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Report On

Application for Grant of Equipment Authorization of the
Nextivity Inc.

Cel-Fi QUATRA Cellphone Signal Repeater

FCC CFR 47 Part 20
RSS-131

Report No. SD72132066-1017C

November 2017

FCC ID: NU: YETQ34-45121325NU
CU: YETQ34-45121325CU
IC: NU: 9298A-Q45121325NU
CU: 9298A-Q45121325CU
Report No. SD72132066-1017C



REPORT ON	Radio Testing of the Nextivity Inc. Cellphone Signal Repeater
TEST REPORT NUMBER	SD72132066-1017C
PREPARED FOR	Nextivity Inc. 16550 West Bernardo Drive, Bldg 5, Suite 550, San Diego, CA 92127, USA
CONTACT PERSON	CK Li Sr. Principal Engineer, Regulatory (858) 485-9442 CLi@NextivityInc.com
PREPARED BY	 Xiaoying Zhang Name Authorized Signatory Title: EMC/Wireless Test Engineer
APPROVED BY	 Ferdinand S. Custodio Name Authorized Signatory Title: EMC/Senior Wireless Test Engineer
DATED	November 13, 2017

FCC ID: NU: YETQ34-45121325NU
CU: YETQ34-45121325CU
IC: NU: 9298A-Q45121325NU
CU: 9298A-Q45121325CU
Report No. SD72132066-1017C



Revision History

SD72132066-1017C Nextivity Inc. Cel-Fi QUATRA Cellphone Signal Repeater					
DATE	OLD REVISION	NEW REVISION	REASON	PAGES AFFECTED	APPROVED BY
11/13/17	Initial Release				Juan M Gonzalez



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SECTION 1

REPORT SUMMARY

Radio Testing of the
Nextivity Inc.
Cel-Fi QUATRA Cellphone Signal Repeater

1.1 INTRODUCTION

The information contained in this report is intended to show verification of the Nextivity Inc. Cellphone Signal Repeater to the requirements of the following:

- FCC CFR 47 Part 20
- RSS-131

Objective	To perform Radio Testing to determine the Equipment Under Test's (EUT's) compliance with the Test Specification, for the series of tests carried out.
Manufacturer	Nextivity Inc.
Model Name	Cel-Fi QUATRA
Model Number(s)	NU: Q34-4/5/12/13/25NU_EXA CU: Q34-4/5/12/13/25CU_EXA
FCC ID	NU: YETQ34-45121325NU CU: YETQ34-45121325CU
IC Number	NU: 9298A-Q45121325NU CU: 9298A-Q45121325CU
Serial Number(s)	Normal Mode: 258719001416 (NU) and 259706002355 (CU)
Number of Samples Tested	2
Test Specification/Issue/Date	• FCC CRF 47 Part 20 (October 1, 2016). • RSS-131 – Zone Enhancers (Issue 3, May 2017)
Start of Test	October 27, 2017
Finish of Test	October 27, 2017
Name of Engineer(s)	Xiaoying Zhang
Related Document(s)	• KDB935210 (D04 Provider Specific Booster Measurements v02r01) Provider-Specific Consumer Signal Booster Compliance Measurements Guidance. • Supporting documents for EUT certification are separate exhibits.

1.2 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out in accordance with FCC CFR 47 Part 20 with cross-reference to the corresponding KDB935210 D04 is shown below.

Section	Spec Clause			Test Description	Result
	FCC Part 20	KDB935210 D04	RSS-131		
-	20.21 (e)(3) Frequency Bands	7.1.1	-	Authorized Frequency Band Verification	Compliant*
2.1	20.21 (e)(3) Frequency Bands 20.21 (e)(4) Self-Monitoring	7.1.2	-	Test Authorized CMRS provider test	Compliant
-	20.21(e)(9)(i)(D) Power Limits 20.21(e)(9)(i)(B) Bidirectional Capability 20.21(e)(9)(i)(C)(2) Booster Gain Limits	7.2 7.3	5.1.4.2 5.1.4.3	Maximum Power measurement procedure Maximum Booster Gain Computer	Compliant*
-	20.21(e)(9)(i)(G) Intermodulation Limit	7.4	5.1.4.6	Intermodulation Product	Compliant*
-	20.21(e)(9)(i)(F) Out of Band Emission Limit	7.5	5.1.4.5	Out-of-Band Emissions	Compliant*
-	2.1051	7.6		Conducted Spurious Emissions	Note*
-	20.21(e)(9)(i)(A) Noise Limits 20.21(e)(9)(i)(I) Transmit Power Off Mode	7.7	5.1.4.1 5.1.4.7	Noise Limits	Compliant*
-	20.21(e)(9)(i)(J) Uplink Inactivity	7.8	5.1.4.8	Uplink inactivity	Compliant*
-	20.21(e)(9)(i)(C)(1) Booster Gain Limits 20.21(e)(9)(i)(I) Transmit Power Off Mode	7.9	5.1.4.2 5.1.4.7	Variable Booster Gain	Compliant*
-	2.1049	7.10	-	Occupied Bandwidth	Note*
-	20.21(e)(9)(ii)(A) Anti-Oscillation	7.11	-	Oscillation Detection	Compliant*
-	20.21(e)(9)(i)(C)(2)(iii) Automatic Feedback Cancellation	7.12	-	Mobile Booster Automatic Feedback Cancellation	N/A; Applicable to Mobile Booster
-	2.1053	7.13	-	Radiated Spurious Emissions	Note*
-	20.21(e)(9)(i)(B) Bidirectional Capability 20.21(e)(3) Frequency Band	7.14	-	Spectrum Block Filtering	N/A**
-	20.21(e)(9)(i)(E) Out of Band Gain Limit	7.15	5.1.4.4	Out of Band Gain	Compliant*
-	2.1055	7.16	-	Frequency Stability	Note*

Compliant*

A variant of the EUT was previously approved under FCC IDs YETQ34-251266NU and YETQ34-251266CU under Model Number Q34-2/5/12/66NU and Q34-2/5/12/66CU. The EUT is identical with this model with the exception of different bands support and only one CMRS provider support. All cases except for "Test Authorized CMRS provider test" measurement for WCDMA Band 5 and LTE Band 4, Band 12 were from this variant and covered under test report SD72113545-0216F Nextivity Quatra FCC IC Part 20 B2 B5 B12 and B4 Test Report Rev1.0.pdf.

FCC ID: NU: YETQ34-45121325NU
CU: YETQ34-45121325CU
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CU: 9298A-Q45121325CU
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Results from previous testing of the EUT using Version 2015 of FCC CFR Part 20 applies. There are no differences between version 2015 and 2016, so the EUT is deemed to comply with FCC CFR Part 20 version 2016.

Another variant of the EUT was previously approved under FCC IDs YETQ34-251366NU and YETQ34-251366CU under Model Number Q34-2/5/13/66NU and Q34-2/5/13/66CU. The EUT is identical with this model with the exception of different bands support and only one CMRS provider support. All cases except for "Test Authorized CMRS provider test" measurement for LTE Band 13 were from this variant and covered under test report SD72121022-1016B Nextivity FCC IC Part 20 B13 Test Report.pdf.

Note*

*Different Standard Applies; Refer to test reports:
SD72132066-1017F Nextivity Quatra FCC IC Part 22 WCDMA B5 Test Report.pdf for WCDMA Band 5,
SD72132066-1017E Nextivity Quatra FCC IC Part 27 LTE B4 Test Report.pdf for LTE Band 4,
SD72132066-1017D Nextivity Quatra FCC IC Part 27 LTE B12 Test Report.pdf for LTE Band 12,
SD72132066-1017G Nextivity FCC IC Part 27 LTE B13 Test Report.pdf for LTE Band 13.*

N/A**

Not Applicable. The EUT does not utilize spectrum block filtering.



1.3 PRODUCT INFORMATION

1.3.1 Technical Description

The Equipment Under Test (EUT) was a Nextivity Inc. Cel-Fi QUATRA Cellphone Signal Repeater. The EUT is a WCDMA/LTE Signal Booster to improve voice and data cellular performance in large enterprise environments. The EUT consists of two separate units: the Network Unit (NU) and the Coverage Unit (CU). The NU comprises a transmitter and receiver which communicate with the cell tower and the CU. Users place the NU in an area with the strongest signal from the carrier network. The CU is then placed in the centre of the home or office, or in the area where the best signal quality is best needed. The NU and CU are placed at varying distances apart and are communicated via Ethernet cables. Both NU and CU also includes Bluetooth LE connectivity. They are using the same Bluetooth module and antenna.

The WCDMA Band 5 and LTE Band 4, Band 12 function of the EUT was tested with a variant of the EUT approved under FCC IDs YETQ34-251266NU and YETQ34-251266CU under Model Number Q34-2/5/12/66NU and Q34-2/5/12/66CU. The EUT is identical with this model with the exception of different bands support and only one CMRS provider support.

The LTE Band 13 function of the EUT was tested with another variant of the EUT approved under FCC IDs YETQ34-251366NU and YETQ34-251366CU under Model Number Q34-2/5/13/66NU and Q34-2/5/13/66CU. The EUT is identical with this model with the exception of different bands support and only one CMRS provider support.

Since the EUT supports two CMRS providers, "Test Authorized CMRS provider test" for WCDMA Band 5, LTE Band 4, Band 12 and Band 13 function of the EUT were verified in this test report.



