

## Annex 1: Measurement diagrams to Test Report 19-1-0137402T02a-A1

|                                                                 |                                                                                                                                                |                                  |                                    |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------|
| <b>Number of pages:</b>                                         | 16                                                                                                                                             | <b>Date of Report:</b>           | 2020-Dec-16                        |
| <b>Testing company:</b>                                         | CETECOM GmbH<br>Im Teelbruch 116<br>45219 Essen Germany<br>Tel. + 49 (0) 20 54 / 95 19-0<br>Fax: + 49 (0) 20 54 / 95 19-150                    | <b>Applicant:</b>                | Bosch Healthcare Solutions<br>GmbH |
| <b>Test Object /<br/>Tested Device(s):</b>                      | System for quantitative measurement of fractional nitric oxide (FeNO) in human breath,<br>Vivatmo pro (Base Station)<br>Vivatmo pro (Handheld) |                                  |                                    |
| <b>FCC ID of Base<br/>Station</b>                               | 2AVQ9VMPBS1                                                                                                                                    | <b>IC ID of Base<br/>Station</b> | 25928-VMPBS1                       |
| <b>FCC ID of Handheld</b>                                       | 2AVQ9VMPHH1                                                                                                                                    | <b>IC ID of Handheld</b>         | 25928-VMPHH1                       |
| <b>Testing has been<br/>carried out in<br/>accordance with:</b> | Title 47 CFR, Chapter I<br>FCC Regulations, Subchapter A<br>Subpart C: §15.247 (DTS)<br><br>RSS-247, Issue 2 (DTS)<br>RSS-Gen., Issue 5        |                                  |                                    |



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# 1 Measurement diagrams

## 1.11 BT+Charging

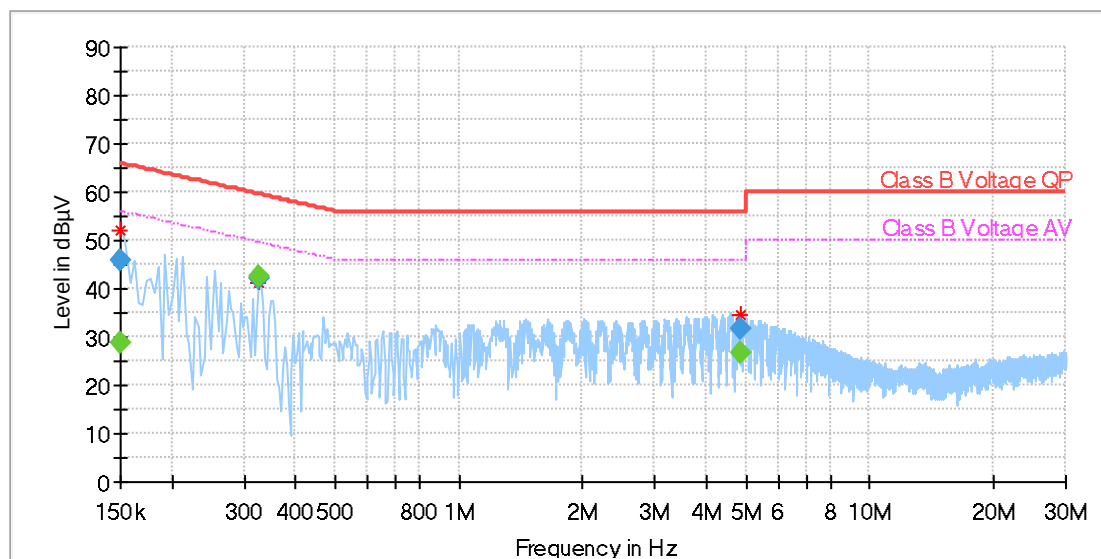
### Common Information

|                           |                                                                  |
|---------------------------|------------------------------------------------------------------|
| Test Description:         | Conducted Voltage Measurement Class B                            |
| Test Site Location:       | Conducted Emission, CETECOM GmbH Essen                           |
| Test Software:            | R&S EMC32 v9.15                                                  |
| Test Standard:            | FCC 15.107, FCC 15.207                                           |
| Operating Mode:           | bt classic + charging                                            |
| Measured on line:         | N/L1                                                             |
| Diagram details:          | Shows the peak values as a sum of measured ports in maxhold mode |
| Environmental Conditions: | Humidity : 50% rH; Temperature: 18 °C                            |
| Operator:                 | Mah                                                              |
| Comments:                 | -                                                                |
| EUT Setup:                | 1                                                                |
| Verdict:                  | Passed                                                           |

### EUT Information

|                |                   |
|----------------|-------------------|
| PMT number:    | 20-1-01297S08_C01 |
| Date received: | --                |

Full Spectrum



### Final Result

| Frequency (MHz) | QuasiPeak (dBμV) | CAverage (dBμV) | Limit (dBμV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | PE  | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|-----------------|-----------------|------|-----|------------|
| 0.150000        | ---              | 28.75           | 56.00        | 27.25       | 1000.0          | 9.000           | L1   | GND | 0.1        |
| 0.150000        | 45.93            | ---             | 66.00        | 20.07       | 1000.0          | 9.000           | L1   | GND | 0.1        |
| 0.327188        | ---              | 42.36           | 49.52        | 7.16        | 1000.0          | 9.000           | L1   | GND | 0.1        |
| 0.327188        | 42.26            | ---             | 59.52        | 17.26       | 1000.0          | 9.000           | L1   | GND | 0.1        |
| 4.822188        | ---              | 26.60           | 46.00        | 19.40       | 1000.0          | 9.000           | N    | GND | 0.3        |
| 4.822188        | 31.82            | ---             | 56.00        | 24.18       | 1000.0          | 9.000           | N    | GND | 0.3        |

