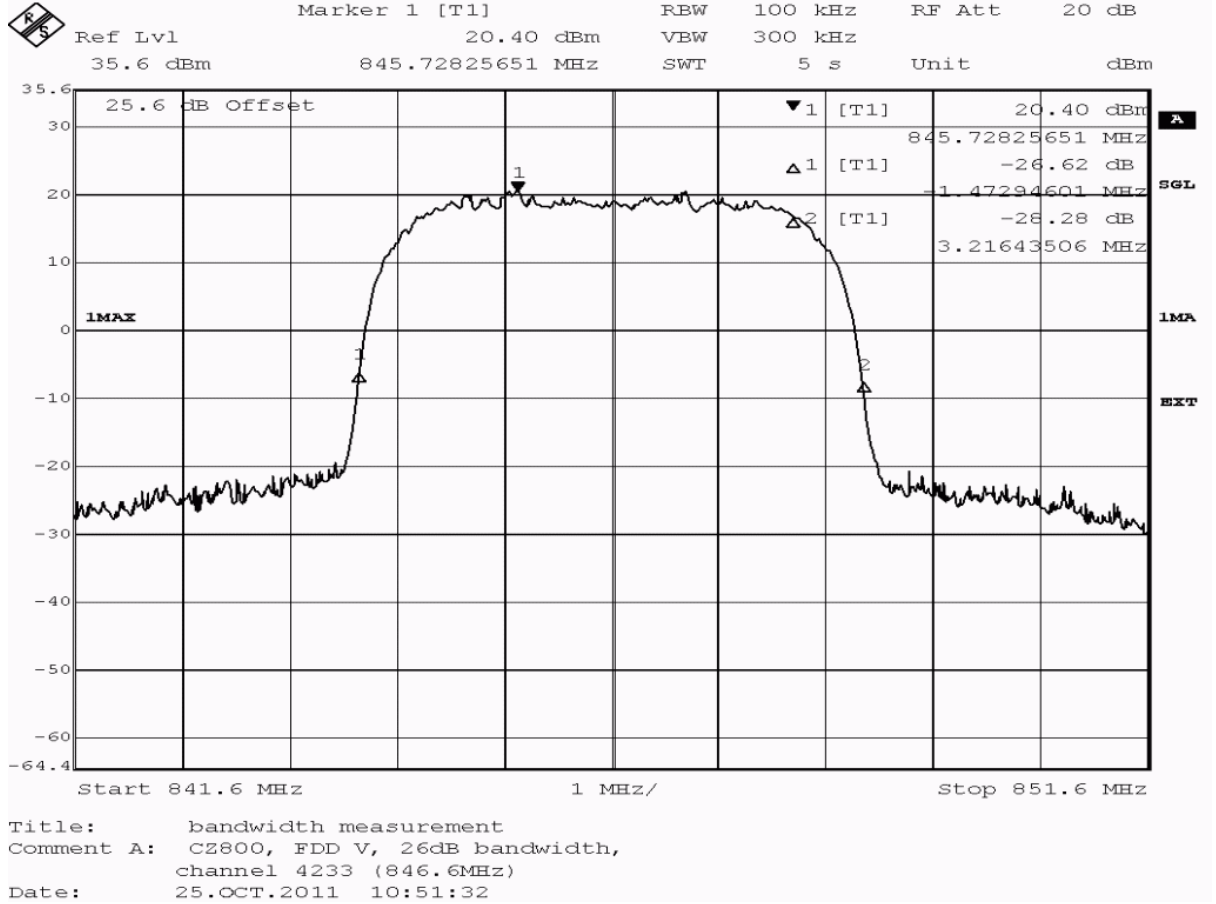**Test: 22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4183, Frequency = 836.6MHz**

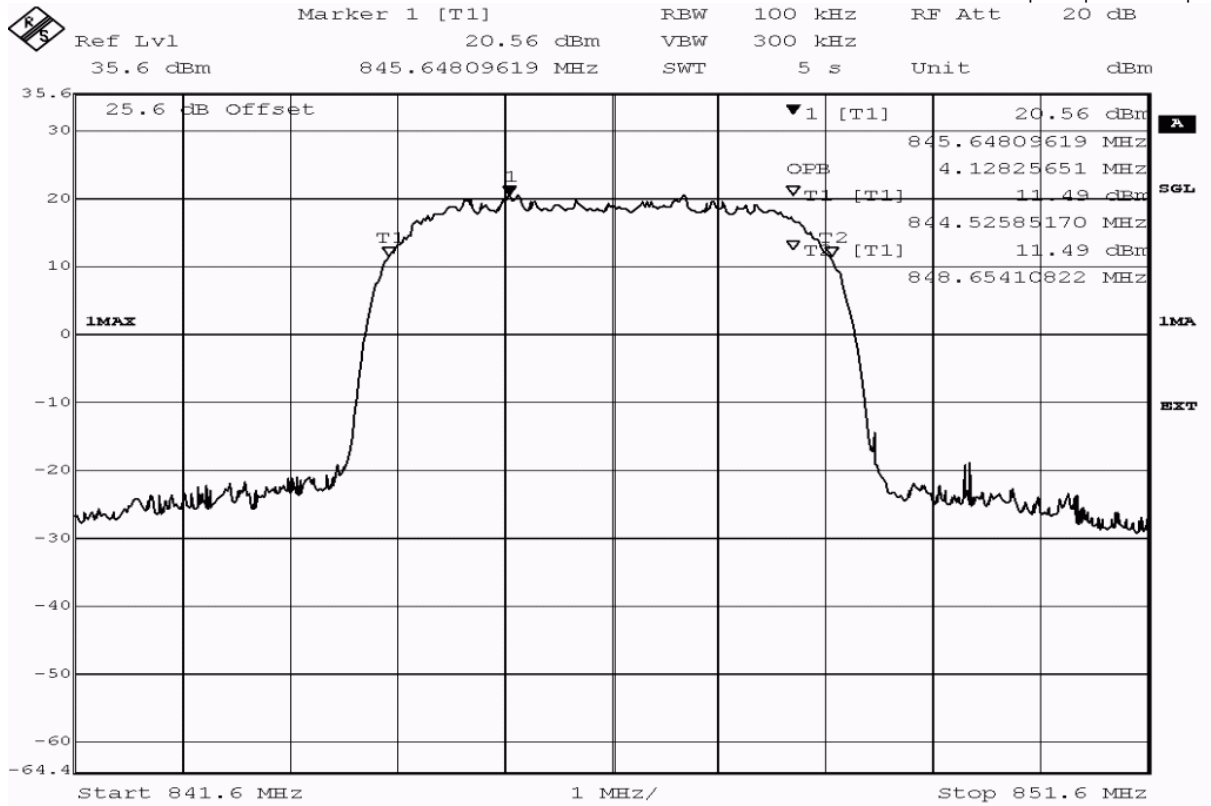*Result:*   Passed

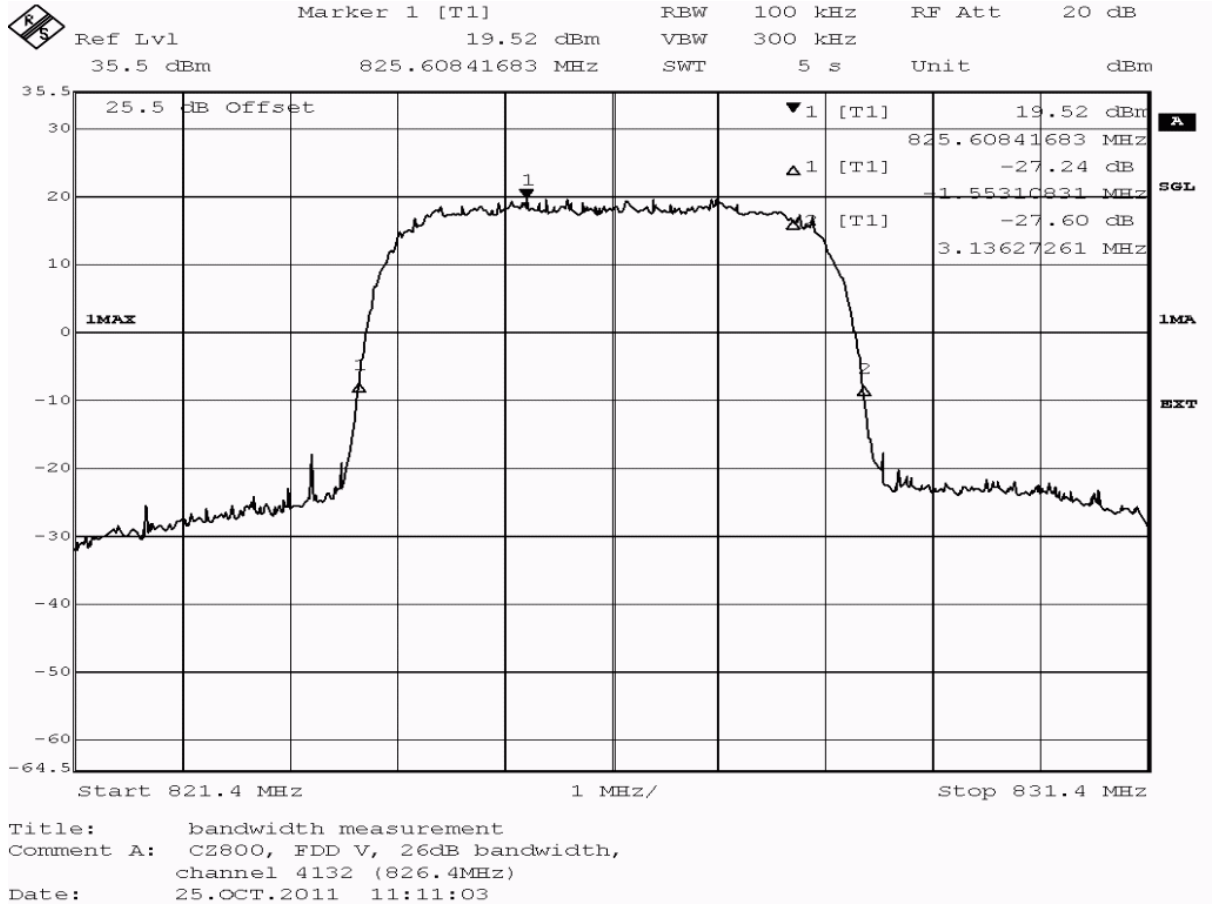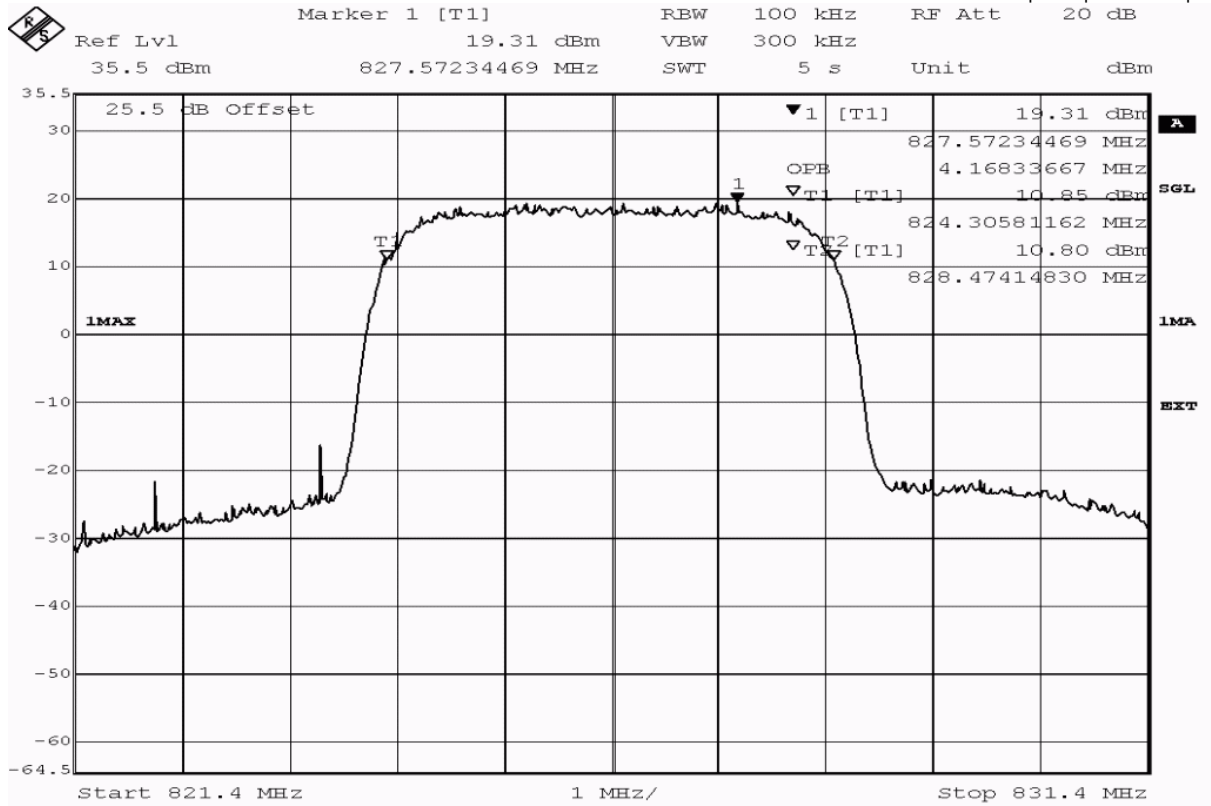*Setup No.:*   C01_cond

Date of Test: 2011/10/25 11:14

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

Marker 1 [T1]		RBW	100 kHz	RF Att	20 dB
Ref Lvl	19.89 dBm	VBW	300 kHz		
35.6 dBm	835.66813627 MHz	SWT	5 s	Unit	dBm

25.6 dB Offset

▼1 [T1]   19.89 dBm
            835.66813627 MHz
△1 [T1]   -27.96 dB
            -1.41283096 MHz
△2 [T1]   -27.13 dB
            3.27655571 MHz