1.3.2 EUT General Description

EUT Description	Cellphone Signal Repeater
Model Name	Cel-Fi QUATRA
Model Number(s)	NU: NU: Q34-4/5/12/13/25NU_EXA CU: Q34-4/5/12/13/25CU_EXA
Rated Voltage	NU: 54V DC via external AC/DC adapter CU: 54V DC via POE
Mode Verified	WCDMA Band 5 and LTE Band 4, Band 12, Band 13
Frequency Bands	WCDMA Band 5: UL: 1850 - 1915MHz DL: 1930 - 1995MHz LTE Band 4: UL: 1710 - 1780MHz DL: 2110 - 2180MHz LTE Band 12: UL: 699 - 716MHz DL: 729 - 746MHz LTE Band 13: UL: 777 - 787MHz DL: 746 - 756MHz
Channel Bandwidth	WCDMA Band 5: 5MHz, 10MHz and 15MHz LTE Band 4: 5MHz, 10MHz, 15MHz and 20MHz LTE Band 12 and 13: 5MHz and 10MHz
Capability	WCDMA (Band 5), LTE (Band 25, 12, 13 and 4) and BT LE
Primary Unit (EUT)	☒ Production ☐ Pre-Production ☐ Engineering
Manufacturer Declared Temperature Range	0°C to 40°C
Antenna Type	PCB PIFA
Manufacturer	Nextivity Inc.
Antenna Model	N/A

Maximum Antenna Gain

Radio	NU	CU
WCDMA Band 5	0 dBi	0 dBi
LTE Band 4	2.0 dBi	2.0 dBi
LTE Band 12	0 dBi	0 dBi
LTE Band 13	0 dBi	0 dBi

1.4 EUT TEST CONFIGURATION

1.4.1 Test Configuration Description

Test Configuration	Description
A	Normal Mode - Downlink (CU TX). Base Station Simulator is employed to send a modulated signal to antenna port of Donor (NU). Antenna port of Server (CU) is terminated with a 50Ω load. (refer to 6.3.2 Figure 1)
B	Normal Mode - Uplink (NU TX). Base Station Simulator is employed to send a modulated signal to antenna port of Donor (NU). Input signal is applied to antenna port of Server (CU). (refer to 6.3.2 Figure 1)

1.4.2 EUT Exercise Software

Manufacturer provided a configuration software (ConformanceTest.exe) running from a support laptop where EUT is connected via USB.

1.4.3 Support Equipment and I/O cables

Manufacturer	Equipment/Cable	Description
Nextivity	AC/DC Adapter (EUT)	Model: 290N029-001 S/N: 163400014A1 Input: 100-240V, 50/60Hz, 1.6A; Output: 54VDC 2.22A
Netgear	Network patch Cable (1x NU to CU)	4.0m, unshielded, Cat5e 24AWG UTP
Rhode & Schwarz	Support Wideband Radio Communication Tester	M/N: CMW500, S/N: 1201.0002K50/103829
Agilent	ESG Vector Signal Generator	M/N: E4438C, S/N: MY47271033
Ramsey	Support Shielded Test Enclosure	With custom USB cable
Mini-Circuits	Power Splitter	M/N ZN2PD-63-S+ S/N UU74001429

1.4.4 Simplified Test Configuration Diagram

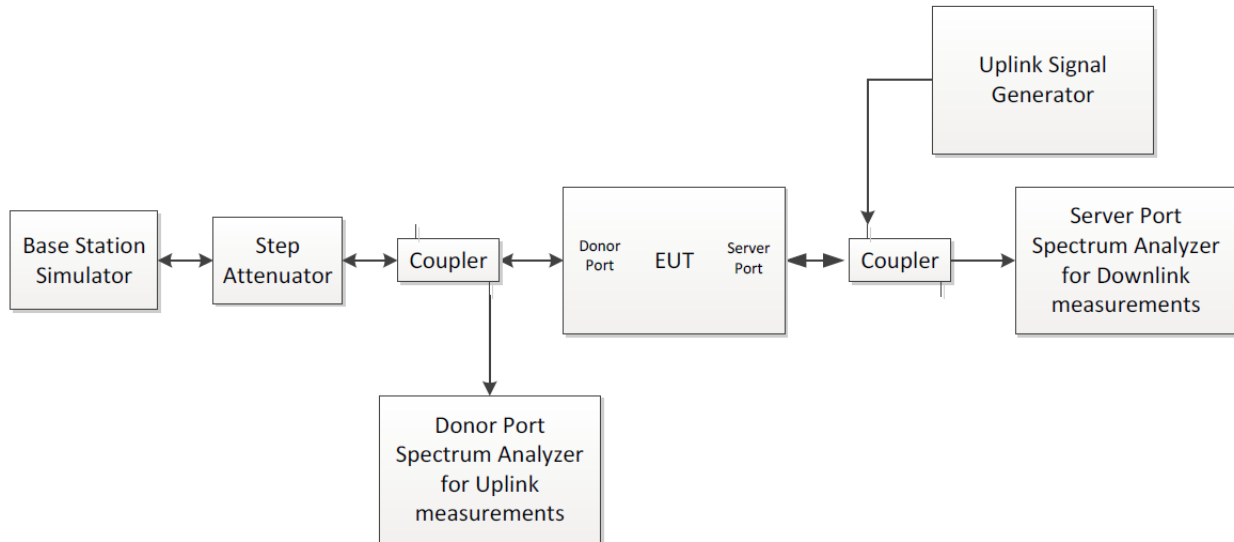


Figure 1 – Test configuration in EUT normal operational mode

1.5 DEVIATIONS FROM THE STANDARD

No deviations from the applicable test standards or test plan were made during testing.

1.6 MODIFICATION RECORD

Description of Modification	Modification Fitted By	Date Modification Fitted
Serial Number: Normal Mode: 258719000273 (NU) and 259706002416 (CU)		
N/A		

The table above details modifications made to the EUT during the test programme. The modifications incorporated during each test (if relevant) are recorded on the appropriate test pages.

1.7 TEST METHODOLOGY

All measurements contained in this report were conducted as per KDB935210 D04 Provider-Specific Consumer Signal Boosters Compliance Measurements Guidance (February 12, 2016).

1.8 TEST FACILITY LOCATION

1.8.1 TÜV SÜD America Inc. (Mira Mesa)

10040 Mesa Rim Road, San Diego, CA 92121-2912 (32.901268,-117.177681). Phone: 858 678 1400 FAX: 858-546 0364

1.8.2 TÜV SÜD America Inc. (Rancho Bernardo)

16936 Via Del Campo, San Diego, CA 92127-1708 (33.018644,-117.092409). Phone: 858 678-1400 Fax: 858 546 0364.

1.9 TEST FACILITY REGISTRATION

1.9.1 FCC – DESIGNATION NO.: US1146

TUV SUD America Inc. (San Diego), is an accredited test facility with the site description report on file and has met all the requirements specified in §2.948 of the FCC rules. The acceptance letter from the FCC is maintained in our files and the Registration is US1146.

FCC ID: NU: YETQ34-45121325NU
CU: YETQ34-45121325CU
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1.9.2 Innovation, Science and Economic Development Canada (ISED) Registration No.: 3067A-1 & 22806-1

The 10m Semi-anechoic chamber of TÜV SÜD America Inc. (San Diego Rancho Bernardo) has been registered by Certification and Engineering Bureau of Innovation, Science and Economic Development Canada for radio equipment testing with Registration No. 3067A-1.

The 3m Semi-anechoic chamber of TÜV SÜD America Inc. (San Diego Mira Mesa) has been registered by Certification and Engineering Bureau of Innovation, Science and Economic Development Canada for radio equipment testing with Registration No. 22806-1.

FCC ID: NU: YETQ34-45121325NU
CU: YETQ34-45121325CU
IC: NU: 9298A-Q45121325NU
CU: 9298A-Q45121325CU
Report No. SD72132066-1017C



SECTION 2

TEST DETAILS

Radio Testing of the
Nextivity Inc.
Cel-Fi QUATRA Cellphone Signal Repeater

2.1 AUTHORIZED CMRS PROVIDER

2.1.1 Specification Reference

FCC 47 CFR Part 20, Clause 20.21 (e)(3)
FCC 47 CFR Part 20, Clause 20.21(e)(4)
KDB935210 D04, Clause 7.1.2

2.1.2 Standard Applicable

FCC 47 CFR Part 20, Clause 20.21 (e)(3) Frequency Bands:

Consumer Signal Boosters must be designed and manufactured such that they only operate on the frequencies used for the provision of subscriber-based services under parts 22 (Cellular), 24 (Broadband PCS), 27 (AWS-1, 700 MHz Lower A-E Blocks, and 700 MHz Upper C Block), and 90 (Specialized Mobile Radio) of this chapter. The Commission will not certificate any Consumer Signal Boosters for operation on part 90 of this chapter (Specialized Mobile Radio) frequencies until the Commission releases a public notice announcing the date Consumer Signal Boosters may be used in the band.

FCC 47 CFR Part 20, Clause 20.21(e)(4) Self Monitoring:

The subscriber operates the Consumer Signal Booster on frequencies used for the provision of subscriber-based services under parts 22 (Cellular), 24 (Broadband PCS), 27 (AWS-1, 700 MHz Lower A-E Blocks, and 700 MHz Upper C Block), and 90 (Specialized Mobile Radio) of this chapter. Operation on part 90 (Specialized Mobile Radio) frequencies is permitted upon the Commission's release of a public notice announcing the date Consumer Signal Boosters may be used in the band;

2.1.3 Equipment Under Test and Modification State

Serial No: 258719001416 (NU) and 259706002355 (CU) / Test Configuration C and D

2.1.4 Date of Test/Initial of test personnel who performed the test

October 27, 2017/XYZ

2.1.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.1.6 Environmental Conditions

