



RF - TEST REPORT

- FCC Part 15.249, RSS-210 -

Type / Model Name : RR03

Product Description : Active Timing System (HVIN: RR03)

Applicant : race result AG

Address : Joseph-von-Fraunhofer-Straße 11
76327 Pfinztal, Germany

Manufacturer : race result AG

Address : Joseph-von-Fraunhofer-Straße 11
76327 Pfinztal, Germany

Test Result according to the standards listed in clause 1 test standards:	POSITIVE
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Test Report No. : 80149824-04 Rev_2	17. May 2023 Date of issue
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Deutsche
Akkreditierungsstelle
D-PL-12030-01-03
D-PL-12030-01-04

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ATTACHMENT A as separate supplement

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

1 TEST STANDARDS

The tests were performed according to following standards:

FCC Rules and Regulations Part 15, Subpart A - General (February 2023)

Part 15, Subpart A, Section 15.31	Measurement standards
Part 15, Subpart A, Section 15.33	Frequency range of radiated measurements
Part 15, Subpart A, Section 15.35	Measurement detector functions and bandwidths

FCC Rules and Regulations Part 15, Subpart C - Intentional Radiators (February 2023)

Part 15, Subpart C, Section 15.203	Antenna requirement
Part 15, Subpart C, Section 15.204	External radio frequency power amplifiers and antenna modifications
Part 15, Subpart C, Section 15.205	Restricted bands of operation
Part 15, Subpart C, Section 15.207	Conducted limits
Part 15, Subpart C, Section 15.209	Radiated emission limits, general requirements
Part 15, Subpart C, Section 15.215	Additional provisions to the general radiated emission limitations
Part 15, Subpart C, Section 15.249	Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 - 5875 MHz, and 24.0 - 24.25 GHz

ANSI C63.10: 2013	Testing Unlicensed Wireless Devices
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2 EQUIPMENT UNDER TEST

2.1 Information provided by the Client

Please note, we do not take any responsibility for information provided by the client or his representative which may have an influence on the validity of the test results.

2.2 Sampling

The customer is responsible for the choice of sample. Sample configuration, start-up and operation is carried out by the customer or according his/her instructions.

2.3 General remarks

None.

2.4 Photo documentation of the EUT – Detailed photos see Attachment A

2.5 Equipment category

EUT is a low power 2.4 GHz transceiver.

2.6 Short description of the equipment under test (EUT)

The active timing system is used for time measurements in sport events and consists of the RR02 (base station) and the RR03 (transponder). RR02 and a 125 kHz loop antenna is placed on the time measurement position. The RR03 is attached to the participant of the event or their equipment. The 125 kHz signal triggers a 2.4 GHz transmission between the RR02 and the RR03. This message contains the required information and is stored. The functions of the RR03 are controlled by the 125 kHz signal of the RR02.

Number of tested samples: 2
 Serial number: ZZZZZ107 (Radiated sample, external power supply)
 ZZZZZ67 (Conducted sample, external power supply)

2.7 Variants of the EUT

RACE RESULT ActivePro Performance Transponder (red, cyan or orange)
 RACE RESULT ActivePro Endurance Transponder (red, cyan or orange)
 RACE RESULT ActiveBasic Transponder (blue)
 RACE RESULT MotorKart Transponder (grey)

2.8 Operation frequency and channel plan

The operating frequency band is 2400 MHz to 2483.5 MHz.

Main		Backup	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2480	8	2410
1	2405	9	2470
2	2425	10	2465
3	2475	11	2440
4	2415	12	2445
5	2460	13	2430
6	2435	14	2455
7	2450	15	2420

2.9 Transmit operating modes

The EUT allows free selection of main channel and following transmit modes:

- TX continuous, unmodulated
- Communication, modulated

2.10 Antenna

The internal custom PCB antenna is not accessible for the end user. It has a max. gain of 0 dBi +/-1 dB.

2.11 Power supply system utilised

Power supply voltage, V_{nom} : 3 V_{DC} (Battery)

For testing purposes a modified sample with external power supply is used.

2.12 Peripheral devices and interface cables

The following peripheral devices and interface cables are connected during the measurements:

- Power supply cables _____ Model : 1 m _____

2.13 Determination of worst-case conditions for final measurement

Preliminary tests were performed to find the worst-case mode where the maximum emissions occur. The maximum output power is set while testing.

For the final test, the following channels and test modes are selected:

Available channels	Tested channels	Power setting	Modulation	Modulation type	Data rate
1 to 15	0, 1, 7	default	O-QPSK	Digital QPSK	250 kbit/s

2.13.1 Test jig

No test jig used.

2.13.2 Test software

EUT is controlled by 125 kHz signal from companion device. Companion device is controlled by HTerm terminal software.

3 TEST RESULT SUMMARY

FCC Rule Part	RSS Rule Part	Description	Result
15.205(a)	RSS-Gen, 8.10	Emissions in restricted bands	passed
15.207(a)	RSS-Gen, 8.8	AC power line conducted emissions	not applicable ¹
-	RSS-Gen, 6.6	Occupied bandwidth	passed
15.249(a)	RSS-210, B10(a)	Field strength of fundamental	passed
15.249(d)	RSS-210, B10(b)	Out-of-band emission, radiated	passed

1 Test not applicable because EUT has no connection to AC power line.

The mentioned RSS Rule Parts in the above table are related to:
 RSS-Gen, Issue 5 + Amendment 1 + Amendment 2, March 2019
 RSS-210, Issue 10 + Amendment (April 2020), December 2019

3.1 Revision history of test report

Test report No	Rev.	Issue Date	Changes
80149824-04	0	09 March 2023	Initial test report
80149824-04	1	18 April 2023	Added FCC ID, IC ID, HVIN Added Variants of the EUT in 2.7 Added Duty Cycle Measurement in 5.2 Corrected spurious emission table < 30 MHz in 5.3
80149824-04	2	17 May 2023	Corrected measured frequencys in

The test report with the highest revision number replaces the previous test reports.

3.2 Final assessment

The equipment under test fulfills the requirements cited in clause 1 test standards.

Date of receipt of test sample : acc. to storage records

Testing commenced on : 16 January 2023

Testing concluded on : 03 February 2023

Checked by:

Tested by:

 Jürgen Pessinger
 Radio Team

 Lukas Scheuermann
 Radio Team

FCC ID: SZO-RR03

IC ID: 20465-RR03

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

4 TEST ENVIRONMENT

4.1 Address of the test laboratory

**CSA Group Bayern GmbH
Ohmstrasse 1-4
94342 STRASSKIRCHEN
GERMANY**

4.2 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature: 15 - 35 ° C

Humidity: 30 - 60 %

Atmospheric pressure: 86 - 106 kPa

4.3 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. It is noted that the expanded measurement uncertainty corresponds to the measurement results from the standard measurement uncertainty multiplied by the coverage factor $k = 2$. The true value is located in the corresponding interval with a probability of 95 %. The measurement uncertainty was calculated for all measurements listed in this test report on basis of the ETSI Technical Report TR 100 028 Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1 and Part 2. The results are documented in the quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Measurement Type	Range	Confidence Level	Calculated Uncertainty
AC power line conducted emissions	0.15 MHz to 30 MHz	95%	± 3.29 dB
EBW and OBW	2400 MHz to 30000 MHz	95%	$\pm 2.5 \times 10^{-7}$
Output power ERP, radiated	1000 MHz to 7000 MHz	95%	± 2.71 dB
Field strength of the fundamental	1000 MHz to 7000 MHz	95%	± 2.71 dB
Power spectral density	2400 MHz to 3000 MHz	95%	± 0.62 dB
Spurious Emissions, conducted	9 kHz to 10000 MHz	95%	± 2.15 dB
Spurious Emissions, conducted	10000 MHz to 40000 MHz	95%	± 3.47 dB
Spurious Emissions, radiated	9 kHz to 30 MHz	95%	± 3.53 dB
Spurious Emissions, radiated	30 MHz to 1000 MHz	95%	± 4.44 dB
Spurious Emissions, radiated	1000 MHz to 30000 MHz	95%	± 2.34 dB
Spurious Emissions, radiated	30000 MHz to 40000 MHz	95%	± 5.13 dB

4.4 Conformity Decision Rule

The applied conformity decision rule is based on ILAC G8:09/2019 clause 4.2.1 Binary Statement for Simple Acceptance Rule ($w = 0$).
 Details can be found in the procedure CSA_B_V50_29.

