



**FCC PART 15C
TEST REPORT
No.I15Z41437-SRD03**

for

ZTE CORPORATION

LTE/WCDMA/GSM (GPRS) Multi-Mode Digital Mobile Phone

Model Name: Blade S6

With

Hardware Version: wrbA

Software Version: Blade_S_EIYV1.0.0B01

FCC ID: SRQ-BLADES6

Issued Date: Jul 15th, 2015



Note:

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

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REPORT HISTORY

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1. Test Laboratory

1.1. Testing Location

Location 1:CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,
P. R. China100191

Location 2:CTTL(Shouxiang)

Address: No. 51 Shouxiang Science Building, Xueyuan Road,
Haidian District, Beijing, P. R. China100191

1.2. Testing Environment

Normal Temperature: 15-35°C
Extreme Temperature: -20/+55°C
Relative Humidity: 20-75%

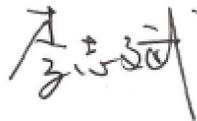
1.3. Project data

Testing Start Date: 2015-06-01
Testing End Date: 2015-07-13

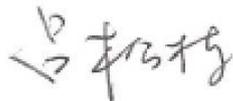
1.4. Signature



Xu Zhongfei
(Prepared this test report)



Li Zhibin
(Reviewed this test report)



Lv Songdong
(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name: ZTE CORPORATION
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City: Shenzhen
Postal Code: /
Country: China
Telephone: +86 18616587757
Fax: +86 021 50801070

2.2. Manufacturer Information

Company Name: ZTE CORPORATION
Address: ZTE Plaza, Keji Road South, Shenzhen, China
City: Shenzhen
Postal Code: /
Country: China
Telephone: +86 18616587757
Fax: +86 021 50801070



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

3.1. About EUT

| | |
|--------------------|---|
| Description | LTE/WCDMA/GSM(GPRS) Multi-Mode Digital Mobile Phone |
| Model Name | Blade S6 |
| Market Name | ZTE |
| Frequency Band | 2402MHz~2480MHz |
| Type of Modulation | GFSK |
| Number of Channels | 40 |
| FCC ID | SRQ-BLADES6 |

*Note: Photographs of EUT are shown in ANNEX A of this test report.

3.2. Internal Identification of EUT

| EUT ID* | IMEI | HW Version | SW Version |
|----------------|-------------|-------------------|----------------------|
| EUT1 | / | wrbA | Blade_S_EIYV1.0.0B01 |

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

3.3. Internal Identification of AE

| AE ID* | Description | Type | SN |
|---------------|--------------------|-------------|-----------|
| AE1 | Charger | / | / |

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



4. Reference Documents

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

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

| Reference | Title | Version |
|------------------|--|----------------|
| FCC Part15 | FCC CFR 47, Part 15, Subpart C: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.247 Operation within the bands 902–928MHz, 2400–2483.5 MHz, and 5725–5850 MHz. | Oct, 2014 |
| ANSI C63.10 | American National Standard for Testing Unlicensed Wireless Devices | Jun,2013 |

5. Test Results

5.1. Summary of Test Results

| No | Test cases | Standard Sub-clause | Verdict |
|----|---|---------------------|----------|
| 0 | Antenna Requirement | 15.203 | P |
| 1 | Maximum Peak Output Power | 15.247 (b) | P |
| 2 | Peak Power Spectral Density | 15.247 (e) | P |
| 3 | Occupied 6dB Bandwidth | 15.247 (a) | P |
| 4 | Band Edges Compliance | 15.247 (d) | P |
| 5 | Transmitter Spurious Emission - Conducted | 15.247 (d) | P |

See **ANNEX B** and **ANNEX C** for details.

5.2. Statements

CTTL has evaluated the test cases requested by the applicant/manufacture as listed in section 5.1 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2

5.3. Terms used in the result table

Terms used in Verdict column

| | |
|----|---------------|
| P | Pass |
| NA | Not Available |
| F | Fail |

Abbreviations

| | |
|----------|---|
| AC | Alternating Current |
| AFH | Adaptive Frequency Hopping |
| BW | Band Width |
| E.I.R.P. | equivalent isotropical radiated power |
| ISM | Industrial, Scientific and Medical |
| R&TTE | Radio and Telecommunications Terminal Equipment |
| RF | Radio Frequency |
| Tx | Transmitter |

5.4. Laboratory Environment

Semi-anechoic chamber (23 metersx17 metersx10 meters) did not exceed following limits:

| | |
|---|---|
| Temperature | Min. = 15 °C, Max. = 35 °C |
| Relative humidity | Min. = 15 %, Max. = 75 % |
| Shielding effectiveness | 0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB. |
| Electrical insulation | > 2 M |
| Ground system resistance | < 4 |
| Normalised site attenuation (NSA) | < ± 4 dB, 3m/10m distance, from 30 to 1000 MHz |
| Site voltage standing-wave ratio (S_{VSWR}) | Between 0 and 6 dB, from 1GHz to 18GHz |
| Uniformity of field strength | Between 0 and 6 dB, from 80 to 3000 MHz |

Shielded room did not exceed following limits along the EMC testing:

| | |
|--------------------------|---|
| Temperature | Min. = 15 °C, Max. = 35 °C |
| Relative humidity | Min. = 20 %, Max. = 75 % |
| Shielding effectiveness | 0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB. |
| Electrical insulation | > 2 M |
| Ground system resistance | < 4 |

6. Test Facilities Utilized

Conducted test system

| No. | Equipment | Model | Serial Number | Manufacturer | Calibration Period | Calibration Due date |
|-----|------------------------|-------|---------------|-----------------|--------------------|----------------------|
| 1 | Vector Signal Analyzer | FSQ26 | 200136 | Rohde & Schwarz | 1 year | 2016-01-06 |
| 2 | Shielding Room | S81 | / | ETS-Lindgren | / | / |

ANNEX A: EUT photograph



Picture A-1: Mobile Phone



Picture A-2: Mobile Phone



ANNEX B: MEASUREMENT RESULTS FOR RECEIVER

B.0 Antenna requirement

Measurement Limit:

| Standard | Requirement |
|------------------------|---|
| FCC CRF Part 15.203 | An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, § 15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded. |

Conclusion: The Directional gains of antenna used for transmitting is 1.23 dBi.

The RF transmitter uses an integrate antenna without connector.

