

## FCC Part 15E Compliance Test Report

|                                                         |                                                                                                                                                                                                                                                          |                                   |                                                                                                                                |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Report no.:</b>                                 | FCC15E_RM-984_21                                                                                                                                                                                                                                         | <b>Date of Report:</b>            | 04-Aug-2014                                                                                                                    |
| <b>Number of pages:</b>                                 | 119                                                                                                                                                                                                                                                      | <b>Customer's Contact person:</b> | Victoria Abadilla                                                                                                              |
| <b>Testing laboratory:</b>                              | TCC Microsoft Tampere Laboratory<br>P.O.Box 403<br>Visiokatu 3<br>FIN-33101 TAMPERE, FINLAND<br>Tel. +358 71 800 8000<br>Fax. +358 71 804 6880                                                                                                           | <b>Customer:</b>                  | Microsoft San Diego<br>16620 West Bernardo Drive<br>San Diego, CA 92127<br>USA<br>Tel. +1 858 831 5000<br>Fax. +1 858 385 1598 |
| <b>FCC listing no.:</b>                                 | 94436                                                                                                                                                                                                                                                    |                                   |                                                                                                                                |
| <b>IC recognition no.:</b>                              | 661AK-1                                                                                                                                                                                                                                                  |                                   |                                                                                                                                |
| <b>Tested devices/ accessories:</b>                     | <b>Phone RM-984 / Battery BV-L4A / Headset WH-208 / AC charger AC-60E / Data Cable CA-190CD</b>                                                                                                                                                          |                                   |                                                                                                                                |
| <b>FCC ID:</b>                                          | QMNRM-984                                                                                                                                                                                                                                                | <b>IC:</b>                        | -                                                                                                                              |
| <b>Supplement reports:</b>                              | -                                                                                                                                                                                                                                                        |                                   |                                                                                                                                |
| <b>Testing has been carried out in accordance with:</b> | <b>CFR 47, FCC rules Part 15 Subpart E, ANSI C63.4 (2003), DTS procedures KDB 789033 D01, IC standards. Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method and limit".</b> |                                   |                                                                                                                                |
| <b>Documentation:</b>                                   | The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 15 years at TCC Microsoft. |                                   |                                                                                                                                |
| <b>Test Results:</b>                                    | <b>The EUT complies with the requirements in respect of all parameters subject to the test.</b><br>The test results relate only to devices specified in this document                                                                                    |                                   |                                                                                                                                |
| <b>Date and signature for the contents:</b>             |                                                                                                                                                                                                                                                          |                                   |                                                                                                                                |

**Sami Lehtonen, Specialist, EMC**

## 1. Summary for FCC Part 15E Compliance Test Report

|                               |                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------|
| Date of receipt               | 25-Jun-2014                                                                              |
| Testing completed             | 02-Jul-2014                                                                              |
| The customer's contact person | Victoria Abadilla                                                                        |
| Test Plan referred to         | T:\Projects\RM-984\TestPlan\RS_testplan_RM-984.xlsm                                      |
| Notes                         | 5GHz functionality checked up to 40 GHz and there are no emission peaks 26.5GHz – 40GHz. |
| Document name                 | T:\Projects\RM-984\EMC\FCC15E_RM-984_21.docx                                             |

### 1.1. EUT and Accessory Information

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

Devices under tests

| Product    | Type     | SN                          | HW   | MV  | SW                      | DUT   |
|------------|----------|-----------------------------|------|-----|-------------------------|-------|
| Phone      | RM-984   | 004402478222346             | 0200 | -   | 02028.00000.14224.06001 | 43184 |
| Phone      | RM-984   | 004402478222536             | 0200 | -   | 02028.00000.14224.06001 | 43187 |
| Battery    | BV-L4A   | 4181574243S11400027;0670727 | 3.0  | 1.0 | -                       | 43188 |
| Battery    | BV-L4A   | 4181574243S11400031;0670727 | 3.0  | 1.0 | -                       | 43185 |
| Headset    | WH-208   | -                           | -    | -   | -                       | 43186 |
| AC charger | AC-60E   | 409093116580300242;0677566  | -    | -   | -                       | 43074 |
| Data Cable | CA-190CD | -                           | -    | -   | -                       | 43034 |

### 1.2. Summary of Test Results

5 GHz RLAN:

| Section in CFR 47 | Section in RSS-GEN or RSS-210 | Name of the test                     | Result |
|-------------------|-------------------------------|--------------------------------------|--------|
| 15.407(a)         | A9.2                          | Conducted peak output power          | PASSED |
| 15.407(b)         | A9.2                          | Band edge compliance of RF emissions | PASSED |
| 15.407(a)(6)      | A9.2                          | Peak excursion                       | PASSED |
| 15.407(b)         | A9.2                          | Spurious radiated emissions          | PASSED |
| 15.407(b)(6)      | A9.2                          | AC powerline conducted emissions     | NP     |
|                   | A9.2                          | 26dB(bandwidth)                      | PASSED |
| 15.407(a)         | A9.2                          | Power spectral density               | PASSED |

PASSED  
FAILED  
NP

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

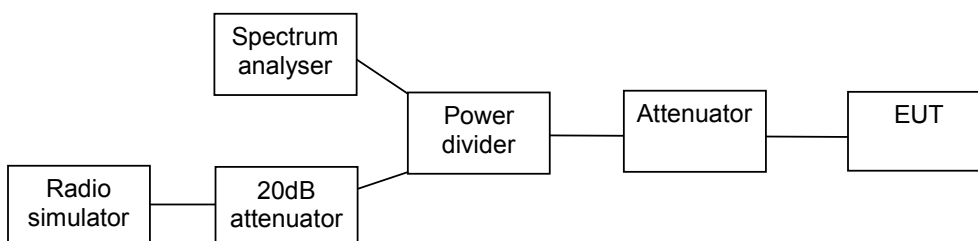
## CONTENTS

|                                                                                       |            |
|---------------------------------------------------------------------------------------|------------|
| <b>1. Summary for FCC Part 15E Compliance Test Report.....</b>                        | <b>2</b>   |
| 1.1. EUT and Accessory Information.....                                               | 2          |
| 1.2. Summary of Test Results.....                                                     | 2          |
| <b>2. Conducted peak output power<br/>(FCC §15.407(a), RSS-210 A9.2).....</b>         | <b>4</b>   |
| 2.1. Test Setup.....                                                                  | 4          |
| 2.2. Test method and limit.....                                                       | 4          |
| 2.3. Power results summary.....                                                       | 5          |
| 2.4. 5 GHz RLAN Test results.....                                                     | 6          |
| <b>3. Band edge compliance of RF emissions<br/>(FCC 15.407(b), RSS-210 A9.2).....</b> | <b>24</b>  |
| 3.2. Test method and limit.....                                                       | 24         |
| 3.3. 5 GHz RLAN test results.....                                                     | 25         |
| <b>4. Peak excursion<br/>(FCC §15.407(a)(6), RSS-210 A9.2) .....</b>                  | <b>49</b>  |
| 4.1. Test Setup.....                                                                  | 49         |
| 4.2. Test method and limit.....                                                       | 49         |
| 4.3. 5 GHz RLAN Test results.....                                                     | 50         |
| <b>5. Spurious radiated emissions<br/>(FCC 15.407(b), RSS-210 A9.2).....</b>          | <b>68</b>  |
| 5.2. Test method and limit.....                                                       | 68         |
| 5.3. 5 GHz RLAN test results.....                                                     | 70         |
| <b>6. 26dB(bandwidth).....</b>                                                        | <b>83</b>  |
| 6.1. Test Setup.....                                                                  | 83         |
| 6.2. Test method and limit.....                                                       | 83         |
| 6.3. 5 GHz RLAN Test results.....                                                     | 84         |
| <b>7. Power spectral density<br/>(FCC §15.407(a), RSS-210 A9.2).....</b>              | <b>102</b> |
| 7.1. Test Setup.....                                                                  | 102        |
| 7.2. Test method and limit.....                                                       | 102        |
| 7.3. 5 GHz RLAN Test results.....                                                     | 103        |
| <b>8. Test Equipment.....</b>                                                         | <b>117</b> |
| 8.1. Conducted measurements .....                                                     | 117        |
| 8.2. Radiated measurements .....                                                      | 117        |

## 2. Conducted peak output power (FCC §15.407(a), RSS-210 A9.2)

|                                                 |                           |
|-------------------------------------------------|---------------------------|
| EUT with DUT number                             | RM-984, DUT 43187         |
| Accessories with DUT numbers                    | BV-L4A, DUT 43188         |
| Operation Voltage [V] / [Hz]                    | Nominal                   |
| Results                                         | PASSED                    |
| Remarks                                         | -                         |
| Temp [°C] / Humidity [%RH] / Air Pressure [kPa] | 20-24 / 42-49 / 98.1-98.8 |
| Date of measurements                            | 02.. 04-Jul-2014          |
| Measured by                                     | Jari Jantunen             |

### 2.1. Test Setup



### 2.2. Test method and limit

The measurement is made according to Public Notice KDB 789033 D01 and IC standard RSS-210.

Limits for Maximum conducted output power measurements

| Frequency range [MHz] | Limit [mW] / (dBm) | Limit [dBm] | Limit [dBm] for B=20 MHz |
|-----------------------|--------------------|-------------|--------------------------|
| 5150-5250             | 50 (17)            | 4+10 log B  | 17                       |
| 5250-5350             | 250 (24)           | 11+10 log B | 24                       |
| 5470-5725             | 250 (24)           | 11+10 log B | 24                       |
| 5725-5825             | 1000 (30)          | 17+10 log B | 30                       |

### 2.3. Power results summary

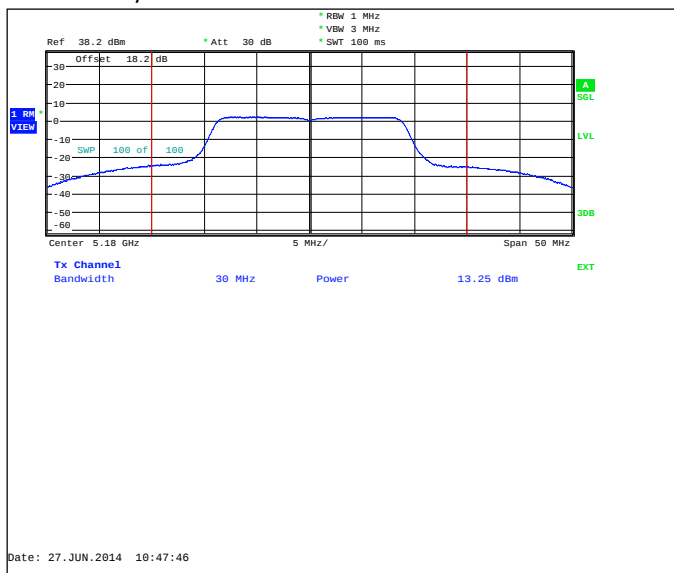
| Channel / fC [MHz] | Mode    | Modulation | Data rate        | Level [dBm] |
|--------------------|---------|------------|------------------|-------------|
| 36 / 5180          | 802.11n | BPSK       | 6.5 / 7.25 Mbps  | 13.25       |
| 40 / 5200          | 802.11n | BPSK       | 6.5 / 7.25 Mbps  | 13.24       |
| 48 / 5240          | 802.11n | BPSK       | 6.5 / 7.25 Mbps  | 13.16       |
| 52 / 5260          | 802.11n | BPSK       | 6.5 / 7.25 Mbps  | 13.17       |
| 60 / 5300          | 802.11n | BPSK       | 6.5 / 7.25 Mbps  | 13          |
| 64 / 5320          | 802.11n | BPSK       | 6.5 / 7.25 Mbps  | 13.13       |
| 100 / 5500         | 802.11n | BPSK       | 6.5 / 7.25 Mbps  | 13.5        |
| 116 / 5580         | 802.11n | BPSK       | 6.5 / 7.25 Mbps  | 13.86       |
| 140 / 5700         | 802.11n | BPSK       | 6.5 / 7.25 Mbps  | 13.93       |
| 36 / 5180          | 802.11n | QPSK       | 19.5 / 21.7 Mbps | 12.74       |
| 40 / 5200          | 802.11n | QPSK       | 19.5 / 21.7 Mbps | 12.76       |
| 48 / 5240          | 802.11n | QPSK       | 19.5 / 21.7 Mbps | 12.71       |
| 52 / 5260          | 802.11n | QPSK       | 19.5 / 21.7 Mbps | 12.73       |
| 60 / 5300          | 802.11n | QPSK       | 19.5 / 21.7 Mbps | 12.52       |
| 64 / 5320          | 802.11n | QPSK       | 19.5 / 21.7 Mbps | 12.6        |
| 100 / 5500         | 802.11n | QPSK       | 19.5 / 21.7 Mbps | 12.97       |
| 116 / 5580         | 802.11n | QPSK       | 19.5 / 21.7 Mbps | 13.16       |
| 140 / 5700         | 802.11n | QPSK       | 19.5 / 21.7 Mbps | 13.16       |
| 36+40 / 5190       | 802.11n | BPSK       | 13.5 / 15.0 Mbps | 11.6        |
| 44+48 / 5230       | 802.11n | BPSK       | 13.5 / 15.0 Mbps | 11.77       |
| 52+56 / 5270       | 802.11n | BPSK       | 13.5 / 15.0 Mbps | 11.96       |
| 60+64 / 5310       | 802.11n | BPSK       | 13.5 / 15.0 Mbps | 11.75       |
| 100+104 / 5510     | 802.11n | BPSK       | 13.5 / 15.0 Mbps | 11.91       |
| 108+112 / 5550     | 802.11n | BPSK       | 13.5 / 15.0 Mbps | 12.07       |
| 132+136 / 5670     | 802.11n | BPSK       | 13.5 / 15.0 Mbps | 12.4        |
| 36+40 / 5190       | 802.11n | QPSK       | 27.0 / 30.0 Mbps | 11.61       |
| 44+48 / 5230       | 802.11n | QPSK       | 27.0 / 30.0 Mbps | 11.78       |
| 52+56 / 5270       | 802.11n | QPSK       | 27.0 / 30.0 Mbps | 11.67       |
| 60+64 / 5310       | 802.11n | QPSK       | 27.0 / 30.0 Mbps | 12.12       |
| 100+104 / 5510     | 802.11n | QPSK       | 27.0 / 30.0 Mbps | 11.93       |
| 108+112 / 5550     | 802.11n | QPSK       | 27.0 / 30.0 Mbps | 12.06       |
| 132+136 / 5670     | 802.11n | QPSK       | 27.0 / 30.0 Mbps | 12.43       |

## 2.4. 5 GHz RLAN Test results

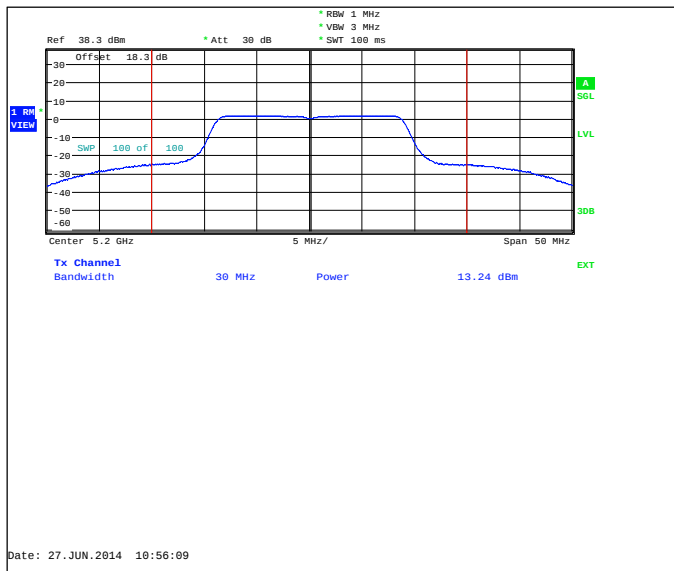
### 2.4.1 802.11n mode, BPSK modulation, 6.5 / 7.25 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | P [dBm] | P [mW] | Result |
|--------------------------------|---------|--------|--------|
| 36 / 5180                      | 13.25   | 21.135 | PASSED |
| 40 / 5200                      | 13.24   | 21.086 | PASSED |
| 48 / 5240                      | 13.16   | 20.701 | PASSED |
| 52 / 5260                      | 13.17   | 20.749 | PASSED |
| 60 / 5300                      | 13      | 19.953 | PASSED |
| 64 / 5320                      | 13.13   | 20.559 | PASSED |
| 100 / 5500                     | 13.5    | 22.387 | PASSED |
| 116 / 5580                     | 13.86   | 24.322 | PASSED |
| 140 / 5700                     | 13.93   | 24.717 | PASSED |

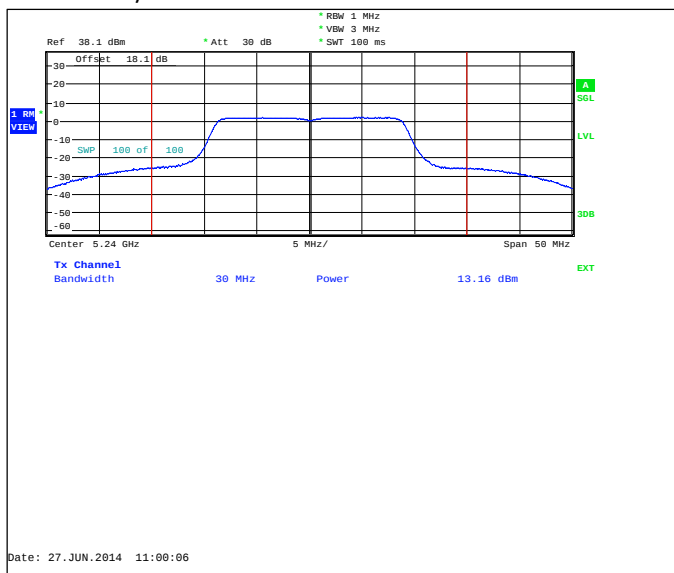
Channel 36 / 5180MHz



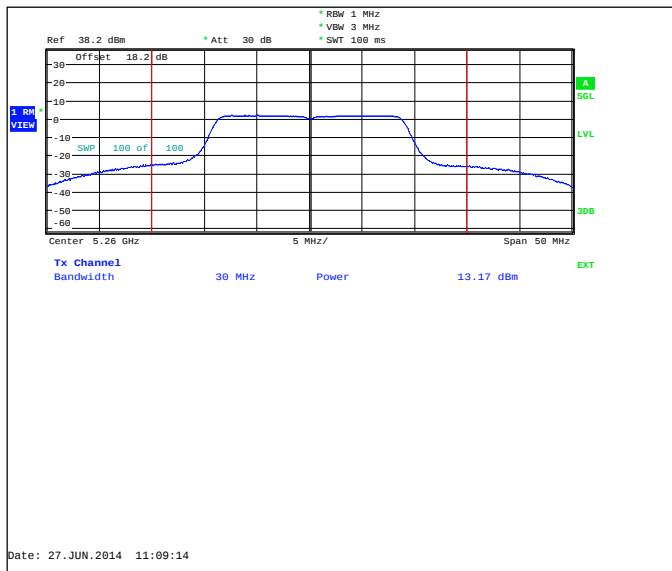
## Channel 40 / 5200MHz



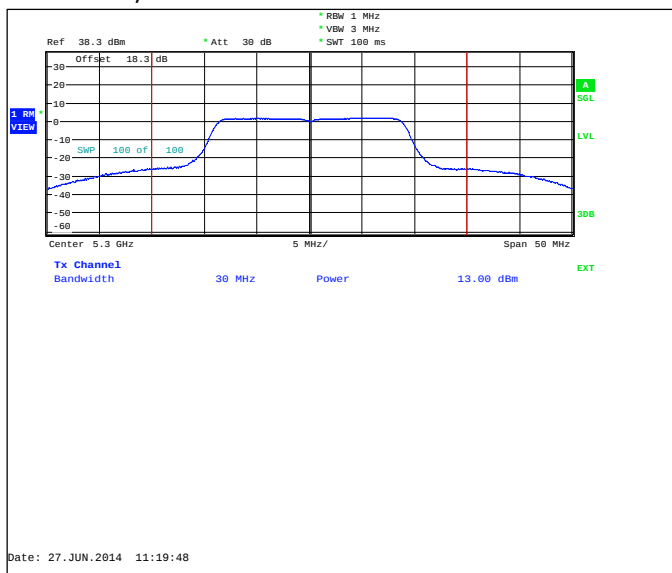
## Channel 48 / 5240MHz



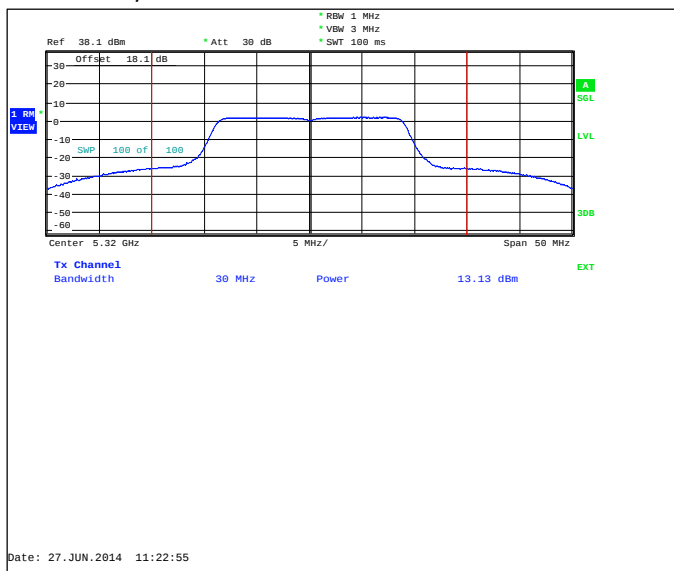
## Channel 52 / 5260MHz



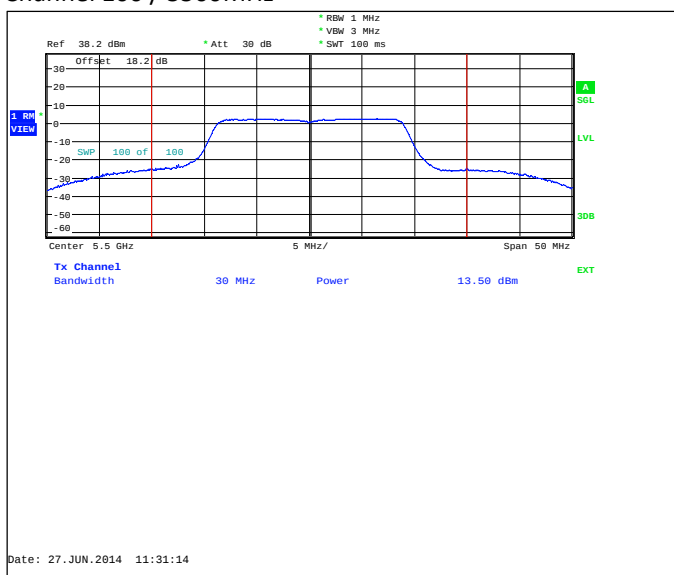
## Channel 60 / 5300MHz



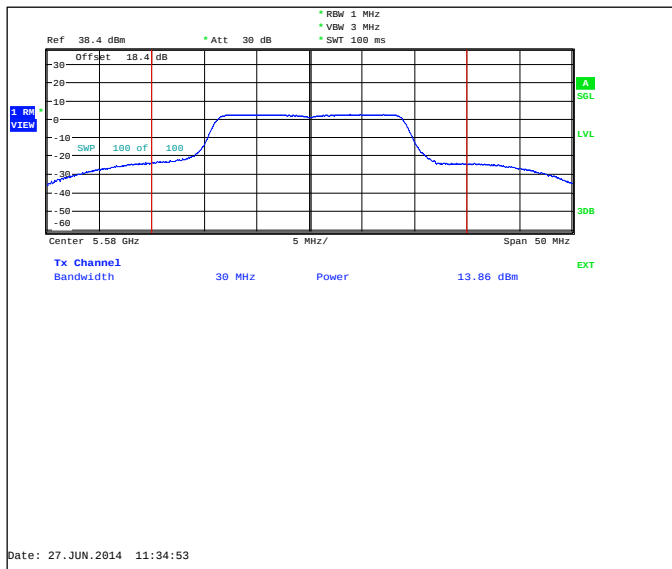
## Channel 64 / 5320MHz



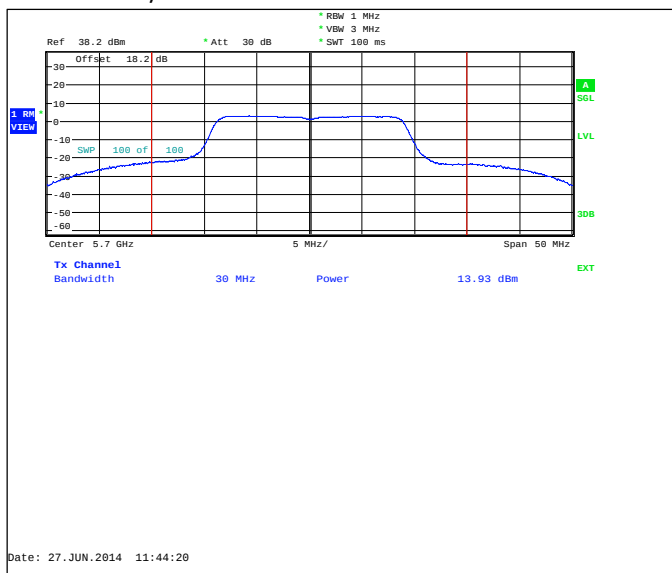
## Channel 100 / 5500MHz



### Channel 116 / 5580MHz



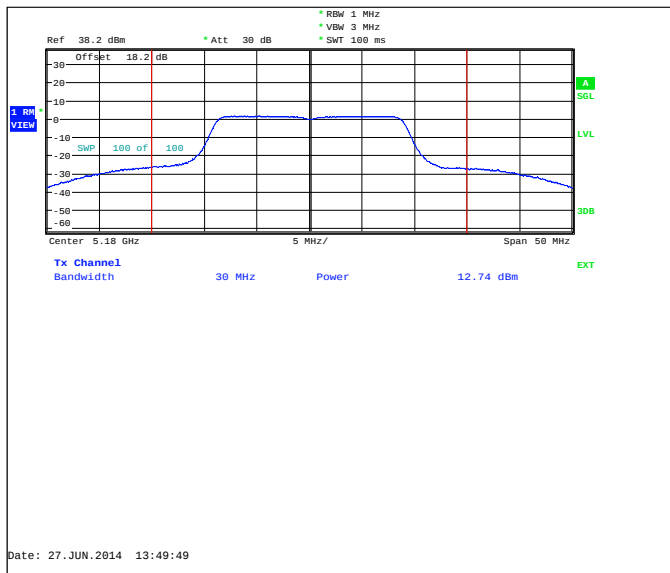
### Channel 140 / 5700MHz



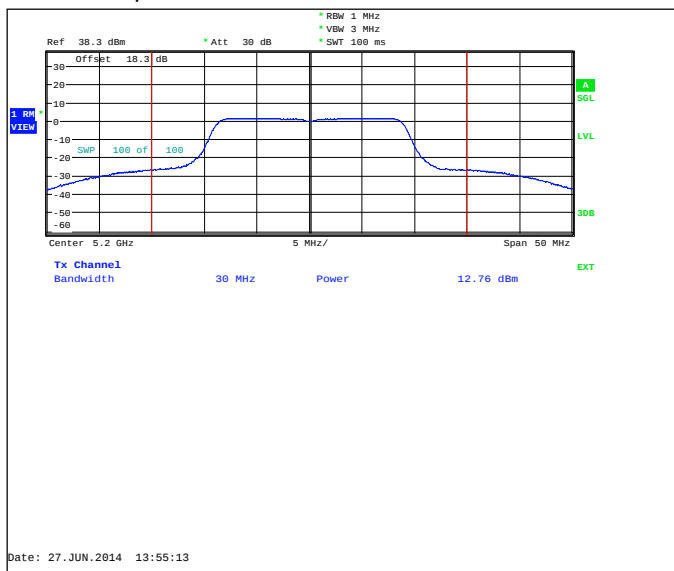
## 2.4.2 802.11n mode, QPSK modulation, 19.5 / 21.7 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | P [dBm] | P [mW] | Result |
|--------------------------------|---------|--------|--------|
| 36 / 5180                      | 12.74   | 18.793 | PASSED |
| 40 / 5200                      | 12.76   | 18.88  | PASSED |
| 48 / 5240                      | 12.71   | 18.664 | PASSED |
| 52 / 5260                      | 12.73   | 18.75  | PASSED |
| 60 / 5300                      | 12.52   | 17.865 | PASSED |
| 64 / 5320                      | 12.6    | 18.197 | PASSED |
| 100 / 5500                     | 12.97   | 19.815 | PASSED |
| 116 / 5580                     | 13.16   | 20.701 | PASSED |
| 140 / 5700                     | 13.16   | 20.701 | PASSED |

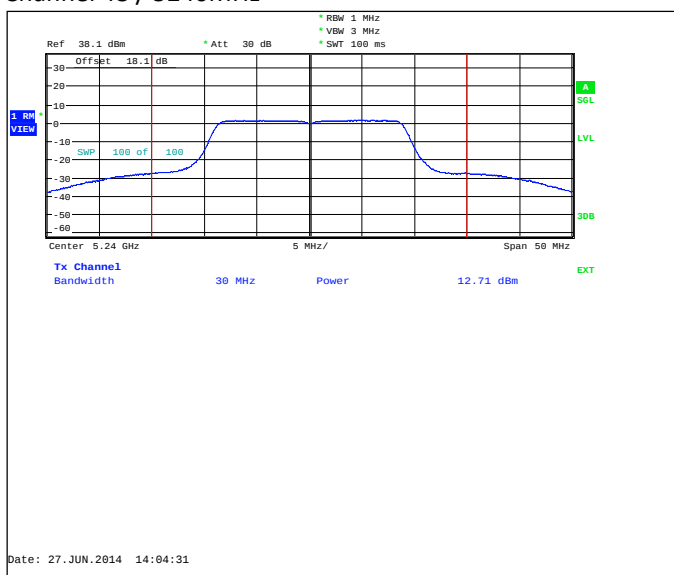
Channel 36 / 5180MHz



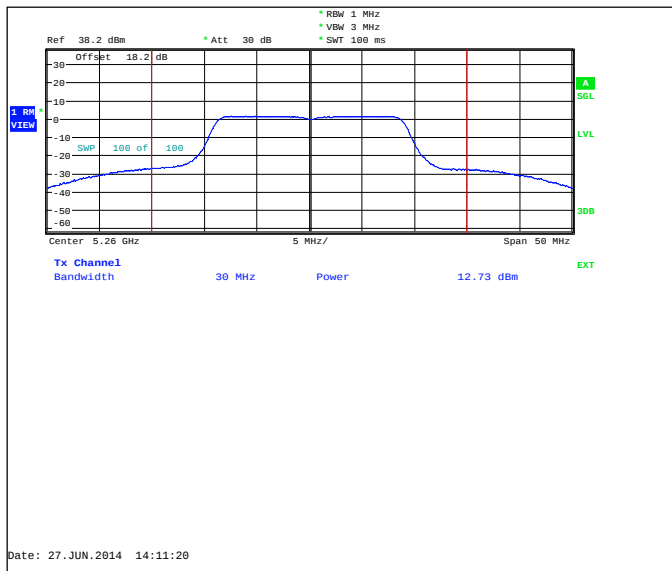
## Channel 40 / 5200MHz



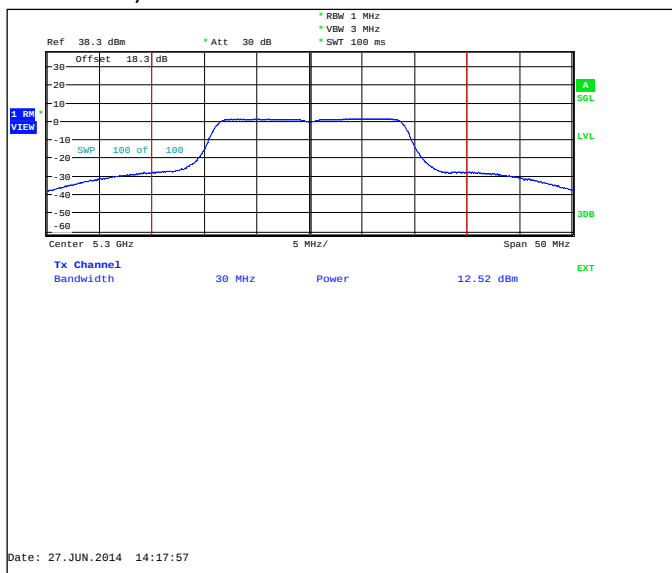
## Channel 48 / 5240MHz



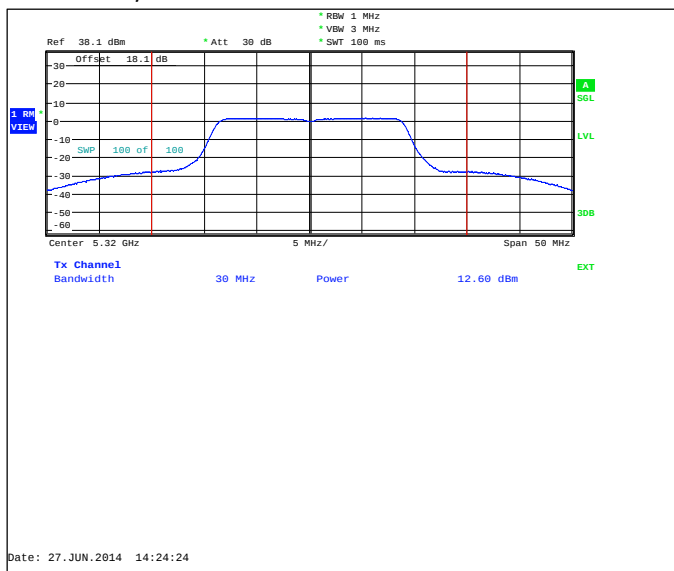
## Channel 52 / 5260MHz



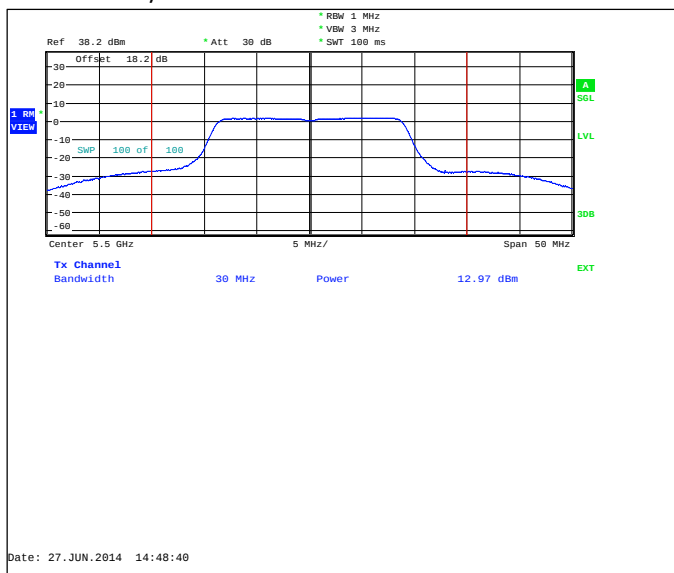
## Channel 60 / 5300MHz



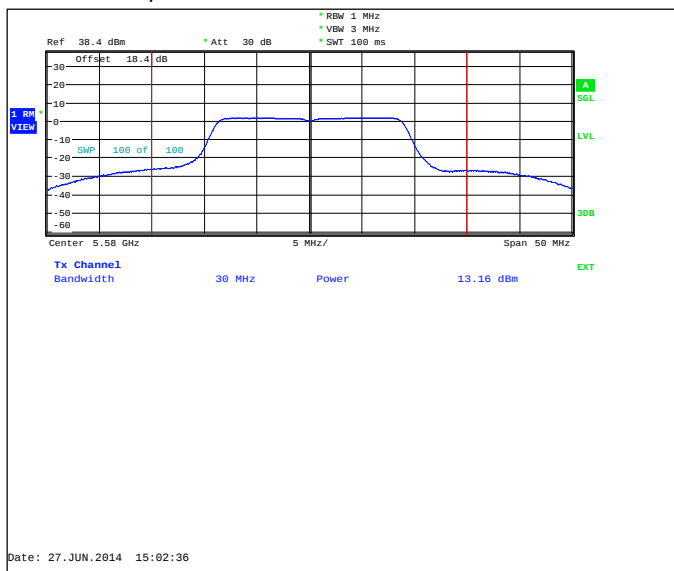
## Channel 64 / 5320MHz



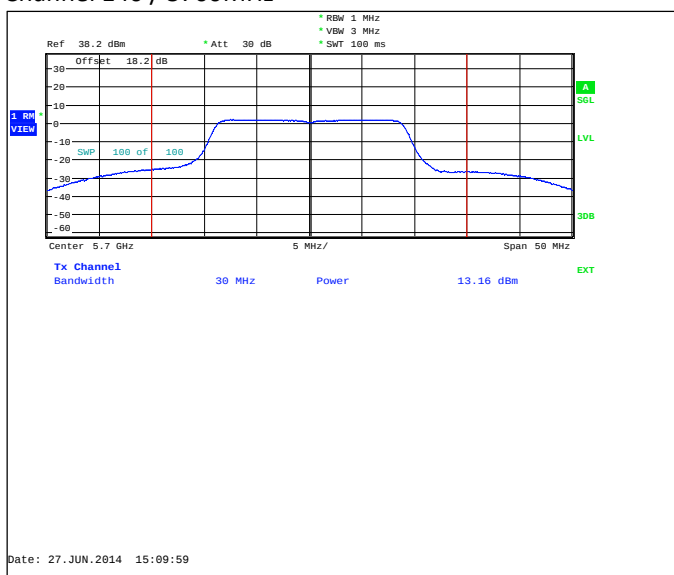
## Channel 100 / 5500MHz



## Channel 116 / 5580MHz



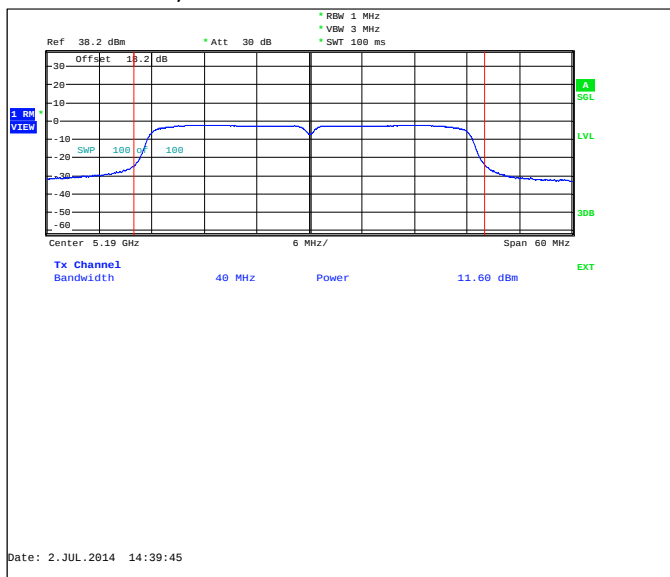
## Channel 140 / 5700MHz



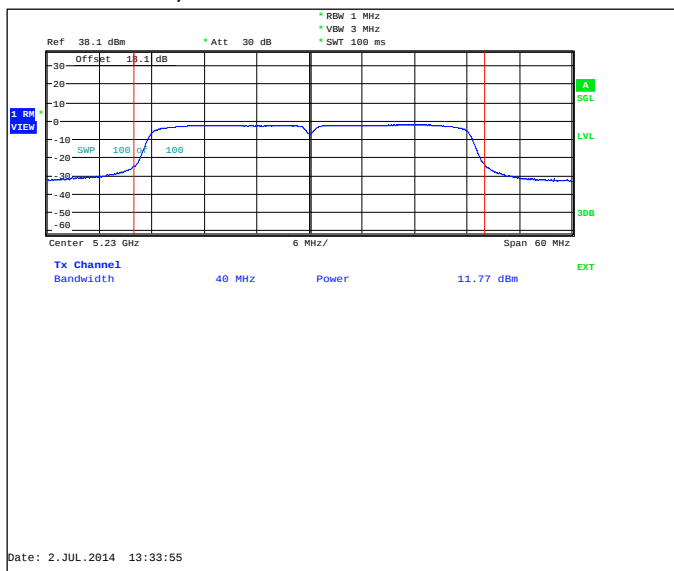
### 2.4.3 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | P [dBm] | P [mW] | Result |
|--------------------------------|---------|--------|--------|
| 36+40 / 5190                   | 11.6    | 14.454 | PASSED |
| 44+48 / 5230                   | 11.77   | 15.031 | PASSED |
| 52+56 / 5270                   | 11.96   | 15.704 | PASSED |
| 60+64 / 5310                   | 11.75   | 14.962 | PASSED |
| 100+104 / 5510                 | 11.91   | 15.524 | PASSED |
| 108+112 / 5550                 | 12.07   | 16.106 | PASSED |
| 132+136 / 5670                 | 12.4    | 17.378 | PASSED |