4.5 Measurement protocol for FCC and ISED

4.5.1 General information

CSA Group Bayern GmbH is recognized as wireless testing laboratory under the CAB identifier:

FCC: DE 0011
ISED: DE0009

4.5.2 General Standard information

The test methods used comply with ANSI C63.10 - "Testing Unlicensed Wireless Devices".

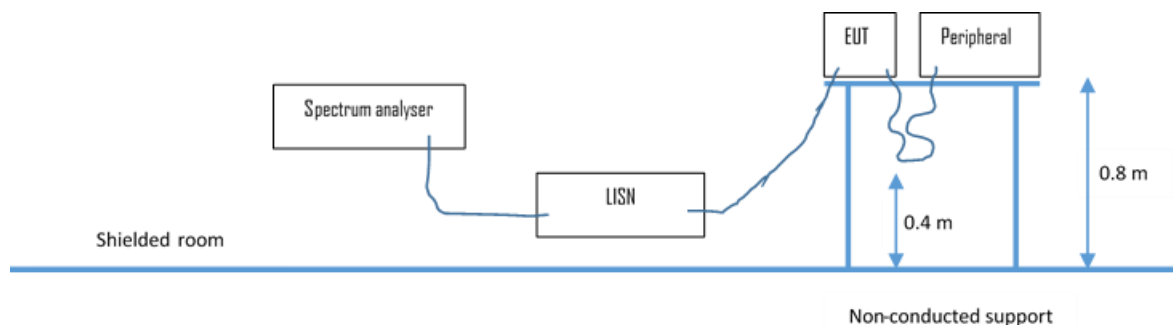
4.5.2.1 Justification

The equipment under test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions.

4.5.3 Details of test procedures

4.5.3.1 Conducted emission

Test setup according ANSI C63.10



The final level, expressed in $\text{dB}\mu\text{V}$, is arrived at by taking the reading directly from the Spectrum analyser. This level is compared to the limit.

To convert between $\text{dB}\mu\text{V}$ and μV , the following conversions apply:

$$\text{dB}\mu\text{V} = 20(\log \mu\text{V})$$

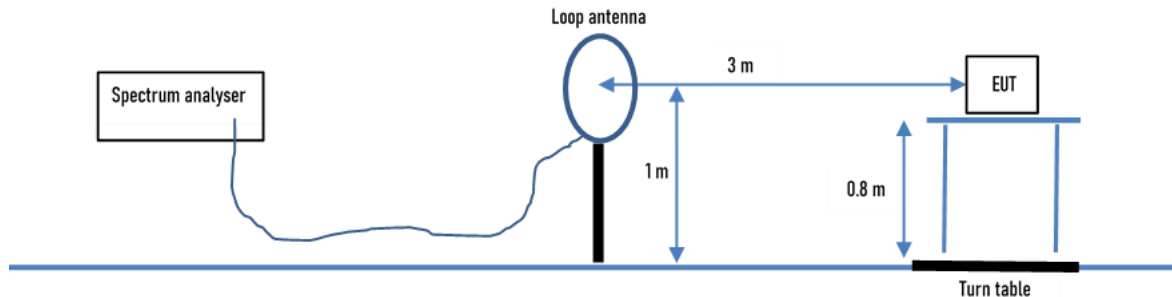
$$\mu\text{V} = \text{Inverse log}(\text{dB}\mu\text{V}/20)$$

Conducted emissions on the 50 Hz and/or 60 Hz power interface of the EUT are measured in the frequency range of 150 kHz to 30 MHz. The measurements are performed using a receiver, which has CISPR characteristic bandwidth and quasi-peak detection and a Line Impedance Stabilization Network (LISN) with $50 \Omega / 50 \mu\text{H}$ (CISPR 16) characteristics. The receiver is protected by means of an impedance matched pulse limiter connected directly to the RF input. Table top equipment is placed on a non-conducting table 80 centimetres above the floor and is positioned 40 centimetres from the vertical ground plane (wall) of the screen room. If the minimum limit margin appears to be less than 20 dB with a peak mode measurement, the emission is re-measured using a tuned receiver with quasi-peak and average detection and recorded on the data sheets.

4.5.3.2 Radiated emission

4.5.3.2.1 OATS1 test site (9 kHz - 30 MHz):

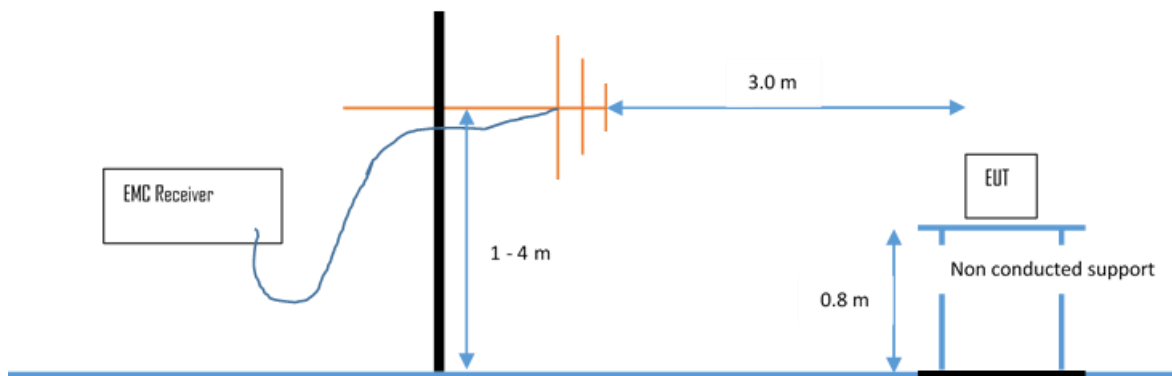
Test setup according ANSI C63.10



Emissions from the EUT are measured in the frequency range of 9 MHz to 30 MHz using a tuned receiver and a calibrated loop antenna. Table top equipment is placed on a 1.0 X 1.5 m non-conducting table 80 centimetres above the ground plane. Cables to simulators/testers (if used in this test) are routed through the centre of the table and to a screened room located outside the test area. The antenna is positioned 3, 10 or 30 metres horizontally from the EUT and is repeated vertically. To locate maximum emissions from the test sample the antenna is varied along the site axis and the EUT is rotated 360 degrees.

4.5.3.2.2 OATS1 test site (30 MHz - 1 GHz):

Test setup according ANSI C63.10.



Spurious emissions from the EUT are measured in the frequency range of 30 MHz to 1000 MHz using a tuned receiver and appropriate broadband linearly polarised antennas. Measurements between 30 MHz and 1000 MHz are made with 120 kHz/6 dB bandwidth and quasi-peak detection. Table top equipment is placed on a 1.0 X 1.5 m non-conducting table 80 centimetres above the ground plane. Floor standing equipment is placed directly on the turntable/ground plane. Cables to simulators/testers (if used in this test) are routed through the centre of the table and to a screened room located outside the test area. To locate maximum emissions from the test sample the antenna is varied in height from 1 to 4 metres and the EUT is rotated 360 degrees. The final level in dBµV/m is calculated by taking the reading from the EMI receiver (Level dBµV) and adding the correction factors and cable loss factor (dB). The FCC limit is subtracted from this result in order to provide the limit margin listed in the measurement protocol.