B.1 Maximum Average Output Power

Measurement Limit:

| Standard | Limit (dBm) |
|---------------------------|-------------|
| FCC CRF Part 15.247(b)(1) | < 30 |

Measurement Results:

| Mode | Channel | Maximum Peak Output Power (dBm) | | Conclusion |
|------|---------|---------------------------------|-------|------------|
| GFSK | 0 | -2.86 | Fig.1 | P |
| | 19 | -2.23 | Fig.2 | P |
| | 39 | -2.71 | Fig.3 | P |

See ANNEX C for test graphs.

Conclusion: Pass

B.2 Peak Power Spectral Density

Measurement Limit:

| Standard | Limit |
|------------------------|---------------|
| FCC CRF Part 15.247(d) | < 8 dBm/3 kHz |

Measurement Results:

| Mode | Channel | Peak Power Spectral Density (dBm) | | Conclusion |
|------|---------|-----------------------------------|--------|------------|
| GFSK | 0 | Fig.4 | -19.15 | P |
| | 19 | Fig.5 | -18.12 | P |
| | 39 | Fig.6 | -18.61 | P |

See ANNEX C for test graphs.

Conclusion: PASS

B.3 Occupied 6dB Bandwidth

Measurement Limit:

| Standard | Limit (kHz) |
|----------------------------|-------------|
| FCC 47 CFR Part 15.247 (a) | ≥ 500 |

Measurement Result:

| Mode | Channel | Test Results (kHz) | conclusion | |
|------|---------|---------------------|------------|---|
| GFSK | 0 | Fig.7 | 665.7 | P |
| | 19 | Fig.8 | 672.9 | P |
| | 39 | Fig.9 | 672.9 | P |

See ANNEX C for test graphs.

Conclusion: PASS

B.4 Band Edges Compliance

Measurement Limit:

| Standard | Limit (dBc) |
|----------------------------|-------------|
| FCC 47 CFR Part 15.247 (d) | > 20 |

Measurement Result:

| Mode | Channel | Test Results | Conclusion |
|------|---------|--------------|------------|
| GFSK | 0 | Fig.10 | P |
| | 39 | Fig.11 | P |

See ANNEX C for test graphs.

Conclusion: Pass

B.5 Transmitter Spurious Emission

B.5.1 Transmitter Spurious Emission - Conducted

Measurement Limit:

| Standard | Limit |
|----------------------------|---|
| FCC 47 CFR Part 15.247 (d) | 20dB below peak output power in 100 kHz bandwidth |

Measurement Results:

| MODE | Channel | Frequency Range | Test Results | Conclusion |
|------|--------------|-----------------|--------------|------------|
| GFSK | 0 | 2.402 GHz | Fig.12 | P |
| | | 30 MHz-3 GHz | Fig.13 | P |
| | | 3GHz-18GHz | Fig.14 | P |
| | 19 | 2.440 GHz | Fig.15 | P |
| | | 30 MHz-3 GHz | Fig.16 | P |
| | | 3GHz-18GHz | Fig.17 | P |
| | 39 | 2.480 GHz | Fig.18 | P |
| | | 30 MHz-3 GHz | Fig.19 | P |
| | | 3GHz-18GHz | Fig.20 | P |
| | All channels | 18GHz-26GHz | Fig.21 | P |

See ANNEX C for test graphs.

Conclusion: Pass

ANNEX C: TEST FIGURE LIST

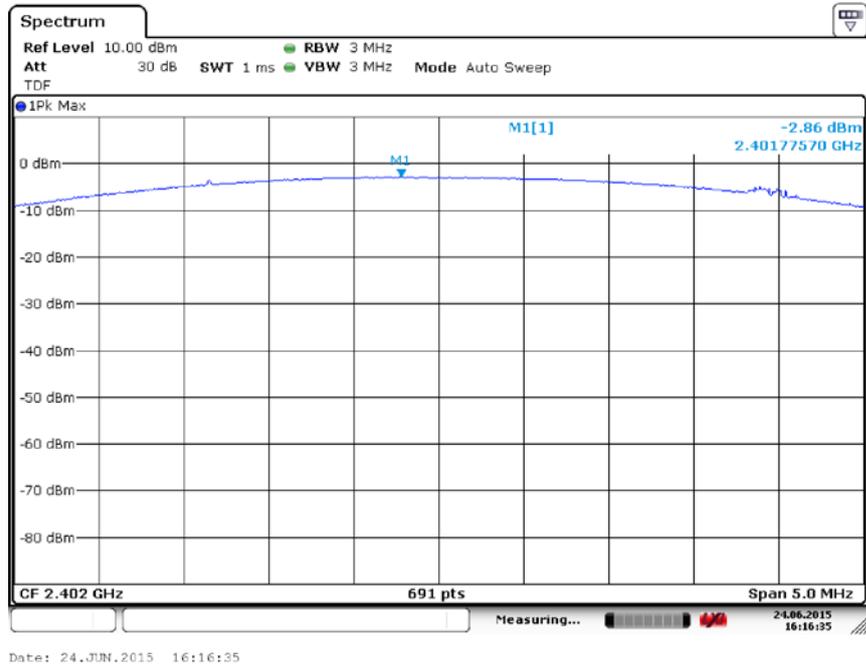


Fig.1 Maximum Peak Output Power(GFSK, Ch 0)