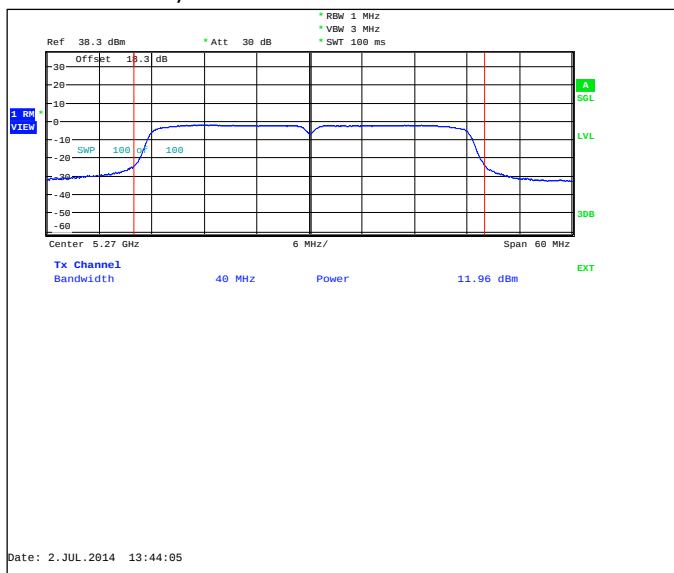
Channel 36+40 / 5190MHz



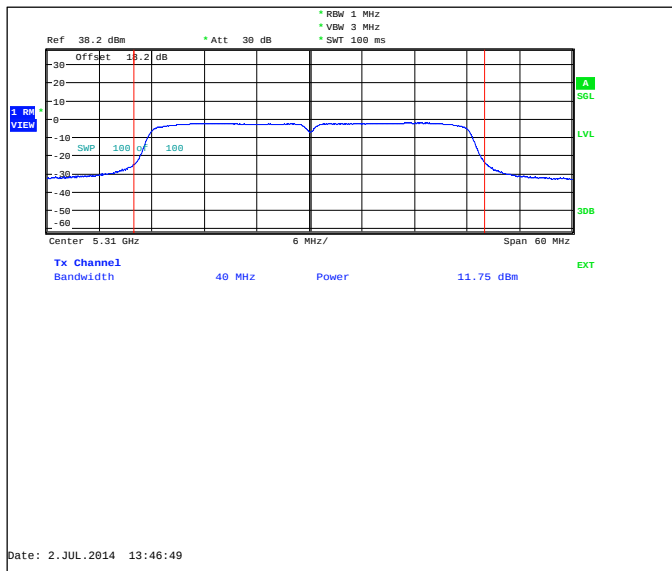
### Channel 44+48 / 5230MHz



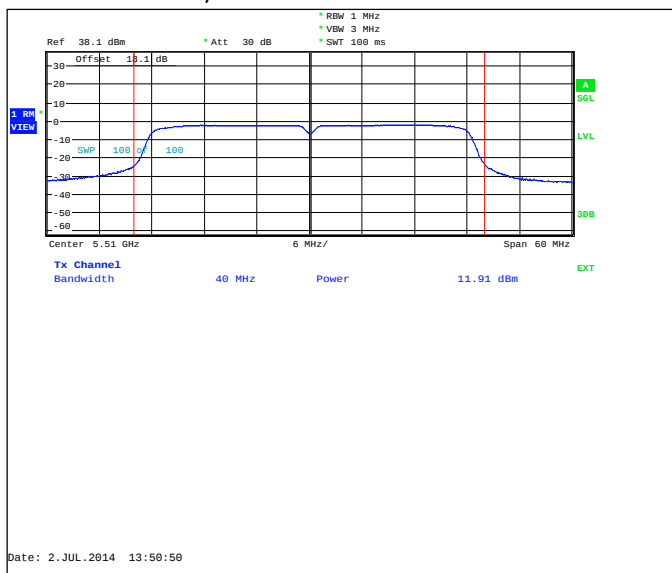
### Channel 52+56 / 5270MHz



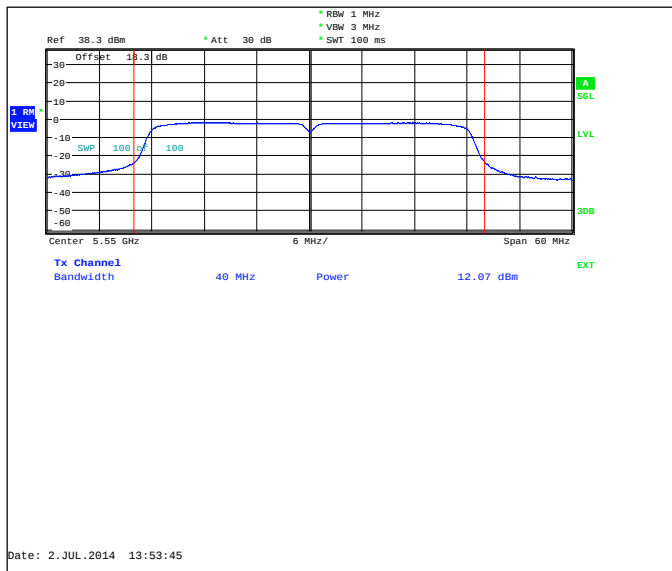
### Channel 60+64 / 5310MHz



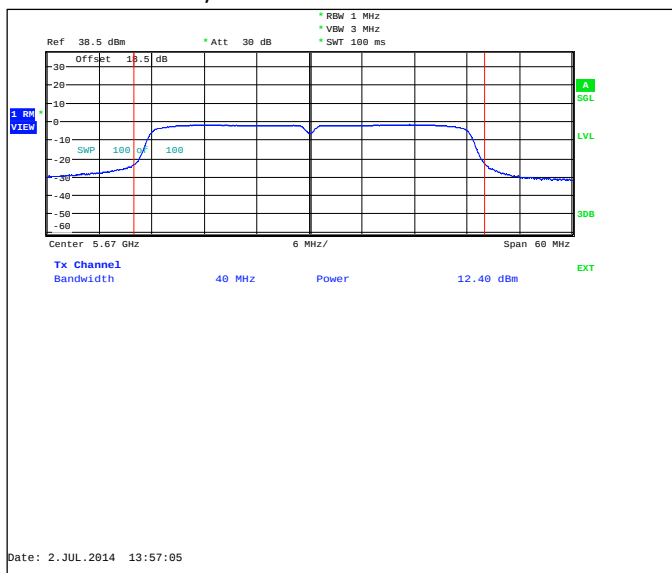
### Channel 100+104 / 5510MHz



### Channel 108+112 / 5550MHz



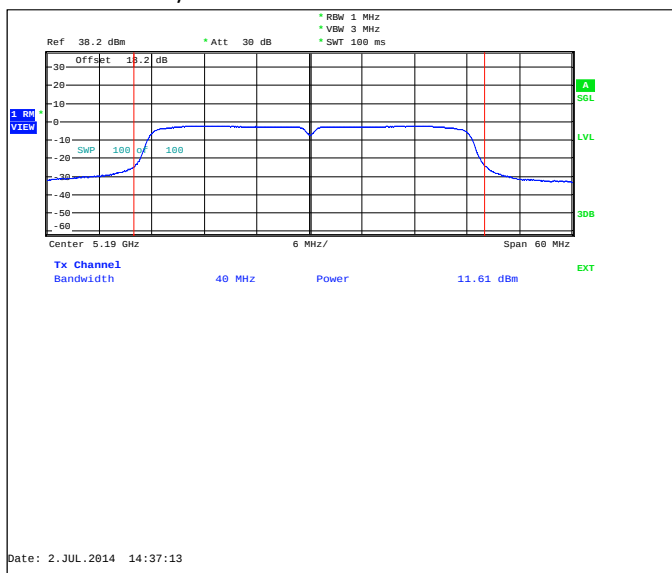
### Channel 132+136 / 5670MHz



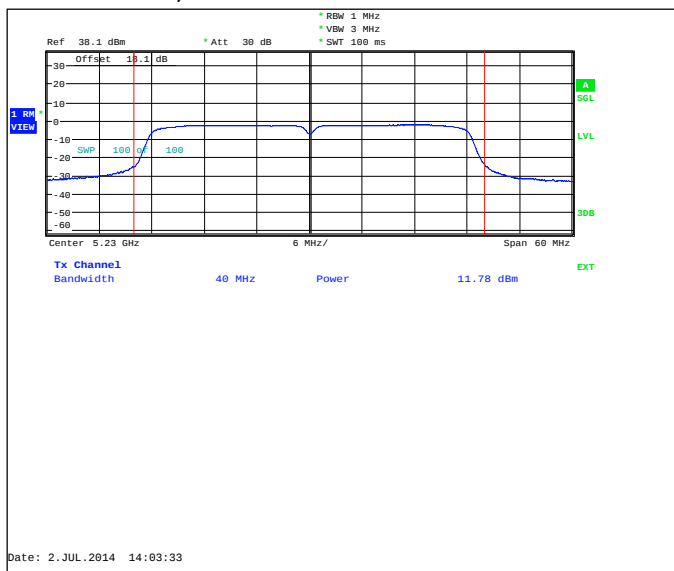
## 2.4.4 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | P [dBm] | P [mW] | Result |
|--------------------------------|---------|--------|--------|
| 36+40 / 5190                   | 11.61   | 14.488 | PASSED |
| 44+48 / 5230                   | 11.78   | 15.066 | PASSED |
| 52+56 / 5270                   | 11.67   | 14.689 | PASSED |
| 60+64 / 5310                   | 12.12   | 16.293 | PASSED |
| 100+104 / 5510                 | 11.93   | 15.596 | PASSED |
| 108+112 / 5550                 | 12.06   | 16.069 | PASSED |
| 132+136 / 5670                 | 12.43   | 17.498 | PASSED |

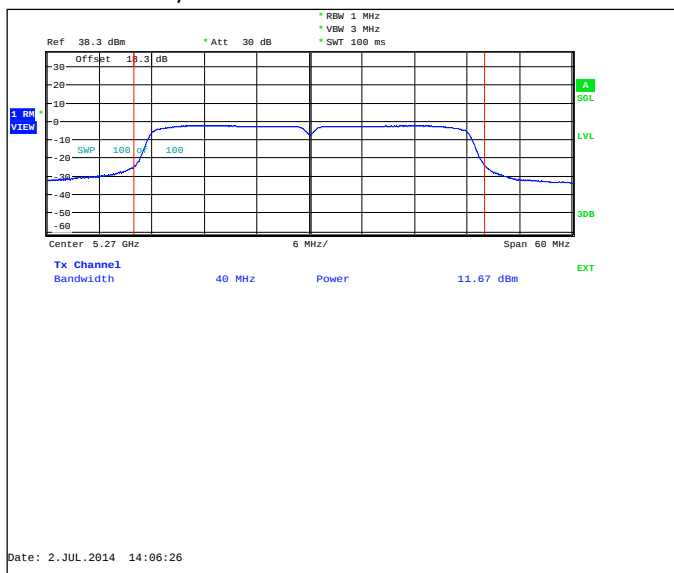
### Channel 36+40 / 5190MHz



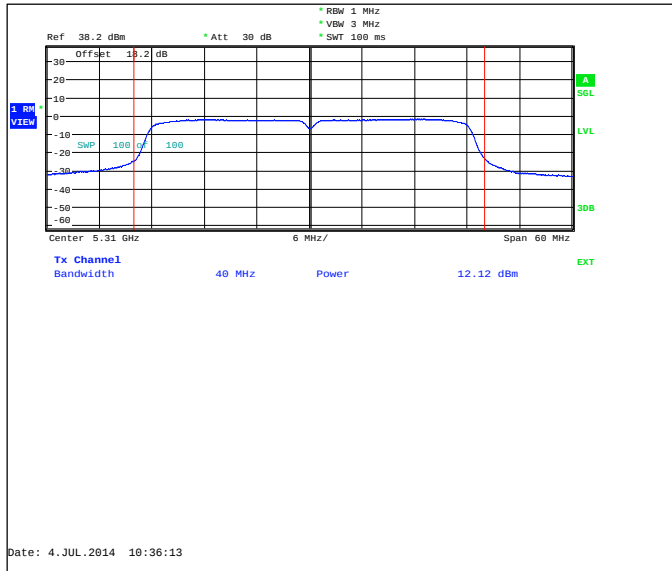
### Channel 44+48 / 5230MHz



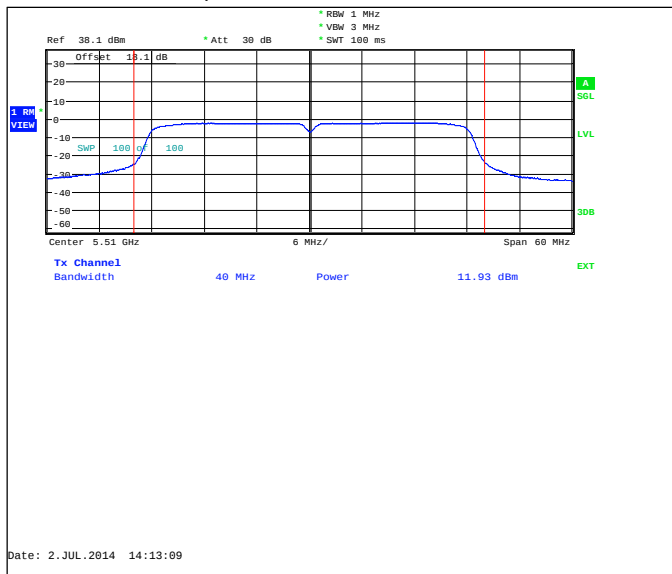
### Channel 52+56 / 5270MHz



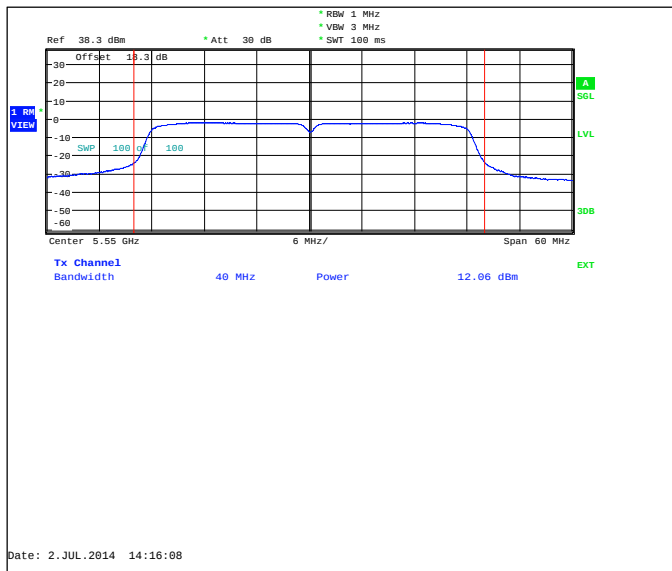
### Channel 60+64 / 5310MHz



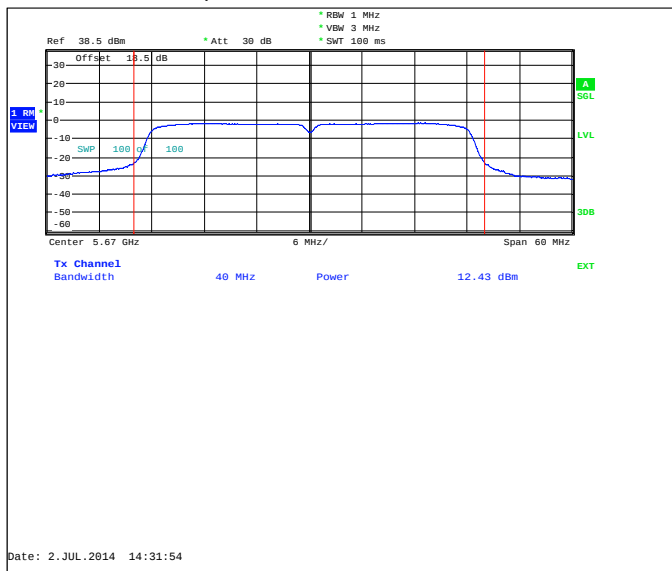
### Channel 100+104 / 5510MHz



### Channel 108+112 / 5550MHz



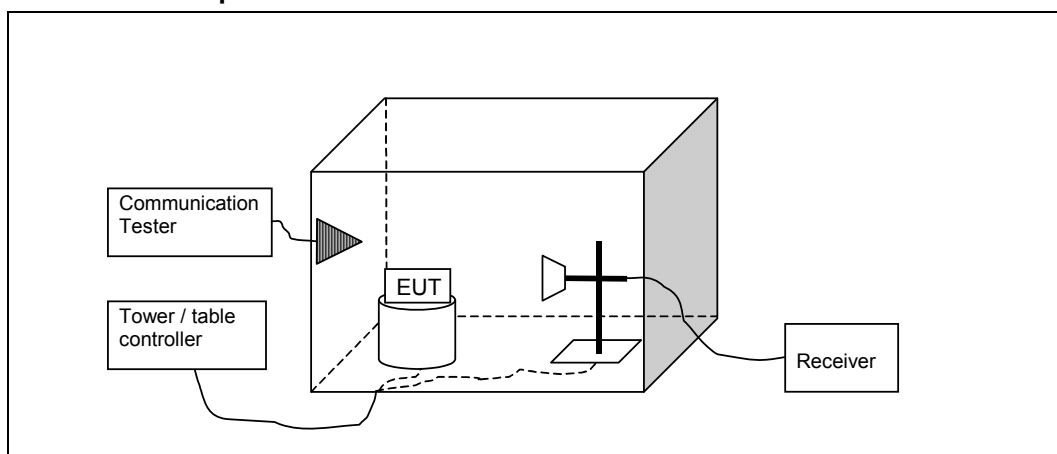
### Channel 132+136 / 5670MHz



### 3. Band edge compliance of RF emissions (FCC 15.407(b), RSS-210 A9.2)

|                                                 |                                                                                 |
|-------------------------------------------------|---------------------------------------------------------------------------------|
| EUT with DUT number                             | RM-984, DUT 43184                                                               |
| Accessories with DUT numbers                    | BV-L4A, DUT 43185 ; WH-208, DUT 43186 ; AC-60E, DUT 43074 ; CA-190CD, DUT 43034 |
| Operation Voltage [V] / [Hz]                    | 115 / 60                                                                        |
| Results                                         | PASSED                                                                          |
| Remarks                                         | -                                                                               |
| Temp [°C] / Humidity [%RH] / Air Pressure [kPa] | 19 / 37 / 98.2                                                                  |
| Date of measurements                            | 01-Jul-2014                                                                     |
| Measured by                                     | Jari Jantunen                                                                   |

#### 3.1.1 Test setup



#### 3.2. Test method and limit

The measurement is made according to KDB 789033 and IC standard RSS-210.  
The measurement results are obtained as described below:

$$E [dB\mu V/m] = U_{RX} + A_{TOT}$$

Where  $U_{RX}$  is receiver reading and  $A_{TOT}$  is total correction factor including cable loss, antenna factor and preamplifier gain ( $A_{TOT} = L_{CABLES} + A_F - G_{PREAMP}$ ).

The limits in the table below are listed for the 100 MHz span around the band edges.

$$P [W] = (10 \text{ to power } (P [dBm / 10]) / 1000.$$

$$E [dB\mu V/m] = 20 * \text{LOG} ((\text{square root } (30 * P [W]) / 3 \text{ m}) * 1000000)$$

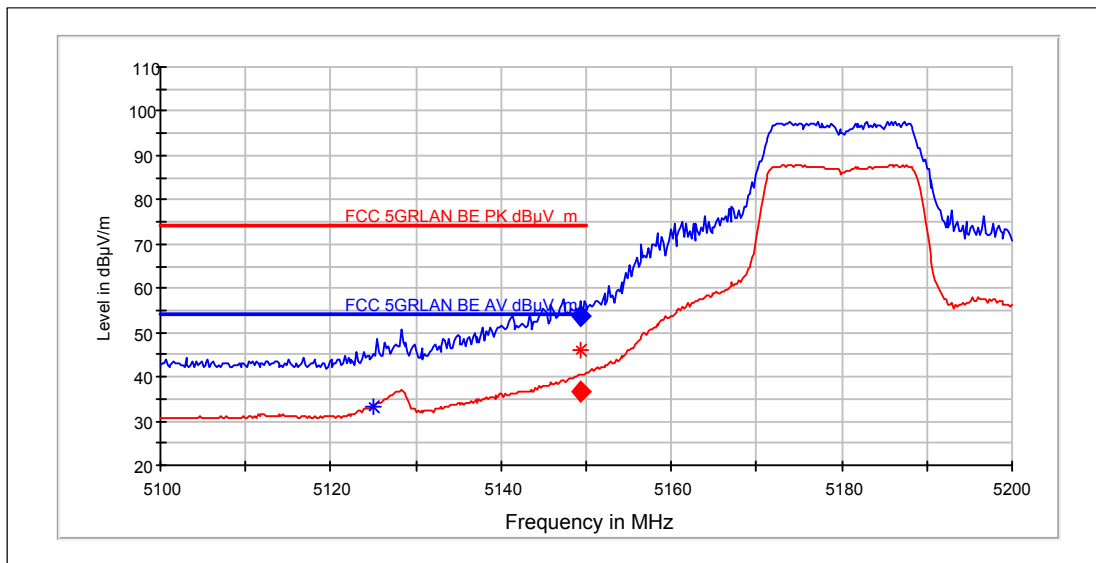
| Frequency range [MHz] | Limit [dBm / MHz]                                                                                 | Limit dBuV/m @ 3m |
|-----------------------|---------------------------------------------------------------------------------------------------|-------------------|
| 5150 - 5250           | $\leq 5.150 \text{ GHz}$ and $\geq 5.350$ : 54 dBuV/m (avg), 74 dBuV/m (pk)                       | 68.23             |
| 5250 - 5350           | $\leq 5.150 \text{ GHz}$ and $\geq 5.350 \text{ GHz}$ : 54 dBuV/m (avg), 74 dBuV/m (pk)           | 68.23             |
| 5470 - 5725           | $\leq 5.460 \text{ GHz}$ : 54 dBuV/m (avg), 74 dBuV/m (pk)<br>5.460 – 5.470 GHz: -27 dBm/MHz (pk) | 68.23             |

|             |                                                                      |                |
|-------------|----------------------------------------------------------------------|----------------|
| 5725 - 5825 | 5.825 – 5.835 GHz: -17 dBm/MHz (pk)<br>≥ 5.835 GHz: -27 dBm/MHz (pk) | 68.23<br>78.23 |
|-------------|----------------------------------------------------------------------|----------------|

### 3.3. 5 GHz RLAN test results

#### 3.3.1 802.11n, BPSK modulation, 6.5 / 7.25 Mbps data rate.

Channel 36 / 5180MHz



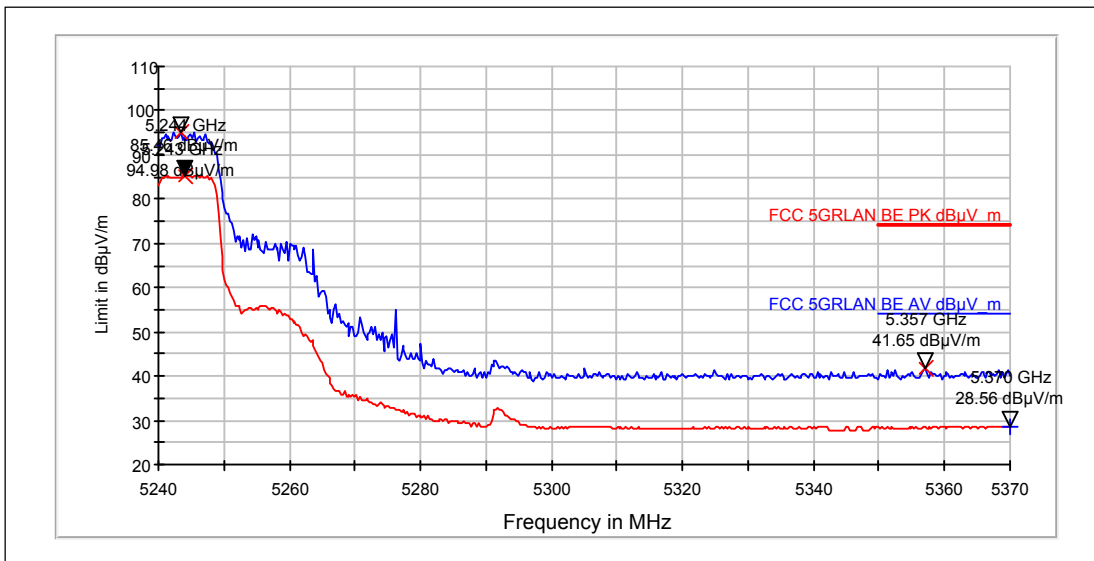
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5149.299        | 53.87            | 74             | 20.13       | 170         | V   | 22            | 0               | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5149.299        | 36.58            | 54             | 17.42       | 170         | V   | 22            | 0               | PASSED  |

Channel 48 / 5240MHz



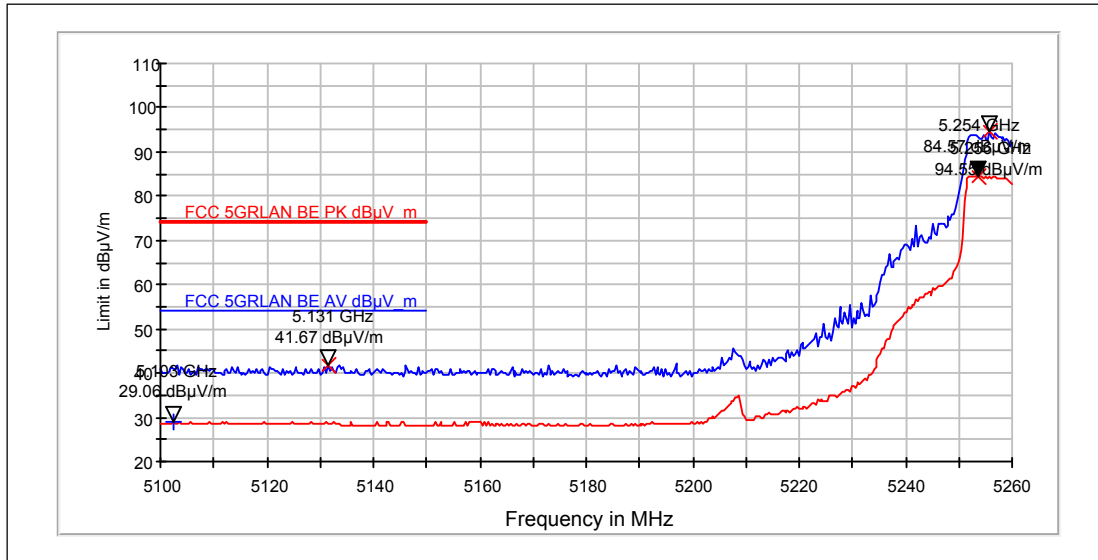
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5356.974        | 41.65            | 74             | 32.35       | 170         | V   | 315           | 0               | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5370.000        | 28.56            | 54             | 25.44       | 170         | V   | 90            | 0               | PASSED  |

Channel 52 / 5260MHz



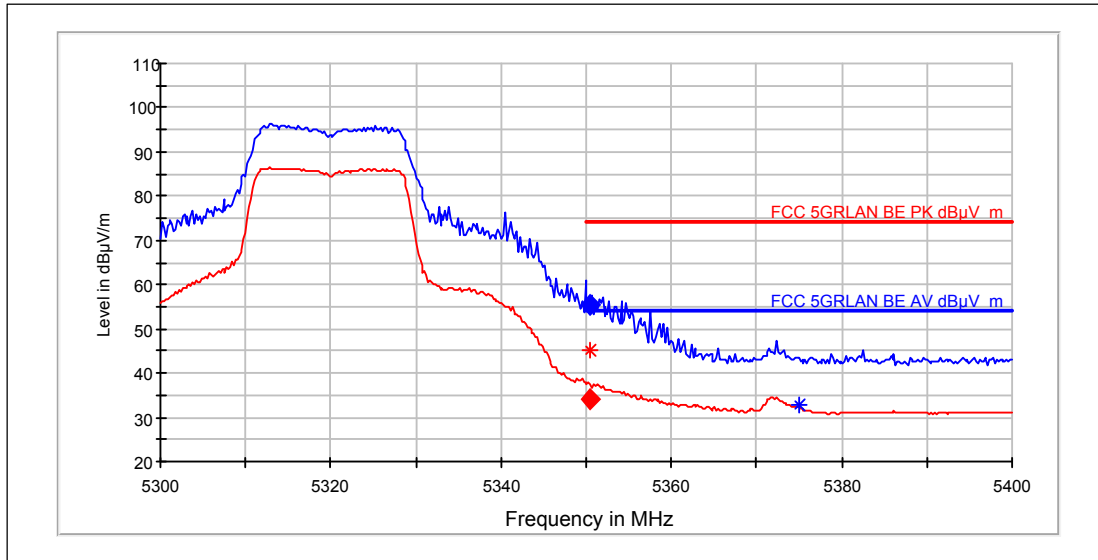
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5131.423        | 41.67            | 74             | 32.33       | 170         | V   | 45            | 90              | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5102.565        | 29.06            | 54             | 24.94       | 170         | V   | 270           | 0               | PASSED  |

Channel 64 / 5320MHz



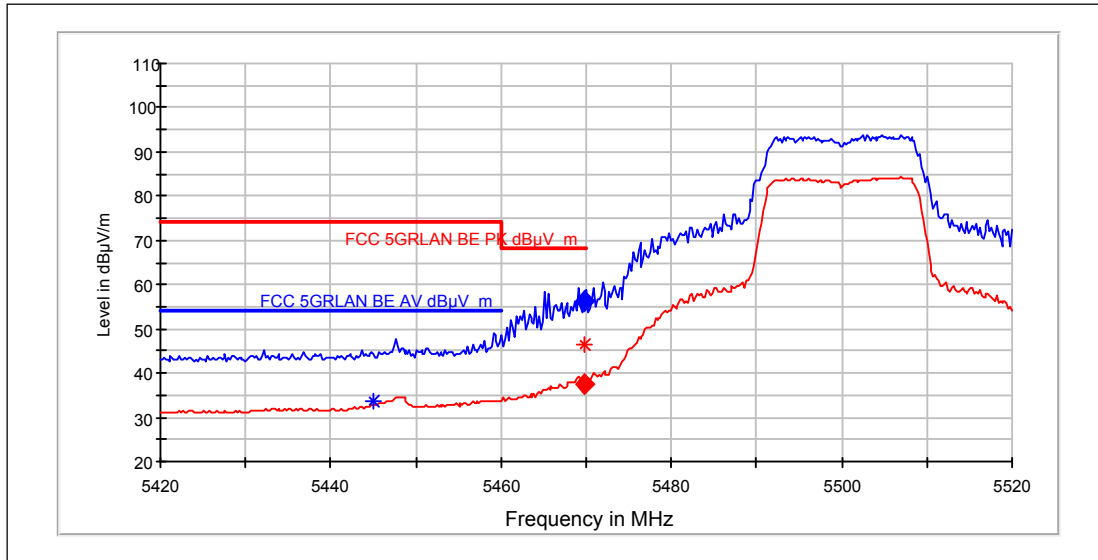
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5350.501        | 55.5             | 74             | 18.5        | 170         | V   | 16            | 0.5             | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5350.501        | 34.27            | 54             | 19.73       | 170         | V   | 16            | 0.5             | PASSED  |

Channel 100 / 5500MHz



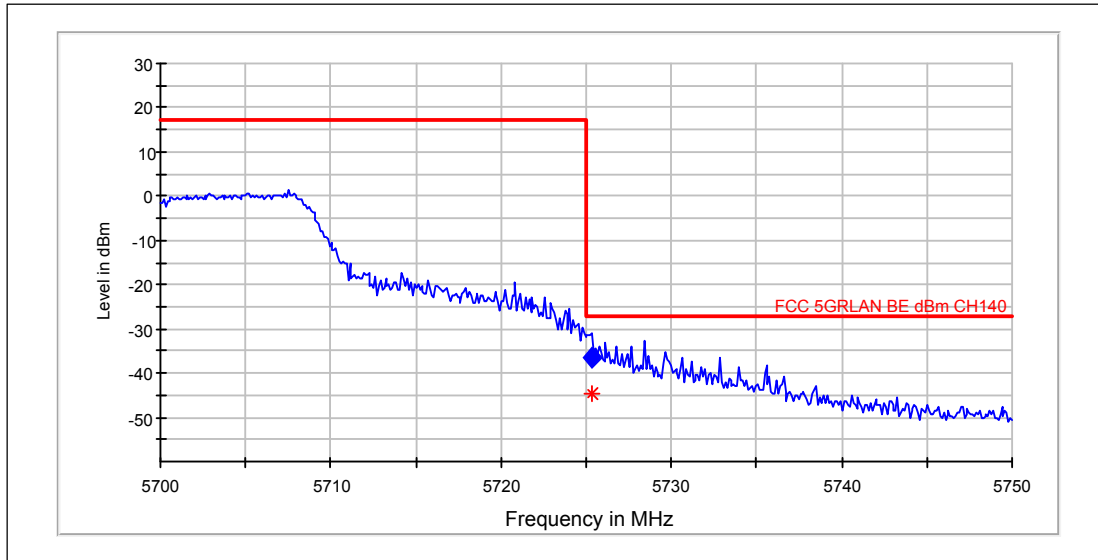
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBµV/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5469.699        | 56.34            | 68.2           | 11.86       | 170         | H   | 2             | 0.5             | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBµV/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5469.699        | 37.42            | ---            | ---         | 170         | H   | 2             | 0.5             | PASSED  |