1MAX

Start 831.6 MHz   1 MHz/   Stop 841.6 MHz

Title: bandwidth measurement
Comment A: CZ800, FDD V, 26dB bandwidth,
            channel 4183 (836.6MHz)
Date: 25.OCT.2011 11:18:52

acc. Title 47 CFR chapter I part 22 subpart H
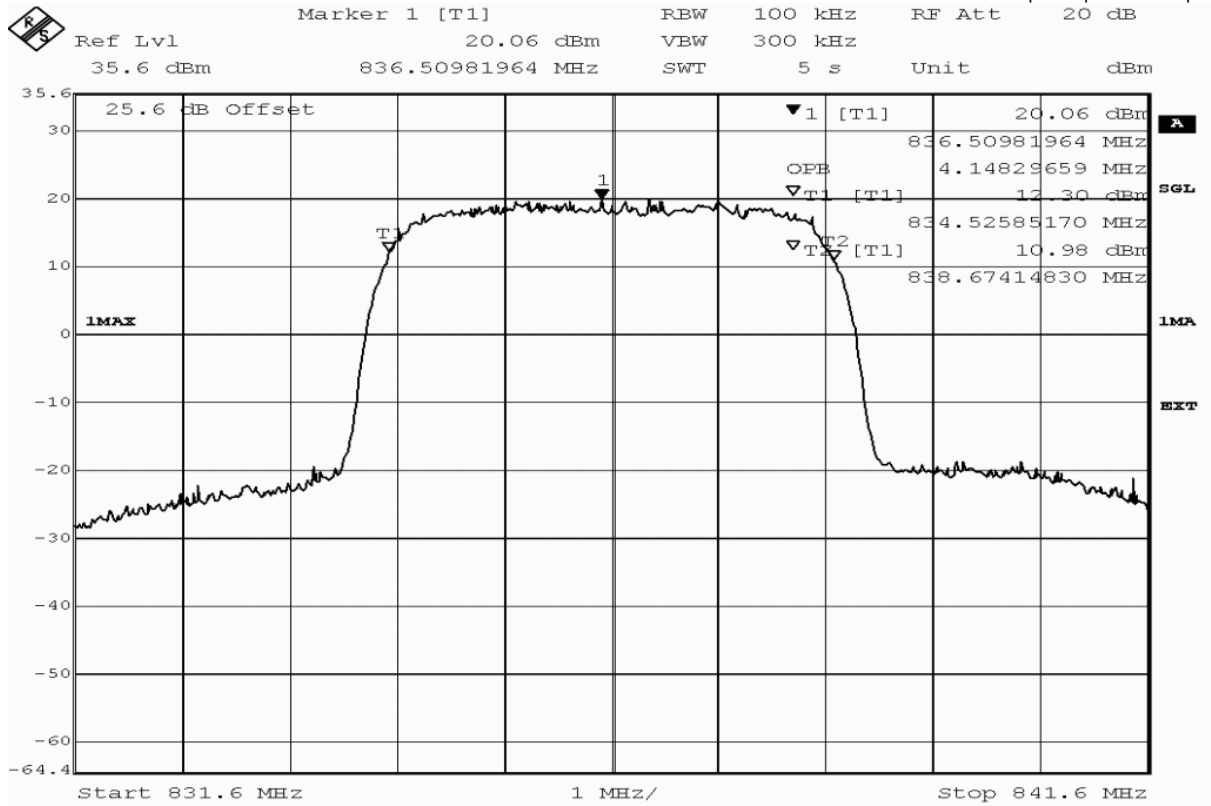
Title: bandwidth measurement
Comment A: CZ800, FDD V, occupied bandwidth (99%),
             channel 4183 (836.6MHz)
Date: 25.OCT.2011   11:19:10

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	100	-26dB bandwidth	4689.4	passed
peak	maxhold	100	99% bandwidth	4148.3	passed

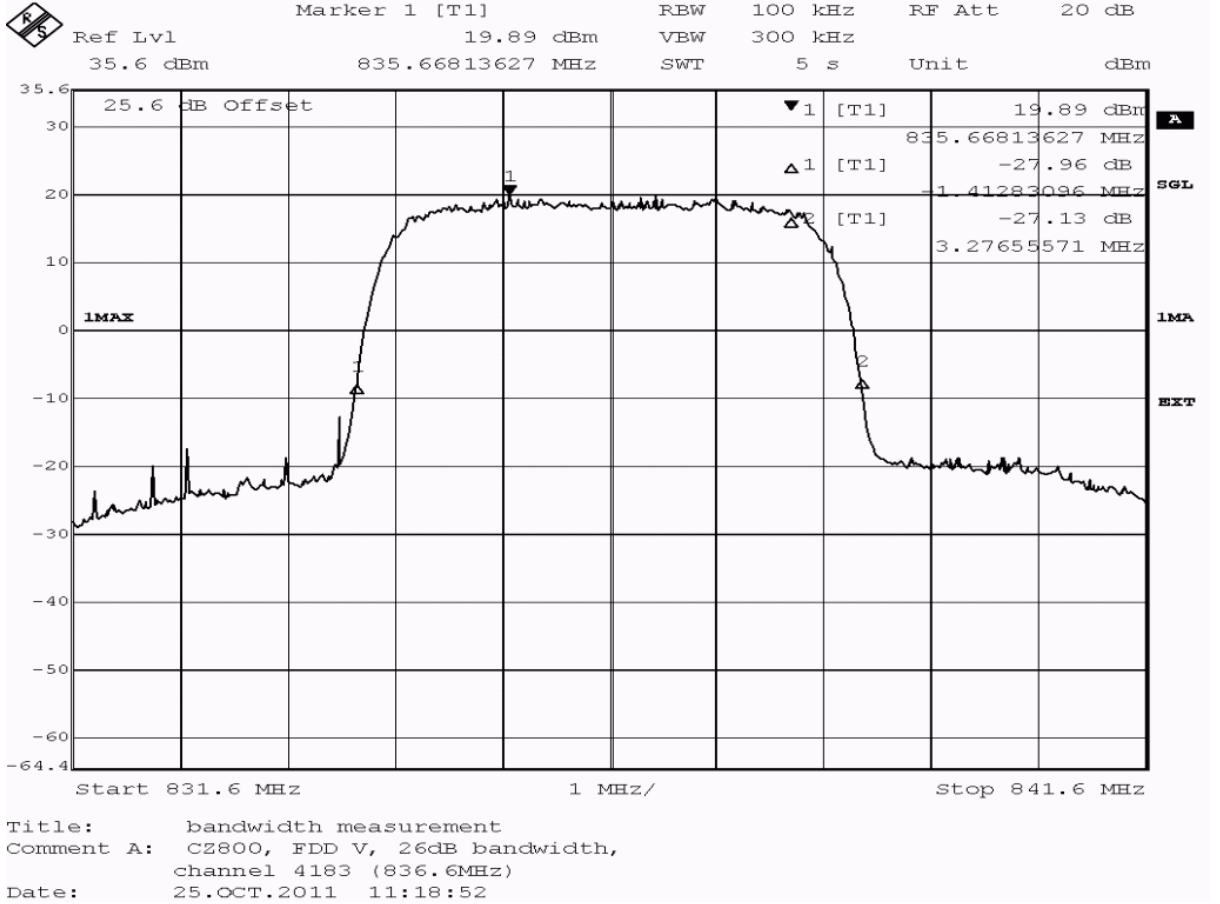**Test: 22.5; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz**

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 11:20
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

```
          Marker 1 [T1]              RBW   100 kHz    RF Att   20 dB
  Ref Lvl                 19.76 dBm  VBW   300 kHz
   35.6 dBm        846.30941884 MHz  SWT     5 s     Unit       dBm
```

25.6 dB Offset	▼1 [T1] 19.76 dBm
	846.30941884 MHz
	△1 [T1] -26.62 dB
	-2.05410994 MHz
	△2 [T1] -28.01 dB
	2.63527528 MHz

```
Start 841.6 MHz              1 MHz/              Stop 851.6 MHz
```

Title: bandwidth measurement
Comment A: CZ800, FDD V, 26dB bandwidth,
            channel 4233 (846.6MHz)
Date: 25.OCT.2011 11:24:59

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

```
                                 Marker 1 [T1]              RBW   100 kHz     RF Att      20 dB
        Ref Lvl                              19.82 dBm      VBW   300 kHz
        35.6 dBm                     845.68817635 MHz       SWT     5 s     Unit          dBm

35.6
        25.6 dB Offset                                            ▼1 [T1]              19.82 dBm
   30                                                                      845.68817635 MHz
                                                            OPB           4.14829659 MHz
   20                                               1       ▽T1 [T1]           11.66 dBm
                                                                          844.50581162 MHz
   10                                                       ▽T2 [T1]           10.93 dBm
                                                                          848.65410822 MHz
    0
   1MAX

 -10

 -20

 -30

 -40

 -50

 -60
-64.4
        Start 841.6 MHz                        1 MHz/               Stop 851.6 MHz
```

Title: bandwidth measurement
Comment A: CZ800, FDD V, occupied bandwidth (99%),
             channel 4233 (846.6MHz)
Date: 25.OCT.2011 11:25:17

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	100	-26dB bandwidth	4689.4	passed
peak	maxhold	100	99% bandwidth	4148.3	passed

Test: 22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz
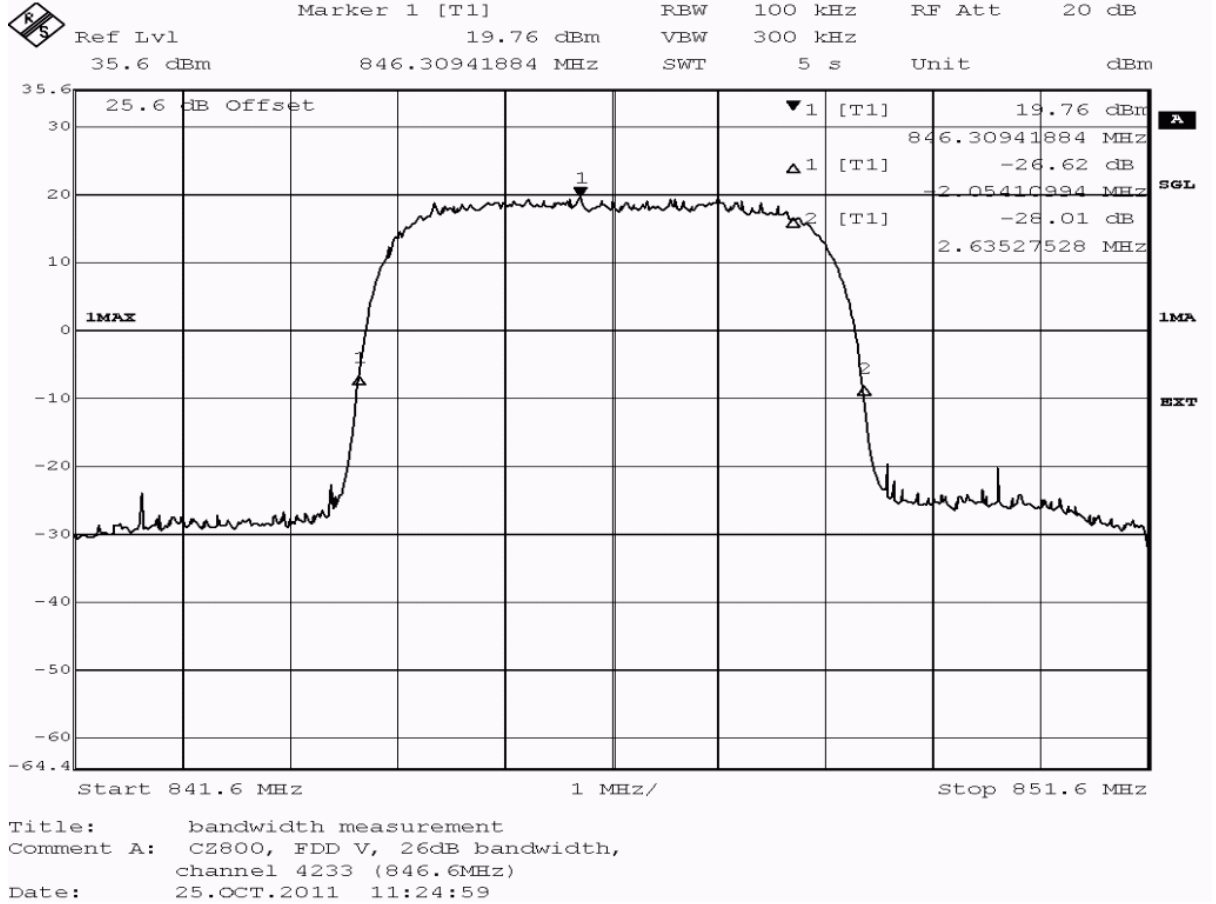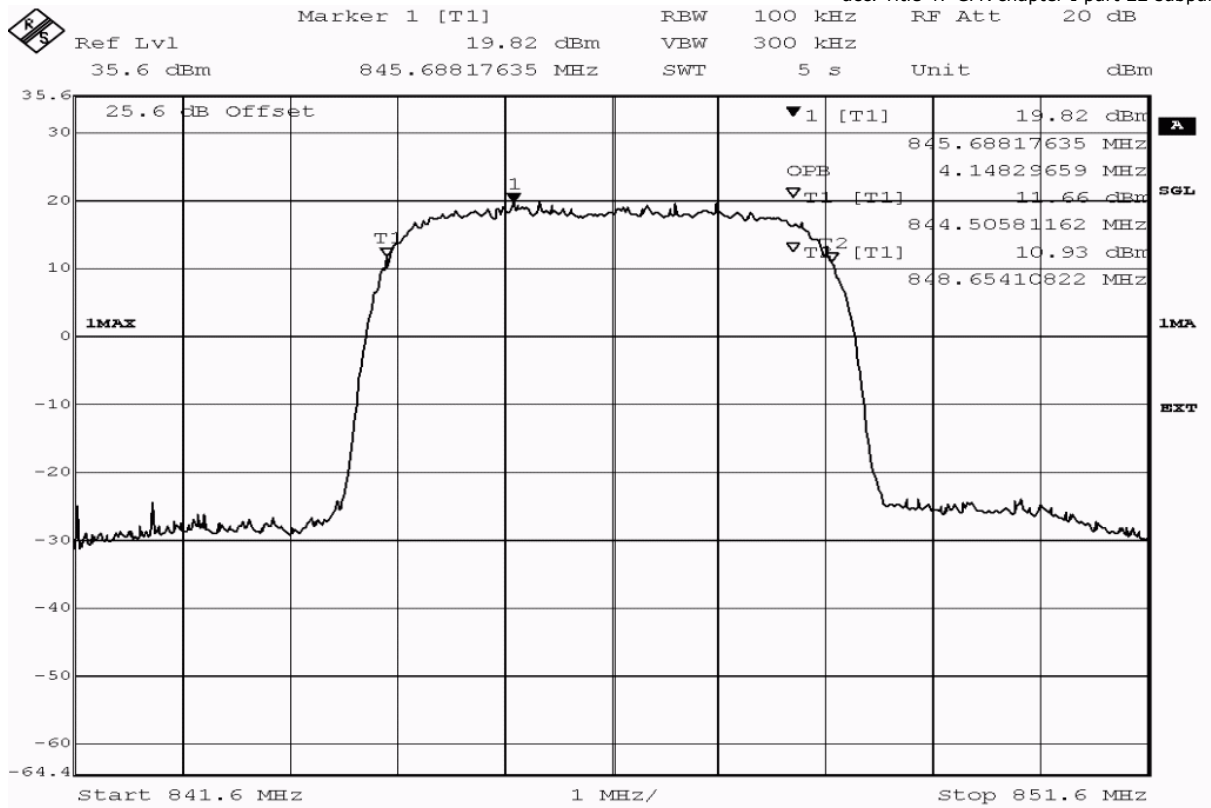
Result: Passed