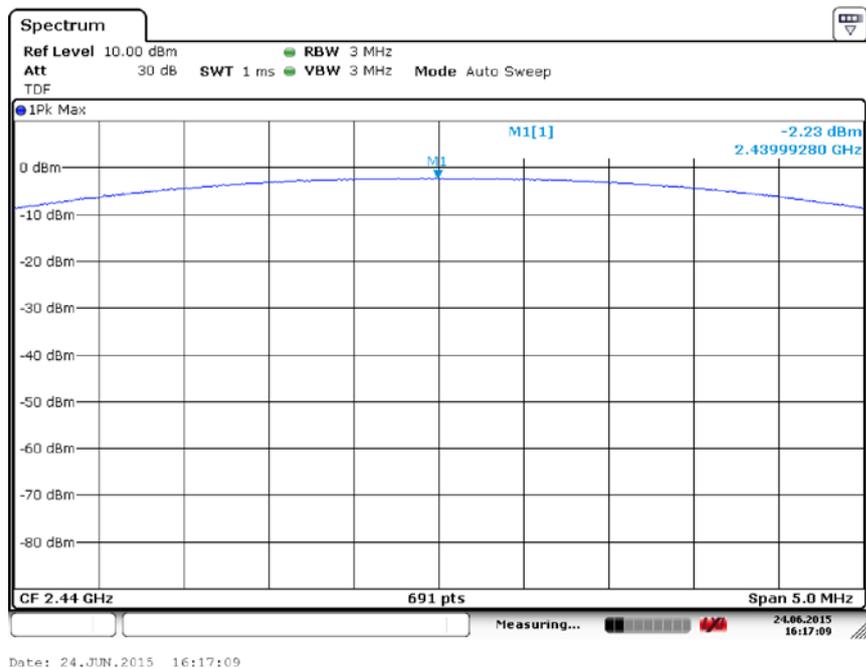
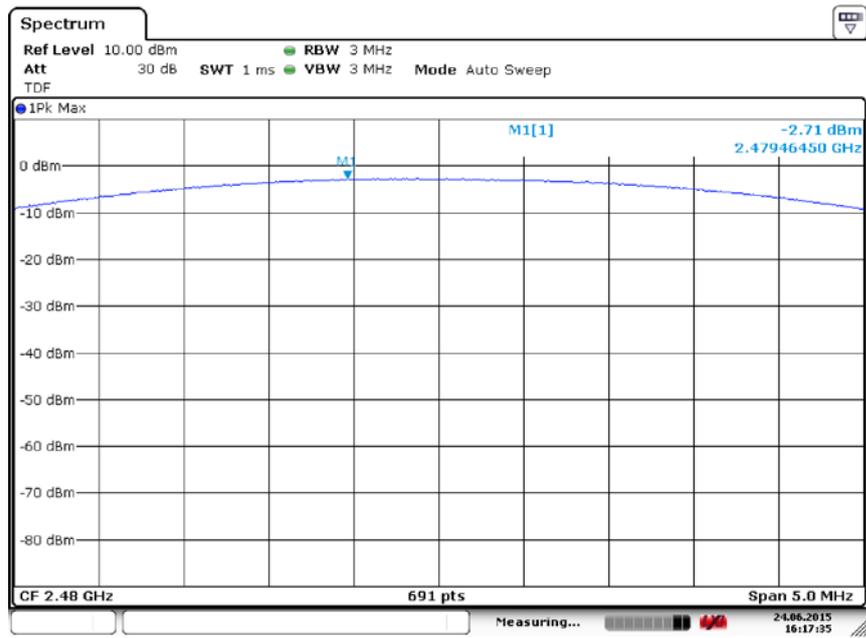
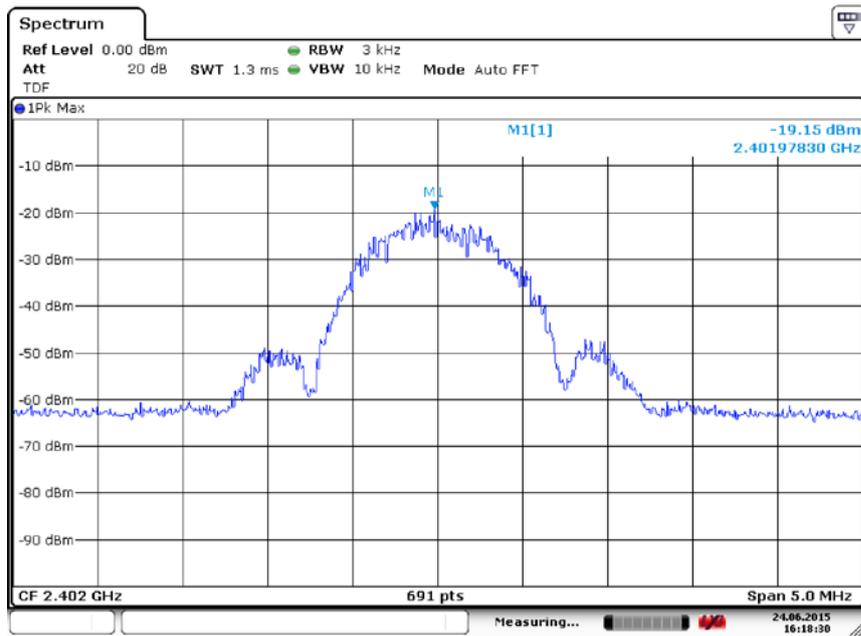


Fig.2 Maximum Peak Output Power(GFSK, Ch 19)



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Fig.3 Maximum Peak Output Power(GFSK, Ch 39)



Date: 24.JUN.2015 16:18:30

Fig.4 Power Spectral Density (Ch 0)

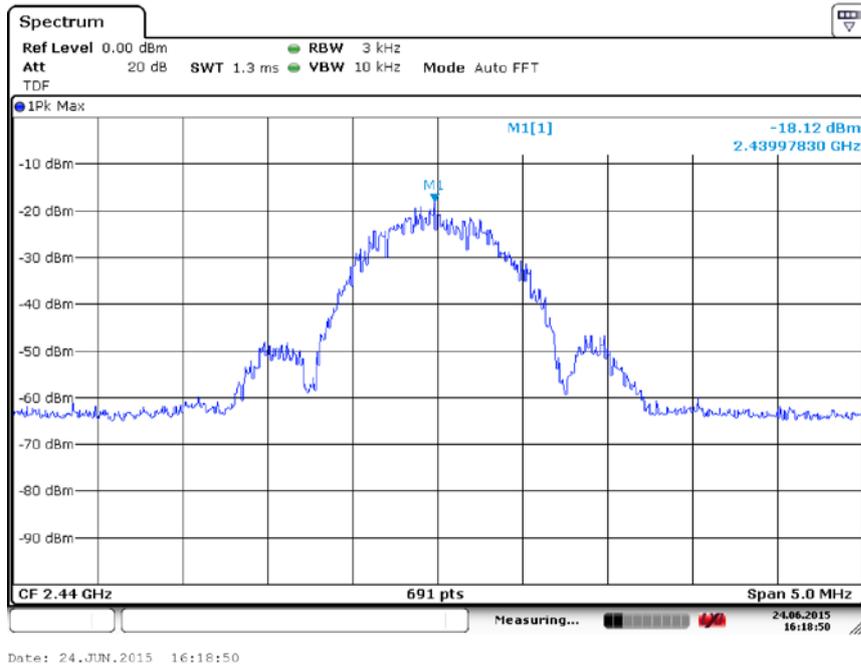


Fig.5 Power Spectral Density (Ch 19)

