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2025-05-06

Page 1 of 39

Prüfbericht / Test Report

Nr. / No. TR-713343793-01 (Revision 1)

Auftraggeber <i>Applicant</i>	Aptiv Services Deutschland GmbH
Geräteart <i>Type of equipment</i>	Vehicle Radar
Typenbezeichnung <i>Type designation</i>	BFLR7
Seriennummer / <i>Serial number</i>	---
Auftragsnummer / <i>Order No.</i>	454540763
Prüfgrundlage <i>Test standards</i>	ARIB STD-T48 V2.2 Article 2 Paragraph 1 Item (8)

Summary

Prüfergebnisse / Test Results	Auftragsnummer / Order No. 454540763			
Die Prüfungen wurden nach folgenden Vorschriften durchgeführt: <i>Tests were performed according to:</i> ARIB STD-T48 V2.2 Article 2 Paragraph 1 Item (8)				
Durchgeführte Prüfung <i>Test performed</i>	Prüfergebnis <i>Test result</i>			
	Erfüllt <i>Passed</i>	Nicht erfüllt <i>Not Passed</i>	Nicht zutreffend <i>Not applicable</i>	Nicht durchgeführt <i>Not performed</i>
Antenna Power	☒	☐	☐	☐
Allowable Deviations in Antenna Power	☒	☐	☐	☐
Allowable Deviations in Frequency	☒	☐	☐	☐
Permissible Value of Occupied Bandwidth	☒	☐	☐	☐
Permissible Levels of Spurious Emission or Unwanted Emission Intensity	☒	☐	☐	☐
Antenna Gain	☒	☐	☐	☐

Bemerkungen / Remarks:

Die Prüfergebnisse beziehen sich ausschließlich auf das zur Prüfung vorgestellte Prüfmuster. Ohne schriftliche Genehmigung des Prüflabors darf der Prüfbericht auszugsweise nicht vervielfältigt werden. *The test results relate only to the individual item which has been tested. Without the written approval of the test laboratory this report may not be reproduced in extracts.*

Datum / Date	Geprüft von / Tested by	Freigabe durch / Checked by	Prüfergebnis / Test Result
2025-05-06	 SIGN-ID 1042553 Responsible for testing	 SIGN-ID 1043074 Reviewer	☒ Erfüllt / Passed ☐ Nicht erfüllt / Not passed

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1 Administrative Data

Application details

Applicant:	Aptiv Services Deutschland GmbH Am Technologiepark 1 42119 Wuppertal Germany
Contact person:	Ms. Sabina Pajerska
Intercompany contact:	TÜV SÜD Product Service GmbH Global Market Access Mr. Thomas Ring
Order number:	454540763
Receipt of EUT:	2024-09-26
Return of EUT:	---
Date(s) of test:	2024-10-02 to 2024-10-18
Note(s):	---
Responsible for testing:	Mr. Alex Fink
Responsible for test report:	Mr. Alex Fink; Martin Steindl
Test report checked by:	Mr. Matthias Stumpe

Report details

Report number:	TR-713343793-01
Revision:	1
Issue date:	2025-05-06

2 Details about the Test Laboratory

Details about the Test Laboratory	
Company name:	TÜV SÜD Product Service GmbH
Address:	Äußere Frühlingstraße 45 D-94315 Straubing Germany
Contact:	Mr. Hannes Adelsberger Phone: +49 9421 5682-0 Fax: +49 9421 5682-199

3 Description of the Equipment Under Test

Equipment characteristics	
Type designation:	BFLR7
Parts of the system:	Radar ECU
Options and accessories:	---
Type of equipment:	Vehicle Radar
Serial number:	---
Manufacturer:	Aptiv Services Deutschland GmbH
Hardware version:	004.001.000
Software version:	004_018_001_I430 ATS+4
Power supply:	Battery supply (regulated lead-acid) Nominal: 12.0 V Minimum: 6.5 V Maximum: 18.0 V Nominal frequency: N/A - DC
Highest internal frequency:	--- / 76.9 GHz (radio)

Marking Plate(s)



Technical Description

The Equipment Under Test (EUT) was an Aptiv BFLR7. The EUT is a 76 to 77 GHz vehicular radar. The device employs a dynamic chirp modulated transmit array. Multiple receive antennas are used to determine target angular resolution through digital beam forming. When installed on a vehicle, the device will operate when the vehicle is running. The nominal operating voltage is 12.0 V DC.

Antenna gain: 21.85 dBi

Modulation characteristics:

b. Non-pulsed radar

The radar is a SFW radar.

Modulation Type: Sawtooth

Sweep Bandwidth: 990 MHz

Sweep rate: 52 GHz/s

Sweep time: 19 ms

Reset time (no transmission): 31 ms

4 Operation Mode and Configuration of EUT

Operation Mode(s)

Continuously Transmitting with modulation - 12.0 V DC power supply

List of ports and cables

No.	Description	Classification ¹	Cable type	Cable length used	maximum ²
D1	DC 12 V supply	dc power	Unshielded	2 m	< 3 m
S1	Wiring harness (CAN, Ethernet)	signal/control port	Unshielded	2 m	< 3 m

List of devices connected to EUT

No.	Description	Type designation	Serial no. or ID	Manufacturer
---	---	---	---	---

List of support devices

No.	Description	Type designation	Serial no. or ID	Manufacturer
1	CAN/LIN-Interface	---	---	Vector
2	Notebook	---	---	Dell

¹ Ports shall be classified as ac power, dc power or signal/control port.

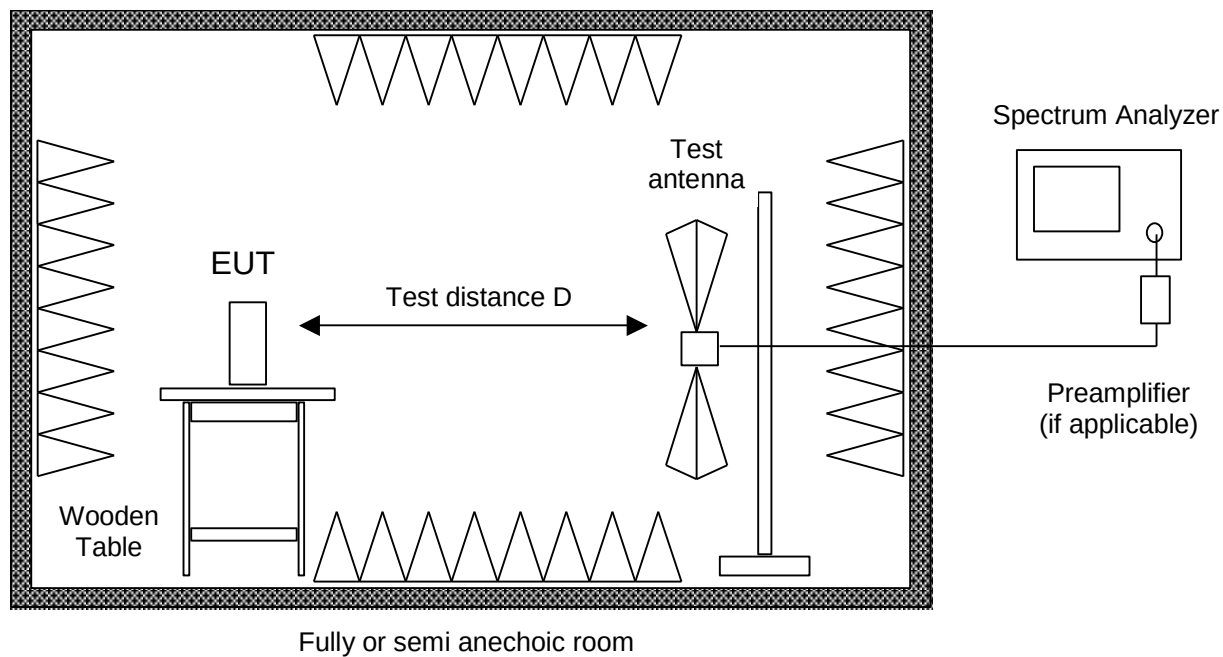
² As specified by applicant

5 Referenced Regulations

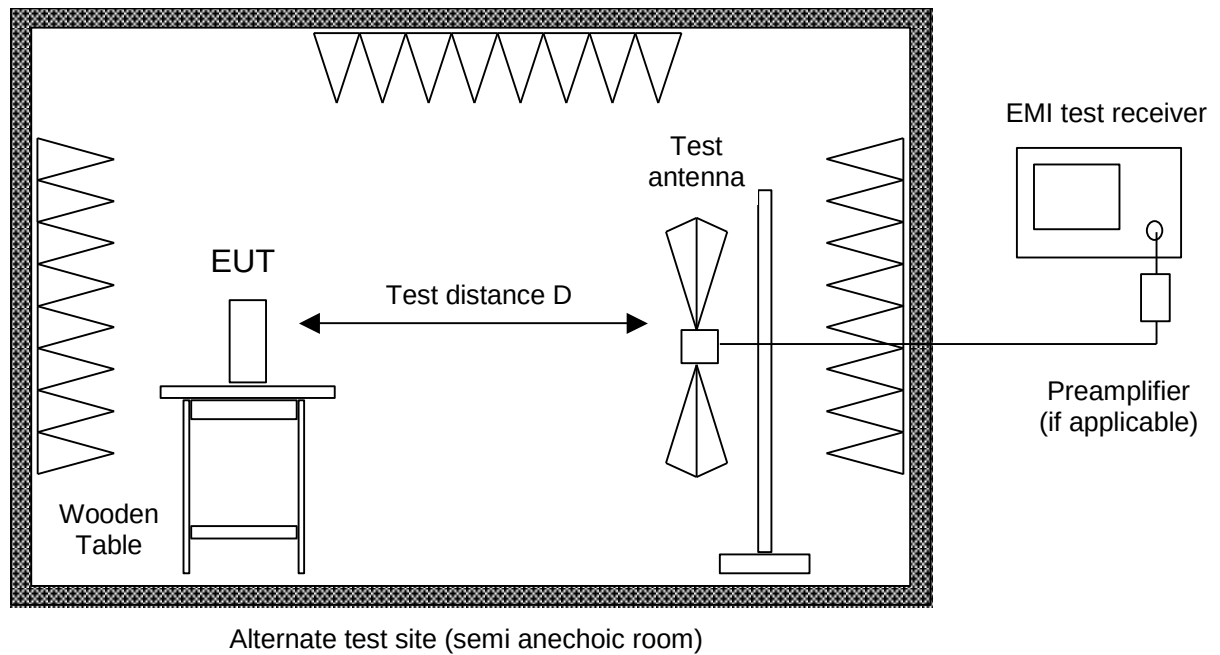
<i>Publication</i>	<i>Title</i>
ARIB STD-T48 V2.2	Millimeter-Wave Radar Equipment for Specified Low Power Radio Station ARIB Standard (December 03, 2015)