Channel 140 / 5700MHz

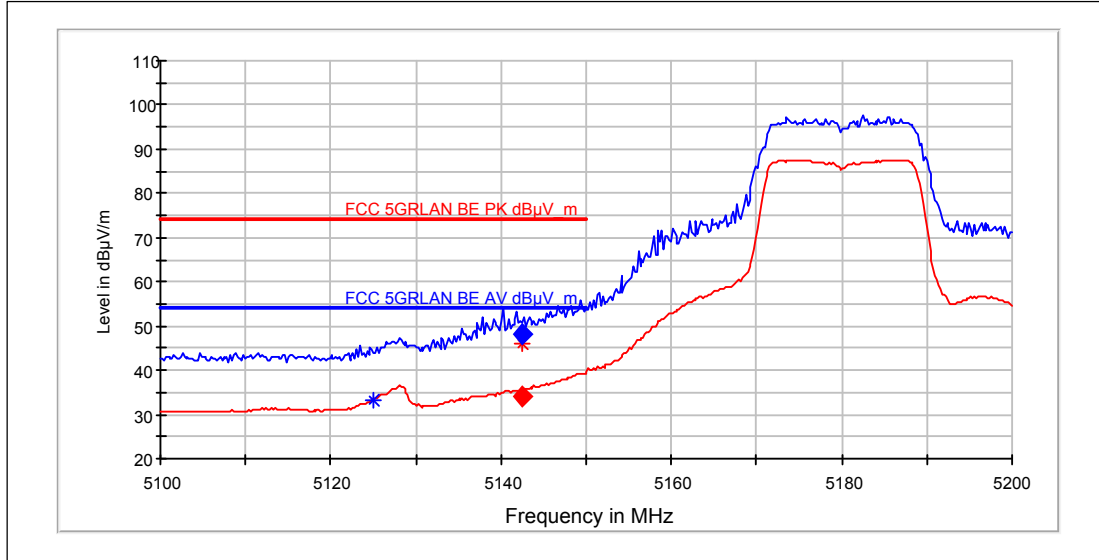


Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBm] | Limit [dBm] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5725.305        | -36.49        | -27         | 9.49        | 170         | V   | 5             | 0               | PASSED  |

### 3.3.2 802.11n, QPSK modulation, 19.5 / 21.7 Mbps data rate.

Channel 36 / 5180MHz



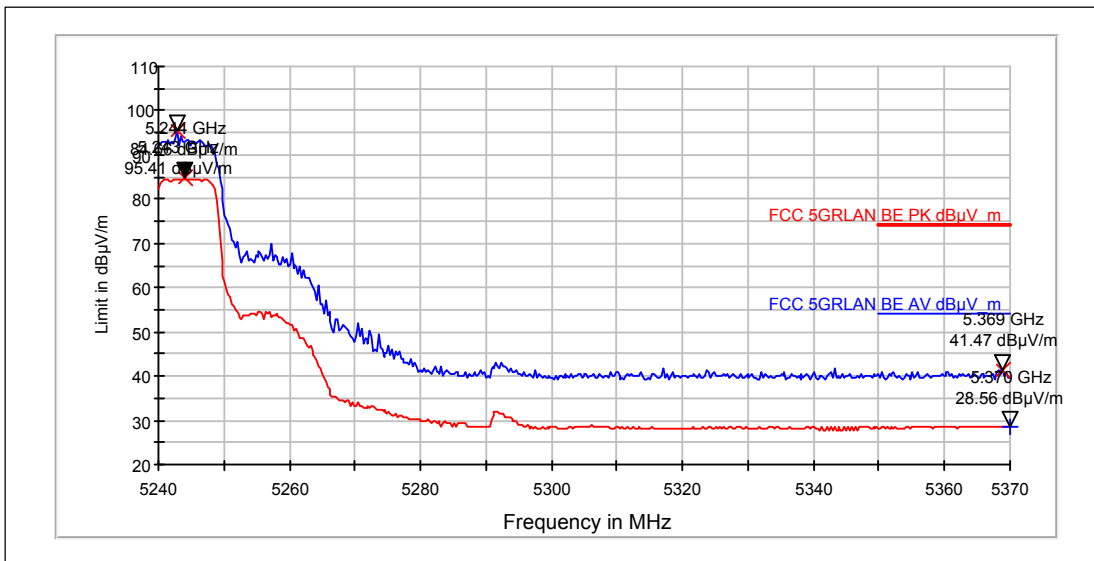
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5142.585        | 48.08            | 74             | 25.92       | 170         | V   | 22            | 0.5             | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5142.585        | 34.24            | 54             | 19.76       | 170         | V   | 22            | 0.5             | PASSED  |

Channel 48 / 5240MHz



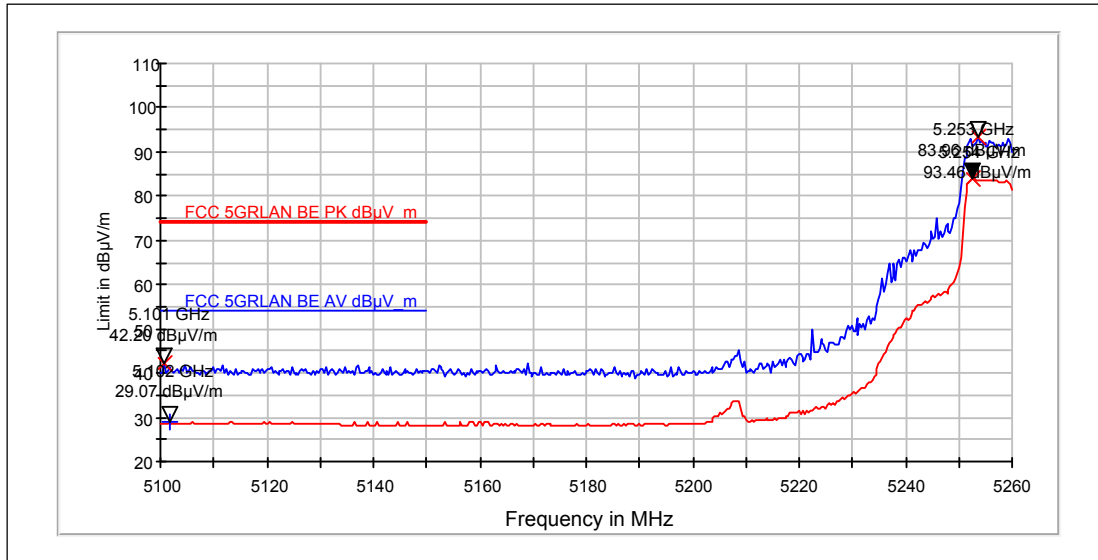
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5368.958        | 41.47            | 74             | 32.53       | 170         | H   | 0             | 90              | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5370.000        | 28.56            | 54             | 25.44       | 170         | V   | 225           | 0               | PASSED  |

Channel 52 / 5260MHz



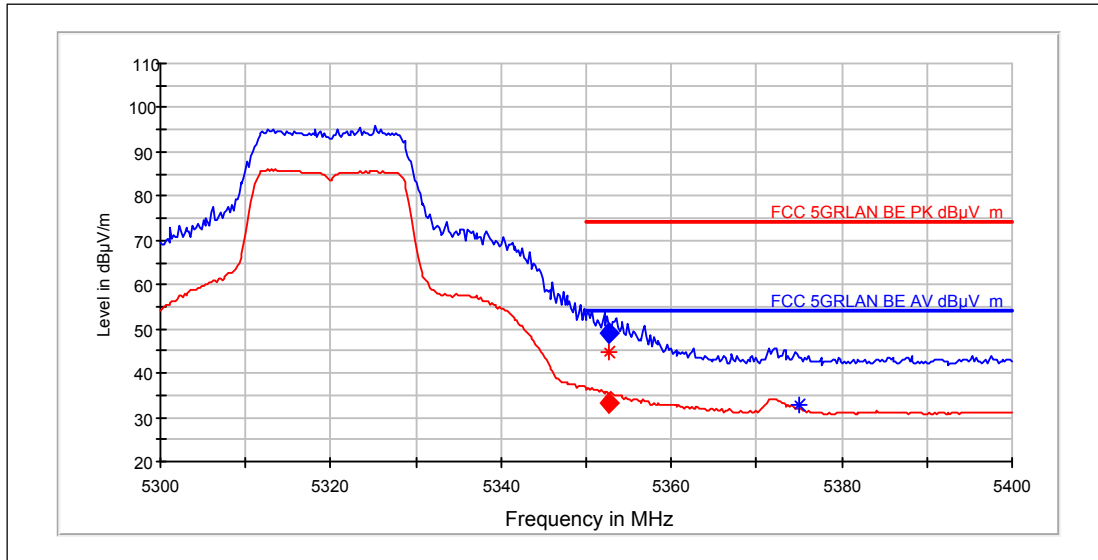
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5100.641        | 42.20            | 74             | 31.80       | 170         | V   | 270           | 90              | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5101.603        | 29.07            | 54             | 24.93       | 170         | H   | 270           | 90              | PASSED  |

Channel 64 / 5320MHz



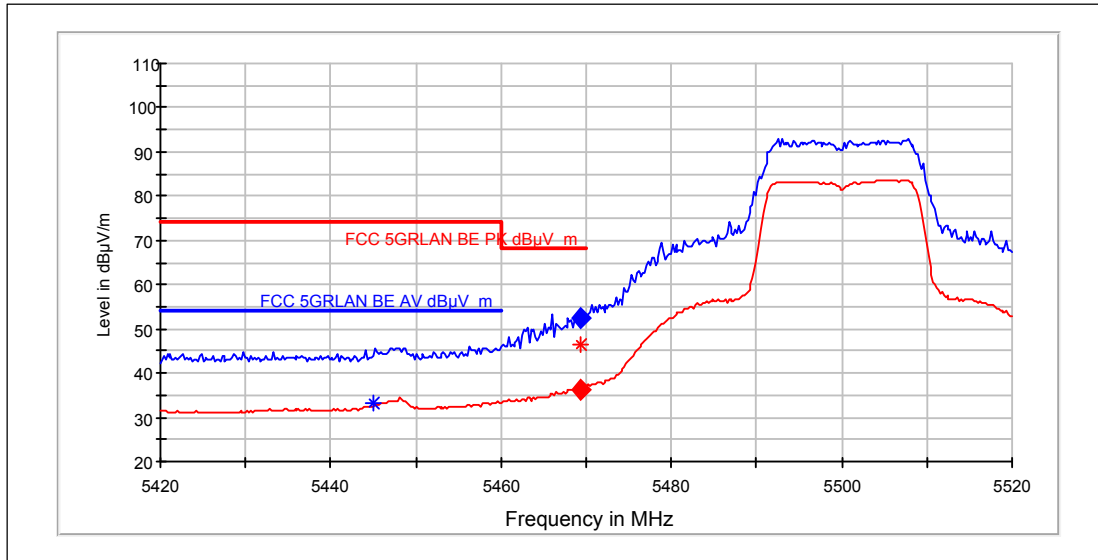
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5352.605        | 48.89            | 74             | 25.11       | 170         | H   | 11            | 0.5             | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5352.605        | 33.33            | 54             | 20.67       | 170         | H   | 11            | 0.5             | PASSED  |

Channel 100 / 5500MHz



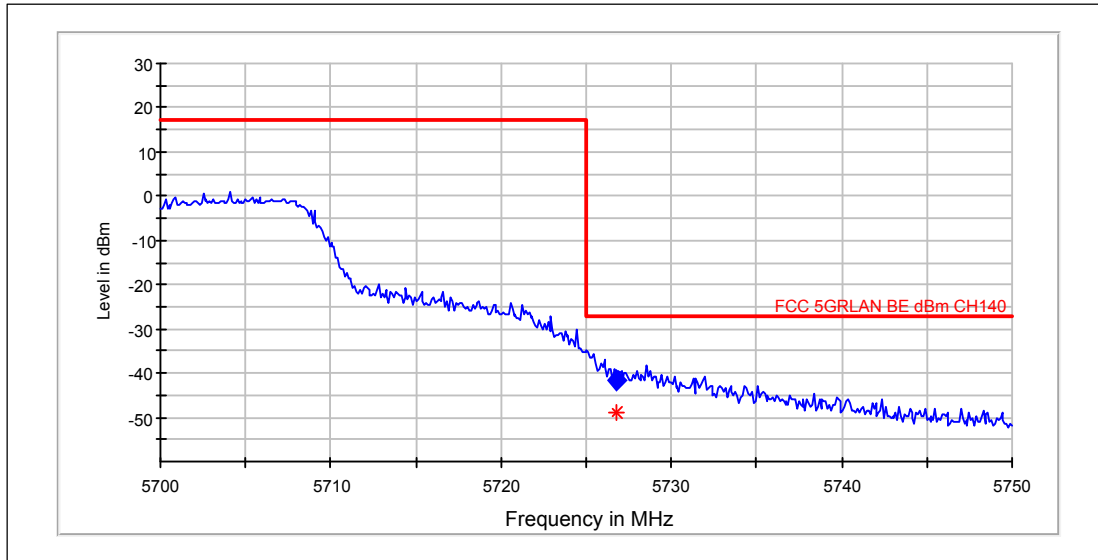
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBµV/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5469.299        | 52.48            | 68.2           | 15.72       | 170         | V   | 3             | 0               | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBµV/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5469.299        | 36.05            | ---            | ---         | 170         | V   | 3             | 0               | PASSED  |

Channel 140 / 5700MHz

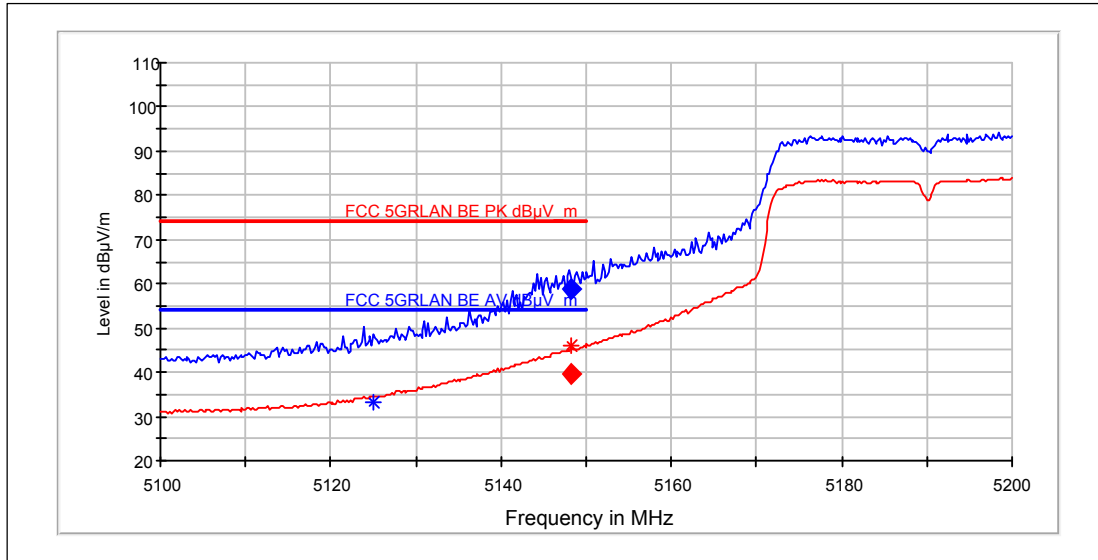


Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBm] | Limit [dBm] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5726.758        | -41.78        | -27         | 14.78       | 170         | V   | 5             | 0.5             | PASSED  |

### 3.3.3 802.11n, BPSK modulation, 13.5 / 15.0 Mbps data rate.

Channel 36+40 / 5190MHz



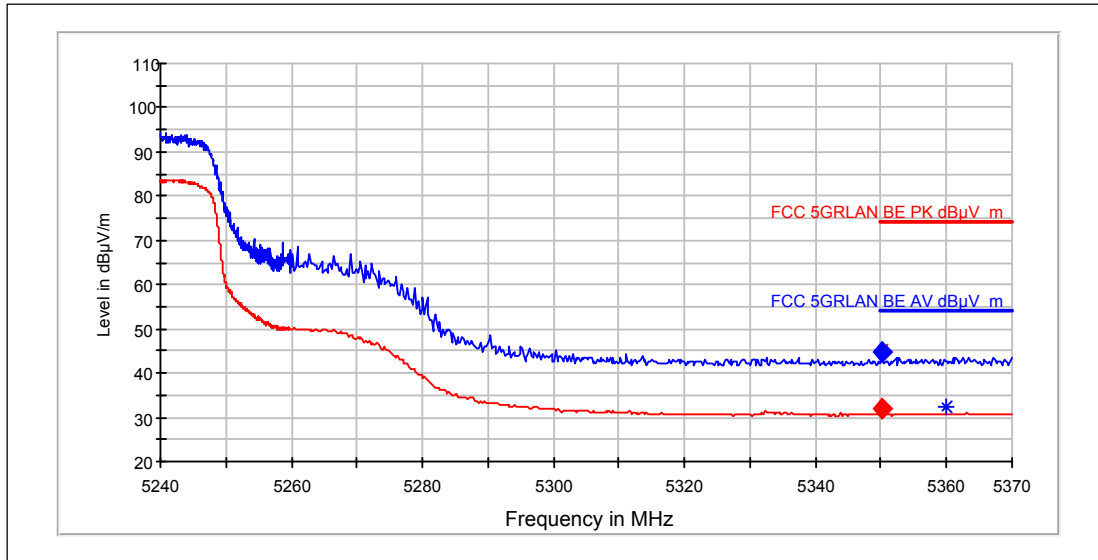
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5148.297        | 58.83            | 74             | 15.17       | 170         | V   | 18            | 0               | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5148.297        | 39.75            | 54             | 14.25       | 170         | V   | 18            | 0               | PASSED  |

Channel 44+48 / 5230MHz



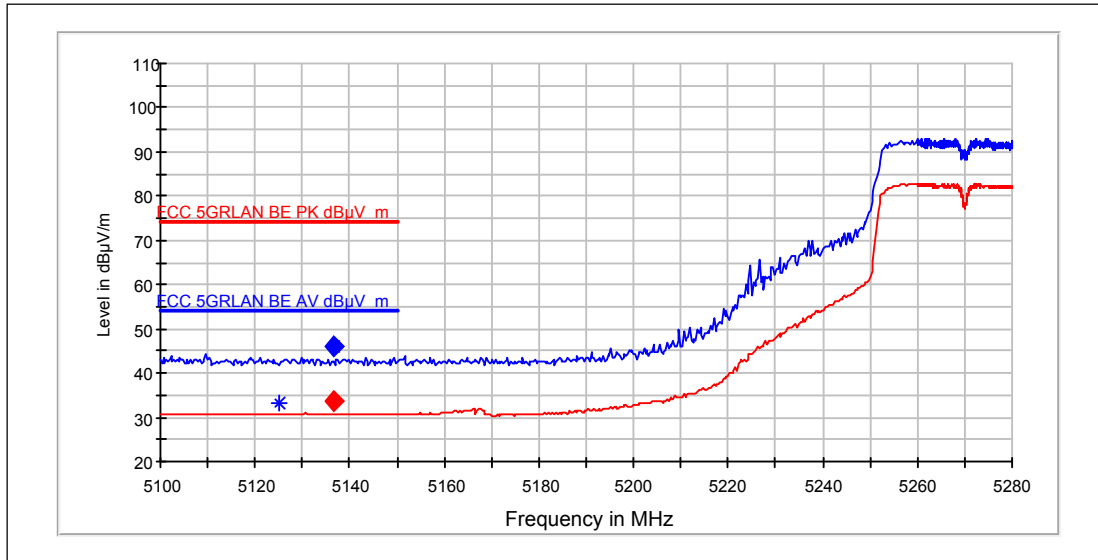
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5350.08         | 44.85            | 74             | 29.15       | 170         | V   | -19           | 0               | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5350.08         | 31.87            | 54             | 22.13       | 170         | V   | -19           | 0               | PASSED  |

Channel 52+56 / 5270MHz



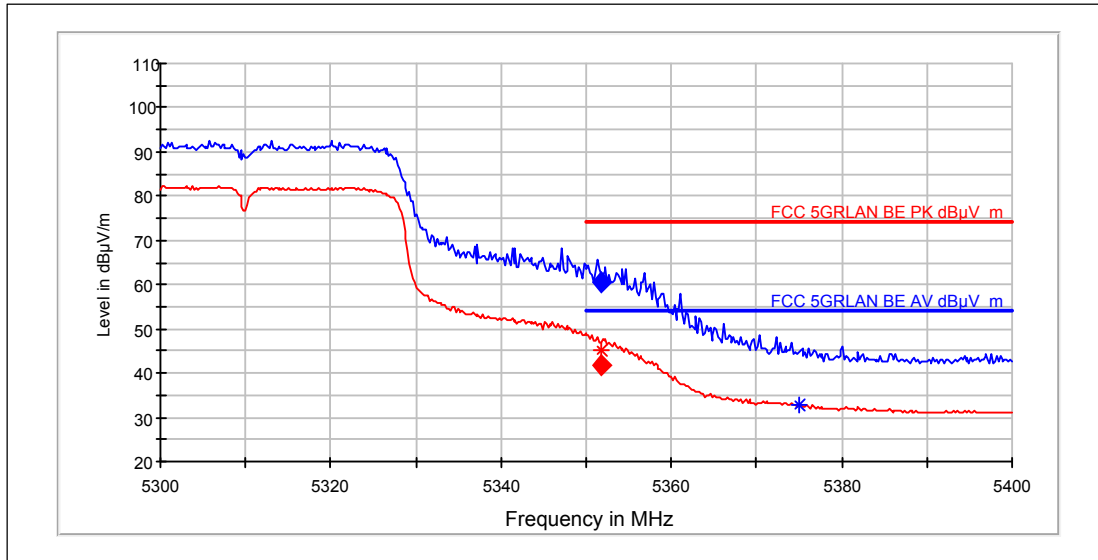
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5136.548        | 46.04            | 74             | 27.96       | 170         | V   | 0             | 0               | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5136.548        | 33.55            | 54             | 20.45       | 170         | V   | 0             | 0               | PASSED  |

Channel 60+64 / 5310MHz



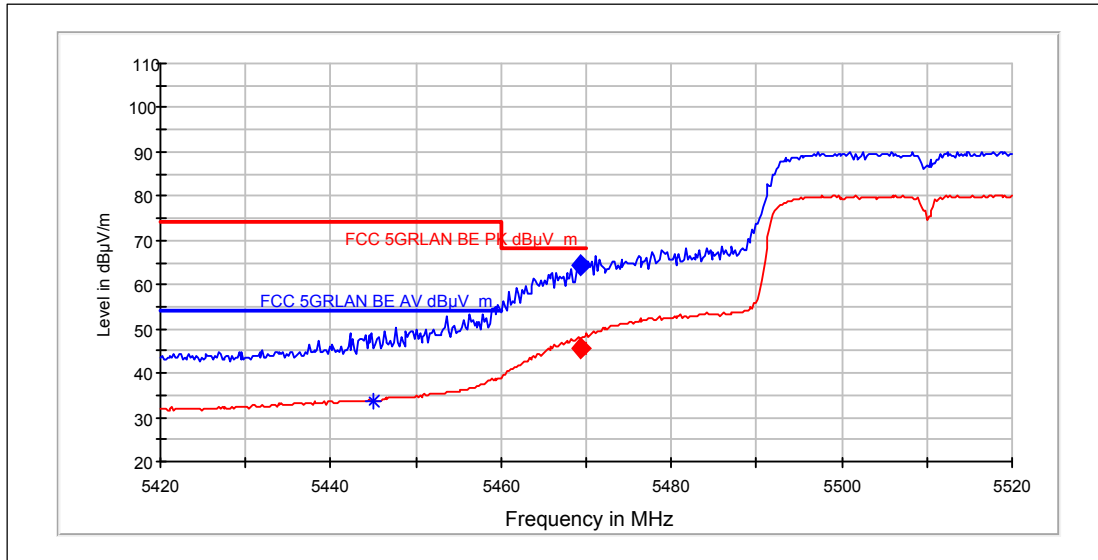
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5351.804        | 60.53            | 74             | 13.47       | 170         | H   | 15            | 0               | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5351.804        | 41.68            | 54             | 12.32       | 170         | H   | 15            | 0               | PASSED  |

Channel 100+104 / 5510MHz



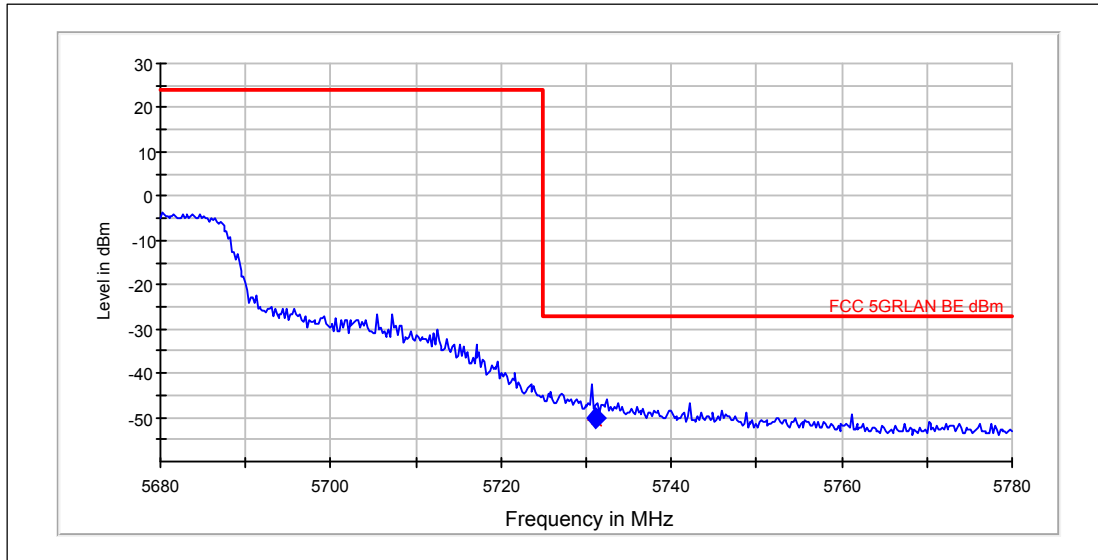
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5469.399        | 64.35            | 68.2           | 3.85        | 170         | V   | 4             | 0               | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5469.399        | 45.42            | ---            | ---         | 170         | V   | 4             | 0               | PASSED  |

Channel 132+136 / 5670MHz

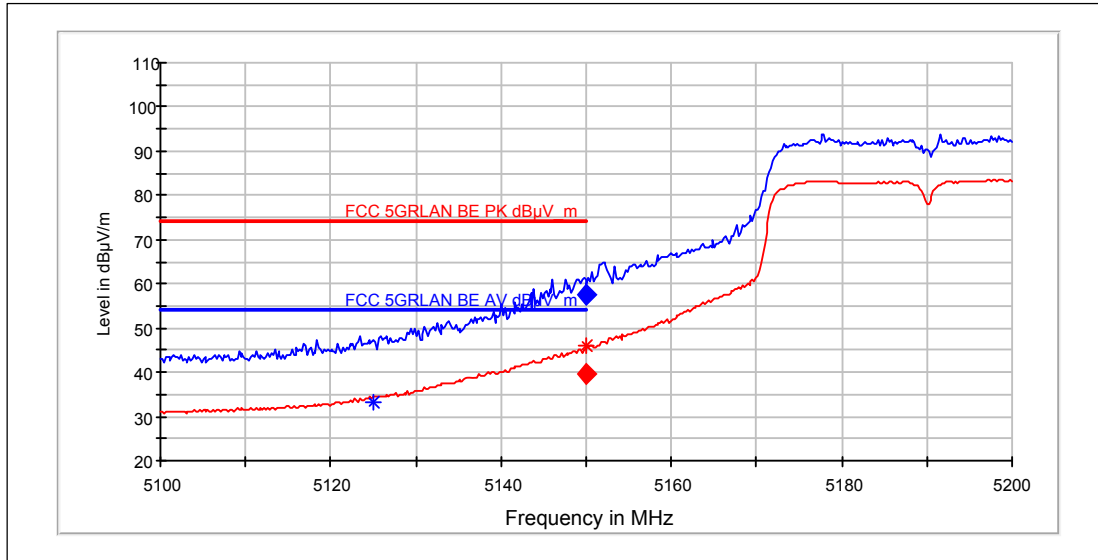


Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBm] | Limit [dBm] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5731.166        | -50.09        | -27         | 23.09       | 170         | H   | 7             | 0               | PASSED  |

### 3.3.4 802.11n, QPSK modulation, 27.0 / 30.0 Mbps data rate.

Channel 36+40 / 5190MHz



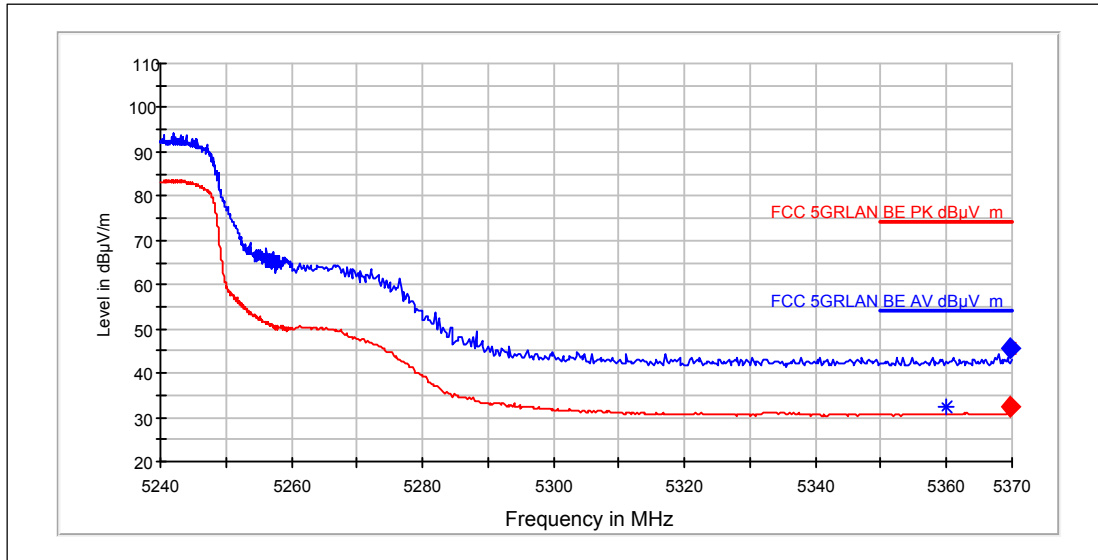
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5150            | 57.33            | 74             | 16.67       | 170         | V   | 22            | 0               | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5150            | 39.75            | 54             | 14.25       | 170         | V   | 22            | 0               | PASSED  |

Channel 44+48 / 5230MHz



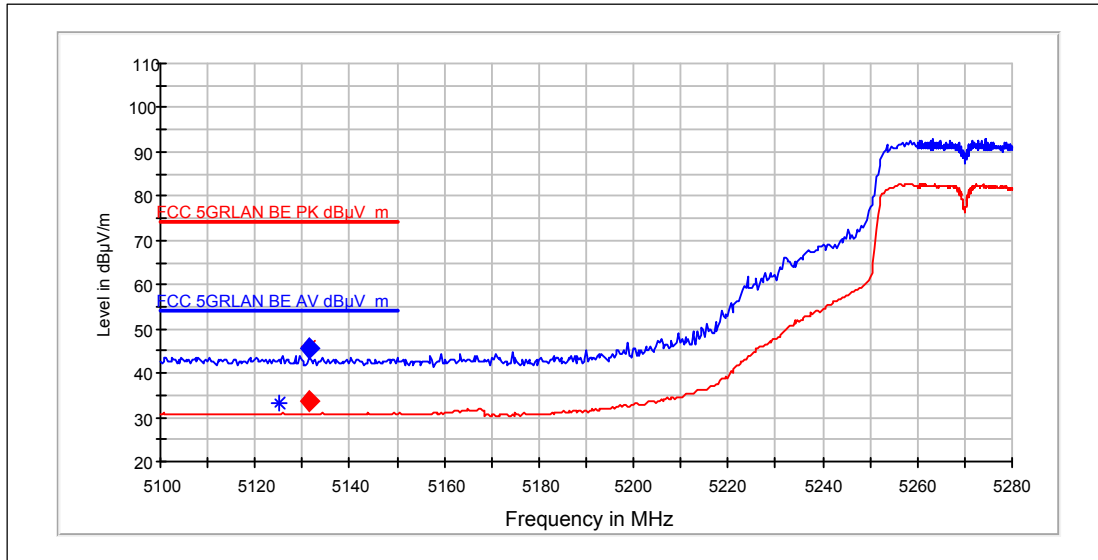
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5369.84         | 45.38            | 74             | 28.62       | 170         | H   | -9            | 0               | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5369.84         | 32.27            | 54             | 21.73       | 170         | H   | -9            | 0               | PASSED  |

Channel 52+56 / 5270MHz



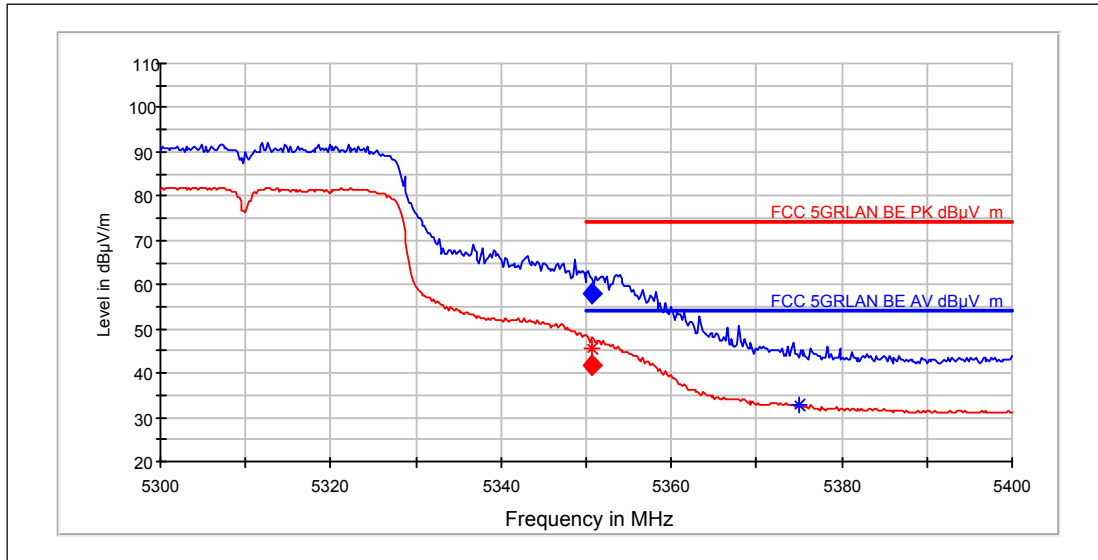
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5131.338        | 45.66            | 74             | 28.34       | 170         | H   | 14            | 0.5             | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5131.338        | 33.71            | 54             | 20.29       | 170         | H   | 14            | 0.5             | PASSED  |

Channel 60+64 / 5310MHz



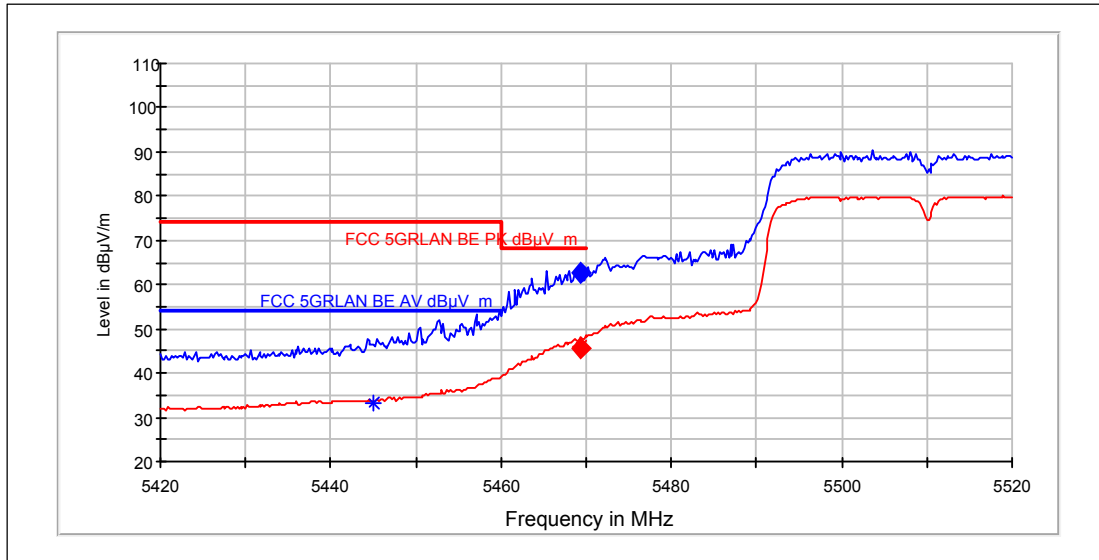
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5350.601        | 58.11            | 74             | 15.89       | 170         | H   | 10            | 0               | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5350.601        | 41.55            | 54             | 12.45       | 170         | H   | 10            | 0               | PASSED  |

Channel 100+104 / 5510MHz



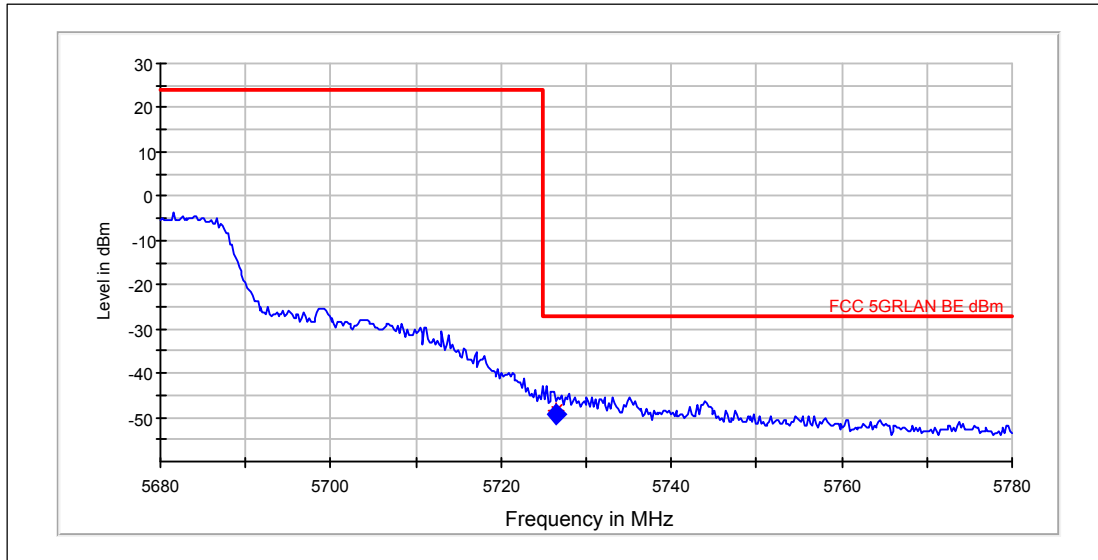
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5469.299        | 62.56            | 68.2           | 5.64        | 170         | V   | 3             | 0.5             | PASSED  |

Average (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | Average [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|------------------|----------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5469.299        | 45.42            | ---            | ---         | 170         | V   | 3             | 0.5             | PASSED  |

Channel 132+136 / 5670MHz



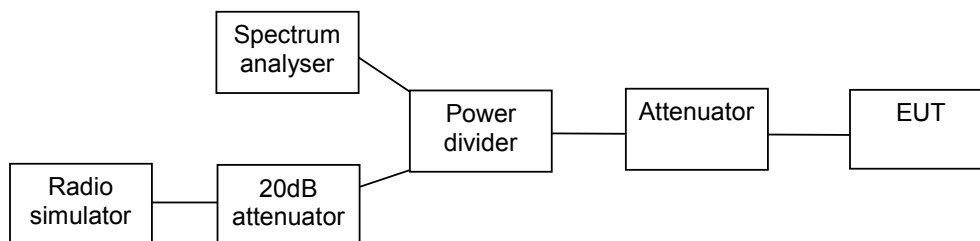
Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | MaxPeak [dBm] | Limit [dBm] | Margin [dB] | Height [cm] | Pol | Azimuth [deg] | Elevation [deg] | Results |
|-----------------|---------------|-------------|-------------|-------------|-----|---------------|-----------------|---------|
| 5726.507        | -49.2         | -27         | 22.2        | 170         | V   | 6             | 0.5             | PASSED  |

#### 4. Peak excursion (FCC §15.407(a)(6), RSS-210 A9.2)

|                                                 |                           |
|-------------------------------------------------|---------------------------|
| EUT with DUT number                             | RM-984, DUT 43187         |
| Accessories with DUT numbers                    | BV-L4A, DUT 43188         |
| Operation Voltage [V] / [Hz]                    | Nominal                   |
| Results                                         | PASSED                    |
| Remarks                                         | -                         |
| Temp [°C] / Humidity [%RH] / Air Pressure [kPa] | 20-24 / 42-49 / 98.1-98.8 |
| Date of measurements                            | 27-Jun.. 04-Jul-2014      |
| Measured by                                     | Jari Jantunen             |

##### 4.1. Test Setup



##### 4.2. Test method and limit

The measurement is made according to Public Notice KDB 789033 D01 and IC standard RSS-210.