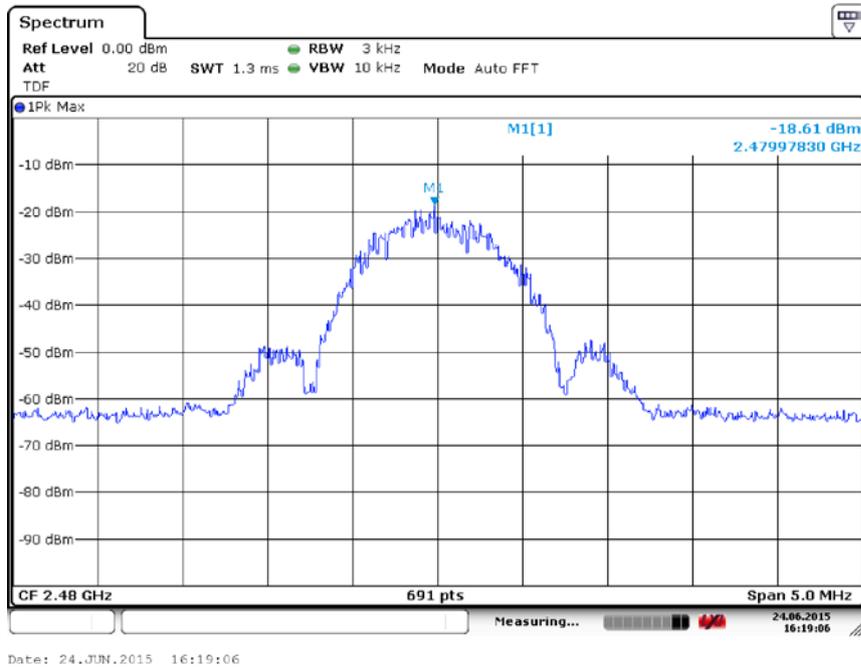
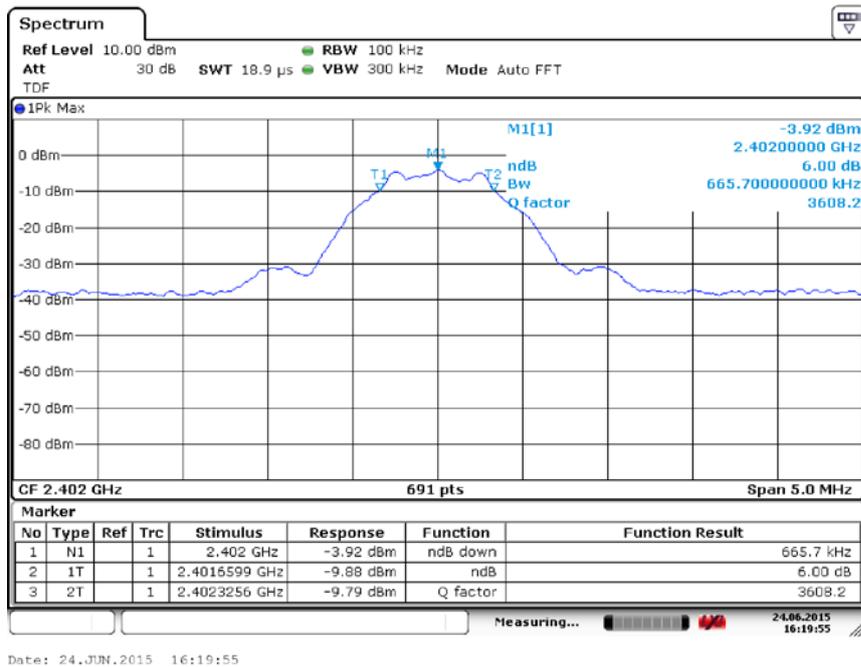
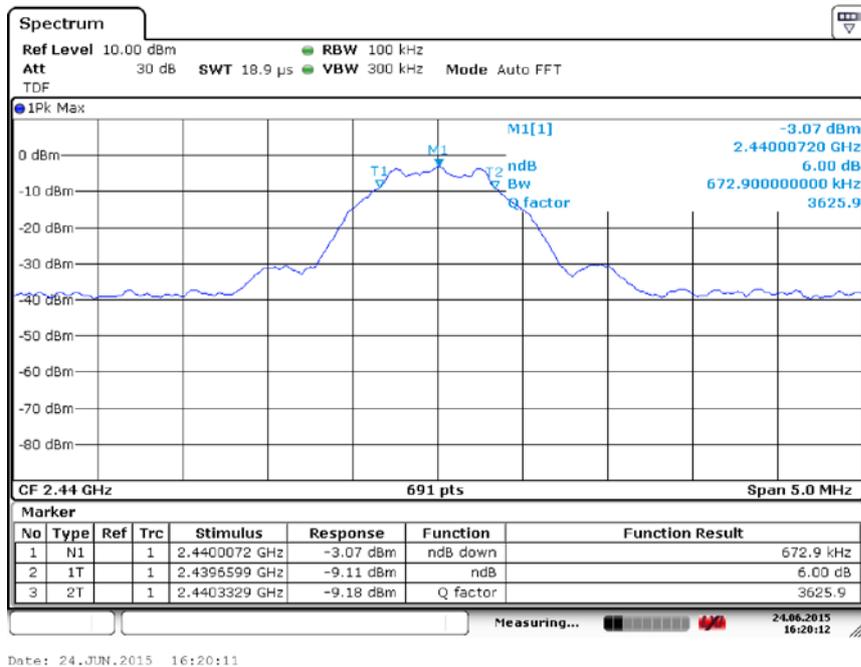


Fig.6 Power Spectral Density (Ch 39)



Date: 24.JUN.2015 16:19:55

Fig.7 Occupied 6dB Bandwidth (Ch 0)



Date: 24.JUN.2015 16:20:11

Fig.8 Occupied 6dB Bandwidth (Ch 19)

