

Annex 1: Measurement diagrams  
to TEST REPORT  
No.: **6-0668-15-3-13b**

According to:  
**FCC Regulations**  
Part 22, Part 24, Part 27

**IC-Regulations**  
RSS-132 Issue 3, RSS-133 Issue 6,  
RSS-139 Issue 2, RSS-Gen Issue 4  
RSS-130, Issue 1

for

**ACTIA Nordic AB**

Telematic unit for automotive use

**ACUII-06**

**FCC-ID:** 2AGKKACUII-06

**IC:** 20839-ACUII06

**PMN:** ACUII-06

**HVIN:** ACUII-06

| Laboratory Accreditation and Listings  |  |  |   |
|--|--|--|---|
| <br><b>DAkkS</b><br>Deutsche<br>Akkreditierungsstelle<br>D-PL-12047-01-01  | <br>FEDERAL COMMUNICATIONS COMMISSION<br><b>FC</b><br>U.S.A.<br>MRA US-EU 0003 | <br>Industry Canada<br>Reg. No.: 3462D-1<br>Reg. No.: 3462D-2<br>Reg. No.: 3462D-3 | <br>Voluntary Controls for<br>Electromagnetic Emissions<br>Reg. No.:<br>R-2666 C-2914,<br>T-1967, G-301 |
| <br><b>WiFi</b><br>ALLIANCE<br>AUTHORIZED<br>RF LABORATORY   | <br><b>ctia</b> Authorized <sup>TM</sup><br>Test Lab<br>Lab Code: 20011130-00  |  |   |
| accredited according to DIN EN ISO/IEC 17025   |  |  |   |
| <b>CETECOM GmbH</b><br>Laboratory Radio Communications & Electromagnetic Compatibility<br>Im Teelbruch 116 • 45219 Essen • Germany<br>Registered in Essen, Germany, Reg. No.: HRB Essen 8984<br>Tel.: + 49 (0) 20 54 / 95 19-954 • Fax: + 49 (0) 20 54 / 95 19-964<br>E-mail: info@cetecom.com • Internet: www.cetecom.com |  |  |   |

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The listed attachments are an integral part of this report.

# 1. Measurement diagrams

## 1.1. Magnetic field emissions in frequency range 9kHz to 30MHz

### 1.1.1. Magnetic field emissions (GSM-Mode)

#### Diagram No. 2.01\_Ch128\_ExtAnt\_GPRS

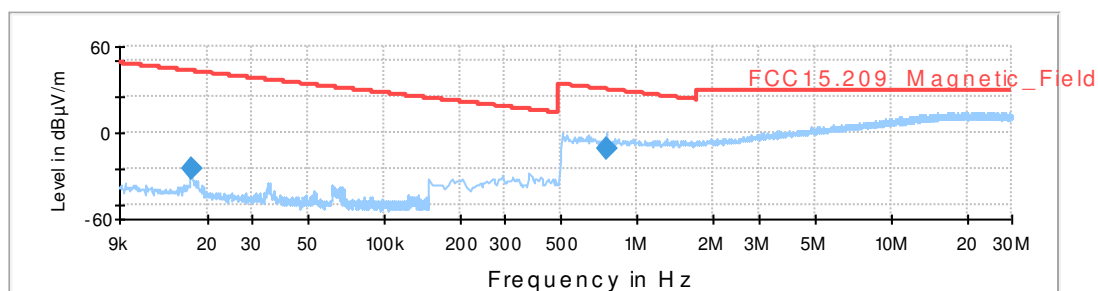
|                          |   |
|--------------------------|---|
| Test description:        | Date: 16.01.2016 Page 1 of 1  |
| Test site and distance:  | Magnetic Field Strength Measurement related to 30/300 m distance    |
| Version of Testsoftware: | Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance |
| Distance correction:     | EMC32 V8.51.0   |
| Technical Data:          | used accord. table, pls. see test report                            |
| Rec. antenna (pre-scan): | Please see page 2 for detailed data of measurement setup            |
| Used filter:             | height 1.00 m, parallel and 90° to EUT polarisation                 |
| Test specification:      | bypass  |
|                          | FCC 15.205 § 15.209; RSS-Gen: Issue 4                               |
| Operator:                | Lor   |
| Operating conditions:    | GPRS Channel 128  |
| Power during tests:      | 13.8V DC  |
| Comment 1:               | Channel Low   |
| Comment 2:               | External Antenna  |

#### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR  |
|                       | 434-WLAN-GNSS-SDARS-LTE  |
|                       | 50751424   15W421   Portugal AD801   |
|                       | SDARS Modified #1  |

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#### Final Result 1

| Frequency (MHz) | RMS (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Polarization | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|-----------------|--------------|-----------------|-----------------|-------------|--------------|---------------|------------|-------------|----------------|
| 0.017240        | -25.6        | 1000.0          | 0.200           | 100.0       | H            | 80.0          | -58.7      | 68.50       | 42.90          |
| 0.754000        | -11.7        | 1000.0          | 10.000          | 100.0       | V            | 304.0         | -20.1      | 41.70       | 30.10          |

(continuation of the "Final Result 1" table from column 10 ...)

| Frequency | Comment |
|-----------|---------|
| 0.017240  |         |
| 0.754000  |         |

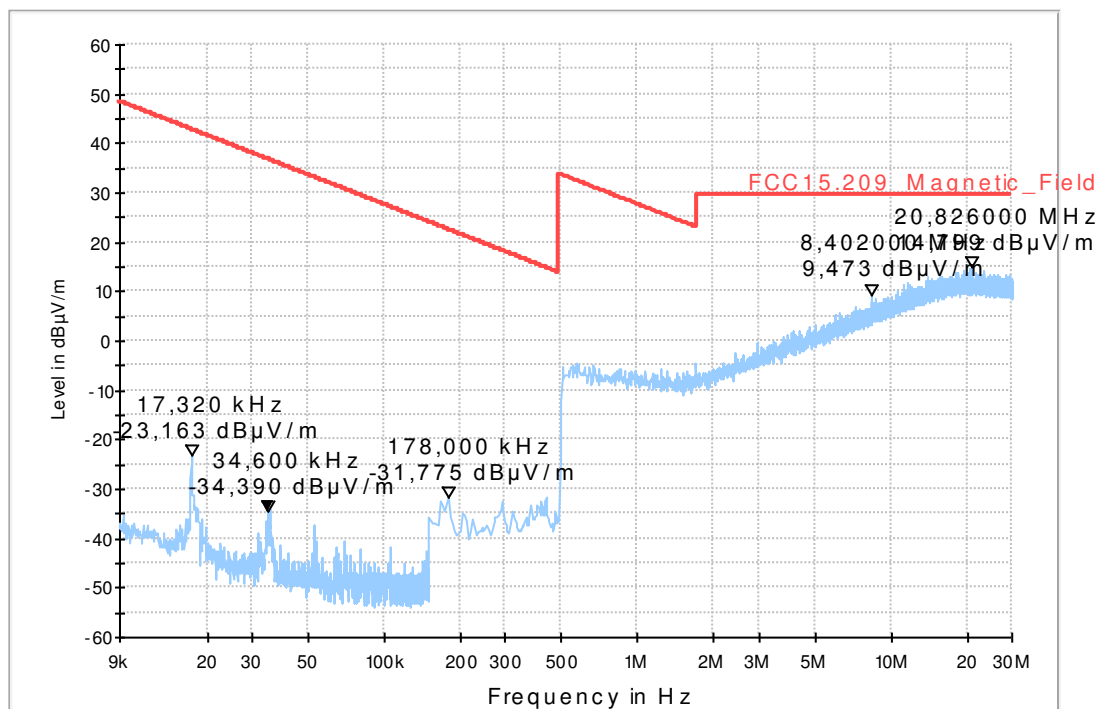
## Diagram No. 2.02\_Ch251\_ExtAnt\_GPRS

|                          |   |             |
|--------------------------|---|-------------|
| Date:                    | 16.01.2016  | Page 1 of 1 |
| Test description:        | Magnetic Field Strength Measurement related to 30/300 m distance    |             |
| Test site and distance:  | Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance |             |
| Version of Testsoftware: | EMC32 V8.51.0   |             |
| Distance correction:     | used accord. table, pls. see test report                            |             |
| Technical Data:          | Please see page 2 for detailed data of measurement setup            |             |
| Rec. antenna (pre-scan): | height 1.00 m, parallel and 90° to EUT polarisation                 |             |
| Used filter:             | bypass  |             |
| Test specification:      | FCC 15.205 § 15.209; RSS-Gen: Issue 4                               |             |
| Operator:                | Lor   |             |
| Operating conditions:    | Ch251   |             |
| Power during tests:      | 13.8V DC  |             |
| Comment 1:               | Channel High  |             |
| Comment 2:               | Internal Antenna  |             |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

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## Diagram 2.08\_Ch810\_GPRS\_ExtAnt

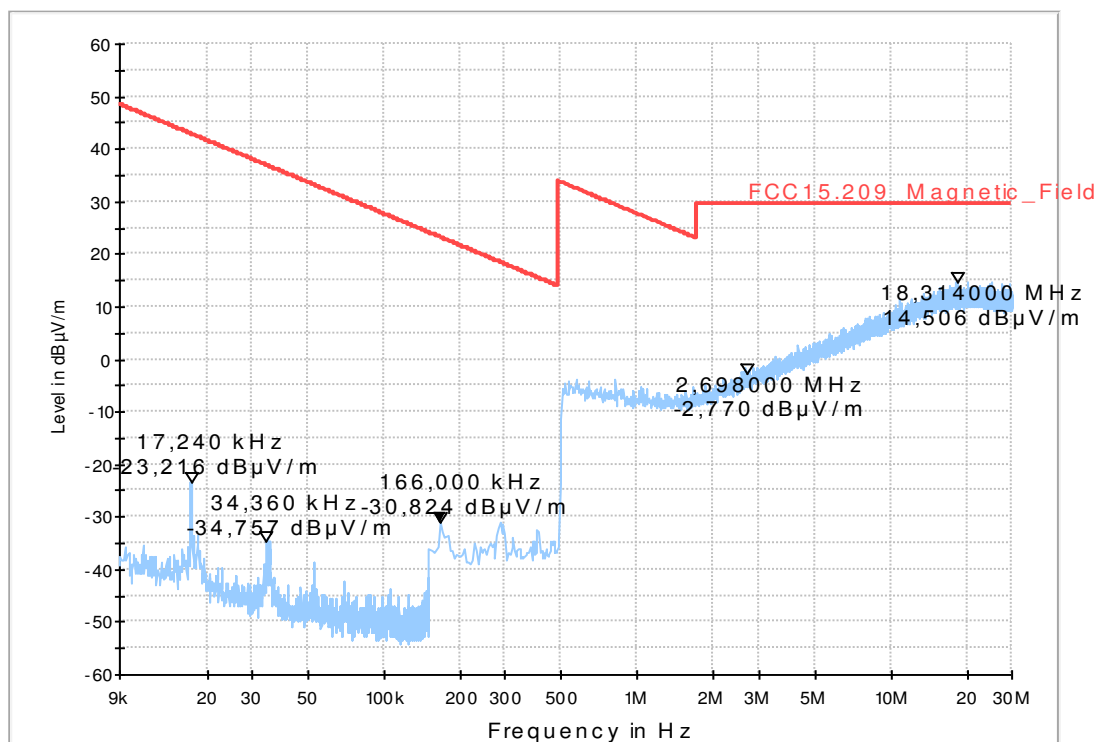
### Common Information

|                          |   |
|--------------------------|---|
| Test Description:        | Magnetic Field Strength Measurement related to 30/300 m distance    |
| Test site and distance:  | Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance |
| Version of Testsoftware: | EMC32 V8.51.0   |
| Distance correction:     | used accord. table, pls. see test report                            |
| Technical Data:          | Please see page 2 for detailed data of measurement setup            |
| Rec. antenna (pre-scan): | height 1.00 m, parallel and 90° to EUT polarisation                 |
| Used filter:             | bypass  |
| Test specification:      | FCC 15.205 § 15.209; RSS-Gen: Issue 4                               |
| Operating Conditions:    | Ch810   |
| Operator Name:           | MFr   |
| Comment 1:               | Ch 810  |
| Comment 2:               | External Antenna  |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

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1.1.2. Magnetic field emissions (LTE-Mode)

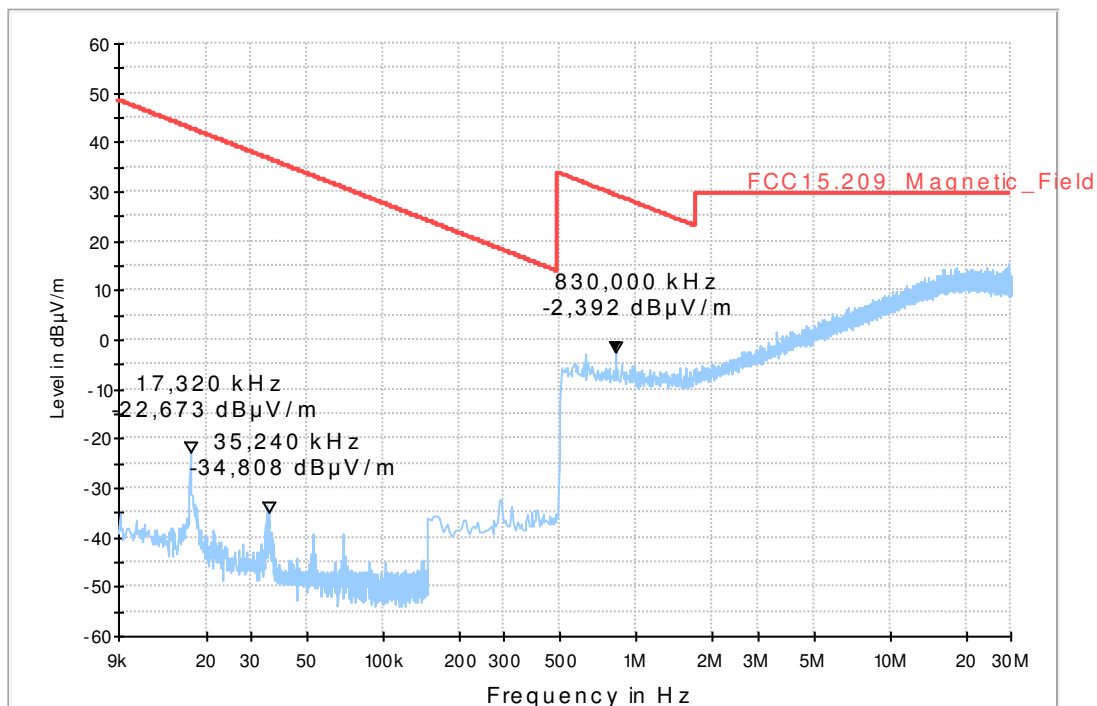
**Diagram No. 2.03\_Ch23755\_BW5MHz\_25RBs\_QPSK\_ExtAnt**

|                          |   |             |
|--------------------------|---|-------------|
| Date:                    | 16.01.2016  | Page 1 of 1 |
| Test description:        | Magnetic Field Strength Measurement related to 30/300 m distance    |             |
| Test site and distance:  | Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance |             |
| Version of Testsoftware: | EMC32 V8.51.0   |             |
| Distance correction:     | used accord. table, pls. see test report                            |             |
| Technical Data:          | Please see page 2 for detailed data of measurement setup            |             |
| Rec. antenna (pre-scan): | height 1.00 m, parallel and 90° to EUT polarisation                 |             |
| Used filter:             | bypass  |             |
| Test specification:      | FCC 15.205 § 15.209; RSS-Gen: Issue 4                               |             |
| Operator:                | Lor   |             |
| Operating conditions:    | TX-on, LTE Band 17, low channel =23755                              |             |
| Power during tests:      | 13.8V DC  |             |
| Comment 1:               | Channel low=23755, QPSK-Modulation, 25RBs (5MHZ BW)                 |             |
| Comment 2:               | External Antenna  |             |

**EUT Information**

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

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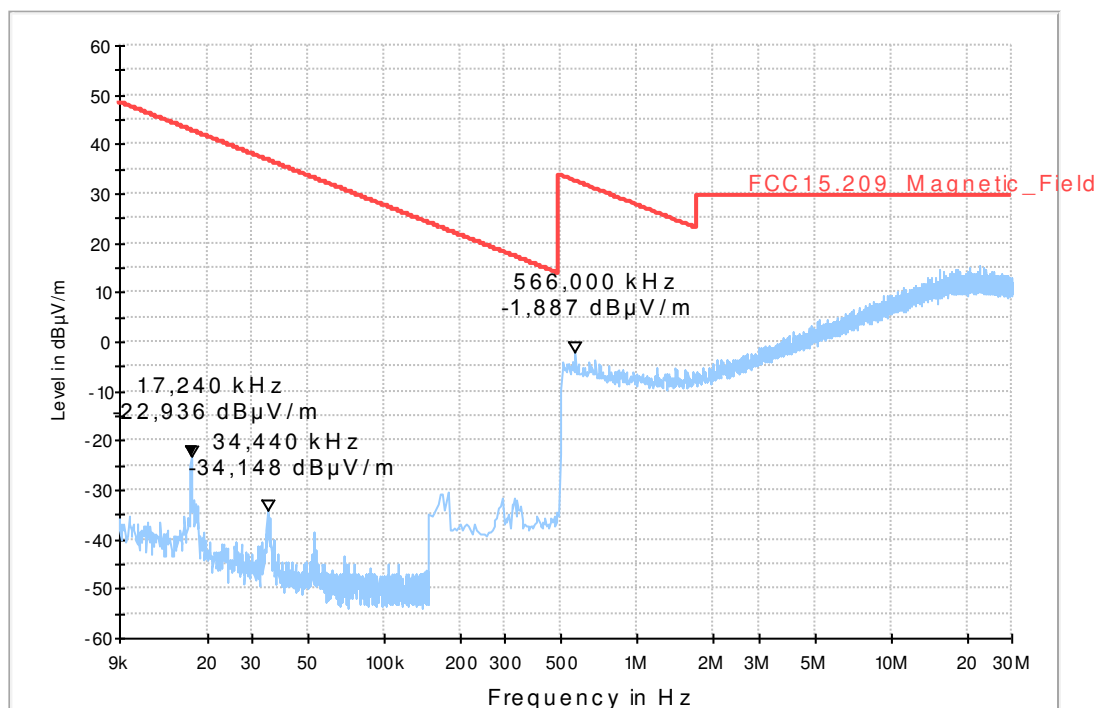
## Diagram No. 2.04\_Ch23755\_BW5MHz\_25RBs\_QPSK\_IntAnt

|                          |   |             |
|--------------------------|---|-------------|
| Date:                    | 16.01.2016  | Page 1 of 1 |
| Test description:        | Magnetic Field Strength Measurement related to 30/300 m distance    |             |
| Test site and distance:  | Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance |             |
| Version of Testsoftware: | EMC32 V8.51.0   |             |
| Distance correction:     | used accord. table, pls. see test report                            |             |
| Technical Data:          | Please see page 2 for detailed data of measurement setup            |             |
| Rec. antenna (pre-scan): | height 1.00 m, parallel and 90° to EUT polarisation                 |             |
| Used filter:             | bypass  |             |
| Test specification:      | FCC 15.209 § 15.209; RSS-Gen: Issue 4                               |             |
| Operator:                | Lor   |             |
| Operating conditions:    | TX-on, LTE Band 7, low channel =23755                               |             |
| Power during tests:      | 13.8V DC  |             |
| Comment 1:               | Channel high=23825, QPSK, 5MHZ BW                                   |             |
| Comment 2:               | Internal Antenna  |             |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

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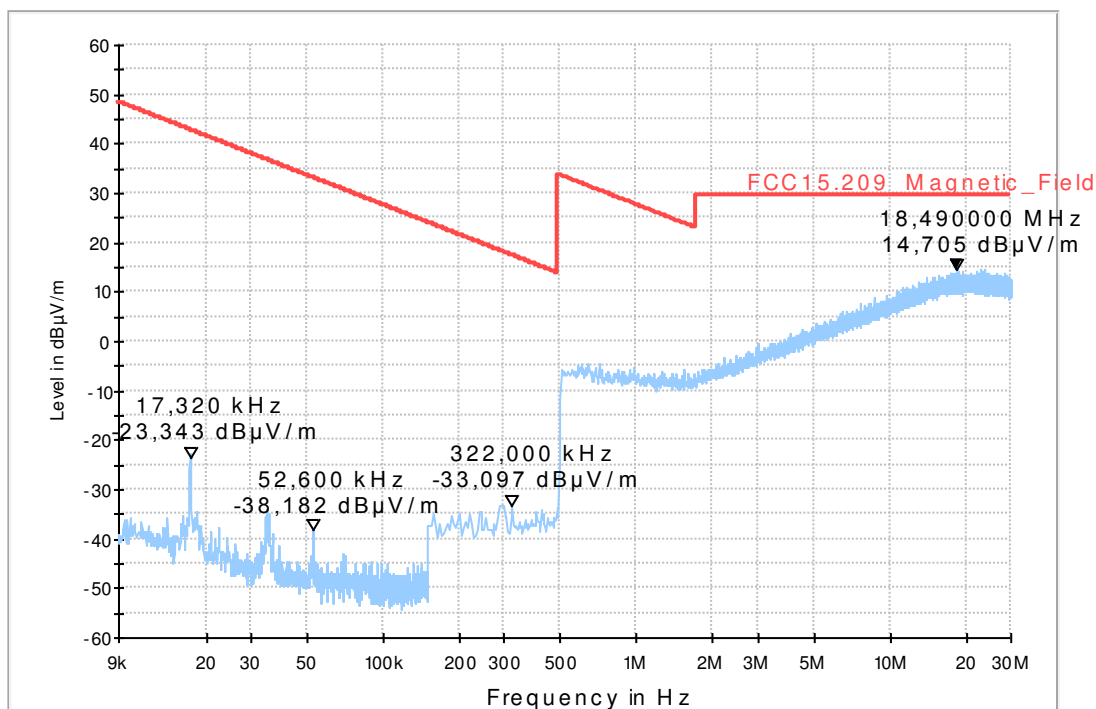
## Diagram No. 2.05\_Ch19975\_BW5MHz\_25RBs\_QPSK\_IntAnt

|                          |   |             |
|--------------------------|---|-------------|
| Date:                    | 16.01.2016  | Page 1 of 1 |
| Test description:        | Magnetic Field Strength Measurement related to 30/300 m distance    |             |
| Test site and distance:  | Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance |             |
| Version of Testsoftware: | EMC32 V8.51.0   |             |
| Distance correction:     | used accord. table, pls. see test report                            |             |
| Technical Data:          | Please see page 2 for detailed data of measurement setup            |             |
| Rec. antenna (pre-scan): | height 1.00 m, parallel and 90° to EUT polarisation                 |             |
| Used filter:             | bypass  |             |
| Test specification:      | FCC 15.205 § 15.209; RSS-Gen: Issue 4                               |             |
| Operator:                | Lor   |             |
| Operating conditions:    | TX, LTE Band 4 / QPSK/ 25RBs /5MHZ BW                               |             |
| Power during tests:      | 13.8V DC  |             |
| Comment 1:               | Channel low=19975   |             |
| Comment 2:               | Internal Antenna  |             |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

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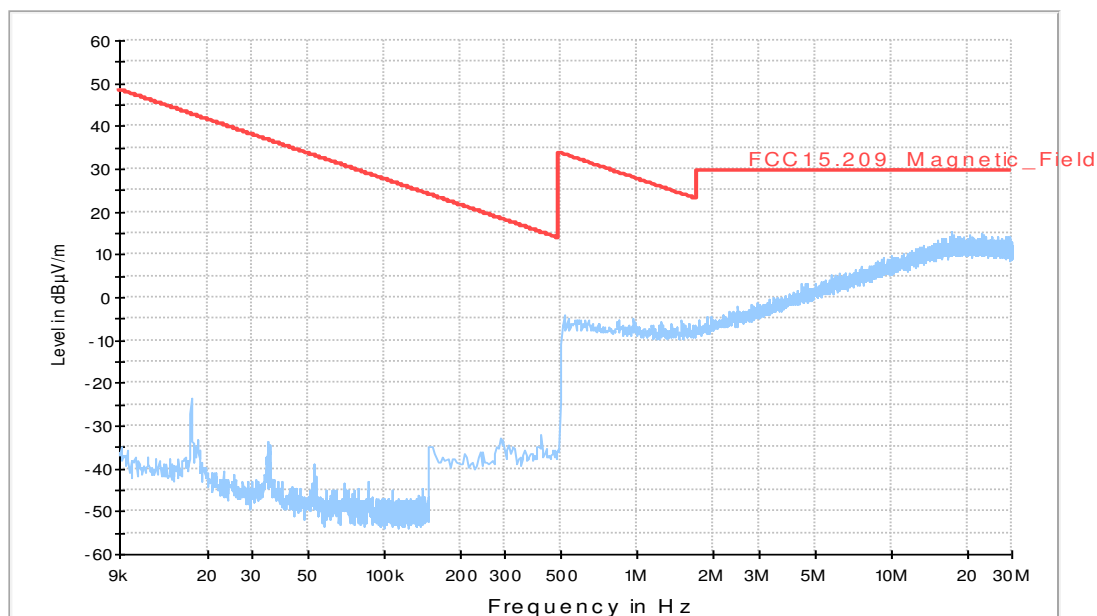
## Diagram No. 2.07\_Ch18625\_BW5MHz\_25RBs\_QPSK\_IntAnt

|                          |   |             |
|--------------------------|---|-------------|
| Date:                    | 16.01.2016  | Page 1 of 1 |
| Test description:        | Magnetic Field Strength Measurement related to 30/300 m distance    |             |
| Test site and distance:  | Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance |             |
| Version of Testsoftware: | EMC32 V8.51.0   |             |
| Distance correction:     | used accord. table, pls. see test report                            |             |
| Technical Data:          | Please see page 2 for detailed data of measurement setup            |             |
| Rec. antenna (pre-scan): | height 1.00 m, parallel and 90° to EUT polarisation                 |             |
| Used filter:             | bypass  |             |
| Test specification:      | FCC 15.205 § 15.209; RSS-Gen: Issue 4                               |             |
| Operator:                | Lor   |             |
| Operating conditions:    | TX, LTE Band 2 / QPSK/ 25RBs /5MHz BW                               |             |
| Power during tests:      | 13.8V DC  |             |
| Comment 1:               | Channel low=18625   |             |
| Comment 2:               | Internal Antenna  |             |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

FCC 15.209\_ANSI63\_10\_2013



## 1.2. Spurious emissions radiated

### 1.2.1. Emissions in GSM-Mode

#### 8.04b\_RSE\_R\_CH128\_GPRS\_ExtAnt

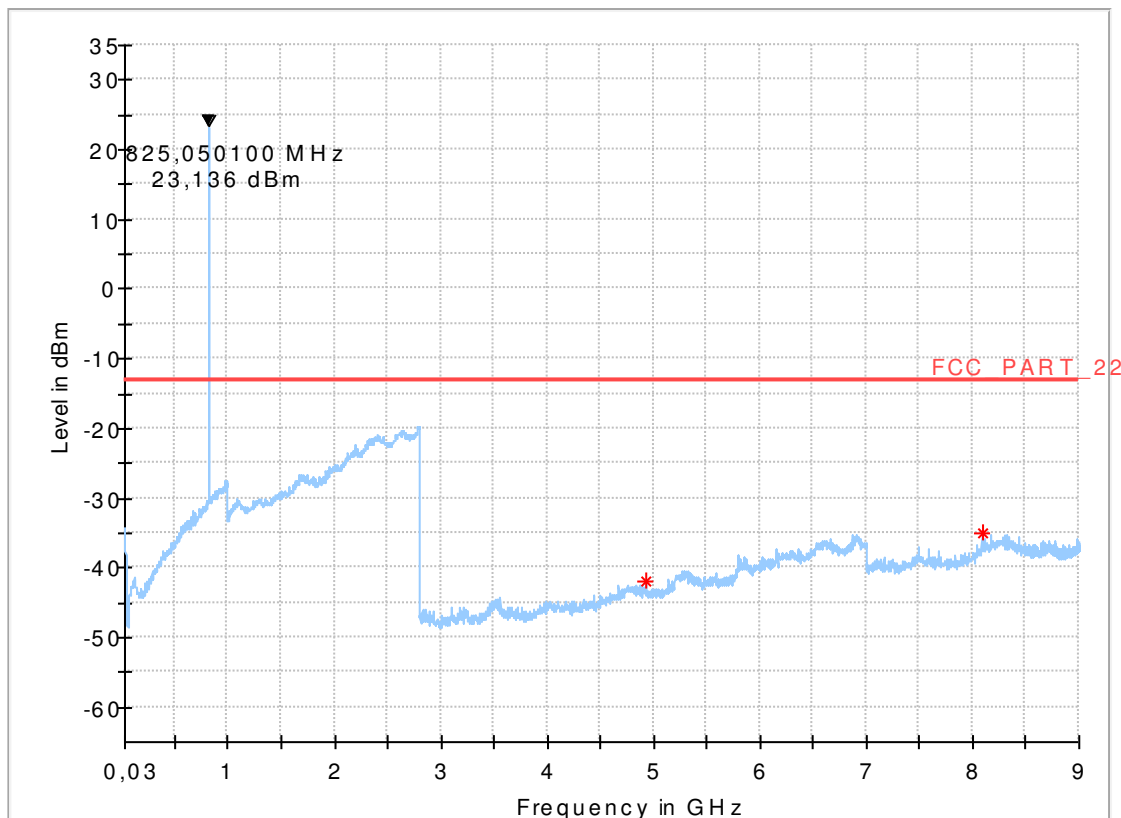
##### Common Information

|                           |                                      |
|---------------------------|--------------------------------------|
| Test Description:         | Radiated Emissions GSM850            |
| Test Site Location:       | CETECOM GmbH Essen                   |
| Test Site:                | Fully Anechoic Room (FAR)            |
| Test Standard:            | FCC Part22.917 / RSS-132, Issue 3    |
| Software:                 | EMC32 V9.21.0                        |
| Operating Mode:           | MS allocated UL channel 128          |
| Exclusionband:            | 824 - 849MHz                         |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22.8°C |
| Operator:                 | External Antenna used                |

##### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 8.06a\_RSE\_R\_CH251\_GPRS\_Int.Ant

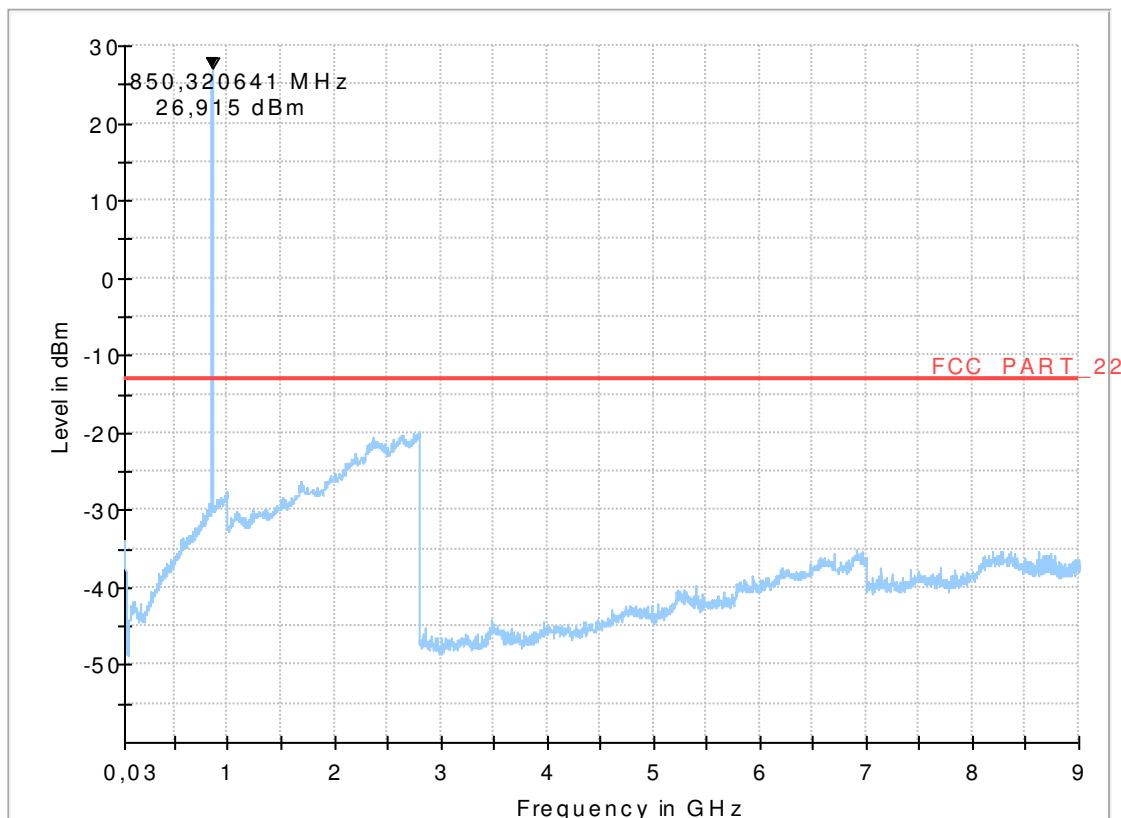
### Common Information

|                           |                                      |
|---------------------------|--------------------------------------|
| Test Description:         | Radiated Emissions GSM850            |
| Test Site Location:       | CETECOM GmbH Essen                   |
| Test Site:                | Fully Anechoic Room (FAR)            |
| Test Standard:            | FCC Part22.917 / RSS-132, Issue 3    |
| Test SW.:                 | EMC32 V9.21.0                        |
| Operating Mode:           | MS allocated UL channel 251          |
| Exclusionband:            | 824 - 849MHz                         |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 23,0°C |
| Operator:                 | Lor                                  |
| Remark:                   | Internal antenna used                |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



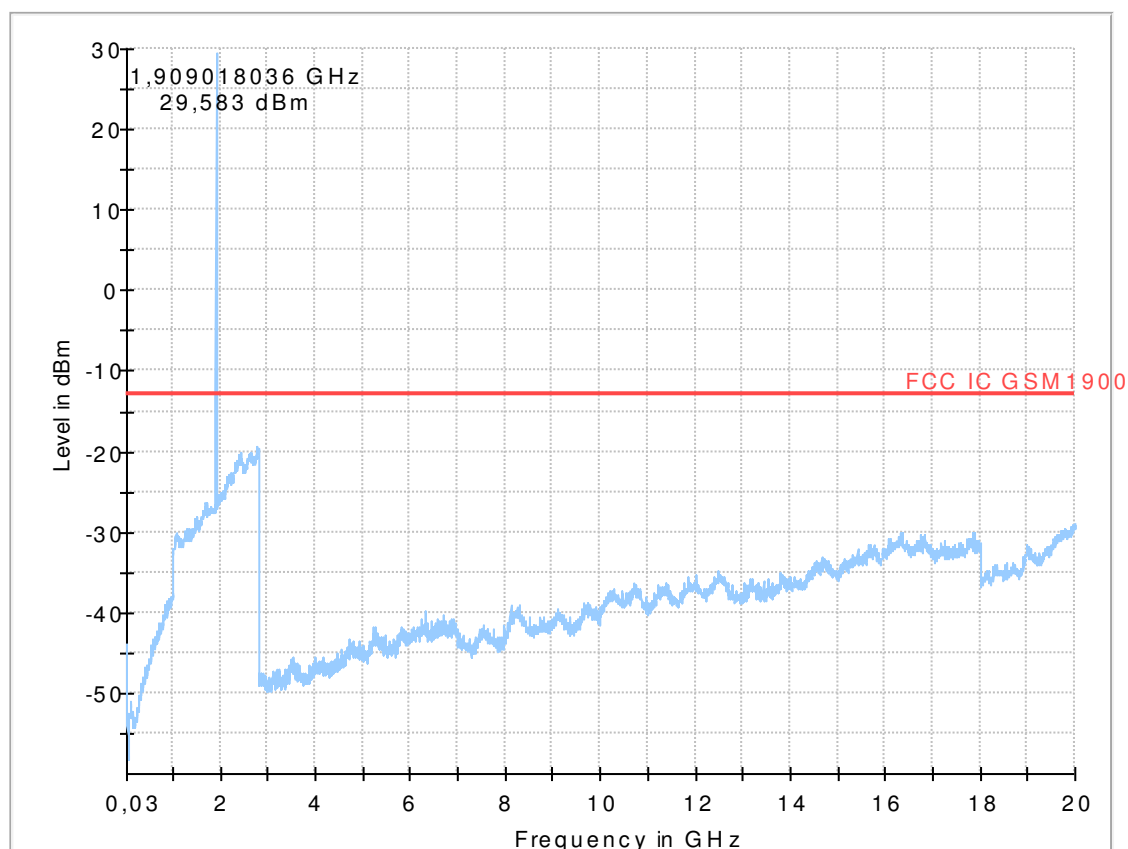
## 8.13\_RSE\_R\_Ch512\_GPRS

### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Radiated Spurious Emissions GSM1900       |
| Test Site Location:       | CETECOM GmbH Essen                        |
| Test Site:                | Fully Anechoic Room (FAR) - EMC32 V9.21.0 |
| Test Standard:            | FCC Part 24.238/RSS-133, Issue 3          |
| Test SW.:                 | EMC32 V9.21.0                             |
| Comm. Link:               | GPRS 1900                                 |
| Operating Mode:           | MS allocated channel 512 (fc = 1850.2MHz) |
| Exclusion Band:           | 1850 - 1910MHz                            |
| Environmental Conditions: | Humidity: 33%rH; Temperature: 21°C        |
| Operator Name:            | AHo                                       |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 | -----  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Comments:             | -  |



