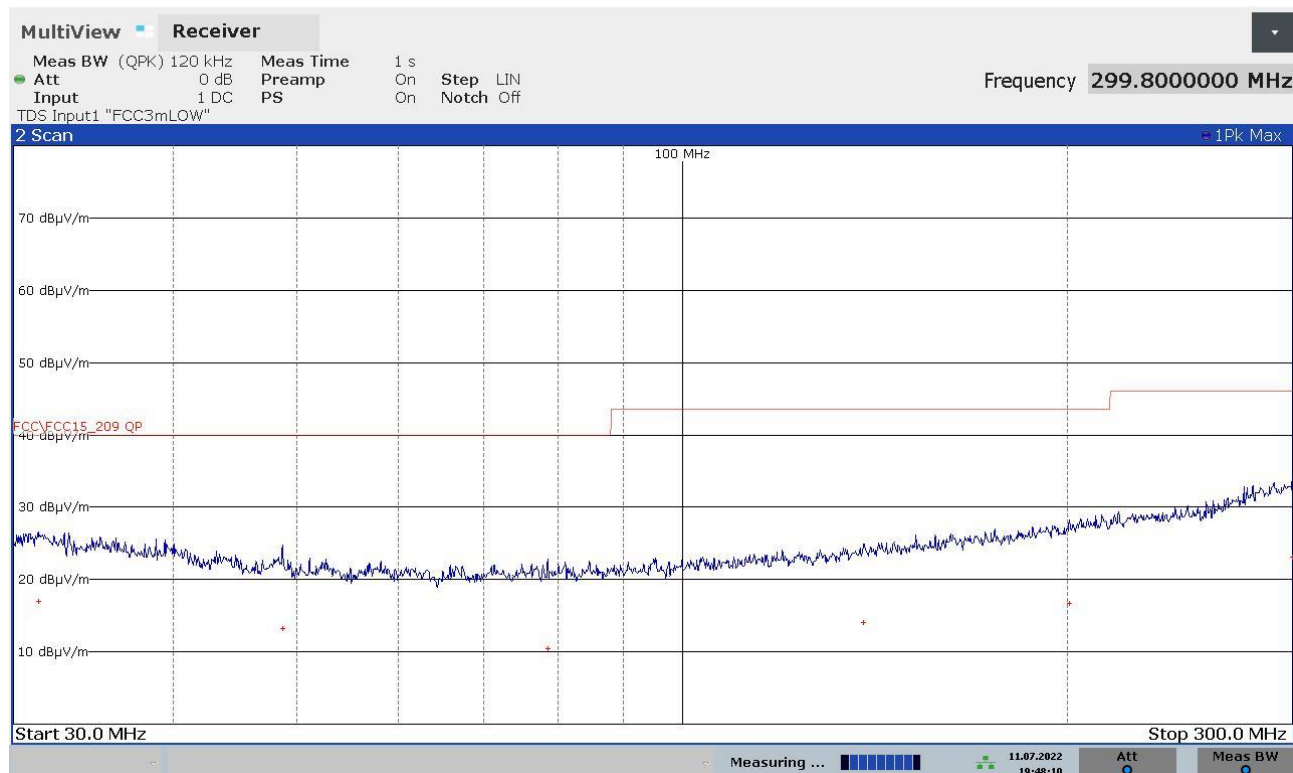


Segalla 22138068



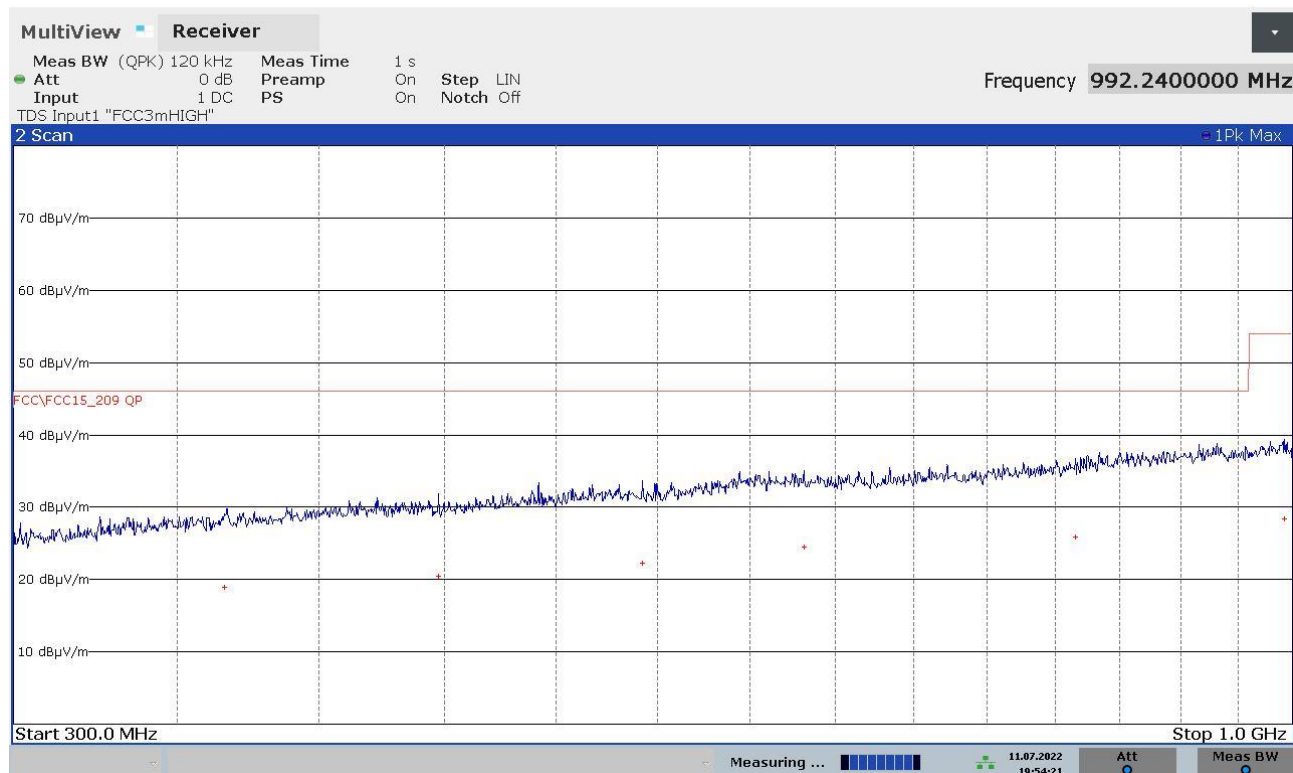
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
31360000	+17,03	-22,97
48680000	+13,15	-26,85
78480000	+10,37	-29,63
138680000	+14,00	-29,52
200680000	+16,72	-26,80
299800000	+23,11	-22,91

22138068_2

Segalla 22138069



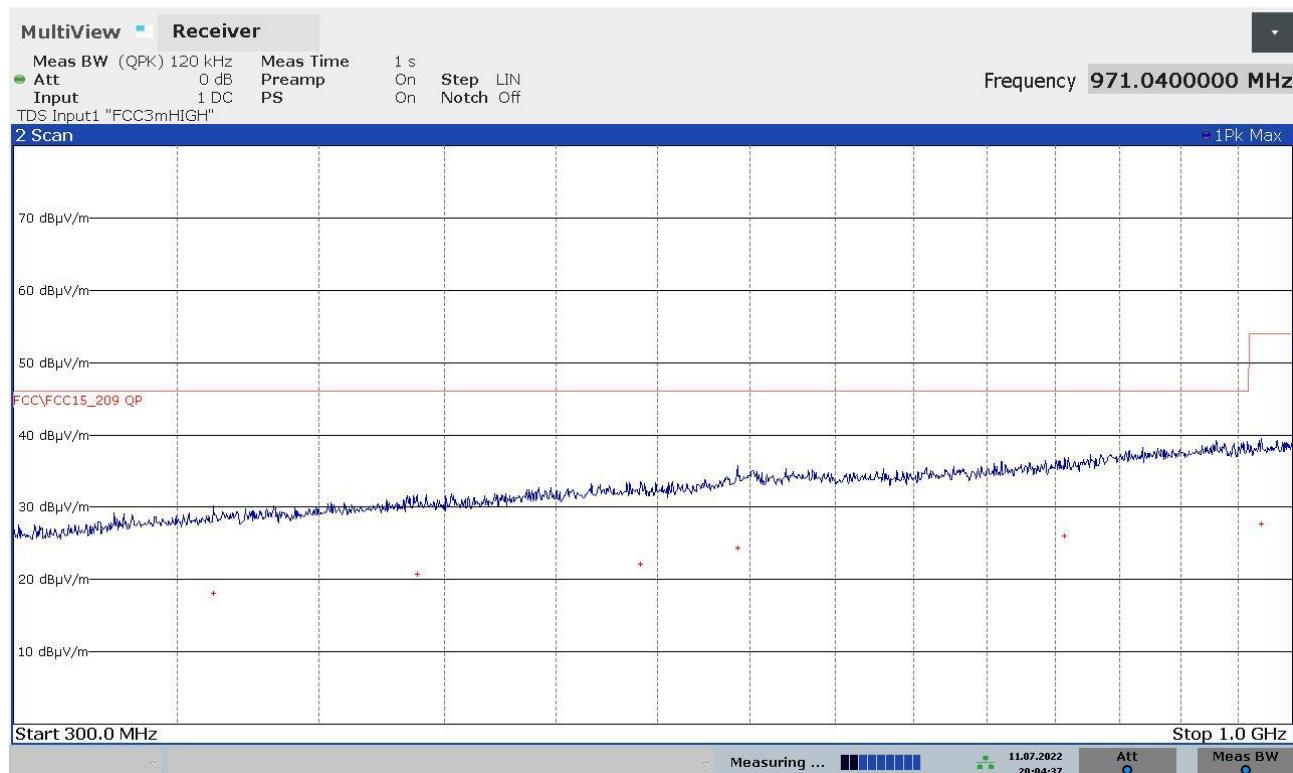
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
365880000	+18,94	-27,08
447520000	+20,43	-25,59
542480000	+22,21	-23,81
631400000	+24,50	-21,52
815360000	+25,85	-20,17
992240000	+28,37	-25,61