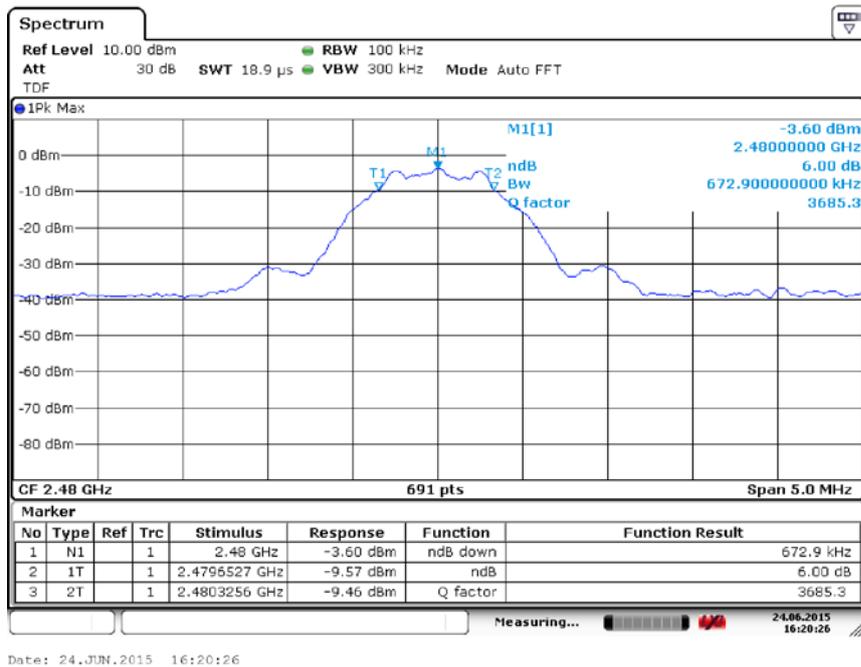


Fig.9 Occupied 6dB Bandwidth (Ch 39)

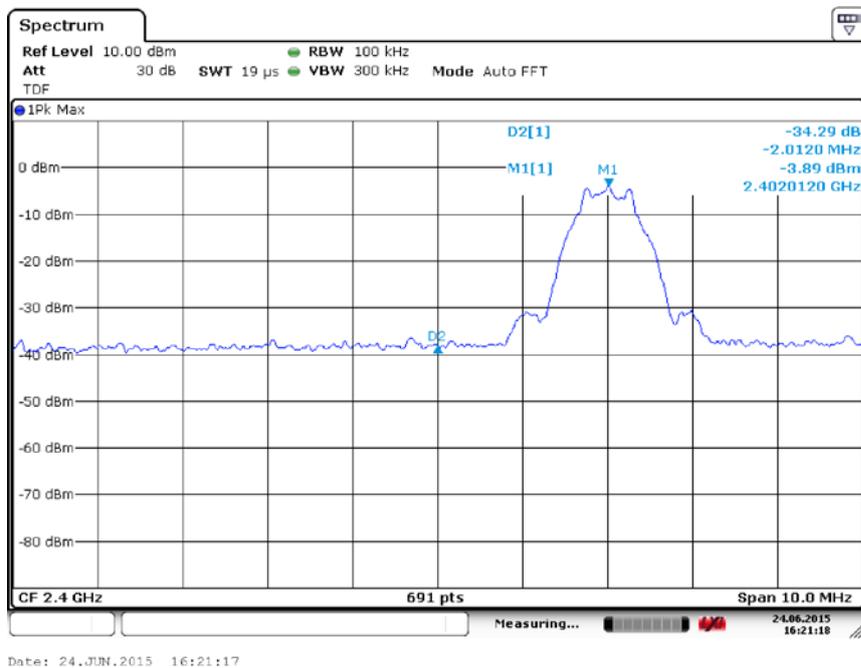


Fig.10 Band Edges (Ch 0)

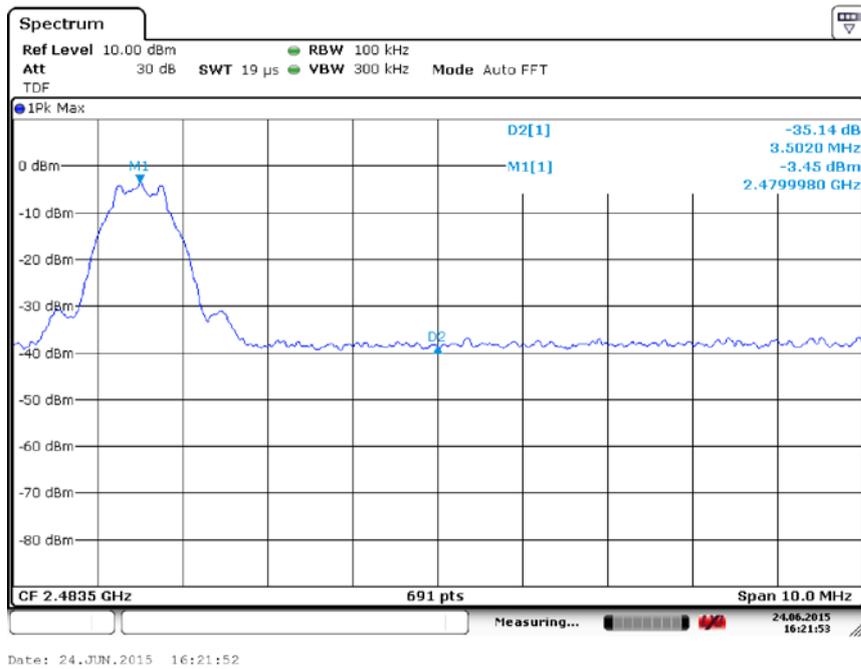


Fig.11 Band Edges (Ch 39)

