



TEST REPORT nr. R15093901

Federal Communication Commission (FCC)

Test item

Description.....: TRANSCEIVER UNIT
Trademark.....: ELCA
Model/Type.....: AR MITO-MINI 915
FCC ID.....: 2ABS7-ARMIMI915

Test Specification

Standard.....: FCC Rules & Regulations, Title 47:2014
Part 15 paragraph(s): 203, 204, 207, 209 and 249

Client's name.....: ELCA S.r.l.

Address.....: Via del Commercio, 7/B – 36065 Mussolente (VI) – ITALY

Manufacturer's name : Same as client

Address.....: --

Report

Tested by.....: A. Bertezzo – Technician

Approved by.....: R. Beghetto – Laboratory Manager

Date of issue.....: 04.08.15

Contents.....: 43 pages

This test report shall not be reproduced except in full without the written approval of CMC.
The test results presented in this report relate only to the item tested.



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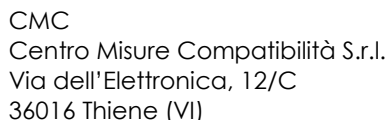
1. Summary

Standard:

FCC Rules & Regulations, Title 47:2014
Part 15 paragraph(s): 203, 204, 207, 209 and 249

Test specifications	Environmental Phenomena	Tests sequence	Result
Part 15.203	Antenna requirements	1	Complies
Part 15.207	Conducted emissions	2	Complies
Part 15.209	Radiated emissions	3	Complies
Part 15.209 and 15.249	Peak Output Power	4	Complies
Part 15.249 (d)	Band edge	5	Complies
Part 15.209	Spurious emission	6	Complies

The Test Report was given to the Client representatives for necessary documentation of ratification of the tested equipment and it is valid for the FCC certification



LAB N° 0168

Power supply : 12/24 Vdc

Serial Number..... : --

Type of equipment : ☒ Transmitter Unit
 ☒ Receiver Unit

Type of station : ☒ Fixed station
 ☐ Portable station
 ☐ Mobile station

Nominal frequency..... : 920,575 MHz

Company..... : CMC Centro Misure Compatibilità S.r.l.
Address : Via dell'Elettronica, 12/C
36016 Thiene (VI) – ITALY
Test site facility's FCC registration number : 271947

Date of receipt of test item : 18.05.15

Testing start date : 28.05.15

Testing end date : 27.07.15

Samples tested nr..... : 1

Sampling procedure. : Equipment used for testing was picked up by the manufacturer, at the end of the production process with random criterion

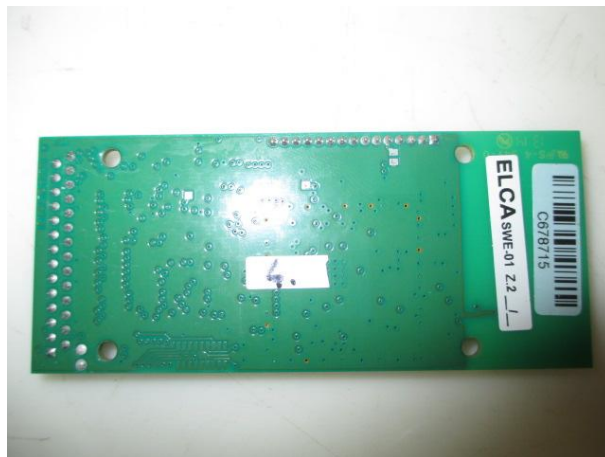
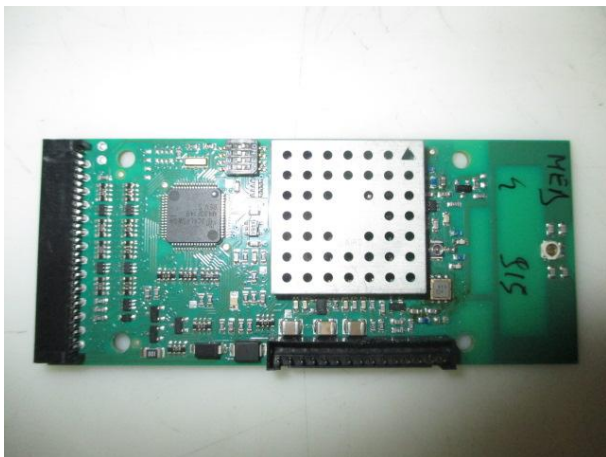
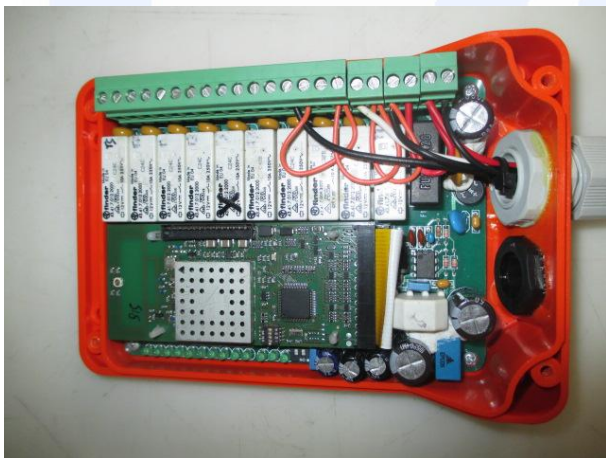
Internal identification : adhesive label with the product number P150562

EUT exercising : EUT in continuous transmission at maximum power



5. Photograph(s) of EUT

5.1 Photograph(s) of EUT





6. Equipment 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 '15	January '16
CMC S108	EMCO	3115	Horn Antenna	9811-5622	May '13	May '16
CMC S127	Schaffner	HLA6120	Loop Antenna	1191	January '13	January '16
CMC S136	Schwarzbeck	VULB 9163	Broadband Antenna	9136-205	May '13	May '16
CMC S164	Rohde & Schwarz	ESU26	EMC interference receiver	100052	January '15	January '16
CMC S200	Schwarzbeck	NSLK 8128	V-LISN	8128-273	January '15	January '16
CMC S227	Rohde & Schwarz	ESR7	EMI Test Receiver 7GHz	101121	January '15	January '16



7. Measurement uncertainty

Test	Expanded Uncertainty	note
Conducted Emission		
(50Ω/50μH AMN) - (9 kHz – 150 kHz)	±3.6 dB	1
(50Ω/50μH AMN) - (150 kHz – 30 MHz)	±3.0 dB	1
(Voltage probe) - (150 kHz – 30 MHz)	±2.8 dB	1
(50Ω/5μH AMN) - (150 kHz – 108 MHz)	±2.6 dB	1
Discontinuous Conducted Emission		
Conducted Emission (50Ω/50μH AMN) - (150 kHz – 30 MHz)	±3.0 dB	1
Disturbance Power (30 MHz – 300 MHz)		
	±3.7 dB	1
Radiated Emission		
(0,150 MHz – 30 MHz)	±4.0 dB	1
(30 MHz – 1000 MHz)	±4.3 dB	1
(1 GHz – 6 GHz)	±4.5 dB	1
Electromagnetic field EMF		
	±10.5 %	1
Harmonic current emissions test		
	±1.8 %	1
Voltage fluctuation and flicker test		
	±2.6 %	1
Insertion loss test		
	±2.0 dB	1
Radiated electromagnetic disturbance test (loop antenna)		
	±2.1 dB	1
Radiated electromagnetic field immunity test		
	0.81 V/m at 3V/m	1
Pulse modulated radiated electromagnetic field immunity test		
	0.81 V/m at 3V/m	1
Injected currents immunity test		
	0.45 V at 3V	1
Bulk current		
	3.7 mA at 60 mA	1
Power frequency magnetic field immunity test		
	0.1 A/m at 10 A/m	1
Effective radiated power (F < 1GHz)		
	±4.3 dB	1
Effective radiated power (F > 1GHz)		
	±3.7 dB	1
Frequency error		
	< 1x10 ⁻⁷	1
Modulation bandwidth		
	< 1x10 ⁻⁷	1
Conducted RF power and spurious emission		
	±0.7 dB	1
Adjacent channel power		
	±1.2 dB	1
Blocking		
	±1.2 dB	1
Electrostatic discharge immunity test		
		2
Electrical fast transients / burst immunity test		
		2
Surge immunity test		
		2
Pulse magnetic field immunity test		
		2
Damped oscillatory magnetic field immunity test		
		2
Short interruption immunity test		
		2
Voltage transient emission test		
	±2.2 %	1
Transient immunity test		
		2

Notes

Note 1:

The expanded uncertainty reported according to EN55016-4-2:2011 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.



8. Reference documents

Reference no.	Description
FCC Rules and Regulation Title 47 part 15:2014	--
ANSI C63.4:2009	American National Standard for Methods of Measuring of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz – 40 GHz
Internal Procedure PM001 rev. 2.0 (Quality Manual)	Measure Procedure
Internal procedure INC_M rev. 8.2 (Quality Manual)	Measurement uncertainty calculation



9. Deviation from test specification

In agreement with the client, emission tests were performed with peak detector.

At the frequencies where the measures exceed the limit or within 6 dB from it, the test was repeated with quasi-peak detector and/or average detector.

10. Test case verdicts

Test case does not apply to the test object..... : N.A.

Test item does meet the requirement..... : Complies

Test item does not meet the requirement..... : Does not comply

Test not performed : N.E.

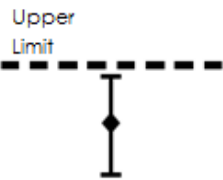
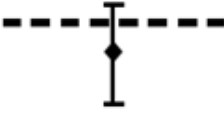
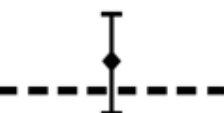


11. Results

In this clause tests results are reported.