22138069_2

Segalla 22138070



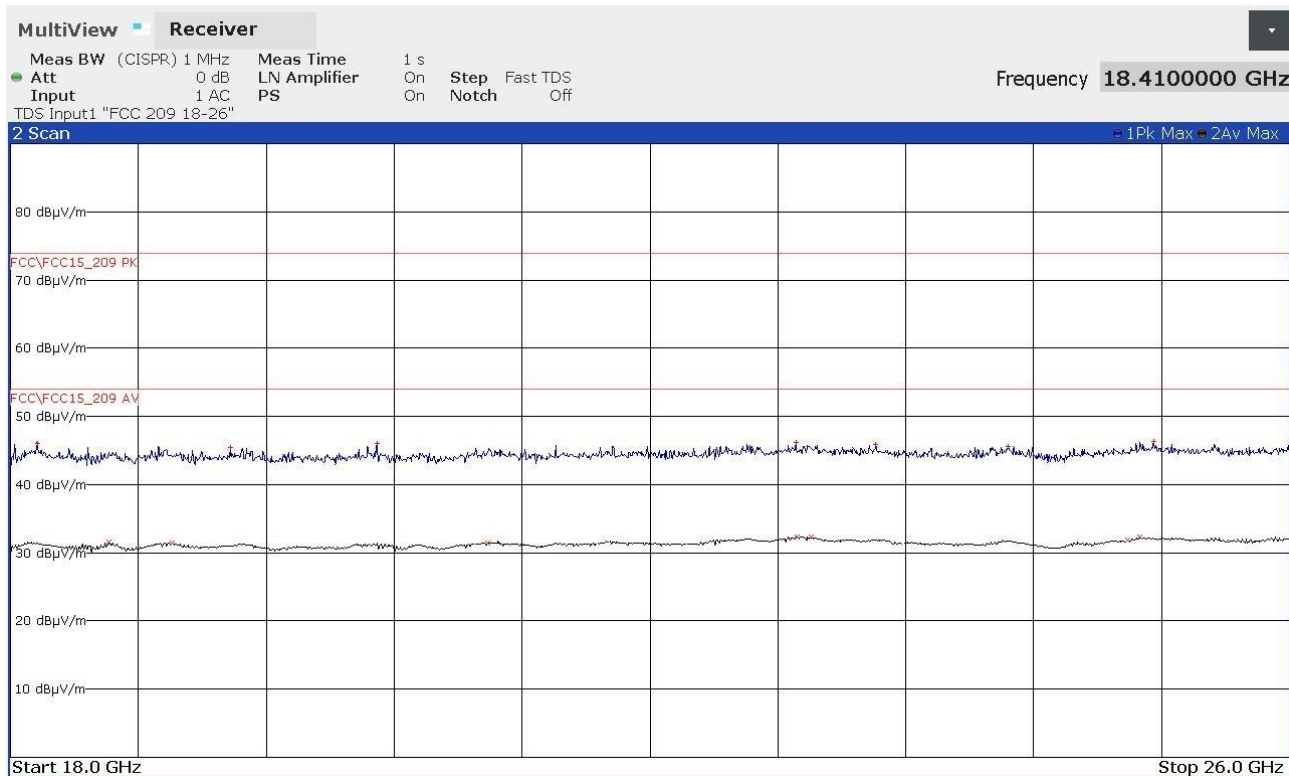
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
362240000	+18,13	-27,89
438680000	+20,69	-25,33
541280000	+22,15	-23,87
593200000	+24,40	-21,62
806960000	+25,96	-20,06
971040000	+27,66	-26,32

22138070_2

Segalla 22138071

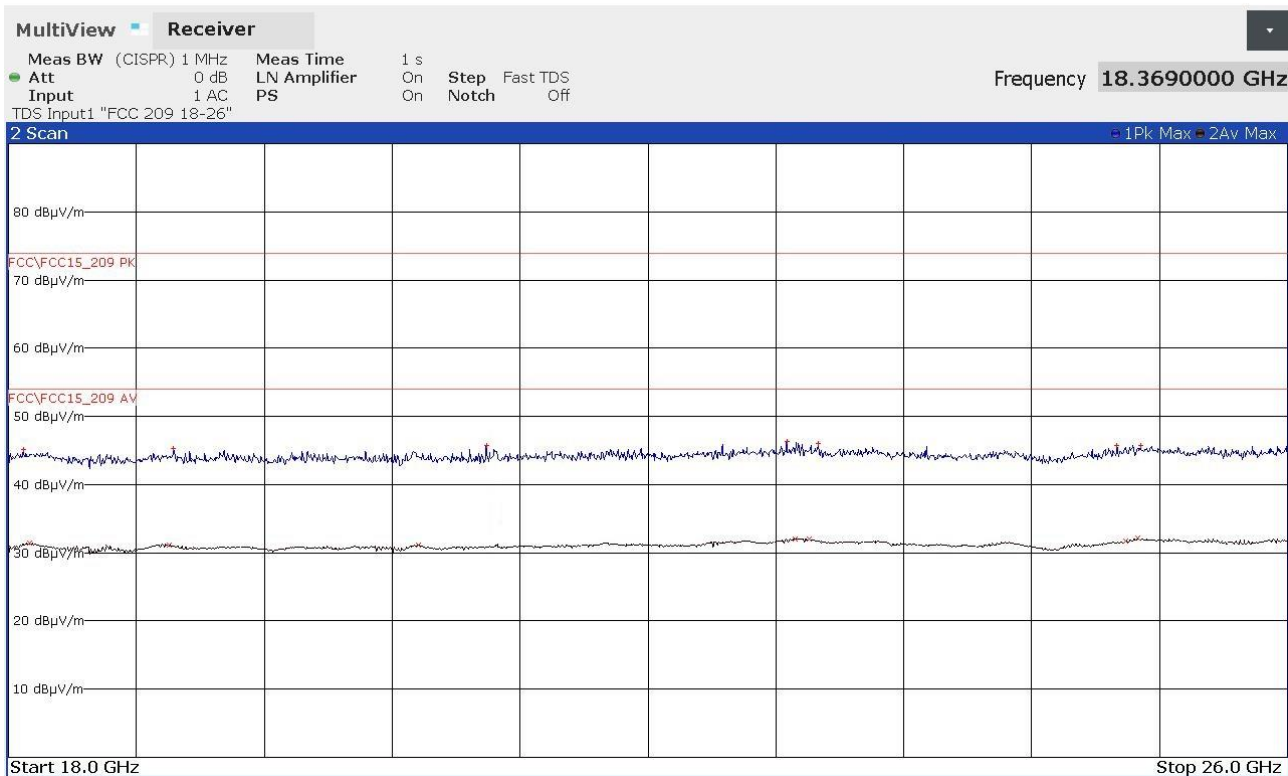


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
18166750000	+45,98	-28,00	18614750000	+31,59	-22,39
19375750000	+45,44	-28,54	19009500000	+31,40	-22,58
20291000000	+45,99	-27,99	20984000000	+31,48	-22,50
22913750000	+46,21	-27,77	22919750000	+32,33	-21,65
23413000000	+45,89	-28,09	23011000000	+32,24	-21,74
24238750000	+45,53	-28,45	24988250000	+31,93	-22,05
25149250000	+46,31	-27,67	25065500000	+32,29	-21,69

22138071_2

Segalla 22138072



FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
18093000000	+45,09	-28,89	18129750000	+31,47	-22,51
19032750000	+45,24	-28,74	19008250000	+31,16	-22,82
20988500000	+45,80	-28,18	20564250000	+31,15	-22,83
22867500000	+46,40	-27,58	22918500000	+32,08	-21,90
23063750000	+45,96	-28,02	23010500000	+32,00	-21,98
24933750000	+45,73	-28,25	24987750000	+31,76	-22,22
25083000000	+45,68	-28,30	25065500000	+32,12	-21,86

22138072_2

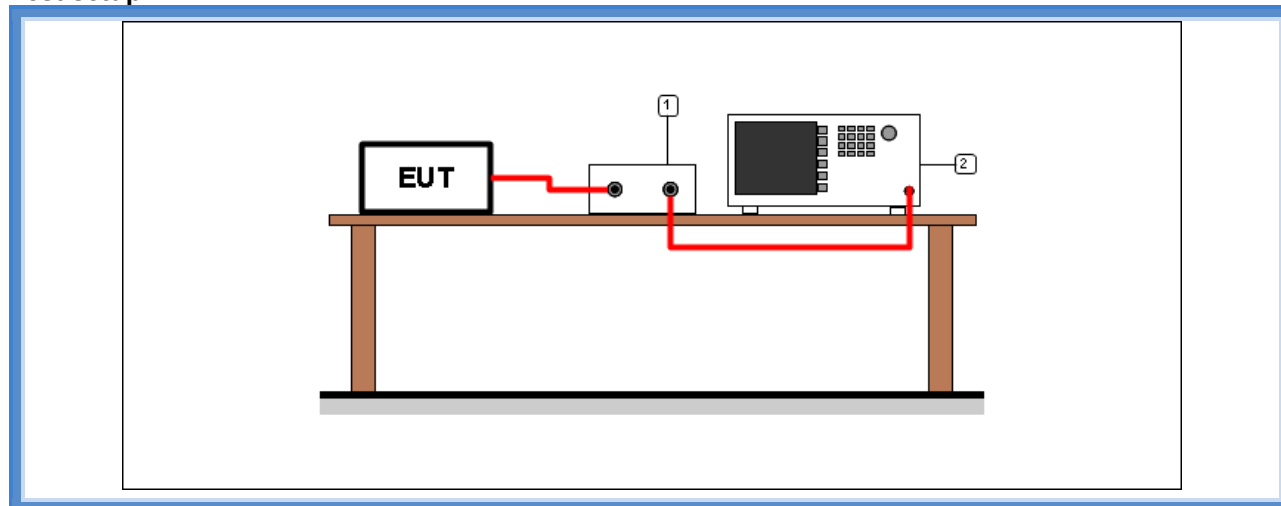
9.3 DTS bandwidth

Tested by	M. Segalla
Test date	13.07.2022
Test location (stand)	Laboratory
Reference standards.....	FCC Rules and Regulation; Titles 47 Part 15.247 (a) (2) ANSI C63.10 cl. 11.8 KDB 558074 D01 DTS Meas Guidance v05r02 cl. 8.2
Supplementary test set-up description.....	--
Supplementary information	--

