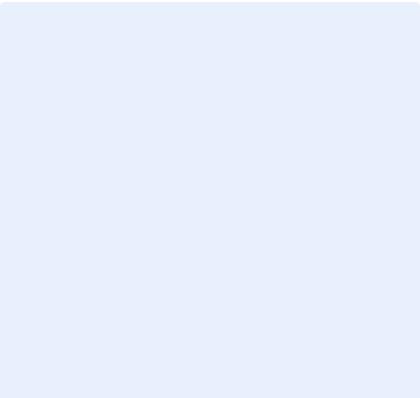


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                            |                                                                                     |                                                                                       |                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------|
| <b>Prüfbericht-Nr.:</b><br>Test report no.:                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>IN2500RA 001</b>                                                                                                                                                                                        | <b>Auftrags-Nr.:</b><br>Order no.:                                                  | 147034350 010                                                                         | Seite 1 von 45<br>Page 1 of 45 |
| <b>Kunden-Referenz-Nr.:</b><br>Client reference no.:                                                                                                                                                                                                                                                                                                                                                                                                                          | 2365148                                                                                                                                                                                                    | <b>Auftragsdatum:</b><br>Order date:                                                | 2025-03-21                                                                            |                                |
| <b>Auftraggeber:</b><br>Client:                                                                                                                                                                                                                                                                                                                                                                                                                                               | Str8bat Sports Tech Solutions Pte Ltd,<br>151 Chin Swee Road,<br>#07-12 Manhattan House, Singapore - 169876                                                                                                |                                                                                     |                                                                                       |                                |
| <b>Prüfgegenstand:</b><br>Test item:                                                                                                                                                                                                                                                                                                                                                                                                                                          | str8bat cricket sensor unit                                                                                                                                                                                |                                                                                     |                                                                                       |                                |
| <b>Bezeichnung / Typ-Nr.:</b><br>Identification / Type no.:                                                                                                                                                                                                                                                                                                                                                                                                                   | Ver2.00                                                                                                                                                                                                    |                                                                                     |                                                                                       |                                |
| <b>Auftrags-Inhalt:</b><br>Order content:                                                                                                                                                                                                                                                                                                                                                                                                                                     | Testing and issue of Test Report with Grant Certificate                                                                                                                                                    |                                                                                     |                                                                                       |                                |
| <b>Prüfgrundlage:</b><br>Test specification:                                                                                                                                                                                                                                                                                                                                                                                                                                  | FCC Part15 SubpartC 15.247; 15.205; 15.207; 15.209<br>RSS Gen Issue 5; RSS 247 Issue 3                                                                                                                     |                                                                                     |                                                                                       |                                |
| <b>Wareneingangsdatum:</b><br>Date of sample receipt:                                                                                                                                                                                                                                                                                                                                                                                                                         | 2025-03-21                                                                                                                                                                                                 |  |                                                                                       |                                |
| <b>Prüfmuster-Nr.:</b><br>Test sample no:                                                                                                                                                                                                                                                                                                                                                                                                                                     | A003952411-001<br>A003952411-002<br>Engineering Sample                                                                                                                                                     |                                                                                     |                                                                                       |                                |
| <b>Prüfzeitraum:</b><br>Testing period:                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2025-03-24 - 2025-03-25                                                                                                                                                                                    |                                                                                     |                                                                                       |                                |
| <b>Ort der Prüfung:</b><br>Place of testing:                                                                                                                                                                                                                                                                                                                                                                                                                                  | Wireless laboratory,<br>Bangalore                                                                                                                                                                          |                                                                                     |                                                                                       |                                |
| <b>Prüflaboratorium:</b><br>Testing laboratory:                                                                                                                                                                                                                                                                                                                                                                                                                               | TÜV Rheinland (India)<br>Pvt.Ltd., 27/B, 2nd Cross,<br>Electronic City Phase1<br>Bangalore -560 100, India<br>FCC Test site registration<br>number: 496599<br>ISED Test site registration<br>number: 27711 |                                                                                     |                                                                                       |                                |
| <b>Prüfergebnis*:</b><br>Test result*:                                                                                                                                                                                                                                                                                                                                                                                                                                        | Pass                                                                                                                                                                                                       |                                                                                     |                                                                                       |                                |
| <b>geprüft von:</b><br>tested by:                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                         | <b>genehmigt von:</b><br>authorized by:                                             |  |                                |
| <b>Datum:</b><br>Date: 2025-04-23                                                                                                                                                                                                                                                                                                                                                                                                                                             | Signed by: Likhithesh MD                                                                                                                                                                                   | <b>Ausstellungsdatum:</b><br>Issue date: 2025-04-29                                 | Signed by: Madhu Nagaraju                                                             |                                |
| <b>Stellung / Position:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Sachverständige(r)/Expert                                                                                                                                                                                  | <b>Stellung / Position:</b>                                                         | Sachverständige(r)/Expert                                                             |                                |
| <b>Sonstiges /</b><br>Other:                                                                                                                                                                                                                                                                                                                                                                                                                                                  | FCC ID: 2BOM7254140D<br>IC: 33842-254140D<br>HVIN: 2_32/40                                                                                                                                                 |                                                                                     |                                                                                       |                                |
| <b>Zustand des Prüfgegenstandes bei Anlieferung:</b><br>Condition of the test item at delivery:                                                                                                                                                                                                                                                                                                                                                                               | Prüfmuster vollständig und unbeschädigt<br>Test item complete and undamaged                                                                                                                                |                                                                                     |                                                                                       |                                |
| * Legende:                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | P(ass) = entspricht o.g. Prüfgrundlage(n)                                                                                                                                                                  | F(ail) = entspricht nicht o.g. Prüfgrundlage(n)                                     | N/A = nicht anwendbar                                                                 | N/T = nicht getestet           |
| * Legend:                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | P(ass) = passed a.m. test specification(s)                                                                                                                                                                 | F(ail) = failed a.m. test specification(s)                                          | N/A = not applicable                                                                  | N/T = not tested               |
| <p><b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b><br/> <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p> |                                                                                                                                                                                                            |                                                                                     |                                                                                       |                                |

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|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <p>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.</p> <p>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</p> <p><i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2 | <p>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben. Informationen zur Verifizierung der Authentizität unserer Dokumente erhalten Sie auf folgender Webseite: <a href="http://go.tuv.com/digital-signature">go.tuv.com/digital-signature</a></p> <p><i>As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. For information on verifying the authenticity of our documents, please visit the following website: <a href="http://go.tuv.com/digital-signature">go.tuv.com/digital-signature</a></i></p> |
| 3 | <p>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben.</p> <p>Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</p> <p><i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i></p> <p><i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 4 | <p>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2023, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</p> <p><i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2023, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i></p>                                                                                                                                                                                                                                                                                       |

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## TEST SUMMARY

| Test Item                                                     | FCC                                        | ISED                                                                | Result   |
|---------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------|----------|
| Maximum conducted (Peak) output power                         | 15.247 (b)(3)                              | RSS 247 Issue 3<br>Section 5.4(d)                                   | Pass     |
| Maximum Power Spectral Density                                | FCC 15.247(e)                              | RSS 247 Issue 3<br>Section 5.2(b)                                   | Pass     |
| DTS Bandwidth & 99% Bandwidth                                 | FCC 15.247(a)(2)                           | RSS 247 Issue 3<br>Section 5.2(a)<br>RSS Gen Issue 5<br>Section 6.7 | Pass     |
| Emissions in non-restricted frequency bands                   | 15.247 (d)                                 | RSS 247 Issue 3<br>Section 5.5                                      | Pass     |
| Spurious Radiated Emissions and Restricted Bands of Operation | 15.247 (d) / FCC<br>15.209 / FCC<br>15.205 | RSS-Gen Issue 5,<br>Section 8.9 /8.10                               | Pass     |
| AC Power lines Conducted emission                             | FCC 15.207                                 | RSS Gen Issue 5<br>Section 8.8                                      | Pass     |
| Antenna Requirement                                           | FCC 15.203                                 | RSS Gen Issue 5<br>Section 6.8                                      | Complied |

Product Category: Electronics Testing

Test Discipline: EMC Test Facility

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## REVISION HISTORY OF THIS REPORT

| Report Number | Version | Description             | Issue date |
|---------------|---------|-------------------------|------------|
| IN2500RA 001  | 01      | Initial issue of report | 2025-04-29 |

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# 1 GENERAL REMARKS

## 1.1 Attachments

All attachments are part of this test report and are issued in separate document

1. Test Setup photos
2. EUT External Photos
3. EUT Internal Photos
4. FCC Label and Label Location
5. Block Diagram
6. Specification of EUT
7. Schematic Diagrams
8. Bill of Material
9. User Manual
10. Maximum Permissible Exposure Information

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## 2 TEST SITES

### 2.1 Testing Facilities

1. TÜV Rheinland (India) Pvt.Ltd.,  
27/B, 2nd Cross,  
ElectronicCityPhase1  
Bangalore – 560 100,  
India
2. TUV Rheinland (India) Pvt.Ltd.,  
108, Beside ISBR Business School,  
Electronic city Phase I  
Bangalore - 560 100,  
India

### 2.2 List of Test and Measurement Instruments

Table 1: List of test and measurement instruments

| Equipment                    | Manufacturer                | Model Name          | Serial Number | Firmware Versions | Calibration Due Date | Periodicity | Test Facility                |
|------------------------------|-----------------------------|---------------------|---------------|-------------------|----------------------|-------------|------------------------------|
| EMI Receiver                 | Rohde & Schwarz             | ESW 44              | 101732        | 4.73 SP5          | 17.09.2025           | Yearly      | Radiated Spurious Emission   |
| Loop Antenna                 | Schwarzbeck                 | FMZB 1519 B         | 1519B-00111   | -                 | 11-11-2025           | Yearly      |                              |
| Balun & Biconical Antenna    | Schwarzbeck mess-elektronik | BBA 9106+VH BB 9124 | 9124-1117     | -                 | 03.06.2025           | Yearly      |                              |
| Log-Periodic Antenna         | Schwarzbeck mess-elektronik | VUSLP 9111B         | 9111B-324     | -                 | 31.05.2025           | Yearly      |                              |
| Horn Antenna                 | Schwarzbeck                 | BBHA 9120 D         | 9120D-01944   | -                 | 12.11.2025           | Yearly      |                              |
| Broadband Antenna            | Frankonia                   | ALX-4000            | ALX-4000-806  | -                 | 30.05.2025           | Yearly      |                              |
| EMI Test Receiver            | Rohde & Schwarz             | ESW44               | 101773        | 1.72.SP1          | 26.01.2026           | Yearly      |                              |
| Semi Anechoic Chamber        | Frankonia                   | -                   | -             | -                 | -                    | -           |                              |
| Fully Anechoic Chamber       | Albatross                   | -                   | -             | -                 | -                    | -           | Conducted Test Parameters    |
| Spectrum Analyzer            | Agilent                     | E4407B              | US411927 72   | A.14.07           | 16-01-2026           | Yearly      |                              |
| 10 dB RF Attenuator ( DUT-1) | Rohde & Schwarz             | -                   | -             | -                 | 15-10-2025           | Yearly      | Conducted AC Power line Test |
| EMI Receiver                 | Rohde & Schwarz             | ESR7                | 101133        | 3.48 SP3          | 16.09.2025           | Yearly      |                              |
| Two Line LISN                | Scientific                  | SMLIN6 3-2          | 161101        | -                 | 06.03.2026           | Yearly      |                              |
| Pulse limiter [ 0 - 30 MHz]  | Rohde & Schwarz             | ESH3-Z2             | 100811        | -                 | 08-07-2025           | Yearly      |                              |

Table 2: Instrument application Software versions

| SL. No. | Test Type                                           | Application software | Version   |
|---------|-----------------------------------------------------|----------------------|-----------|
| 1       | Radiated spurious emission measurement in FAC       | EMC 32               | 10.60.20  |
| 2       | Radiated spurious emission measurement in 10mtr SAC | BAT EMC              | 3.20.0.17 |

## 3 GENERAL PRODUCT INFORMATION

### 3.1 Product Function and Intended Use

Str8bat cricket sensor unit is a data acquisition and analysis device used in sports industry. It has built in sensors and wireless communication over bluetooth to communicate with its companion application running on smart phone.

Str8bat Cricket Sensor Unit, sits on your bat and listens to all it has to say. Leading to actionable data to tap your full batting potential.

With the cricket sensor unit stuck on the back of your bat, and it's App installed on your phone it records, analyse and enhance every aspect of batting.

With the sensor data user is provided with number of sessions played, percentage of balls hitting bat's sweet spot, ratio of timing index.

### 3.2 Ratings and System Details of Equipment under Test

Table 3: Ratings and System Details as declared by Client\*

|                                       |                      |                                                                |
|---------------------------------------|----------------------|----------------------------------------------------------------|
| <b>Radio Protocol</b>                 |                      | Bluetooth Low Energy                                           |
| <b>Operating Frequency Range</b>      |                      | 2402MHz to 2480MHz                                             |
| <b>No. of Channels</b>                |                      | 40                                                             |
| <b>Channel Spacing</b>                |                      | 2MHz                                                           |
| <b>Transmitter Power level(dBm)</b>   |                      | 8dBm                                                           |
| <b>Measured e.i.r.p (dBm)</b>         |                      | <b>4.62dBm @ 2440MHz</b>                                       |
| <b>Modulation</b>                     |                      | GFSK                                                           |
| <b>Data Rates</b>                     |                      | 1Mbps                                                          |
| <b>Number of antennas</b>             |                      | 1                                                              |
| <b>Antenna Gain</b>                   |                      | 0.27dBi                                                        |
| <b>Antenna Type</b>                   |                      | PCB Antenna                                                    |
| <b>Supply Voltage to Product</b>      |                      | 5VDC through USB Charger or 3.7VDC Li-Polymer internal Battery |
| <b>Environmental conditions</b>       | <b>Storage(°C)</b>   | 0° to +60° C                                                   |
|                                       | <b>Operating(°C)</b> | 0° to +50° C                                                   |
| <b>EUT Dimension(L x W x H) in mm</b> |                      | 55 x 105 x 5 mm                                                |

**\*Disclaimer:** The above information/data is supplied by the client and the same is considered to arrive at the final value. Any changes made apart from the specified specification, can directly impact on the tests results. Refer the products user manual for more details.

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### 3.3 Measurement Uncertainty:

Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$

**Table 4: Measurement Uncertainty**

| Parameter                         | Uncertainty   |
|-----------------------------------|---------------|
| RF output power, conducted        | $\pm 0.67$ dB |
| Power Spectral Density, conducted | $\pm 0.85$ dB |
| Unwanted Emissions, conducted     | $\pm 2.58$ dB |
| All emissions, radiated           | $\pm 3.67$ dB |

## 4 TEST SET-UP AND OPERATION MODE

### 4.1 Principle of Configuration Selection

Transmission was enabled with highest possible duty cycle transmission on low, mid and high channel.

### 4.2 Test Operation and Test Software

Hardware Name & Version: Str8bat Cricket sensor unit & 2.32/40

Software Name & Version: Bit Test, Version: Bit 1.0.7

HVIN: 2\_32/40

### 4.3 Special Accessories and Auxiliary Equipment

- None

### 4.4 Countermeasures to achieve EMC Compliance

- None

### 4.5 List of frequencies

| Frequency Band (MHz) | Channel No. | Channel Frequency (MHz) |
|----------------------|-------------|-------------------------|
| 2402 – 2483.5 BLE    | <b>0</b>    | <b>2402</b>             |
|                      | 1           | 2404                    |
|                      | 2           | 2406                    |
|                      | 3           | 2408                    |
|                      | :           | :                       |
|                      | 11          | 2424                    |
|                      | 12          | 2426                    |
|                      | :           | :                       |
|                      | <b>19</b>   | <b>2440</b>             |
|                      | 20          | 2442                    |
|                      | :           | :                       |
|                      | :           | :                       |
|                      | :           | :                       |
|                      | :           | :                       |
|                      | 36          | 2474                    |
|                      | 37          | 2476                    |
|                      | 38          | 2478                    |
|                      | <b>39</b>   | <b>2480</b>             |

Table 5: List of BLE Centre frequencies

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**Channel used for BLE testing.**

Channel low: 2402MHz

Channel mid: 2440MHz

Channel high : 2480MHz

## 4.6 TUV Sample Identification

1. TUV Sample Identification number: A003952411-001 – Radiated test Sample.  
A003952411-002- Conducted test Sample

## 5 Operational Description

Str8bat Cricket Sensor Unit, sits on your bat and listens to all it has to say. Leading to actionable data to tap your full batting potential.

Str8bat Cricket Sensor Unit has built in rechargeable battery for its operation and is charged with its charger unit powered from external +5V USB source.

Str8bat Cricket Sensor Unit has 2 LED's to indicate Battery charging status and system functional status. The device automatically starts to collect data when a cricket shot is played, captured and stored into inbuilt memory, processed and transferred to companion application over BLE wireless connection.

The companion application running on a smart phone further process the data and present the result in tabular and graphical interface.