Measurement uncertainty is in accordance with document CMC INC_M rev. 8.2.

Judgement of compliance:

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

In agreement with ILAC-G8: 03/2009 Guidelines on the Reporting of Compliance with Specification.



11.1 Antenna requirements

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.203 and 15.204
- Internal procedure PM001
- See clause 4 of this test report

Test configuration and test method

Test site:
Laboratory

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

--
Measurement uncertainty: See clause 7 of this test report

Test specification

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.

The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded

Environmental conditions

Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
22	100	45

Result

Antenna Type	External R.F. power amplifier	Gain	Remarks	Results
Integral antenna	Not Present	--	--	Complies

Result: The requirements are met



11.2 Conducted emissions

Test set-up and execution

- FCC Rules and Regulation;
Titles 47 Part 15.207
- Internal procedure PM001
- See clause 4 of this test report

Test configuration and test method

Test site:
Shielded chamber

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

CMC S010, CMC S200, CMC S206
Measurement uncertainty: See clause 7 of this test report

Test specification

Port: Main port
Frequency range: 150 kHz – 30 MHz

Environmental conditions

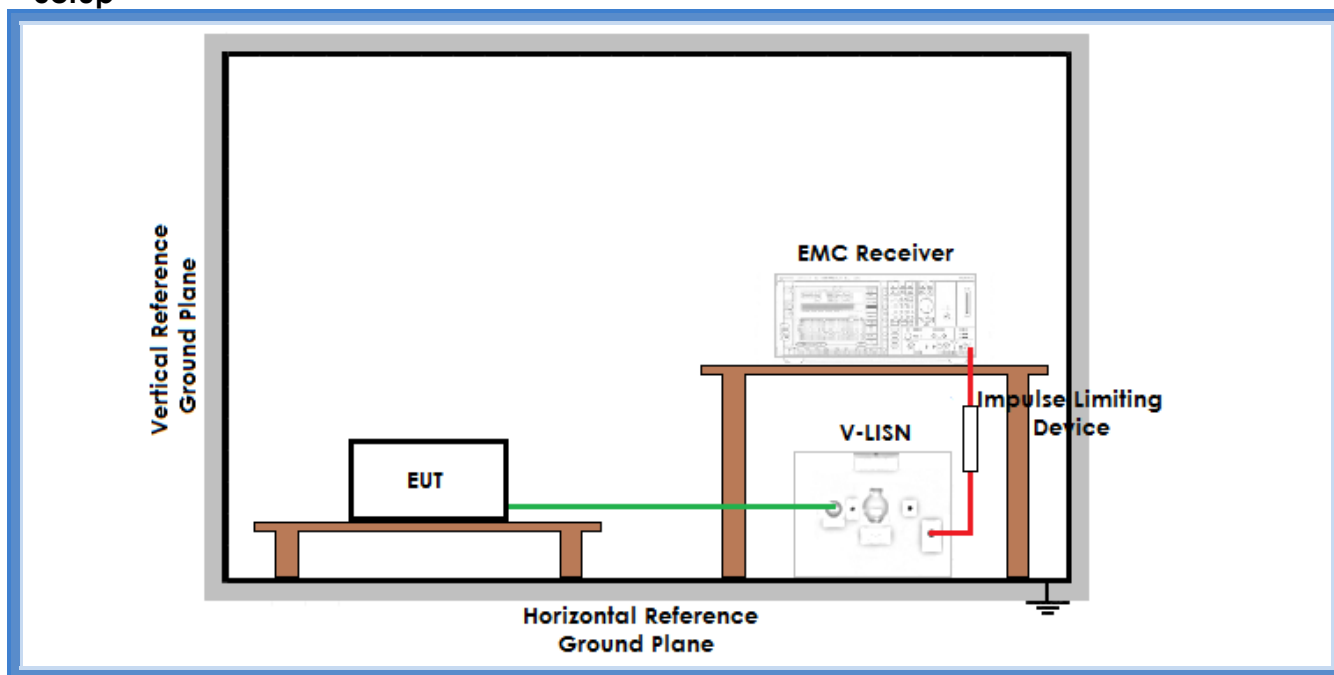
Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
22	100	45

Acceptance limits

Frequency range (MHz)	dB(μV) Quasi-peak	dB(μV) Average
0,15 to 0,50	66 to 56	56 to 46
0,50 to 5	56	46
5 to 30	60	50



Setup



Result

Line	Graphs	Remarks	Result
N	G15093901	--	Complies
L1	G15093902	--	Complies

Remarks: Tests performed on 120 Vac side of auxiliary power unit

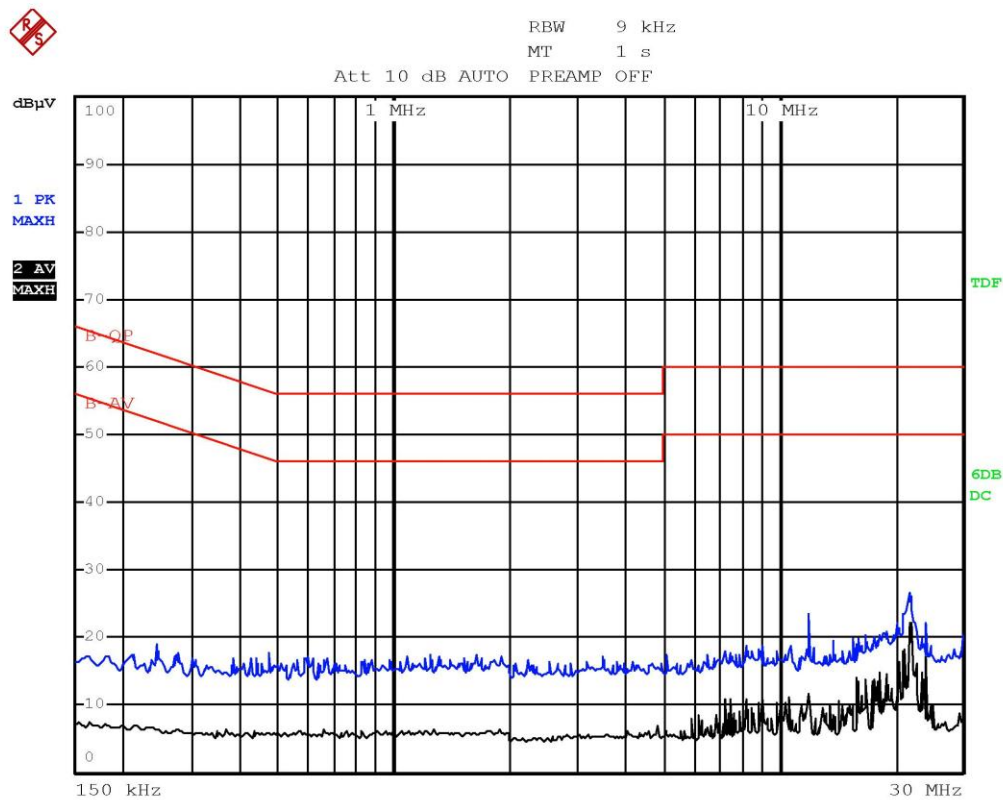
Graphs Legend

PK: Peak; QP [1s] (quasi-peak at 1 second) values are marked with a +
AV: Average; AV [1s] (average at 1 second) values are marked with a X



Graphs

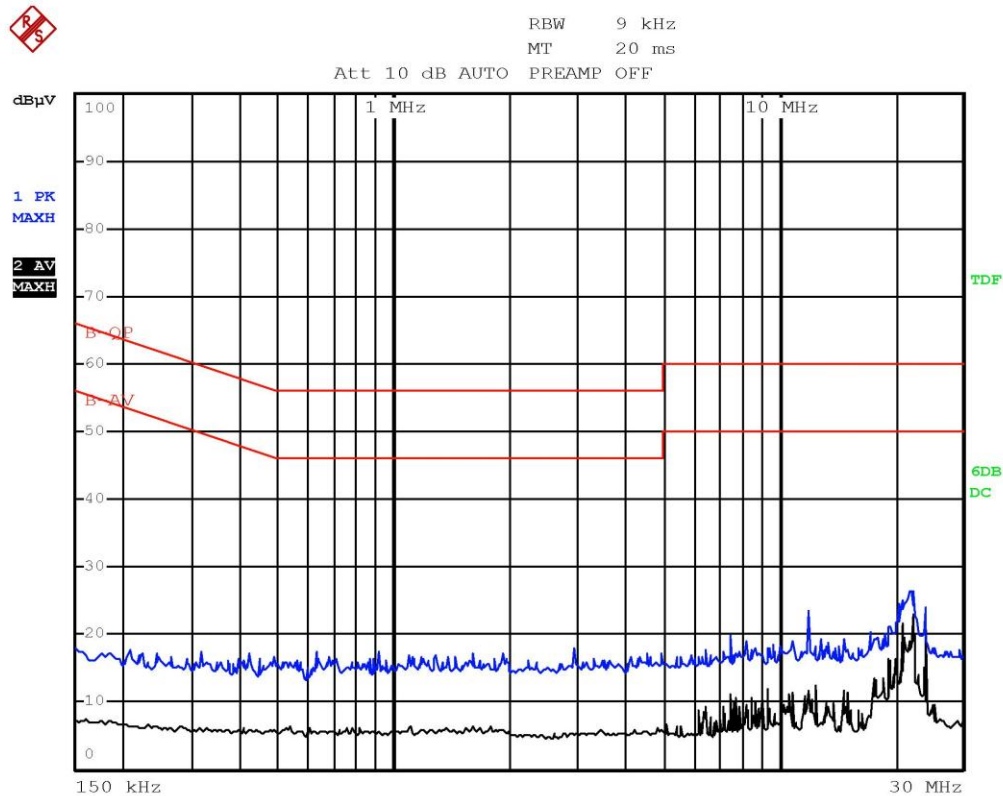
G15093901



Bertezzolo 15093901 Line N



G15093902



Bertezzo 15093902 Line L

Result: The requirements are met



11.3 Radiated emissions

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part. 15.209
- Internal procedure PM001
- See clause 4 of this test report