The resolution bandwidth setting:

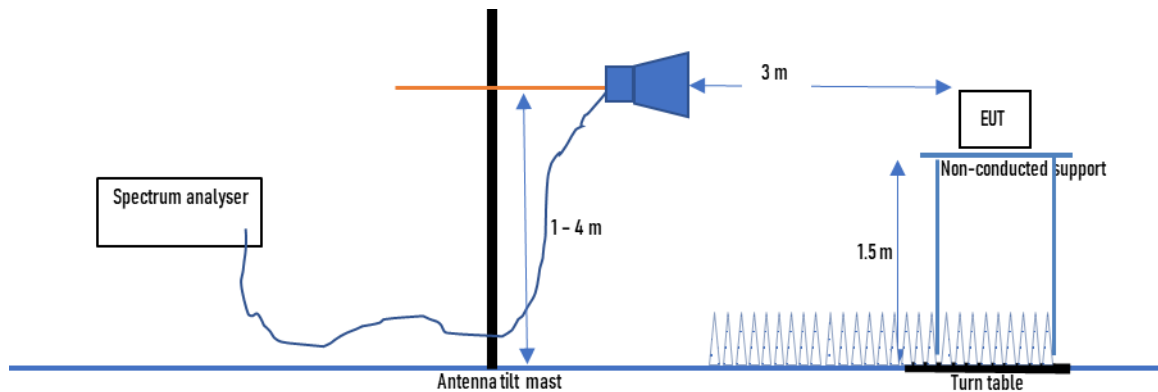
30 MHz – 1000 MHz: RBW: 120 kHz

Example:

Frequency (MHz)	Level (dBµV)	+	Factor (dB)	=	Level (dBµV/m)	-	Limit (dBµV/m)	=	Delta (dB)
719.0	75.0	+	32.6	=	107.6	-	110.0	=	-2.4

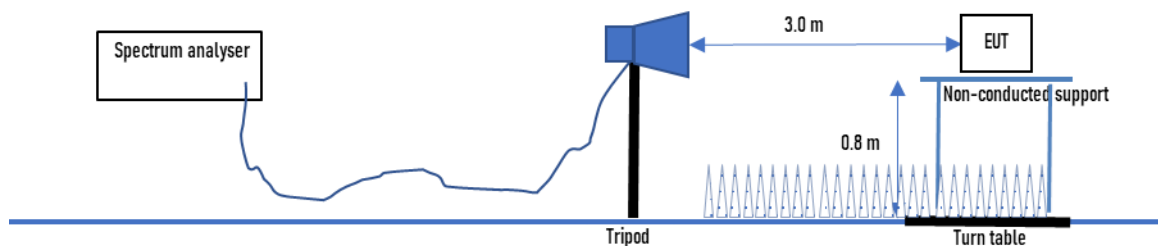
4.5.3.2.3 Anechoic chamber 1 (1000 MHz – 18000 MHz)

Test setup according ANSI C63.10.



Radiated emissions from the EUT are measured in the frequency range 1 GHz up to 18 GHz as specified in 47 CFR Part 15, Subpart A, Section 15.33, using a spectrum analyser and appropriate linearly polarized antennas. Table top equipment is placed on a non-conducting table, 1.5 metre above the ground plane. The turntable is fully covered with the appropriate absorber (Type VHP-12). Any controlling device is positioned such that it does not significantly influence the measurement results. Interconnecting cables that hang closer than 40 cm to the ground plane are folded back and forth in the centre, forming a bundle 30 cm to 40 cm long. Measurements are made in in three orientations of the EUT and the horizontal and vertical polarization planes of measurement antenna in a fully anechoic room. The measurement antenna is adjusted and the EUT orientated to permit the measurement of the maximum emission from the EUT. The conditions determined as worst-case will then be used for the final measurements.

4.5.3.2.4 Anechoic chamber 1 (18 GHz – 40 GHz)



Emissions from the EUT are measured in the frequency range 18 GHz up to 40 GHz as specified in 47 CFR Part 15, Subpart A, Section 15.33, using a spectrum analyser and appropriate linearly polarized antennas. Table top equipment is placed on a non-conducting table, 0.8 metre above the ground plane. The turntable is fully covered with the appropriate absorber (Type VHP-12). Any controlling device is positioned such that it does not significantly influence the measurement results. Interconnecting cables that hang closer than 40 cm to the ground plane are folded back and forth in the centre, forming a bundle 30 cm to 40 cm long. Measurements are made in in three orientations of the EUT and the horizontal and vertical polarization planes of measurement antenna in a fully anechoic room. The measurement antenna is adjusted and the EUT orientated to permit the measurement of the maximum emission from the EUT. The conditions determined as worst-case will then be used for the final measurements. Where appropriate, the test distance may be reduced in order to detect emissions under better uncertainty. The limit is adopted.

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5 TEST CONDITIONS AND RESULTS

5.1 AC power line conducted emissions

Remarks: Not applicable. EUT is battery powered.

5.2 Field strength of fundamental

For test instruments and accessories used see section 6 Part CPR 3.

5.2.1 Description of the test location

Test location: Anechoic chamber 1
 Test distance: 3 m

5.2.2 Photo documentation of the test set-up



5.2.3 Applicable standard

According to FCC Part 15C, Section 15.249(a):
 The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the effective limits.

5.2.4 Description of Measurement

The radiated emission of the fundamental wave from the EUT is measured using a spectrum analyser and appropriate linear polarized antennas. The setup of the EUT and the measurement procedure is in accordance to ANSI C63.10, Item 6.5. The EUT is measured in TX continuous mode unmodulated under normal conditions.

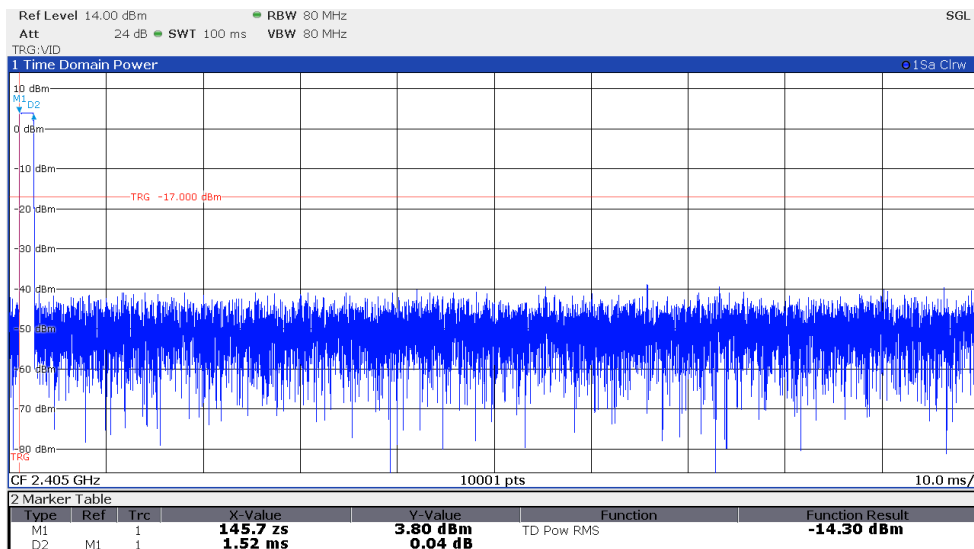
Analyser settings:
 Peak measurement: RBW: 1 MHz VBW: 3 MHz Detector: Max peak

5.2.5 Test result

Radiated Peak Measurement				
FCC §15.249 (e) RSS-210 F.1				
Channel	Frequency	Measured fieldstrength	Limit	Margin
	MHz	dB(μV/m)	dB(μV/m)	dB
CH1	2405	101.62	114	-12.4
CH0	2450	100.77	114	-13.2
CH7	2480	99.62	114	-14.4

Average Power						
FCC §15.249 (e)						
Channel	Frequency	Measured fieldstrength	Duty Cycle Correction	Average fieldstrength	Limit	Margin
	MHz	dB(μV/m)	dB	dB(μV/m)	dB(μV/m)	dB
CH1	2405	101.62	-29.37	72.25	94	-21.8
CH0	2450	100.77	-29.37	71.40	94	-22.6
CH7	2480	99.62	-29.37	70.25	94	-23.8

Note: Duty Cycle Correction according to ANSI C63.10 7.5: $\delta(\text{dB}) = 20\log(\Delta)$
 Max. Duty Cycle according to measurement: $\Delta = 2 \times 1.52 \text{ ms} / 100 \text{ ms} = 0.034$



Note: The EUT is capable of sending one packet on both the main and backup channels within a 100 ms window, resulting in a total of two packets per 100 ms with each 1.52 ms.