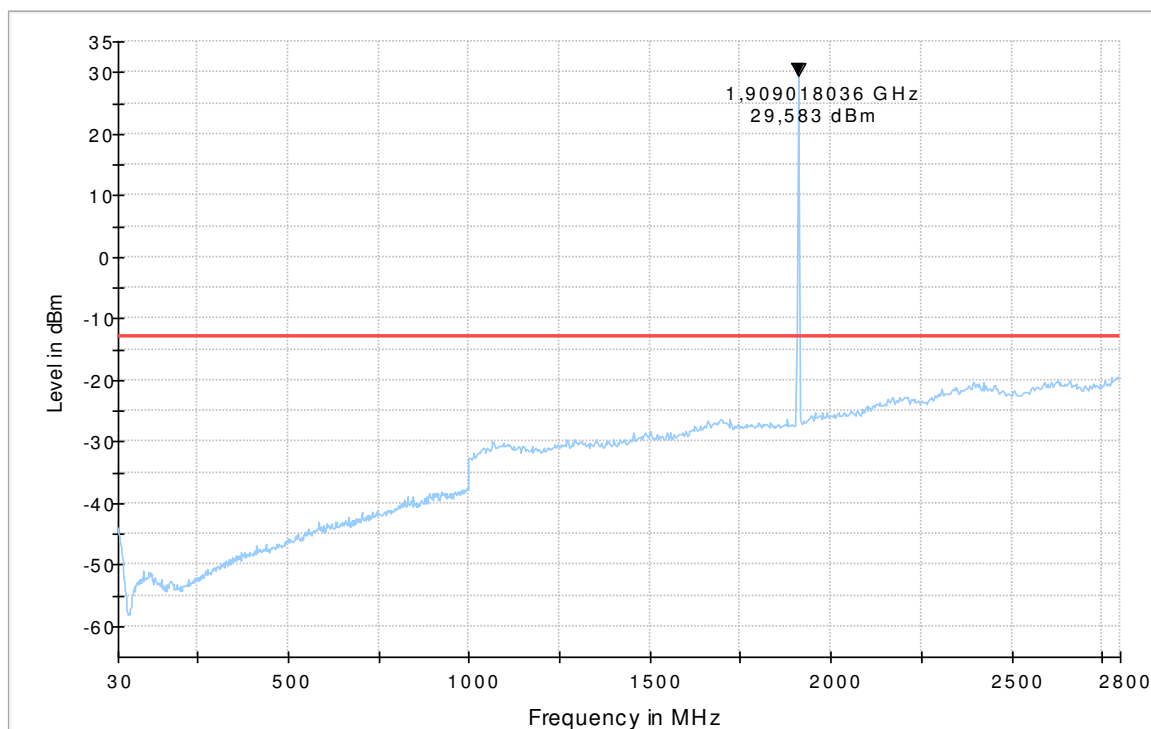
## 8.15b\_RSE\_R\_Ch810\_GPRS

### Common Information

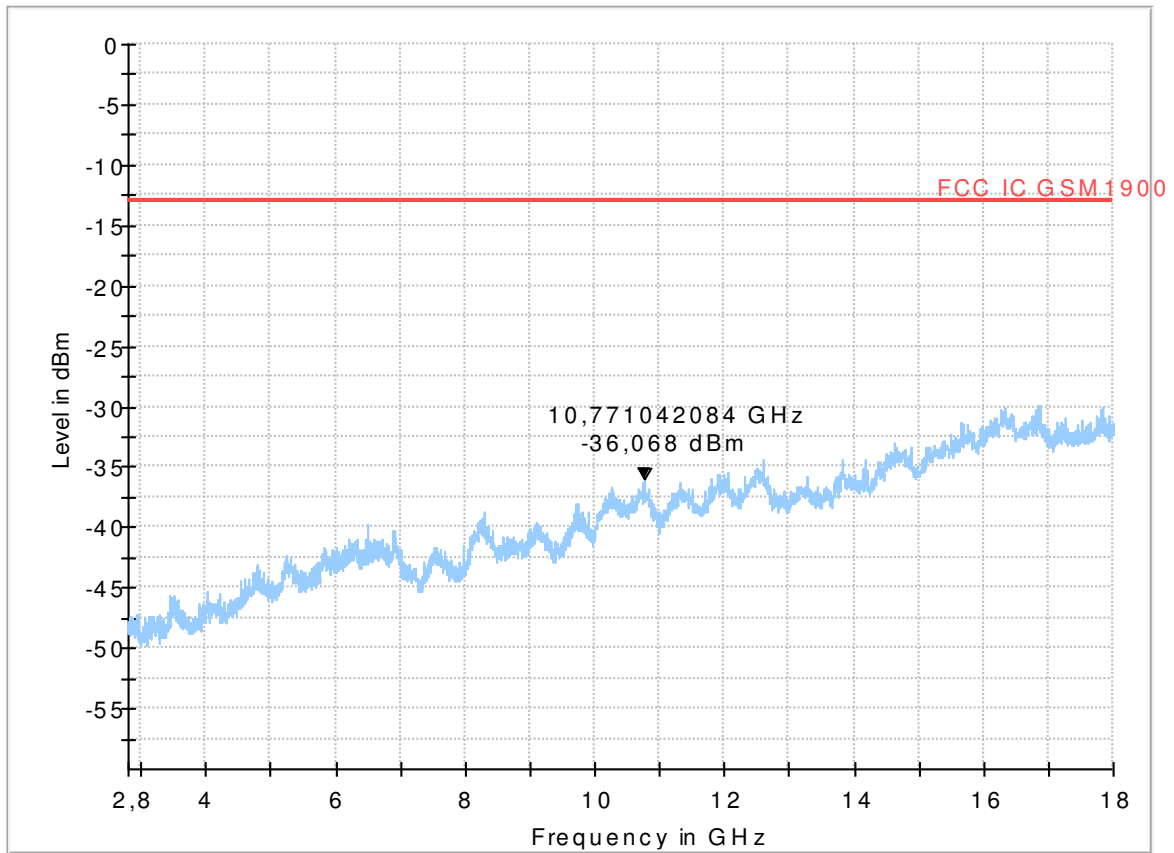
|                           |                                     |
|---------------------------|-------------------------------------|
| Test Description:         | Radiated Emissions GSM850           |
| Test Site Location:       | CETECOM GmbH Essen                  |
| Test Site:                | Fully Anechoic Room (FAR)           |
| Test Standard:            | FCC Part24.238                      |
| Test SW.:                 | EMC32 V9.21.0                       |
| Operating Mode:           | MS allocated UL channel 512,661,810 |
| Exclusionband:            | 1850 - 1910MHz                      |
| Environmental Conditions: | Humidity: 33%rH; Temperature: 21°C  |
| Operator:                 | AHo                                 |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 | -----  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Comments:             | -  |



Full Spectrum



### 1.2.2. Emissions in (W-CDMA-Mode)

## Diagram 8.20b\_RSE\_R\_Ch9262\_RMC\_Ext.Ant

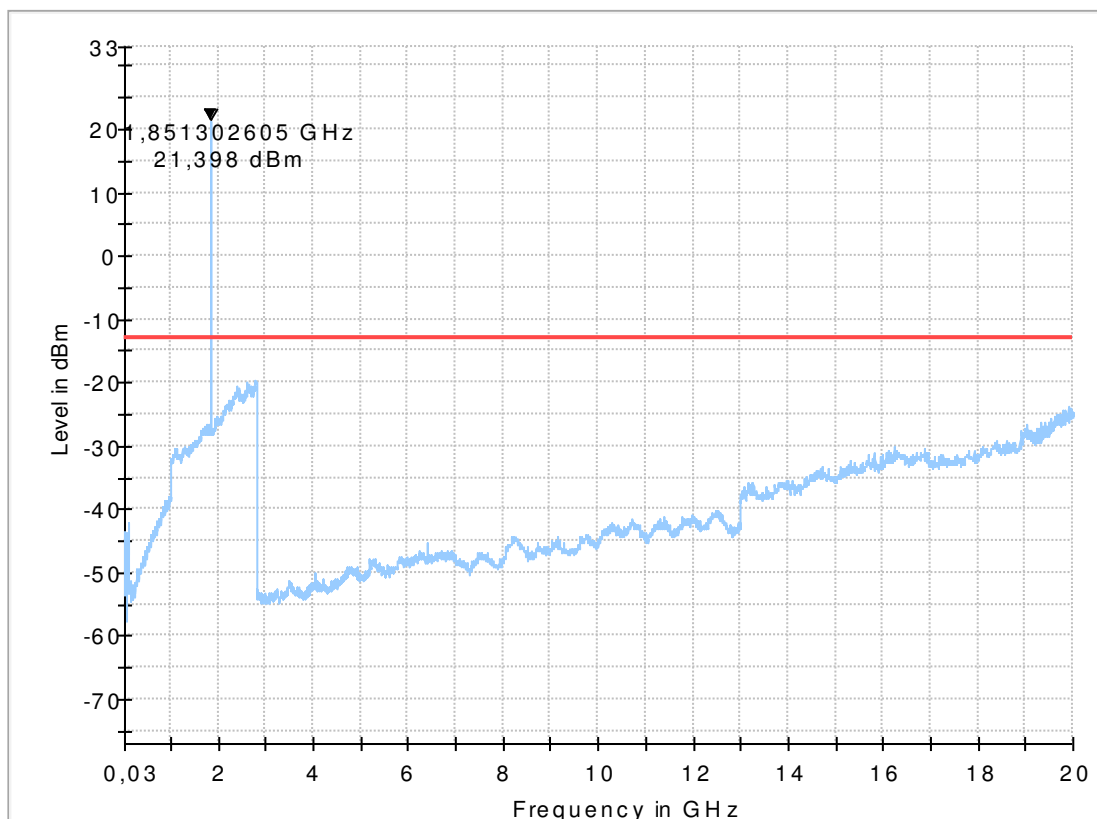
#### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Radiated Spurious Emissions UMTS FDDII      |
| Test Site Location:       | CETECOM GmbH Essen                          |
| Test Site:                | Fully Anechoic Room (FAR)                   |
| Test Standard:            | FCC Part 24                                 |
| Test SW.:                 | EMC32 V9.21.0                               |
| Operating Mode:           | UE allocated channel 9262 (fc = 1852.4 MHz) |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22,6°C        |
| Operator:                 | KMo   |
| Comment:                  | External Antenna used                       |

#### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## Diagram 8.22a\_RSE\_R\_Ch9538\_RMC\_FDD2

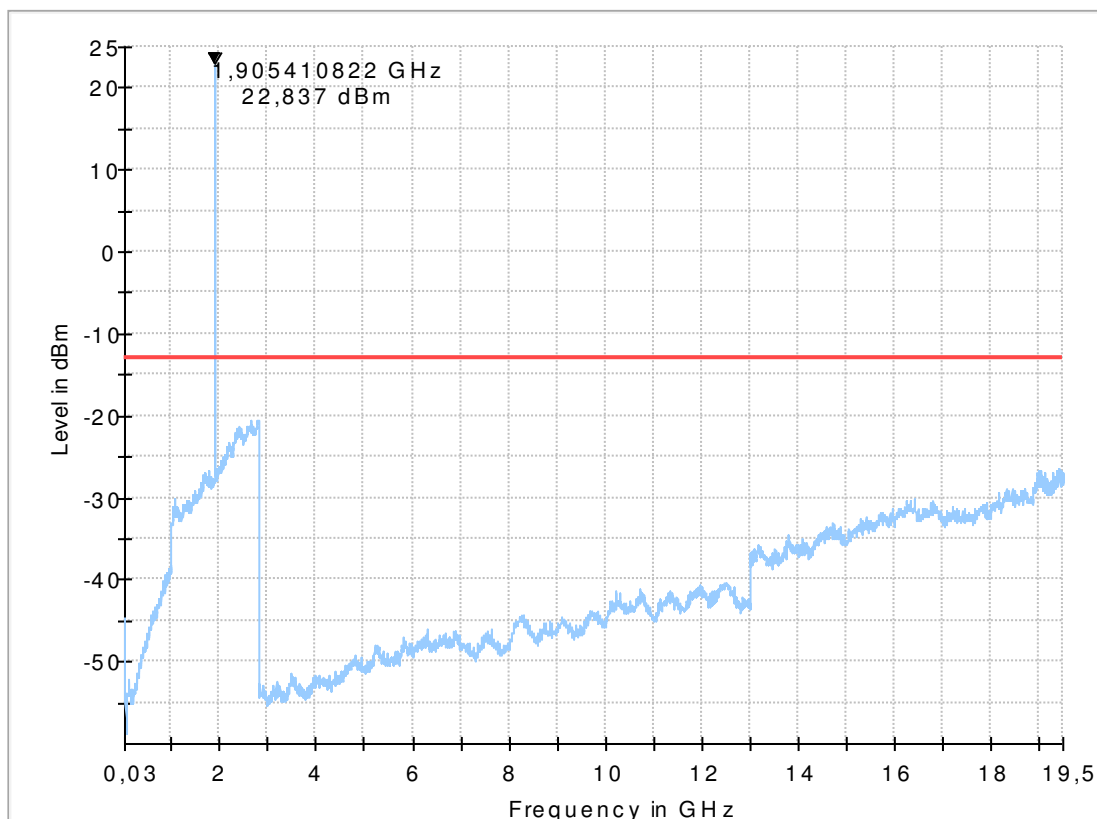
### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Radiated Spurious Emissions UMTS FDDII      |
| Test Site Location:       | CETECOM GmbH Essen                          |
| Test Site:                | Fully Anechoic Room (FAR) - EMC32 V9.21.0   |
| Test Standard:            | FCC Part 24.238/RSS-133, Issue 3            |
| Operating Mode:           | UE allocated channel 9538 (fc = 1907.6 MHz) |
| Environmental Conditions: | Humidity: 49%rH; Temperature: 21,8°C        |
| Operator:                 | AHo   |
| Remarks:                  | Internal antenna used                       |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum





## 8.40b\_RSE\_R\_Ch1312\_RMC\_FDD4\_Ext.Ant

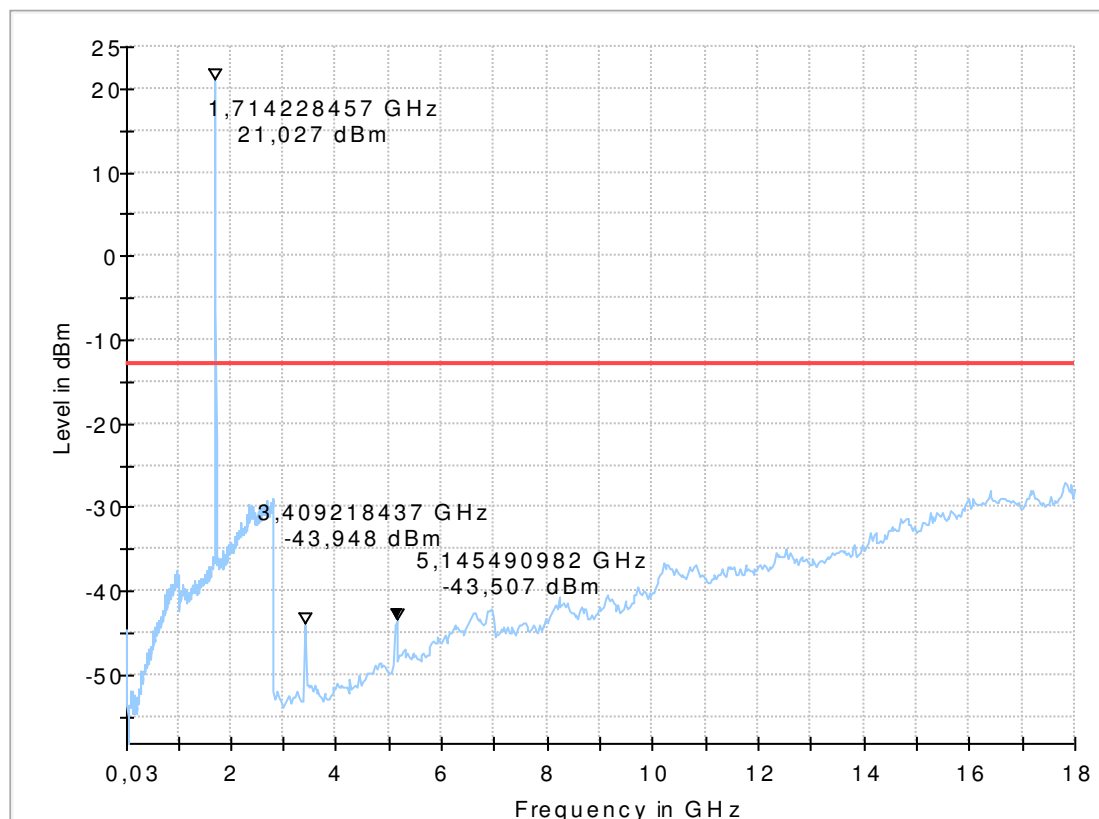
### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Radiated Spurious Emissions LTE Band 4    |
| Test Site Location:       | CETECOM GmbH Essen                        |
| Test Site:                | Fully Anechoic Room (FAR) - EMC32 V9.21.0 |
| Test Standard:            | FCC Part 27.53 / RSS-139                  |
| Comm. Link:               | LTE Band 4                                |
| Operating Mode:           | MS allocated channel 1312                 |
| Exclusionband:            | 1710 to 1755 MHz                          |
| Environmental Conditions: | Humidity: 47%rH; Temperature: 22°C        |
| Operator:                 | AHo                                       |
| Comments:                 | External Antenna                          |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EUT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 8.42a\_RSE\_R\_Ch1513\_RMC\_FDD4\_Int.Ant

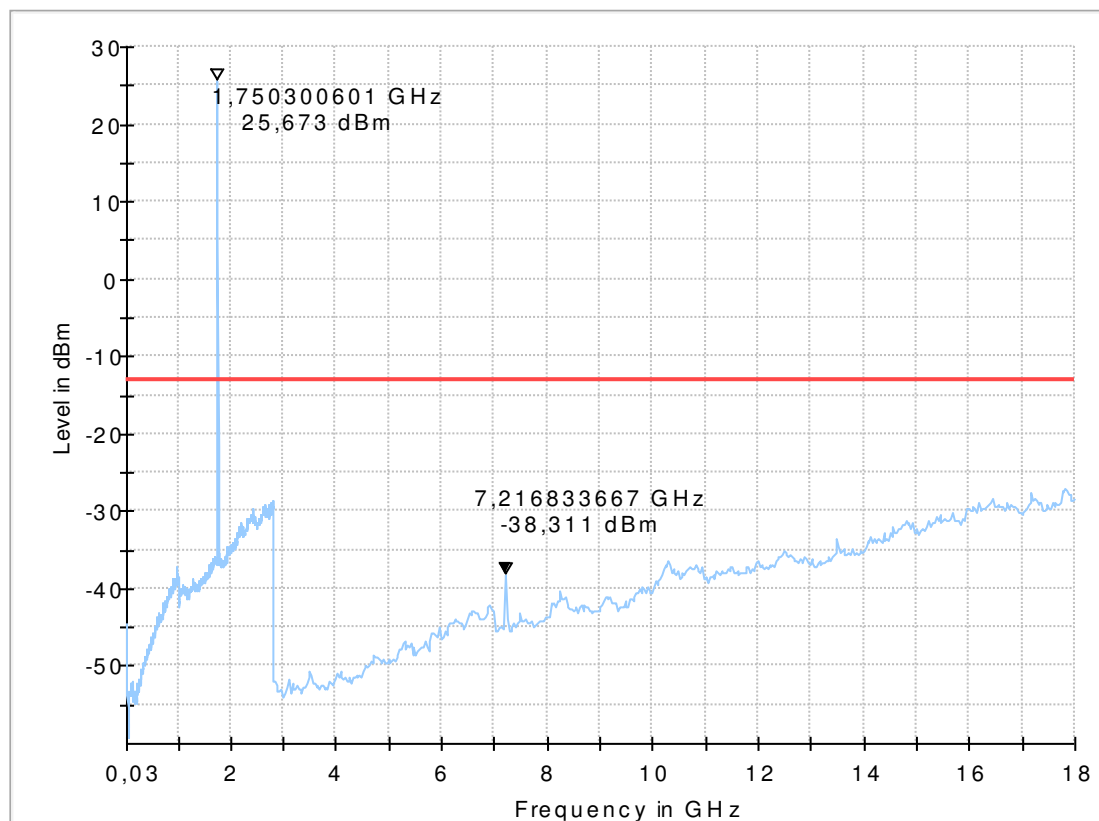
### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Radiated Spurious Emissions LTE Band 4    |
| Test Site Location:       | CETECOM GmbH Essen                        |
| Test Site:                | Fully Anechoic Room (FAR) - EMC32 V9.21.0 |
| Test Standard:            | FCC Part 27.53 / RSS-139                  |
| Comm. Link:               | LTE Band 4                                |
| Operating Mode:           | MS allocated channel 1312                 |
| Exclusionband:            | 1710 to 1755 MHz                          |
| Environmental Conditions: | Humidity: 47%rH; Temperature: 22°C        |
| Operator:                 | AHo                                       |
| Comments:                 | Internal Antenna                          |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EUT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## Diagram 8.50b\_RSE\_R\_Ch4132\_RMC\_Ext.Ant

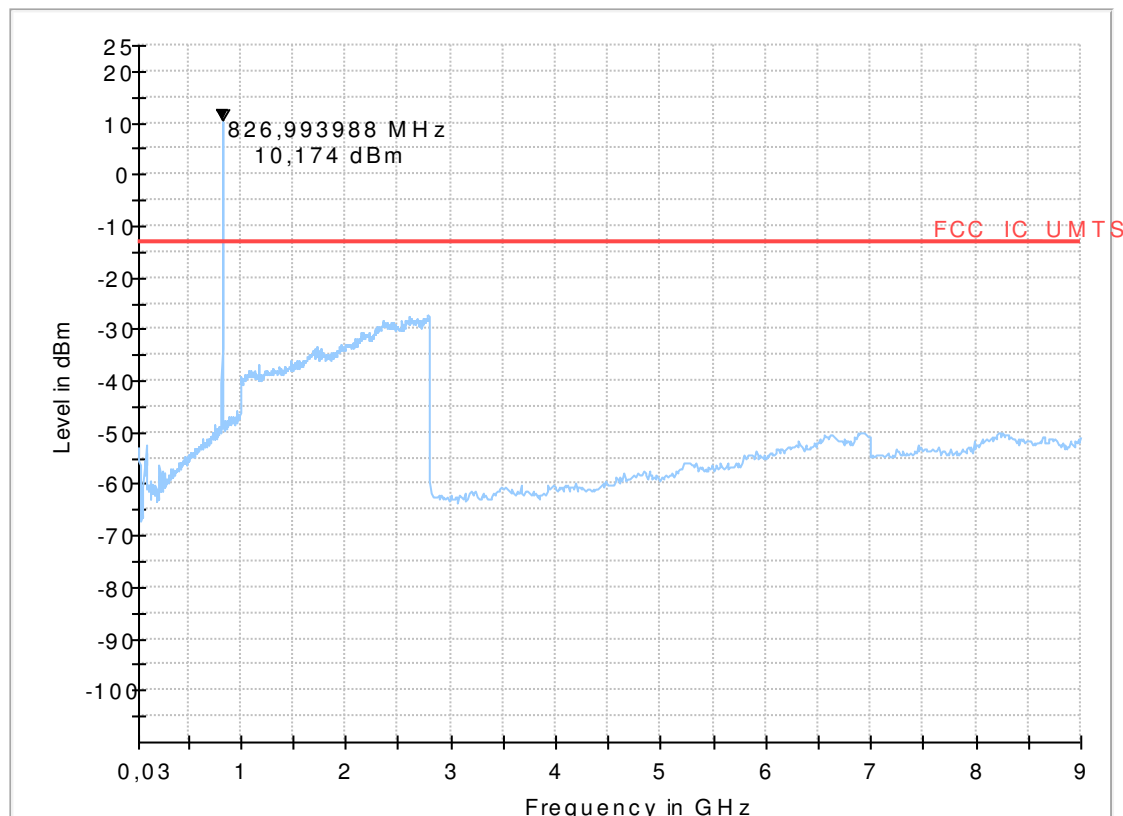
### Common Information

|                           |  |
|---------------------------|--|
| Test Description:         | Radiated Spurious Emissions UMTS FDDV          |
| Test Site Location:       | CETECOM GmbH Essen                             |
| Test Site:                | Fully Anechoic Room (FAR)                      |
| Test Standard:            | FCC Part 22.917(a)                             |
| Test SW.:                 | EMC32 V9.21.0                                  |
| Operating Mode:           | UE allocated channel 4132 (fc =826.4 MHz), RMC |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22,6°C           |
| Operator:                 | KMo  |
| Remark:                   | External Antenna used                          |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## Diagram 8.52a\_RSE\_R\_Ch4233\_RMC\_Int.Ant

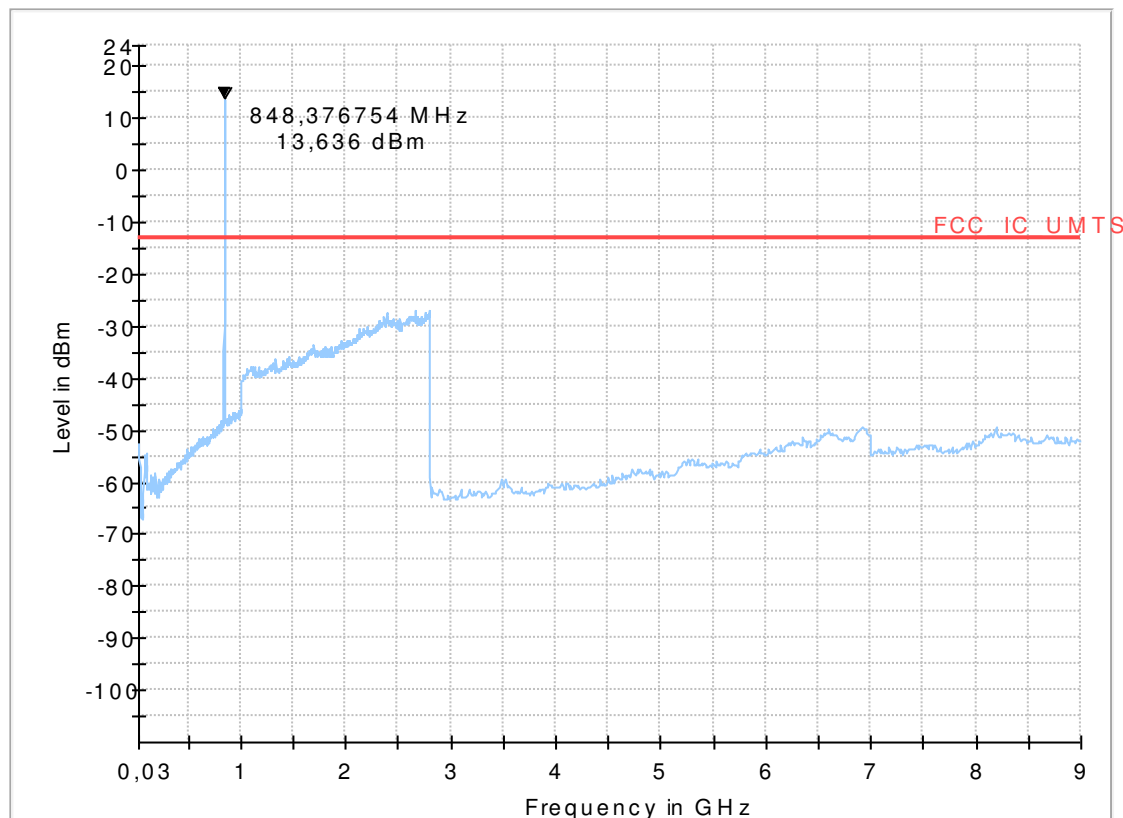
### Common Information

|                           |  |
|---------------------------|--|
| Test Description:         | Radiated Spurious Emissions UMTS FDDV          |
| Test Site Location:       | CETECOM GmbH Essen                             |
| Test Site:                | Fully Anechoic Room (FAR)                      |
| Test Standard:            | FCC Part 22.917(a)                             |
| Software:                 | EMC32 V9.21.0                                  |
| Operating Mode:           | UE allocated channel 4233 (fc =846.6 MHz), RMC |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22.6°C           |
| Operator:                 | KMo  |
| Comment:                  | Internal Antenna used                          |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



1.2.3. Emissions in (LTE-Mode)

## 8.22\_LTE II\_Ch18900\_BW\_10MHz\_50\_RB\_QPSK\_9 bis 19.5GHz

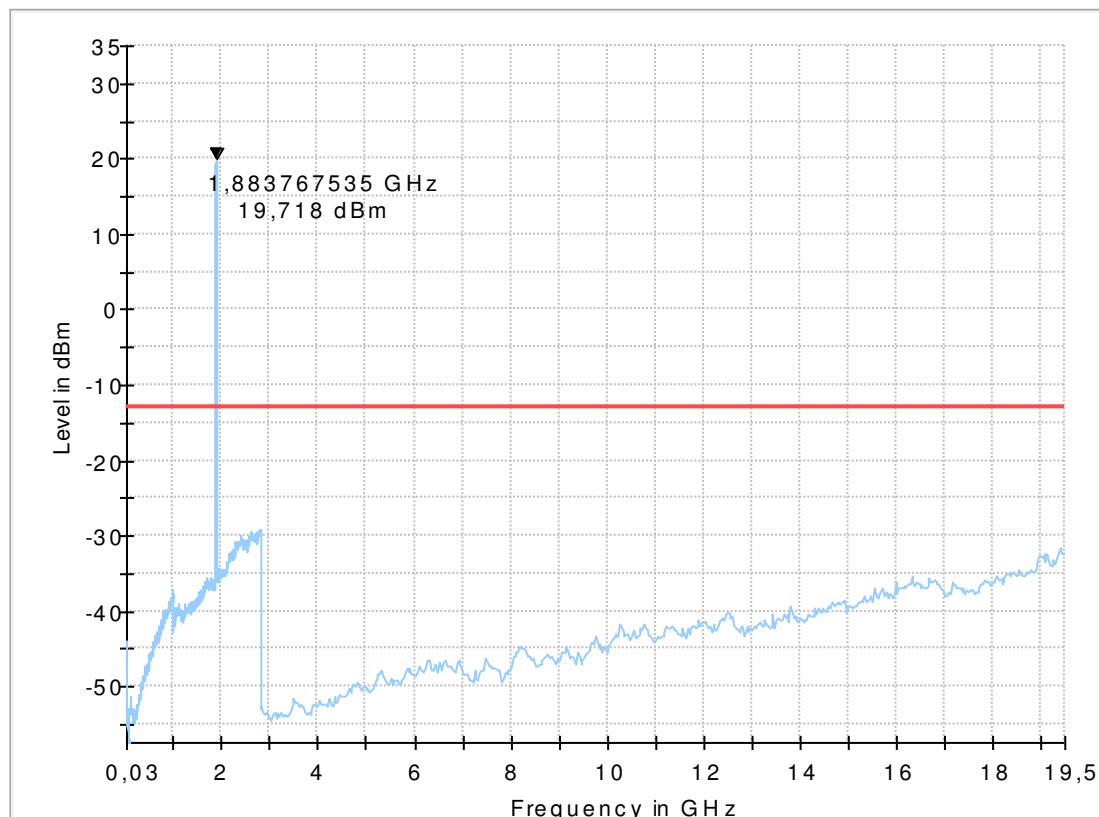
### Common Information

|                           |  |
|---------------------------|--|
| Test Description:         | Radiated Spurious Emissions UMTS FDDII   |
| Test Site Location:       | CETECOM GmbH Essen   |
| Test Site:                | Fully Anechoic Room (FAR)  |
| Test Standard:            | FCC Part 24  |
| Operating Mode:           | UE allocated channel 18900 (fc =1880.0MHz),BW=10 MHz,<br>RB=50,Modulation:QPSK |
| Environmental Conditions: | Humidity: 24 %rH; Temperature: 23 °C   |
| Operator:                 | KMo  |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Comments:             | -  |

Full Spectrum



## Diagram 8.25\_LTE II\_Ch18900\_BW\_10MHz\_50\_RB\_QAM

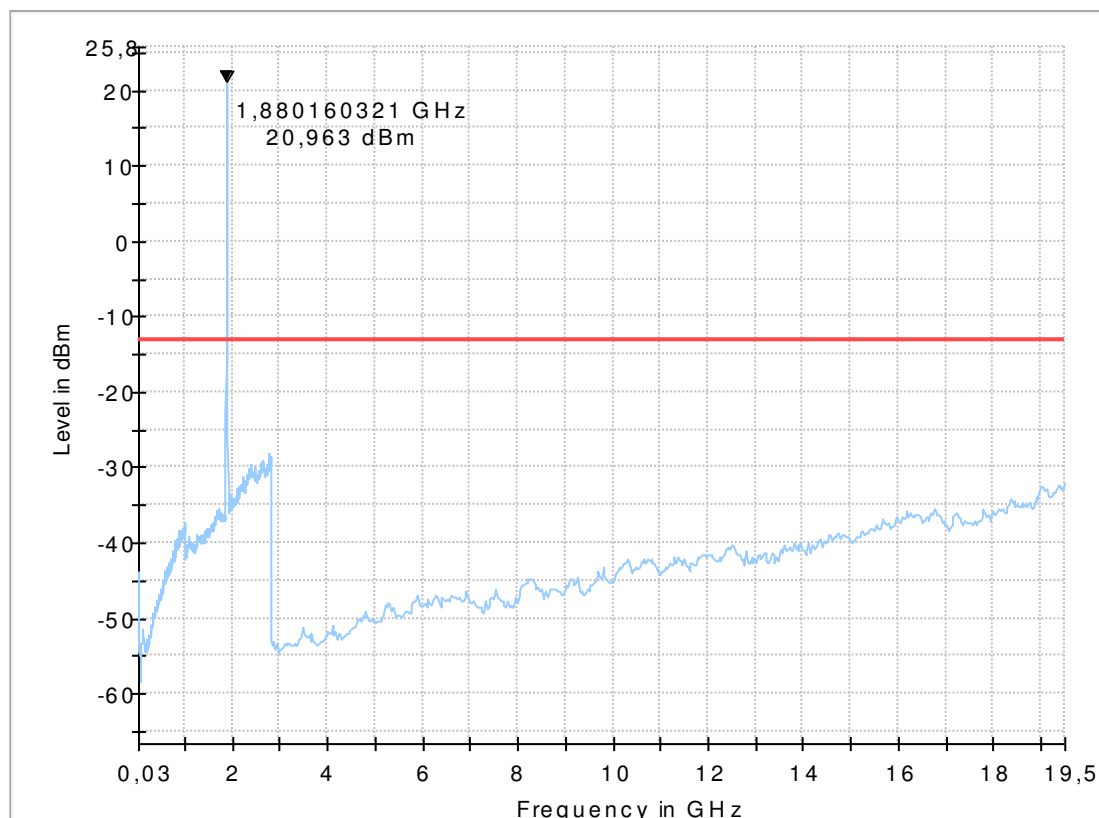
### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Radiated Spurious Emissions LTE FDDII   |
| Test Site Location:       | CETECOM GmbH Essen  |
| Test Site:                | Fully Anechoic Room (FAR)   |
| Test Standard:            | FCC Part 24   |
| Operating Mode:           | UE allocated channel 18900 (fc =1880.0MHz),BW=10 MHz,<br>RB=50,Modulation:QAM |
| Environmental Conditions: | Humidity: 24 %rH; Temperature: 23 °C  |
| Operator:                 | KMo   |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 | -----  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Comments:             | -  |

Full Spectrum



## 8.41\_RSE\_R\_Ch20175\_BW10\_Ext.Ant

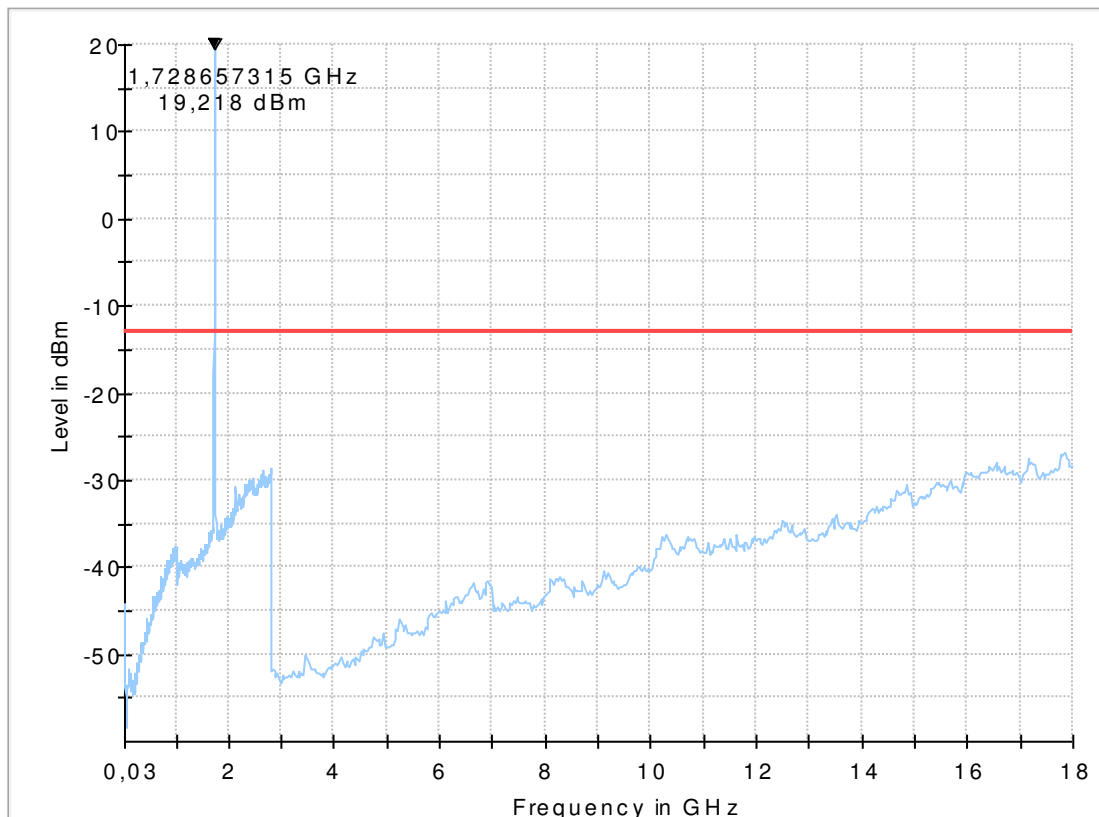
### Common Information

|                         |   |
|-------------------------|---|
| Test Description:       | Radiated Spurious Emissions LTE Band 4                            |
| Test Site Location:     | CETECOM GmbH Essen  |
| Test Site:              | Fully Anechoic Room (FAR)   |
| Test Standard:          | FCC Part 27.53 / RSS-139  |
| Operating Mode:         | UE allocated channel 20175 (fc = 1732,5MHz), RMC, 10MHz/QPSK/50RB |
| Environment Conditions: | Humidity: 30%rH; Temperature: 23.2°C                              |
| Operator Name:          | Ris   |
| Comment:                | External Antenna  |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 8.44\_RSE\_R\_Ch20175\_BW10\_Int.Ant

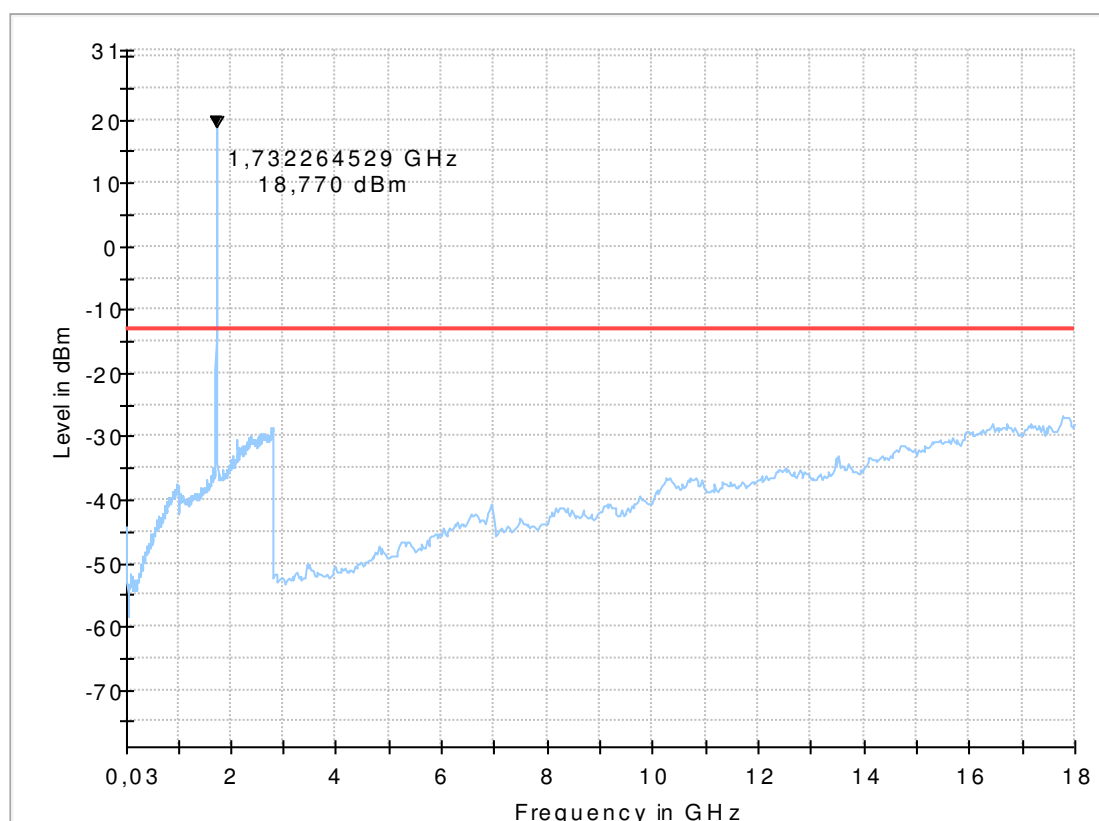
### Common Information

|                           |  |
|---------------------------|--|
| Test Description:         | Radiated Spurious Emissions LTE Band 4                           |
| Test Site Location:       | CETECOM GmbH Essen   |
| Test Site:                | Fully Anechoic Room (FAR)  |
| Test Standard:            | FCC Part 27.53 / RSS-139   |
| Comm. Link:               | LTE Band 4   |
| Operating Mode:           | UE allocated channel 20175 (fc = 1732,5MHz), RMC, 10MHz/QAM/50RB |
| Exclusionband:            | 1710 to 1755 MHz   |
| Environmental Conditions: | Humidity: 31%rH; Temperature: 23,0°C                             |
| Operator:                 | Ris  |
| Comment:                  | Internal antenna used  |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum





