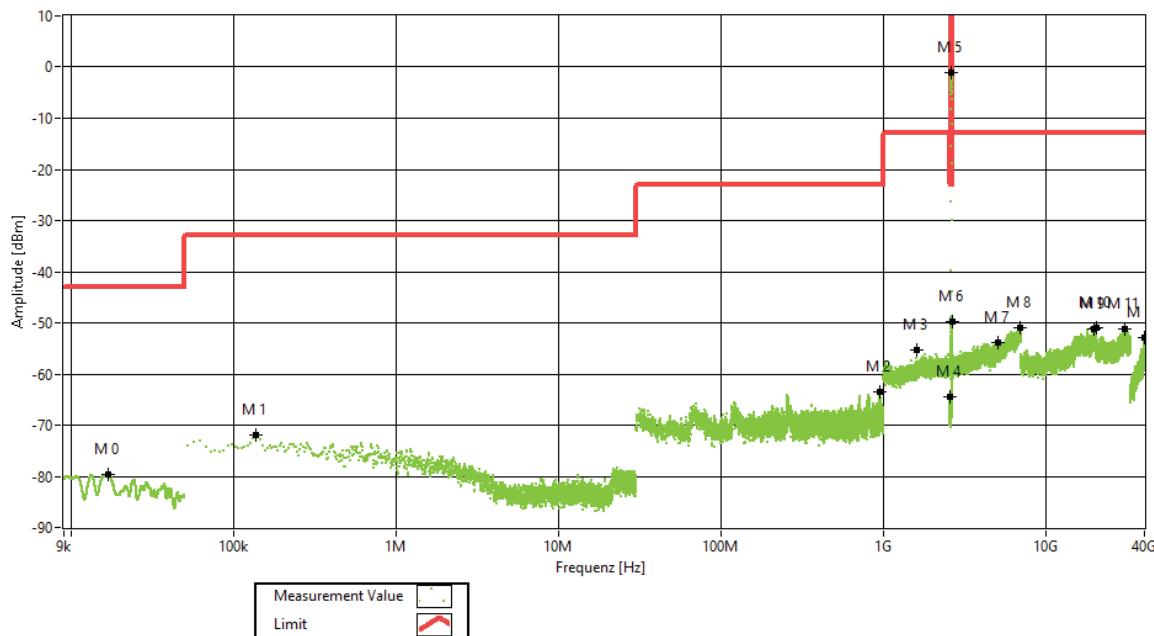
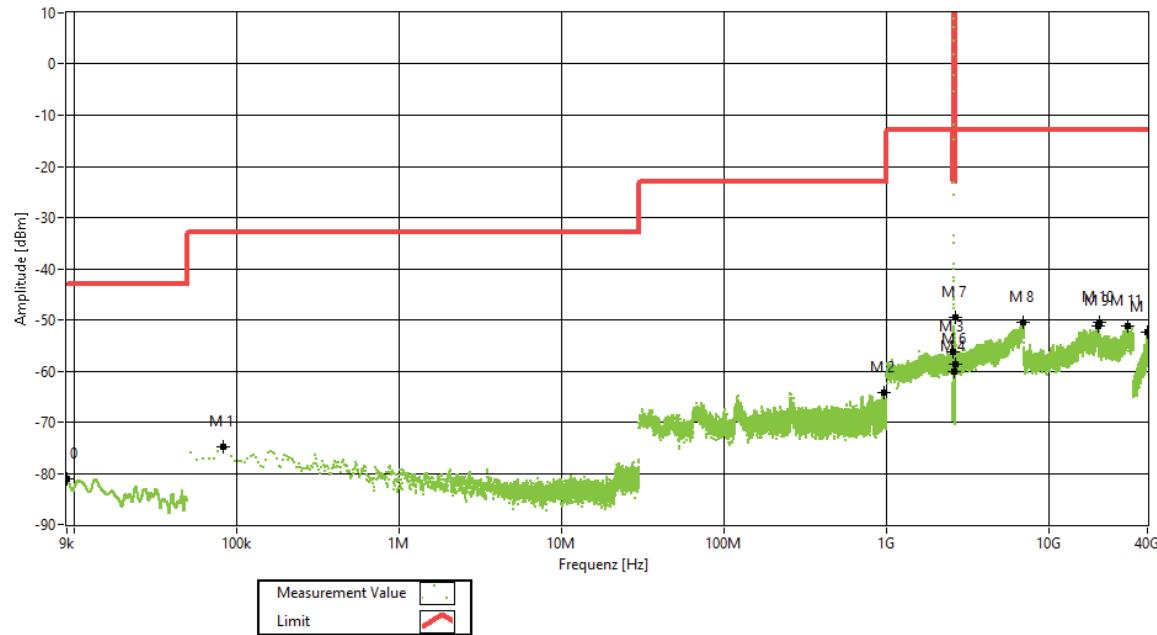


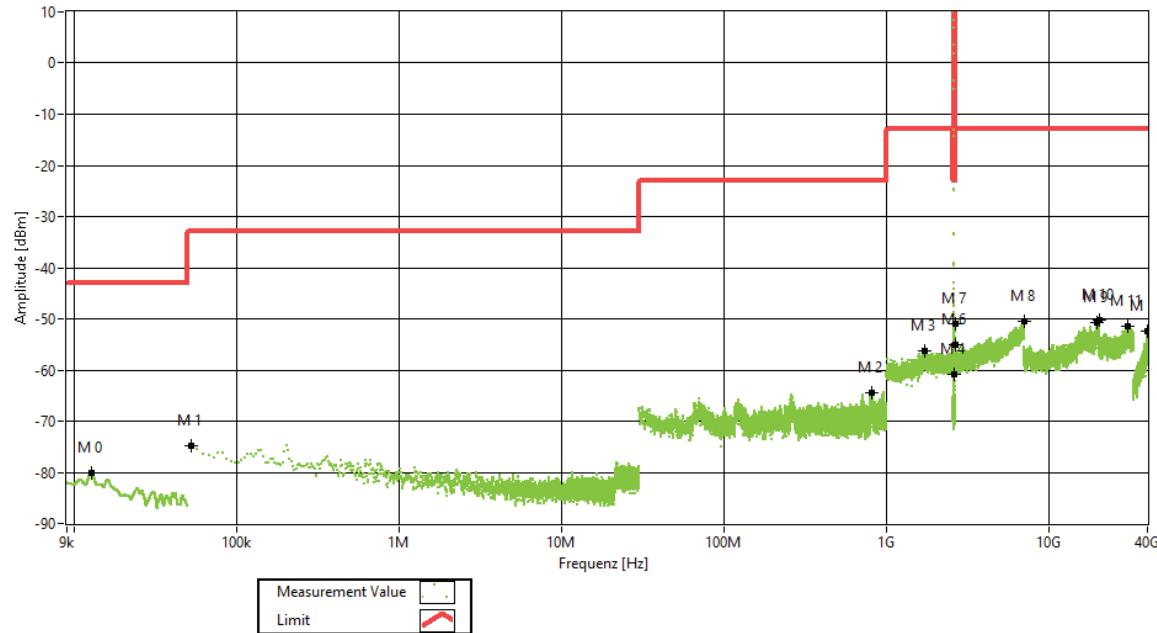
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = high,  
Direction = RF downlink, Signal type = AWGN



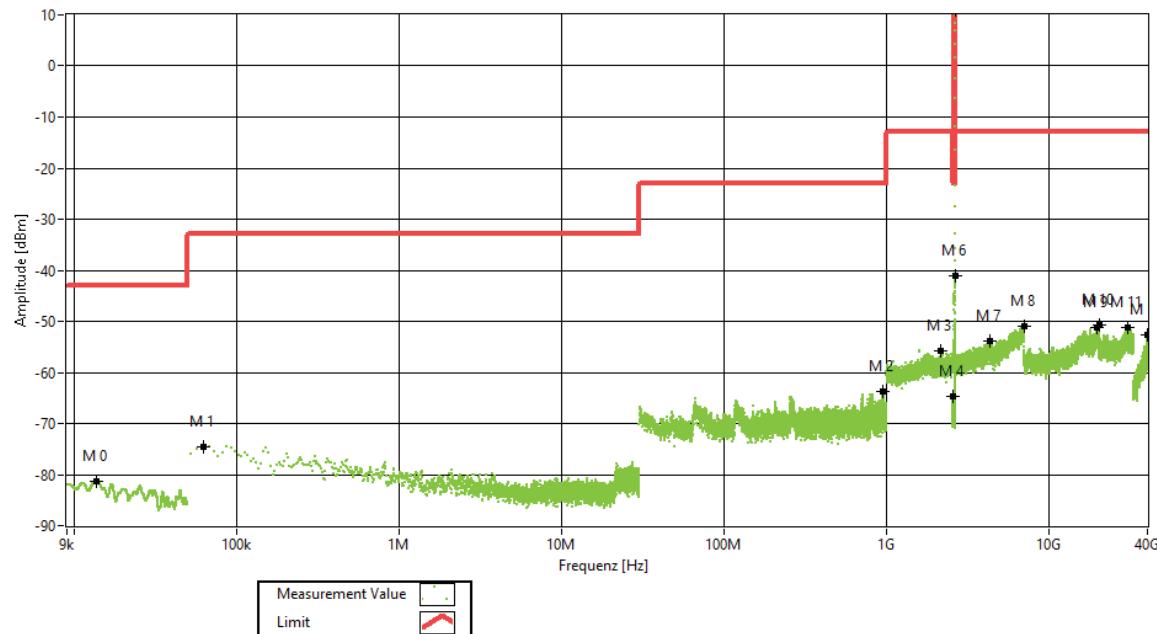
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = low,  
Direction = RF downlink, Signal type = Narrowband



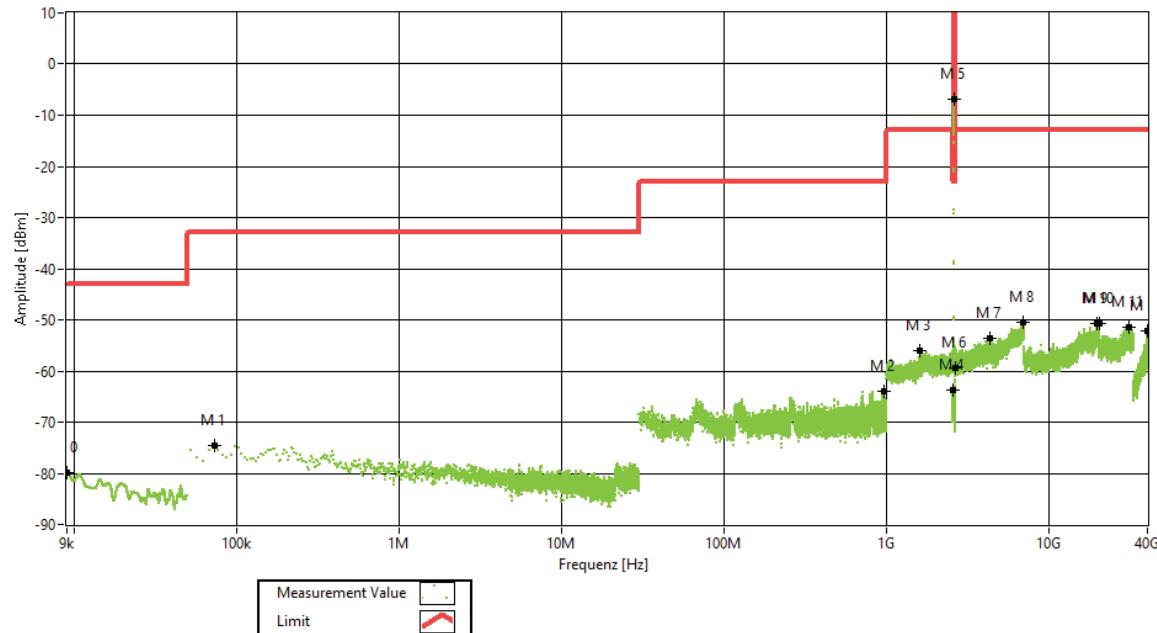
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = mid,  
Direction = RF downlink, Signal type = Narrowband



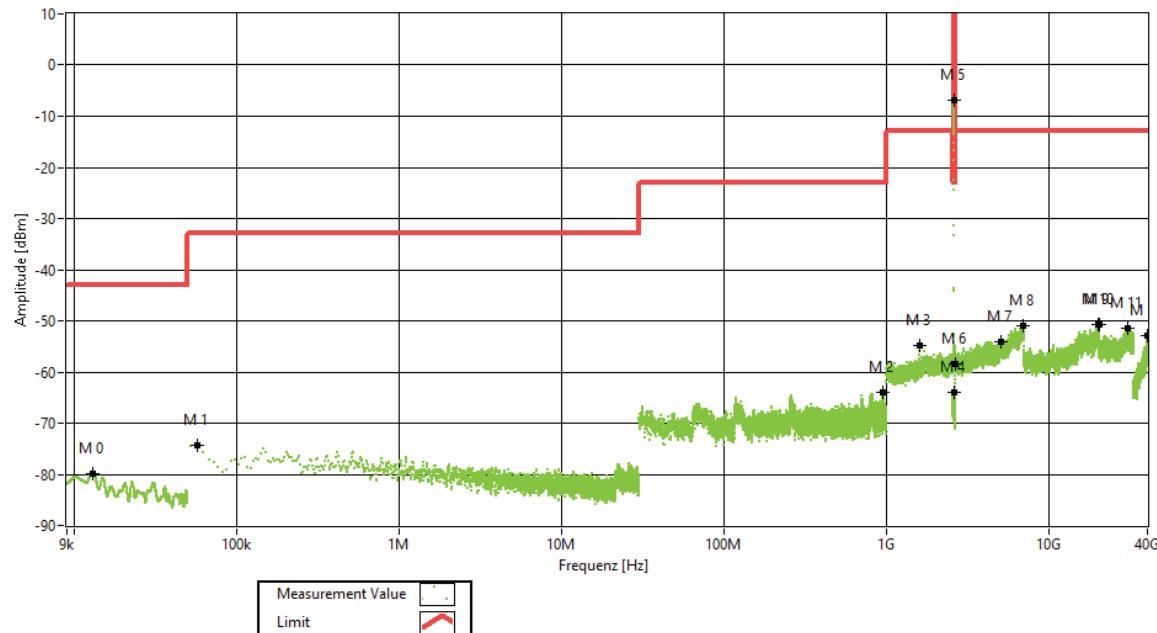
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = high,  
Direction = RF downlink, Signal type = Narrowband



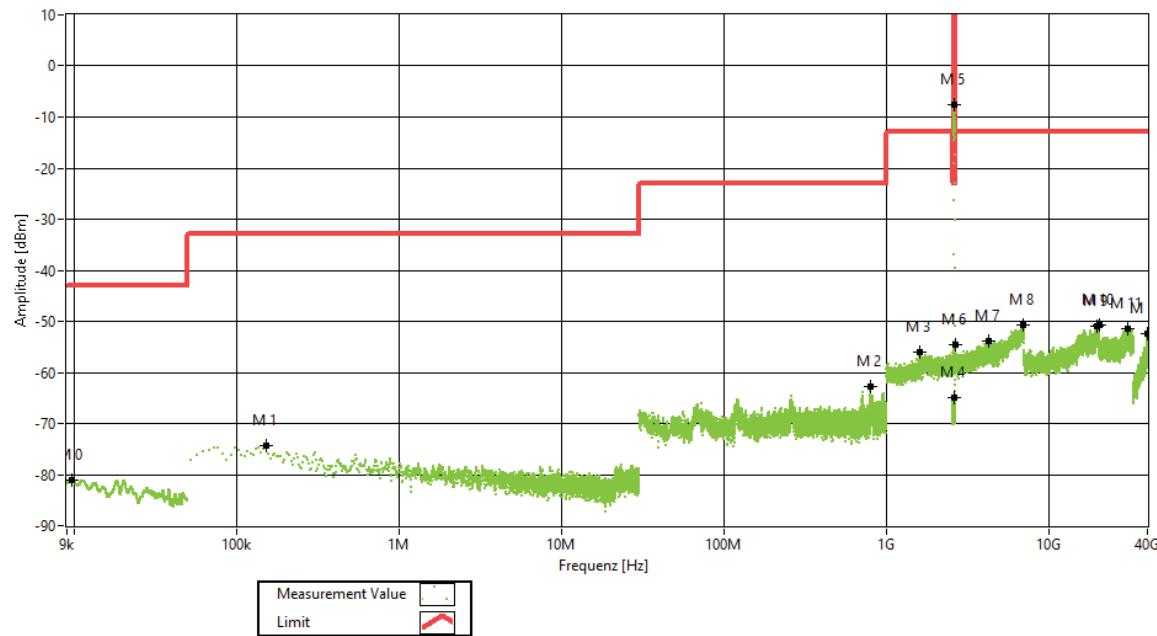
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = low,  
Direction = RF downlink, Signal type = AWGN 25M



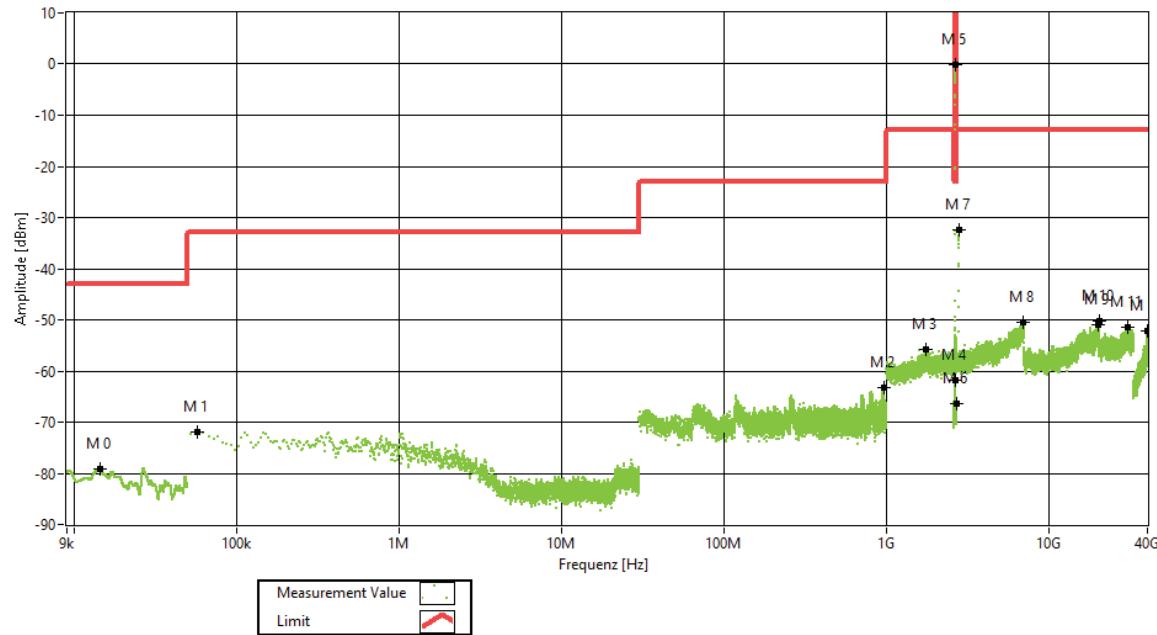
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = mid,  
Direction = RF downlink, Signal type = AWGN 25M



