



TEST REPORT nr. R16178301

Federal Communication Commission (FCC)

Test item

Description: TRANSCEIVER UNIT
Trademark: AUTEC
Model/Type: Model CRD Type NK035
FCC ID: OQA-CRDNK035

Test Specification

Standard: FCC Rules & Regulations, Title 47:2015
Part 15 paragraph(s): 203, 204, 207, 209 and 247

Client's name: AUTEC S.r.l.
Address: Via Pomaroli, 65 – 36030 Caldogno (VI) – ITALY

Manufacturer's name : Same as client
Address: --

Report

Tested by: G. Gandini – Technician

Giovanni Gandini

Approved by: R. Beghetto – Laboratory Manager

R. Beghetto

Date of issue: 10.03.17

Contents: 97 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 47:2015
Part 15 paragraph(s): 203, 204, 207, 209 and 247

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 15.247	20 dB Bandwidth	4	Complies
Part 15.247	Channel Separation	5	Complies
Part 15.247	Number of Hopping Channel	6	Complies
Part 15.247	Time of occupancy	7	Complies
Part 15.247	Band edge	8	Complies
Part 15.209 and 15.247	Peak Output Power	9	Complies
Part 15.209	Spurious emission	10	Complies
Part 1.1310	Maximum permissible exposure	11	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



2. Description of Equipment under test (EUT)

Power supply : 8-30 Vdc
Tests performed on 24 Vdc power supply

Serial Number : --

Type of equipment : ☒ Transmitter Unit
☒ Receiver Unit

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

Frequency band : F_L: 915,05 MHz F_M: 921,50 MHz F_H: 927,95 MHz

2.1 Test Site

Company : CMC Centro Misure Compatibilità S.r.l.