Acceptance limits

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz

Test setup



Test setup PR002_01

Nr.	Id. Number	Manufacturer	Model	Description
2	CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz
1	--	--	--	Cable + attenuator (calibrated before the test)

Result

Transmission channel (MHz)	Graphs	6 dB bandwidth (kHz)	Minimum 6 dB bandwidth allowed (kHz)	Verdict
2402	G22138025	599,4	500	P
2440	G22138030	589,4	500	P
2480	G22138035	604,4	500	P

Graphs

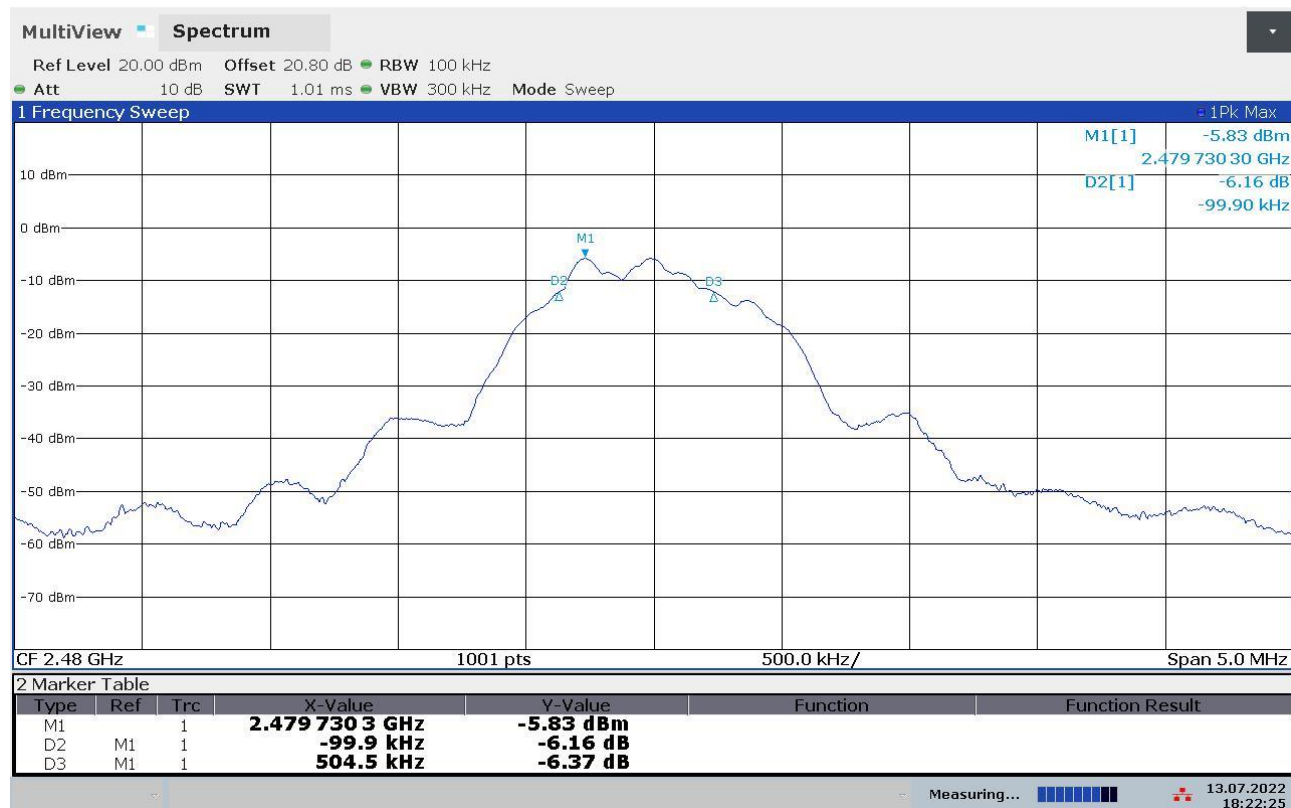
Segalla 22138025



Segalla 22138030



Segalla 22138035



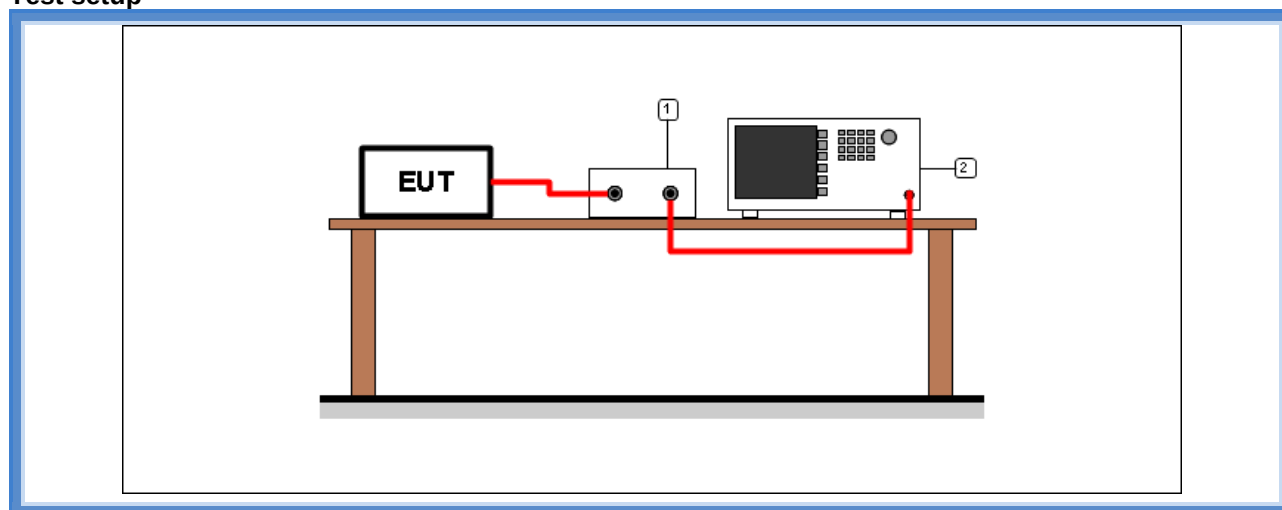
9.4 20 dB bandwidth

Tested by	M. Segalla
Test date	13.07.2022
Test location (stand)	Laboratory
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.215 (c) ANSI C63.10 cl. 7.8.7
Supplementary test set-up description.....	--
Supplementary information	--

Acceptance limits

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated

Test setup



Test setup PR002_01				
Nr.	Id. Number	Manufacturer	Model	Description
2	CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz
1	--	--	--	Cable + attenuator (calibrated before the test)

Result

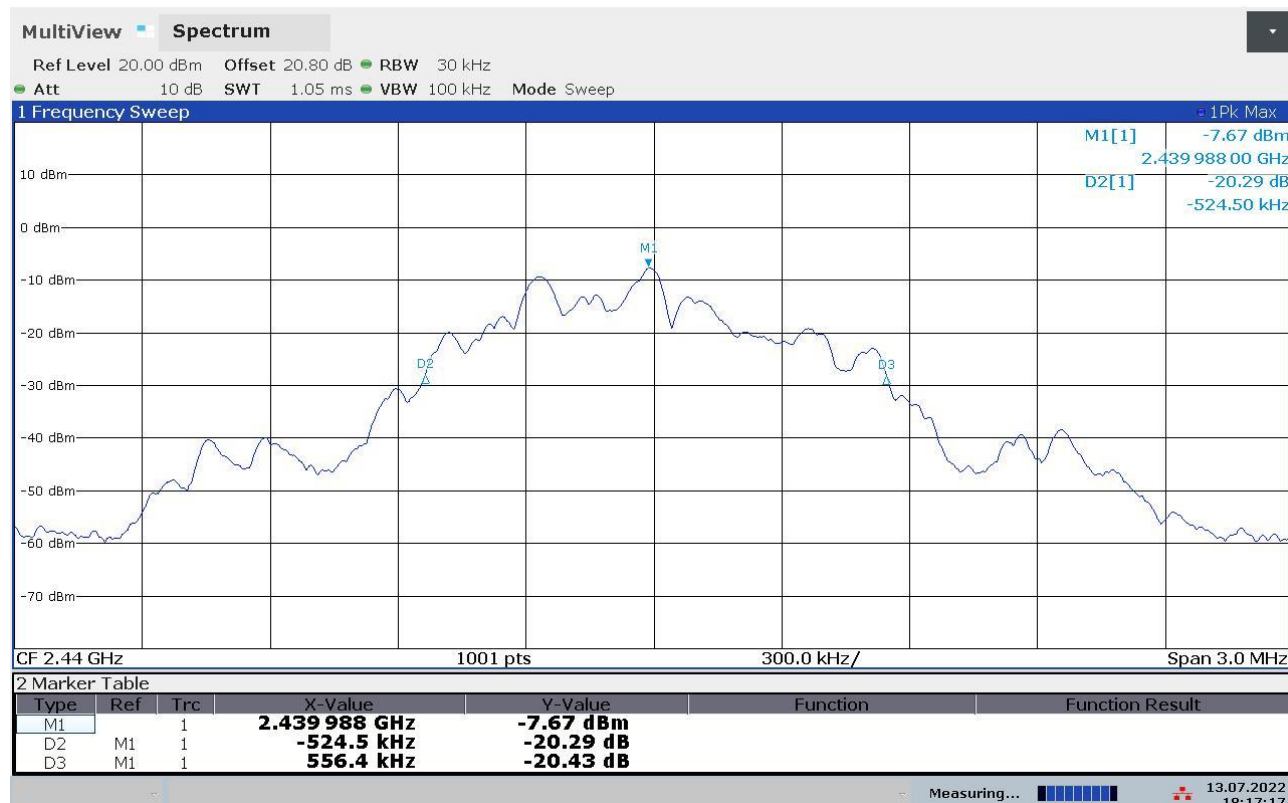
Transmission channel (MHz)	Graphs	20 dB bandwidth (kHz)	Verdict
2400	G22138026	1084,9	P
2440	G22138031	1080,9	P
2480	G22138036	1089,9	P