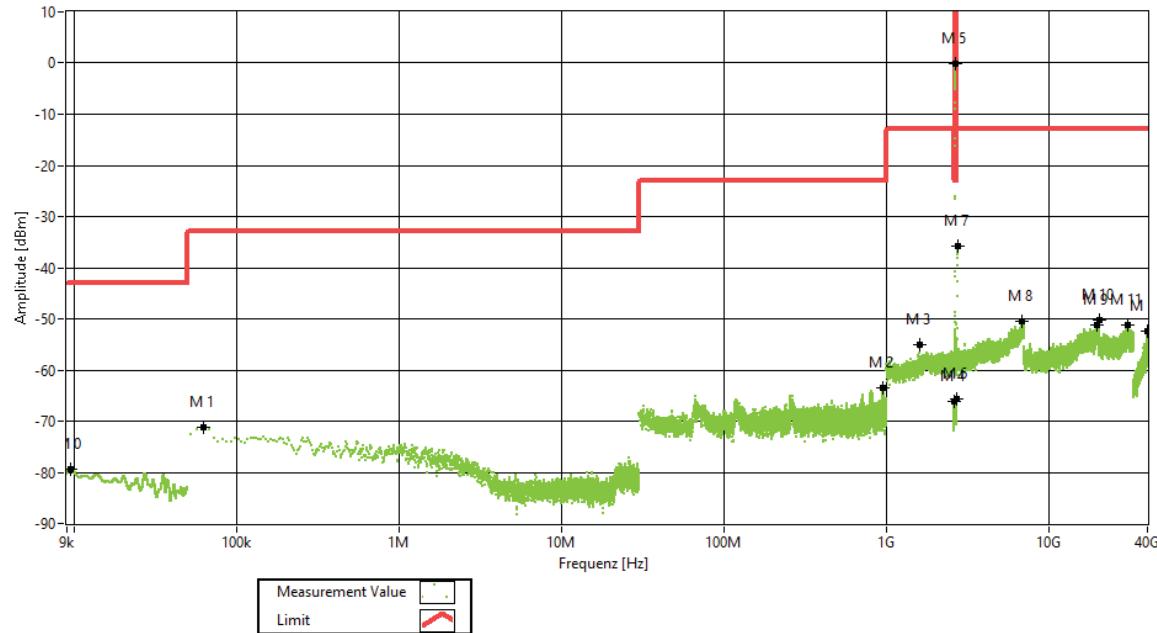
Frequency band = Band 41 BRS (MBS), Antenna 1, Test frequency = high,  
Direction = RF downlink, Signal type = AWGN 25M



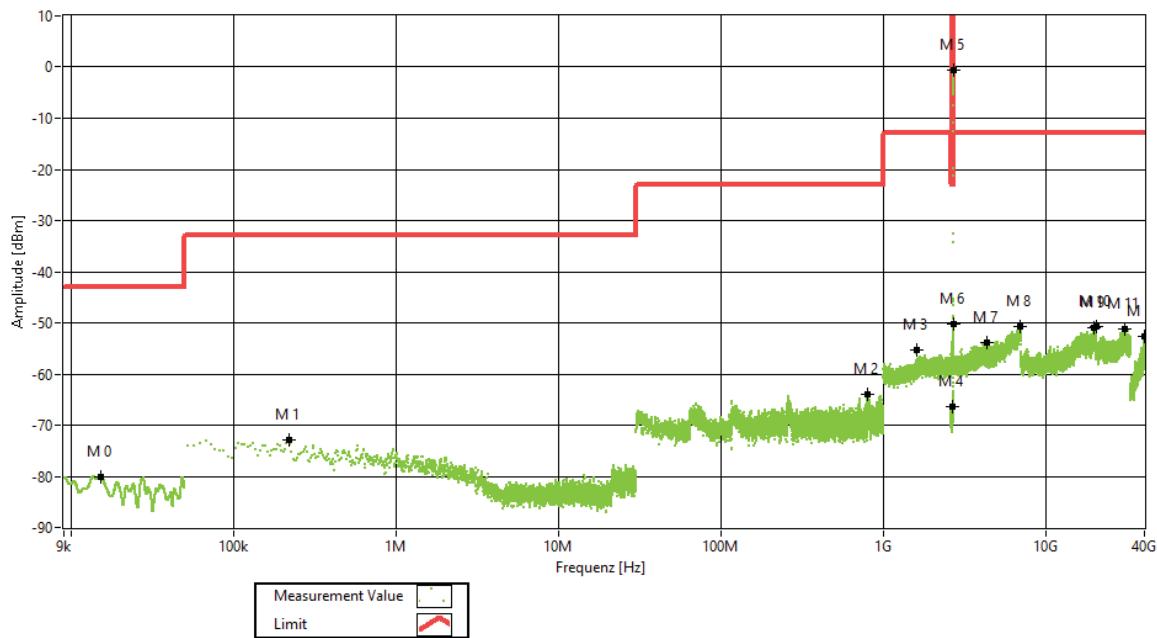
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = low,  
Direction = RF downlink, Signal type = AWGN



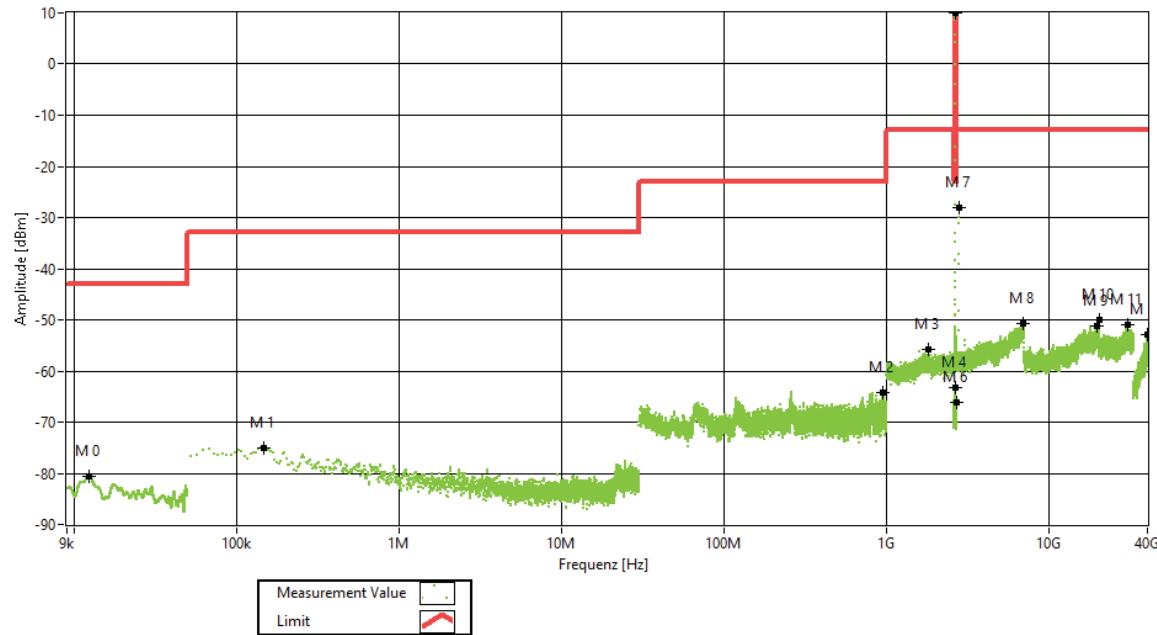
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = mid,  
Direction = RF downlink, Signal type = AWGN



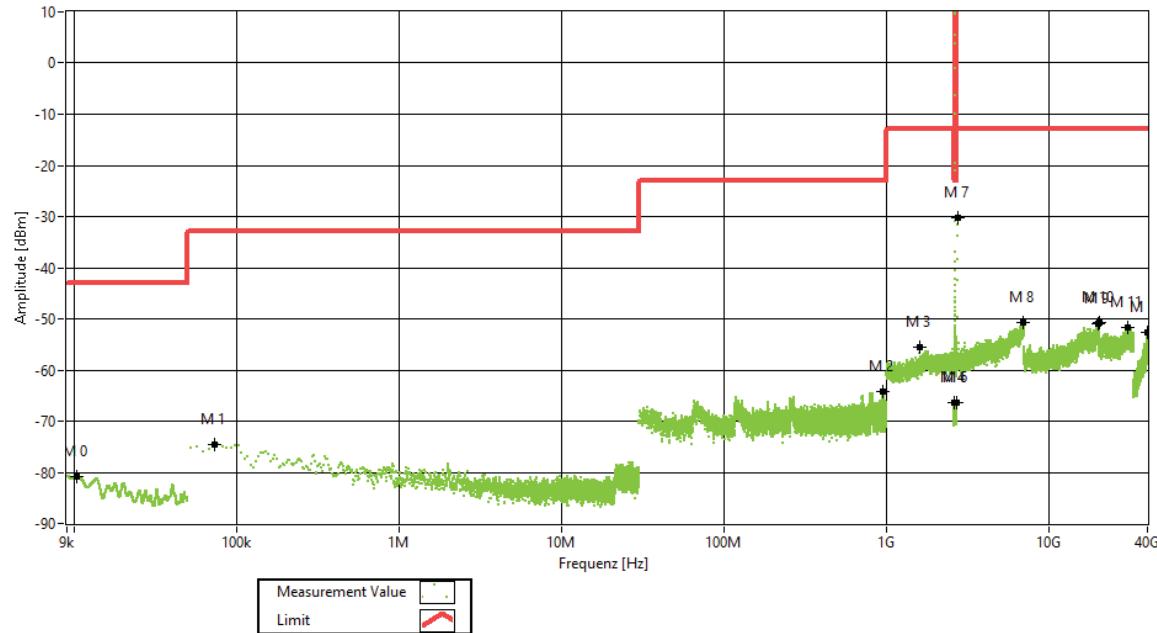
Frequency band = Band 41 BRS (UBS), Test frequency = high,  
Direction = RF downlink, Signal type = AWGN



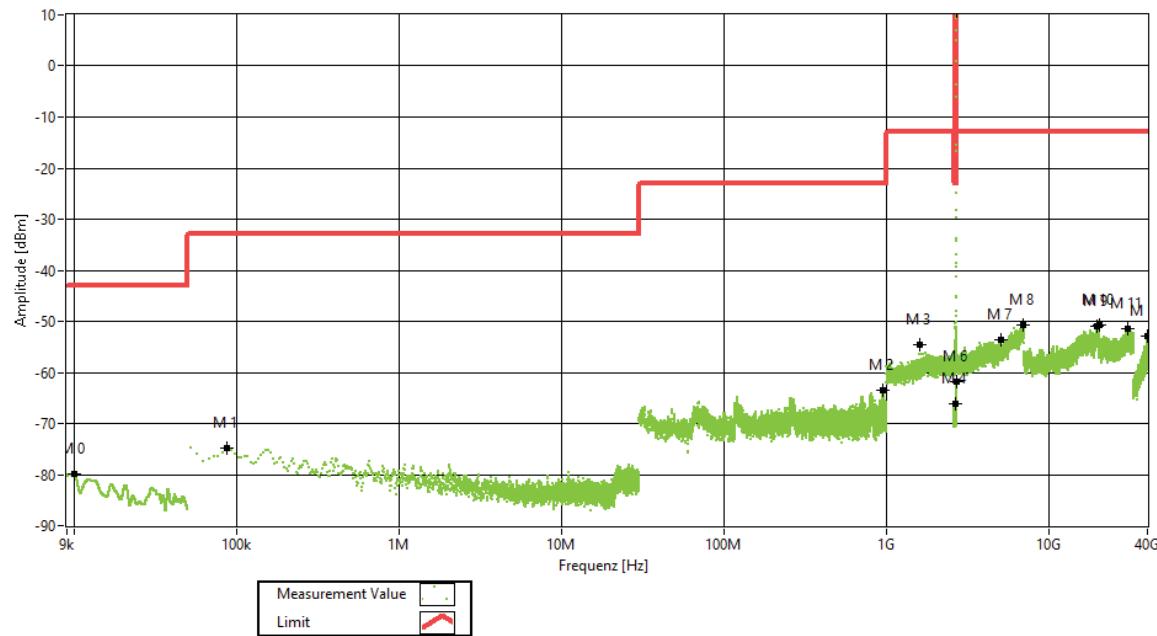
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = low,  
 Direction = RF downlink, Signal type = Narrowband



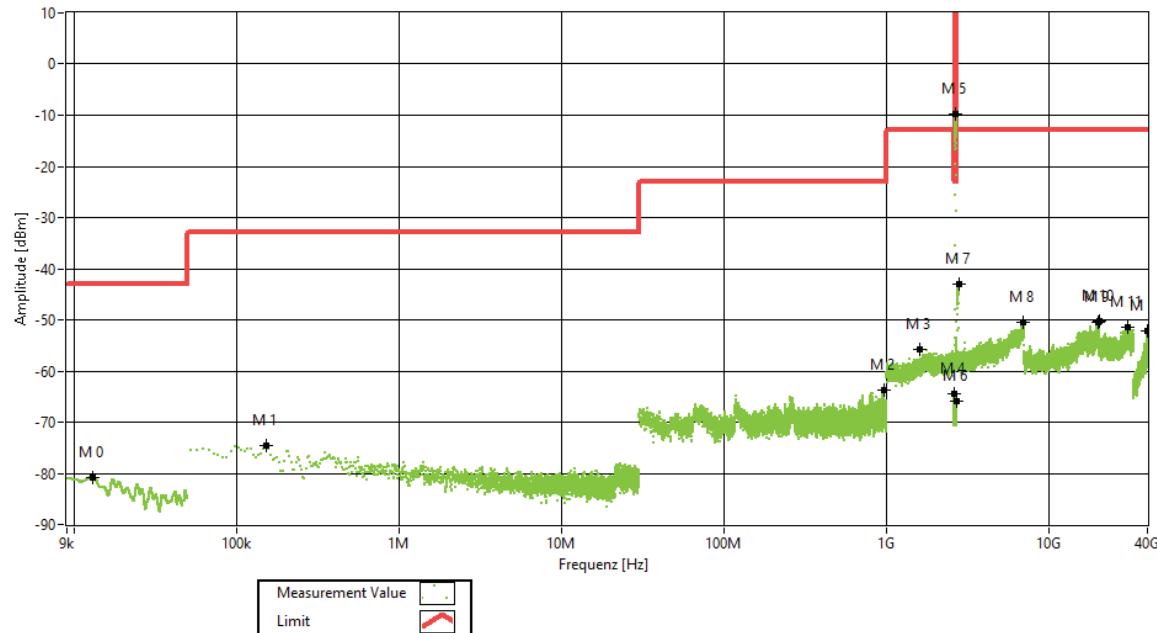
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = mid,  
 Direction = RF downlink, Signal type = Narrowband



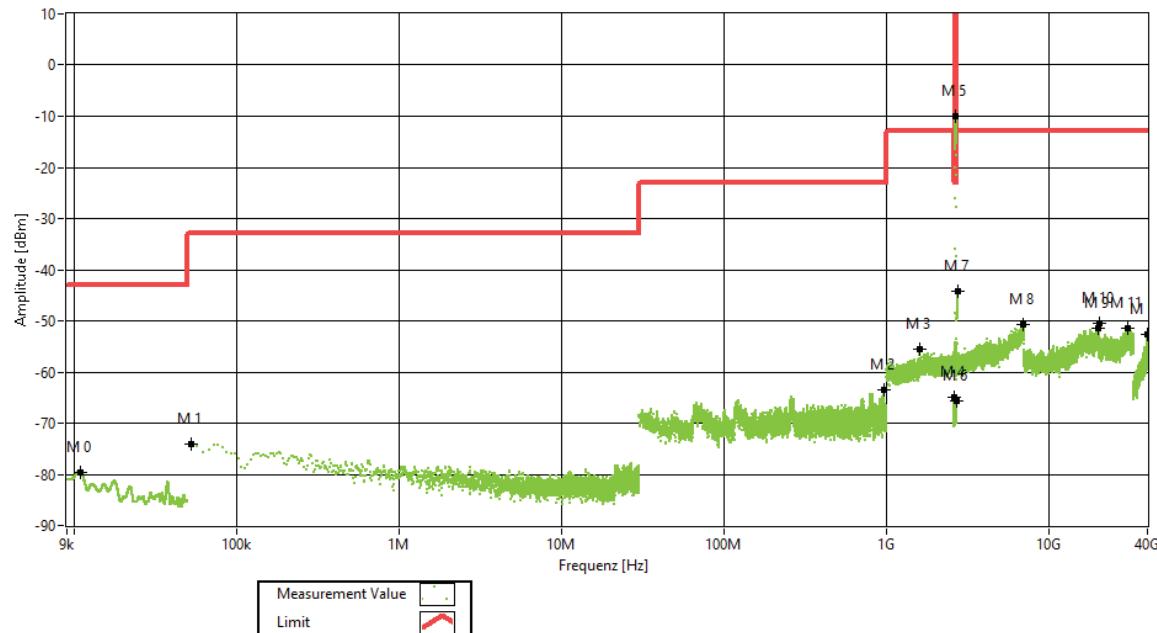
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = high,  
Direction = RF downlink, Signal type = Narrowband