Address : Via della Fisica, 20
36016 Thiene (VI) – ITALY

Test site facility's FCC registration number : 271947

3. Testing and sampling

Date of receipt of test item : 05.07.16

Testing start date : 31.08.16

Testing end date : 21.11.16

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 P160811

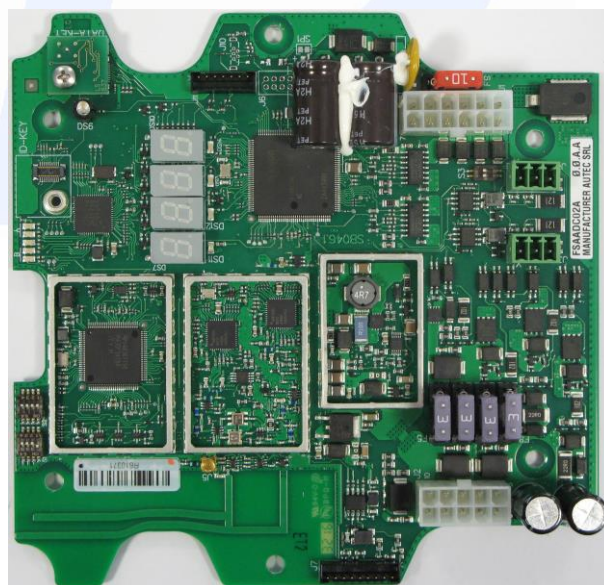
4. Operative conditions

EUT exercising : EUT in continuous transmission at maximum power



5. Photograph(s) of EUT

5.1 Photograph(s) of EUT

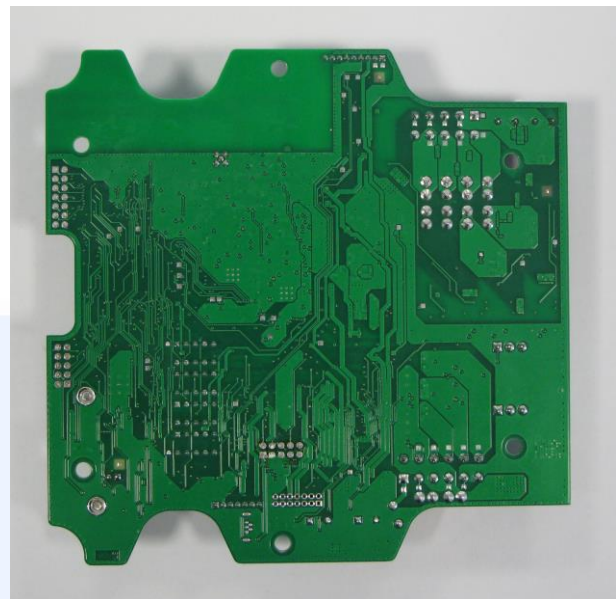
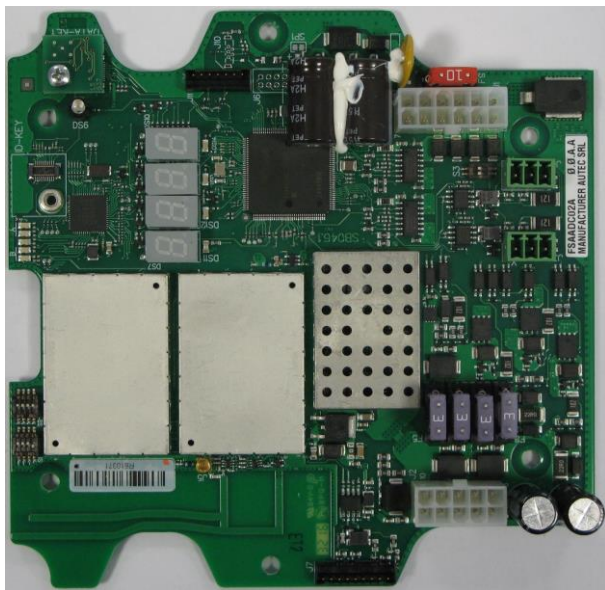




CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



LAB N° 0168





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 '16	January '17
CMC S108	EMCO	3115	Horn Antenna	9811-5622	June '16	June '19
CMC S127	Schaffner	HLA6120	Loop Antenna	1191	November '13	November '18
CMC S164	Rohde & Schwarz	ESU26	EMC interference receiver	100052	January '16	January '17
CMC S200	Schwarzbeck	NSLK 8128	V-LISN	8128-273	January '16	January '17
CMC S227	Rohde & Schwarz	ESR7	EMI Test Receiver 7GHz	101121	January '16	January '17
CMC S260	CMC	Wfr_N	Shielded Cable	Wfr_ant10-1	November '15	November '16
CMC S261	CMC	Wfr_N	Shielded Cable	Wfr_ant20-1	November '15	November '16
CMC S262	CMC	Wfr_N_fix	Shielded Cable	Wfr_fix32-1	November '15	November '16
CMC S263	CMC	Wfr_N_fix	Shielded Cable	Wfr_fix31-1	November '15	November '16
CMC S264	CMC	Wfr_N	Shielded Cable	Wfr_ext03-1	November '15	November '16
CMC S271	Schwarzbeck	BBA 9106 + VHBB 9124	Biconical Antenna (30-300MHz)	831	June '16	June '19
CMC S287	Schwarzbeck	VUSLP 9111B	Log-periodic Antenna (200 MHz-3GHz)	9111B-203	June '16	June '19
CMC S288	CMC	W_sma_white	Joint Shielded Cable	W_001	November '15	November '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)	±2,9 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)		
	±3,4 dB	1
Radiated Emission		
(0,150 MHz – 30 MHz)	±3,8 dB	1
(30 MHz – 1000 MHz)	±3,8 dB	1
(1 GHz – 6 GHz)	±4,3 dB	1
Electromagnetic field EMF		
	±10,5 %	1
Harmonic current emissions test		
	±1,2 %	1
Voltage fluctuation and flicker test		
	±3,8 %	1
Insertion loss test		
	±2,0 dB	1
Radiated electromagnetic disturbance test (loop antenna)		
	±1,5 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		
	0,23 A/m at 10 A/m	1
Effective radiated power (F < 1GHz)		
	±3,8 dB	1
Effective radiated power (F > 1GHz)		
	±5,5 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

Rev_16_01 date 09/02/2016

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 15:2015	--
ANSI C63.4:2014	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
ANSI C63.10:2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
Internal Procedure PM001 rev. 3.0 (Quality Manual)	Measure Procedure
Internal procedure INC_M rev. 9.0 (Quality Manual)	Measurement uncertainty calculation



9. Deviation from test specification

None

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.