Graphs

Segalla 22138026



Segalla 22138031



Segalla 22138036



9.5 Band edge

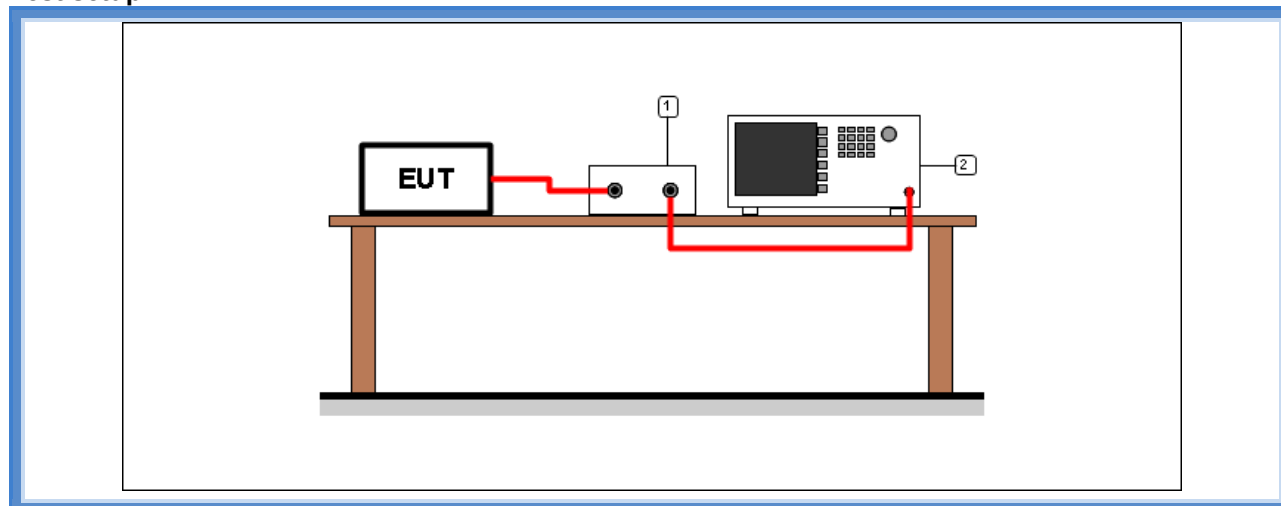
Tested by	M. Segalla
Test date	07.07.2022
Test location (stand)	Laboratory
Reference standards.....	FCC Rules and Regulation; Titles 47 Part 15.205, 15.209, 15.247 (d) ANSI C63.10 cl. 11.11.1 and 11.12.1 KDB 558074 D01 DTS Meas Guidance v05r02 cl. 8.7
Supplementary test set-up description.....	--
Supplementary information	--

Acceptance limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Operation within the band 2400 – 2483,5 MHz

Test setup



Test setup PR002_01				
Nr.	Id. Number	Manufacturer	Model	Description
2	CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz
1	--	--	--	Cable + attenuator (calibrated before the test)

Result

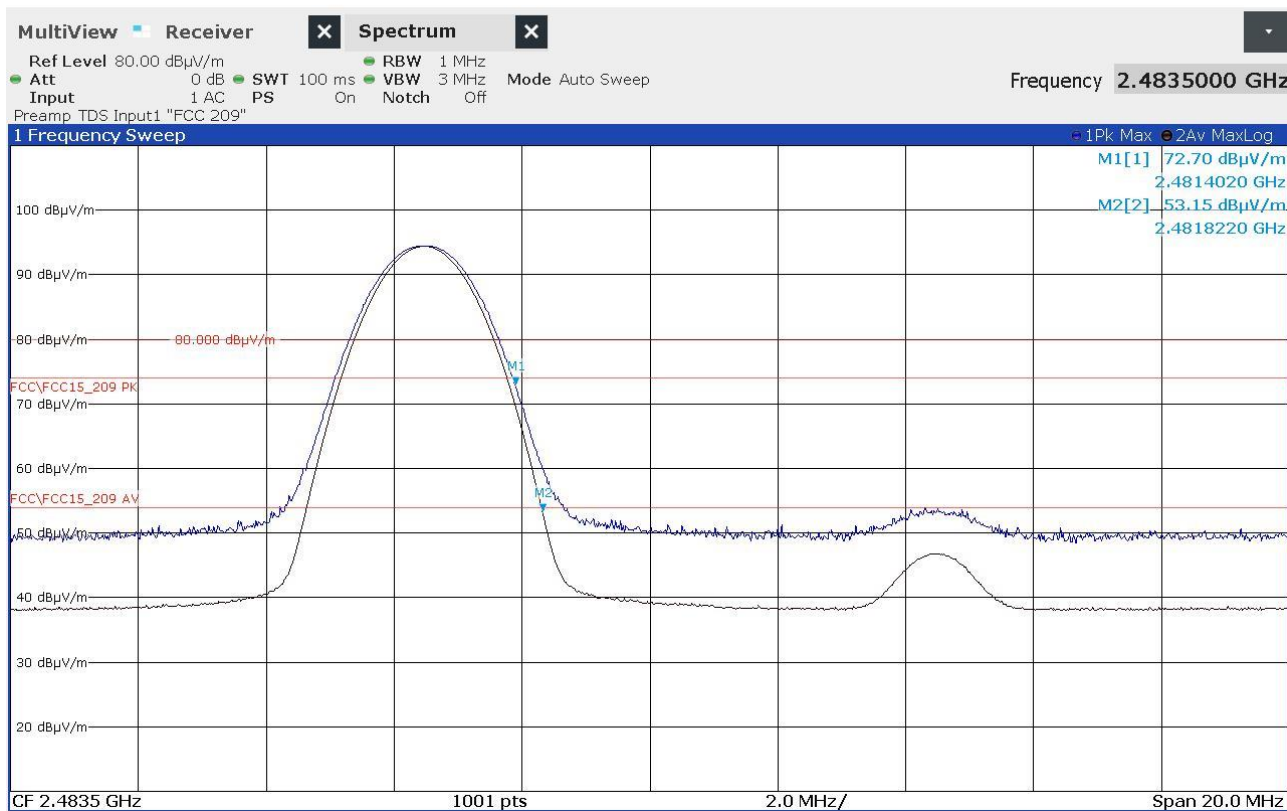
<i>Transmission channel (MHz)</i>	<i>Bandwidth</i>	<i>Graph(s)</i>	<i>Results</i>	<i>Verdict</i>
2480	1 MHz	G22138007	$F_H = 2481,4020$ MHz	P
2480	1 MHz	G22138008	--	*
2402	1 MHz	G22138015	--	**
2402	100 kHz	G22138016	$F_L = 2401,3787$ MHz	P

*: this graph shows the emissions in 2483,5 – 2500 MHz restricted band;

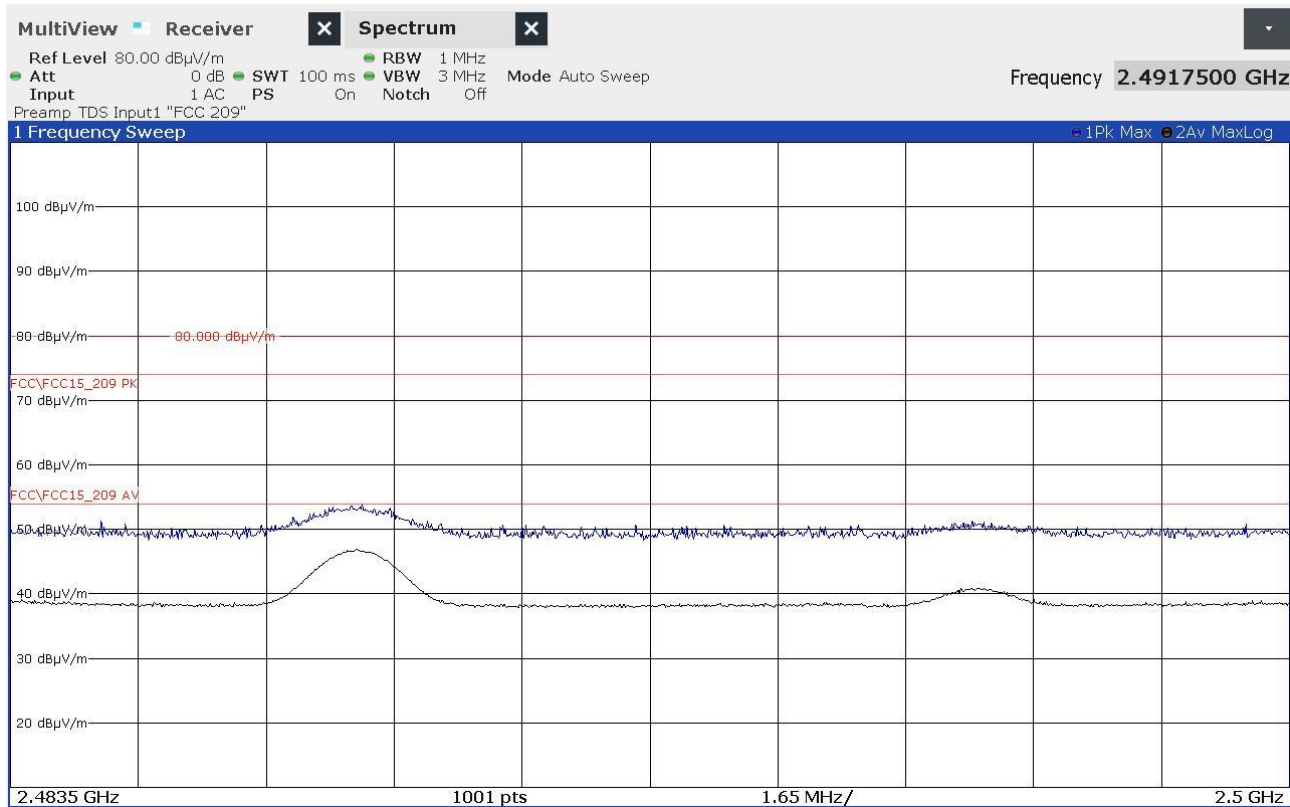
** : this graph shows the emissions in 2310 – 2390 MHz restricted band