Setup No.:   C01_cond
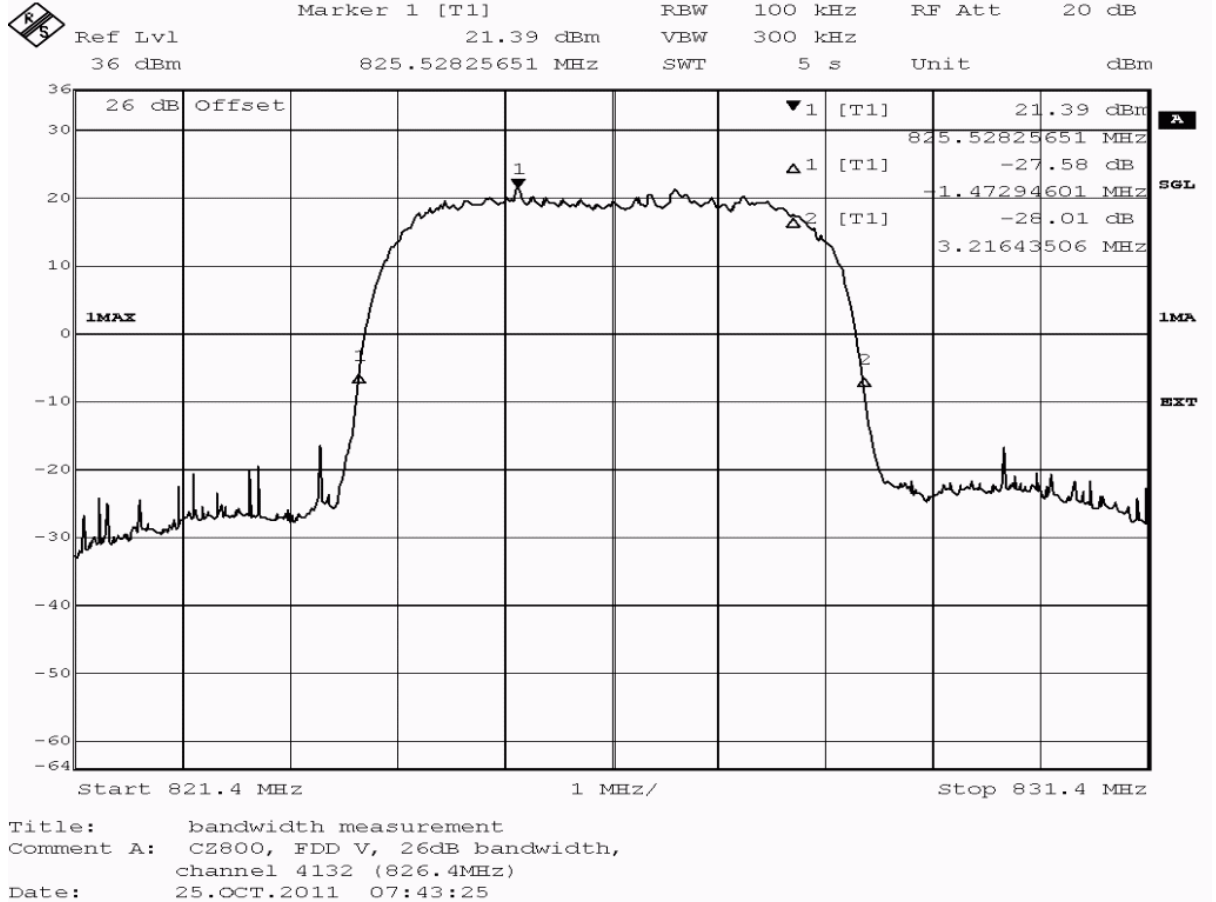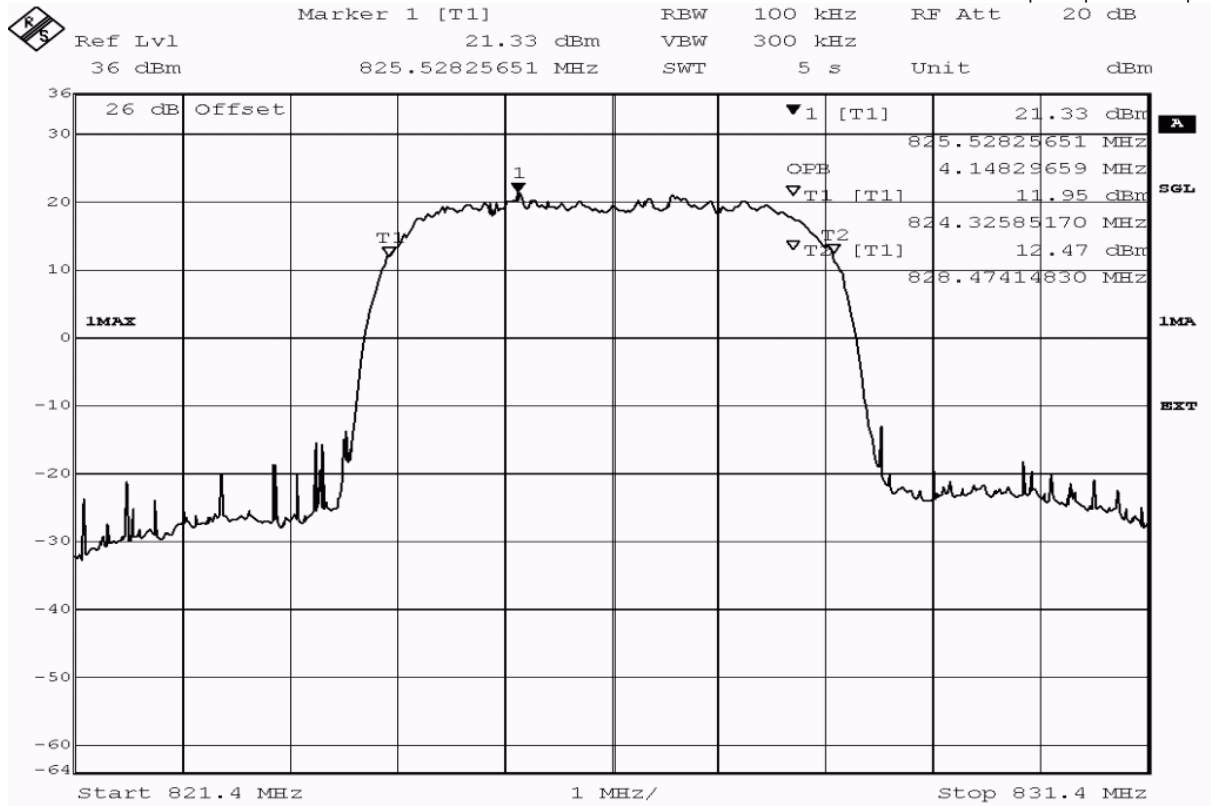
Date of Test: 2011/10/25   7:39

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Detailed Results:


```
         Marker 1 [T1]              RBW   100 kHz    RF Att    20 dB
  Ref Lvl                21.39 dBm   VBW   300 kHz
   36 dBm          825.52825651 MHz  SWT     5 s     Unit        dBm
```

Measurement plot:
- 26 dB Offset
- ▼1 [T1]   21.39 dBm
-    825.52825651 MHz
- △1 [T1]   -27.58 dB
-   -1.47294601 MHz
- △2 [T1]   -28.01 dB
-   3.21643506 MHz
- 1MAX
- Start 821.4 MHz   1 MHz/   Stop 831.4 MHz

Title: bandwidth measurement
Comment A: CZ800, FDD V, 26dB bandwidth,
            channel 4132 (826.4MHz)
Date: 25.OCT.2011 07:43:25

acc. Title 47 CFR chapter I part 22 subpart H


```
        R                Marker 1 [T1]              RBW   100 kHz    RF Att      20 dB
        S   Ref Lvl                       21.33 dBm  VBW   300 kHz
            36 dBm              825.52825651 MHz     SWT     5 s     Unit        dBm
   36
        26 dB Offset                                      ▼1 [T1]        21.33 dBm    A
   30                                                                825.52825651 MHz
                                                          OPB        4.14829659 MHz   SGL
   20                                              1      ▽T1 [T1]        11.95 dBm
                                                                    824.32585170 MHz
   10                                                     ▽T2 [T1]        12.47 dBm
                                T1                           T2       828.47414830 MHz  1MA
    0   1MAX
  -10                                                                                 EXT

  -20

  -30

  -40

  -50

  -60
  -64
        Start 821.4 MHz                  1 MHz/              Stop 831.4 MHz
```

Title: bandwidth measurement
Comment A: CZ800, FDD V, occupied bandwidth (99%),
             channel 4132 (826.4MHz)
Date: 25.OCT.2011 07:43:43

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	100	-26dB bandwidth	4689.4	passed
peak	maxhold	100	99% bandwidth	4148.3	passed

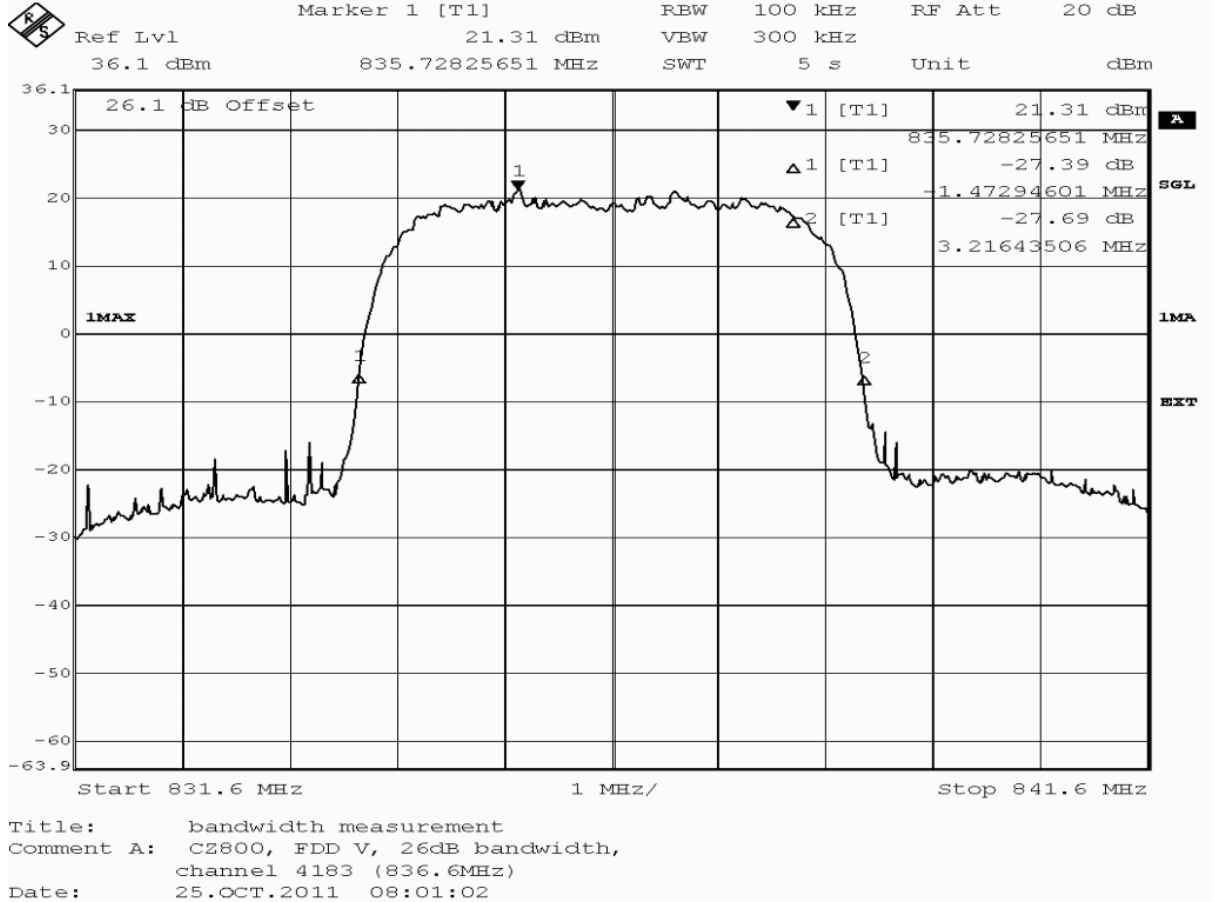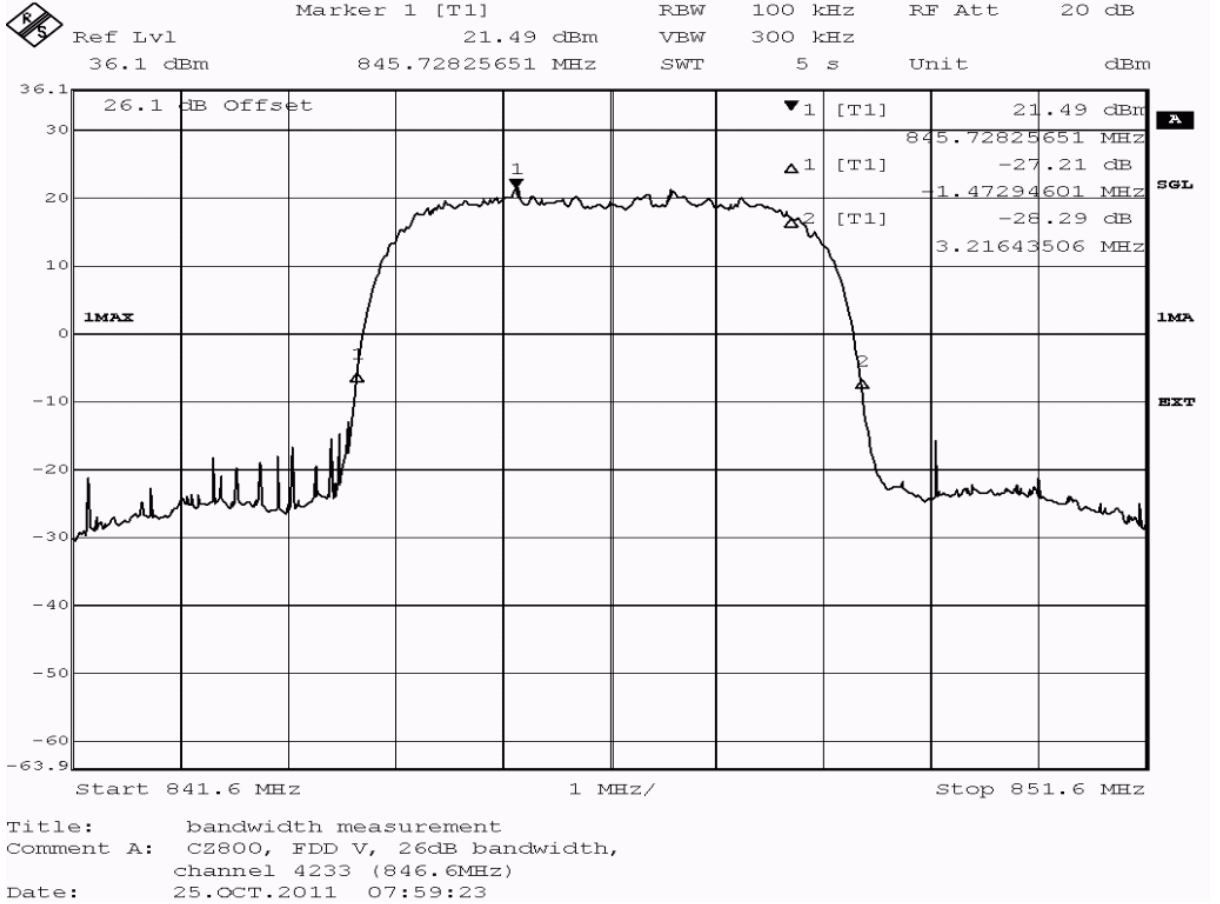**Test: 22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4183, Frequency = 836.6MHz**