Limits for peak excursion measurements

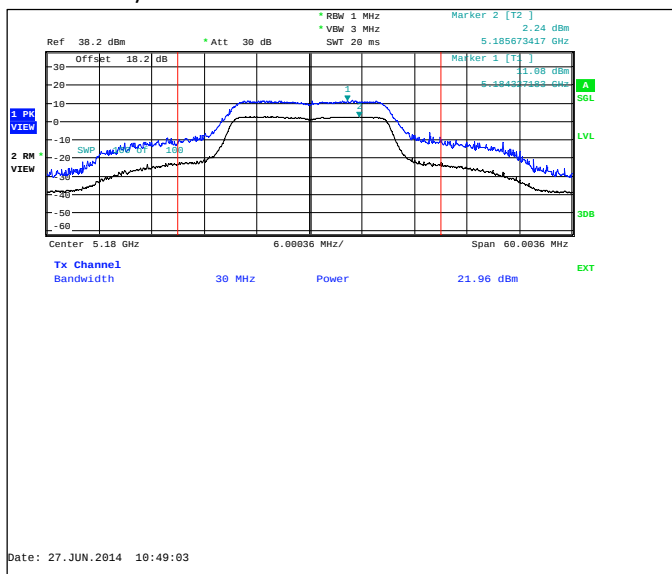
| Limit [dB] |
|------------|
| <= 13      |

#### 4.3. 5 GHz RLAN Test results

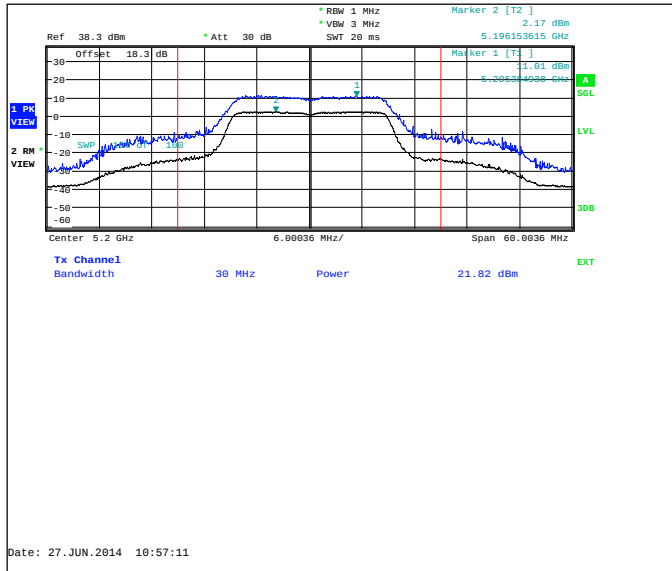
##### 4.3.1 802.11n mode, BPSK modulation, 6.5 / 7.25 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | Peak excursion [dB] | Result |
|--------------------------------|---------------------|--------|
| 36 / 5180                      | 8.84                | PASSED |
| 40 / 5200                      | 8.84                | PASSED |
| 48 / 5240                      | 8.74                | PASSED |
| 52 / 5260                      | 8.64                | PASSED |
| 60 / 5300                      | 8.75                | PASSED |
| 64 / 5320                      | 8.69                | PASSED |
| 100 / 5500                     | 8.9                 | PASSED |
| 116 / 5580                     | 8.64                | PASSED |
| 140 / 5700                     | 8.71                | PASSED |

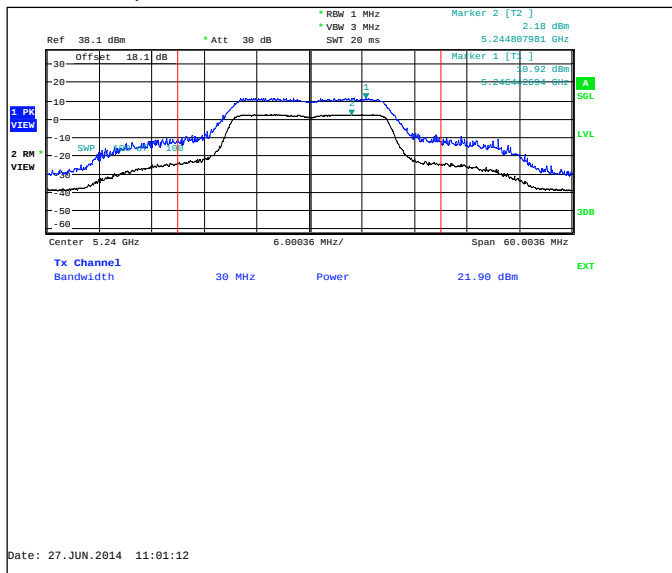
Channel 36 / 5180MHz



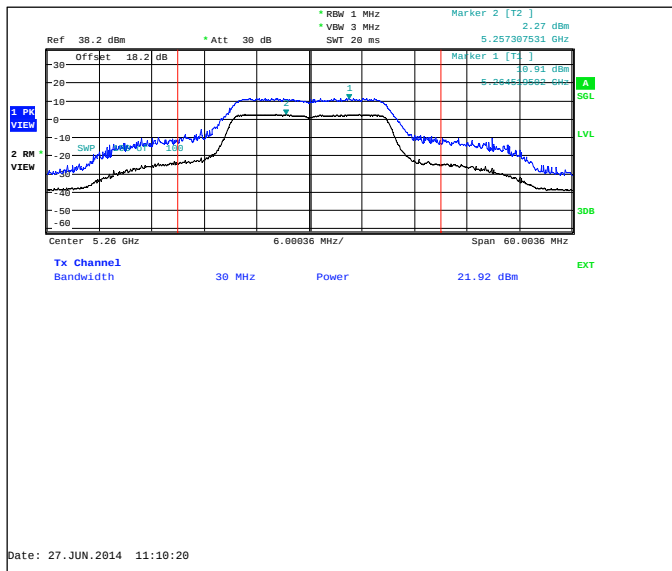
## Channel 40 / 5200MHz



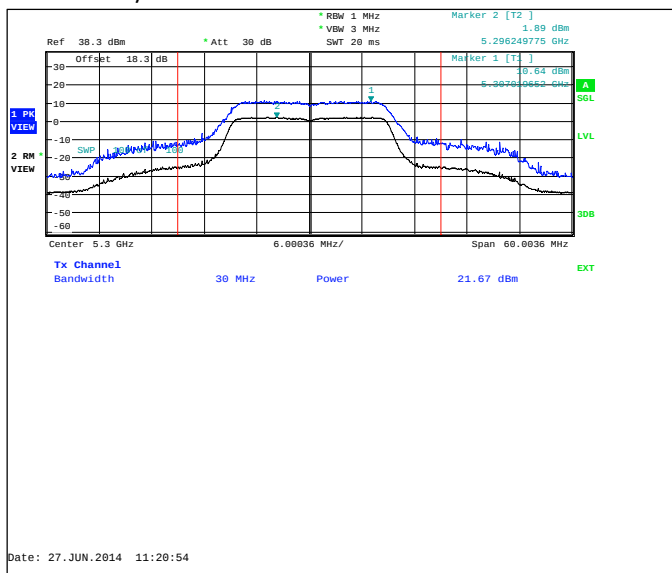
## Channel 48 / 5240MHz



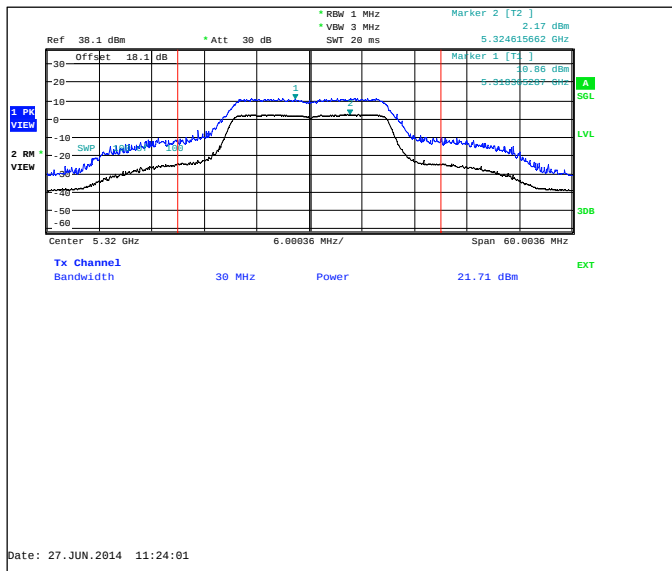
## Channel 52 / 5260MHz



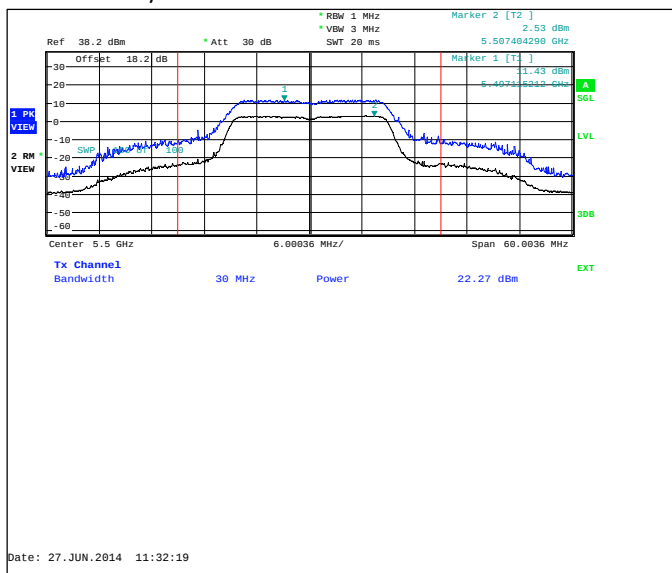
## Channel 60 / 5300MHz



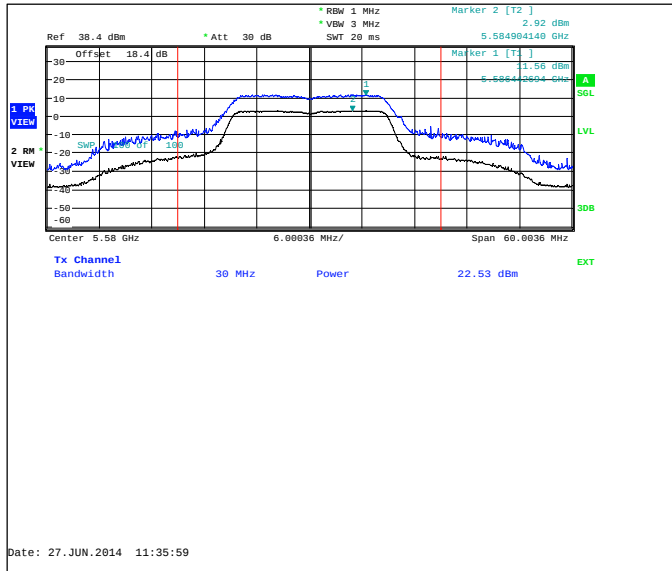
## Channel 64 / 5320MHz



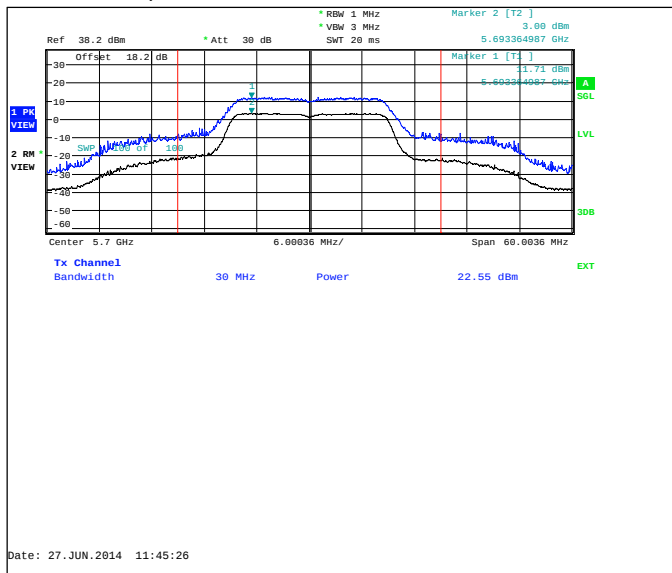
## Channel 100 / 5500MHz



## Channel 116 / 5580MHz



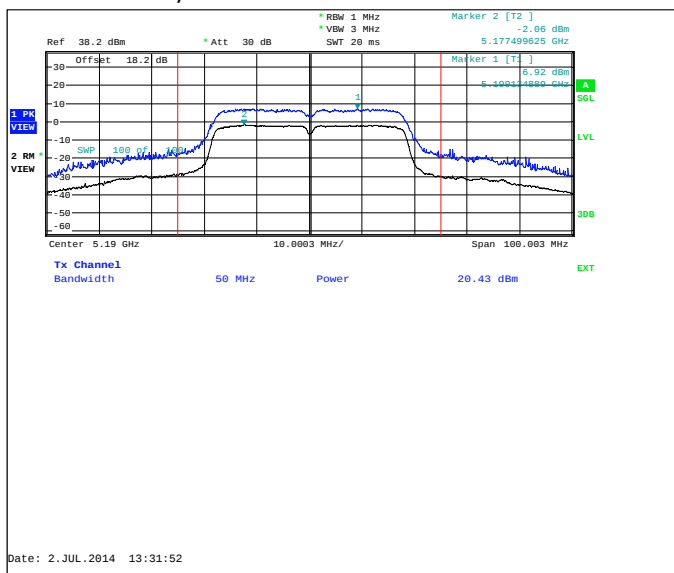
## Channel 140 / 5700MHz



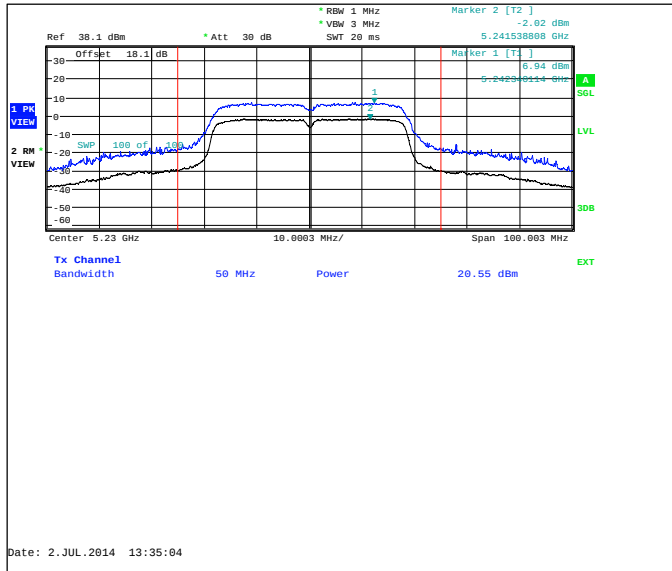
#### 4.3.2 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | Peak excursion [dB] | Result |
|--------------------------------|---------------------|--------|
| 36+40 / 5190                   | 8.98                | PASSED |
| 44+48 / 5230                   | 8.96                | PASSED |
| 52+56 / 5270                   | 8.5                 | PASSED |
| 60+64 / 5310                   | 9.22                | PASSED |
| 100+104 / 5510                 | 9.07                | PASSED |
| 108+112 / 5550                 | 9.36                | PASSED |
| 132+136 / 5670                 | 9.06                | PASSED |

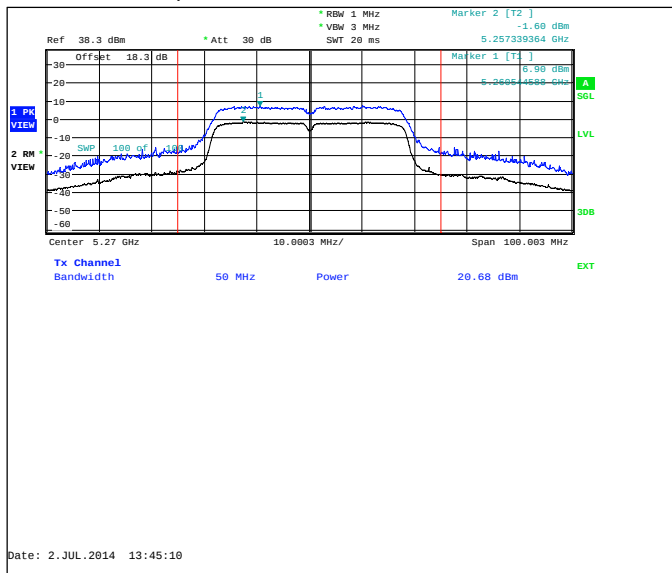
Channel 36+40 / 5190MHz



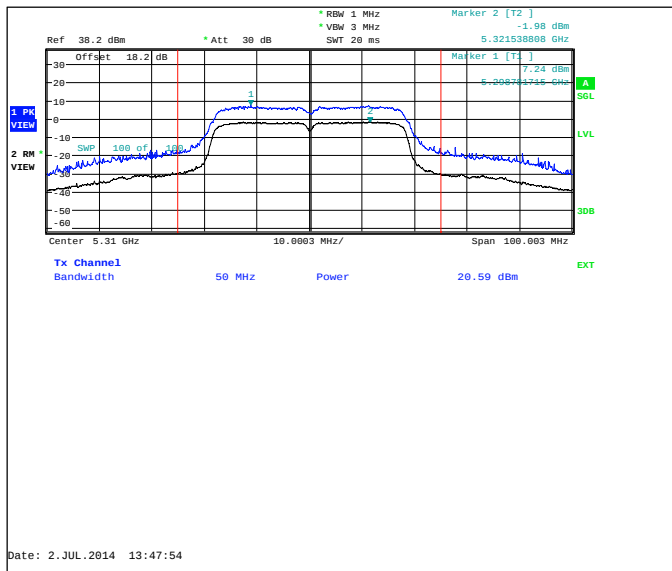
### Channel 44+48 / 5230MHz



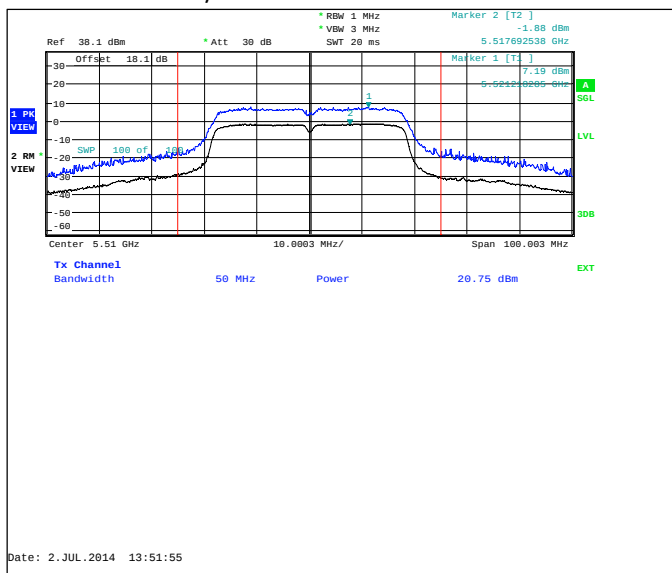
### Channel 52+56 / 5270MHz



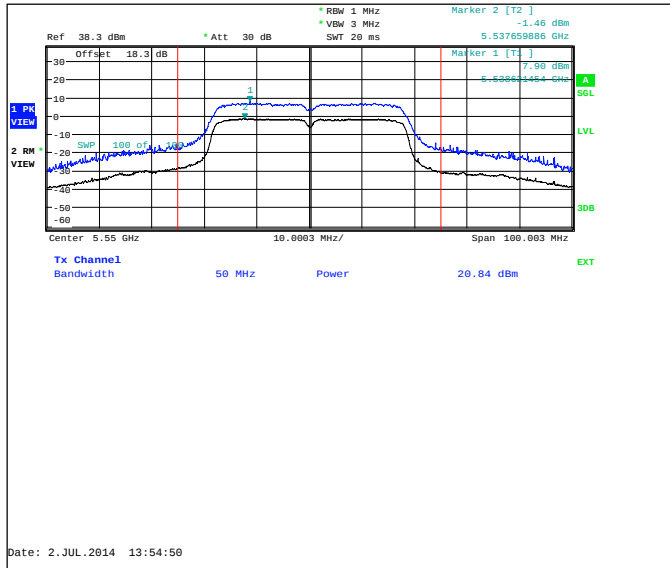
## Channel 60+64 / 5310MHz



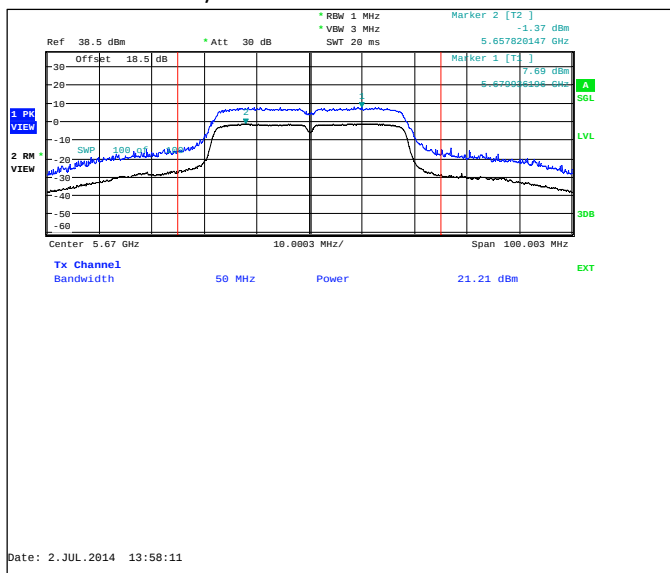
## Channel 100+104 / 5510MHz



## Channel 108+112 / 5550MHz



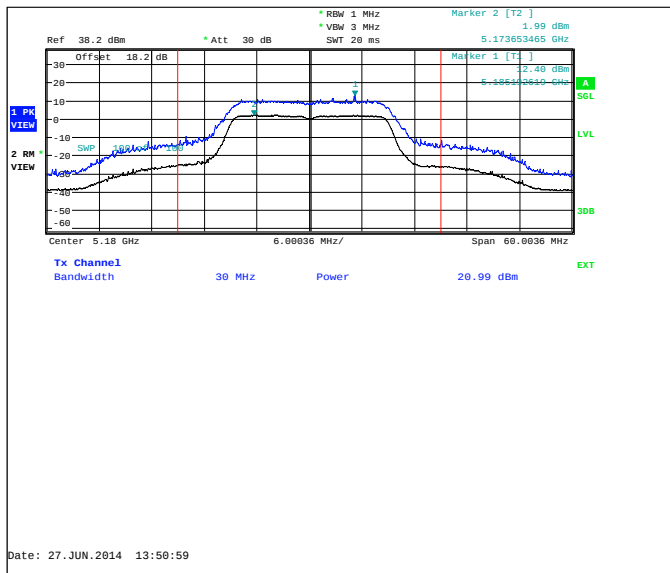
## Channel 132+136 / 5670MHz



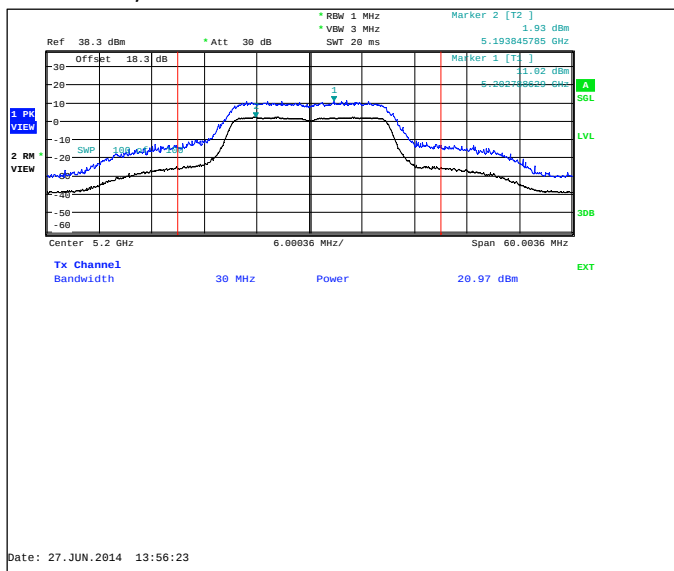
#### 4.3.3 802.11n mode, QPSK modulation, 19.5 / 21.7 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | Peak excursion [dB] | Result |
|--------------------------------|---------------------|--------|
| 36 / 5180                      | 10.41               | PASSED |
| 40 / 5200                      | 9.09                | PASSED |
| 48 / 5240                      | 9.57                | PASSED |
| 52 / 5260                      | 9.86                | PASSED |
| 60 / 5300                      | 9.98                | PASSED |
| 64 / 5320                      | 9.27                | PASSED |
| 100 / 5500                     | 8.99                | PASSED |
| 116 / 5580                     | 10.71               | PASSED |
| 140 / 5700                     | 9.31                | PASSED |

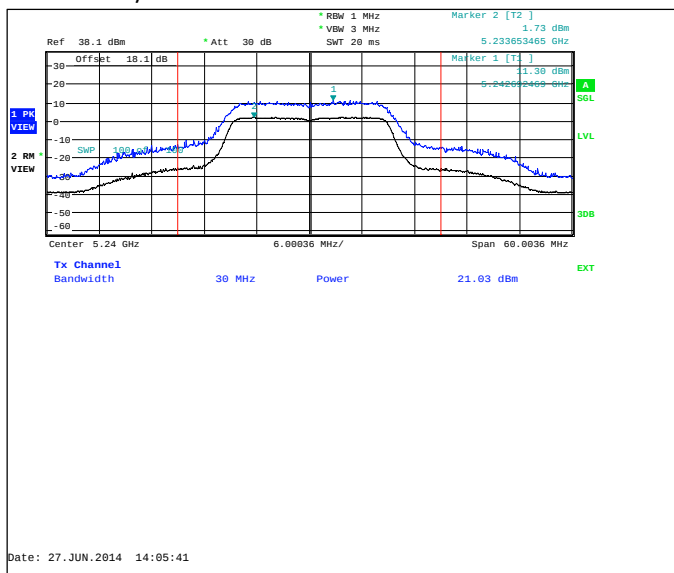
Channel 36 / 5180MHz



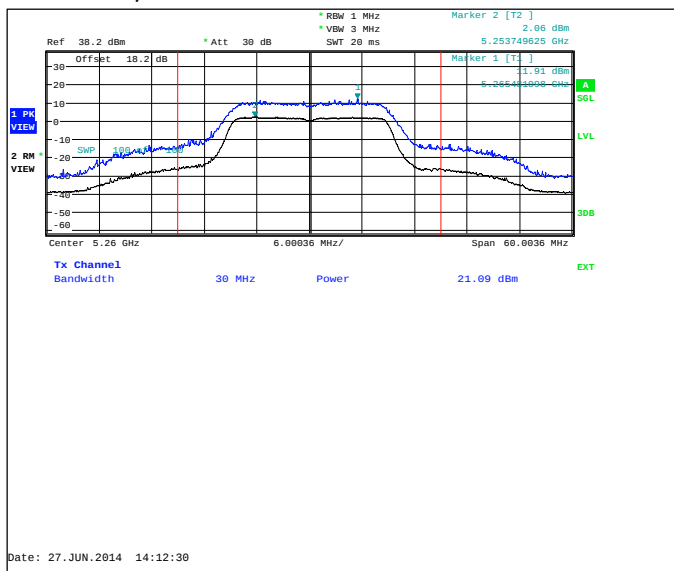
## Channel 40 / 5200MHz



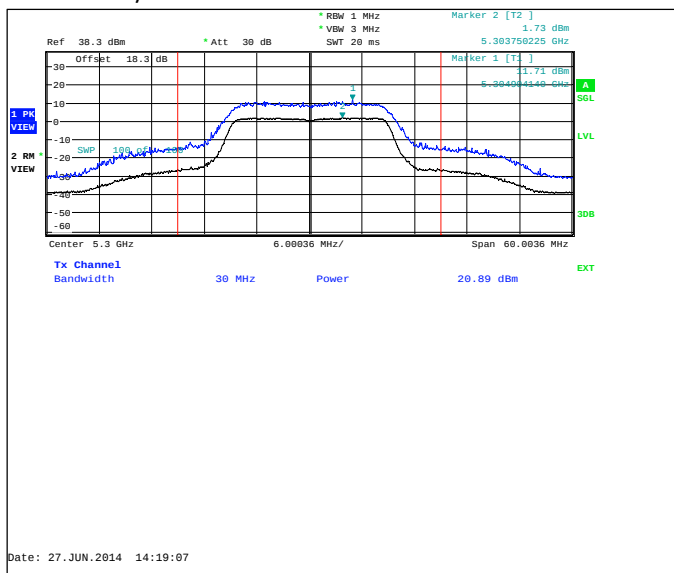
## Channel 48 / 5240MHz



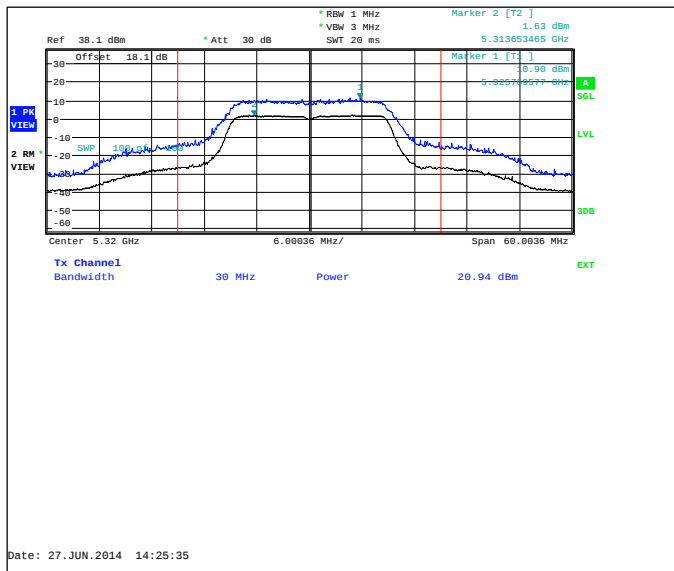
## Channel 52 / 5260MHz



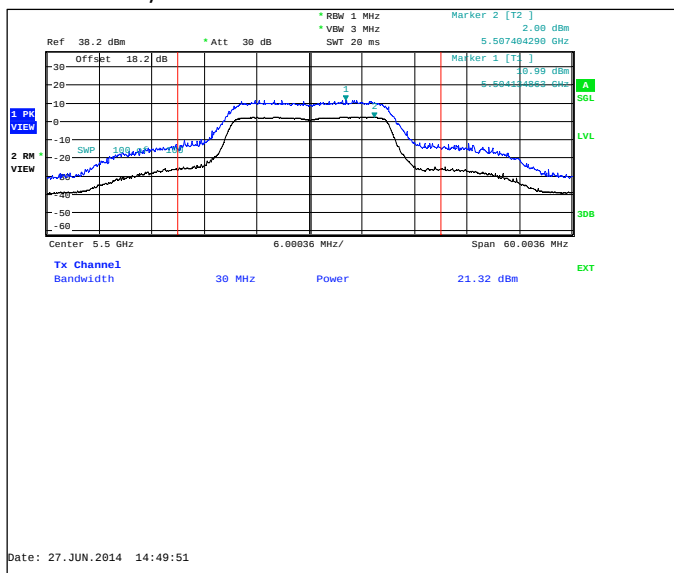
## Channel 60 / 5300MHz



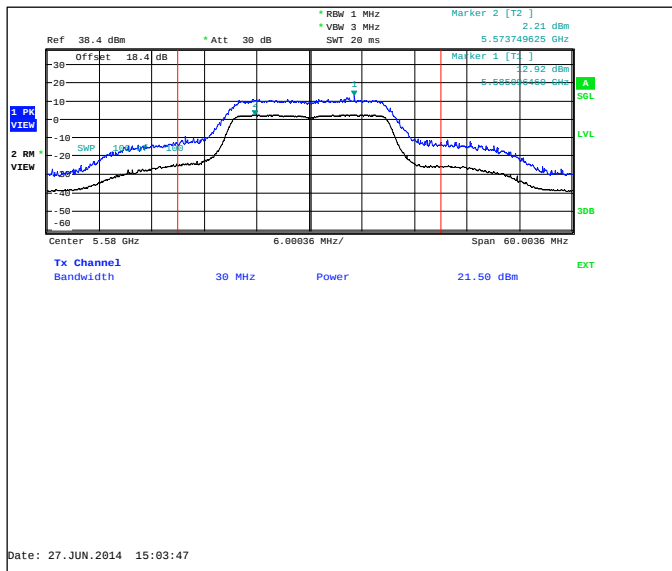
## Channel 64 / 5320MHz



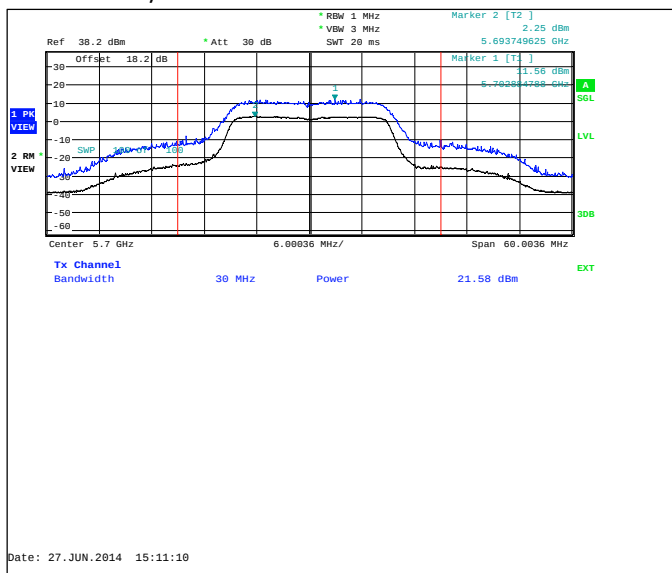
## Channel 100 / 5500MHz



## Channel 116 / 5580MHz



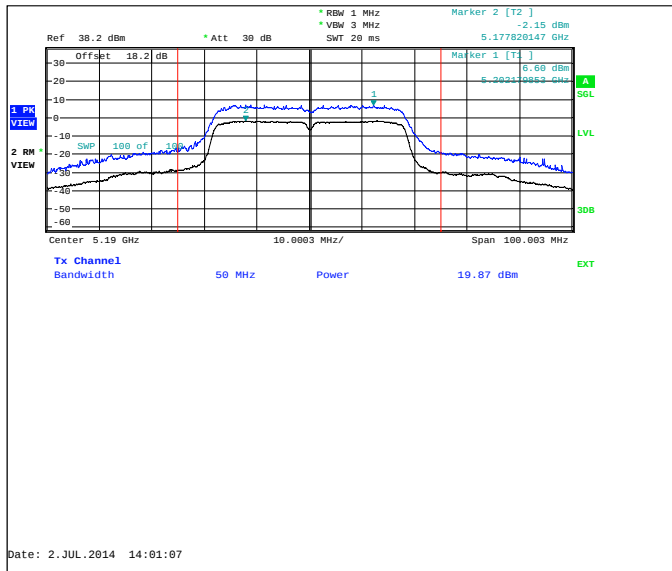
## Channel 140 / 5700MHz



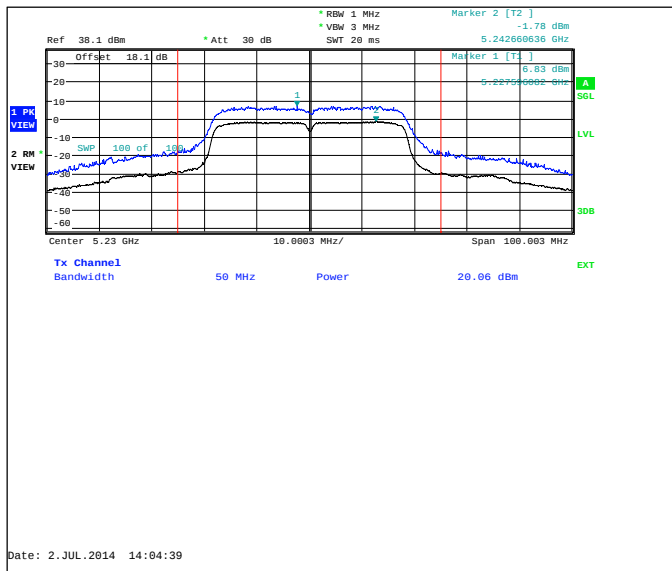
#### 4.3.4 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | Peak excursion [dB] | Result |
|--------------------------------|---------------------|--------|
| 36+40 / 5190                   | 8.75                | PASSED |
| 44+48 / 5230                   | 8.61                | PASSED |
| 52+56 / 5270                   | 8.82                | PASSED |
| 60+64 / 5310                   | 9.25                | PASSED |
| 100+104 / 5510                 | 8.4                 | PASSED |
| 108+112 / 5550                 | 8.91                | PASSED |
| 132+136 / 5670                 | 8.66                | PASSED |