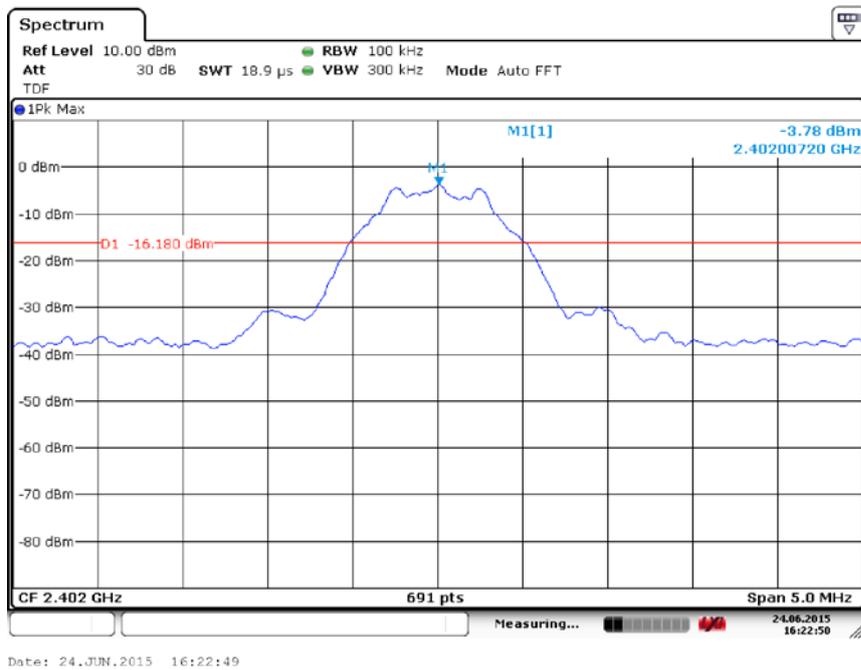
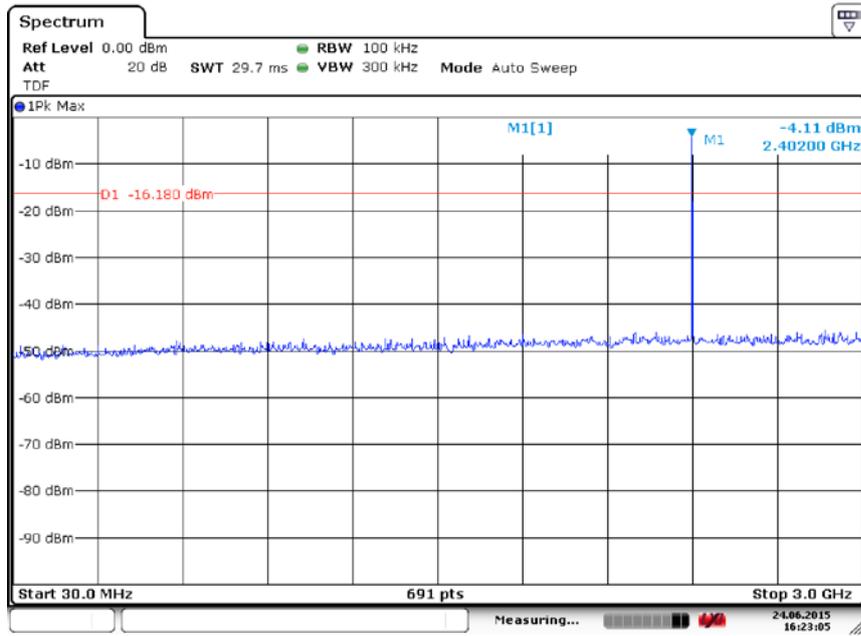
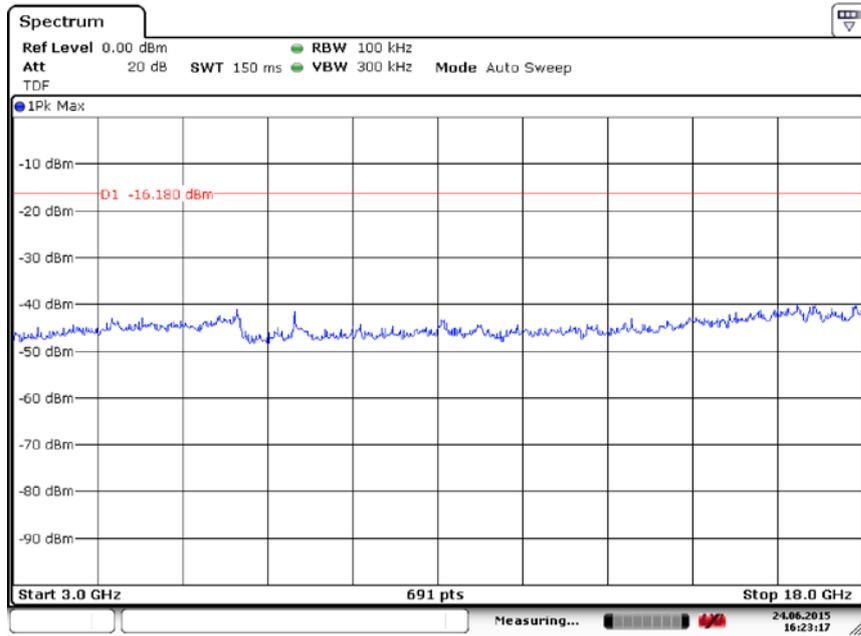


Fig.12 Conducted Spurious Emission (Ch0, Center Frequency)



Date: 24.JUN.2015 16:23:05

Fig.13 Conducted Spurious Emission (Ch0, 30 MHz-3 GHz)



Date: 24.JUN.2015 16:23:17

Fig.14 Conducted Spurious Emission (Ch0, 3 GHz-18 GHz)

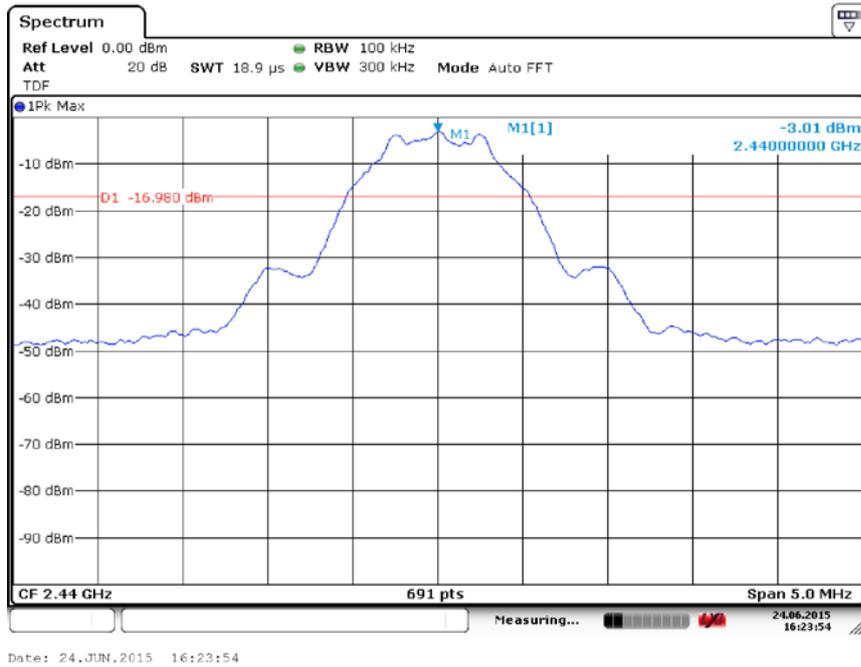


Fig.15 Conducted Spurious Emission (Ch19, Center Frequency)