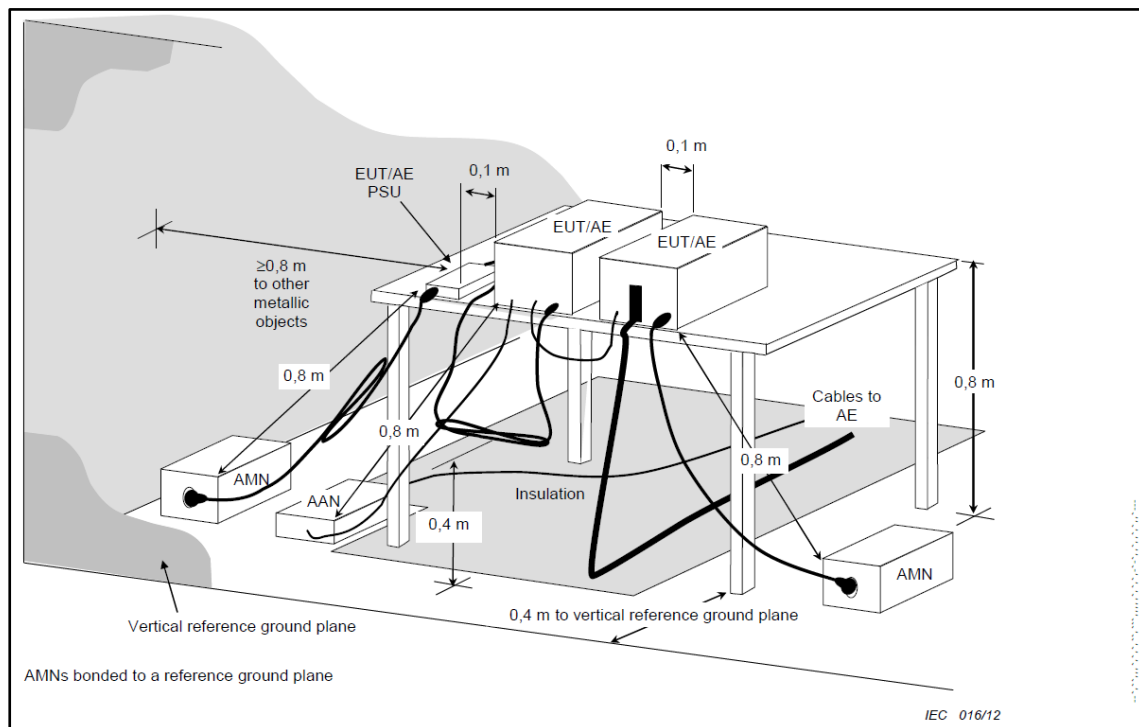
## 6 TEST METHODOLOGY

## 6.1 AC Power lines Conducted emission

Measured levels of ac powerline conducted emission across the 50Ω LISN port (to which the EUT is connected). All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer.

The device is placed on the test table, raised 80cm above the reference ground plane. The vertical conducting plane is located 40cm to the rear of the device. AC Conducted emission measurement is made over frequency range from 150 kHz to 30MHz, this measurement was performed an AC adaptor 110V AC 60Hz supply

### 6.1.1 Test Setup Configuration



## 6.2 Radiated Emission Test

The radiated emission measurement was performed according to the procedures in ANSI C63.10-2013. The equipment under test (EUT) was placed at the middle of the 80 cm high turntable for below 1 GHz & 1.5 m height for above 1 GHz measurement, and the EUT is 3 meters far from the measuring antenna. The turntable was rotated 360° for obtaining the maximum emission. The height of the measuring antennas was scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained. The measurement above 1000 MHz was performed by horn antenna, the measurement below 30 MHz was performed by loop antenna, Measurement from 30 MHz to 200 MHz was performed by Balloon and Biconical Antenna, and measurement from 200 MHz to 1 GHz was performed by Log-Periodic Antenna.

The EUT was rotated around the X-, Y-, and Z-Axis and the results from worst case axis are recorded

### 6.2.1 Test Setup Configuration

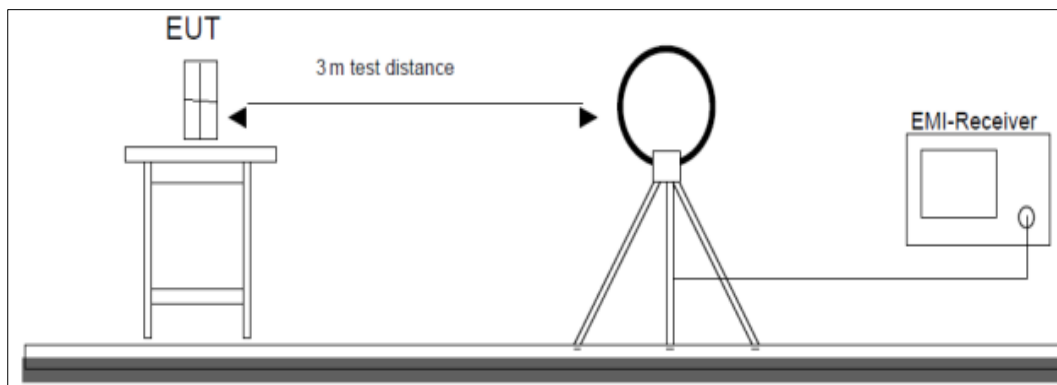


Figure 1: Frequency Range 9 kHz- 30 MHz

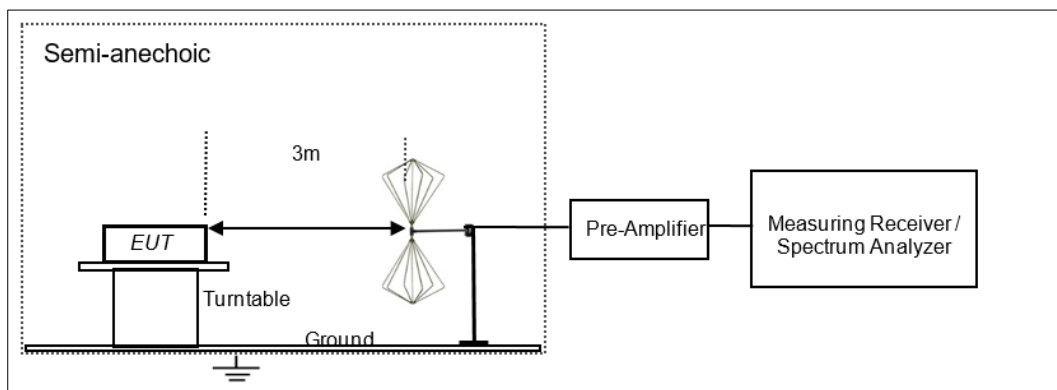
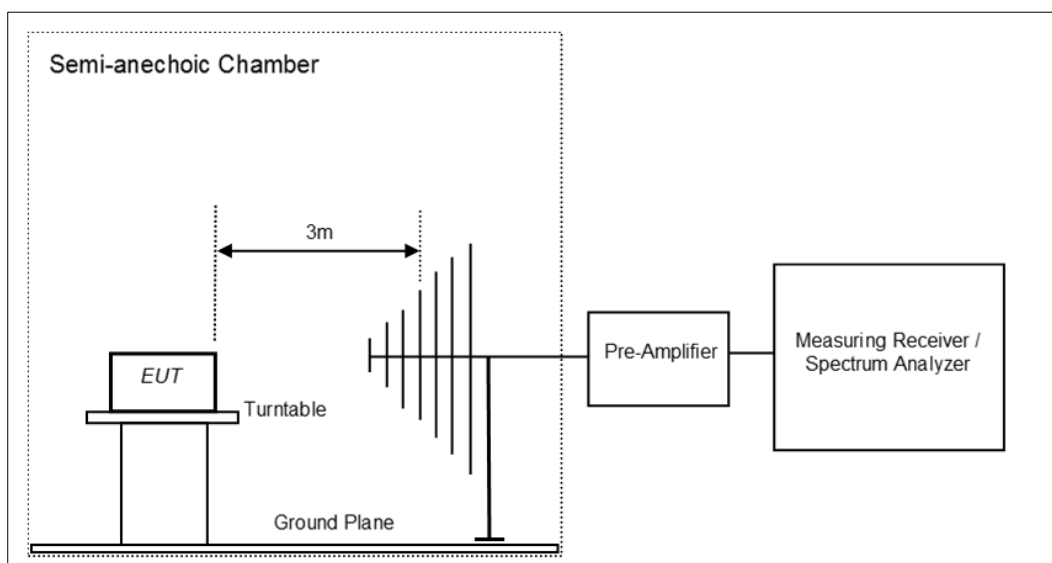
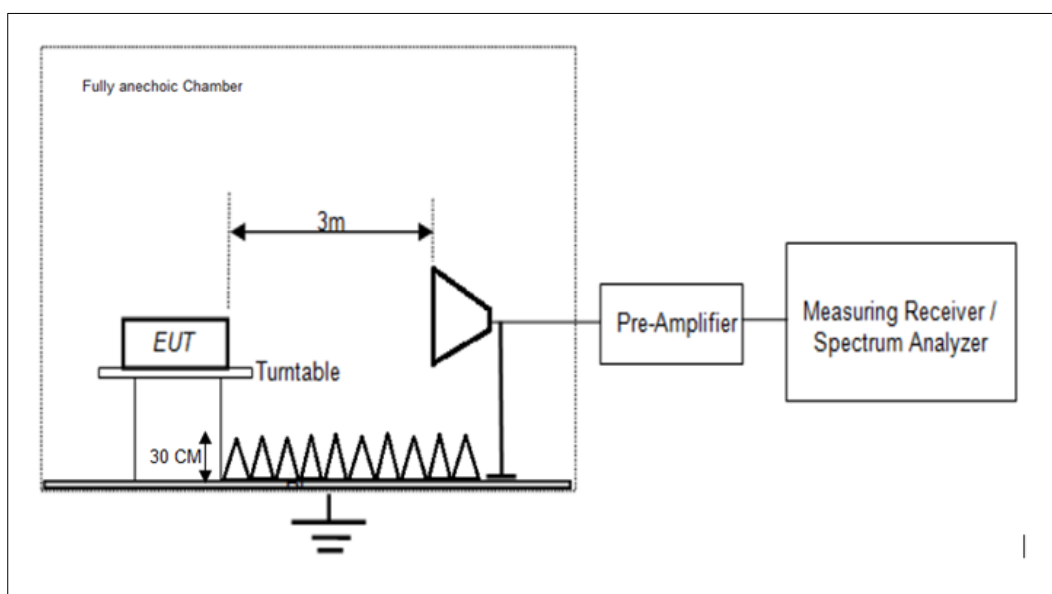


Figure 2: Frequency Range 30 MHz – 200 MHz



**Figure 3: Frequency Range 200 MHz - 1GHz**



**Figure 4: Frequency Range above 1 GHz**

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## 7 TEST RESULTS

### 7.1 Maximum Peak Conducted Output Power

**Result**

**Pass**

|                       |                                                                 |
|-----------------------|-----------------------------------------------------------------|
| Test Specification    | FCC part 15 Subpart C 15.247 (b)(3)/<br>RSS 247 Issue 3 5.4 (d) |
| Test Method           | Subclause 11.9.1.1 of ANSI C63.10                               |
| Measurement Bandwidth | 1MHz                                                            |
| Detector              | Peak                                                            |
| Port of testing       | Conducted mode                                                  |
| Requirement           | Power $\leq 1$ W (30 dBm) & e.i.r.p $\leq 4$ W (36dBm)          |

#### Test Condition

#### Normal Test Condition:

Temperature(Norm) = +23.6°C      Voltage = 5VDC through USB Charger      Relative humidity: 62%

#### KDB Guidelines applied:

Measurements were made as per section 8.3.1.1 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

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## Test results:

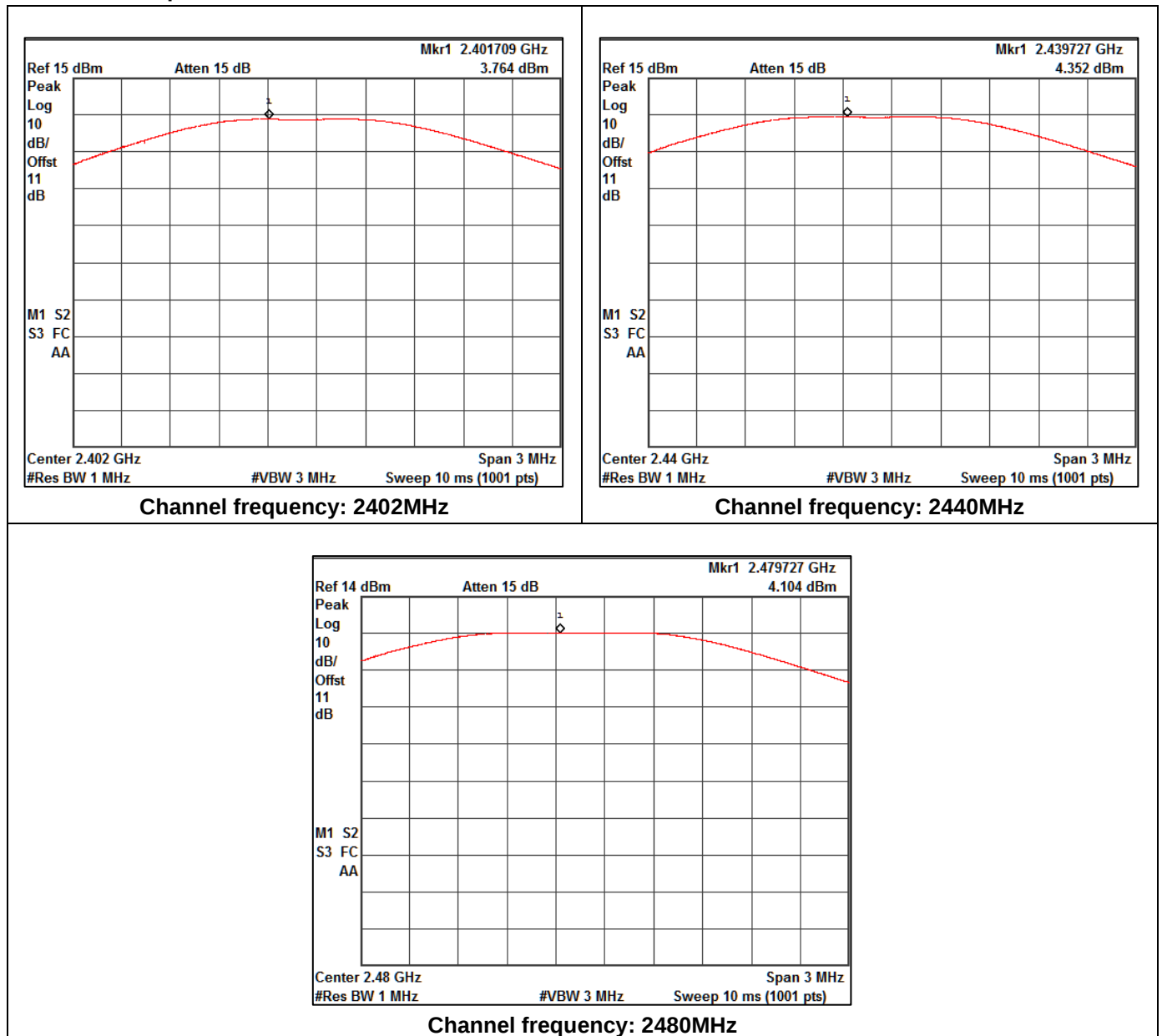
### Note:

1. All the losses are included during measurement and final values are mentioned in the test report
2. Total Peak Output power (dBm) = Measured Peak power (dBm) + Cable loss (1dB)
3. This product does not support additional beamforming gain / directional gain, it uses single antenna and hence Directional gain of the single antenna is 0.27 dBi

| Data rate | Channel frequency | Measured power (dBm) | Measured e.i.r.p (dBm) | FCC/ISED Limit (dBm) | e.i.r.p limit (dBm) |
|-----------|-------------------|----------------------|------------------------|----------------------|---------------------|
| 1 Mbps    | 2402.00           | 3.76                 | 4.03                   | 30.00                | 36.00               |
|           | 2440.00           | 4.35                 | 4.62                   | 30.00                | 36.00               |
|           | 2480.00           | 4.10                 | 4.37                   | 30.00                | 36.00               |

## Test Plots:

### Data Rate: 1Mbps



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## 7.2 DTS Bandwidth & 99% Bandwidth

### Result

### Pass

|                       |                                                                                                                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Specification    | FCC part 15 Subpart C 15.247 (a) (2)/<br>RSS 247 Issue 3 Section 5.2(a)/<br>RSS Gen Issue 5 Section 6.7                                                                              |
| Test Method           | Subclause 11.8.1 of ANSI C63.10 for DTS<br>Subclause 6.9.3 of ANSI C63.10 for OBW                                                                                                    |
| Measurement Bandwidth | 100 kHz for DTS Bandwidth<br>1% to 5% of OBW                                                                                                                                         |
| Detector              | Peak                                                                                                                                                                                 |
| Port of testing       | Conducted mode                                                                                                                                                                       |
| Requirement           | Systems using digital modulation techniques may operate<br>in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850<br>MHz bands. The minimum 6 dB bandwidth shall be at<br>least 500 kHz. |