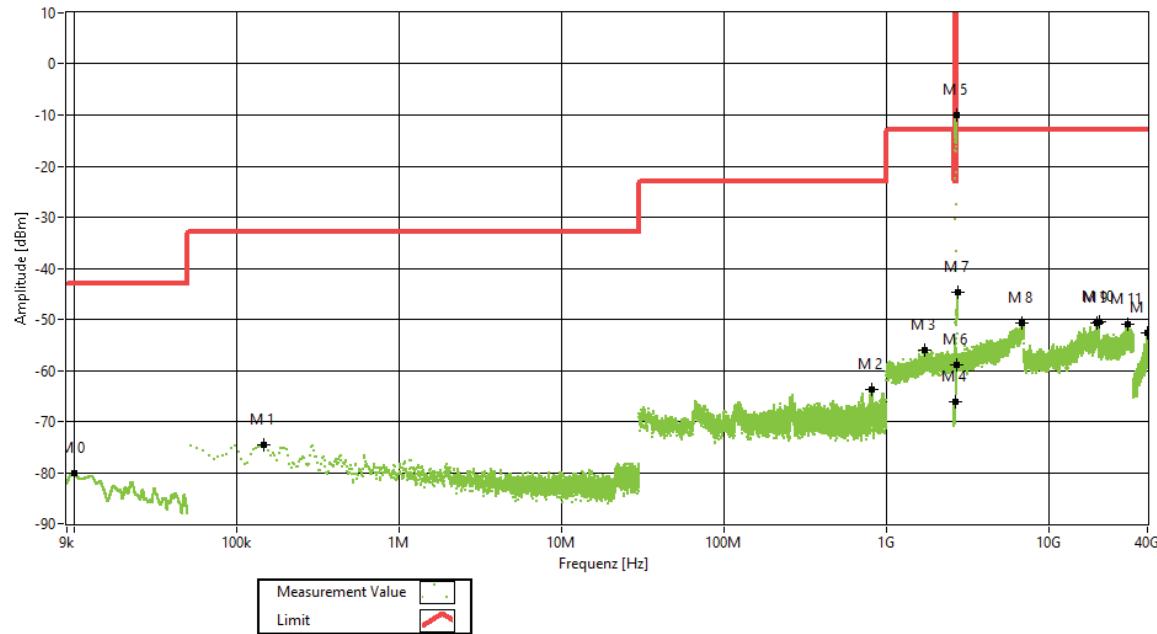
Frequency band = Band 41 BRS (UBS), Antenna 1, Test frequency = low,  
Direction = RF downlink, Signal type = AWGN 45M



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





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**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

#### 5.3.5 TEST EQUIPMENT USED

- Conducted

## 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

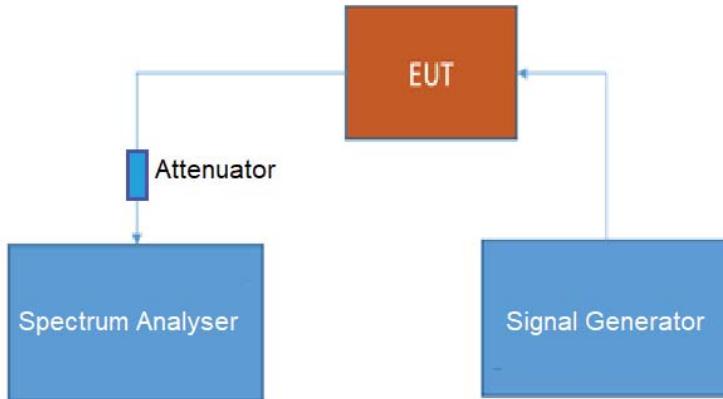
**Environmental conditions:** 24.0 °C; 26 % r. H., average values of all test dates

**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.



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#### 5.4.2 TEST REQUIREMENTS/LIMITS

##### Abstract 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.



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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



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**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

#### 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]	
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

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

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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]	
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

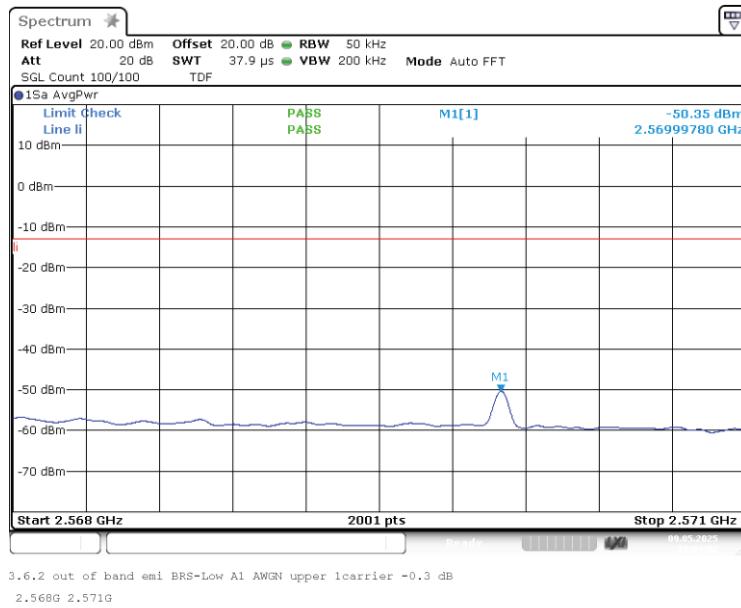


<b>Band 41 BRS (UBS), downlink, Number of input signals = 1</b>							
<b>Signal Type</b>	<b>Input power</b>	<b>Band edge</b>	<b>Signal Frequency [MHz]</b>	<b>Input power [dBm]</b>	<b>Maximum Out-of-band Power [dBm]</b>	<b>Limit Out-of-band Power [dBm]</b>	<b>Margin to Limit [dB]</b>
Wideband	0.3 dB < 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

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

#### 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

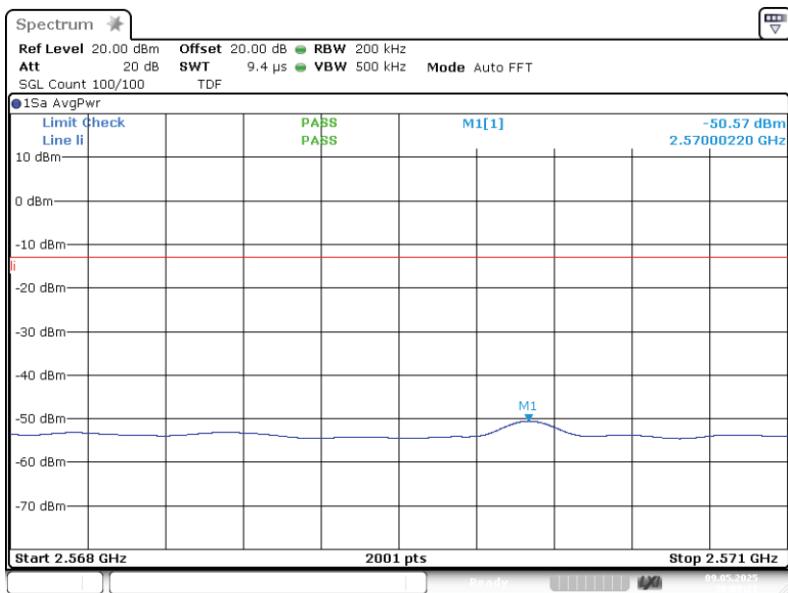




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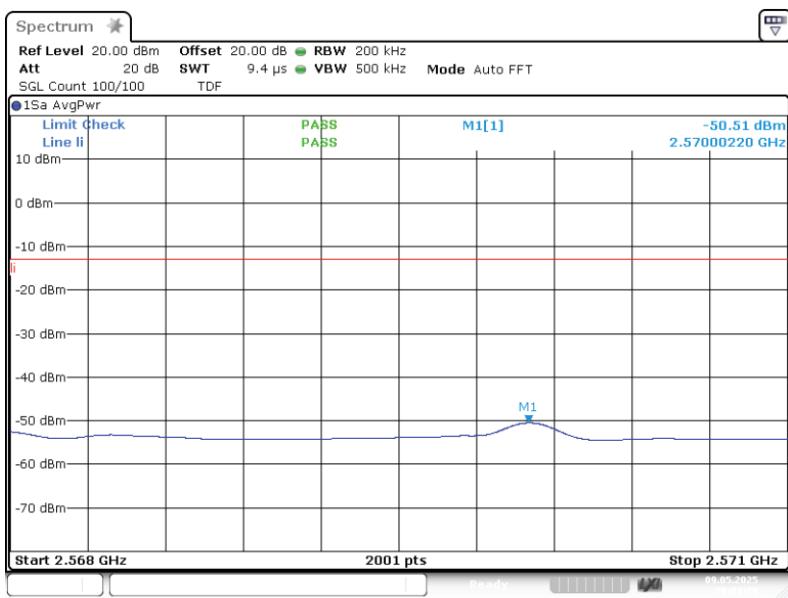
**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

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



3.6.2 out of band emi BRS-Low Al AWGN 45M upper 1carrier -0.  
3 dB 2.568G 2.571G

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

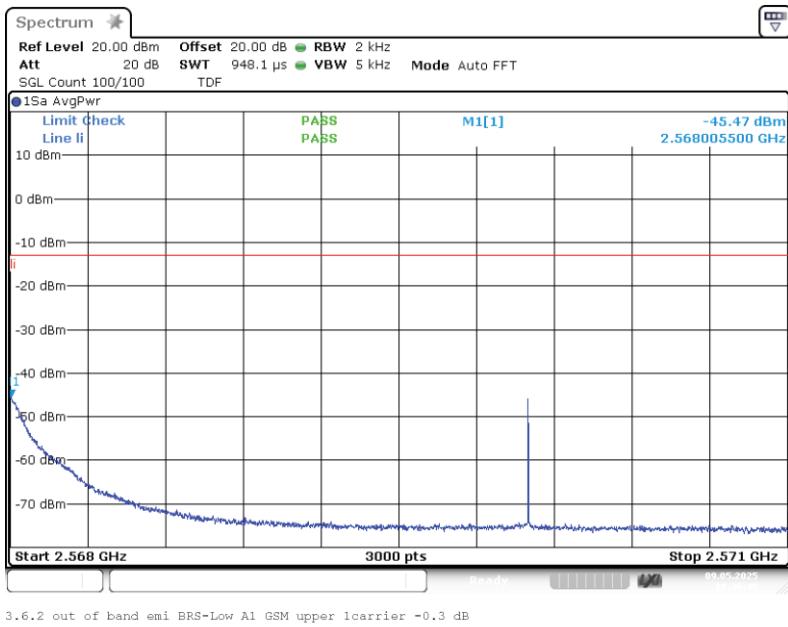


3.6.2 out of band emi BRS-Low Al AWGN 45M upper 1carrier +3.  
0 dB 2.568G 2.571G

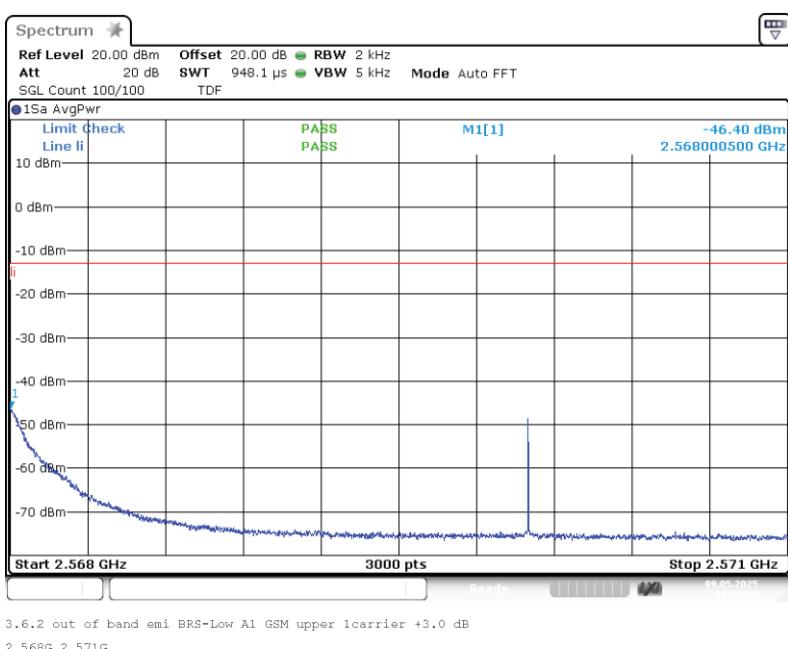
The test results relate only to the tested item. The sample has been provided by the client.

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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

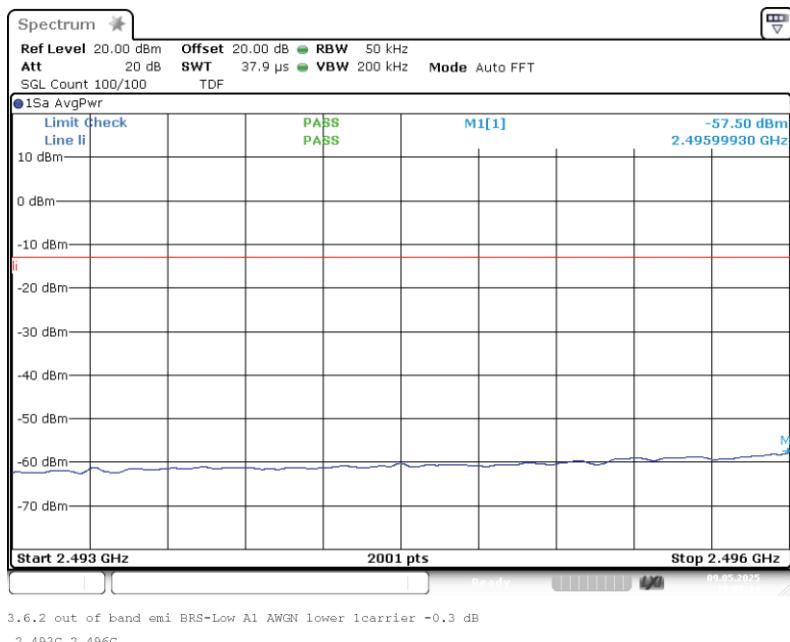




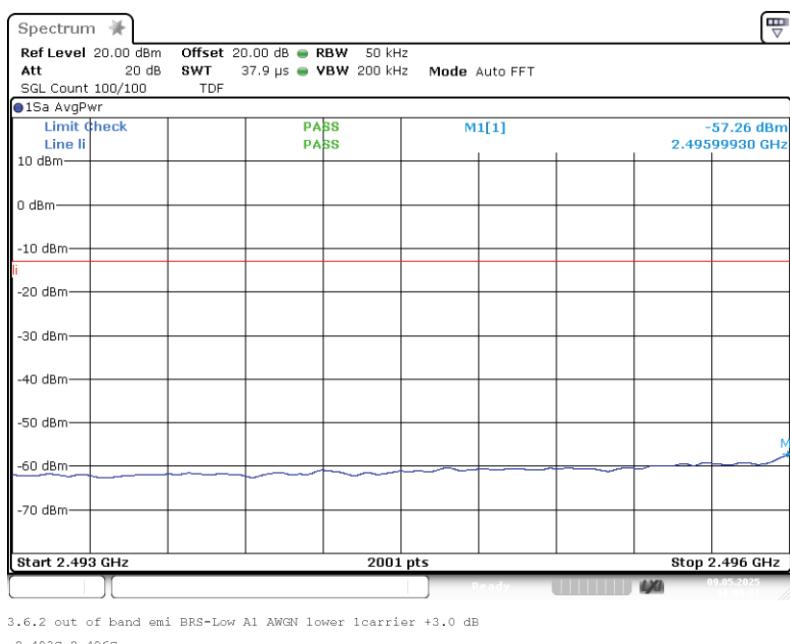
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**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;  
Mod: AWGN; 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

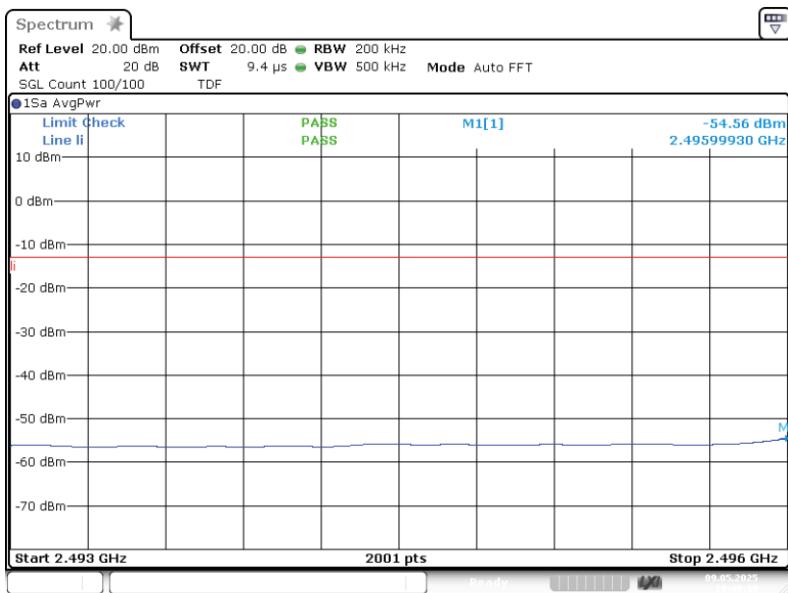




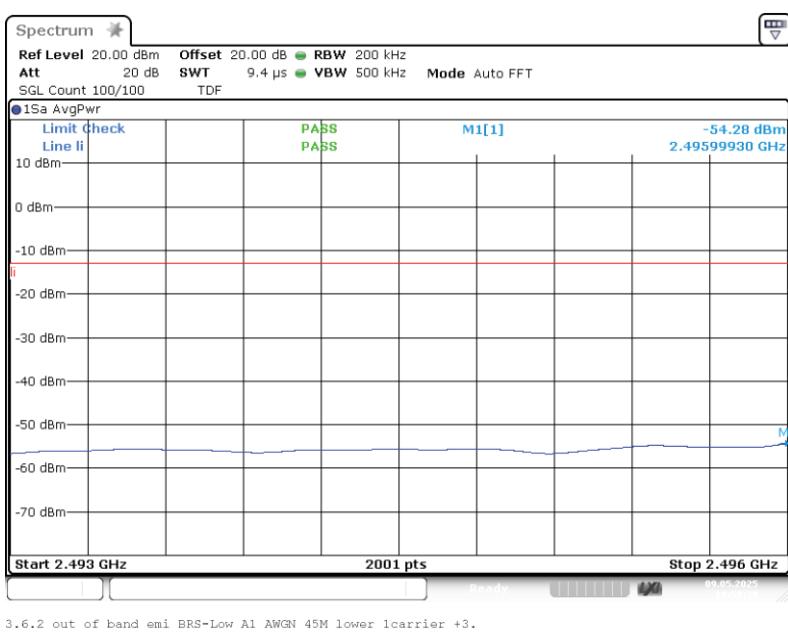
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**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