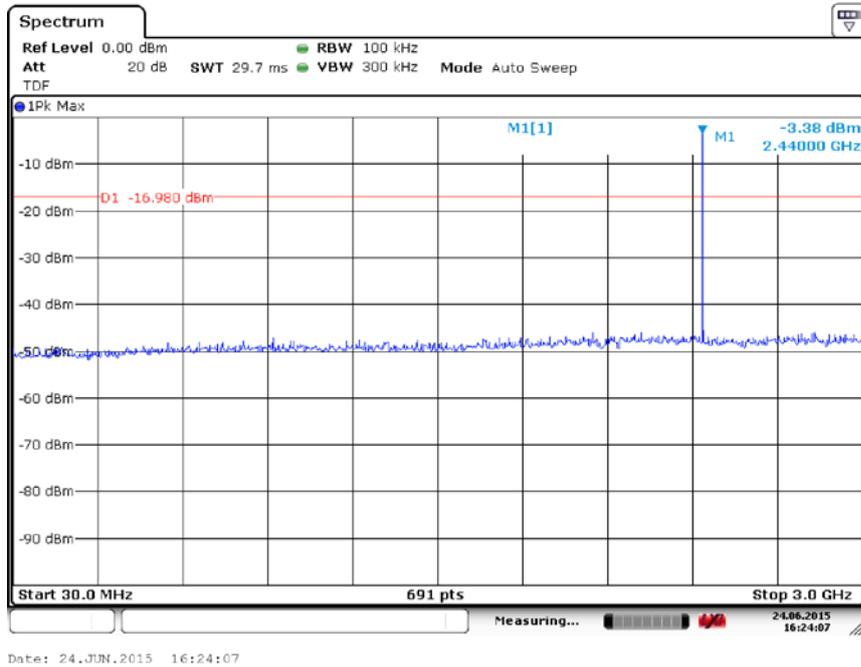


Fig.16 Conducted Spurious Emission (Ch19, 30 MHz-3 GHz)

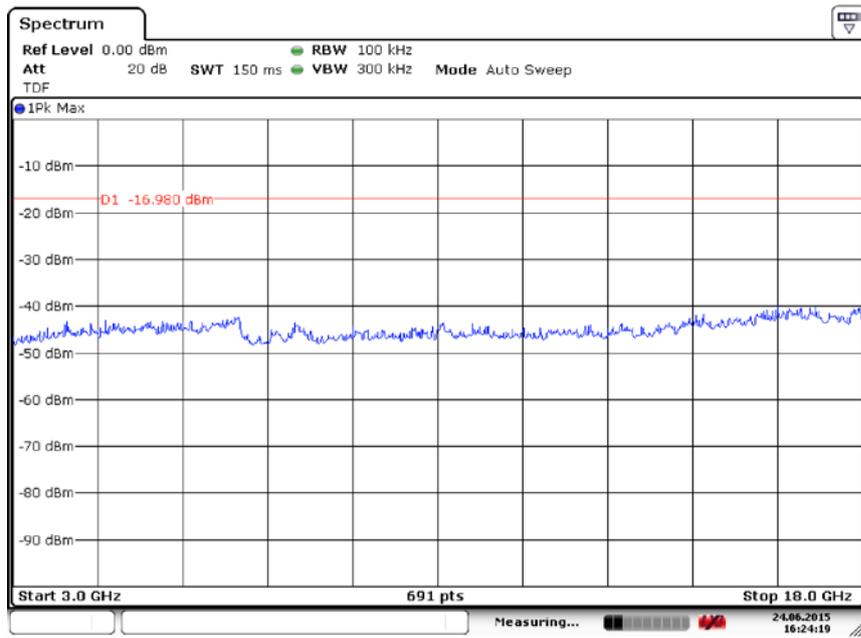


Fig.17 Conducted Spurious Emission (Ch19, 3 GHz-18 GHz)

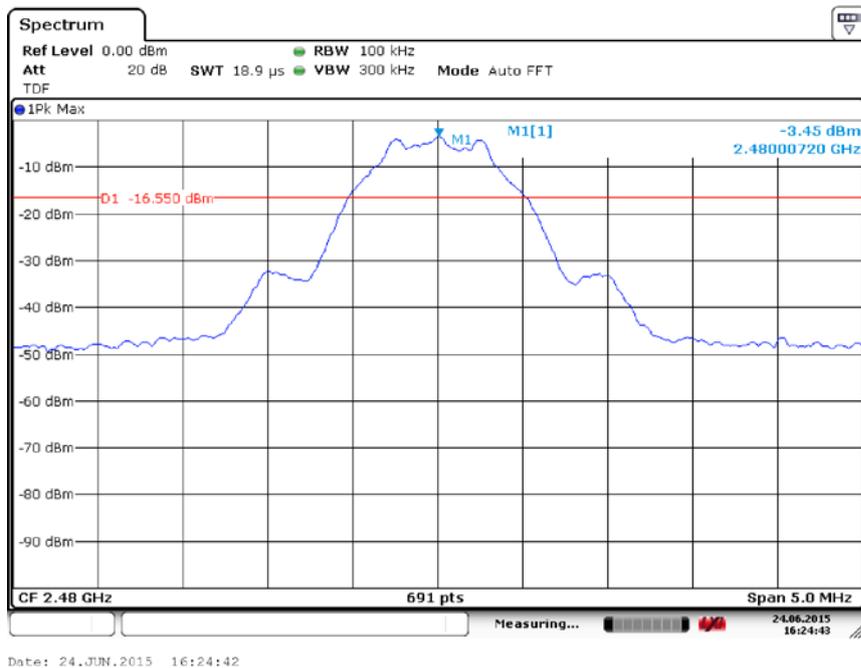
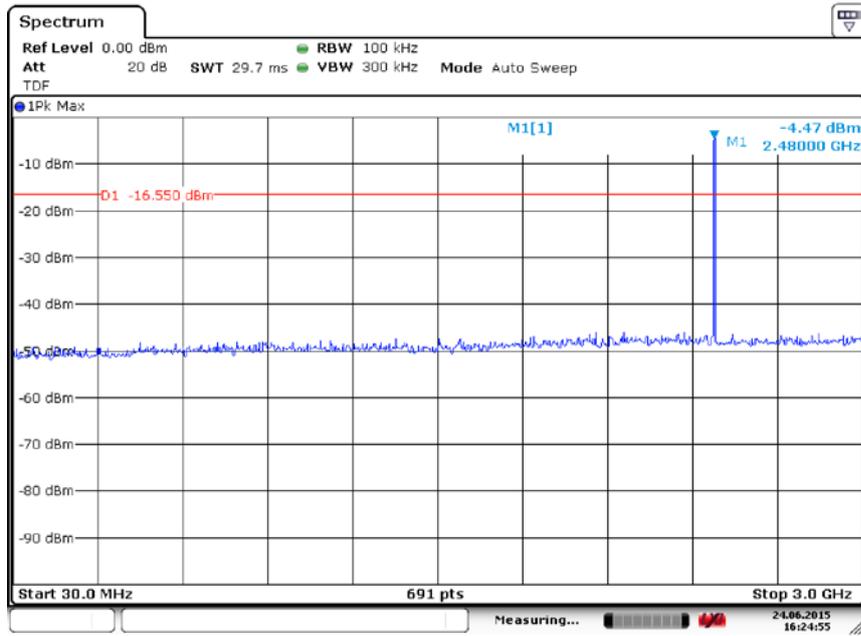
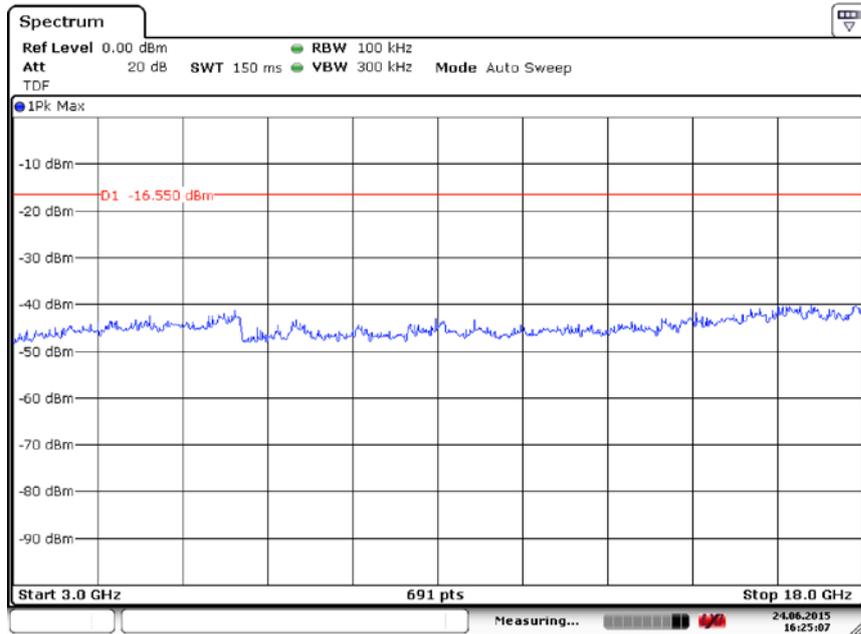