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Limit according to FCC Part 15C, Section 15.249(a):

Frequency (MHz)	Field strength of fundamental	
	(mV/m)	dB(μ V/m)
902 - 928	50	94
2400 - 2483.5	50	94
5725-5875	50	94
24000 - 24250	250	108

Peak-Limit according to FCC Part 15C, Section 15.249(e):

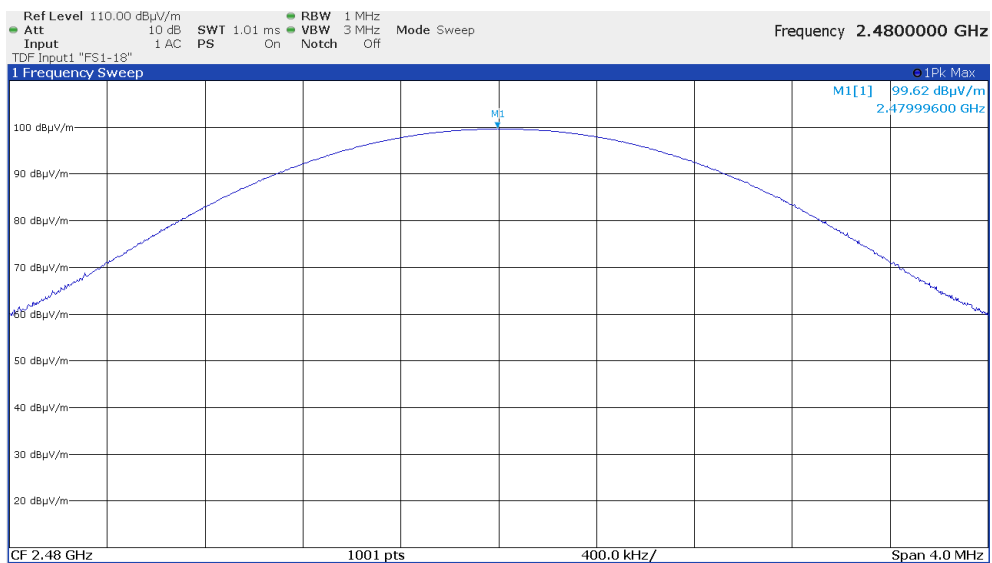
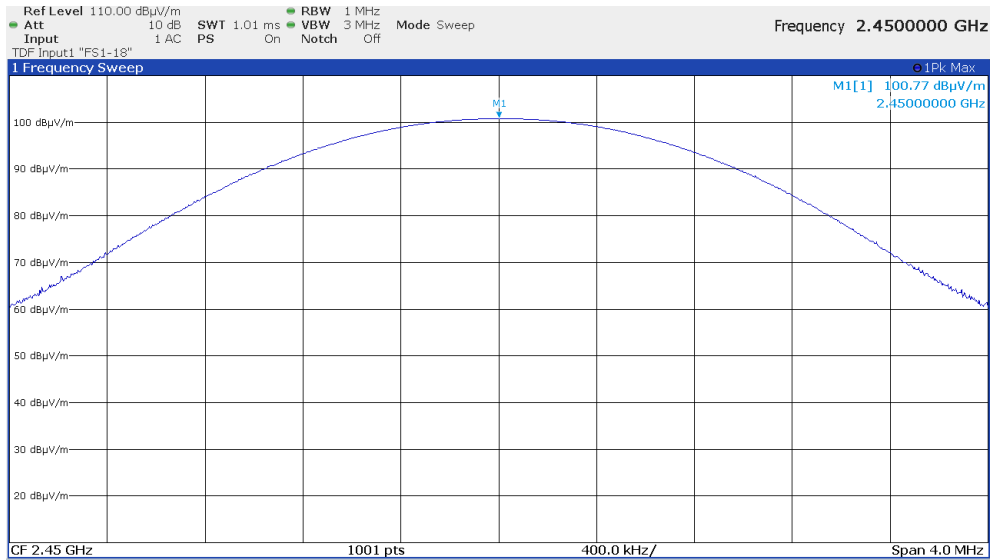
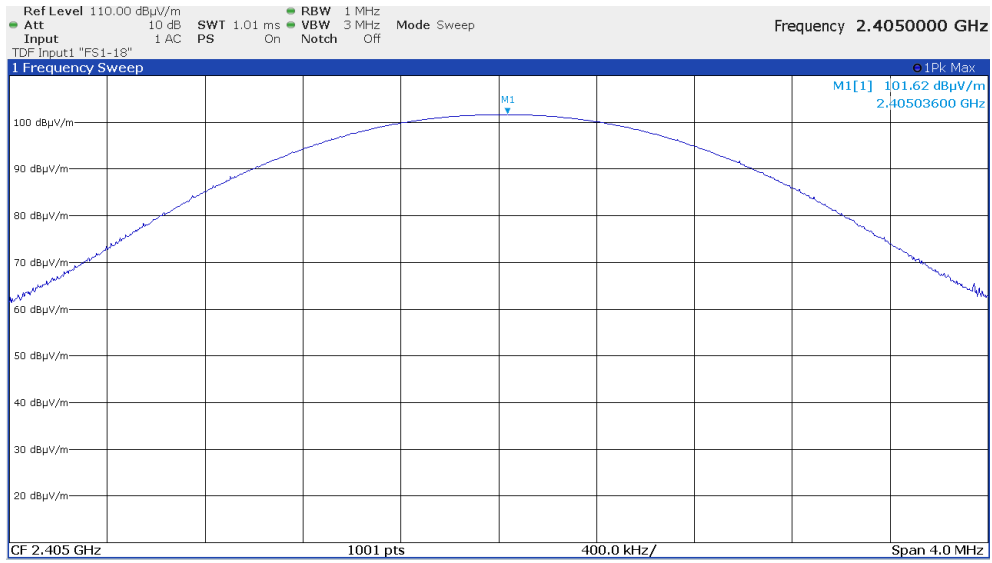
However, the peak fieldstrength shall not exceed the maximum permitted average limit by more than 20 dB.

The requirements are **FULFILLED**.

Remarks: None.

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5.2.6 Test protocols



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5.3 Spurious Emissions, radiated

For test instruments and accessories used see section 6 Part **SER1**, **SER 2**, **SER 3**.

5.3.1 Description of the test location

Test location: OATS 1
Test location: Anechoic chamber 1

Test distance: 3 m 9 kHz – 1 GHz
1 m 18 GHz – 25 GHz

5.3.2 Photo documentation of the test set-up

Test setup 9 kHz – 30 MHz:



Test setup 30 MHz – 1000 MHz:



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Test setup 1 GHz – 18 GHz:



Test setup 18 GHz – 25 GHz:



5.3.3 Applicable standard

According to FCC Part 15C, Section 15.249 (d):

Emission radiated outside of the specified frequency bands, except harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated limit in FCC Part 15C, Section 15.209, whichever is the lesser attenuation.