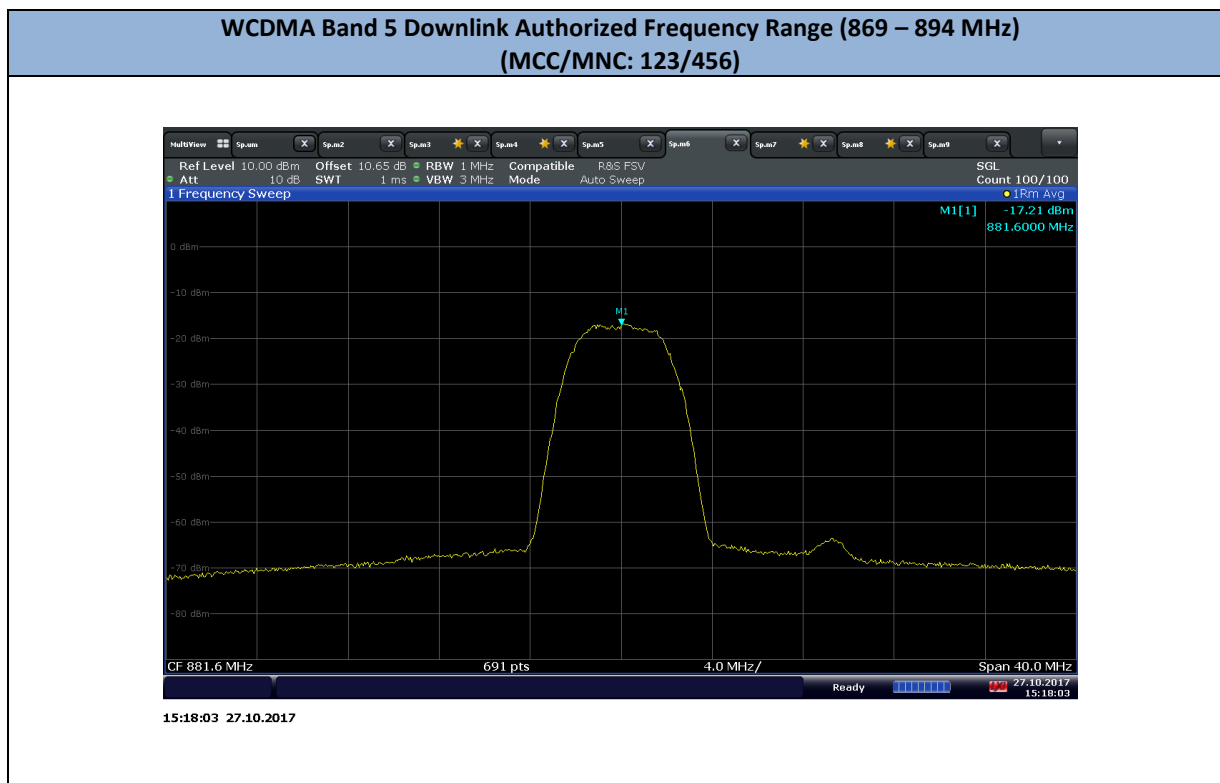
Test performed at TÜV SÜD America Inc. Rancho Bernardo facility.

Ambient Temperature	25.5°C
Relative Humidity	26.7%
ATM Pressure	98.9kPa

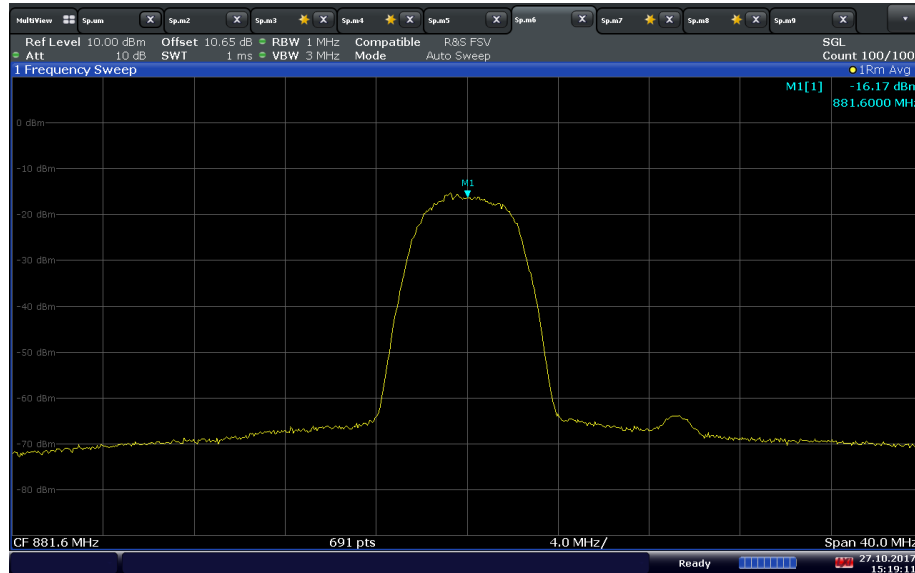
2.1.7 Additional Observations

- 1) This is conducted Test. Test procedure is per Section 7.1.2 of KDB935210 (D04 Provider Specific Booster Measurements v02r01). Appropriate offset (line losses) applied.
- 2) The Fix unit operated in Normal Mode, with the gain manually set to the maximum gain and a minimum bandwidth setting (5MHz).
- 3) Setup the EUT according to Figure 1 of Section 6.3.2 of KDB935210 (D04 Provider Specific Booster Measurements v02r01) with the Base Station Simulator transmitting an authorized CMRS provider signal to the booster.
- 4) Evaluations are conducted at Server and Donor antenna ports.
- 5) All operational uplink and downlink bands for WCDMA Band 5, and LTE Band 25, 12, 13 and 4 were tested.
- 6) The Base Station Simulator was set to transmit a 5MHz LTE signal or WCDMA.
- 7) The two authorized CMRS Provider IDs: 123/456 and 123.789
- 8) Two Non- authorized CMRS Provider signals were verified.
- 9) DL: B5: 869 - 894MHz; B12: 729 – 746MHz; B13: 746 – 756 MHz;
 B4: 2110 – 2155MHz;
 UL: B5: 824 - 849MHz; B12: 699 – 716MHz; B13: 777 – 787 MHz;
 B4: 1710 – 1755MHz;

2.1.8 Test Results

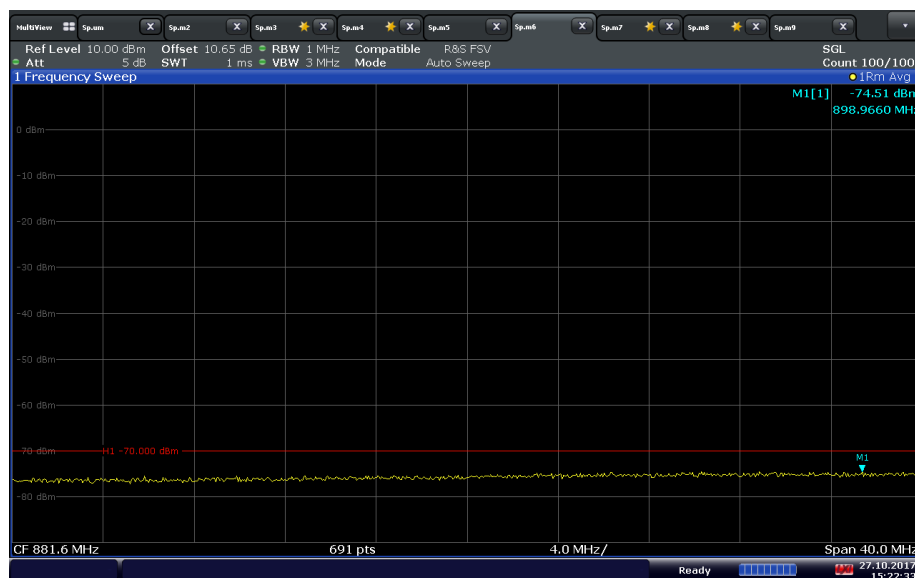


WCDMA Band 5 Downlink Authorized Frequency Range (869 – 894 MHz)
(MCC/MNC: 123/789)



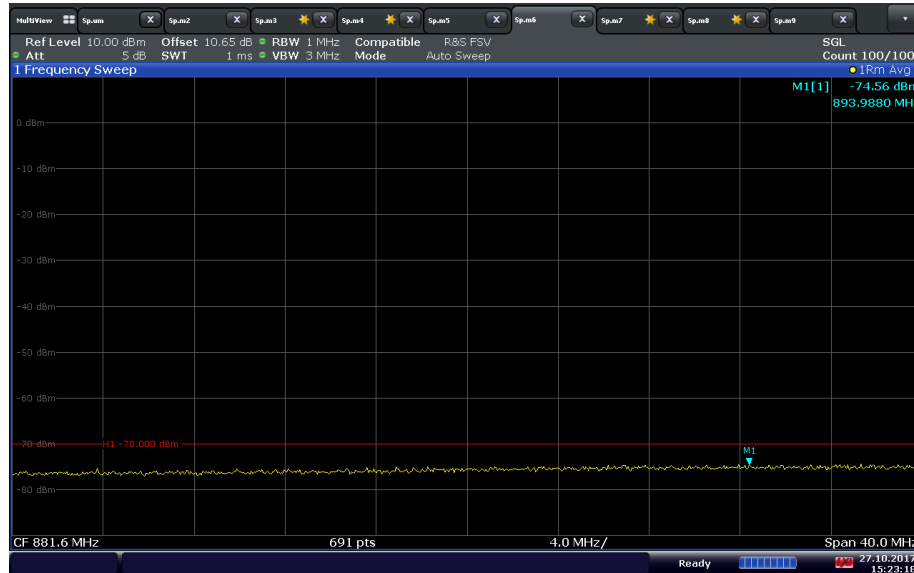
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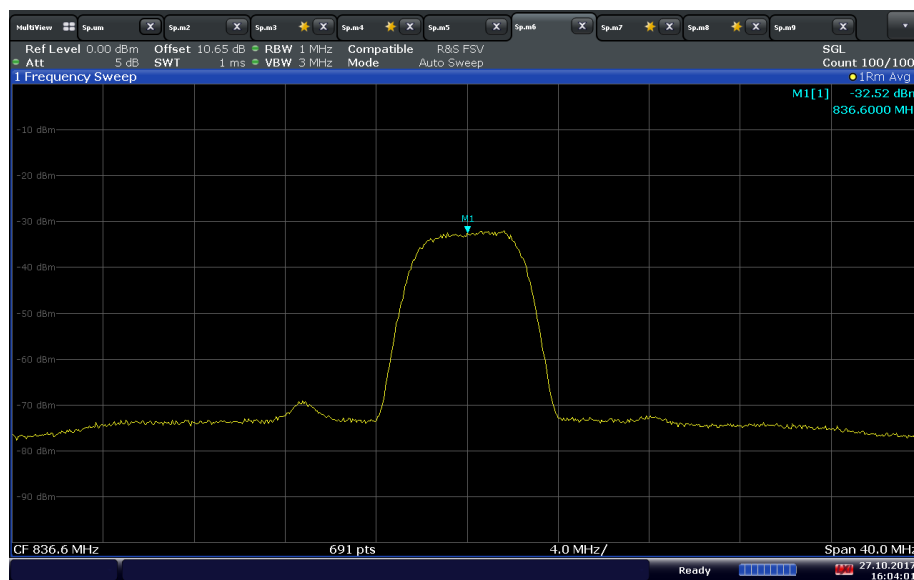