## 1.12 WLAN+Charging

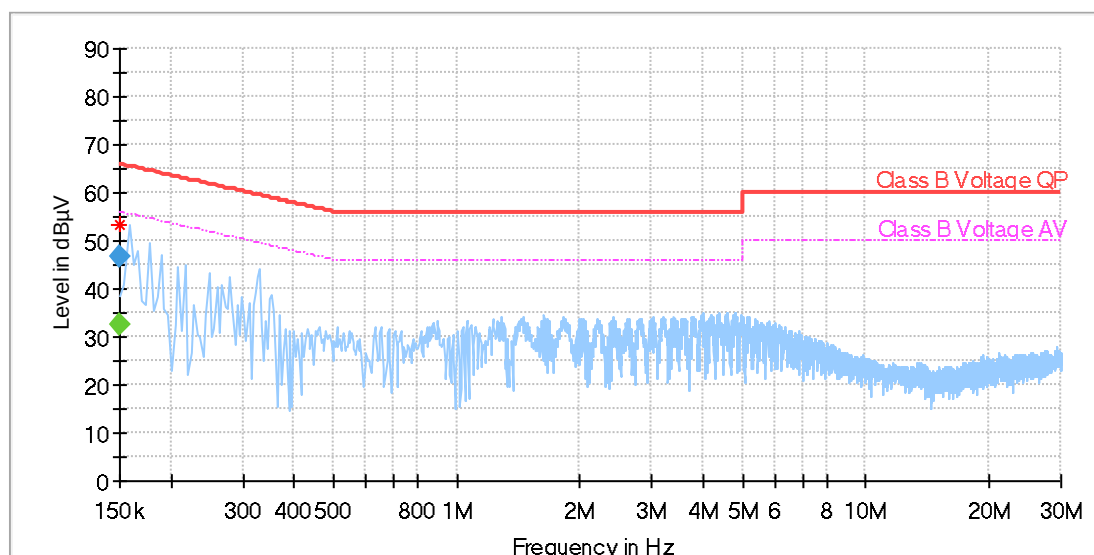
### Common Information

|                           |                                                                  |
|---------------------------|------------------------------------------------------------------|
| Test Description:         | Conducted Voltage Measurement Class B                            |
| Test Site Location:       | Conducted Emission, CETECOM GmbH Essen                           |
| Test Software:            | R&S EMC32 v9.15                                                  |
| Test Standard:            | FCC 15.107, FCC 15.207                                           |
| Operating Mode:           | bt classic + charging                                            |
| Measured on line:         | N/L1                                                             |
| Diagram details:          | Shows the peak values as a sum of measured ports in maxhold mode |
| Environmental Conditions: | Humidity : 50% rH; Temperature: 18 °C                            |
| Operator:                 | Mah                                                              |
| Comments:                 | -                                                                |
| EUT Setup:                | 1                                                                |
| Verdict:                  | Passed                                                           |

### EUT Information

|                |                   |
|----------------|-------------------|
| PMT number:    | 20-1-01297S08_C01 |
| Date received: | --                |

Full Spectrum



### Final Result

| Frequency (MHz) | QuasiPeak (dBµV) | CAverage (dBµV) | Limit (dBµV) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Line | PE  | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|-----------------|-----------------|------|-----|------------|
| 0.150000        | ---              | 32.61           | 56.00        | 23.39       | 1000.0          | 9.000           | L1   | GND | 0.1        |
| 0.150000        | 46.72            | ---             | 66.00        | 19.28       | 1000.0          | 9.000           | L1   | GND | 0.1        |

## 2.01a\_BT+Charging\_Laying

### Common Information

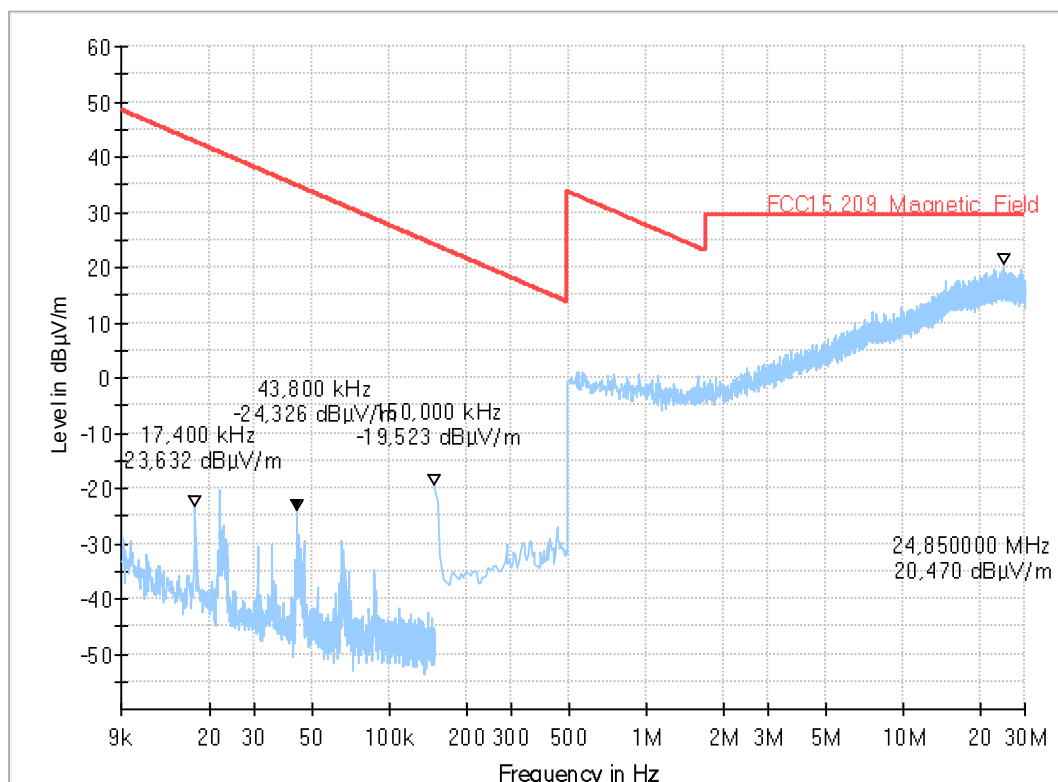
|                          |                                                                         |
|--------------------------|-------------------------------------------------------------------------|
| Test Description:        | Magnetic Field Strength Measurement related to 30/300 m distance        |
| Test Site Location:      | Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance |
| Version of Testsoftware: | EMC32 V10.50.0                                                          |
| Distance correction:     | used accord. table, pls. see test report                                |
| Technical Data:          | Please see page 2 for detailed data of measurement setup                |
| Rec. antenna (pre-scan): | height 1.00 m, parallel and 90° to EUT polarisation                     |
| Used Filter:             | bypass                                                                  |
| Test Standard:           | FCC 15.205 § 15.209; RSS-Gen: Issue 5                                   |

|                           |                                       |
|---------------------------|---------------------------------------|
| Operator:                 | TFa                                   |
| Operating Mode:           | BT TX ch 2441                         |
| Power during tests:       | 120 V/60 Hz                           |
| Environmental Conditions: | Humidity : 50% rH; Temperature: 20 °C |
| EUT Setup:                | 1                                     |
| Verdict:                  | Passed                                |
| Comment:                  | EUT Laying                            |

### EUT Information

|               |                                 |
|---------------|---------------------------------|
| PMT number:   | 19-1-01374S23_C01               |
| Manufacturer: | Bosch Healthcare Solutions GmbH |

