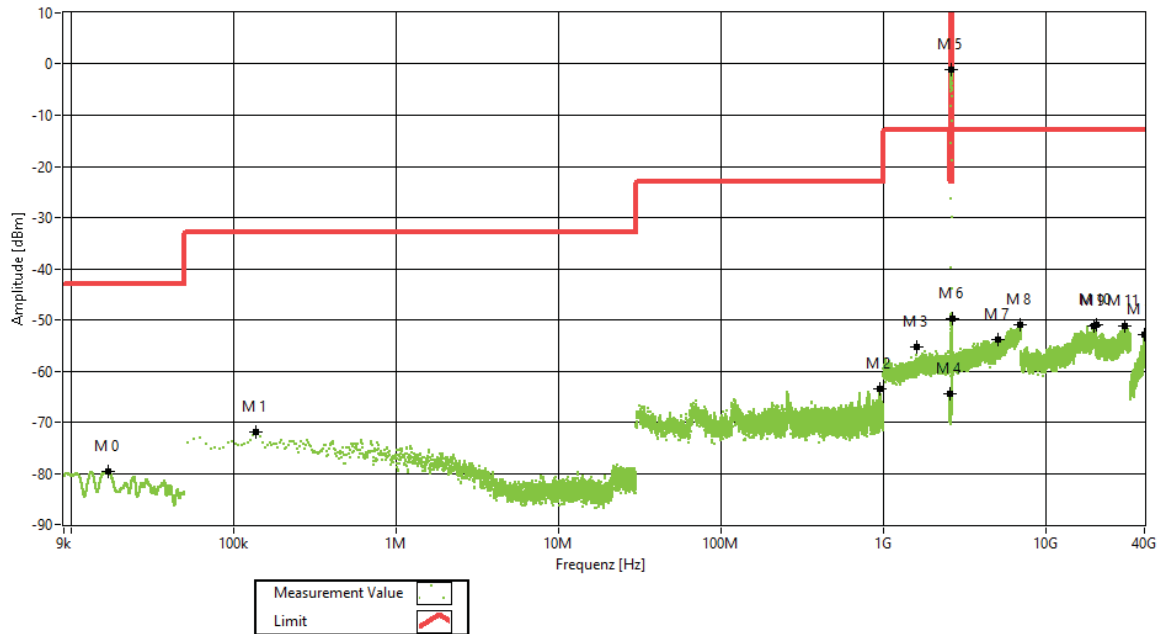
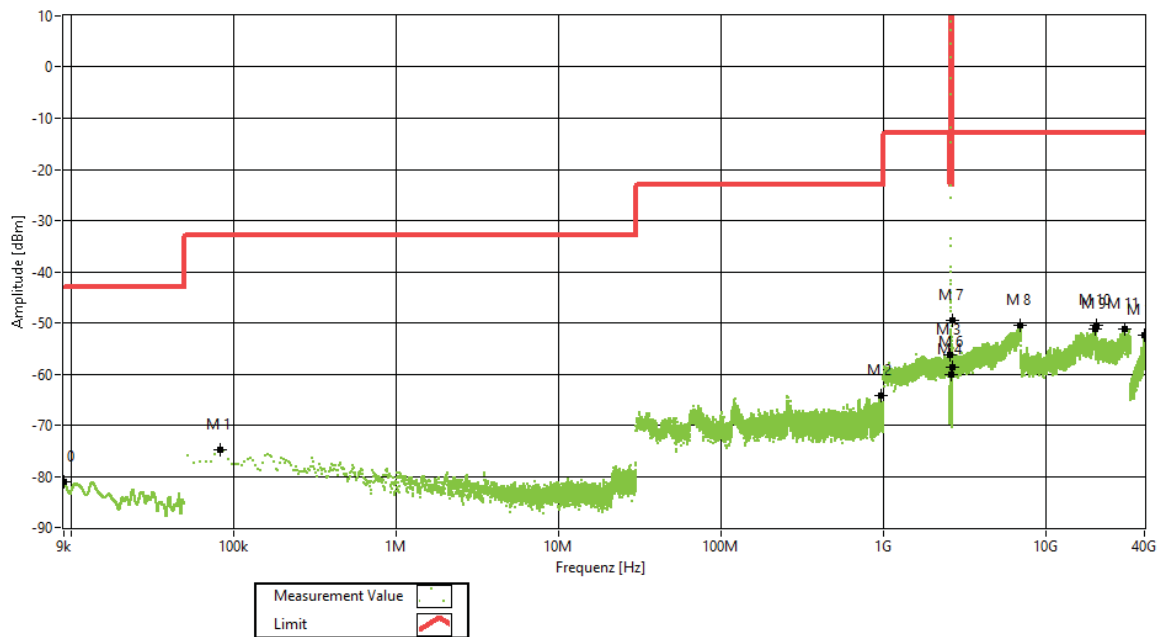


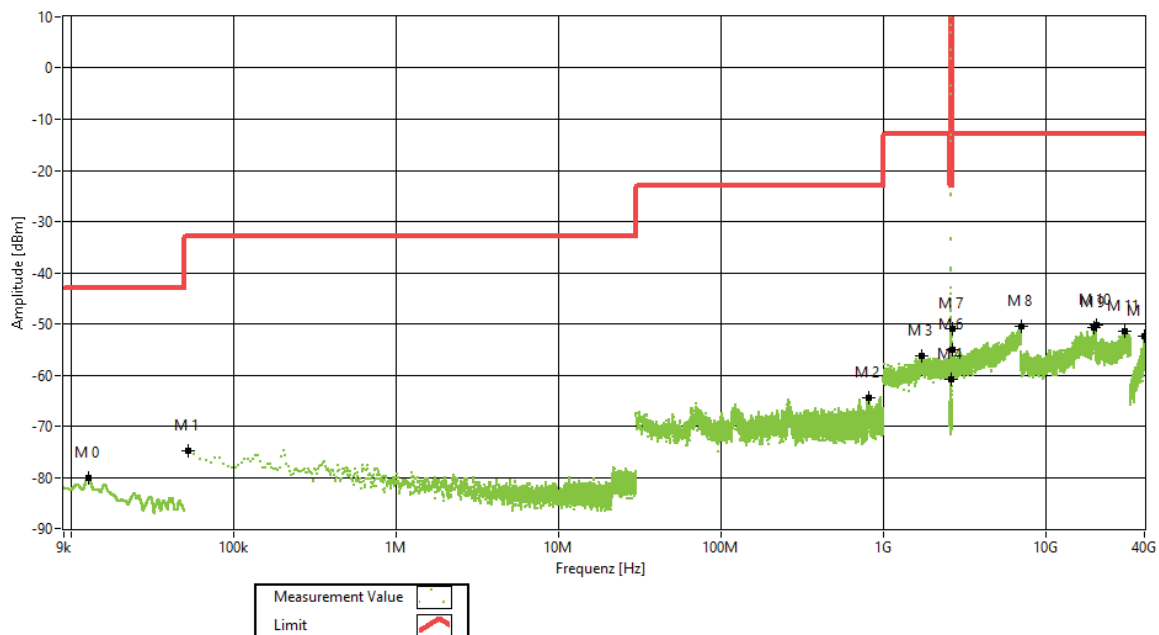
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = high,
Direction = RF downlink, Signal type = AWGN



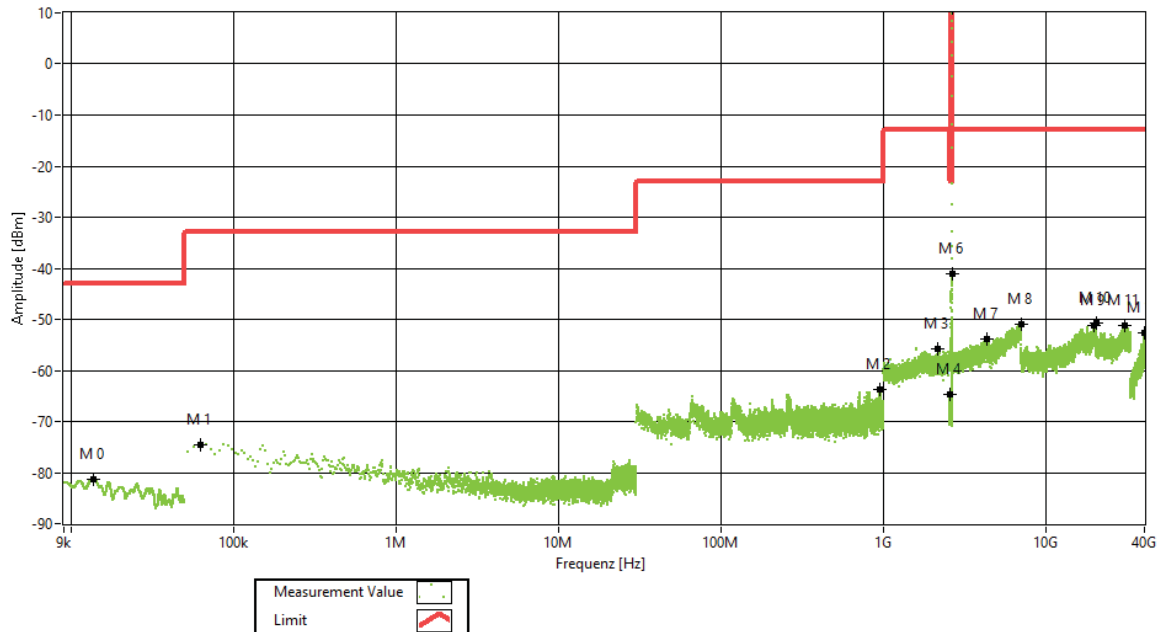
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = low,
Direction = RF downlink, Signal type = Narrowband



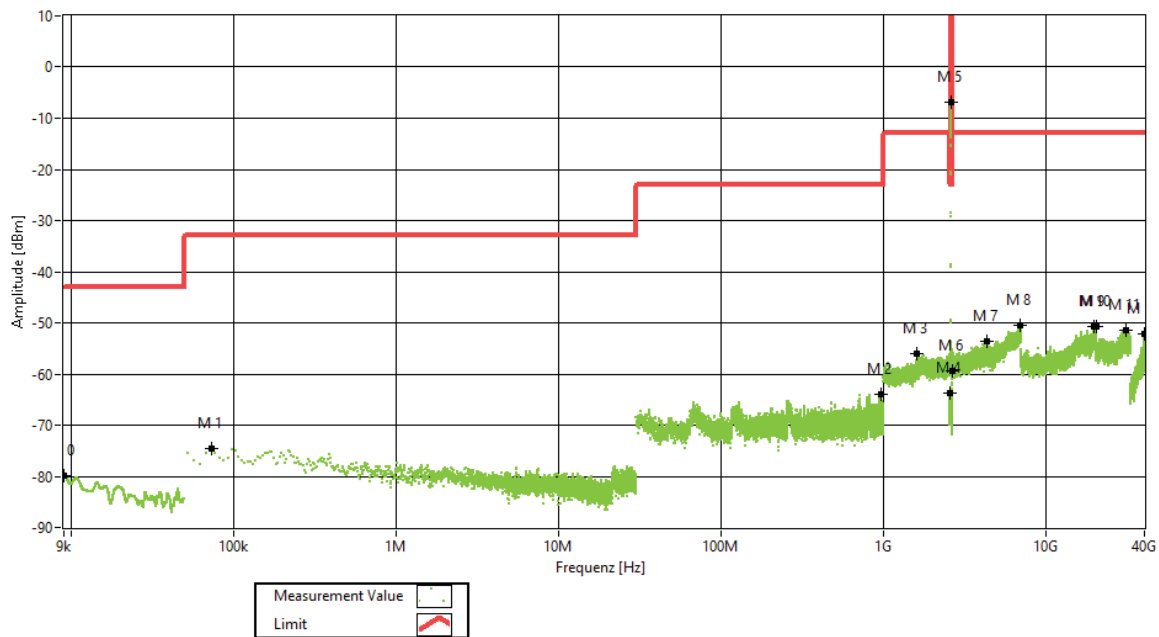
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = mid,
Direction = RF downlink, Signal type = Narrowband



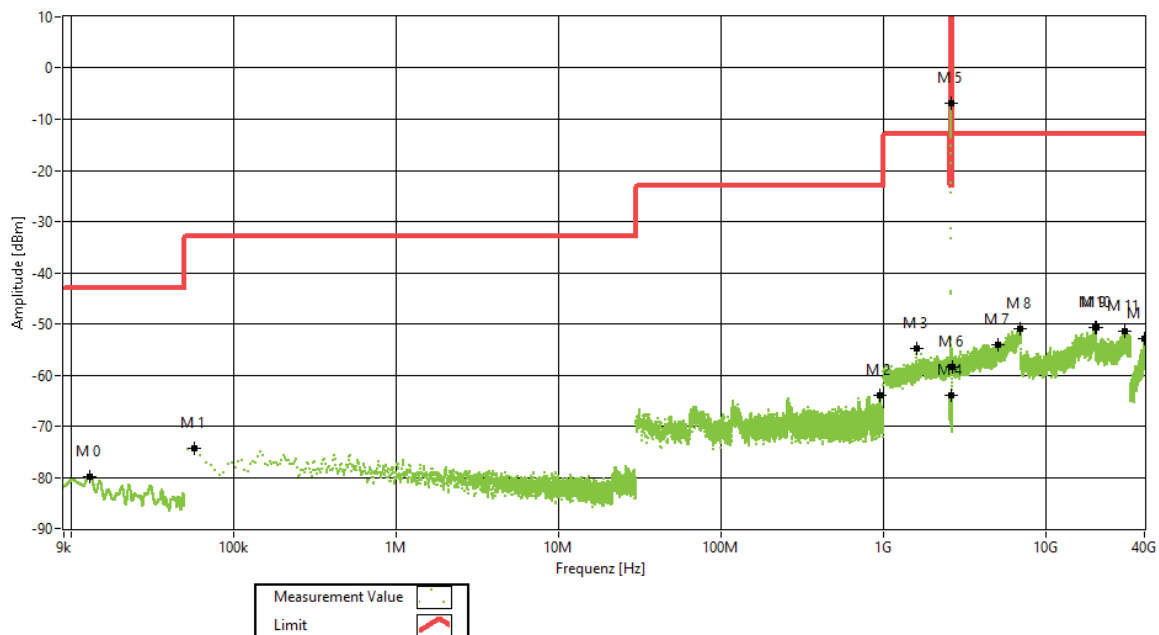
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = high,
Direction = RF downlink, Signal type = Narrowband



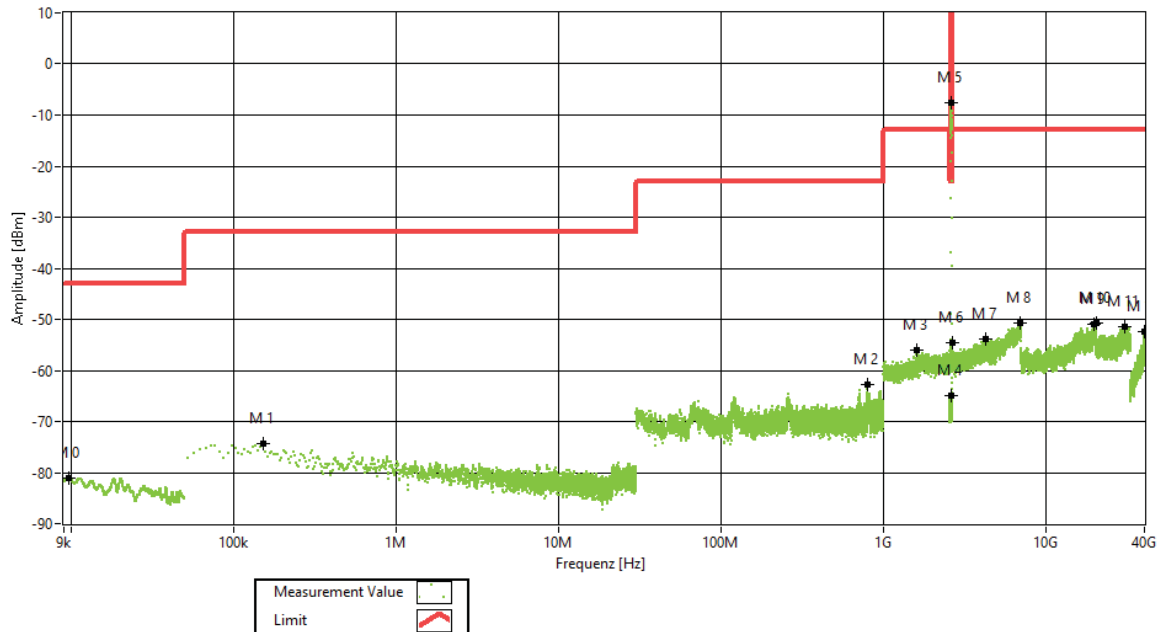
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = low,
Direction = RF downlink, Signal type = AWGN 25M



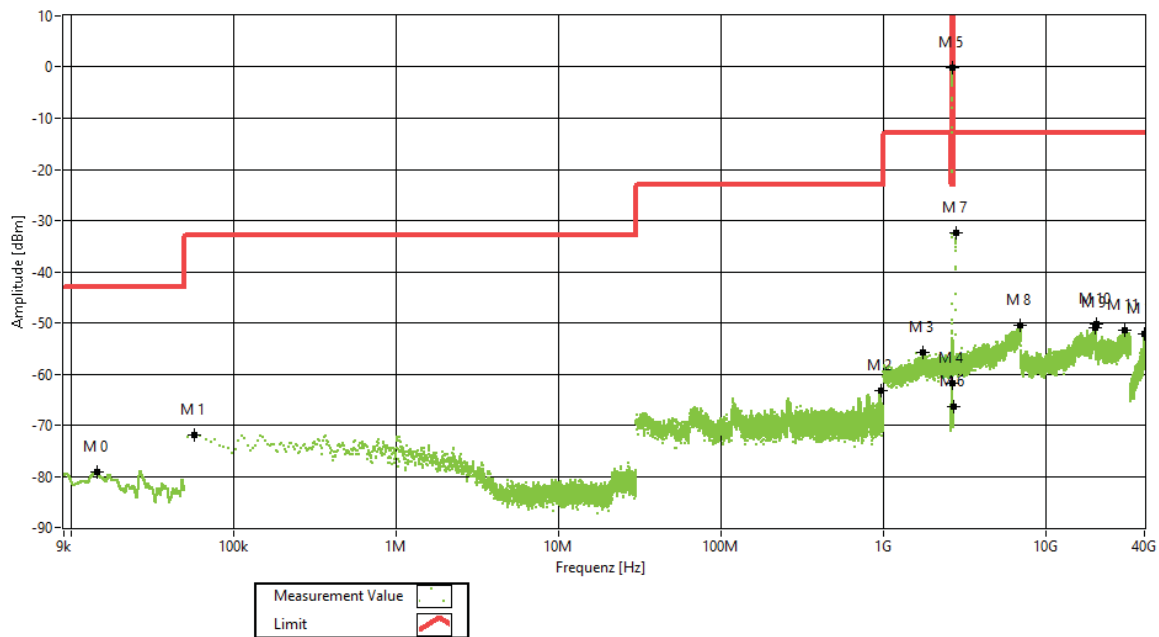
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = mid,
Direction = RF downlink, Signal type = AWGN 25M