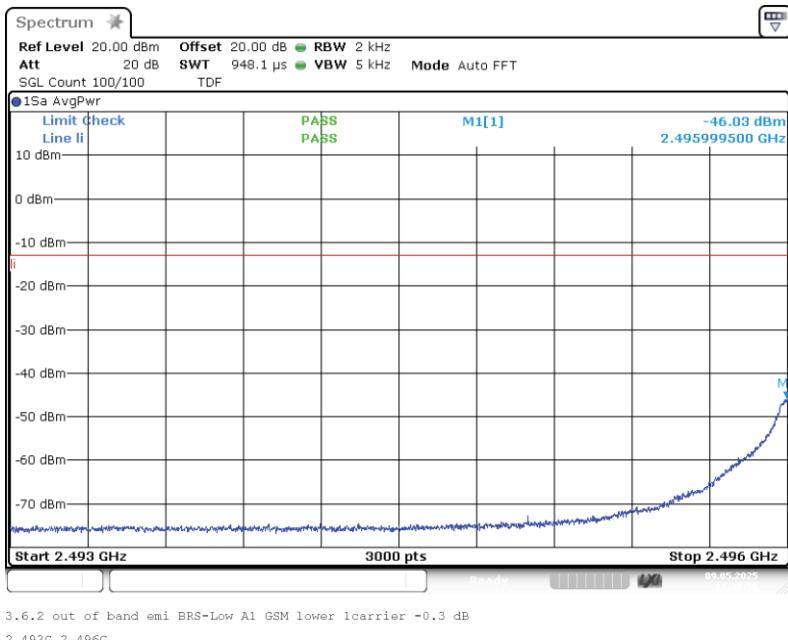
Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;  
Mod: AWGN 45M; Input power = 0.3 dB < AGC; Number of signals 1



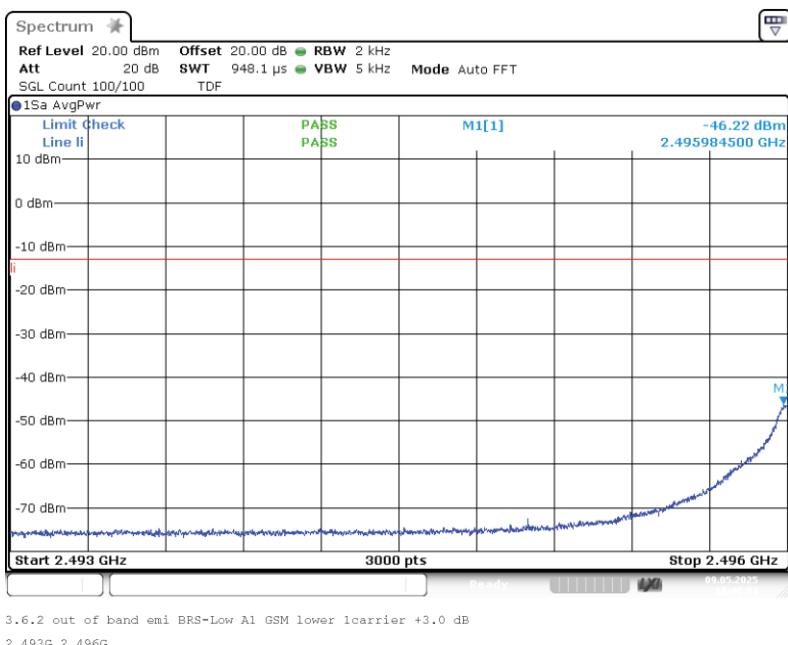
Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;  
Mod: AWGN 45M; Input power = 3 dB > AGC; Number of signals 1



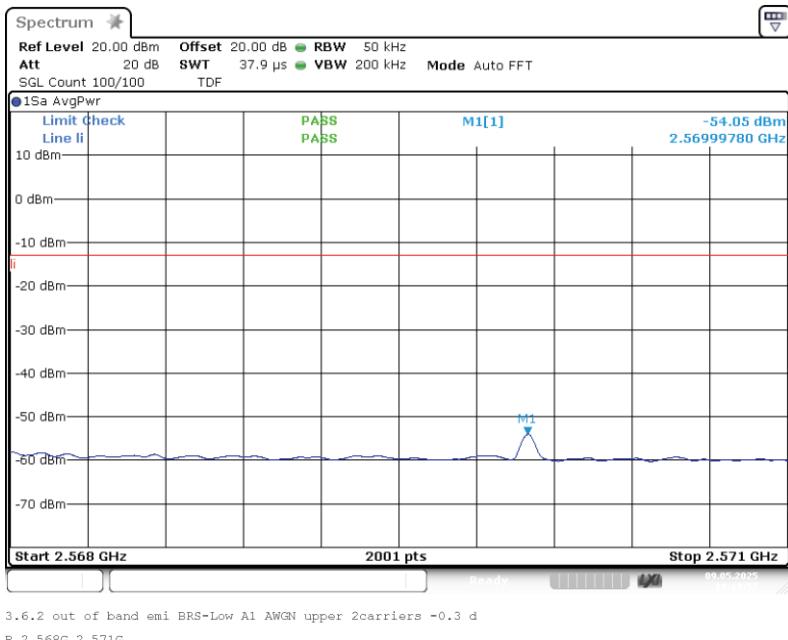
Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;  
 Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 1



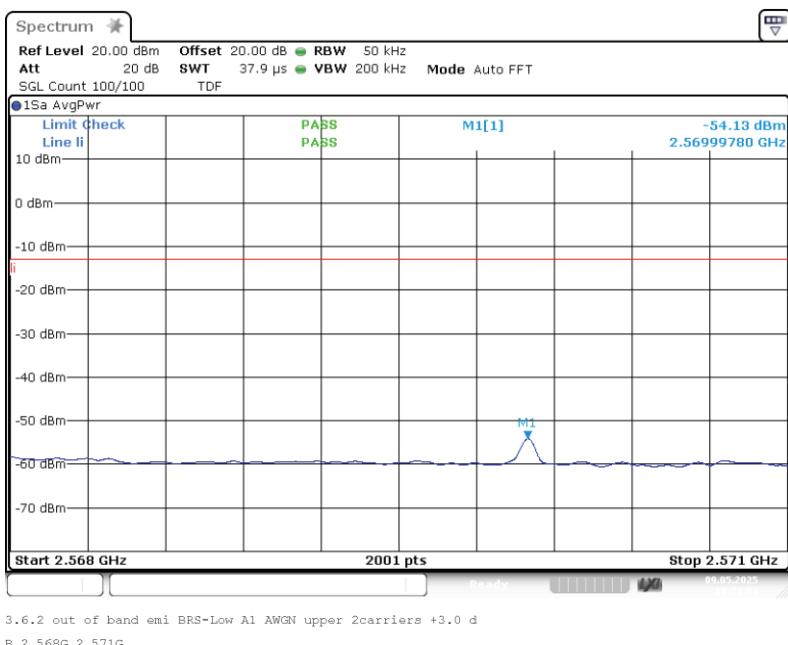
Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;  
 Mod: GSM; Input power = 3 dB > AGC; Number of signals 1



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

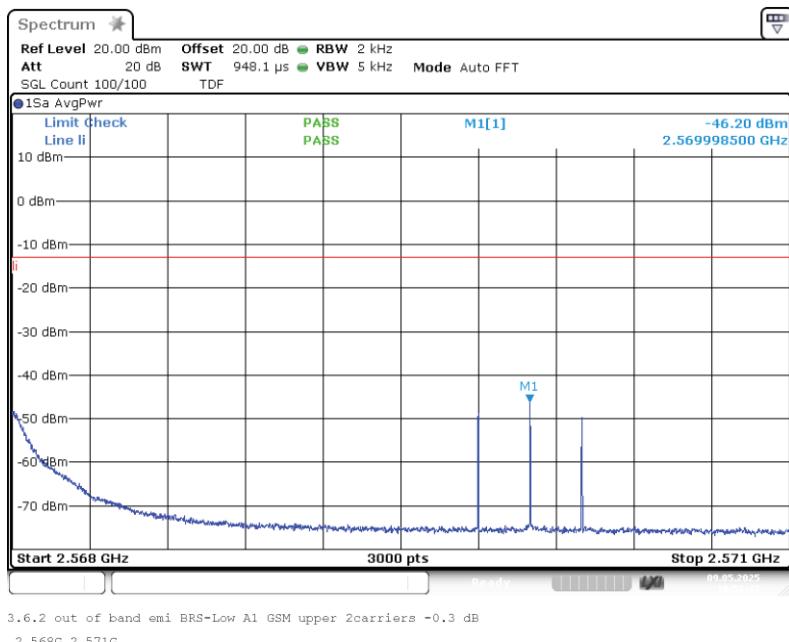




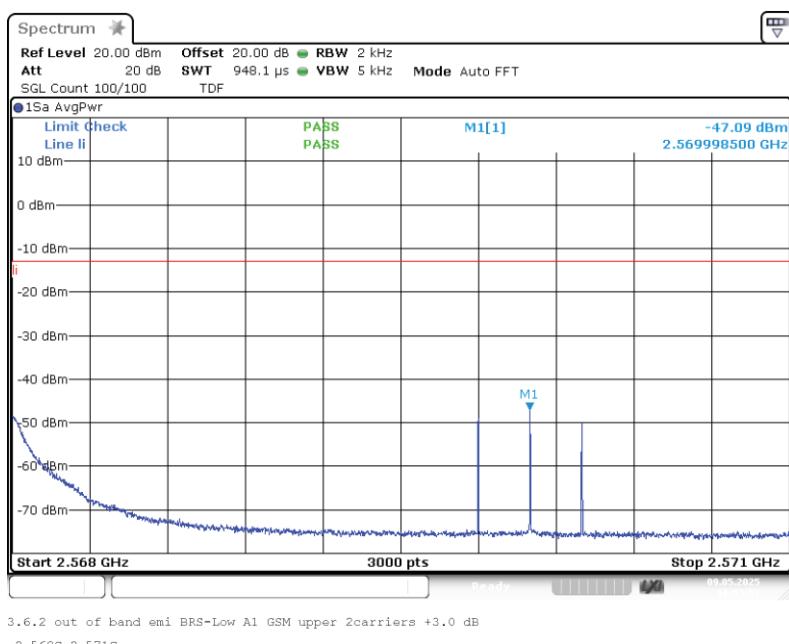
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**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

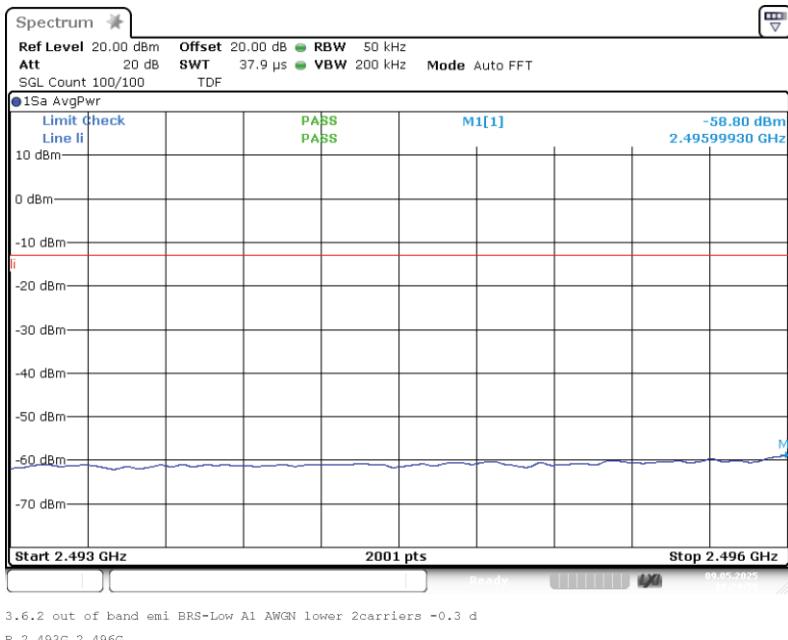
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Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 2



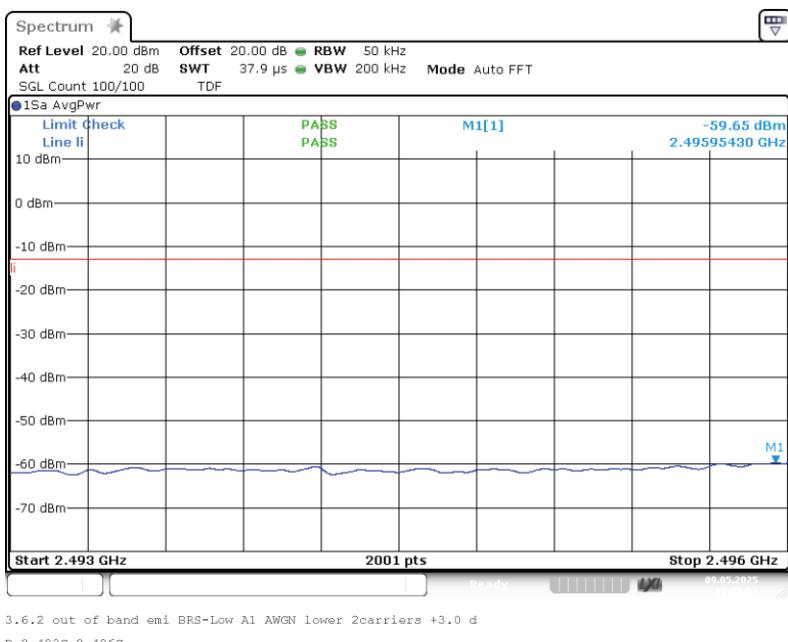
Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: upper;  
Mod: GSM; Input power = 3 dB > AGC; Number of signals 2



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

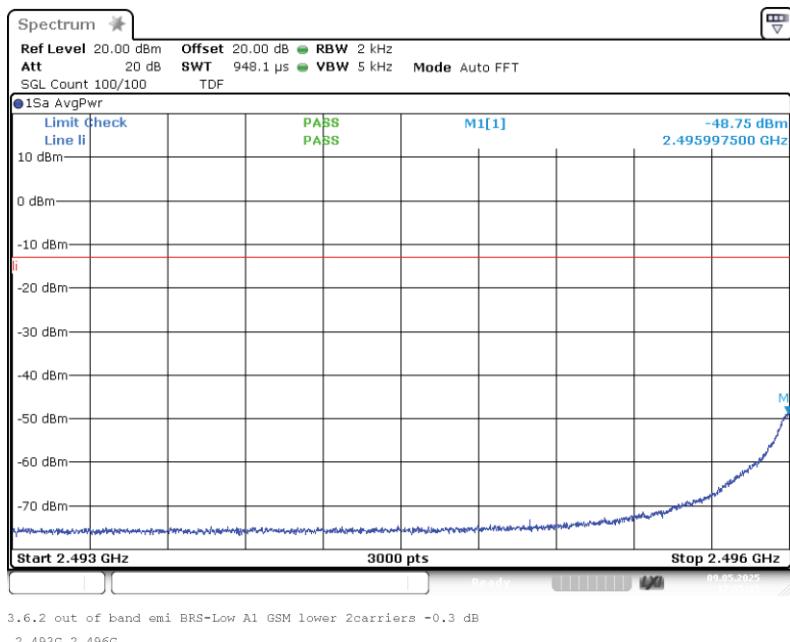




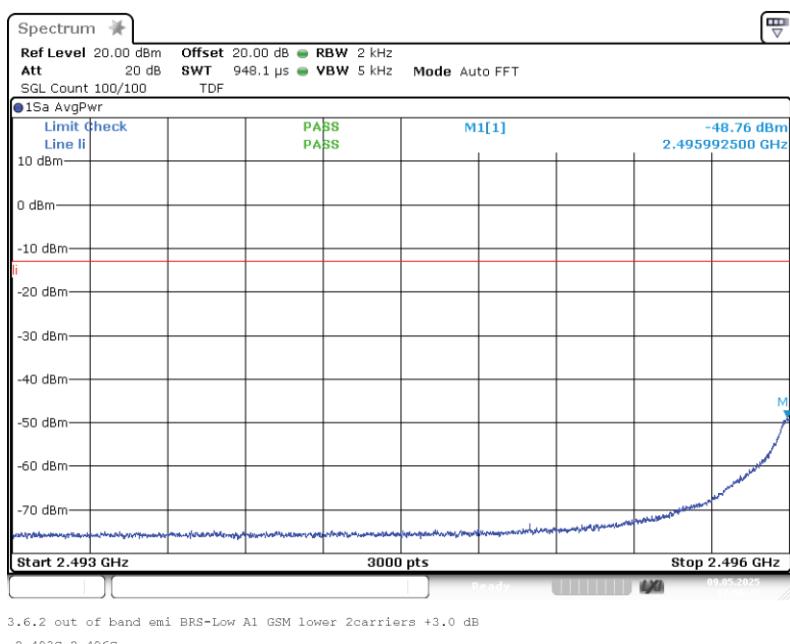
BUREAU  
VERITAS

**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

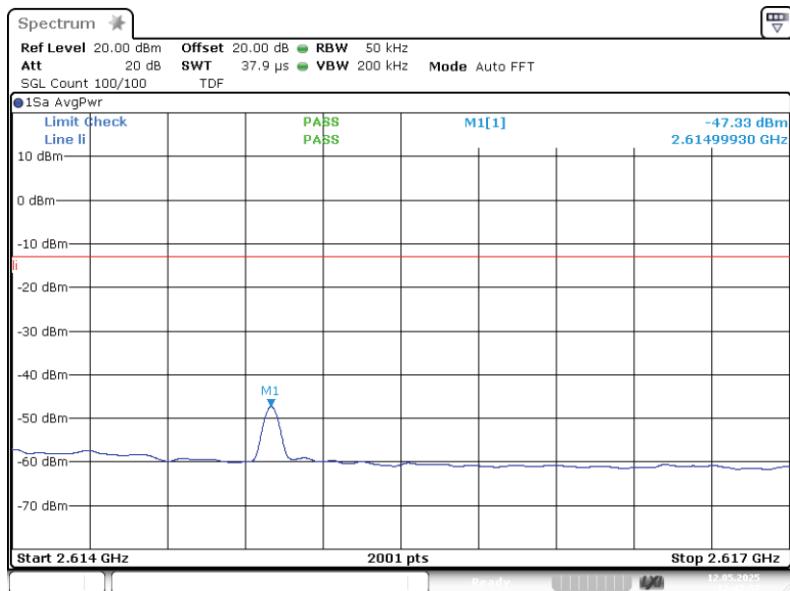
Band: BRS LBS, Antenna 1; Frequency: 2.4960 GHz to 2.5680 GHz; Band edge: lower;  
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 2