Graphs

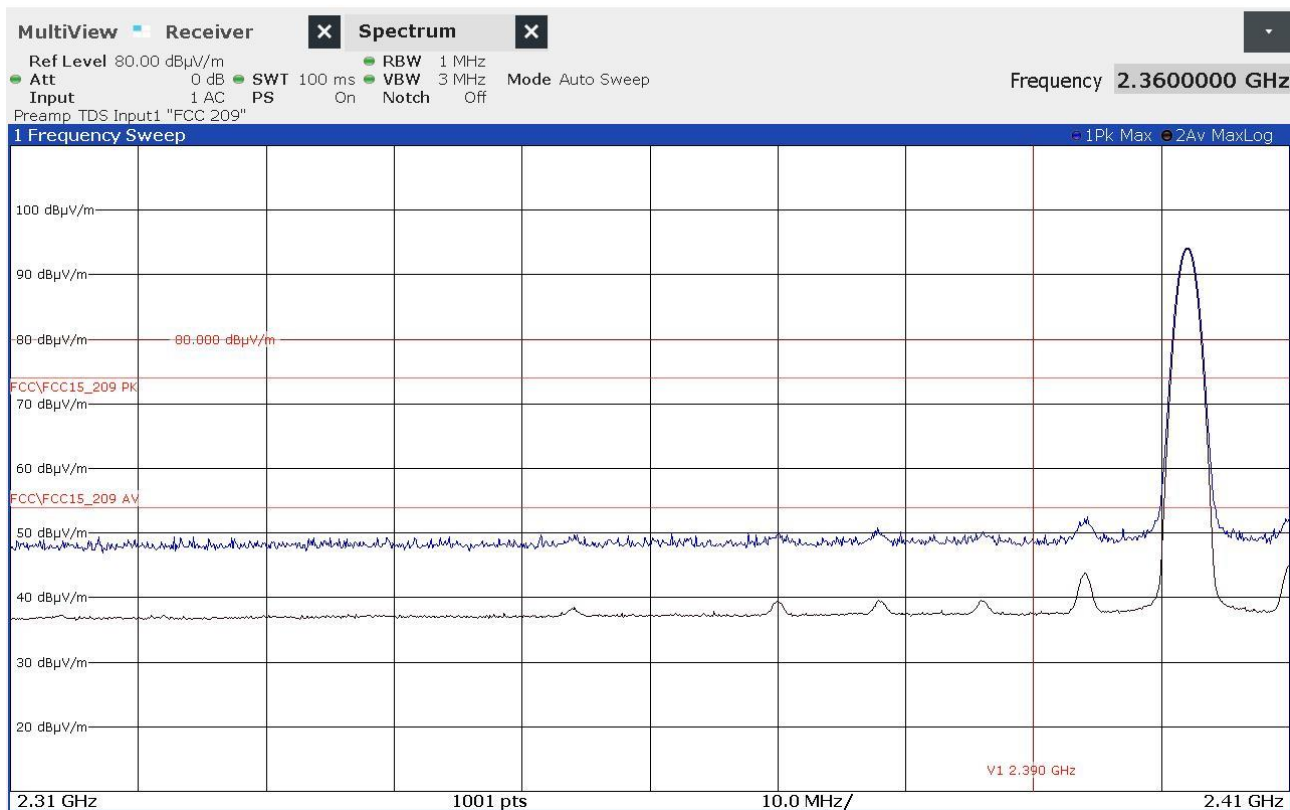
Segalla 22138007



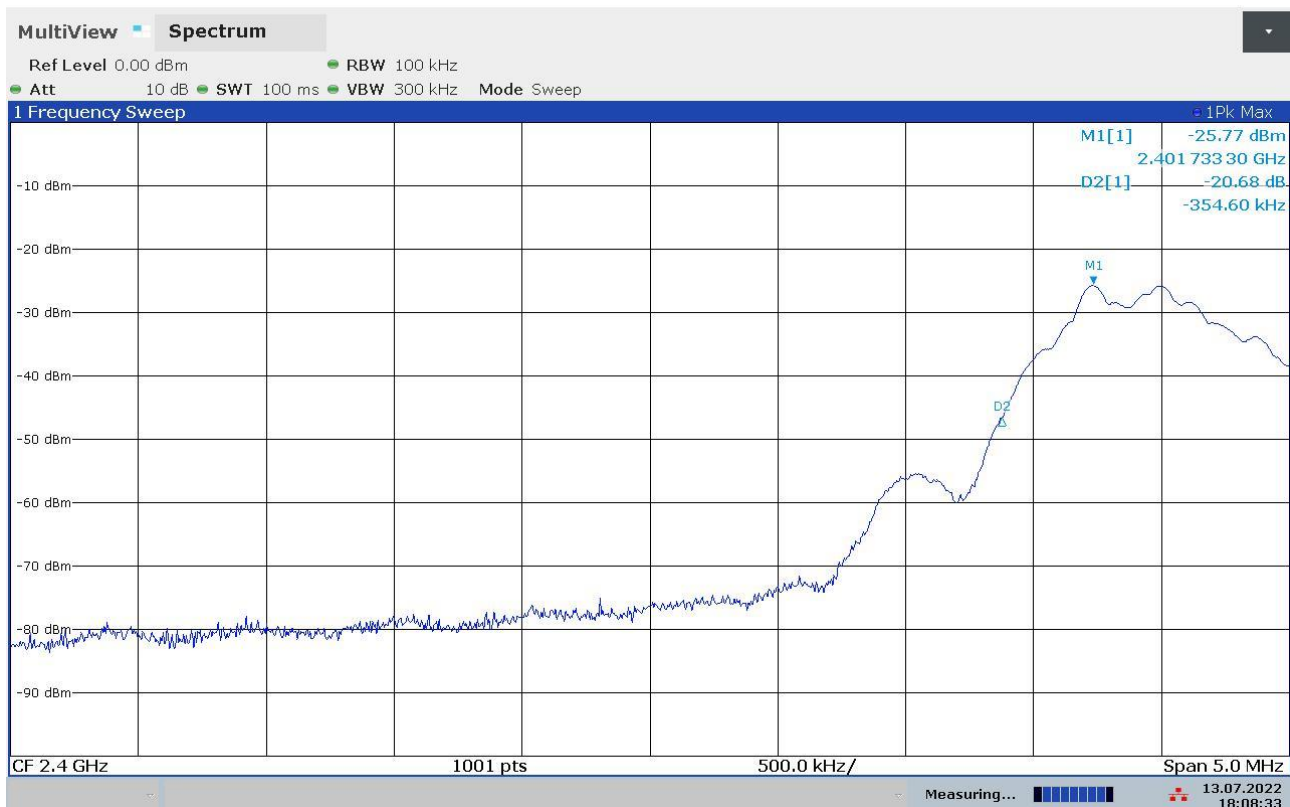
Segalla 22138008



Segalla 22138015



Segalla 22138016



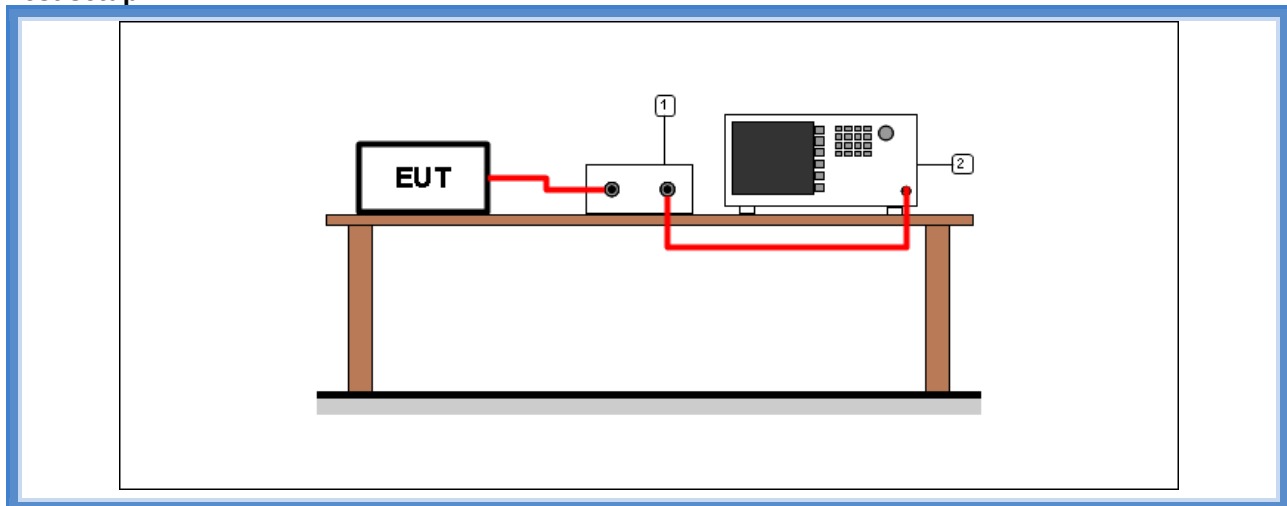
9.6 Fundamental emission output power

Tested by	M. Segalla
Test date	13.07.2022
Test location (stand)	Laboratory
Reference standards.....	FCC Rules and Regulation; Titles 47 Part 15.247 (b) (3) ANSI C63.10 cl. 11.9.1.1 KDB 558074 D01 DTS Meas Guidance v05r02 cl. 8.3.1.1
Supplementary test set-up description.....	--
Supplementary information	--