Test configuration and test method

Test site:
Semi-anechoic chamber

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

CMC S108, CMC S127, CMC S136, CMC S164
Measurement uncertainty: See clause 7 of this test report

Test specification

Port: Enclosure
Frequency range: 0,009 MHz – 1000 MHz
Antenna polarization: Horizontal (H) – Vertical (V)
EUT – Antenna distance: 3 m

Environmental conditions

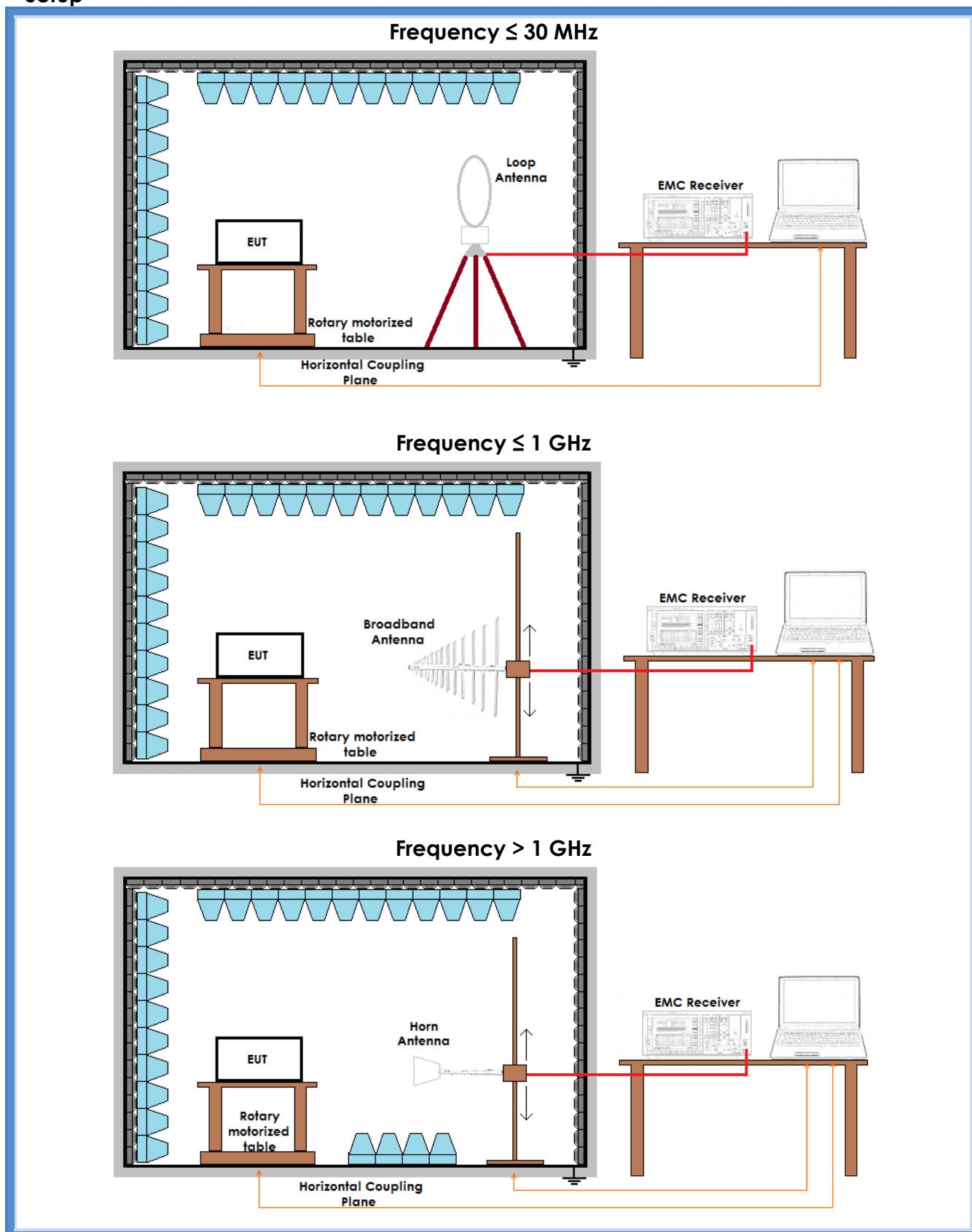
Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
22	100	45

Acceptance limits

Frequency range (MHz)	Limits [dB(μV/m)]
0,009 to 0,490	128,51 to 93,80
0,490 to 1,705	73,80 to 62,97
1,705 to 30	69,54
30 to 88	40
88 to 216	43,52
216 to 960	46,02
Above 960	53,98

Remarks: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

Setup





Result

Polarization	Frequency Range (MHz)	Graphs	Remarks	Result
Loop	0,009 – 30	G15093903	Worst case	Complies
V	30 – 1000	G15093927	Lowest frequency	Complies
H	30 – 1000	G15093926	Lowest frequency	Complies
V	30 – 1000	G15093930	Medium frequency	Complies
H	30 – 1000	G15093931	Medium frequency	Complies
V	30 – 1000	G15093924	Highest frequency	Complies
H	30 – 1000	G15093925	Highest frequency	Complies
H	1000 – 10000	G15093933	Worst case	Complies
V	1000 – 10000	G15093932	Worst case	Complies
Remarks: --				

Graphs Legend

PK: Peak; QP [1s] (quasi-peak at 1 second) values are marked with a +

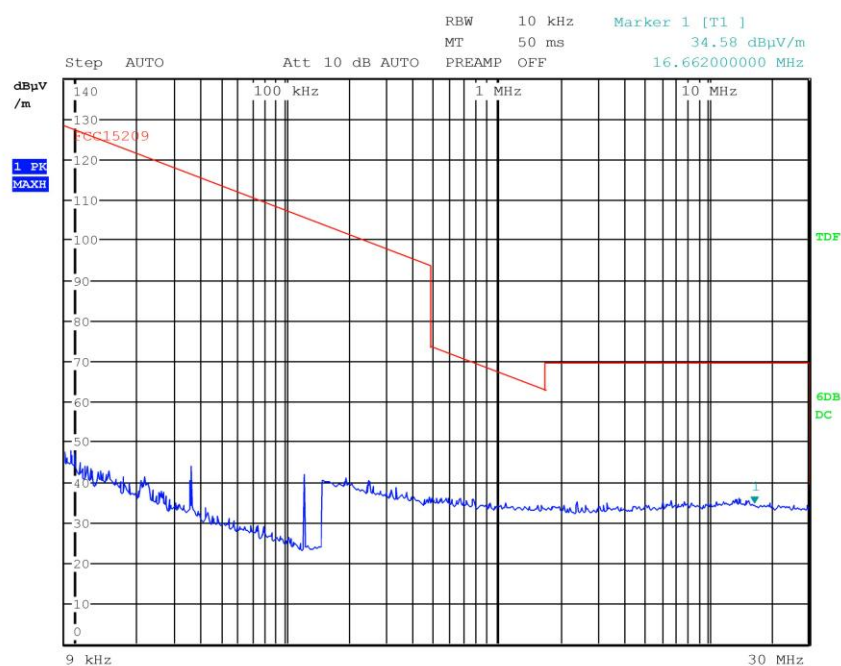
AV: Average; AV [1s] (average at 1 second) values are marked with a x



Graphs

G15093903

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 15093903
Test Spec



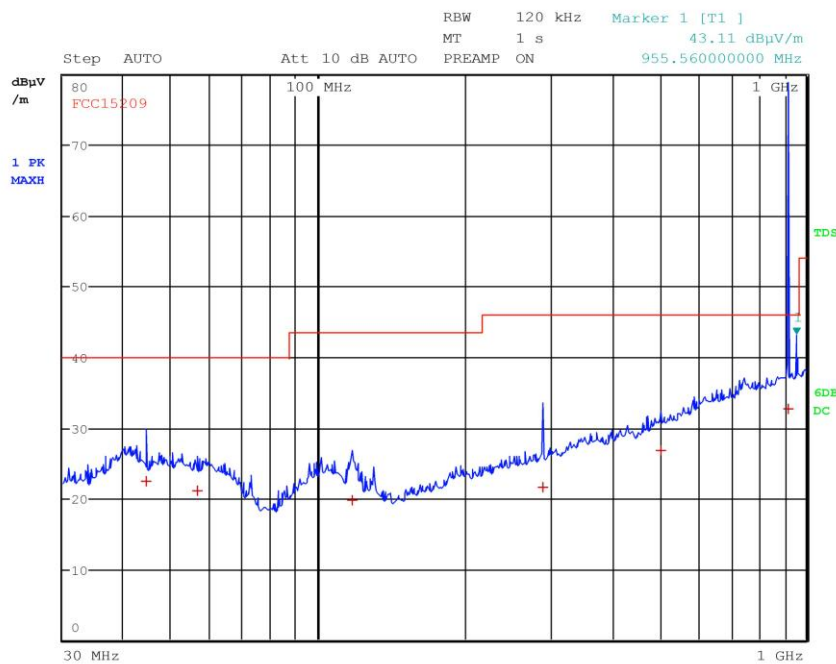
Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 0