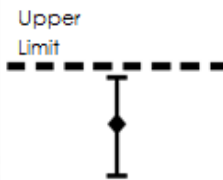
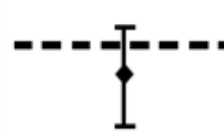


11. Results

In this clause tests results are reported.

Measurement uncertainty is in accordance with document CMC INC_M rev. 9.0.

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
- DA 00-705
- 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 (%)
20	100	45

Result

Antenna Type	External R.F. power amplifier	Gain	Remarks	Results
Integral antenna	Not Present	2 dBi	--	Complies
External antenna	Not Present	2,15 dBi	--	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 S227
Measurement uncertainty: See clause 7 of this test report

Test specification

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

Environmental conditions

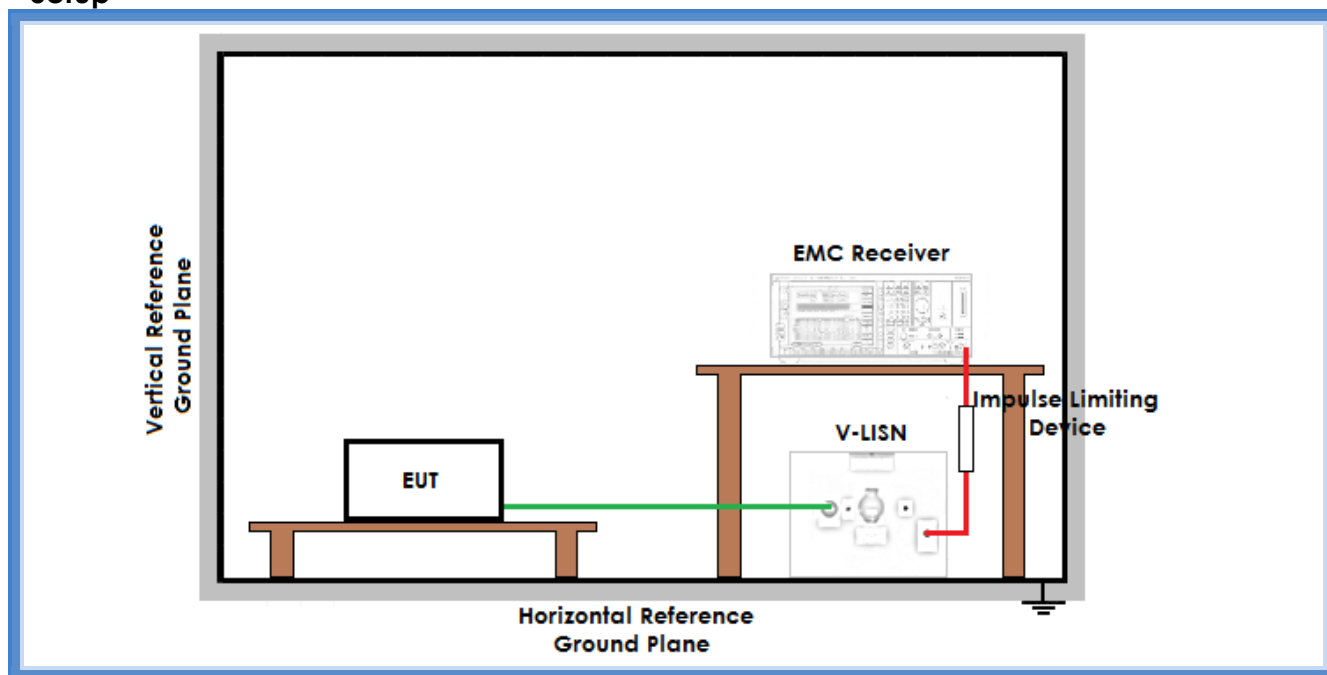
Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
21	98	46

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
+ terminal	G16178327	--	Complies
- terminal	G16178328	--	Complies
Remarks: --			