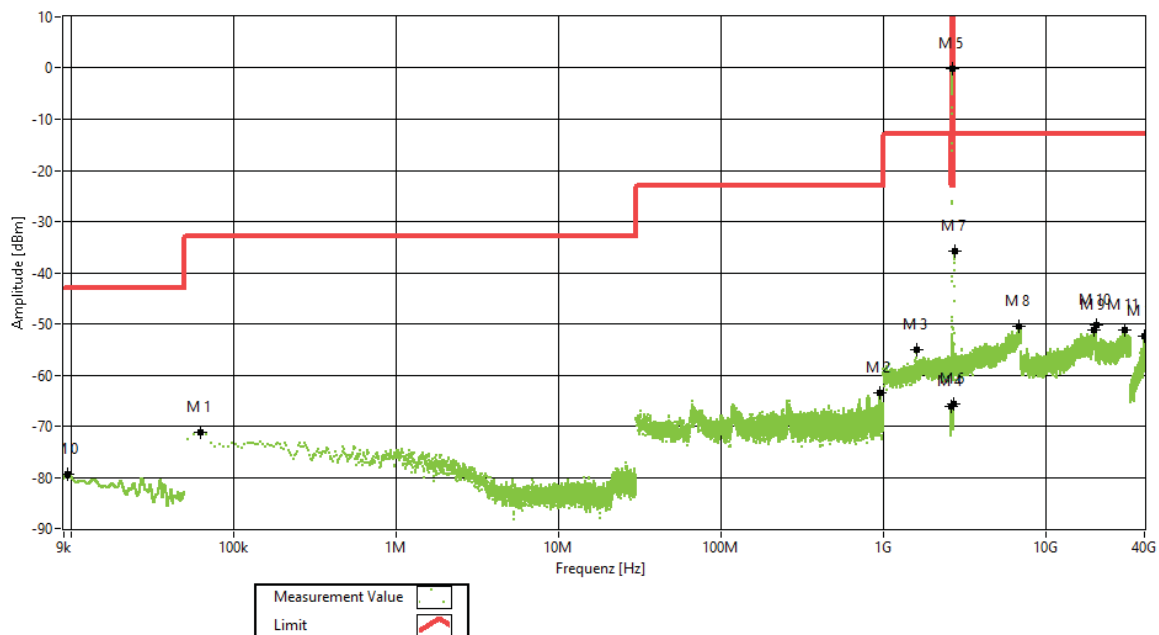
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = high,
Direction = RF downlink, Signal type = AWGN 25M



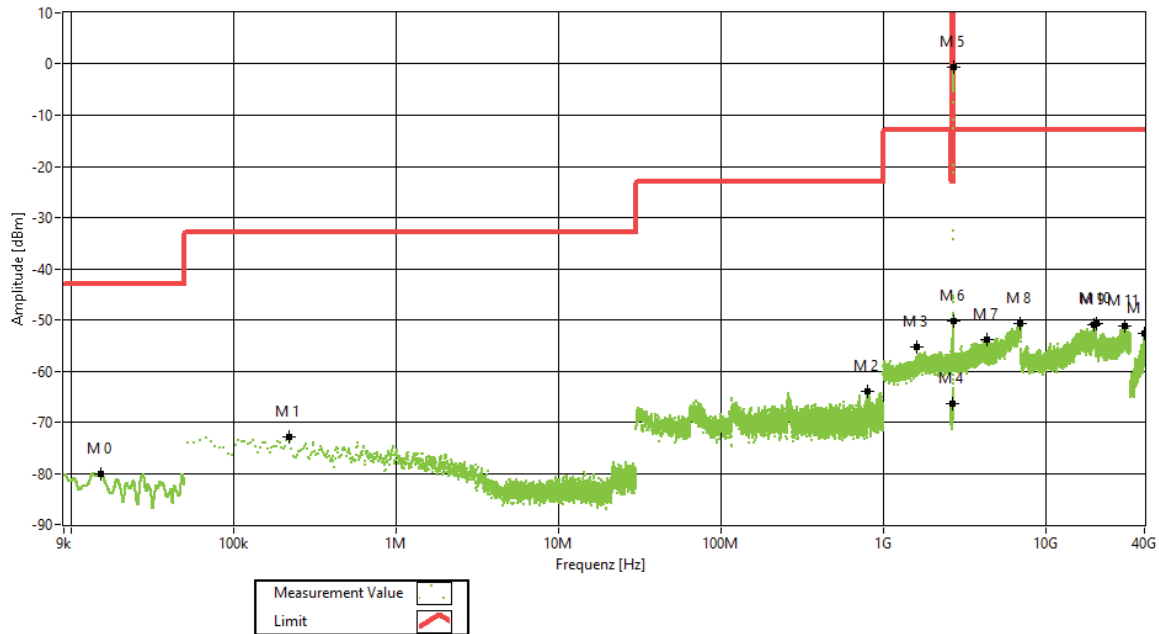
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = low,
Direction = RF downlink, Signal type = AWGN



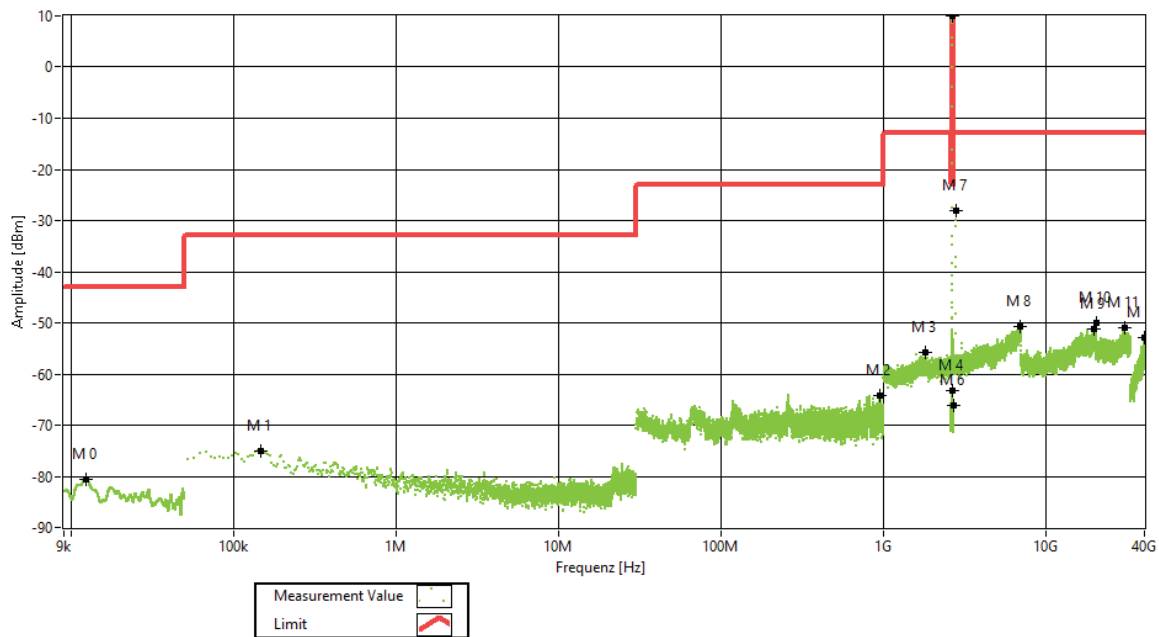
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = mid,
Direction = RF downlink, Signal type = AWGN



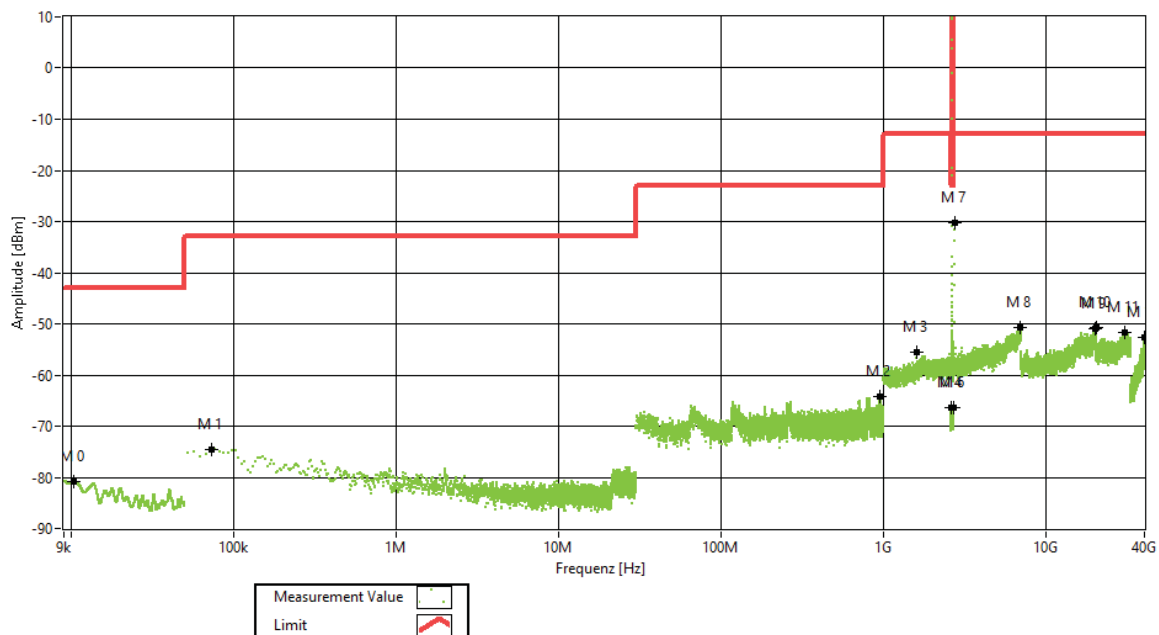
Frequency band = Band 41 BRS (UBS), Test frequency = high,
Direction = RF downlink, Signal type = AWGN



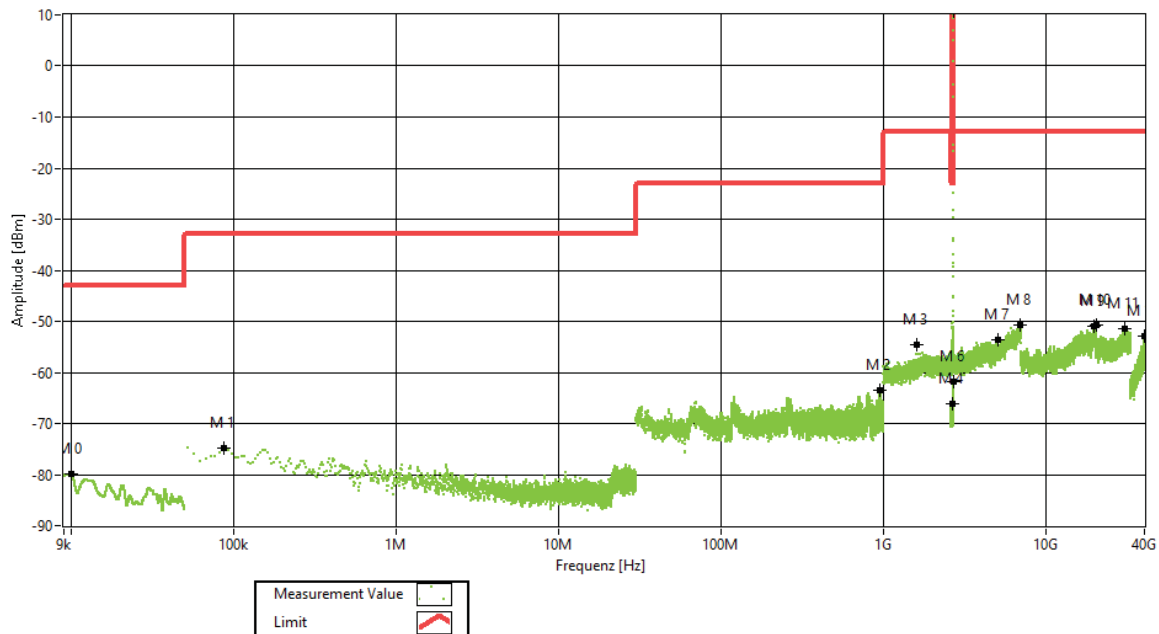
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = low,
Direction = RF downlink, Signal type = Narrowband



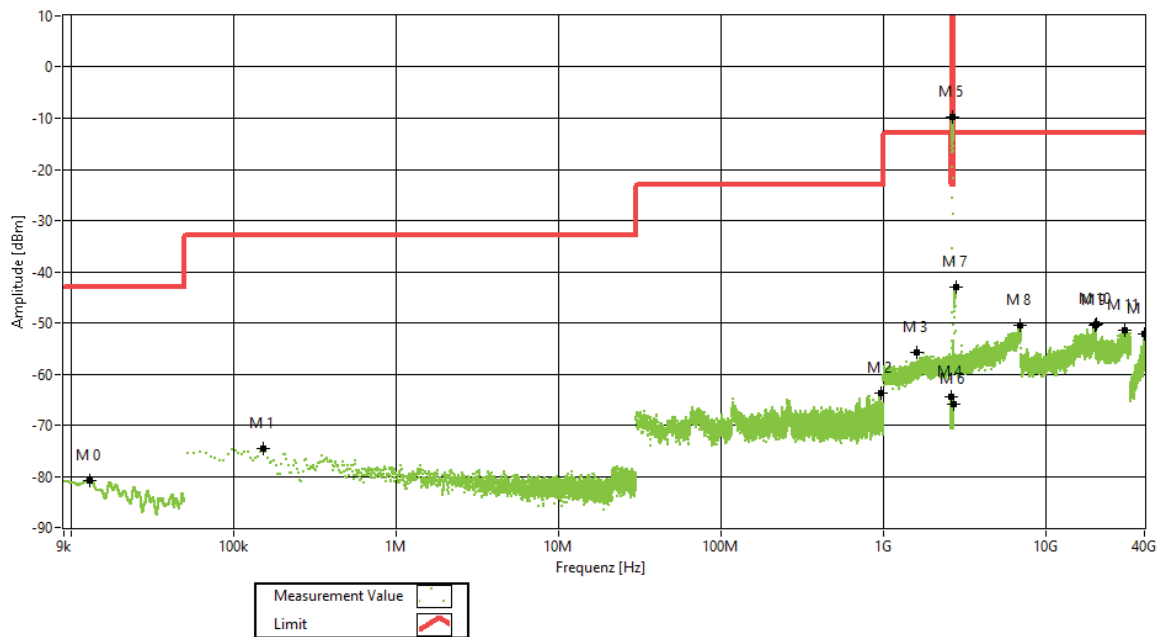
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = mid,
Direction = RF downlink, Signal type = Narrowband



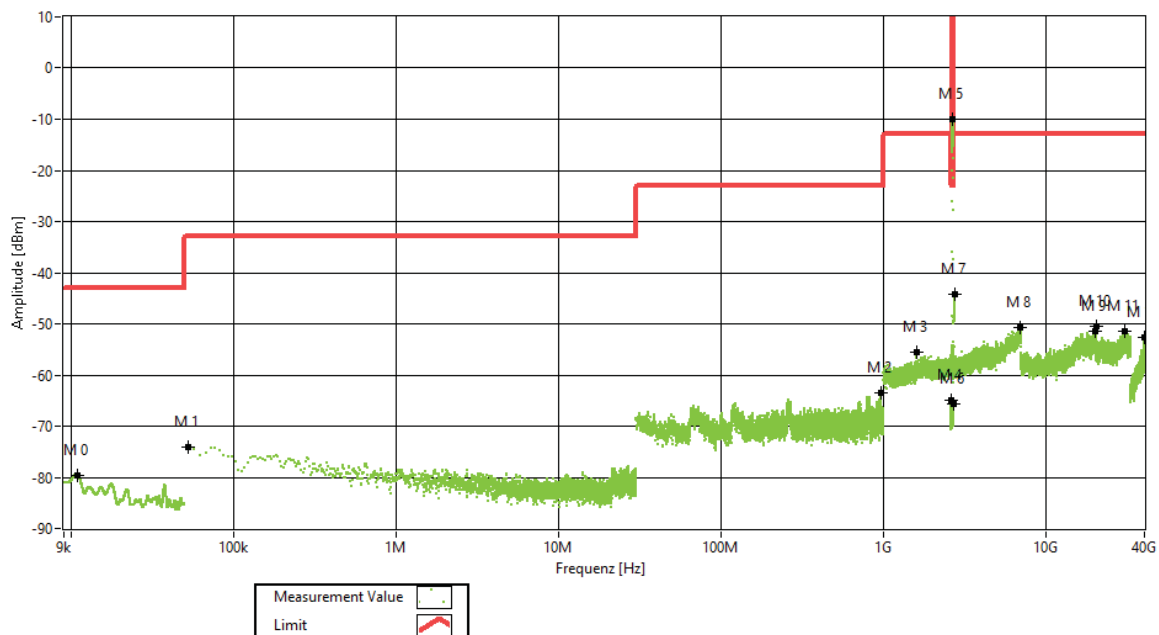
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = high,
Direction = RF downlink, Signal type = Narrowband



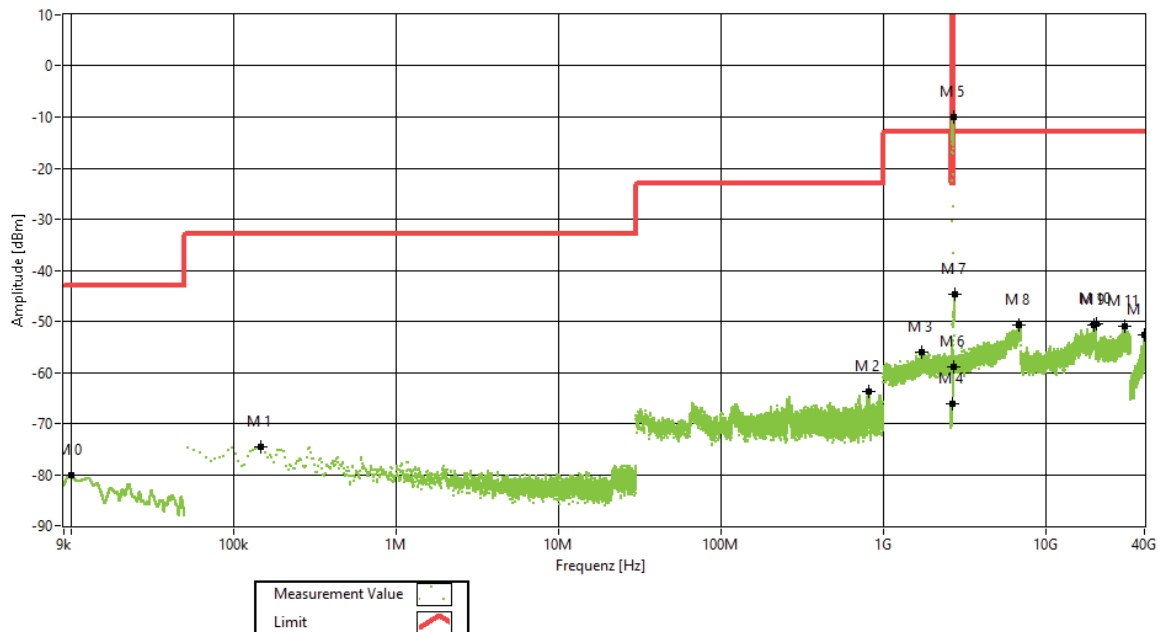
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = low,
Direction = RF downlink, Signal type = AWGN 45M



Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = mid,
Direction = RF downlink, Signal type = AWGN 45M



Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = high,
Direction = RF downlink, Signal type = AWGN 45M





Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

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5.3.5 TEST EQUIPMENT USED

- Conducted

Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

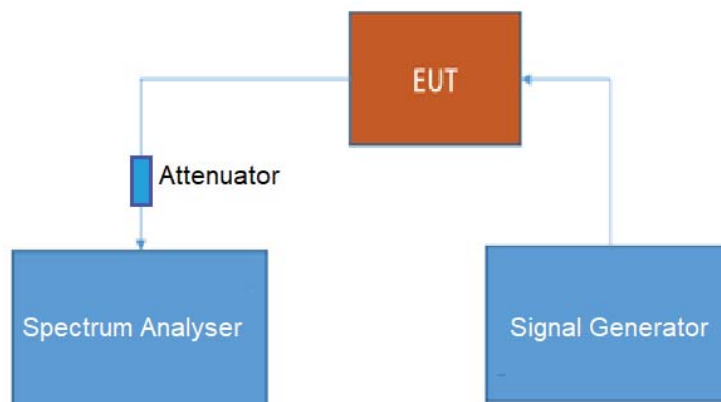
5.4 OUT-OF-BAND EMISSION LIMITS

Standard FCC Part §2.1051, §27.53

The test was performed according to:
ANSI C63.26, KDB 935210 D05 v01r04: 3.6**Test date:** 2025-05-09 – 2025-05-14**Environmental conditions:** 24.0 °C; 26 % r. H., average values of all test dates**Test engineer:** Thomas Hufnagel**5.4.1 TEST DESCRIPTION**

This test case is intended to demonstrate compliance to the out-of-band emission limit for industrial signal boosters. The limits itself come from the applicable rule part for each operating band.

The EUT was connected to the test setup according to the following diagram:



The attenuation of the measuring and stimulus path are known for each measured frequency and are considered.