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

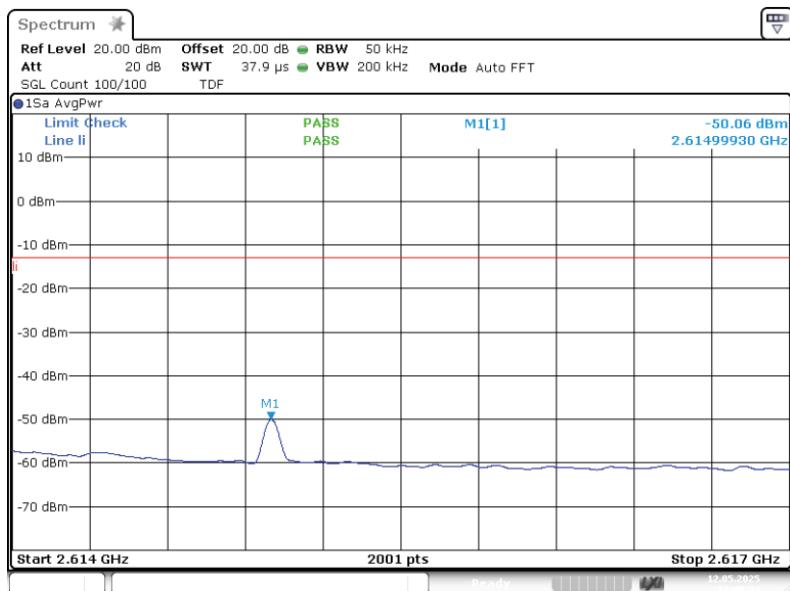


Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;  
Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 1



3.6.2 out of band emi BRS-Mid A1 AWGN upper 1carrier -0.3 dB  
2.614G 2.617G

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



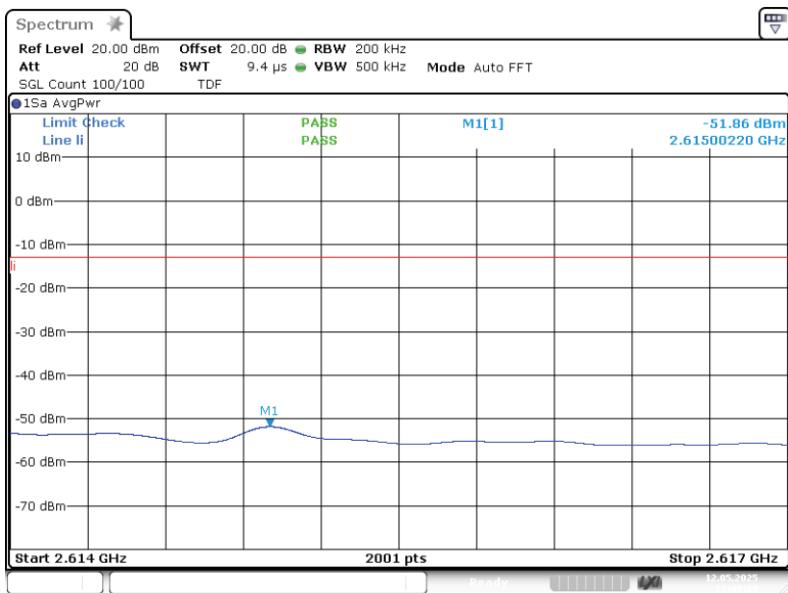
3.6.2 out of band emi BRS-Mid A1 AWGN upper 1carrier +3.0 dB  
2.614G 2.617G



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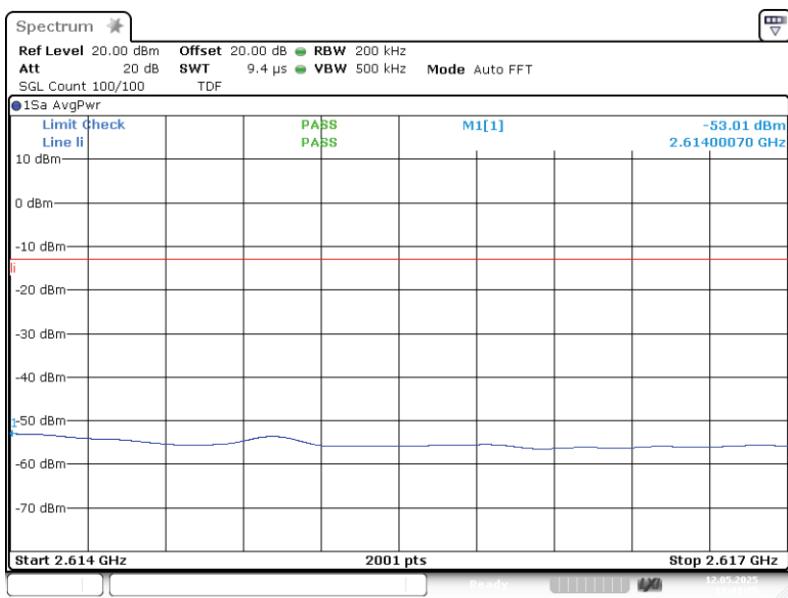
**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

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



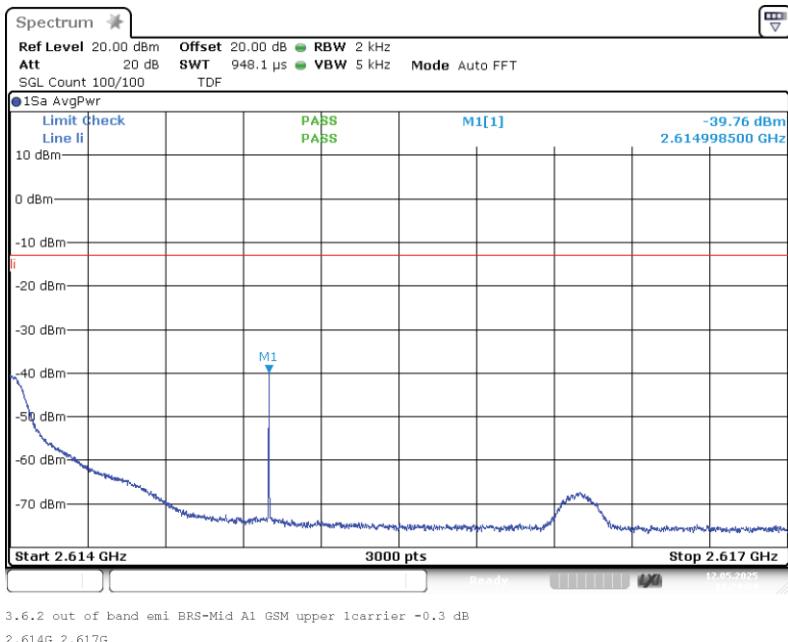
3.6.2 out of band emi BRS-Mid A1 AWGN 25M upper 1carrier -0.  
3 dB 2.614G 2.617G

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

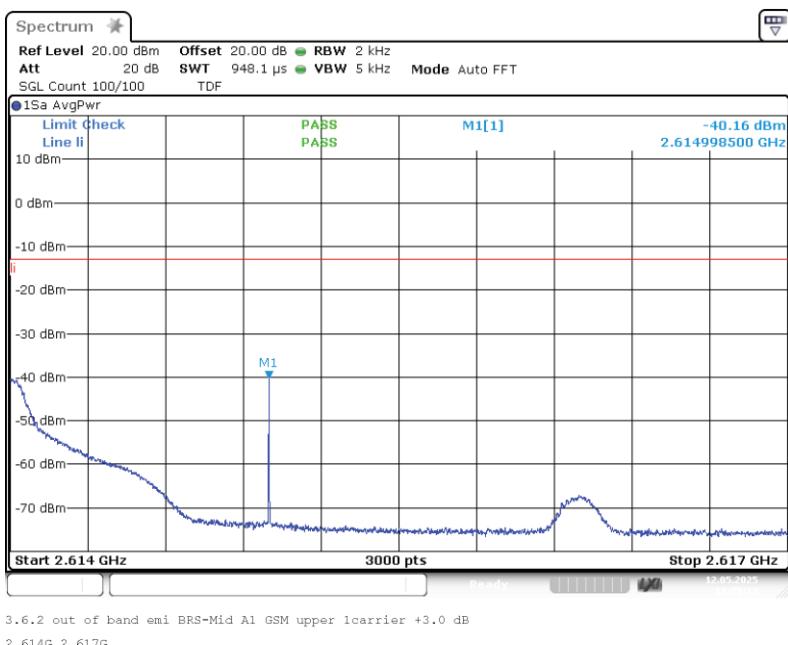


3.6.2 out of band emi BRS-Mid A1 AWGN 25M upper 1carrier +3.  
0 dB 2.614G 2.617G

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

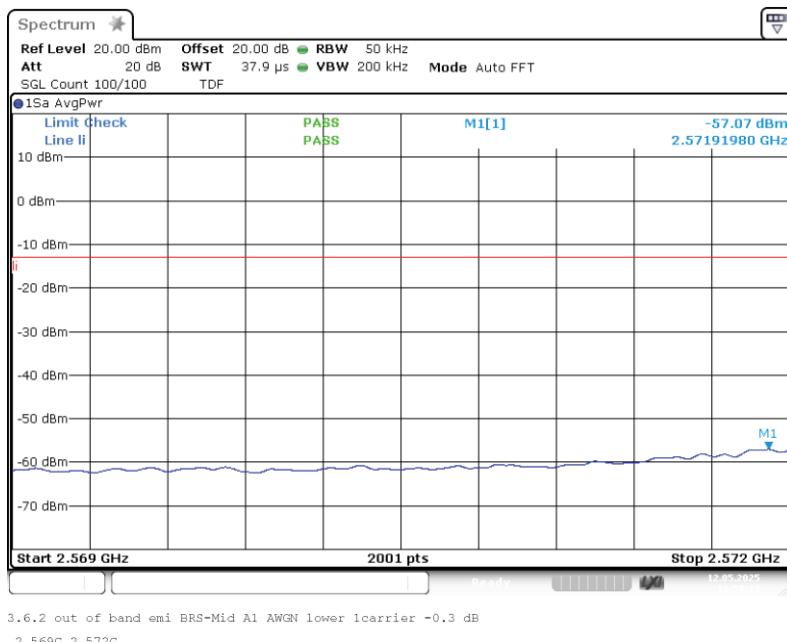




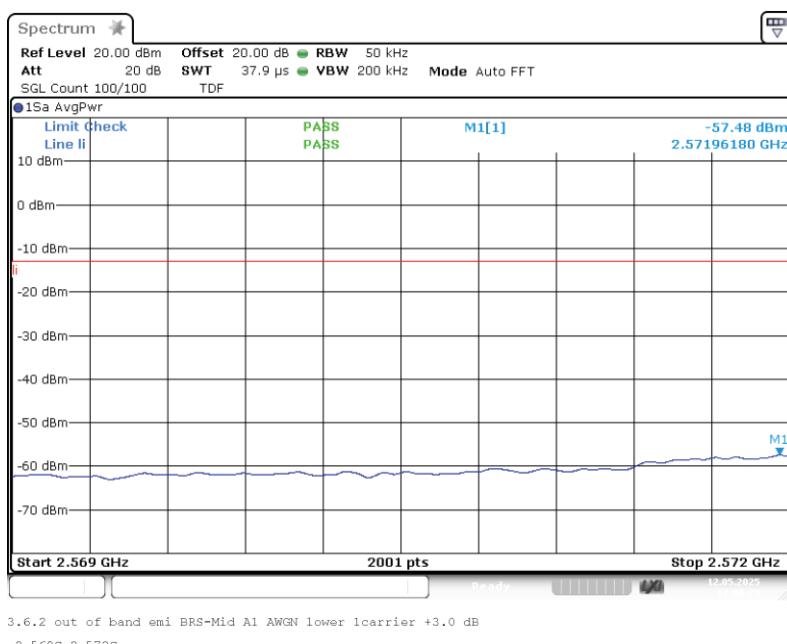
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VERITAS

**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

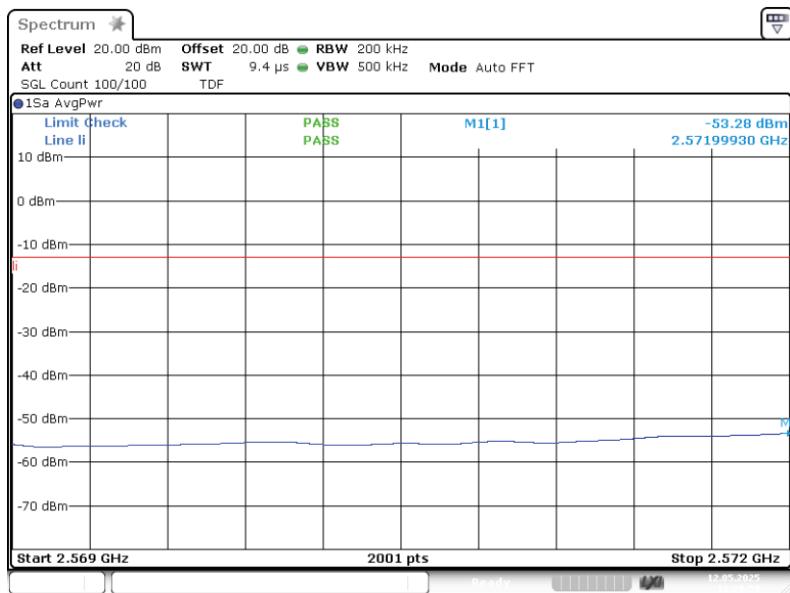




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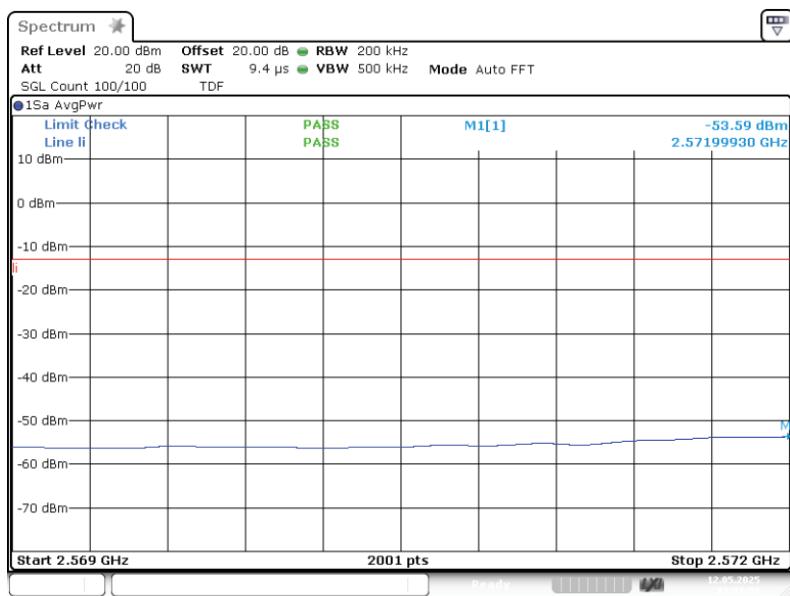
**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

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



3.6.2 out of band emi BRS-Mid A1 AWGN 25M lower 1carrier -0.  
3 dB 2.569G 2.572G

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



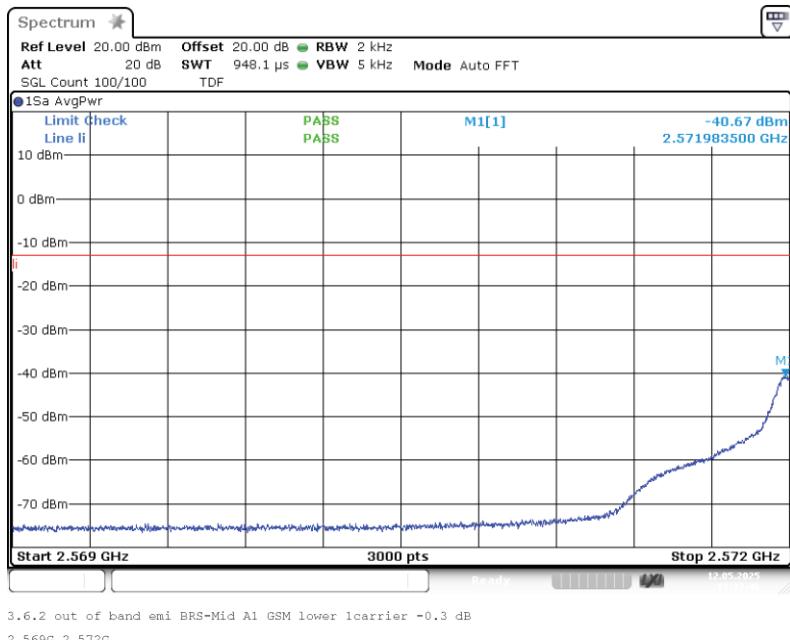
3.6.2 out of band emi BRS-Mid A1 AWGN 25M lower 1carrier +3.  
0 dB 2.569G 2.572G