6 Test Setups

Radiated Emission in Fully or Semi Anechoic Room



Radiated Emission at Alternative Test Site



7 Test Results

ARIB STD-T48 V2.2

Section(s)	Test performed	Page	Test Result
3.2(1)	Antenna Power	13	Test passed
3.2(2)	Allowable Deviations in Antenna Power	15	Test passed
3.2(3)	Allowable Deviations in Frequency	16	Test passed
3.2(4)	Permissible Value of Occupied Bandwidth	25	Test passed
3.2(5)	Permissible Levels of Spurious Emission or Unwanted Emission Intensity	27	Test passed
3.5(2)	Antenna Gain	34	Test passed

7.1 Antenna Power

Prüfdatum / Date of test:	2024-10-02; 2025-04-28
Prüfer / Operator:	Alex Fink; Martin Steindl
Messplatz / Test site:	Semi anechoic room, cabin no. 2

Prüfergebnis / Test Result	
☒	Erfüllt / Passed
☐	Nicht erfüllt / Not passed

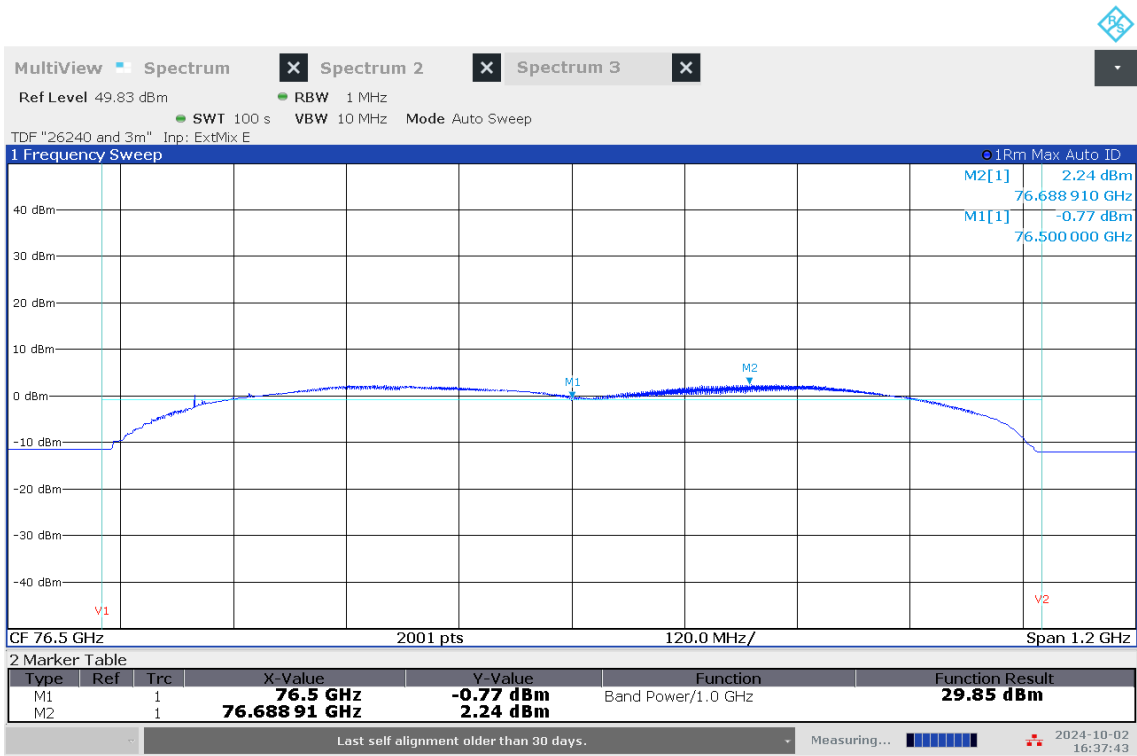
Luftdruck / Barometric pressure:	990 hPa
Relative Luftfeuchtigkeit / Relative humidity:	22 %
Temperatur / Ambient temperature:	38 °C

Prüfgrundlage / Specifications:	ARIB STD-T48 V2.2, section 3.2(1)
Grenzwert / Limit:	The antenna power shall be 10 mW or less.
Betriebsart / Operation mode:	Transmitting continuously on frequency with modulation bandwidth as stated in table below
Kommentar / Comment:	Test was performed as radiated test. The test distance was 3 m. A correction factor and mixer conversion loss table were used to account for the test antenna gain, free-space loss and external mixer loss. The rated antenna power is measured as RMS value. Antenna Gain of 21.85 dBi was declared by the applicant.

Measured EIRP (dBm)	Antenna Gain (dBi)	Antenna Power (dBm)	Antenna Power (mW)	Limit (mW)
29.85	21.85	8.00	6.31	≤ 10.00



Plots taken during measurement



04:37:43 PM 10/02/2024

7.2 Allowable Deviations in Antenna Power

Prüfdatum / Date of test:	2024-10-02; 2025-04-28
Prüfer / Operator:	Alex Fink; Martin Steindl
Messplatz / Test site:	Semi anechoic room, cabin no. 2

Prüfergebnis / Test Result	
☒	Erfüllt / Passed
☐	Nicht erfüllt / Not passed

Luftdruck / Barometric pressure:	990 hPa
Relative Luftfeuchtigkeit / Relative humidity:	22 %
Temperatur / Ambient temperature:	38 °C

Prüfgrundlage / Specifications:	ARIB STD-T48 V2.2, section 3.2
Grenzwert / Limit:	The tolerance of the antenna power, which is the maximum permissible tolerance from designated or rated antenna power, shall be 50 % in the upper limit and 70 % in the lower limit
Betriebsart / Operation mode:	Transmitting continuously on frequency with modulation bandwidth as stated in table below
Kommentar / Comment:	Calculation of the antenna power deviation is based on the antenna power data from section 7.1 of this test report. Calculation is relative to the maximum rated antenna power.

Measured Antenna Power (mW)	Max. Rated Antenna Power (mW)	Antenna Power Deviation (%)	Limit (%)
6.31	10.0	-36.9	-70 / +50

7.3 Allowable Deviations in Frequency

Prüfdatum / Date of test:	2024-10-16 and 2024-10-17
Prüfer / Operator:	Alex Fink
Messplatz / Test site:	Semi anechoic room, cabin no. 2

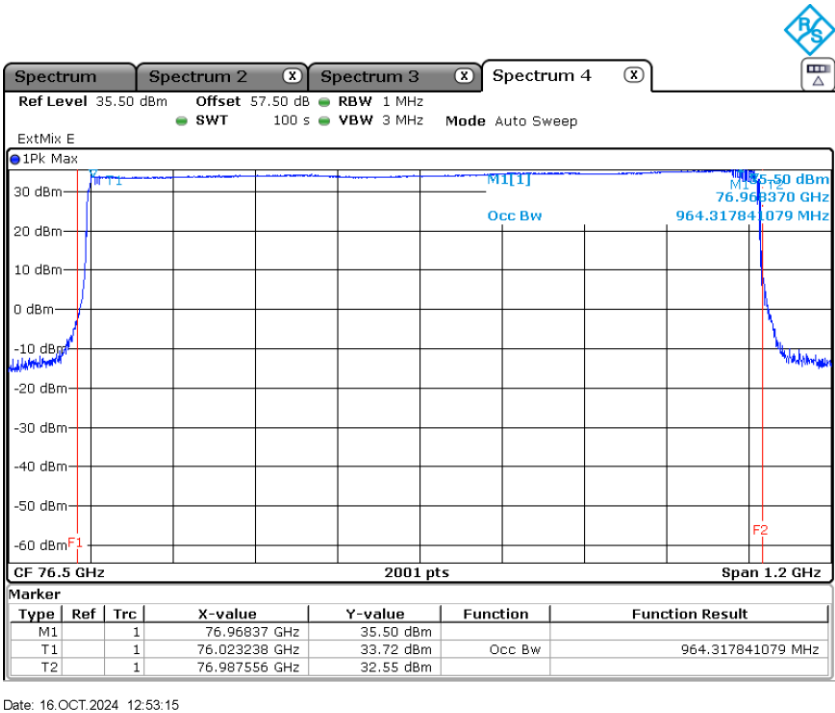
Prüfergebnis / Test Result	
☒	Erfüllt / Passed
☐	Nicht erfüllt / Not passed

Luftdruck / Barometric pressure:	978 hPa
Relative Luftfeuchtigkeit / Relative humidity:	22 %
Temperatur / Ambient temperature:	37 °C