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 7:56
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

```
                          Marker 1 [T1]          RBW   100 kHz    RF Att    20 dB
     Ref Lvl                         21.31 dBm    VBW   300 kHz
      36.1 dBm             835.72825651 MHz       SWT     5 s      Unit        dBm

36.1
   30      26.1 dB Offset                        ▼1 [T1]          21.31 dBm      A
                                                    835.72825651 MHz
                                          1      ∆1 [T1]          -27.39 dB    SGL
   20                                               -1.47294601 MHz
                                                 ∆2 [T1]          -27.69 dB
   10                                               3.21643506 MHz
                                                                               1MA
    0  1MAX
  -10                                                                          EXT

  -20

  -30

  -40

  -50

  -60
-63.9
     Start 831.6 MHz              1 MHz/              Stop 841.6 MHz
```

```
Title:      bandwidth measurement
Comment A:  CZ800, FDD V, 26dB bandwidth,
            channel 4183 (836.6MHz)
Date:       25.OCT.2011  08:01:02
```

acc. Title 47 CFR chapter I part 22 subpart H


```
Marker 1 [T1]           RBW    100 kHz    RF Att    20 dB
Ref Lvl                  21.23 dBm    VBW    300 kHz
  36.1 dBm        835.72825651 MHz    SWT     5 s     Unit         dBm

  26.1 dB Offset                      ▼1 [T1]          21.23 dBm
                                                835.72825651 MHz
                                      OPB       4.14829659 MHz
                                      ▽T1 [T1]         11.94 dBm
                                                834.52585170 MHz
                                      ▽T2 [T1]         12.31 dBm
                                                838.67414830 MHz

Start 831.6 MHz          1 MHz/         Stop 841.6 MHz
```

Title: bandwidth measurement
Comment A: CZ800, FDD V, occupied bandwidth (99%),
            channel 4183 (836.6MHz)
Date: 25.OCT.2011   08:01:20

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	100	-26dB bandwidth	4689.4	passed
peak	maxhold	100	99% bandwidth	4148.3	passed

Test: 22.5; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz

Result: Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25   7:55

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

	Marker 1 [T1]		RBW	100 kHz	RF Att	20 dB
Ref Lvl		21.49 dBm	VBW	300 kHz
36.1 dBm	845.72825651 MHz	SWT	5 s	Unit	dBm

26.1 dB Offset — ▼1 [T1] 21.49 dBm / 845.72825651 MHz

△1 [T1] −27.21 dB / −1.47294601 MHz

△2 [T1] −28.29 dB / 3.21643506 MHz

1MAX

Start 841.6 MHz   1 MHz/   Stop 851.6 MHz

Title: bandwidth measurement
Comment A: CZ800, FDD V, 26dB bandwidth,
            channel 4233 (846.6MHz)
Date: 25.OCT.2011 07:59:23

acc. Title 47 CFR chapter I part 22 subpart H


```
        R                Marker 1 [T1]              RBW   100 kHz     RF Att      20 dB
        S     Ref Lvl                    21.46 dBm  VBW   300 kHz
              36.1 dBm          845.72825651 MHz    SWT    5 s       Unit         dBm
36.1
         26.1 dB Offset                                ▼1 [T1]           21.46 dBm        A
  30                                                                845.72825651 MHz
                                                      OPB            4.14829659 MHz      SGL
  20                                          1       ▽T1 [T1]           12.14 dBm
                                                                   844.52585170 MHz
  10                         T1                        ▽T2 [T1]           11.99 dBm       1MA
                                                                   848.67414830 MHz
   0  1MAX                                                                               EXT

 -10

 -20

 -30

 -40

 -50

 -60
-63.9
      Start 841.6 MHz                     1 MHz/                  Stop 851.6 MHz
```

Title: bandwidth measurement
Comment A: CZ800, FDD V, occupied bandwidth (99%),
            channel 4233 (846.6MHz)
Date: 25.OCT.2011 07:59:41

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	type of measurement	measured value /kHz	verdict
peak	maxhold	100	-26dB bandwidth	4689.4	passed
peak	maxhold	100	99% bandwidth	4148.3	passed

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

3.5.6   22.6   Band edge compliance §2.1053, §22.917

Test: 22.6; Frequency Band = 850, Mode = EDGE, Channel = 128, Frequency = 824.2MHz

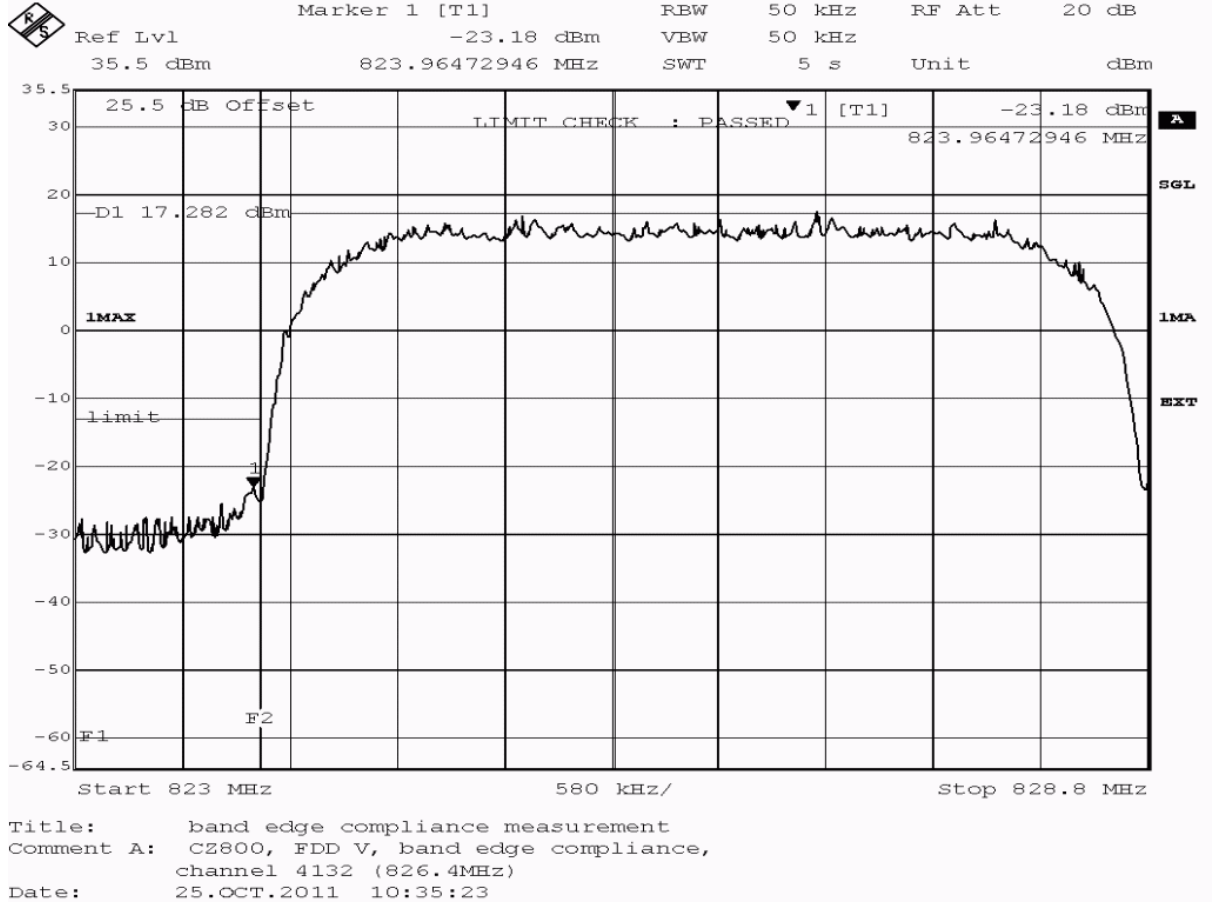|	
Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 7:10
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:


```
              Marker 1 [T1]              RBW    3 kHz     RF Att    20 dB
   Ref Lvl                  -19.82 dBm   VBW    3 kHz
     36 dBm           823.99879760 MHz   SWT    5 s      Unit         dBm
```

```
 36
       26 dB Offset                                    ▼1  [T1]      -19.82 dBm
 30                              LIMIT CHECK  : PASSED      823.99879760 MHz
                                                       ▽2  [T1]      -24.30 dBm
 20  D1 20.641 dBm                                         823.93426854 MHz
                                                       ▽3  [T1]       0.70 dBm
 10                                                        823.858   03 MHz
                                                       ▽4  [T1]       42.46 dBm
  0  1MAX                                                  823.80240481 MHz

-10  limit

-20                                               2   1
                                                  ▽
-30

-40                              4   3
                                 ▽   ▽
-50

-60                                               F2
-64
      Start 823 MHz              140 kHz/              Stop 824.4 MHz
```
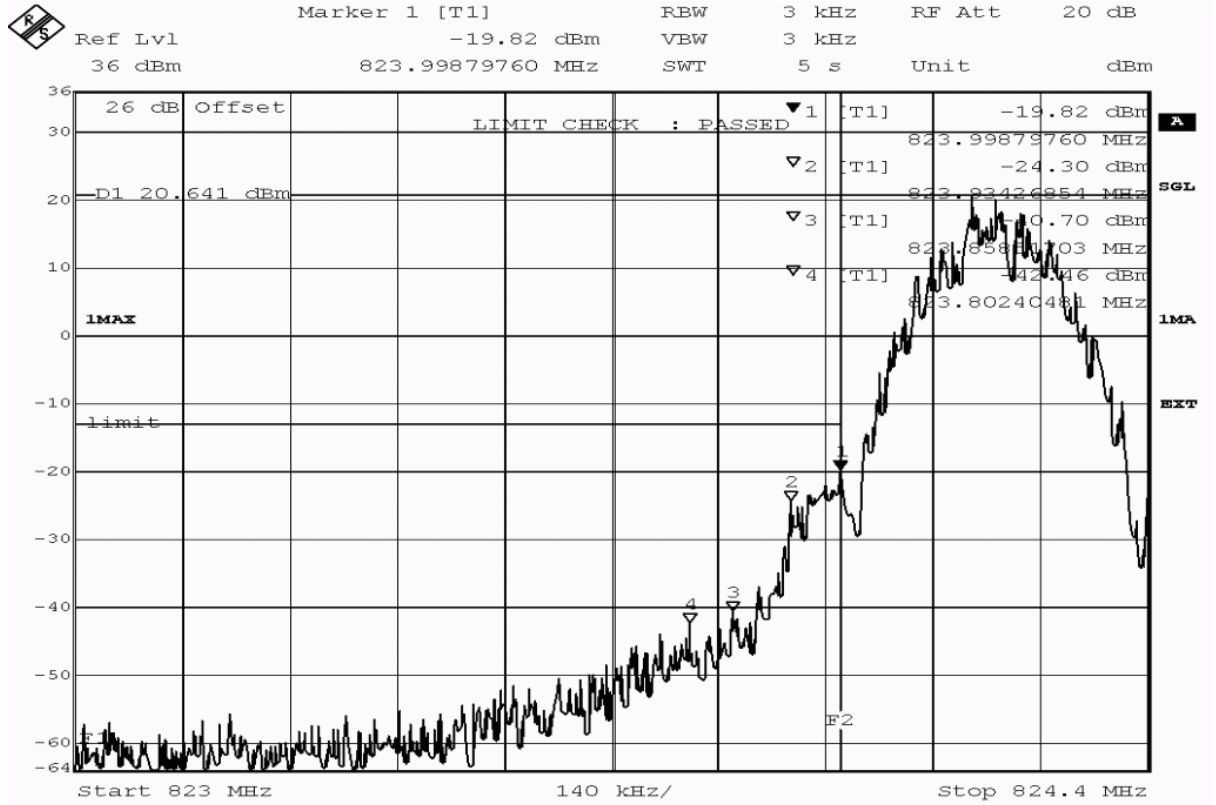
```
Title:       band edge compliance measurement
Comment A:   CZ800, EDGE850, band edge compliance,
             channel 128 (824.2MHz)
Date:        25.OCT.2011  07:14:55
```

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	3	823.934	-24.30	11.30	-13.0	passed
peak	maxhold	3	823.999	-19.82	6.82	-13.0	passed
average	maxhold	3	823.988	-24.45	11.45	-13.0	passed
average	maxhold	3	823.999	-24.15	11.15	-13.0	passed

no further values have been found by test instrument with a margin of less than 20 dB

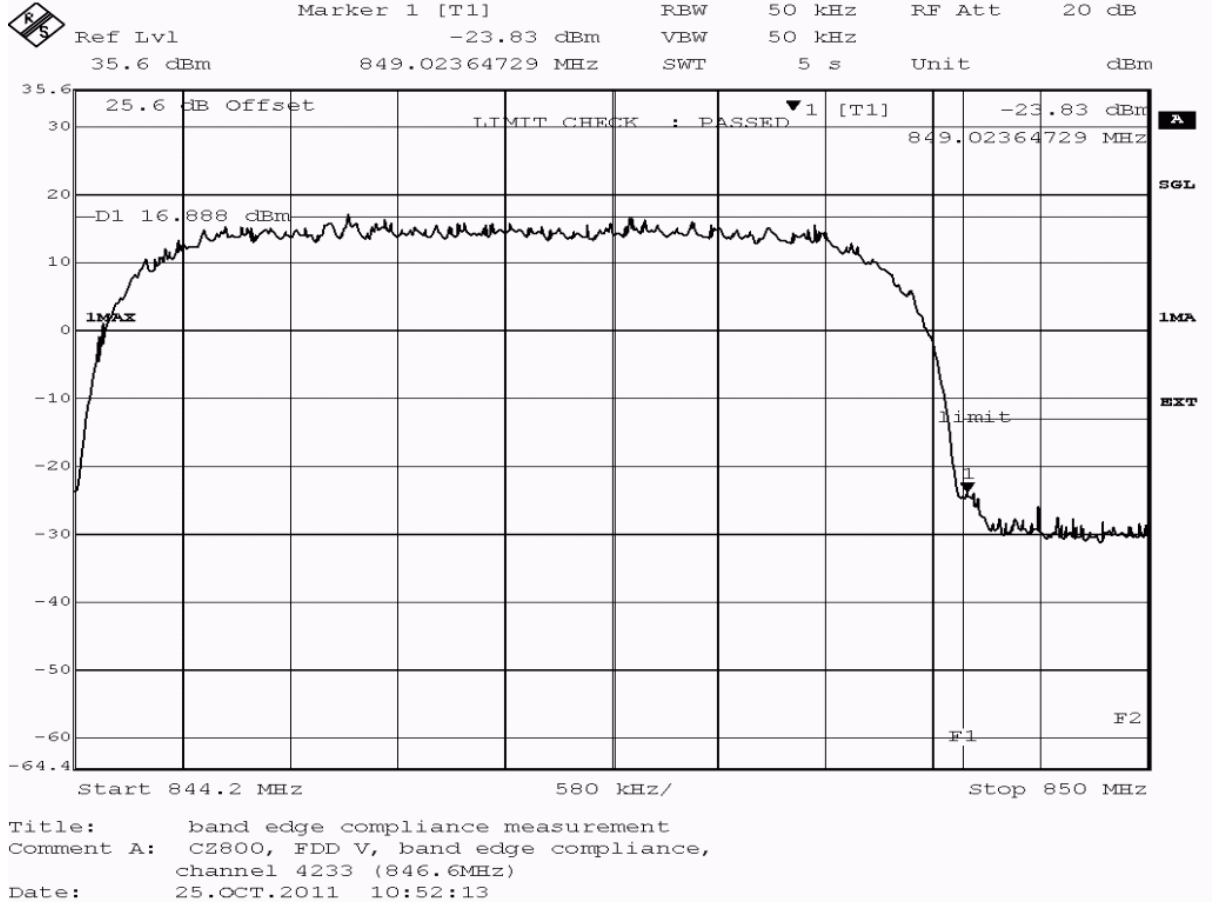**Test: 22.6; Frequency Band = 850, Mode = EDGE, Channel = 251, Frequency = 848.8MHz**