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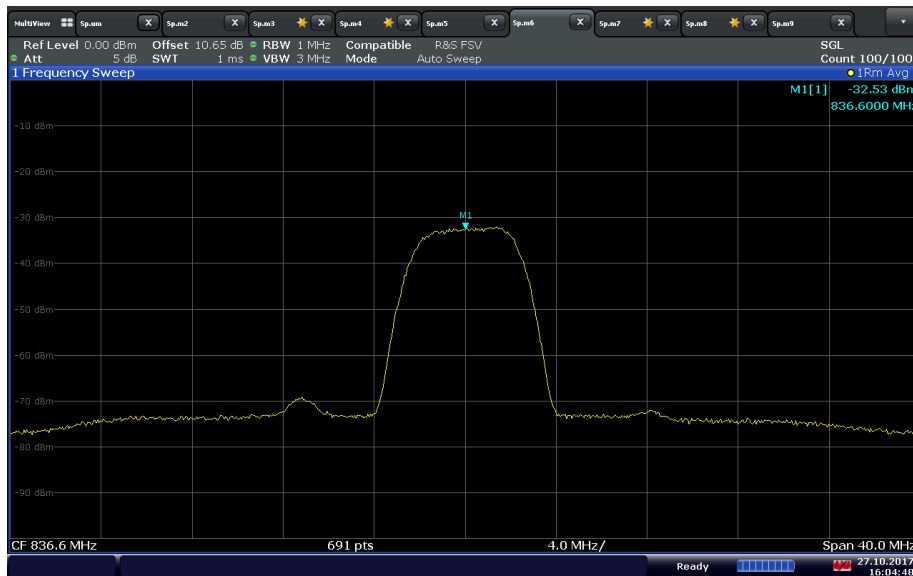
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(MCC/MNC: 123/321)



WCDMA Band 5 Uplink Authorized Frequency Range (824 – 849 MHz)
(MCC/MNC: 123/456)

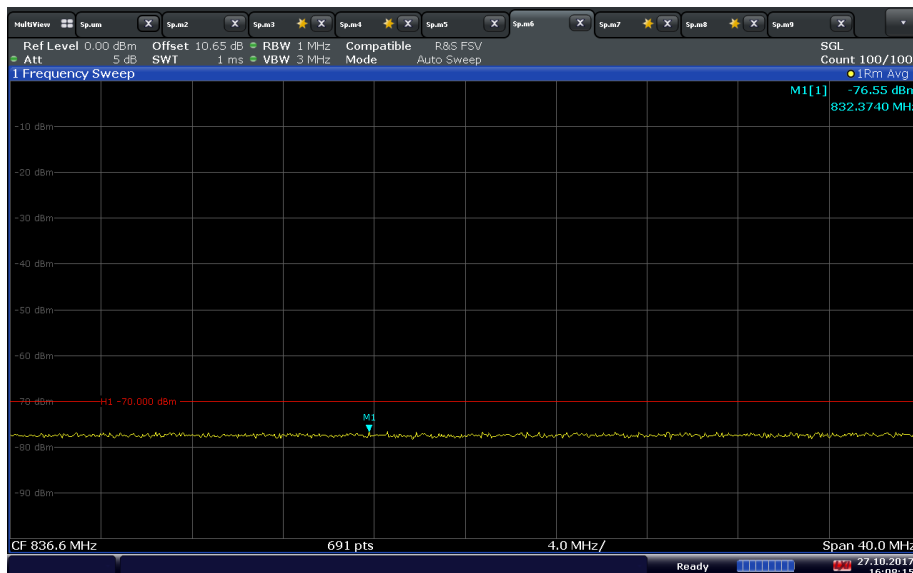


WCDMA Band 5 Uplink Authorized Frequency Range (824 – 849 MHz)
(MCC/MNC: 123/789)



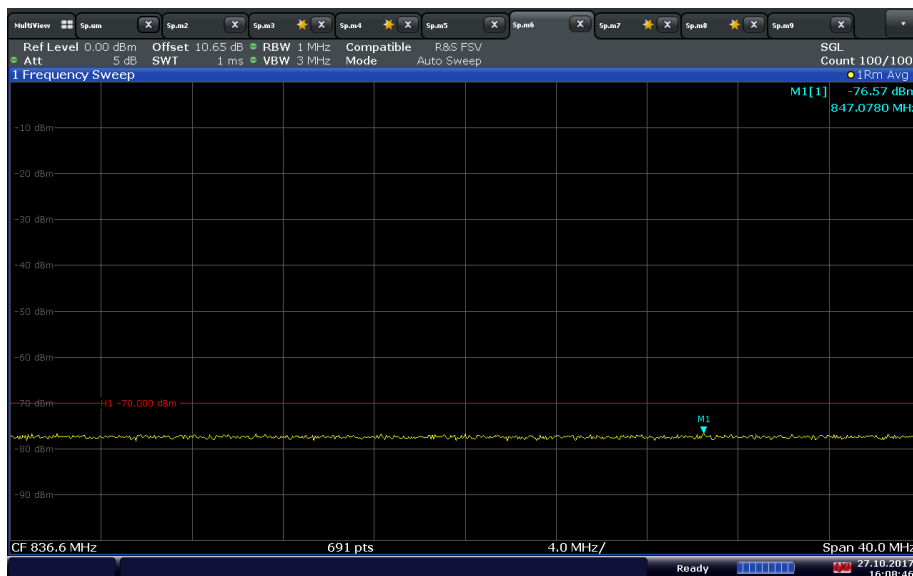
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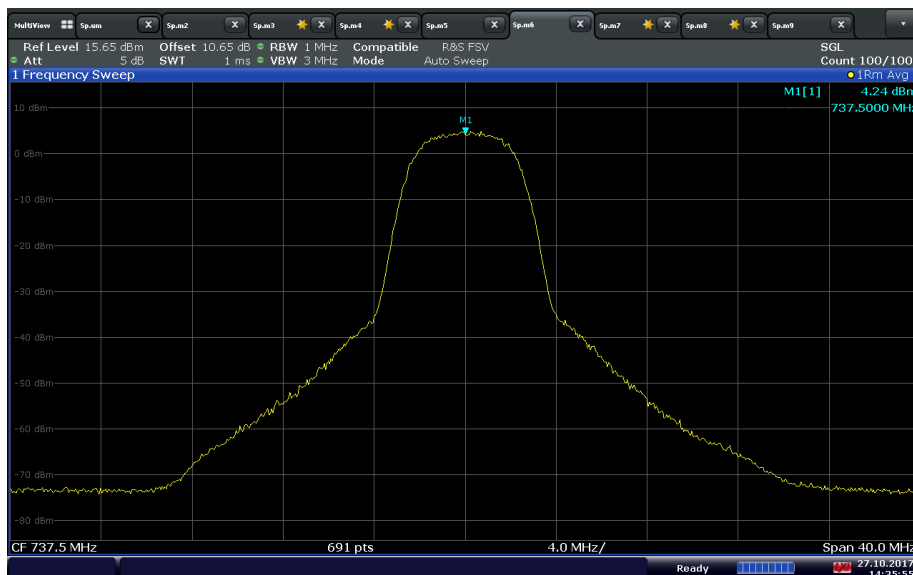
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WCDMA Band 5 Uplink Authorized Frequency Range (824 – 849 MHz) (MCC/MNC: 123/321)



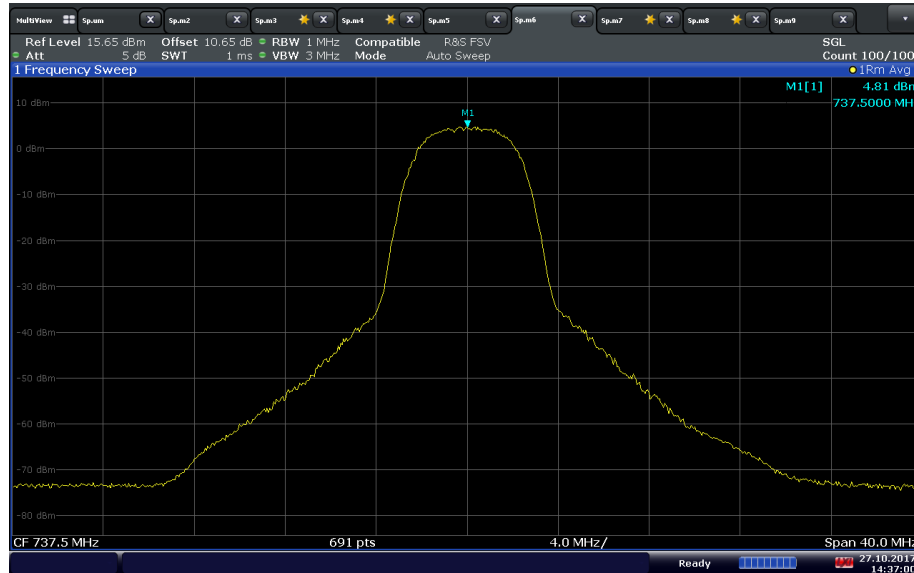
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LTE Band 12 Downlink Authorized Frequency Range (729 – 746 MHz) (MCC/MNC: 123/456)



14:35:55 27.10.2017

LTE Band 12 Downlink Authorized Frequency Range (729 – 746 MHz)
(MCC/MNC: 123/789)