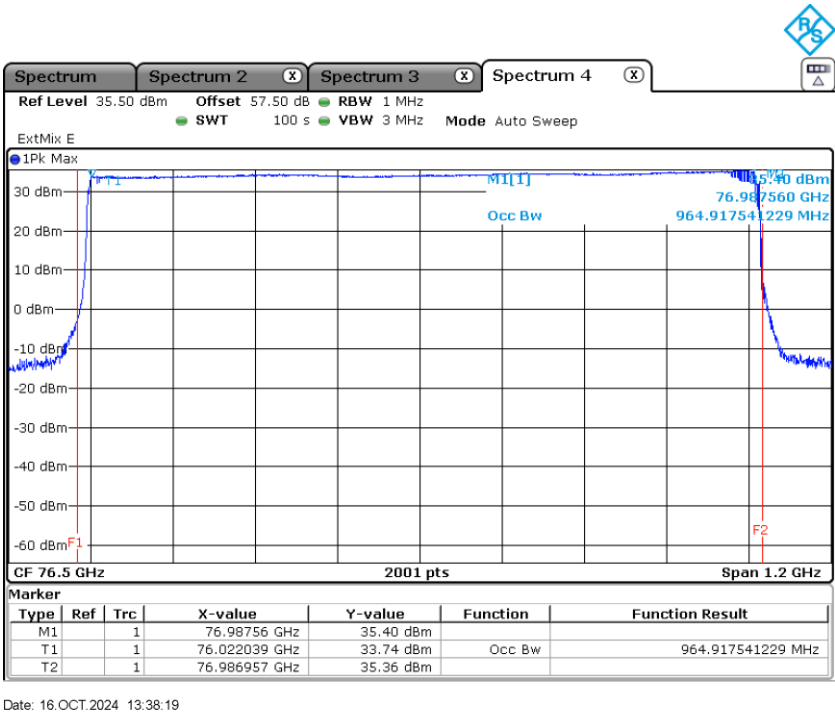
Prüfgrundlage / Specifications:	ARIB STD-T48 V2.2, section 3.2(3), and ORE: Article 5, and NT: No. 643 in 1997	
Grenzwert / Limit:	<i>Frequency band 9 (10.5 GHz – 134 GHz): Wireless station</i> 1. Radio positioning stations (1) Vehicle sensing radiolocation land stations 800 (2) Other radio positioning stations (Note 29) 5000 2. Amateur stations 500 3. Simple radio stations 200 4. Earth station and Space Administration (Note 40) 100 5. Specified low power radio stations 500 6. Low-power data communication system radio station (Note 34) (1) Those in the 57 GHz – 66 GHz band 10 mW or less 500 more than 10 mW 20 (2) Those of other frequencies 20 7. Other radio stations (Note 21, 31, 34, 42, 48, 55) 300 Note 34: Allowable deviation of the frequency of the radio waves to be used for the next listed radio equipment: (2) 312 MHz – 315.25 MHz, 401 MHz – 406 MHz, 433.67 MHz – 434.17 MHz, 2400 MHz – 2483.5 MHz, 10.5 GHz – 10.55 GHz, 24.05 GHz – 24.25 GHz, 60 GHz – 61 GHz, radio equipment of the low-power radio stations using 77 GHz – 81 GHz or 76 GHz – 77 GHz frequency bands.	<i>Applicable frequency deviation (ppm)</i>
Betriebsart / Operation mode:	Transmission with unmodulated carrier was used for this test.	
Kommentar / Comment:	Test was performed as radiated test. The test distance was 1 m. A correction factor of 57.5 and mixer conversion loss table were used to account for the test antenna gain, free-space loss and external mixer loss.	

Test result
On all tested voltages and temperatures, the Occupied Bandwidth (99 %) was within the frequency range 76 to 77 GHz and so, within the designated frequency band. See plots for details

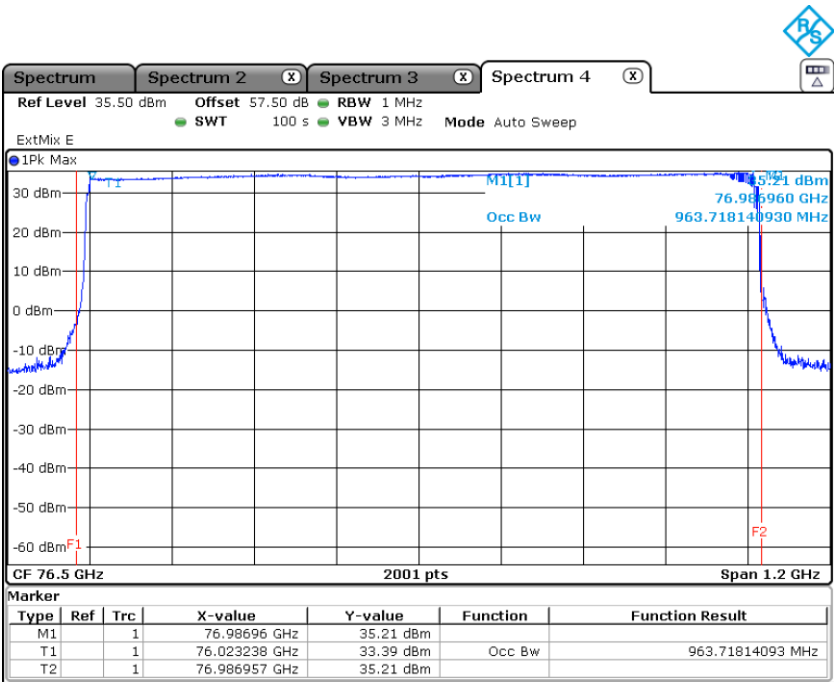
Plots taken during measurement



-40 °C, 12 V

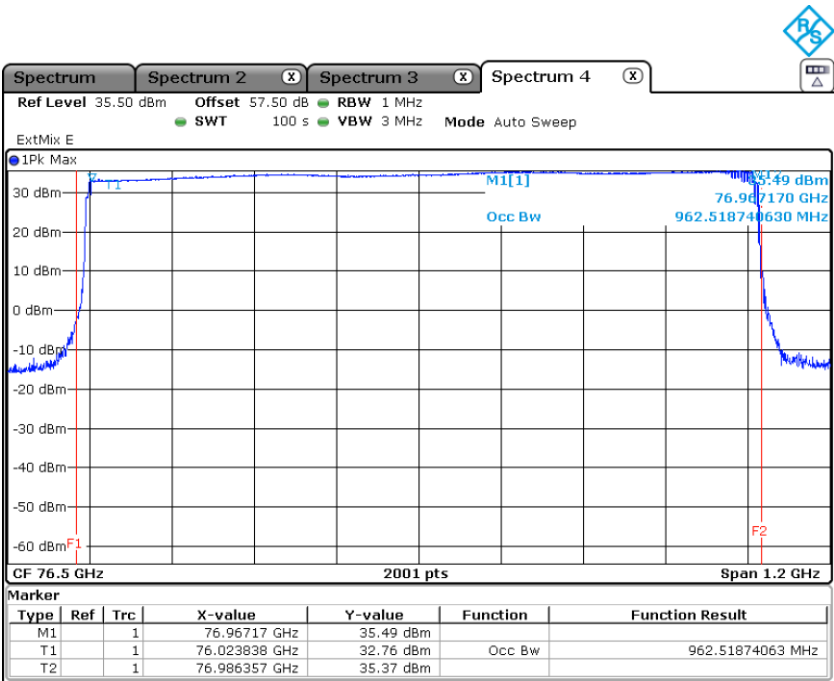


-30 °C, 12 V



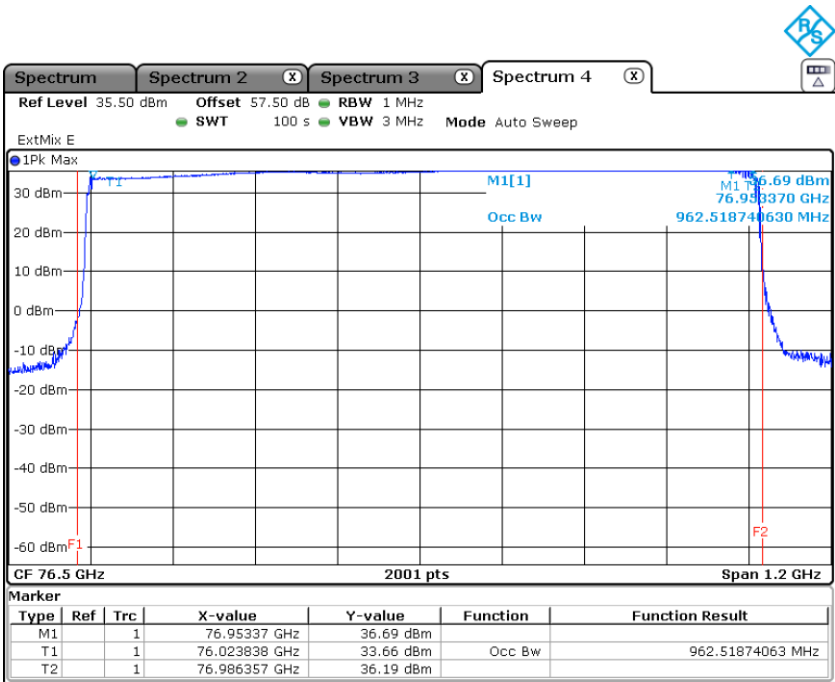
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-20 °C, 12 V



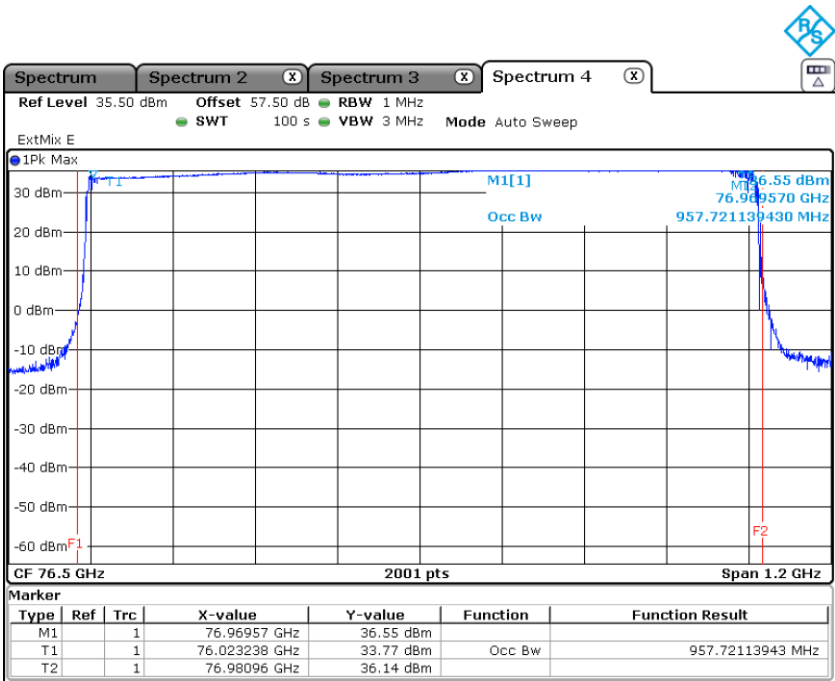
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-10 °C, 12 V