Full Spectrum



## 2.01b\_BT+Charging\_Standing

### Common Information

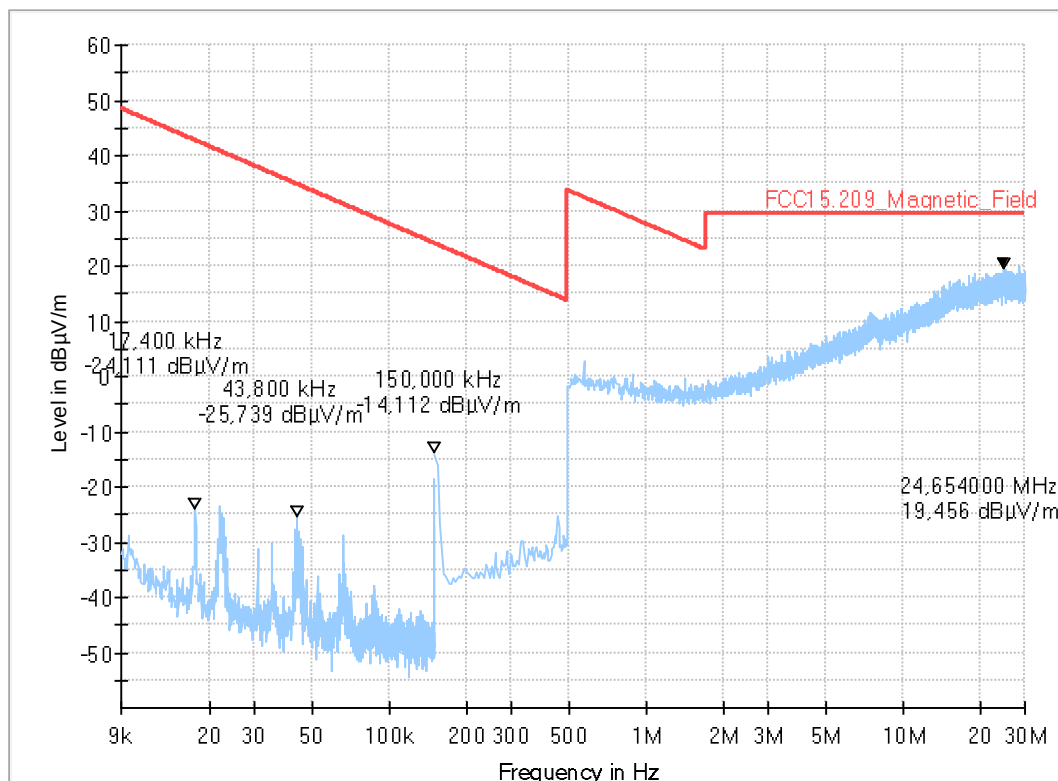
|                          |                                                                         |
|--------------------------|-------------------------------------------------------------------------|
| Test Description:        | Magnetic Field Strength Measurement related to 30/300 m distance        |
| Test Site Location:      | Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance |
| Version of Testsoftware: | EMC32 V10.50.0                                                          |
| Distance correction:     | used accord. table, pls. see test report                                |
| Technical Data:          | Please see page 2 for detailed data of measurement setup                |
| Rec. antenna (pre-scan): | height 1.00 m, parallel and 90° to EUT polarisation                     |
| Used Filter:             | bypass                                                                  |
| Test Standard:           | FCC 15.205 § 15.209; RSS-Gen: Issue 5                                   |

|                           |                                       |
|---------------------------|---------------------------------------|
| Operator:                 | TFa                                   |
| Operating Mode:           | BT TX ch 2441                         |
| Power during tests:       | 120 V / 60 Hz                         |
| Environmental Conditions: | Humidity : 50% rH; Temperature: 20 °C |
| EUT Setup:                | 1                                     |
| Verdict:                  | Passed                                |
| Comment:                  | EUT Standing                          |

### EUT Information

|               |                                 |
|---------------|---------------------------------|
| PMT number:   | 19-1-01374S23_C01               |
| Manufacturer: | Bosch Healthcare Solutions GmbH |

Full Spectrum



## 2.02a\_Wlan+Charging

### Common Information

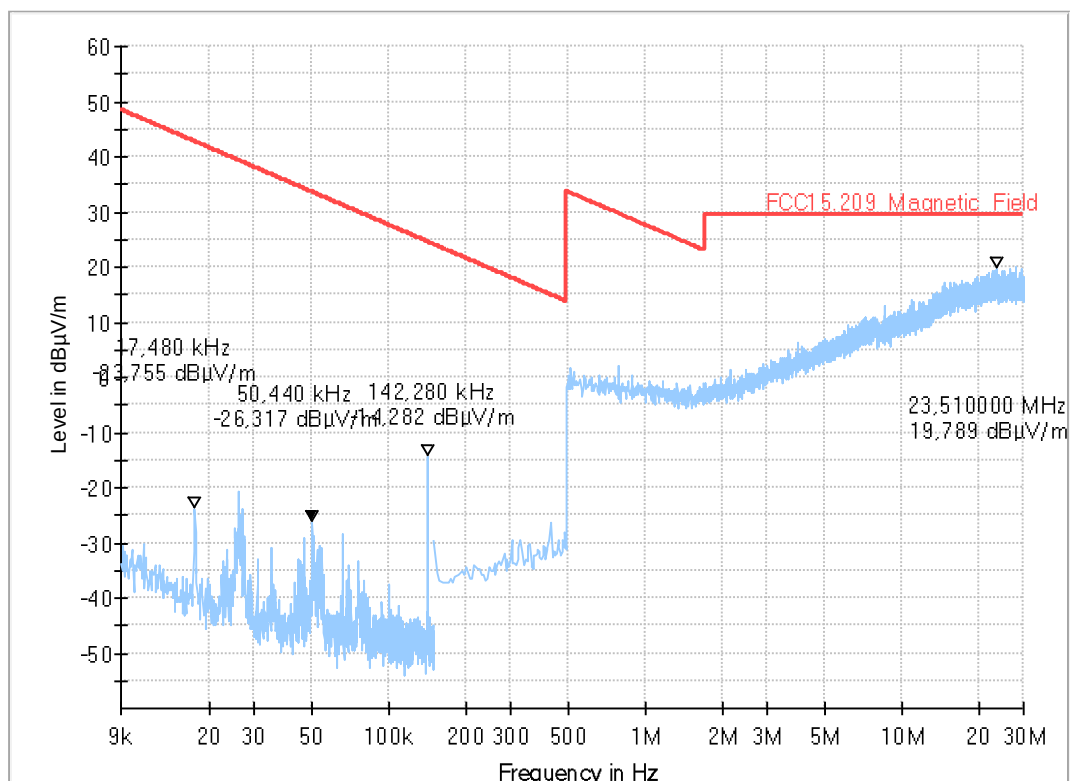
|                          |                                                                         |
|--------------------------|-------------------------------------------------------------------------|
| Test Description:        | Magnetic Field Strength Measurement related to 30/300 m distance        |
| Test Site Location:      | Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance |
| Version of Testsoftware: | EMC32 V10.50.0                                                          |
| Distance correction:     | used accord. table, pls. see test report                                |
| Technical Data:          | Please see page 2 for detailed data of measurement setup                |
| Rec. antenna (pre-scan): | height 1.00 m, parallel and 90° to EUT polarisation                     |
| Used Filter:             | bypass                                                                  |
| Test Standard:           | FCC 15.205 § 15.209; RSS-Gen: Issue 5                                   |

|                           |                                       |
|---------------------------|---------------------------------------|
| Operator:                 | TFa                                   |
| Operating Mode:           | Wlan TX CH 2462 MHz                   |
| Power during tests:       | 120 V/60 Hz                           |
| Environmental Conditions: | Humidity : 50% rH; Temperature: 20 °C |
| EUT Setup:                | 1                                     |
| Verdict:                  | Passed                                |
| Comment:                  | EUT laying                            |