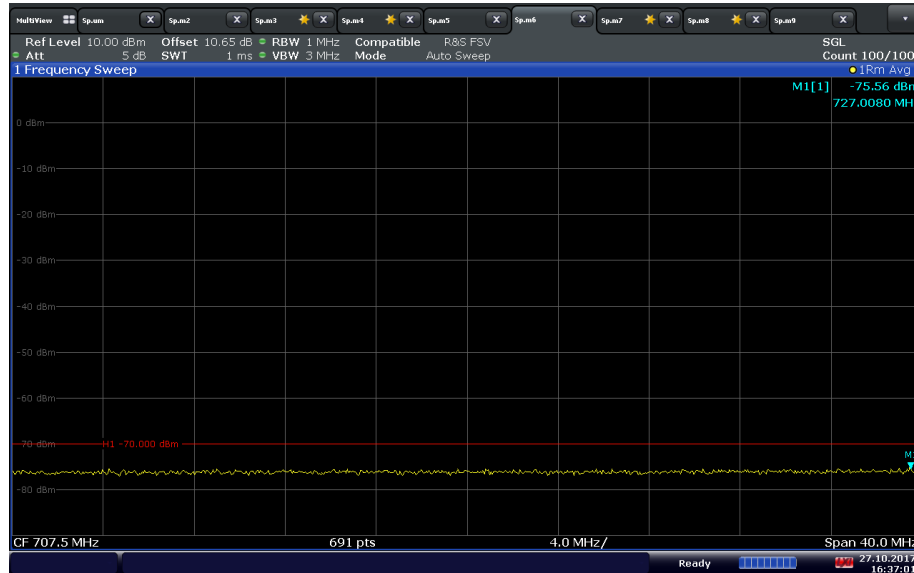
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LTE Band 12 Downlink Authorized Frequency Range (729 – 746 MHz)
(MCC/MNC: 123/123)



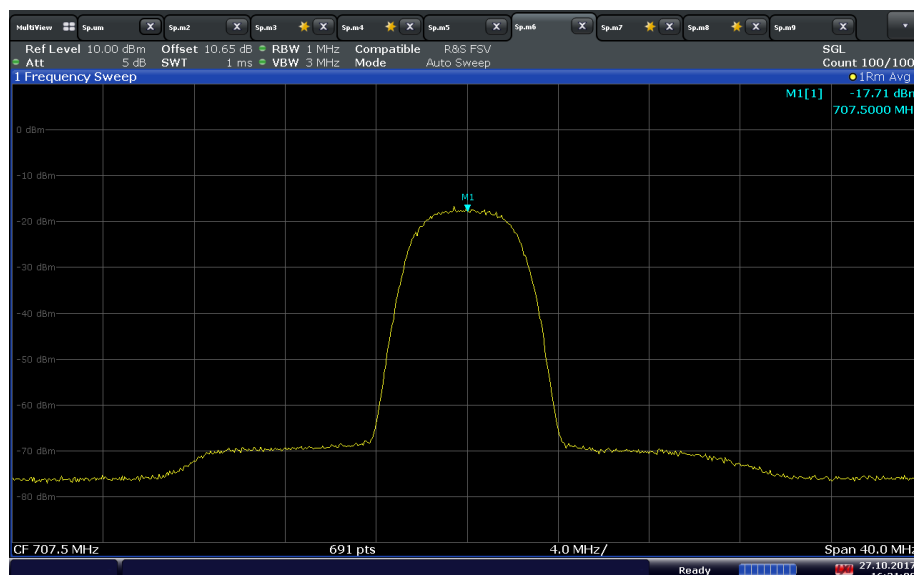
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LTE Band 12 Downlink Authorized Frequency Range (729 – 746 MHz)
(MCC/MNC: 123/321)



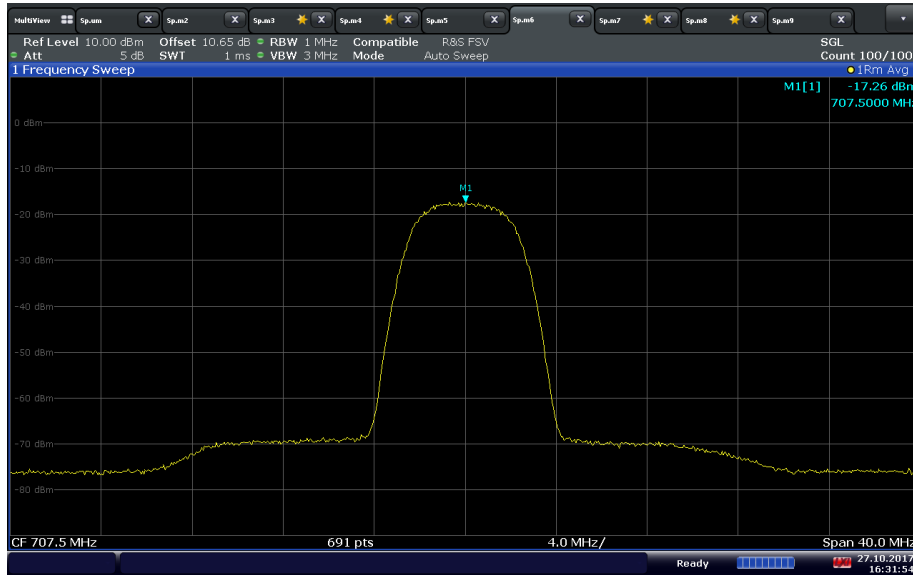
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LTE Band 12 Uplink Authorized Frequency Range (699 – 716 MHz)
(MCC/MNC: 123/456)

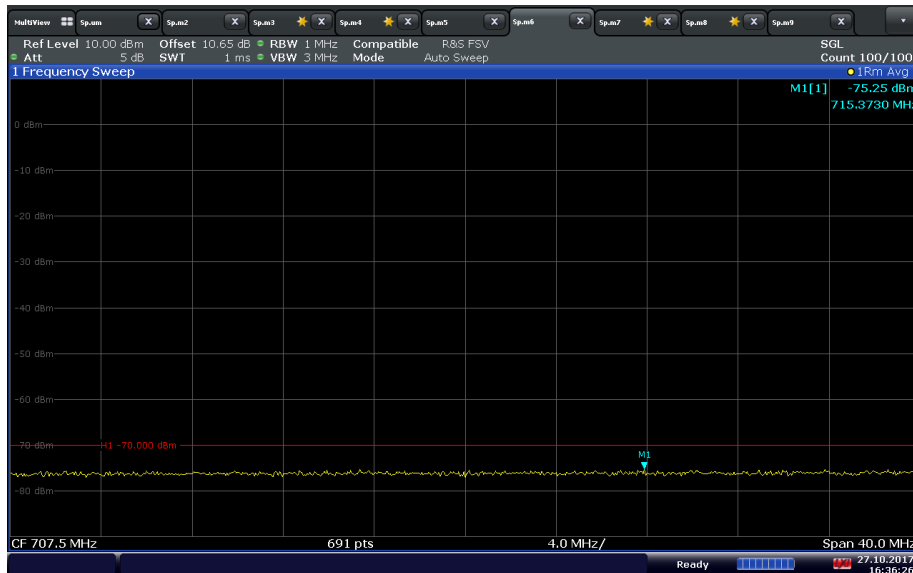


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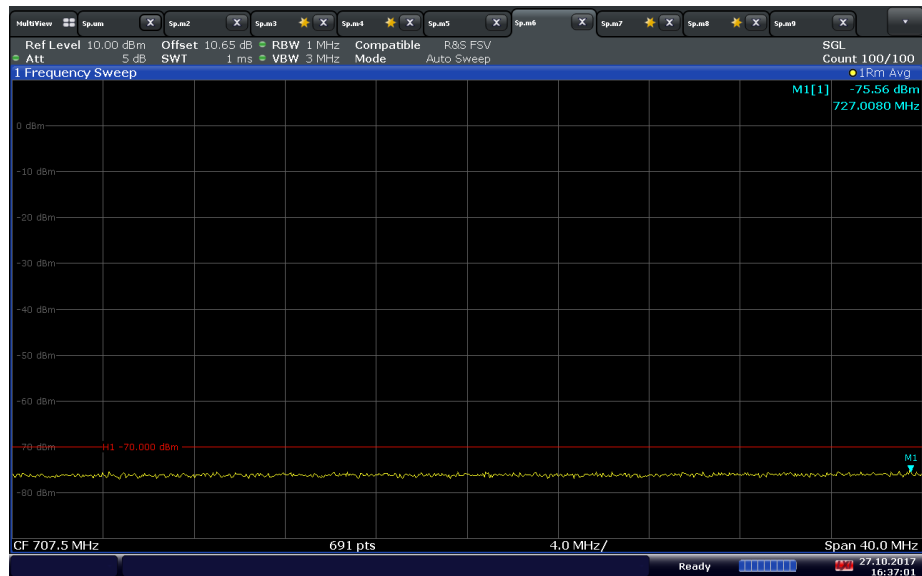
LTE Band 12 Uplink Authorized Frequency Range (699 – 716 MHz)
(MCC/MNC: 123/789)



LTE Band 12 Uplink Authorized Frequency Range (699 – 716 MHz)
(MCC/MNC: 123/123)

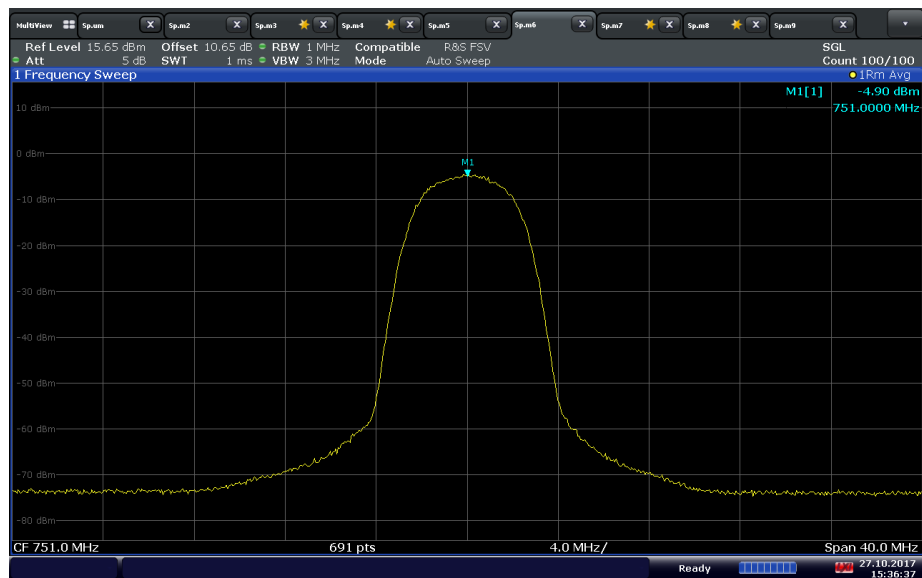


LTE Band 12 Uplink Authorized Frequency Range (699 – 716 MHz)
(MCC/MNC: 123/321)