Fig.18 Conducted Spurious Emission (Ch39, Center Frequency)



Date: 24.JUN.2015 16:24:54

Fig.19 Conducted Spurious Emission (Ch39, 30 MHz-3 GHz)



Date: 24.JUN.2015 16:25:07

Fig.20 Conducted Spurious Emission (Ch39, 3 GHz-18 GHz)

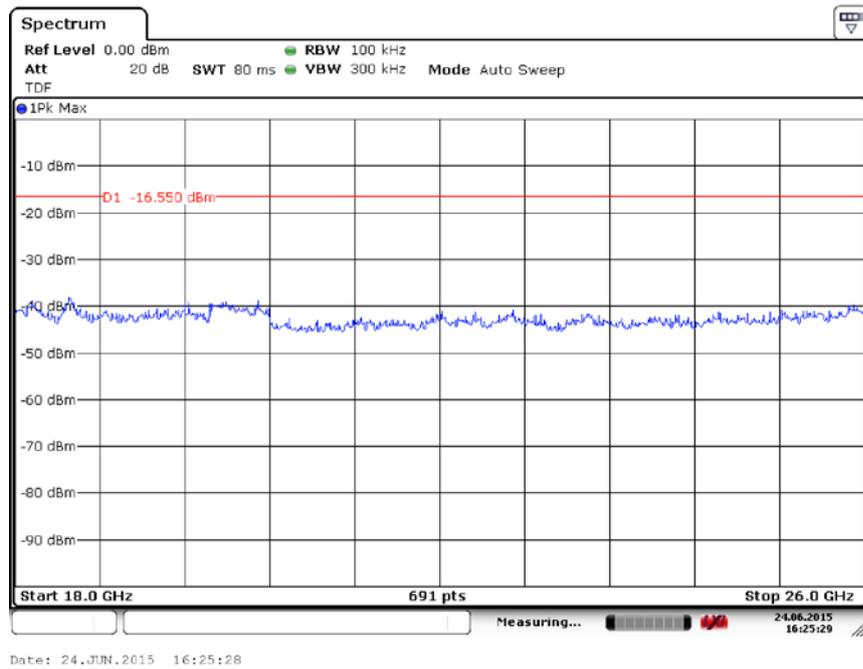


Fig.21 Conducted Spurious Emission (All channels, 18 GHz-26 GHz)



ANNEX D: Persons involved in this testing

| Test Name | Tester |
|---|------------------------|
| Maximum Peak Output Power | Xu Zhongfei, Li Zhibin |
| Peak Power Spectral Density | Xu Zhongfei, Li Zhibin |
| Occupied 6dB Bandwidth | Xu Zhongfei, Li Zhibin |
| Band Edges Compliance | Xu Zhongfei, Li Zhibin |
| Transmitter Spurious Emission - Conducted | Xu Zhongfei, Li Zhibin |

ANNEX E: Accreditation Certificate

| |
|--|
|   |
| China National Accreditation Service for Conformity Assessment |
| LABORATORY ACCREDITATION CERTIFICATE |
| (Registration No. CNAS L0570) |
| China Academy of Telecommunication Research of MIIT <u>No.52, Huayuan North Road, Haidian District, Beijing, China</u> |
| <i>is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence of testing and calibration.</i> |
| <i>The scope of accreditation is detailed in the attached appendices bearing the same registration number as above. The appendices form an integral part of this certificate.</i> |
| Date of Issue: 2014-06-20 Date of Expiry: 2017-06-19 Date of Initial Accreditation: 1998-07-03 Date of Update: 2014-06-20 |
|  |
| Signed on behalf of China National Accreditation Service for Conformity Assessment |
| <small>China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment. CNAS is the signatory to International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC MRA) and Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC MRA).</small> |
| No.CNAS AL 2 0010037 |

END OF REPORT