### Test Condition

#### Normal Test Condition:

Temperature(Norm) = +23.6°C      Voltage = 5VDC through USB Charger      Relative humidity: 62%

#### KDB Guidelines applied:

Measurements were made as per section 8.2 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

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**Test results:**

**Note:**

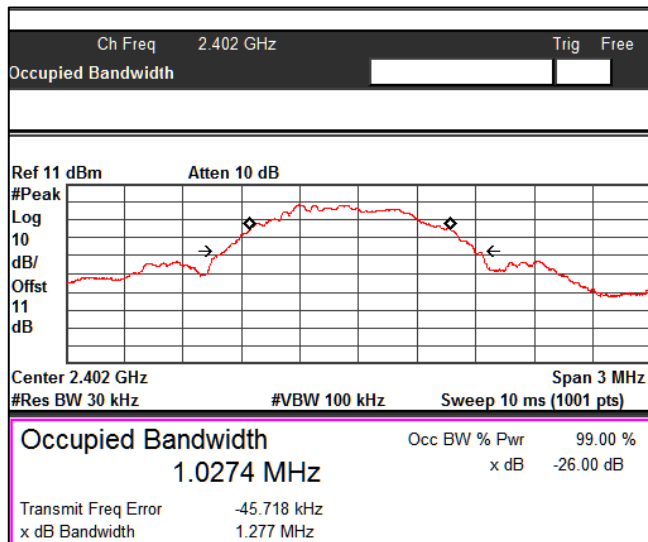
1. All the losses are included during measurement and final values are mentioned in the test report.
2. This product do not support additional beamforming gain / directional gain, it uses single antenna and hence directional gain of the single antenna is 0.27 dBi.

| Data rate | Channel frequency | 99% (MHz) | 6dB BW (MHz) | Limit (MHz) |
|-----------|-------------------|-----------|--------------|-------------|
| 1 Mbps    | 2402.00           | 1.027     | 0.70         | 0.50        |
|           | 2440.00           | 1.033     | 0.76         | 0.50        |
|           | 2480.00           | 1.111     | 0.82         | 0.50        |

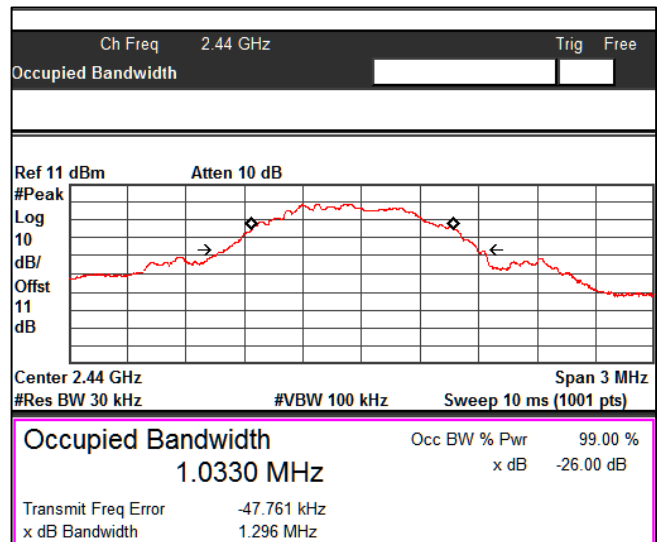
**Test Plots:**

**99% Bandwidth:**

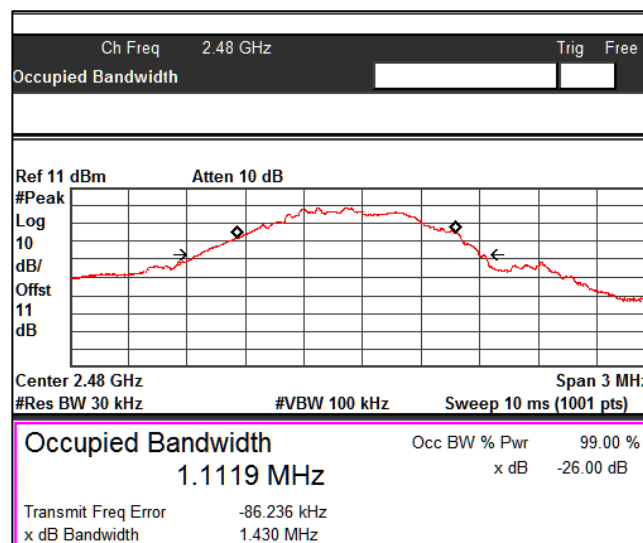
**Data Rate: 1Mbps**



**Channel frequency: 2402MHz**



**Channel frequency: 2440MHz**



**Channel frequency: 2480MHz**

# Prüfbericht - Nr.:

Test Report No.:

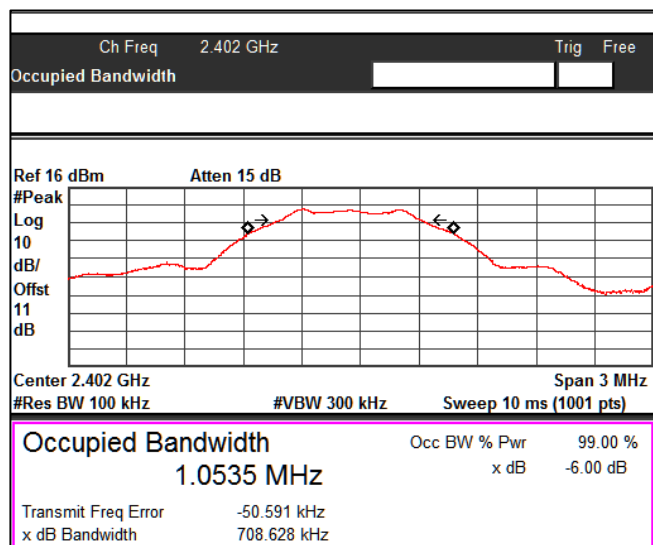
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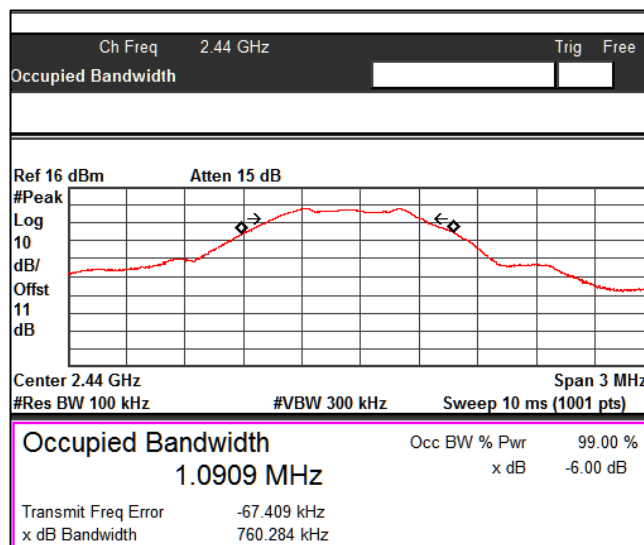
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DTS Bandwidth:

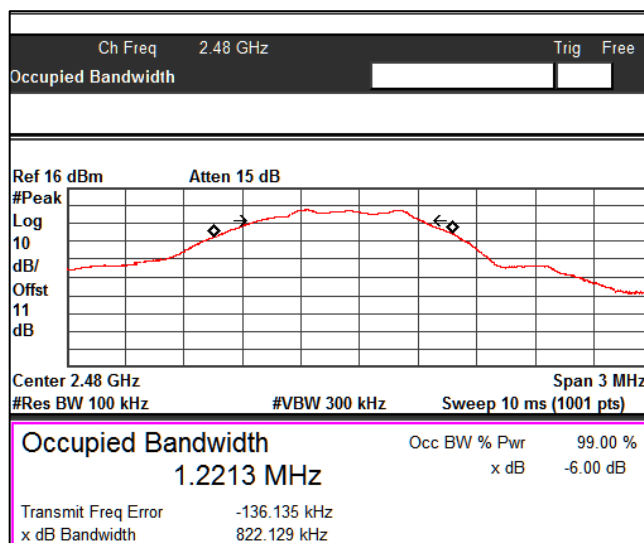
Data Rate: 1Mbps



Channel frequency: 2402MHz



Channel frequency: 2440MHz



Channel frequency: 2480MHz

**Prüfbericht - Nr.:**  
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### 7.3 Power Spectral Density

#### **Result**

#### **Pass**

|                       |                                                                                                                                                                                                                             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Specification    | FCC Part 15 Subpart C Section 15.247 (e)/<br>RSS 247 Issue 3 Section 5.2(b)                                                                                                                                                 |
| Test Method           | Subclause 11.10.2 of ANSI C63.10                                                                                                                                                                                            |
| Measurement Bandwidth | 3 kHz                                                                                                                                                                                                                       |
| Detector              | Peak                                                                                                                                                                                                                        |
| Port of testing       | Conducted mode                                                                                                                                                                                                              |
| Requirement           | For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 100 kHz band during any time interval of continuous transmission. |

#### **Test Condition**

##### **Normal Test Condition:**

Temperature(Norm) = +23.6°C      Voltage = 5VDC through USB Charger      Relative humidity: 62%

##### **KDB Guidelines applied:**

Measurements were made as per section 8.4 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

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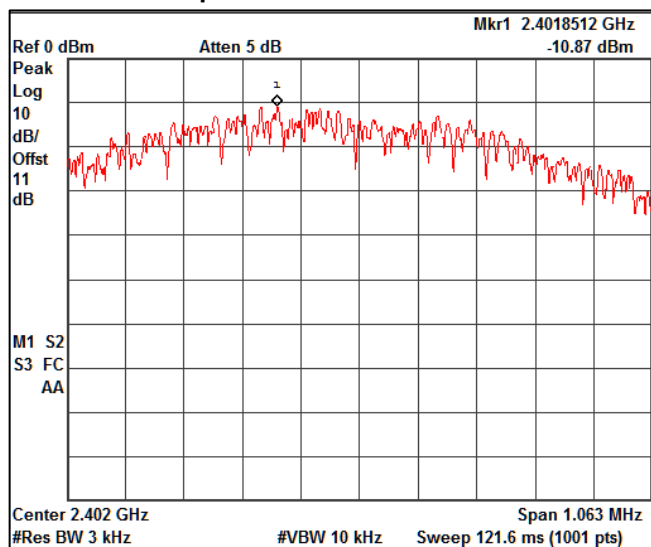
**Test results:**

**Note:** All the losses are included during measurement and final values are mentioned in the test report.

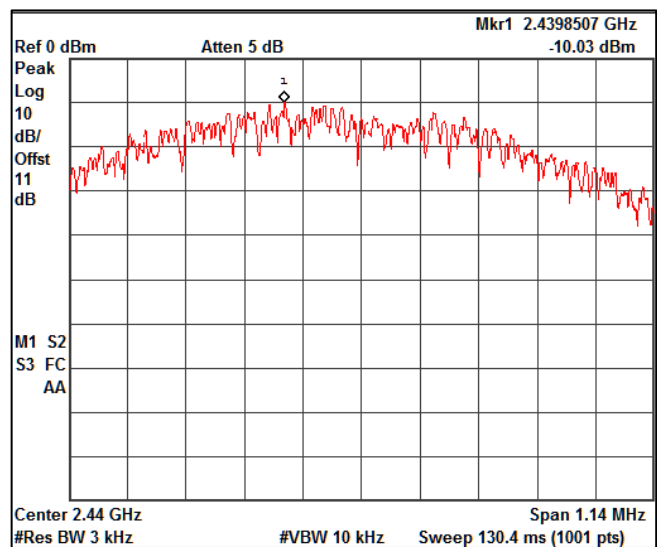
| Data rate | Channel Frequency (MHz) | Measured PSD (dBm) | Limit (dBm in any 3kHz) |
|-----------|-------------------------|--------------------|-------------------------|
| 1 Mbps    | 2402.00                 | -10.87             | 8.00                    |
|           | 2440.00                 | -10.03             | 8.00                    |
|           | 2480.00                 | -10.57             | 8.00                    |

**Test Plots:**

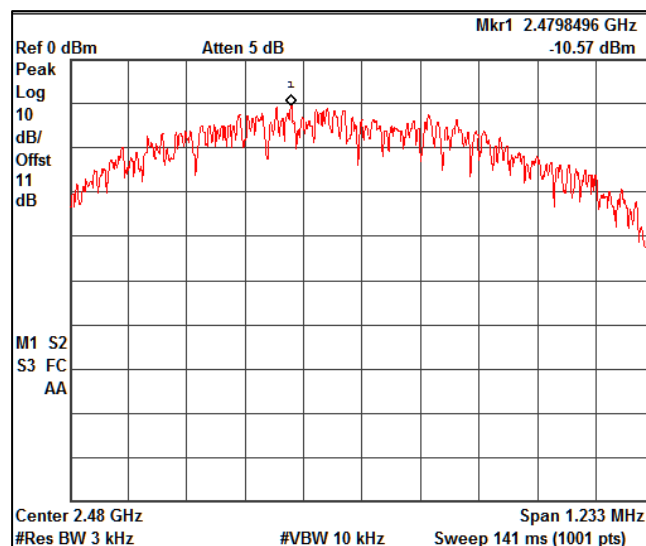
**Data Rate: 1Mbps**



**Channel frequency: 2402MHz**



**Channel frequency: 2440MHz**



**Channel frequency: 2480MHz**

**Prüfbericht - Nr.:**  
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## 7.4 Emissions in non-restricted frequency bands and Conducted Spurious Emission

### Result

**Pass**

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Specification    | FCC part 15 Subpart C 15.247 (d)/RSS 247 Issue 3<br>Section 5.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Test Method           | Subclause 11.11.3 of ANSI C63.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Measurement Bandwidth | 100 kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Detector              | Peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Port of testing       | Conducted mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Requirement           | <p>In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.</p> <p>If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB</p> |

### Test Condition

#### Normal Test Condition:

Temperature(Norm) = +23.6°C      Voltage = 5VDC through USB Charger      Relative humidity: 62%

#### KDB Guidelines applied:

Measurements were made as per section 8.5 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

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## Test results:

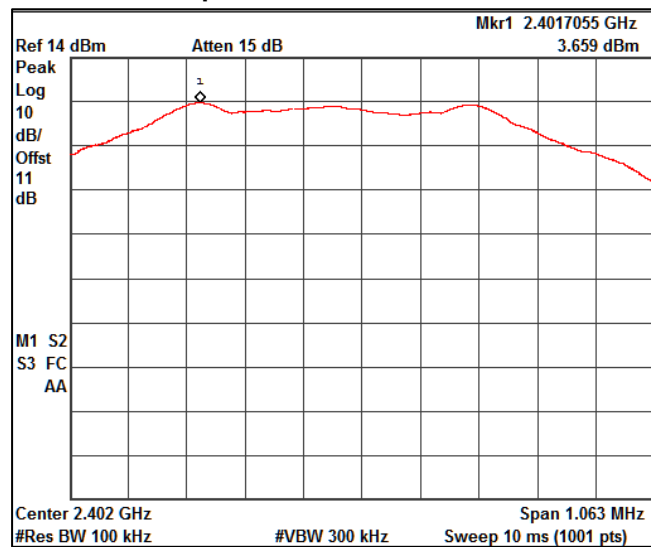
**Note:** All the losses are included during measurement and final values are mentioned in the test report

## Band edge

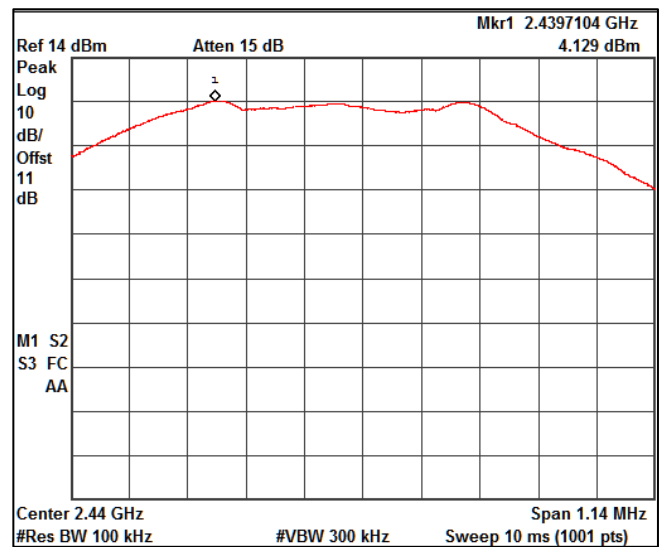
| Data rate | Channel Frequency (MHz) | Band edge frequency (MHz) | Value at band edge (A) (dBm) | Reference value (B) (dBm) | A-B (dBc) | Minimum Limit (dBc) |
|-----------|-------------------------|---------------------------|------------------------------|---------------------------|-----------|---------------------|
| 1 Mbps    | 2402.00                 | 2400.00                   | -41.12                       | 3.65                      | -44.77    | -20                 |
|           | 2480.00                 | 2483.50                   | -45.23                       | 3.72                      | -48.95    | -20                 |