G15093924

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 15093924
Test Spec



Final Measurement

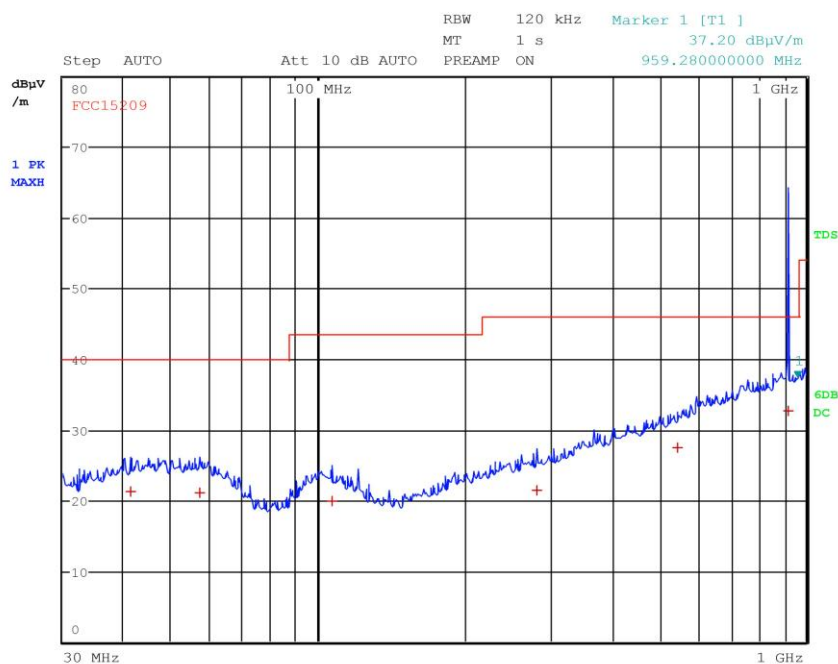
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	44.480000000 MHz	22.41	Quasi Peak	-17.59
1	56.480000000 MHz	21.11	Quasi Peak	-18.89
1	117.640000000 MHz	19.81	Quasi Peak	-23.71
1	289.000000000 MHz	21.66	Quasi Peak	-24.36
1	503.560000000 MHz	26.82	Quasi Peak	-19.20
1	922.000000000 MHz	32.75	Quasi Peak	-13.27



G15093925

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 15093925
Test Spec



Final Measurement

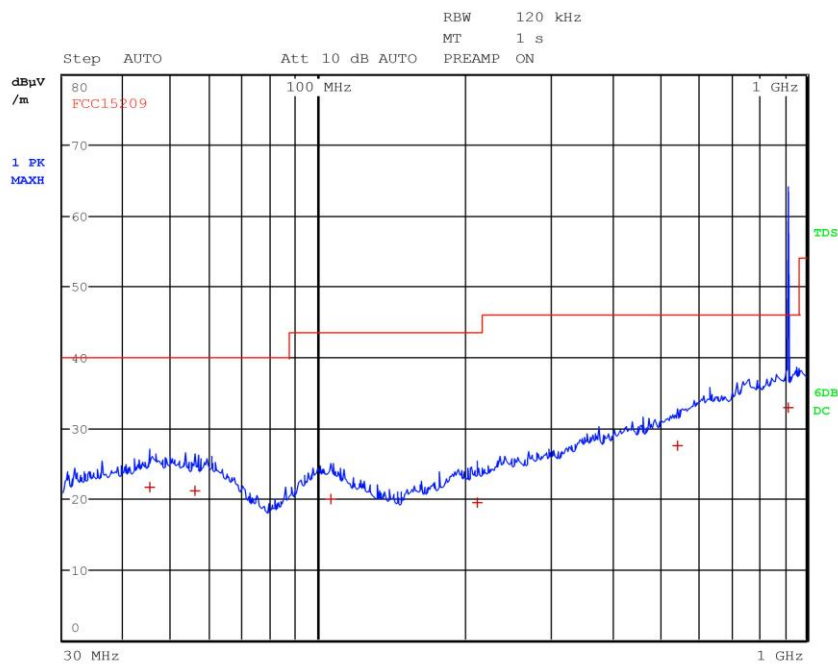
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	41.200000000 MHz	21.22	Quasi Peak	-18.78
1	57.320000000 MHz	21.15	Quasi Peak	-18.85
1	106.720000000 MHz	19.84	Quasi Peak	-23.68
1	280.160000000 MHz	21.41	Quasi Peak	-24.61
1	544.480000000 MHz	27.45	Quasi Peak	-18.57
1	922.000000000 MHz	32.76	Quasi Peak	-13.26



G15093926

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 15093926
Test Spec



Final Measurement

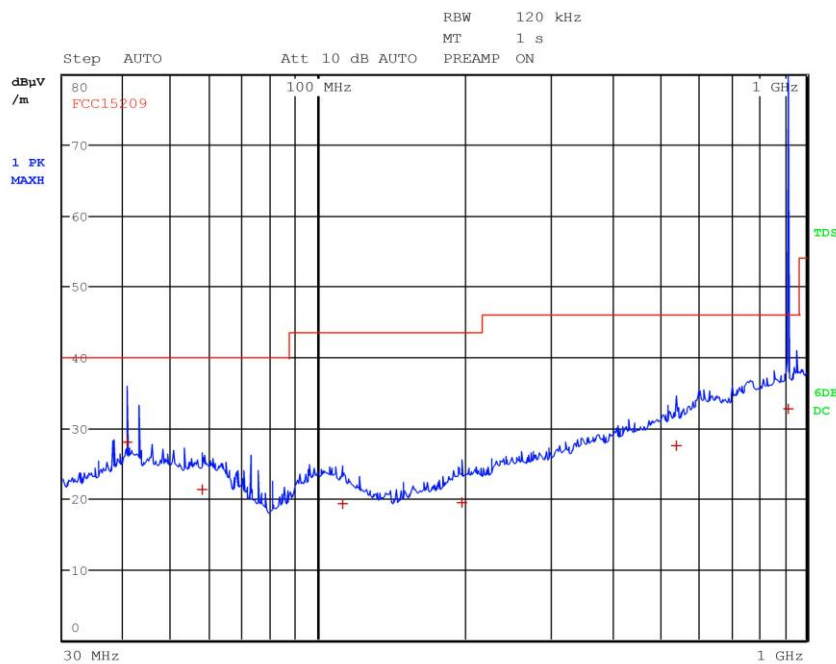
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	45.080000000 MHz	21.62	Quasi Peak	-18.38
1	55.920000000 MHz	21.16	Quasi Peak	-18.84
1	106.120000000 MHz	19.88	Quasi Peak	-23.64
1	212.280000000 MHz	19.47	Quasi Peak	-24.05
1	544.280000000 MHz	27.40	Quasi Peak	-18.62
1	921.000000000 MHz	32.78	Quasi Peak	-13.24



G15093927

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezolo 15093927
Test Spec



Final Measurement

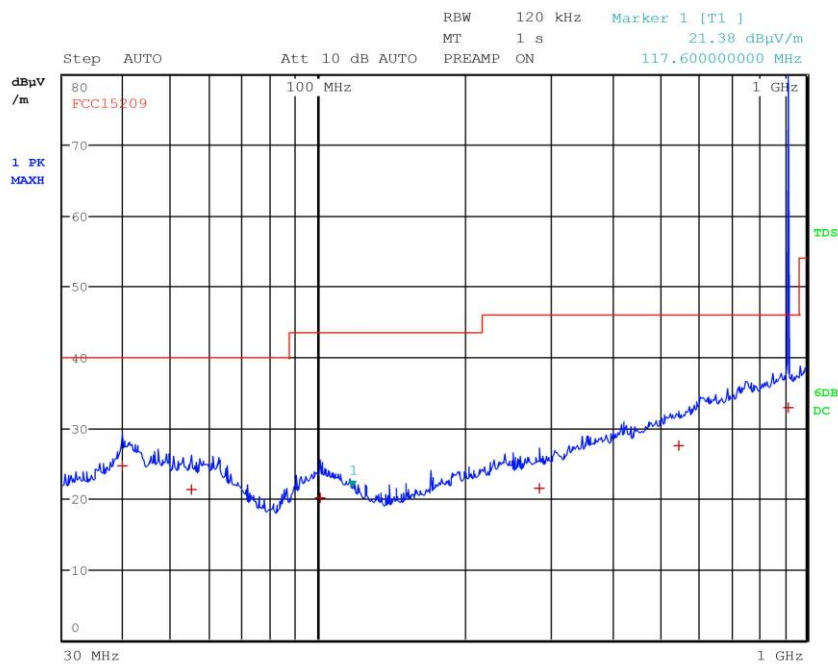
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	40.520000000 MHz	28.02	Quasi Peak	-11.98
1	57.800000000 MHz	21.23	Quasi Peak	-18.77
1	112.480000000 MHz	19.25	Quasi Peak	-24.27
1	196.960000000 MHz	19.39	Quasi Peak	-24.13
1	540.960000000 MHz	27.41	Quasi Peak	-18.61
1	921.000000000 MHz	32.73	Quasi Peak	-13.29