## Diagram 8.52\_Ch20525\_LTE-BANDV\_BW-10MHz\_QPSK

### Common Information

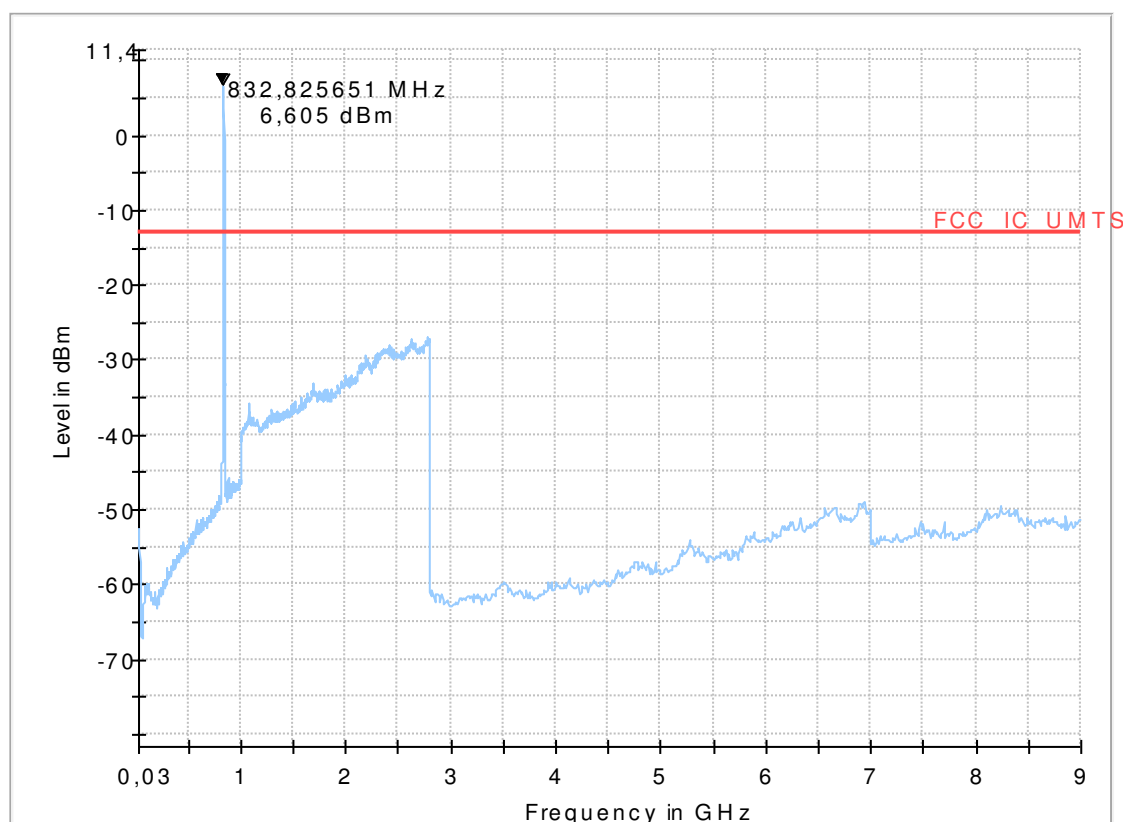
|                     |  |
|---------------------|--|
| Test Description:   | Radiated Spurious Emissions LTE FDDV                                       |
| Test Site Location: | CETECOM GmbH Essen   |
| Test Site:          | Fully Anechoic Room (FAR)  |
| Test Standard:      | FCC Part 22.917(a)   |
| Operating Mode:     | UE allocated channel 20525 (fc = 836.4), BW=10 MHz, RB=50, Modulation:QPSK |

|                           |                                      |
|---------------------------|--------------------------------------|
| Environmental Conditions: | Humidity: 24 %rH; Temperature: 23 °C |
| Operator:                 | KMo                                  |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Comments:             | -  |

Full Spectrum



## 8.55\_Ch20525\_LTE-BAND V\_BW-10MHz\_QAM

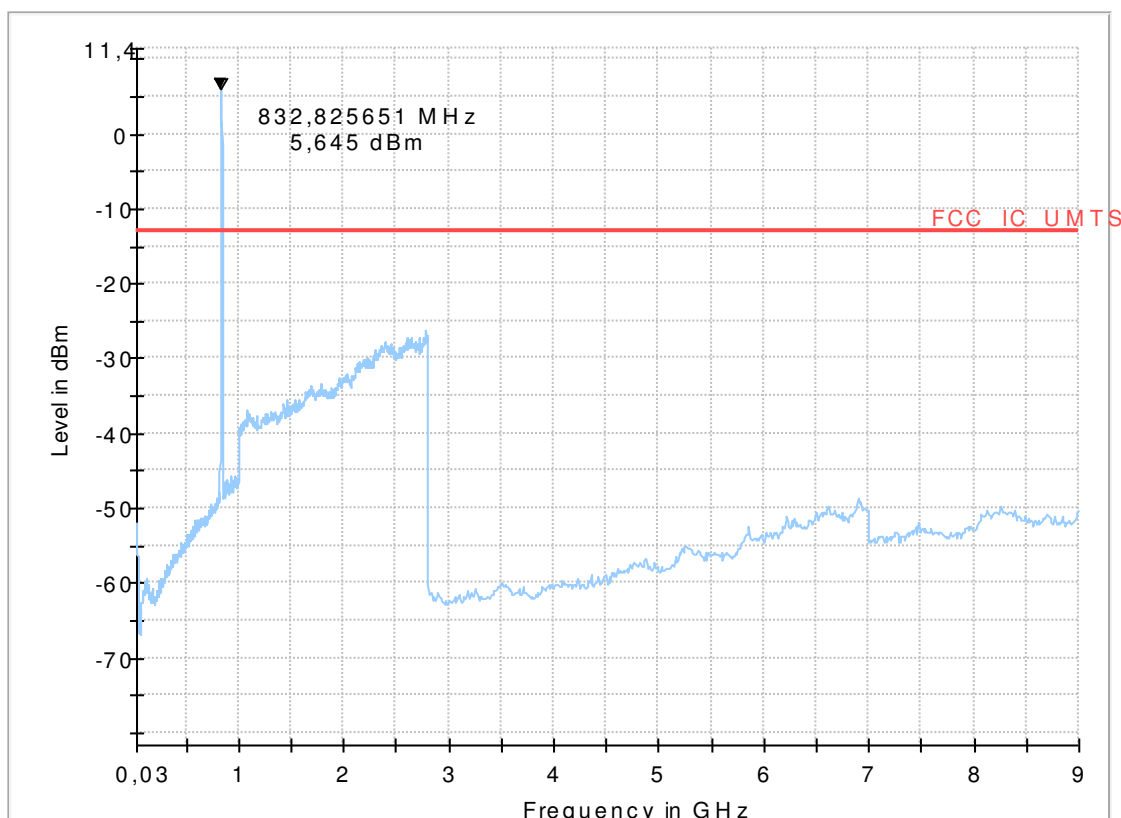
### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Radiated Spurious Emissions LTE FDDV                                      |
| Test Site Location:       | CETECOM GmbH Essen  |
| Test Site:                | Fully Anechoic Room (FAR)   |
| Test Standard:            | FCC Part 22.917(a)  |
| Operating Mode:           | UE allocated channel 20525 (fc = 836.4), BW=10 MHz, RB=50, Modulation:QAM |
| Environmental Conditions: | Humidity: 24 %rH; Temperature: 23 °C                                      |
| Operator:                 | KMo   |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 | -----  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Comments:             | -  |

Full Spectrum



## 8.171\_RSE\_R\_Ch23790\_BW5\_QPSK\_Ext.Ant

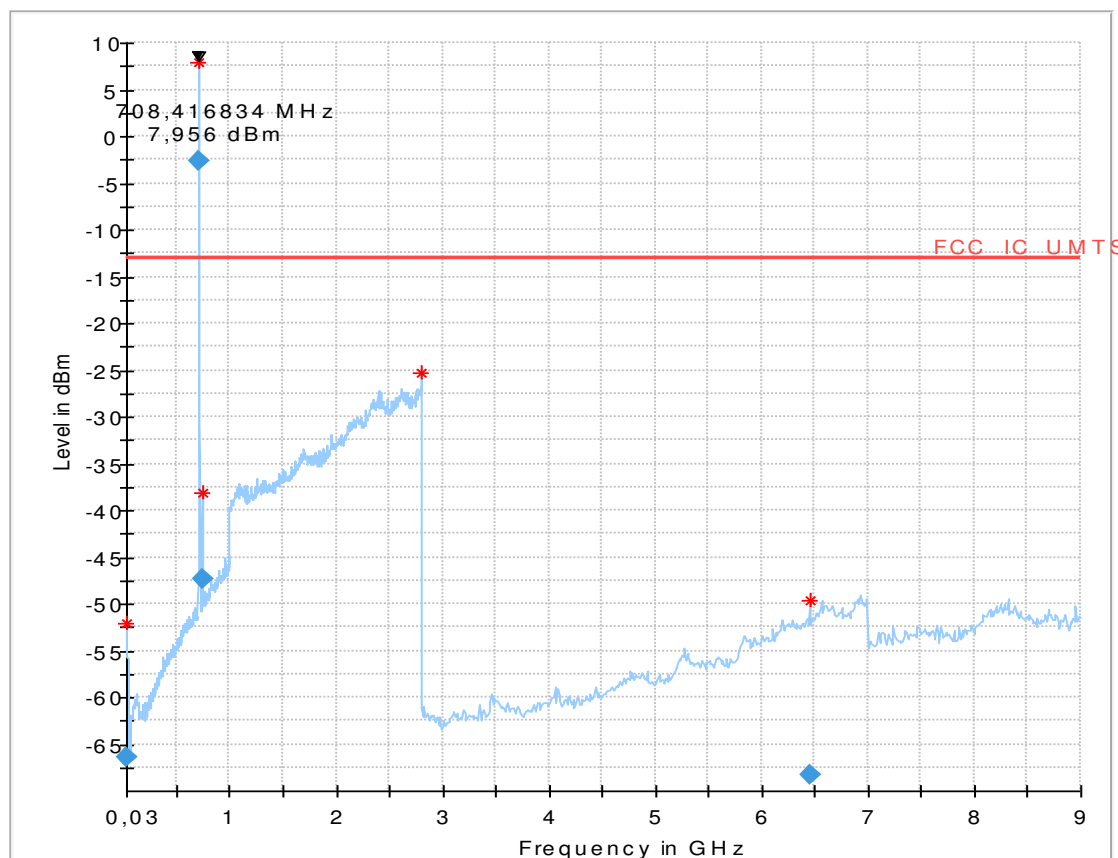
### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Radiated Spurious Emissions LTE Band 17                       |
| Test Site Location:       | CETECOM GmbH Essen  |
| Test Site:                | Fully Anechoic Room (FAR)                                     |
| Test Standard:            | FCC Part 22.917(a) / RSS-130                                  |
| Operating Mode:           | UE allocated channel 23790 (fc = 710MHz), RMC, 5MHz/QPSK/25RB |
| Environmental Conditions: | Humidity: 35%rH; Temperature:21,5°C                           |
| Operator:                 | Ris   |
| Remark:                   | External Antenna used   |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 8.175\_RSE\_R\_Ch23790\_BW5\_QAM\_Int.Ant

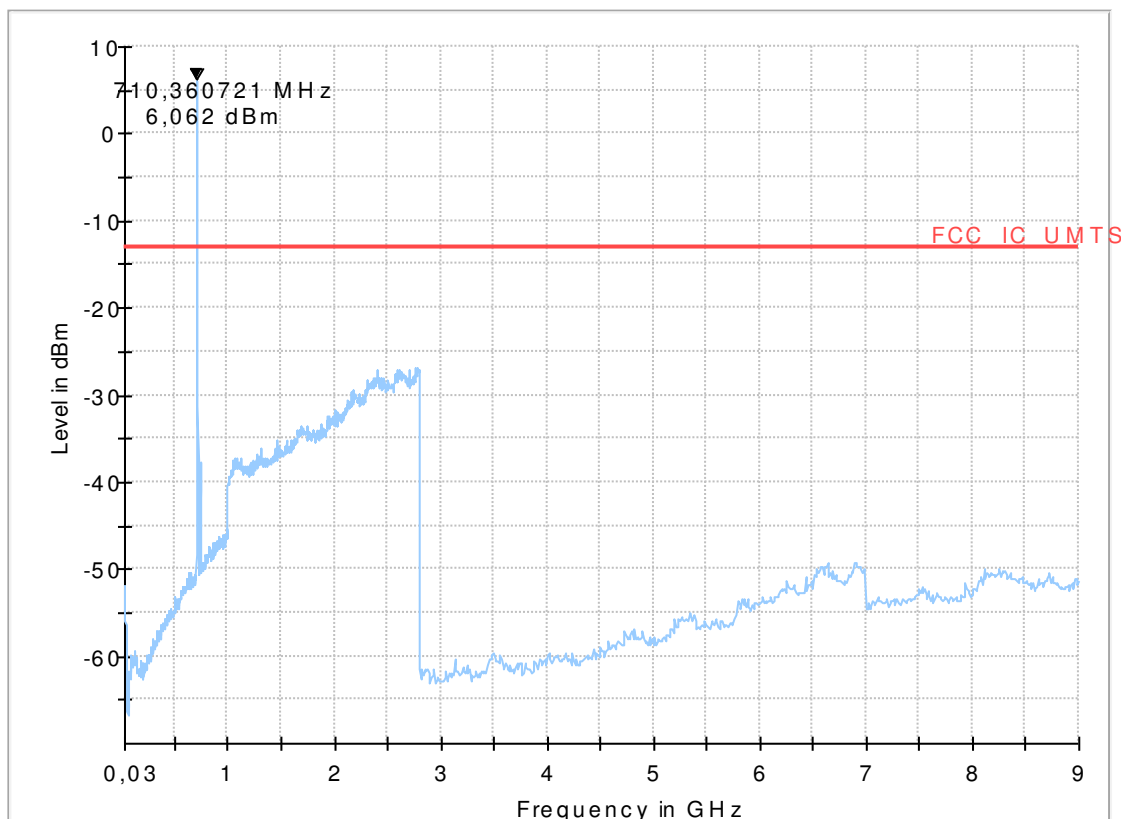
### Common Information

|                           |  |
|---------------------------|--|
| Test Description:         | Radiated Spurious Emissions LTE Band 17                      |
| Test Site Location:       | CETECOM GmbH Essen   |
| Test Site:                | Fully Anechoic Room (FAR)                                    |
| Test Standard:            | FCC Part 22.917(a) / RSS-130                                 |
| Operating Mode:           | UE allocated channel 23790 (fc = 710MHz), RMC, 5MHz/QAM/25RB |
| Environmental Conditions: | Humidity: 34%rH; Temperature: 22°C                           |
| Operator:                 | Ris  |
| Remark                    | Internal Antenna used  |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



### 1.3. Radiated emissions – band-edge for GSM – Operating Mode

#### 1.3.1. GSM Mode 1900

##### 1.3.1.1. Internal antenna

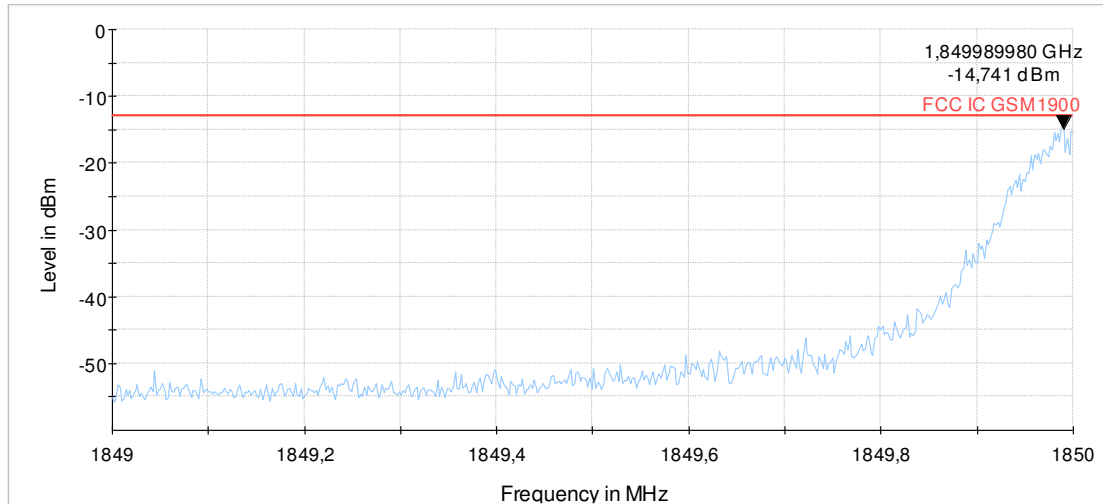


Diagram 9.02a - Ch 512

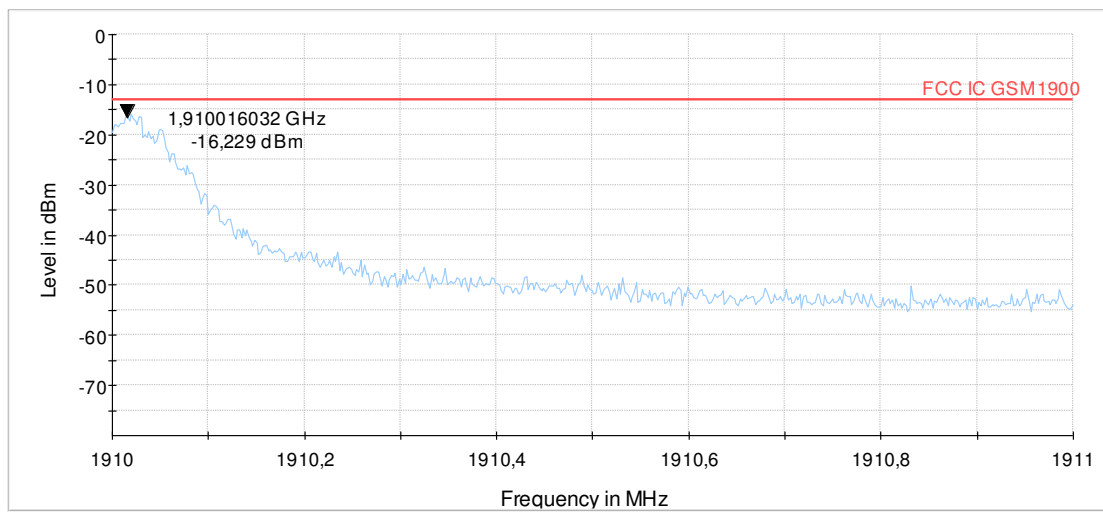


Diagram 9.10a - Ch810

### 1.3.1.2. External Antenna

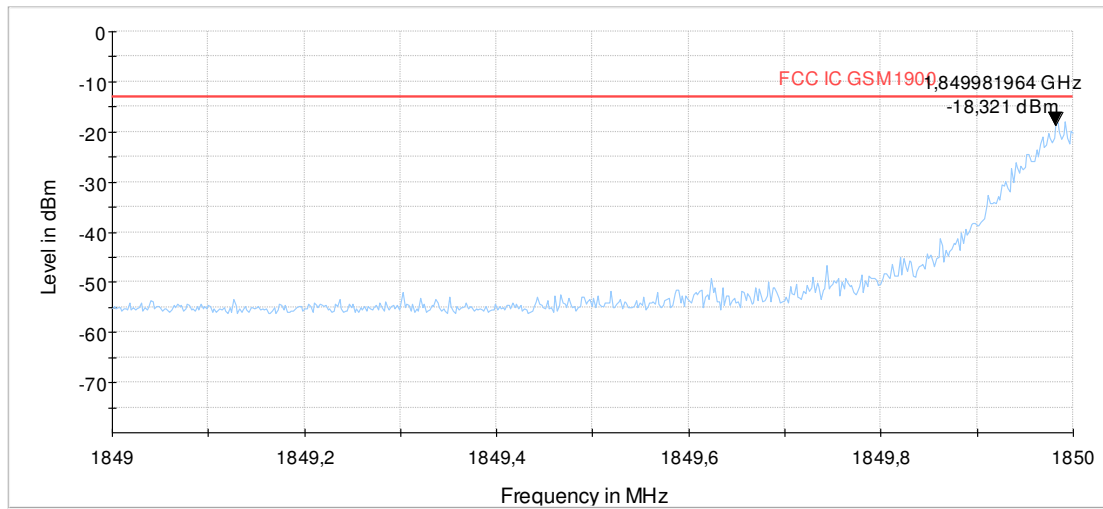


Diagram 9.09b - Ch 512

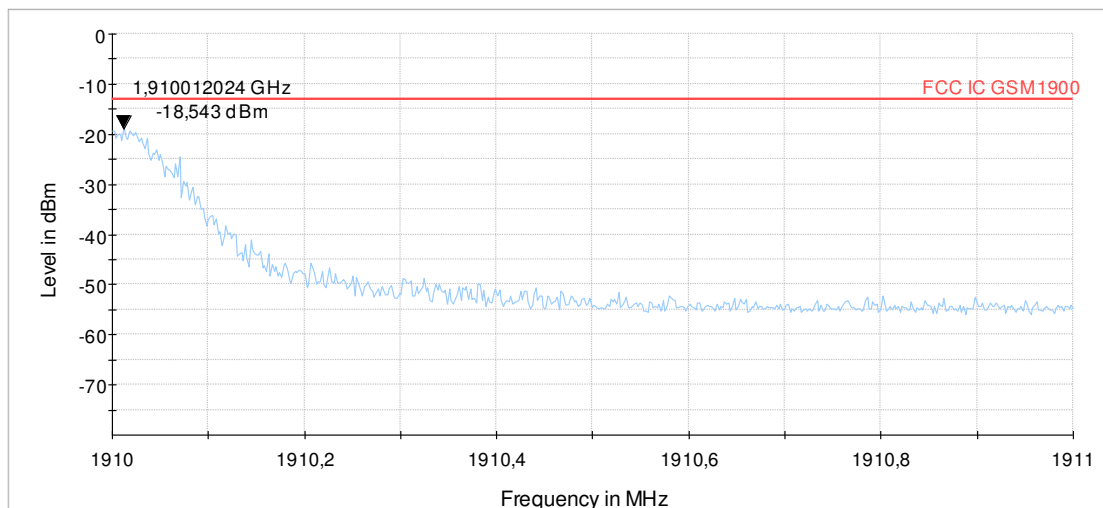


Diagram 9.10b - Ch810

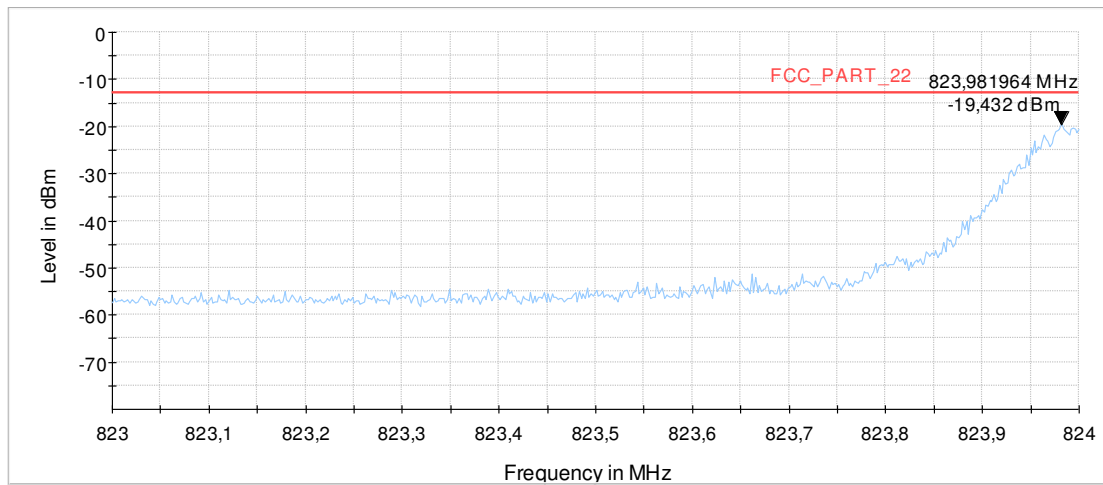
**1.3.2. GSM Mode 850****1.3.2.1. Internal antenna**

Diagram 9.03a - Ch 128

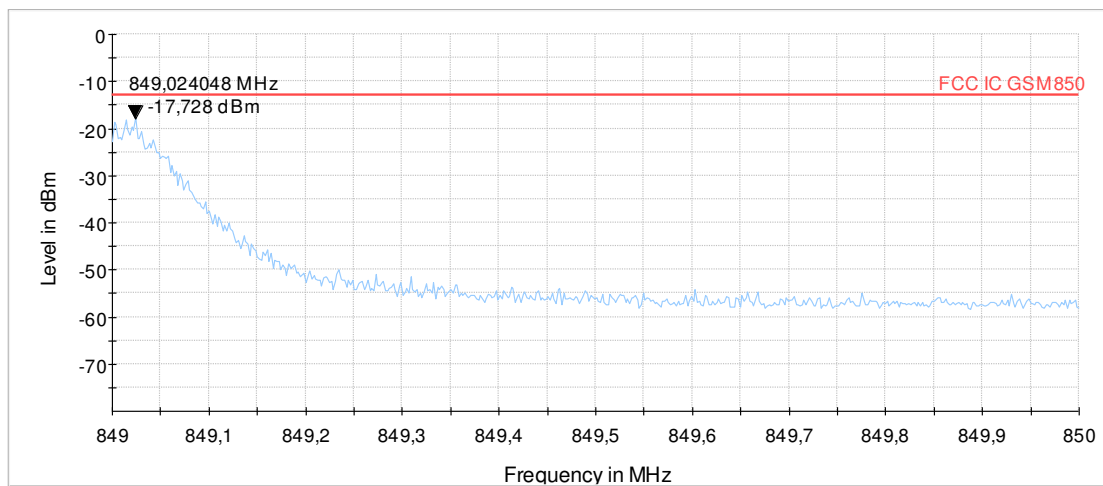


Diagram 9.03a - Ch 251

### 1.3.2.2. External Antenna

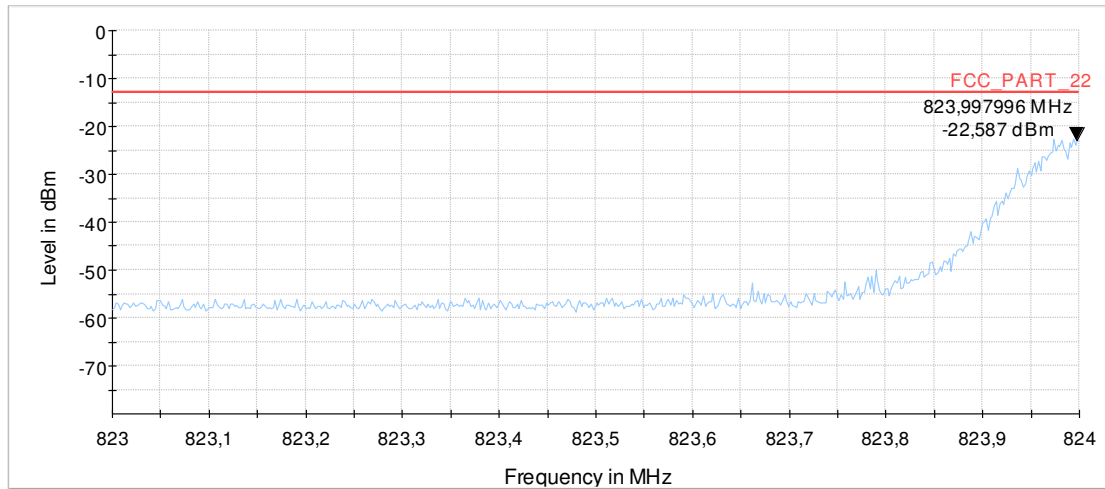


Diagram 9.03b – Ch128

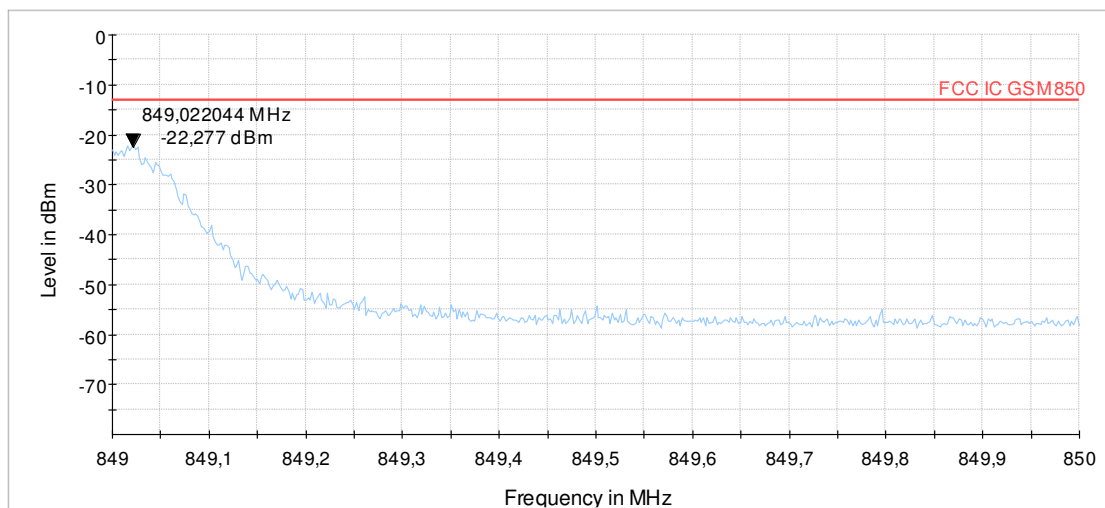


Diagram 9.04b – Ch251



## 1.4. Radiated emissions – band-edge for W-CDMA Operating Mode

### 1.4.1. W-CDMA Mode 2

#### 9.20a\_RSE\_R\_Ch9262\_RMC\_Int.Ant

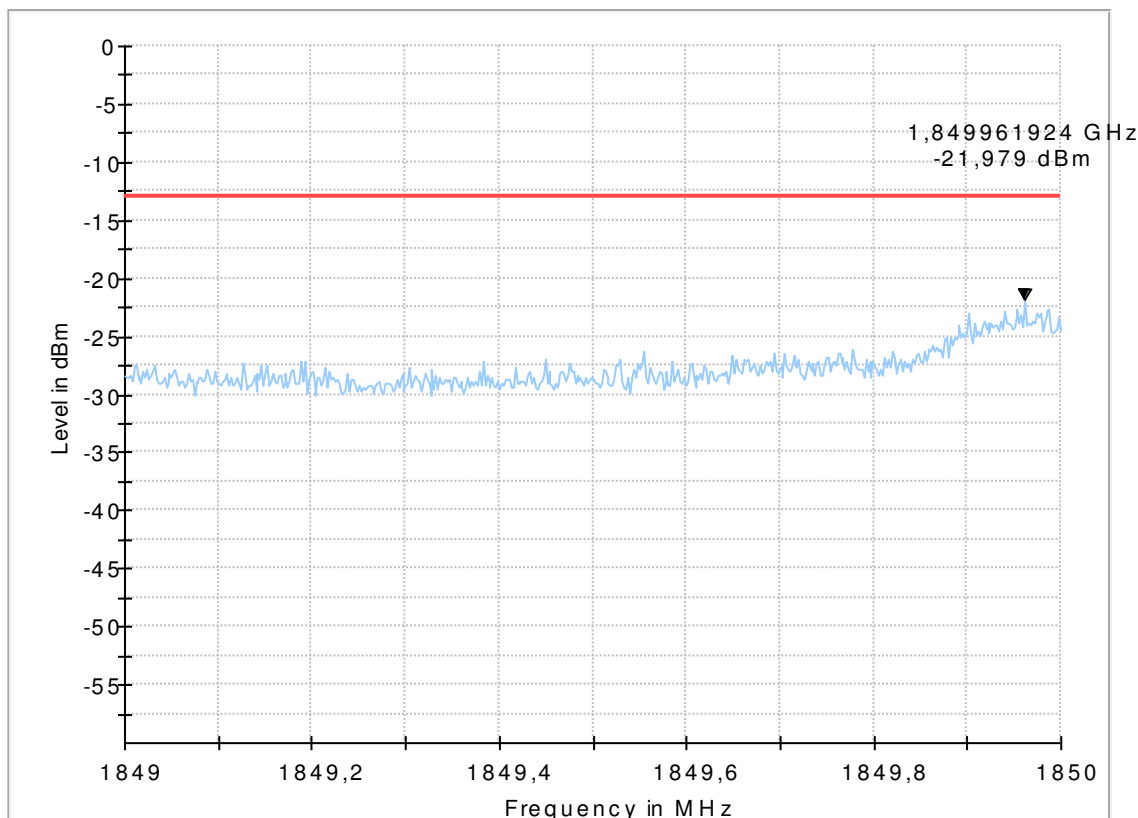
#### Common Information

|                           |  |
|---------------------------|--|
| Test Description:         | Band-Edge low - Radiated Spurious Emissions UMTS FDD 2 |
| Test Site Location:       | CETECOM GmbH Essen                                     |
| Test Site:                | Fully Anechoic Room (FAR)                              |
| Test Standard:            | FCC Part 24  |
| Test SW.:                 | EMC32 V9.21.0  |
| Operating Mode:           | UE allocated channel 9262 (fc = 1852.4 MHz)            |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22,6°C                   |
| Operator:                 | KMo  |
| Comment:                  | Internal Antenna used                                  |

#### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 9.20b\_RSE\_R\_Ch9262\_RMC\_Ext.Ant

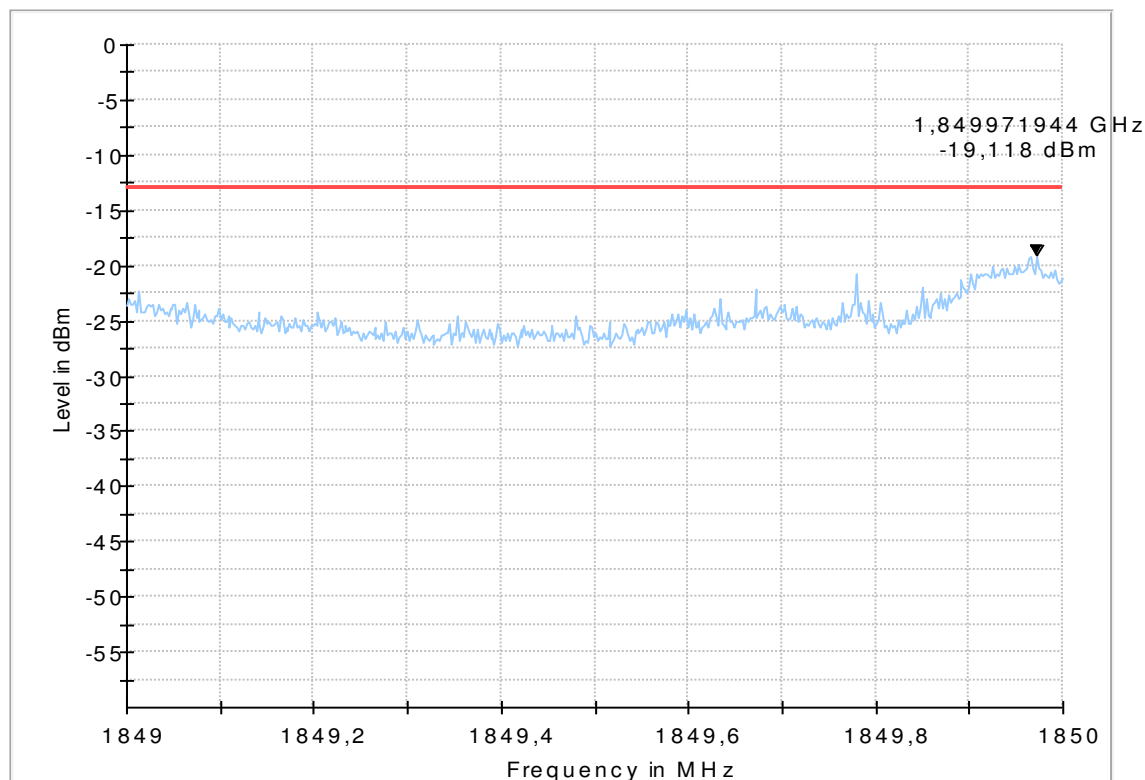
### Common Information

|                           |  |
|---------------------------|--|
| Test Description:         | Band-Edge low - Radiated Spurious Emissions UMTS FDD 2 |
| Test Site Location:       | CETECOM GmbH Essen                                     |
| Test Site:                | Fully Anechoic Room (FAR)                              |
| Test Standard:            | FCC Part 24  |
| Test SW.:                 | EMC32 V9.21.0  |
| Operating Mode:           | UE allocated channel 9262 (fc = 1852.4 MHz)            |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22,6°C                   |
| Operator:                 | KMo  |
| Comment:                  | External Antenna used                                  |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 | -----  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 9.21a\_RSE\_R\_Ch9538\_RMC\_Int.Ant