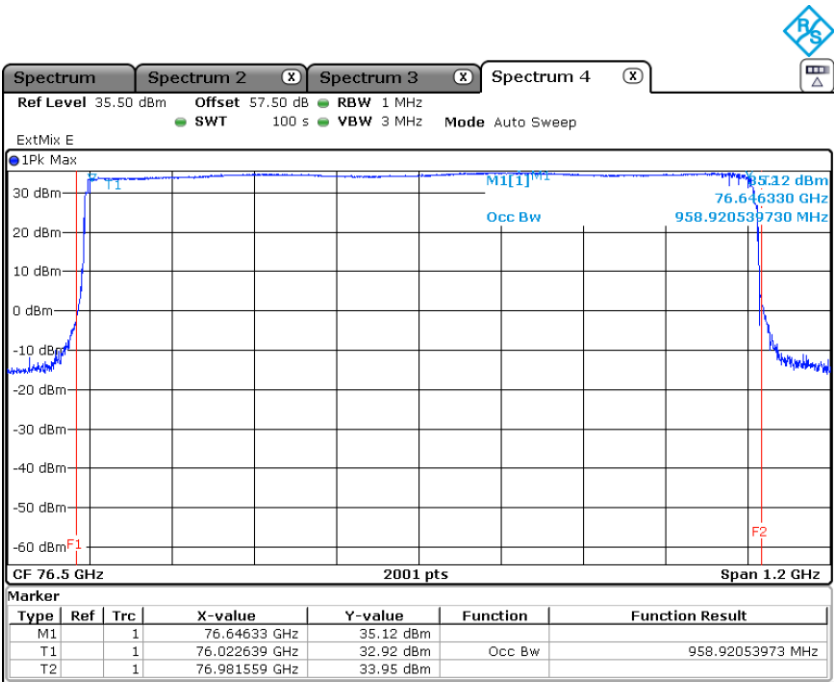
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0 °C, 12 V



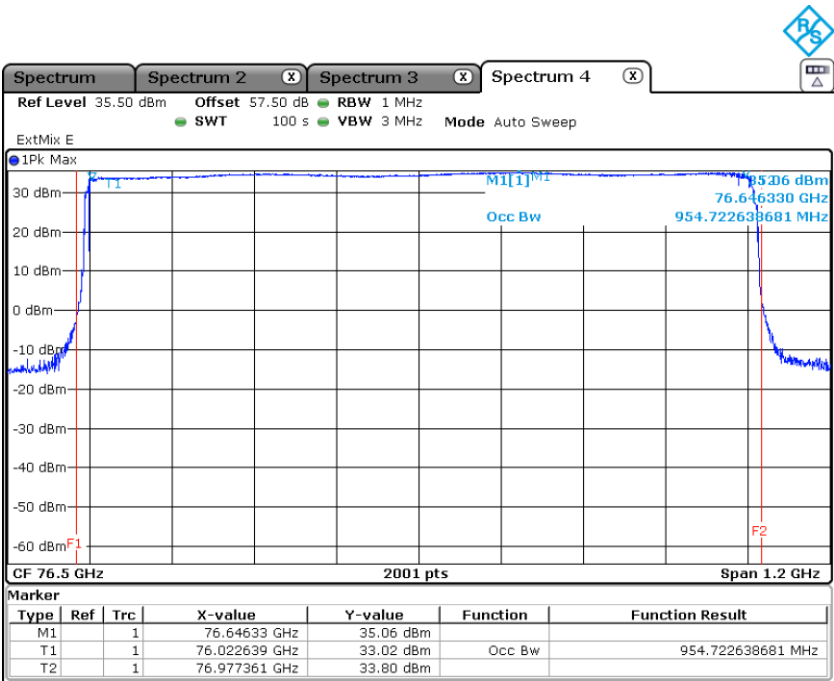
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10 °C, 12 V



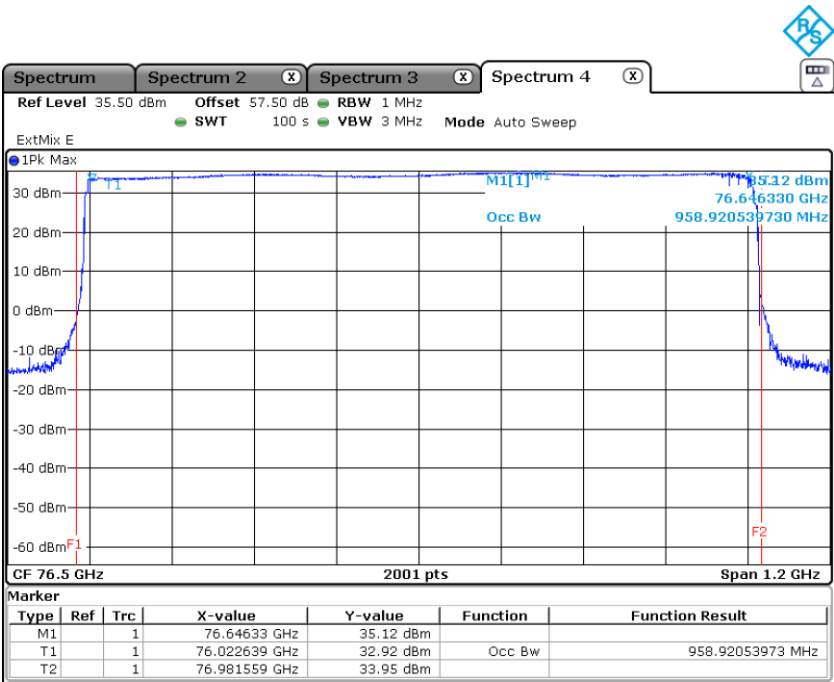
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20 °C, 6.5 V



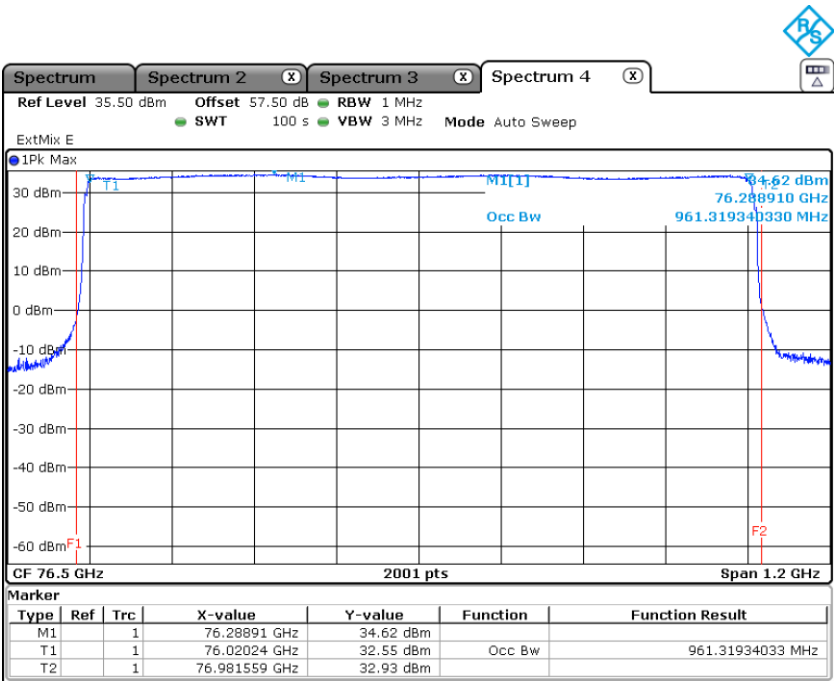
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20 °C, 12 V



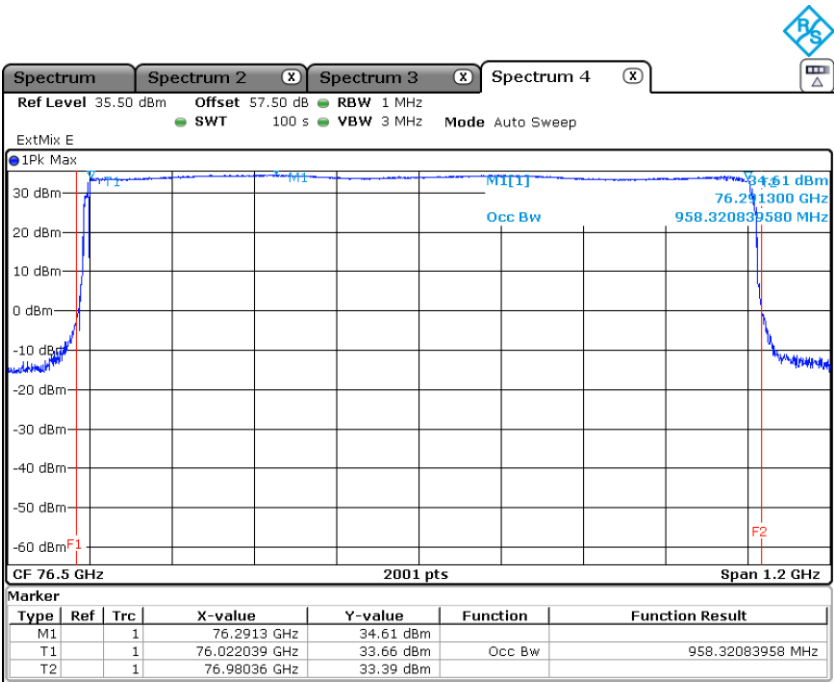
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20 °C, 16 V