## Reference Plots:

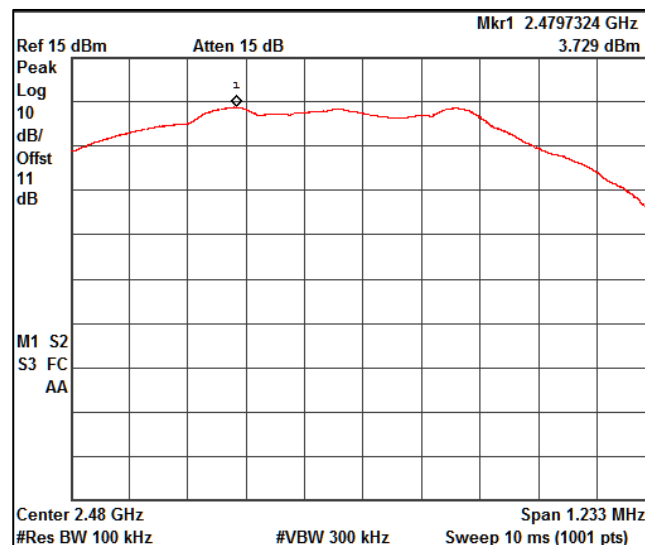
### Data Rate: 1Mbps



Channel frequency: 2402MHz



Channel frequency: 2440MHz



Channel frequency: 2480MHz

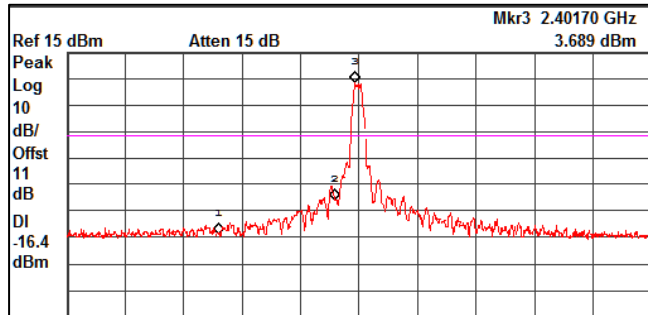
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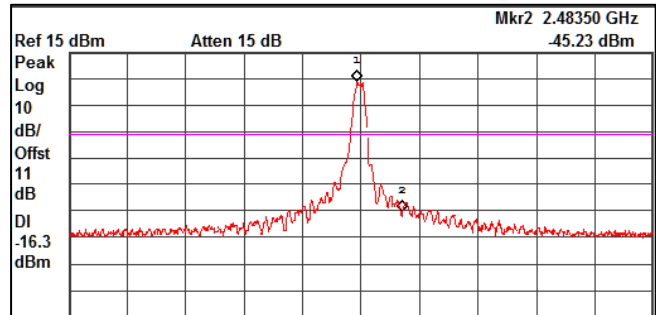
**Bandedge Plots:**

**Data Rate: 1Mbps**



| Center 2.402 GHz |       | #VBW 300 kHz |             | Span 50 MHz            |  |
|------------------|-------|--------------|-------------|------------------------|--|
| #Res BW 100 kHz  |       |              |             | Sweep 10 ms (1001 pts) |  |
| Marker           | Trace | Type         | X Axis      | Amplitude              |  |
| 1                | (1)   | Freq         | 2.39000 GHz | -53.88 dBm             |  |
| 2                | (1)   | Freq         | 2.40000 GHz | -41.12 dBm             |  |
| 3                | (1)   | Freq         | 2.40170 GHz | 3.689 dBm              |  |

**Channel frequency: 2402MHz**



| Center 2.48 GHz |       | #VBW 300 kHz |             | Span 50 MHz            |  |
|-----------------|-------|--------------|-------------|------------------------|--|
| #Res BW 100 kHz |       |              |             | Sweep 10 ms (1001 pts) |  |
| Marker          | Trace | Type         | X Axis      | Amplitude              |  |
| 1               | (1)   | Freq         | 2.47970 GHz | 3.769 dBm              |  |
| 2               | (1)   | Freq         | 2.48350 GHz | -45.23 dBm             |  |

**Channel frequency: 2480MHz**

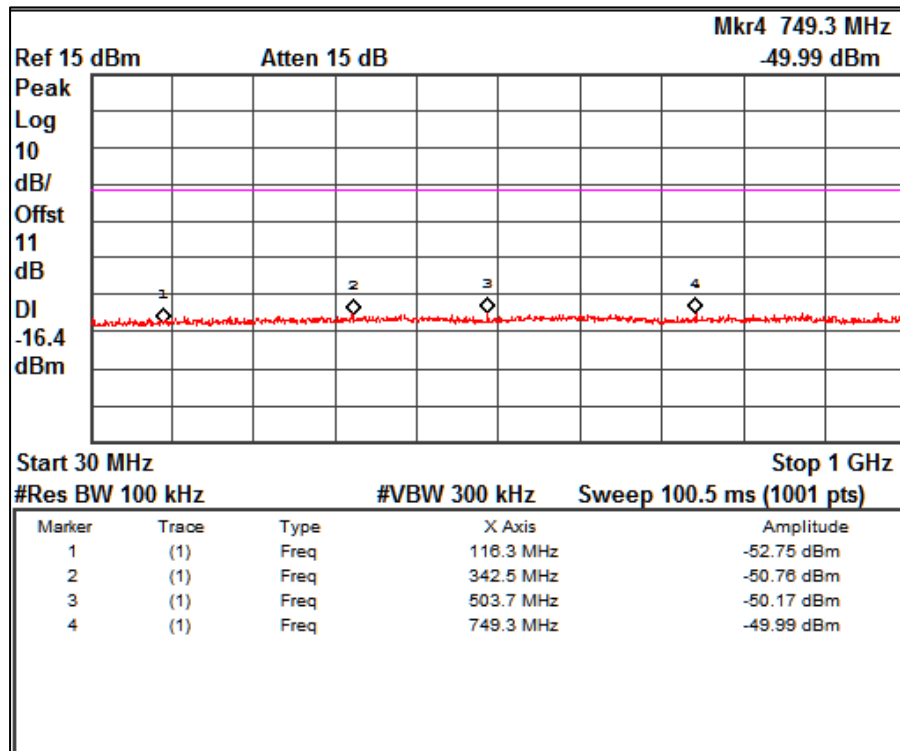
**Prüfbericht - Nr.:**  
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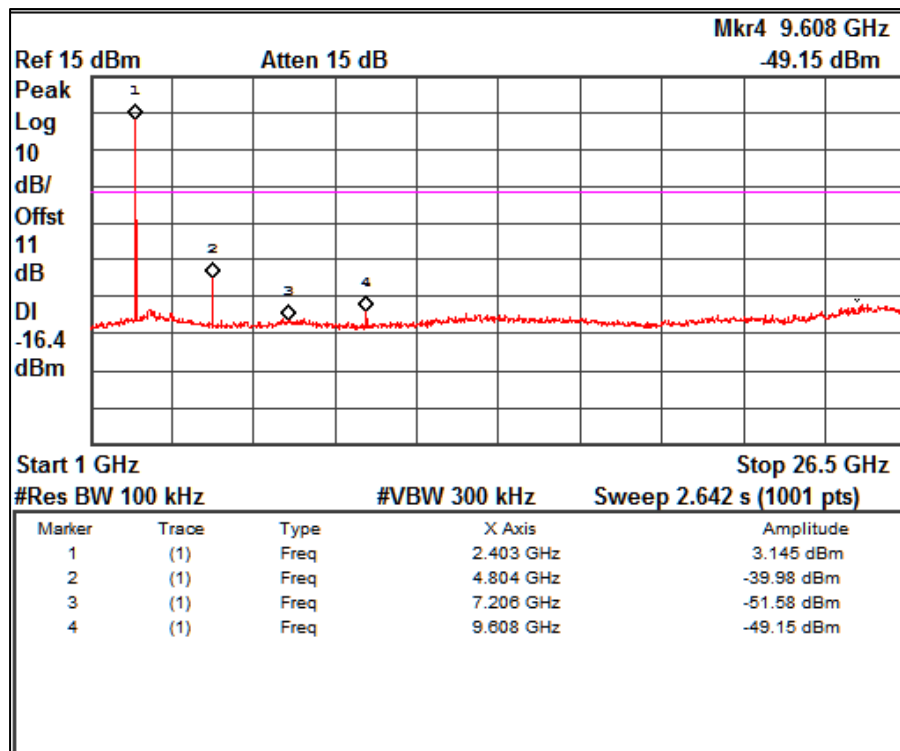
### 7.4.1 Out-Of-Band Emissions

Data Rate: 1Mbps



Channel Frequency: 2402MHz

Frequency Range 30MHz – 1GHz



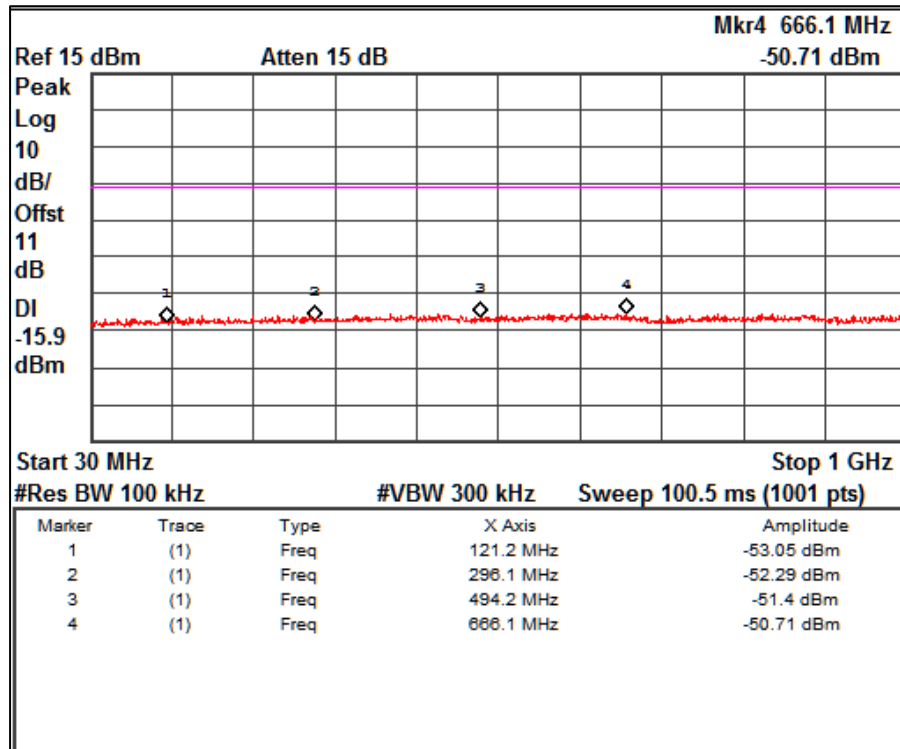
Channel Frequency: 2402MHz

Frequency Range 1GHz to 26.5GHz

**Prüfbericht - Nr.:**  
Test Report No.:

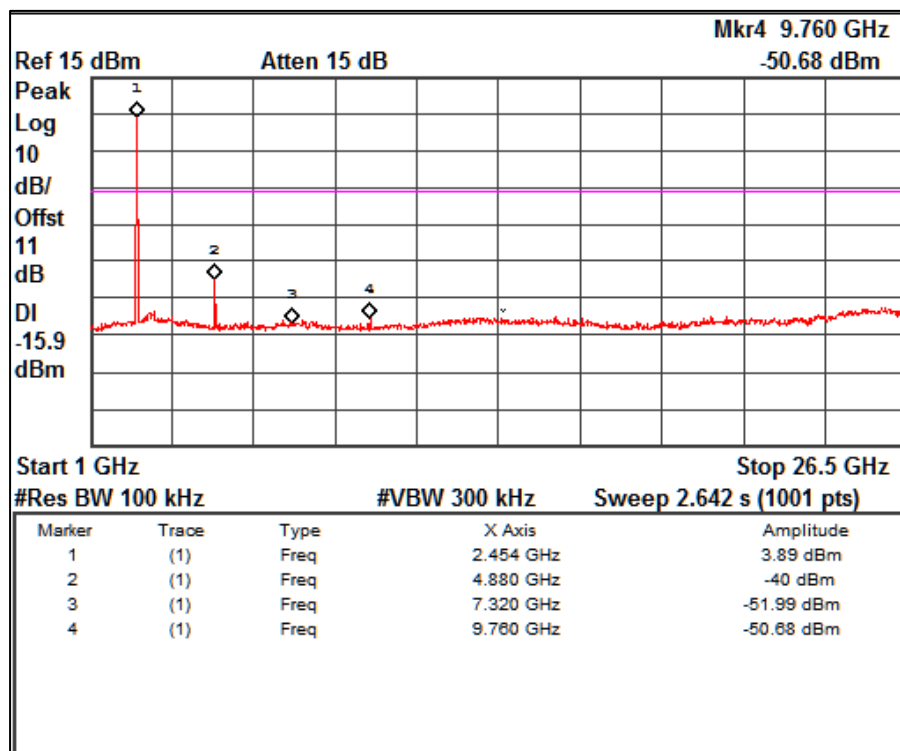
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Channel Frequency: 2440MHz

Frequency Range 30MHz – 1GHz



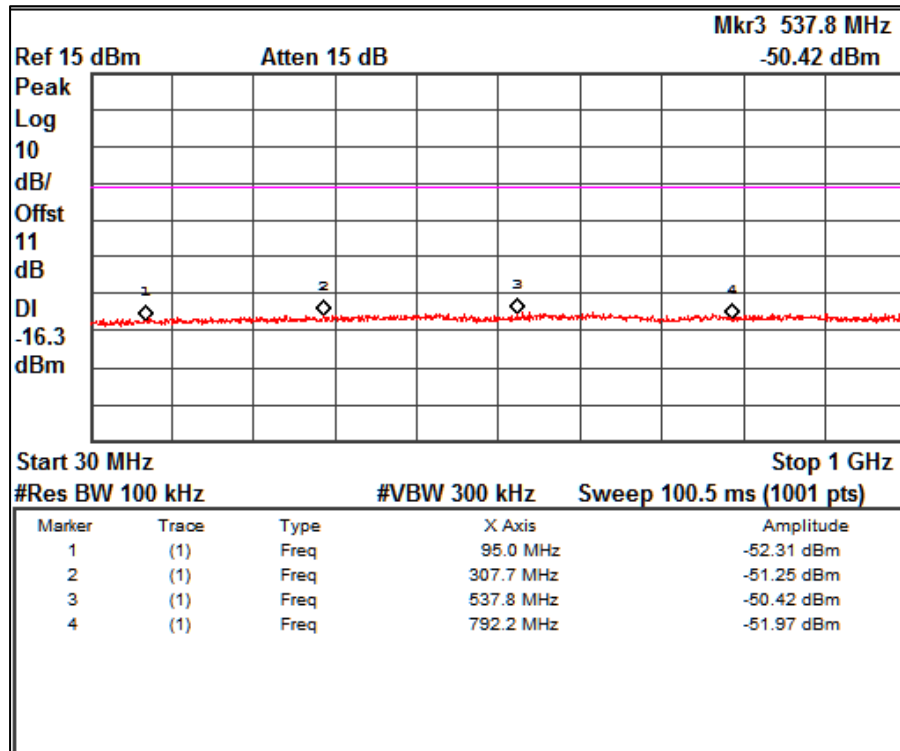
Channel Frequency: 2440MHz

Frequency Range: 1GHz – 26.5GHz

**Prüfbericht - Nr.:**  
Test Report No.:

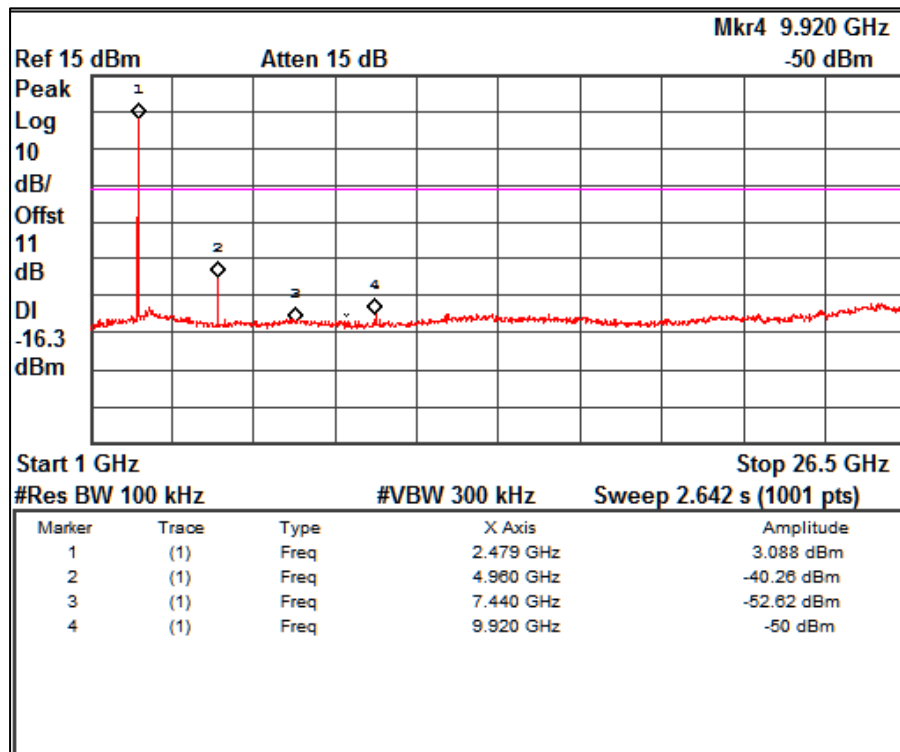
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Channel Frequency: 2480MHz