G15093930

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 15093930
Test Spec



Final Measurement

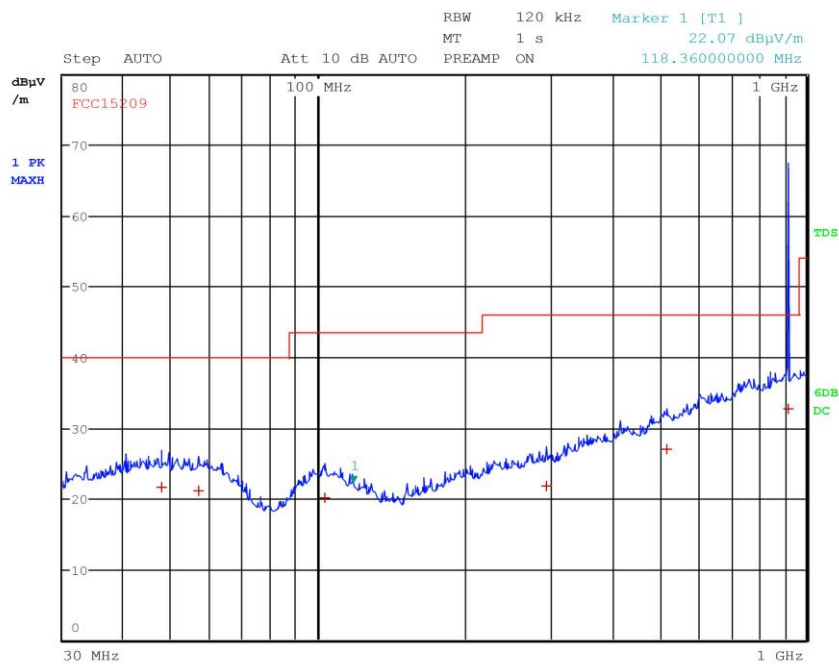
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	39.720000000 MHz	24.60	Quasi Peak	-15.40
1	54.880000000 MHz	21.18	Quasi Peak	-18.82
1	101.160000000 MHz	20.05	Quasi Peak	-23.47
1	284.680000000 MHz	21.51	Quasi Peak	-24.51
1	546.800000000 MHz	27.46	Quasi Peak	-18.56
1	921.000000000 MHz	32.81	Quasi Peak	-13.21



G15093931

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 15093931
Test Spec



Final Measurement

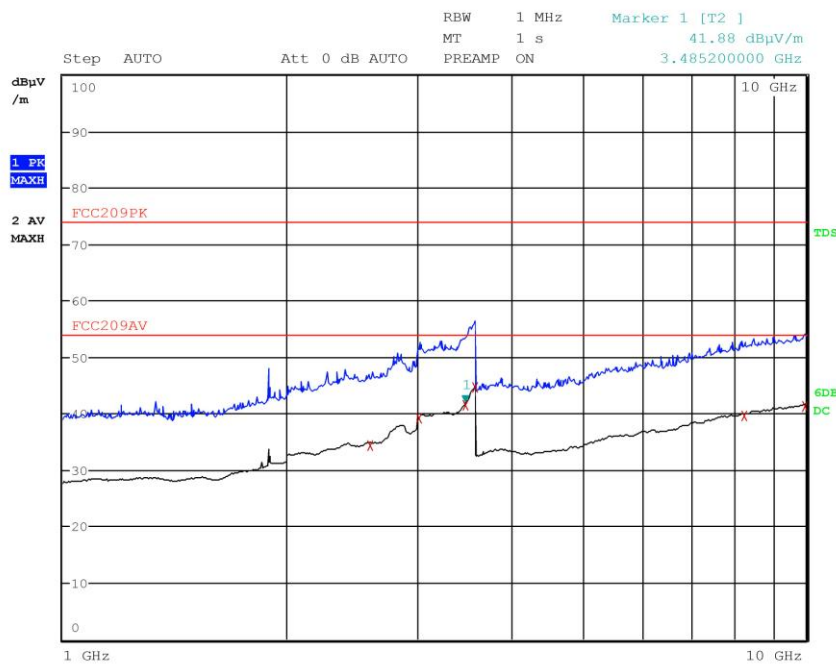
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	47.840000000 MHz	21.66	Quasi Peak	-18.34
1	57.040000000 MHz	21.06	Quasi Peak	-18.94
1	103.520000000 MHz	20.01	Quasi Peak	-23.51
1	293.920000000 MHz	21.77	Quasi Peak	-24.25
1	519.320000000 MHz	27.04	Quasi Peak	-18.98
1	921.000000000 MHz	32.72	Quasi Peak	-13.30



G15093932

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezolo 15093932
Test Spec



Final Measurement

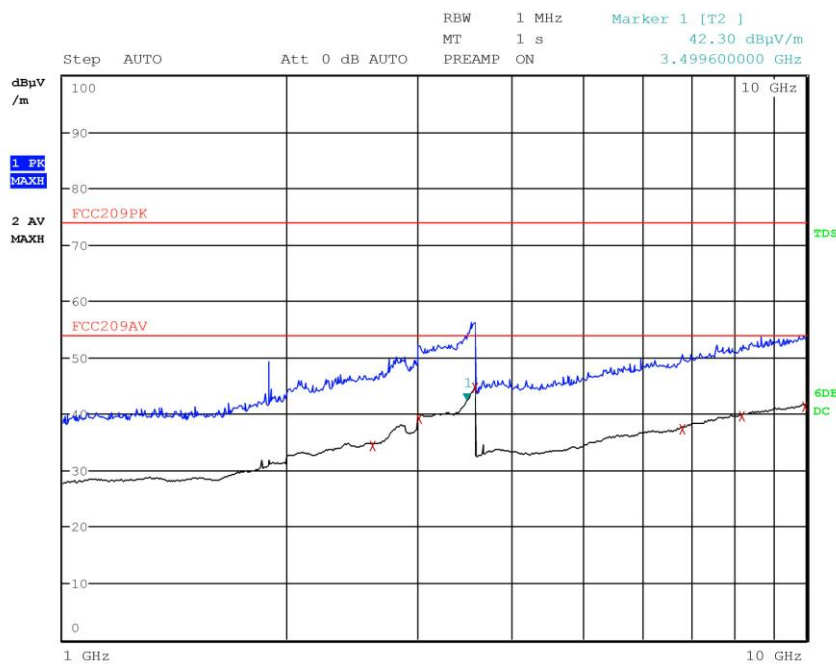
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
2	2.586000000 GHz	34.44	Average	-19.56
2	3.009600000 GHz	39.11	Average	-14.89
2	3.485200000 GHz	41.46	Average	-12.54
2	3.598800000 GHz	44.67	Average	-9.33
2	8.244000000 GHz	39.53	Average	-14.47
2	9.972800000 GHz	41.22	Average	-12.78



G15093933

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezolo 15093933
Test Spec



Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
2	2.609600000 GHz	34.34	Average	-19.66
2	3.008400000 GHz	39.15	Average	-14.85
2	3.594800000 GHz	44.54	Average	-9.46
2	6.804000000 GHz	37.22	Average	-16.78
2	8.200400000 GHz	39.60	Average	-14.40
2	9.974400000 GHz	41.29	Average	-12.71

Result: The requirements are met



11.4 Peak Output Power

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.209 and Part 15.249
- Internal procedure PM001
- See clause 4 of this test report

Test configuration and test method

Test site:
Semi-anechoic chamber

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

CMC S108, CMC S136, CMC S164
Measurement uncertainty: See clause 7 of this test report

Test specification

Port: Enclosure
Antenna polarization: Horizontal (H) – Vertical (V)
EUT – Antenna distance: 3 m