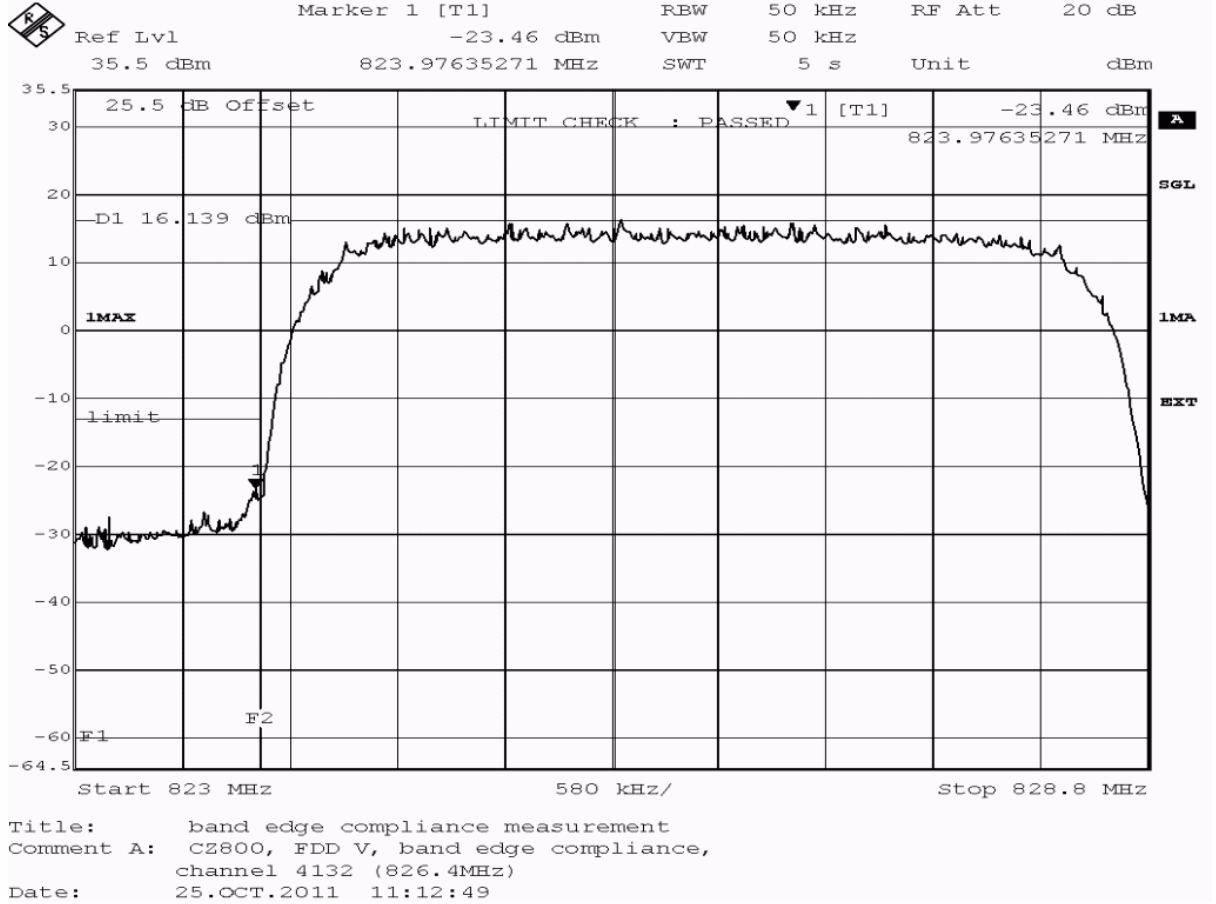|	
Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 7:18
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

		Marker 1 [T1]		RBW	3 kHz	RF Att	20 dB
	Ref Lvl		−20.18 dBm	VBW	3 kHz		
	36.1 dBm	849.03767535 MHz		SWT	5 s	Unit	dBm

```
 36.1
   30        26.1 dB Offset                        LIMIT CHECK  : PASSED    ▼1 [T1]              −20.18 dBm   A
   20     D1 20.204 dBm                                                    849.03767535 MHz
                                                                       ▽2 [T1]              −25.06 dBm   SGL
   10                                                                     849.06853707 MHz
    0                                                                 ▽3 [T1]              −35.58 dBm
 1MAX                                                                     849.09939880 MHz
                                                                       ▽4 [T1]              −46.73 dBm   1MA
  −10                                                                     849.24529058 MHz
                              limit                                                              EXT
  −20
  −30
  −40
  −50
  −60            F1                                                                    F2
−63.9
       Start 848.6 MHz                  140 kHz/                        Stop 850 MHz
```

Title: band edge compliance measurement
Comment A: CZ800, EDGE850, band edge compliance,
            channel 251 (848.8MHz)
Date: 25.OCT.2011 07:22:51

acc. Title 47 CFR chapter I part 22 subpart H
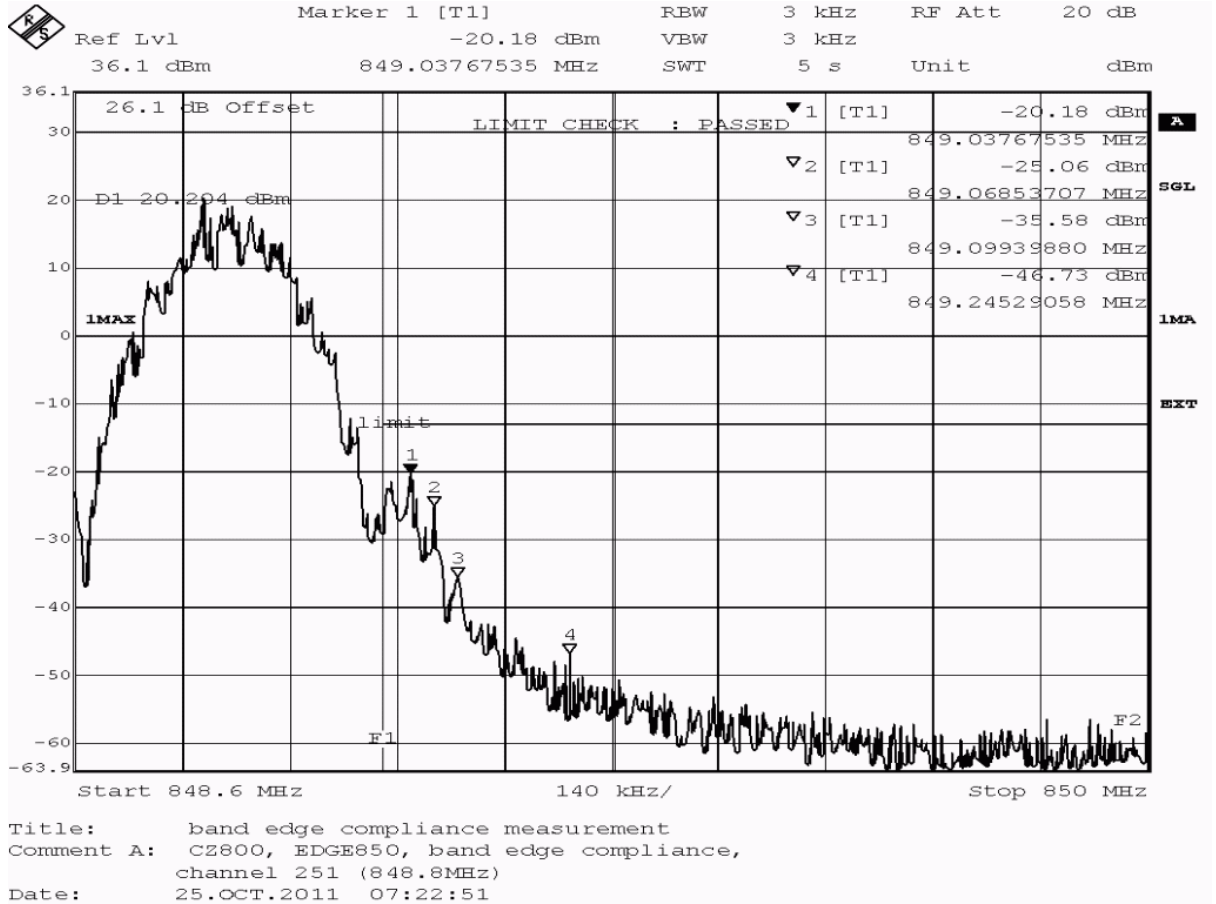
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	3	849.038	-20.18	7.18	-13.0	passed
peak	maxhold	3	849.069	-25.06	12.06	-13.0	passed
average	maxhold	3	849.038	-24.98	11.98	-13.0	passed
average	maxhold	3	849.071	-32.62	19.62	-13.0	passed

no further values have been found by test instrument with a margin of less than 20 dB

Test: 22.6; Frequency Band = 850, Mode = GSM, Channel = 128, Frequency = 824.2MHz
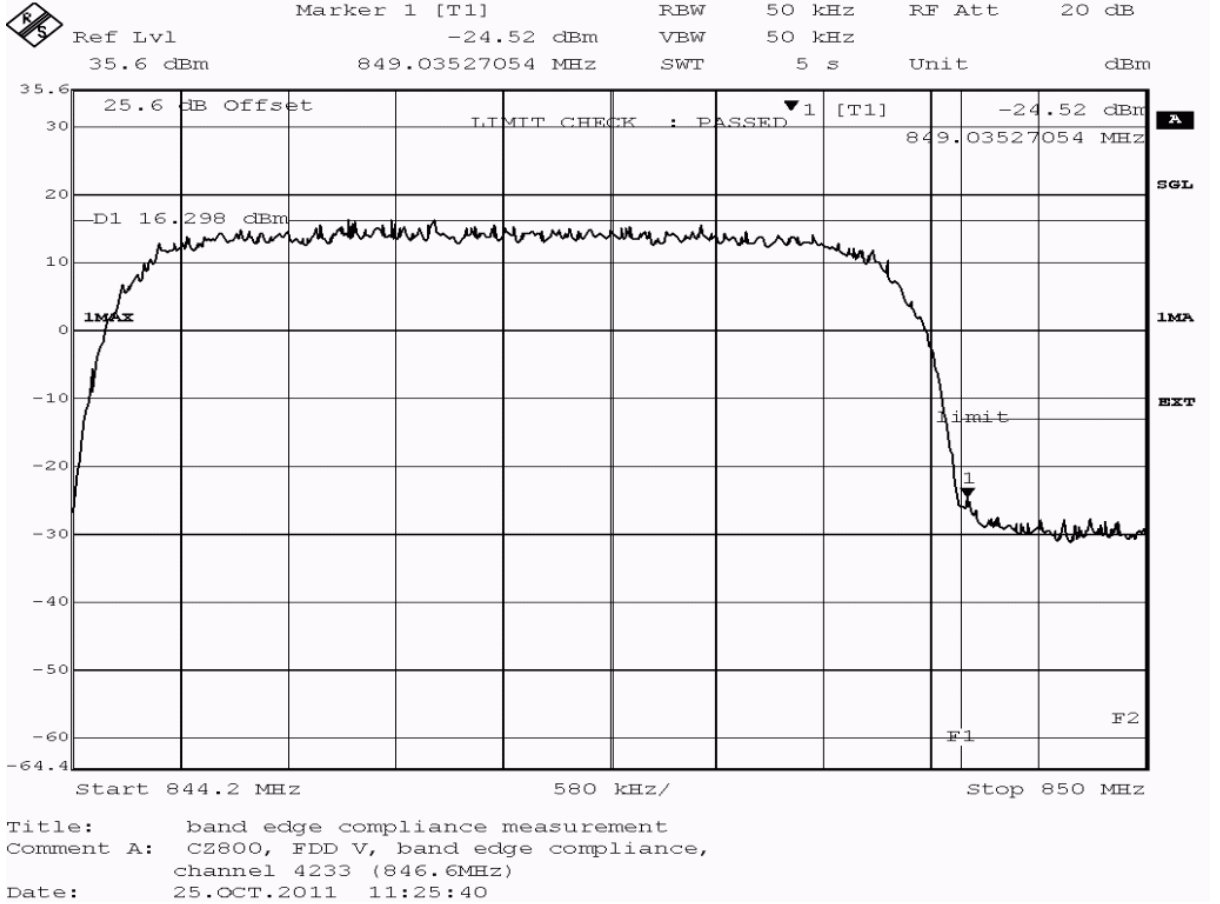
Result: Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25 6:26

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES
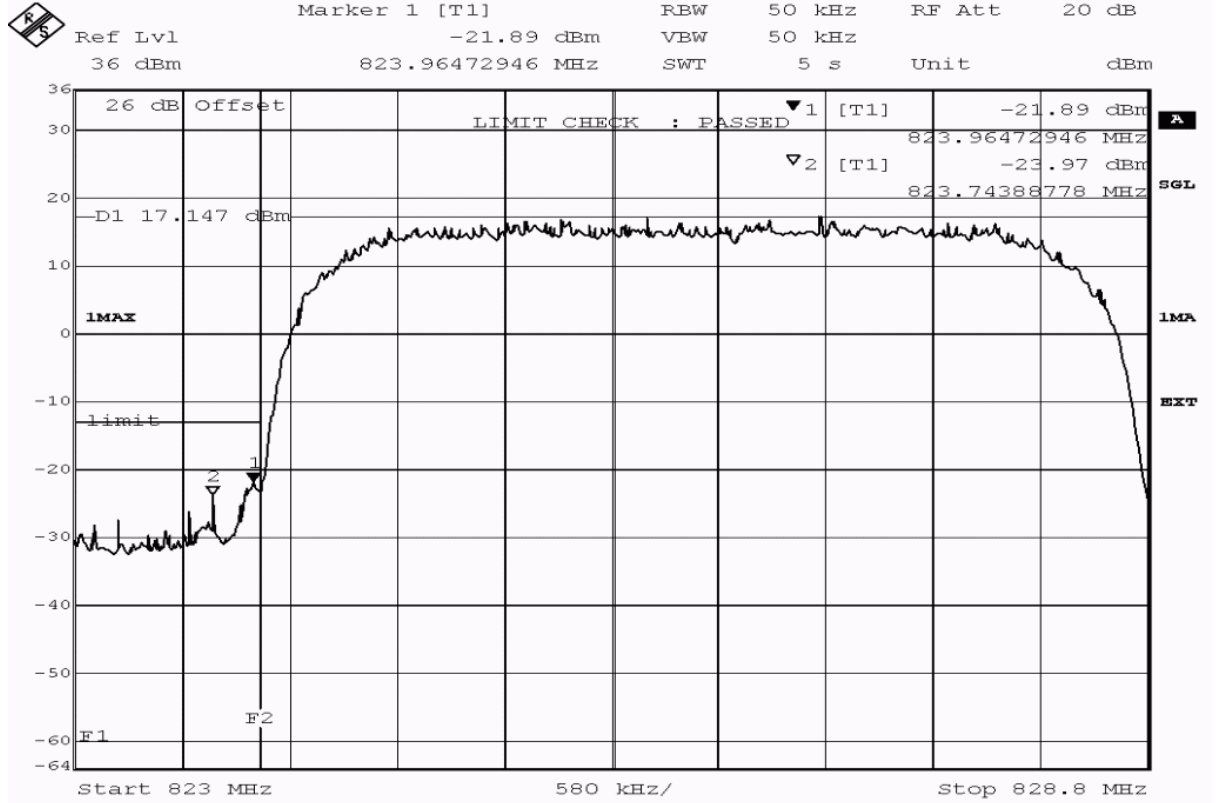
Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:


```
         Marker 1 [T1]              RBW    3 kHz     RF Att    20 dB
  Ref Lvl                  -13.03 dBm     VBW    3 kHz
    36 dBm             823.98196393 MHz   SWT      5 s     Unit        dBm
```