### EUT Information

|               |                                 |
|---------------|---------------------------------|
| PMT number:   | 19-1-01374S23_C01               |
| Manufacturer: | Bosch Healthcare Solutions GmbH |

Full Spectrum



## 2.02b\_Wlan+Charging

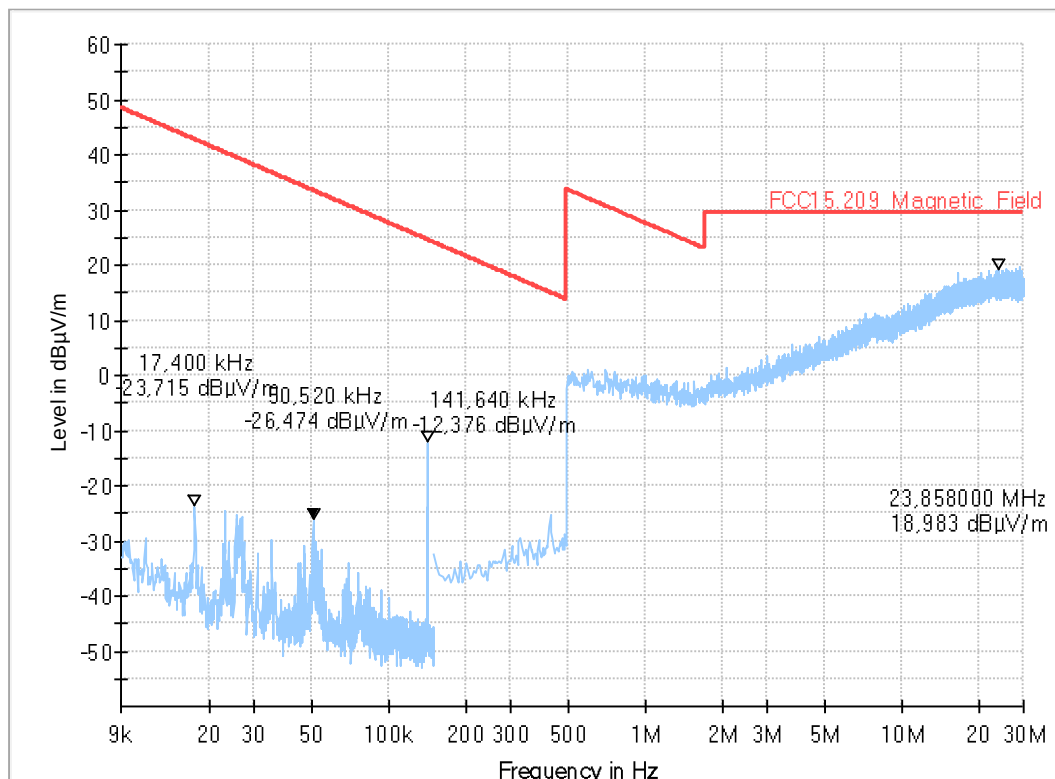
### Common Information

|                          |                                                                         |
|--------------------------|-------------------------------------------------------------------------|
| Test Description:        | Magnetic Field Strength Measurement related to 30/300 m distance        |
| Test Site Location:      | Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance |
| Version of Testsoftware: | EMC32 V10.50.0                                                          |
| Distance correction:     | used accord. table, pls. see test report                                |
| Technical Data:          | Please see page 2 for detailed data of measurement setup                |
| Rec. antenna (pre-scan): | height 1.00 m, parallel and 90° to EUT polarisation                     |
| Used Filter:             | bypass                                                                  |
| Test Standard:           | FCC 15.205 § 15.209; RSS-Gen: Issue 5                                   |

|                           |                                       |
|---------------------------|---------------------------------------|
| Operator:                 | TFa                                   |
| Operating Mode:           | Wlan TX CH 2462 MHz                   |
| Power during tests:       | 120 V/60 Hz                           |
| Environmental Conditions: | Humidity : 50% rH; Temperature: 20 °C |
| EUT Setup:                | 1                                     |
| Verdict:                  | Passed                                |
| Comment:                  | EUT Standing                          |

### EUT Information

|               |                                 |
|---------------|---------------------------------|
| PMT number:   | 19-1-01374S23_C01               |
| Manufacturer: | Bosch Healthcare Solutions GmbH |
|               | Full Spectrum                   |





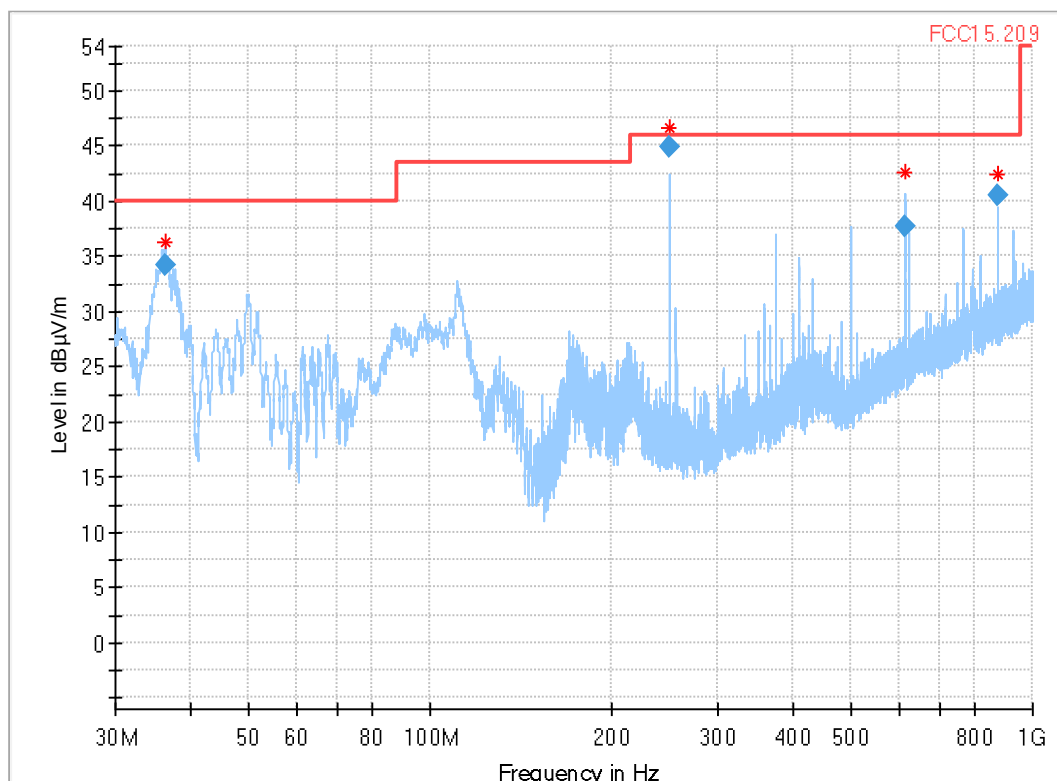
## 3.01a\_BT+Charging

### Common Information

|                           |                                                        |
|---------------------------|--------------------------------------------------------|
| Test Description:         | Radiated field strength emission in 3m distance        |
| Test Site:                | Laying                                                 |
| Test Standard:            | FCC 15.205&15.209 RSS Gen Issue 5 Intentional Radiator |
| Antenna polarisation:     | horizontal/vertical                                    |
| Operation mode:           | TCH mode                                               |
| Operating Mode:           | BT TX CH : 39                                          |
| Environmental Conditions: | Humidity : 50% rH; Temperature: 21 °C                  |
| Operator:                 | HEI                                                    |
| Verdict:                  | Passed                                                 |