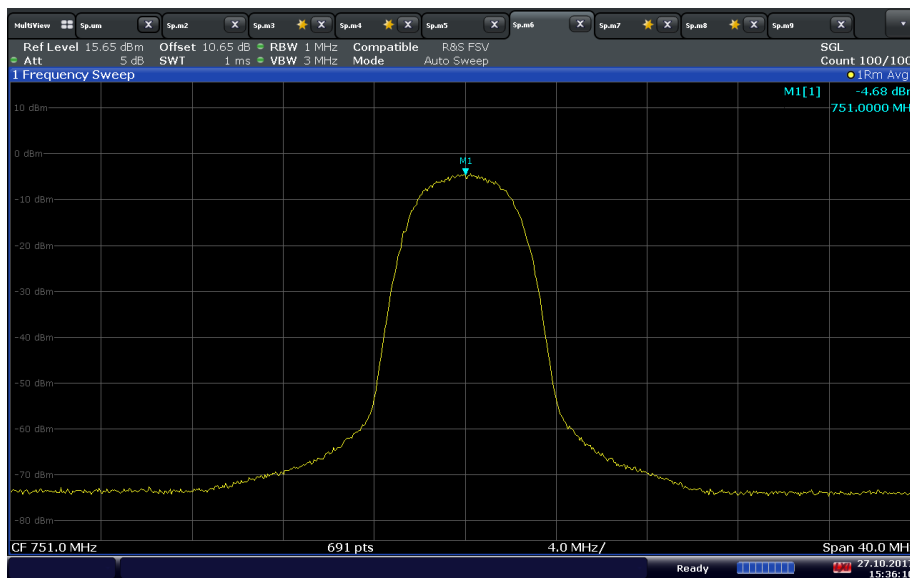
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LTE Band 13 Downlink Authorized Frequency Range (746 – 756 MHz)
(MCC/MNC: 123/456)



15:36:38 27.10.2017

LTE Band 13 Downlink Authorized Frequency Range (746 – 756 MHz)
(MCC/MNC: 123/789)



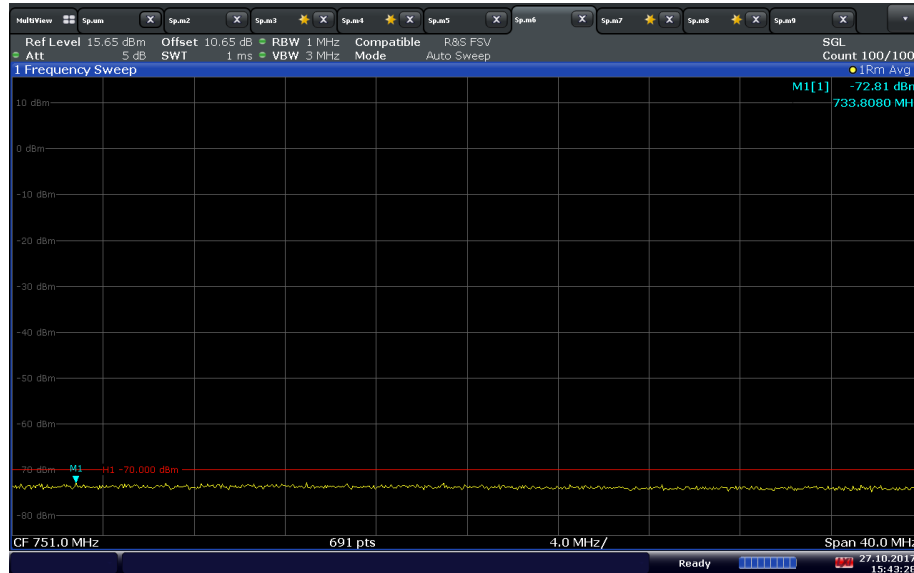
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LTE Band 13 Downlink Authorized Frequency Range (746 – 756 MHz)
(MCC/MNC: 123/123)



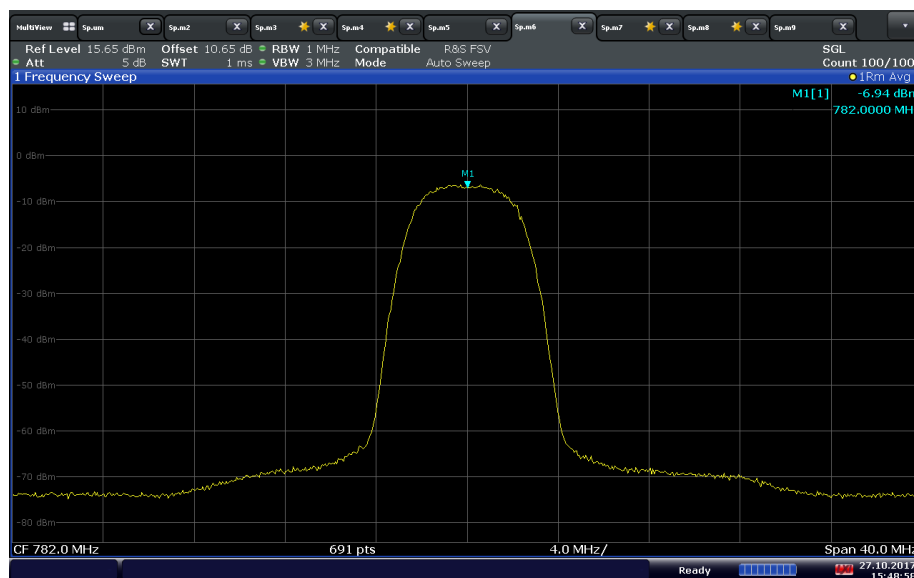
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LTE Band 13 Downlink Authorized Frequency Range (746 – 756 MHz)
(MCC/MNC: 123/321)



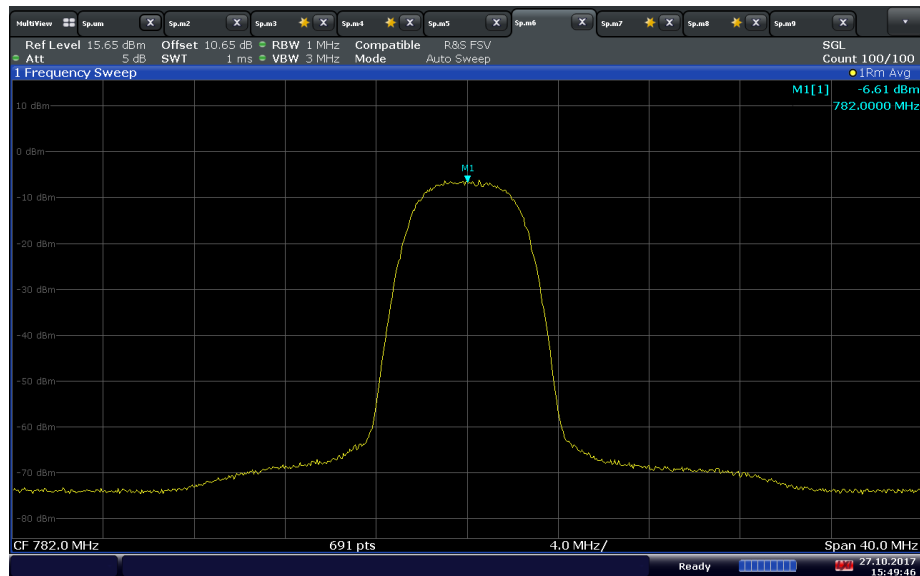
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LTE Band 13 Uplink Authorized Frequency Range (777 – 787 MHz)
(MCC/MNC: 123/456)



15:48:59 27.10.2017

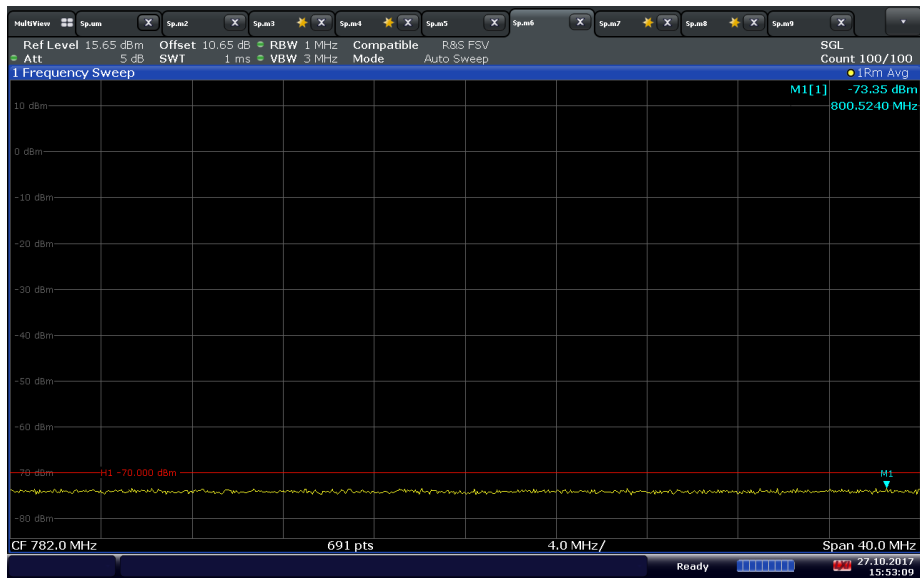
LTE Band 13 Uplink Authorized Frequency Range (777 – 787 MHz)
(MCC/MNC: 123/789)