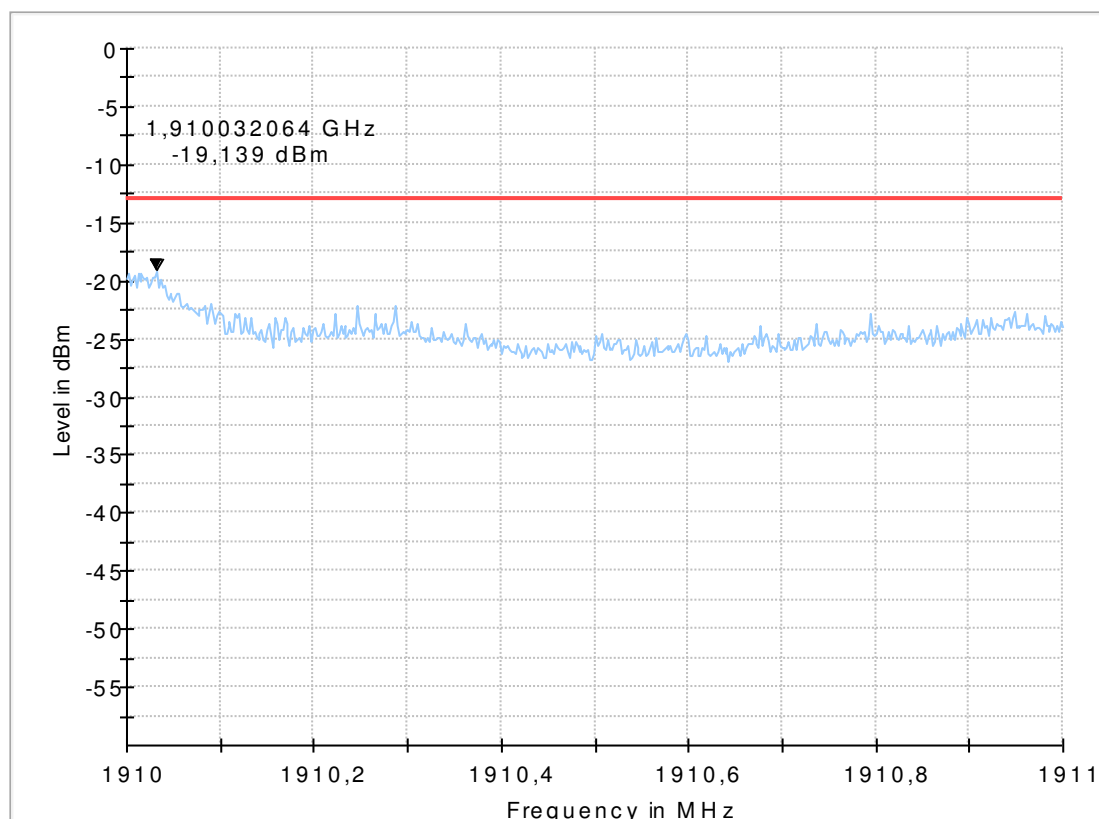
### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Band-Edge high - Radiated Spurious Emissions UMTS FDD 2 |
| Test Site Location:       | CETECOM GmbH Essen                                      |
| Test Site:                | Fully Anechoic Room (FAR)                               |
| Test Standard:            | FCC Part 24   |
| Test SW.:                 | EMC32 V9.21.0   |
| Operating Mode:           | UE allocated channel 9538 (fc = 1907.6 MHz)             |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22,6°C                    |
| Operator:                 | KMo   |
| Comment:                  | Internal Antenna used                                   |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 9.21b\_RSE\_R\_Ch9538\_RMC\_Ext.Ant

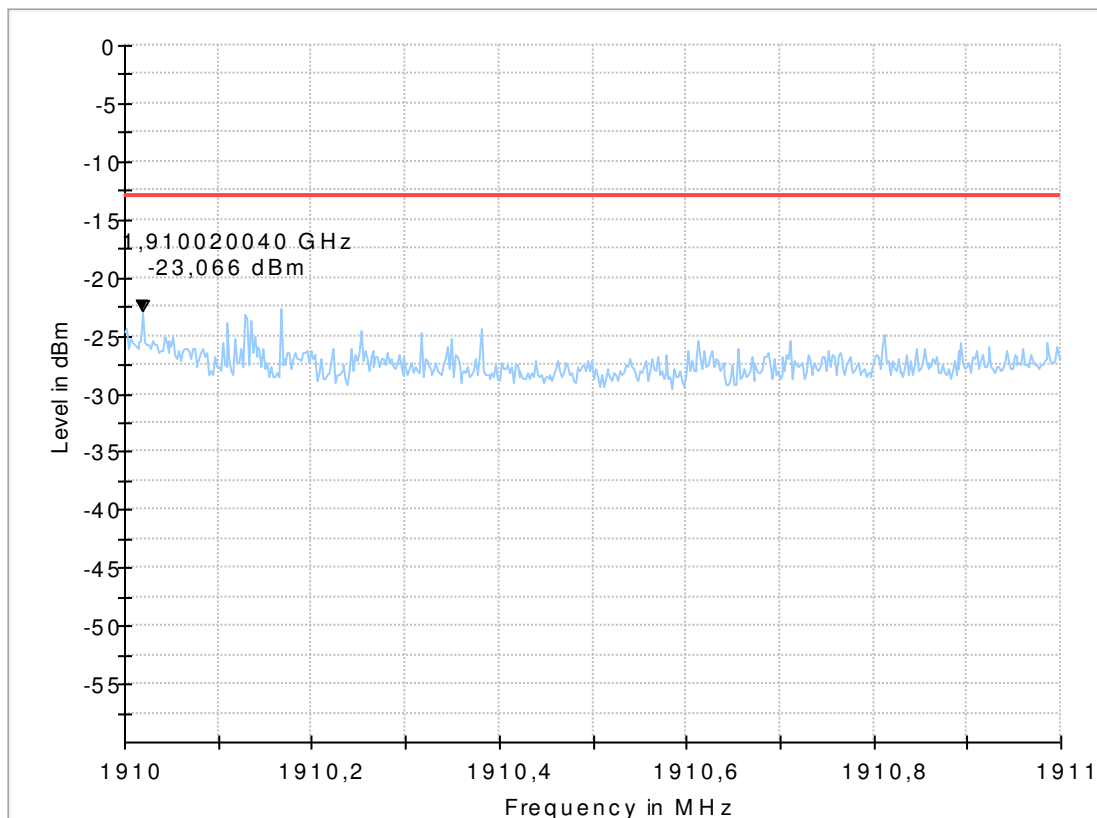
### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Band-Edge high - Radiated Spurious Emissions UMTS FDD 2 |
| Test Site Location:       | CETECOM GmbH Essen                                      |
| Test Site:                | Fully Anechoic Room (FAR)                               |
| Test Standard:            | FCC Part 24   |
| Test SW.:                 | EMC32 V9.21.0   |
| Operating Mode:           | UE allocated channel 9538 (fc = 1907.6 MHz)             |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22,6°C                    |
| Operator:                 | KMo   |
| Comment:                  | External Antenna used                                   |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



### 1.4.2. W-CDMA Mode 4

## 9.40a\_BE\_R\_Ch1312\_RMC\_IntAnt

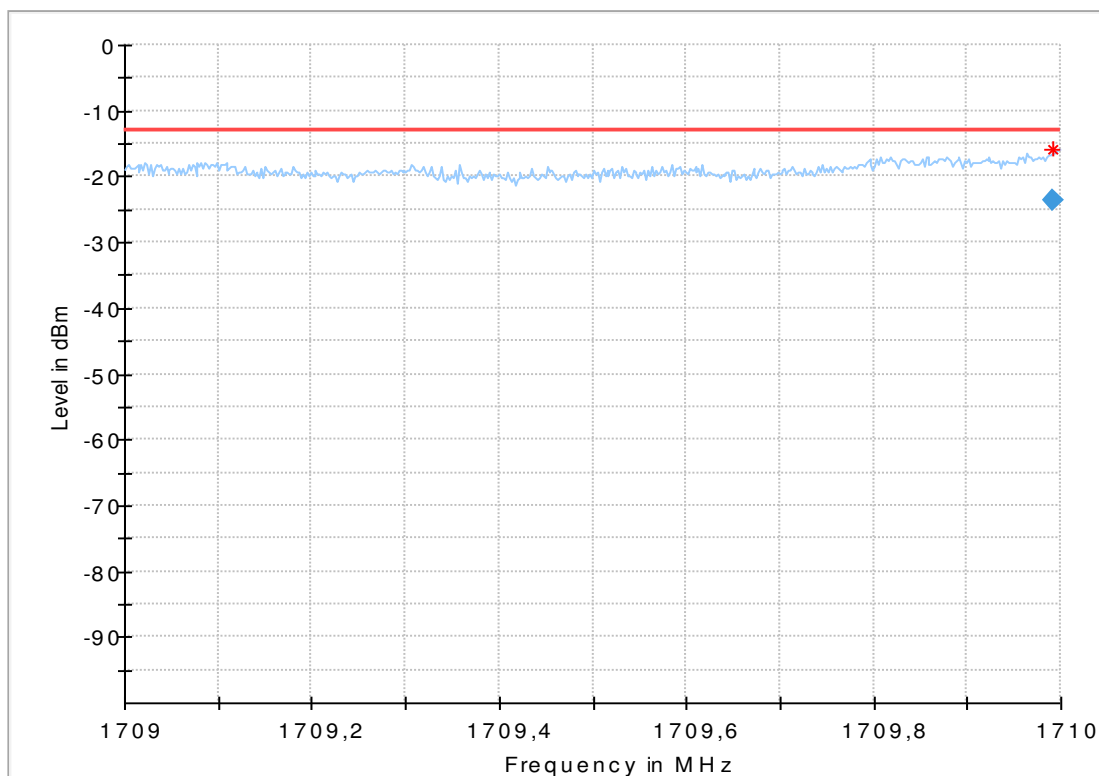
### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Radiated Spurious Emissions LTE Band 4    |
| Test Site Location:       | CETECOM GmbH Essen                        |
| Test Site:                | Fully Anechoic Room (FAR) - EMC32 V9.21.0 |
| Test Standard:            | FCC Part 27.53 / RSS-139                  |
| Comm. Link:               | LTE Band 4                                |
| Operating Mode:           | MS allocated channel 1312                 |
| Exclusionband:            | 1710 to 1755 MHz                          |
| Environmental Conditions: | Humidity: 47%rH; Temperature: 22°C        |
| Operator:                 | AHo                                       |
| Comments                  | Internal Antenna                          |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 9.40b\_BE\_R\_Ch1312\_RMC\_Ext.Ant

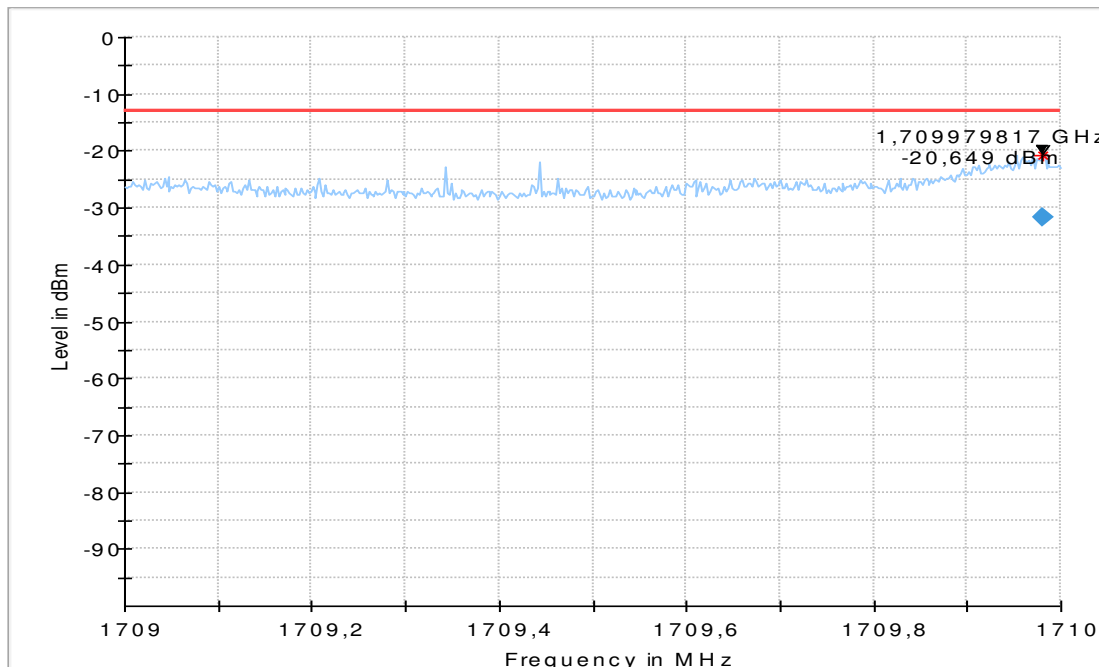
### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Radiated Spurious Emissions LTE Band 4    |
| Test Site Location:       | CETECOM GmbH Essen                        |
| Test Site:                | Fully Anechoic Room (FAR) - EMC32 V9.21.0 |
| Test Standard:            | FCC Part 27.53 / RSS-139                  |
| Comm. Link:               | LTE Band 4                                |
| Operating Mode:           | MS allocated channel 1312                 |
| Exclusionband:            | 1710 to 1755 MHz                          |
| Environmental Conditions: | Humidity: 47%rH; Temperature: 22°C        |
| Operator:                 | AHo                                       |
| Comments:                 | External Antenna                          |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EUT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



### Final Result

| Frequency (MHz) | Limit (dBm) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Elevation (deg) | Corr. (dB) | Comment               |
|-----------------|-------------|-------------|-----------------|-------------|-----|---------------|-----------------|------------|-----------------------|
| 1709.979817     | -13.00      | 18.68       | 10000.0         | 155.0       | V   | 79.0          | 0.0             | -63.3      | 13:50:36 - 01.02.2016 |

## 9.41a\_BE\_R\_Ch1513\_FDD4\_RMC\_Int.Ant

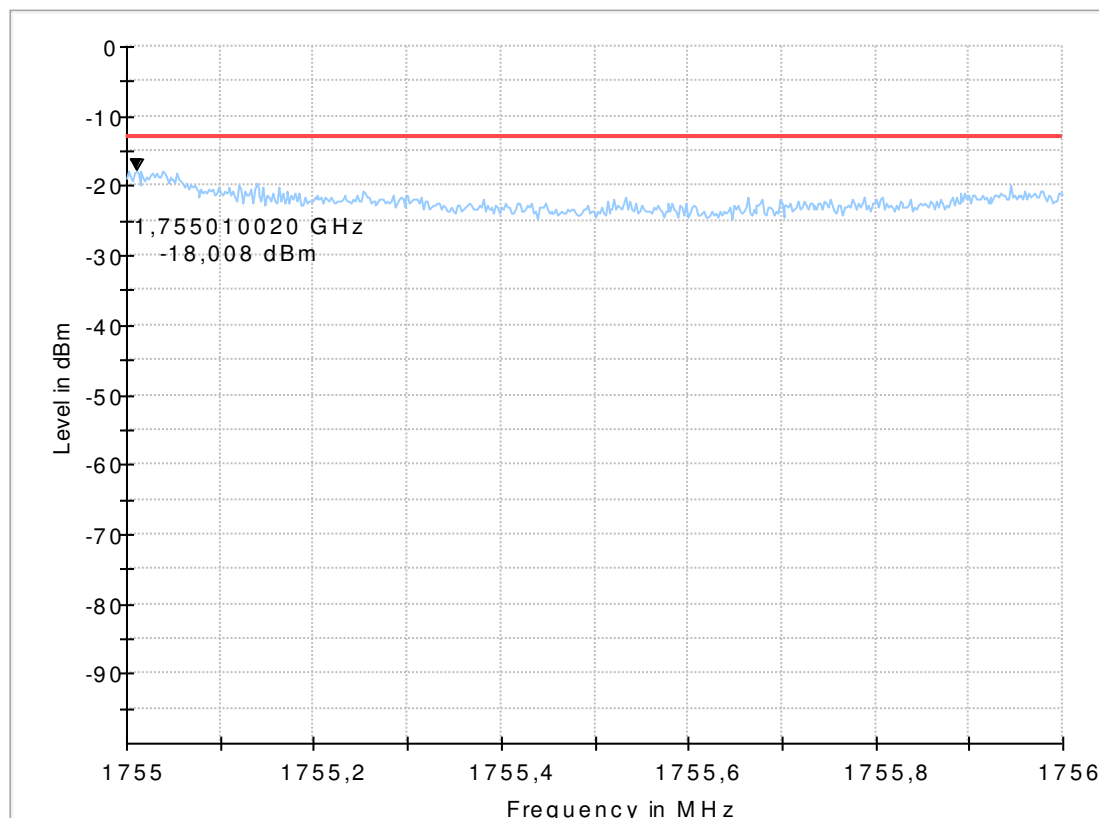
### Common Information

|                           |  |
|---------------------------|--|
| Test Description:         | Radiated Spurious Emissions LTE Band 4 |
| Test Site Location:       | CETECOM GmbH Essen                     |
| Test Site:                | Fully Anechoic Room (FAR)              |
| Test Standard:            | FCC Part 27.53 / RSS-139               |
| Comm. Link:               | LTE Band 4                             |
| Operating Mode:           | MS allocated channel xxx               |
| Exclusionband:            | 1710 to 1755 MHz                       |
| Environmental Conditions: | Humidity: 47%rH; Temperature: 22°C     |
| Operator:                 | AHo                                    |
| Comments:                 | Internal Antenna                       |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 9.41b\_BE\_R\_Ch1513\_FDD4\_RMC\_Ext.Ant

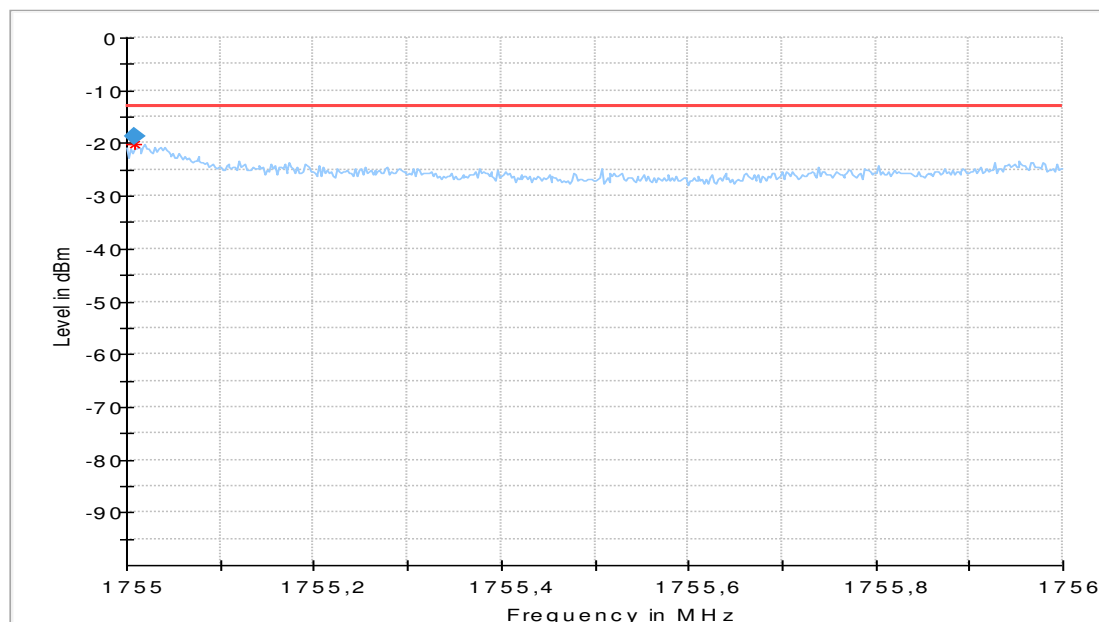
### Common Information

Test Description: Radiated Spurious Emissions LTE Band 4  
 Test Site Location: CETECOM GmbH Essen  
 Test Site: Fully Anechoic Room (FAR) - EMC32 V9.21.0  
 Test Standard: FCC Part 27.53 / RSS-139  
 Comm. Link: LTE Band 4  
 Operating Mode: MS allocated channel 1513  
 Exclusionband: 1710 to 1755 MHz  
 Environmental Conditions: Humidity: 47%rH; Temperature: 22°C  
 Operator: AHo  
 Comments: External Antenna

### EUT Information

Manufacturer: ACTIA Nordic AB  
 EuT: ACUII-06  
 -----  
 HW Version: C  
 SW Version: 13  
 Serial Number: 21790250902643  
 Connected Interfaces: MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector  
 Power Supply: 13.8 VDC  
 Antenna Type: LTE Antenna with SDAR  
 434-WLAN-GNSS-SDARS-LTE  
 50751424 | 15W421 | Portugal AD801  
 SDARS Modified #1

Full Spectrum



### Final Result

| Frequency (MHz) | Limit (dBm) | Margin (dB) | Meas. Time (ms) | Height (cm) | Pol | Azimuth (deg) | Elevation (deg) | Corr. (dB) | Comment               |
|-----------------|-------------|-------------|-----------------|-------------|-----|---------------|-----------------|------------|-----------------------|
| 1755.009379     | 13.00       | 5.75        | 10000.0         | 155.0       | H   | 101.0         | 90.0            | -63.6      | 14:03:38 - 01.02.2016 |



### 1.4.3. W-CDMA Mode 5

## 9.50a\_RSE\_R\_Ch4132\_RMC\_IntAnt

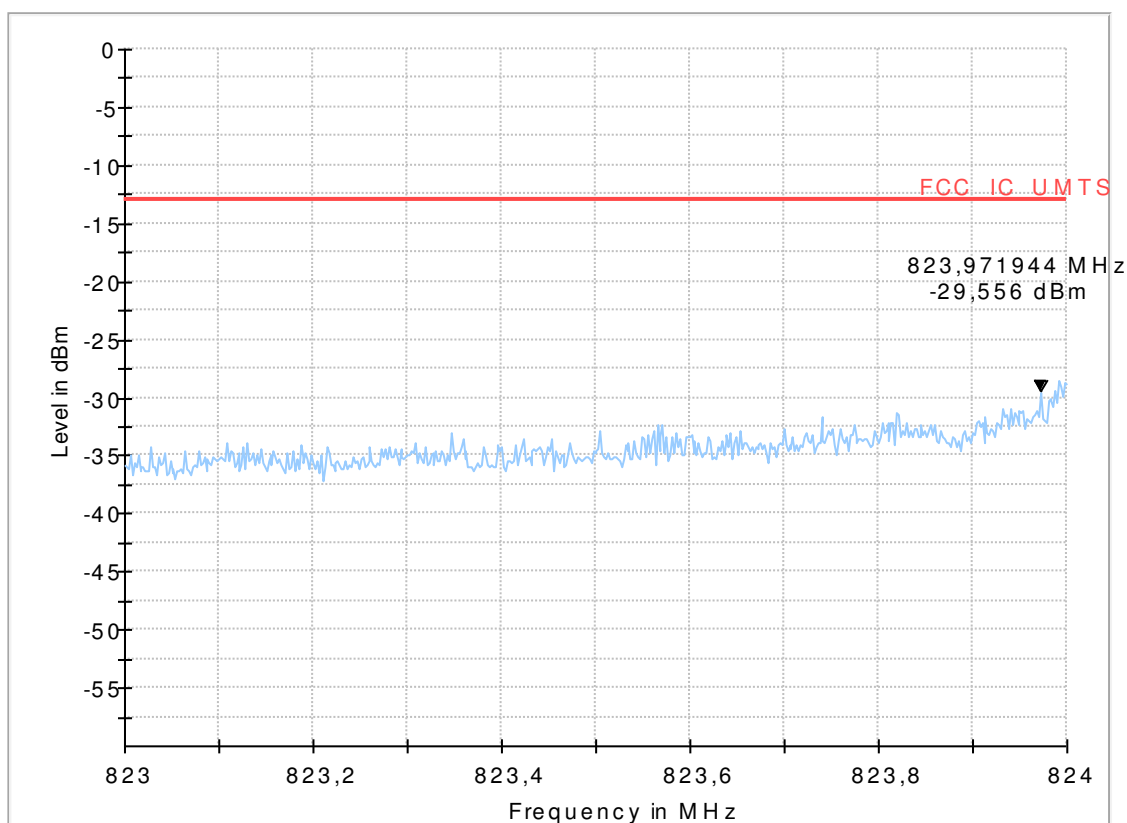
#### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Band-Edge low - Radiated Spurious Emissions UMTS FDDV |
| Test Site Location:       | CETECOM GmbH Essen                                    |
| Test Site:                | Fully Anechoic Room (FAR)                             |
| Test Standard:            | FCC Part 22.917(a)                                    |
| Test SW.:                 | EMC32 V9.21.0   |
| Operating Mode:           | UE allocated channel 4132 (fc =826.4 MHz), RMC        |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22,6°C                  |
| Operator:                 | KMo   |
| Remarks:                  | Internal Antenna used                                 |

#### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 9.50b\_RSE\_R\_Ch4132\_RMC\_ExtAnt

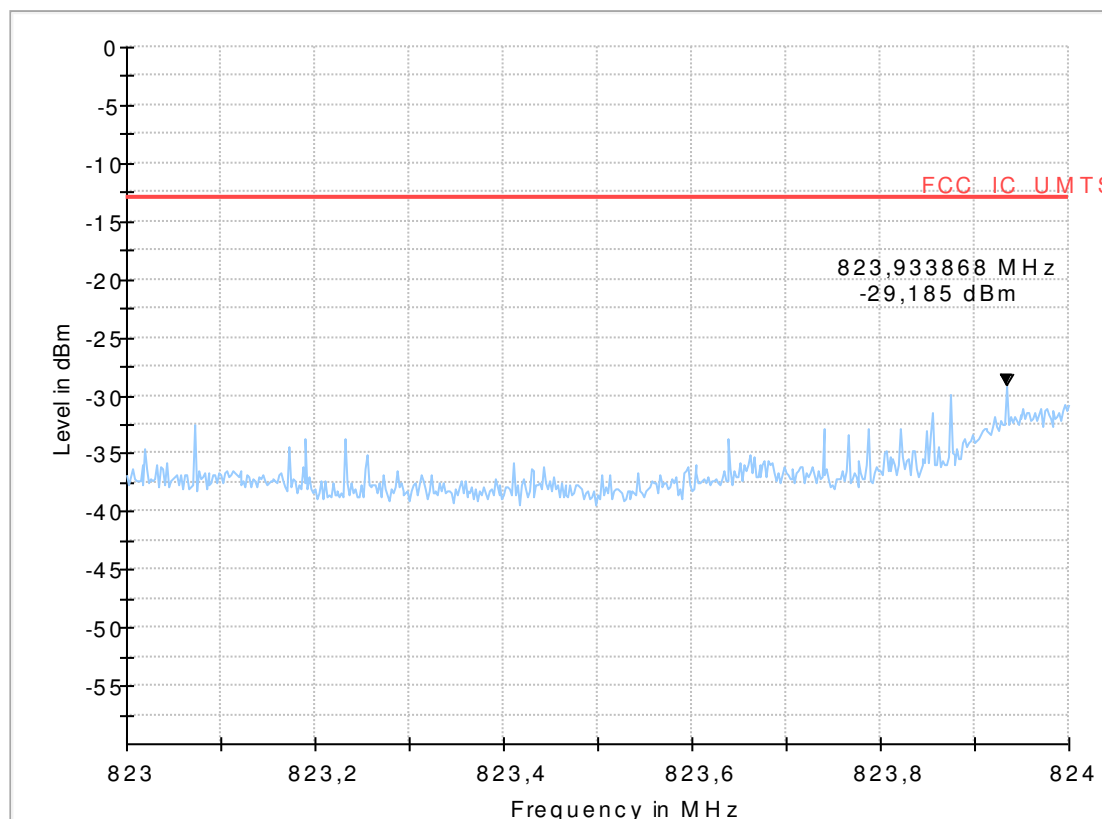
### Common Information

|                           |   |
|---------------------------|---|
| Test Description:         | Band-Edge low - Radiated Spurious Emissions UMTS FDDV |
| Test Site Location:       | CETECOM GmbH Essen                                    |
| Test Site:                | Fully Anechoic Room (FAR)                             |
| Test Standard:            | FCC Part 22.917(a)                                    |
| Test SW.:                 | EMC32 V9.21.0   |
| Operating Mode:           | UE allocated channel 4132 (fc =826.4 MHz), RMC        |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22,6°C                  |
| Operator:                 | KMo   |
| Remarks:                  | External Antenna used                                 |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 9.51a\_RSE\_R\_Ch4233\_RMC\_IntAnt

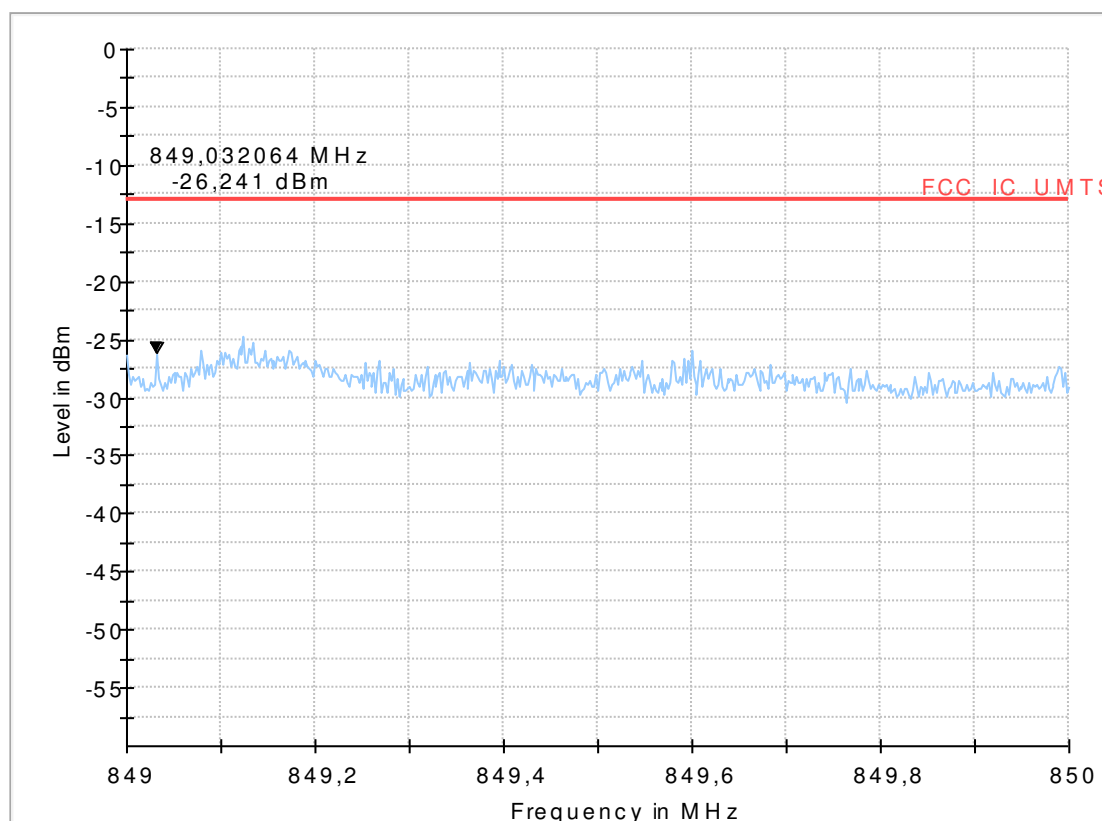
### Common Information

|                           |  |
|---------------------------|--|
| Test Description:         | Band-Edge high - Radiated Spurious Emissions UMTS FDDV |
| Test Site Location:       | CETECOM GmbH Essen                                     |
| Test Site:                | Fully Anechoic Room (FAR)                              |
| Test Standard:            | FCC Part 22.917(a)                                     |
| Test SW.:                 | EMC32 V9.21.0  |
| Operating Mode:           | UE allocated channel 4233 (fc =846.6 MHz), RMC         |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22,6°C                   |
| Operator:                 | KMo  |
| Remarks:                  | Internal Antenna used                                  |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 9.51b\_RSE\_R\_Ch4233\_RMC\_ExtAnt

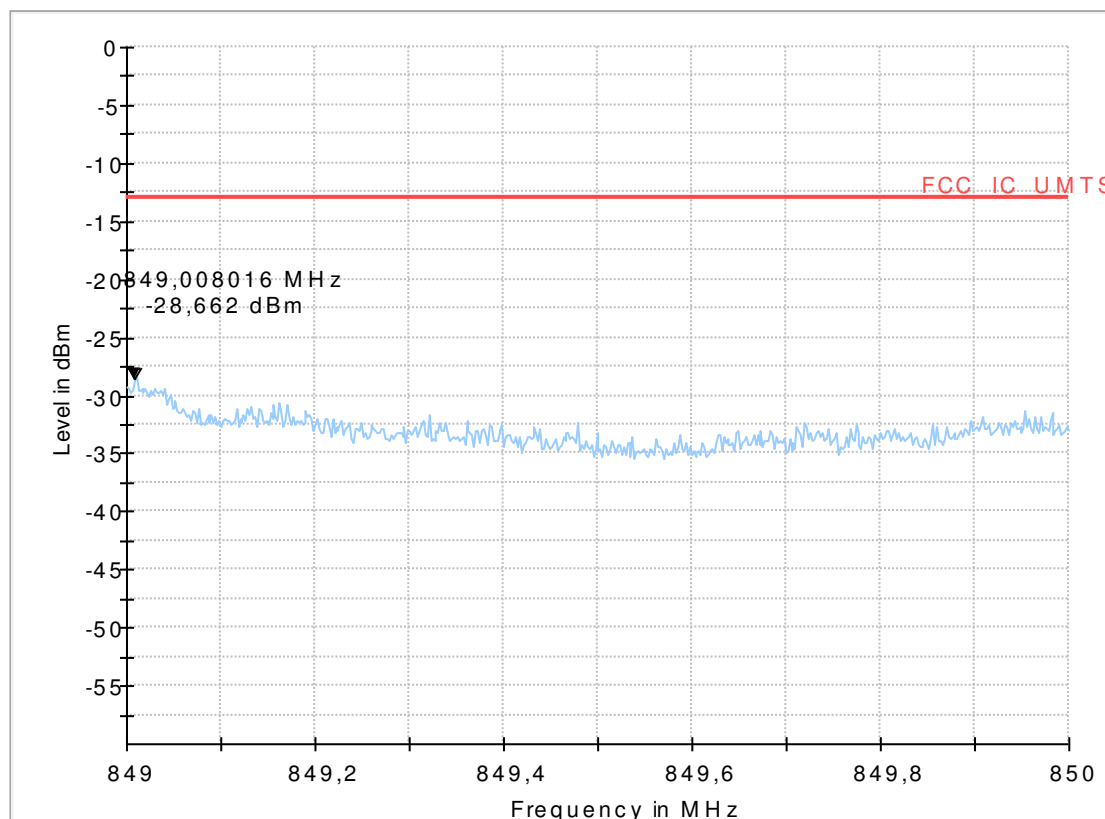
### Common Information

|                           |  |
|---------------------------|--|
| Test Description:         | Band-Edge high - Radiated Spurious Emissions UMTS FDDV |
| Test Site Location:       | CETECOM GmbH Essen                                     |
| Test Site:                | Fully Anechoic Room (FAR)                              |
| Test Standard:            | FCC Part 22.917(a)                                     |
| Test SW.:                 | EMC32 V9.21.0  |
| Operating Mode:           | UE allocated channel 4233 (fc =846.6 MHz), RMC         |
| Environmental Conditions: | Humidity: 35%rH; Temperature: 22,6°C                   |
| Operator:                 | KMo  |
| Remarks:                  | External Antenna used                                  |

### EUT Information

|                       |  |
|-----------------------|--|
| Manufacturer:         | ACTIA Nordic AB  |
| EuT:                  | ACUII-06   |
| -----                 |  |
| HW Version:           | C  |
| SW Version:           | 13   |
| Serial Number:        | 21790250902643   |
| Connected Interfaces: | MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector |
| Power Supply:         | 13.8 VDC   |
| Antenna Type:         | LTE Antenna with SDAR<br>434-WLAN-GNSS-SDARS-LTE<br>50751424   15W421   Portugal AD801<br>SDARS Modified #1  |