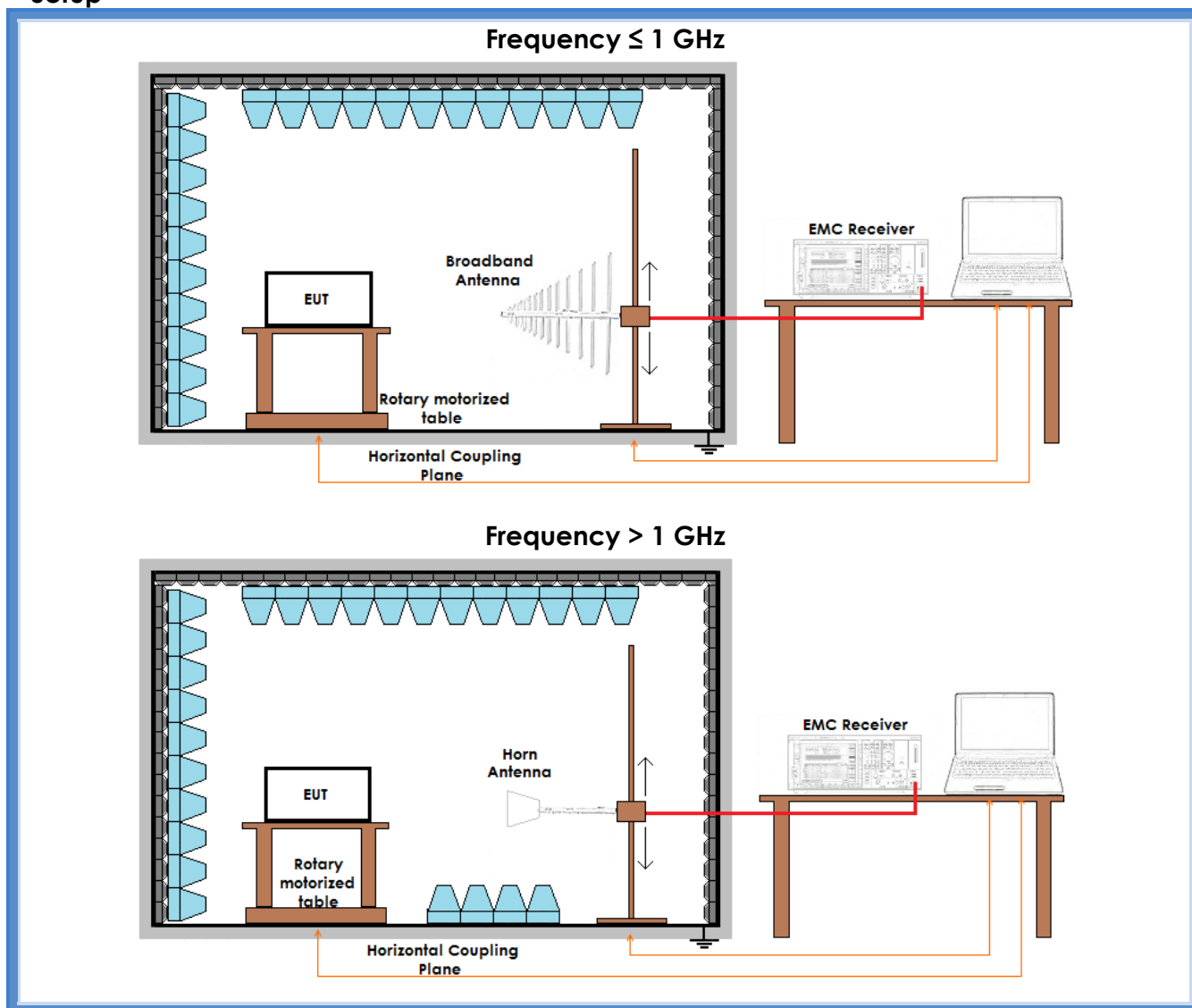
Environmental conditions

Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
22	101	45

Acceptance limits

Frequency range (MHz)	RF Power Output dB(μV/m)
902 – 928	94

Setup



Result

Frequency (MHz)	Polarization	Graphs	Measured QP level (dB μ V/m)	Peak Output Power (mW)	Remarks
920,004	Vertical	G15093915	80,94	0,037	Worst case
920,604	Vertical	G15093914	81,17	0,039	Worst case
921,159	Vertical	G15093910	78,64	0,022	Worst case

Remarks

$$P = (E \times d)^2 / (30 \times G)$$

Where:

E = the measured maximum fundamental field strength in V/m

G = the numeric gain of the transmitting antenna: 1 (0 dBi)

d = the distance in meters from which the field strength was measured (3 m)

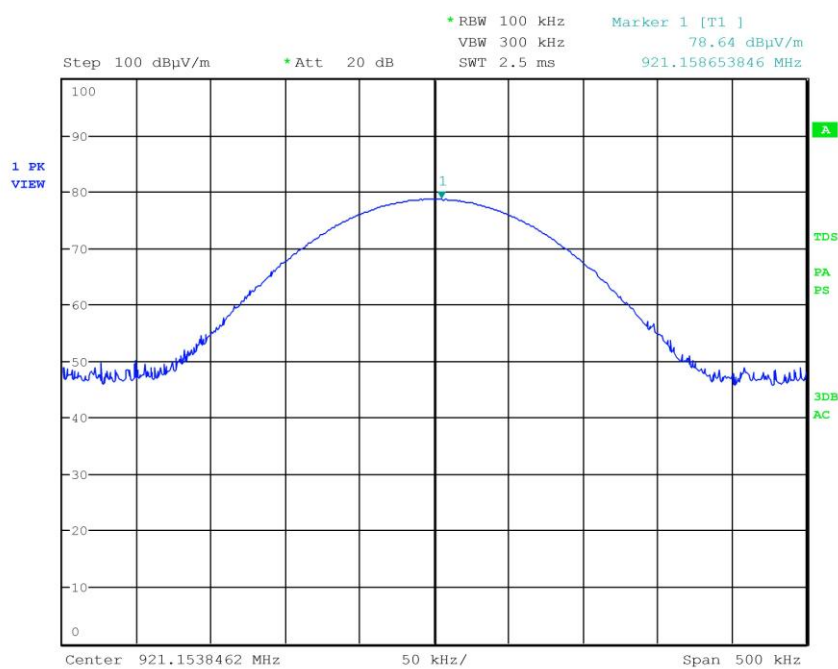
P = the power in watts



Graphs

G15093910

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezolo 15093910
Test Spec





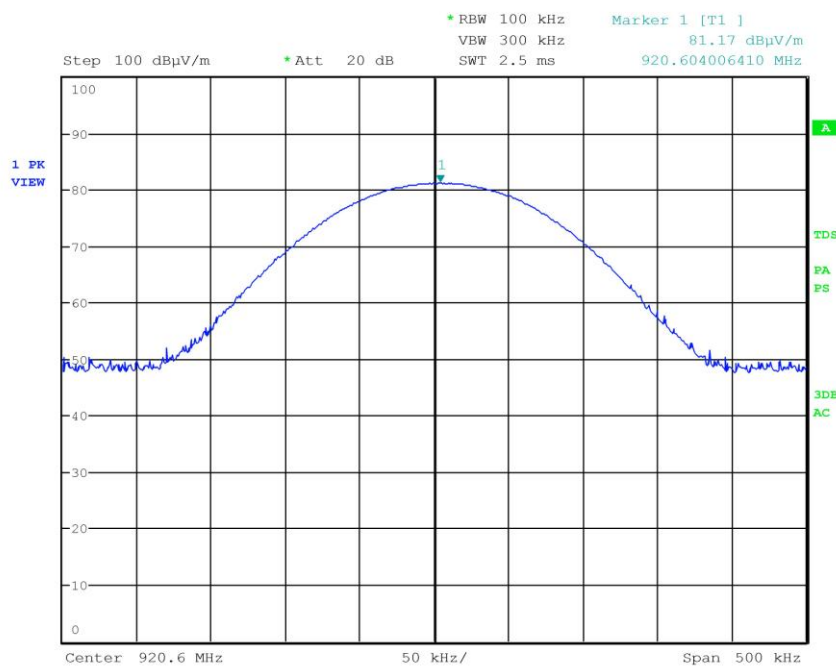
CMC
Centro Misure Compatibilità S.r.l.
Via dell'Elettronica, 12/C
36016 Thiene (VI)



LAB N° 0168

G15093914

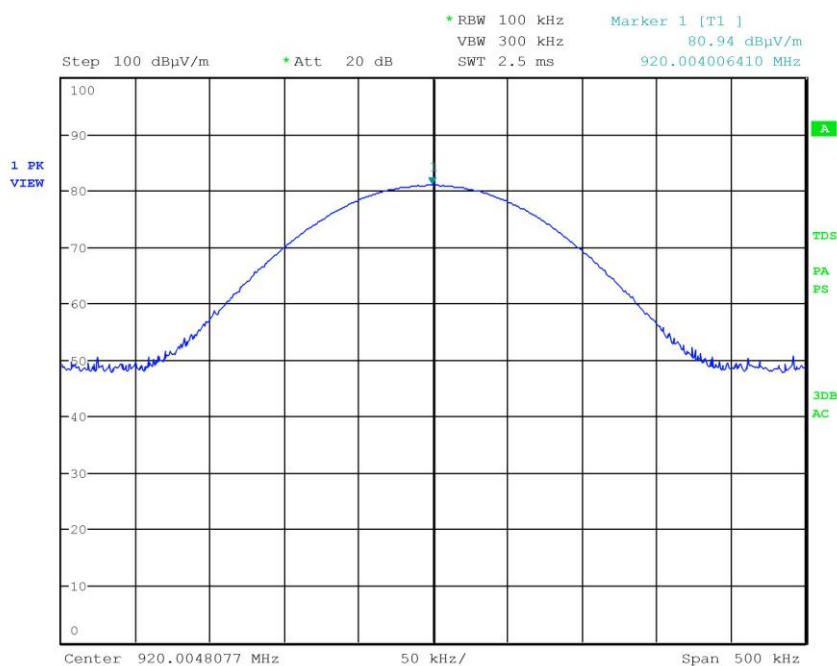
Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 15093914
Test Spec





G15093915

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezolo 15093915
Test Spec



Result: The requirements are met



11.5 Band edge

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.249 (d)
- Internal procedure PM001
- See clause 4 of this test report

Test configuration and test method

Test site:
Laboratory

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

CMC S108, CMC S136, CMC S164
Measurement uncertainty: See clause 7 of this test report

Test specification

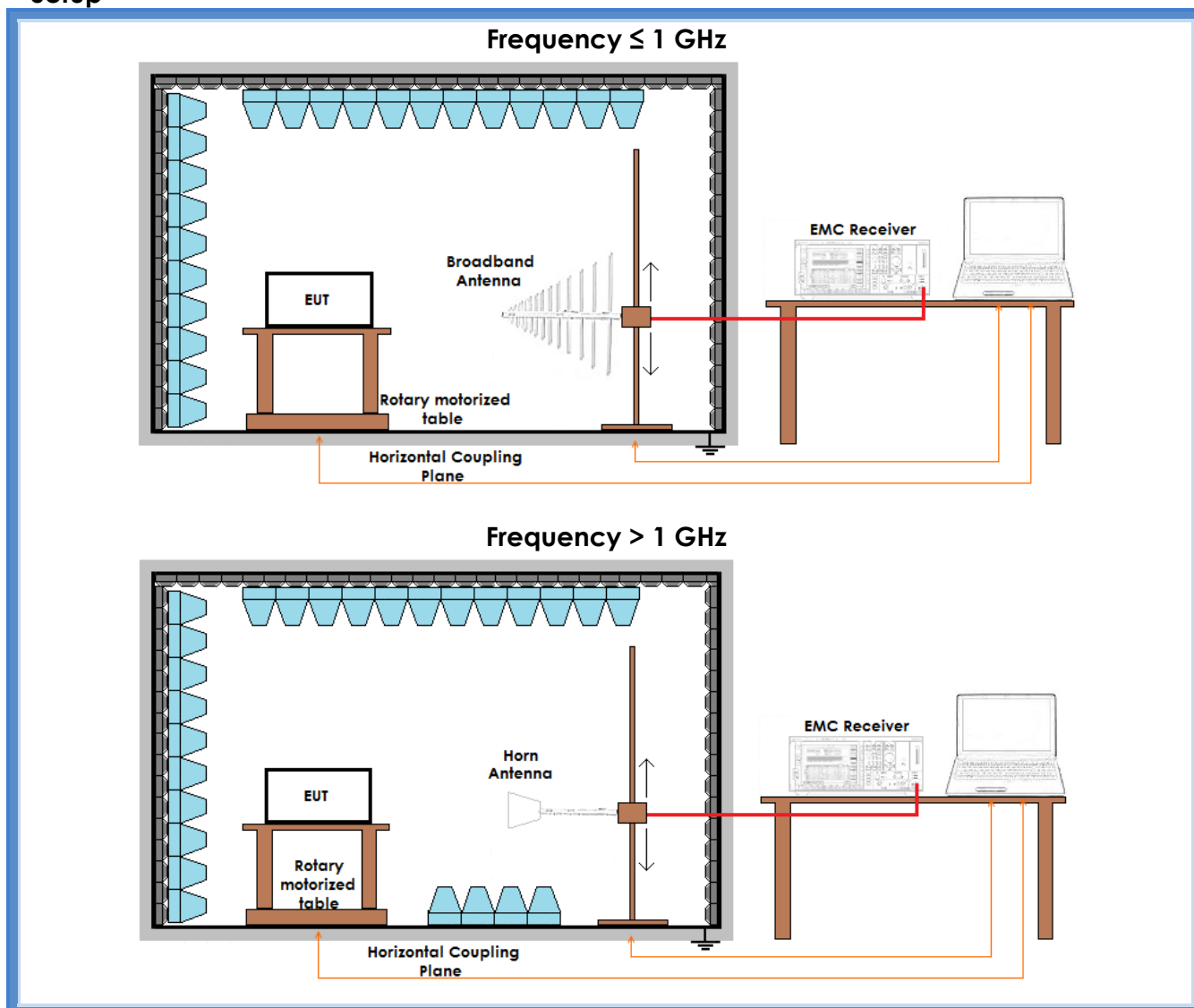
Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation