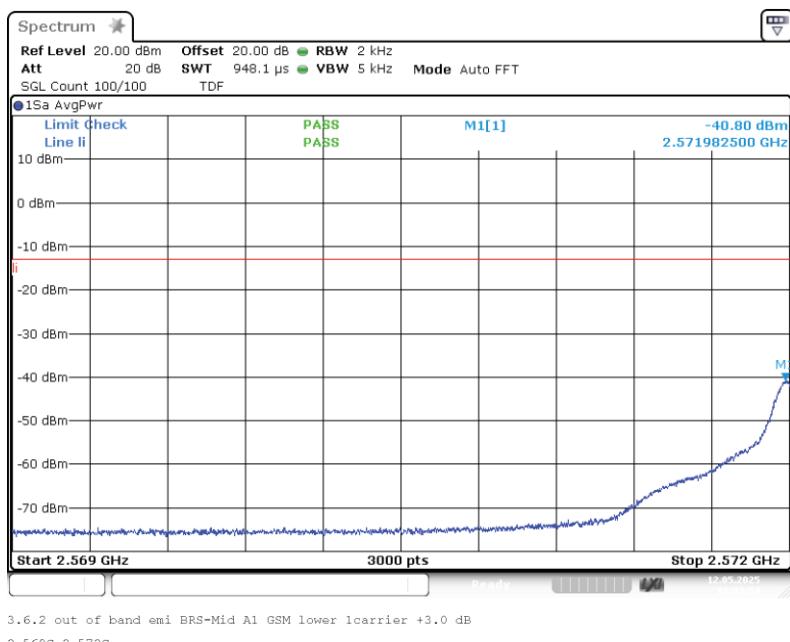
BUREAU  
VERITAS

**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

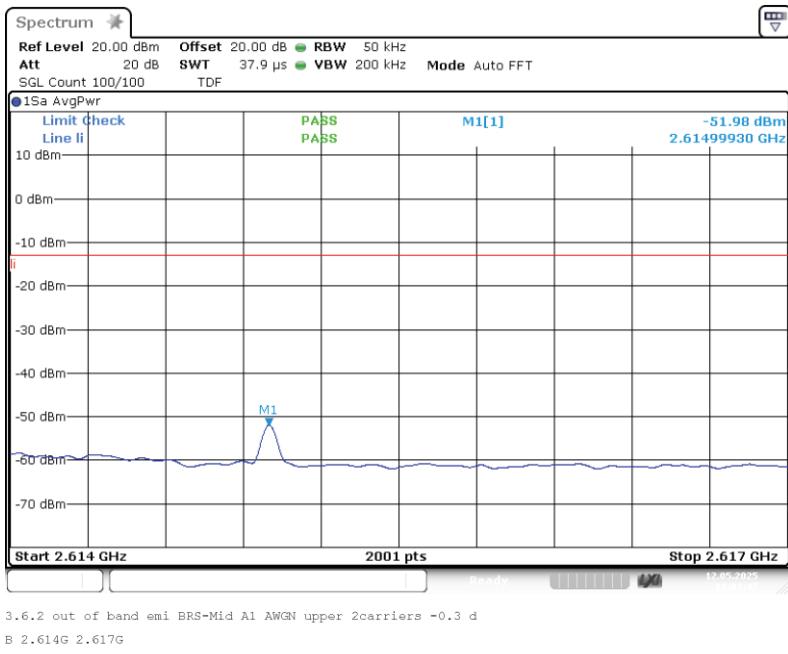
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;  
Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 1



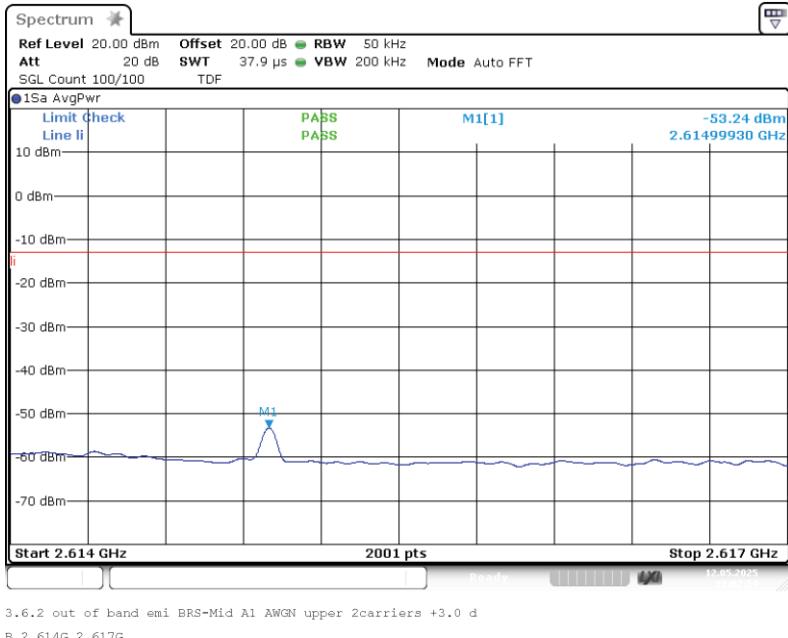
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Mod: GSM; Input power = 3 dB > AGC; Number of signals 1



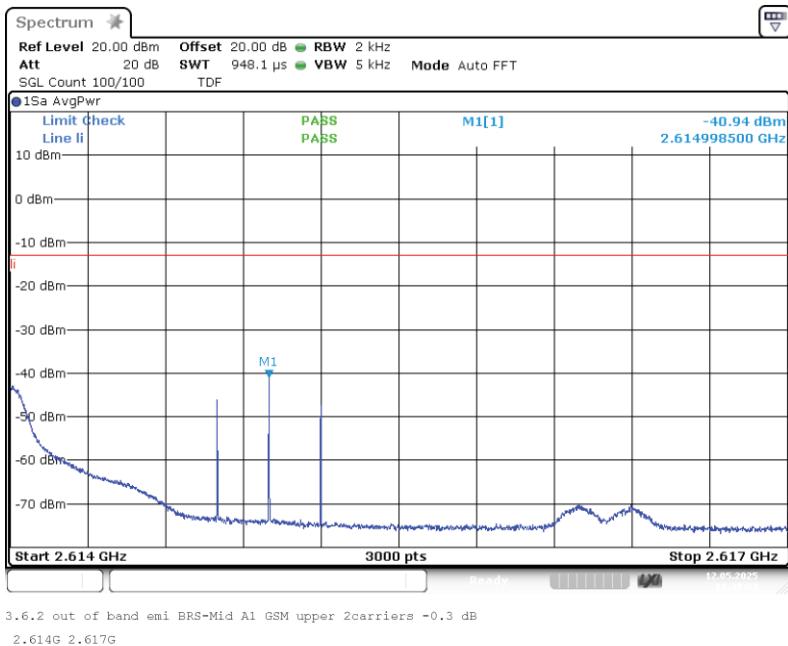
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;  
 Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 2



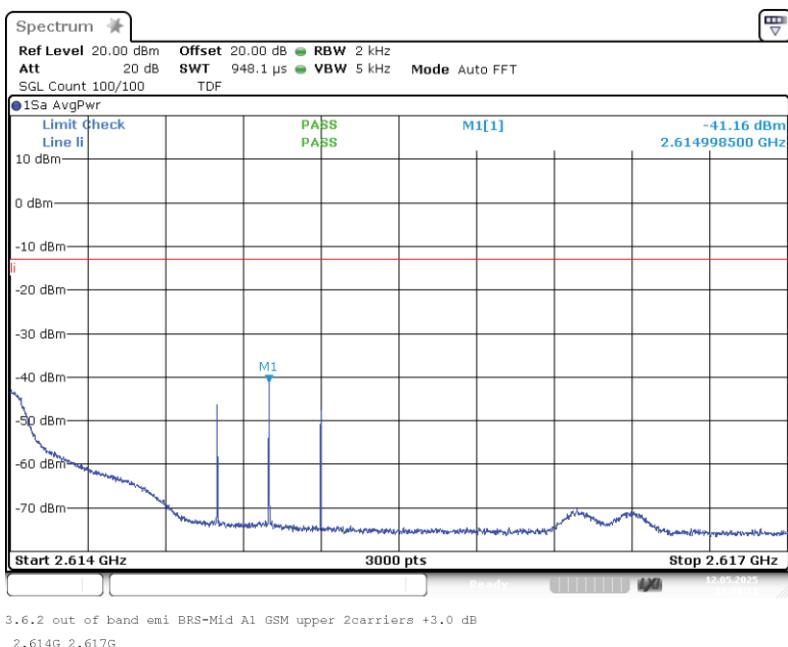
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;  
 Mod: AWGN; Input power = 3 dB > AGC; Number of signals 2



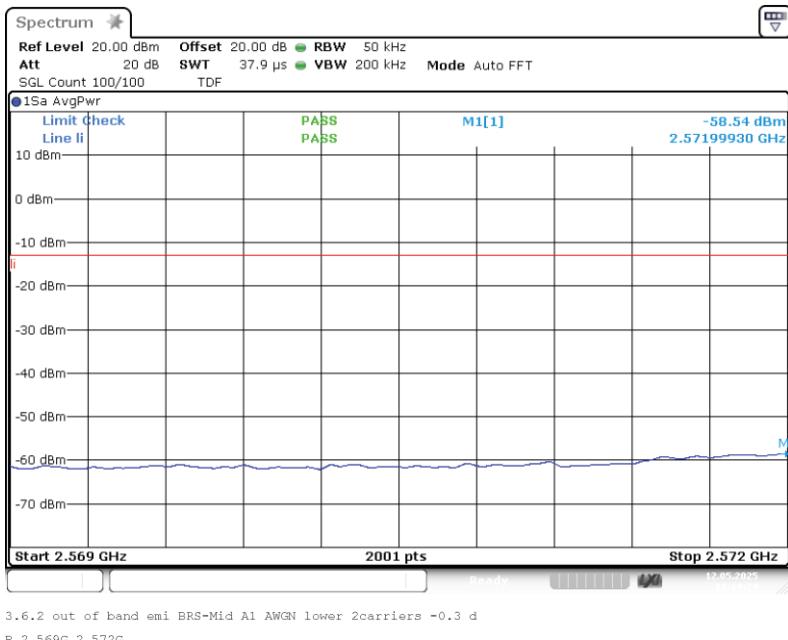
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;  
 Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 2



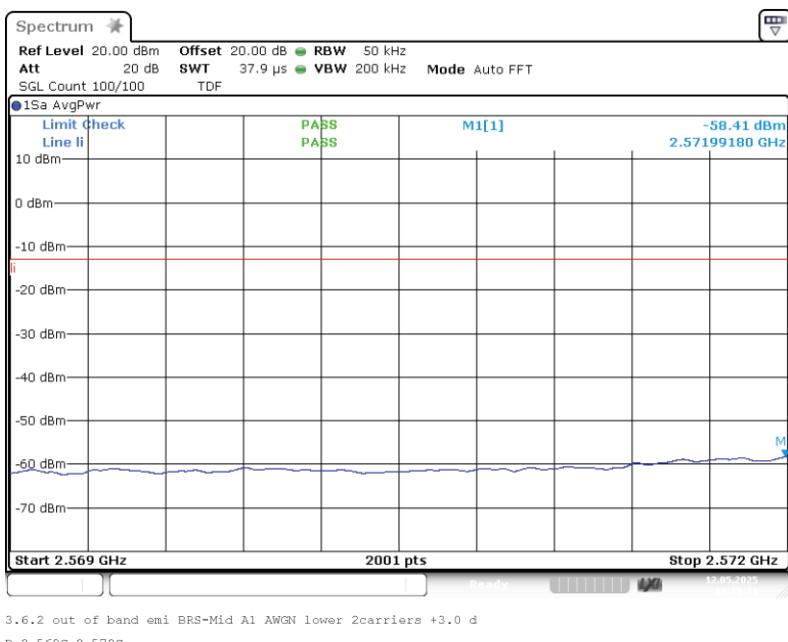
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: upper;  
 Mod: GSM; Input power = 3 dB > AGC; Number of signals 2



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

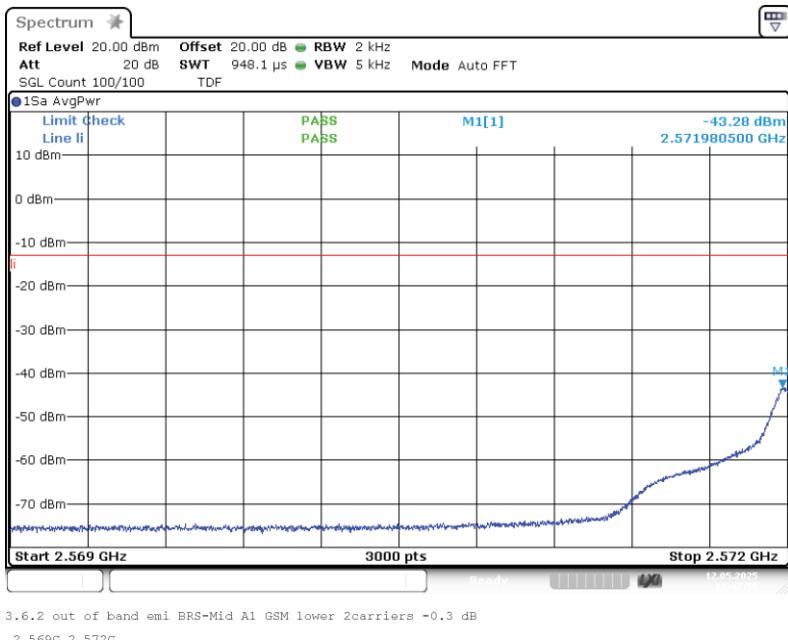




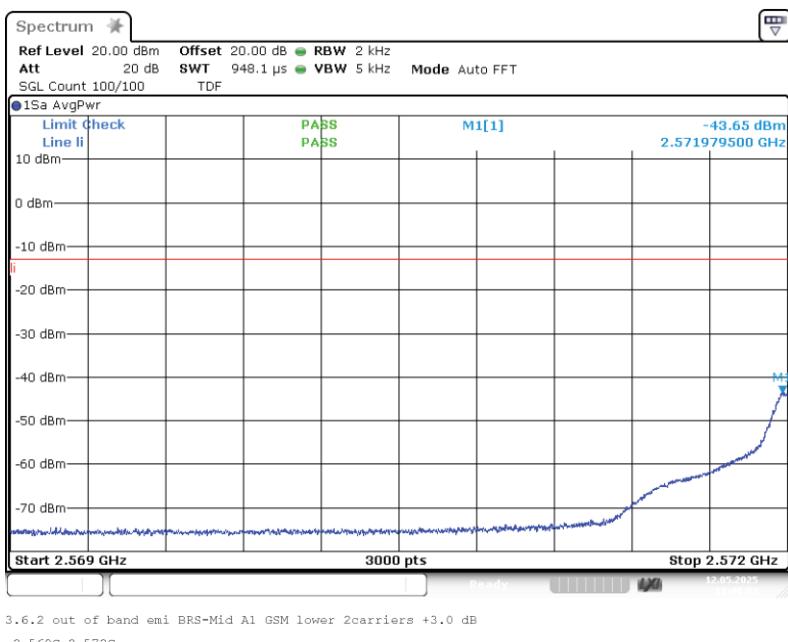
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VERITAS

**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



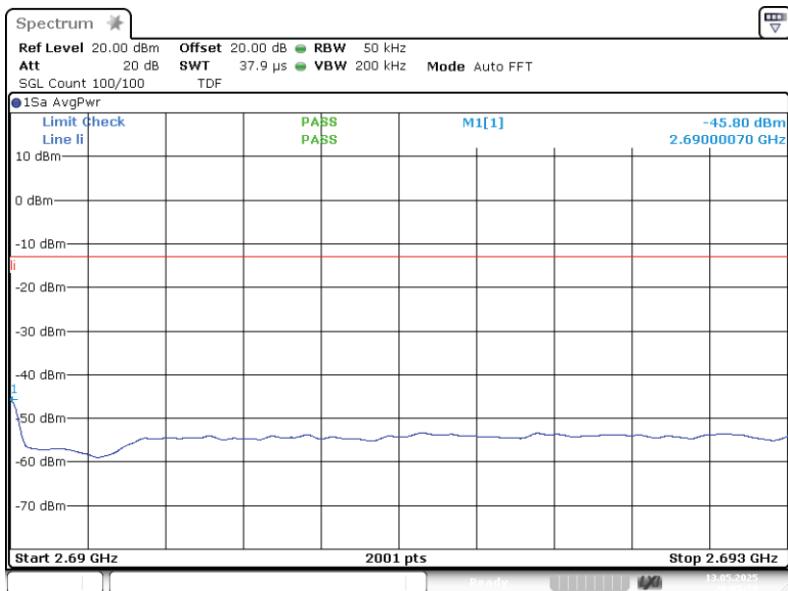
Band: BRS MBS, Antenna 1; Frequency: 2.5720 GHz to 2.6140 GHz; Band edge: lower;  
Mod: GSM; Input power = 3 dB > AGC; Number of signals 2



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

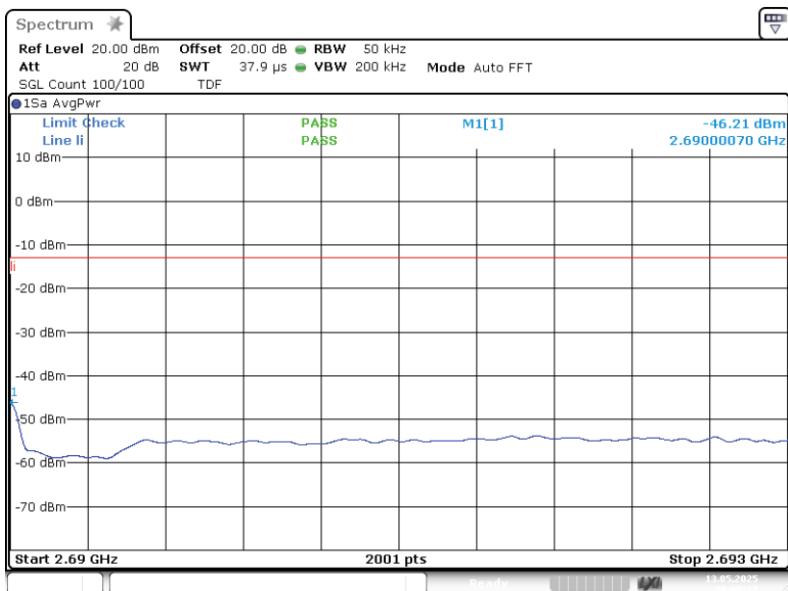
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Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;  
 Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 1