LIMIT CHECK : PASSED	▼1 [T1] -13.03 dBm
	823.98196393 MHz
D1 26.159 dBm	▽2 [T1] -13.82 dBm
	823.xxxxx198 MHz
	▽3 [T1] -48.66 dBm
1MAX	823.69018xx MHz
	▽4 [T1] -48.9x dBm
	823.55831663 MHz
limit	

```
Center 823.7 MHz          140 kHz/              Span 1.4 MHz
```

```
Title:       band edge compliance measurement
Comment A:   CZ800, GSM850, band edge compliance,
             channel 128 (824.2MHz)
Date:        25.OCT.2011  06:30:08
```
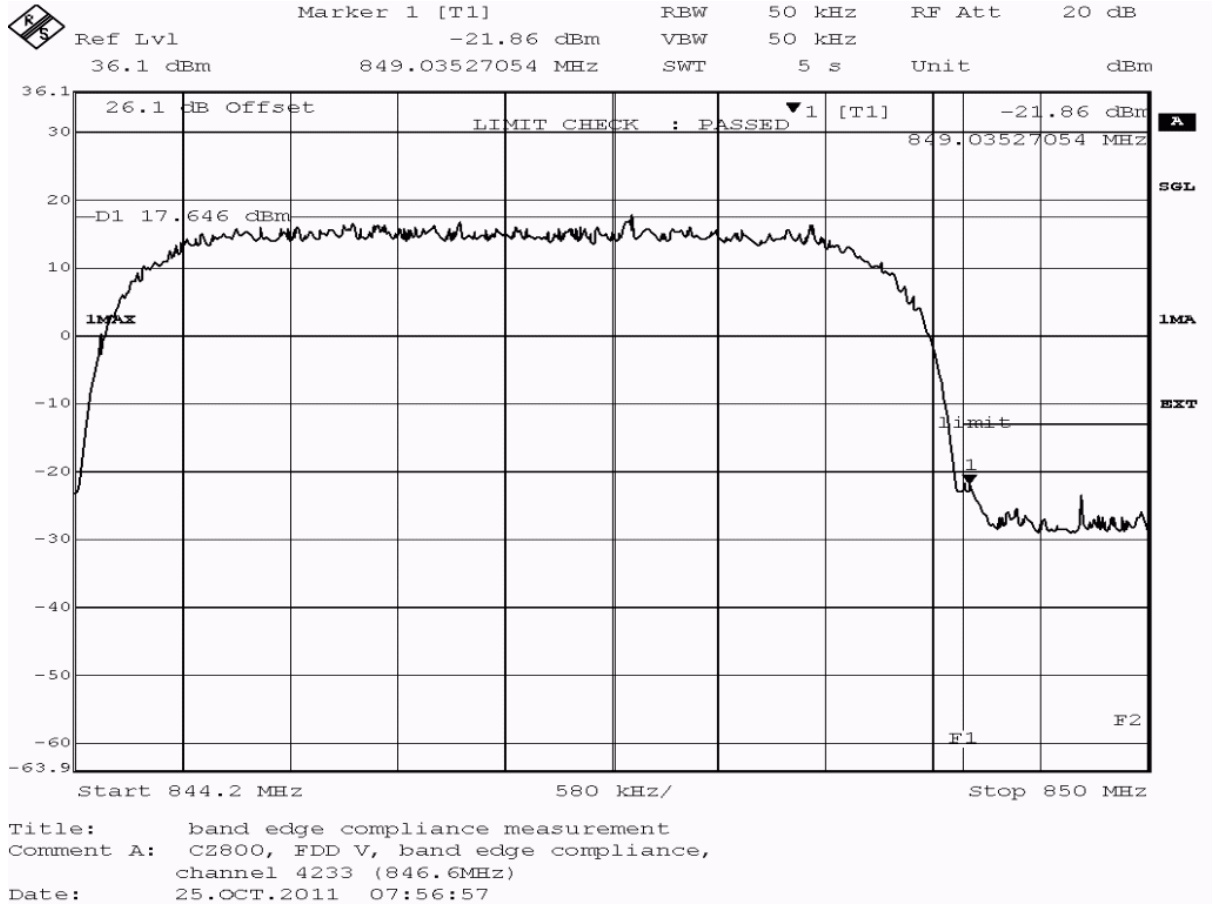
acc. Title 47 CFR chapter I part 22 subpart H
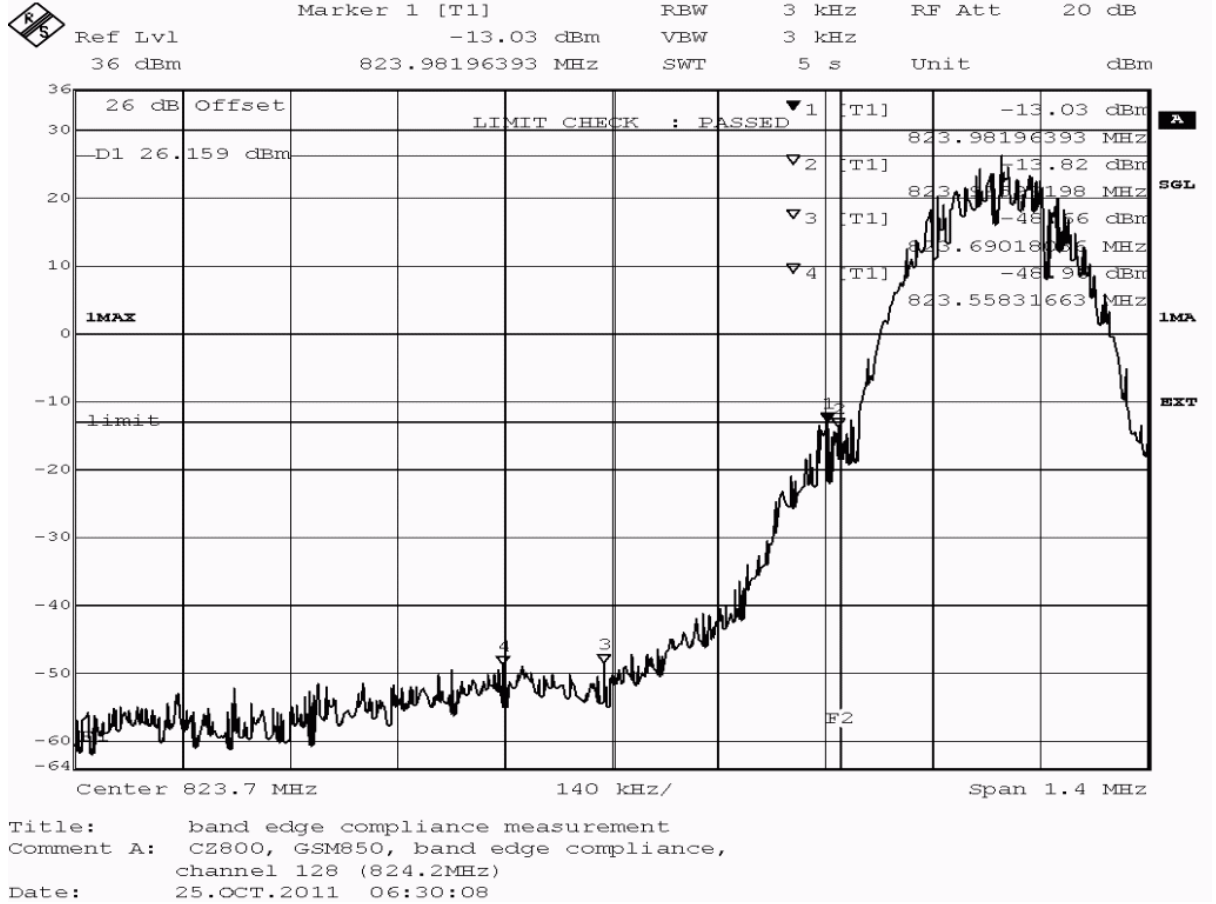
detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	3	823.982	-13.03	0.03	-13.0	passed
peak	maxhold	3	823.996	-13.82	0.82	-13.0	passed
average	maxhold	3	823.985	-17.56	4.56	-13.0	passed

no further values have been found by test instrument with a margin of less than 20 dB

Test: 22.6; Frequency Band = 850, Mode = GSM, Channel = 251, Frequency = 848.8MHz

Result: Passed

Setup No.: C01_cond

Date of Test: 2011/10/25 6:16

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:


```
                    Marker 1 [T1]              RBW    3 kHz    RF Att    20 dB
       Ref Lvl                    -13.72 dBm   VBW    3 kHz
       36.1 dBm          849.02925852 MHz      SWT    5 s      Unit         dBm

36.1
       26.1 dB Offset                              ▼1 [T1]         -13.72 dBm    A
 30                             LIMIT CHECK  : PASSED
                                                      849.02925852 MHz
    -D1 26.094 dBm                               ▽2 [T1]         -22.58 dBm    SGL
 20                                                   849.07414830 MHz
                                                ▽3 [T1]         -52.07 dBm
 10                                                   849.80641283 MHz
                                                ▽4 [T1]         -52.35 dBm
  0  1MAX                                             849.69138277 MHz    1MA

-10                         limit                                         EXT

-20                          2

-30

-40

-50                                              4      3

-60              F1
-63.9
       Center 849.3 MHz            140 kHz/              Span 1.4 MHz
```

```
Title:       band edge compliance measurement
Comment A:   CZ800, GSM850, band edge compliance,
             channel 251 (848.8MHz)
Date:        25.OCT.2011  06:20:32
```

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	3	849.029	-13.72	0.72	-13.0	passed
peak	maxhold	3	849.074	-22.58	9.58	-13.0	passed
average	maxhold	3	849.012	-16.54	3.54	-13.0	passed
average	maxhold	3	849.077	-26.60	13.60	-13.0	passed

no further values have been found by test instrument with a margin of less than 20 dB

Test: 22.6; Frequency Band = FDD5, Mode = HSDPA, Channel = 4132, Frequency = 826.4MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 10:31
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

```
         R&S    Marker 1 [T1]            RBW    50 kHz    RF Att    20 dB
         Ref Lvl                -23.18 dBm    VBW    50 kHz
         35.5 dBm        823.96472946 MHz    SWT     5 s     Unit        dBm
```



```
Title:       band edge compliance measurement
Comment A:   CZ800, FDD V, band edge compliance,
             channel 4132 (826.4MHz)
Date:        25.OCT.2011  10:35:23
```

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	50	823.965	-23.18	10.18	-13.0	passed
average	maxhold	50	823.023	-31.44	18.44	-13.0	passed
average	maxhold	50	823.604	-30.24	17.24	-13.0	passed
average	maxhold	50	824.000	-24.08	11.08	-13.0	passed
rms	maxhold	50	823.023	-30.82	17.82	-13.0	passed
rms	maxhold	50	823.384	-30.52	17.52	-13.0	passed
rms	maxhold	50	823.965	-26.81	13.81	-13.0	passed

no further values have been found by test instrument with a margin of less than 20 dB

Test: 22.6; Frequency Band = FDD5, Mode = HSDPA, Channel = 4233, Frequency = 846.6MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 10:47
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

```
                        Marker 1 [T1]          RBW    50 kHz   RF Att    20 dB
     Ref Lvl                      -23.83 dBm   VBW    50 kHz
     35.6 dBm          849.02364729 MHz        SWT     5 s     Unit        dBm
35.6
30      25.6 dB Offset                                         -23.83 dBm   A
                                   LIMIT CHECK  : PASSED  1 [T1]
                                                          849.02364729 MHz
20                                                                         SGL
     D1 16.888 dBm
10

0    1MAX                                                                  1MA

-10                                                       limit            EXT

-20                                                        1

-30

-40

-50

-60                                                      F1          F2
-64.4
     Start 844.2 MHz              580 kHz/              Stop 850 MHz
```

```
Title:        band edge compliance measurement
Comment A:   CZ800, FDD V, band edge compliance,
             channel 4233 (846.6MHz)
Date:        25.OCT.2011  10:52:13
```

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	50	849.024	-23.83	10.83	-13.0	passed
average	maxhold	50	849.070	-23.98	10.98	-13.0	passed
rms	maxhold	50	849.070	-23.84	10.84	-13.0	passed

no further values have been found by test instrument with a margin of less than 20 dB

Test: 22.6; Frequency Band = FDD5, Mode = HSUPA, Channel = 4132, Frequency = 826.4MHz

Result: Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25 11:08

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:


```
                    Marker 1 [T1]          RBW    50 kHz    RF Att    20 dB
   Ref Lvl                      -23.46 dBm  VBW    50 kHz
   35.5 dBm           823.97635271 MHz      SWT     5 s    Unit         dBm
```

Title: band edge compliance measurement
Comment A: CZ800, FDD V, band edge compliance,
            channel 4132 (826.4MHz)
Date: 25.OCT.2011 11:12:49

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	50	823.976	-23.46	10.46	-13.0	passed
average	maxhold	50	823.953	-26.44	13.44	-13.0	passed
rms	maxhold	50	823.988	-24.50	11.50	-13.0	passed

no further values have been found by test instrument with a margin of less than 20 dB

Test: 22.6; Frequency Band = FDD5, Mode = HSUPA, Channel = 4233, Frequency = 846.6MHz

Result: Passed

Setup No.:   C01_cond

Date of Test: 2011/10/25 11:21

Body: FCC47CFRChIPART22PUBLIC MOBILE SERVICES

Test Specification: FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

```
          Marker 1 [T1]              RBW    50 kHz    RF Att    20 dB
   Ref Lvl                 -24.52 dBm   VBW    50 kHz
   35.6 dBm        849.03527054 MHz    SWT     5 s     Unit        dBm
```



```
Title:      band edge compliance measurement
Comment A:  CZ800, FDD V, band edge compliance,
            channel 4233 (846.6MHz)
Date:       25.OCT.2011  11:25:40
```