Frequency Range 30MHz – 1GHz



Channel Frequency: 2480MHz

Frequency Range: 1GHz – 26.5GHz

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## 7.5 Spurious Radiated Emissions & Restricted Bands of Operation

**Result**

**Pass**

|                       |                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------|
| Test Specification    | FCC part 15 Subpart C 15.247 (d) / (15.209 & 15.205)/<br>RSS-Gen Issue 5, Section 8.9 /8.10 |
| Test Method           | ANSI C63.10                                                                                 |
| Measurement Location  | Semi Anechoic Chamber 9kHz - 1 GHz<br>Fully Anechoic Chamber 1 GHz - 26GHz                  |
| Measurement Bandwidth | 100 kHz for frequency range < 1GHz<br>1 MHz for Frequency range >1GHz                       |
| Detector              | Refer remarks below                                                                         |
| Measuring Distance    | 3 m                                                                                         |
| Requirement           | As per the limits mentioned in the below table                                              |
| Test setup            | Refer TEST METHODOLOGY                                                                      |

**Table 6: Transmitter limits for Radiated emission**

| Frequency (MHz) | Field strength (μV/m) | Field strength (dBμV/m) | Distance of Measurement (m) |
|-----------------|-----------------------|-------------------------|-----------------------------|
| 0.009 – 0.490   | 2400/F(kHz)           | 48.50 – 13.80           | 300*                        |
| 0.490 – 1.705   | 24000/F(kHz)          | 33.80 – 23.00           | 30*                         |
| 1.705 -30       | 30                    | 29.54                   | 30*                         |
| 30-88           | 100                   | 40.0                    | 3                           |
| 88-216          | 150                   | 43.5                    | 3                           |
| 216-960         | 200                   | 46.0                    | 3                           |
| Above 960       | 500                   | 54.0                    | 3                           |

**Remark:** \* The limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 30 meter range respectively, which corresponds to 128.51 – 93.80, 73.80 – 62.96 and 69.54 dBμV/m at 3m range by extrapolation calculation and the measurement of loop antenna.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

### Test Conditions:

|                             |                                                                            |                        |
|-----------------------------|----------------------------------------------------------------------------|------------------------|
| Temperature(Norm) = +23.6°C | Voltage = 5VDC through USB Charger<br>& 3.7VDC Li-Polymer internal Battery | Relative humidity: 62% |
|-----------------------------|----------------------------------------------------------------------------|------------------------|

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**Test results:**

**Note:** All the losses are included during measurement and final values are mentioned in the test report. Refer TEST METHODOLOGY for more details

**Test results for frequency range 9kHz – 30MHz**

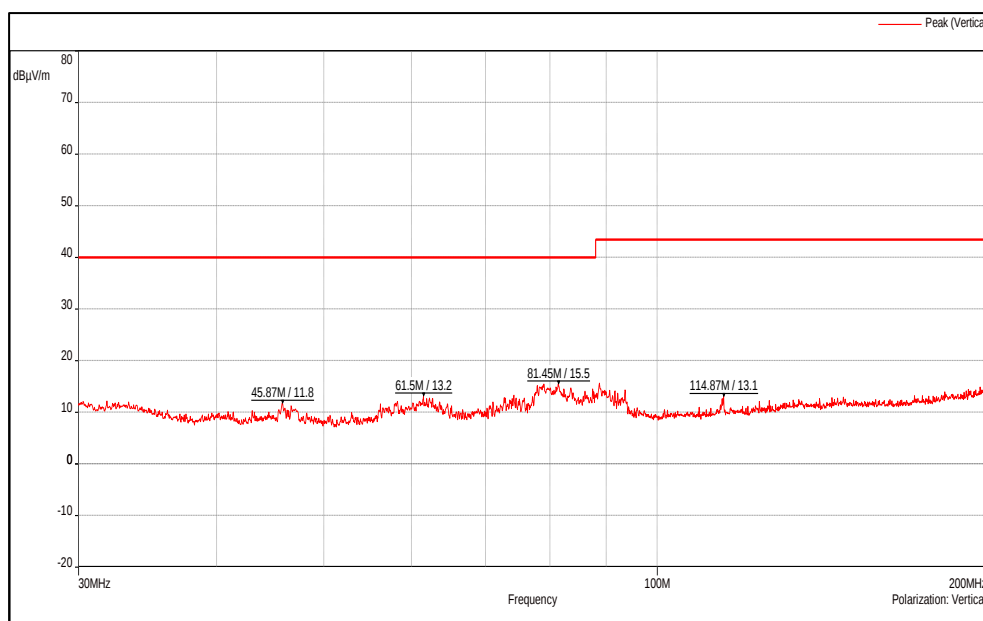
No emissions found in frequency range 9 kHz to 30 MHz, and measured levels are below 20dB from the limit line, hence not reported.

**Table 7: Test results for frequency range 30MHz – 1GHz**

**Mode of testing: Battery Mode**

| Antenna Polarization | Measured Frequency (MHz) | Emission level (dB $\mu$ V/m) | Limit (dB $\mu$ V/m) | Margin (dB) |
|----------------------|--------------------------|-------------------------------|----------------------|-------------|
| Vertical             | 45.87                    | 11.80                         | 40.00                | -28.20      |
|                      | 61.50                    | 13.20                         | 40.00                | -26.80      |
|                      | 81.45                    | 15.50                         | 40.00                | -24.50      |
|                      | 114.87                   | 13.10                         | 43.50                | -30.40      |
|                      | 244.70                   | 32.10                         | 46.00                | -13.90      |
|                      | 284.66                   | 24.90                         | 46.00                | -21.10      |
|                      | 400.13                   | 23.90                         | 46.00                | -22.10      |
| Horizontal           | 594.26                   | 27.70                         | 46.00                | -18.30      |
|                      | 77.04                    | 14.10                         | 40.00                | -25.90      |
|                      | 157.80                   | 21.10                         | 43.50                | -22.40      |
|                      | 164.40                   | 33.50                         | 43.50                | -10.00      |
|                      | 197.88                   | 28.30                         | 43.50                | -15.20      |
|                      | 204.32                   | 22.20                         | 43.50                | -21.30      |
|                      | 259.76                   | 19.40                         | 46.00                | -26.60      |
|                      | 325.13                   | 20.80                         | 46.00                | -25.20      |
|                      | 433.34                   | 22.60                         | 46.00                | -23.40      |

**Test Plots:**



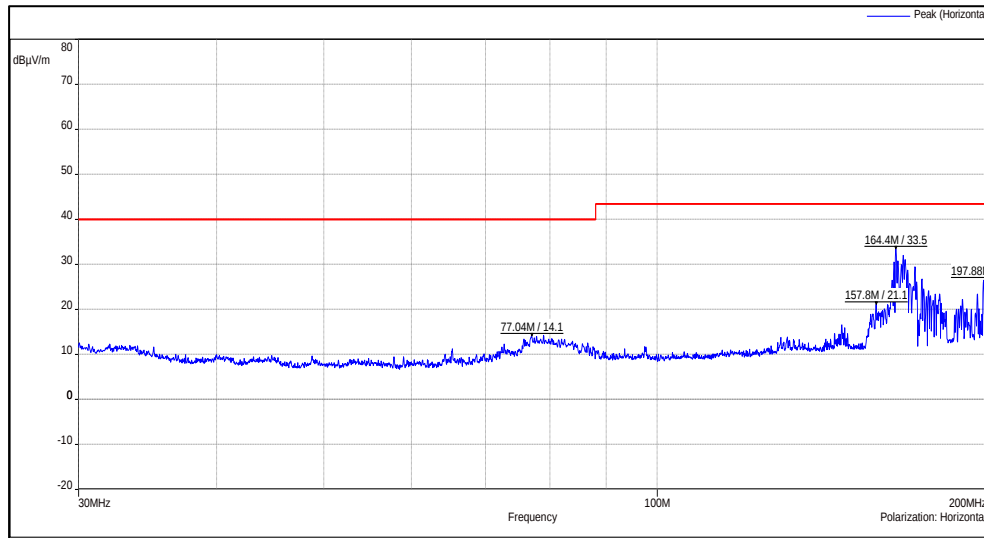
**Channel Frequency 30MHz – 200MHz**

**Polarization Vertical**

**Prüfbericht - Nr.:**  
Test Report No.:

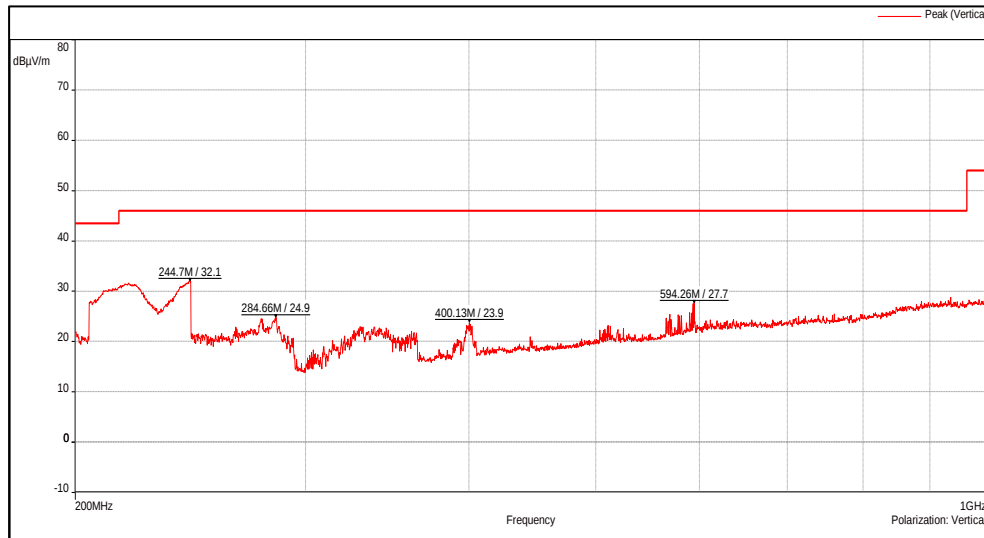
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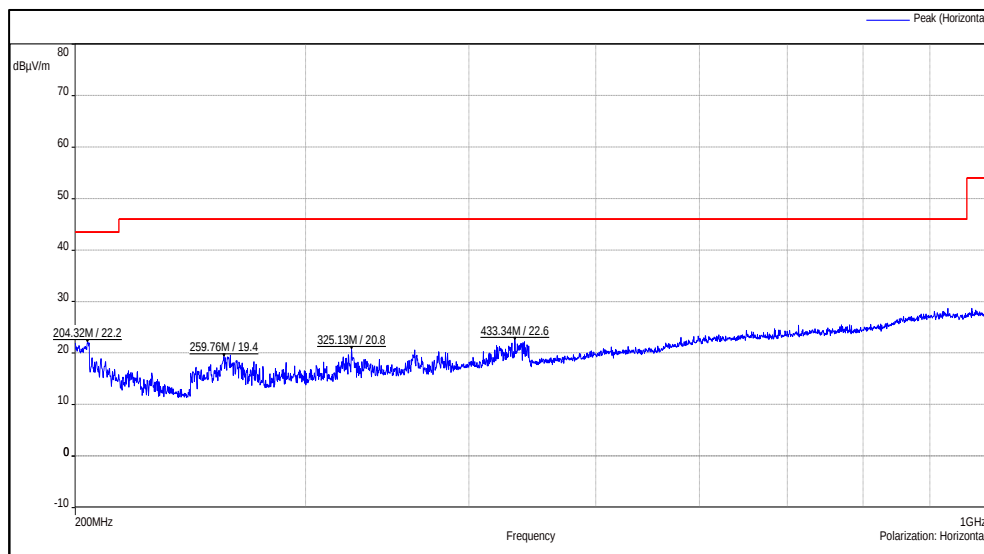
**Channel Frequency 30MHz – 200MHz**

**Polarization Horizontal**



**Channel Frequency 200MHz – 1GHz**

**Polarization Vertical**



**Channel Frequency 200MHz – 1GHz**

**Polarization Horizontal**

**Prüfbericht - Nr.:**

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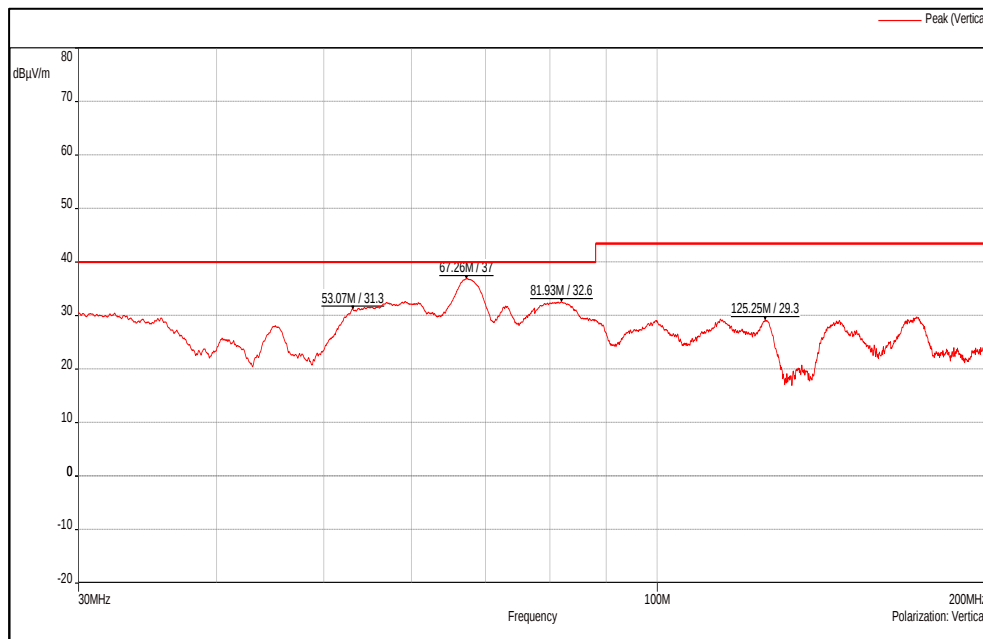
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**Mode of testing: Charging Mode**

| Antenna Polarization | Measured Frequency (MHz) | Emission level (dBµV/m) | Limit (dBµV/m) | Margin (dB) |
|----------------------|--------------------------|-------------------------|----------------|-------------|
| Vertical             | 53.07                    | 31.30                   | 40.00          | -8.70       |
|                      | 68.28*(QP)               | 10.34                   | 40.00          | -29.66      |
|                      | 81.93                    | 32.60                   | 40.00          | -7.40       |
|                      | 125.25                   | 29.30                   | 43.50          | -14.20      |
|                      | 204.38                   | 32.20                   | 43.50          | -11.30      |
|                      | 251.96                   | 25.10                   | 46.00          | -20.90      |
|                      | 311.33                   | 22.40                   | 46.00          | -23.60      |
|                      | 437.54                   | 19.60                   | 46.00          | -26.40      |
| Horizontal           | 57.00                    | 23.30                   | 40.00          | -16.70      |
|                      | 77.73                    | 25.50                   | 40.00          | -14.50      |
|                      | 99.99                    | 33.10                   | 43.50          | -10.40      |
|                      | 114.63                   | 2.99                    | 43.50          | -40.51      |
|                      | 125.86                   | 3.32                    | 43.50          | -40.18      |
|                      | 231.71                   | 25.10                   | 46.00          | -20.90      |
|                      | 332.48                   | 20.40                   | 46.00          | -25.60      |
|                      | 437.24                   | 19.20                   | 46.00          | -26.80      |
|                      | 568.31                   | 22.30                   | 46.00          | -23.70      |