5.3.4 Description of Measurement

The radiated emissions from the EUT are measured in the frequency range of 9 kHz to 1000 MHz using a tuned receiver and appropriate broadband linearly polarized antennas. The setup of the EUT and the measurement procedure is in accordance to ANSI C63.10, Item 6.3. In the frequency range above 1 GHz a spectrum analyser is used with appropriate linear polarized antennas. If the emission level in peak mode complies with the average limit testing is stopped and peak values will be reported, otherwise, the emission is measured in average mode again and reported. The EUT is measured in TX continuous mode unmodulated under normal conditions.

Instrument settings:

9 kHz – 150 kHz	RBW:	200 Hz
150 kHz - 30 MHz	RBW:	9 kHz
30 MHz – 1000 MHz:	RBW:	120 kHz
1000 MHz – 25 GHz	RBW:	1 MHz

5.3.1 Test result

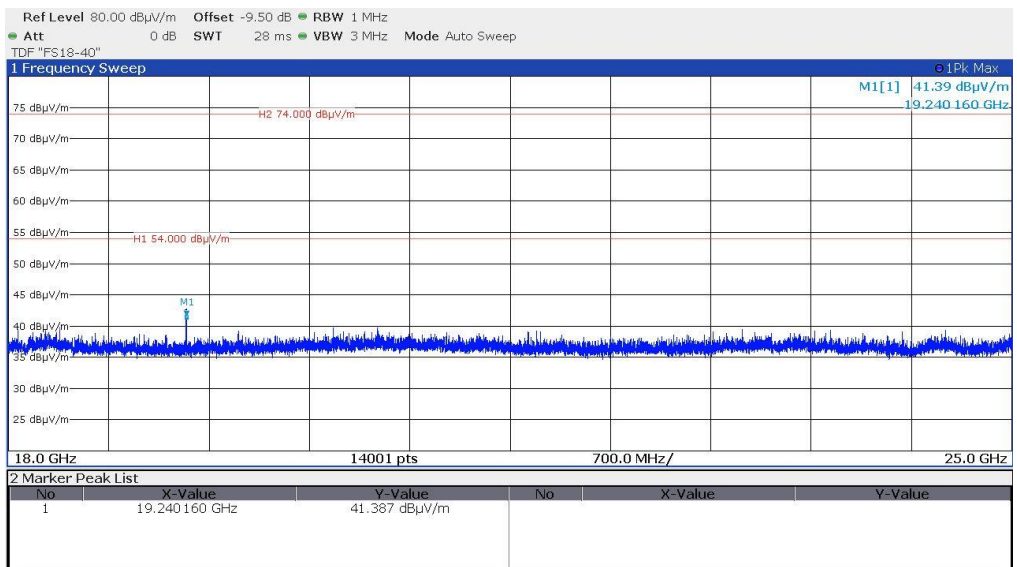
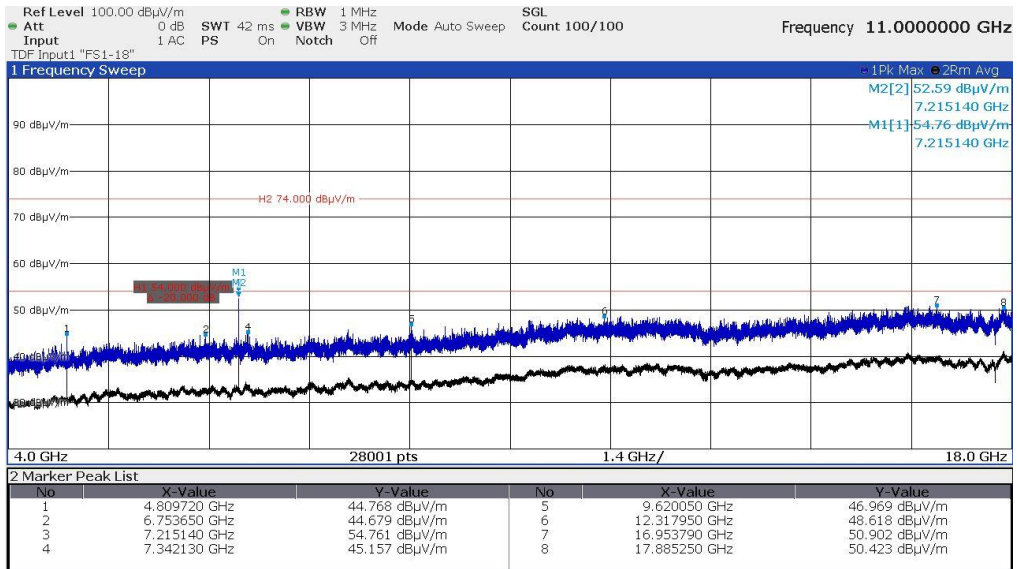
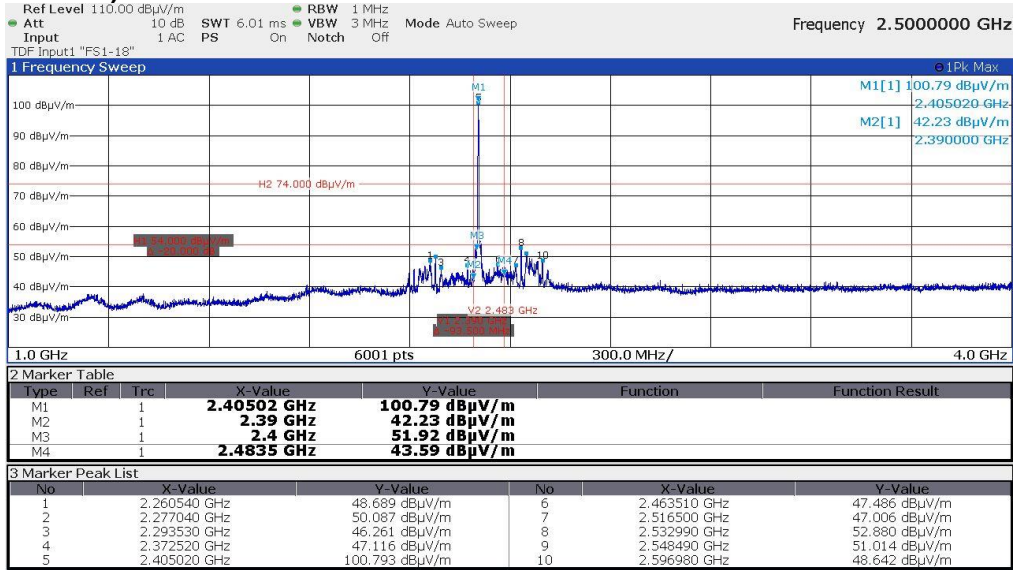
Frequency (MHz)	Reading (dBµV)	Correction * (dB)	Field strength (dBµV/m)	Limit (dBµV/m)	Dlimit (dB)
0.125	71	-62.0	9.0	25.7	-16.7
0.25	37.5	17.6	-24.9	19.6	-44.5
0.375	37.5	17.0	-25.5	16.1	-41.6
0.5	34.3	17.1	11.4	33.6	-22.2
0.625	36.4	18.5	14.9	31.7	-16.8
0.875	32.9	18.1	11.0	28.8	-17.8
1.125	30.8	18.2	9.0	26.6	-17.6
3	5	17.9	-17.1	30.0	-47.1
10	17.4	16.4	-6.2	30.0	-36.2
20	9.2	19.0	-11.8	30.0	-41.8

* Correction = Antenna factor + Δ alternative test site + distance extrapolation factor