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	50	849.035	-24.52	11.52	-13.0	passed
average	maxhold	50	849.047	-27.30	14.30	-13.0	passed
rms	maxhold	50	849.047	-27.30	14.30	-13.0	passed

no further values have been found by test instrument with a margin of less than 20 dB

Test: 22.6; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4132, Frequency = 826.4MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 7:39
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

```
         Marker 1 [T1]              RBW    50 kHz    RF Att    20 dB
  Ref Lvl                -21.89 dBm  VBW    50 kHz
  36 dBm          823.96472946 MHz  SWT     5 s     Unit        dBm
```



```
Title:        band edge compliance measurement
Comment A:  CZ800, FDD V, band edge compliance,
            channel 4132 (826.4MHz)
Date:         25.OCT.2011  07:44:08
```

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	50	823.744	-23.97	10.97	-13.0	passed
peak	maxhold	50	823.965	-21.89	8.89	-13.0	passed
average	maxhold	50	823.709	-30.02	17.02	-13.0	passed
average	maxhold	50	823.965	-26.12	13.12	-13.0	passed
rms	maxhold	50	823.000	-30.94	17.94	-13.0	passed
rms	maxhold	50	824.000	-25.25	12.25	-13.0	passed

no further values have been found by test instrument with a margin of less than 20 dB

Test: 22.6; Frequency Band = FDD5, Mode = W-CDMA, Channel = 4233, Frequency = 846.6MHz

Result:	Passed
Setup No.:	C01_cond
Date of Test:	2011/10/25 7:52
Body:	FCC47CFRChIPART22PUBLIC MOBILE SERVICES
Test Specification:	FCC part 2 and 22

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Detailed Results:

```
         R                Marker 1 [T1]              RBW    50 kHz    RF Att    20 dB
         S   Ref Lvl                      -21.86 dBm  VBW    50 kHz
             36.1 dBm         849.03527054 MHz        SWT     5 s     Unit        dBm
  36.1
    30   26.1 dB Offset                          ▼1 [T1]            -21.86 dBm    A
                                  LIMIT CHECK : PASSED            849.03527054 MHz
    20                                                                            SGL
        D1 17.646 dBm
    10                                                                            1MA
     0  1MAX
   -10                                                                           EXT
   -20                                          limit
   -30                                            1                          F2
   -40                                                               F1
   -50
   -60
 -63.9
        Start 844.2 MHz              580 kHz/                    Stop 850 MHz
```

```
Title:       band edge compliance measurement
Comment A:   CZ800, FDD V, band edge compliance,
             channel 4233 (846.6MHz)
Date:        25.OCT.2011  07:56:57
```

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

detector	trace	resolution bandwidth /kHz	frequency /MHz	peak value /dBm	margin to limit /dB	limit /dBm	verdict
peak	maxhold	50	849.035	-21.86	8.85	-13.0	passed
average	maxhold	50	849.035	-24.05	11.05	-13.0	passed
rms	maxhold	50	849.012	-24.50	11.50	-13.0	passed

no further values have been found by test instrument with a margin of less than 20 dB

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

4 Test Equipment Details

4.1 List of Used Test Equipment

The calibration, hardware and software states are shown for the testing period.

Test Equipment Anechoic Chamber

Lab ID: **Lab 1**
Manufacturer: Frankonia
Description: Anechoic Chamber for radiated testing
Type: 10.58x6.38x6 m³

Single Devices for Anechoic Chamber

Single Device Name	Type	Serial Number	Manufacturer	
Air compressor	none	-	Atlas Copco	
Anechoic Chamber	10.58 x 6.38 x 6.00 m³	none	Frankonia	
	Calibration Details		*Last Execution*	*Next Exec.*
	FCC listing 96716 3m Part15/18		2011/01/11	2014/01/10
	IC listing 3699A-1 3m		2011/02/07	2014/02/06
Controller Maturo	MCU	961208	Maturo GmbH	
EMC camera	CE-CAM/1	-	CE-SYS	
EMC camera Nr.2	CCD-400E	0005033	Mitsubishi	
Filter ISDN	B84312-C110-E1		Siemens&Matsushita	
Filter Universal 1A	BB4312-C30-H3	-	Siemens&Matsushita	

Test Equipment Auxiliary Equipment for Radiated emissions

Lab ID: **Lab 1**
Description: Equipment for emission measurements
Serial Number: see single devices

Single Devices for Auxiliary Equipment for Radiated emissions

Single Device Name	Type	Serial Number	Manufacturer	
Antenna mast	AS 620 P	620/37	HD GmbH	
Biconical dipole	VUBA 9117	9117-108	Schwarzbeck	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard Calibration		2008/10/27	2013/10/26
Broadband Amplifier 18MHz-26GHz	JS4-18002600-32-5P	849785	Miteq	
	Calibration Details		*Last Execution*	*Next Exec.*
	Path Calibration		2011/05/11	2011/11/10
Broadband Amplifier 1GHz-4GHz	AFS4-01000400-1Q-10P-4	-	Miteq	
	Calibration Details		*Last Execution*	*Next Exec.*
	Path Calibration		2011/05/11	2011/11/10
Broadband Amplifier 30MHz-18GHz	JS4-00101800-35-5P	896037	Miteq	
	Calibration Details		*Last Execution*	*Next Exec.*
	Path Calibration		2011/05/11	2011/11/10
Cable "ESI to EMI Antenna"	EcoFlex10	W18.01-2+W38.01-2	Kabel Kusch	
	Calibration Details		*Last Execution*	*Next Exec.*

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Single Devices for Auxiliary Equipment for Radiated emissions (continued)

Single Device Name	Type	Serial Number	Manufacturer	
	Path Calibration		2011/05/11	2011/11/10
Cable "ESI to Horn Antenna"	UFB311A+UFB293C	W18.02-2+W38.02-2	Rosenberger Micro-Coax	
	Calibration Details		*Last Execution*	*Next Exec.*
	Path Calibration		2011/05/11	2011/11/10
Double-ridged horn	HF 906	357357/001	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard Calibration		2009/04/16	2012/04/15
Double-ridged horn	HF 906	357357/002	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard Calibration		2009/04/28	2012/04/27
High Pass Filter	4HC1600/12750-1.5-KK	9942011	Trilithic	
	Calibration Details		*Last Execution*	*Next Exec.*
	Path Calibration		2011/05/11	2011/11/10
High Pass Filter	5HC2700/12750-1.5-KK	9942012	Trilithic	
	Calibration Details		*Last Execution*	*Next Exec.*
	Path Calibration		2011/05/11	2011/11/10
High Pass Filter	5HC3500/12750-1.2-KK	200035008	Trilithic	
	Calibration Details		*Last Execution*	*Next Exec.*
	Path Calibration		2011/05/11	2011/11/10
High Pass Filter	WHKX 7.0/18G-8SS	09	Wainwright	
	Calibration Details		*Last Execution*	*Next Exec.*
	Path Calibration		2011/05/11	2011/11/10
Log.-per. Antenna	HL 562 Ultralog	830547/003	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard Calibration		2009/05/27	2012/05/26
Loop Antenna	HFH2-Z2	829324/006	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard calibration		2011/10/27	2014/10/26
Pyramidal Horn Antenna 26,5 GHz	3160-09	00083069	EMCO Elektronik GmbH	
Pyramidal Horn Antenna 40 GHz	3160-10	00086675	EMCO Elektronik GmbH	
Tilt device Maturo (Rohacell)	Antrieb TD1.5-10kg	TD1.5-10kg/024/3790709	Maturo GmbH	

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Test Equipment Auxiliary Test Equipment

Lab ID:	**Lab 1, Lab 2**
Manufacturer:	see single devices
Description:	Single Devices for various Test Equipment
Type:	various
Serial Number:	none

Single Devices for Auxiliary Test Equipment

Single Device Name	Type	Serial Number	Manufacturer
Broadband Power Divider N (Aux)	1506A / 93459	LM390	Weinschel Associates
Broadband Power Divider SMA	WA1515	A855	Weinschel Associates
Digital Multimeter 03 (Multimeter)	Fluke 177	86670383	Fluke Europe B.V.

	Calibration Details		Last Execution	Next Exec.
	Customized calibration		2011/10/19	2013/10/18

Single Device Name	Type	Serial Number	Manufacturer
Fibre optic link Satellite (Aux)	FO RS232 Link	181-018	Pontis
Fibre optic link Transceiver (Aux)	FO RS232 Link	182-018	Pontis
Isolating Transformer	LTS 604	1888	Thalheimer Transformatorenwerke GmbH
Notch Filter Ultra Stable (Aux)	WRCA800/960-6EEK	24	Wainwright
Vector Signal Generator	SMIQ 03B	832492/061	Rohde & Schwarz GmbH & Co.KG

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Test Equipment Digital Signalling Devices

Lab ID: **Lab 1, Lab 2**
Description: Signalling equipment for various wireless technologies.

Single Devices for Digital Signalling Devices

Single Device Name	*Type*	*Serial Number*	*Manufacturer*	
Bluetooth Signalling Unit CBT	CBT	100589	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard calibration		2011/11/24	2014/11/23
Universal Radio Communication Tester	CMU 200	102366	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard calibration		2011/05/26	2013/05/25
	HW/SW Status		*Date of Start*	*Date of End*
	Hardware: B11, B21V14, B21-2, B41, B52V14, B52-2, B53-2, B56V14, B68 3v04, PCMCIA, U65V04 Software: K21 4v21, K22 4v21, K23 4v21, K24 4v21, K42 4v21, K43 4v21, K53 4v21, K56 4v22, K57 4v22, K58 4v22, K59 4v22, K61 4v22, K62 4v22, K63 4v22, K64 4v22, K65 4v22, K66 4v22, K67 4v22, K68 4v22, K69 4v22 Firmware: µP1 8v50 02.05.06 ---		2007/07/16		
Universal Radio Communication Tester	CMU 200	837983/052	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard calibration		2008/12/01	2011/11/30
	HW/SW Status		*Date of Start*	*Date of End*
	HW options: B11, B21V14, B21-2, B41, B52V14, B52-2, B53-2, B54V14, B56V14, B68 3v04, B95, PCMCIA, U65V02 SW options: K21 4v11, K22 4v11, K23 4v11, K24 4v11, K27 4v10, K28 4v10, K42 4v11, K43 4v11, K53 4v10, K65 4v10, K66 4v10, K68 4v10, Firmware: µP1 8v40 01.12.05 ---		2007/01/02		
	SW: K62, K69		2008/11/03		

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Test Equipment Emission measurement devices

Lab ID: **Lab 1**
Description: Equipment for emission measurements
Serial Number: see single devices

Single Devices for Emission measurement devices

Single Device Name	Type	Serial Number	Manufacturer	
Personal Computer	Dell	30304832059	Dell	
Power Sensor	NRV-Z1	836219/005	Rohde & Schwarz GmbH & Co. KG	
Powermeter	NRVS	836333/064	Rohde & Schwarz GmbH & Co. KG	
Signal Generator	SMR 20	846834/008	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	standard calibration		2011/05/12	2014/05/11
Spectrum Analyzer	ESIB 26	830482/004	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard Calibration		2009/12/03	2011/12/02

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Test Equipment Radio Lab Test Equipment

Lab ID: **Lab 2**
Description: Radio Lab Test Equipment

Single Devices for Radio Lab Test Equipment

Single Device Name	Type	Serial Number	Manufacturer	
Broadband Power Divider SMA	WA1515	A856	Weinschel Associates	
Coax Attenuator 10dB SMA 2W	4T-10	F9401	Weinschel Associates	
Coax Attenuator 10dB SMA 2W	56-10	W3702	Weinschel Associates	
Coax Attenuator 10dB SMA 2W	56-10	W3711	Weinschel Associates	
Coax Cable Huber&Suhner	Sucotest 2,0m		Rosenberger Micro-Coax	
Coax Cable Rosenberger Micro Coax FA210A0010003030 SMA/SMA 1,0m	FA210A0010003030	54491-2	Rosenberger Micro-Coax	
Power Meter	NRVD	828110/016	Rohde & Schwarz GmbH & Co.KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard calibration		2011/05/03	2012/05/02
Power Sensor	NRV-Z1	836219/005	Rohde & Schwarz GmbH & Co. KG	
Powermeter	NRVS	836333/064	Rohde & Schwarz GmbH & Co. KG	
RF Step Attenuator RSP	RSP	833695/001	Rohde & Schwarz GmbH & Co.KG	
Rubidium Frequency Standard	Datum, Model: MFL	2689/001	Datum-Beverly	
Sensor Head A	NRV-Z1	827753/005	Rohde & Schwarz GmbH & Co.KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard calibration		2011/05/02	2012/05/01
Signal Generator	SMY02	829309/018	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard calibration		2011/11/04	2014/11/03
Signal Generator SME	SME03	827460/016	Rohde & Schwarz GmbH & Co.KG	
Signal Generator SMP	SMP02	836402/008	Rohde & Schwarz GmbH & Co. KG	
Spectrum Analyser	FSIQ26	840061/005	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Exec.*
	Standard calibration		2011/02/10	2013/02/09
Temperature Chamber Vötsch 05	VT 4002	58566080550010	Vötsch	
	Calibration Details		*Last Execution*	*Next Exec.*
	Specific calibration		2010/03/16	2012/03/15

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Single Devices for Radio Lab Test Equipment (continued)

Single Device Name	Type	Serial Number	Manufacturer
Vector Signal Generator	SMIQ 03B	837747/020	Rohde & Schwarz GmbH & Co. KG

4.2 Laboratory Environmental Conditions

Laboratory	Date	Temperature	Humidity	Air Pressure
Lab 1	2011/10/21	23 °C	41 %	1022 hPa
	2011/10/23	23 °C	36 %	1012 hPa
	2011/10/27	23 °C	36 %	1008 hPa
Lab 2	2011/10/25	24 °C	42 %	1000 hPa
	2011/10/31	25 °C	36 %	1014 hPa
	2011/12/01	23 °C	37 %	1008 hPa

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

5   Annex

5.1   Additional Information for Report

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Summary of Test Results

_____
_____

The EUT complied with all performed tests as listed in the summary section of this report.
_____

Technical Report Summary

_____
_____

Type of Authorization :

Certification for a GSM cellular radiotelephone device

Applicable FCC Rules

Prepared in accordance with the requirements of FCC Rules and Regulations as listed in 47 CFR Ch.1 Parts 0 to 69. The following subparts are applicable to the results in this test report.

Part 2, Subpart J - Equipment Authorization Procedures, Certification

§ 2.1046 Measurement required: RF power output
§ 2.1049 Measurement required: Occupied bandwidth
§ 2.1051 Measurement required: Spurious emissions at antenna terminals
§ 2.1053 Measurement required: Field strength of spurious radiation
§ 2.1055 Measurement required: Frequency stability
§ 2.1057 Frequency spectrum to be investigated

Part 22, Subpart C – Operational and Technical Requirements

§ 22.355 Frequency tolerance

Part 22, Subpart H – Cellular Radiotelephone Service

§ 22.913 Effective radiated power limits
§ 22.917 Emission limitations for cellular equipment

additional documents

ANSI TIA-603-C-2004

Description of Methods of Measurements

_____
_____

_____

RF Power Output

_____

Standard   FCC Part 22, Subpart H

The test was performed according to: FCC §2.1046

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Test Description (conducted measurement procedure)

1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power Divider. Refer to chapter "Setup Drawings".
2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.
3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Channel (Frequency): please refer to the detailed results
4) The transmitted power of the EUT was recorded by using a CMU200.