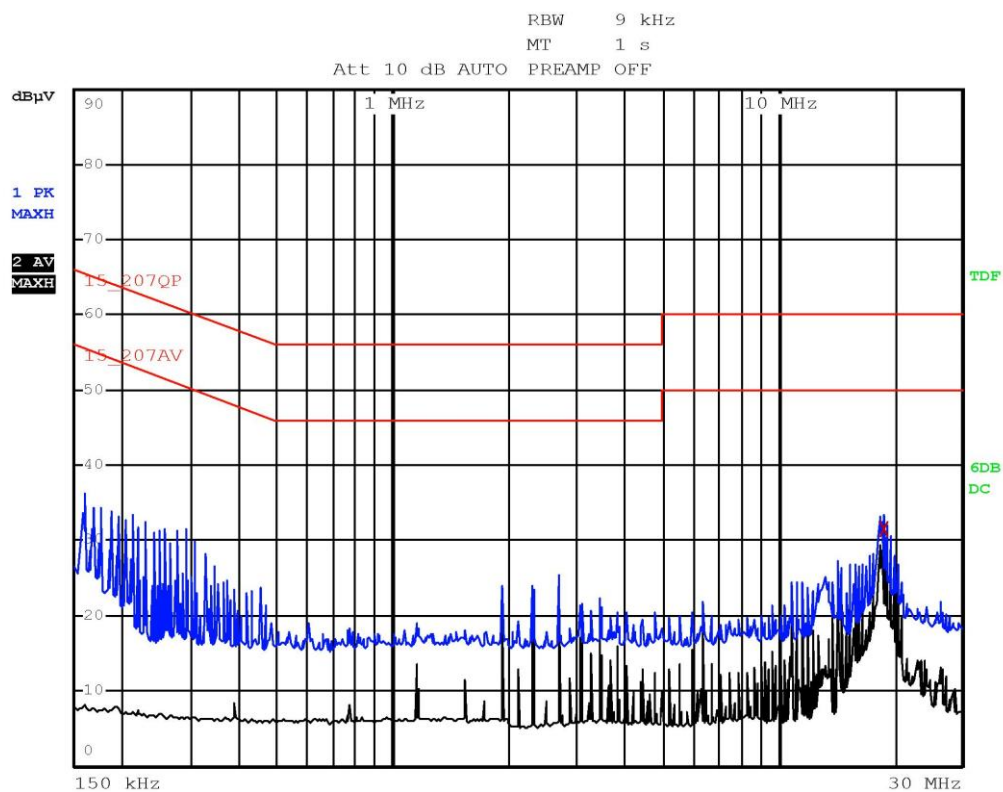
Graphs Legend

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

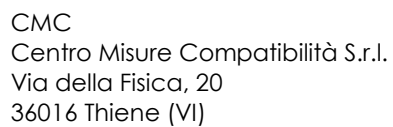


Graphs

G16178327



Gandini 16178327-Line (+)-Tx-Rx



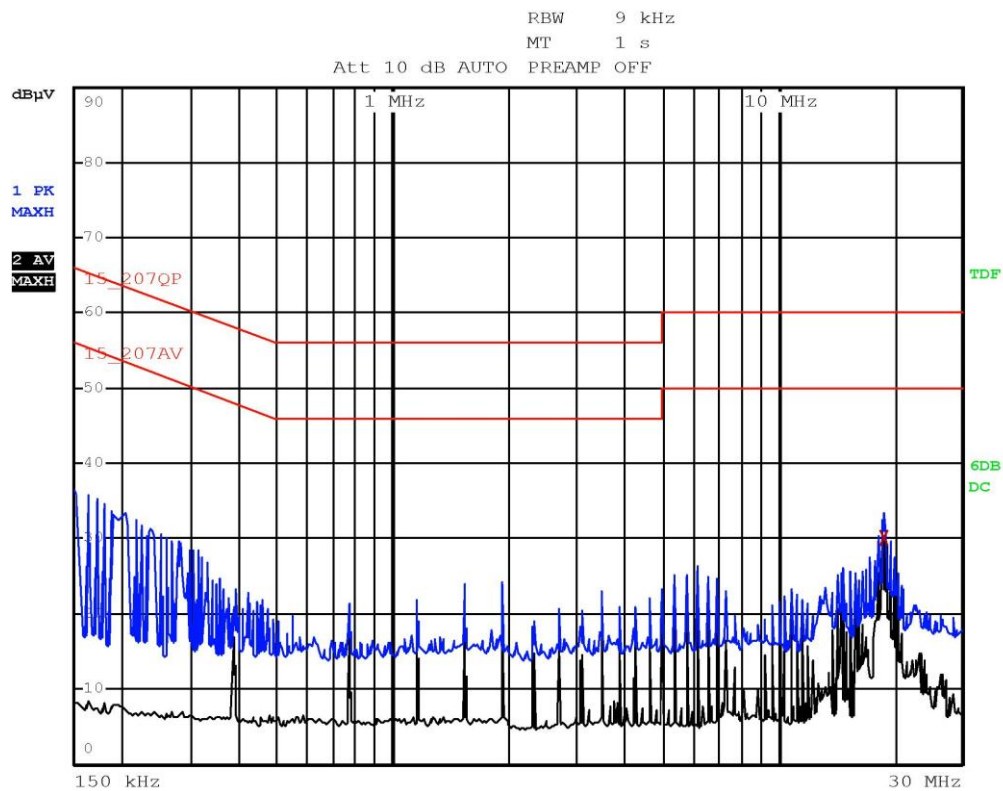
LAB N° 0168

[illegible]

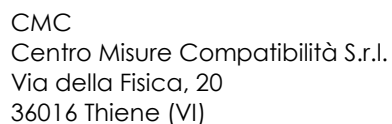
Gandini 16178327-Line (+)-Tx-Rx



G16178328



Gandini 16178328-Line (-)-Tx-Rx



LAB N° 0168

[illegible]

Gandini 16178328-Line (-)-Tx-Rx