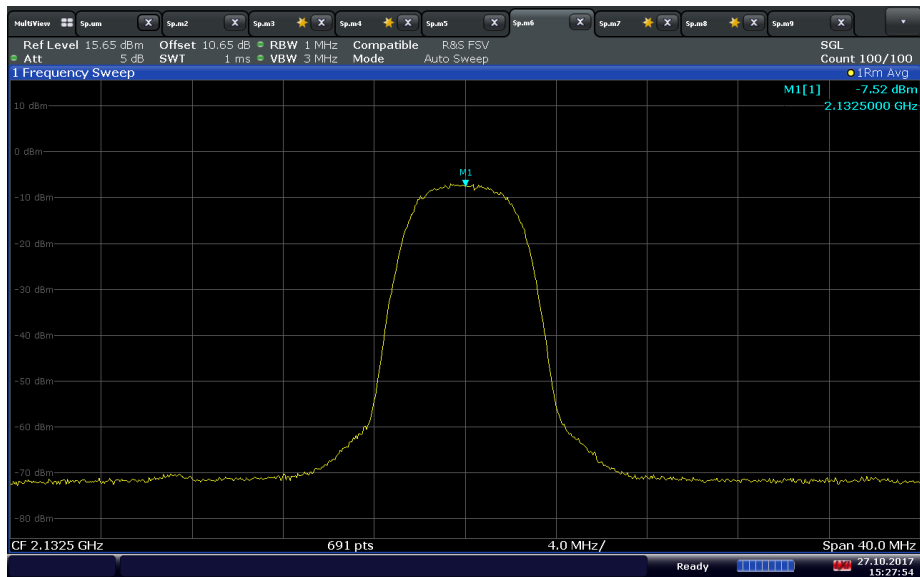
LTE Band 13 Uplink Authorized Frequency Range (777 – 787 MHz)
(MCC/MNC: 123/123)



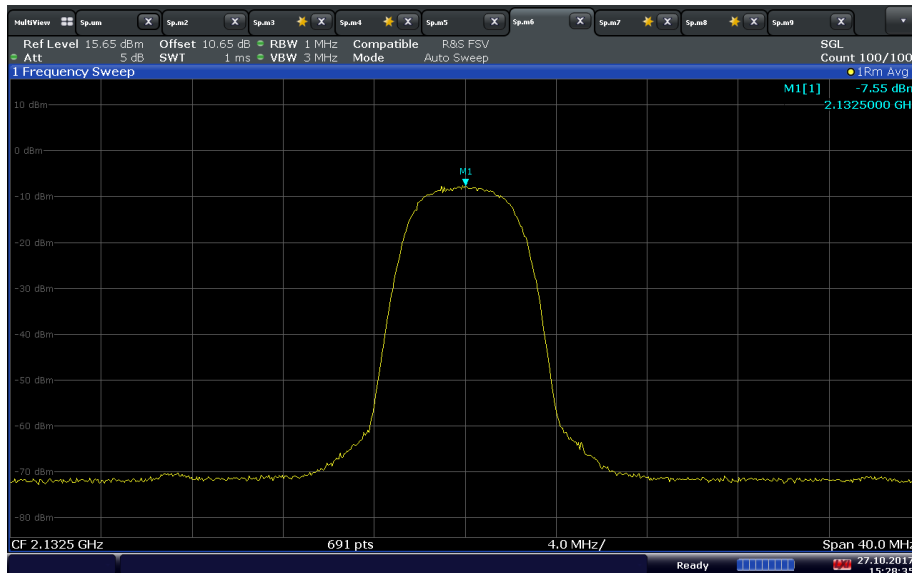
LTE Band 13 Uplink Authorized Frequency Range (777 – 787 MHz)
(MCC/MNC: 123/321)



LTE Band 4 Downlink Authorized Frequency Range (2110 – 2180 MHz)
(MCC/MNC: 123/456)

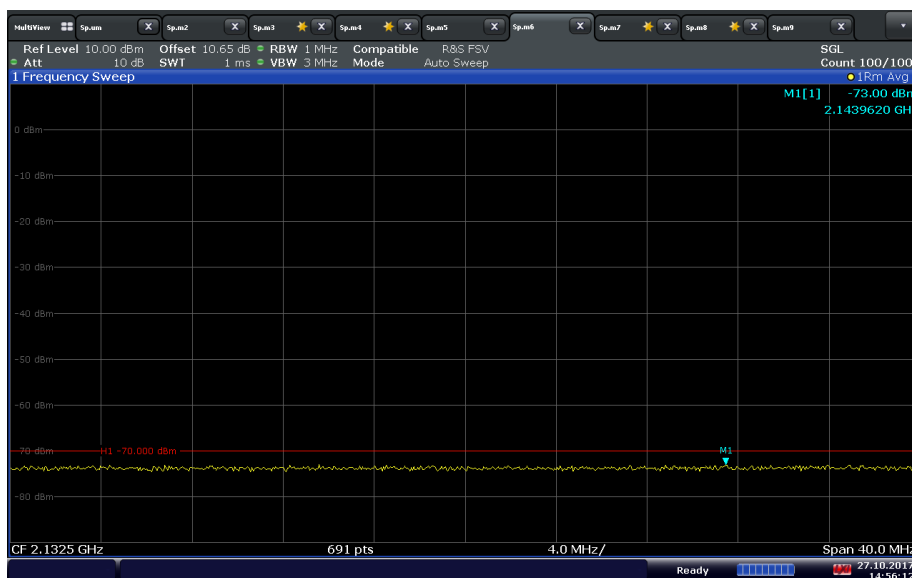


LTE Band 4 Downlink Authorized Frequency Range (2110 – 2180 MHz)
(MCC/MNC: 123/789)



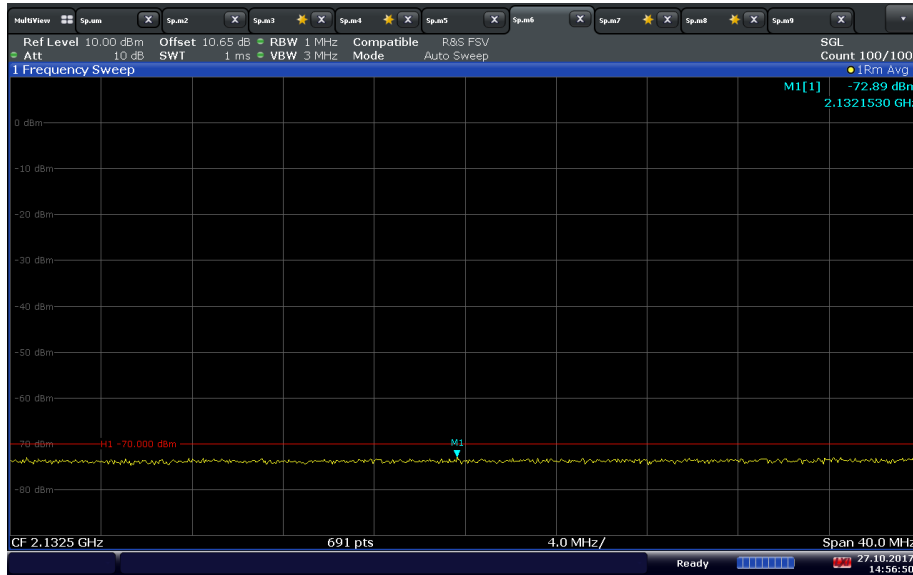
15:28:36 27.10.2017

LTE Band 4 Downlink Authorized Frequency Range (2110 – 2180 MHz)
(MCC/MNC: 123/123)

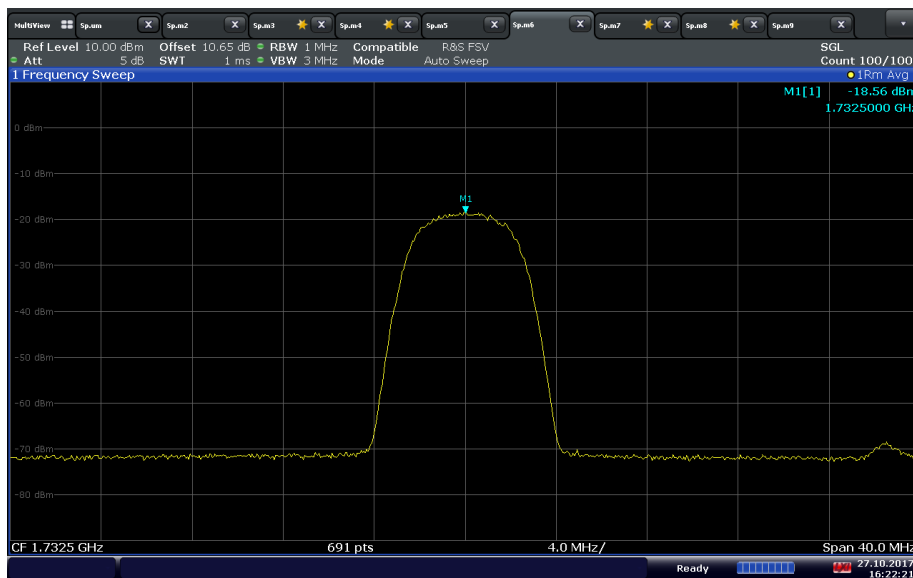


14:56:12 27.10.2017

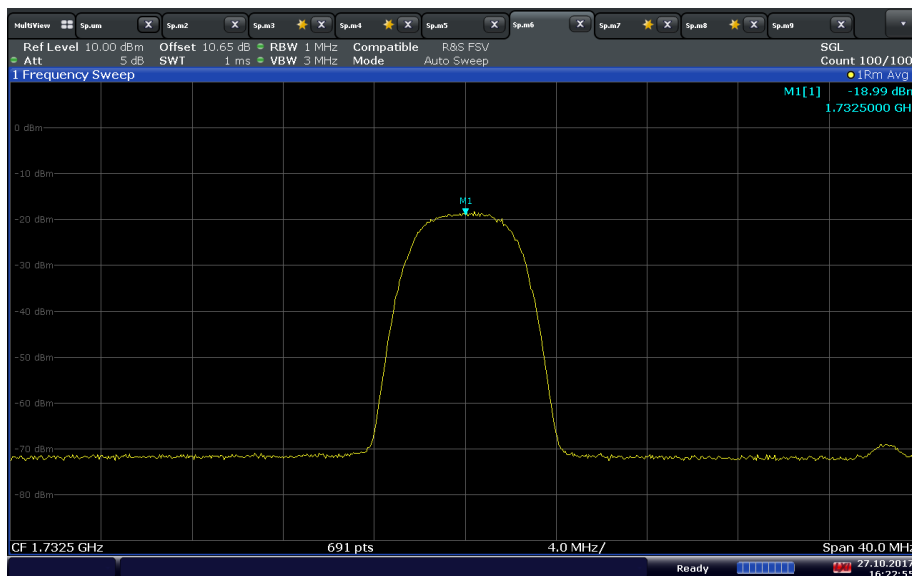
LTE Band 4 Downlink Authorized Frequency Range (2110 – 2180 MHz)
(MCC/MNC: 123/321)