Acceptance limits

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt

Test setup



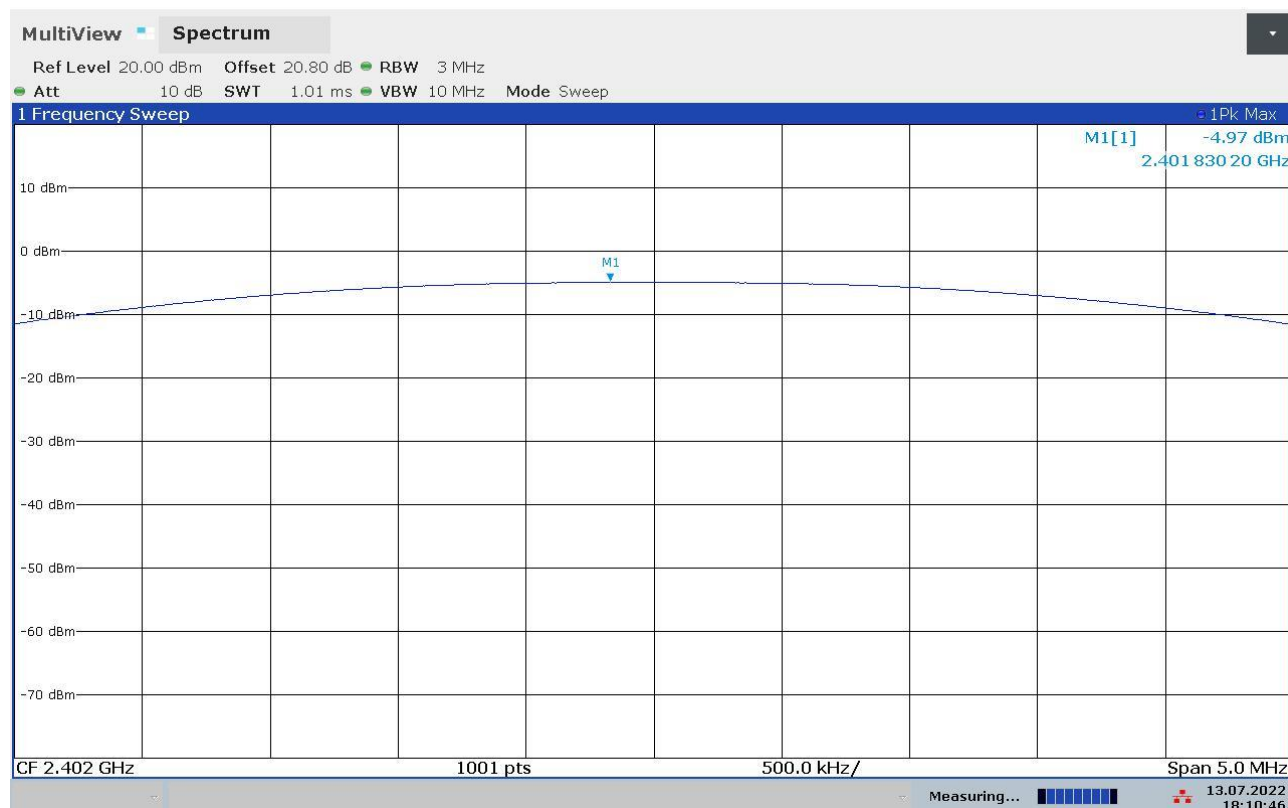
Test setup PR002_01				
Nr.	Id. Number	Manufacturer	Model	Description
2	CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz
1	--	--	--	Cable + attenuator (calibrated before the test)

Result

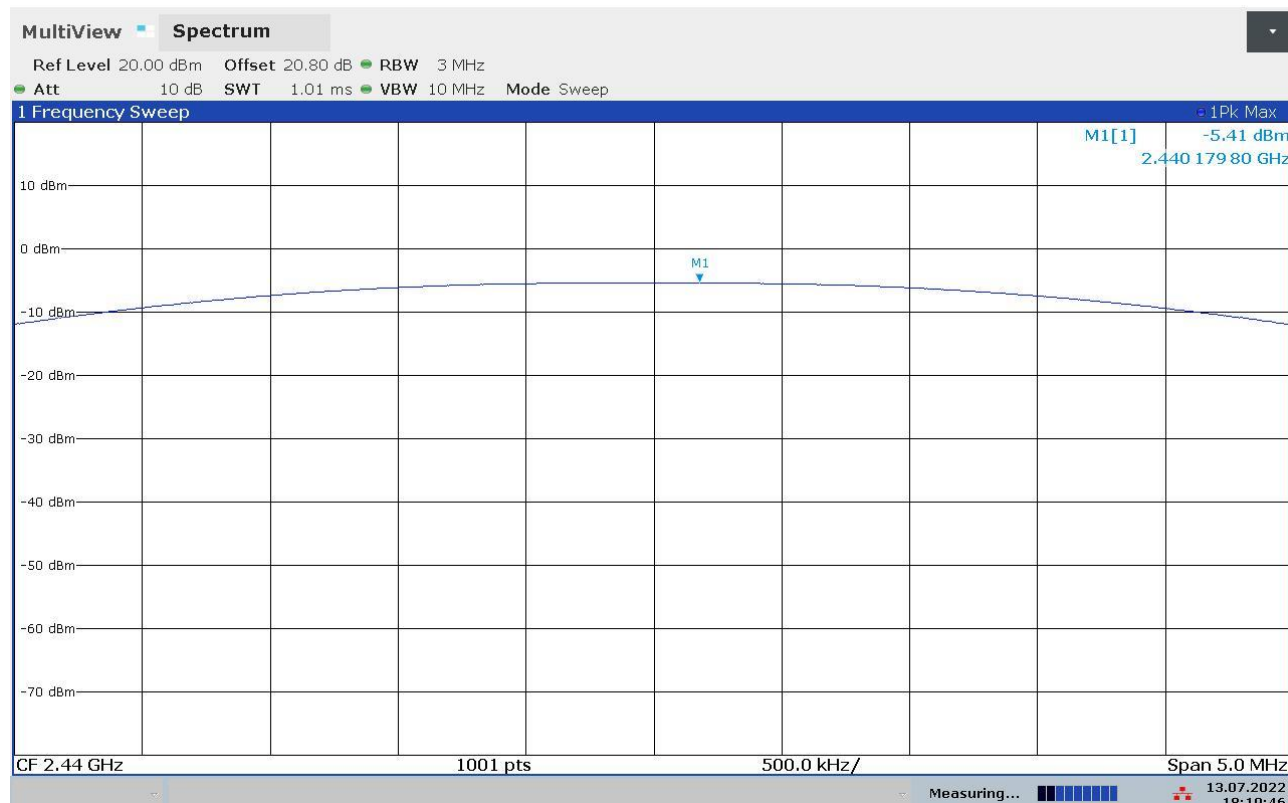
Transmission channel (MHz)	Graphs	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (mW)
2402	G22138028	-4,97	0,32	1000
2440	G22138033	-5,41	0,29	1000
2480	G22138038	-5,87	0,26	1000