Result: The requirements are met



11.3 Radiated emissions

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part. 15.209
- DA 00-705
- 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 S164, CMC S271, CMC S287
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:
10 m for frequencies $\leq$ 1000 MHz
3 m for frequencies $>$ 1000 MHz

Environmental conditions

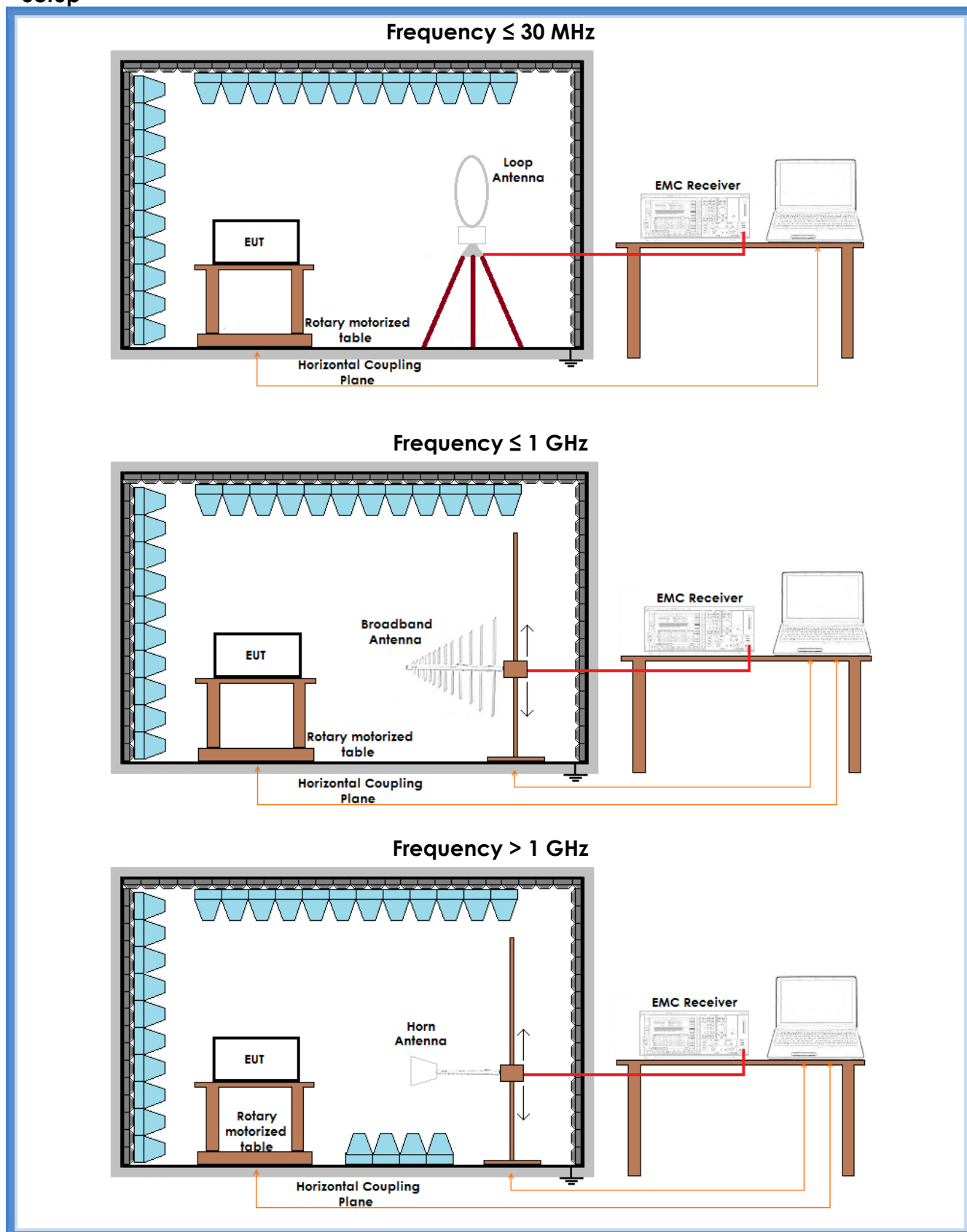
Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
22	100	45