The Spectrum Analyzer settings can be directly found in the measurement diagrams.

Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

5.4.2 TEST REQUIREMENTS/LIMITSAbstract from FCC Part 2:**FCC Part 2.1051; Measurement required: Spurious emissions at antenna terminal:**

The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in §2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

Part 27; Miscellaneous Wireless Communication Services**Subpart C – Technical standards****§27.53 – Emission limits****Band 41 BRS (LBS/UBS)**

- (m) For BRS and EBS stations, the power of any emissions outside the licensee's frequency bands of operation shall be attenuated below the transmitter power (P) measured in watts in accordance with the standards below. If a licensee has multiple contiguous channels, out-of-band emissions shall be measured from the upper and lower edges of the contiguous channels.
- (1) Prior to the transition, and thereafter, solely within the MBS, for analog operations with an EIRP in excess of -9 dBW, the signal shall be attenuated at the channel edges by at least 38 dB relative to the peak visual carrier, then linearly sloping from that level to at least 60 dB of attenuation at 1 MHz below the lower band edge and 0.5 MHz above the upper band edge, and attenuated at least 60 dB at all other frequencies.
- (2) For digital base stations, the attenuation shall be not less than $43 + 10 \log (P)$ dB, unless a documented interference complaint is received from an adjacent channel licensee with an overlapping Geographic Service Area. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS No. 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Abstract from ISED RSS-199:**RSS-199; 5.6 Unwanted emission limits**

Unwanted emissions shall be measured in terms of average values when the transmitter is operating at the manufacturer's rated power and modulated as specified in RSS-Gen. Equipment shall meet the unwanted emission limits, specified below, outside each frequency block group. For each channel bandwidth supported by the equipment under test, the unwanted emissions shall be measured and reported for two channel frequencies: one located as close as possible to the low end and one located as close as possible to the high end of the equipment's operating frequency range.

For the unwanted emission limits, in the 1 MHz band immediately outside and adjacent to the frequency block group, the power shall be measured with a resolution bandwidth of at least 1% of the occupied bandwidth for fixed stations, base stations, and fixed subscriber equipment, and 2% for subscriber equipment other than fixed subscriber equipment. Beyond this 1 MHz band, a resolution bandwidth of 1 MHz shall be used. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full required measurement bandwidth of 1 MHz, or 1% or 2% of the occupied bandwidth, as applicable.

For all equipment, the TRP or total conducted power (sum of conducted power across all antenna connectors), where applicable, of the unwanted emissions outside the frequency block or frequency block group shall not exceed the limits shown in the tables below.

Table 4: Unwanted emission limits for fixed station, base station and fixed subscriber equipment

| Offset from the edge of the frequency block or frequency block group (MHz) | Unwanted emission limits |
|--|--------------------------|
| ≤ 1 | -13 dBm/(1% of OB*) |
| > 1 | -13 dBm/MHz |

*OB is the occupied bandwidth

5.4.3 TEST PROTOCOL

| Band 41 BRS (LBS), downlink, Number of input signals = 1 | | | | | | | |
|--|---------------|-----------|------------------------|-------------------|---------------------------------|-------------------------------|----------------------|
| Signal Type | Input power | Band edge | Signal Frequency [MHz] | Input power [dBm] | Maximum Out-of-band Power [dBm] | Limit Out-of-band Power [dBm] | Margin to Limit [dB] |
| Wideband | 0.3 dB < AGC | upper | 2565.5 | 0.1 | -50.4 | -13.0 | 37.4 |
| Wideband | 3 dB > AGC | upper | 2565.5 | 3.4 | -51.8 | -13.0 | 38.8 |
| Wideband 5G | 0.3 dB < AGC | upper | 2545.5 | -0.2 | -50.6 | -13.0 | 37.6 |
| Wideband 5G | 3 dB > AGC | upper | 2545.5 | 2.8 | -50.5 | -13.0 | 37.5 |
| Narrowband | -0.3 dB < AGC | upper | 2567.8 | 0.1 | -45.5 | -13.0 | 32.5 |
| Narrowband | 3 dB > AGC | upper | 2567.8 | 3.4 | -46.4 | -13.0 | 33.4 |
| Wideband | 0.3 dB < AGC | lower | 2498.5 | 0.7 | -57.5 | -13.0 | 44.5 |
| Wideband | 3 dB > AGC | lower | 2498.5 | 4.0 | -57.3 | -13.0 | 44.3 |
| Wideband 5G | 0.3 dB < AGC | lower | 2518.5 | 0.4 | -54.6 | -13.0 | 41.6 |
| Wideband 5G | 3 dB > AGC | lower | 2518.5 | 3.4 | -54.3 | -13.0 | 41.3 |
| Narrowband | -0.3 dB < AGC | lower | 2496.2 | 0.7 | -46.0 | -13.0 | 33.0 |
| Narrowband | 3 dB > AGC | lower | 2496.2 | 4.0 | -46.2 | -13.0 | 33.2 |

| Band 41 BRS (LBS), downlink, Number of input signals = 2 | | | | | | | | |
|--|--------------|-----------|---------------------------|---------------------------|-------------------|---------------------------------|-------------------------------|----------------------|
| Signal Type | Input power | Band edge | Signal Frequency f1 [MHz] | Signal Frequency f2 [MHz] | Input power [dBm] | Maximum Out-of-band Power [dBm] | Limit Out-of-band Power [dBm] | Margin to Limit [dB] |
| Wideband | 0.3 dB < AGC | upper | 2565.5 | 2563.0 | -0.1 | -54.0 | -13.0 | 41.0 |
| Wideband | 3 dB > AGC | upper | 2565.5 | 2563.0 | 3.2 | -54.1 | -13.0 | 41.1 |
| Narrowband | 0.3 dB < AGC | upper | 2567.8 | 2567.6 | 0.3 | -46.2 | -13.0 | 33.2 |
| Narrowband | 3 dB > AGC | upper | 2567.8 | 2567.6 | 3.6 | -47.1 | -13.0 | 34.1 |
| Wideband | 0.3 dB < AGC | lower | 2498.5 | 2501.0 | 0.7 | -58.8 | -13.0 | 45.8 |
| Wideband | 3 dB > AGC | lower | 2498.5 | 2501.0 | 4.0 | -59.6 | -13.0 | 46.6 |
| Narrowband | 0.3 dB < AGC | lower | 2496.2 | 2496.4 | 0.7 | -48.8 | -13.0 | 35.8 |
| Narrowband | 3 dB > AGC | lower | 2496.2 | 2496.4 | 4.0 | -48.8 | -13.0 | 35.8 |

Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

| Band 41 BRS (MBS), downlink, Number of input signals = 1 | | | | | | | |
|--|---------------|-----------|------------------------|-------------------|---------------------------------|-------------------------------|----------------------|
| Signal Type | Input power | Band edge | Signal Frequency [MHz] | Input power [dBm] | Maximum Out-of-band Power [dBm] | Limit Out-of-band Power [dBm] | Margin to Limit [dB] |
| Wideband | 0.3 dB < AGC | upper | 2611.5 | -0.9 | -47.3 | -13.0 | 34.3 |
| Wideband | 3 dB > AGC | upper | 2611.5 | 2.4 | -50.1 | -13.0 | 37.1 |
| Wideband 5G | 0.3 dB < AGC | upper | 2601.5 | -1.2 | -51.9 | -13.0 | 38.9 |
| Wideband 5G | 3 dB > AGC | upper | 2601.5 | 1.8 | -53.0 | -13.0 | 40.0 |
| Narrowband | -0.3 dB < AGC | upper | 2613.8 | -1.1 | -39.8 | -13.0 | 26.8 |
| Narrowband | 3 dB > AGC | upper | 2613.8 | 2.2 | -40.2 | -13.0 | 27.2 |
| Wideband | 0.3 dB < AGC | lower | 2574.5 | -0.1 | -57.1 | -13.0 | 44.1 |
| Wideband | 3 dB > AGC | lower | 2574.5 | 3.2 | -57.5 | -13.0 | 44.5 |
| Wideband 5G | 0.3 dB < AGC | lower | 2584.5 | -0.4 | -53.3 | -13.0 | 40.3 |
| Wideband 5G | 3 dB > AGC | lower | 2584.5 | 2.6 | -53.6 | -13.0 | 40.6 |
| Narrowband | -0.3 dB < AGC | lower | 2572.2 | -0.1 | -40.7 | -13.0 | 27.7 |
| Narrowband | 3 dB > AGC | lower | 2572.2 | 3.2 | -40.8 | -13.0 | 27.8 |

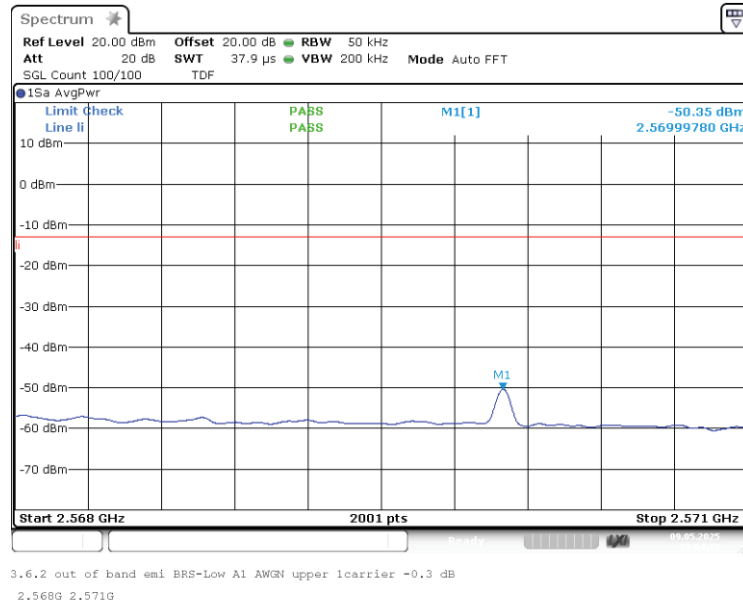
| Band 41 BRS (MBS), downlink, Number of input signals = 2 | | | | | | | | |
|--|--------------|-----------|---------------------------|---------------------------|-------------------|---------------------------------|-------------------------------|----------------------|
| Signal Type | Input power | Band edge | Signal Frequency f1 [MHz] | Signal Frequency f2 [MHz] | Input power [dBm] | Maximum Out-of-band Power [dBm] | Limit Out-of-band Power [dBm] | Margin to Limit [dB] |
| Wideband | 0.3 dB < AGC | upper | 2611.5 | 2609.0 | -0.9 | -52.0 | -13.0 | 39.0 |
| Wideband | 3 dB > AGC | upper | 2611.5 | 2609.0 | 2.4 | -53.2 | -13.0 | 40.2 |
| Narrowband | 0.3 dB < AGC | upper | 2613.8 | 2613.6 | -0.9 | -40.9 | -13.0 | 27.9 |
| Narrowband | 3 dB > AGC | upper | 2613.8 | 2613.6 | 2.4 | -41.2 | -13.0 | 28.2 |
| Wideband | 0.3 dB < AGC | lower | 2574.5 | 2577.0 | -0.1 | -58.5 | -13.0 | 45.5 |
| Wideband | 3 dB > AGC | lower | 2574.5 | 2577.0 | 3.2 | -58.4 | -13.0 | 45.4 |
| Narrowband | 0.3 dB < AGC | lower | 2572.2 | 2572.4 | -0.1 | -43.3 | -13.0 | 30.3 |
| Narrowband | 3 dB > AGC | lower | 2572.2 | 2572.4 | 3.2 | -43.6 | -13.0 | 30.6 |

| Band 41 BRS (UBS), downlink, Number of input signals = 1 | | | | | | | |
|--|---------------|-----------|------------------------|-------------------|---------------------------------|-------------------------------|----------------------|
| Signal Type | Input power | Band edge | Signal Frequency [MHz] | Input power [dBm] | Maximum Out-of-band Power [dBm] | Limit Out-of-band Power [dBm] | Margin to Limit [dB] |
| Wideband | 0.3 dB < AGC | upper | 2687.5 | 0.3 | -45.8 | -13.0 | 32.8 |
| Wideband | 3 dB > AGC | upper | 2687.5 | 3.6 | -46.2 | -13.0 | 33.2 |
| Wideband 5G | 0.3 dB < AGC | upper | 2667.5 | 0.0 | -51.6 | -13.0 | 38.6 |
| Wideband 5G | 3 dB > AGC | upper | 2667.5 | 3.0 | -50.3 | -13.0 | 37.3 |
| Narrowband | -0.3 dB < AGC | upper | 2689.8 | 0.3 | -32.0 | -13.0 | 19.0 |
| Narrowband | 3 dB > AGC | upper | 2689.8 | 3.6 | -33.0 | -13.0 | 20.0 |
| Wideband | 0.3 dB < AGC | lower | 2620.5 | 1.3 | -58.1 | -13.0 | 45.1 |
| Wideband | 3 dB > AGC | lower | 2620.5 | 4.6 | -57.7 | -13.0 | 44.7 |
| Wideband 5G | 0.3 dB < AGC | lower | 2640.5 | 1.0 | -54.7 | -13.0 | 41.7 |
| Wideband 5G | 3 dB > AGC | lower | 2640.5 | 4.0 | -54.4 | -13.0 | 41.4 |
| Narrowband | -0.3 dB < AGC | lower | 2618.2 | 1.3 | -44.8 | -13.0 | 31.8 |
| Narrowband | 3 dB > AGC | lower | 2618.2 | 4.6 | -45.7 | -13.0 | 32.7 |

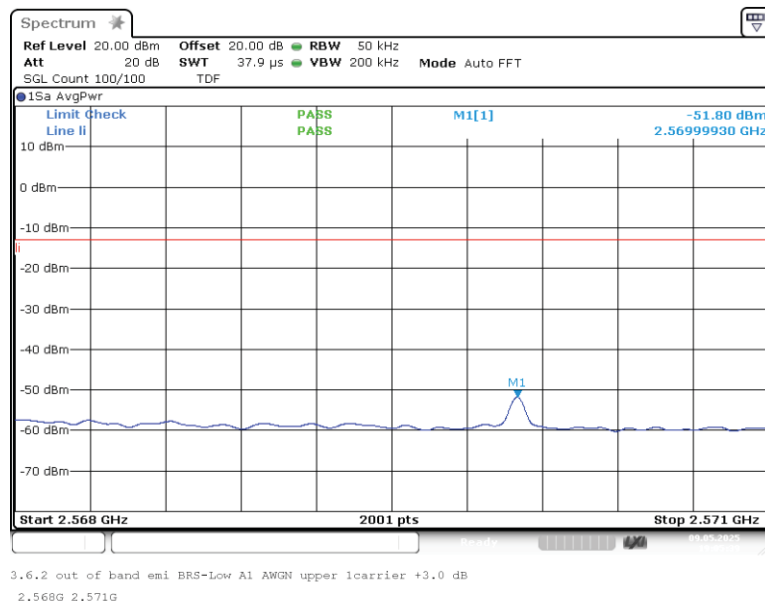
| Band 41 BRS (UBS), downlink, Number of input signals = 2 | | | | | | | | |
|--|--------------|-----------|---------------------------|---------------------------|-------------------|---------------------------------|-------------------------------|----------------------|
| Signal Type | Input power | Band edge | Signal Frequency f1 [MHz] | Signal Frequency f2 [MHz] | Input power [dBm] | Maximum Out-of-band Power [dBm] | Limit Out-of-band Power [dBm] | Margin to Limit [dB] |
| Wideband | 0.3 dB < AGC | upper | 2687.5 | 2685.0 | 0.1 | -49.9 | -13.0 | 36.9 |
| Wideband | 3 dB > AGC | upper | 2687.5 | 2685.0 | 3.4 | -50.5 | -13.0 | 37.5 |
| Narrowband | 0.3 dB < AGC | upper | 2689.8 | 2689.6 | 0.5 | -33.6 | -13.0 | 20.6 |
| Narrowband | 3 dB > AGC | upper | 2689.8 | 2689.6 | 3.8 | -35.1 | -13.0 | 22.1 |
| Wideband | 0.3 dB < AGC | lower | 2620.5 | 2623.0 | 1.3 | -58.7 | -13.0 | 45.7 |
| Wideband | 3 dB > AGC | lower | 2620.5 | 2623.0 | 4.6 | -58.5 | -13.0 | 45.5 |
| Narrowband | 0.3 dB < AGC | lower | 2618.2 | 2618.4 | 1.3 | -47.9 | -13.0 | 34.9 |
| Narrowband | 3 dB > AGC | lower | 2618.2 | 2618.4 | 4.6 | -47.8 | -13.0 | 34.8 |

5.4.4 MEASUREMENT PLOT

Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: upper;
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 1



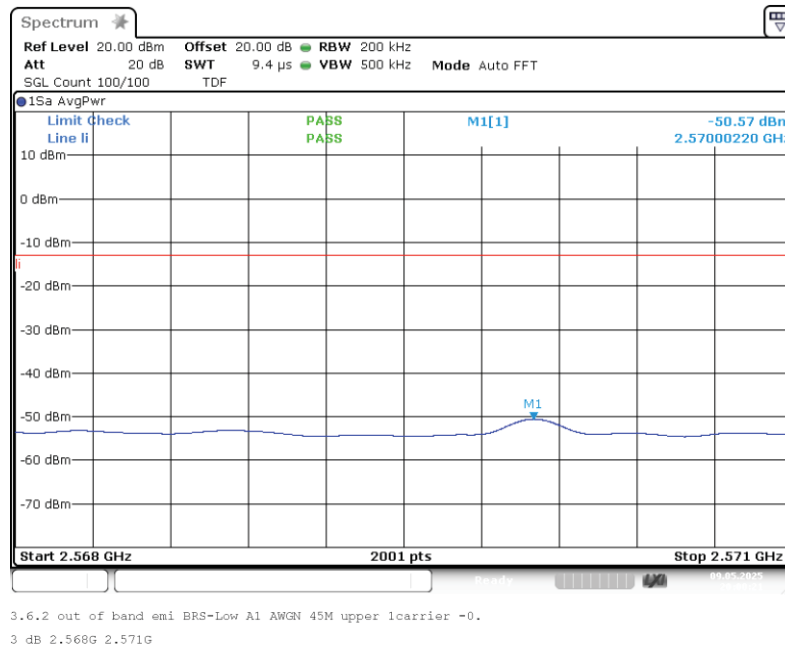
Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: upper;
Mod: AWGN; Input power = 3 dB > AGC; Number of signals 1



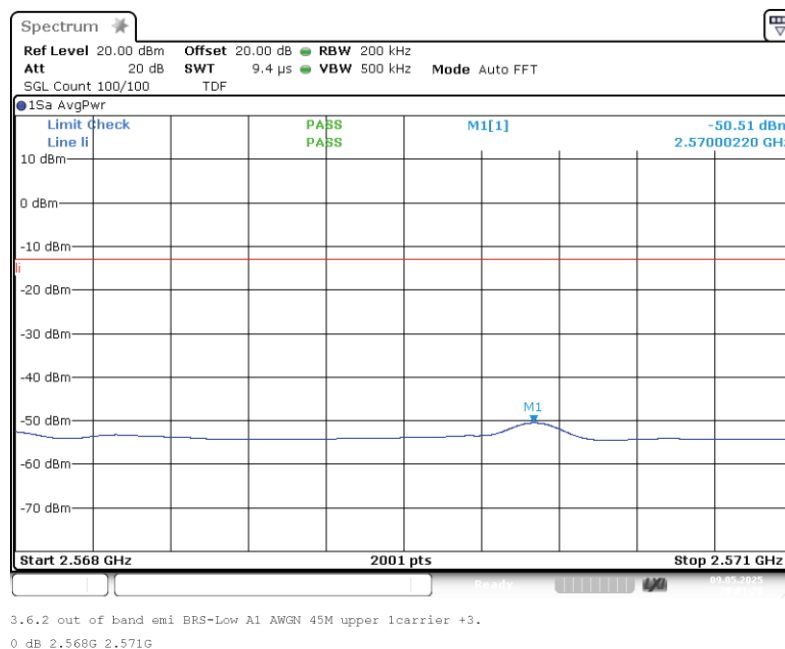
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: upper;
Mod: AWGN 45M; Input power = 0.3 dB < AGC; Number of signals 1