LTE Band 4 Uplink Authorized Frequency Range (1710 – 1780 MHz)
(MCC/MNC: 123/456)



LTE Band 4 Uplink Authorized Frequency Range (1710 – 1780 MHz)
(MCC/MNC: 123/789)



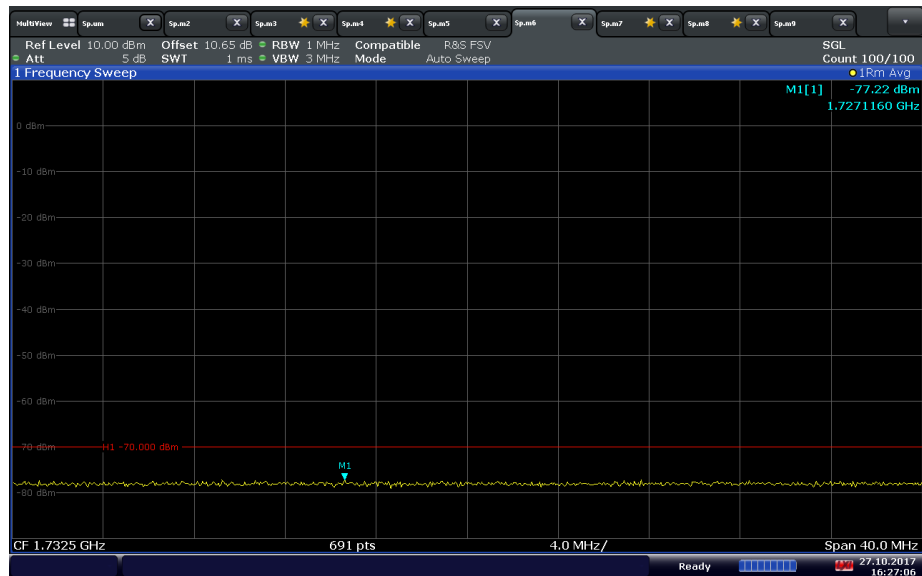
16:22:56 27.10.2017

LTE Band 4 Uplink Authorized Frequency Range (1710 – 1780 MHz)
(MCC/MNC: 123/123)

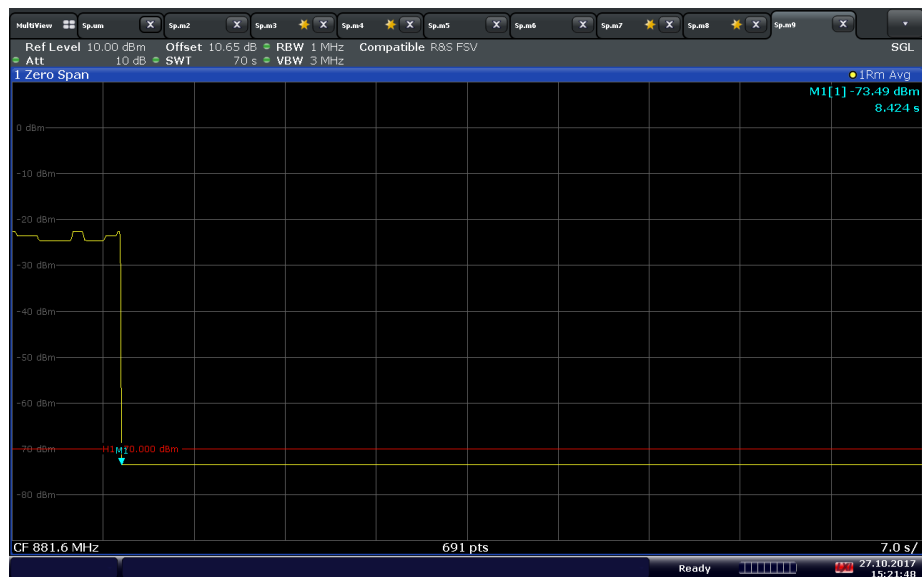


16:26:49 27.10.2017

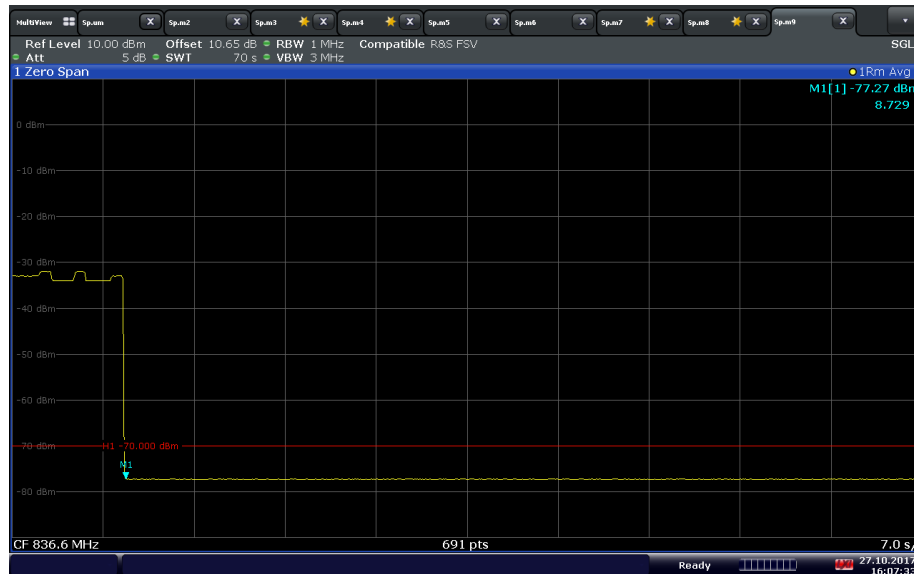
LTE Band 4 Uplink Authorized Frequency Range (1710 – 1780 MHz)
(MCC/MNC: 123/321)



WCDMA Band 5 Downlink Inactive time after reset (>30s)



WCDMA Band 5 Uplink Inactive time after reset (>30s)



16:07:33 27.10.2017

LTE Band 12 Downlink Inactive time after reset (>30s)



14:39:47 27.10.2017

LTE Band 12 Uplink Inactive time after reset (>30s)



16:35:55 27.10.2017

LTE Band 13 Downlink Inactive time after reset (>30s)



15:41:32 27.10.2017

LTE Band 13 Uplink Inactive time after reset (>30s)



15:51:55 27.10.2017

LTE Band 4 Downlink Inactive time after reset (>30s)



14:54:51 27.10.2017

LTE Band 4 Uplink Inactive time after reset (>30s)



16:24:56 27.10.2017

FCC ID: NU: YETQ34-45121325NU
CU: YETQ34-45121325CU
IC: NU: 9298A-Q45121325NU
CU: 9298A-Q45121325CU
Report No. SD72132066-1017C



SECTION 3

TEST EQUIPMENT USED



3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

ID Number (SDGE/SDRB)	Test Equipment	Type	Serial Number	Manufacturer	Cal Date	Cal Due Date
Antenna Conducted Port Setup						
7611	Signal/Spectrum Analyzer	FSW26	102017	Rhode & Schwarz	04/25/17	04/25/18
7608	Vector Signal Generator	SMBV100A	259021	Rhode & Schwarz	09/19/17	09/19/19
7562	Wideband Radio Communication Tester	CMW 500	1201.0002k50 /103829	Rhode & Schwarz	08/10/17	08/10/18
-	10dB Attenuator	PE7010-10	-	Pasternack	Verified by 7611 and 7608	
Miscellaneous						
6708	Multimeter	34401A	US36086974	Hewlett Packard	07/05/17	07/05/18
11312	Mini Environmental Quality Meter	850027	CF099-56010-340	Sper Scientific	08/22/16	08/22/17

3.2 MEASUREMENT UNCERTAINTY

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

3.2.1 Conducted Antenna Port Measurement

Contribution		Probability Distribution Type	Probability Distribution ξ	Standard Uncertainty $u(\xi)$	$[u(\xi)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.08	0.05	0.00
2	Cables	Rectangular	0.30	0.17	0.03
4	EUT Setup	Rectangular	0.50	0.29	0.08
Combined Uncertainty (u_c):					0.34
Coverage Factor (k):					1.96
Expanded Uncertainty:					0.67

FCC ID: NU: YETQ34-45121325NU
CU: YETQ34-45121325CU
IC: NU: 9298A-Q45121325NU
CU: 9298A-Q45121325CU
Report No. SD72132066-1017C



SECTION 4

DIAGRAM OF TEST SETUP

FCC ID: NU: YETQ34-45121325NU
CU: YETQ34-45121325CU
IC: NU: 9298A-Q45121325NU
CU: 9298A-Q45121325CU
Report No. SD72132066-1017C



4.1 TEST SETUP DIAGRAM

Notes: All tests were done on the bench (conducted). Please refer to Section 1.4.4 of this test report for more details.

FCC ID: NU: YETQ34-45121325NU
CU: YETQ34-45121325CU
IC: NU: 9298A-Q45121325NU
CU: 9298A-Q45121325CU
Report No. SD72132066-1017C



SECTION 5

ACCREDITATION, DISCLAIMERS AND COPYRIGHT

5.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT

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