Full Spectrum



## 1.5. Radiated emissions – band-edge (LTE Band 2)

### 1.5.1. Band-Edge Low External Antenna

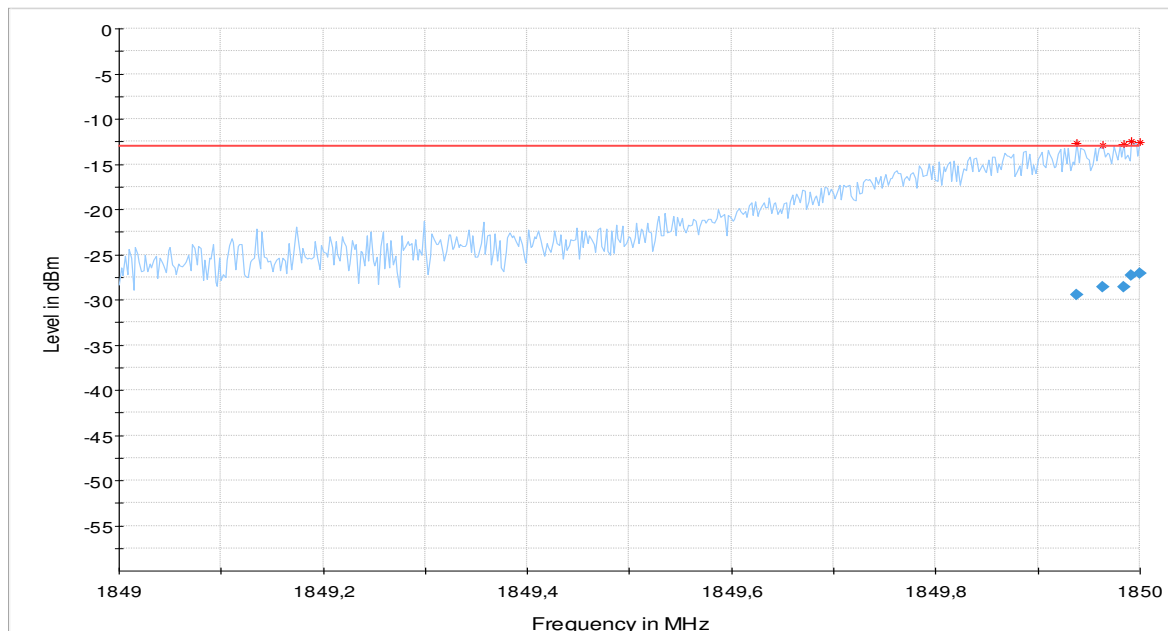


Diagram 9.32a\_BE\_R\_Ch18650\_1RB\_OFF0\_BW10\_QPSK\_Ext-Ant

Re-Measurement with RMS detector, max-level: -27.09 dBm

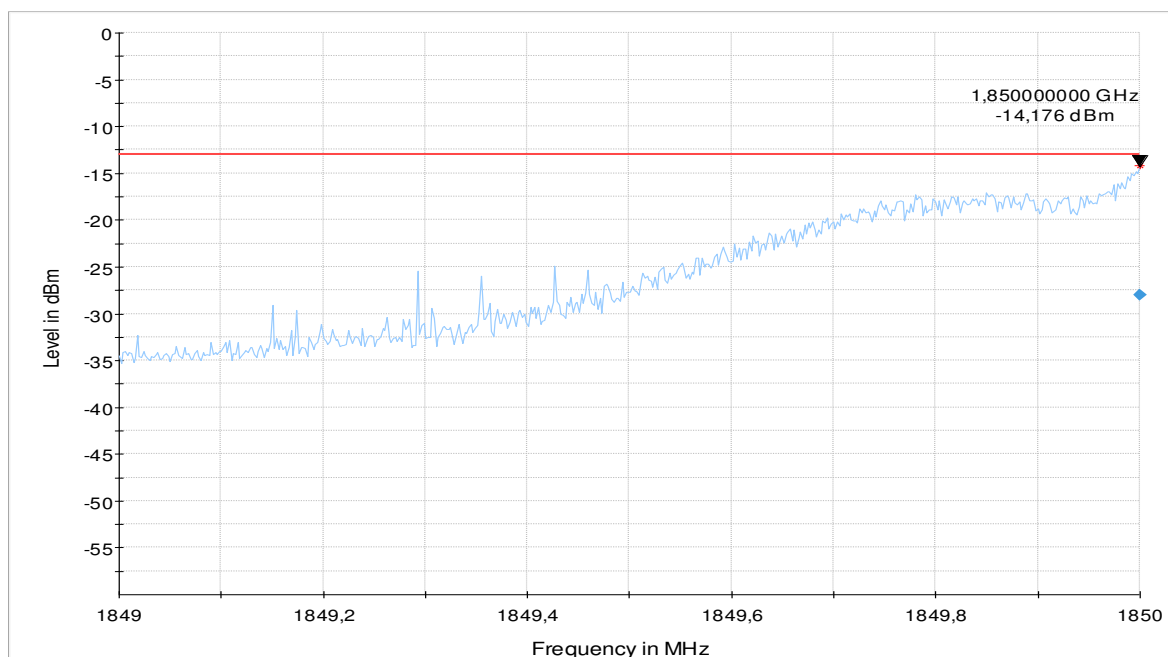


Diagram 9.32b\_BE\_R\_Ch18650\_1RB\_OFF0\_BW10\_QAM\_Ext-Ant

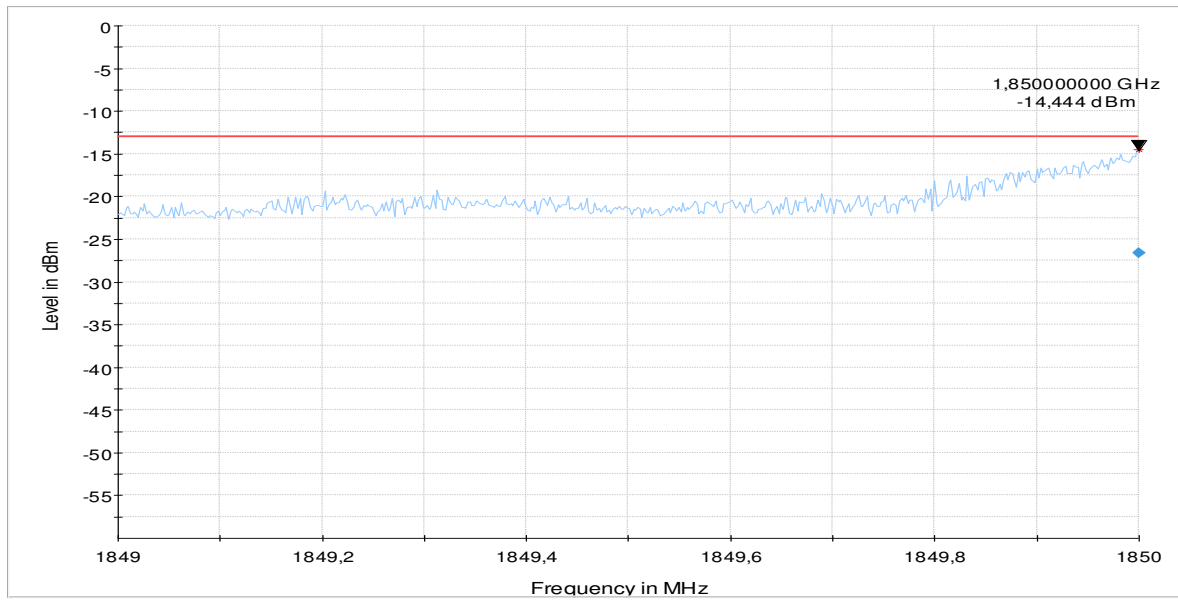


Diagram 9.33a\_BE\_R\_Ch18650\_50RB\_BW10\_QPSK\_Ext-Ant

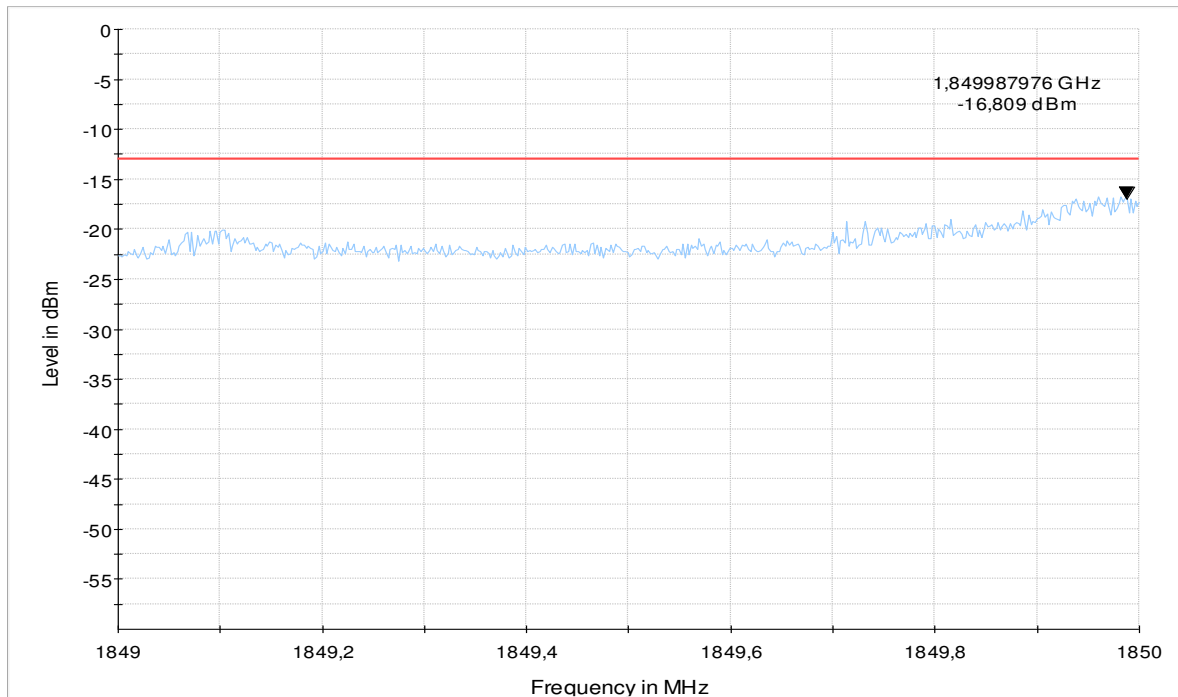


Diagram 9.33b\_BE\_R\_Ch18650\_50RB\_BW10\_QAM\_Ext-Ant

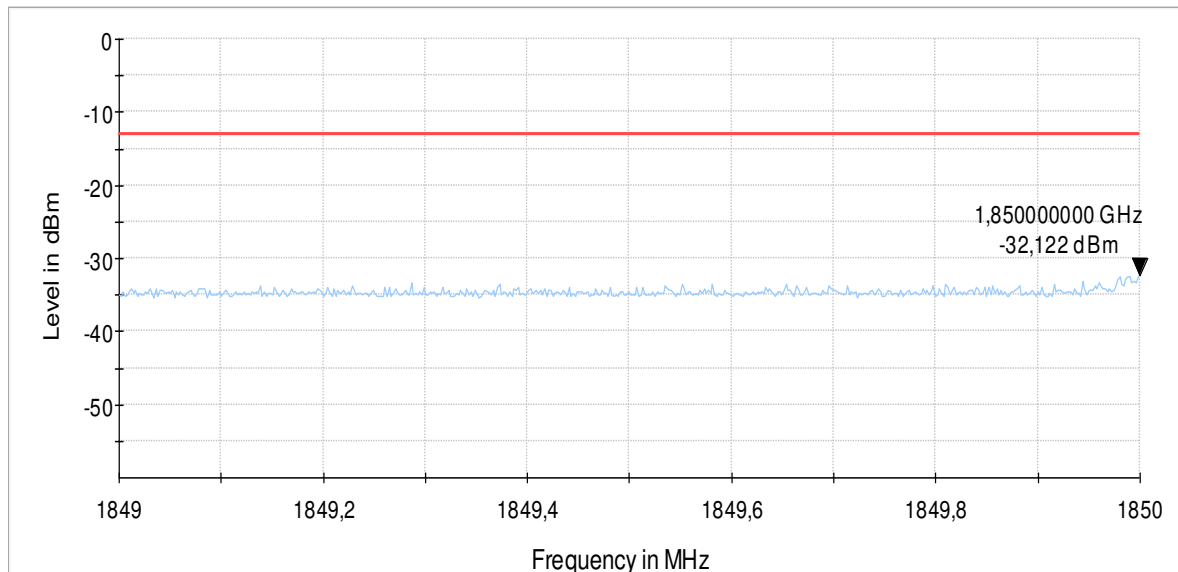
**1.5.2. Band-Edge Low Internal Antenna**

Diagram 9.32a\_BE\_R\_Ch18650\_1RB\_OFF0\_BW10\_QPSK\_Int-Ant

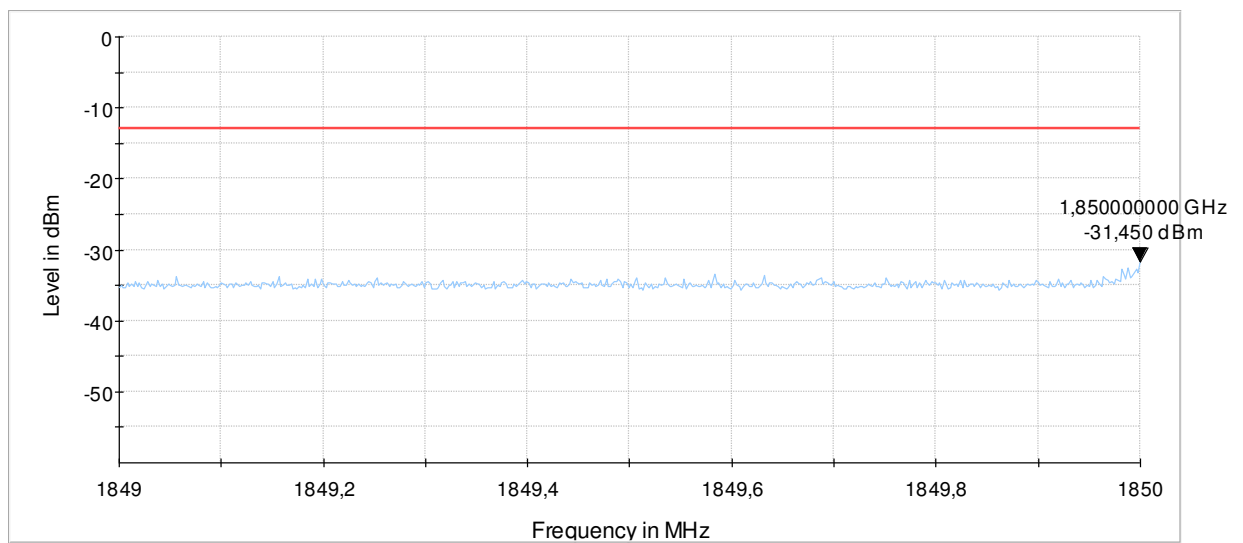


Diagram 9.32b\_BE\_R\_Ch18650\_1RB\_OFF0\_BW10\_QAM\_Int-Ant

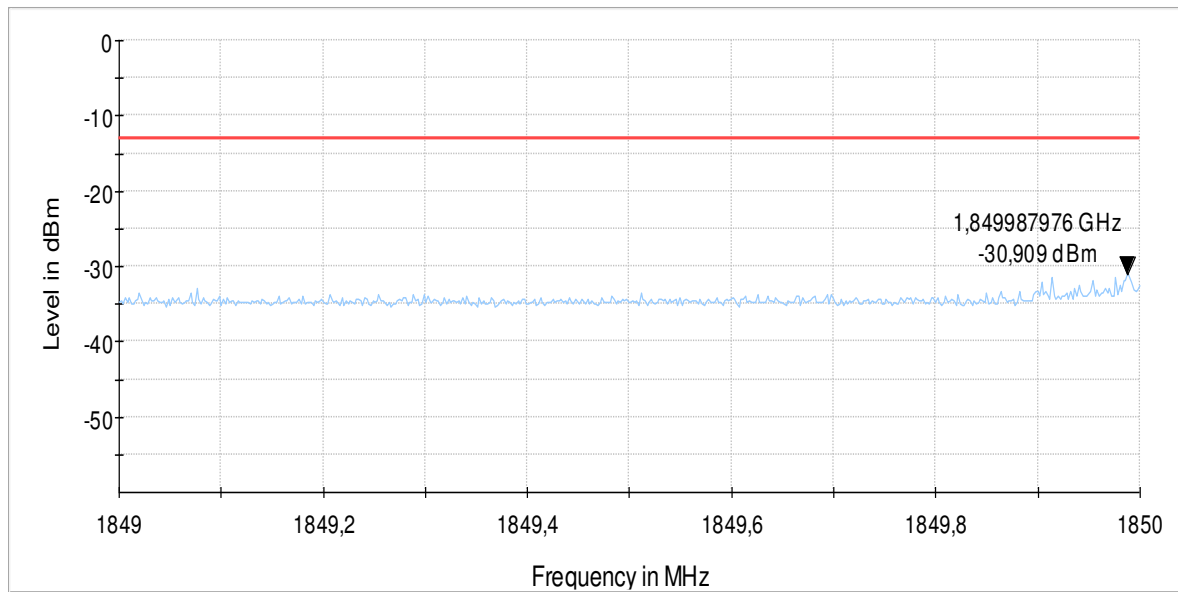


Diagram 9.33a\_BE\_R\_Ch18650\_50RB\_BW10\_QPSK\_Int-Ant

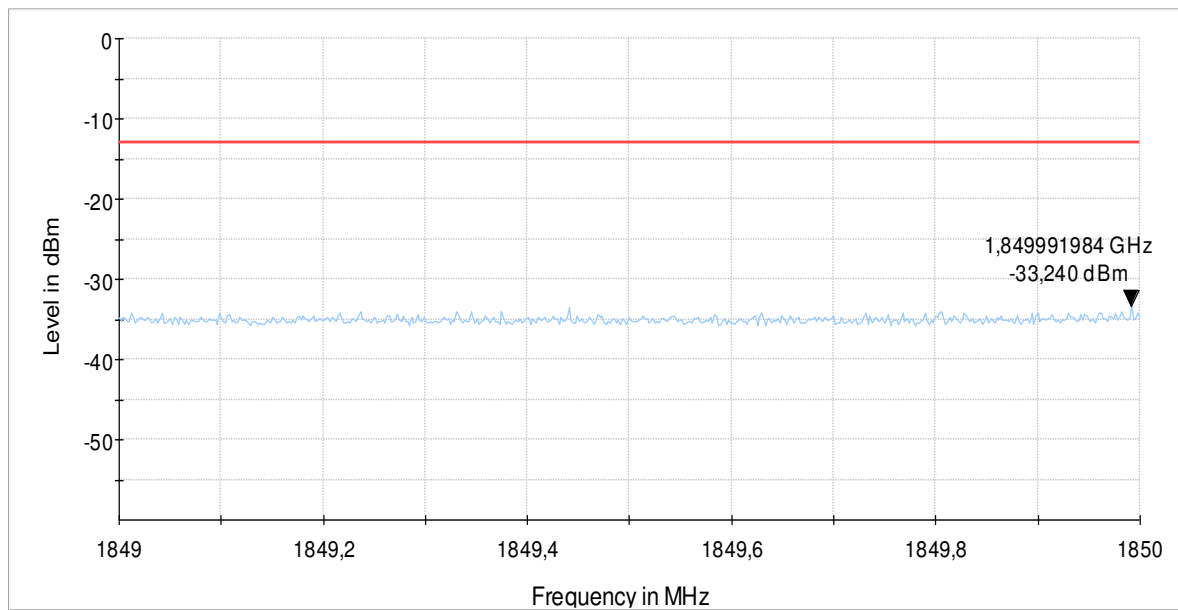


Diagram 9.33b\_BE\_R\_Ch18650\_50RB\_BW10\_QAM\_Int-Ant



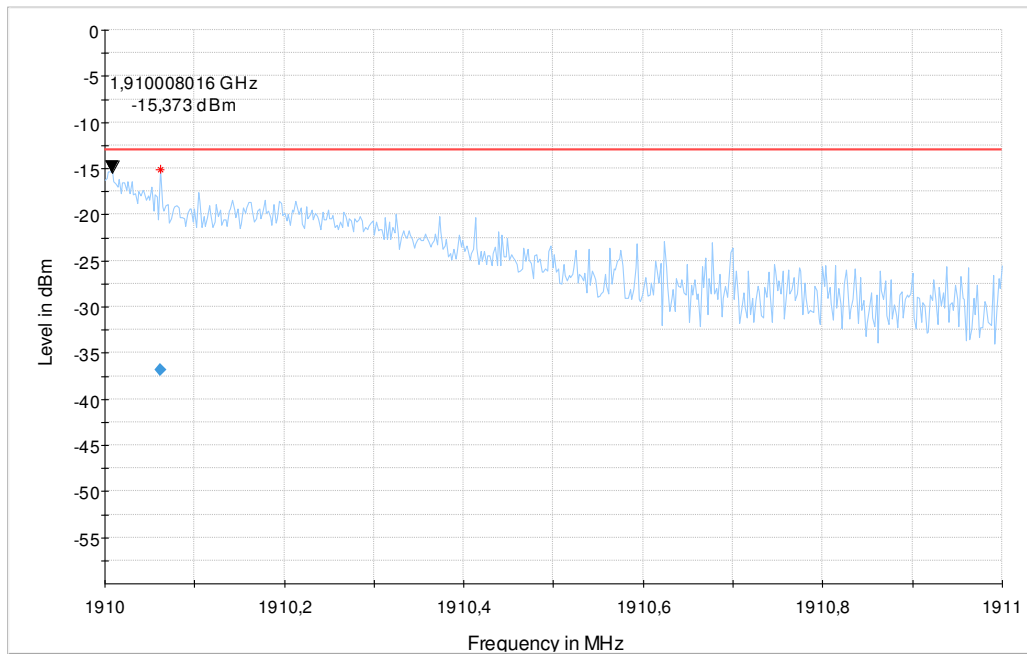
**1.5.3. Band-Edge High External Antenna**

Diagram 9.34a\_BE\_R\_Ch19150\_1RB\_OFF49\_BW10\_QPSK\_Ext-Ant

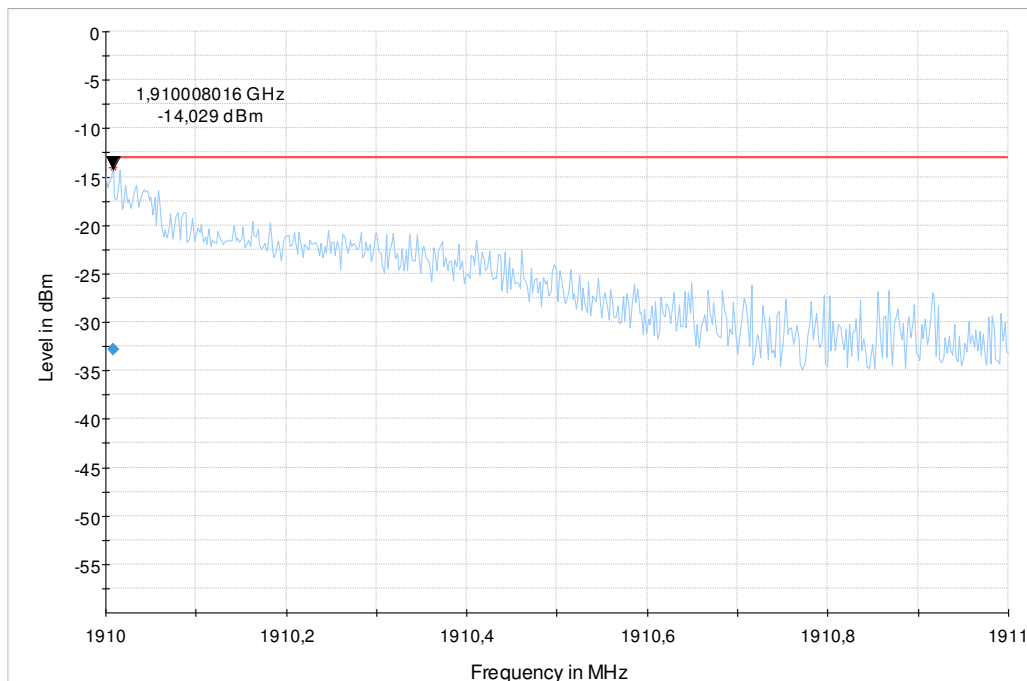


Diagram 9.34b\_BE\_R\_Ch19150\_1RB\_OFF49\_BW10\_QAM\_Ext-Ant

Re-measurement with RMS detector: -32.84dBm

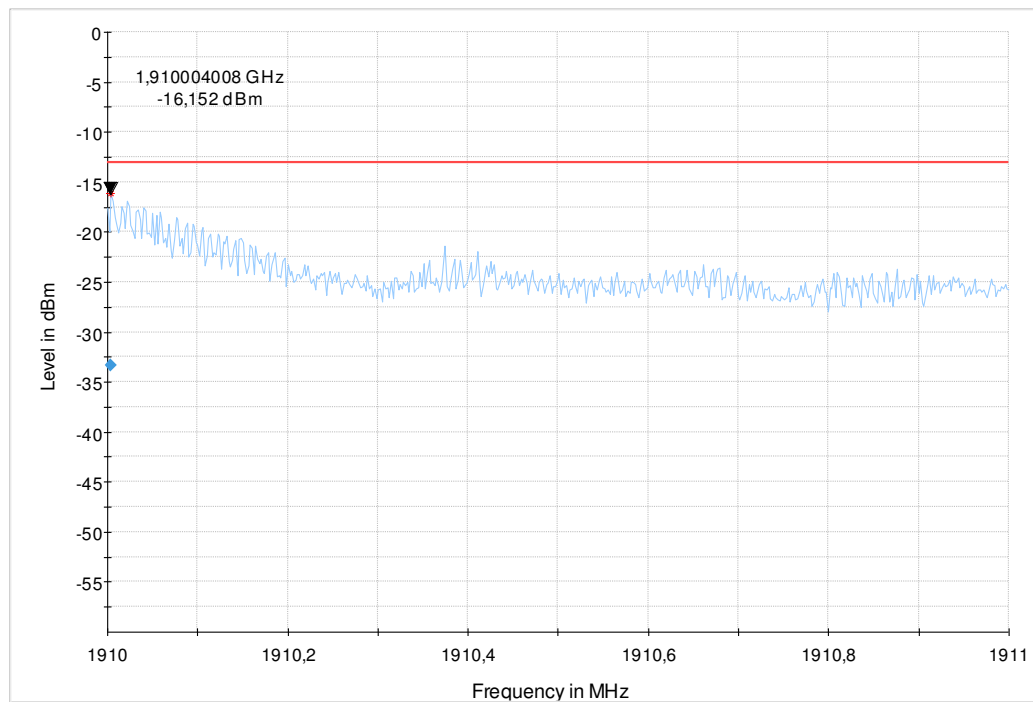


Diagram 9.35a\_BE\_R\_Ch19150\_50RB\_BW10\_QPSK\_Ext-Ant

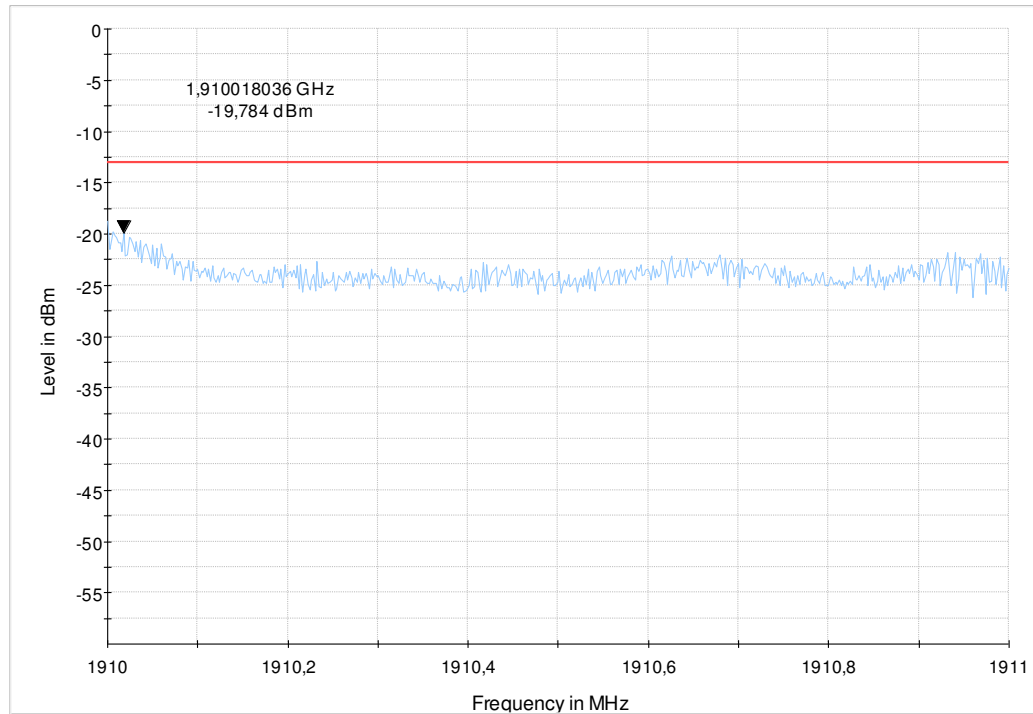


Diagram 9.35b\_BE\_R\_Ch19150\_50RB\_BW10\_QAM\_Ext-Ant

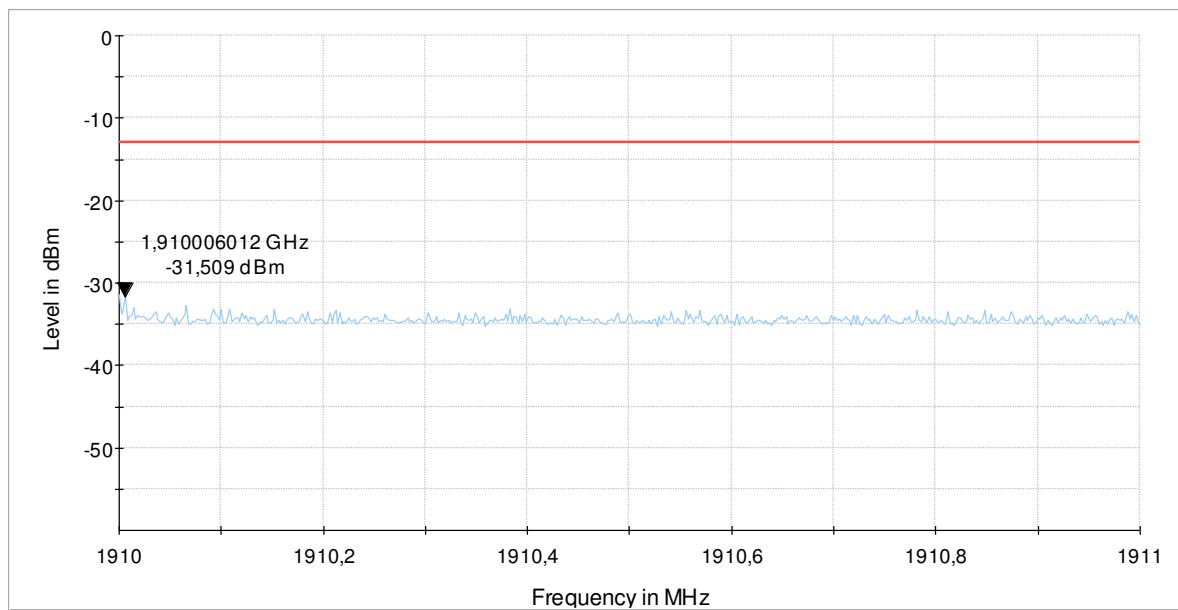
**1.5.4. Band-Edge High - Internal Antenna**