### EUT Information

|               |                                 |
|---------------|---------------------------------|
| PMT number:   | 19-1-01374S23_C01               |
| Manufacturer: | Bosch Healthcare Solutions GmbH |
|               | Full Spectrum                   |



### Final Result

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|--------------------|----------------|-------------|-----------------|-----------------|-------------|-----|---------------|--------------|
| 36.218000       | 34.09              | 40.00          | 5.91        | 1000.0          | 120.000         | 269.0       | H   | 229.0         | 18.7         |
| 249.998000      | 44.93              | 46.00          | 1.07        | 1000.0          | 120.000         | 105.0       | H   | 324.0         | 13.0         |
| 614.168000      | 37.62              | 46.00          | 8.38        | 1000.0          | 120.000         | 169.0       | V   | 326.0         | 22.0         |
| 874.994000      | 40.55              | 46.00          | 5.45        | 1000.0          | 120.000         | 158.0       | V   | 167.0         | 26.2         |

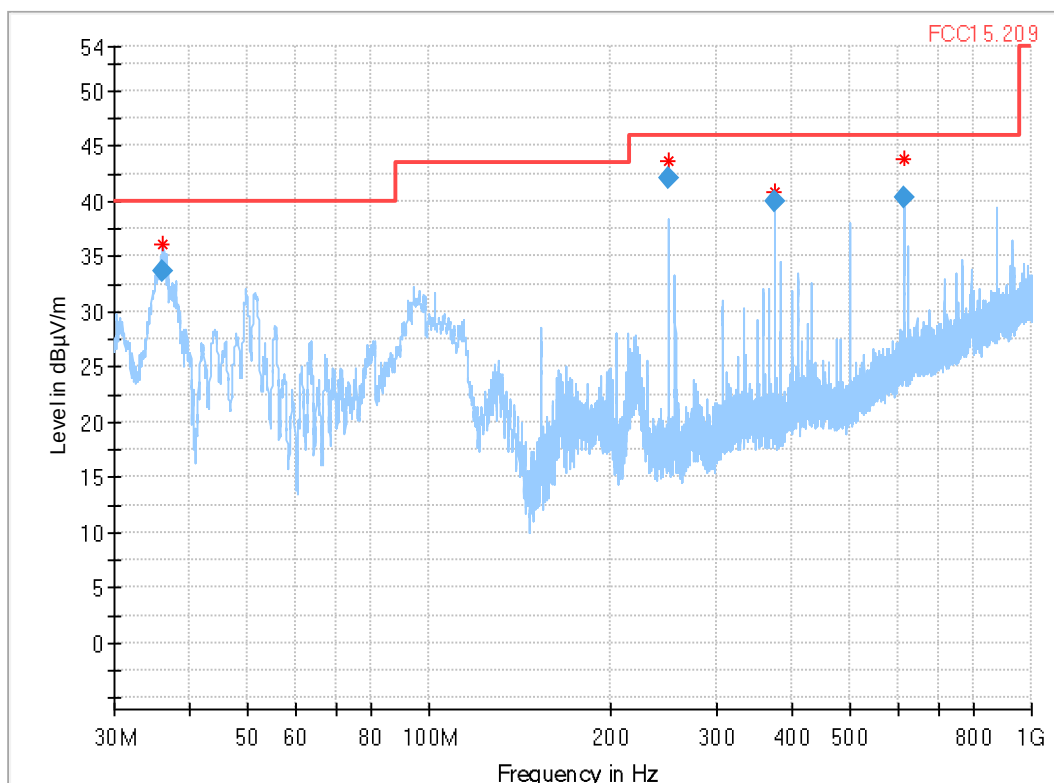
## 3.01b\_BT+Charging

### Common Information

|                           |                                                        |
|---------------------------|--------------------------------------------------------|
| Test Description:         | Radiated field strength emission in 3m distance        |
| Test Site:                | Laying                                                 |
| Test Standard:            | FCC 15.205&15.209 RSS Gen Issue 5 Intentional Radiator |
| Antenna polarisation:     | horizontal/vertical                                    |
| Operation mode:           | TCH mode                                               |
| Operating Mode:           | BT TX CH : 39                                          |
| Environmental Conditions: | Humidity : 50% rH; Temperature: 20 °C                  |
| Operator:                 | HEI                                                    |
| Verdict:                  | Passed                                                 |

### EUT Information

|               |                                 |
|---------------|---------------------------------|
| PMT number:   | 19-1-01374S23_C01               |
| Manufacturer: | Bosch Healthcare Solutions GmbH |
|               | Full Spectrum                   |



### Final\_Result

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|--------------------|----------------|-------------|-----------------|-----------------|-------------|-----|---------------|--------------|
| 36.056000       | 33.65              | 40.00          | 6.35        | 1000.0          | 120.000         | 286.0       | H   | 219.0         | 18.8         |
| 250.004000      | 42.04              | 46.00          | 3.96        | 1000.0          | 120.000         | 105.0       | H   | 161.0         | 13.0         |
| 374.998000      | 39.95              | 46.00          | 6.05        | 1000.0          | 120.000         | 202.0       | H   | 197.0         | 17.0         |
| 613.734000      | 40.38              | 46.00          | 5.62        | 1000.0          | 120.000         | 212.0       | H   | 314.0         | 22.0         |