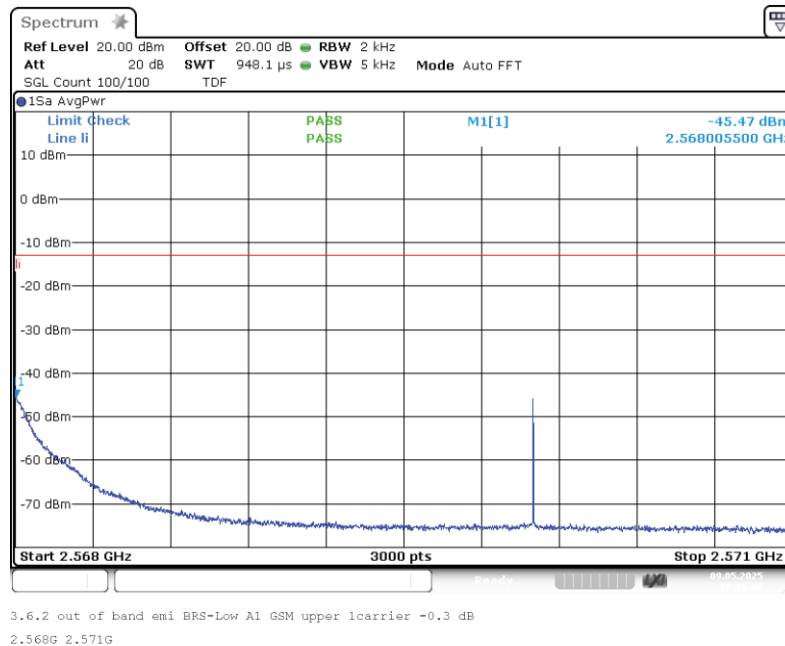
Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: upper;
Mod: AWGN 45M; Input power = 3 dB > AGC; Number of signals 1



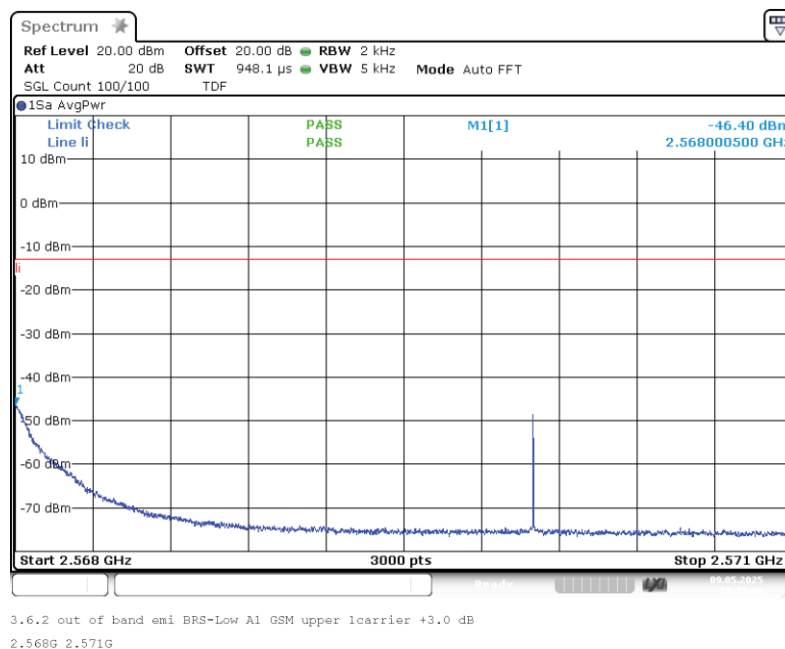
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: upper;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 1



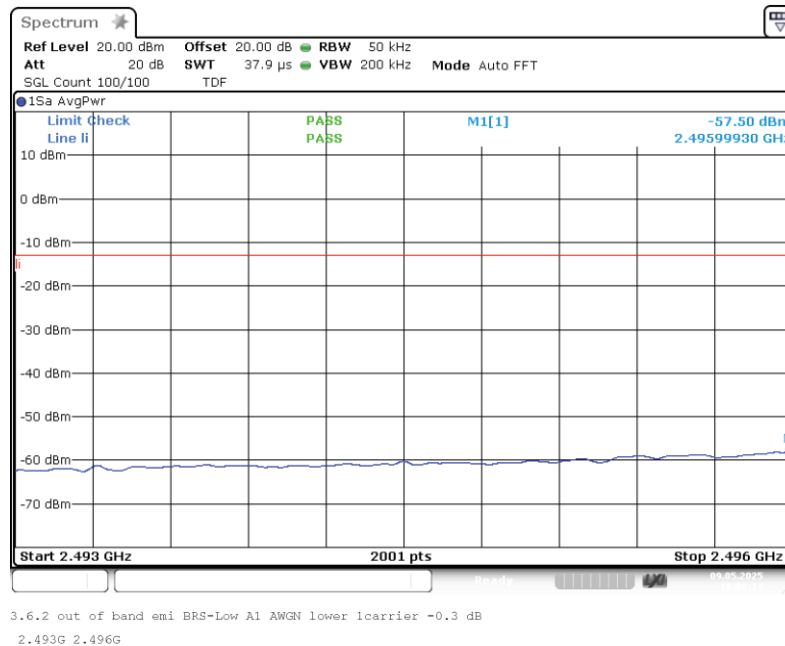
Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: upper;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 1



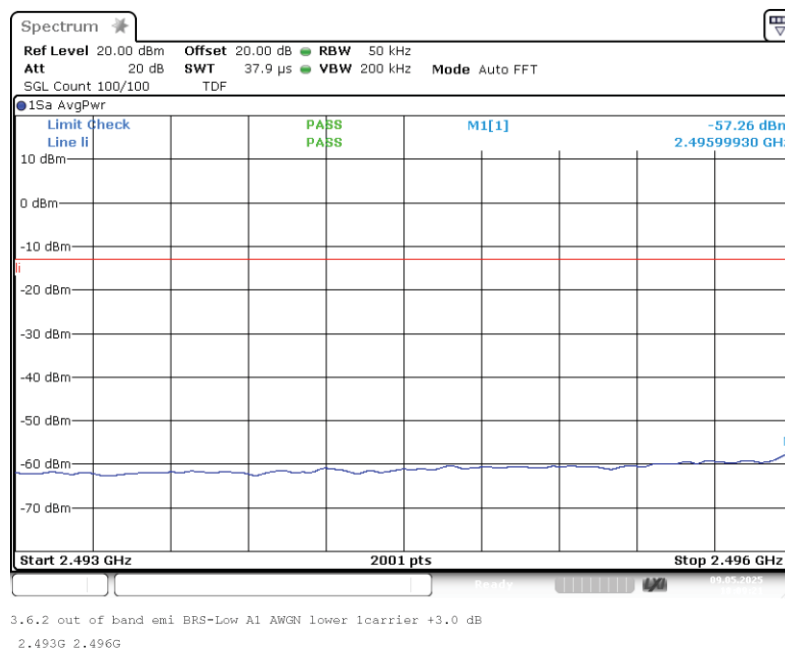
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 1



Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;
Mod: AWGN; Input power = 3 dB > AGC; Number of signals 1



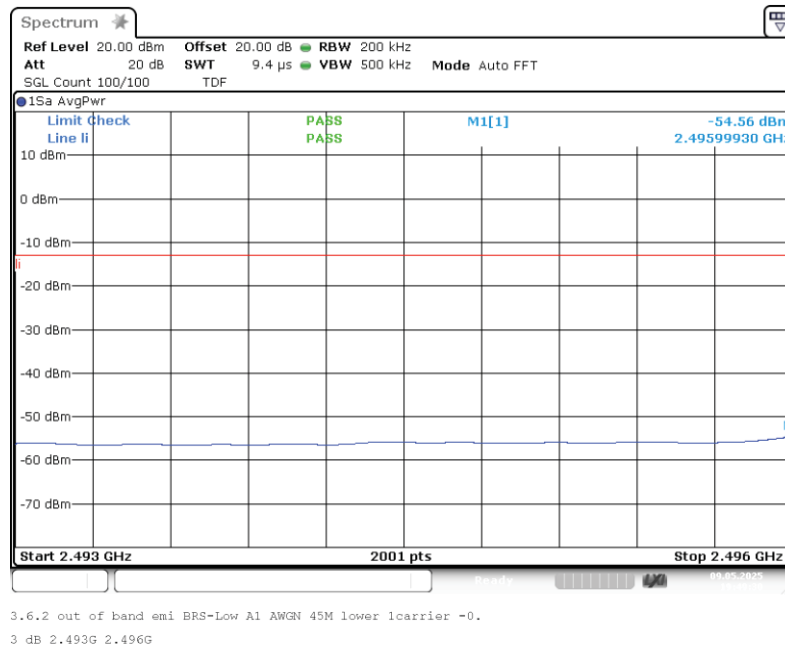


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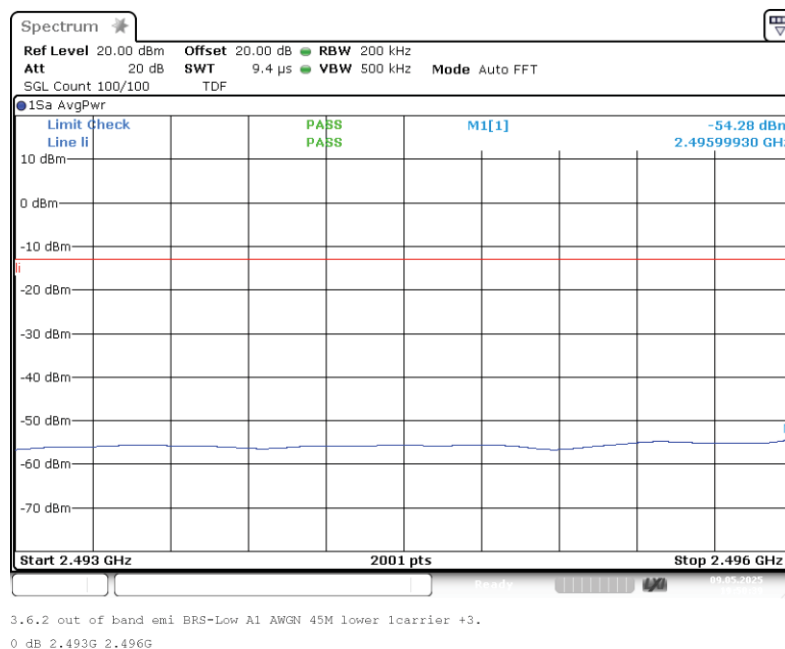
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;
Mod: AWGN 45M; Input power = 0.3 dB < AGC; Number of signals 1



Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;
Mod: AWGN 45M; Input power = 3 dB > AGC; Number of signals 1

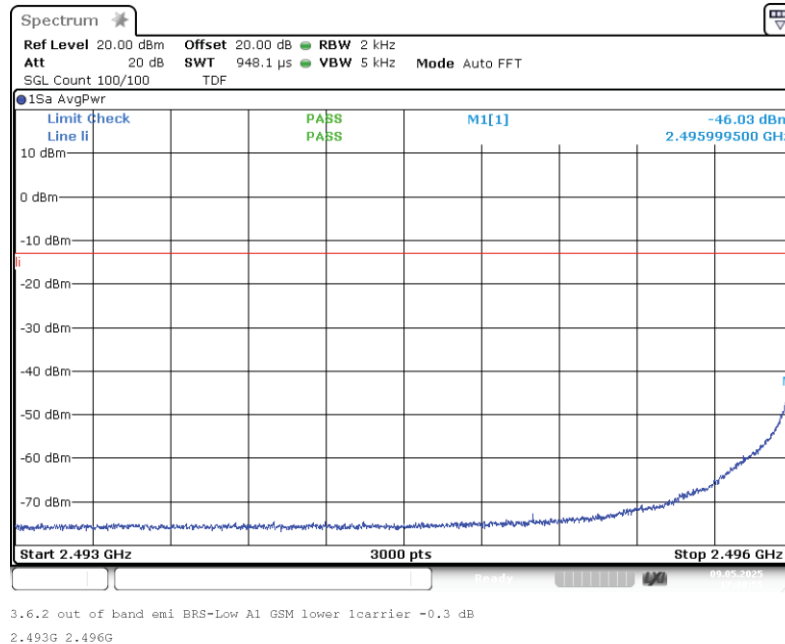


The test results relate only to the tested item. The sample has been provided by the client.
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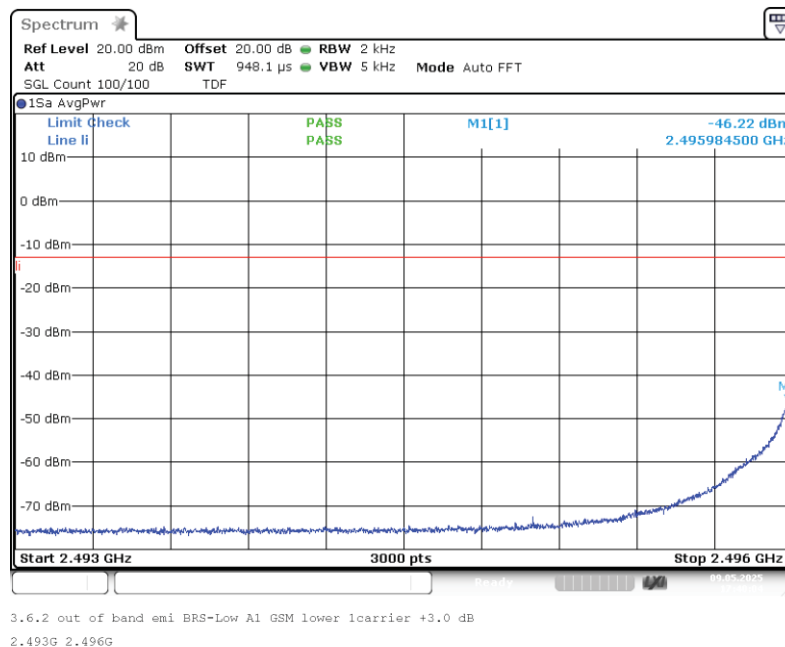
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 1



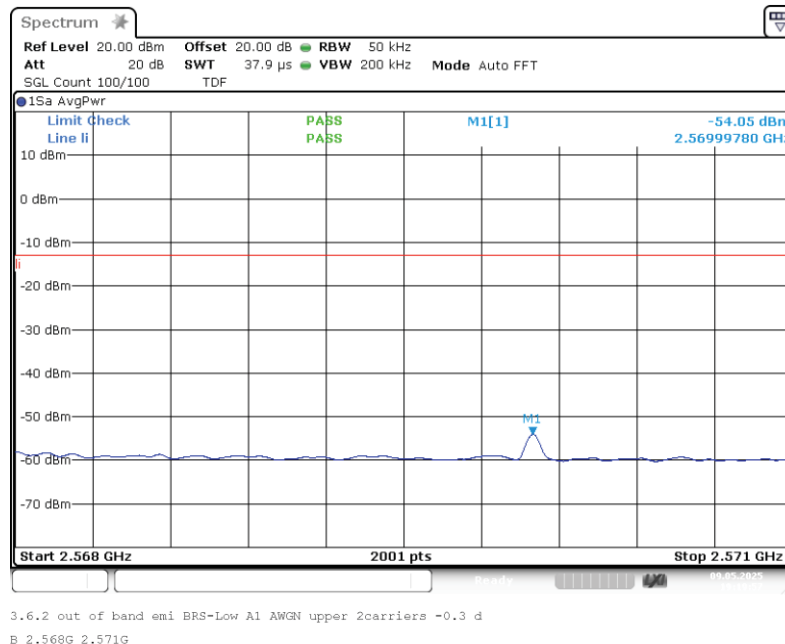
Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 1



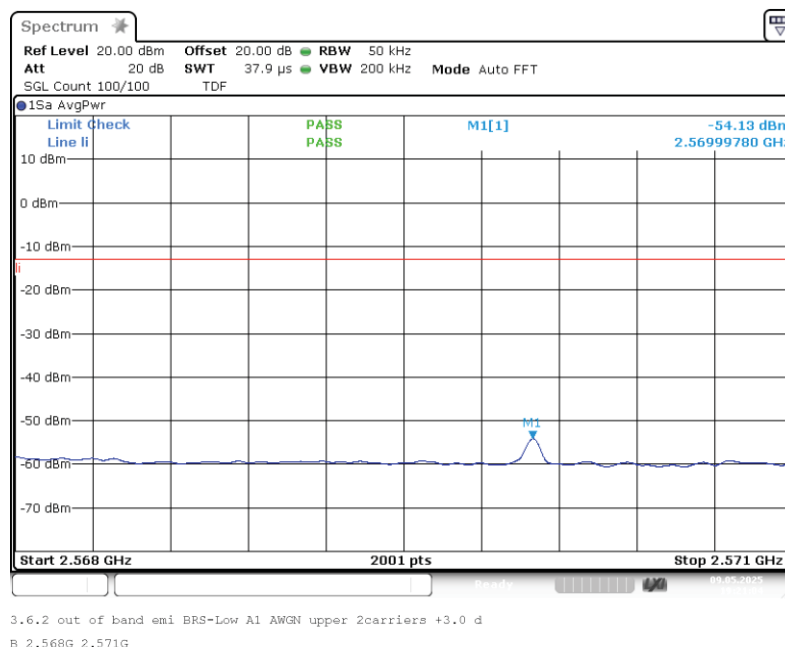
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: upper;
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 2



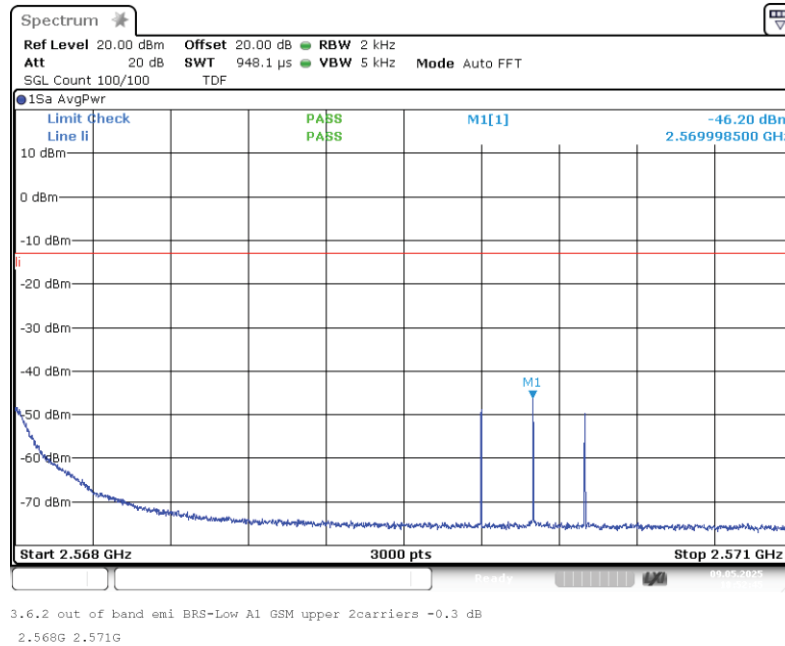
Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: upper;
Mod: AWGN; Input power = 3 dB > AGC; Number of signals 2



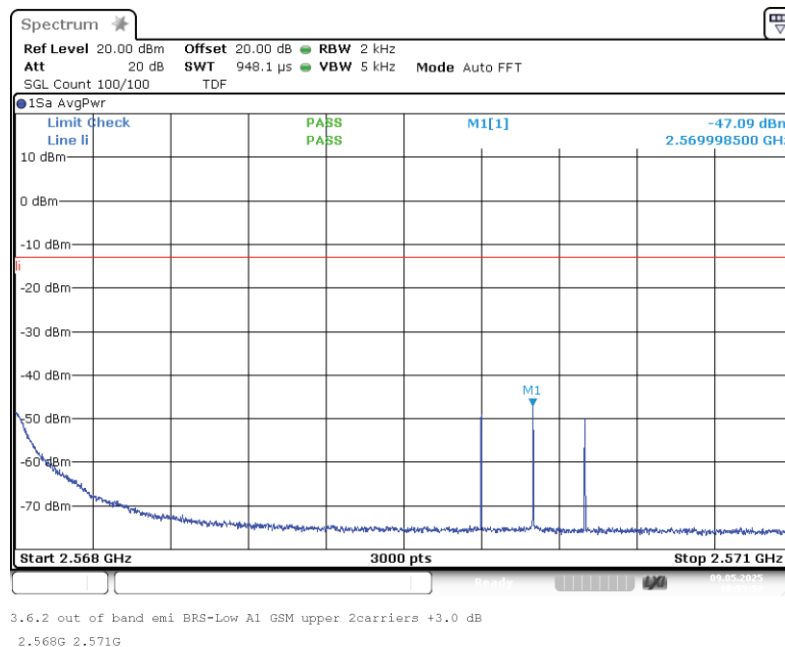
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: upper;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 2



Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: upper;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 2



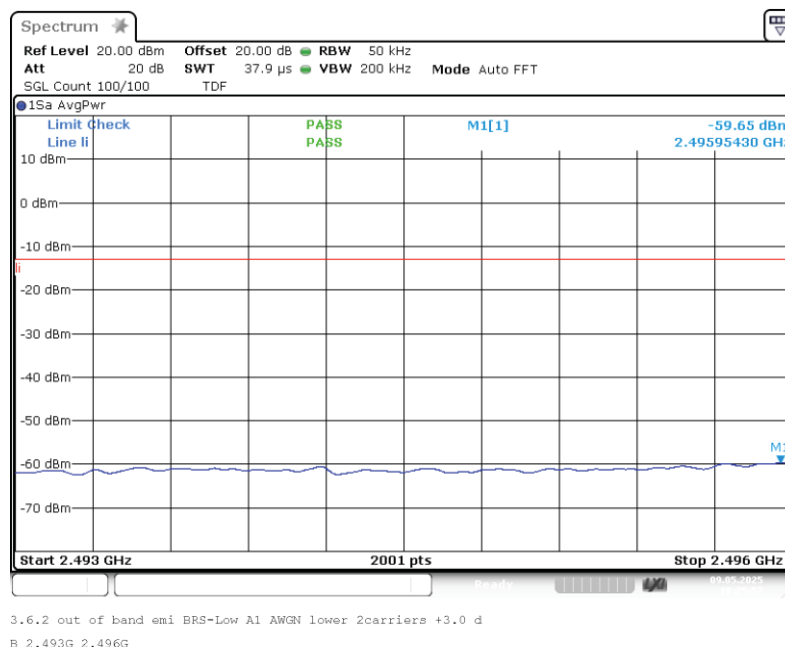
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 2



Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;
Mod: AWGN; Input power = 3 dB > AGC; Number of signals 2



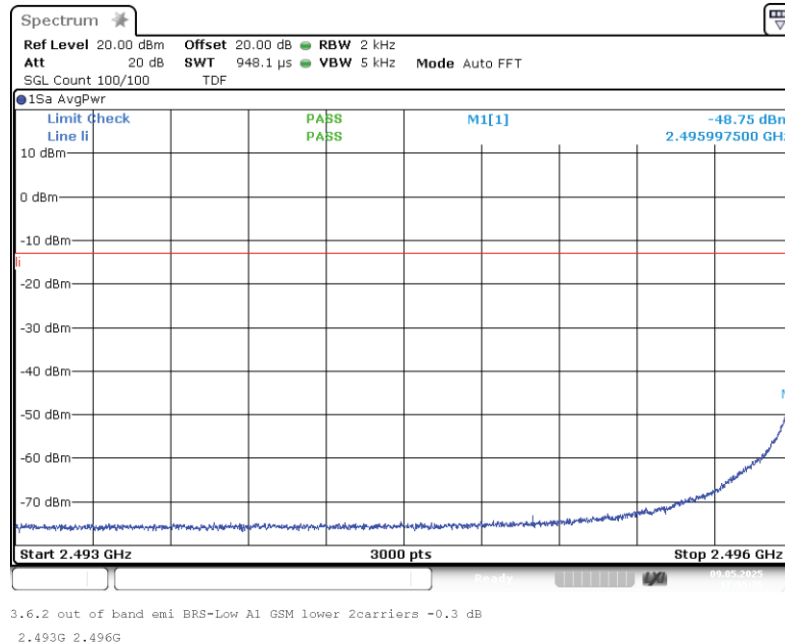


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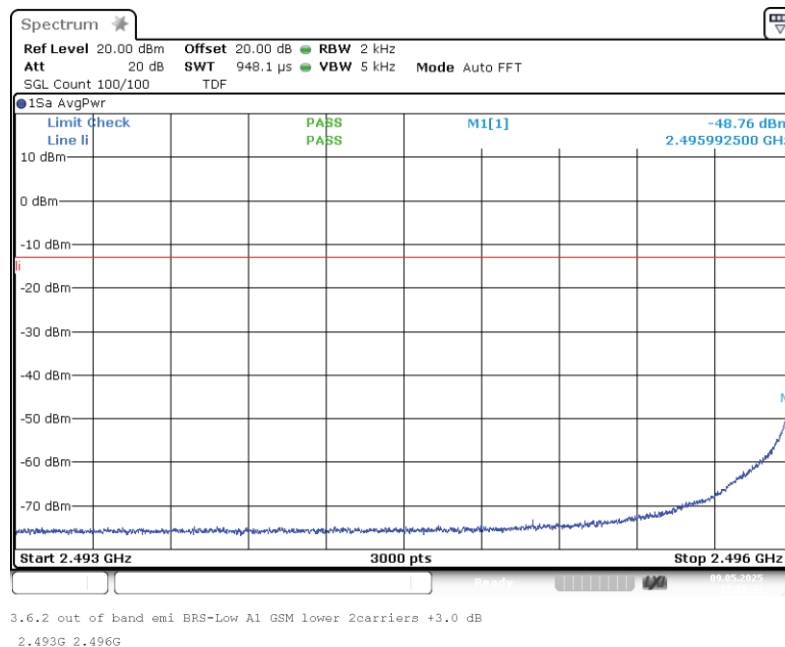
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 2



Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 2

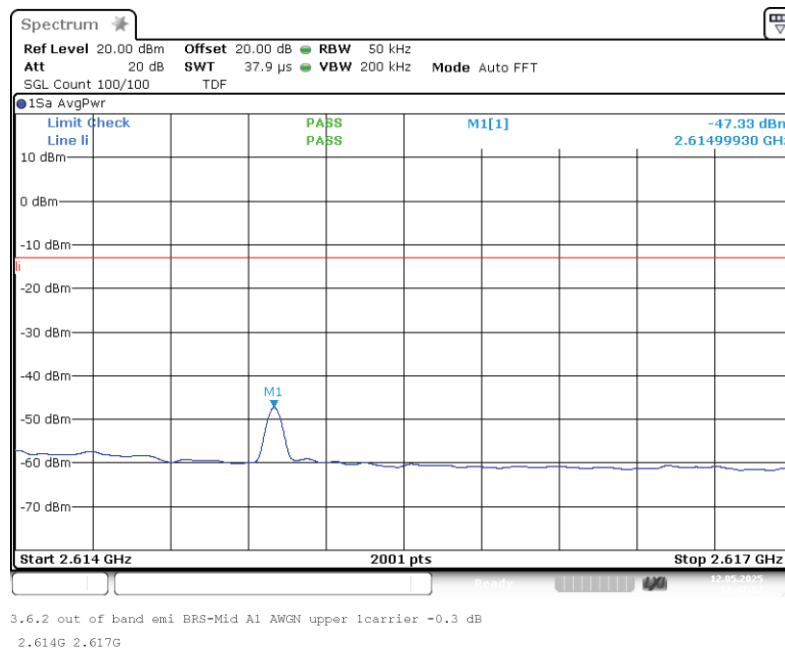


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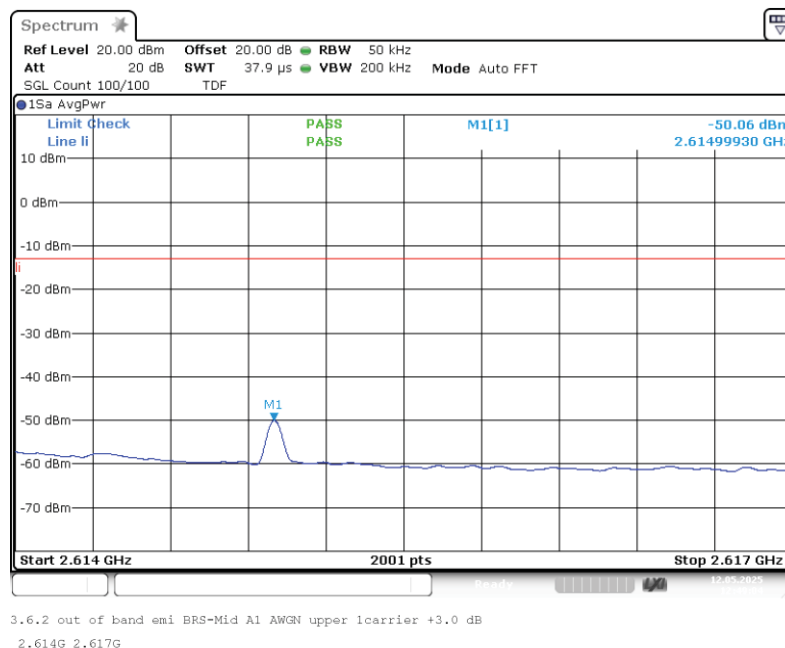
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 1



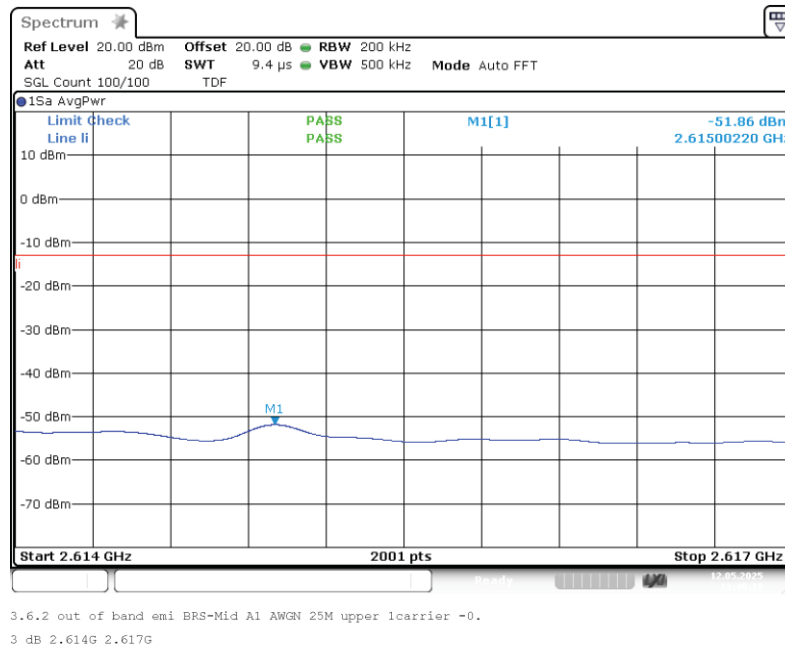
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;
Mod: AWGN; Input power = 3 dB > AGC; Number of signals 1



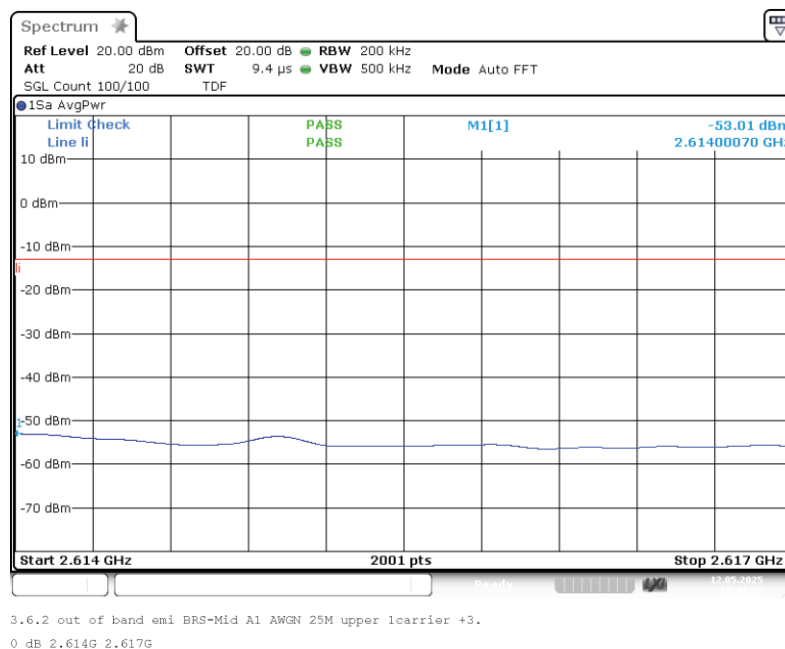
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;
Mod: AWGN 25M; Input power = 0.3 dB < AGC; Number of signals 1



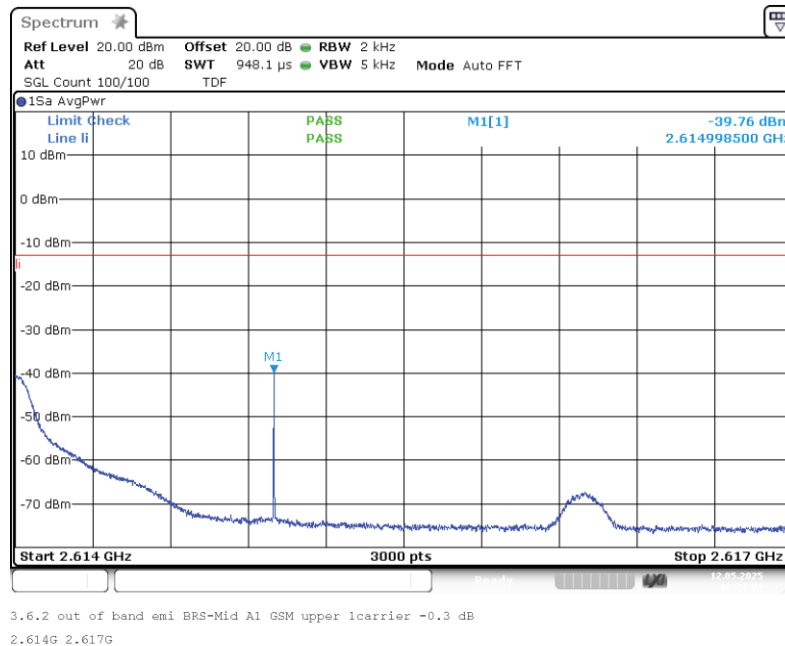
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;
Mod: AWGN 25M; Input power = 3 dB > AGC; Number of signals 1



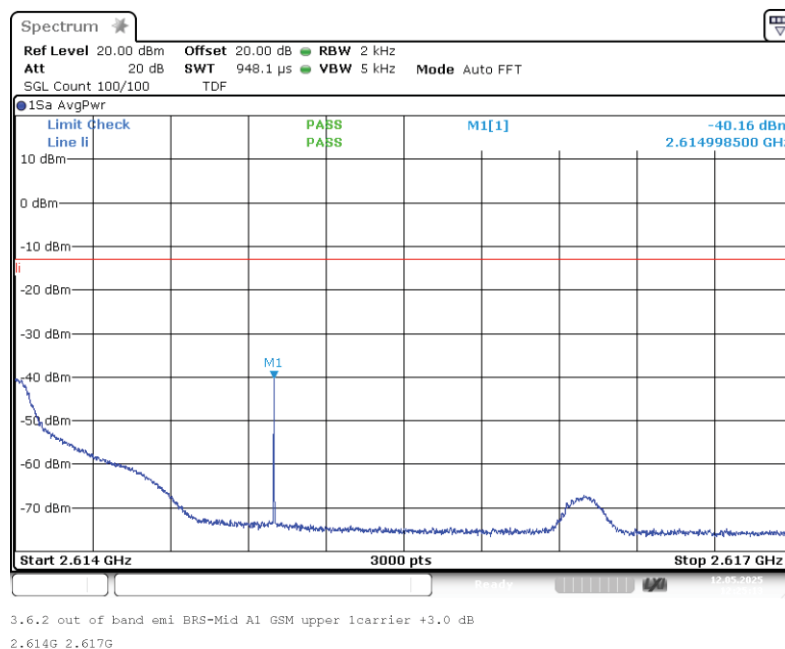
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 1



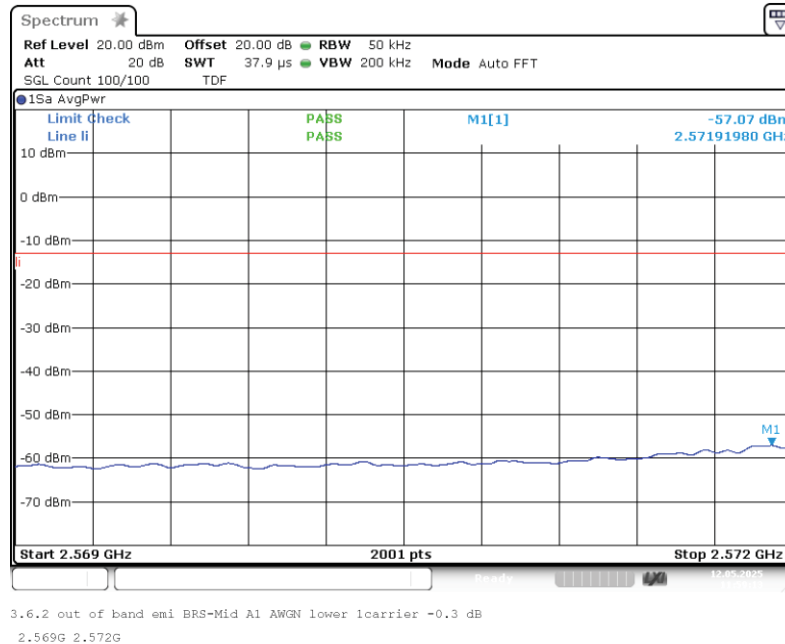
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 1



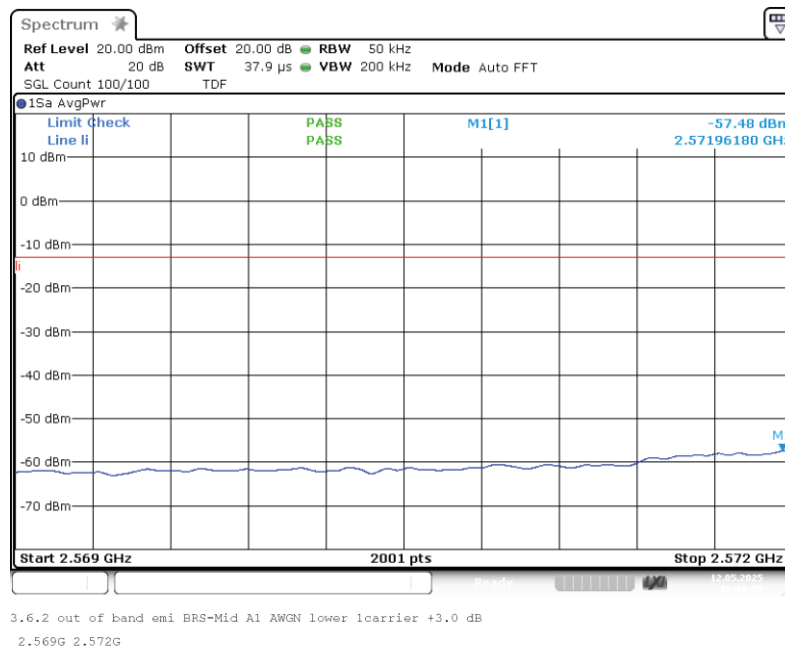
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 1



Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;
Mod: AWGN; Input power = 3 dB > AGC; Number of signals 1