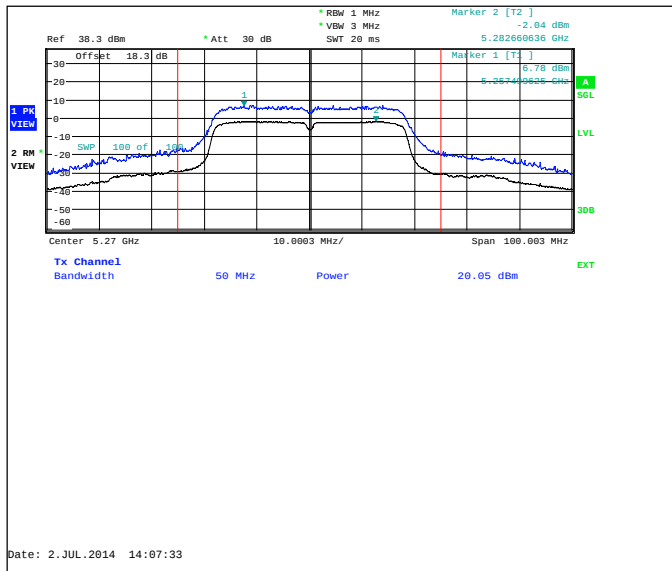
Channel 36+40 / 5190MHz



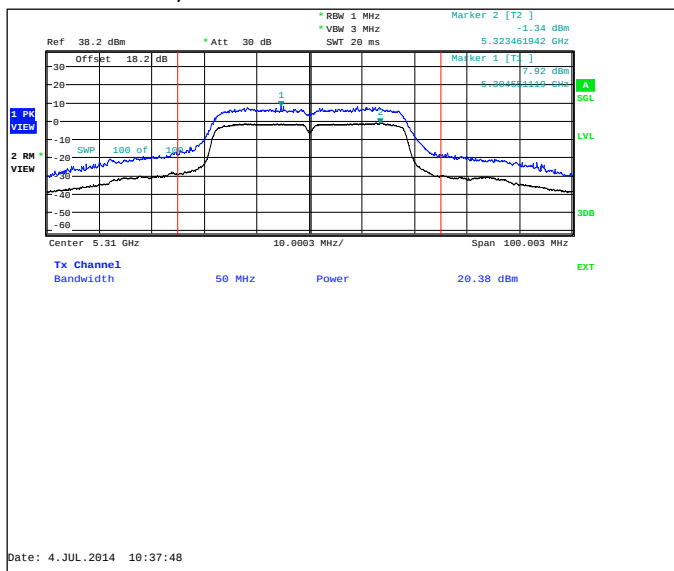
### Channel 44+48 / 5230MHz



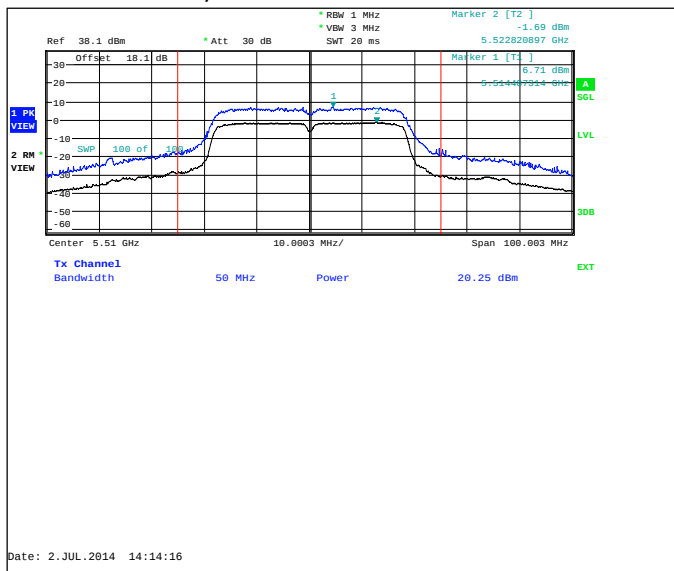
### Channel 52+56 / 5270MHz



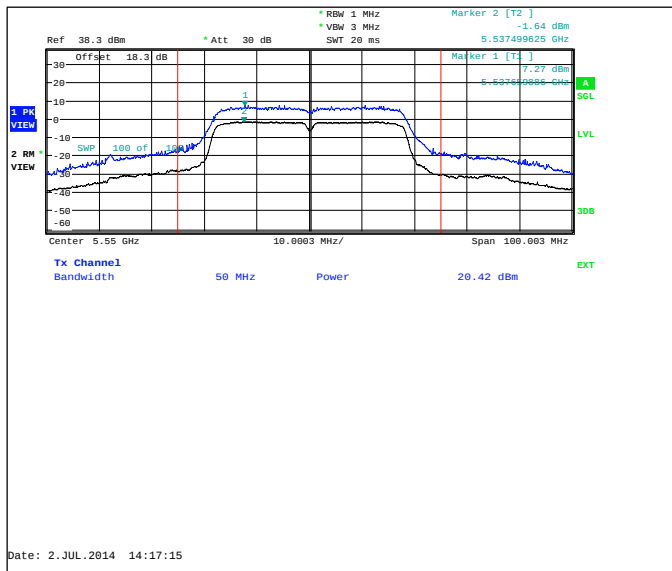
## Channel 60+64 / 5310MHz



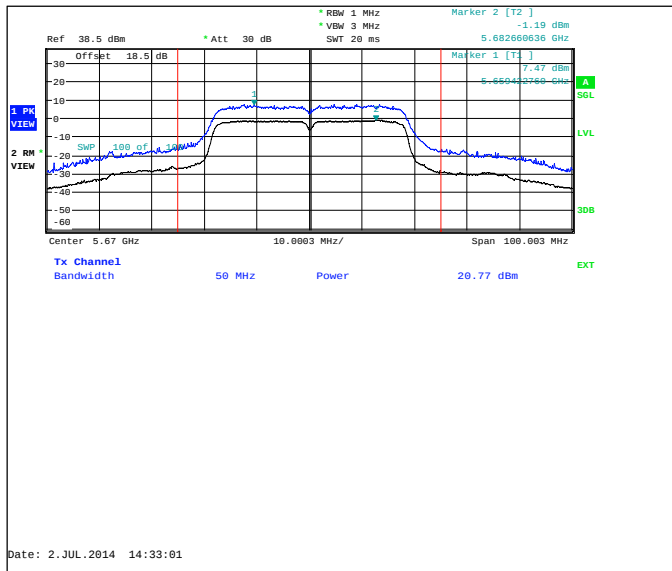
## Channel 100+104 / 5510MHz



### Channel 108+112 / 5550MHz



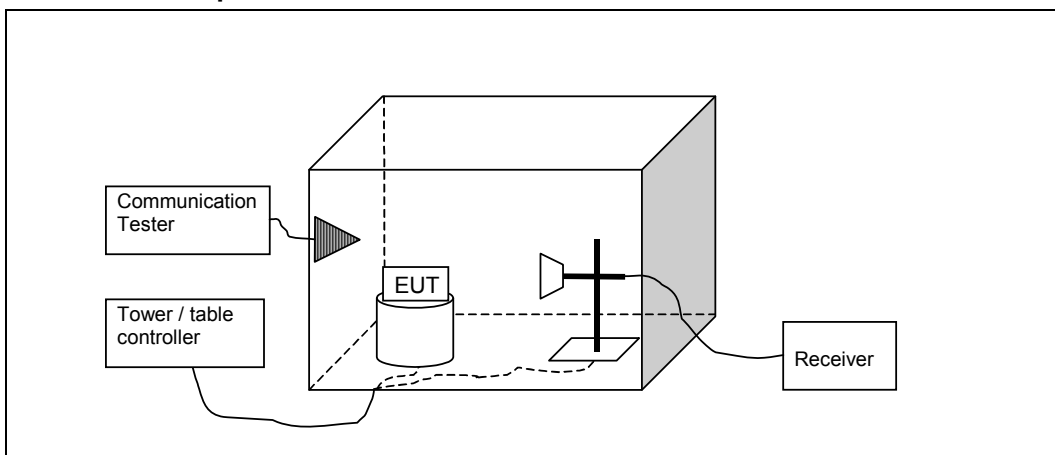
### Channel 132+136 / 5670MHz



## 5. Spurious radiated emissions (FCC 15.407(b), RSS-210 A9.2)

|                                                        |                                                                                 |
|--------------------------------------------------------|---------------------------------------------------------------------------------|
| <b>EUT with DUT number</b>                             | RM-984, DUT 43184                                                               |
| <b>Accessories with DUT numbers</b>                    | BV-L4A, DUT 43185 ; WH-208, DUT 43186 ; AC-60E, DUT 43074 ; CA-190CD, DUT 43034 |
| <b>Operation Voltage [V] / [Hz]</b>                    | 115 / 60                                                                        |
| <b>Results</b>                                         | PASSED                                                                          |
| <b>Remarks</b>                                         | -                                                                               |
| <b>Temp [°C] / Humidity [%RH] / Air Pressure [kPa]</b> | 19-20 / 35-37 / 98.2-98.4                                                       |
| <b>Date of measurements</b>                            | 01..02-Jul-2014                                                                 |
| <b>Measured by</b>                                     | Jari Jantunen                                                                   |

### 5.1.1 Test setup



### 5.2. Test method and limit

The measurement is made the following way:

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

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

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

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

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

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

The measurement results are obtained as described below:

$$E [dB\mu V/m] = U_{RX} + A_{TOT}$$

Where  $U_{RX}$  is receiver reading and  $A_{TOT}$  is total correction factor including cable loss, antenna factor and preamplifier gain ( $A_{TOT} = L_{CABLES} + A_F - G_{PREAMP}$ ).

Limits for spurious radiated emissions measurements (3 m measurement distance)  
There are 2 sets of limit lines. Part 15.209 limits apply below 1 GHz and on restricted bands above 1GHz. The other limits are described in the table below.

| Frequency range [MHz] | Limit [dBm / MHz]                                                                               |
|-----------------------|-------------------------------------------------------------------------------------------------|
| 5150 - 5250           | 1 GHz – 5.15 GHz, 5.35 GHz – 40 GHz: -27                                                        |
| 5250 - 5350           | 1 GHz – 5.25 GHz, 5.35 GHz – 40 GHz: -27                                                        |
| 5470 - 5725           | 1 GHz – 5.47 GHz, 5.725 GHz – 40 GHz: -27                                                       |
| 5725 - 5825           | 1 GHz – 5.715 GHz, 5.835 GHz – 40 GHz: -27<br>5.715 GHz – 5.725 GHz, 5.825 GHz – 5.835 GHz: -17 |

### 5.3. 5 GHz RLAN test results

#### 5.3.1 802.11n, BPSK modulation, 6.5 / 7.25 Mbps data rate.

Channel 36 / 5180MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10362.1         | 49.15      | 286.748  | 42.95                  | 6.2                   | 68             | 19.08  | PASSED  |
| 15532.7         | 44.25      | 163.117  | 41.55                  | 2.7                   | 74             | 29.73  | PASSED  |
| 20724.4         | 46.02      | 199.986  | 40.32                  | 5.7                   | 74             | 27.96  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10362.1         | 36.31      | 65.388   | 30.11                  | 6.2                   | ---            | ---    | PASSED  |
| 15532.7         | 30.97      | 35.359   | 28.27                  | 2.7                   | 54             | 23.03  | PASSED  |
| 20724.4         | 33.33      | 46.398   | 27.63                  | 5.7                   | 54             | 20.67  | PASSED  |

Channel 40 / 5200MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 5165.971        | 53.7       | 484.172  | 52.4                   | 1.3                   | 68             | 14.53  | PASSED  |
| 5170.919        | 57.66      | 763.836  | 56.36                  | 1.3                   | 68             | 10.57  | PASSED  |
| 5229.4          | 56.57      | 673.752  | 55.67                  | 0.9                   | 68             | 11.66  | PASSED  |
| 10400.7         | 48.98      | 281.19   | 42.78                  | 6.2                   | 68             | 19.25  | PASSED  |
| 15599.1         | 44.31      | 164.248  | 41.61                  | 2.7                   | 74             | 29.67  | PASSED  |
| 20798.1         | 46.77      | 218.022  | 41.07                  | 5.7                   | 74             | 27.21  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 5165.971        | 34.91      | 55.654   | 33.61                  | 1.3                   | ---            | ---    | PASSED  |
| 5170.919        | 37.05      | 71.203   | 35.75                  | 1.3                   | ---            | ---    | PASSED  |
| 5229.4          | 36.05      | 63.46    | 35.15                  | 0.9                   | ---            | ---    | PASSED  |
| 10400.7         | 36.09      | 63.753   | 29.89                  | 6.2                   | ---            | ---    | PASSED  |
| 15599.1         | 31.59      | 37.975   | 28.89                  | 2.7                   | 54             | 22.41  | PASSED  |
| 20798.1         | 33.47      | 47.152   | 27.77                  | 5.7                   | 54             | 20.53  | PASSED  |

## Channel 48 / 5240MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10489.9         | 49.17      | 287.409  | 42.47                  | 6.7                   | 68             | 19.06  | PASSED  |
| 15724.3         | 48.53      | 266.993  | 46.03                  | 2.5                   | 74             | 25.45  | PASSED  |
| 20954.2         | 46.82      | 219.28   | 41.32                  | 5.5                   | 74             | 27.16  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10489.9         | 36.32      | 65.464   | 29.62                  | 6.7                   | ---            | ---    | PASSED  |
| 15724.3         | 34.28      | 51.761   | 31.78                  | 2.5                   | 54             | 19.72  | PASSED  |
| 20954.2         | 33.67      | 48.25    | 28.17                  | 5.5                   | 54             | 20.33  | PASSED  |

## Channel 52 / 5260MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10522.7         | 50.06      | 318.42   | 43.26                  | 6.8                   | 68             | 18.17  | PASSED  |
| 15771           | 44.08      | 159.956  | 41.48                  | 2.6                   | 74             | 29.9   | PASSED  |
| 21048.1         | 46.79      | 218.524  | 41.09                  | 5.7                   | 74             | 27.19  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10522.7         | 36.9       | 69.984   | 30.1                   | 6.8                   | ---            | ---    | PASSED  |
| 15771           | 31.34      | 36.898   | 28.74                  | 2.6                   | 54             | 22.66  | PASSED  |
| 21048.1         | 33.83      | 49.147   | 28.13                  | 5.7                   | 54             | 20.17  | PASSED  |

## Channel 60 / 5300MHz

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 33.952          | 18.23      | 8.156    | 40.03                  | -21.8                 | 40             | 21.77  | PASSED  |

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 5265.33         | 50.1       | 319.89   | 49.4                   | 0.7                   | 68             | 18.13  | PASSED  |
| 5269.977        | 51.49      | 375.405  | 50.89                  | 0.6                   | 68             | 16.74  | PASSED  |
| 10598.7         | 49.8       | 309.03   | 42.9                   | 6.9                   | 68             | 18.43  | PASSED  |
| 15900.5         | 44.21      | 162.368  | 41.61                  | 2.6                   | 74             | 29.77  | PASSED  |
| 21198.3         | 46.05      | 200.678  | 40.35                  | 5.7                   | 74             | 27.93  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 5265.33         | 32         | 39.811   | 31.3                   | 0.7                   | ---            | ---    | PASSED  |
| 5269.977        | 33.15      | 45.446   | 32.55                  | 0.6                   | ---            | ---    | PASSED  |
| 10598.7         | 36.91      | 70.065   | 30.01                  | 6.9                   | ---            | ---    | PASSED  |
| 15900.5         | 31.45      | 37.368   | 28.85                  | 2.6                   | 54             | 22.55  | PASSED  |
| 21198.3         | 32.85      | 43.904   | 27.15                  | 5.7                   | 54             | 21.15  | PASSED  |

Channel 64 / 5320MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10635.9         | 50.23      | 324.713  | 43.53                  | 6.7                   | 74             | 23.75  | PASSED  |
| 15958.6         | 45.29      | 183.865  | 42.69                  | 2.6                   | 74             | 28.69  | PASSED  |
| 21287           | 46.74      | 217.27   | 40.84                  | 5.9                   | 74             | 27.24  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10635.9         | 36.87      | 69.743   | 30.17                  | 6.7                   | 54             | 17.13  | PASSED  |
| 15958.6         | 32.4       | 41.687   | 29.8                   | 2.6                   | 54             | 21.6   | PASSED  |
| 21287           | 33.4       | 46.774   | 27.5                   | 5.9                   | 54             | 20.6   | PASSED  |

Channel 100 / 5500MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10992.9         | 49.59      | 301.648  | 42.59                  | 7                     | 74             | 24.39  | PASSED  |
| 16496.8         | 44.89      | 175.59   | 42.09                  | 2.8                   | 68             | 23.34  | PASSED  |
| 22007.1         | 46.7       | 216.272  | 41.1                   | 5.6                   | 68             | 21.53  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10992.9         | 36.15      | 64.195   | 29.15                  | 7                     | 54             | 17.85  | PASSED  |
| 16496.8         | 31.09      | 35.851   | 28.29                  | 2.8                   | ---            | ---    | PASSED  |
| 22007.1         | 33.44      | 46.989   | 27.84                  | 5.6                   | ---            | ---    | PASSED  |

Channel 116 / 5580MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 5608.9          | 54.62      | 538.27   | 54.12                  | 0.5                   | 68             | 13.61  | PASSED  |
| 11159.9         | 49.79      | 308.674  | 42.59                  | 7.2                   | 74             | 24.19  | PASSED  |
| 16739.7         | 44.38      | 165.577  | 41.88                  | 2.5                   | 68             | 23.85  | PASSED  |
| 22319.9         | 46.35      | 207.73   | 40.85                  | 5.5                   | 74             | 27.63  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 5608.9          | 35.29      | 58.143   | 34.79                  | 0.5                   | ---            | ---    | PASSED  |
| 11159.9         | 36.78      | 69.024   | 29.58                  | 7.2                   | 54             | 17.22  | PASSED  |
| 16739.7         | 31.11      | 35.934   | 28.61                  | 2.5                   | ---            | ---    | PASSED  |
| 22319.9         | 33.16      | 45.499   | 27.66                  | 5.5                   | 54             | 20.84  | PASSED  |

Channel 140 / 5700MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11400.9         | 49.24      | 289.734  | 42.54                  | 6.7                   | 74             | 24.74  | PASSED  |
| 17108.5         | 44.97      | 177.215  | 41.67                  | 3.3                   | 68             | 23.26  | PASSED  |
| 22800.5         | 47.01      | 224.13   | 40.61                  | 6.4                   | 74             | 26.97  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11400.9         | 36.26      | 65.013   | 29.56                  | 6.7                   | 54             | 17.74  | PASSED  |
| 17108.5         | 31.61      | 38.063   | 28.31                  | 3.3                   | ---            | ---    | PASSED  |
| 22800.5         | 34.08      | 50.582   | 27.68                  | 6.4                   | 54             | 19.92  | PASSED  |

### 5.3.2 802.11n, QPSK modulation, 19.5 / 21.7 Mbps data rate.

Channel 36 / 5180MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10359.7         | 50.09      | 319.521  | 43.89                  | 6.2                   | 68             | 18.14  | PASSED  |
| 15539.9         | 46.45      | 210.136  | 43.75                  | 2.7                   | 74             | 27.53  | PASSED  |
| 20717.2         | 46.03      | 200.217  | 40.33                  | 5.7                   | 74             | 27.95  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10359.7         | 37.36      | 73.79    | 31.16                  | 6.2                   | ---            | ---    | PASSED  |
| 15539.9         | 32.68      | 43.053   | 29.98                  | 2.7                   | 54             | 21.32  | PASSED  |
| 20717.2         | 33.28      | 46.132   | 27.58                  | 5.7                   | 54             | 20.72  | PASSED  |

Channel 40 / 5200MHz

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 56.841          | 24.88      | 17.539   | 57.88                  | -33                   | 40             | 15.12  | PASSED  |
| 57.074          | 24.91      | 17.599   | 58.01                  | -33.1                 | 40             | 15.09  | PASSED  |
| 57.578          | 24.99      | 17.762   | 58.19                  | -33.2                 | 40             | 15.01  | PASSED  |

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10399.8         | 49.63      | 303.04   | 43.43                  | 6.2                   | 68             | 18.6   | PASSED  |
| 15598.2         | 44.31      | 164.248  | 41.61                  | 2.7                   | 74             | 29.67  | PASSED  |
| 20799.7         | 47.15      | 227.772  | 41.45                  | 5.7                   | 74             | 26.83  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10399.8         | 36.27      | 65.088   | 30.07                  | 6.2                   | ---            | ---    | PASSED  |
| 15598.2         | 31.28      | 36.644   | 28.58                  | 2.7                   | 54             | 22.72  | PASSED  |
| 20799.7         | 33.71      | 48.473   | 28.01                  | 5.7                   | 54             | 20.29  | PASSED  |

Channel 48 / 5240MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10480.3         | 48.86      | 277.332  | 42.26                  | 6.6                   | 68             | 19.37  | PASSED  |
| 15715           | 46.4       | 208.93   | 43.9                   | 2.5                   | 74             | 27.58  | PASSED  |
| 20959.7         | 46.73      | 217.02   | 41.23                  | 5.5                   | 74             | 27.25  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10480.3         | 36.13      | 64.047   | 29.53                  | 6.6                   | ---            | ---    | PASSED  |
| 15715           | 33.3       | 46.238   | 30.8                   | 2.5                   | 54             | 20.7   | PASSED  |
| 20959.7         | 34.08      | 50.582   | 28.58                  | 5.5                   | 54             | 19.92  | PASSED  |

Channel 52 / 5260MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10519           | 49.31      | 292.079  | 42.51                  | 6.8                   | 68             | 18.92  | PASSED  |
| 15782.8         | 46.1       | 201.837  | 43.5                   | 2.6                   | 74             | 27.88  | PASSED  |
| 21033.8         | 46.73      | 217.02   | 41.13                  | 5.6                   | 74             | 27.25  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10519           | 36.5       | 66.834   | 29.7                   | 6.8                   | ---            | ---    | PASSED  |
| 15782.8         | 32.66      | 42.954   | 30.06                  | 2.6                   | 54             | 21.34  | PASSED  |
| 21033.8         | 33.82      | 49.091   | 28.22                  | 5.6                   | 54             | 20.18  | PASSED  |

Channel 60 / 5300MHz

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 56.481          | 24.74      | 17.258   | 57.64                  | -32.9                 | 40             | 15.26  | PASSED  |
| 56.774          | 24.62      | 17.022   | 57.62                  | -33                   | 40             | 15.38  | PASSED  |
| 57.158          | 24.76      | 17.298   | 57.86                  | -33.1                 | 40             | 15.24  | PASSED  |

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10598.4         | 49.8       | 309.03   | 42.9                   | 6.9                   | 68             | 18.43  | PASSED  |
| 15901.4         | 44.08      | 159.956  | 41.48                  | 2.6                   | 74             | 29.9   | PASSED  |
| 21200.7         | 45.64      | 191.426  | 39.94                  | 5.7                   | 74             | 28.34  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10598.4         | 36.59      | 67.531   | 29.69                  | 6.9                   | ---            | ---    | PASSED  |
| 15901.4         | 31.3       | 36.728   | 28.7                   | 2.6                   | 54             | 22.7   | PASSED  |
| 21200.7         | 32.89      | 44.106   | 27.19                  | 5.7                   | 54             | 21.11  | PASSED  |

Channel 64 / 5320MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10635.3         | 49.83      | 310.099  | 43.13                  | 6.7                   | 74             | 24.15  | PASSED  |
| 15956.6         | 44.92      | 176.198  | 42.32                  | 2.6                   | 74             | 29.06  | PASSED  |
| 21282.3         | 47.5       | 237.137  | 41.6                   | 5.9                   | 74             | 26.48  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10635.3         | 36.85      | 69.582   | 30.15                  | 6.7                   | 54             | 17.15  | PASSED  |
| 15956.6         | 31.46      | 37.411   | 28.86                  | 2.6                   | 54             | 22.54  | PASSED  |
| 21282.3         | 33.34      | 46.452   | 27.44                  | 5.9                   | 54             | 20.66  | PASSED  |

Channel 100 / 5500MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10995           | 48.69      | 271.957  | 41.69                  | 7                     | 74             | 25.29  | PASSED  |
| 16503.6         | 43.83      | 155.418  | 41.13                  | 2.7                   | 68             | 24.4   | PASSED  |
| 22002.7         | 46.17      | 203.47   | 40.57                  | 5.6                   | 68             | 22.06  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10995           | 36.05      | 63.46    | 29.05                  | 7                     | 54             | 17.95  | PASSED  |
| 16503.6         | 31.15      | 36.099   | 28.45                  | 2.7                   | ---            | ---    | PASSED  |
| 22002.7         | 33.42      | 46.881   | 27.82                  | 5.6                   | ---            | ---    | PASSED  |

Channel 116 / 5580MHz

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 57.284          | 24.79      | 17.358   | 57.89                  | -33.1                 | 40             | 15.21  | PASSED  |

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11161.3         | 49.29      | 291.407  | 42.09                  | 7.2                   | 74             | 24.69  | PASSED  |
| 16738.7         | 44.12      | 160.694  | 41.62                  | 2.5                   | 68             | 24.11  | PASSED  |
| 22321.5         | 45.86      | 196.336  | 40.36                  | 5.5                   | 74             | 28.12  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11161.3         | 36.33      | 65.539   | 29.13                  | 7.2                   | 54             | 17.67  | PASSED  |
| 16738.7         | 31.12      | 35.975   | 28.62                  | 2.5                   | ---            | ---    | PASSED  |
| 22321.5         | 32.81      | 43.702   | 27.31                  | 5.5                   | 54             | 21.19  | PASSED  |

Channel 140 / 5700MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11392.7         | 49.12      | 285.759  | 42.32                  | 6.8                   | 74             | 24.86  | PASSED  |
| 17101.1         | 44.33      | 164.627  | 41.13                  | 3.2                   | 68             | 23.9   | PASSED  |
| 22794.7         | 46.79      | 218.524  | 40.49                  | 6.3                   | 74             | 27.19  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11392.7         | 36.32      | 65.464   | 29.52                  | 6.8                   | 54             | 17.68  | PASSED  |
| 17101.1         | 31.54      | 37.757   | 28.34                  | 3.2                   | ---            | ---    | PASSED  |
| 22794.7         | 33.94      | 49.774   | 27.64                  | 6.3                   | 54             | 20.06  | PASSED  |

### 5.3.3 802.11n, BPSK modulation, 13.5 / 15.0 Mbps data rate.

Channel 36+40 / 5190MHz

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 55.921          | 23.58      | 15.101   | 56.38                  | -32.8                 | 40             | 16.42  | PASSED  |
| 56.634          | 24.16      | 16.144   | 57.16                  | -33                   | 40             | 15.84  | PASSED  |
| 56.658          | 24.04      | 15.922   | 57.04                  | -33                   | 40             | 15.96  | PASSED  |

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10382.9         | 48.36      | 261.818  | 42.26                  | 6.1                   | 68             | 19.87  | PASSED  |
| 15569.3         | 44.16      | 161.436  | 41.46                  | 2.7                   | 74             | 29.82  | PASSED  |
| 20764           | 46.46      | 210.378  | 40.76                  | 5.7                   | 74             | 27.52  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10382.9         | 35.73      | 61.165   | 29.63                  | 6.1                   | ---            | ---    | PASSED  |
| 15569.3         | 30.85      | 34.874   | 28.15                  | 2.7                   | 54             | 23.15  | PASSED  |
| 20764           | 33.48      | 47.206   | 27.78                  | 5.7                   | 54             | 20.52  | PASSED  |

Channel 44+48 / 5230MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10463.1         | 48.92      | 279.254  | 42.32                  | 6.6                   | 68             | 19.31  | PASSED  |
| 15562.4         | 44.52      | 168.267  | 41.82                  | 2.7                   | 74             | 29.46  | PASSED  |
| 20666.6         | 46.31      | 206.776  | 40.31                  | 6                     | 74             | 27.67  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10463.1         | 36         | 63.096   | 29.4                   | 6.6                   | ---            | ---    | PASSED  |
| 15562.4         | 31.04      | 35.645   | 28.34                  | 2.7                   | 54             | 22.96  | PASSED  |
| 20666.6         | 33.21      | 45.761   | 27.21                  | 6                     | 54             | 20.79  | PASSED  |

Channel 52+56 / 5270MHz

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 57.114          | 24.82      | 17.418   | 57.92                  | -33.1                 | 40             | 15.18  | PASSED  |
| 57.241          | 24.73      | 17.239   | 57.83                  | -33.1                 | 40             | 15.27  | PASSED  |
| 57.678          | 24.79      | 17.358   | 57.99                  | -33.2                 | 40             | 15.21  | PASSED  |

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10536           | 50         | 316.228  | 43.1                   | 6.9                   | 68             | 18.23  | PASSED  |
| 15811           | 44.11      | 160.509  | 41.51                  | 2.6                   | 74             | 29.87  | PASSED  |
| 21079.8         | 46.63      | 214.536  | 40.83                  | 5.8                   | 74             | 27.35  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10536           | 36.6       | 67.608   | 29.7                   | 6.9                   | ---            | ---    | PASSED  |
| 15811           | 30.95      | 35.278   | 28.35                  | 2.6                   | 54             | 23.05  | PASSED  |
| 21079.8         | 33.81      | 49.034   | 28.01                  | 5.8                   | 54             | 20.19  | PASSED  |

Channel 60+64 / 5310MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10600           | 49.65      | 303.739  | 42.75                  | 6.9                   | 68             | 18.58  | PASSED  |
| 15947.2         | 44.18      | 161.808  | 41.58                  | 2.6                   | 74             | 29.8   | PASSED  |
| 21221.9         | 45.47      | 187.715  | 39.67                  | 5.8                   | 74             | 28.51  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10600           | 36.58      | 67.453   | 29.68                  | 6.9                   | 54             | 17.42  | PASSED  |
| 15947.2         | 31.61      | 38.063   | 29.01                  | 2.6                   | 54             | 22.39  | PASSED  |
| 21221.9         | 32.95      | 44.412   | 27.15                  | 5.8                   | 54             | 21.05  | PASSED  |

Channel 100+104 / 5510MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11011.4         | 48.89      | 278.292  | 41.89                  | 7                     | 74             | 25.09  | PASSED  |
| 16518.8         | 43.97      | 157.943  | 41.27                  | 2.7                   | 68             | 24.26  | PASSED  |
| 22044.7         | 46.39      | 208.689  | 40.69                  | 5.7                   | 74             | 27.59  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11011.4         | 35.89      | 62.302   | 28.89                  | 7                     | 54             | 18.11  | PASSED  |
| 16518.8         | 30.92      | 35.156   | 28.22                  | 2.7                   | ---            | ---    | PASSED  |
| 22044.7         | 33.35      | 46.505   | 27.65                  | 5.7                   | 54             | 20.65  | PASSED  |

Channel 132+136 / 5670MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11353.1         | 48.65      | 270.707  | 41.95                  | 6.7                   | 74             | 25.33  | PASSED  |
| 17015.1         | 43.7       | 153.109  | 40.7                   | 3                     | 68             | 24.53  | PASSED  |
| 22666.7         | 46.59      | 213.55   | 40.59                  | 6                     | 74             | 27.39  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11353.1         | 36.2       | 64.565   | 29.5                   | 6.7                   | 54             | 17.8   | PASSED  |
| 17015.1         | 30.64      | 34.041   | 27.64                  | 3                     | ---            | ---    | PASSED  |
| 22666.7         | 33.7       | 48.417   | 27.7                   | 6                     | 54             | 20.3   | PASSED  |

### 5.3.4 802.11n, QPSK modulation, 27.0 / 30.0 Mbps data rate.

Channel 36+40 / 5190MHz

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 56.821          | 24.4       | 16.596   | 57.4                   | -33                   | 40             | 15.6   | PASSED  |
| 57.114          | 24.74      | 17.258   | 57.84                  | -33.1                 | 40             | 15.26  | PASSED  |
| 57.828          | 24.55      | 16.885   | 57.75                  | -33.2                 | 40             | 15.45  | PASSED  |

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10376.9         | 48.31      | 260.315  | 42.21                  | 6.1                   | 68             | 19.92  | PASSED  |
| 15569.3         | 43.51      | 149.796  | 40.81                  | 2.7                   | 74             | 30.47  | PASSED  |
| 20764           | 46.71      | 216.521  | 41.01                  | 5.7                   | 74             | 27.27  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10376.9         | 35.64      | 60.534   | 29.54                  | 6.1                   | ---            | ---    | PASSED  |
| 15569.3         | 30.71      | 34.316   | 28.01                  | 2.7                   | 54             | 23.29  | PASSED  |
| 20764           | 33.48      | 47.206   | 27.78                  | 5.7                   | 54             | 20.52  | PASSED  |

Channel 44+48 / 5230MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10459.8         | 49.65      | 303.739  | 43.15                  | 6.5                   | 68             | 18.58  | PASSED  |
| 15563           | 43.75      | 153.993  | 41.05                  | 2.7                   | 74             | 30.23  | PASSED  |
| 20692.4         | 45.85      | 196.11   | 40.05                  | 5.8                   | 74             | 28.13  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10459.8         | 37.06      | 71.285   | 30.56                  | 6.5                   | ---            | ---    | PASSED  |
| 15563           | 31         | 35.481   | 28.3                   | 2.7                   | 54             | 23     | PASSED  |
| 20692.4         | 33.15      | 45.446   | 27.35                  | 5.8                   | 54             | 20.85  | PASSED  |

Channel 52+56 / 5270MHz

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 56.521          | 24.46      | 16.711   | 57.36                  | -32.9                 | 40             | 15.54  | PASSED  |
| 56.964          | 24.38      | 16.558   | 57.38                  | -33                   | 40             | 15.62  | PASSED  |
| 57.318          | 24.91      | 17.599   | 58.01                  | -33.1                 | 40             | 15.09  | PASSED  |

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10538.3         | 49.89      | 312.248  | 42.99                  | 6.9                   | 68             | 18.34  | PASSED  |
| 15811.7         | 43.6       | 151.356  | 41                     | 2.6                   | 74             | 30.38  | PASSED  |
| 21077.8         | 47.15      | 227.772  | 41.35                  | 5.8                   | 74             | 26.83  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10538.3         | 36.56      | 67.298   | 29.66                  | 6.9                   | ---            | ---    | PASSED  |
| 15811.7         | 31.01      | 35.522   | 28.41                  | 2.6                   | 54             | 22.99  | PASSED  |
| 21077.8         | 33.75      | 48.697   | 27.95                  | 5.8                   | 54             | 20.25  | PASSED  |

Channel 60+64 / 5310MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10600           | 49.52      | 299.226  | 42.62                  | 6.9                   | 74             | 24.46  | PASSED  |
| 15923.9         | 45.2       | 181.97   | 42.7                   | 2.5                   | 74             | 28.78  | PASSED  |
| 21259.7         | 46.09      | 201.604  | 40.29                  | 5.8                   | 74             | 27.89  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10600           | 36.61      | 67.686   | 29.71                  | 6.9                   | 54             | 17.39  | PASSED  |
| 15923.9         | 31.56      | 37.844   | 29.06                  | 2.5                   | 54             | 22.44  | PASSED  |
| 21259.7         | 33.05      | 44.926   | 27.25                  | 5.8                   | 54             | 20.95  | PASSED  |

Channel 60+64 / 5310MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10600           | 49.52      | 299.226  | 42.62                  | 6.9                   | 74             | 24.46  | PASSED  |
| 15923.9         | 45.2       | 181.97   | 42.7                   | 2.5                   | 74             | 28.78  | PASSED  |
| 21259.7         | 46.09      | 201.604  | 40.29                  | 5.8                   | 74             | 27.89  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 10600           | 36.61      | 67.686   | 29.71                  | 6.9                   | 54             | 17.39  | PASSED  |
| 15923.9         | 31.56      | 37.844   | 29.06                  | 2.5                   | 54             | 22.44  | PASSED  |
| 21259.7         | 33.05      | 44.926   | 27.25                  | 5.8                   | 54             | 20.95  | PASSED  |

Channel 100+104 / 5510MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11028.5         | 49.12      | 285.759  | 41.92                  | 7.2                   | 74             | 24.86  | PASSED  |
| 16513.6         | 44.1       | 160.325  | 41.4                   | 2.7                   | 68             | 24.13  | PASSED  |
| 22043.1         | 46.24      | 205.116  | 40.54                  | 5.7                   | 74             | 27.74  | PASSED  |

Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11028.5         | 35.94      | 62.661   | 28.74                  | 7.2                   | 54             | 18.06  | PASSED  |
| 16513.6         | 31.05      | 35.686   | 28.35                  | 2.7                   | ---            | ---    | PASSED  |
| 22043.1         | 33.33      | 46.398   | 27.63                  | 5.7                   | 54             | 20.67  | PASSED  |

Channel 132+136 / 5670MHz

Peak (RBW: 1 MHz, VBW: 3 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11344.3         | 49.07      | 284.119  | 42.37                  | 6.7                   | 74             | 24.91  | PASSED  |
| 17024.6         | 43.21      | 144.71   | 40.21                  | 3                     | 68             | 25.02  | PASSED  |
| 22688.2         | 47.23      | 229.879  | 41.23                  | 6                     | 74             | 26.75  | PASSED  |

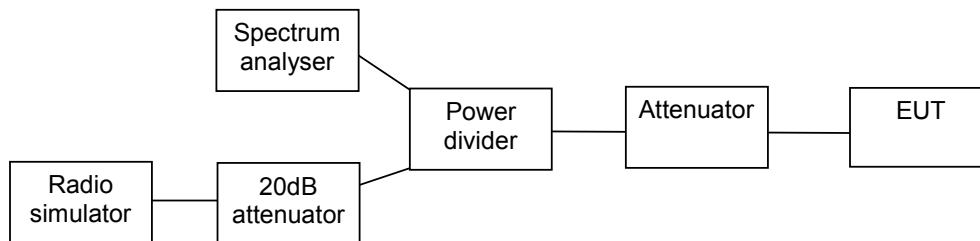
Average (RBW: 1 MHz, VBW: 1 MHz)

| Frequency [MHz] | E [dBμV/m] | E [μV/m] | U <sub>RX</sub> [dBμV] | A <sub>TOT</sub> [dB] | Limit [dBμV/m] | Margin | Results |
|-----------------|------------|----------|------------------------|-----------------------|----------------|--------|---------|
| 11344.3         | 36.15      | 64.195   | 29.45                  | 6.7                   | 54             | 17.85  | PASSED  |
| 17024.6         | 30.28      | 32.659   | 27.28                  | 3                     | ---            | ---    | PASSED  |
| 22688.2         | 33.61      | 47.918   | 27.61                  | 6                     | 54             | 20.39  | PASSED  |

## 6. 26dB(bandwidth)

|                                                 |                           |
|-------------------------------------------------|---------------------------|
| EUT with DUT number                             | RM-984, DUT 43187         |
| Accessories with DUT numbers                    | BV-L4A, DUT 43188         |
| Operation Voltage [V] / [Hz]                    | Nominal                   |
| Results                                         | PASSED                    |
| Remarks                                         | -                         |
| Temp [°C] / Humidity [%RH] / Air Pressure [kPa] | 20-24 / 42-49 / 98.1-98.8 |
| Date of measurements                            | 27-Jun.. 04-Jul-2014      |
| Measured by                                     | Jari Jantunen             |

### 6.1. Test Setup



### 6.2. Test method and limit

The measurement is made according to Public Notice KDB 789033 D01 and IC standard RSS-210.