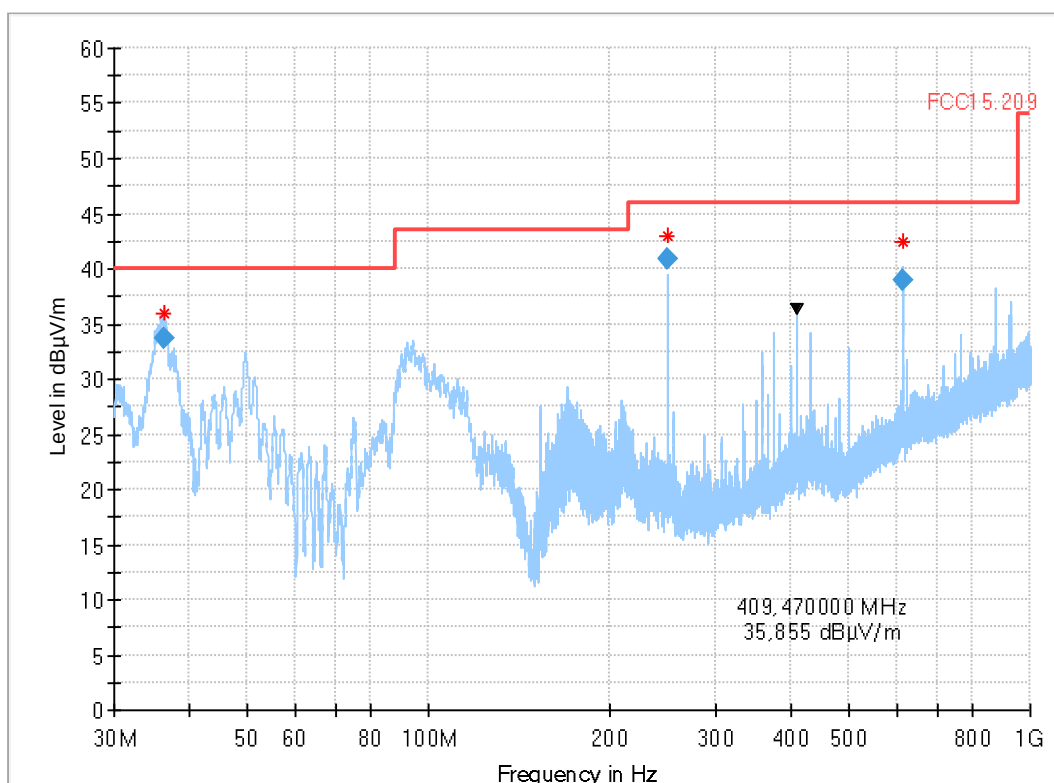
## 3.01a\_Wlan+Charging

### Common Information

|                           |                                                        |
|---------------------------|--------------------------------------------------------|
| Test Description:         | Radiated field strength emission in 3m distance        |
| Test Site:                | Laying                                                 |
| Test Standard:            | FCC 15.205&15.209 RSS Gen Issue 5 Intentional Radiator |
| Antenna polarisation:     | horizontal/vertical                                    |
| Operation mode:           | TCH mode                                               |
| Operating Mode:           | Wlan TX CH 2462 MHz                                    |
| Environmental Conditions: | Humidity : 50% rH; Temperature: 20 °C                  |
| Operator:                 | TFa                                                    |
| Verdict:                  | Passed                                                 |

### EUT Information

|               |                                 |
|---------------|---------------------------------|
| PMT number:   | 19-1-01374S23_C01               |
| Manufacturer: | Bosch Healthcare Solutions GmbH |
|               | Full Spectrum                   |



### Final\_Result

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|--------------------|----------------|-------------|-----------------|-----------------|-------------|-----|---------------|--------------|
| 36.272000       | 33.65              | 40.00          | 6.35        | 1000.0          | 120.000         | 237.0       | H   | 138.0         | 18.7         |
| 249.994000      | 40.91              | 46.00          | 5.09        | 1000.0          | 120.000         | 109.0       | H   | 350.0         | 13.0         |
| 613.950000      | 38.99              | 46.00          | 7.01        | 1000.0          | 120.000         | 161.0       | V   | 213.0         | 22.0         |

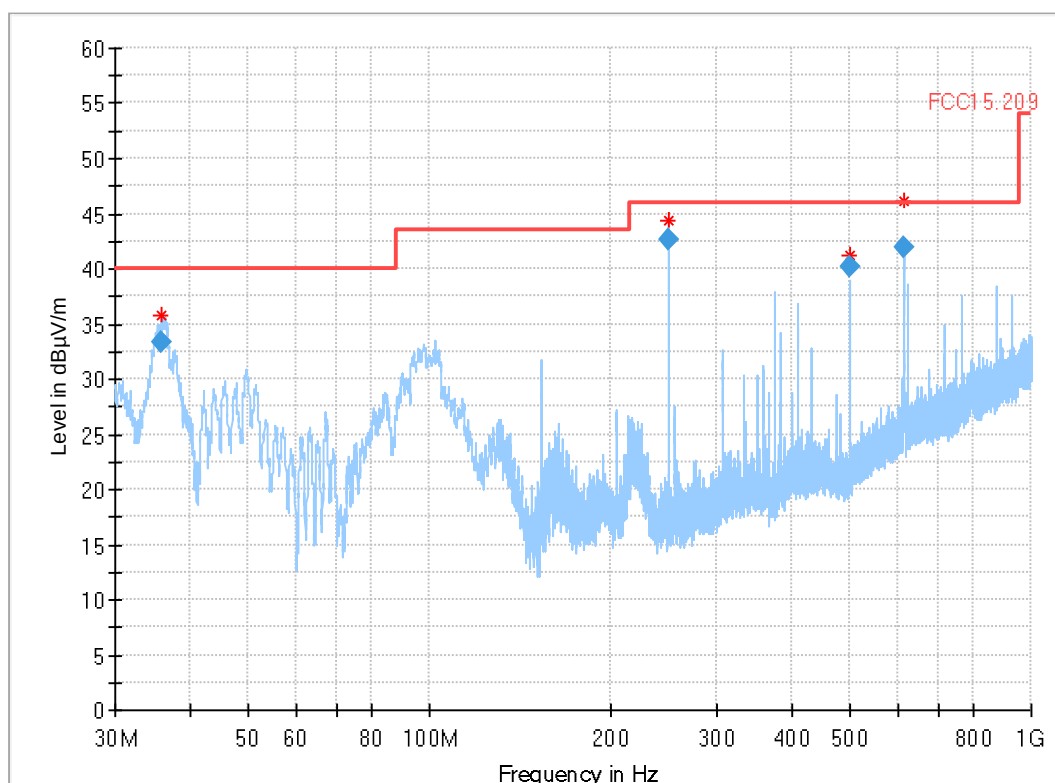
## 3.01b\_Wlan+Charging

### Common Information

|                           |                                                        |
|---------------------------|--------------------------------------------------------|
| Test Description:         | Radiated field strength emission in 3m distance        |
| Test Site:                | Laying                                                 |
| Test Standard:            | FCC 15.205&15.209 RSS Gen Issue 5 Intentional Radiator |
| Antenna polarisation:     | horizontal/vertical                                    |
| Operation mode:           | TCH mode                                               |
| Operating Mode:           | Wlan TX CH 2462 MHz                                    |
| Environmental Conditions: | Humidity : 50% rH; Temperature: 20 °C                  |
| Operator:                 | HEI                                                    |
| Verdict:                  | Passed                                                 |

### EUT Information

|               |                                 |
|---------------|---------------------------------|
| PMT number:   | 19-1-01374S23_C01               |
| Manufacturer: | Bosch Healthcare Solutions GmbH |
|               | Full Spectrum                   |