3.6.2 out of band emi BRS-High A1 AWGN upper icarrier -0.3 d  
 B 2.690G 2.693G

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



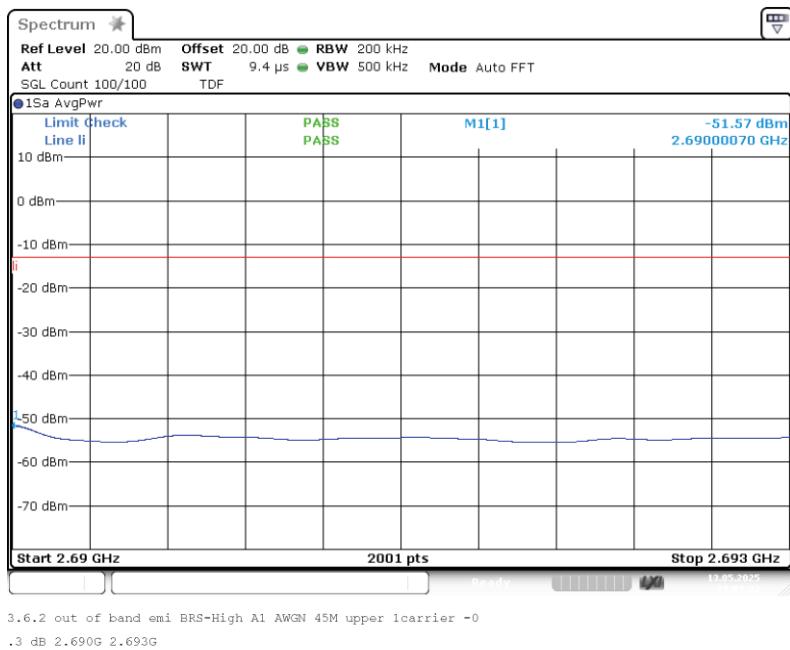
3.6.2 out of band emi BRS-High A1 AWGN upper icarrier +3.0 d  
 B 2.690G 2.693G



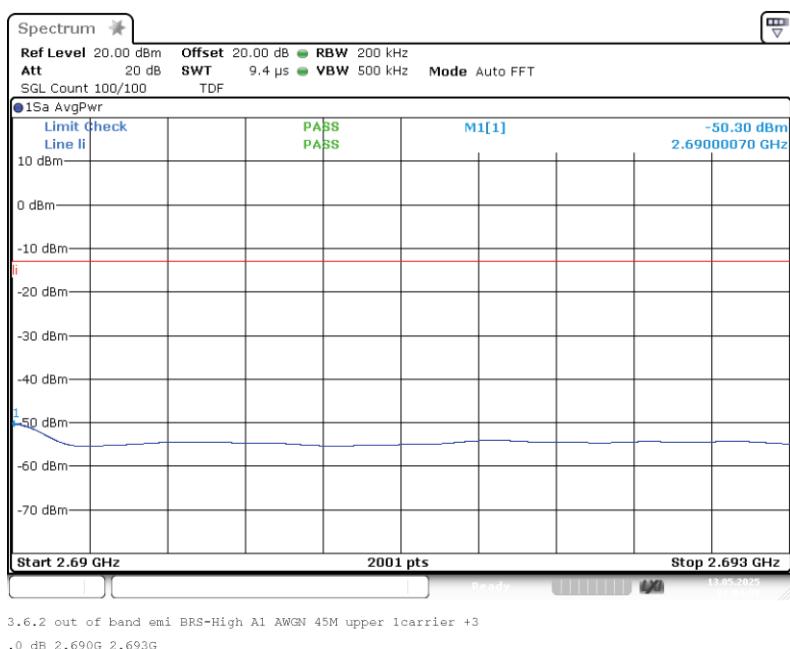
BUREAU  
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**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

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

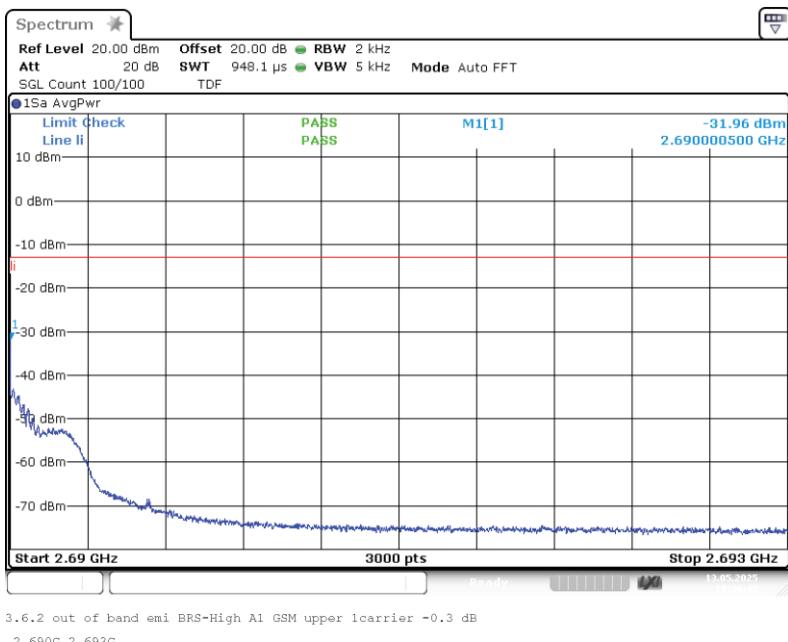




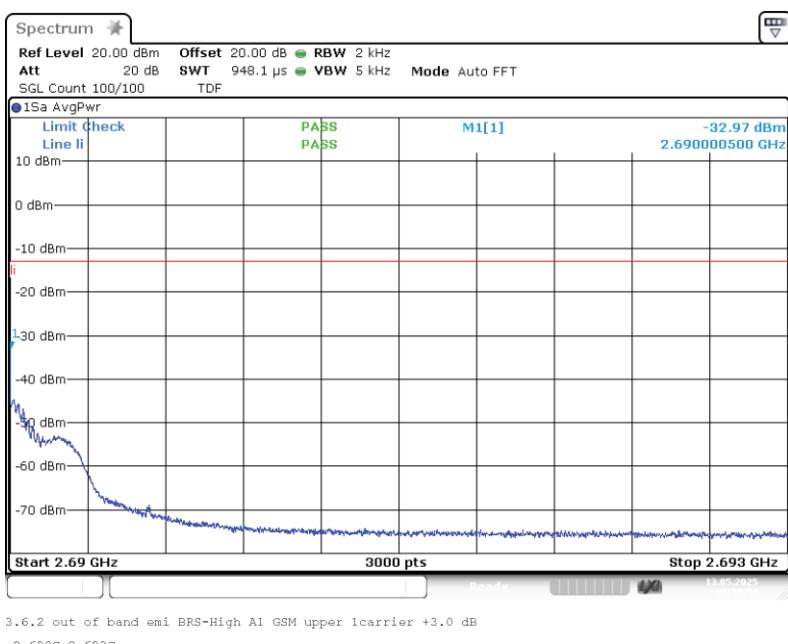
BUREAU  
VERITAS

**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

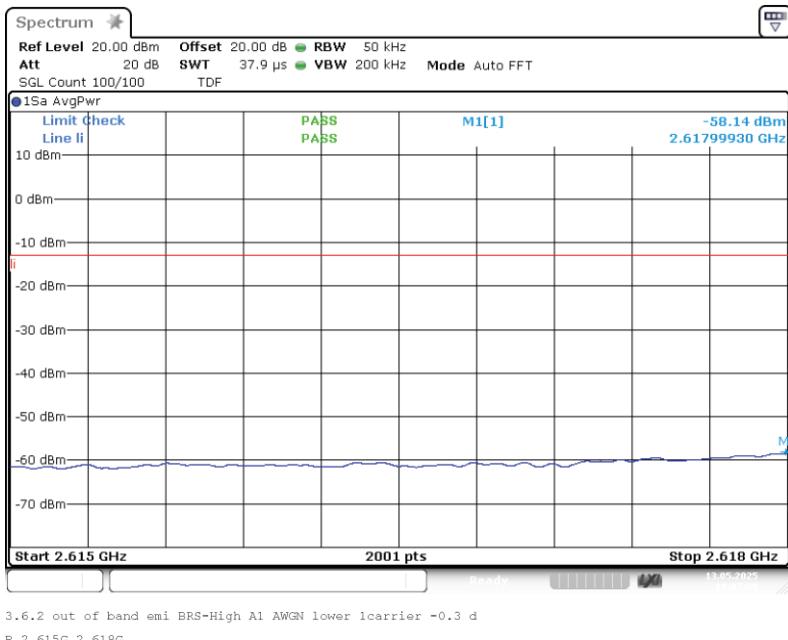
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Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 1



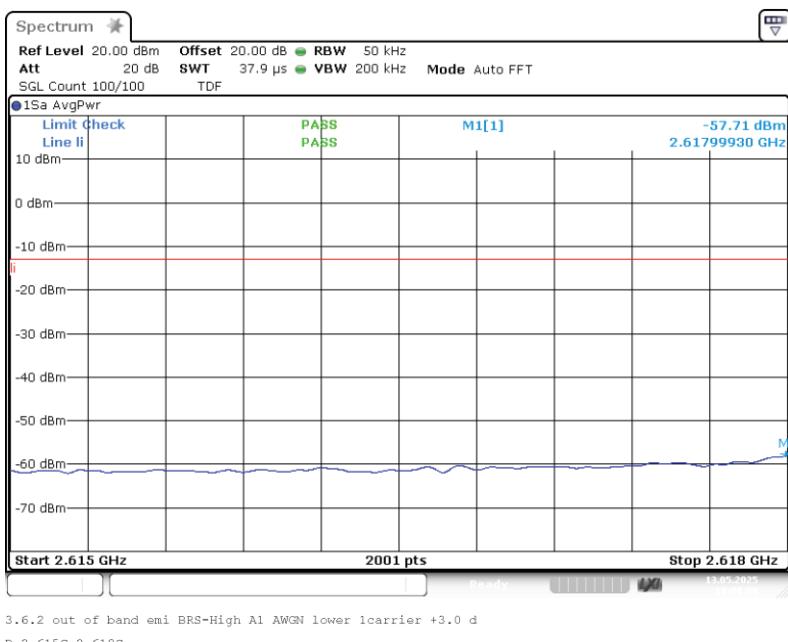
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Mod: GSM; Input power = 3 dB > AGC; Number of signals 1



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

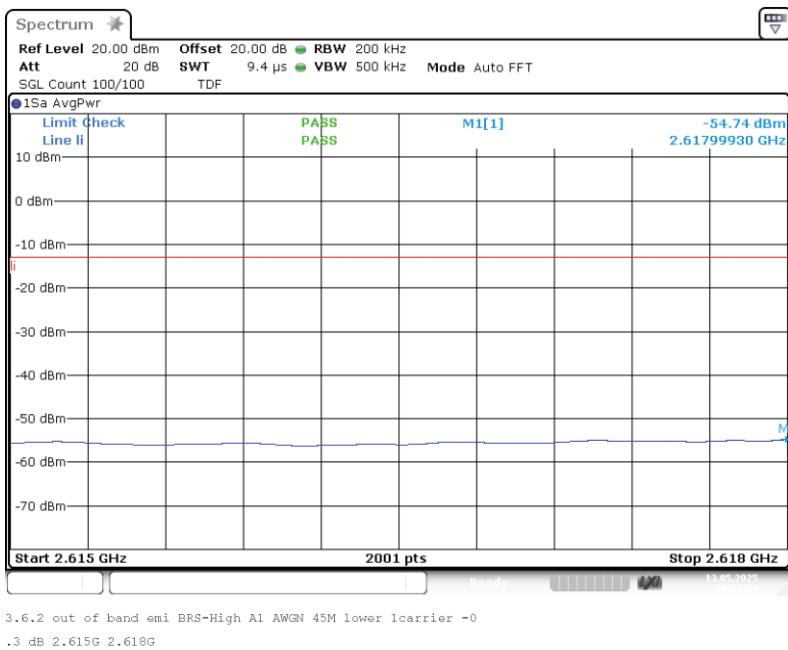




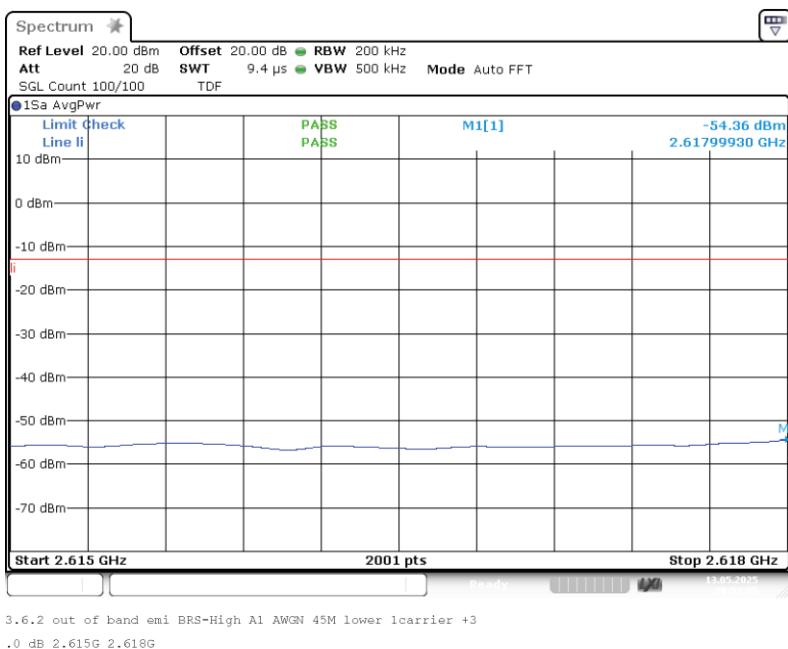
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VERITAS

**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



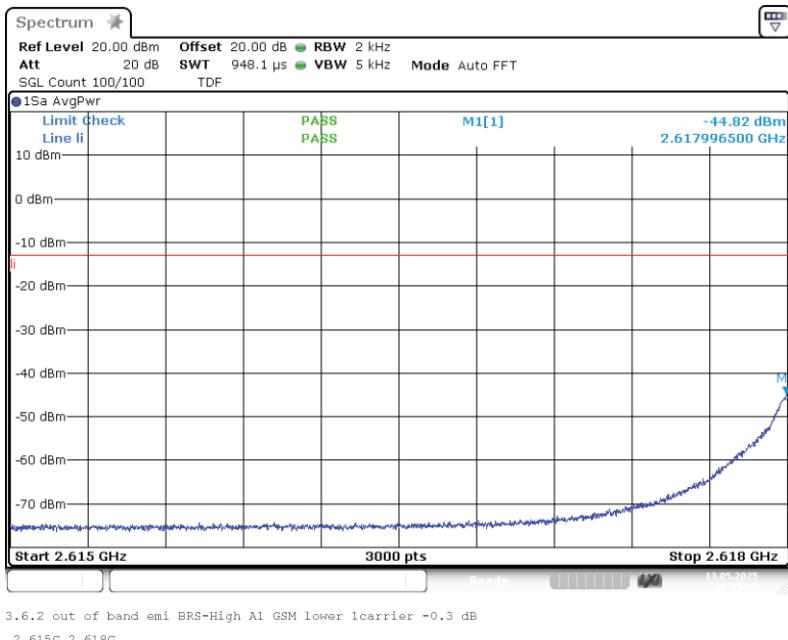
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Mod: AWGN 45M; Input power = 3 dB > AGC; Number of signals 1



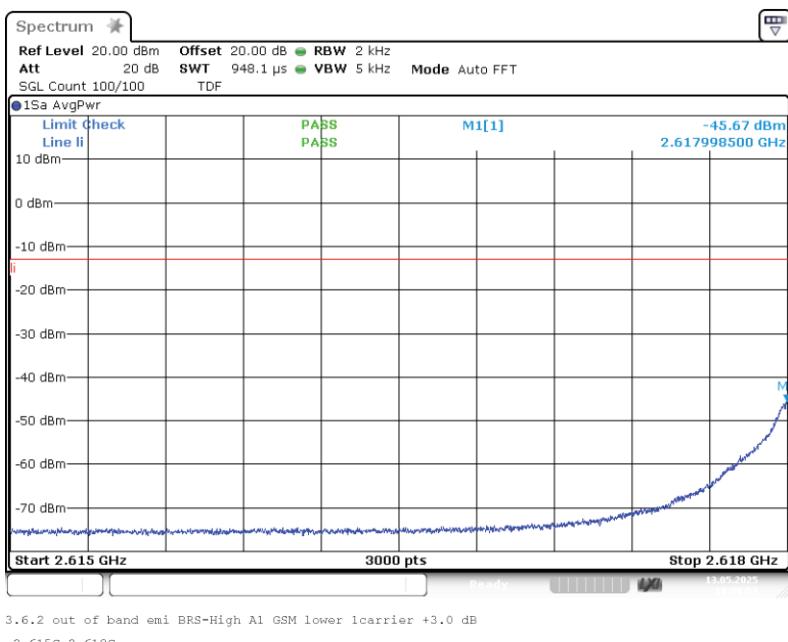
The test results relate only to the tested item. The sample has been provided by the client.