Graphs

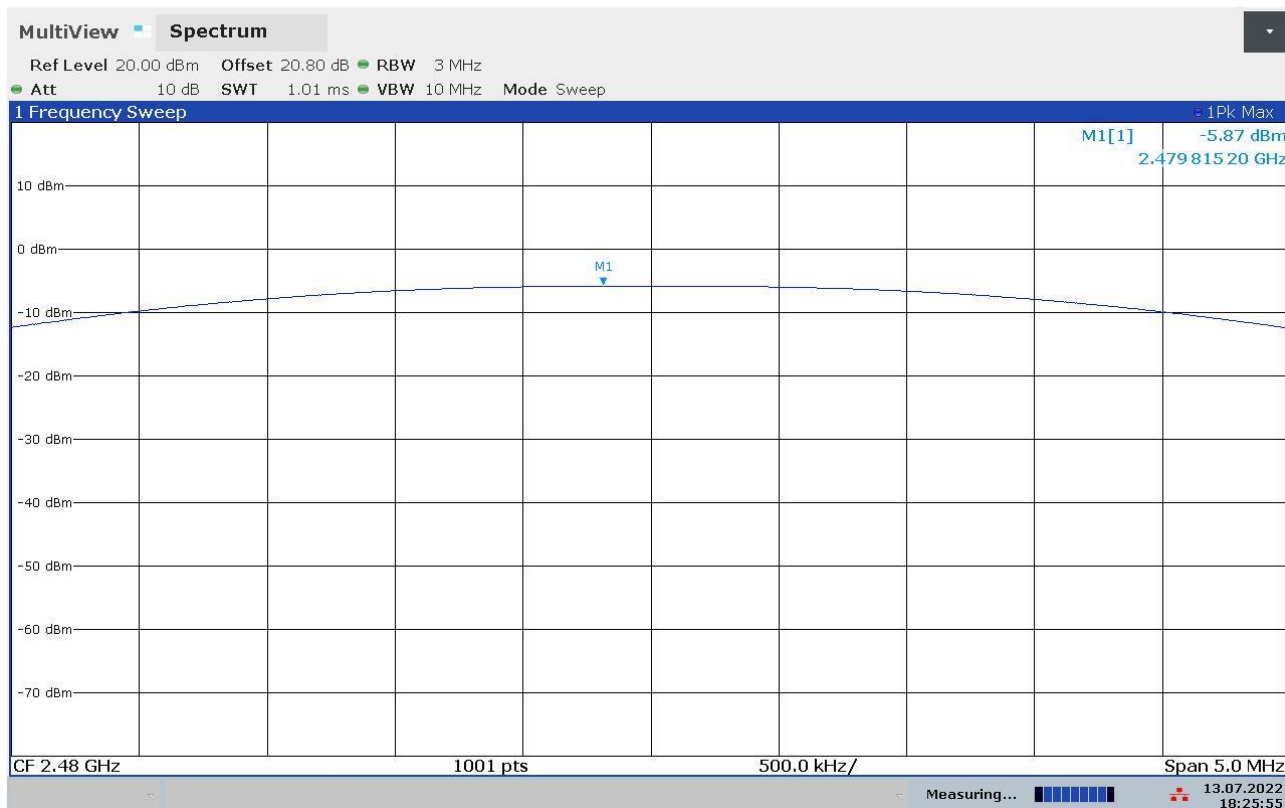
Segalla 22138028



Segalla 22138033



Segalla 22138038



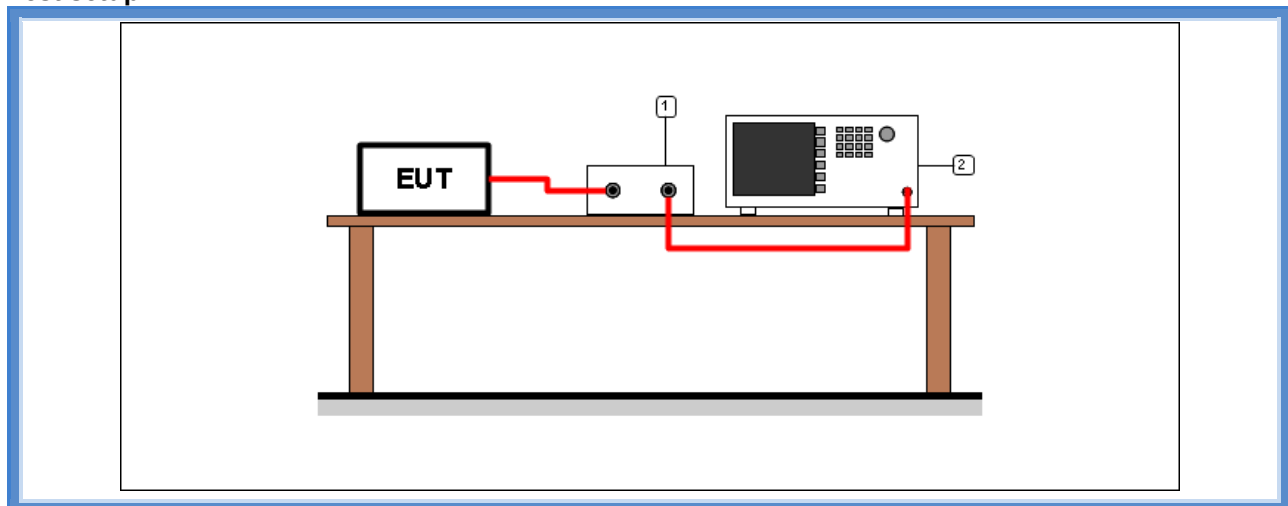
9.7 Maximum power spectral density level in the fundamental emission

Tested by	M. Segalla
Test date	13.07.2022
Test location (stand)	Laboratory
Reference standards.....	FCC Rules and Regulation; Titles 47 Part 15.247 (e) ANSI C63.10 cl. 11.10.2 KDB 558074 D01 DTS Meas Guidance v05r02 cl. 8.4
Supplementary test set-up description.....	--
Supplementary information	--

Acceptance limits

Frequency Range	Power Spectral Density
2400 – 2483,5 MHz	8 dBm/3 kHz 6,31 mW/3 kHz

Test setup



Test setup PR002_01

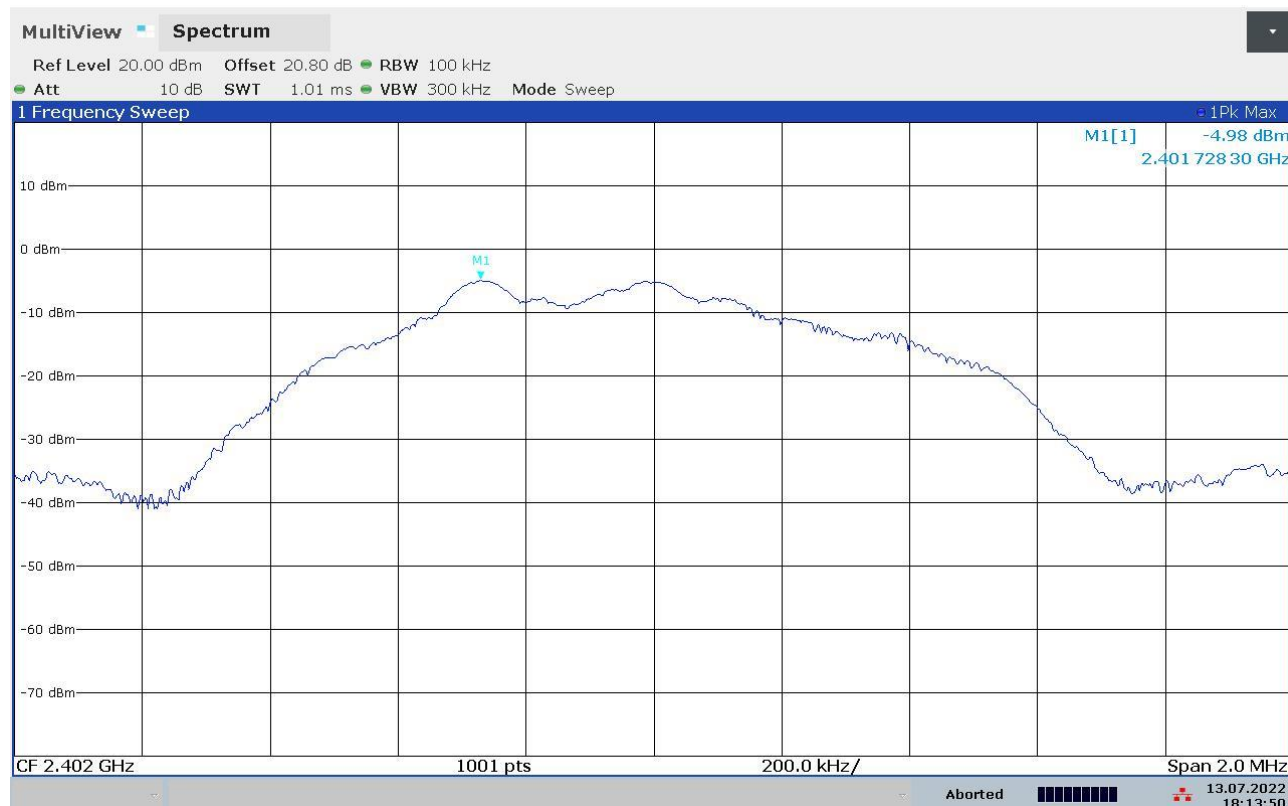
Nr.	Id. Number	Manufacturer	Model	Description
2	CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz
1	--	--	--	Cable + attenuator (calibrated before the test)

Result

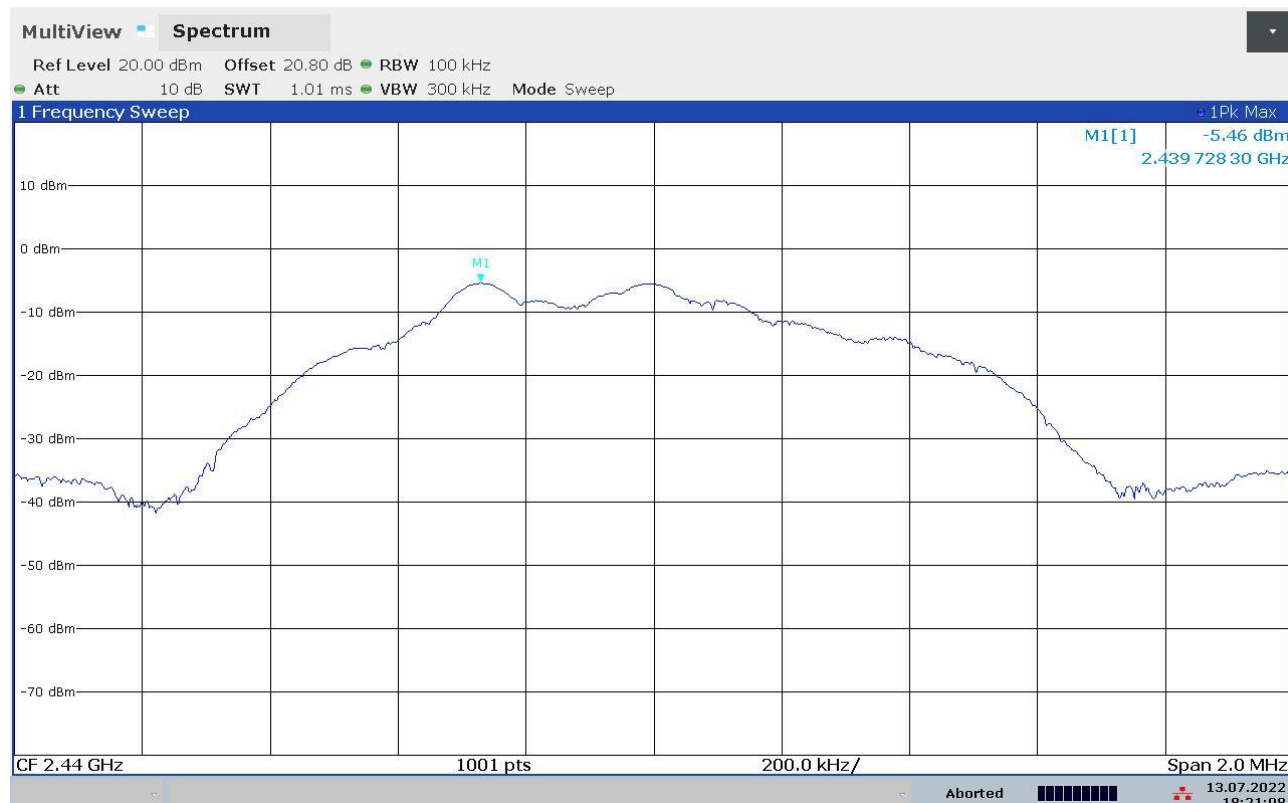
Transmission channel (MHz)	Graphs	Measured level (dBm/3 kHz)	Limits (dBm/3 kHz)
2402	G22138029	-4,98	8,00
2440	G22138034	-5,46	8,00
2480	G22138039	-5,89	8,00