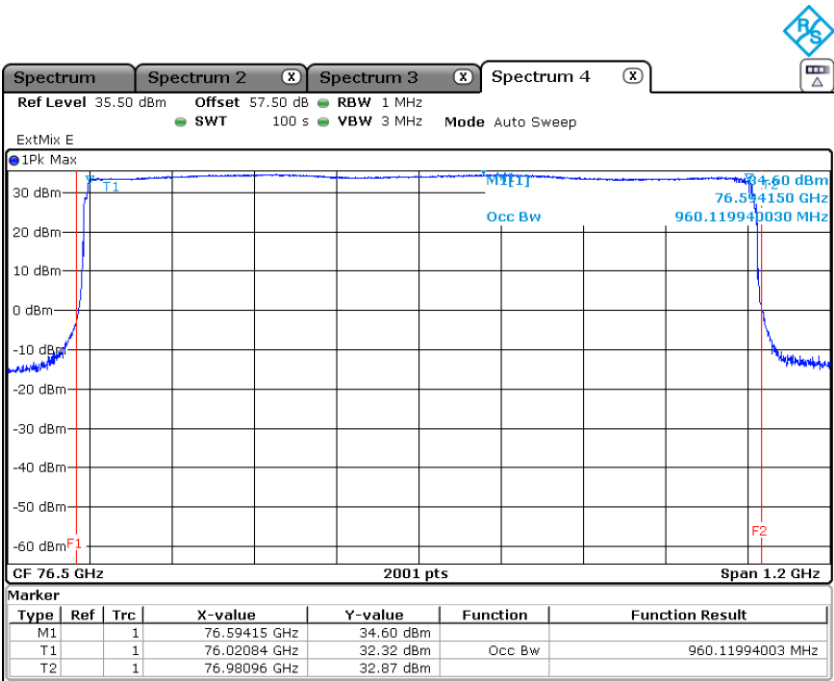
Date: 16.OCT.2024 17:35:55

30 °C, 12 V



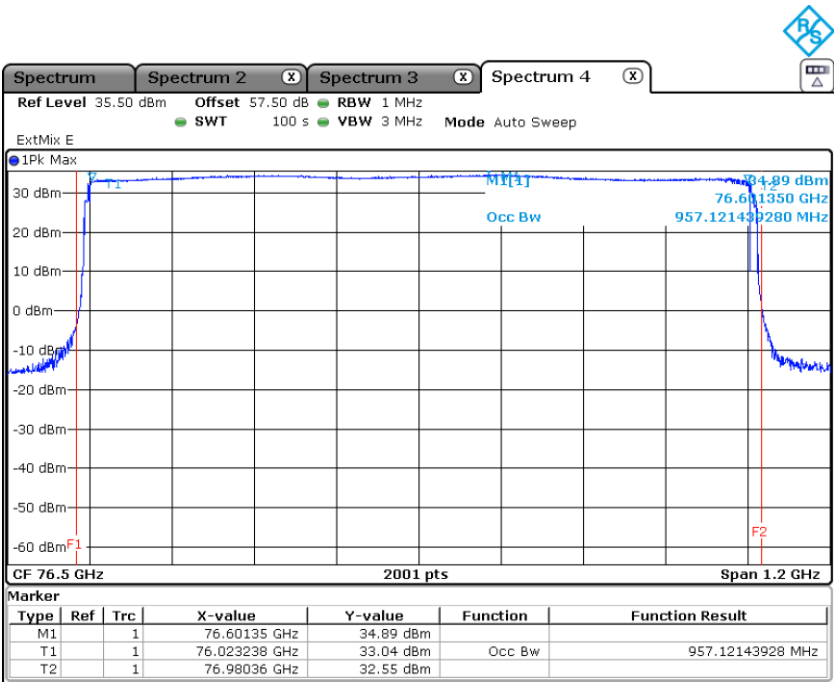
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40 °C, 12 V



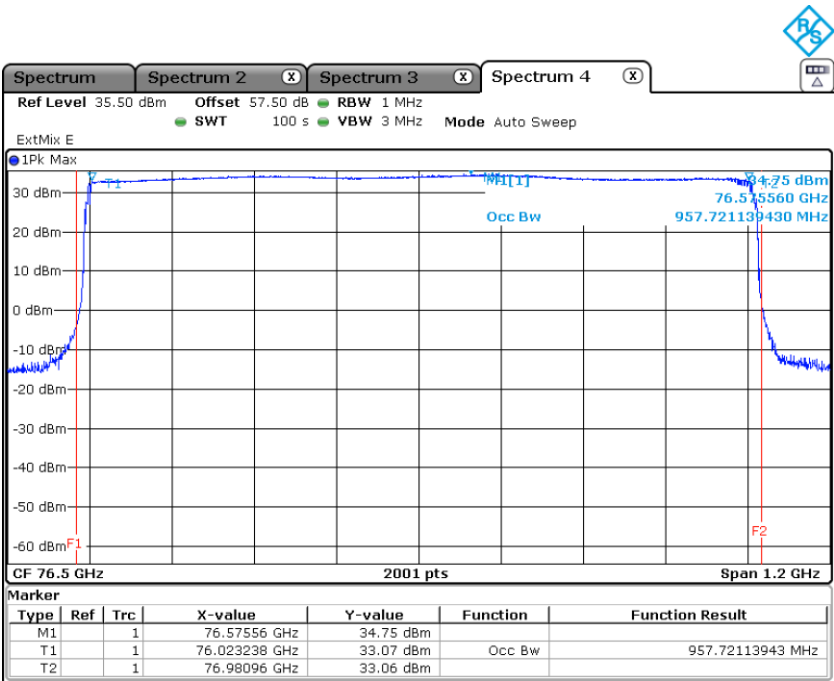
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50 °C, 12 V



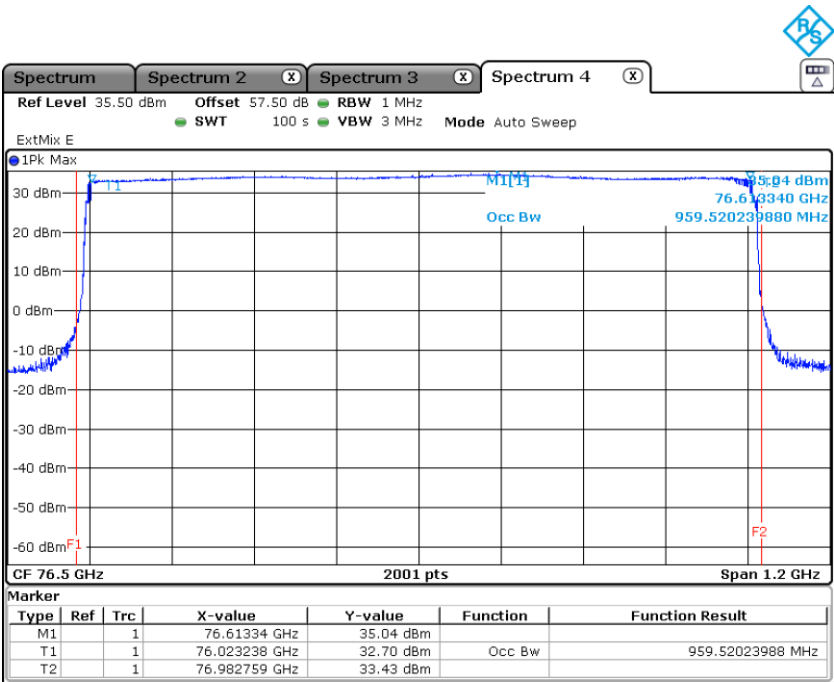
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60 °C, 12 V



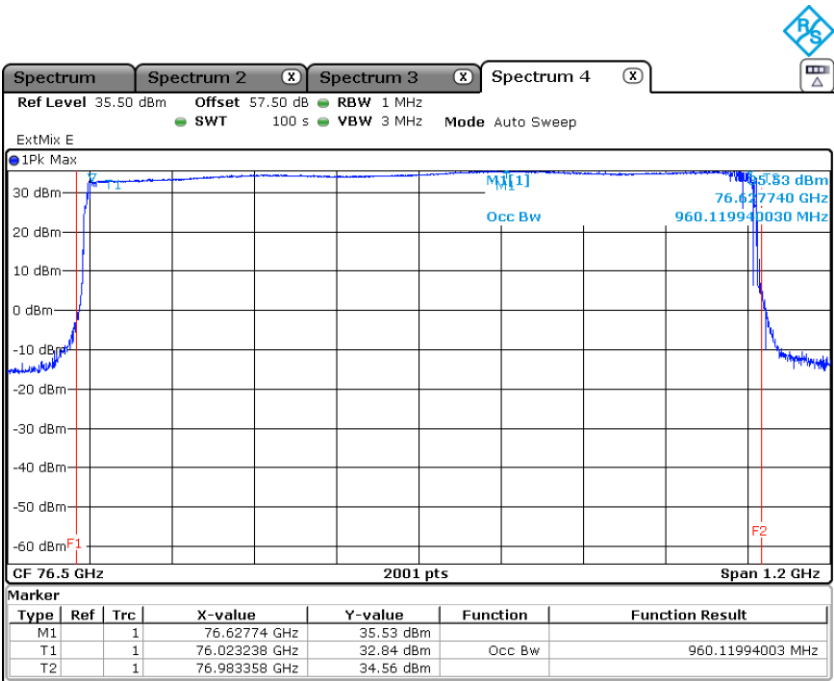
Date: 16.OCT.2024 16:48:52

70 °C, 12 V



Date: 16.OCT.2024 16:34:26

80 °C, 12 V



Date: 16.OCT.2024 15:45:13

85 °C, 12 V

7.4 Permissible Value of Occupied Bandwidth

Prüfdatum / Date of test:	2023-10-02
Prüfer / Operator:	Alex Fink
Messplatz / Test site:	Semi anechoic room, cabin no. 2

Prüfergebnis / Test Result	
☒	Erfüllt / Passed
☐	Nicht erfüllt / Not passed

Luftdruck / Barometric pressure:	990 hPa
Relative Luftfeuchtigkeit / Relative humidity:	22 %
Temperatur / Ambient temperature:	38 °C

Prüfgrundlage / Specifications:	ARIB STD-T48 V2.2, section 3.2(4)
Grenzwert / Limit:	The occupied bandwidth, which is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to 0.5 % of the total mean power of a given emission, shall be 1000 MHz or less under normal modulation condition.
Betriebsart / Operation mode:	Transmitting continuously on frequency with modulation bandwidth as stated in table below
Kommentar / Comment:	Test was performed as radiated test. The test distance was 3 m. A mixer conversion loss table were used to account for the test antenna gain, free-space loss and external mixer loss. Span is wide enough to capture the channel transmission. RBW is 1 % set approx. to 1 % of anticipated EBW. VBW > RBW Trace is max hold, Detector is peak. Sweep time is set to AUTO. The 99 % OBW measurement function of the spectrum analyzer was used for this test.