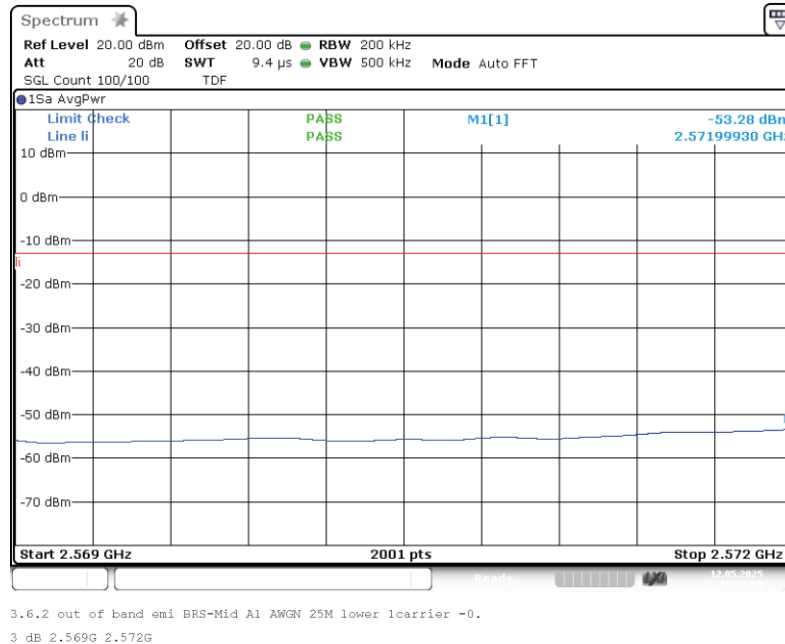


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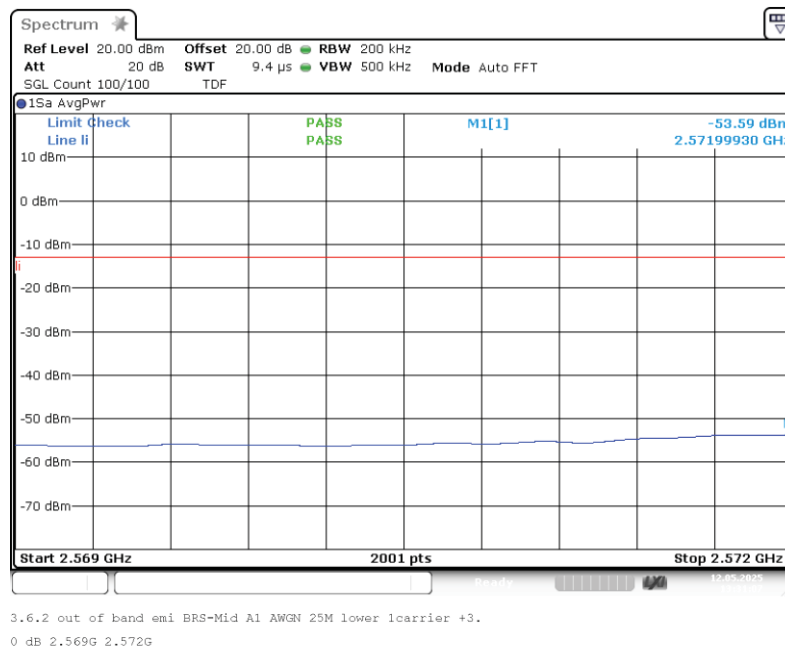
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;
Mod: AWGN 25M; Input power = 0.3 dB < AGC; Number of signals 1



Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;
Mod: AWGN 25M; Input power = 3 dB > AGC; Number of signals 1



The test results relate only to the tested item. The sample has been provided by the client.
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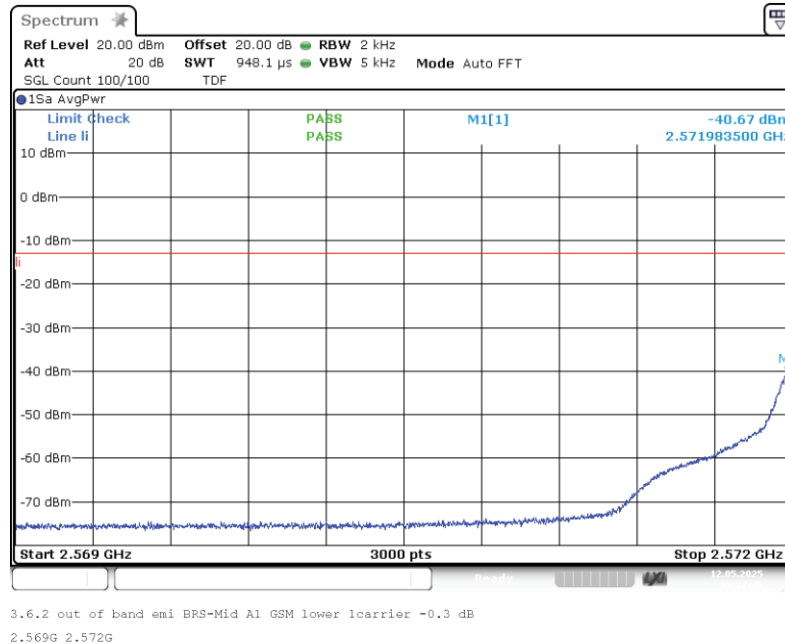


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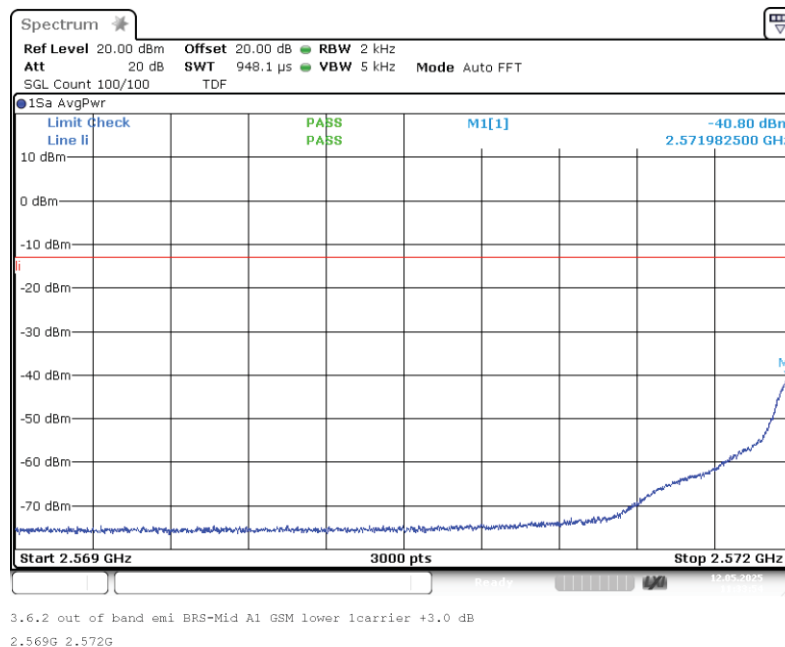
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 1



Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 1

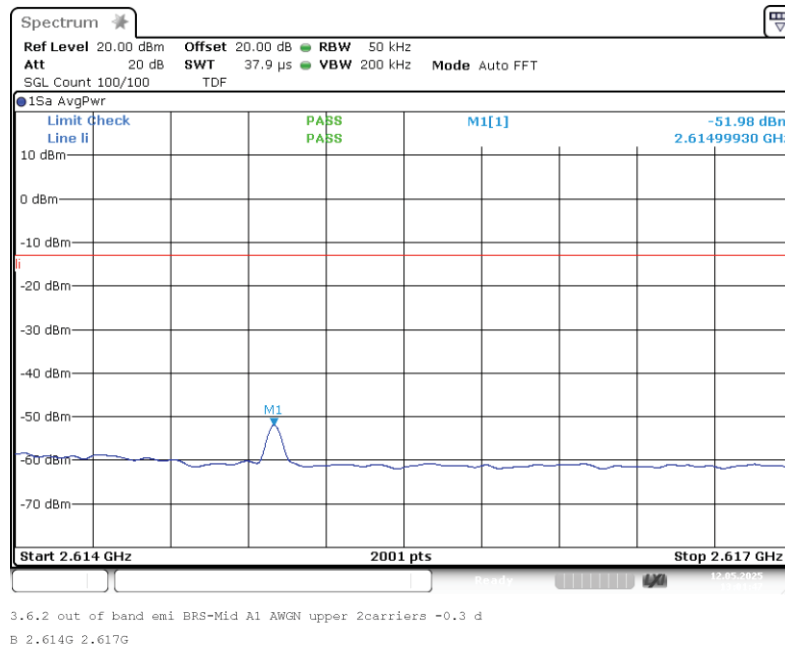


The test results relate only to the tested item. The sample has been provided by the client.
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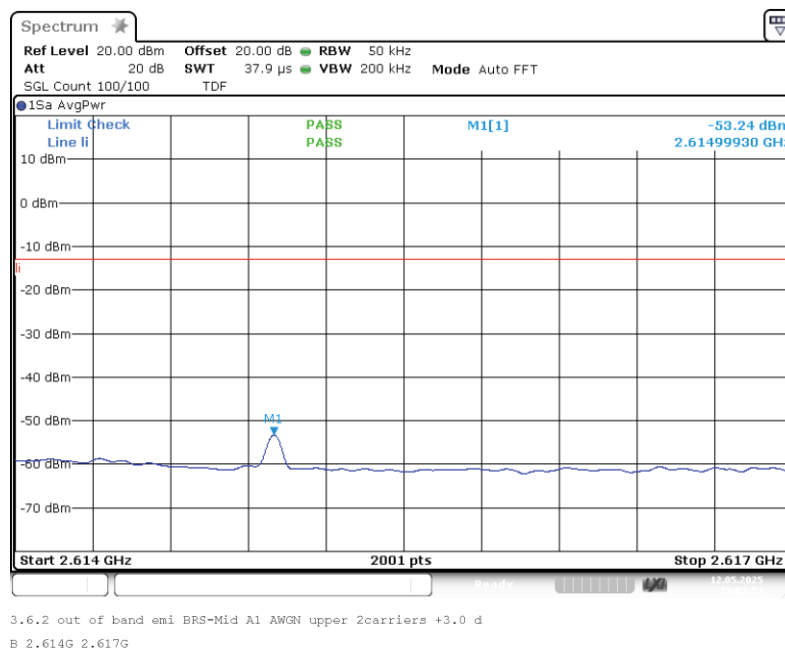
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 2



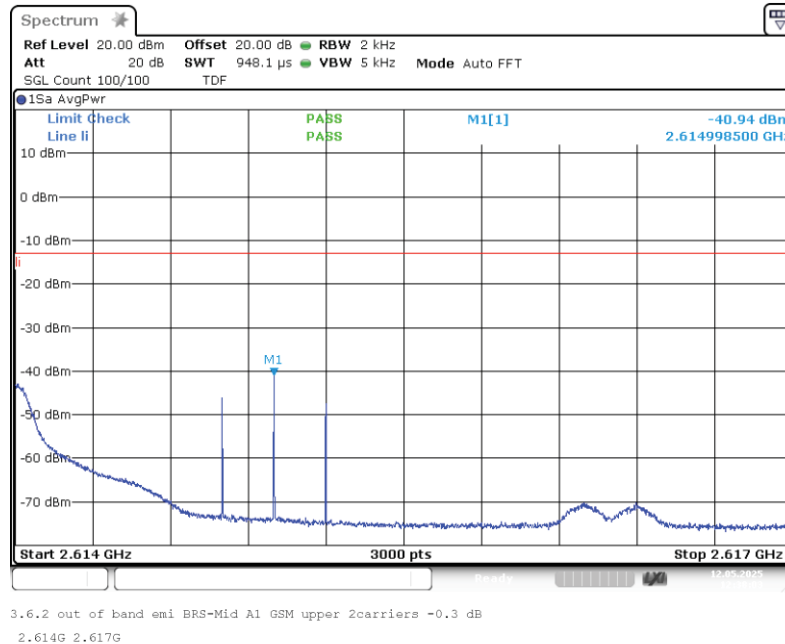
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;
Mod: AWGN; Input power = 3 dB > AGC; Number of signals 2



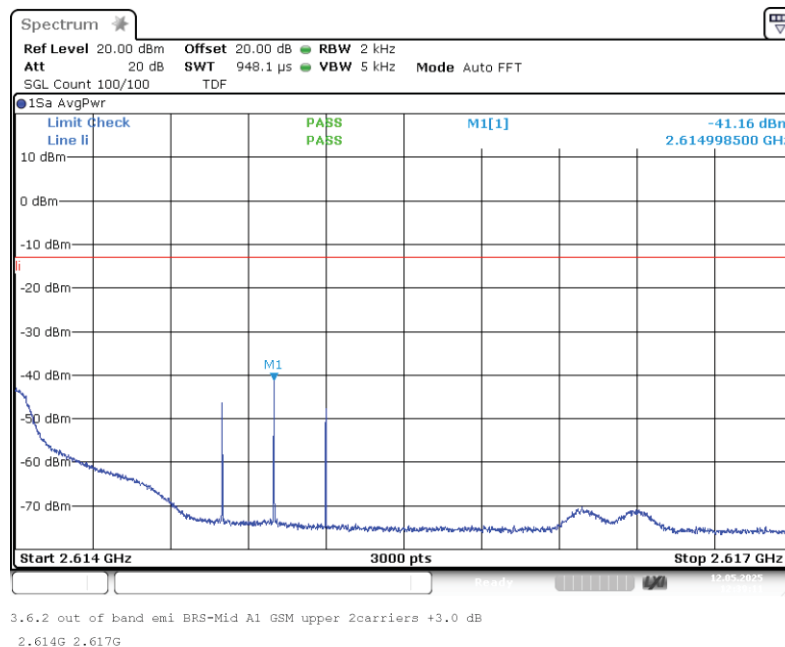
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 2



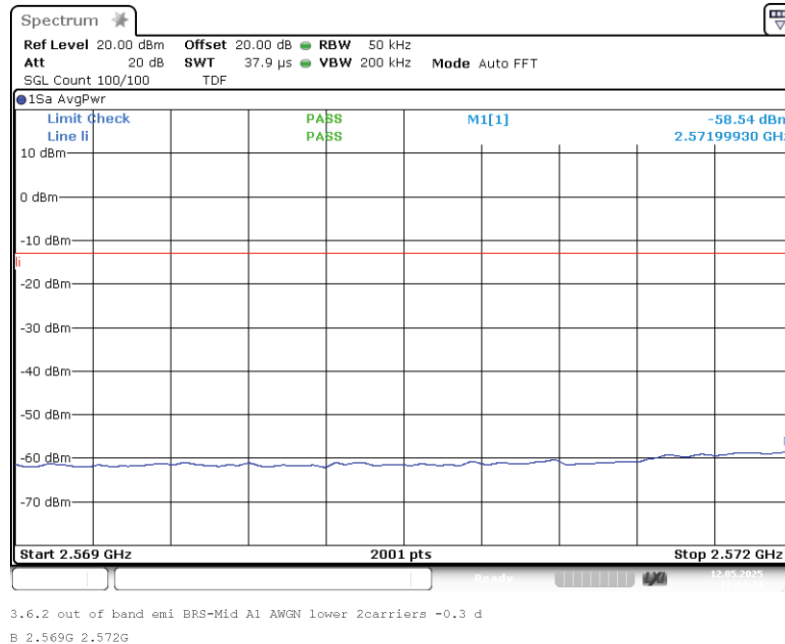
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 2



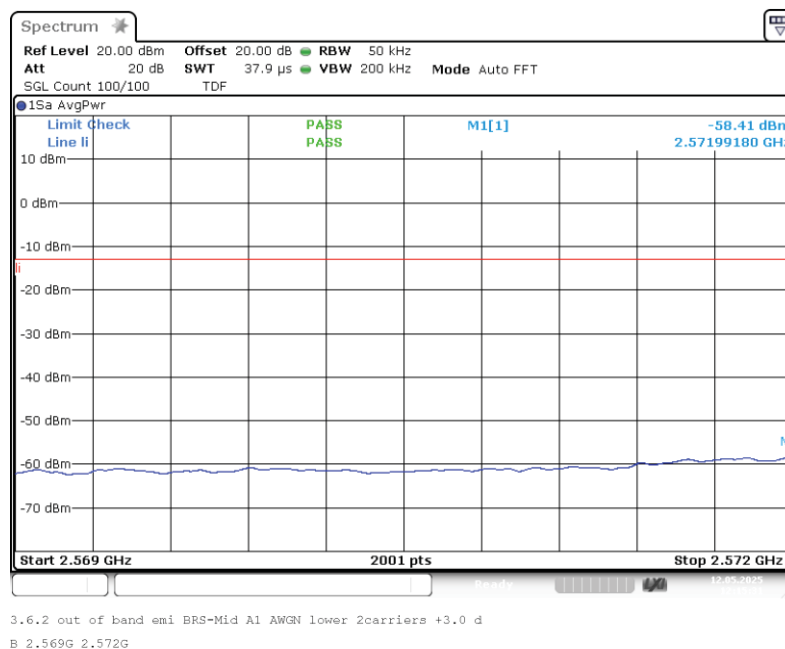
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 2



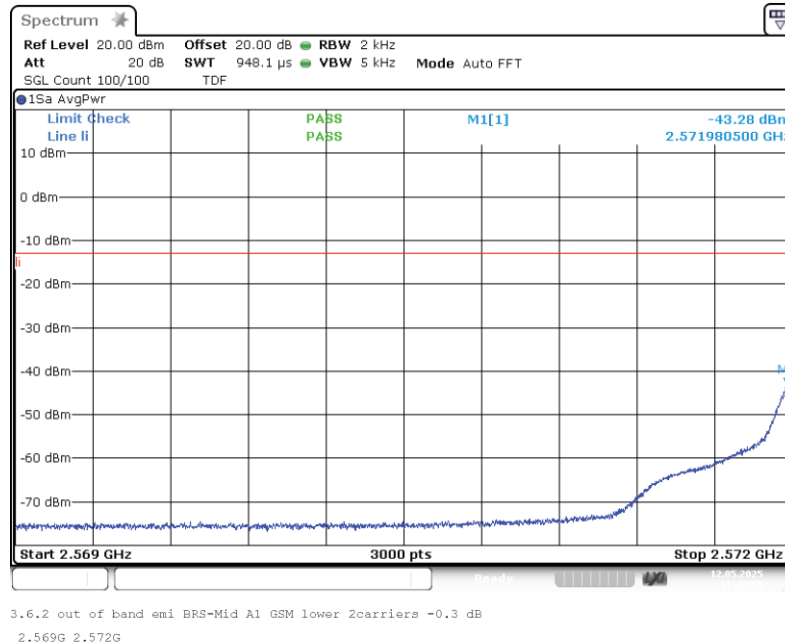
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;
Mod: AWGN; Input power = 3 dB > AGC; Number of signals 2



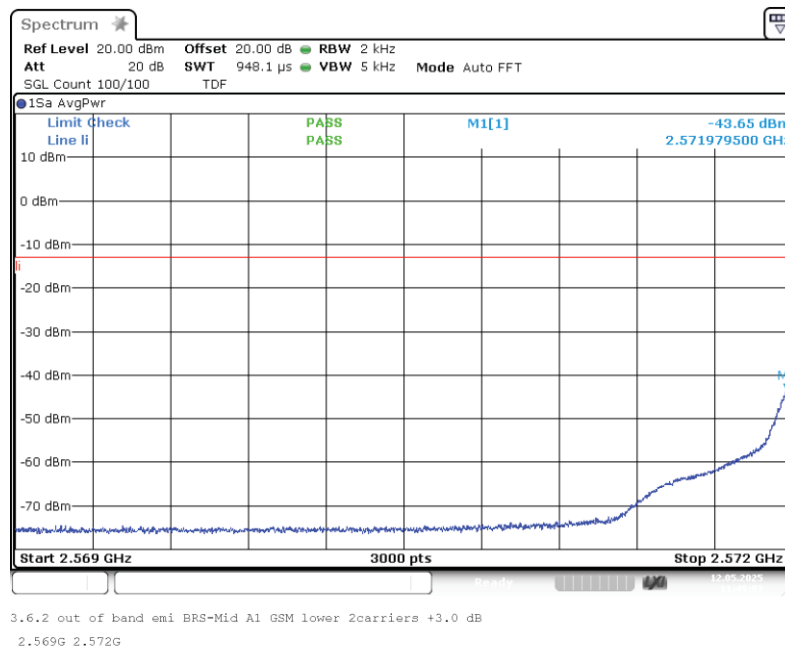
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 2



Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 2



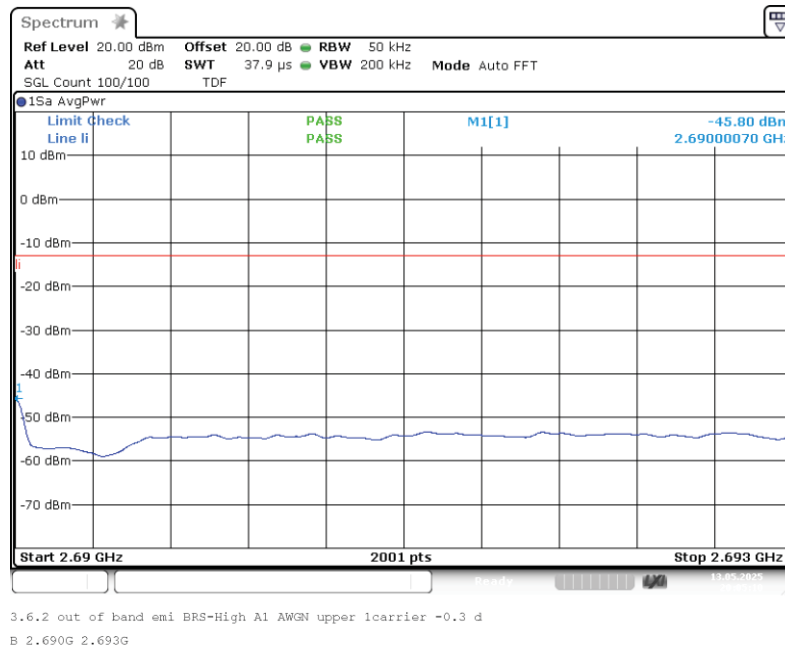


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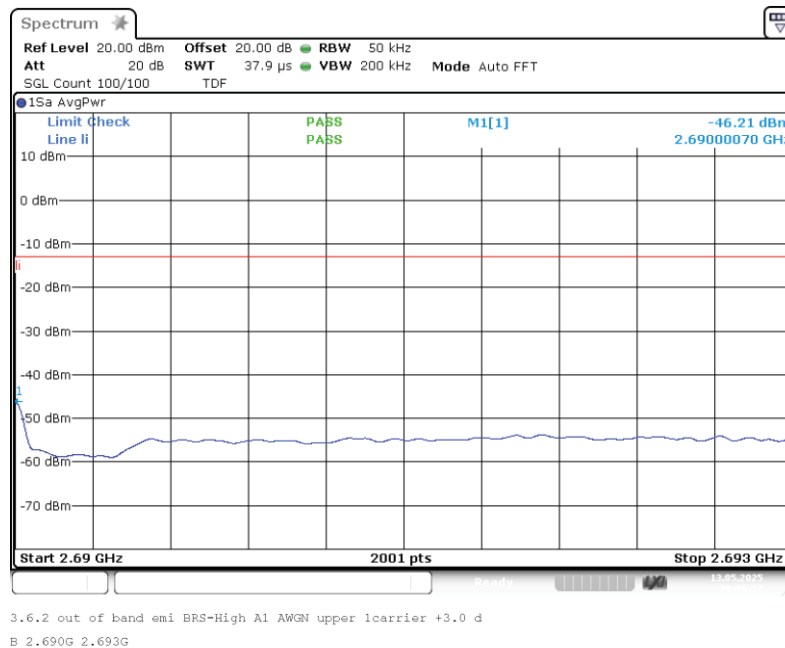
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 1



Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;
Mod: AWGN; Input power = 3 dB > AGC; Number of signals 1

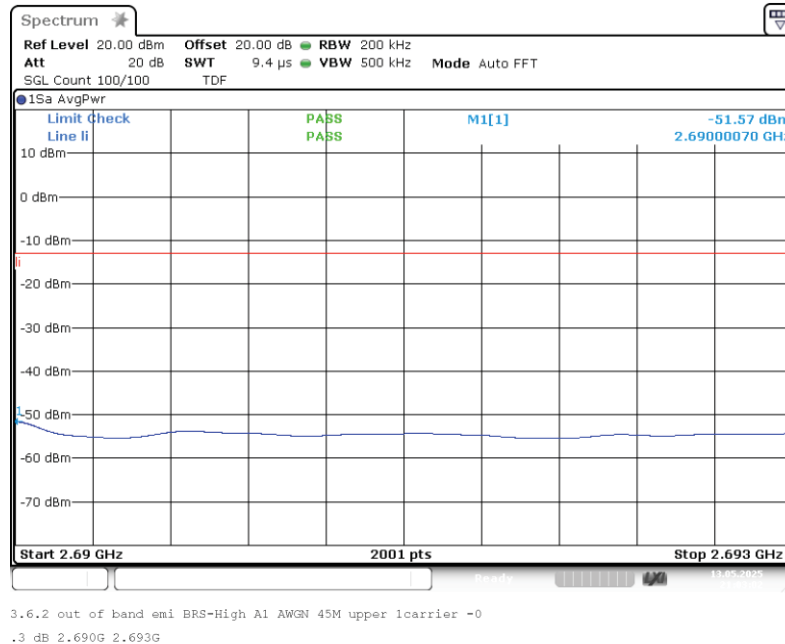


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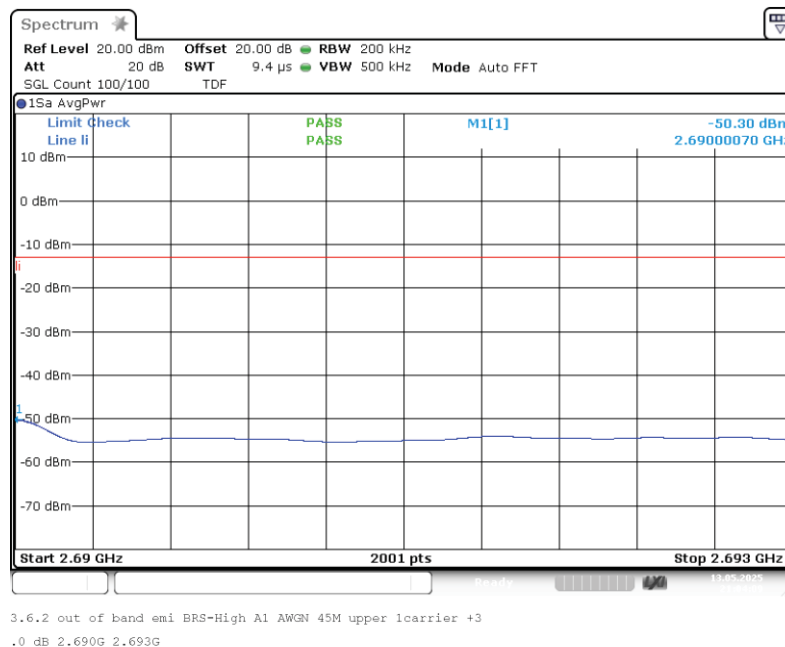
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;
Mod: AWGN 45M; Input power = 0.3 dB < AGC; Number of signals 1



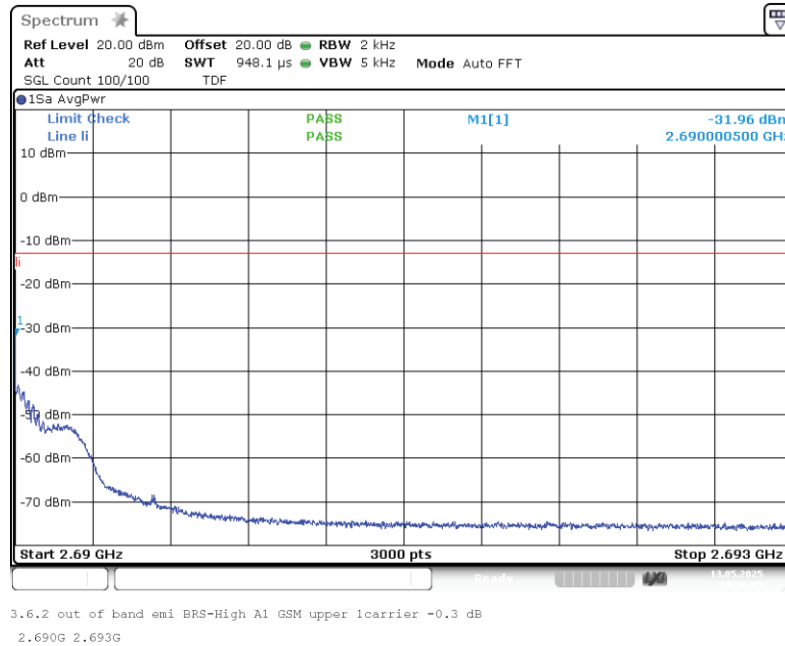
Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;
Mod: AWGN 45M; Input power = 3 dB > AGC; Number of signals 1



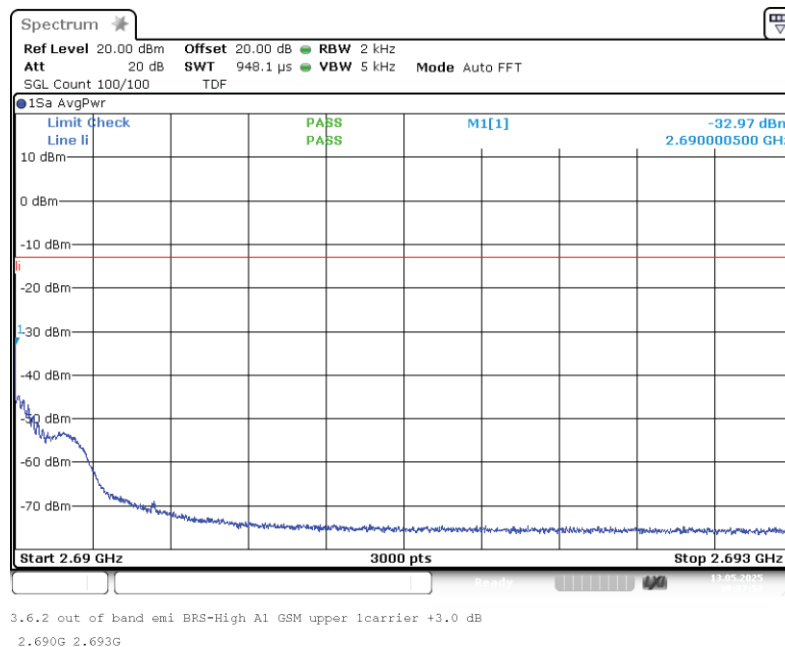
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 1



Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 1





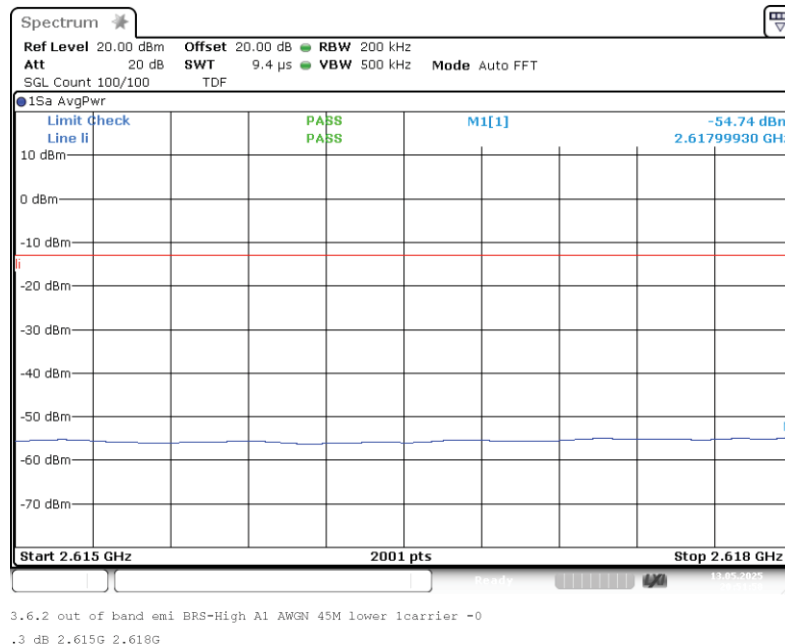


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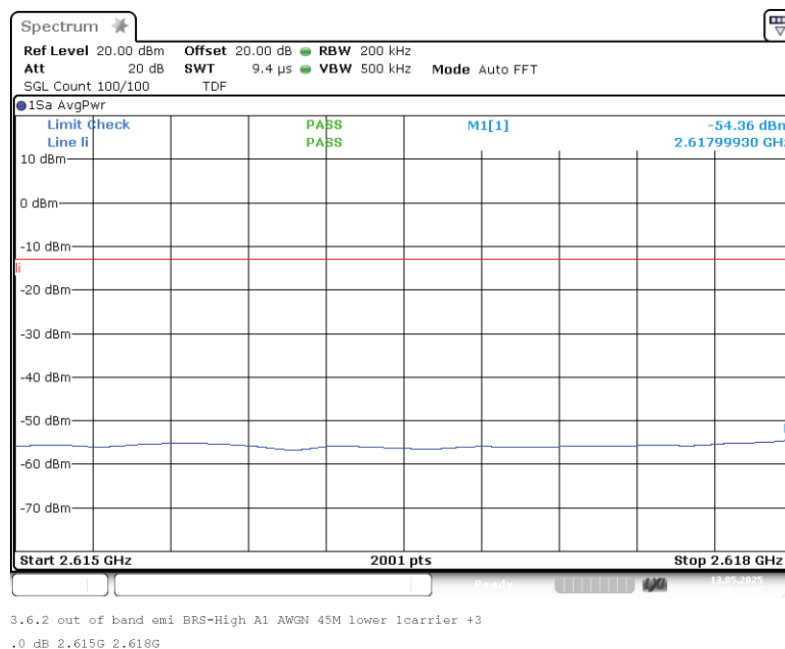
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: lower;
Mod: AWGN 45M; Input power = 0.3 dB < AGC; Number of signals 1



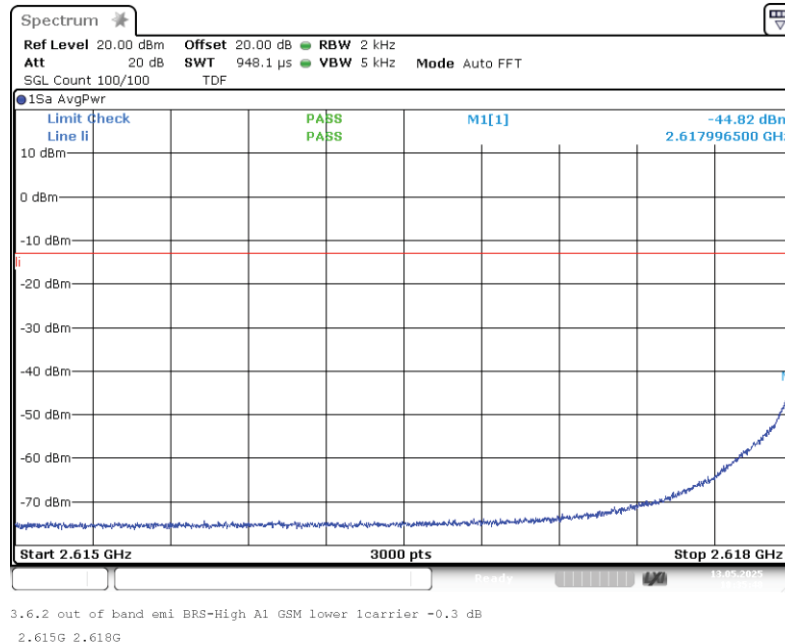
Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: lower;
Mod: AWGN 45M; Input power = 3 dB > AGC; Number of signals 1



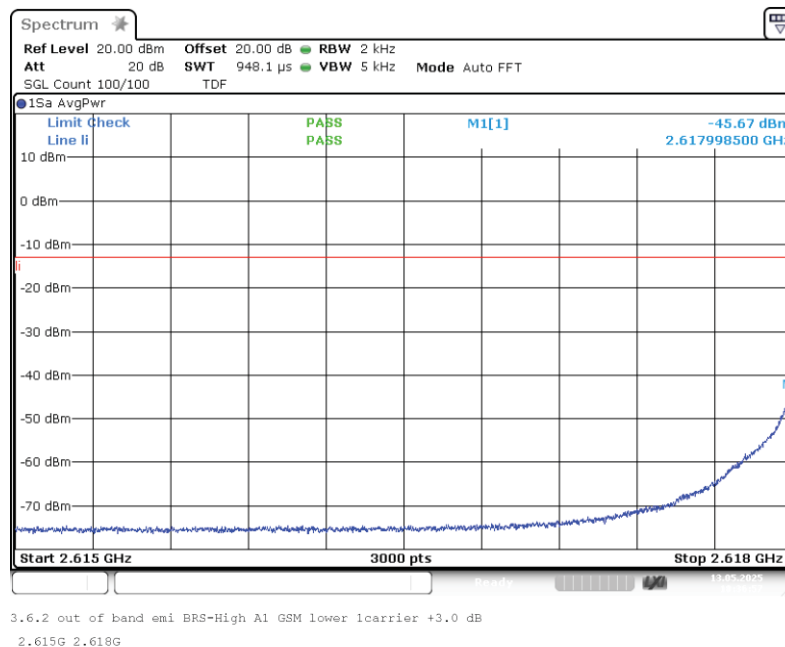
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: lower;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 1



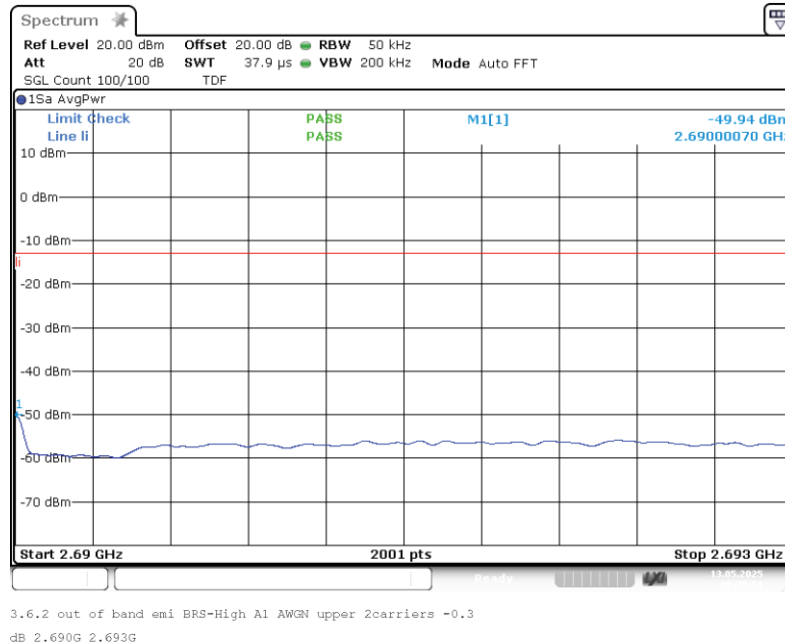
Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: lower;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 1



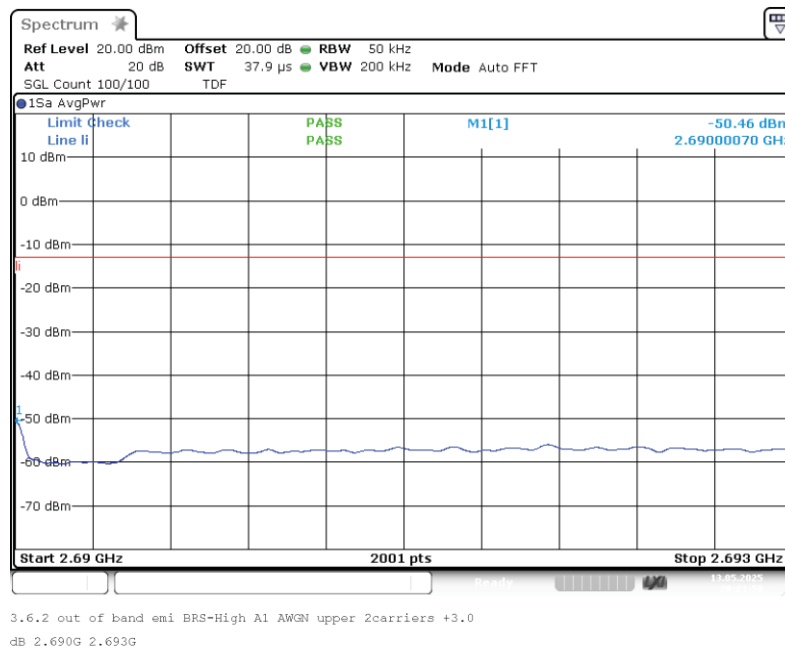
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 2