Diagram 9.34a\_BE\_R\_Ch19150\_1RB\_OFF49\_BW10\_QPSK\_Int-Ant

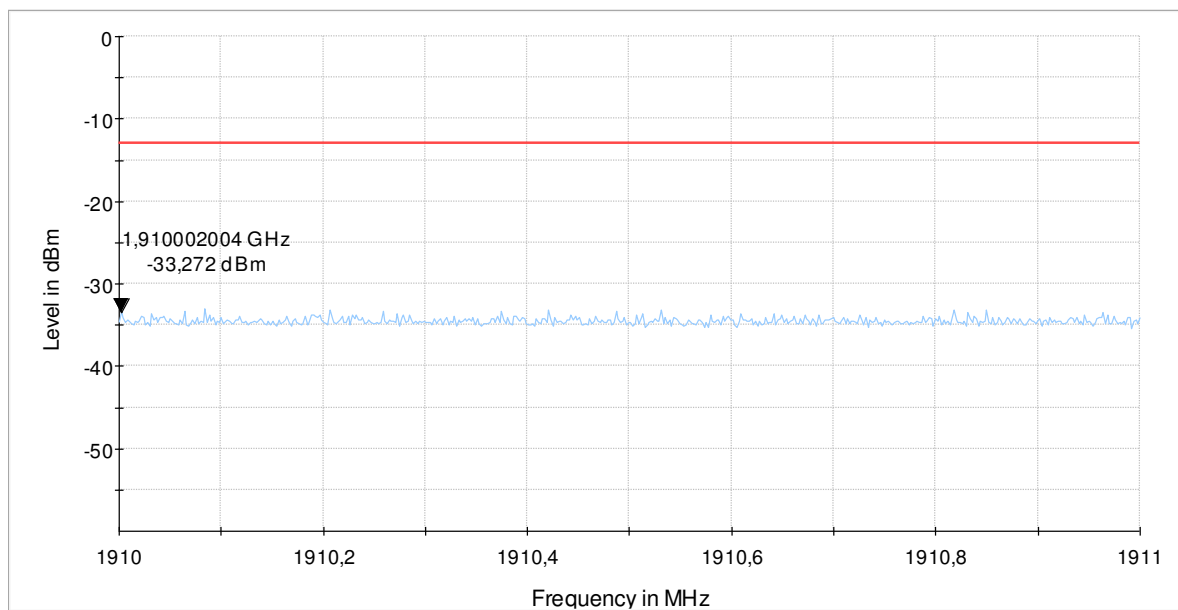


Diagram 9.34b\_BE\_R\_Ch19150\_1RB\_OFF49\_BW10\_QAM\_Int-Ant

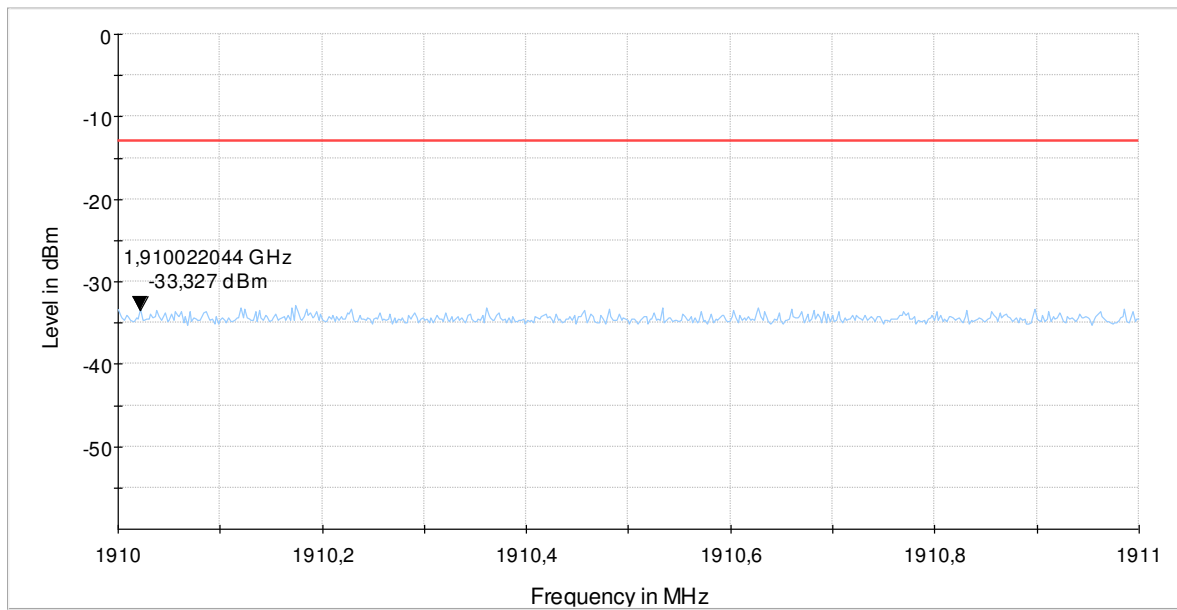


Diagram 9.35a\_BE\_R\_Ch19150\_50RB\_BW10\_QPSK\_Int-Ant

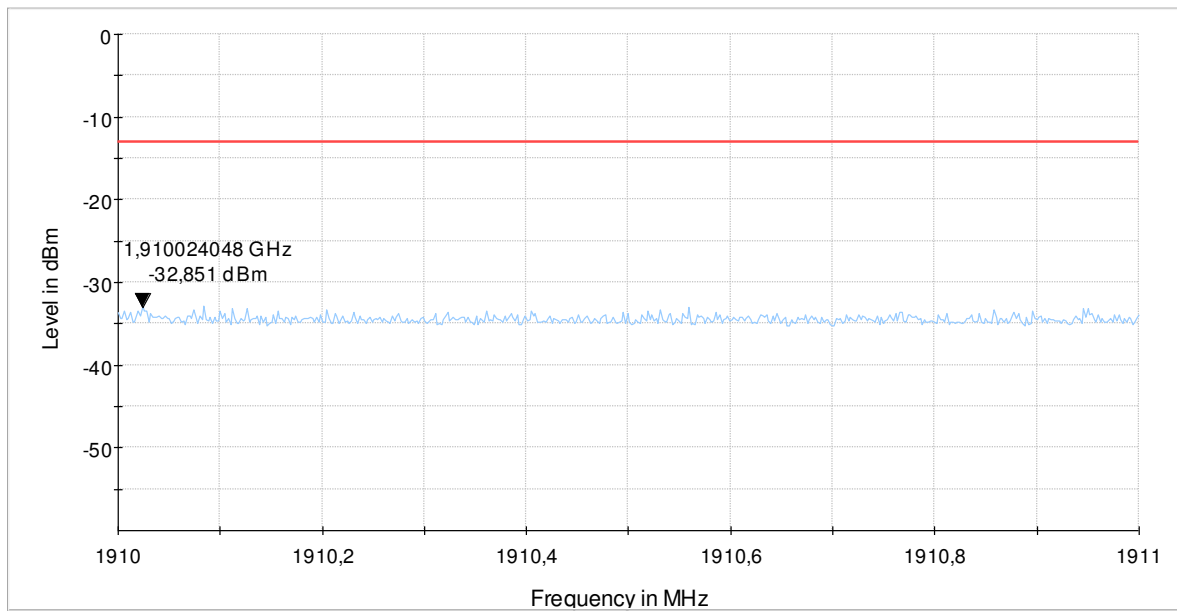


Diagram 9.35b\_BE\_R\_Ch19150\_50RB\_BW10\_QAM\_Int-Ant

## 1.6. Radiated emissions – band-edge (LTE Band 4)

### 1.6.1. Band-Edge Low External Antenna

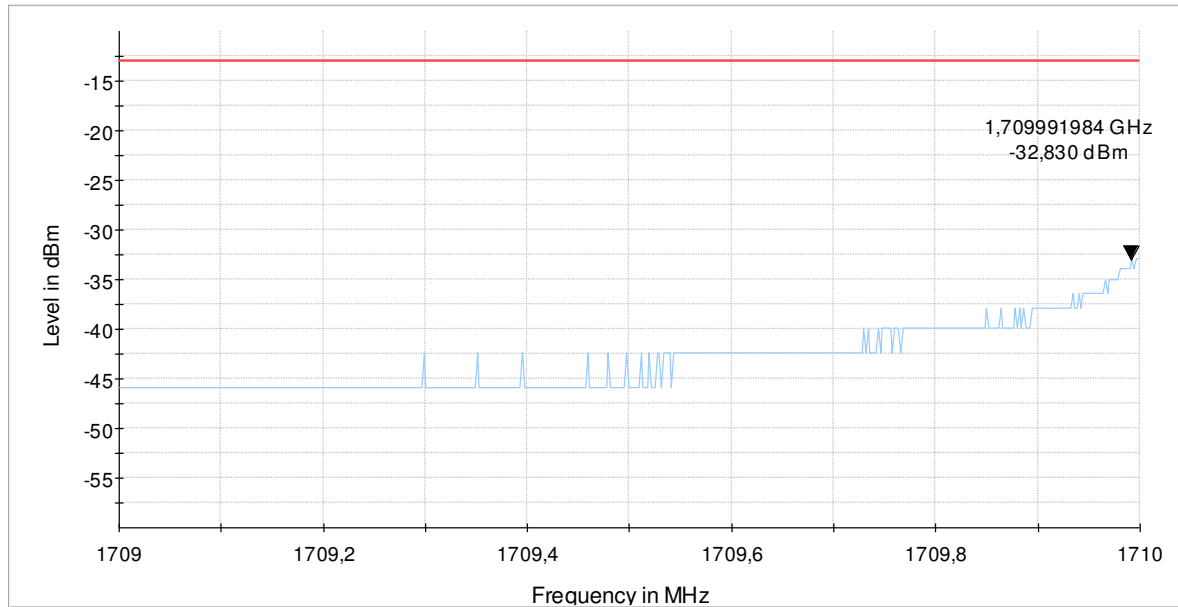


Diagram 9.52a\_BE\_R\_Ch20000\_1RB\_OFF0\_BW10\_QPSK\_Ext-Ant

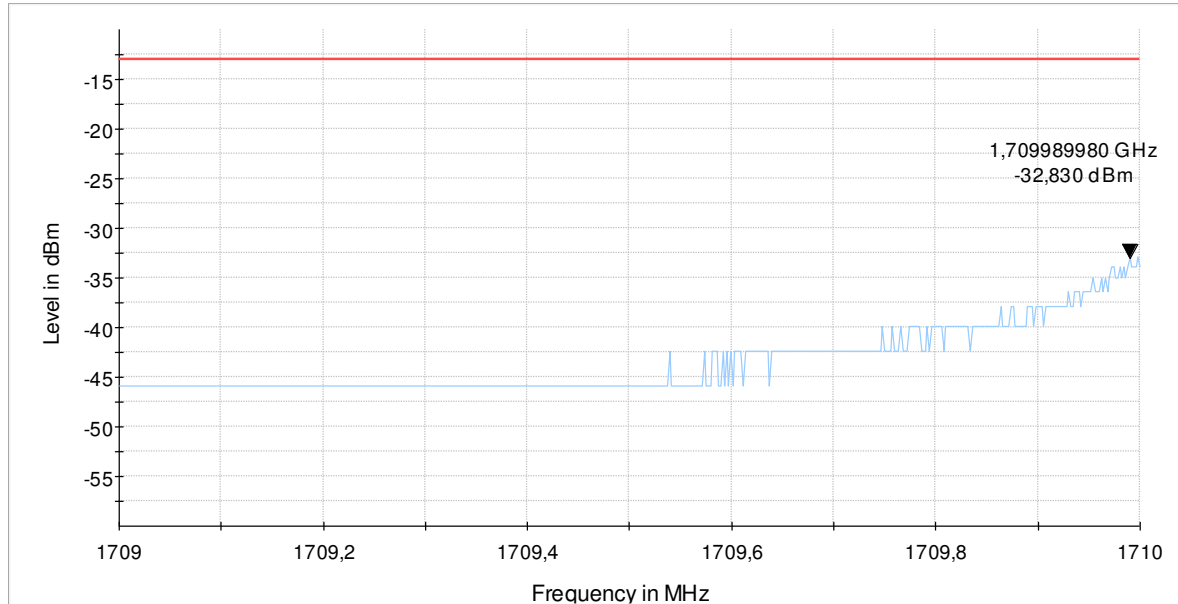


Diagram 9.52b\_BE\_R\_Ch20000\_1RB\_OFF0\_BW10\_QAM\_Ext-Ant

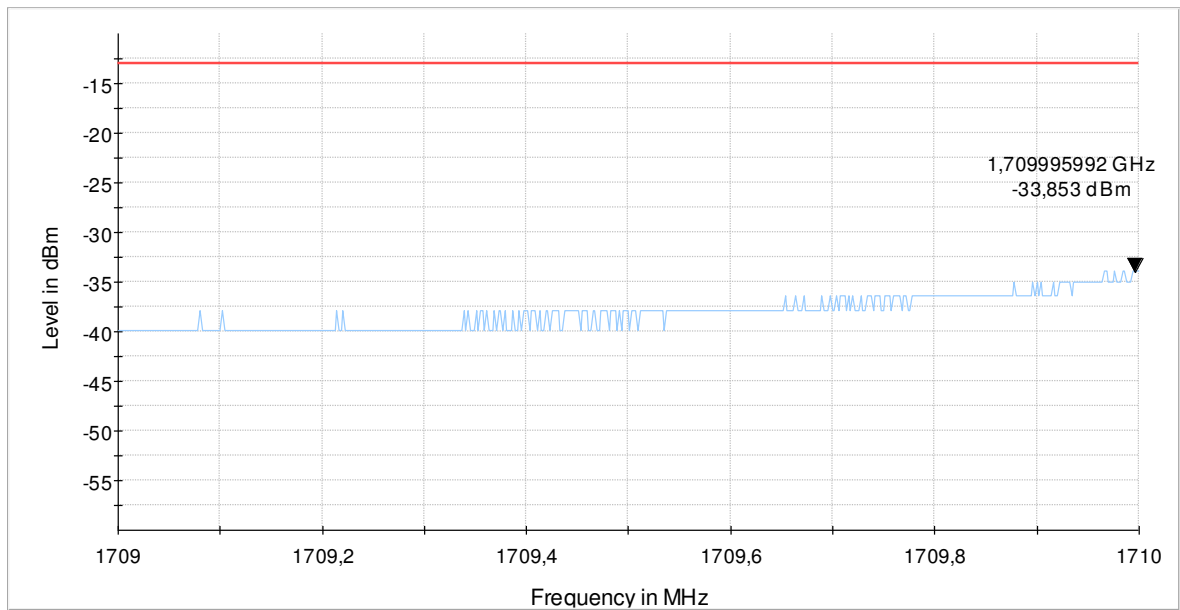


Diagram 9.53a\_BE\_R\_Ch20000\_50RB\_BW10\_QPSK\_Ext-Ant

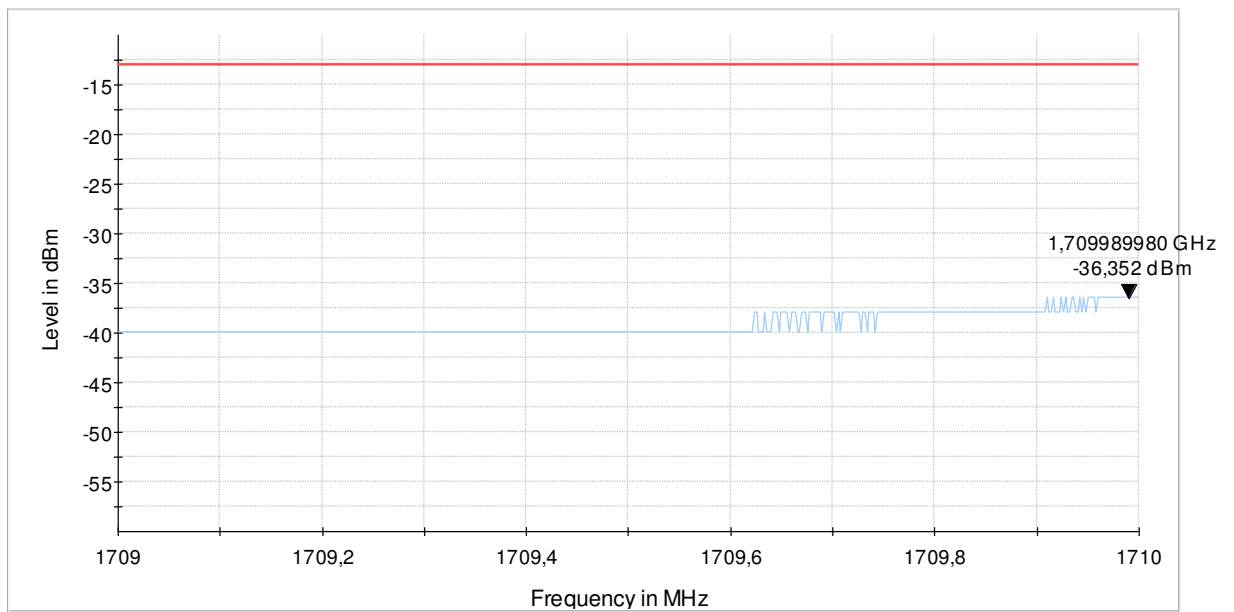


Diagram 9.53b\_BE\_R\_Ch20000\_50RB\_BW10\_QAM\_Ext-Ant

## 1.6.2. Band-Edge Low Internal Antenna

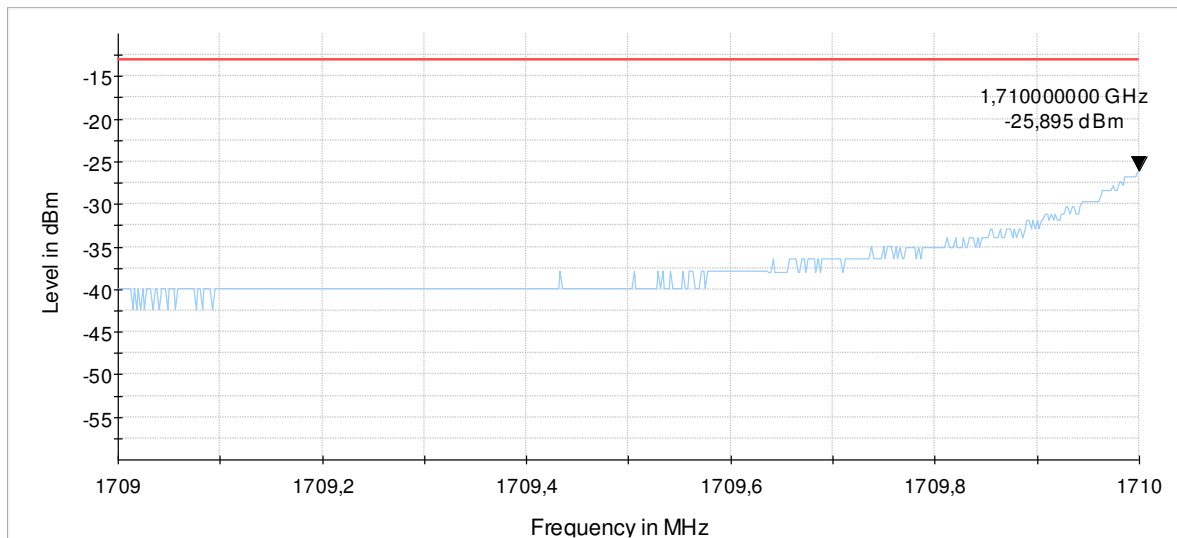


Diagram 9.52a\_BE\_R\_Ch20000\_1RB\_OFF0\_BW10\_QPSK\_Int-Ant

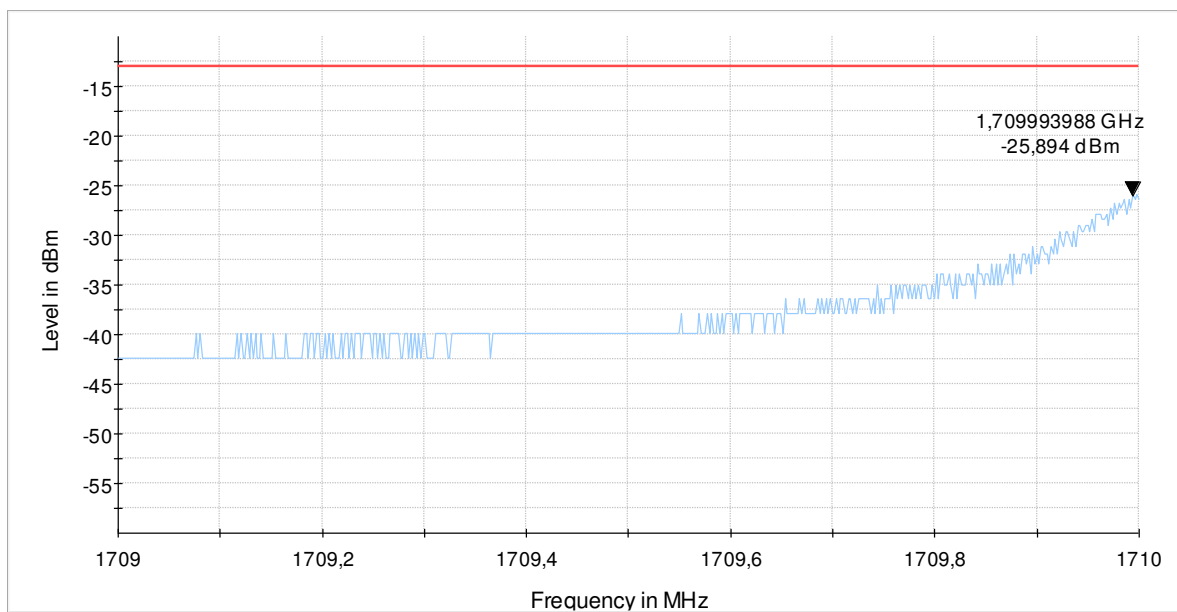


Diagram 9.52b\_BE\_R\_Ch20000\_1RB\_OFF0\_BW10\_QAM\_Int-Ant

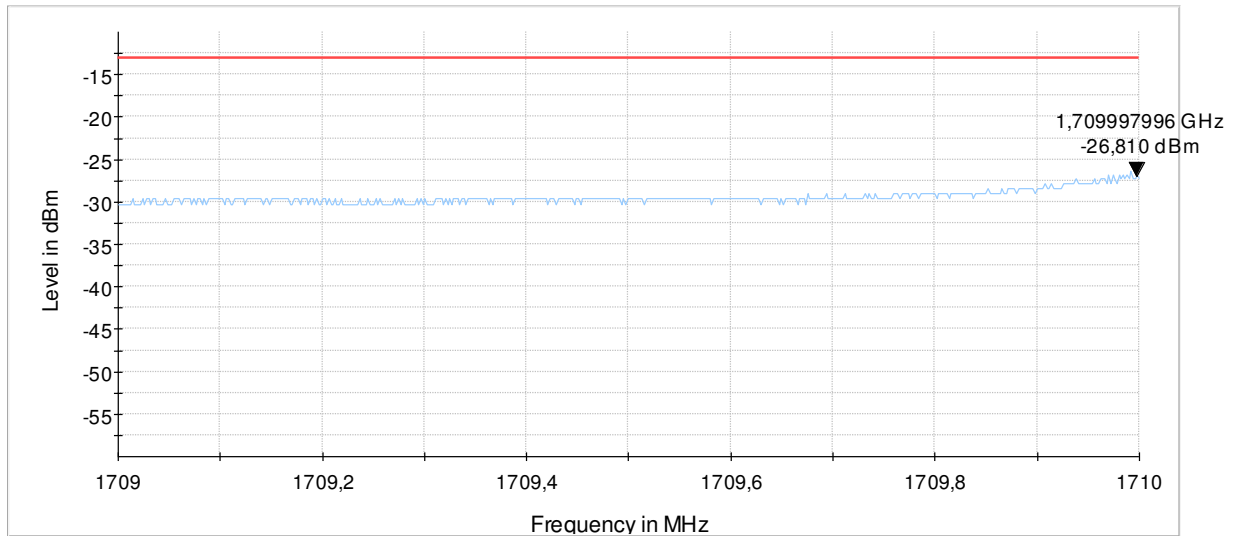


Diagram 9.53a\_BE\_R\_Ch20000\_50RB\_BW10\_QPSK\_Int-Ant

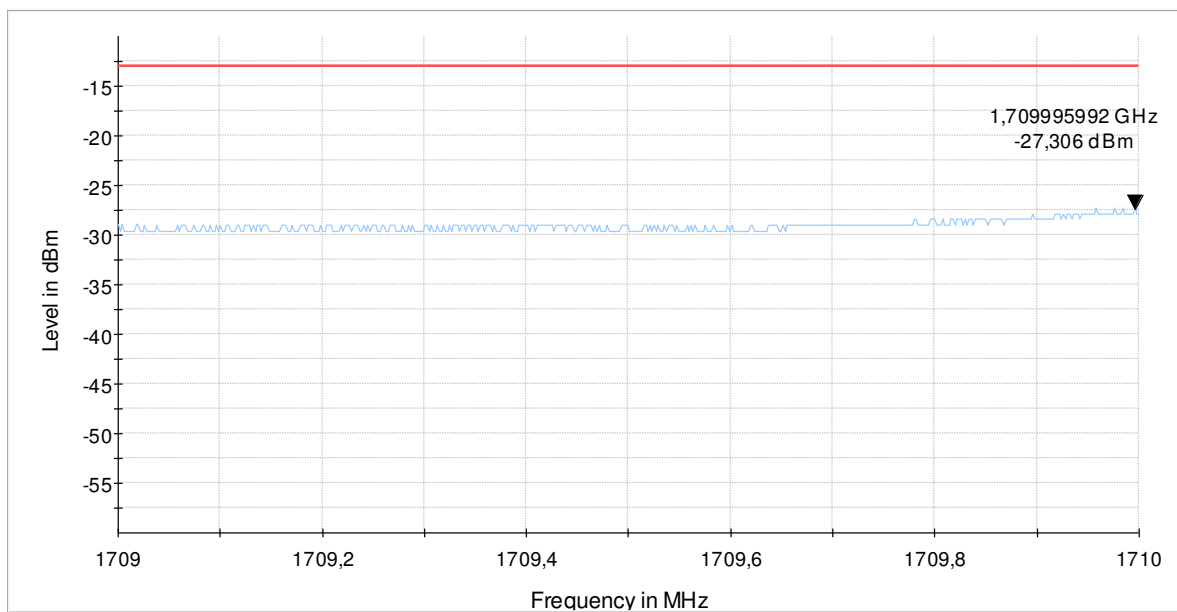


Diagram 9.53b\_BE\_R\_Ch20000\_50RB\_BW10\_QAM\_Int-Ant



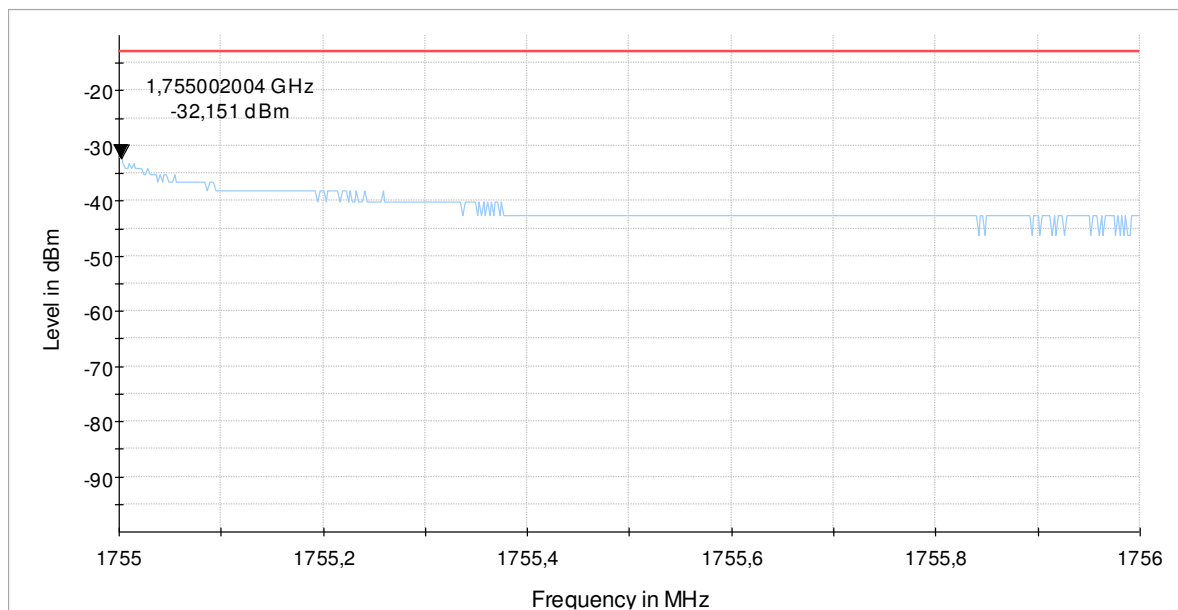
**1.6.3. Band-Edge High - External Antenna**

Diagram 9.54a\_BE\_R\_Ch20350\_1RB\_OFF49\_BW10\_QPSK\_Ext-Ant

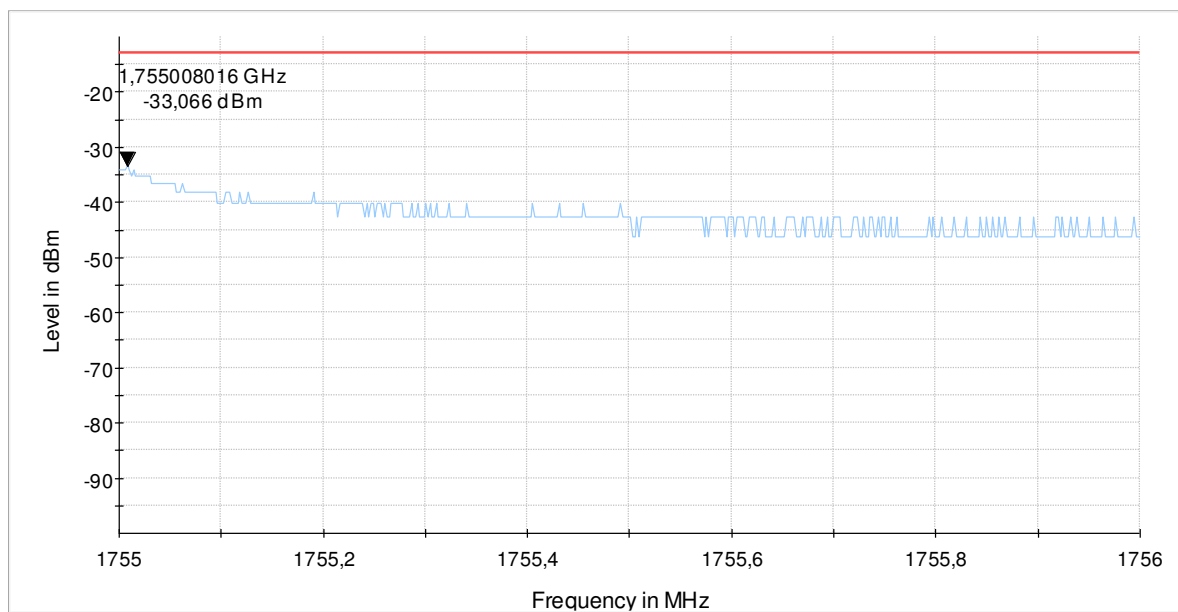


Diagram 9.54b\_BE\_R\_Ch20350\_1RB\_OFF49\_BW10\_QAM#\_Ext-Ant

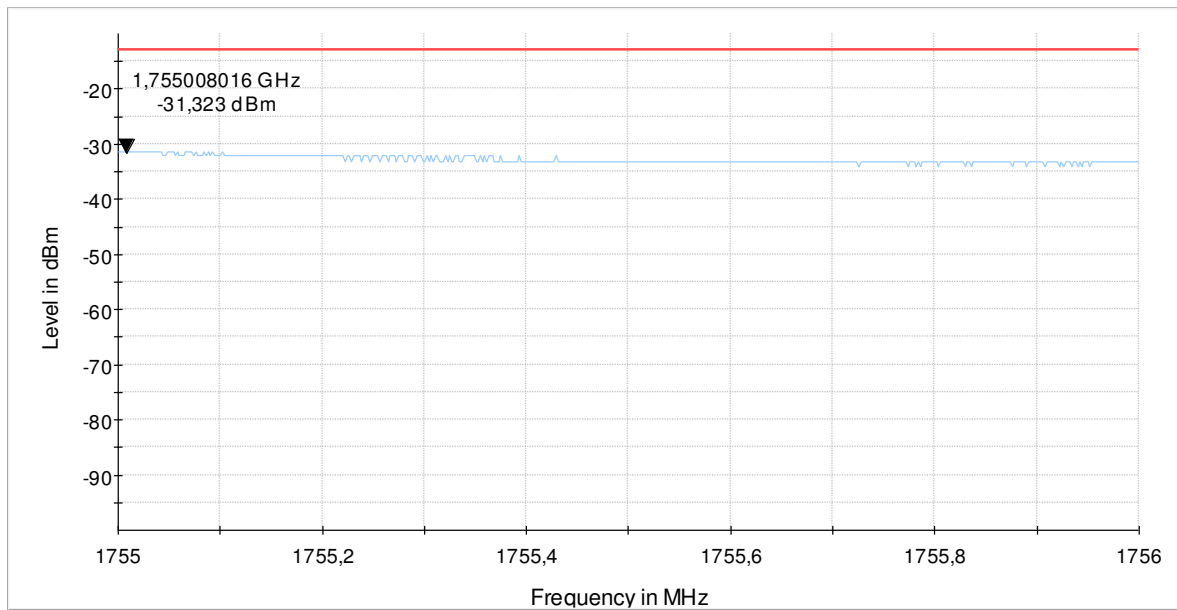


Diagram 9.55a\_BE\_R\_Ch20350\_50RB\_BW10\_QPSK\_Ext-Ant

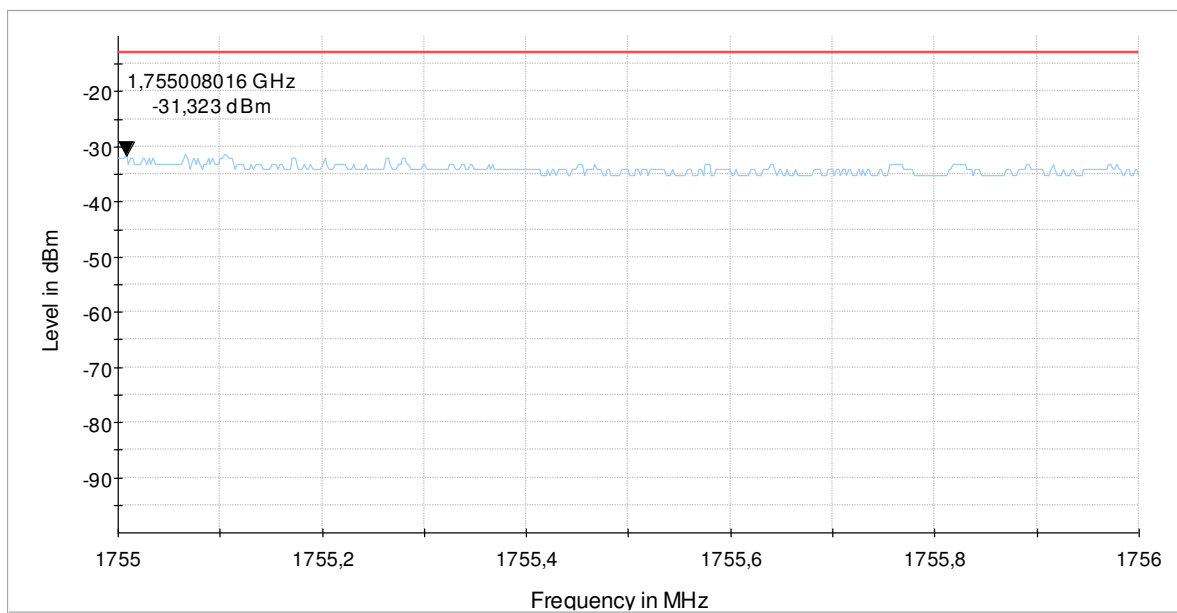


Diagram 9.55b\_BE\_R\_Ch20350\_50RB\_BW10\_QAM\_Ext-Ant

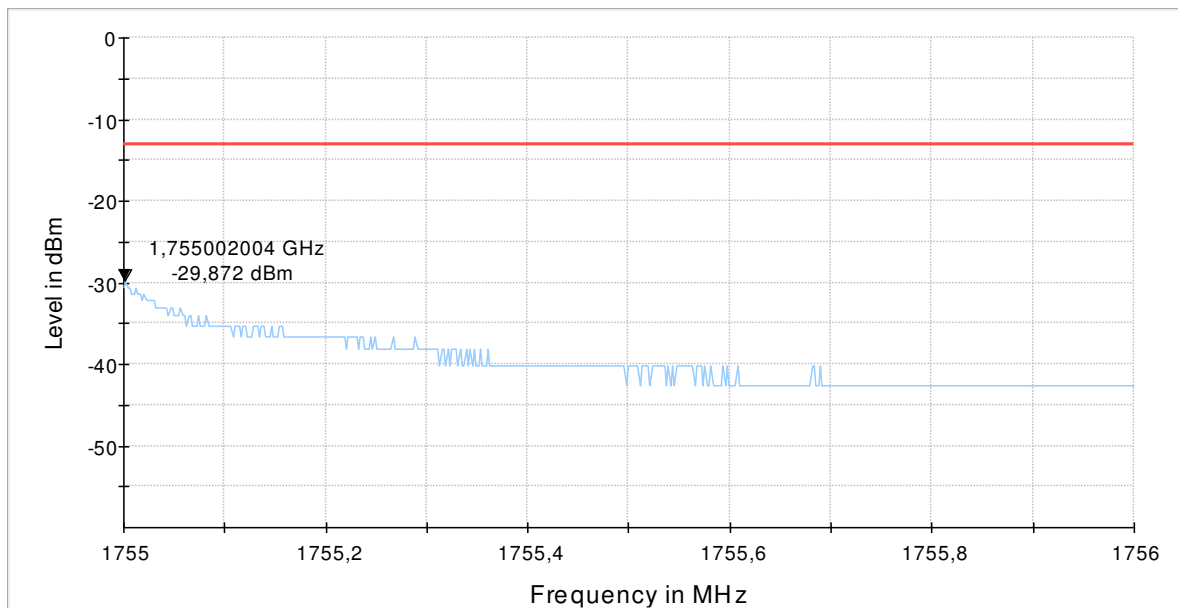
**1.6.4. Band-Edge High - Internal Antenna**