Occupied Bandwidth (MHz)	Limit (MHz)
958.119361443	1000



Plots taken during measurement



7.5 Permissible Levels of Spurious Emission or Unwanted Emission Intensity

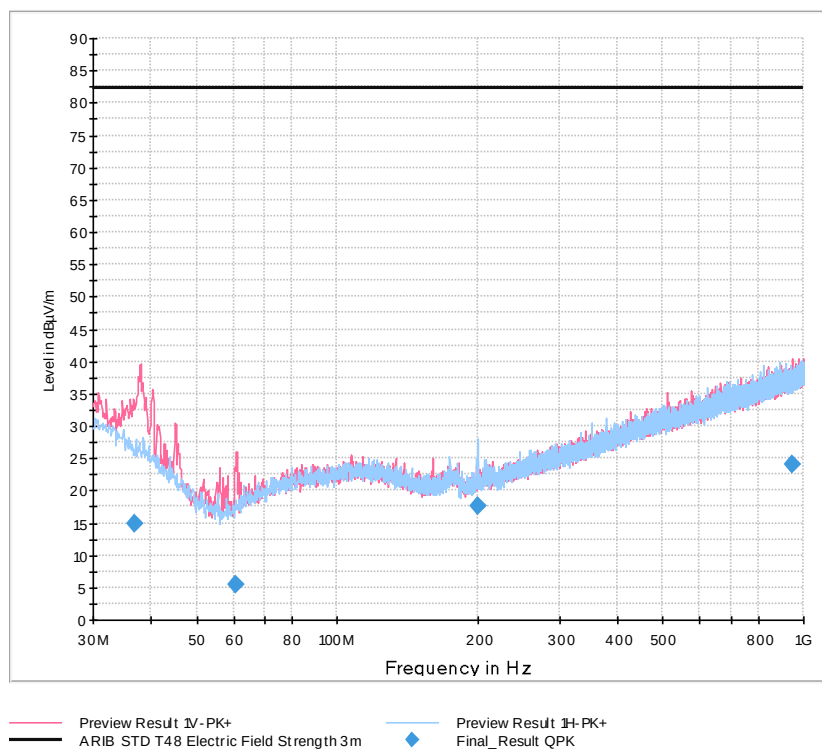
Prüfdatum / Date of test:	2024-10-02 to 2024-10-08
Prüfer / Operator:	Alex Fink
Messplatz / Test site:	Semi anechoic room, cabin no. 2 Fully anechoic room, cabin no. 11

Prüfergebnis / Test Result	
☒	Erfüllt / Passed
☐	Nicht erfüllt / Not passed

Luftdruck / Barometric pressure:	988 hPa
Relative Luftfeuchtigkeit / Relative humidity:	22 %
Temperatur / Ambient temperature:	38 °C

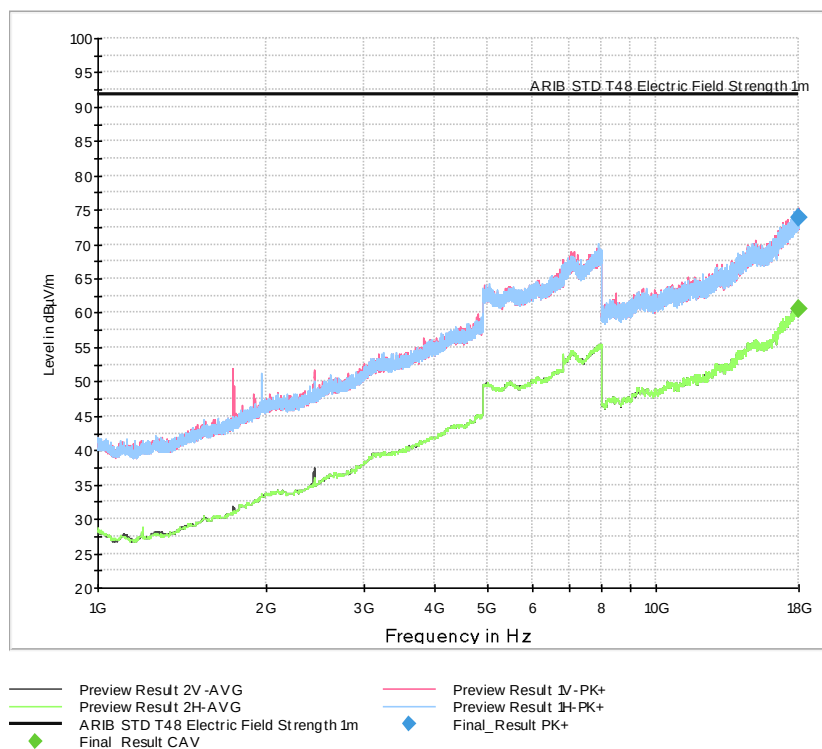
Prüfgrundlage / Specifications:	ARIB STD-T48, section 3.2(5)	
Grenzwert / Limit:	b) Permissible Levels applied after 1 December 2005:	
	Permissible level of spurious emission in out-of-band domain	Permissible level of spurious emission in spurious domain
	equal to or less than 100 µW	equal to or less than 50 µW
Betriebsart / Operation mode:	This test was performed as radiated test in the frequency range 30 MHz to 300 GHz. No significant spurious emissions were observed. The test distance was 3 m in the frequency ranges 30 MHz to 1 GHz and 40 GHz to 110 GHz, 1 m in the frequency ranges 1GHz to 40 GHz and 110 GHz to 220 GHz and 0.5 m in the frequency range 220 GHz to 300 GHz.	
Kommentar / Comment:	The measurement below was done using EMC 32 V10.50.00 automated software. See plots for details.	

Plots taken during measurement



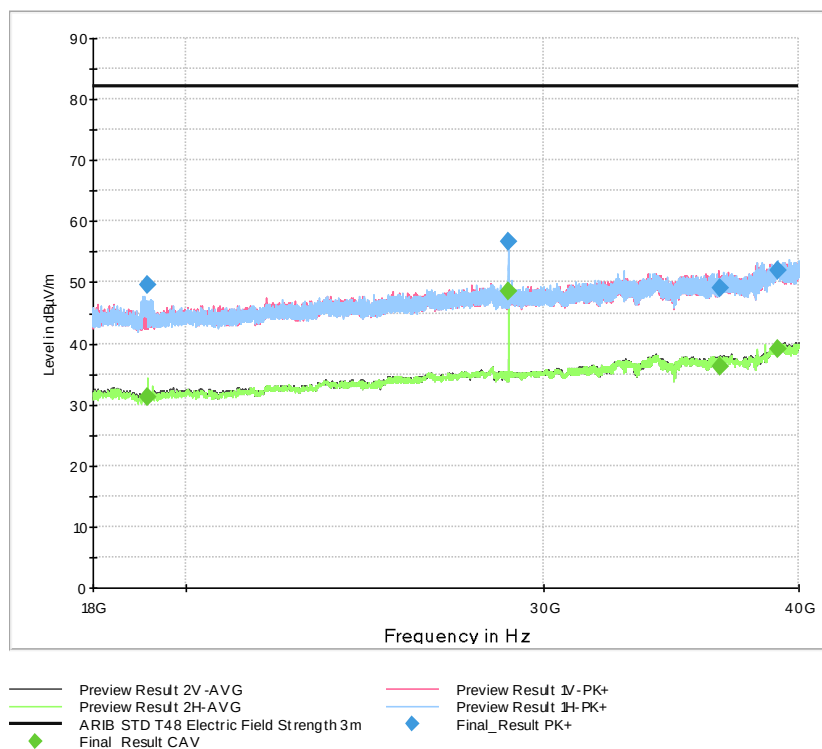
Final Results:

Frequency	QuasiPeak	Limit	Margin	Meas. Time	Bandwidth	Height	Pol	Azimuth	Corr.
MHz	dBµV/m	dBµV/m	dB	ms	kHz	cm		deg	dB/m
36.994000	14.93	82.22	67.29	1000.0	120.000	323.0	V	129.0	21.2
60.756000	5.36	82.22	76.86	1000.0	120.000	281.0	V	117.0	12.0
200.004000	17.68	82.22	64.54	1000.0	120.000	175.0	H	119.0	15.4
947.359000	23.95	82.22	58.27	1000.0	120.000	373.0	V	212.0	30.6