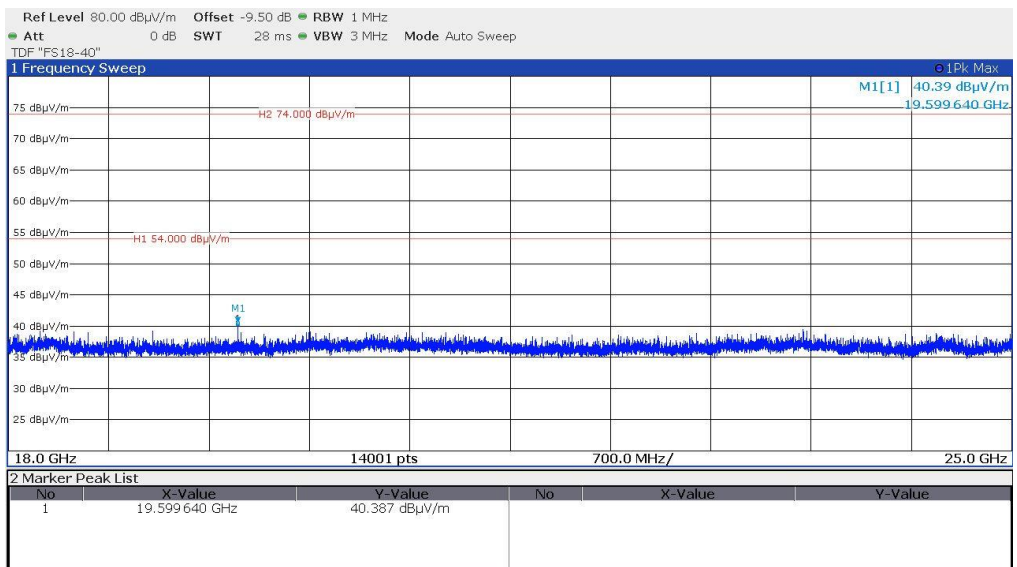
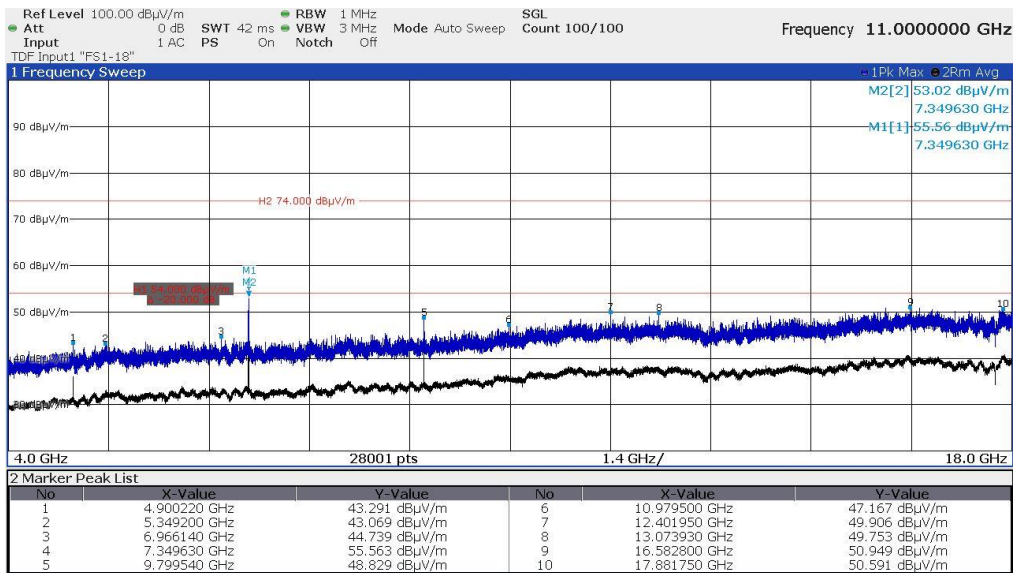
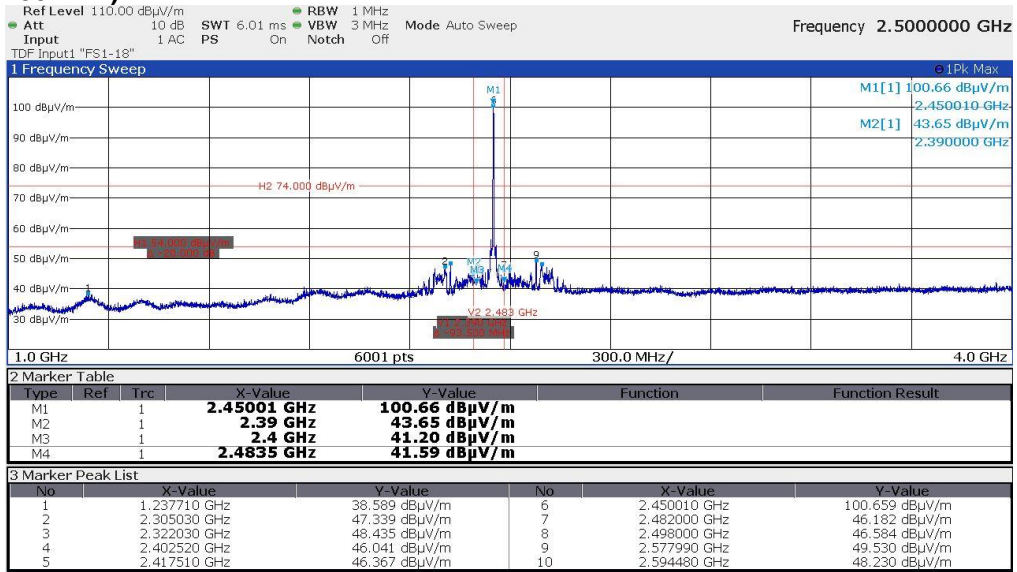
Frequency (MHz)	Reading Vert. (dBµV)	Reading Hor. (dBµV)	Correct. Vert. (dB)	Correct. Hor. (dB)	Level Vert. (dBµV/m)	Level Hor. (dBµV/m)	Limit (dBµV/m)	Dlimit (dB)
30.00	3.7	-0.4	15.5	17.1	19.2	16.7	40.0	-20.8
98.00	5.2	1.0	14.7	13.6	19.9	14.6	43.5	-23.6
300.00	5.3	2.5	20.2	20.7	25.5	23.2	46.0	-20.5
500.00	3.3	2.9	25.7	26.0	29.0	28.9	46.0	-17.0
750.00	-1.6	-1.8	30.5	30.9	28.9	29.1	46.0	-16.9