Limits for 26 dB bandwidth measurements

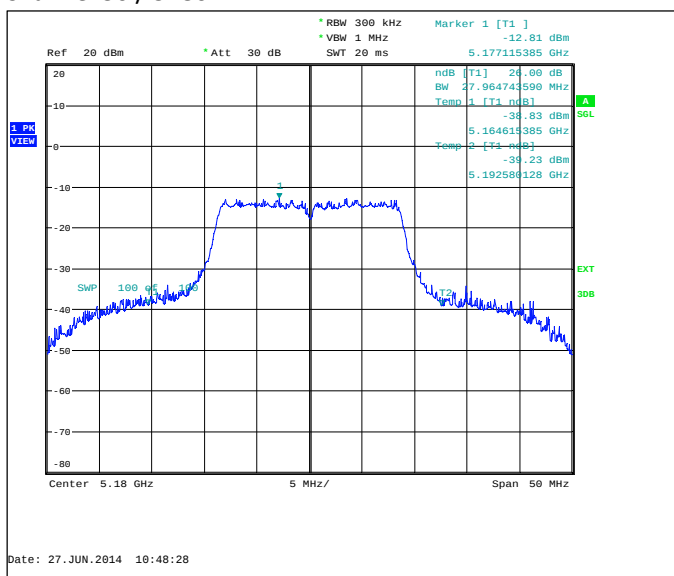
| Limit [kHz] |
|-------------|
| No limit    |

### 6.3. 5 GHz RLAN Test results

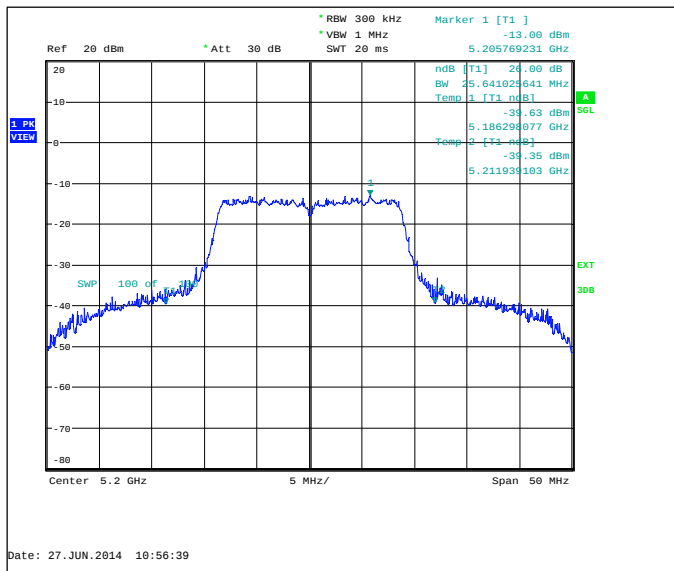
#### 6.3.1 802.11n mode, BPSK modulation, 6.5 / 7.25 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | 26 dB bandwidth [kHz] | Result |
|--------------------------------|-----------------------|--------|
| 36 / 5180                      | 27964.7               | PASSED |
| 40 / 5200                      | 25641                 | PASSED |
| 48 / 5240                      | 24839.7               | PASSED |
| 52 / 5260                      | 25721.2               | PASSED |
| 60 / 5300                      | 24679.5               | PASSED |
| 64 / 5320                      | 25801.3               | PASSED |
| 100 / 5500                     | 27003.2               | PASSED |
| 116 / 5580                     | 27644.2               | PASSED |
| 140 / 5700                     | 31250                 | PASSED |

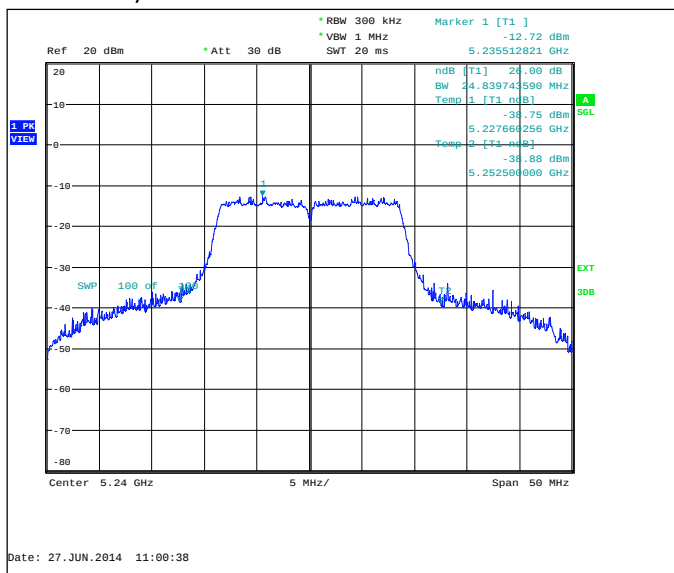
Channel 36 / 5180MHz



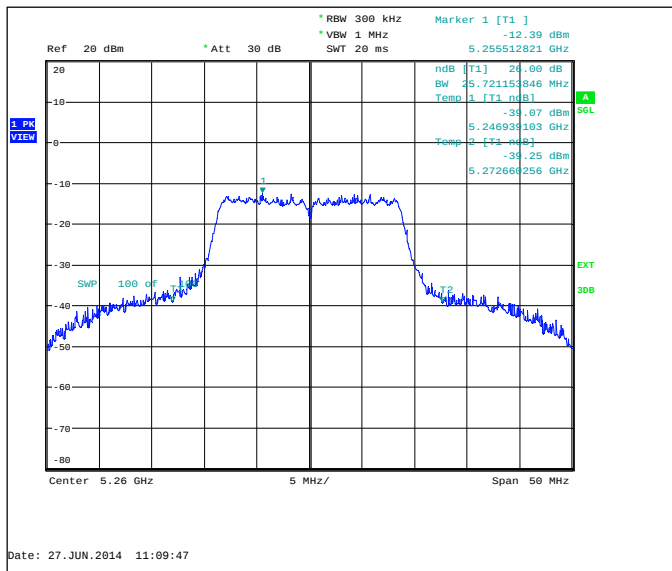
## Channel 40 / 5200MHz



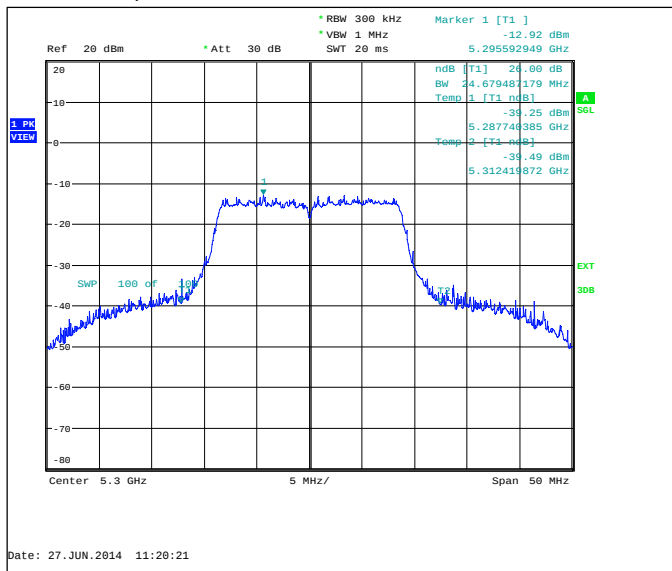
## Channel 48 / 5240MHz



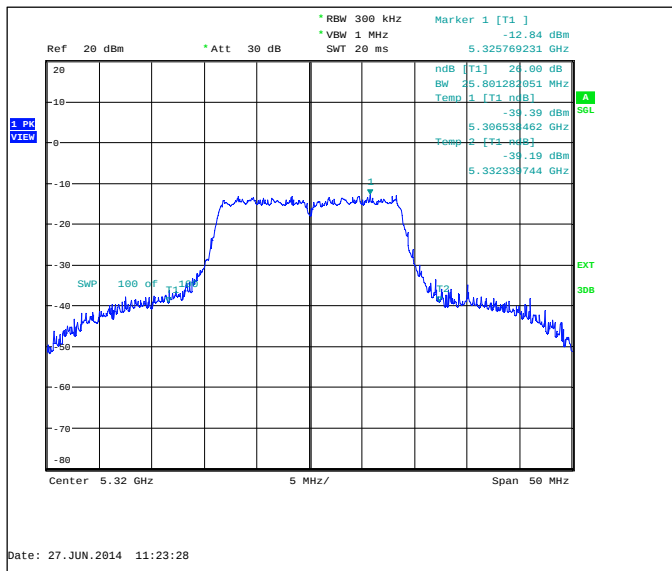
## Channel 52 / 5260MHz



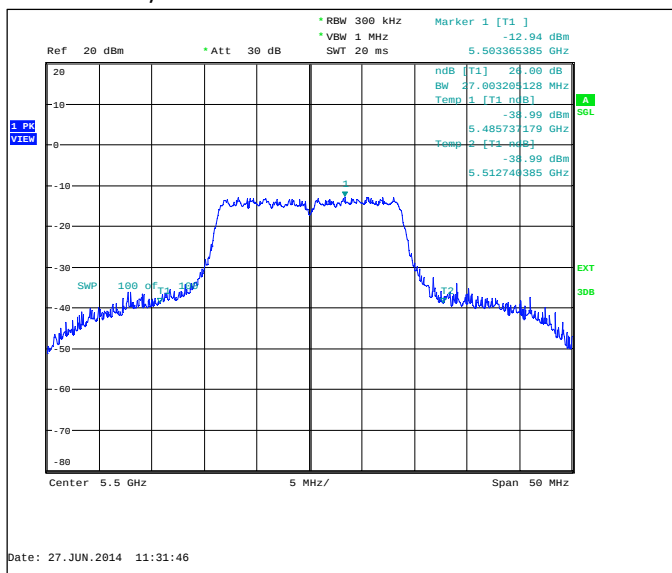
## Channel 60 / 5300MHz



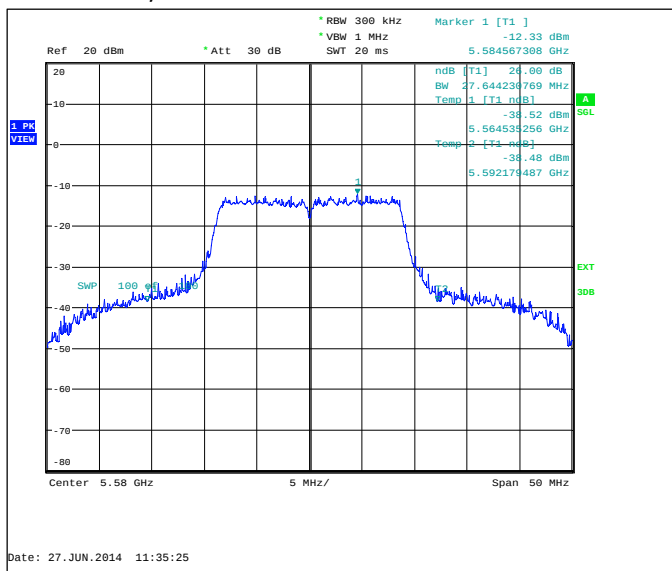
### Channel 64 / 5320MHz



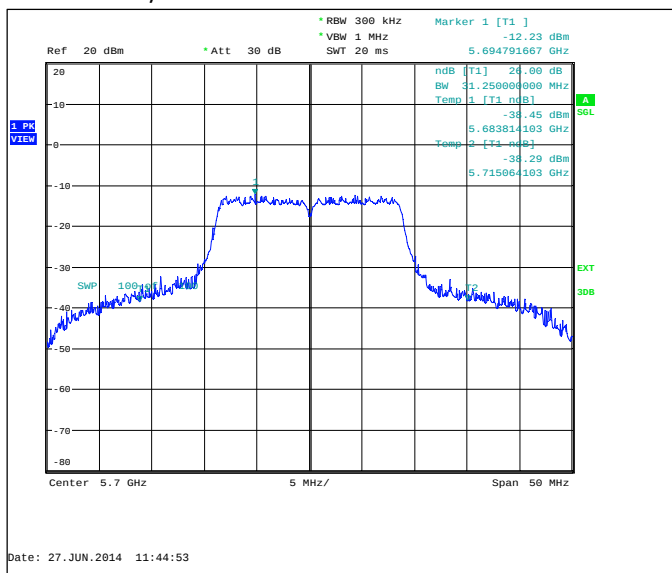
### Channel 100 / 5500MHz



## Channel 116 / 5580MHz



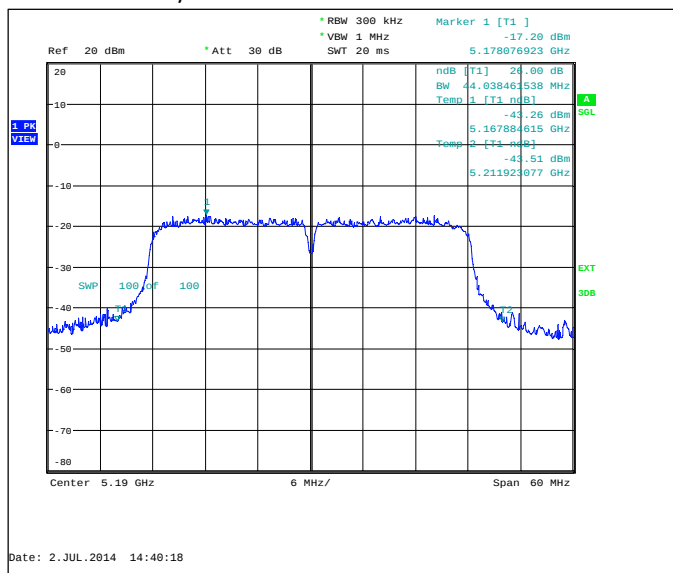
## Channel 140 / 5700MHz



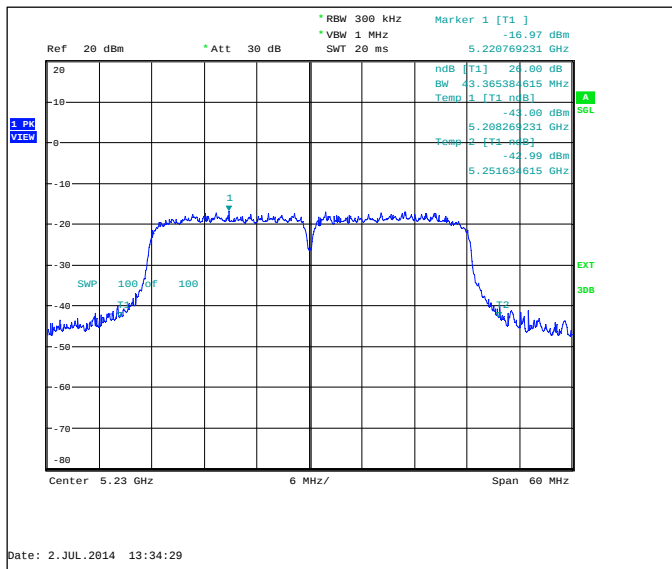
### 6.3.2 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | 26 dB bandwidth [kHz] | Result |
|--------------------------------|-----------------------|--------|
| 36+40 / 5190                   | 44038.5               | PASSED |
| 44+48 / 5230                   | 43365.4               | PASSED |
| 52+56 / 5270                   | 42307.7               | PASSED |
| 60+64 / 5310                   | 43653.8               | PASSED |
| 100+104 / 5510                 | 43076.9               | PASSED |
| 108+112 / 5550                 | 45384.6               | PASSED |
| 132+136 / 5670                 | 45480.8               | PASSED |

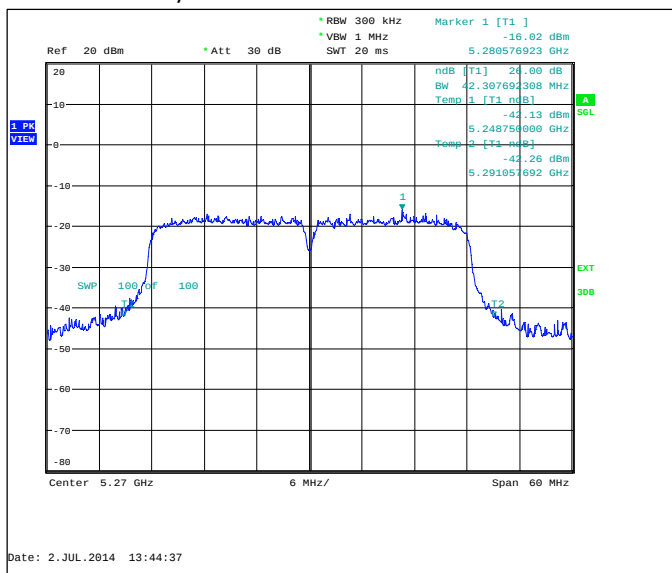
Channel 36+40 / 5190MHz



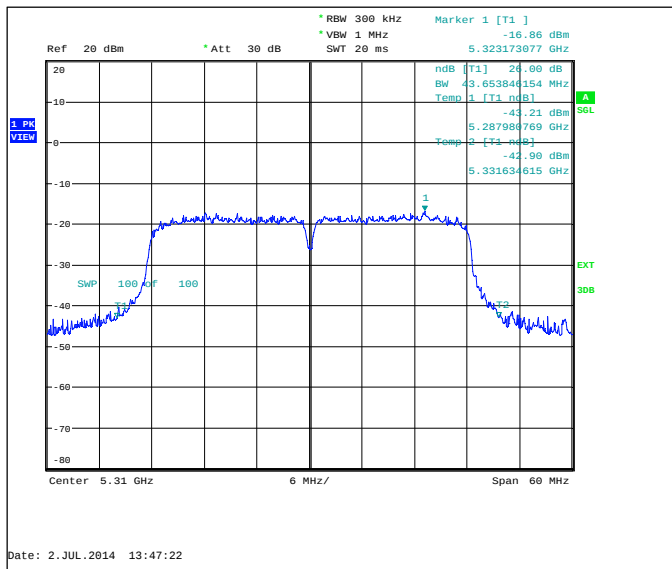
### Channel 44+48 / 5230MHz



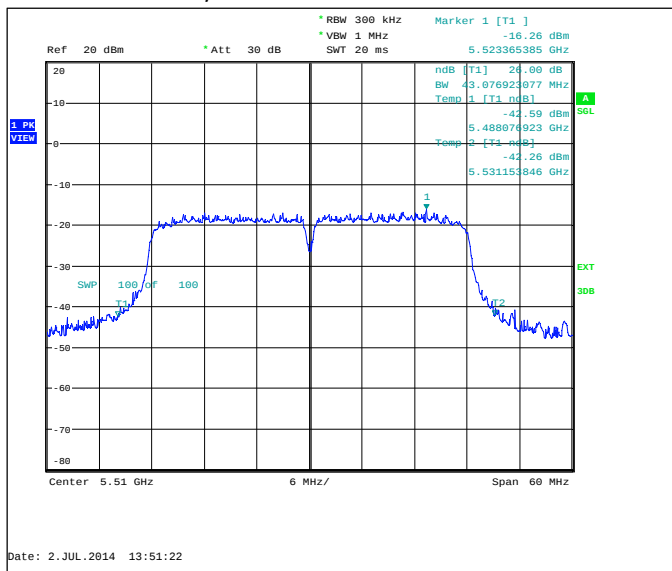
### Channel 52+56 / 5270MHz



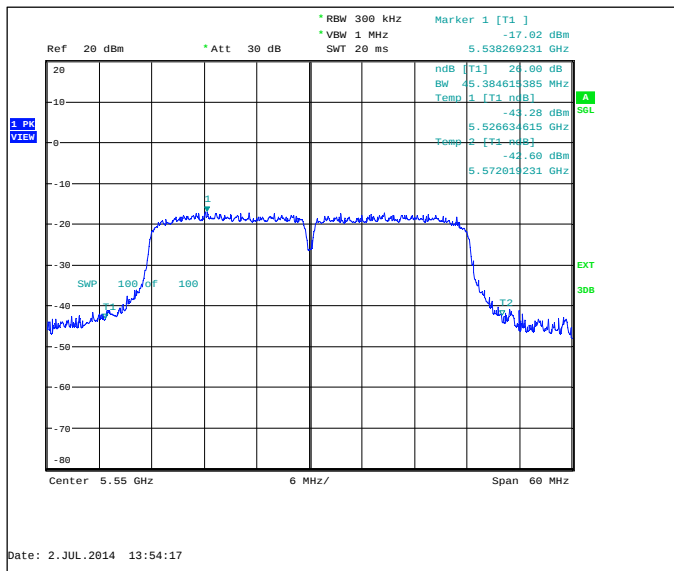
### Channel 60+64 / 5310MHz



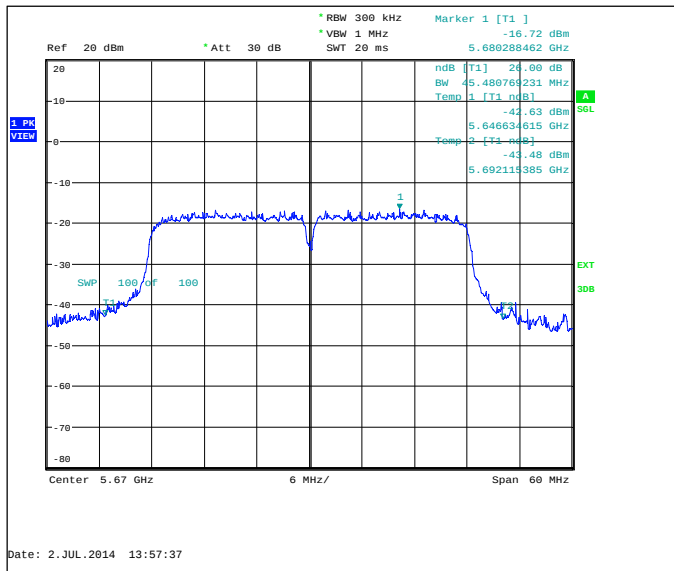
### Channel 100+104 / 5510MHz



### Channel 108+112 / 5550MHz



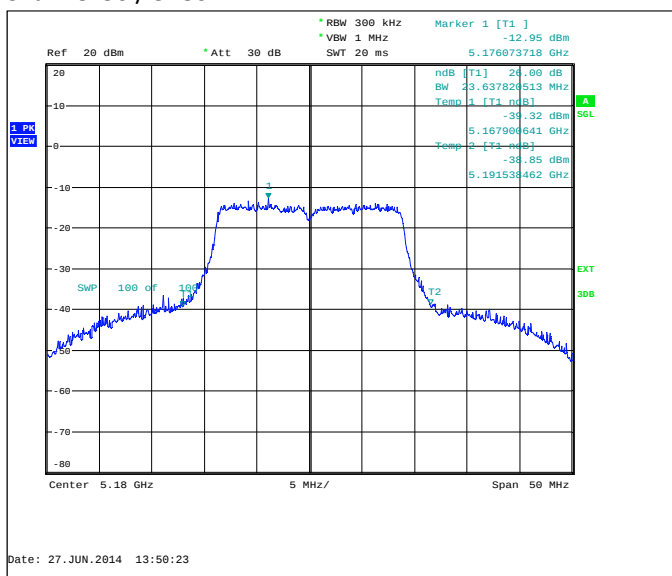
### Channel 132+136 / 5670MHz



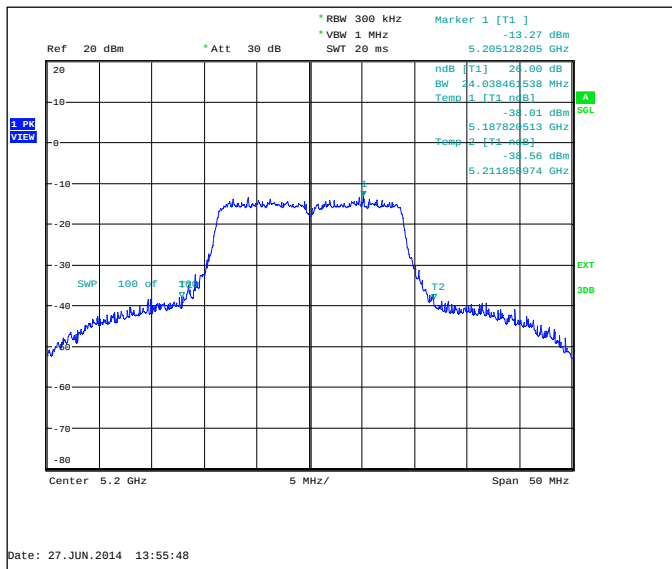
### 6.3.3 802.11n mode, QPSK modulation, 19.5 / 21.7 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | 26 dB bandwidth [kHz] | Result |
|--------------------------------|-----------------------|--------|
| 36 / 5180                      | 23637.8               | PASSED |
| 40 / 5200                      | 24038.5               | PASSED |
| 48 / 5240                      | 23557.7               | PASSED |
| 52 / 5260                      | 23798.1               | PASSED |
| 60 / 5300                      | 23958.3               | PASSED |
| 64 / 5320                      | 23157.1               | PASSED |
| 100 / 5500                     | 23477.6               | PASSED |
| 116 / 5580                     | 23157.1               | PASSED |
| 140 / 5700                     | 24839.7               | PASSED |

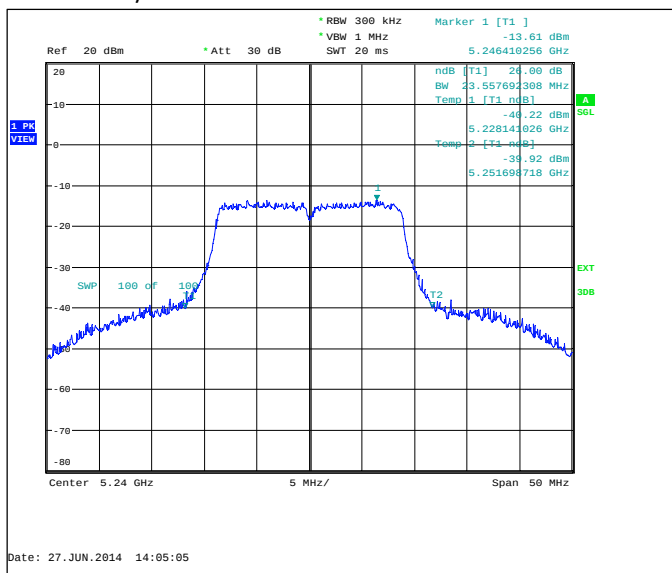
Channel 36 / 5180MHz



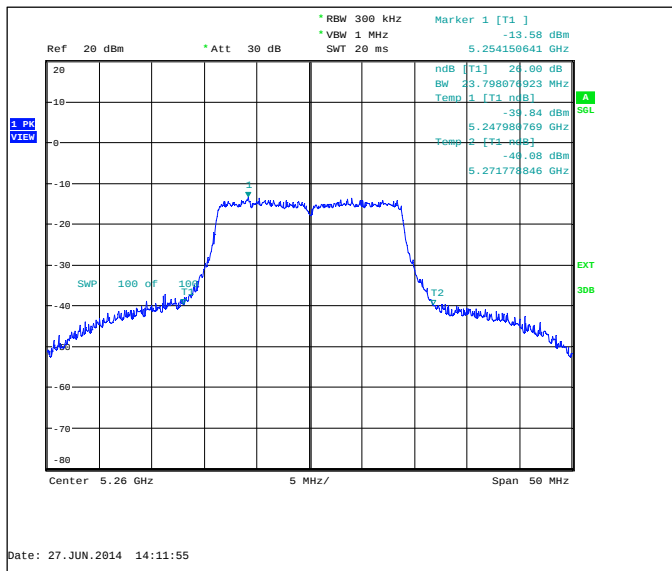
## Channel 40 / 5200MHz



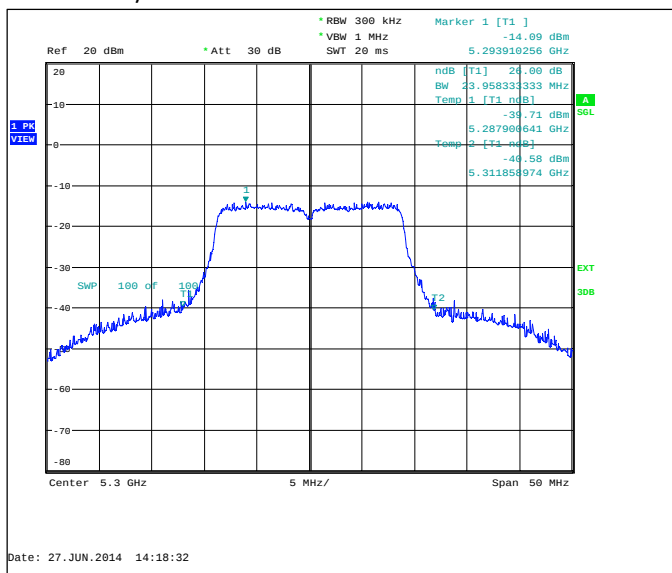
## Channel 48 / 5240MHz



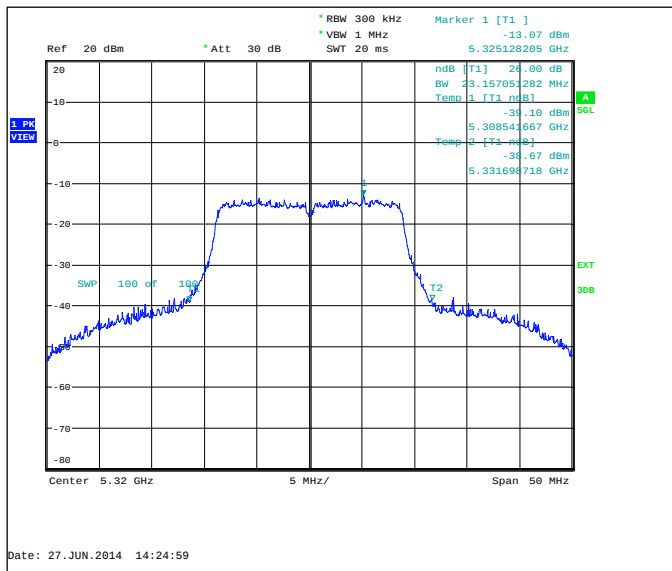
## Channel 52 / 5260MHz



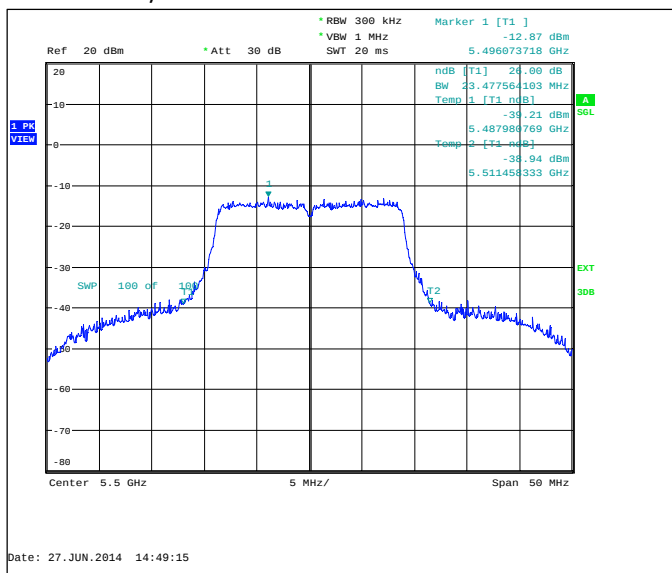
## Channel 60 / 5300MHz



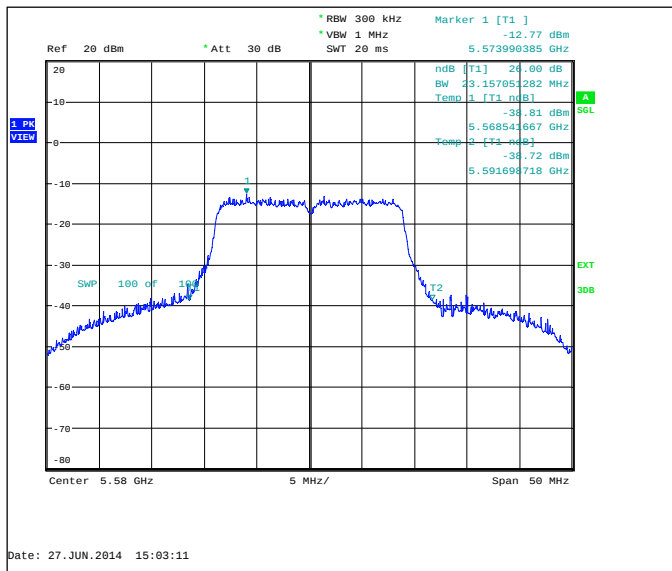
## Channel 64 / 5320MHz



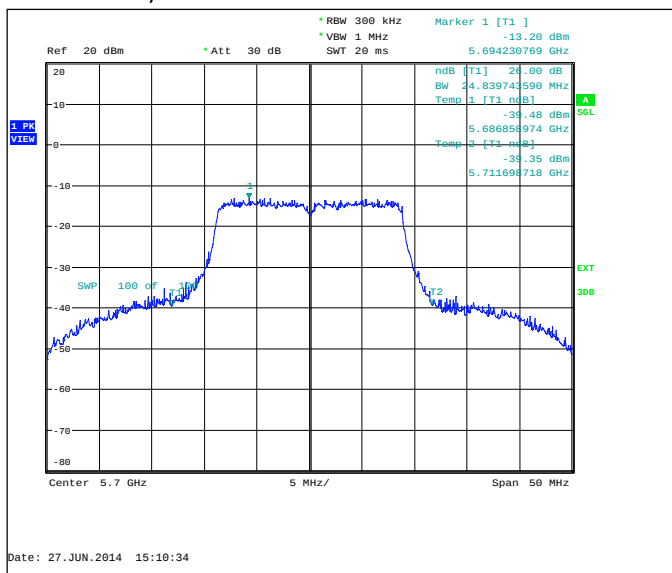
## Channel 100 / 5500MHz



### Channel 116 / 5580MHz



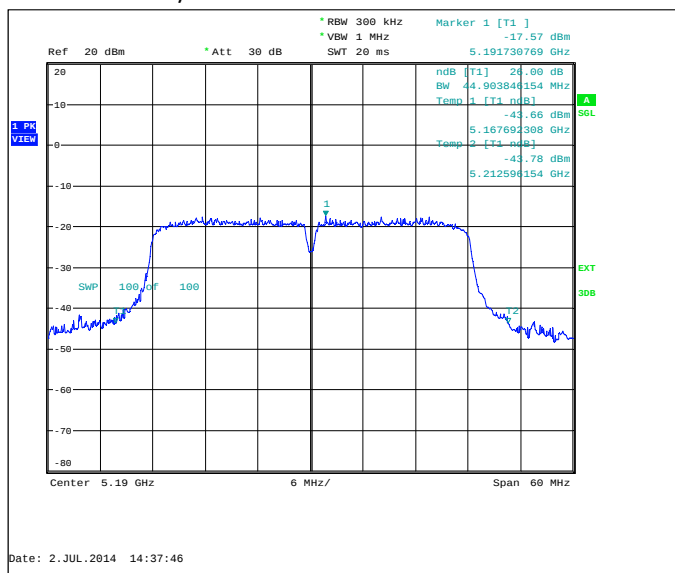
### Channel 140 / 5700MHz



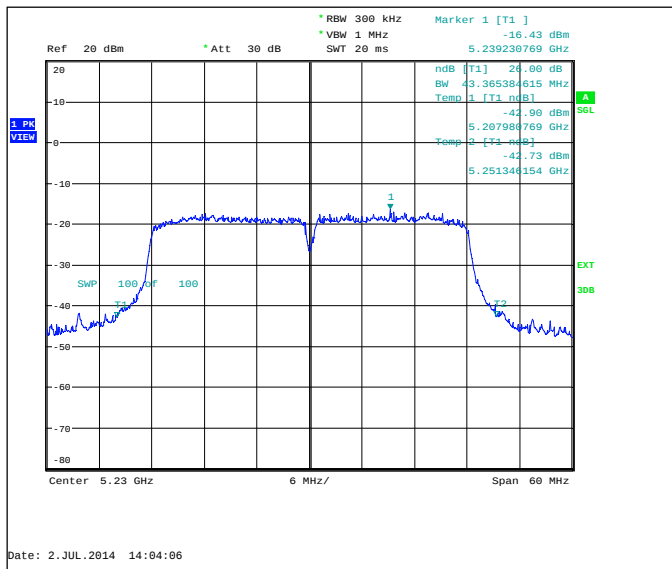
#### 6.3.4 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

| Channel / f <sub>c</sub> [MHz] | 26 dB bandwidth [kHz] | Result |
|--------------------------------|-----------------------|--------|
| 36+40 / 5190                   | 44903.8               | PASSED |
| 44+48 / 5230                   | 43365.4               | PASSED |
| 52+56 / 5270                   | 44711.5               | PASSED |
| 60+64 / 5310                   | 44134.6               | PASSED |
| 100+104 / 5510                 | 44807.7               | PASSED |
| 108+112 / 5550                 | 44807.7               | PASSED |
| 132+136 / 5670                 | 46153.8               | PASSED |