**Test Plots:**



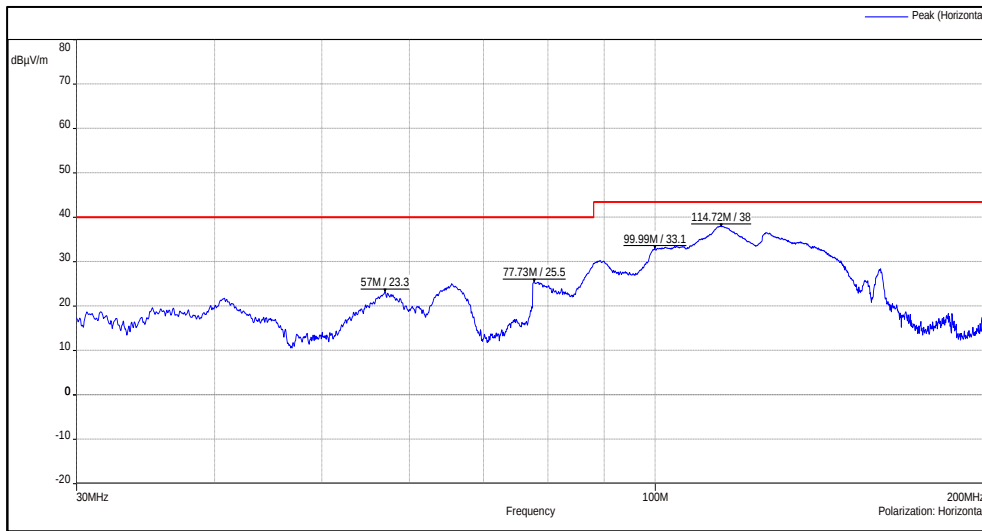
**Channel Frequency 30MHz – 200MHz**

**Polarization Vertical**

**Prüfbericht - Nr.:**  
Test Report No.:

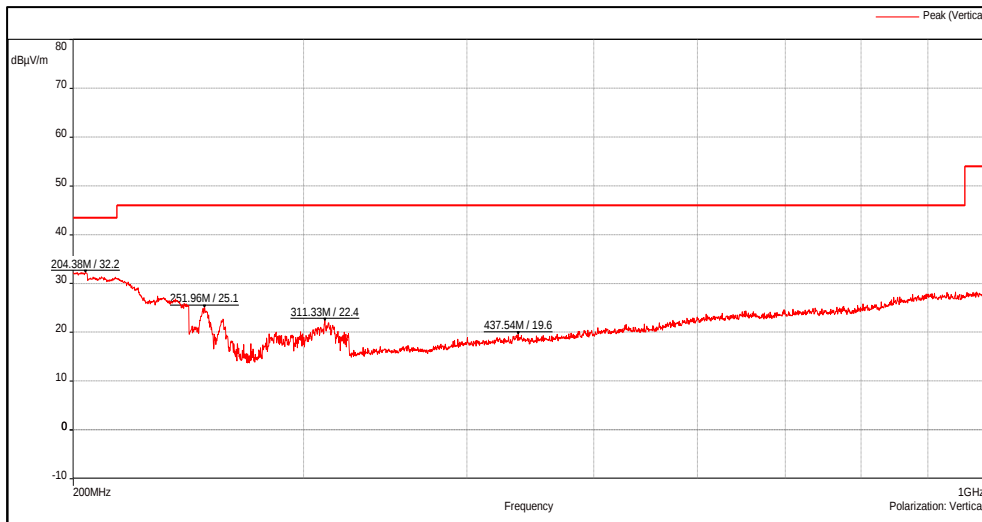
**IN2500RA 001**

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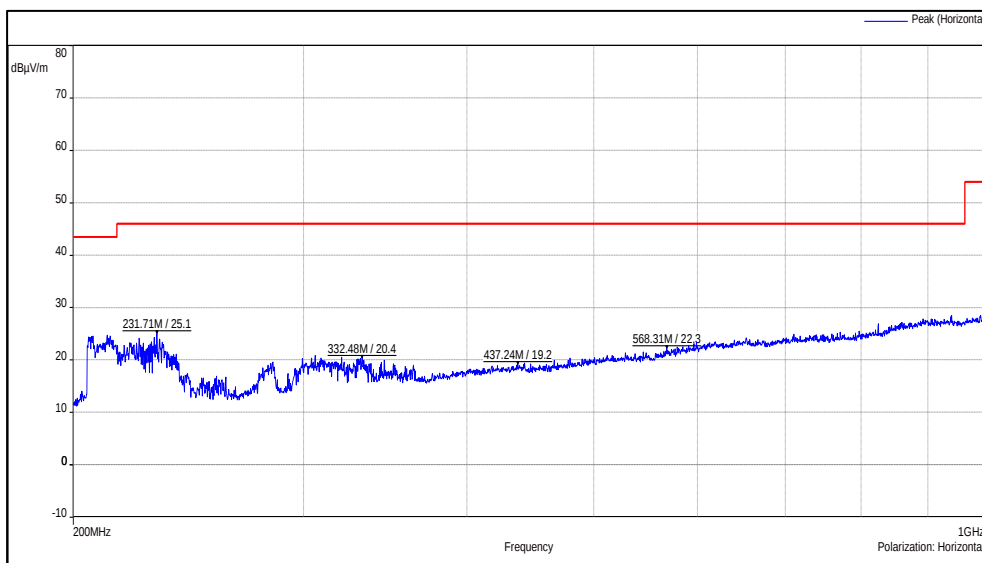
**Channel Frequency 30MHz – 200MHz**

**Polarization Horizontal**



**Channel Frequency 200MHz – 1GHz**

**Polarization Vertical**



**Channel Frequency 200MHz – 1GHz**

**Polarization Horizontal**

**Prüfbericht - Nr.:**

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**Table 8: Test results for the frequencies above 1GHz:**

**Data Rate: 1Mbps**

| Channel Frequency (MHz) | Measured Frequency (MHz) | Antenna Polarization | Measured Emission (dBμV/m) | Limit (dBμV/m) | Margin (dB)   |
|-------------------------|--------------------------|----------------------|----------------------------|----------------|---------------|
| 2402                    | 2402(Pk)                 | Vertical             | 95.33                      | -              | -             |
|                         | 2402(Av)                 |                      | 90.28                      | -              | -             |
|                         | 2390(Pk)                 |                      | 51.74                      | 74.00*         | -35.46        |
|                         | 2390(Av)                 |                      | 25.88                      | 54.00*         | -28.65        |
|                         | 4804(Pk)                 |                      | 51.18                      | 74.00          | -28.09        |
|                         | 4804(Av)                 |                      | 42.36                      | 54.00          | -13.84        |
|                         | 7206(Pk)                 |                      | 50.84                      | 74.00          | -27.05        |
|                         | 7206(Av)                 |                      | 37.48                      | 54.00          | -19.05        |
|                         | 2402(Pk)                 | Horizontal           | 93.71                      | -              | -             |
|                         | 2402(Av)                 |                      | 88.68                      | -              | -             |
|                         | 2390(Pk)                 |                      | 50.00                      | 74.00*         | -36.45        |
|                         | 2390(Av)                 |                      | 25.63                      | 54.00*         | -28.99        |
|                         | 4804(Pk)                 |                      | 48.13                      | 74.00          | -30.08        |
|                         | 4804(Av)                 |                      | 38.21                      | 54.00          | -19.85        |
|                         | 7206(Pk)                 |                      | 47.60                      | 74.00          | -27.33        |
|                         | 7206(Av)                 |                      | 35.37                      | 54.00          | -19.31        |
| 2440                    | <b>2440(Pk)</b>          | Vertical             | <b>95.93</b>               | -              | -             |
|                         | <b>2440(Av)</b>          |                      | <b>90.90</b>               | -              | -             |
|                         | <b>4880(Pk)</b>          |                      | <b>50.26</b>               | <b>74.00</b>   | <b>-28.44</b> |
|                         | <b>4880(Av)</b>          |                      | <b>41.26</b>               | <b>54.00</b>   | <b>-14.72</b> |
|                         | <b>7320(Pk)</b>          |                      | <b>50.07</b>               | <b>74.00</b>   | <b>-27.41</b> |
|                         | <b>7320(Av)</b>          |                      | <b>37.84</b>               | <b>54.00</b>   | <b>-19.07</b> |
|                         | <b>2440(Pk)</b>          | Horizontal           | <b>93.67</b>               | -              | -             |
|                         | <b>2440(Av)</b>          |                      | <b>88.67</b>               | -              | -             |
|                         | <b>4880(Pk)</b>          |                      | <b>48.60</b>               | <b>74.00</b>   | <b>-28.97</b> |
|                         | <b>4880(Av)</b>          |                      | <b>38.87</b>               | <b>54.00</b>   | <b>-20.21</b> |
|                         | <b>7320(Pk)</b>          |                      | <b>50.09</b>               | <b>74.00</b>   | <b>-27.06</b> |
|                         | <b>7320(Av)</b>          |                      | <b>36.93</b>               | <b>54.00</b>   | <b>-19.30</b> |
| 2480                    | 2480(Pk)                 | Vertical             | 94.99                      | -              | -             |
|                         | 2480(Av)                 |                      | 89.88                      | -              | -             |
|                         | 2483.5(Pk)               |                      | 60.70                      | 74.00*         | -29.81        |
|                         | 2483.5(Av)               |                      | 33.11                      | 54.00*         | -20.21        |
|                         | 4960(Pk)                 |                      | 51.03                      | 74.00          | -29.49        |
|                         | 4960(Av)                 |                      | 41.73                      | 54.00          | -17.59        |
|                         | 7440(Pk)                 |                      | 50.85                      | 74.00          | -27.42        |
|                         | 7440(Av)                 |                      | 39.86                      | 54.00          | -19.31        |
|                         | 2480(Pk)                 | Horizontal           | 94.38                      | -              | -             |
|                         | 2480(Av)                 |                      | 89.20                      | -              | -             |
|                         | 2483.5(Pk)               |                      | 59.53                      | 74.00*         | -33.31        |
|                         | 2483.5(Av)               |                      | 32.34                      | 54.00*         | -25.27        |
|                         | 4960(Pk)                 |                      | 48.00                      | 74.00          | -31.29        |
|                         | 4960(Av)                 |                      | 38.52                      | 54.00          | -22.67        |
|                         | 7440(Pk)                 |                      | 47.81                      | 74.00          | -27.57        |
|                         | 7440(Av)                 |                      | 36.23                      | 54.00          | -19.34        |

\_ → Fundamental Frequency

\*→ Restricted Band edges

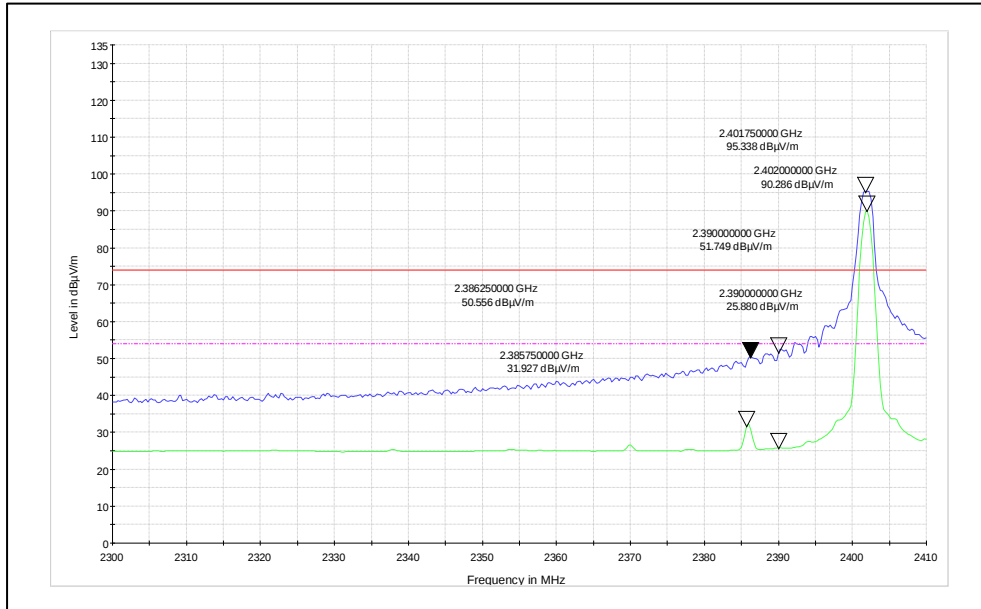
**Pk:** Peak Detector;