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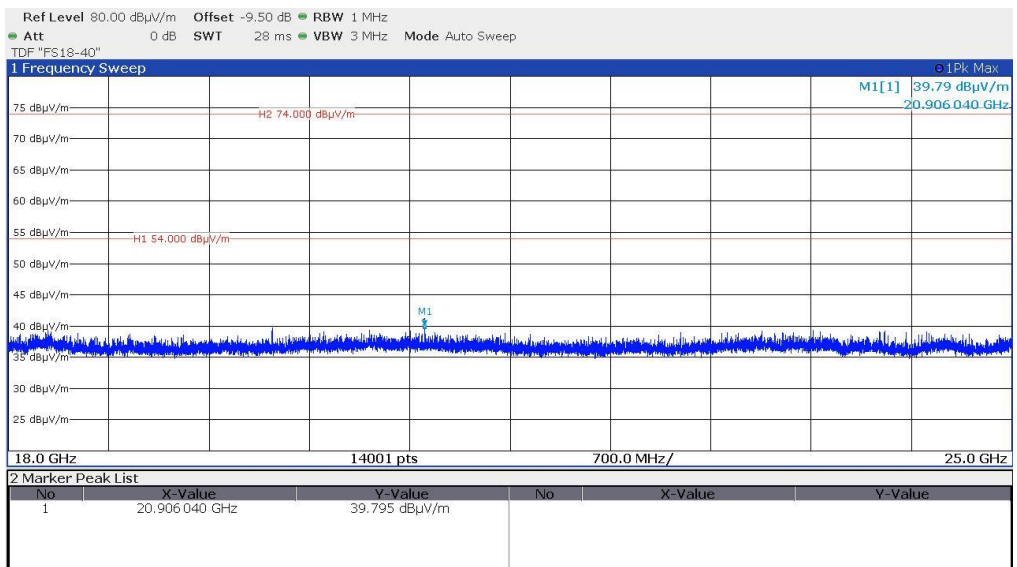
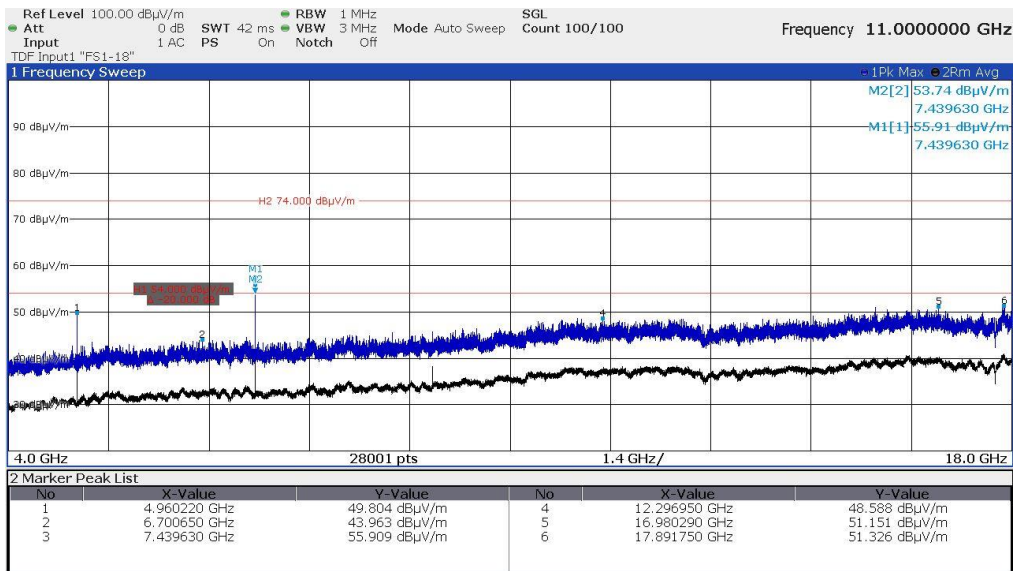
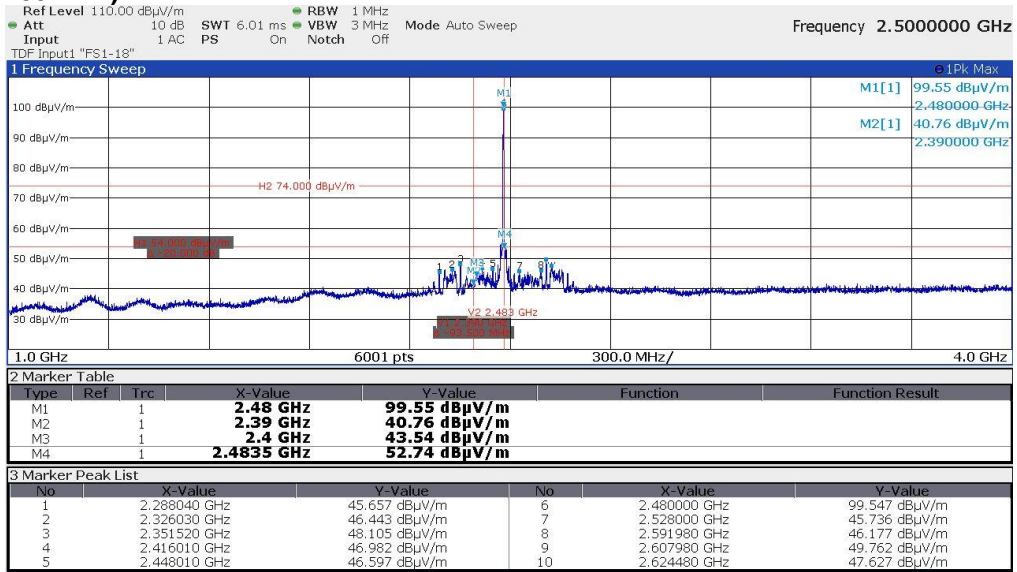
5.3.1.1 CH1 (2405 MHz)



5.3.1.2 CH7 (2450 MHz)



5.3.1.3 CH0 (2480 MHz)



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Limit according to FCC Part 15C, Section 15.209:

Frequency (MHz)	15.209 Limits ($\mu\text{V}/\text{m}$)	Measurement distance (m)
0.009 - -0.49	$2400/f(\text{kHz})$	300
0.49 - 1.705	$24000/f(\text{kHz})$	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Average limit according to FCC Part 15C, Section 15.249(a):

Fundamental frequency (MHz)	Field strength of harmonics	
	($\mu\text{V}/\text{m}$)	$\text{dB}(\mu\text{V}/\text{m})$
902 - 928	500	54
2400 - 2483.5	500	54
5725 - 5875	500	54
24000 - 24250	2500	68

The requirements are **FULFILLED**.

Remarks: The measurement was performed up to the 10th harmonic (25000 MHz).

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

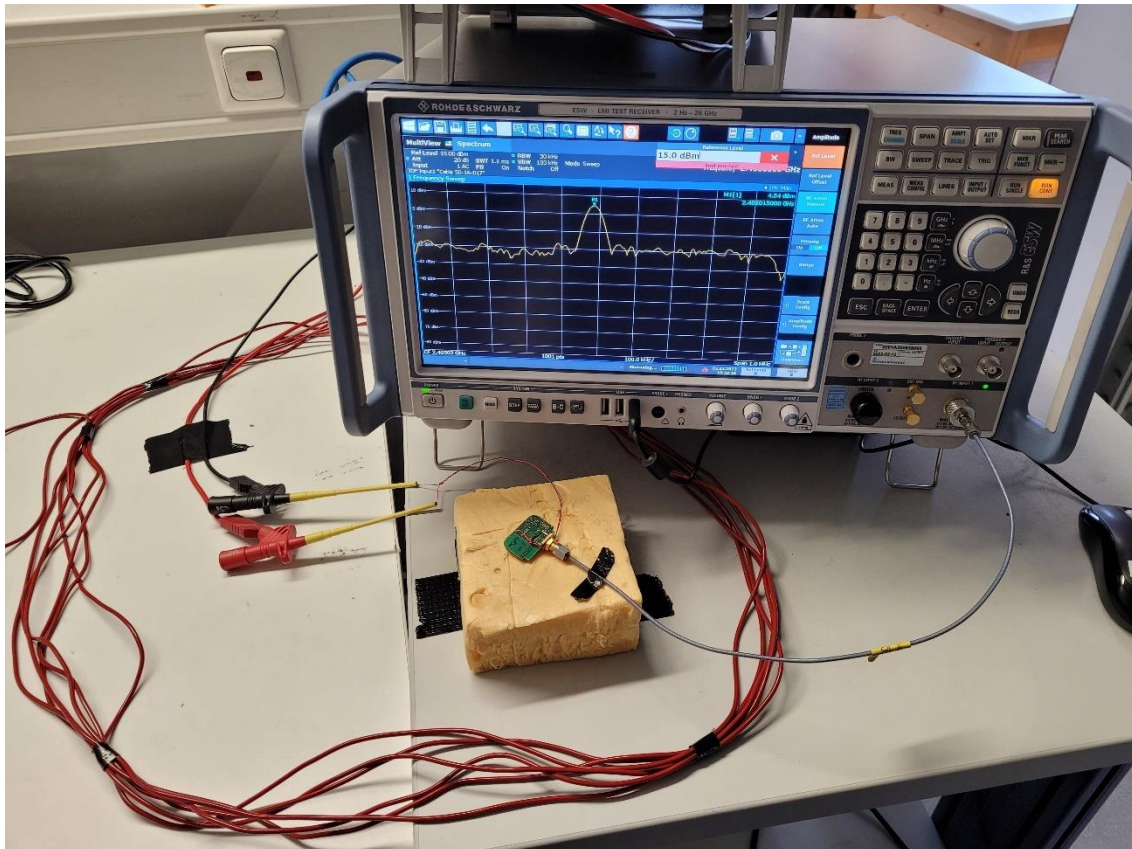
5.4 Occupied bandwidth

For test instruments and accessories used see section 6 Part MB.