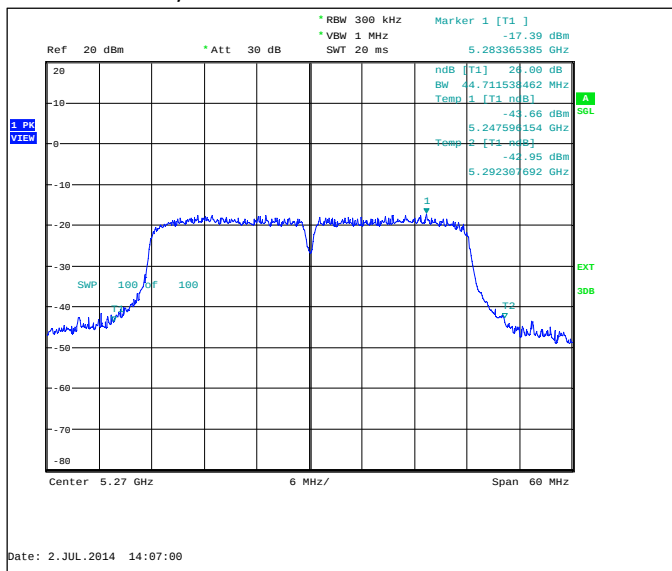
Channel 36+40 / 5190MHz



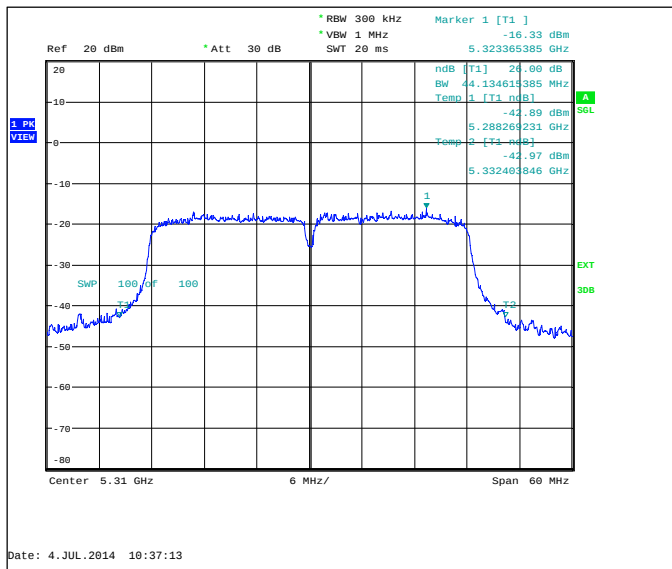
### Channel 44+48 / 5230MHz



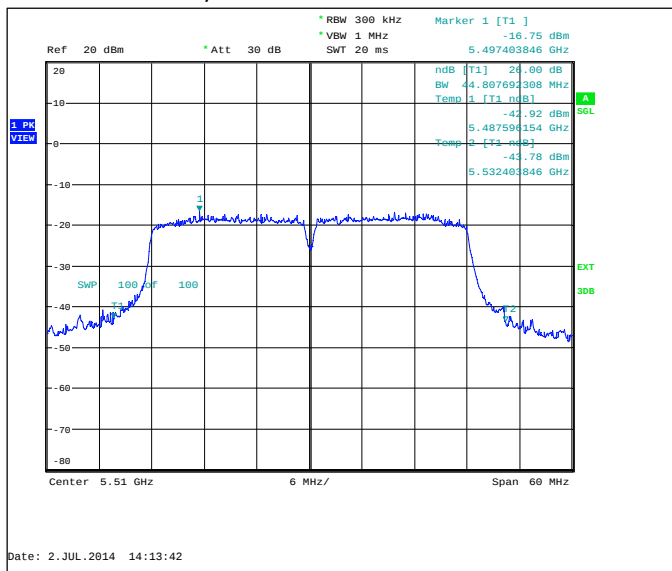
### Channel 52+56 / 5270MHz



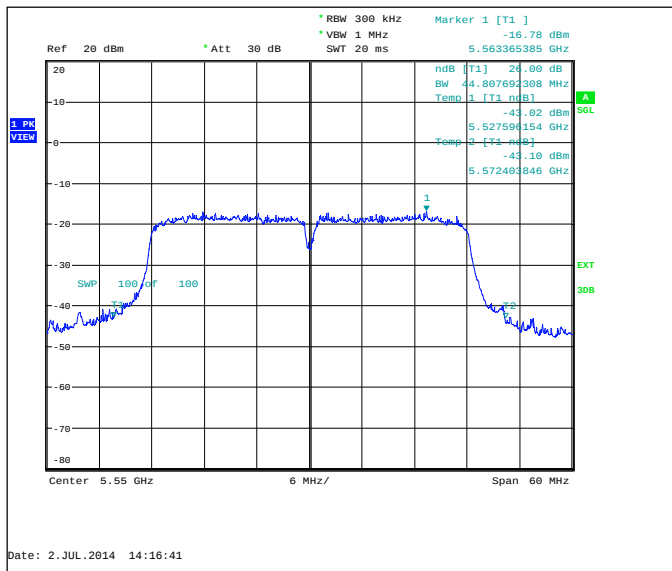
## Channel 60+64 / 5310MHz



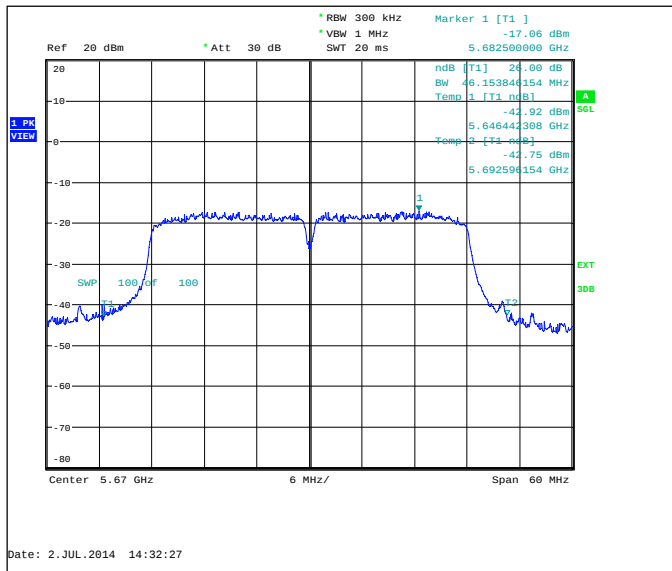
## Channel 100+104 / 5510MHz



### Channel 108+112 / 5550MHz



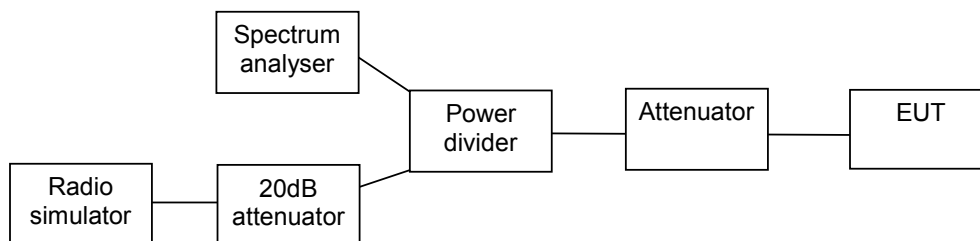
### Channel 132+136 / 5670MHz



## 7. Power spectral density (FCC §15.407(a), RSS-210 A9.2)

|                                                 |                           |
|-------------------------------------------------|---------------------------|
| EUT with DUT number                             | RM-984, DUT 43187         |
| Accessories with DUT numbers                    | BV-L4A, DUT 43188         |
| Operation Voltage [V] / [Hz]                    | Nominal                   |
| Results                                         | PASSED                    |
| Remarks                                         | -                         |
| Temp [°C] / Humidity [%RH] / Air Pressure [kPa] | 20-24 / 42-49 / 98.1-98.8 |
| Date of measurements                            | 27-Jun.. 04-Jul-2014      |
| Measured by                                     | Jari Jantunen             |

### 7.1. Test Setup



### 7.2. Test method and limit

The measurement is made according to Public Notice KDB 789033 D01 and IC standard RSS-210.

Limits for power spectral density measurements

| Frequency range [MHz] | Limit [dBm] |
|-----------------------|-------------|
| 5150-5250             | 4           |
| 5250-5350             | 11          |
| 5470-5725             | 11          |
| 5725-5825             | 17          |

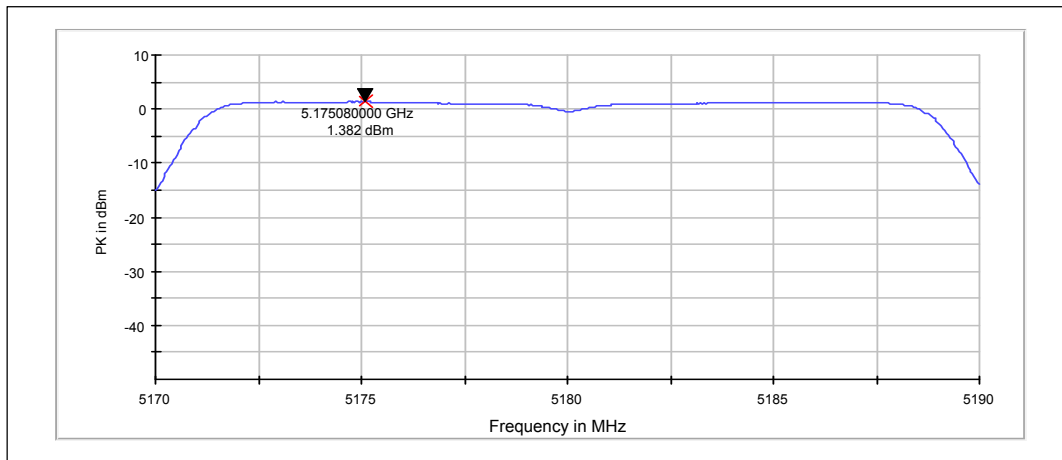
### 7.3. 5 GHz RLAN Test results

#### 7.3.1 802.11n mode, BPSK modulation, 6.5 / 7.25 Mbps data rate

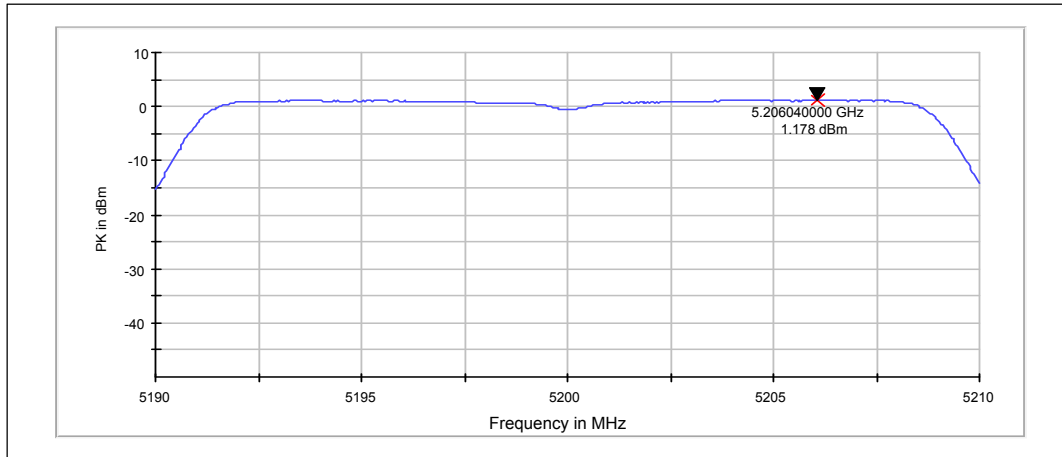
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

| Channel / $f_c$ [MHz] | P [dBm] | Result |
|-----------------------|---------|--------|
| 36 / 5180             | 1.38    | PASSED |
| 40 / 5200             | 1.18    | PASSED |
| 48 / 5240             | 1.34    | PASSED |
| 52 / 5260             | 1.3     | PASSED |
| 60 / 5300             | 1.11    | PASSED |
| 64 / 5320             | 1.23    | PASSED |
| 100 / 5500            | 1.63    | PASSED |
| 116 / 5580            | 1.92    | PASSED |
| 140 / 5700            | 1.93    | PASSED |

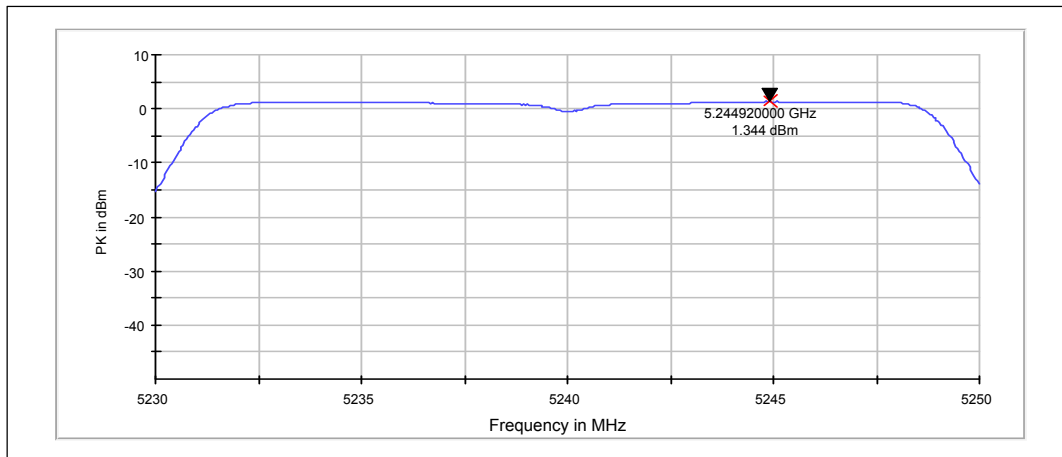
Channel 36 / 5180MHz



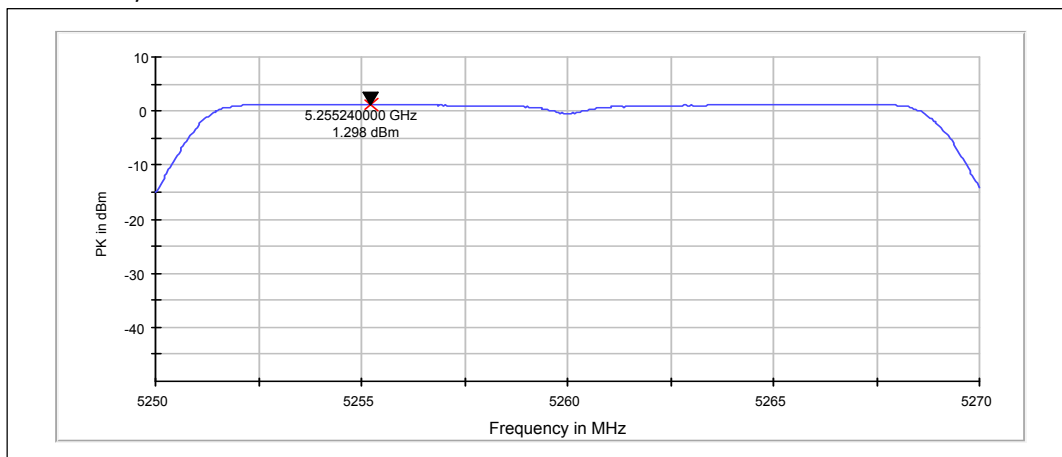
### Channel 40 / 5200MHz



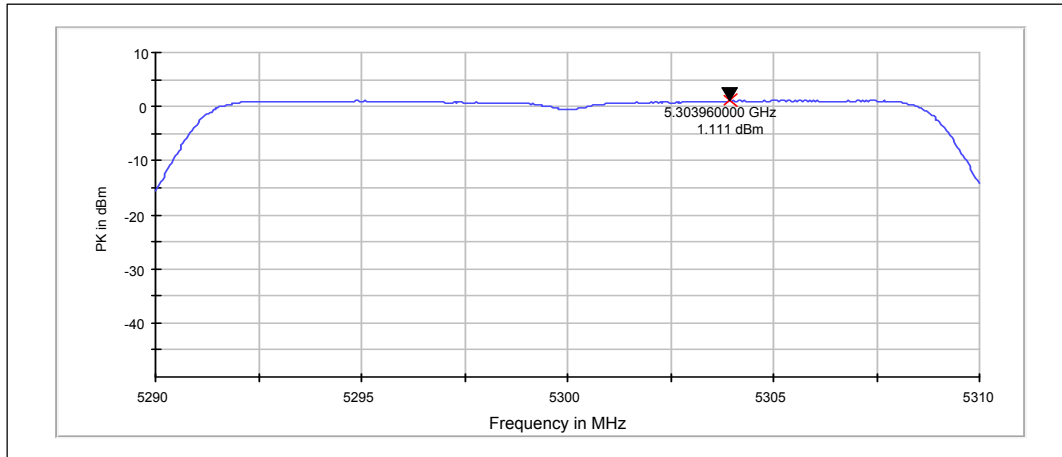
### Channel 48 / 5240MHz



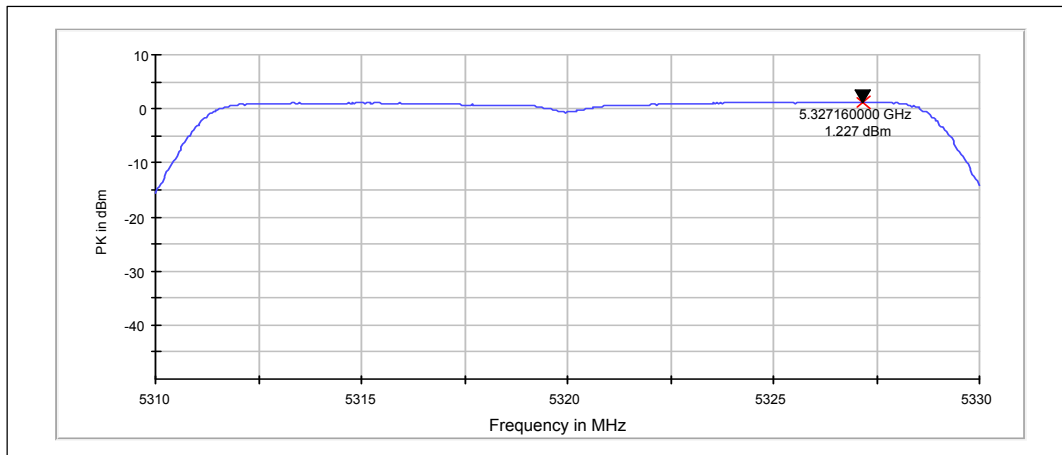
### Channel 52 / 5260MHz



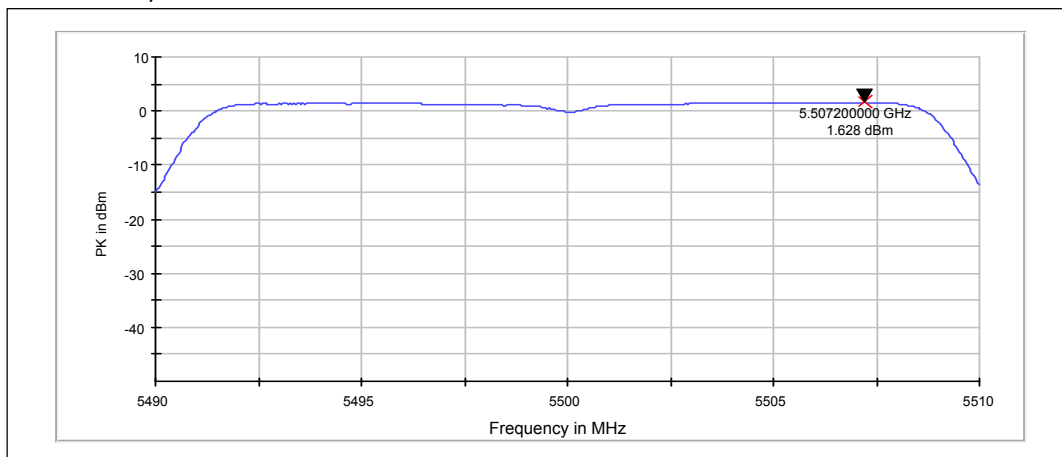
### Channel 60 / 5300MHz



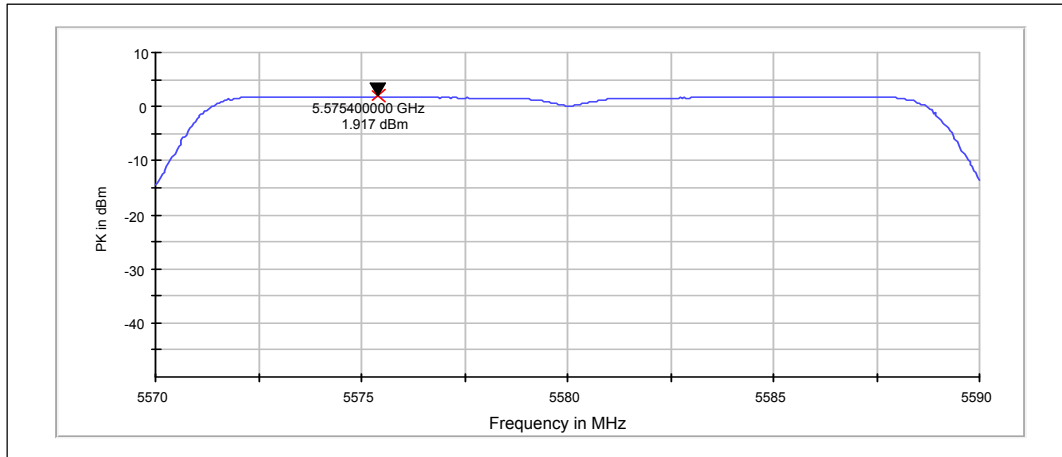
### Channel 64 / 5320MHz



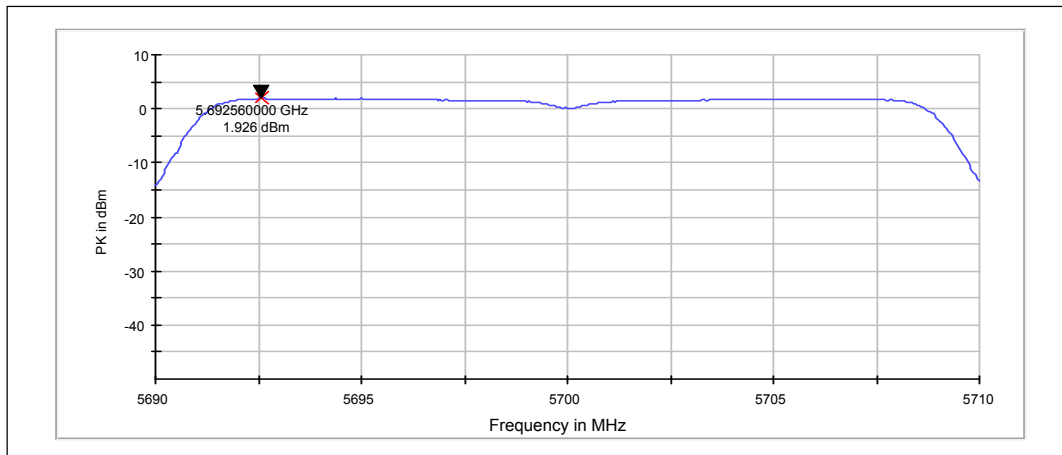
### Channel 100 / 5500MHz



### Channel 116 / 5580MHz



### Channel 140 / 5700MHz

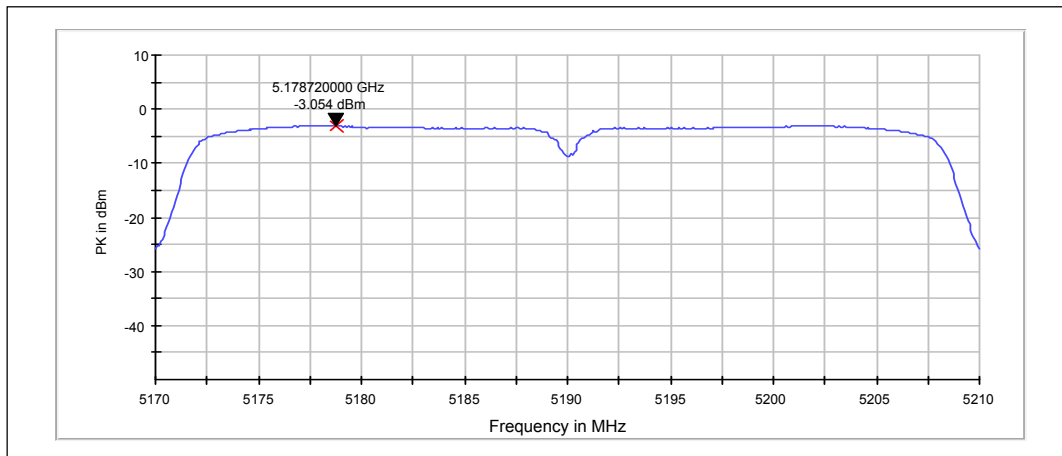


### 7.3.2 802.11n mode, BPSK modulation, 13.5 / 15.0 Mbps data rate

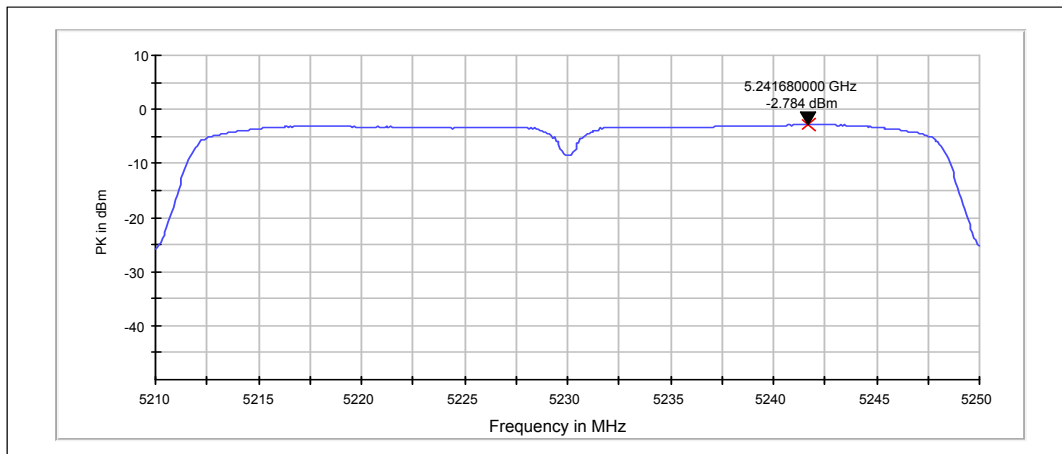
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

| Channel / f <sub>c</sub> [MHz] | P [dBm] | Result |
|--------------------------------|---------|--------|
| 36+40 / 5190                   | -3.05   | PASSED |
| 44+48 / 5230                   | -2.78   | PASSED |
| 52+56 / 5270                   | -2.91   | PASSED |
| 60+64 / 5310                   | -2.94   | PASSED |
| 100+104 / 5510                 | -2.63   | PASSED |
| 108+112 / 5550                 | -2.6    | PASSED |
| 132+136 / 5670                 | -2.43   | PASSED |

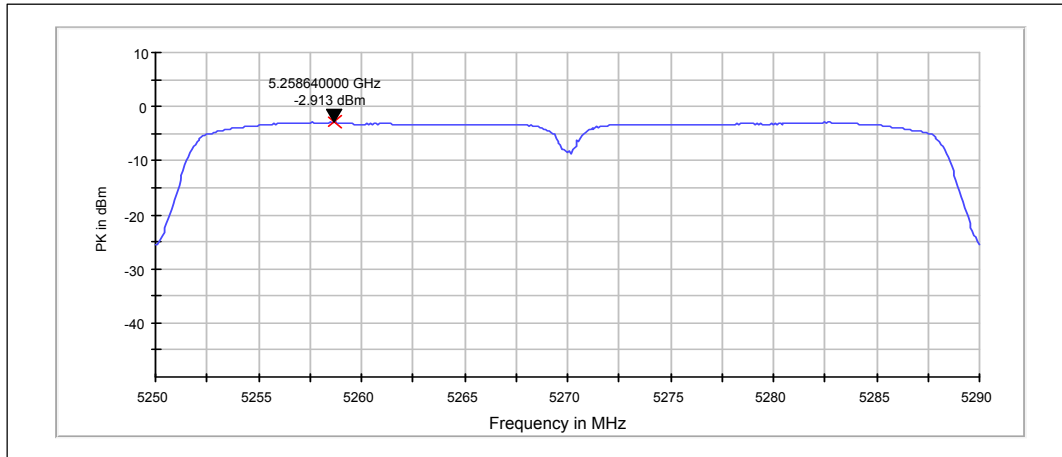
Channel 36+40 / 5190MHz



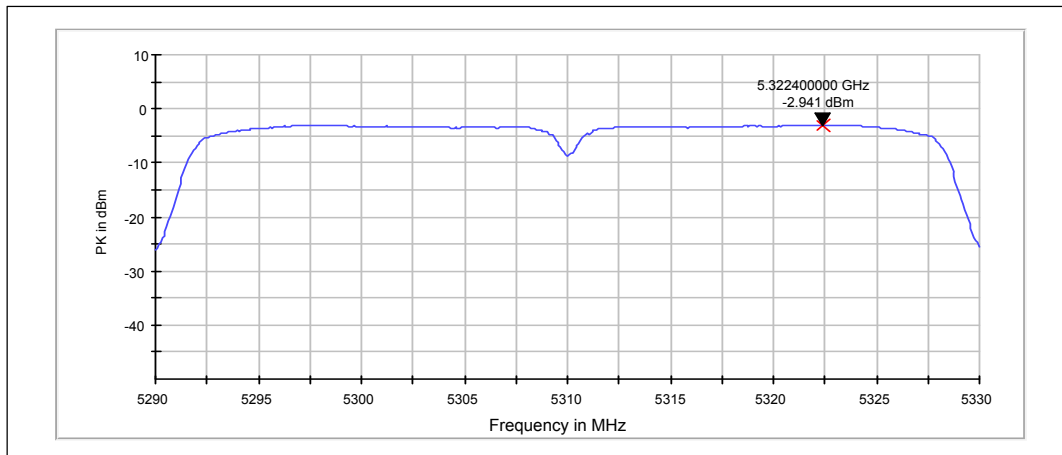
Channel 44+48 / 5230MHz



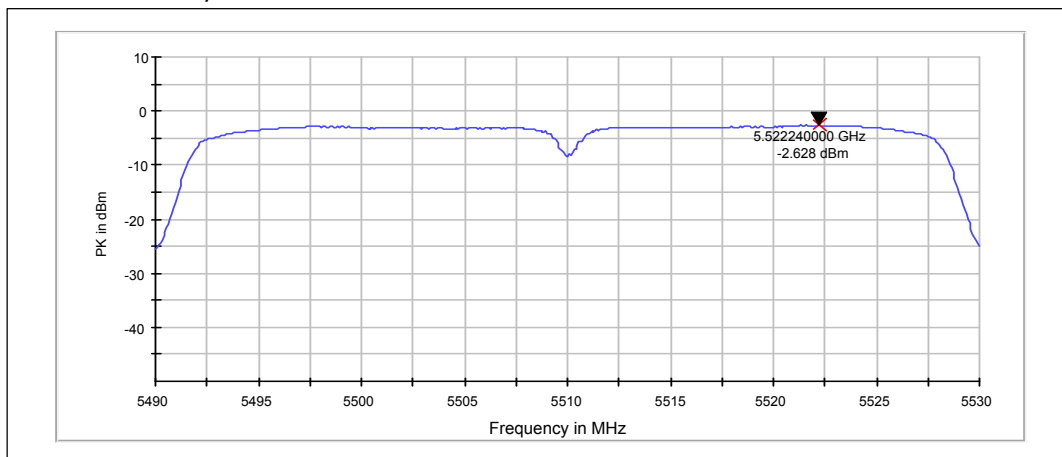
Channel 52+56 / 5270MHz



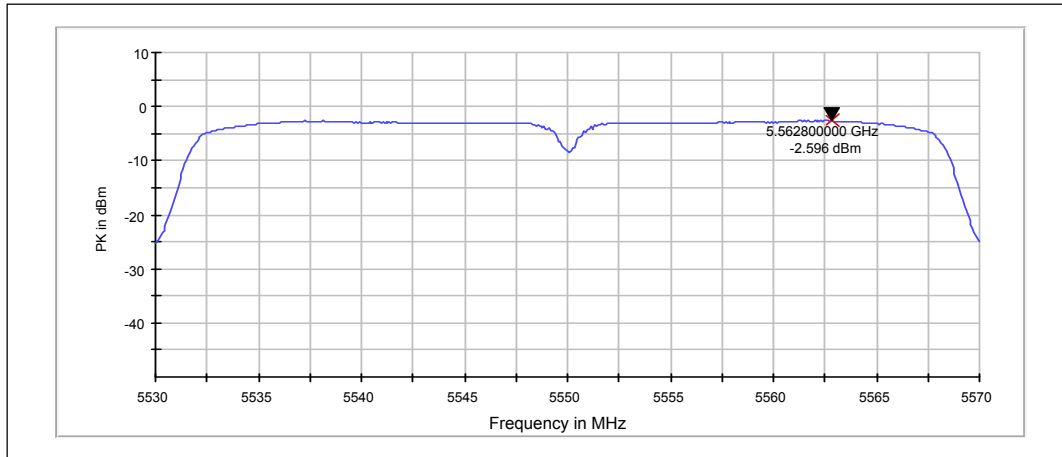
Channel 60+64 / 5310MHz



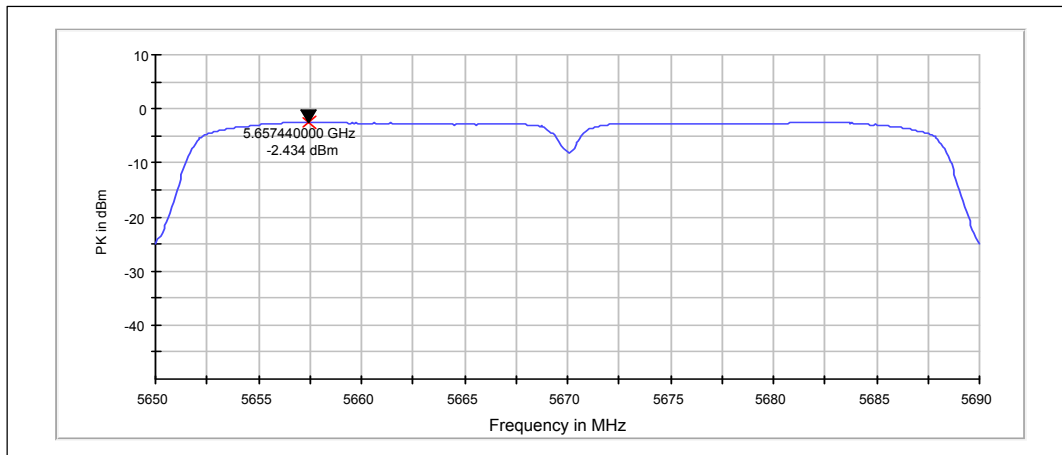
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