Environmental conditions

Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
22	100	45

Acceptance limits: operation within the band 902 – 928 MHz

Setup



Result

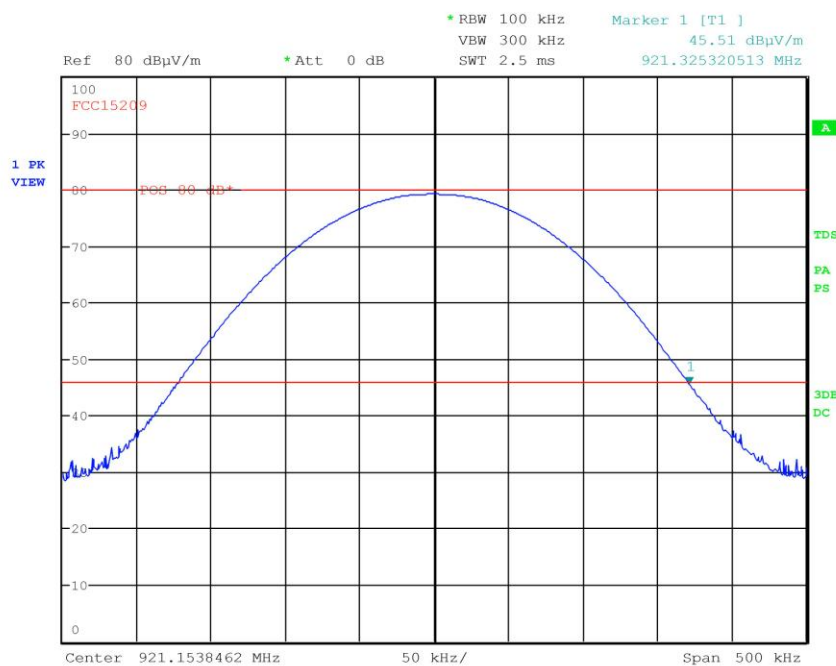
Frequency (MHz)	Graph(s)	Results	
920,000	G15093928	F _L : 919,823 MHz	Complies
	G15093929		
921,150	G15093922	F _H : 921,325 MHz	Complies
	G15093923		



Graphs

G15093922

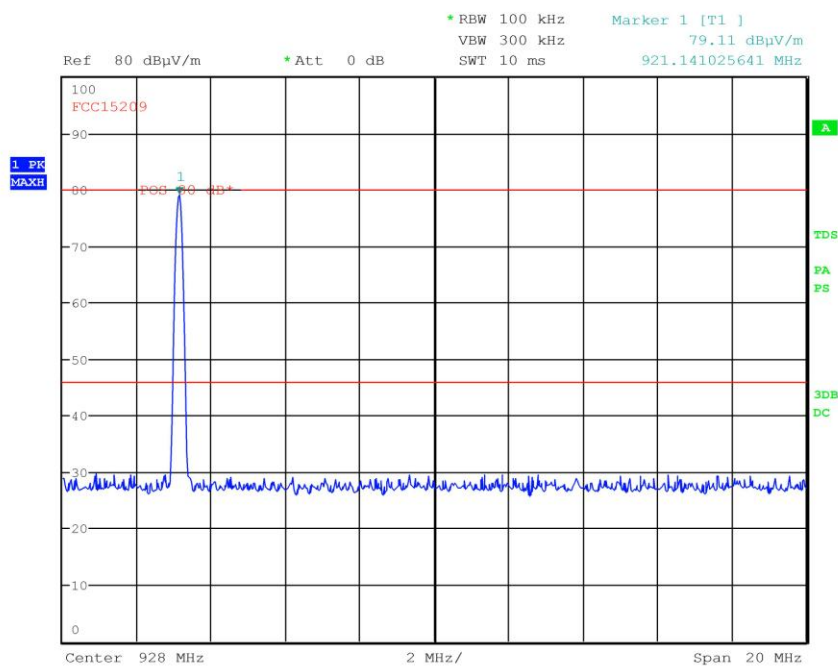
Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 15093922
Test Spec





G15093923

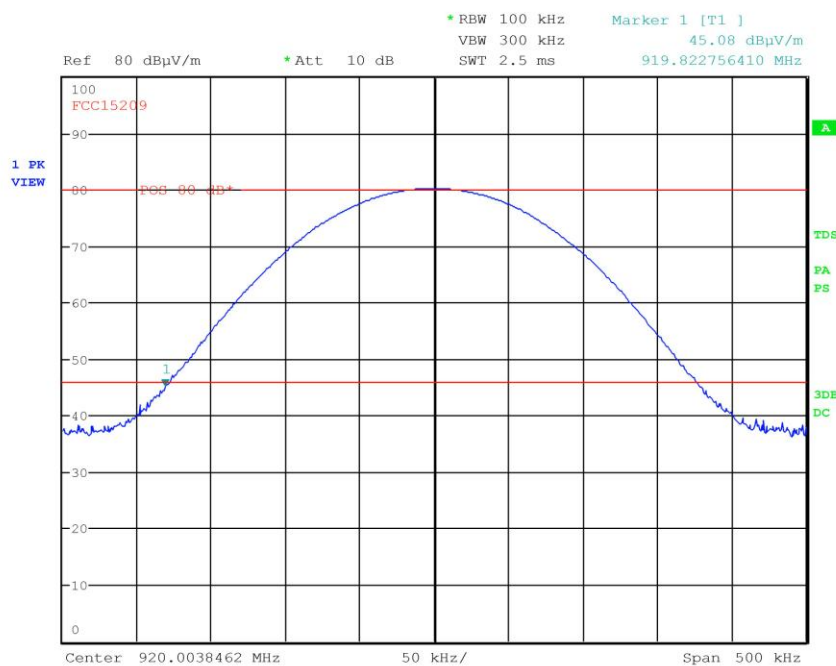
Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 15093923
Test Spec





G15093928

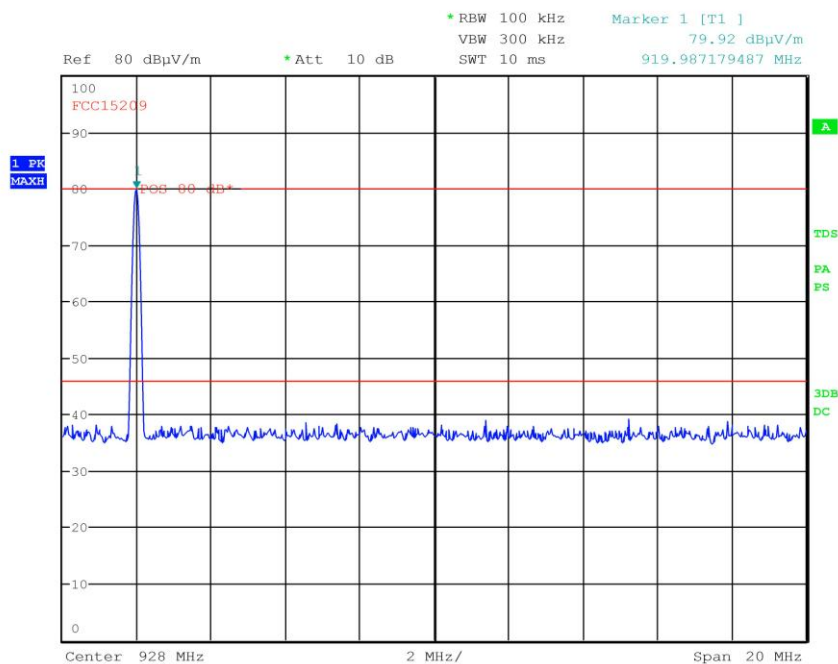
Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezolo 15093928
Test Spec





G15093929

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 15093929
Test Spec



Result: The requirements are met



11.6 Spurious Emission

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.209
- Internal procedure PM001
- See clause 4 of this test report