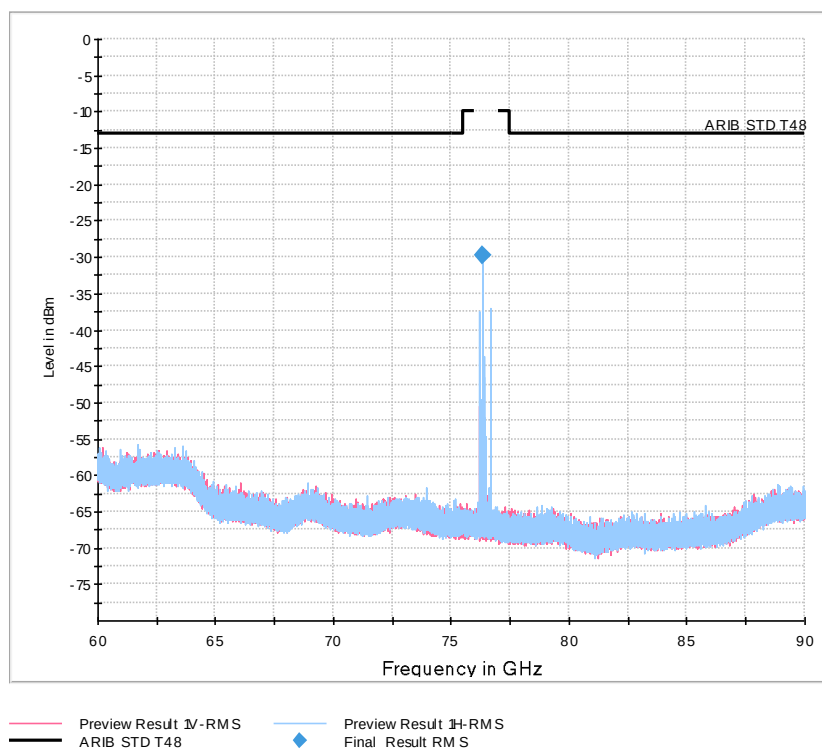
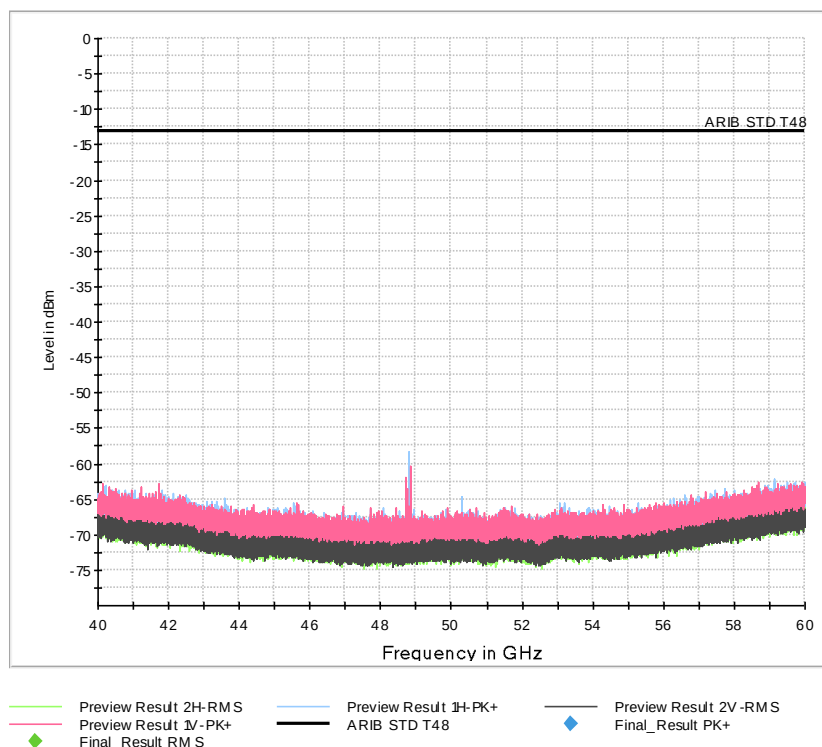
Final Results:

Frequency	MaxPeak	Limit	Margin	Meas. Time	Bandwidth	Height	Pol	Azimuth	Corr.
MHz	dBµV/m	dBµV/m	dB	ms	kHz	cm		deg	dB/m
17953.250000	73.86	91.76	17.90	1000.0	1000.000	114.0	H	45.0	59.0



Final Results:

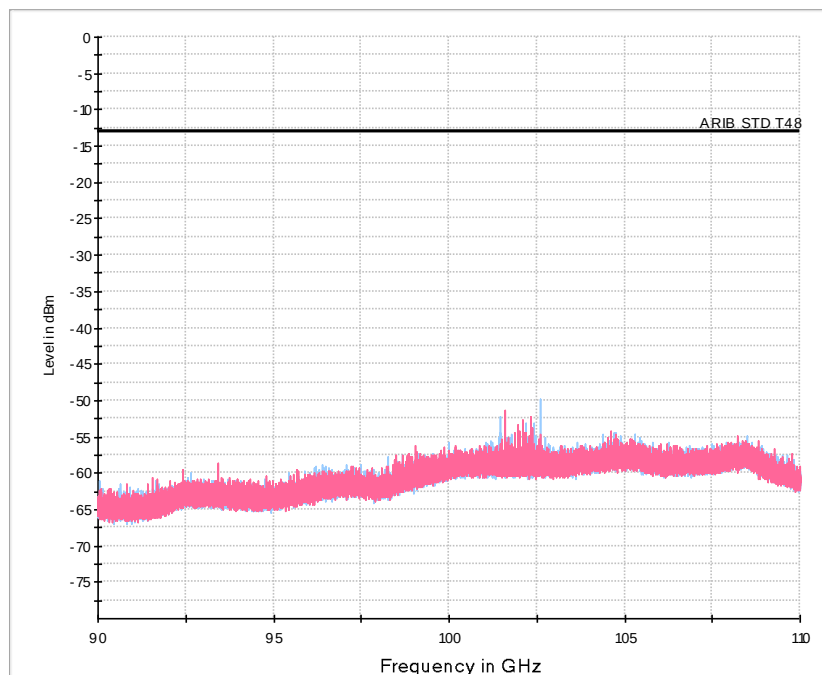
Frequency MHz	MaxPeak dBµV/m	Limit dBµV/m	Margin dB	Meas. Time ms	Bandwidth kHz	Height cm	Pol	Azimuth deg	Corr. dB/m
19133.000000	49.56	82.22	32.66	1000.0	1000.000	228.0	H	140.0	24.5
28799.500000	56.62	82.22	25.60	1000.0	1000.000	252.0	H	-111.0	31.7
36588.250000	49.18	82.22	33.04	1000.0	1000.000	120.0	V	-101.0	33.5
39041.750000	52.08	82.22	30.14	1000.0	1000.000	125.0	V	-85.0	35.3



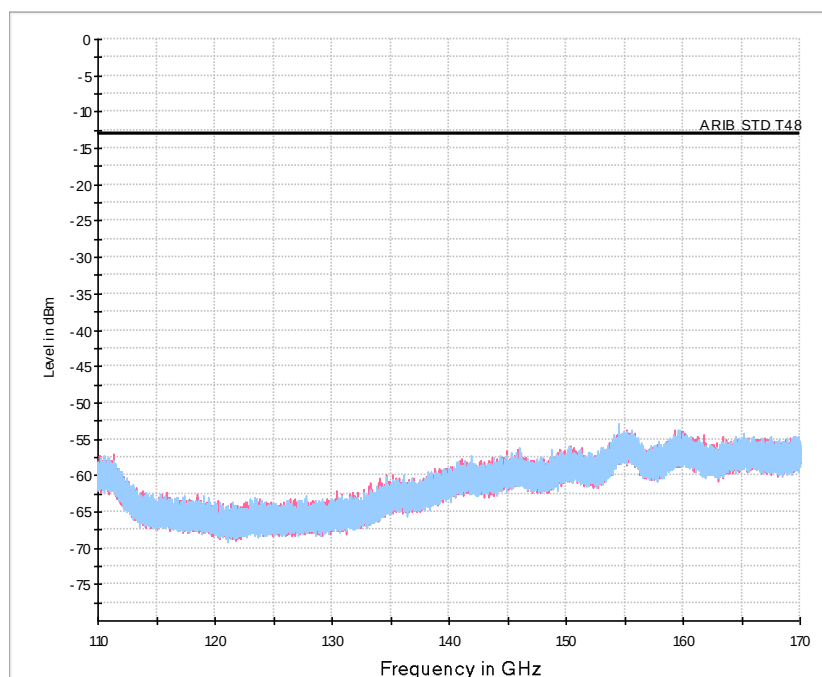
Final Results:

Frequency MHz	RMS dBm	Limit dBm	Margin dB	Meas. Time ms	Bandwidth kHz	Height cm	Pol	Azimuth deg	Corr. dB
76344.000000	-29.72	#1	#1	2.5	1000.000	150.0	H	51.0	-87

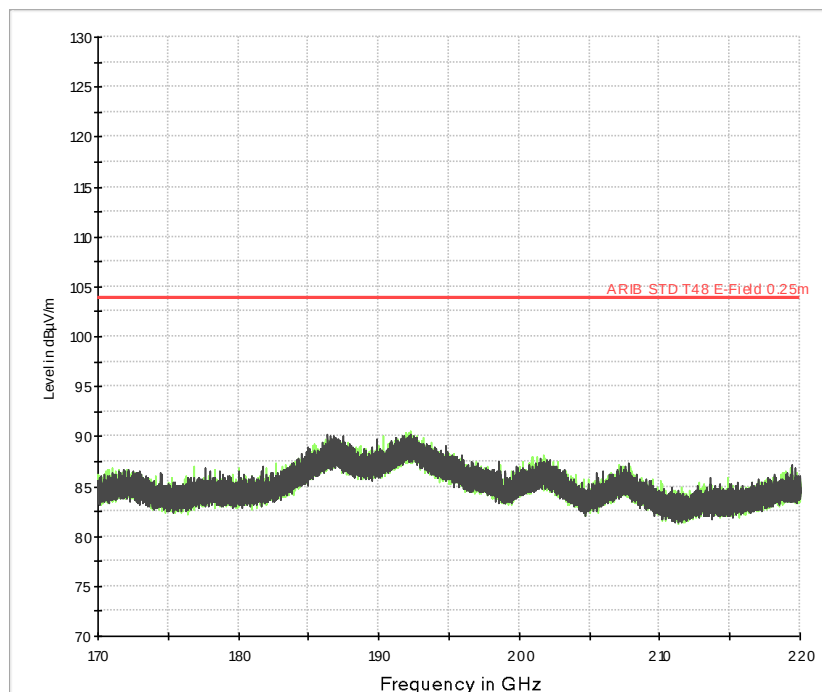
Note #1: intentional radiation, see power measurements section 7.1



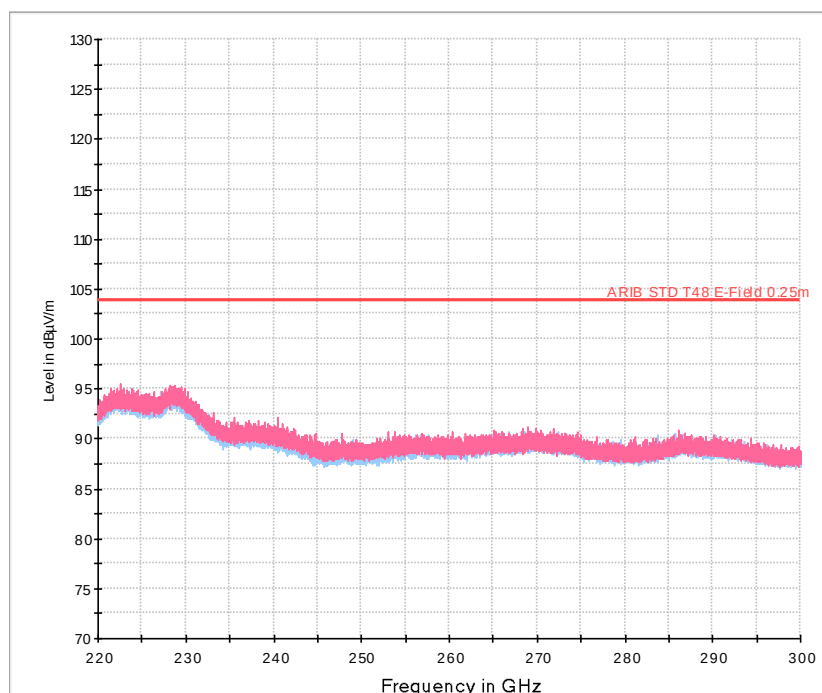
Preview Result 1H-RMS
ARIB STD T48
Preview Result 1V-RMS
Final_Result RMS