Channel 132+136 / 5670MHz

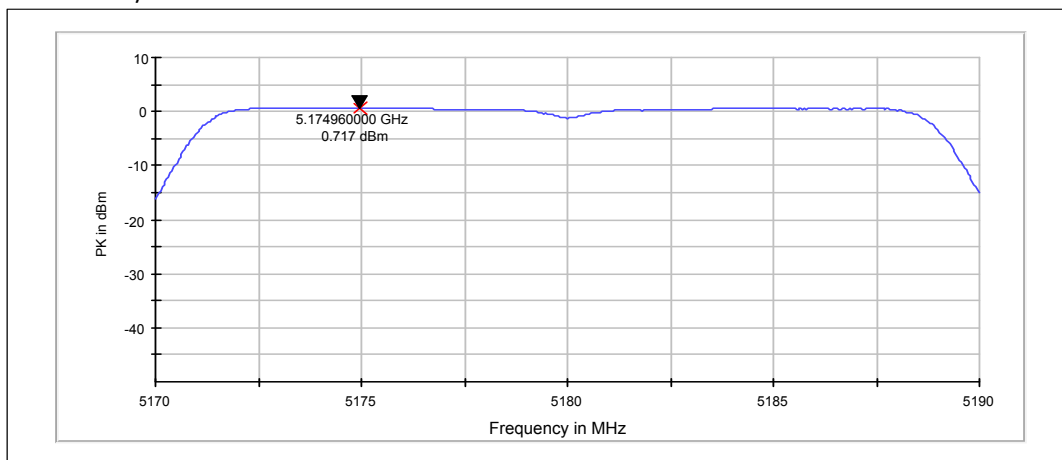


### 7.3.3 802.11n mode, QPSK modulation, 19.5 / 21.7 Mbps data rate

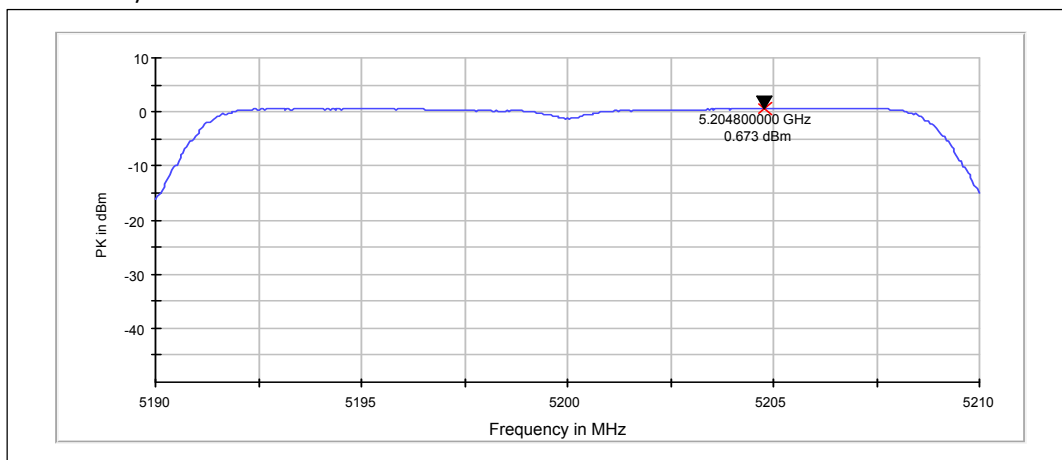
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

| Channel / f <sub>c</sub> [MHz] | P [dBm] | Result |
|--------------------------------|---------|--------|
| 36 / 5180                      | 0.72    | PASSED |
| 40 / 5200                      | 0.67    | PASSED |
| 48 / 5240                      | 0.89    | PASSED |
| 52 / 5260                      | 0.86    | PASSED |
| 60 / 5300                      | 0.64    | PASSED |
| 64 / 5320                      | 0.74    | PASSED |
| 100 / 5500                     | 1.13    | PASSED |
| 116 / 5580                     | 1.26    | PASSED |
| 140 / 5700                     | 1.32    | PASSED |

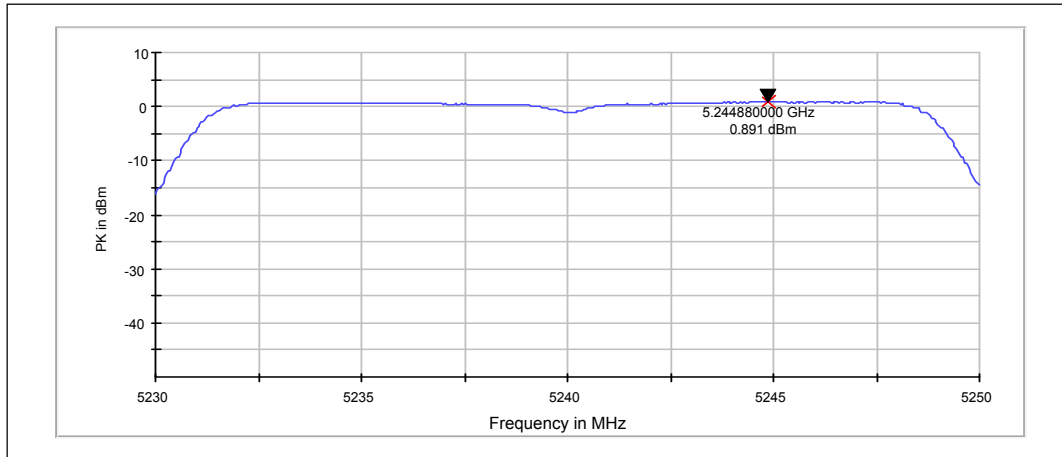
Channel 36 / 5180MHz



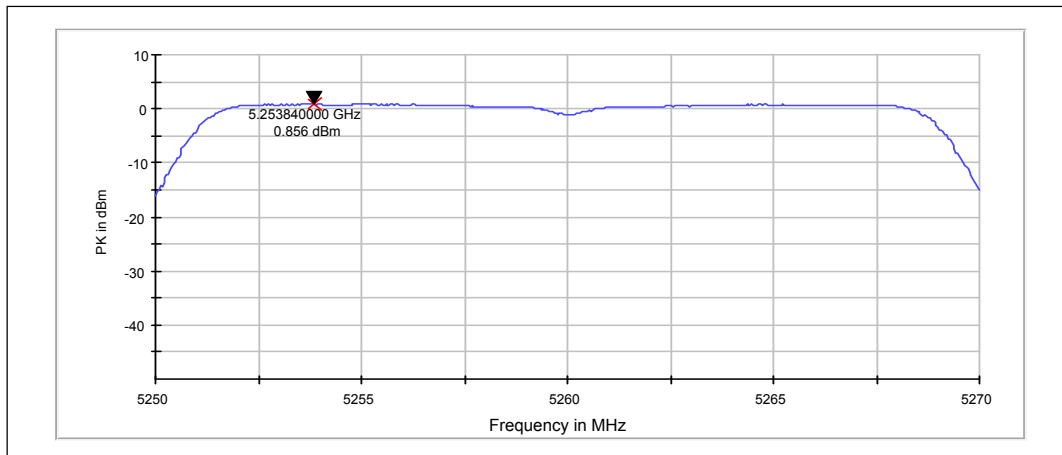
Channel 40 / 5200MHz



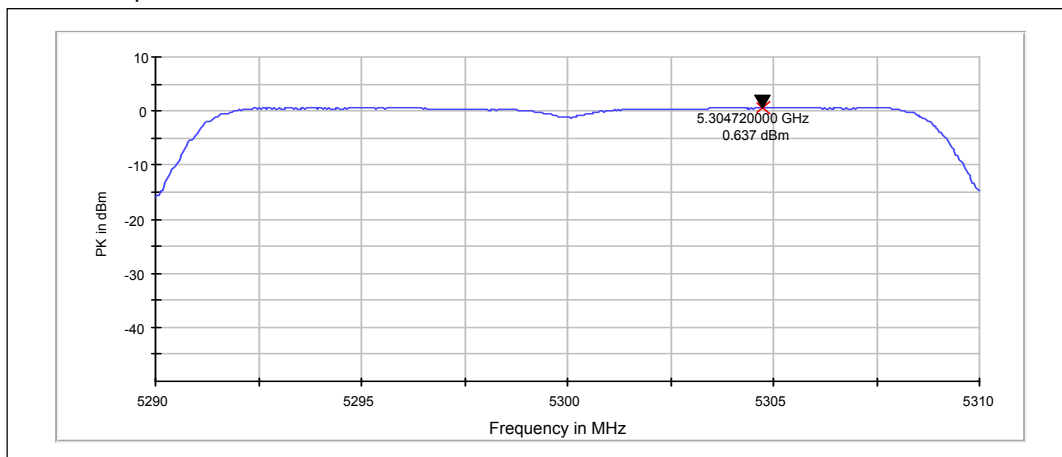
### Channel 48 / 5240MHz



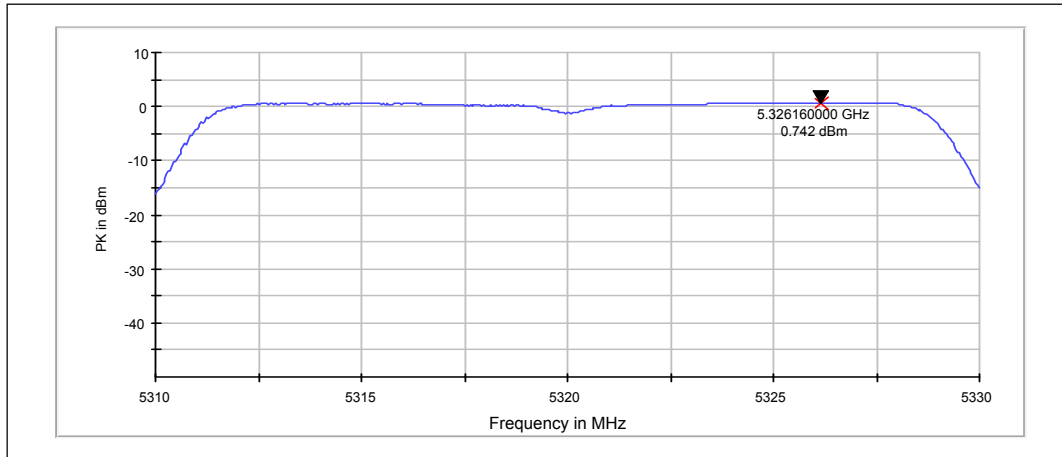
### Channel 52 / 5260MHz



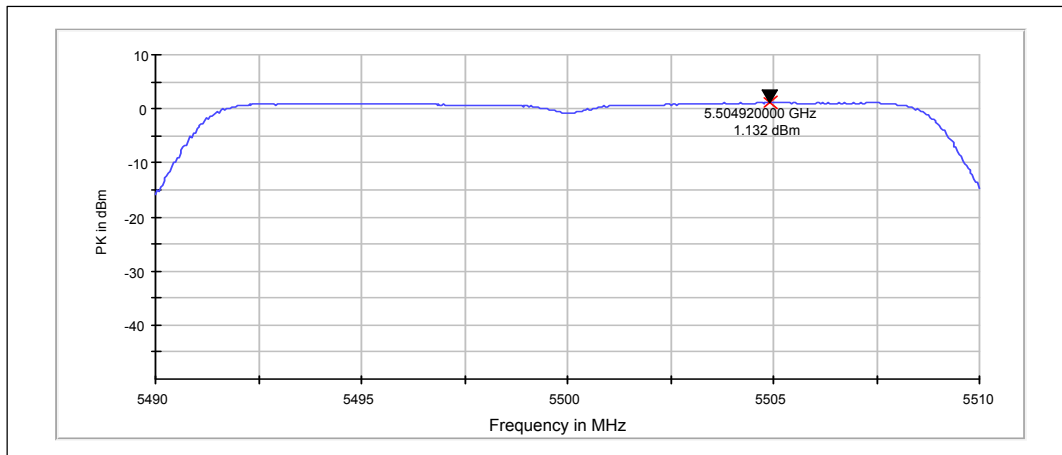
### Channel 60 / 5300MHz



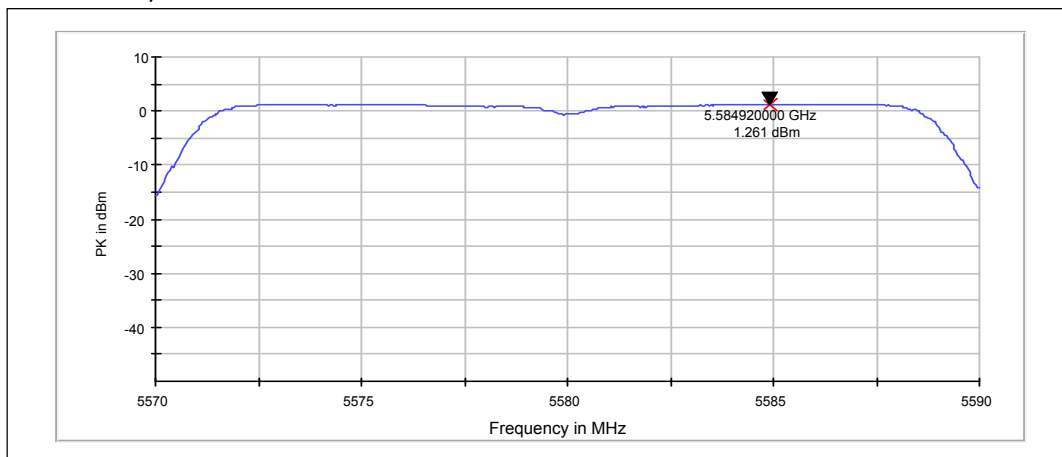
### Channel 64 / 5320MHz



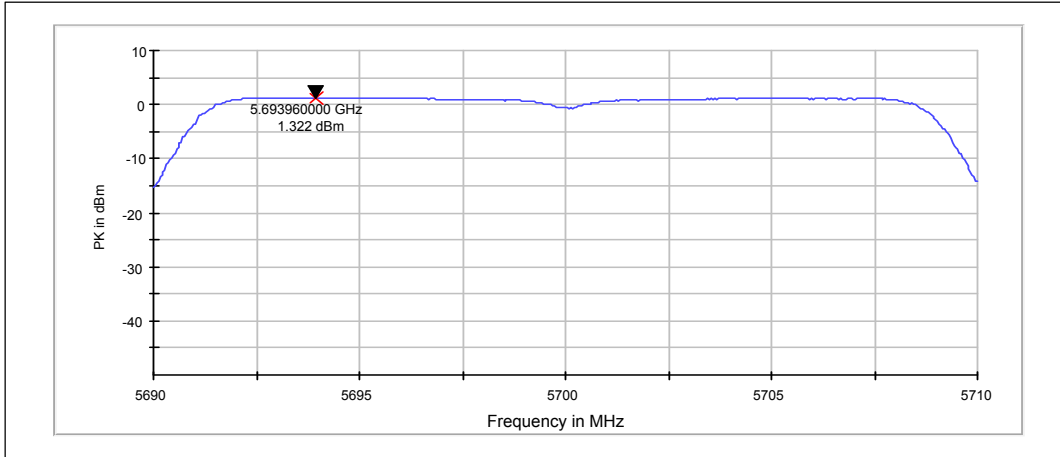
### Channel 100 / 5500MHz



### Channel 116 / 5580MHz



Channel 140 / 5700MHz

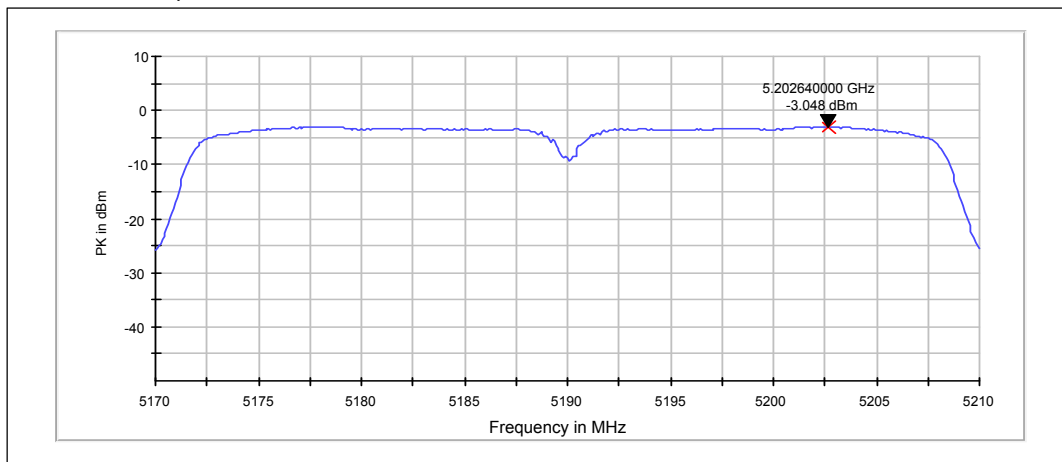


### 7.3.4 802.11n mode, QPSK modulation, 27.0 / 30.0 Mbps data rate

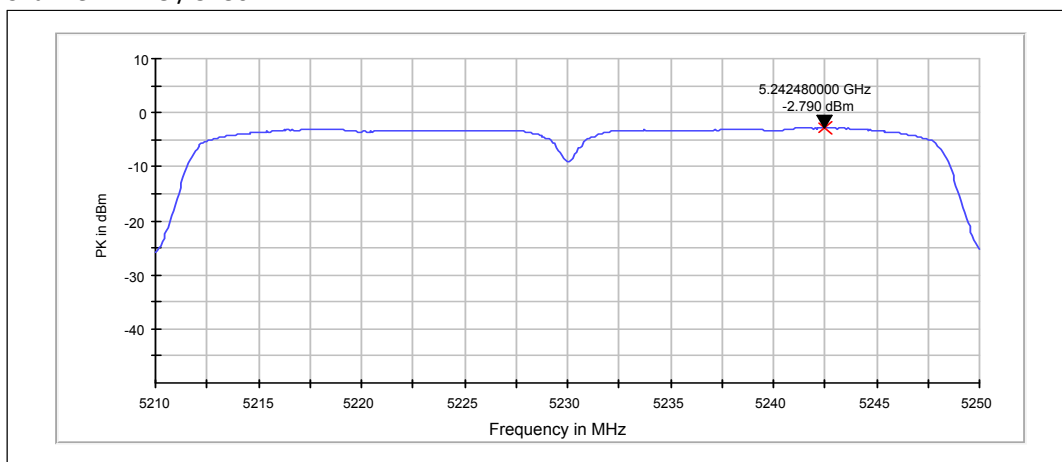
RMS detector (RBW: 1 MHz, VBW: 3 MHz, Video averaging)

| Channel / f <sub>c</sub> [MHz] | P [dBm] | Result |
|--------------------------------|---------|--------|
| 36+40 / 5190                   | -3.05   | PASSED |
| 44+48 / 5230                   | -2.79   | PASSED |
| 52+56 / 5270                   | -3.03   | PASSED |
| 60+64 / 5310                   | -2.6    | PASSED |
| 100+104 / 5510                 | -2.56   | PASSED |
| 108+112 / 5550                 | -2.58   | PASSED |
| 132+136 / 5670                 | -2.41   | PASSED |

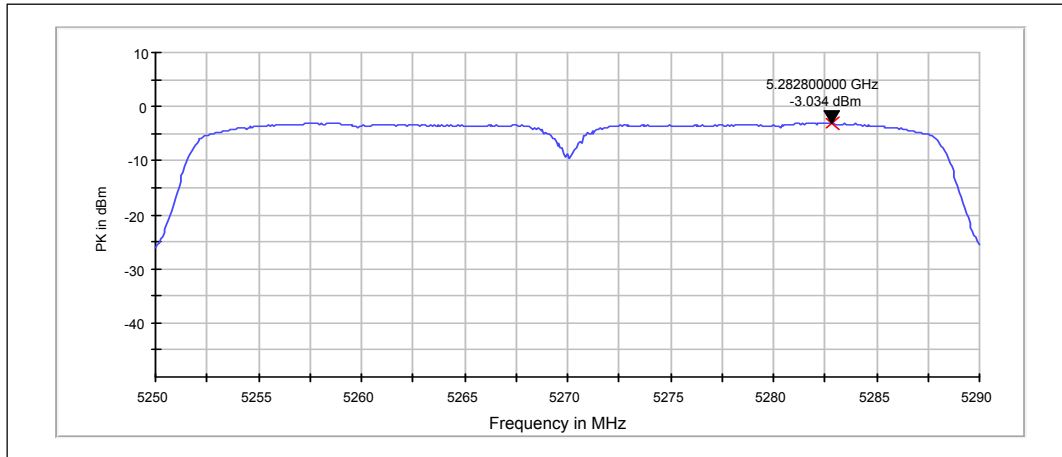
Channel 36+40 / 5190MHz



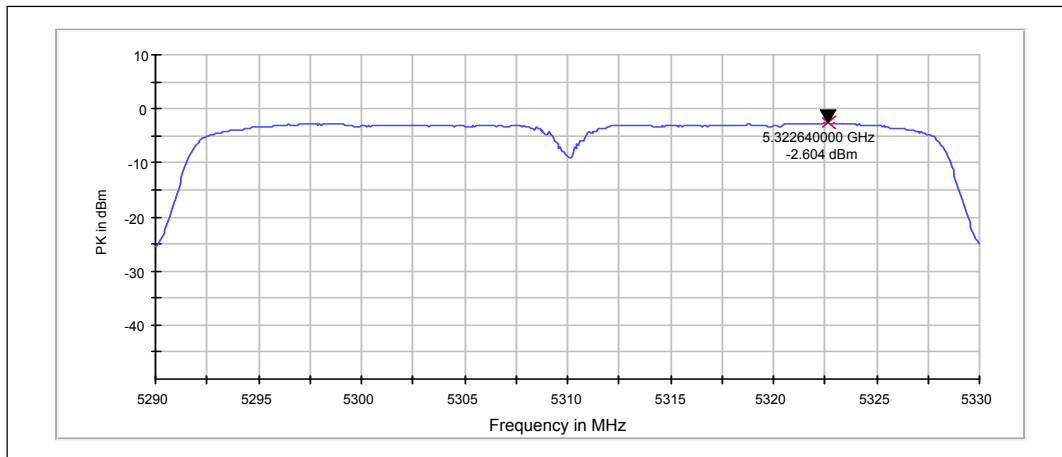
Channel 44+48 / 5230MHz



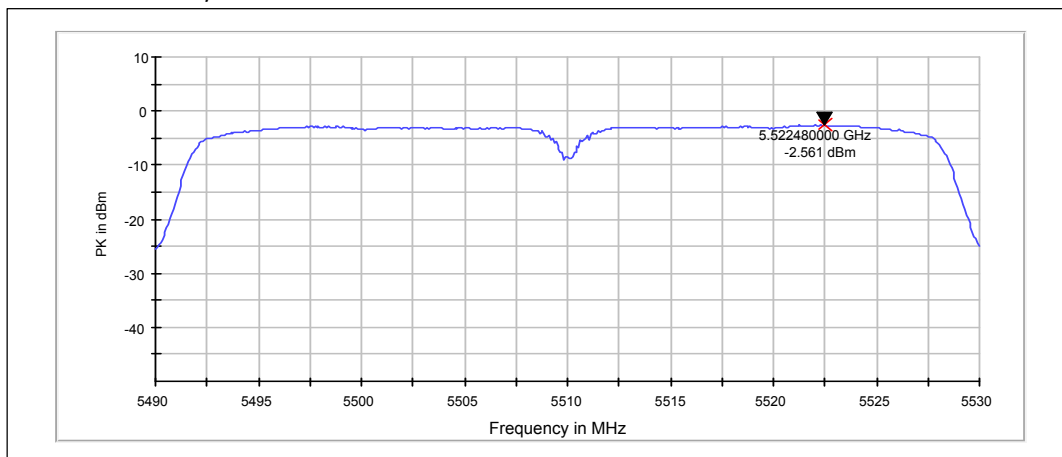
Channel 52+56 / 5270MHz



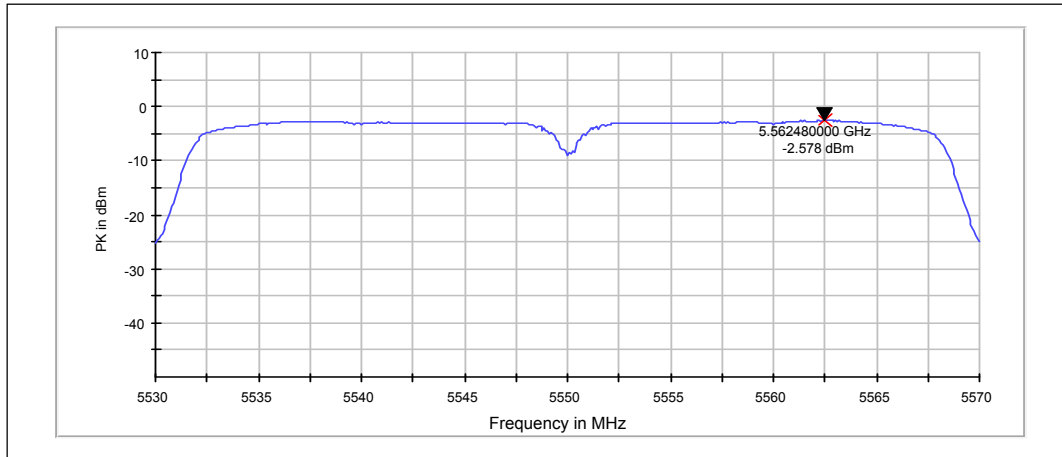
Channel 60+64 / 5310MHz



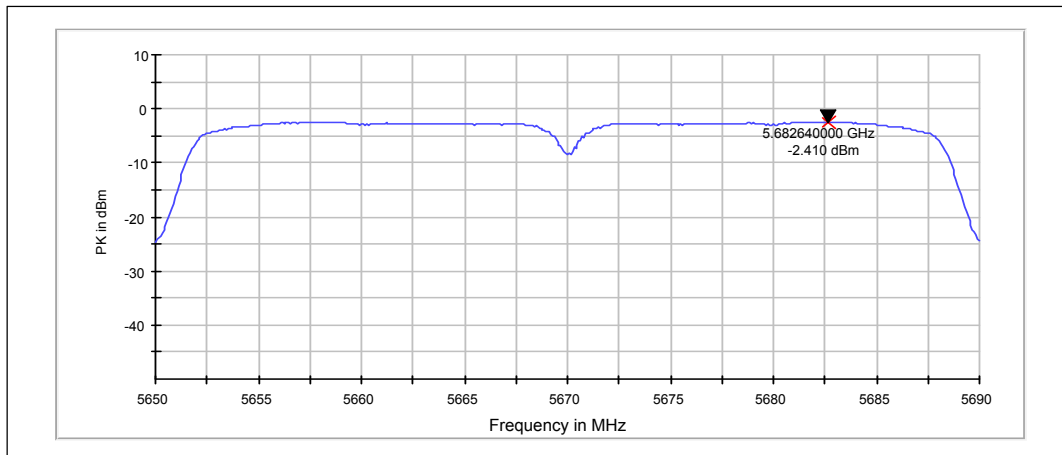
Channel 100+104 / 5510MHz



Channel 108+112 / 5550MHz



Channel 132+136 / 5670MHz



## 8. Test Equipment

### 8.1. Conducted measurements

| Eq. No  | Equipment                           | Type        | Manufacturer  | Used in                 |
|---------|-------------------------------------|-------------|---------------|-------------------------|
| TM38112 | Power supply                        | 6632A       | Agilent       | 22/24/27, 15C, 15E      |
| TM38114 | Power supply                        | 6632A       | Agilent       | 22/24/27, 15C, 15E      |
| TM37773 | Communication Tester                | CMU200      | R&S           | 22/24/27, 15B           |
| TM30600 | Impulse limiter                     | ESH3-Z2     | R&S           | 15C, 15B                |
| TM26490 | LISN 50 µH                          | ESH3-Z5     | R&S           | 15C, 15B                |
| TM26491 | LISN 50 µH                          | ESH3-Z5     | R&S           | 15C, 15B                |
| TM37610 | Spectrum Analyzer                   | FSU26       | R&S           | 22/24/27, 15C, 15E      |
| TM23007 | Oscilloscope                        | TDS684B     | Tektronix     | 15E                     |
| TM22806 | Battery                             | BAT 20/E    | Fiskars       | 15C, 15B                |
| TM22805 | UPS                                 | PS 20/1.2   | Fiskars       | 15C, 15B                |
| -       | Temperature and humidity logger     | 175-H2      | Testo         | 15C, 15B                |
| -       | Temperature and humidity logger     | 175-H2      | Testo         | 22/24/27, 15C           |
| -       | Air pressure and temperature logger | 635-2       | Testo         | 22/24/27, 15C, 15B      |
| -       | Air pressure sensor                 | 0638-1835   | Testo         | 22/24/27, 15C, 15B      |
| -       | Temperature test chamber            | VT 4002     | Vötsch        | 22/24/27                |
| 2001    | Bluetooth tester                    | CBT         | R&S           | 15C, 15B                |
| 2009    | LISN 50 µH                          | ENV216      | R&S           | 15C, 15B                |
| 2010    | LISN 50 µH                          | ENV216      | R&S           | 15C, 15B                |
| 2012    | Power splitter                      | 11667B      | Agilent       | 22/24/27, 15C           |
| 2013    | Attenuator                          | 8493C       | Agilent       | 22/24/27, 15C           |
| 2014    | Attenuator                          | 8493C       | Agilent       | 22/24/27, 15C           |
| 2019    | Power splitter                      | ZN2PD-9G-S+ | Mini-Circuits | 15E                     |
| 2020    | Power splitter                      | ZN2PD-9G-S+ | Mini-Circuits | 15E                     |
| 2021    | Communication Tester                | CMW500      | R&S           | 22/24/27                |
| 2022    | Communication Tester                | CMU200      | R&S           | 22/24/27                |
| 2023    | Spectrum Analyzer                   | ESMI-RF     | R&S           | 15B/15C                 |
| 2024    | Analyzer display unit               | ESAI-D      | R&S           | 15B/15C                 |
| 2026    | Signal Generator                    | SMF 100A    | R&S           | 22/24/27, 15C, 15E, 15B |
| -       | Bluetooth tester                    | CBT         | R&S           | 15C, 15B                |

### 8.2. Radiated measurements

| Eq. No  | Equipment               | Type        | Manufacturer | Used in                 |
|---------|-------------------------|-------------|--------------|-------------------------|
| -       | Antenna                 | BBHA 9120 D | Schwarzbeck  | 22/24/27, 15C           |
| TM37678 | Communication Tester    | CMU200      | R&S          | 22/24/27, 15B           |
| TM38845 | Receiver                | ESIB 26     | R&S          | 22/24/27, 15C, 15E, 15B |
| -       | Antenna                 | HL562       | R&S          | 22/24/27, 15C, 15E, 15B |
| -       | Turntable               | 2188        | EMCO         | 22/24/27, 15C, 15E, 15B |
| -       | Turntable controller    | 2090        | EMCO         | 22/24/27, 15C, 15E, 15B |
| -       | RF system panel         | OSP130      | R&S          | 22/24/27, 15C, 15E, 15B |
| -       | Mini mast               | 2075-2      | ETS Lindgren | 22/24/27, 15C, 15B      |
| TM38843 | Mini mast               | 2075        | Emco         | 22/24/27, 15C, 15B      |
| TM38842 | Antenna mast controller | 2090        | Emco         | 22/24/27, 15C, 15B      |
| TM30643 | LISN 50 µH              | LISN-5-20-2 | FCC          | 22/24/27, 15C, 15B      |
| TM30644 | LISN 50 µH              | LISN-5-20-2 | FCC          | 22/24/27, 15C, 15B      |

| Eq. No  | Equipment                           | Type                                   | Manufacturer | Used in                 |
|---------|-------------------------------------|----------------------------------------|--------------|-------------------------|
| -       | Temperature and humidity logger     | 175-H2                                 | Testo        | 22/24/27, 15C, 15B      |
| -       | Air pressure and temperature logger | 635-2                                  | Testo        | 22/24/27, 15C, 15B      |
| -       | Air pressure sensor                 | 0638-1835                              | Testo        | 22/24/27, 15C, 15B      |
| TM37523 | Preamplifier                        | AMF-4D-10M-3G-25-20P                   | Miteq        | 22/24/27, 15C, 15B      |
| TM37498 | Preamplifier                        | AMF-5D-020180-26-10P                   | Miteq        | 22/24/27, 15C, 15B      |
| TM30599 | Semi anechoic chamber               | UNKNOWN                                | TDK          | 22/24/27, 15C, 15B      |
| TM22638 | Power supply                        | OL63743-901                            | -            | 22/24/27, 15C, 15E, 15B |
| TM38066 | High pass filter                    | WHKX3.0/18G-12SS                       | Wainwright   | 22/24/27, 15C, 15E, 15B |
| 2028    | High pass filter                    | WHKX 1.0/15G-12SS                      | Wainwright   | 22/24/27, 15C, 15E, 15B |
| TM37545 | Tunable notch filter                | 800.0/960.0-0.2/40-8SSK                | Wainwright   | 22                      |
| TM26512 | Tunable notch filter                | WRCD1850/1910-0.2/40-10SSK             | Wainwright   | 24                      |
| -       | Band reject filter                  | WRCG1877/1883-1870/1890-40/6EE         | Wainwright   | 24                      |
| -       | Band reject filter                  | WRCG1729.4/1735.4-1722.4/1742.4-40/6SS | Wainwright   | 27                      |
| TM23892 | Controller                          | G-1000SDX                              | Yaesu        | 22/24/27, 15C, 15E      |
| 2001    | Bluetooth tester                    | CBT                                    | R&S          | 15C, 15B                |
| 6023    | Antenna                             | VUBA 9117                              | Schwarzbeck  | 22/24/27                |
| 2021    | Communication Tester                | CMW500                                 | R&S          | 22/24/27                |
| 2025    | Antenna                             | HFH2-Z2                                | R&S          | 15C                     |
| 2026    | Signal Generator                    | SMF 100A                               | R&S          | 22/24/27, 15C, 15E, 15B |
| 2052    | Antenna                             | BBHA 9120 D                            | Schwarzbeck  | 22/24/27, 15C, 15B, 15E |
| -       | Antenna                             | QSH18S20                               | Q-Par        | 22/24/27, 15C, 15B, 15E |
| -       | Antenna                             | QSH20S20                               | Q-Par        | 22/24/27, 15C, 15B, 15E |
| -       | Antenna                             | QSH20S20                               | Q-Par        | 22/24/27, 15C, 15B, 15E |
| -       | Bluetooth tester                    | CBT                                    | R&S          | 15C, 15B                |