**Av:** Average Detector

**Test Plots:**

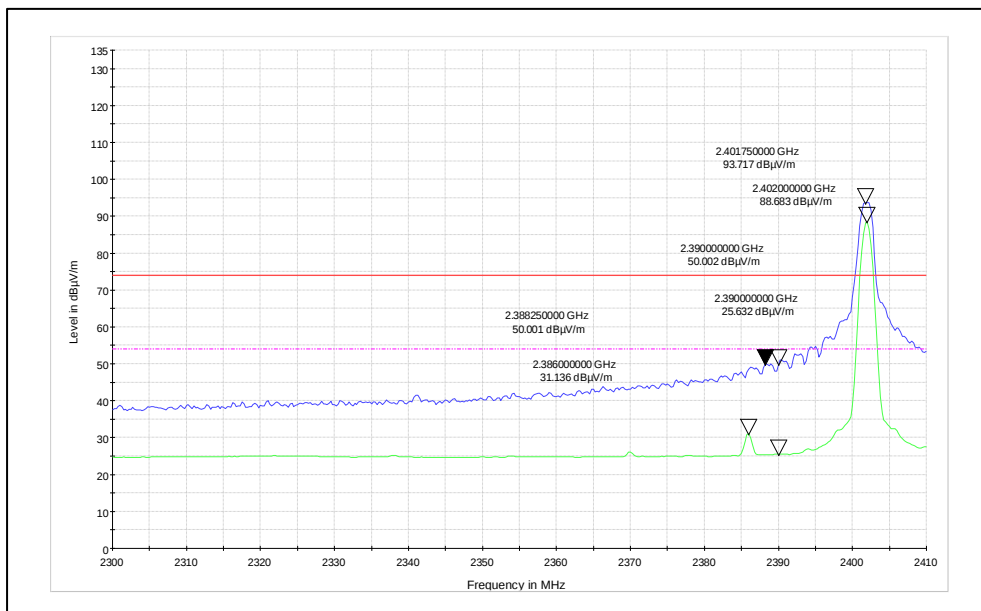
**Restricted Bands of Operation**

**Data Rate: 1Mbps**



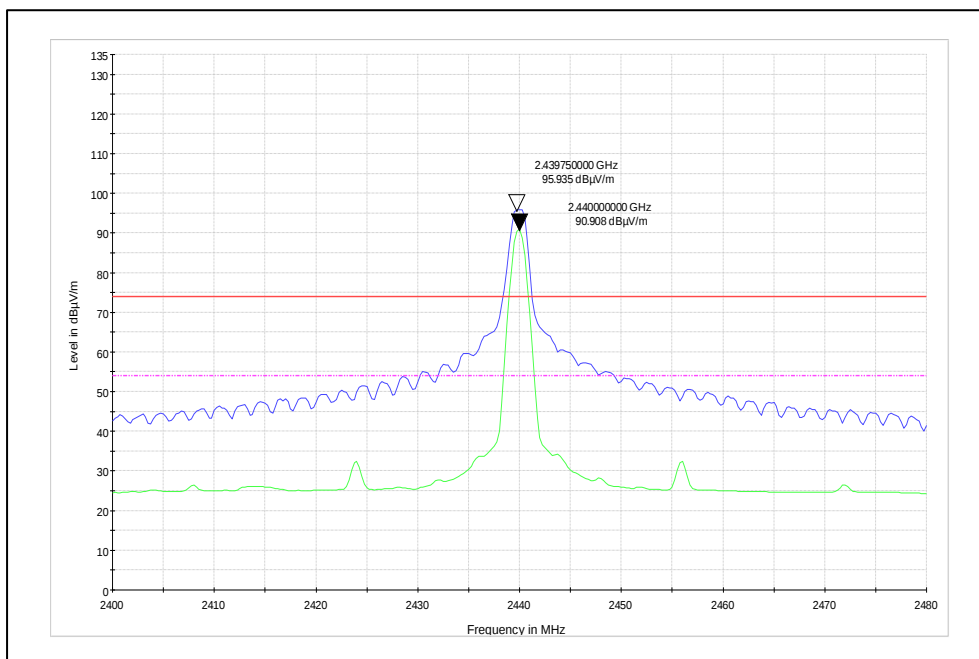
**Channel Frequency: 2402MHz**

**Polarization: Vertical**



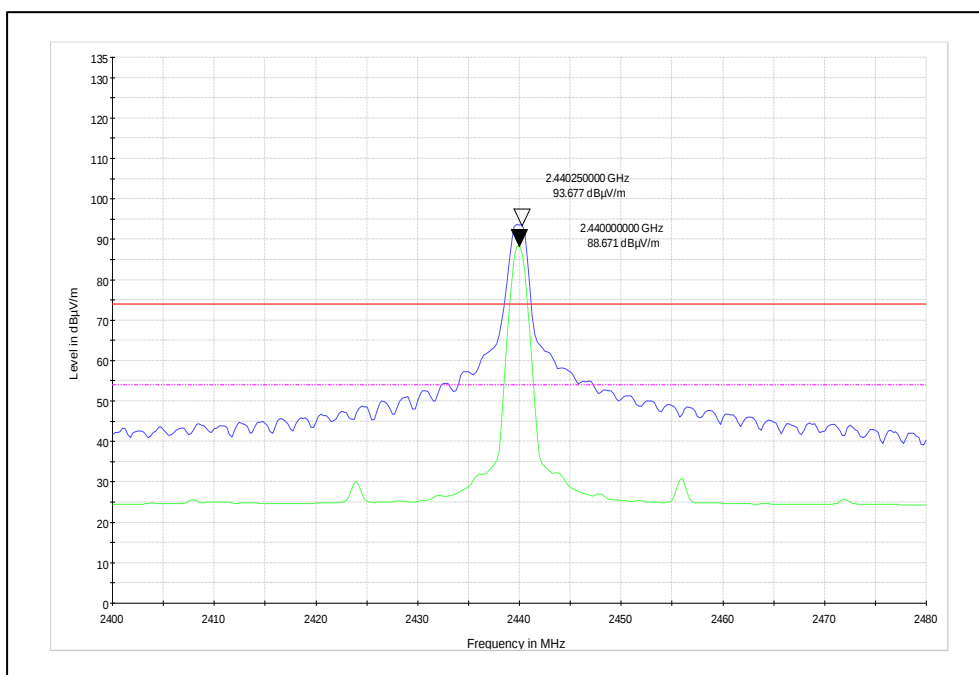
**Channel Frequency: 2402MHz**

**Polarization: Horizontal**



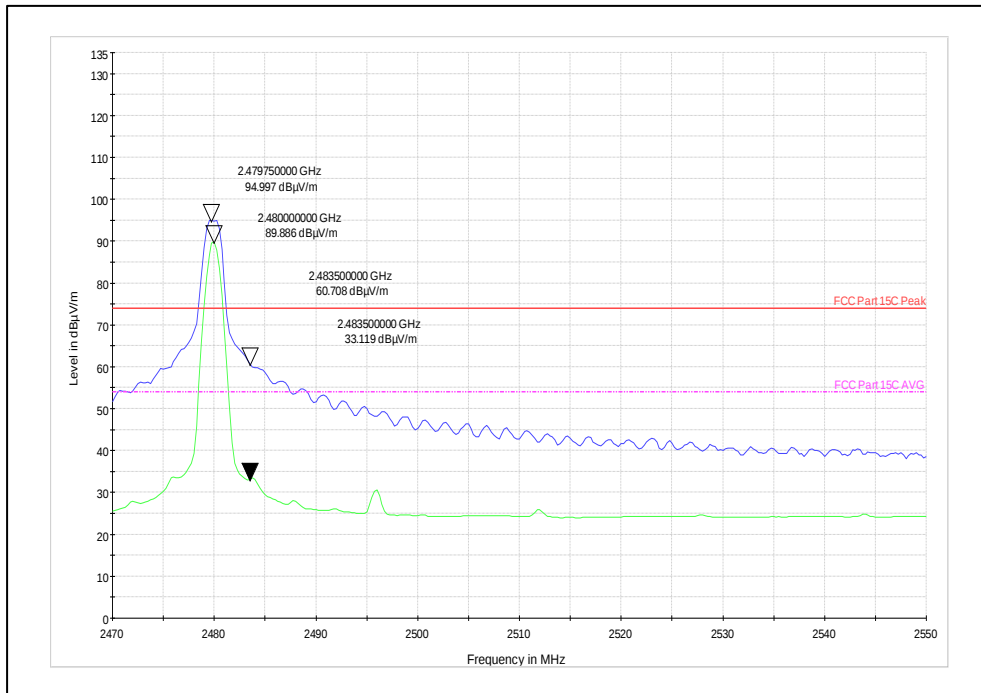
**Channel Frequency: 2440MHz**

**Polarization: Vertical**



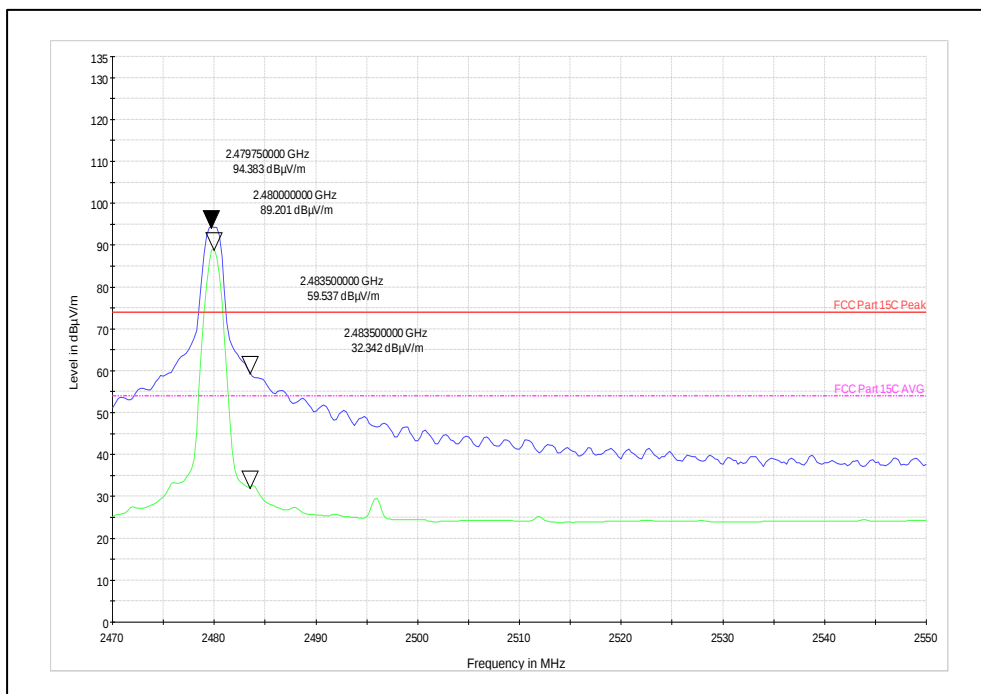
**Channel Frequency: 2440MHz**

**Polarization: Horizontal**



**Channel Frequency: 2480MHz**

**Polarization: Vertical**



**Channel Frequency: 2480MHz**

**Polarization: Horizontal**

**Prüfbericht - Nr.:**  
Test Report No.:

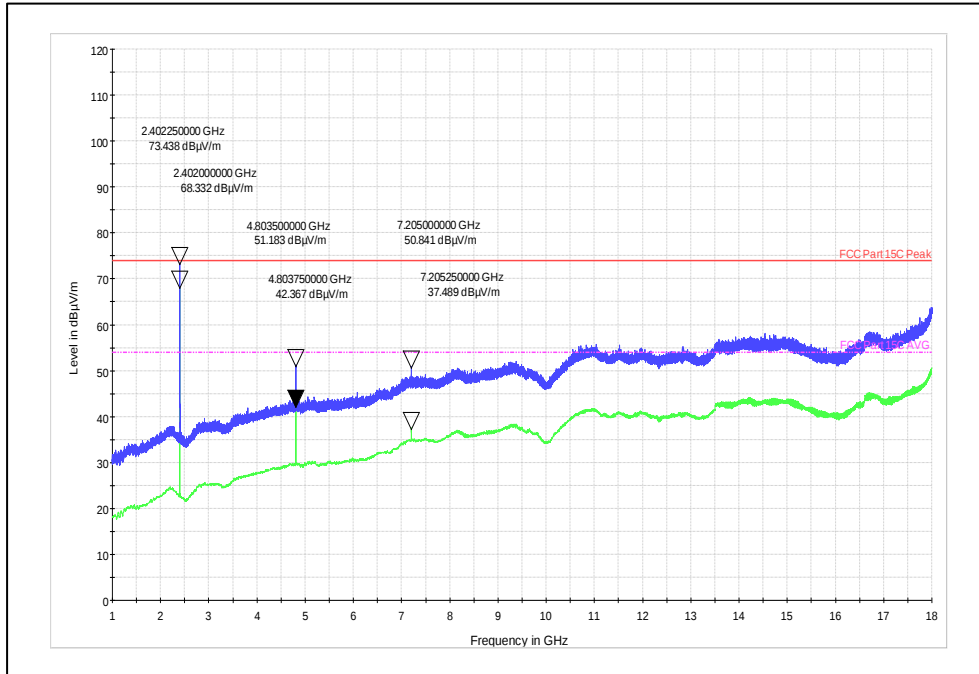
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**Spurious Radiated emission:**

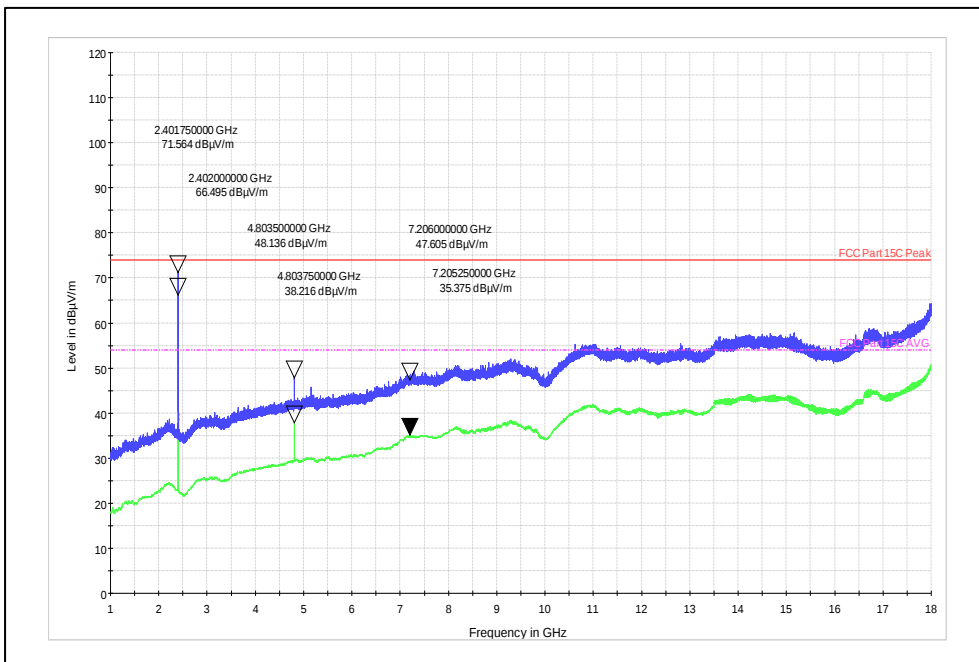
**Data Rate: 1Mbps**

**Channel frequency: 2402MHz**



**Polarization: Vertical**

**Frequency range: 1GHz to 18GHz**



**Polarization: Horizontal**

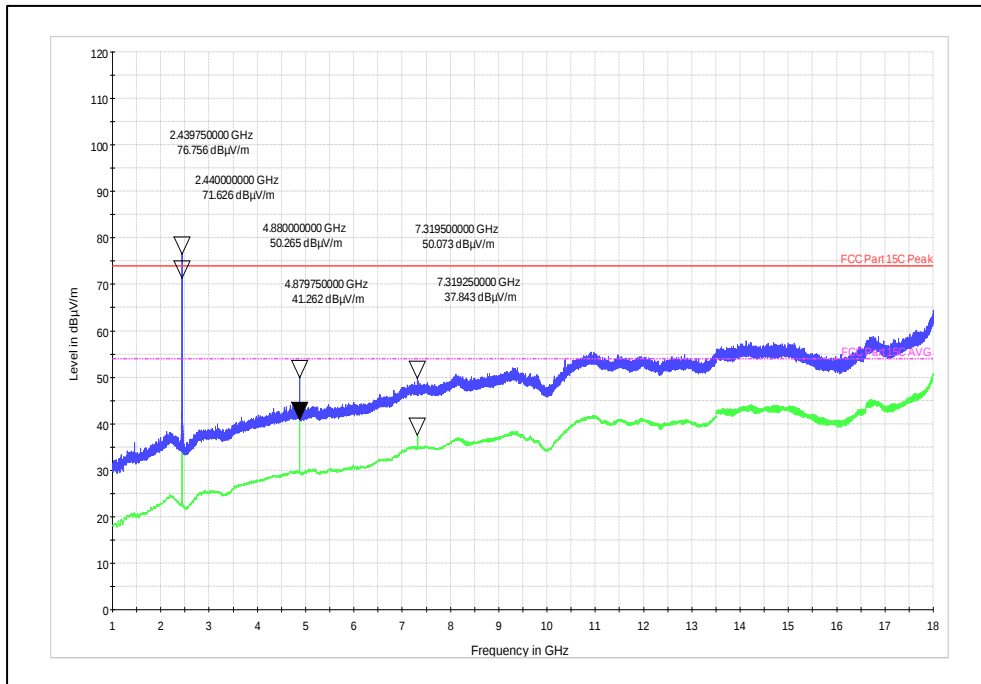
**Frequency range: 1GHz to 18GHz**

**Prüfbericht - Nr.:**  
Test Report No.:

**IN2500RA 001**

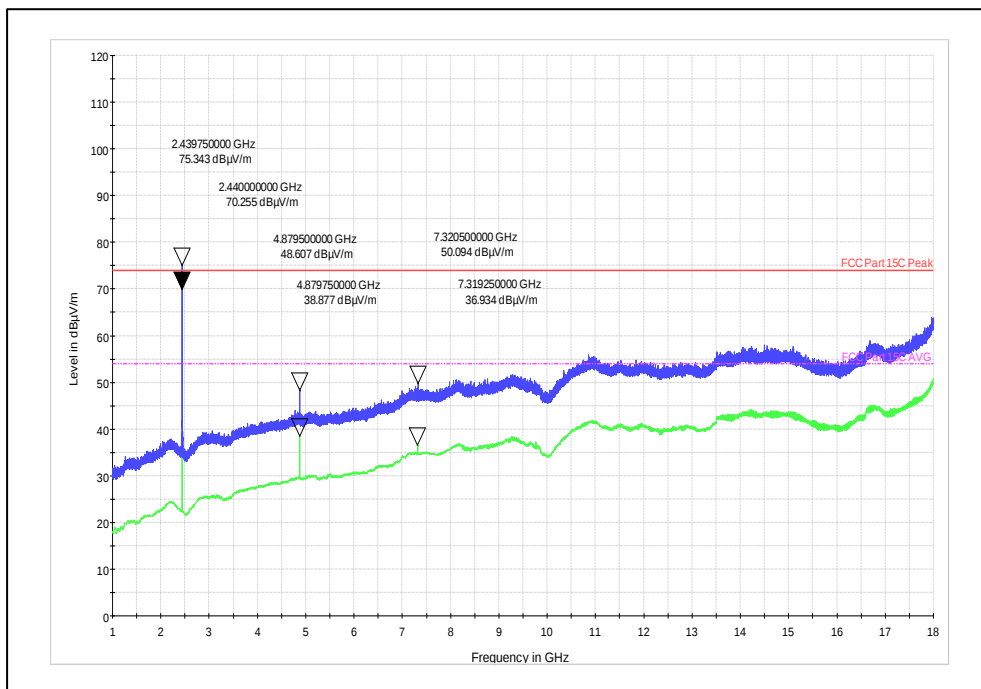
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**Channel frequency: 2440MHz**