### Final Result

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB/m) |
|-----------------|--------------------|----------------|-------------|-----------------|-----------------|-------------|-----|---------------|--------------|
| 35.910000       | 33.37              | 40.00          | 6.63        | 1000.0          | 120.000         | 245.0       | H   | 232.0         | 18.9         |
| 250.014000      | 42.55              | 46.00          | 3.45        | 1000.0          | 120.000         | 105.0       | H   | 178.0         | 13.0         |
| 500.010000      | 40.16              | 46.00          | 5.84        | 1000.0          | 120.000         | 167.0       | H   | 74.0          | 19.5         |
| 614.060000      | 41.91              | 46.00          | 4.09        | 1000.0          | 120.000         | 109.0       | H   | 282.0         | 22.0         |

## 4.01a\_bt+Charging

### Common Information

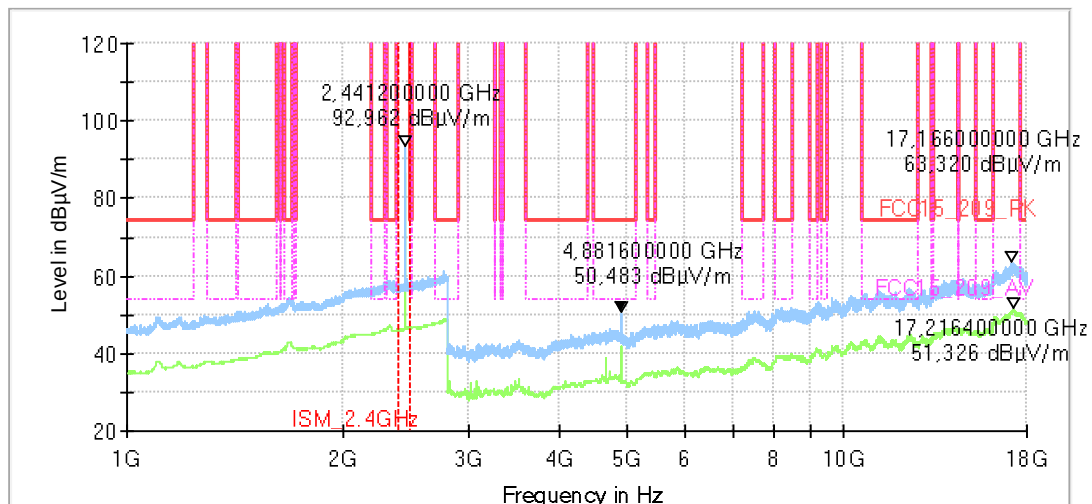
Test Description: Radiated field strength emission in 3m distance  
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.50.0  
 Test Standard: FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5  
 Antenna polarisation: horizontal/vertical

Operating Mode: TX | 2441 MHz | CH39  
 Operator: PMa  
 Comment: Channel no. middle  
 EUT Setup: 1  
 Verdict: Passed

### EUT Information

PMT number: 19-1-01374S23\_C01  
 Manufacturer: Bosch Healthcare Solutions GmbH

Full Spectrum



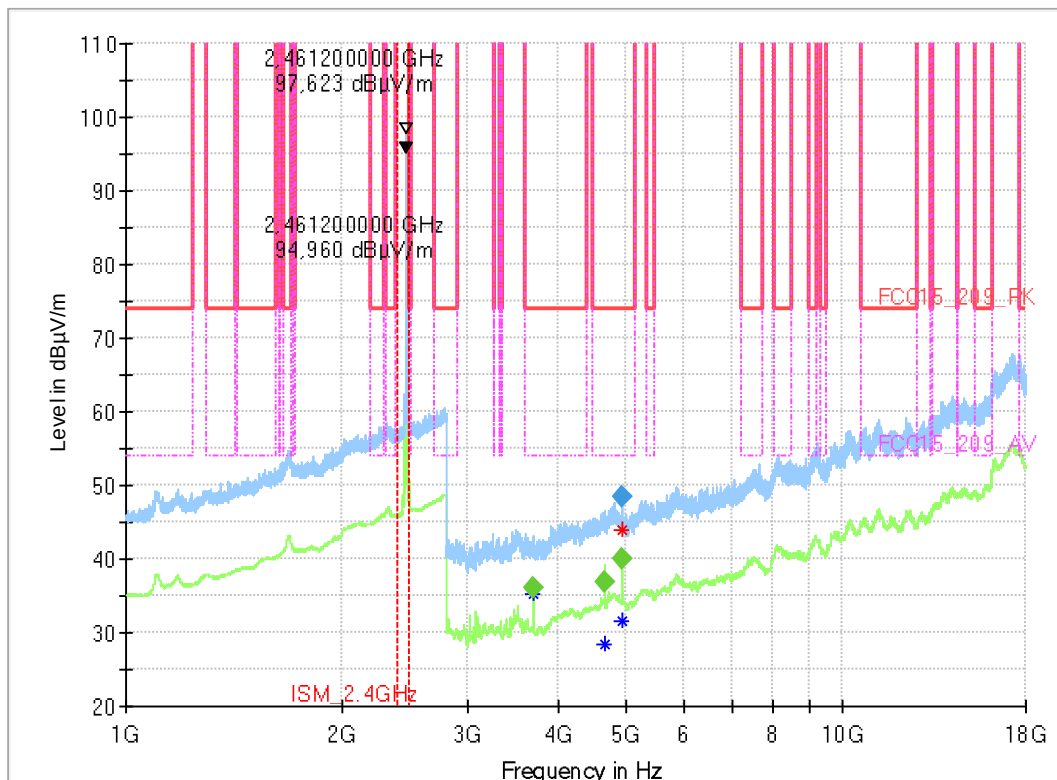
## 4.02a\_wlan+Charging

### Common Information

|                       |                                                           |
|-----------------------|-----------------------------------------------------------|
| Test Description:     | Radiated field strength emission in 3m distance           |
| Test Site:            | Fully Anechoic Chamber (FAC1) - EMC32 V10.50.0            |
| Test Standard:        | FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5 |
| Antenna polarisation: | horizontal/vertical                                       |
| Operating Mode:       | TX   2462 MHz   CH11                                      |
| Operator:             | HEI                                                       |
| Comment:              | Channel no.high                                           |
| EUT Setup:            | 1                                                         |
| Verdict:              | Passed                                                    |

### EUT Information

|               |                                 |
|---------------|---------------------------------|
| PMT number:   | 19-1-01374S23_C01               |
| Manufacturer: | Bosch Healthcare Solutions GmbH |
|               | Full Spectrum                   |



### Final Result

| Frequency (MHz) | MaxPeak (dBµV/m) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Elevation (deg) | Corr. (dB/m) |
|-----------------|------------------|------------------|----------------|-------------|-----------------|-----------------|-------------|-----|---------------|-----------------|--------------|
| 3693.050000     | ---              | 36.06            | 54.00          | 17.94       | 100.0           | 1000.000        | 155.0       | V   | 28.0          | 0.0             | 1            |
| 4663.610000     | ---              | 36.79            | 54.00          | 17.21       | 100.0           | 1000.000        | 155.0       | V   | 165.0         | 0.0             | 5            |
| 4924.010000     | ---              | 40.05            | 54.00          | 13.95       | 100.0           | 1000.000        | 155.0       | V   | 134.0         | 90.0            | 5            |
| 4924.050000     | 48.52            | ---              | 74.00          | 25.48       | 100.0           | 1000.000        | 155.0       | V   | 134.0         | 90.0            | 5            |