Diagram 9.54a\_BE\_R\_Ch20350\_1RB\_OFF49\_BW10\_QPSK\_Int-Ant

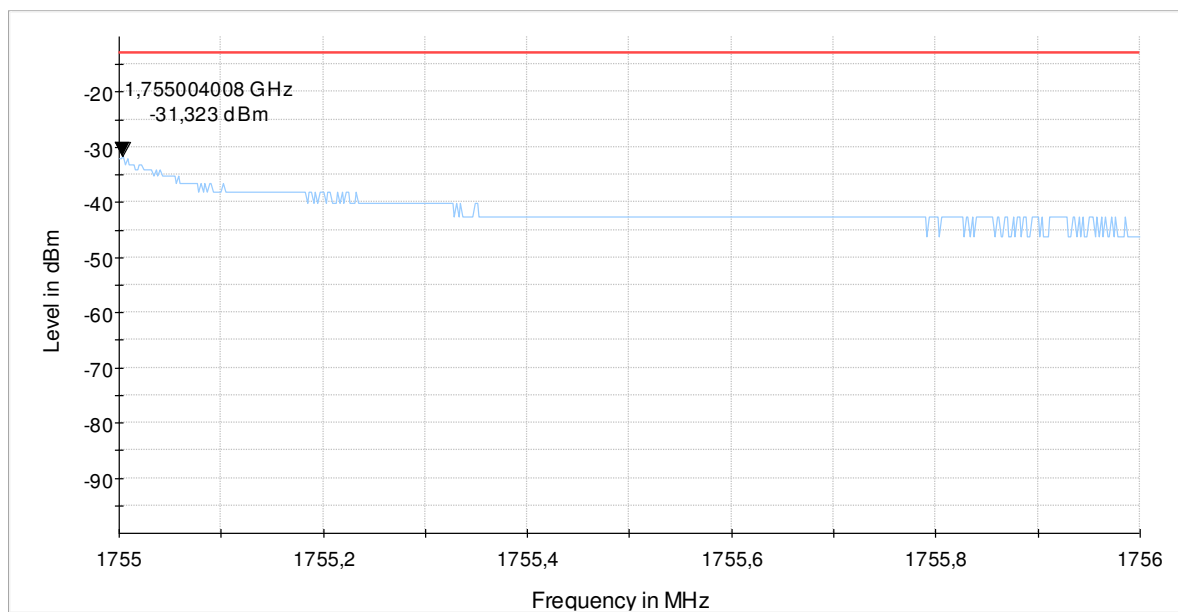


Diagram 9.54b\_BE\_R\_Ch20350\_1RB\_OFF49\_BW10\_QAM#\_Int-Ant

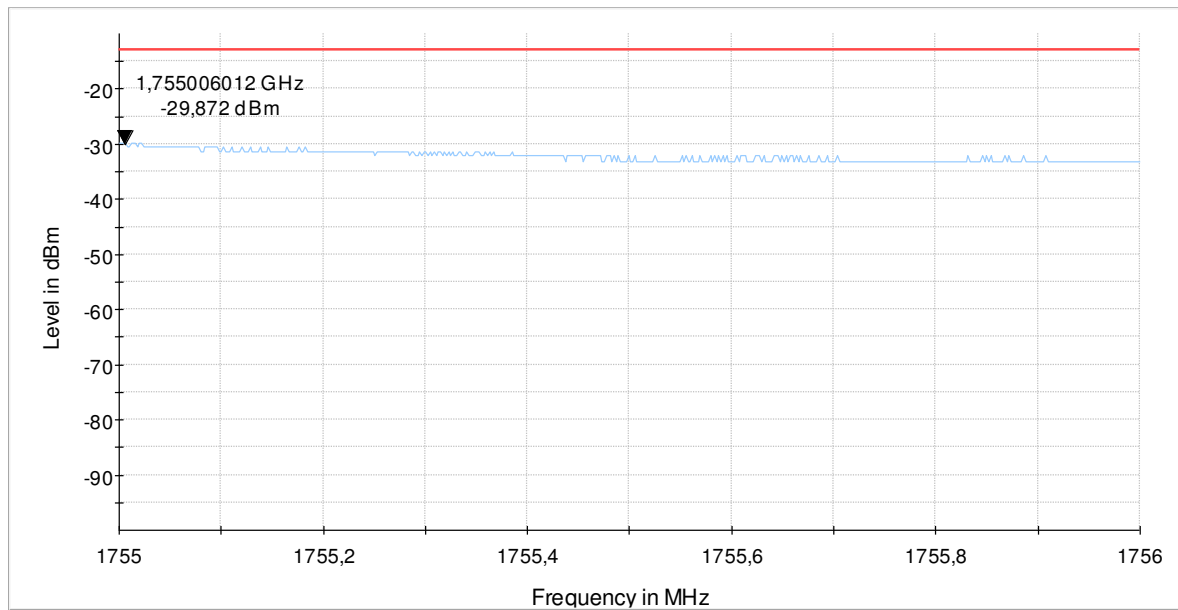


Diagram 9.55a\_BE\_R\_Ch20350\_50RB\_BW10\_QPSK\_Int-Ant

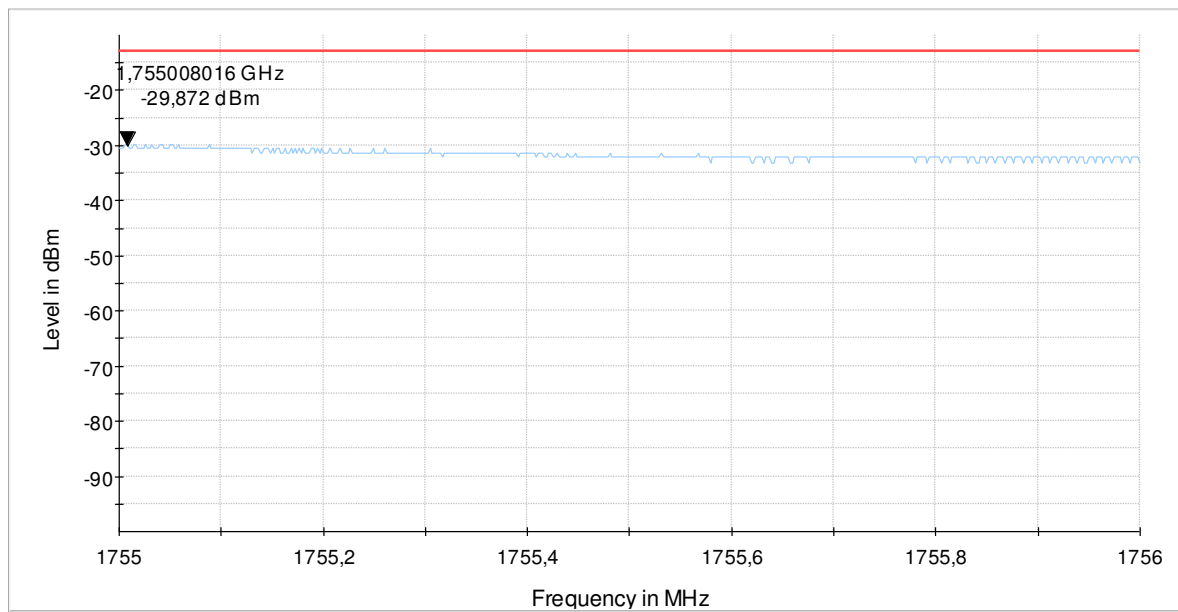


Diagram 9.55b\_BE\_R\_Ch20350\_50RB\_BW10\_QAM\_Int-Ant

## 1.7. Radiated emissions – band-edge (LTE Band 5)

### 1.7.1. Band-Edge Low External Antenna

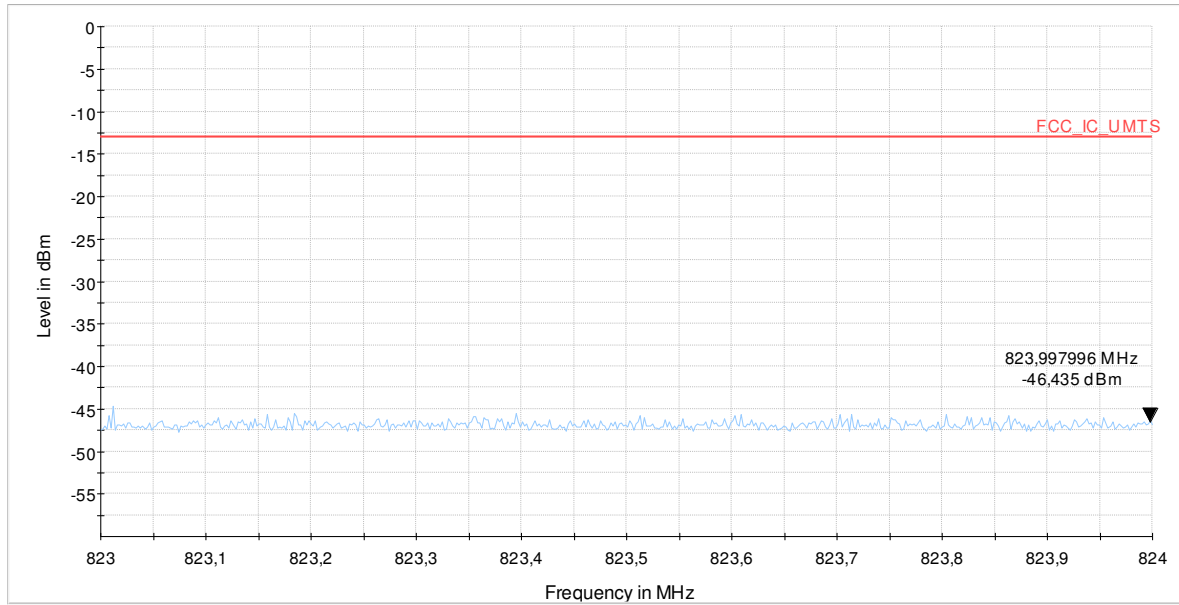


Diagram 9.512a\_BE\_R\_Ch20450\_1RB\_OFF0\_BW10\_QPSK\_Ext-Ant

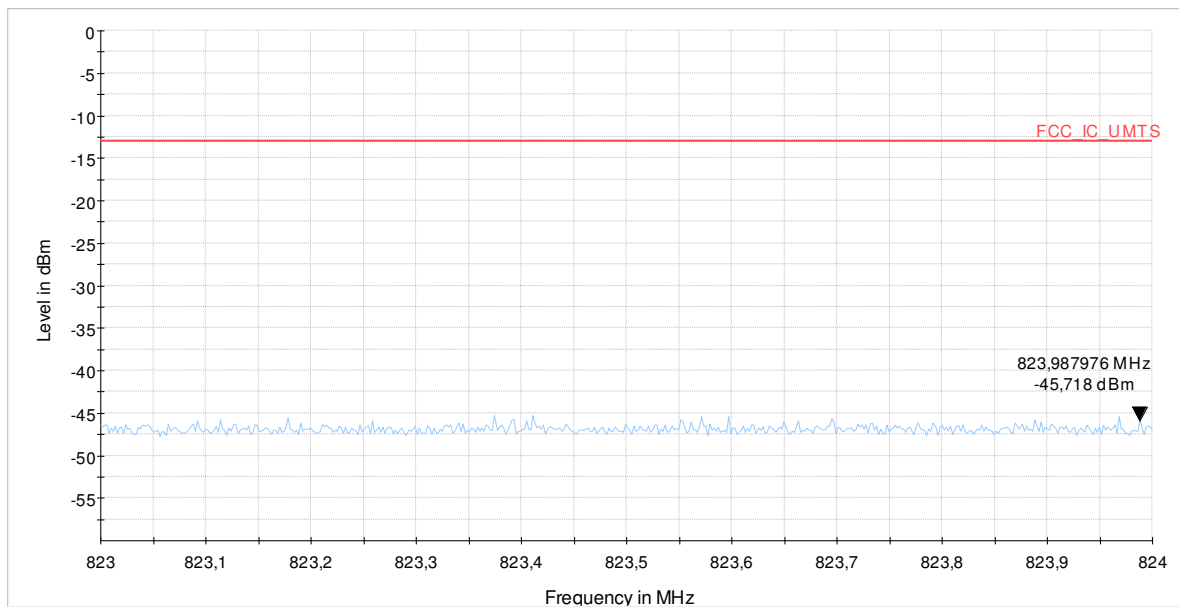


Diagram 9.512b\_BE\_R\_Ch20450\_1RB\_OFF0\_BW10\_QAM\_Ext-Ant

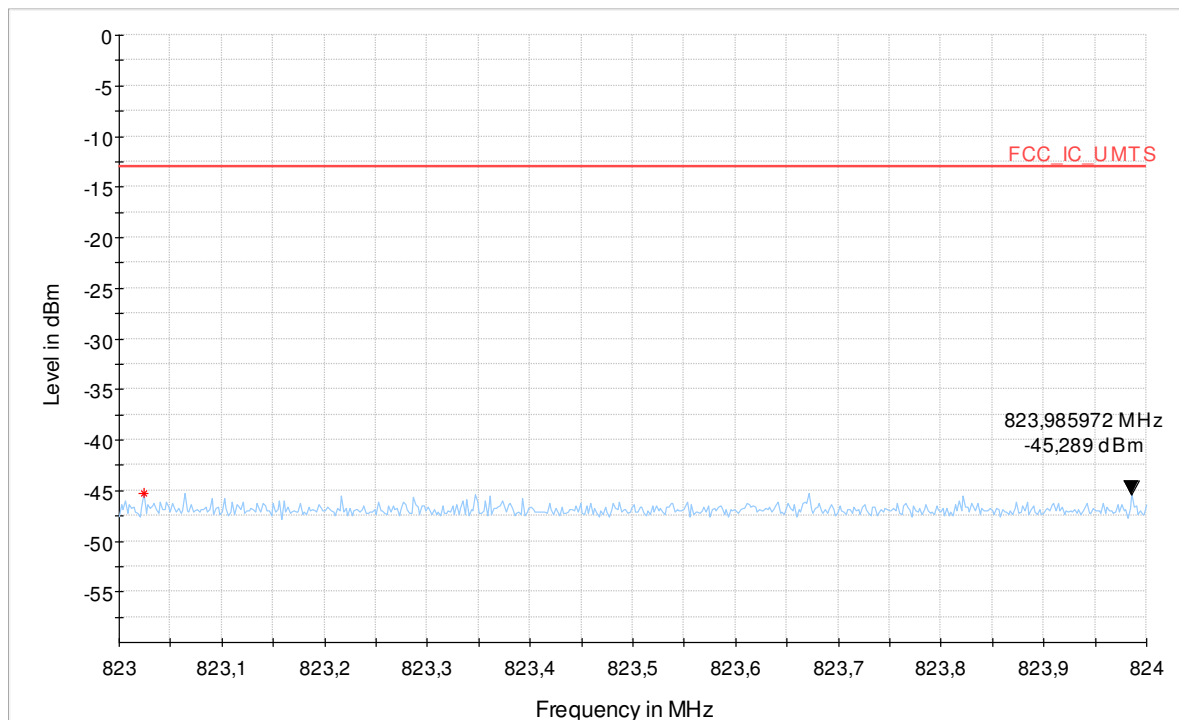


Diagram 9.513a\_BE\_R\_Ch20450\_50RB\_BW10\_QPSK\_Ext-Ant

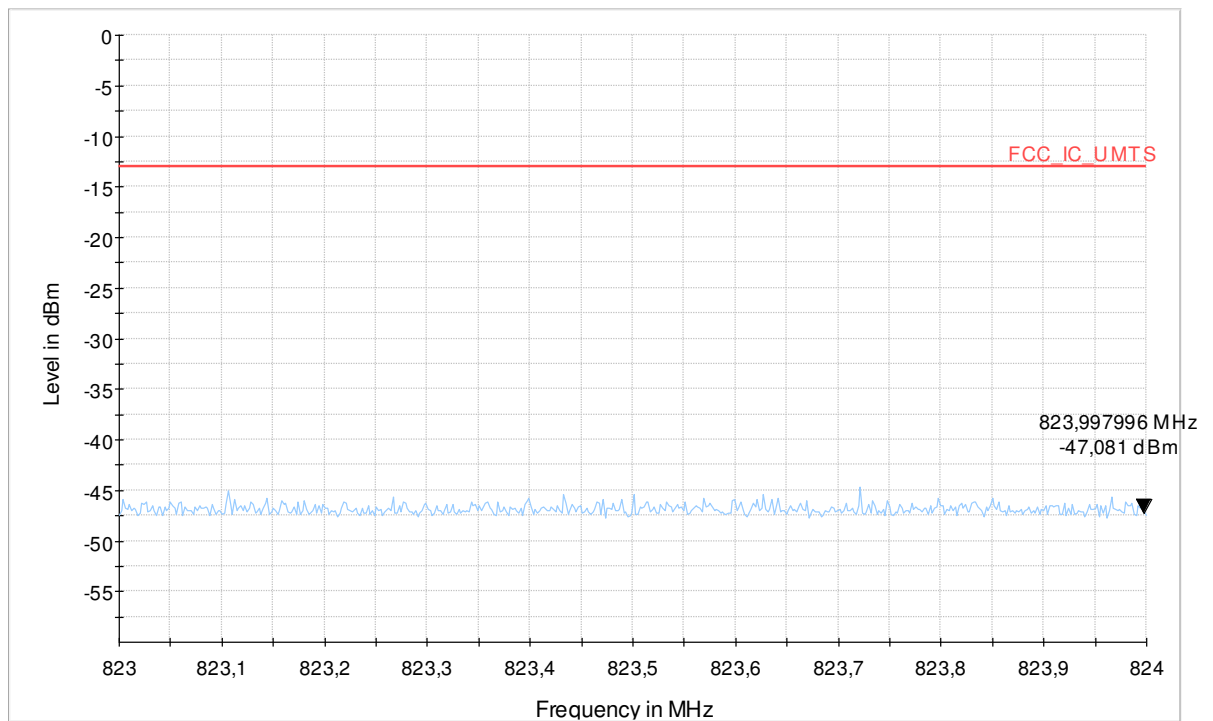


Diagram 9.513b\_BE\_R\_Ch20450\_50RB\_BW10\_QAM\_Ext-Ant

## 1.7.2. Band-Edge Low Internal Antenna

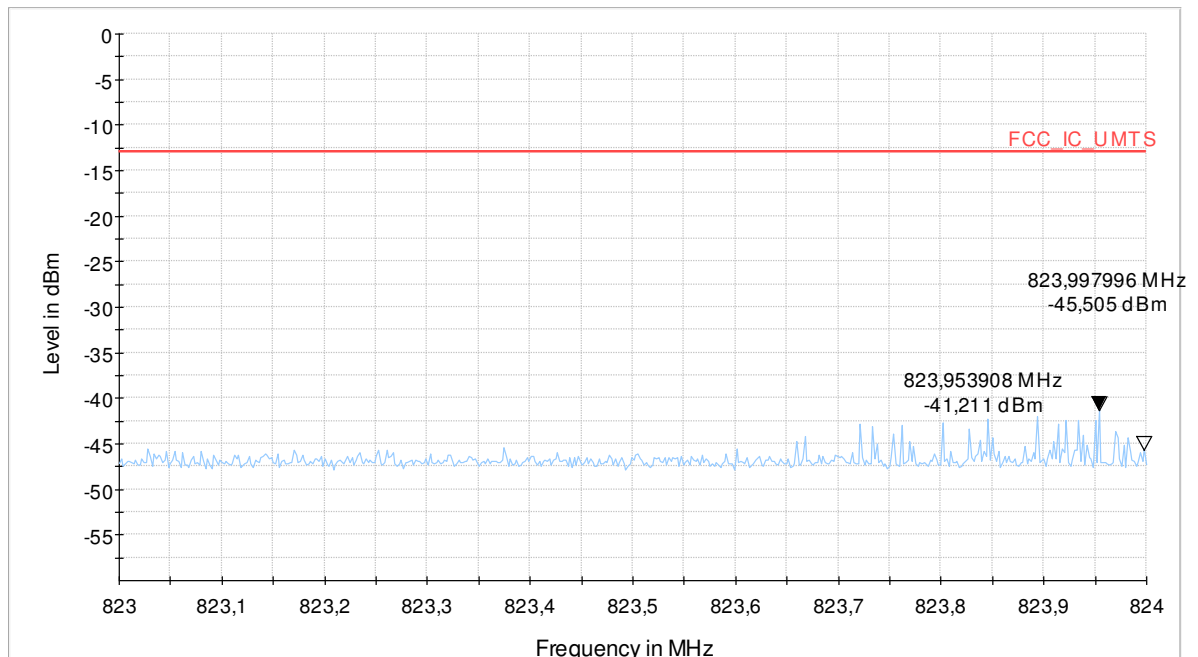


Diagram 9.512a\_BE\_R\_Ch20450\_1RB\_OFF0\_BW10\_QPSK\_Int-Ant

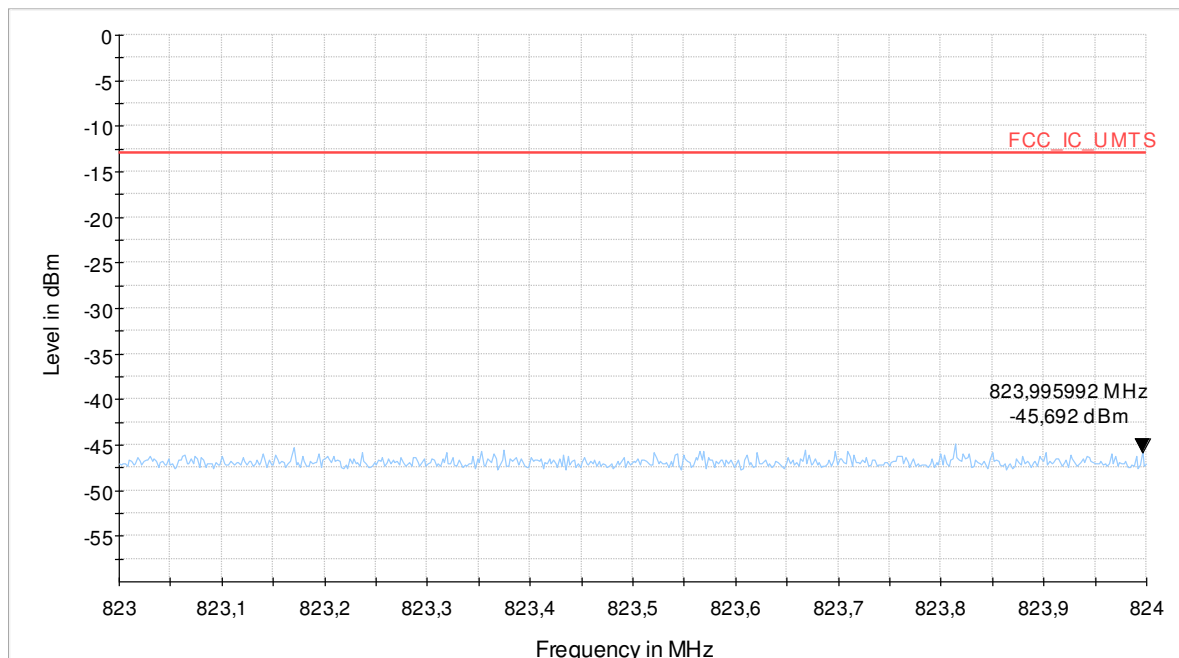


Diagram 9.512b\_BE\_R\_Ch20450\_1RB\_OFF0\_BW10\_QAM\_Int-Ant

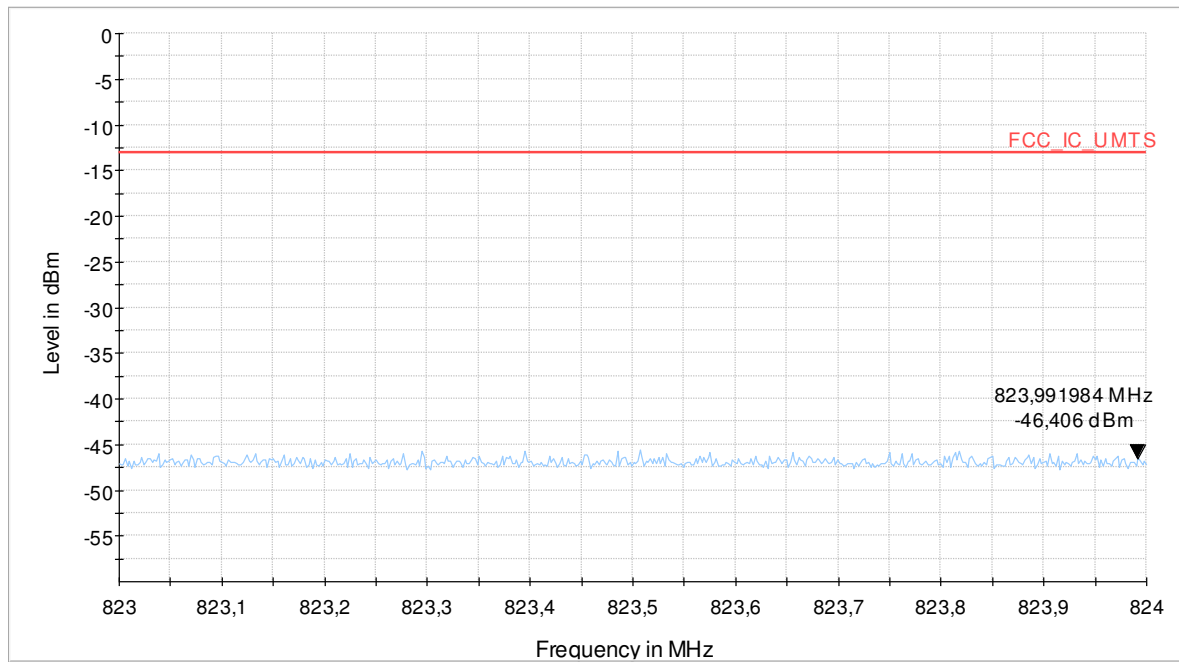


Diagram 9.513a\_BE\_R\_Ch20450\_50RB\_BW10\_QPSK\_Int-Ant

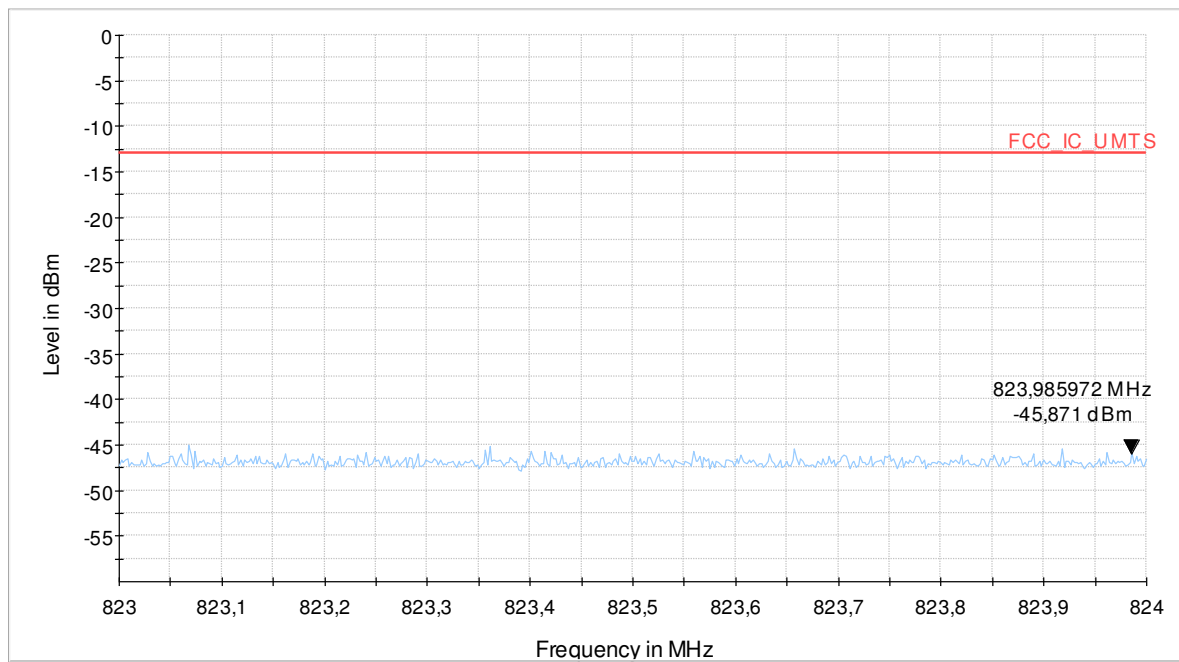


Diagram 9.513b\_BE\_R\_Ch20450\_50RB\_BW10\_QAM\_Int-Ant



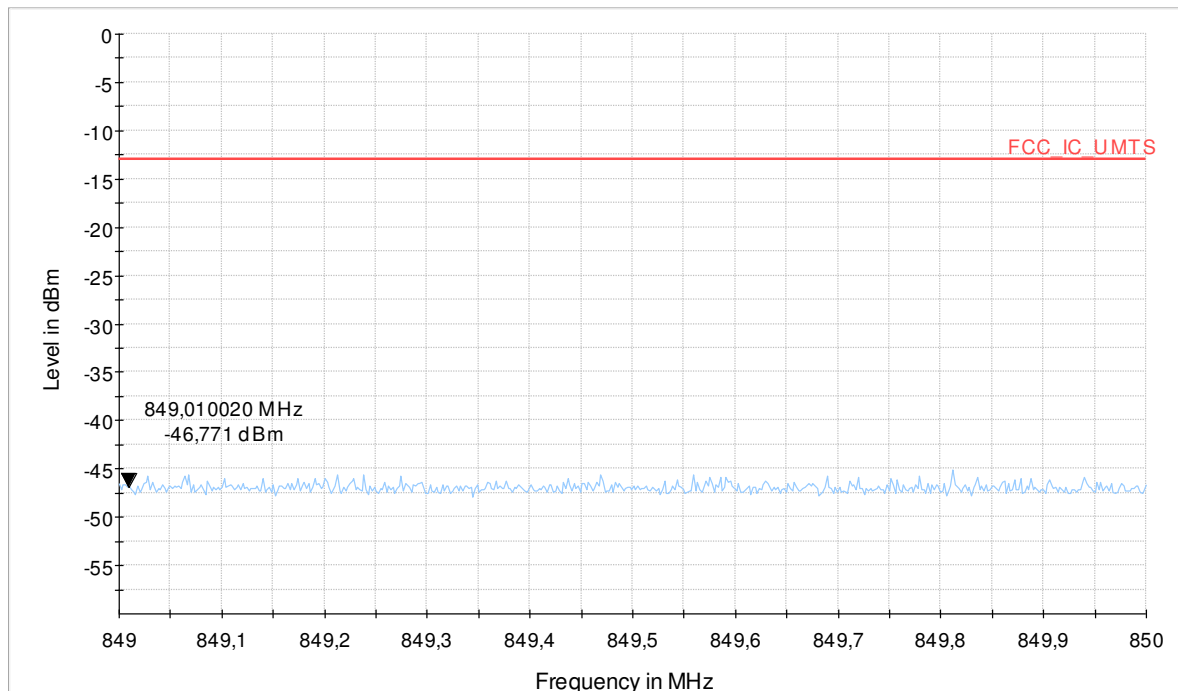
**1.7.3. Band-Edge High External Antenna**