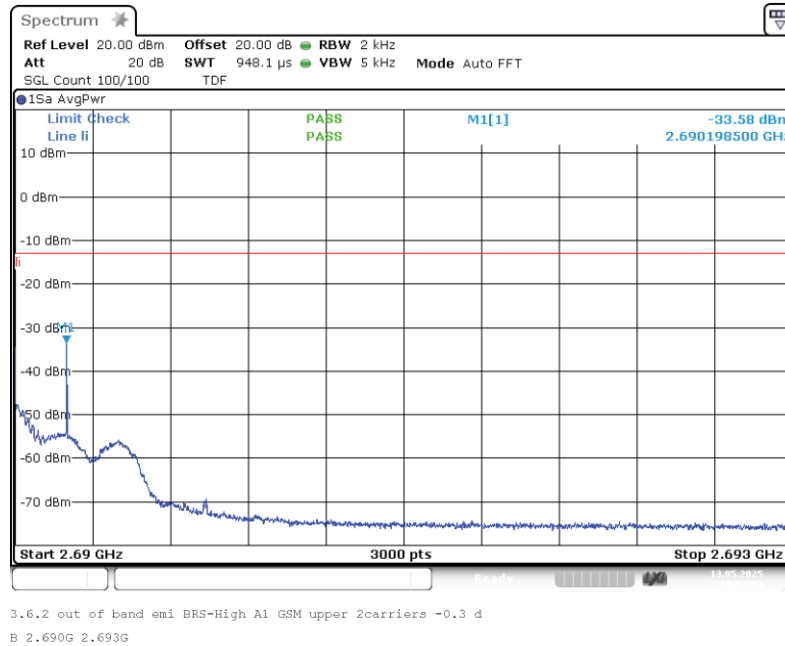
Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;
Mod: AWGN; Input power = 3 dB > AGC; Number of signals 2



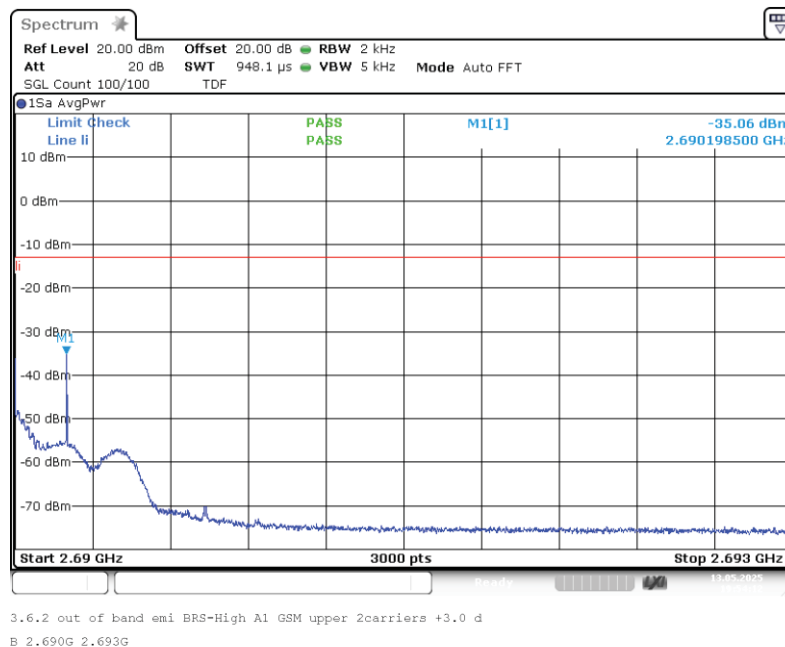
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 2



Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 2



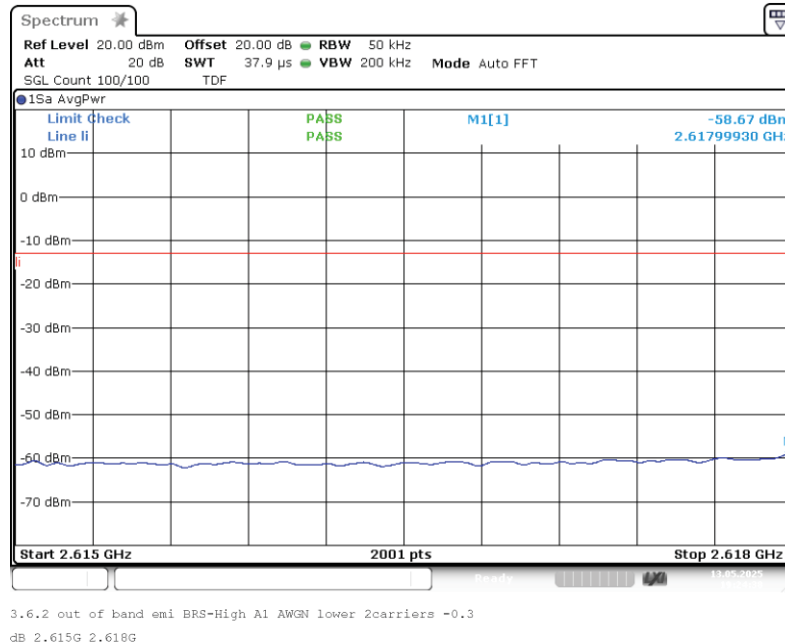


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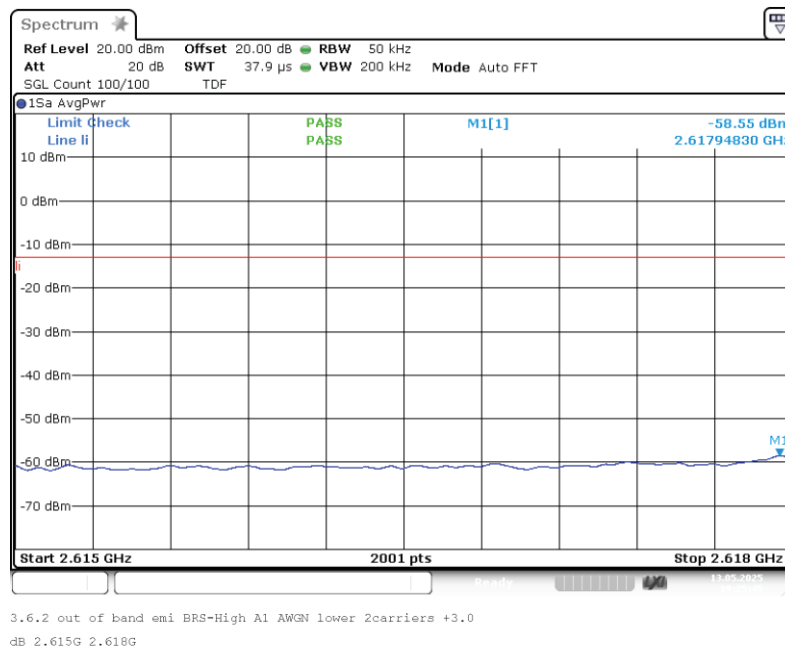
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: lower;
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 2



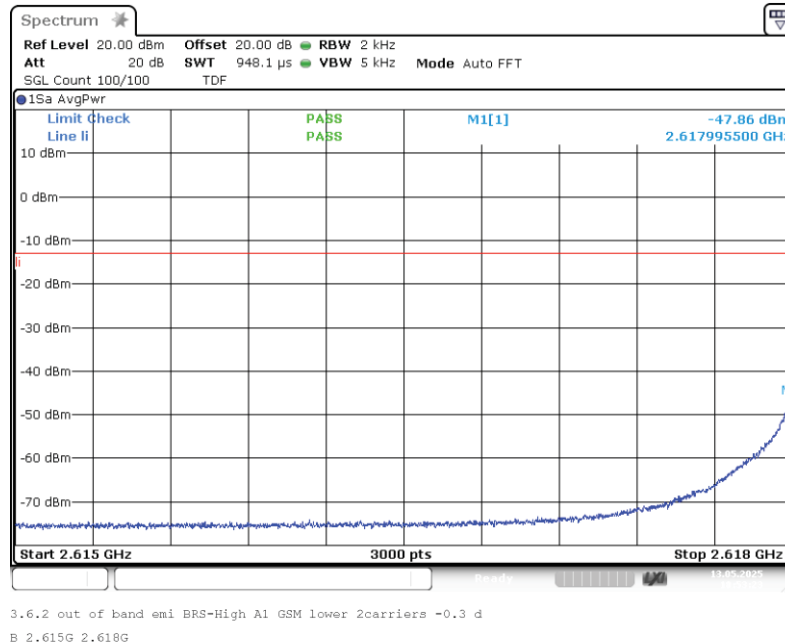
Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: lower;
Mod: AWGN; Input power = 3 dB > AGC; Number of signals 2



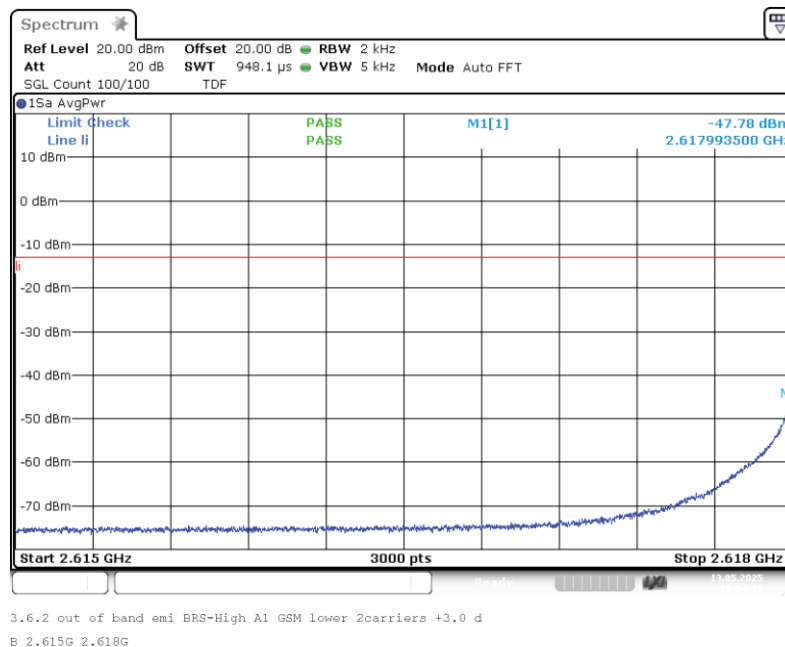
Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: lower;
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 2



Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: lower;
Mod: GSM; Input power = 3 dB > AGC; Number of signals 2





Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

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5.4.5 TEST EQUIPMENT USED

- Conducted

Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

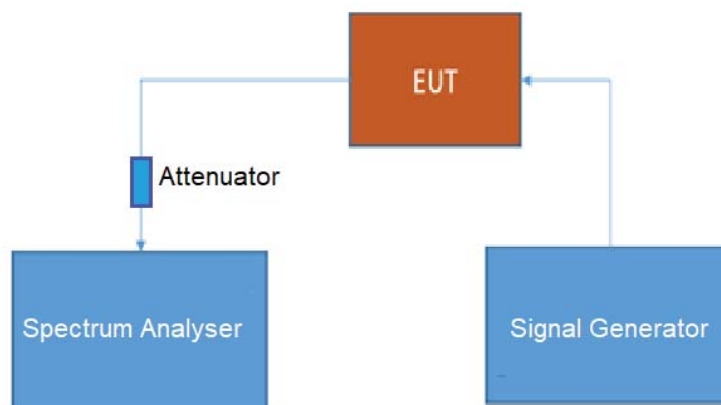
5.5 OUT-OF-BAND REJECTION

Standard FCC Part 27

The test was performed according to:
ANSI C63.26**Test date:** 2025-05-09 – 2025-05-13**Environmental conditions:** 24.0 °C; 26 % r. H., average values of all test dates**Test engineer:** Thomas Hufnagel**5.5.1 TEST DESCRIPTION**

This test case is intended to demonstrate compliance to the out-of-band rejection test case for industrial signal boosters.

The EUT was connected to the test setup according to the following diagram:



The attenuation of the measuring and stimulus path are known for each measured frequency and are considered.

The Spectrum Analyzer settings can be directly found in the measurement diagrams.

5.5.2 TEST REQUIREMENTS/LIMITS

For this test case exists no applicable limit

5.5.3 TEST PROTOCOL

| Band 41 BRS (LBS), downlink | | | | |
|-------------------------------------|--------------------------|--|--|-----------------------------|
| Highest Power Frequency [MHz] | Output Power [dBm] | Lower Highest Power -20 dB Frequency [MHz] | Upper Highest Power -20 dB Frequency [MHz] | 20 dB Bandwidth [MHz] |
| 2538.0 | -0,40 | 2492.490 | 2571.582 | 79.092 |

| Band 41 BRS (MBS), downlink | | | | |
|-------------------------------------|--------------------------|--|--|-----------------------------|
| Highest Power Frequency [MHz] | Output Power [dBm] | Lower Highest Power -20 dB Frequency [MHz] | Upper Highest Power -20 dB Frequency [MHz] | 20 dB Bandwidth [MHz] |
| 2602.7 | -0.88 | 2570.331 | 2615.691 | 45.360 |

| Band 41 BRS (UBS), downlink | | | | |
|-------------------------------------|--------------------------|--|--|-----------------------------|
| Highest Power Frequency [MHz] | Output Power [dBm] | Lower Highest Power -20 dB Frequency [MHz] | Upper Highest Power -20 dB Frequency [MHz] | 20 dB Bandwidth [MHz] |
| 2660.1 | -0.54 | 2614.490 | 2693.546 | 79.056 |

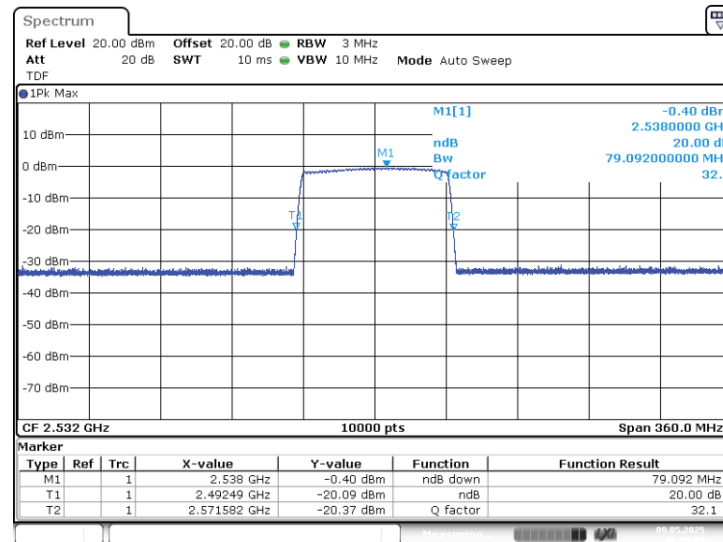
Remark: Please see next sub-clause for the measurement plots.

Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

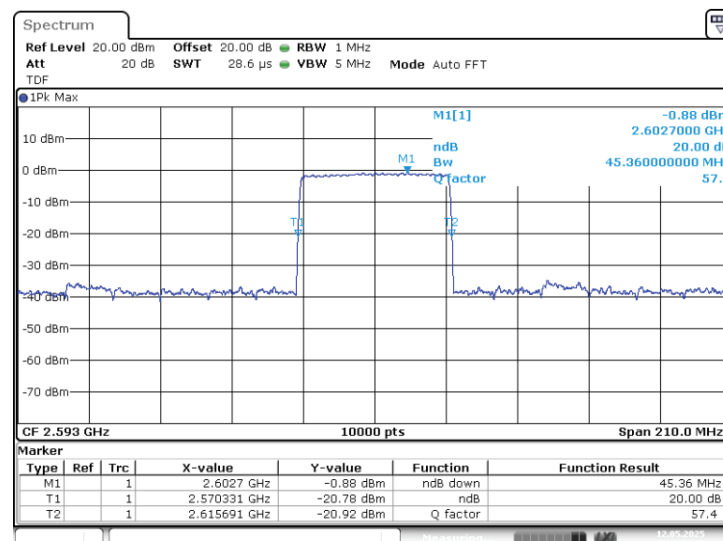
5.5.4 MEASUREMENT PLOT

Frequency band = Band 41 BRS (LBS); Direction = RF downlink



3.3 Out of band rejection BRS-Low A1 2.53200G
 _20dB

Frequency band = Band 41 BRS (MBS); Direction = RF downlink



3.3 Out of band rejection BRS-Mid A2 2.59300G
 _20dB

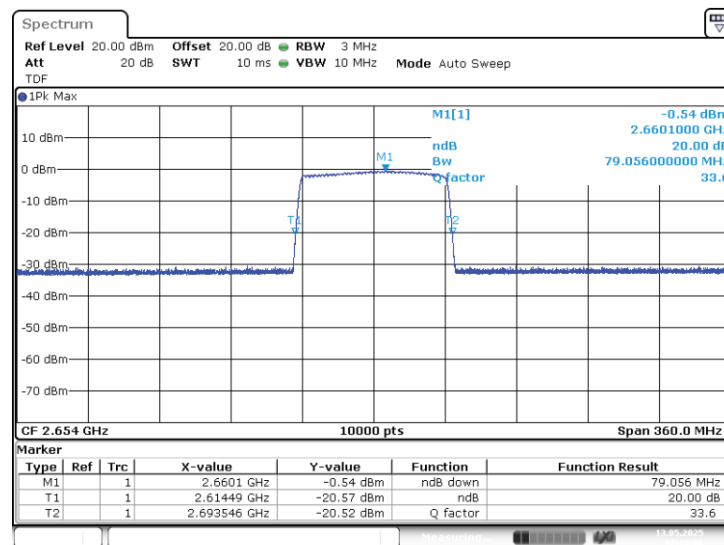


Test Report No.: 25-0095

Tests performed on UAP-R [BRS]

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Frequency band = Band 41 BRS (UBS); Direction = RF downlink



3.3 Out of band rejection BRS-High A1 2.65400G
_20dB



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Tests performed on UAP-R [BRS]

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5.5.5 TEST EQUIPMENT USED

- Conducted

6 TEST EQUIPMENT

6.1 CONDUCTED EMISSIONS

| Ref.No. | Type | Description | Manufacturer | Inventory no. | Last calibration | Calibration due |
|---------|-----------------------------|---|-----------------|------------------|------------------|-----------------|
| 1.1 | FSV40 | Signal Analyzer 10 Hz - 40 GHz | Rohde & Schwarz | E-003138 | 2023-10 | 2025-10 |
| 1.2 | SMBV100A | Vector Signal Generator 9 kHz - 6 GHz | Rohde & Schwarz | E-003206 | 2023-01 | 2026-01 |
| 1.3 | CA-2.9MF-20-40-10W-RDC | Attenuator 20 dB | Tactron | E-004057 | 2024-10 | 2026-10 |
| 1.4 | testo 175 H1 | Thermo- Hygrometer | Testo | E-003922 | 2024-12 | 2025-12 |
| 1.5 | Auto Messung 1 Channel V8.1 | Software | Bureau Veritas | Software V8.1 | --- | --- |

The calibration interval is the time interval between "Last Calibration" and "Calibration Due."

6.2 ANTENNA FACTORS. CABLE LOSS AND SAMPLE CALCULATION

The used factors for antennas, cables etc. are deposited in the used test systems (LabView program and BAT EMC programm). They are actualised by the returning calibration control.

Sample calculation

$E \text{ (dB } \mu\text{V/m)} = U \text{ (dB } \mu\text{V)} + AF \text{ (dB 1/m)} + \text{Corr. (dB)}$
U = Receiver reading
AF = Antenna factor
Corr. = sum of single correction factors of used cables, switch unit, distance correction, amplifier (if applicable)
Linear interpolation will be used for frequencies in between the values in the table.
distance correction = $-20 * \text{LOG} (d_{\text{Limit}} / d_{\text{used}})$
Linear interpolation will be used for frequencies in between the values in the table.
Table shows an extract of values.



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7 PHOTO REPORT

Please see separate photo report.



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Annex A: Accreditation certificate (for information)

The accreditation relates to competences stated on the accreditation certificate. The current certificate is available on the homepage of the DAkkS and can be downloaded under accredited bodies with the processing number:

<https://www.dakks.de/en>



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Annex B: Additional information provided by client

None.

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