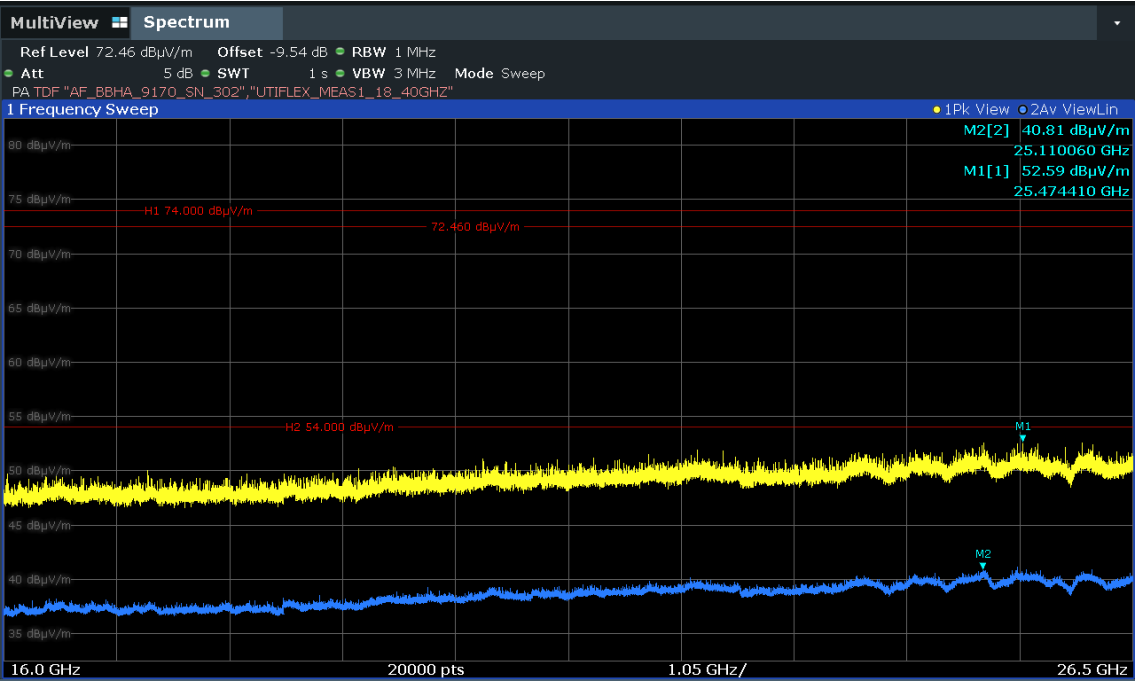
# 4.01b\_bt+Charging

## Common Information

|                       |                                                           |
|-----------------------|-----------------------------------------------------------|
| Test Description:     | Radiated field strength emission in 3m distance           |
| Test Site:            | Fully Anechoic Chamber (FAC1) - EMC32 V10.50.0            |
| Test Standard:        | FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5 |
| Antenna polarisation: | horizontal/vertical                                       |
| Operating Mode:       | TX   2441 MHz   CH39                                      |
| Operator:             | PMa                                                       |
| Comment:              | Channel no. middle                                        |
| EUT Setup:            | 1                                                         |
| Verdict:              | Passed                                                    |

## EUT Information

|               |                                 |
|---------------|---------------------------------|
| PMT number:   | 19-1-01374S23_C01               |
| Manufacturer: | Bosch Healthcare Solutions GmbH |



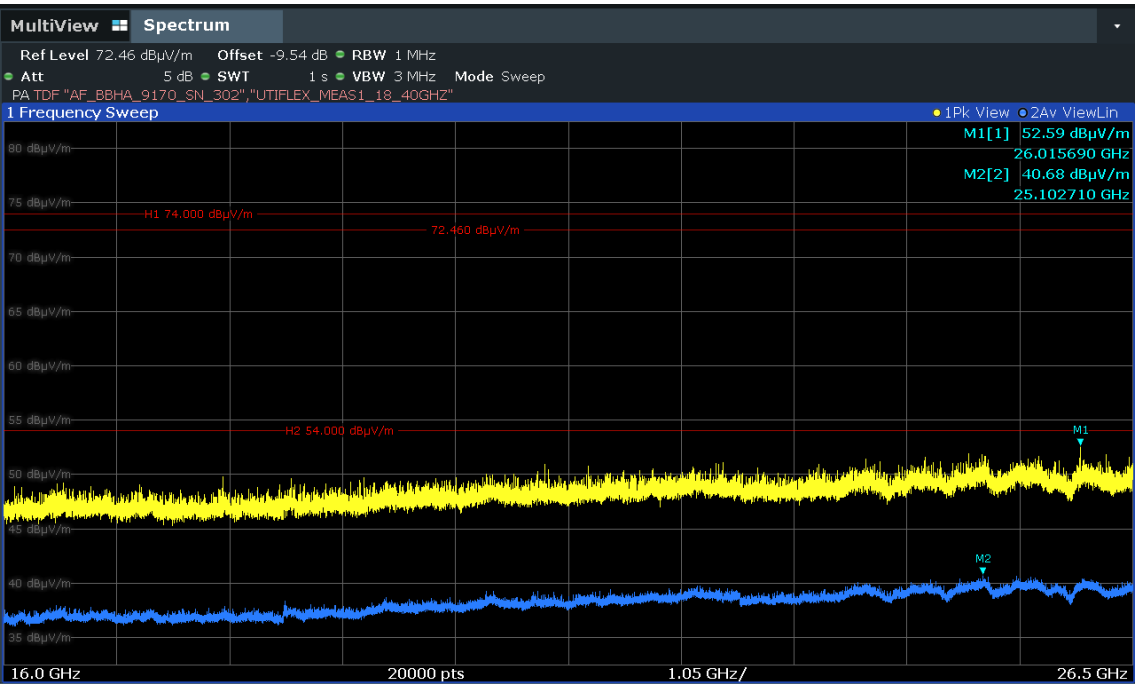
# 4.02b\_wlan+Charging

## Common Information

|                       |                                                           |
|-----------------------|-----------------------------------------------------------|
| Test Description:     | Radiated field strength emission in 3m distance           |
| Test Site:            | Fully Anechoic Chamber (FAC1) - EMC32 V10.50.0            |
| Test Standard:        | FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5 |
| Antenna polarisation: | horizontal/vertical                                       |
| Operating Mode:       | TX   2462 MHz   CH11                                      |
| Operator:             | HEI                                                       |
| Comment:              | Channel no.high                                           |
| EUT Setup:            | 1                                                         |
| Verdict:              | Passed                                                    |

## EUT Information

|               |                                 |
|---------------|---------------------------------|
| PMT number:   | 19-1-01374S23_C01               |
| Manufacturer: | Bosch Healthcare Solutions GmbH |



End of Annex 1