Acceptance limits

Frequency range (MHz)	Test distance (m)	Limits [dB(μ V/m)]
0,009 to 0,490	10	107,60 to 72,89
0,490 to 1,705	10	52,89 to 42,05
1,705 to 30	10	48,63
30 to 88	10	29,54
88 to 216	10	33,06
216 to 960	10	35,56
Above 960	10	43,52
Above 1000	3	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	G16178308	Worst case	Complies
H	30 – 300	G16178315	Highest channel	Complies
V	30 – 300	G16178316	Highest channel	Complies
V	30 – 300	G16178317	Medium channel	Complies
H	30 – 300	G16178318	Medium channel	Complies
H	30 – 300	G16178319	Lowest channel	Complies
V	30 – 300	G16178320	Lowest channel	Complies
V	300 – 1000	G16178321	Lowest channel	Complies
H	300 – 1000	G16178322	Lowest channel	Complies
H	300 – 1000	G16178323	Medium channel	Complies
V	300 – 1000	G16178324	Medium channel	Complies
V	300 – 1000	G16178325	Highest channel	Complies
H	300 – 1000	G16178326	Highest channel	Complies
V	1000 – 10000	G16178329	Highest channel	Complies
H	1000 – 10000	G16178330	Highest channel	Complies
H	1000 – 10000	G16178331	Medium channel	Complies
V	1000 – 10000	G16178332	Medium channel	Complies
V	1000 – 10000	G16178333	Lowest channel	Complies
H	1000 – 10000	G16178334	Lowest channel	Complies
Remarks: Integrated antenna, peaks above the limits are due to the main transmitting frequencies				

Polarization	Frequency Range (MHz)	Graphs	Remarks	Result
Loop	0,009 – 30	G16178307	Worst case	Complies
V	30 – 300	G16178309	Medium channel	Complies
H	30 – 300	G16178310	Medium channel	Complies
H	30 – 300	G16178311	Lowest channel	Complies
V	30 – 300	G16178312	Lowest channel	Complies
V	30 – 300	G16178313	Highest channel	Complies
H	30 – 300	G16178314	Highest channel	Complies
V	1000 – 10000	G16178368	Highest channel	Complies
H	1000 – 10000	G16178369	Highest channel	Complies
H	1000 – 10000	G16178370	Medium channel	Complies
V	1000 – 10000	G16178371	Medium channel	Complies
V	1000 – 10000	G16178372	Lowest channel	Complies
H	1000 – 10000	G16178373	Lowest channel	Complies
Remarks: External antenna, peaks above the limits are due to the main transmitting frequencies				