Test Description (radiated measurement procedure)

1) The EUT was placed inside an anechoic chamber. Refer to chapter "Setup Drawings". The EUT was coupled to a Digital Communication Tester which was located outside the chamber via a small signalling antenna.
2) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
3) A substitution procedure is used so that the readings from the spectrum analyser are corrected and represent directly the equivalent radiated power (related to a lamda/2 dipole).
4) The output power was measured in both vertical and horizontal antenna polarisation during the call is established on the lowest channel, mid channel and on the highest channel. To find the worst case power all orientations (X, Y, Z) of the EUT have been measured.
5) The test procedure according to TIA-603-C-2004 has been considered.

Test Requirements / Limits

§2.1046 Measurements Required: RF Power Output
(a) For transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in § 2.1033(c)(8). The electrical characteristics of the output terminals when this test is made shall be stated.
§22.913 Effective radiated power limits
(a)(2) Maximum ERP. … The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

_____

Emission and Occupied Bandwidth
_____

Standard   FCC Part 22, Subpart H

The test was performed according to: FCC §2.1049

Test Description

1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power Divider. Refer to chapter "Setup Drawings".
2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.
3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester. Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
4) Important Analyser Settings:
- Resolution Bandwidth: >1% of the manufacturer's stated occupied bandwidth
5) The maximum spectral level of the modulated signal was recorded as the reference.
6) The emission bandwidth is measured as follows:
the two furthest frequencies above and below the frequency of the maximum reference level where the spectrum is −26 dB down have to be found.
7) The occupied bandwidth (99% Bandwidth) is measured as follows:
the occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

frequency limits, the mean powers are each equal to 0.5 percent of the total mean power.

Test Requirements / Limits

§ 2.1049 Measurements required: Occupied bandwidth

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions (as applicable):

(h) Transmitters employing digital modulation techniques - when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated. The signal shall be applied through any filter networks, pseudo-random generators or other devices required in normal service. Additionally, the occupied bandwidth shall be shown for operation with any devices used for modifying the spectrum when such devices are optional at the discretion of the user.

_____

Spurious emissions at antenna terminals
_____

Standard   FCC Part 22, Subpart H

The test was performed according to FCC §2.1051

Test Description

1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power Divider. Refer to chapter "Setup Drawings".
2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.
3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester.
Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
4) Important Analyser Settings
- [Resolution Bandwidth]:
a) [>=1% of wanted signal bandwidth] in the Span of 1 MHz directly below and above the PCS-Band,
b) otherwise [100 kHz] (or [1 MHz] for accelerated sweep times)
c) [reduced resolution bandwidth] in case the curve of the analyser IF-Filter or the wanted EUT signal leads to an exceeding of the limit, in this case a correction factor was used
- Sweep Time: depending on the transmitting signal, the span and the resolution bandwidth
5) The spurious emissions peaks were measured in the frequency range from 9 kHz to 10 GHz (up to the 10th harmonic) during the call was established

Test Requirements / Limits

§ 2.1051 Spurious emissions at antenna terminals

The radio frequency voltage or power generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in Sec. 2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

§ 2.1057 Frequency spectrum to be investigated.

(a) In all of the measurements set forth in Secs. 2.1051 and 2.1053, the spectrum shall be investigated from the lowest radio frequency signal generated in the equipment, without going below 9 kHz, up to at least the frequency shown below:
(1) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
(b) Particular attention should be paid to harmonics and subharmonics of the carrier frequency as well as to those frequencies removed from the carrier by multiples of the oscillator frequency. Radiation at the

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

frequencies of multiplier stages should also be checked.
(c) The amplitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be reported.
(d) Unless otherwise specified, measurements above 40 GHz shall be performed using a minimum resolution bandwidth of 1 MHz.

§ 22.917 Emission limitations for cellular equipment

(a) 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.
Remark of the test laboratory: This is calculated to be -13 dBm.
(b) Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). 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.
(c) Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas [...].
(d) If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

For reporting only spurious emission levels reaching to the 20dB margin to limit were noted.

_____

Field strength of spurious radiation
_____

Standard   FCC Part 22, Subpart H

The test was performed according to: FCC §2.1053

Test Description

1) The EUT was placed inside an anechoic chamber. Refer to chapter "Setup Drawings". The EUT was coupled to a Digital Communication Tester which was located outside the chamber via a small signalling antenna.
2) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester.
Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
3) A pre-calibration procedure is used so that the readings from the spectrum analyser are corrected and represent directly the equivalent radiated power (related to a lamda/2 dipole).
4) All spurious radiation measurements were made with spectrum analyser and the appropriate calibrated antennas for the frequency range of 30 MHz to 10 GHz (up to the 10th harmonic of the transmit frequency). The frequency range from 9 kHz to 30 MHz has been examined during the conducted spurious emission measurements.
5) Important Analyser Settings
- [Resolution Bandwidth / Video Bandwidth]:
a) [3 kHz / 10 kHz] in the Span of 1 MHz directly below and above the Band,
b) [10 kHz / 30 kHz] in case the curve of the analyser IF-Filter leads to an exceeding of the limit, in this case a worst case correction factor of 20 dB (1 MHz -> 10 kHz) was used
c) [1 MHz / 3 MHz] otherwise
- Sweep Time: depending on the transmitting signal, the span and the resolution bandwidth
6) The spurious emissions peaks were measured in both vertical and horizontal antenna polarization during the call is established on the lowest channel, mid channel and on the highest channel. To find the worst case peaks all orientations (X, Y, Z) of the EUT have been measured.

Test Requirements / Limits

§ 2.1053 Measurements required: Field strength of spurious radiation.

Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet,

control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of Sec. 2.1049, as appropriate. For equipment operating on frequencies below 890 MHz, an open field test is normally required, with the measuring instrument antenna located in the far-field at all test frequencies. In the event it is either impractical or impossible to make open field measurements (e.g. a broadcast transmitter installed in a building) measurements will be accepted of the equipment as installed. Such measurements must be accompanied by a description of the site where the measurements were made showing the location of any possible source of reflections which might distort the field strength measurements. Information submitted shall include the relative radiated power of each spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from halfwave dipole antennas.
(b) The measurements specified in paragraph (a) of this section shall be made for the following equipment:
(2) All equipment operating on frequencies higher than 25 MHz.

§ 2.1057 Frequency spectrum to be investigated.

(a) In all of the measurements set forth in Secs. 2.1051 and 2.1053, the spectrum shall be investigated from the lowest radio frequency signal generated in the equipment, without going below 9 kHz, up to at least the frequency shown below:
(1) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
(b) Particular attention should be paid to harmonics and subharmonics of the carrier frequency as well as to those frequencies removed from the carrier by multiples of the oscillator frequency. Radiation at the frequencies of multiplier stages should also be checked.
(c) The amplitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be reported.
(d) Unless otherwise specified, measurements above 40 GHz shall be performed using a minimum resolution bandwidth of 1 MHz.

§ 22.917 Emission limitations for cellular equipment

(a) 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.
This is calculated to be -13 dBm (effective radiated power) which corresponds to 84.6 dBµV/m (field strength) in a distance of 3 m.

(b) Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). 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.
(c) Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas [...].
(d) If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

For reporting only spurious emission levels reaching to the 20dB margin to limit were noted.

_____

Frequency stability
_____

Standard   FCC Part 22, Subpart H

The test was performed according to FCC §2.1055

Test Description

1) The EUT was placed inside a temperature chamber.
2) The EUT was coupled to a Digital Communication Tester. Refer to chapter "Setup Drawings".
3) The climatic chamber was cycled down/up to a certain temperature, starting with the EUT minimum

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

temperature.
4) After the temperature was stabilized the EUT was switched on and a call was established on a Traffic Channel between the EUT and the Digital Communication Tester.
Important Settings:
- Output Power: Maximum
- Mid Channel
5) The frequency error of the EUT was recorded by using an internal measurement function of the Digital Communication Tester immediately after the call was established, five minutes after the call was established and ten minutes after the call was established.
6) This measurement procedure was performed for temperature variation from −30°C to +50°C in increments of 10°C, if not otherwise stated in the detailed results.
When the EUT did not operate at certain temperature levels, these measurements were left out.

Test Requirements / Limits

§2.1055 Measurements required: Frequency stability

(a) The frequency stability shall be measured with variation of ambient temperature as follows:
(1) From -30° to +50° centigrade for all equipment except that specified in paragraphs (a) (2) and (3) of this section.
(b) Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10° centigrade through the range. A period of time sufficient to stabilize all of the components of the oscillator circuit at each temperature level shall be allowed prior to frequency measurement. The short term transient effects on the frequency of the transmitter due to keying (except for broadcast transmitters) and any heating element cycling normally occurring at each ambient temperature level also shall be shown. Only the portion or portions of the transmitter containing the frequency determining and stabilizing circuitry need be subjected to the temperature variation test.
(d) The frequency stability shall be measured with variation of primary supply voltage as follows:
(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.
(2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.
(3) The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided. Effects on frequency of transmitter keying (except for broadcast transmitters) and any heating element cycling at the nominal supply voltage and at each extreme also shall be shown.

§22.355 Frequency tolerance

…the carrier frequency of each transmitter in the Public Mobile Service must be maintained within the tolerances given in table C-1 of this section.

Table C-1.- Frequency Tolerance for Transmitters in the Public Mobile Services

Frequency range (MHz)	Base, fixed (ppm)	Mobile up to 3 watts (ppm)	Mobile above 3 watts (ppm)
25 to 50	20.0	20.0	50.0
50 to 450	5.0	5.0	50.0
450 to 512	2.5	5.0	5.0
821 to 896	1.5	2.5	2.5
928 to 929	5.0	n/a	n/a
929 to 960	1.5	n/a	n/a
2110 to 2220	10.0	n/a	n/a

For the mid channel (836.6 MHz) the frequency tolerance is 2.5 ppm (2091.5 Hz).

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Band edge compliance
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Standard   FCC Part 22, Subpart H

The test was performed according to: FCC §22.913

Test Description

1) The EUT was coupled to a Spectrum Analyser and a Digital Communication Tester through a Power

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Divider. Refer to chapter "Setup Drawings".

2) The total insertion losses for signal path 1 and signal path 2 were measured. The values were used to correct the readings from the Spectrum Analyser and the Digital Communication Tester.

3) A call was established on a Traffic Channel between the EUT and the Digital Communication Tester.
Important Settings:
- Output Power: Maximum
- Channel: please refer to the detailed results
4) Important Analyser Settings:
- Resolution Bandwidth = Video Bandwidth: >1% of the manufacturer's stated occupied bandwidth

Test Requirements / Limits

§ 22.917 Emission limitations for cellular equipment

Refer to chapter "Field strength of spurious radiation".

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Subtests HSDPA

Sub-test	βc	βd	βd (SF)	βc/βd	βHS (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1:	$?_{ACK}$, $?_{NACK}$ and $?_{CQI}$ = 30/15 with β_{hs} = 30/15 * β_c .
Note 2:	For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, $?_{ACK}$ and $?_{NACK}$ = 30/15 with β_{hs} = 30/15 * β_c , and $?_{CQI}$ = 24/15 with β_{hs} = 24/15 * β_c .
Note 3:	CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.
Note 4:	For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 11/15 and β_d = 15/15.

Subtests HSUPA

Subtest	Mode	Loopback Mode	Rel99 RMC	HSDPA FRC	HSUPA Test	Number of E-DPDCH Channels
1	Rel6 HSUPA	Test Mode 1	12.2kbps RMC	H-Set1	HSUPA Loopback	1
2	Rel6 HSUPA	Test Mode 1	12.2kbps RMC	H-Set1	HSUPA Loopback	1
3	Rel6 HSUPA	Test Mode 1	12.2kbps RMC	H-Set1	HSUPA Loopback	2
4	Rel6 HSUPA	Test Mode 1	12.2kbps RMC	H-Set1	HSUPA Loopback	1
5	Rel6 HSUPA	Test Mode 1	12.2kbps RMC	H-Set1	HSUPA Loopback	1

Subtest	Max UL Data Rate (kb/s)	βc/βd	βhs	βed	CM
1	242.1	11/15	22/15	1309/225	1
2	161.3	6/15	12/15	94/75	3
3	524.7	15/9	30/15	47/15	2
4	197.6	2/15	4/15	56/75	3
5	299.6	15/15	30/15	134/15	1

Reference: MDE_CINTE_1108_FCCd

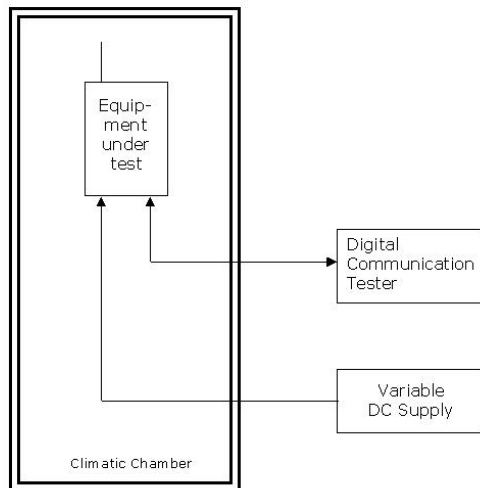acc. Title 47 CFR chapter I part 22 subpart H

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Setup Drawings
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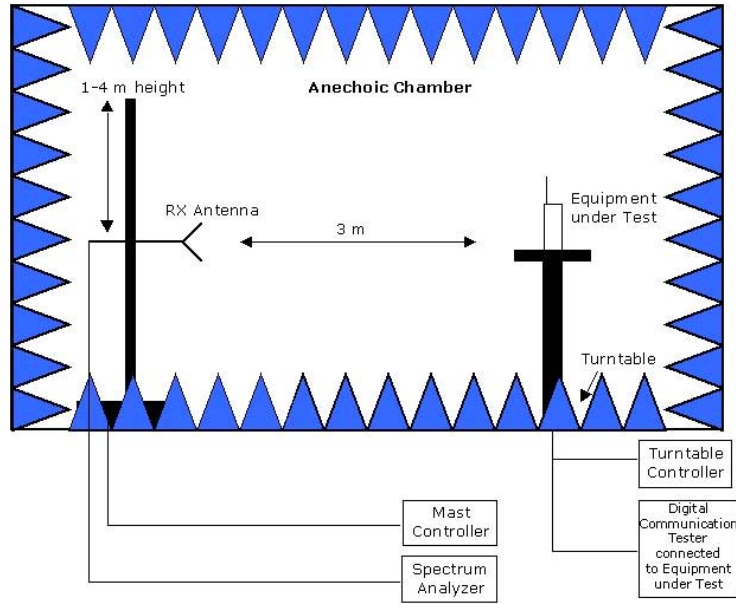
Remark: Depending on the frequency range suitable antenna types, attenuators or preamplifiers are used.

Principle set-up for radiated measurements

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

Principle set-up for conducted measurements under nominal conditions

Principle set-up for tests under extreme test conditions

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H

6 Index

Reference: MDE_CINTE_1108_FCCd

acc. Title 47 CFR chapter I part 22 subpart H