Graphs

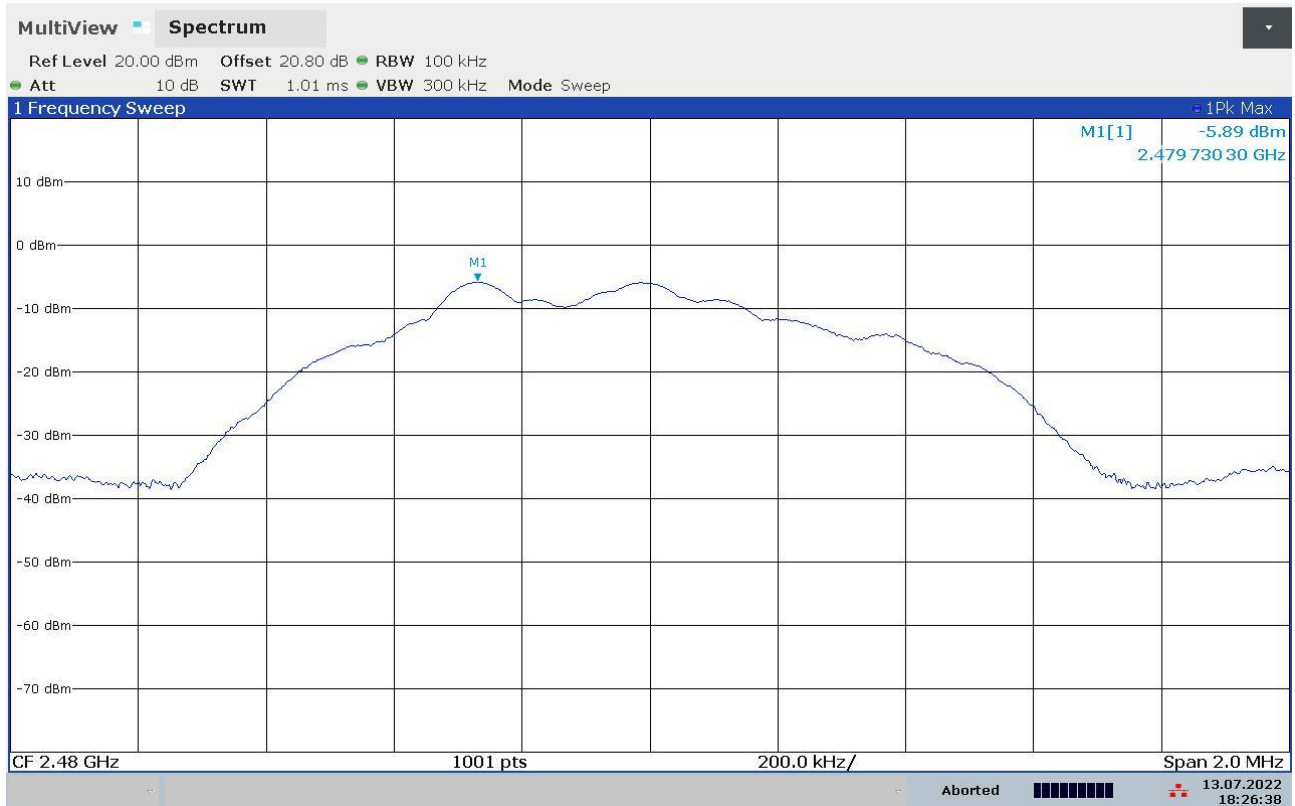
Segalla 22138029



Segalla 22138034



Segalla 22138039



Attachment 1

Instruments list

<i>Id. number</i>	<i>Manufacturer</i>	<i>Model</i>	<i>Description</i>	<i>Serial number</i>	<i>Last calibration</i>	<i>Due date calibration</i>
CMC S010	Rohde & Schwarz	ESH3-Z2	Impulses Limiting Device	- - -	January '22	January '23
CMC S108	EMCO	3115	Horn Antenna	9811-5622	June '19	June '22
CMC S127	Schaffner	HLA6120	Loop Antenna	1191	November '18	November '23
CMC S200	Schwarzbeck	NSLK 8128	V-LISN	8128-273	January '22	January '23
CMC S206	Rohde & Schwarz	ESCI 7	EMC Receiver 9KHz-7GHz	100781	January '22	January '23
CMC S260	CMC	Wfr_N	Shielded Cable	Wfr_ant10-1	November '21	November '22
CMC S261	CMC	Wfr_N	Shielded Cable	Wfr_ant20-1	November '21	November '22
CMC S262	CMC	Wfr_N_fix	Shielded Cable	Wfr_fix32-1	November '21	November '22
CMC S263	CMC	Wfr_N_fix	Shielded Cable	Wfr_fix31-1	November '21	November '22
CMC S264	CMC	Wfr_N	Shielded Cable	Wfr_ext03-1	November '21	November '22
CMC S271	Schwarzbeck	BBA 9106 + VHBB 9124	Biconical Antenna (30-300MHz)	831	June '22	June '25
CMC S287	Schwarzbeck	VUSLP 9111B	Log-periodic Antenna (200 MHz-3Ghz)	9111B-203	June '22	June '25
CMC S288	CMC	W_sma_white	Joint Shielded Cable	W_001	November '21	November '22
CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz	104059	November '19	November '22
CMC S353	Rohde & Schwarz	ESW26	Emi Test Receiver 1 Hz - 26.5 GHz	101492	September '20	September '22

Attachment 1

Measurement uncertainty

Test	Test Setup	Expanded uncertainty		Note
Conducted emission CISPR 16 LISN 50uH 0,009-0,0150 MHz	PE001_01	3,4 dB		1
Conducted emission CISPR 16 LISN 50uH 0,150-30,0 MHz	PE001_01	3,0 dB		1
Conducted emission CISPR 16 Voltage Probe 0,15-30 MHz	PE001_02	2,3 dB		1
Conducted emission CISPR 16 Current Probe 0,15-30 MHz	PE001_03	2,6 dB		1
Conducted emission CISPR 16 ISN 0,15-30 MHz	PE001_04	4,7 dB		1
Clic CISPR 16 LISN 50uH 0,150-30,0 MHz	PE001_05	2,9 dB		1
Radiated Emission CDNE 30-300 MHz	PE001_06	3,3 dB		1
Disturbance Power 30-300 MHz	PE002_01	3,8 dB		1
Radiated Emission LAS 0,15-30 MHz	PE003_01	2,0 dB		1
Radiated Emission CISPR 16 Loop Ant. 0,15-30 MHz	PE004_01	4,1 dB		1
Radiated Emission CISPR 16 Bicon. Ant. 30-300 MHz	PE004_02	4,7 dB		1
Radiated Emission CISPR 16 LogP. Ant. 300-1000 MHz	PE004_03	4,6 dB		1
Radiated Emission CISPR 16 Horn Ant. 1-18 GHz	PE004_04	4,7 dB		1
Human Exposure to electromagnetic fields	PE005_01	16,7 %		1
Harmonics	PE006_01	10 mA +	2,9 %	1
Flicker	PE007_01	4,15 %		1
Radiated Immunity 80 MHz - 6 GHz	PE102_XX	2,20 dB	0,86 V/m a 3V/m	1
Conducted Immunity 0,15 - 230 MHz	PE105_XX	1,20 dB	0,44 V a 3V	1
AC Magnetic field	PE106_01	1,55 %	0,15 A/m a 10A/m	1
Pulse Magnetic field	PE107_01	6,23 %	18,7 A/m a 300A/m	1
Dumped Magnetic field	PE108_01	6,23 %	1,87 A/m a 30A/m	1
Common mode conducted immunity	PE112_01	2,16 %	0,22 V a 10V	1

Attachment 1

Test	Test Setup	Expanded uncertainty	Note
Power/Spurious 9kHz-30MHz	PR001_01	4,1 dB	1
Power/Spurious ERP 30-1000MHz d=10m	PR001_02+03	4,7 dB	1
Misura della potenza EIRP 1-18GHz d=3m	PR001_04+05	4,7 dB	1
Misura della potenza EIRP 18-40GHz d=3m	PR001_06	5,4 dB	1
Frequency error	PR002_01+02	< 1x10 ⁻⁷	1
Timing zero span (1001pts.)	PR002_01+02	0,2 % SWT	1
Modulation bandwidth	PR002_01+02	< 1x10 ⁻⁷	1
Conducted RF power and spurious emission	PR002_01+02	1,1 dB	1
Adjacent channel power	PR002_01+02	1,1 dB	1
Blocking	PR002_01+02	1,1 dB	1

Test	Test Setup	Expanded uncertainty	Note
Electrostatic discharge immunity test	PE101_0X		2
Electrical fast transients / burst immunity test	PE103_0X		2
Surge immunity test	PE104_0X		2
Short interruption immunity test	PE109_01		2
Ring Wave immunity test	PE110_01		2
Low frequency immunity test	PE111_01		2
Dumped Oscillatory immunity test	PE113_01		2

Rev_22_01 date 31/01/2022

Note 1:

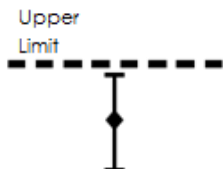
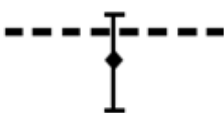
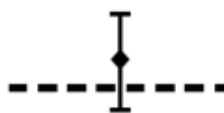
The expanded uncertainty reported according to the document EA-4-02 is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of p = 95%

Note 2:

It has been demonstrated that the used test equipment meets the specified requirements in the standard with at least a 95% confidence, covering factor k=2

Attachment 1

Judgement of compliance

Case 1	Case 2	Case 3	Case 4
 The sample complies with the requirements. The measurement results is within the specification limit when the measurement uncertainty is taken into account.	 The sample complies with the requirements. It is not possible to state compliance using a 95% coverage probability for the expanded uncertainty although the measurement result is below the limit.	 The sample does not comply with the requirements. It is not possible to state compliance using a 95% coverage probability for the expanded uncertainty also the measurement result is upper the limit.	 The sample does not comply with the requirements. The measurement results is outside the specification limit when the measurement uncertainty is taken into account.

In agreement with ILAC-G8:09/2019 cl.4.2.1 Guidelines on Decision Rules and Statements of Conformity

Quality manual references – Internal procedure

Internal Procedure PM001 rev. 3.1 (Quality Manual)	Measure procedure
Internal Procedure INC_M rev. 9.7 (Quality Manual)	Measurement uncertainty calculation