**Polarization: Vertical**

**Frequency range: 1GHz to 18GHz**



**Polarization: Horizontal**

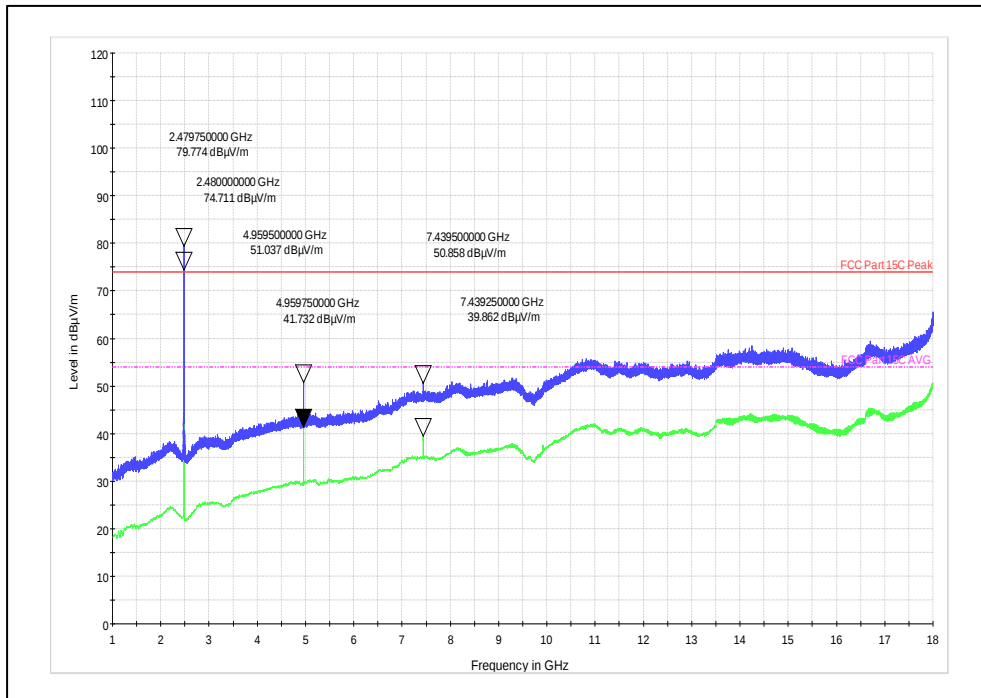
**Frequency range: 1GHz to 18GHz**

**Prüfbericht - Nr.:**  
Test Report No.:

**IN2500RA 001**

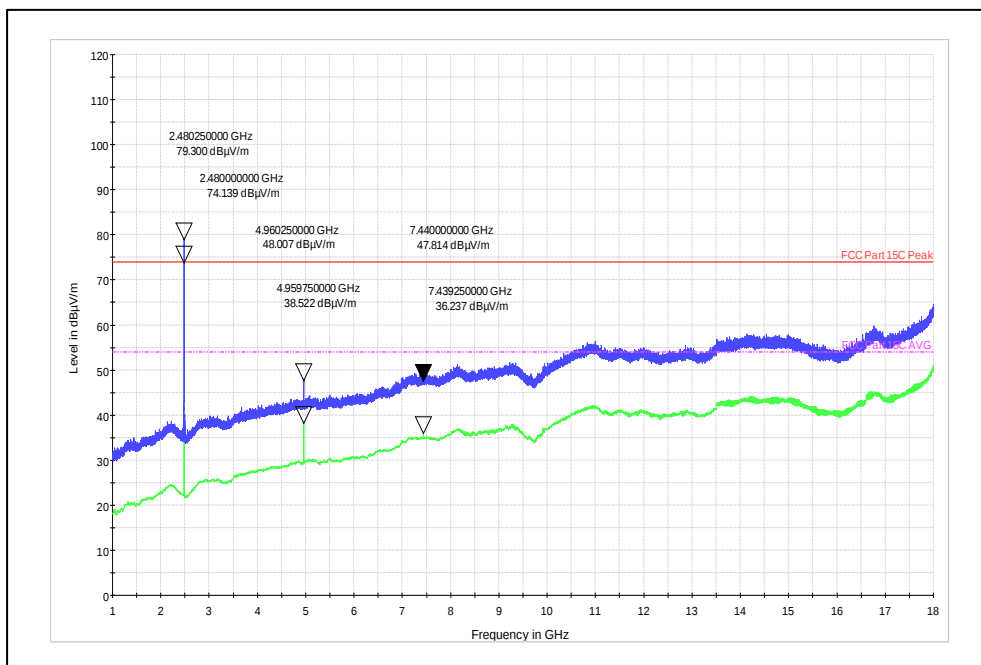
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**Channel frequency: 2480MHz**



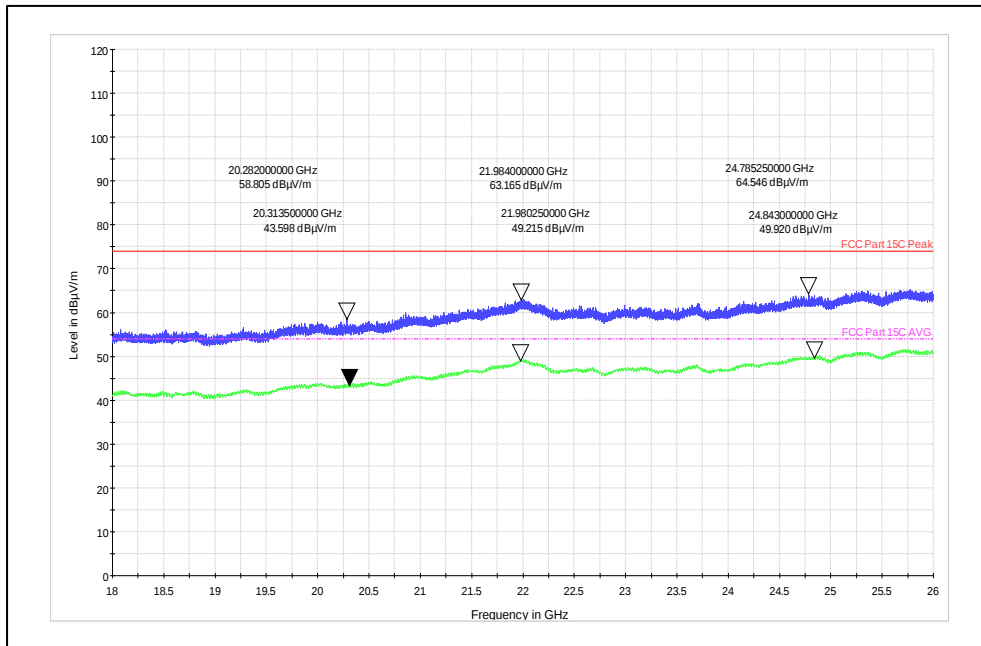
**Polarization: Vertical**

**Frequency range: 1GHz to 18GHz**



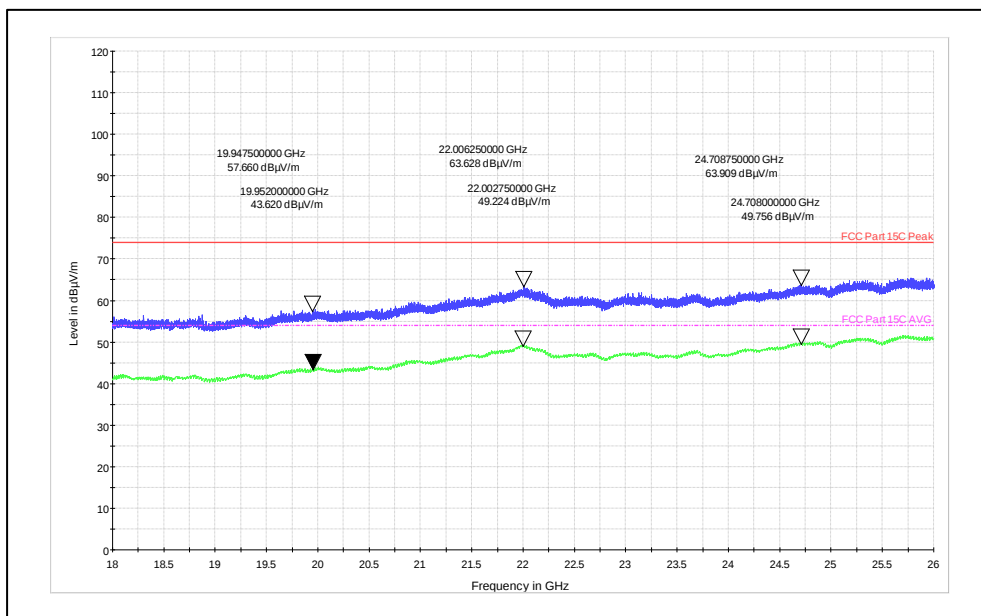
**Polarization: Horizontal**

**Frequency range: 1GHz to 18GHz**



**Polarization: Vertical**

**Frequency range: 18GHz to 26GHz**



**Polarization: Horizontal**

**Frequency range: 18GHz to 26GHz**

**Prüfbericht - Nr.:**  
Test Report No.:

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## 7.6 AC Power lines Conducted Emission

### Result

### Pass

Test Specification : FCC Part 15 Section 15.207/RSS Gen Issue 5 Section 8.8  
Test Method : ANSI C 63.10-2013  
Testing Location : Screened room  
Measurement Bandwidth : 9kHz  
Frequency Range : 150kHz – 30MHz  
Supply Voltage : 110VAC,60Hz  
Test Method : Refer TEST METHODOLOGY

**Table 9: Limits for Conducted power line emission**

| Frequency of emission (MHz) | QP Limit (dBμV) | AV Limit (dBμV) |
|-----------------------------|-----------------|-----------------|
| 0.15 – 0.5                  | 66 – 56*        | 56 – 46*        |
| 0.5 – 5                     | 56              | 46              |
| 5 – 30                      | 60              | 50              |

\* Decreases with the logarithm of the frequency

### Test Conditions:

Temperature (Norm) = +22.3°C      Voltage = 110VAC through AC-DC Adapter      Relative humidity: 57%

**Prüfbericht - Nr.:**

Test Report No.:

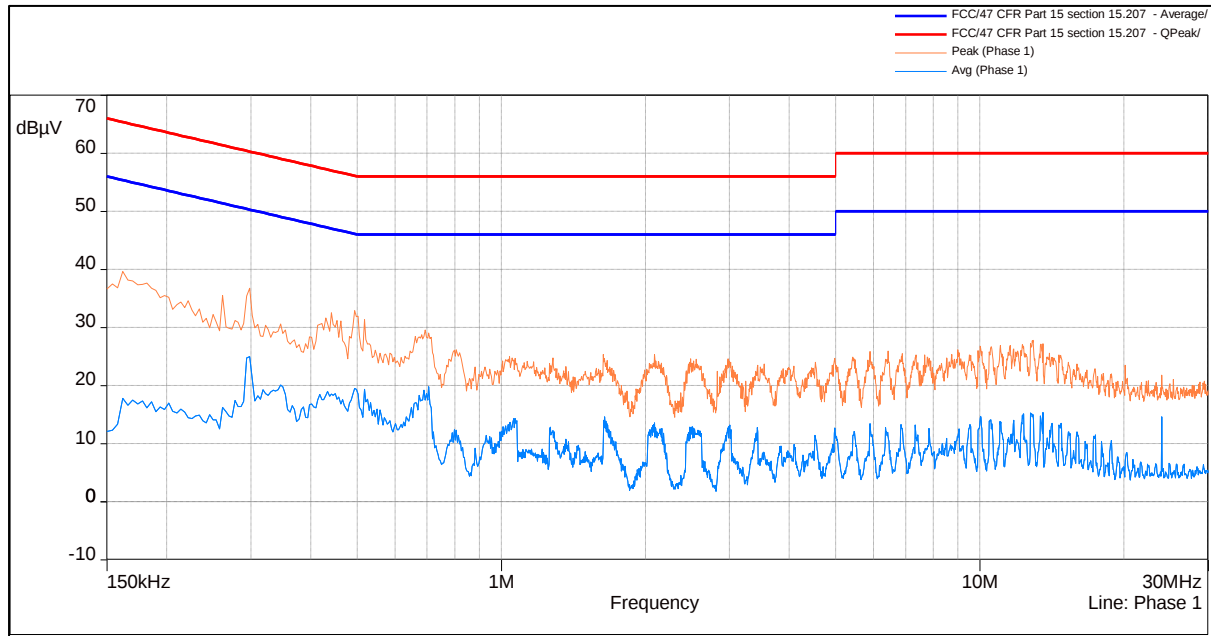
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**Test results:**

**110VAC-60Hz-Line**



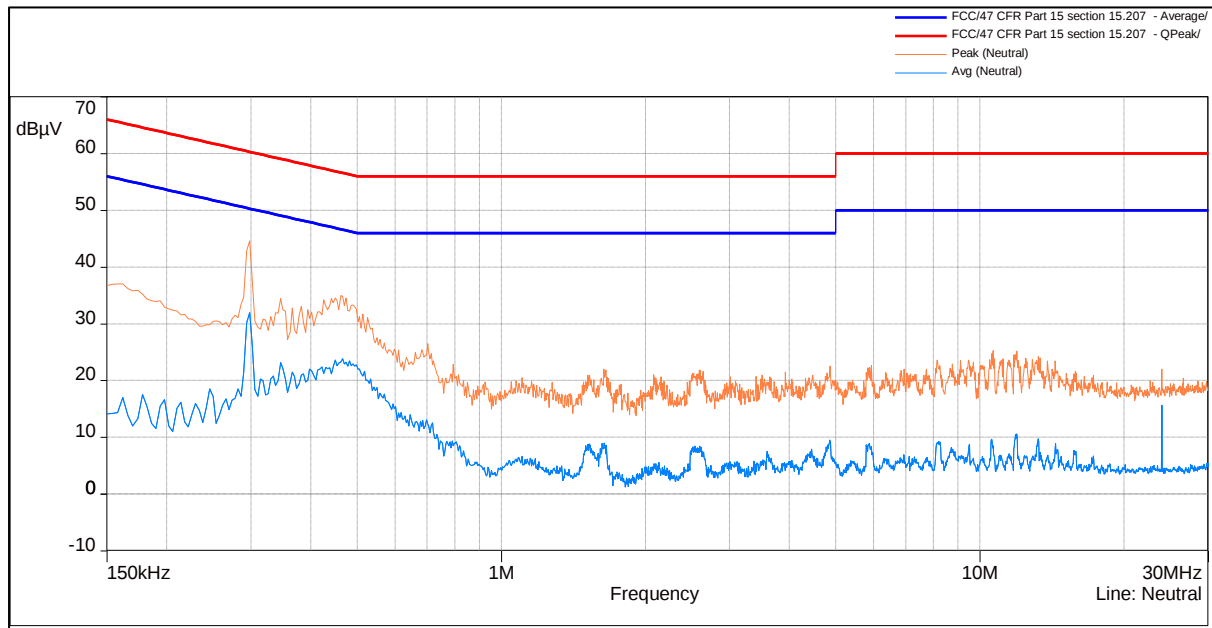
**Quasipeak:-**

| Frequency (MHz) | Level (dBμV) | Limit (dBμV) | Margin (dB) | Pos     | Comments | Correction (dB) |
|-----------------|--------------|--------------|-------------|---------|----------|-----------------|
| 0.29755         | 35.04        | 60.3         | -25.26      | Phase 1 | Pass     | 19.37           |
| 0.4949          | 28.12        | 56.10        | -27.98      | Phase 1 | Pass     | 19.53           |
| 0.6844          | 23.13        | 56.00        | -32.87      | Phase 1 | Pass     | 19.73           |
| 1.06145         | 17.27        | 56.00        | -38.73      | Phase 1 | Pass     | 19.63           |
| 2.0864          | 16.76        | 56.00        | -39.24      | Phase 1 | Pass     | 19.76           |
| 12.79245        | 17.54        | 60.00        | -42.46      | Phase 1 | Pass     | 19.77           |
| 10.0533         | 17.17        | 60.00        | -42.83      | Phase 1 | Pass     | 19.63           |

**Average:-**

| Frequency (MHz) | Level (dBμV) | Limit (dBμV) | Margin (dB) | Pos     | Comments | Correction (dB) |
|-----------------|--------------|--------------|-------------|---------|----------|-----------------|
| 0.4949          | 21.32        | 46.10        | -24.78      | Phase 1 | Pass     | 19.53           |
| 0.29755         | 24.62        | 50.30        | -25.68      | Phase 1 | Pass     | 19.37           |
| 0.6844          | 13.14        | 46.00        | -32.86      | Phase 1 | Pass     | 19.73           |
| 1.06145         | 8.20         | 46.00        | -37.80      | Phase 1 | Pass     | 19.63           |
| 2.0864          | 7.76         | 46.00        | -38.24      | Phase 1 | Pass     | 19.76           |
| 12.79245        | 11.04        | 50.00        | -38.96      | Phase 1 | Pass     | 19.77           |
| 10.0533         | 8.10         | 50.00        | -41.90      | Phase 1 | Pass     | 19.63           |

**110VAC-60Hz-Neutral:**



**Quasipeak:-**

| Frequency (MHz) | Level (dBμV) | Limit (dBμV) | Margin (dB) | Pos     | Comments | Correction (dB) |
|-----------------|--------------|--------------|-------------|---------|----------|-----------------|
| 0.2971          | 43.20        | 60.3         | -17.10      | Neutral | Pass     | 19.43           |
| 0.44575         | 30.11        | 56.95        | -26.84      | Neutral | Pass     | 19.52           |
| 0.68945         | 18.68        | 56.00        | -37.32      | Neutral | Pass     | 19.75           |
| 23.98865        | 18.13        | 60.00        | -41.87      | Neutral | Pass     | 19.97           |
| 2.5782          | 11.45        | 56.00        | -44.55      | Neutral | Pass     | 19.77           |
| 11.95735        | 13.97        | 60.00        | -46.03      | Neutral | Pass     | 19.76           |
| 1.52465         | 9.34         | 56.00        | -46.66      | Neutral | Pass     | 19.73           |

**Average:-**

| Frequency (MHz) | Level (dBμV) | Limit (dBμV) | Margin (dB) | Pos     | Comments | Correction (dB) |
|-----------------|--------------|--------------|-------------|---------|----------|-----------------|
| 0.2971          | 31.99        | 50.30        | -18.30      | Neutral | Pass     | 19.43           |
| 0.44575         | 22.56        | 46.95        | -24.39      | Neutral | Pass     | 19.52           |
| 23.98865        | 16.05        | 50.00        | -33.95      | Neutral | Pass     | 19.97           |
| 0.68945         | 11.49        | 46.00        | -34.51      | Neutral | Pass     | 19.75           |
| 2.5782          | 5.12         | 46.00        | -40.88      | Neutral | Pass     | 19.77           |
| 1.52465         | 3.76         | 46.00        | -42.24      | Neutral | Pass     | 19.73           |
| 11.95735        | 6.04         | 50.00        | -43.96      | Neutral | Pass     | 19.76           |

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\*\*\*End of test report\*\*\*