Diagram 9.514a\_BE\_R\_Ch20600\_1RB\_OFF49\_BW10\_QPSK\_Ext-Ant

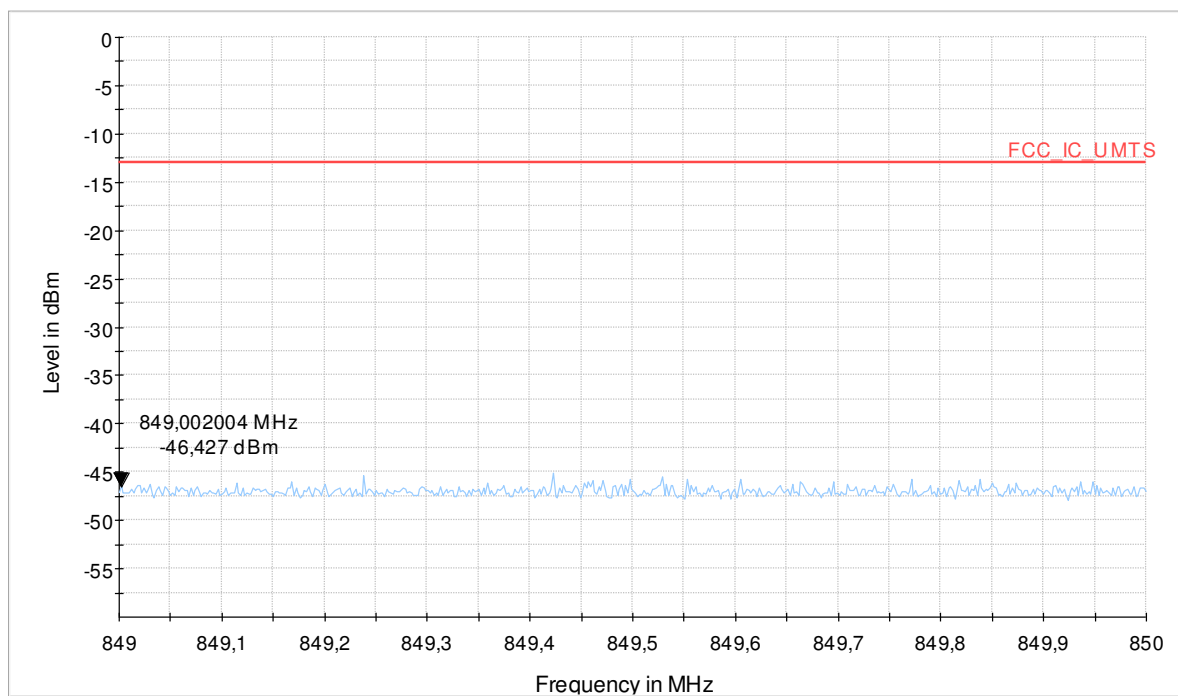


Diagram 9.514b\_BE\_R\_Ch20600\_1RB\_OFF49\_BW10\_QAM\_Ext-Ant

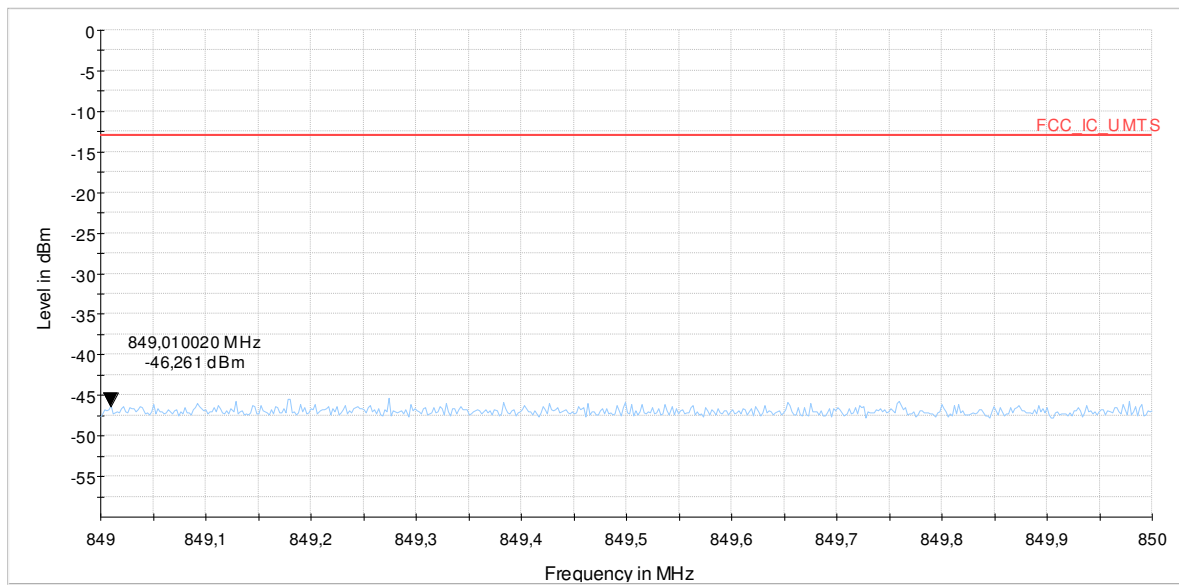


Diagram 9.515a\_BE\_R\_Ch20600\_50RB\_BW10\_QPSK\_Ext-Ant

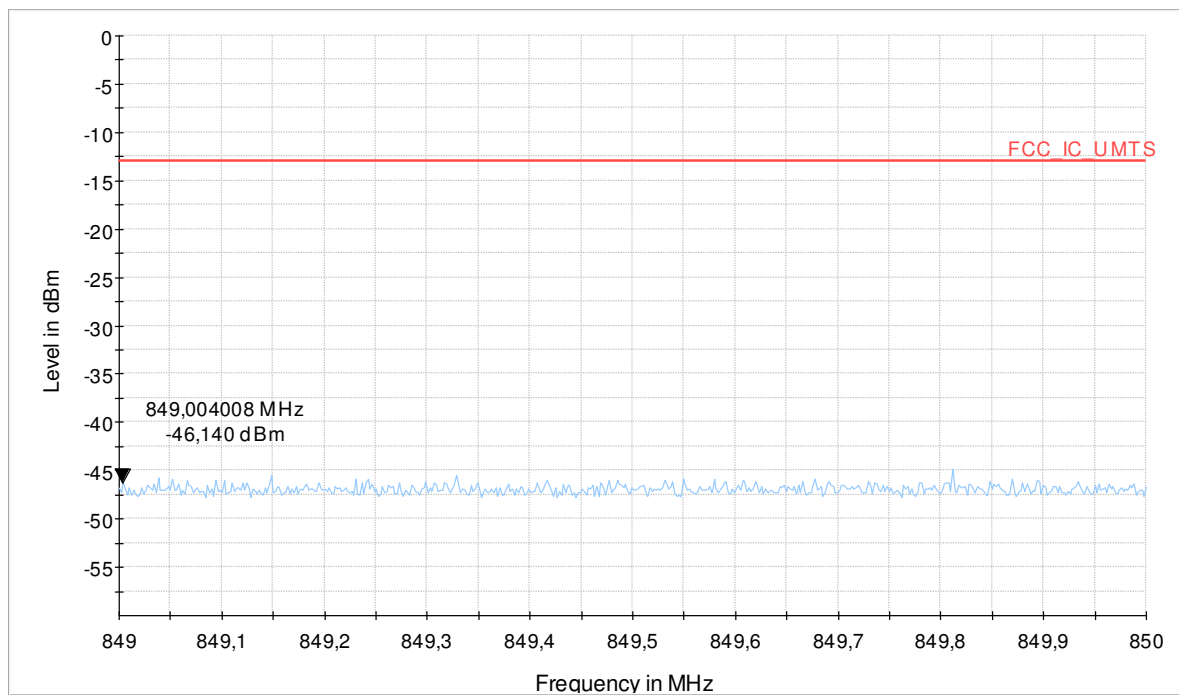


Diagram 9.515b\_BE\_R\_Ch20600\_50RB\_BW10\_QAM\_Ext-Ant

## 1.7.4. Band-Edge High Internal Antenna

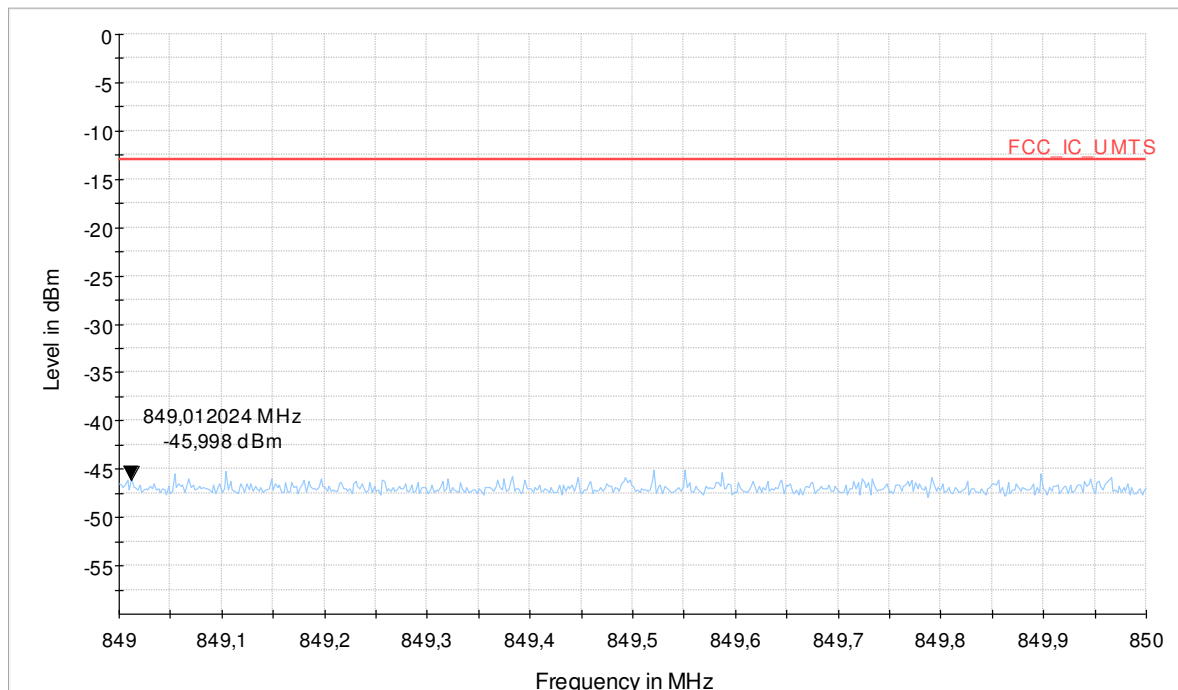


Diagram 9.514a\_BE\_R\_Ch20600\_1RB\_OFF49\_BW10\_QPSK\_Int-Ant

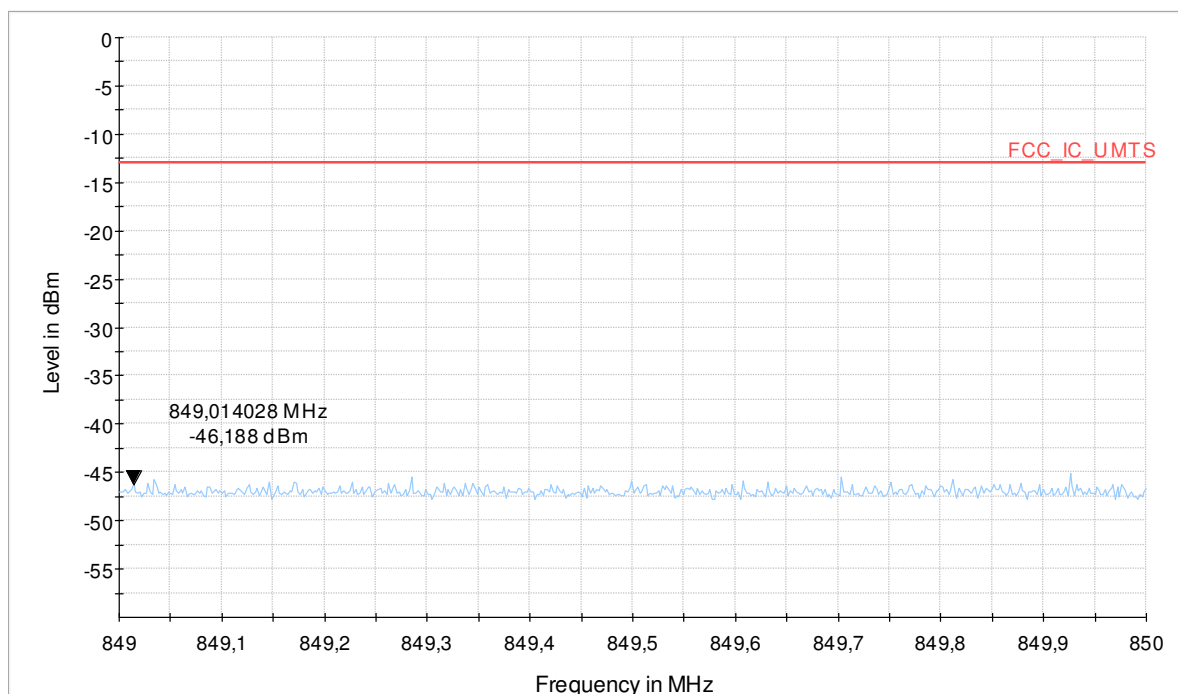


Diagram 9.514b\_BE\_R\_Ch20600\_1RB\_OFF49\_BW10\_QAM\_Int-Ant

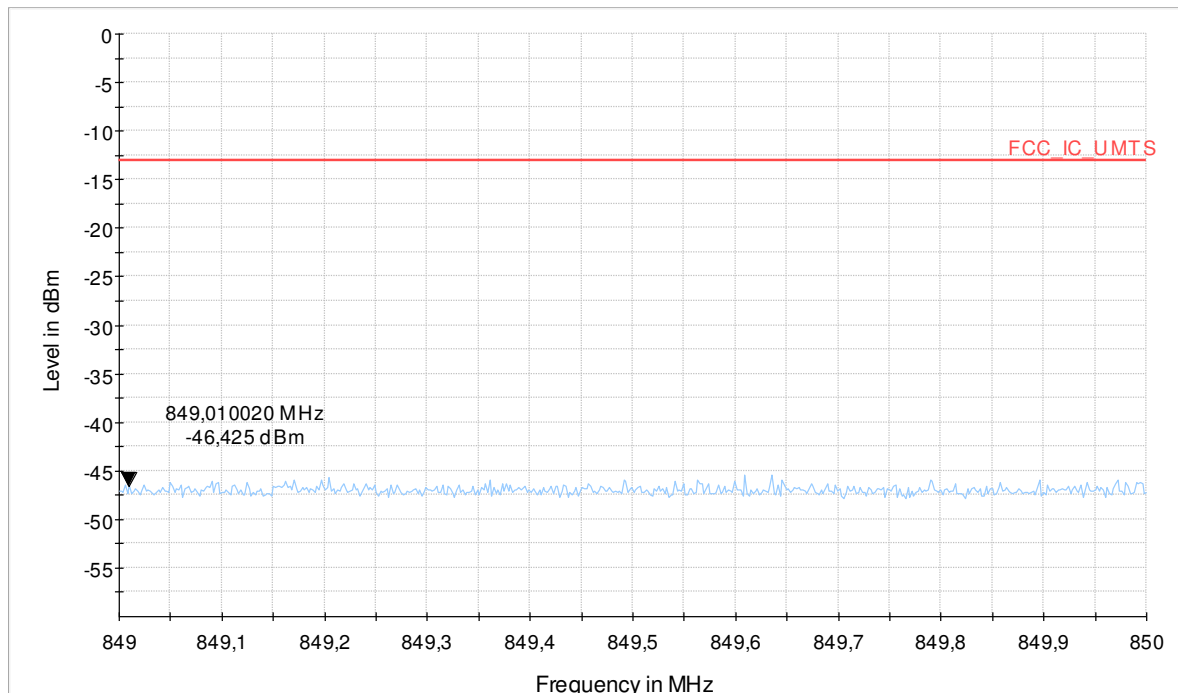


Diagram 9.515a\_BE\_R\_Ch20600\_50RB\_BW10\_QPSK\_Int-Ant

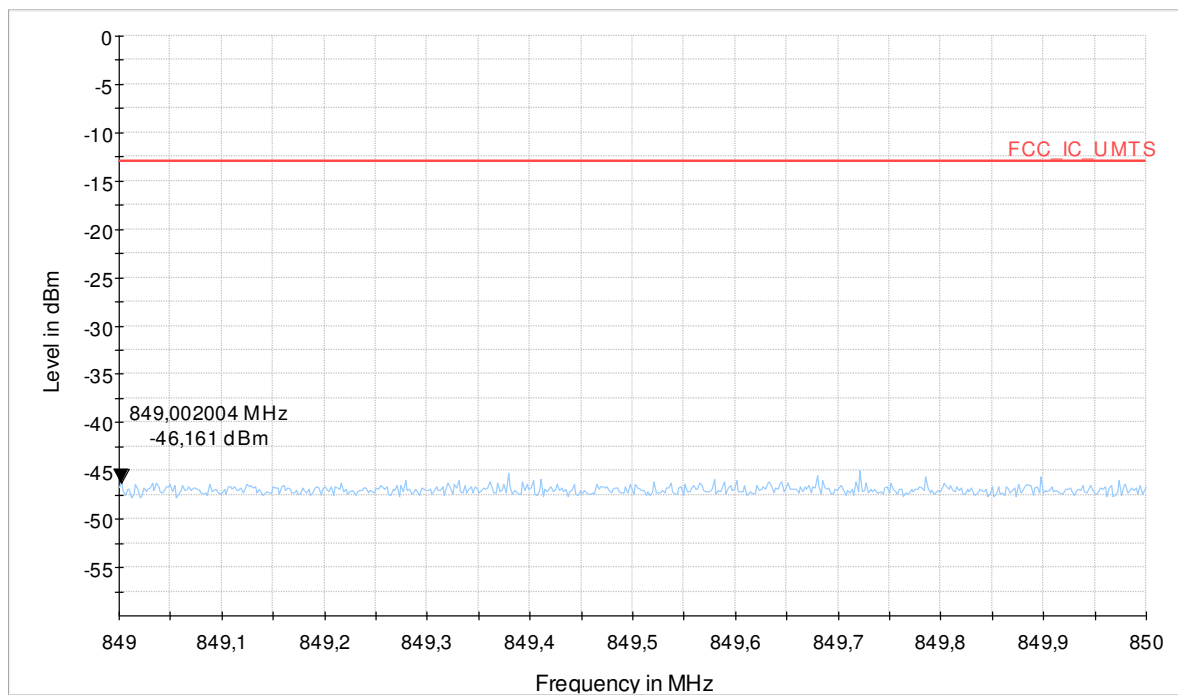


Diagram 9.515b\_BE\_R\_Ch20600\_50RB\_BW10\_QAM\_Int-Ant

## 1.8. Radiated emissions – band-edge (LTE Band 17)

### 1.8.1. Band-Edge Low External Antenna

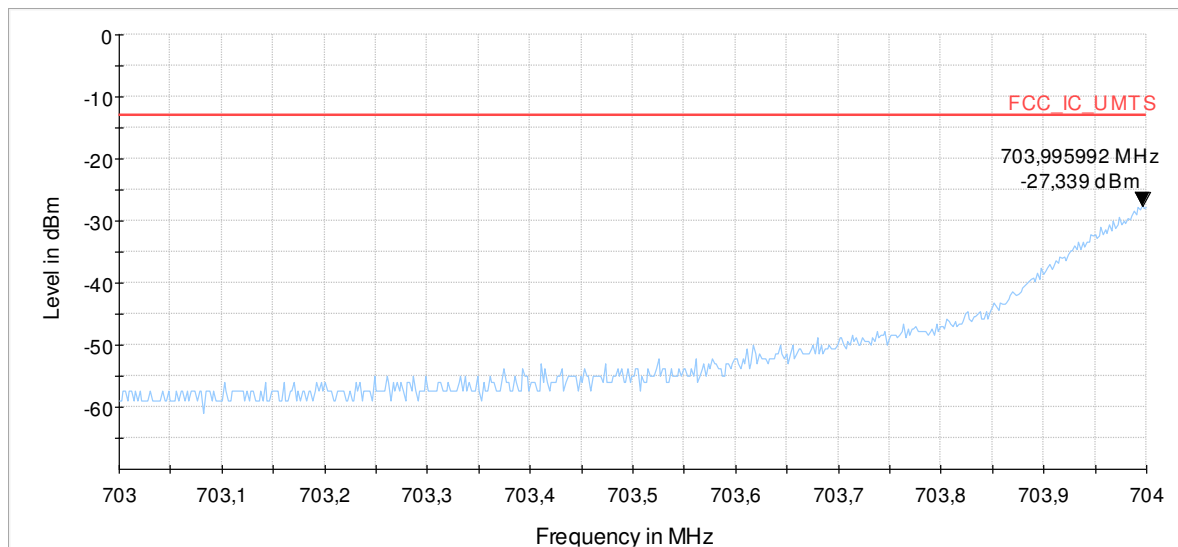


Diagram 9.1701a Ch23755\_1RB\_OFF0\_BW5\_QPSK\_ExtAnt

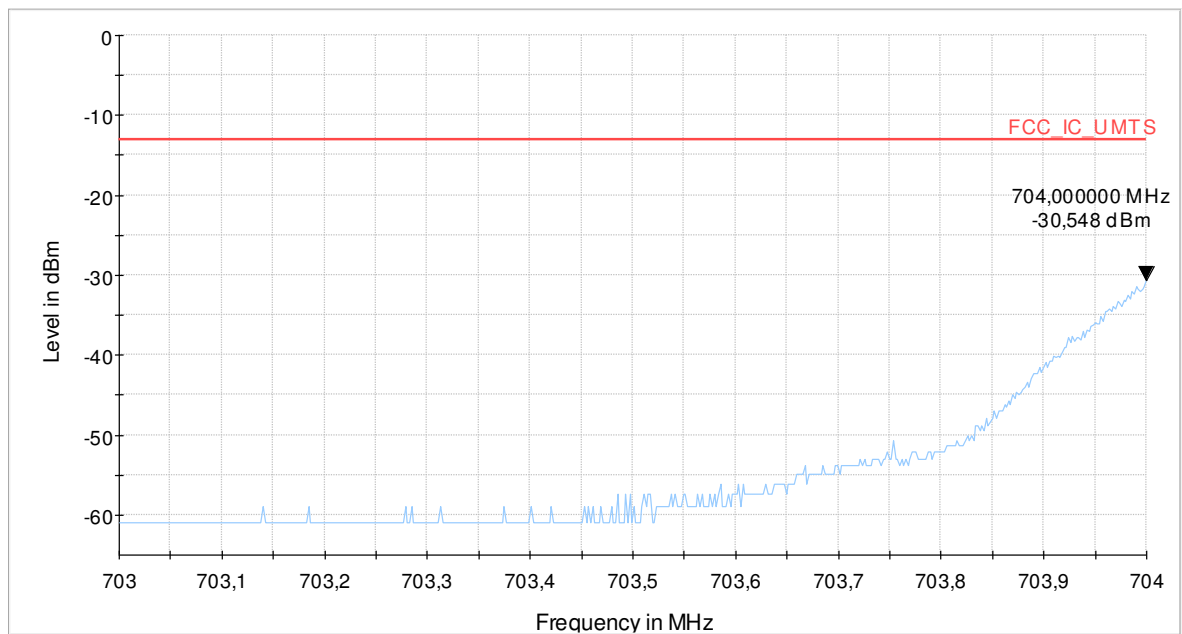


Diagram 9.1701b\_BE\_R\_Ch23755\_1RB\_OFF0\_BW5\_QAM\_ExtAnt

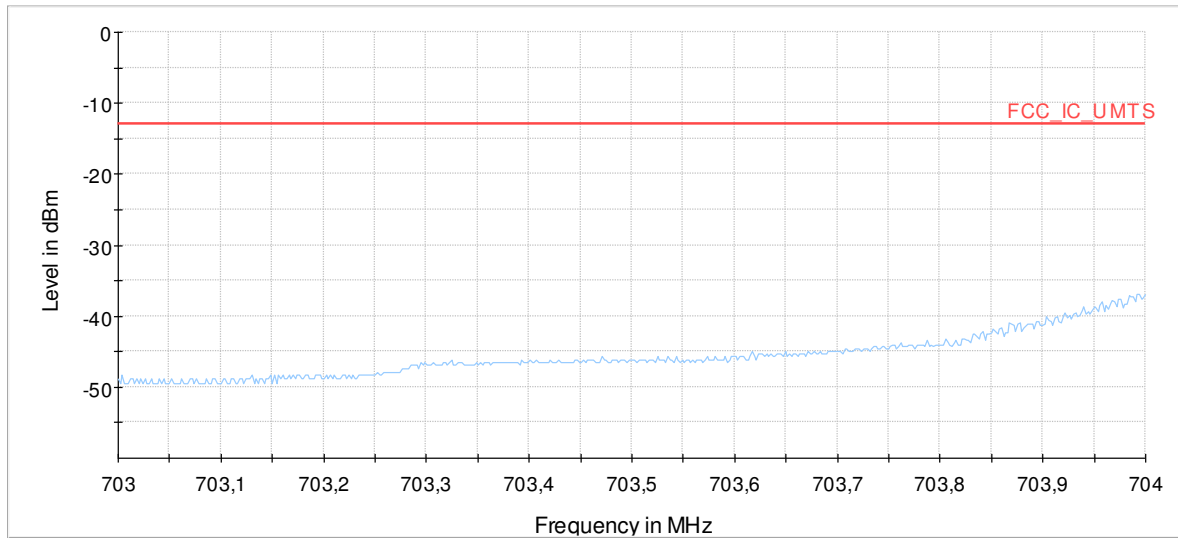


Diagram 9.1702a\_BE\_R\_Ch23755\_25RB\_BW5\_QPSK\_ExtAnt

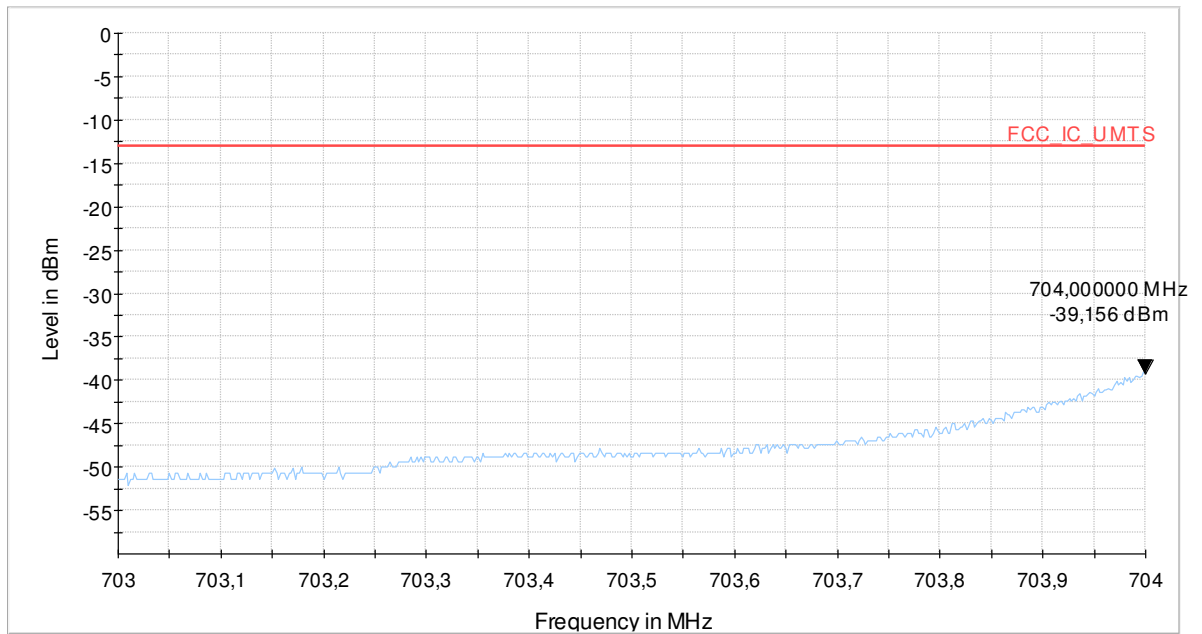


Diagram 9.1702b\_BE\_R\_Ch23755\_25RB\_BW5\_QAM\_ExtAnt

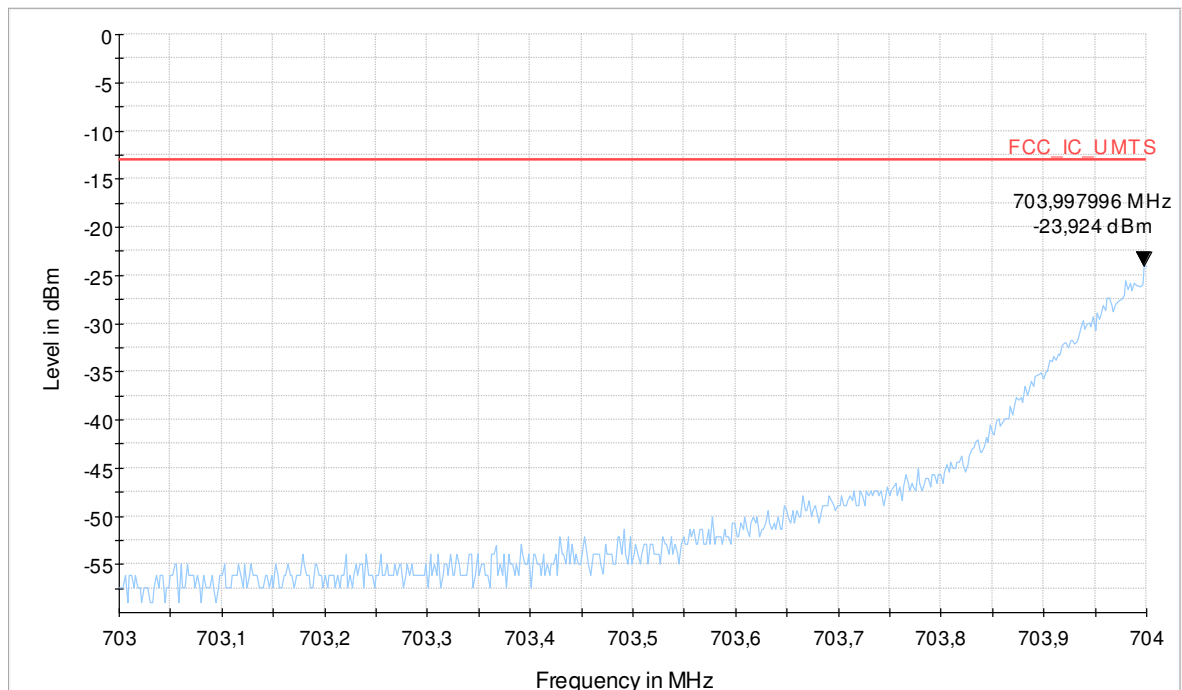
**1.8.2. Band-Edge Low Internal Antenna**

Diagram 9.1701a\_BE\_R\_Ch23755\_1RB\_OFF0\_BW5\_QPSK\_IntAnt

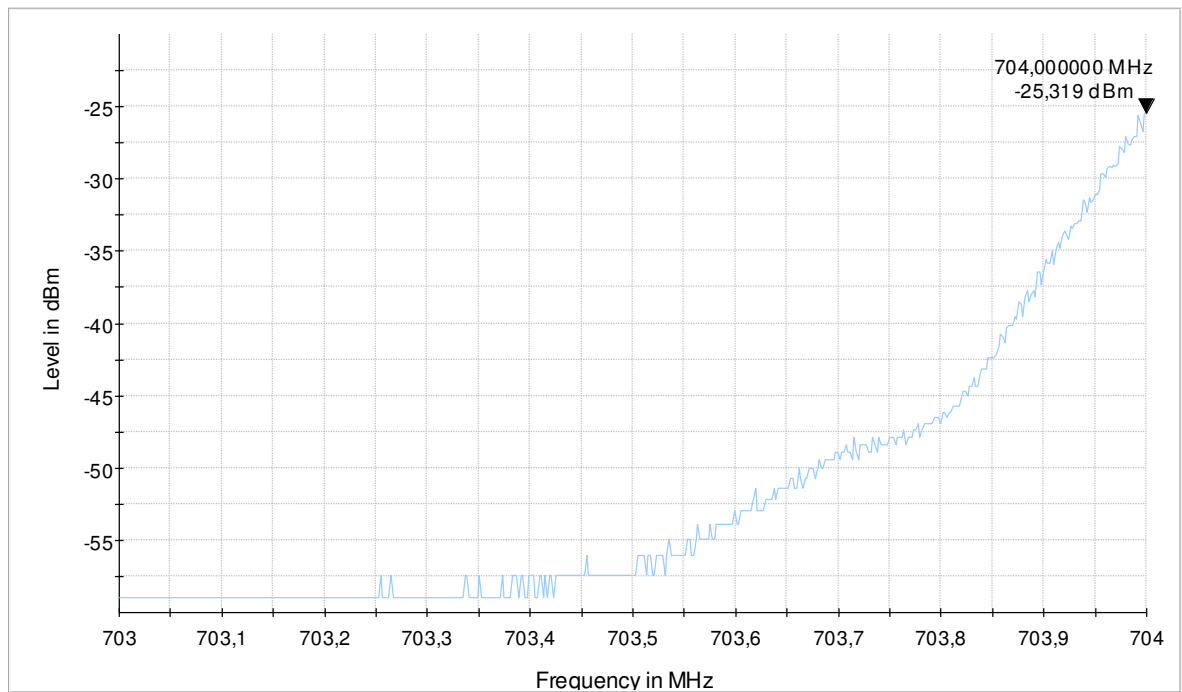


Diagram 9.1701b\_BE\_R\_Ch23755\_1RB\_OFF0\_BW5\_QAM\_IntAnt

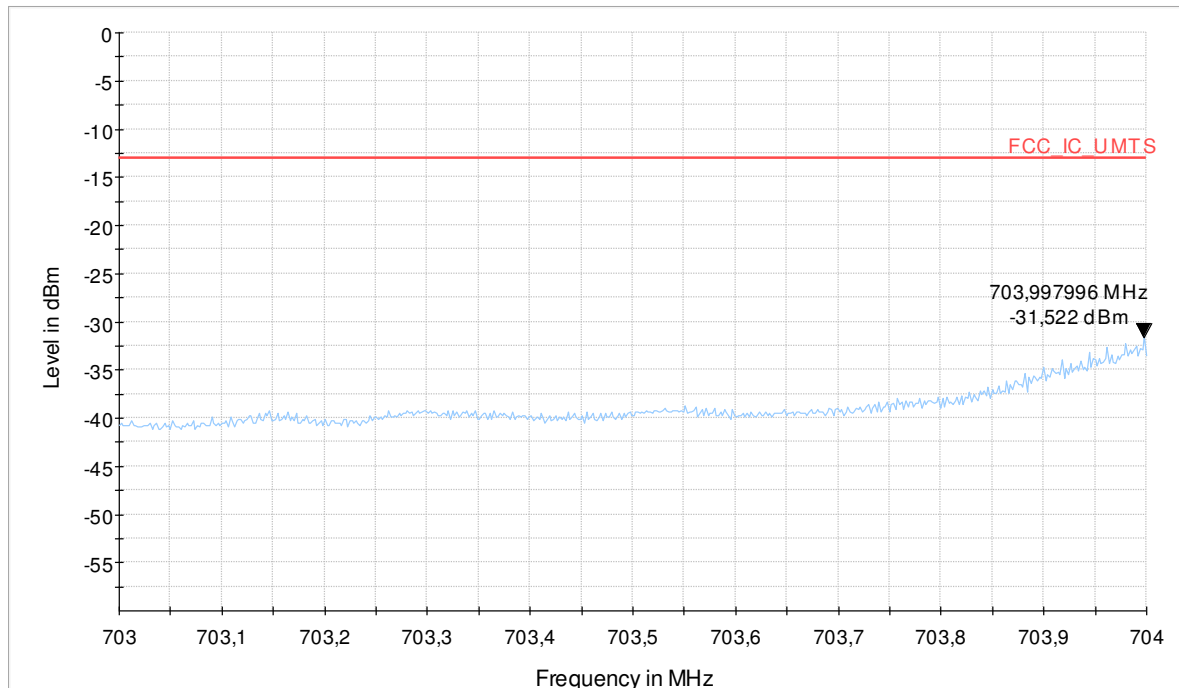


Diagram 9.1702a\_BE\_R\_Ch23755\_25RB\_BW5\_QPSK\_IntAnt

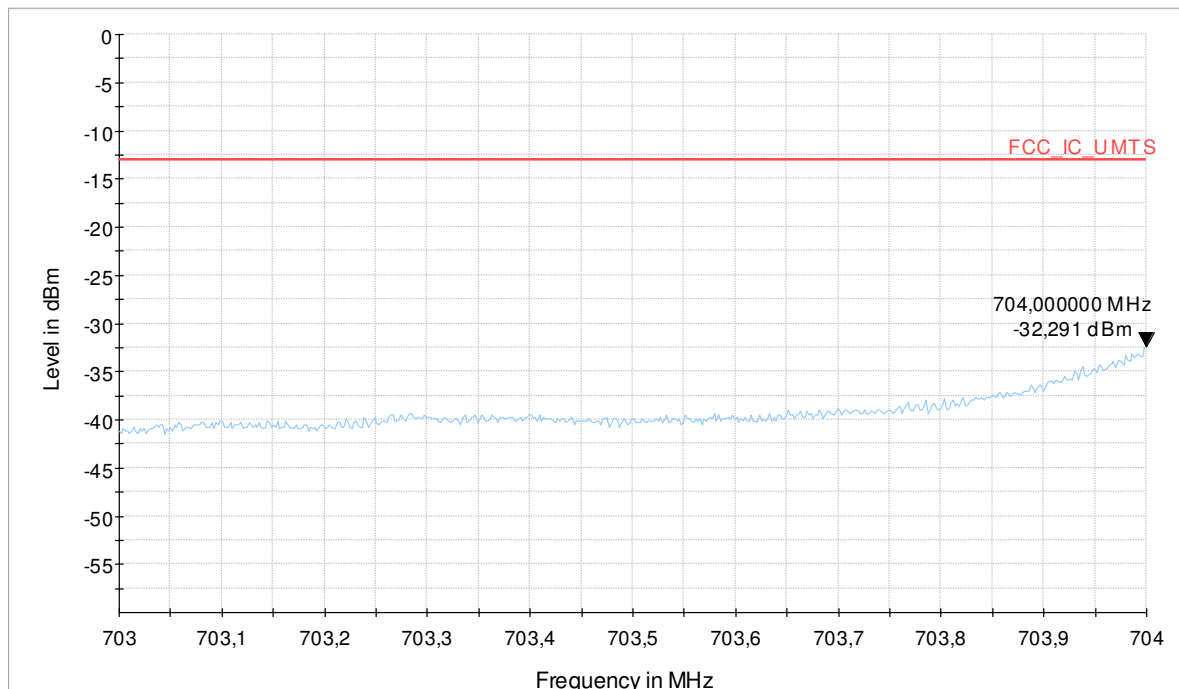


Diagram 9.1702b\_BE\_R\_Ch23755\_25RB\_BW5\_QAM\_IntAnt



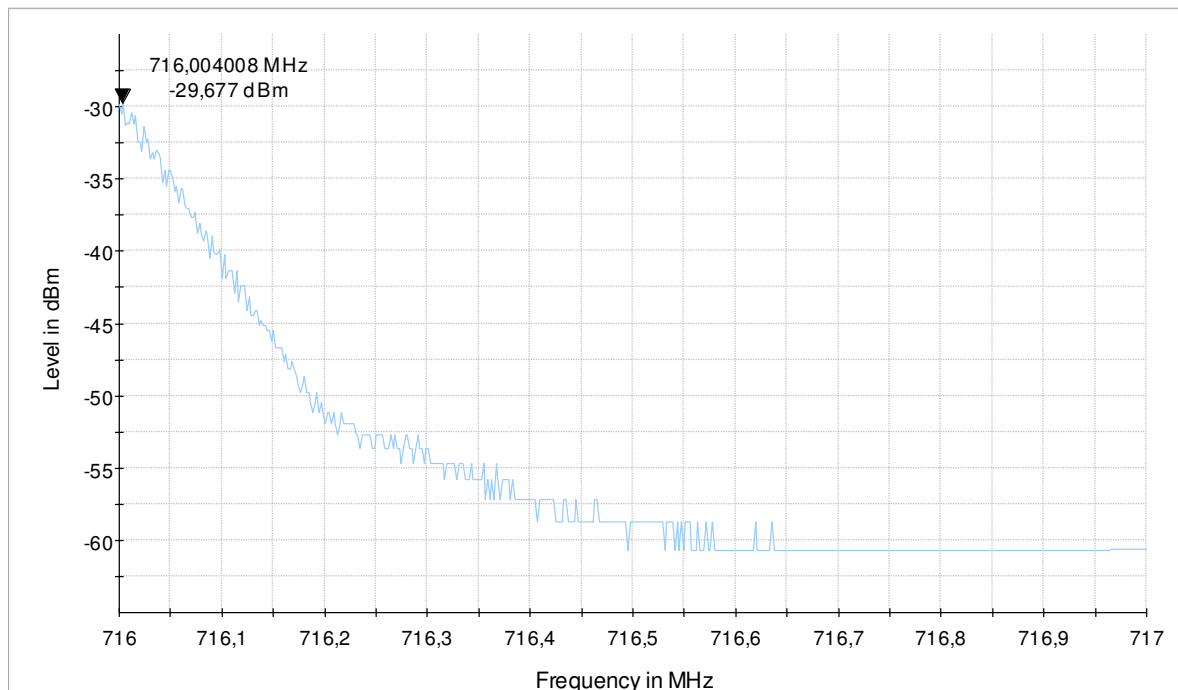
**1.8.3. Band-Edge High External Antenna**

Diagram 9.1703a\_BE\_R\_Ch23825\_1RB\_OFF24\_BW5\_QPSK\_ExtAnt

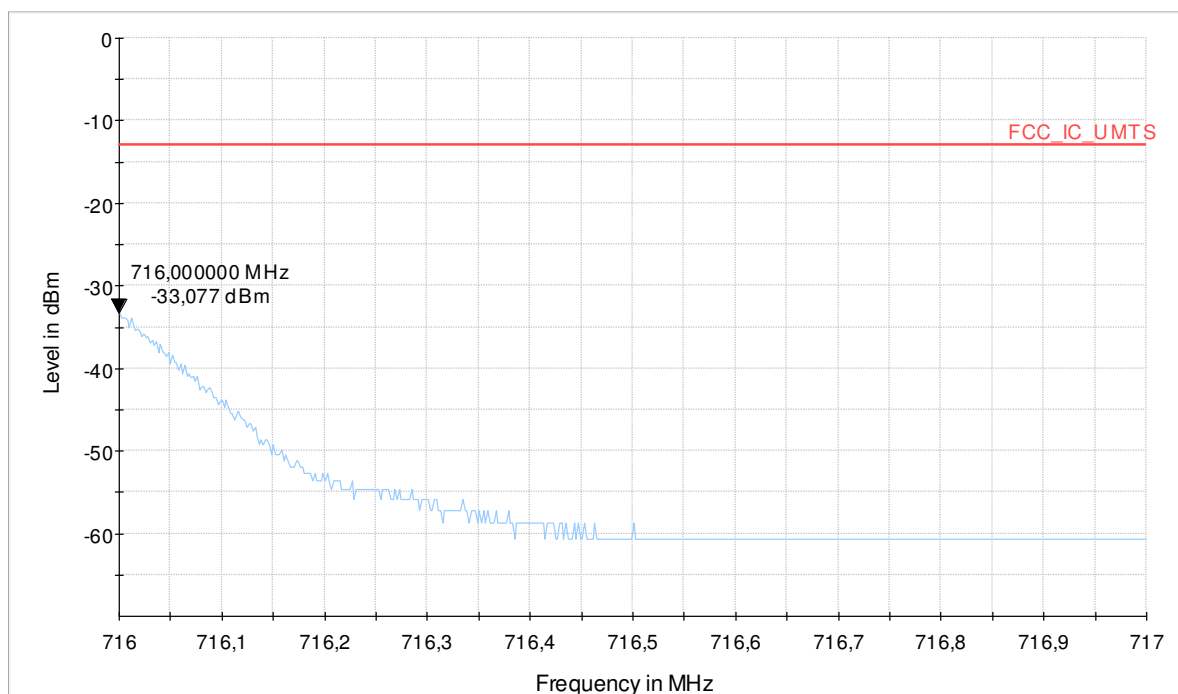


Diagram 9.1703b\_BE\_R\_Ch23825\_1RB\_OFF24\_BW5\_QAM\_ExtAnt

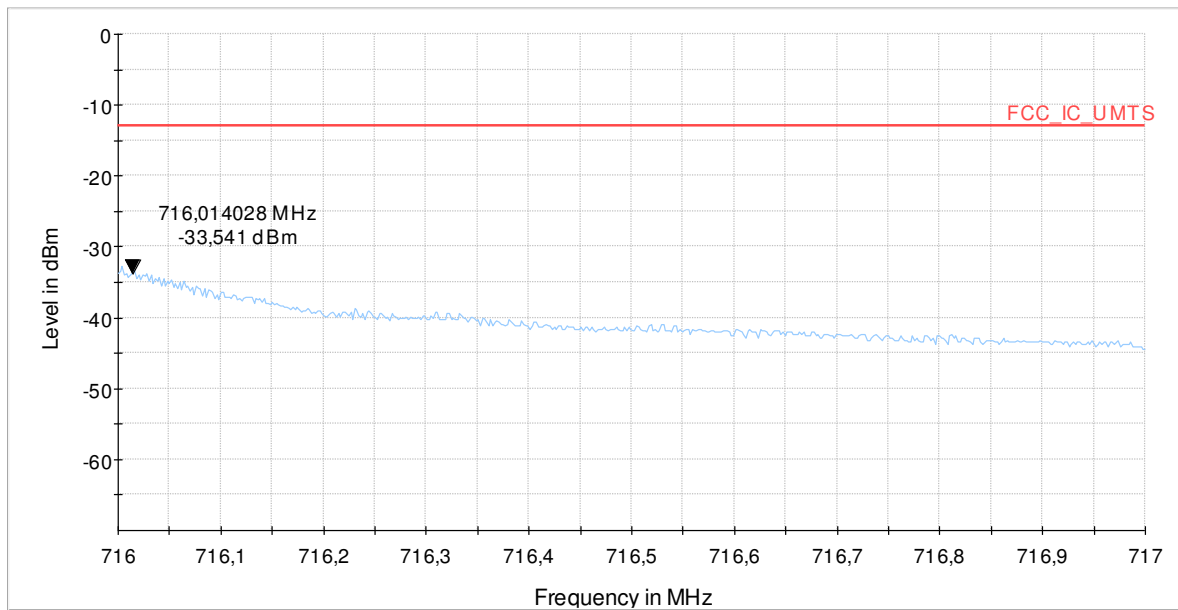


Diagram 9.1704a\_BE\_R\_Ch23825\_25RB\_BW5\_QPSK\_ExtAnt

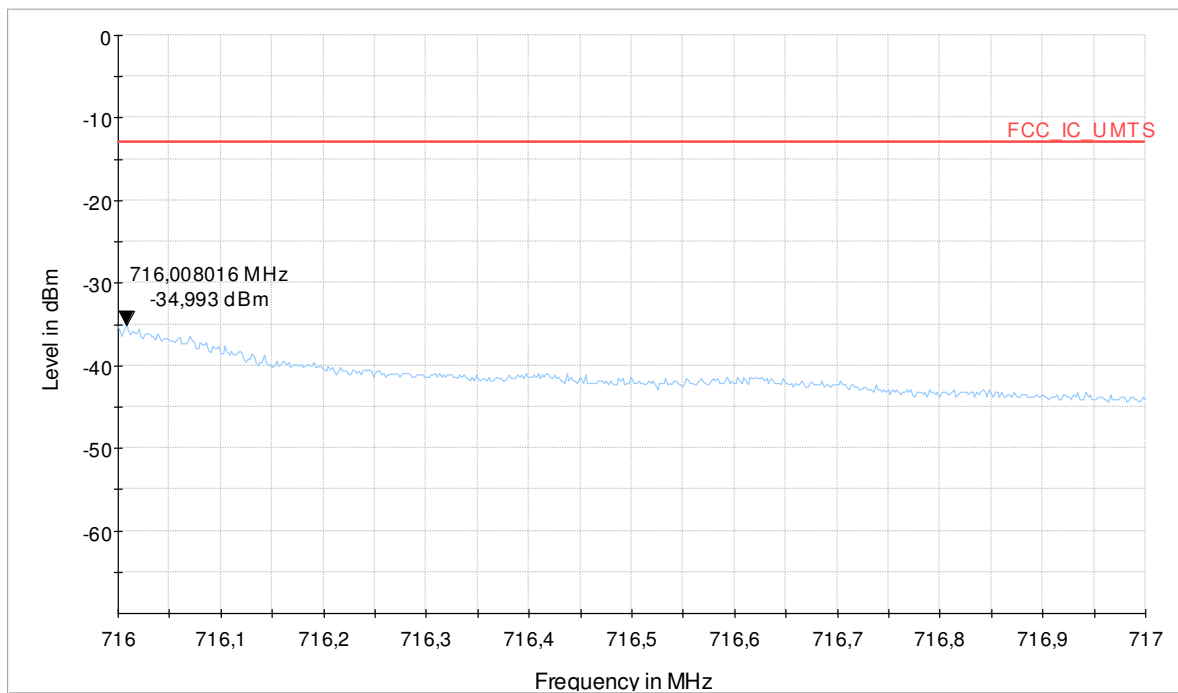


Diagram 9.1704b\_BE\_R\_Ch23825\_25RB\_BW5\_QAM\_ExtAnt

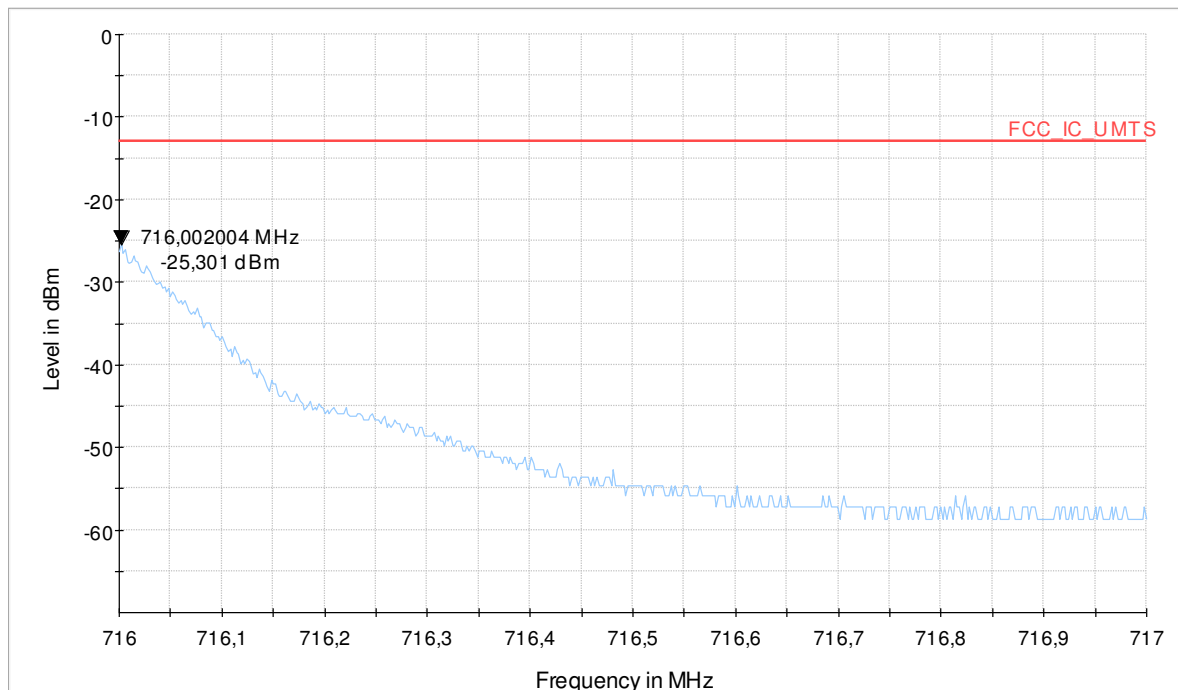
**1.8.4. Band-Edge High Internal Antenna**

Diagram 9.1703a\_BE\_R\_Ch23825\_1RB\_OFF24\_BW5\_QPSK\_IntAnt

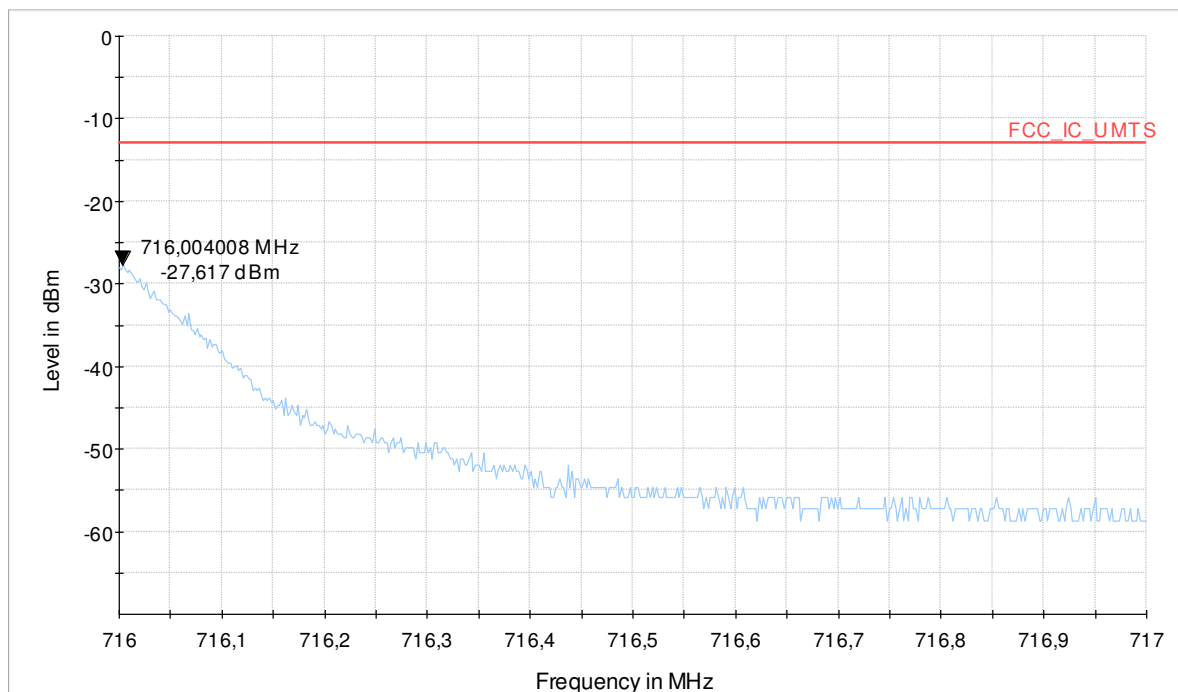


Diagram 9.1703b\_BE\_R\_Ch23825\_1RB\_OFF24\_BW5\_QAM\_IntAnt

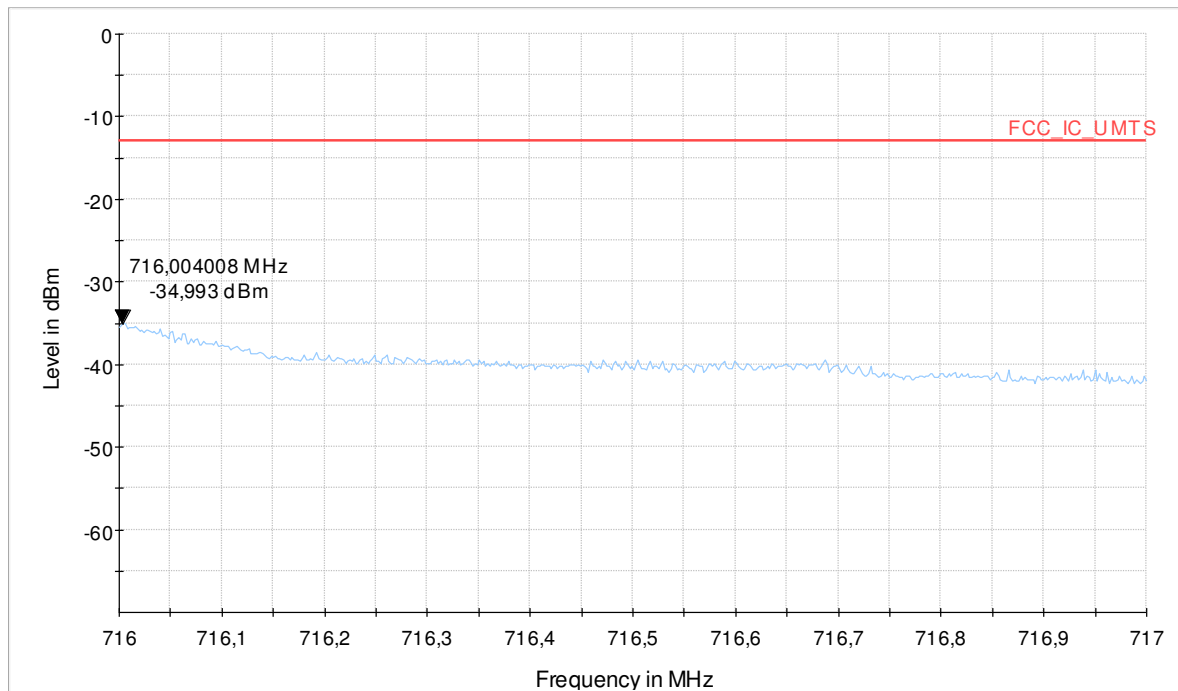


Diagram 9.1704a\_BE\_R\_Ch23825\_25RB\_BW5\_QPSK\_IntAnt

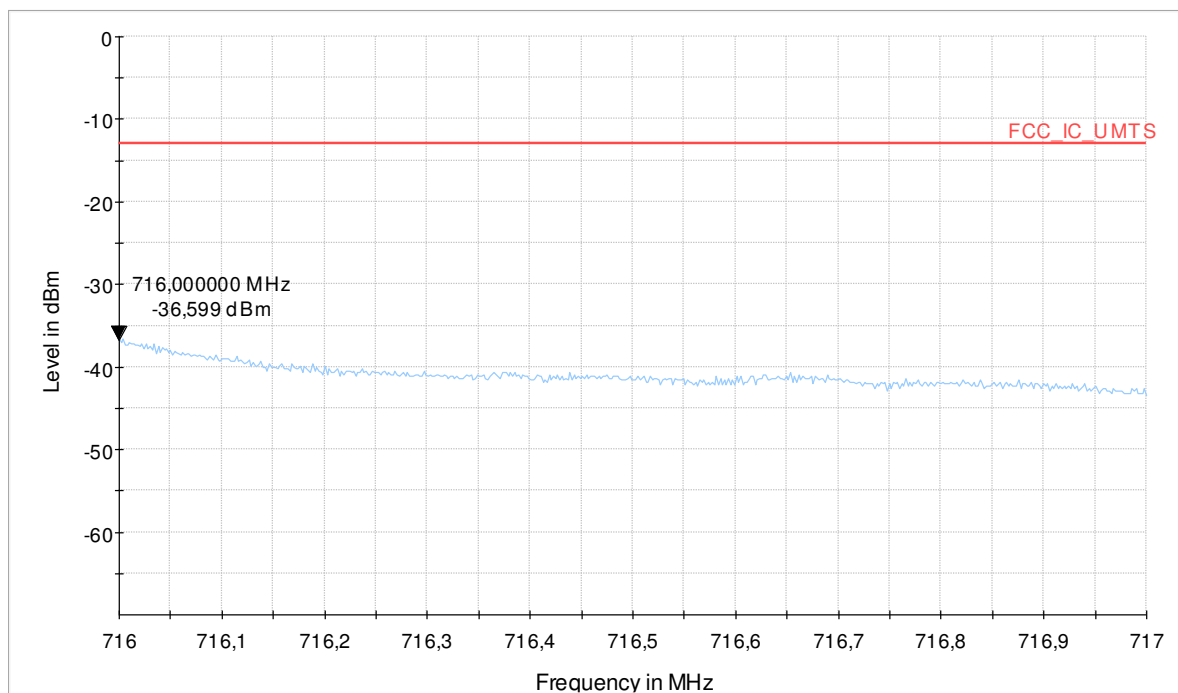


Diagram 9.1704b\_BE\_R\_Ch23825\_25RB\_BW5\_QAM\_IntAnt