Test configuration and test method

Test site:
Semi-anechoic chamber

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

CMC S108, CMC S136, CMC S164
Measurement uncertainty: See clause 7 of this test report

Test specification

Port: Enclosure
Antenna polarization: Horizontal (H) – Vertical (V)
EUT – Antenna distance: 3 m
Detector AV + Peak

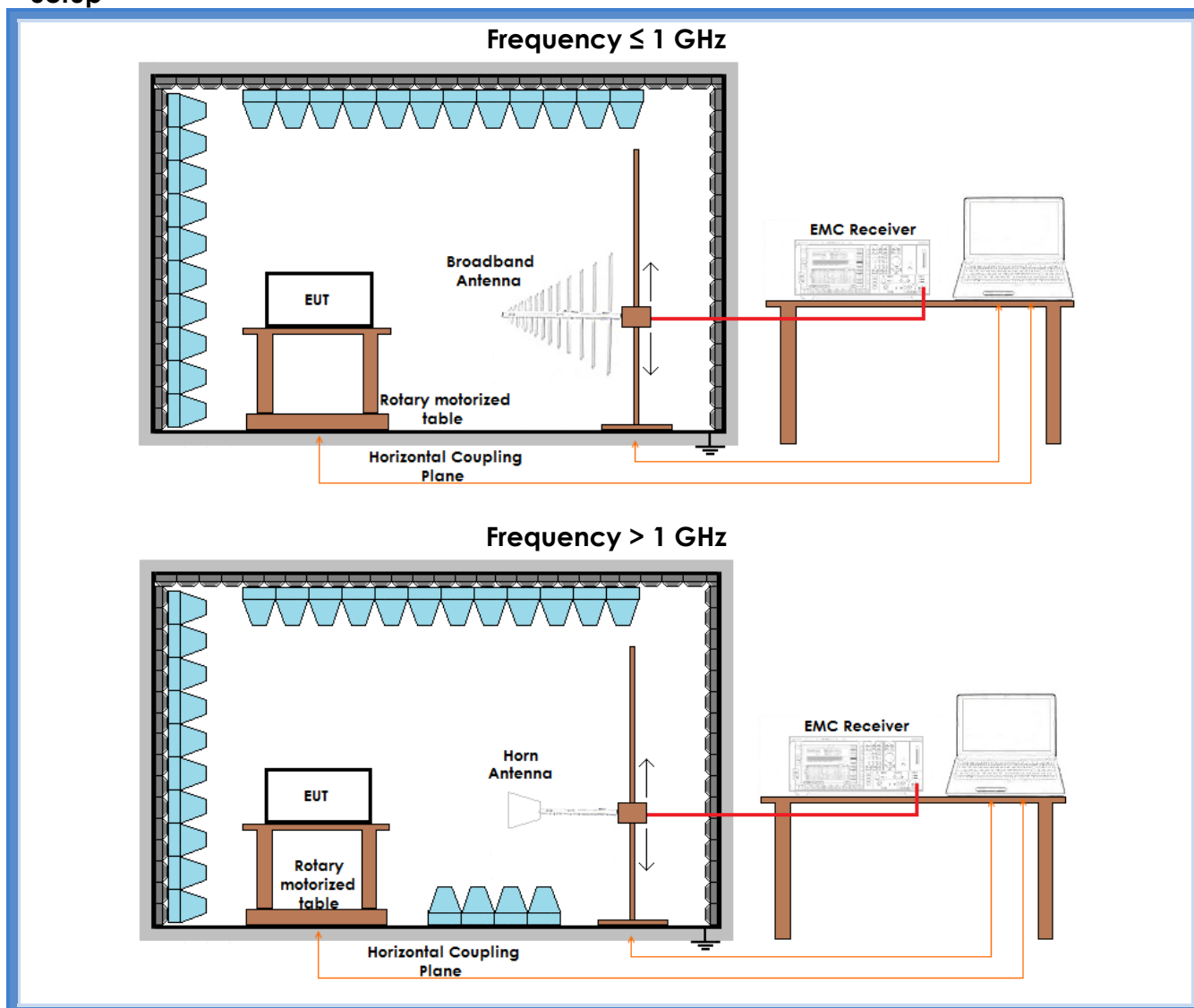
Environmental conditions

Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
22	101	45

Acceptance limits

Frequency (MHz)	AV limits [dB(μV/m)]	Peak limits [dB(μV/m)]
> 1000	54	74

Setup



Graph:

G15093932 and G15093933



Result – AV detector

Harmonic	Limits (dB μ V/m)	Level (dB μ V/m)			Results
		920,000 MHz	920,600 MHz	921,150 MHz	
II	54	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
III	54	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
IV	54	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
V	54	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
VI	54	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
VII	54	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
VIII	54	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
IX	54	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
X	54	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies

Remarks: EUT was tested in 3 orthogonal planes. The results in this table show the highest values

Result – Peak detector

Harmonic	Limits (dB μ V/m)	Level (dB μ V/m)			Results
		920,000 MHz	920,600 MHz	921,150 MHz	
II	74	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
III	74	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
IV	74	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
V	74	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
VI	74	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
VII	74	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
VIII	74	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
IX	74	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies
X	74	More than 20 dB below limit	More than 20 dB below limit	More than 20 dB below limit	Complies

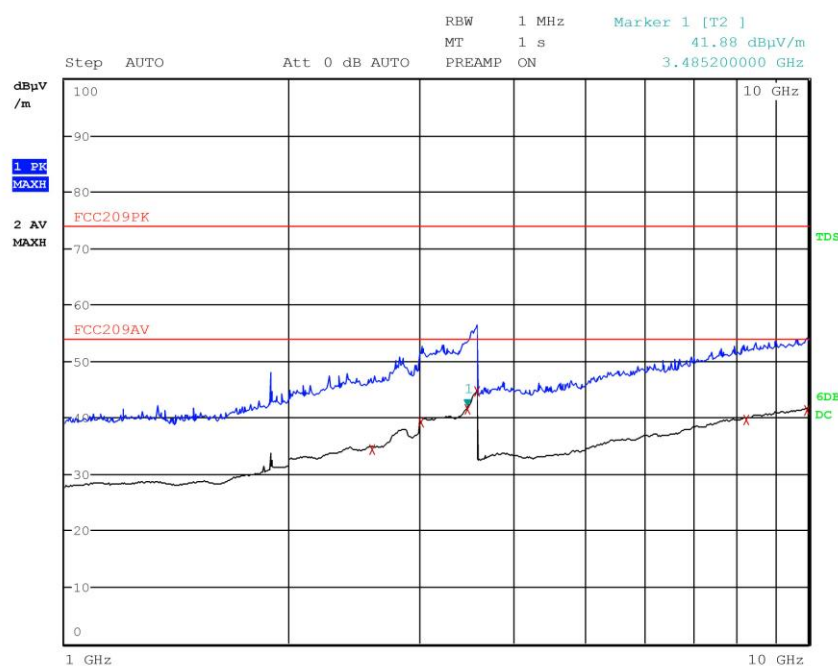
Remarks: EUT was tested in 3 orthogonal planes. The results in this table show the highest values



Graphs

G15093932

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 15093932
Test Spec



Final Measurement

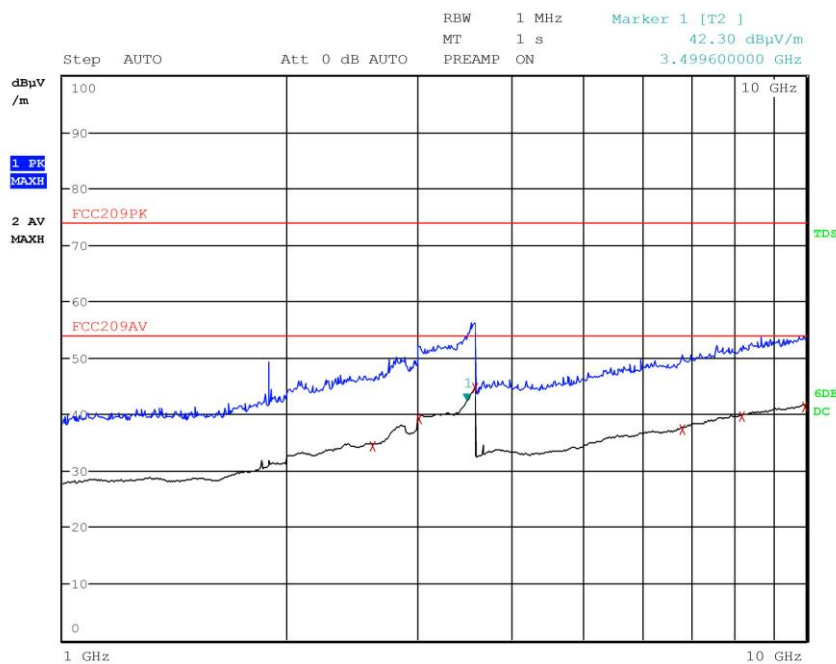
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
2	2.586000000 GHz	34.44	Average	-19.56
2	3.009600000 GHz	39.11	Average	-14.89
2	3.485200000 GHz	41.46	Average	-12.54
2	3.598800000 GHz	44.67	Average	-9.33
2	8.244000000 GHz	39.53	Average	-14.47
2	9.972800000 GHz	41.22	Average	-12.78



G15093933

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition
Operator Bertezolo 15093933
Test Spec



Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
2	2.609600000 GHz	34.34	Average	-19.66
2	3.008400000 GHz	39.15	Average	-14.85
2	3.594800000 GHz	44.54	Average	-9.46
2	6.804000000 GHz	37.22	Average	-16.78
2	8.200400000 GHz	39.60	Average	-14.40
2	9.974400000 GHz	41.29	Average	-12.71

Result: The requirements are met