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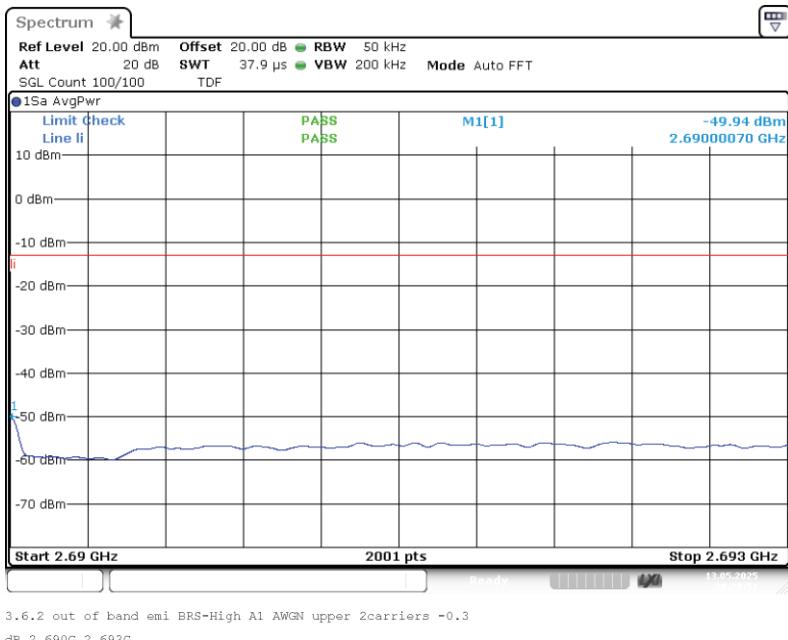
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 Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 1



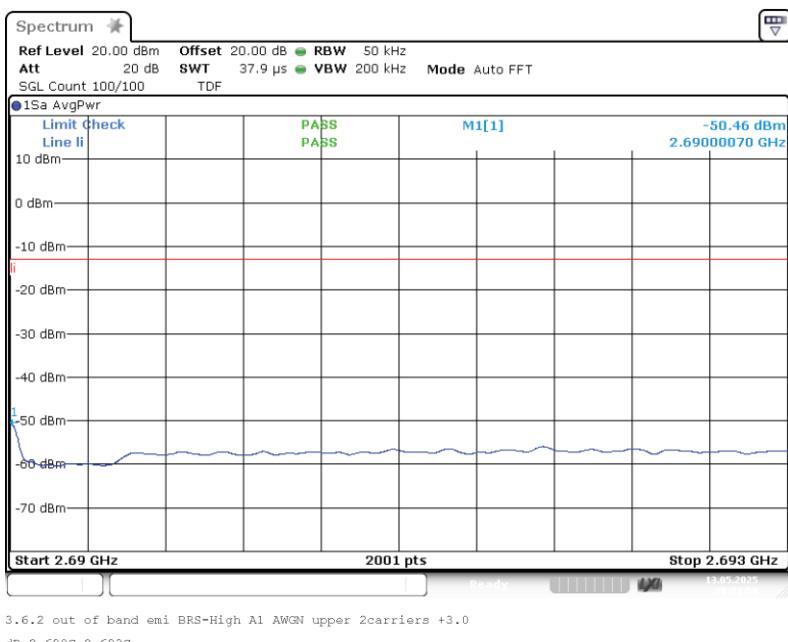
Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: lower;  
 Mod: GSM; Input power = 3 dB > AGC; Number of signals 1



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

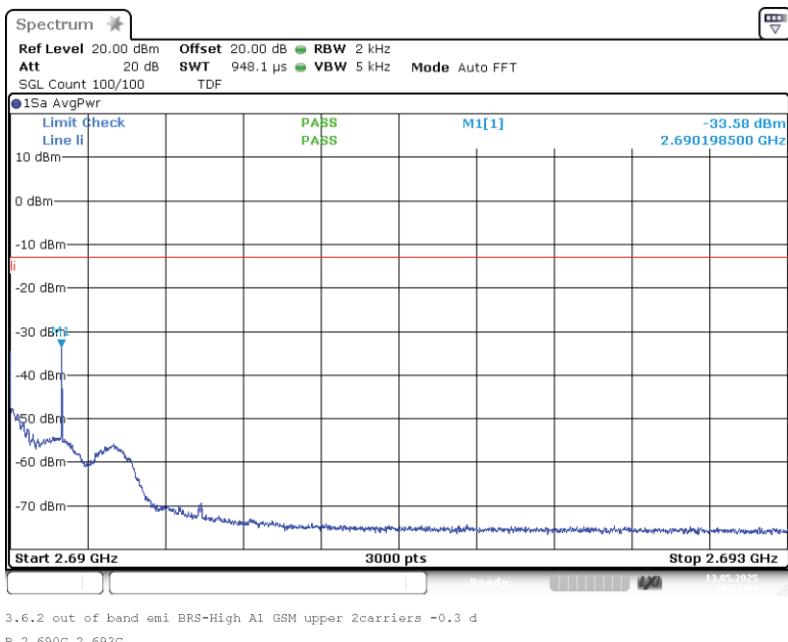




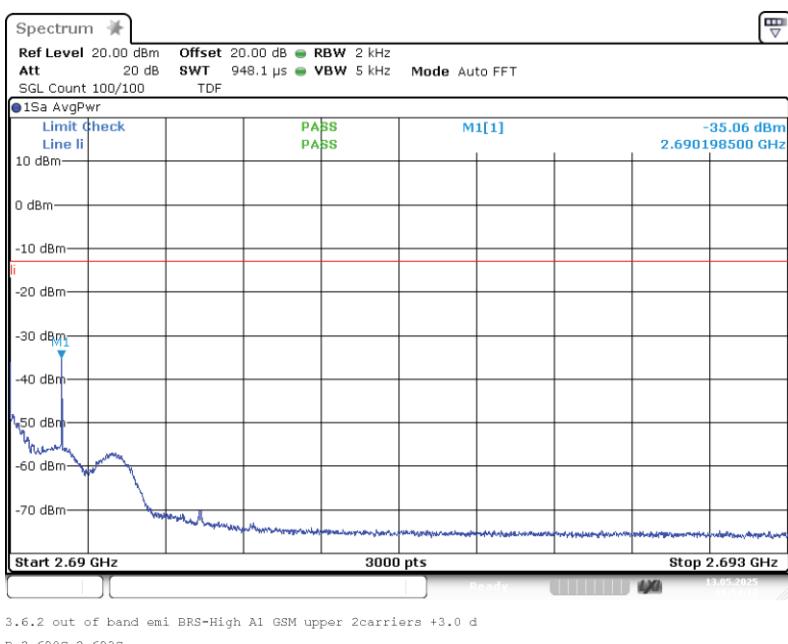
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**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

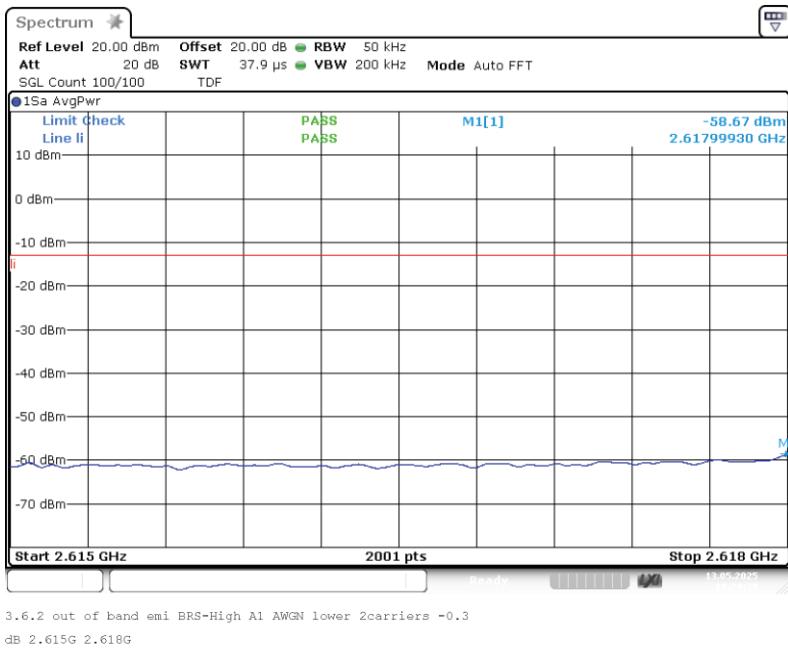
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Mod: GSM; Input power = 0.3 dB < AGC; Number of signals 2



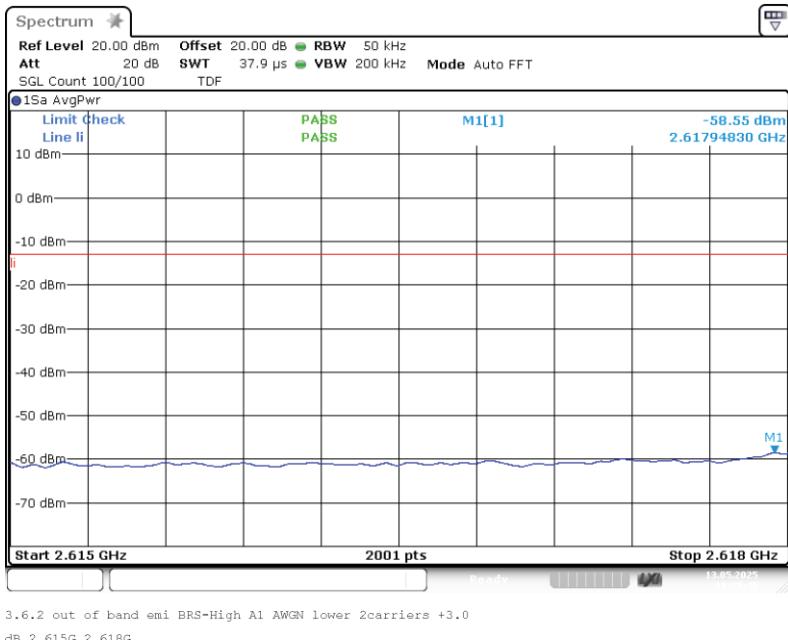
Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: upper;  
Mod: GSM; Input power = 3 dB > AGC; Number of signals 2



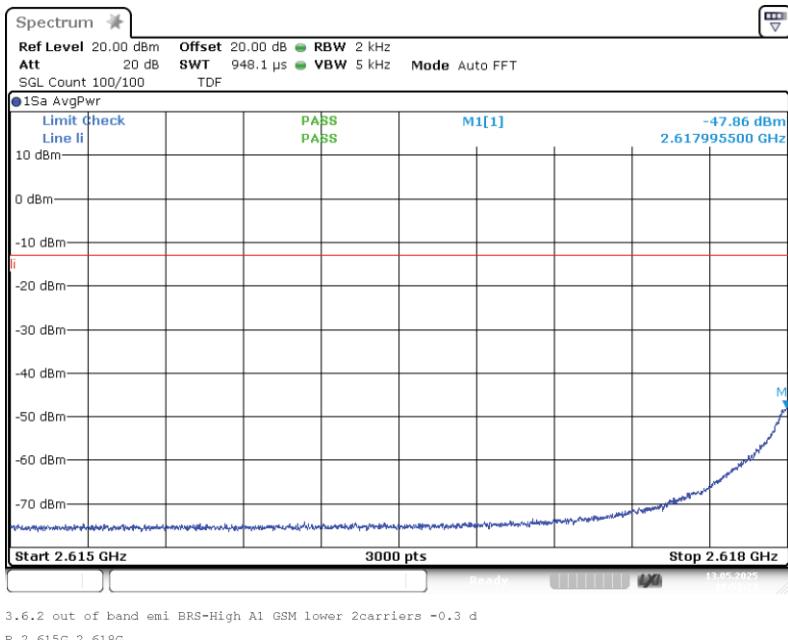
Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: lower;  
 Mod: AWGN; Input power = 0.3 dB < AGC; Number of signals 2



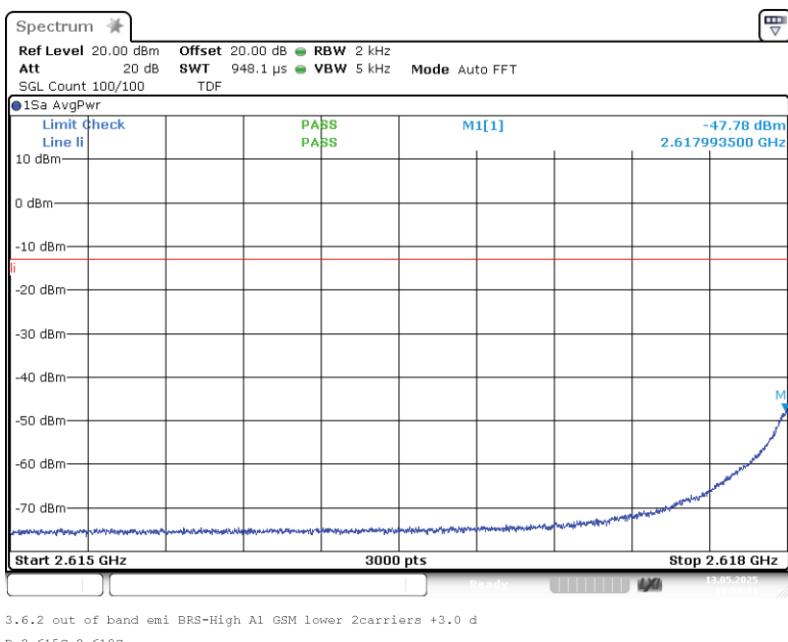
Band: BRS UBS, Antenna 1; Frequency: 2.6180 GHz to 2.6900 GHz; Band edge: lower;  
 Mod: AWGN; Input power = 3 dB > AGC; Number of signals 2



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





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**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

#### 5.4.5 TEST EQUIPMENT USED

- Conducted

## 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

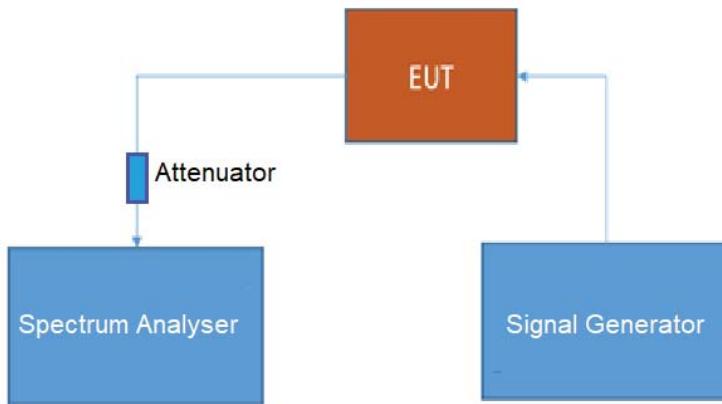
**Environmental conditions:** 24.0 °C; 26 % r. H., average values of all test dates

**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



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**Test Report No.: 25-0095**  
Tests performed on UAP-R [BRS]

### 5.5.3 TEST PROTOCOL

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

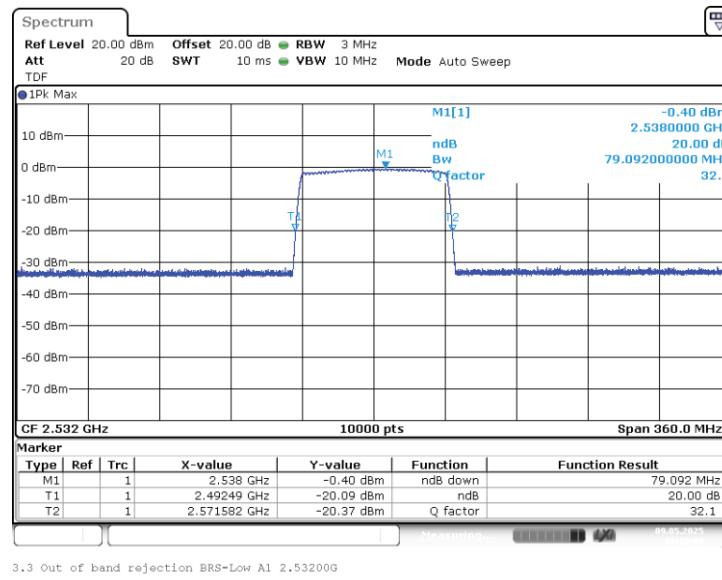
<b>Band 41 BRS (MBS), downlink</b>				
<b>Highest Power Frequency [MHz]</b>	<b>Output Power [dBm]</b>	<b>Lower Highest Power -20 dB Frequency [MHz]</b>	<b>Upper Highest Power -20 dB Frequency [MHz]</b>	<b>20 dB Bandwidth [MHz]</b>
2602.7	-0.88	2570.331	2615.691	45.360

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

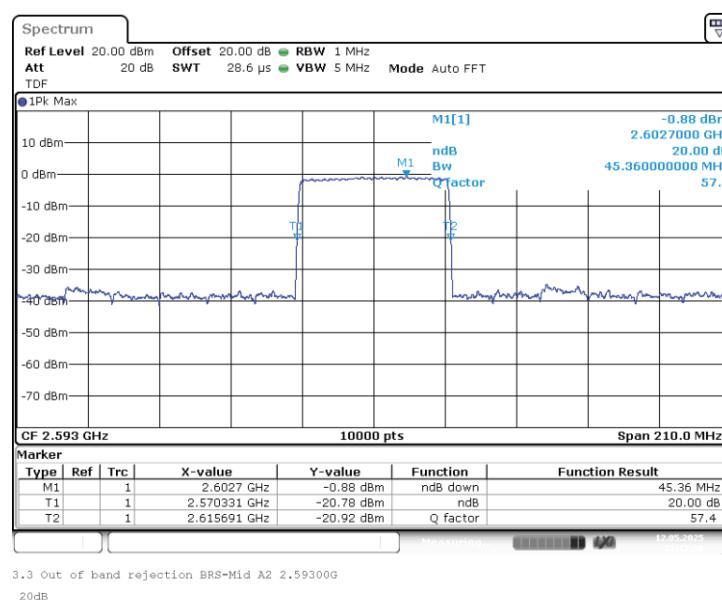
Remark: Please see next sub-clause for the measurement plots.

#### 5.5.4 MEASUREMENT PLOT

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



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

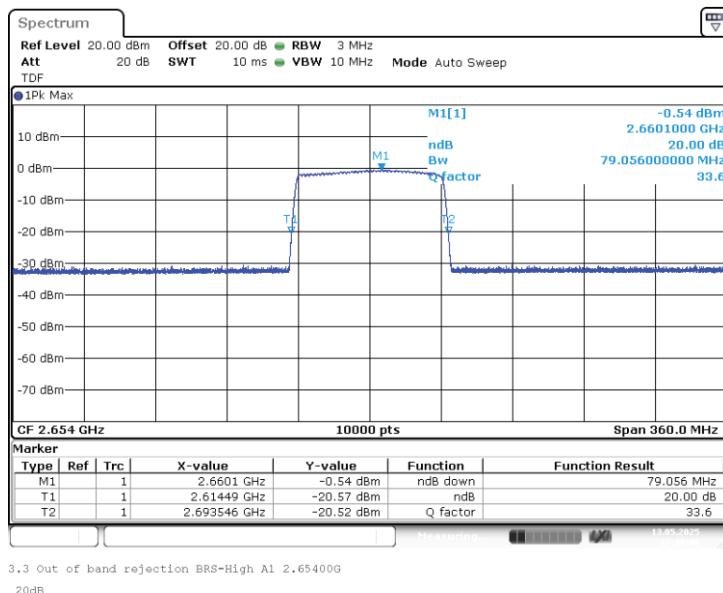




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Frequency band = Band 41 BRS (UBS); Direction = RF downlink



The test results relate only to the tested item. The sample has been provided by the client.  
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#### 5.5.5 TEST EQUIPMENT USED

- Conducted



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## 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 returing calibration control.

#### Sample calculation

$E \text{ (dB } \mu\text{V/m)} = U \text{ (dB } \mu\text{V)} + AF \text{ (dB } 1/\text{m)} + \text{Corr. (dB)}$   
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 \*\*\*\*\*