Preview Result 1V-RMS
ARIB STD T48
Preview Result 1H-RMS
Final_Result RMS



Preview Result 2H-RMS Preview Result 2V-RMS ARIB STD T48 E-Field 0.25m



Preview Result 1H-RMS Preview Result 1V-RMS ARIB STD T48 E-Field 0.25m

7.6 Antenna Gain

Prüfdatum / Date of test:	2025-04-28
Prüfer / Operator:	Martin Steindl
Messplatz / Test site:	Semi anechoic room, cabin no. 2

Prüfergebnis / Test Result	
☒	Erfüllt / Passed
☐	Nicht erfüllt / Not passed

Prüfgrundlage / Specifications:	ARIB STD-T48 V2.2, section 3.5(2)
Grenzwert / Limit:	The absolute gain of the transmitting antenna shall be 40 dB or less
Betriebsart / Operation mode:	---
Kommentar / Comment:	Declaration of manufacturer

Antenna Type	Requirement	Peak Antenna Gain
Integral planar array	< 40 dB _i	21.85 dB _i

8 Test Equipment used

<i>T-ID</i>	<i>Designation</i>	<i>Type</i>	<i>Last Cal.</i>	<i>Next Cal.</i>
18874	Horn antenna	3160-07	Verified	
18875	Horn antenna	3160-08	Verified	
19125	Horn antenna	3160-09	Verified	
40089	Double ridged horn antenna	HF907	2022-10	2024-10
19442	Horn antenna	3160-10	Verified	
19946	Horn antenna	24240-20	Verified	
39897	EMI test receiver	ESW44	2024-04	2025-04
22553	Waveguide mixer	FS-Z170	2023-06	2026-06
25849	Waveguide mixer	FS-Z60	2023-06	2026-06
25850	Waveguide mixer	FS-Z90	2023-06	2026-06
25851	Waveguide mixer	FS-Z110	2023-06	2026-06
27898	Horn antenna	26240-20	Verified	
27899	Horn antenna	27240-20	Verified	
36954	Harmonic Mixer	FS-Z220	2023-06	2026-06
36955	Harmonic Mixer	FS-Z325	2023-06	2026-06
37863	Horn antenna	30240-20 WG30	Verified	
37864	Horn antenna	32240-20 WG32	Verified	
38401	ULTRALOG Antenna	HL562E	2023-01	2026-01

9 Measurement Uncertainty Values

The measurement uncertainty in the laboratory is less than or equal to the maximum measurement uncertainty according to EN 55016-4-2: 2011 + A1 + A2 + AC and CISPR16-4-2: 2011 + A1 + A2 + Cor1 (UCISPR). This normative regulation means that the measured value is also the value to be assessed in relation to the limit value.

For a 95% confidence level, the measurement uncertainties for defined systems are:

Radio Testing			
Test Name	kp	Expanded Uncertainty	Note
Occupied Bandwidth	2.0	$\pm 1.14 \%$	2
RF-Frequency error	1.96	$\pm 1 \cdot 10^{-7}$	7
RF-Power, conducted carrier	2	$\pm 0.079 \text{ dB}$	2
RF-Power uncertainty for given BER	1.96	$+0.94 \text{ dB} / -1.05$	7
RF power, conducted, spurious emissions	1.96	$+1.4 \text{ dB} / -1.6 \text{ dB}$	7
RF power, radiated			
25 MHz – 4 GHz	1.96	$+3.6 \text{ dB} / -5.2 \text{ dB}$	8
1 GHz – 18 GHz	1.96	$+3.8 \text{ dB} / -5.6 \text{ dB}$	8
18 GHz – 26.5 GHz	1.96	$+3.4 \text{ dB} / -4.5 \text{ dB}$	8
40 GHz – 170 GHz	1.96	$+4.2 \text{ dB} / -7.1 \text{ dB}$	8
Spectral Power Density, conducted	2.0	$\pm 0.53 \text{ dB}$	2
Maximum frequency deviation			
300 Hz – 6 kHz	2	$\pm 2.89 \%$	2
6 kHz – 25 kHz	2	$\pm 0.2 \text{ dB}$	2
Maximum frequency deviation for FM	2	$\pm 2.89 \%$	2
Adjacent channel power 25 MHz – 1 GHz	2	$\pm 2.31 \%$	2
Temperature	2	$\pm 0.39 \text{ K}$	4
(Relative) Humidity	2	$\pm 2.28 \%$	2
DC- and low frequency AC voltage			
DC voltage	2	$\pm 0.01 \%$	2
AC voltage up to 1 kHz	2	$\pm 1.2 \%$	2
Time	2	$\pm 0.6 \%$	2

Radio Interference Emission Testing			
Test Name	kp	Expanded Uncertainty	Note
Conducted Voltage Emission			
9 kHz to 150 kHz (50Ω/50μH AMN)	2	± 3.8 dB	1
150 kHz to 30 MHz (50Ω/50μH AMN)	2	± 3.4 dB	1
100 kHz to 200 MHz (50Ω/5μH AMN)	2	± 3.6 dB	1
Discontinuous Conducted Emission			
9 kHz to 150 kHz (50Ω/50μH AMN)	2	± 3.8 dB	1
150 kHz to 30 MHz (50Ω/50μH AMN)	2	± 3.4 dB	1
Conducted Current Emission			
9 kHz to 200 MHz	2	± 3.5 dB	1
Magnetic Fieldstrength			
9 kHz to 30 MHz (with loop antenna)	2	± 3.9 dB	1
9 kHz to 30 MHz (large-loop antenna 2 m)	2	± 3.5 dB	1
Radiated Emission			
Test distance 1 m (ALSE)			
9 kHz to 150 kHz	2	± 4.6 dB	1
150 kHz to 30 MHz	2	± 4.1 dB	1
30 MHz to 200 MHz	2	± 5.2 dB	1
200 MHz to 2 GHz	2	± 4.4 dB	1
2 GHz to 3 GHz	2	± 4.6 dB	1
Test distance 3 m			
30 MHz to 300 MHz	2	± 4.9 dB	1
300 MHz to 1 GHz	2	± 5.0 dB	1
1 GHz to 6 GHz	2	± 4.6 dB	1
Test distance 10 m			
30 MHz to 300 MHz	2	± 4.9 dB	1
300 MHz to 1 GHz	2	± 4.9 dB	1
Radio Interference Power			
30 MHz to 300 MHz	2	± 3.5 dB	1
Harmonic Current Emissions			4
Voltage Changes, Voltage Fluctuations and Flicker			4

Immunity Testing			
Test Name	kp	Expanded Uncertainty	Note
Electrostatic Discharges			4
Radiated RF-Field			
Pre-calibrated field level	2	+32.2 / -24.3 %	5
Dynamic feedback field level	2.05	+21.2 / -17.5 %	3
Electrical Fast Transients (EFT) / Bursts			4
Surges			4
Conducted Disturbances, induced by RF-Fields			
via CDN	2	+15.1 / -13.1 %	6
via EM clamp	2	+42.6 / -29.9 %	6
via current clamp	2	+43.9 / -30.5 %	6
Power Frequency Magnetic Field	2	+20.7 / -17.1 %	2
Pulse Magnetic Field			4
Voltage Dips, Short Interruptions and Voltage Variations			4
Oscillatory Waves			4
Conducted Low Frequency Disturbances			
Voltage setting	2	± 0.9 %	2
Frequency setting	2	± 0.1 %	2
Electrical Transient Transmission in Road Vehicles			4

Note 1:

The expanded uncertainty reported according to CISPR 16-4-2:2003-11 is based on a standard uncertainty multiplied by a coverage factor of $k_p = 2$, providing a level of confidence of $p = 95.45\%$

Note 2:

The expanded uncertainty reported according to UKAS Lab 34 (Edition 1, 2002-08) is based on a standard uncertainty multiplied by a coverage factor of $k_p = 2$, providing a level of confidence of $p = 95.45\%$

Note 3:

The expanded uncertainty reported according to UKAS Lab 34 (Edition 1, 2002-08) is based on a standard uncertainty multiplied by a coverage factor of $k_p = 2.05$, providing a level of confidence of $p = 95.45\%$

Note 4:

It has been demonstrated that the used test equipment meets the specified requirements in the standard with at least a 95% confidence.

Note 5:

The expanded uncertainty reported according to IEC 61000-4-3 is based on a standard uncertainty multiplied by a coverage factor of $k_p = 2$, providing a level of confidence of $p = 95.45\%$

Note 6:

The expanded uncertainty reported according to IEC 61000-4-6 is based on a standard uncertainty multiplied by a coverage factor of $k_p = 2$, providing a level of confidence of $p = 95.45\%$

Note 7:

The expanded uncertainty reported according ETSI TR 100 028 V1.4.1 (all parts) to is based on a standard uncertainty multiplied by a coverage factor of $k_p = 1.96$, providing a level of confidence of $p = 95.45\%$

Note 8:

The expanded uncertainty reported according to ETSI TR 102 273 V1.2.1 (all parts) is based on a standard uncertainty multiplied by a coverage factor of $k_p = 1.96$, providing a level of confidence of $p = 95.45\%$

10 Revision History

Revision History			
<i>Revision</i>	<i>Date</i>	<i>Issued by</i>	<i>Modifications</i>
0	2025-04-28	M. Steindl	First Revision
1	2025-05-06	M. Steindl	Corrected information on antenna gain on page 13.