5.4.1 Description of the test location

Test location: Shielded Room S4

5.4.2 Photo documentation of the test set-up



5.4.3 Applicable standard

According to RSS-Gen 6.7:

The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

5.4.4 Description of Measurement

The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained.

Spectrum analyser settings:

RBW: 30 kHz, VBW: 100 kHz, Span: 5 MHz, Trace mode: max. hold, Detector: max. peak;

5.4.5 Test result

RSS-Gen 6.7		
Channel	Frequency	OBW99
	MHz	MHz
CH1	2405	2.253
CH7	2450	2.255
CH0	2480	2.230

According to RSS-Gen 6.7:

The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

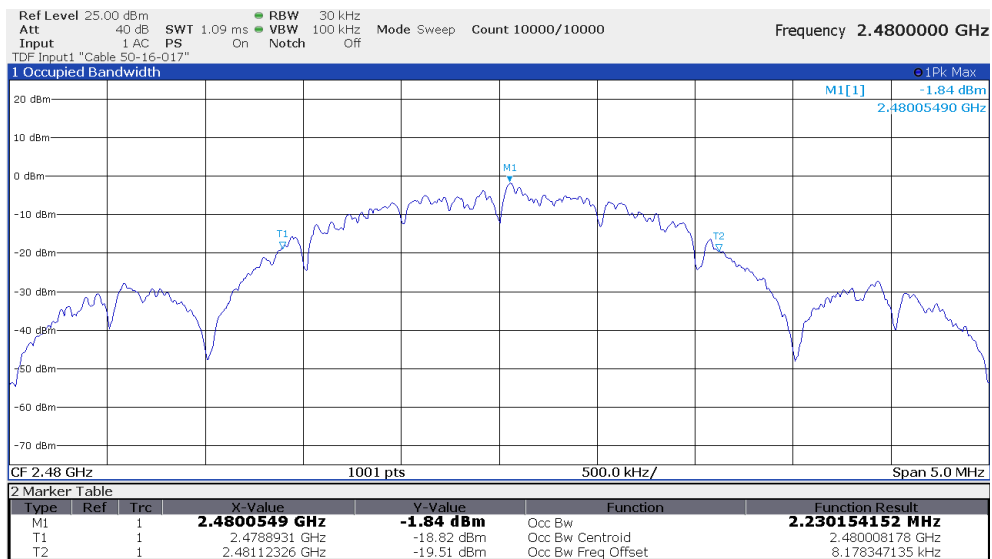
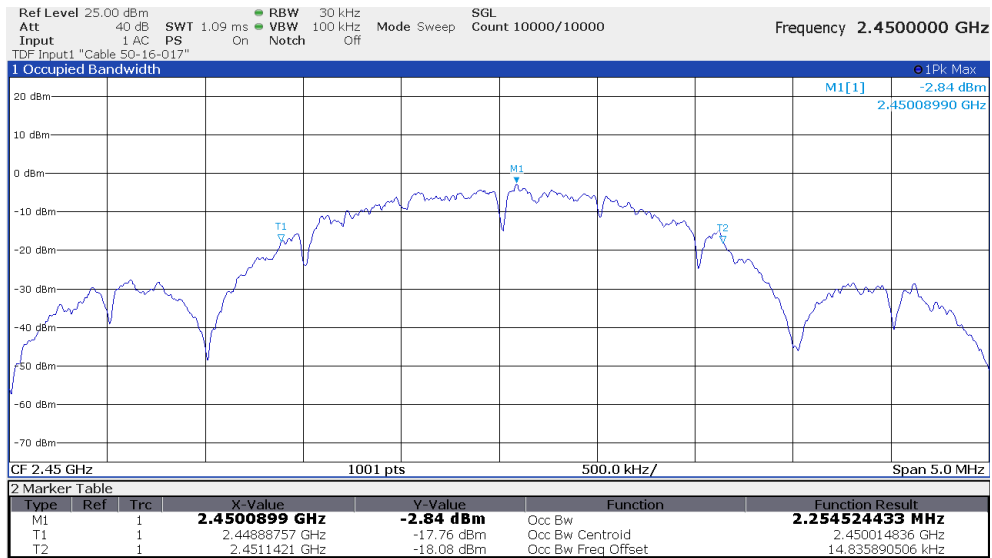
The requirements are **FULFILLED**.

Remarks: For detailed test result please refer to following test protocols.

The OBW99 is measured for RSS only.

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

5.4.6 Test protocols



5.5 Antenna application

5.5.1 Applicable standard

According to FCC Part 15C, Section 15.203(a):

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section.

5.5.2 Result

The EUT uses an integrated PCB antenna. No other antenna than or external power amplifier can be applied.

The antenna of the EUT meets the requirement of FCC Part 15C, Section 15.203 and 15.204.

The requirements are **FULFILLED**.

Remarks: None.

The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

6 USED TEST EQUIPMENT AND ACCESSORIES

All test instruments used are calibrated and verified regularly. The calibration history is available on request.

Test ID	Model Type	Equipment No.	Next Calib.	Last Calib.	Next Verif.	Last Verif.
CPR 3	FSW43	02-02/11-15-001	22/04/2023	22/04/2022		
	AMF-6D-01002000-22-10P	02-02/17-15-004				
	3117	02-02/24-05-009	23/06/2023	23/06/2022		
	BAM 4.5-P	02-02/50-17-024				
	NCD	02-02/50-17-025				
	KK-SF106-2X11N-6,5M	02-02/50-18-016				
	BAT-EMC 2022.0.23.0	02-02/68-13-001				
MB	FSW43	02-02/11-15-001	22/04/2023	22/04/2022		
	minibend KR-16	02-02/50-16-014				
SER 1	HFH 2 - Z 2	02-02/24-05-020	01/06/2025	01/06/2022	01/06/2023	01/06/2022
SER 2	ESVS 30	02-02/03-05-006	27/07/2023	27/07/2022		
	VULB 9168	02-02/24-05-005	20/03/2023	20/12/2021	03/07/2023	03/07/2022
	NW-2000-NB	02-02/50-05-113				
	KK-EF393/U-16N-21N20 m	02-02/50-12-018				
	KK-SD_7/8-2X21N-33,0M	02-02/50-15-028				
	50F-003 N 3 dB	02-02/50-21-010				
SER 3	FSW43	02-02/11-15-001	22/04/2023	22/04/2022		
	AMF-6D-01002000-22-10P	02-02/17-15-004				
	LNA-40-18004000-33-5P	02-02/17-20-002				
	3117	02-02/24-05-009	23/06/2023	23/06/2022		
	BBHA 9170	02-02/24-05-013	19/05/2023	19/05/2020	10/03/2023	10/03/2022
	BAM 4.5-P	02-02/50-17-024				
	NCD	02-02/50-17-025				
	KK-SF106-2X11N-6,5M	02-02/50-18-016				
	KMS116-GL140SE-KMS116-	02-02/50-20-026				
	BAT-EMC 2022.0.23.0	02-02/68-13-001				