Graphs Legend

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

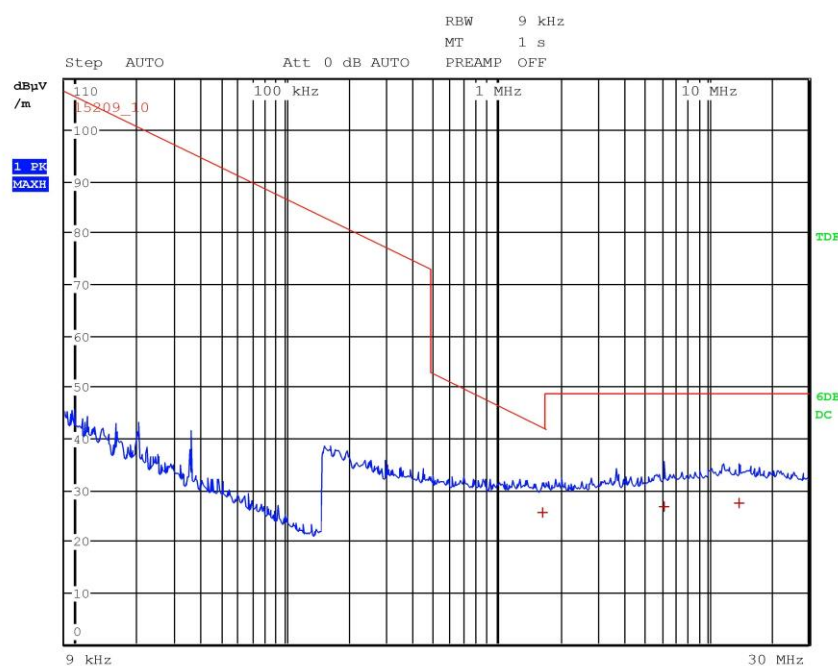
AV: Average; AV [1s] (average at 1 second) values are marked with a x



Graphs

G16178307

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx-Rx - ANT EXT
Operator Gandini 16178307
Test Spec
Loop



Final Measurement

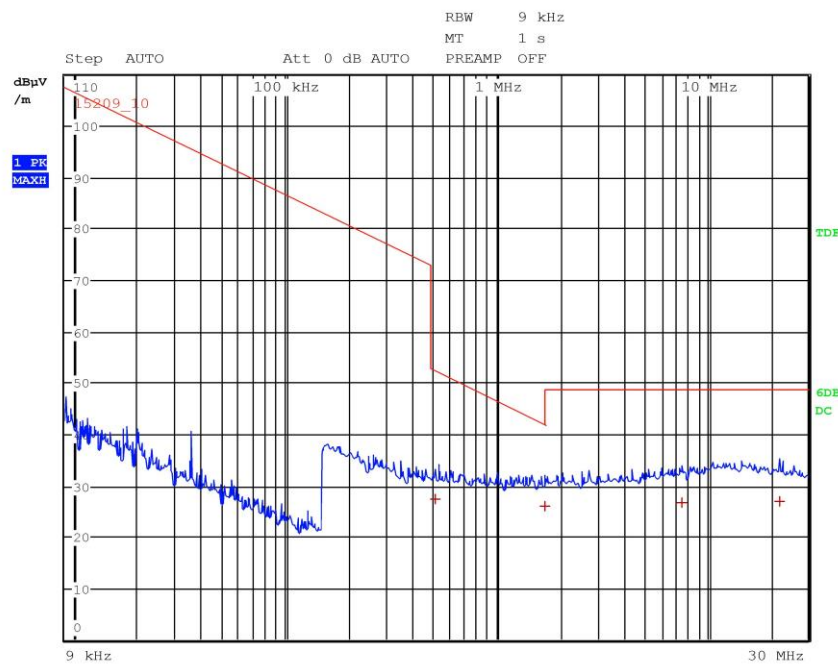
Meas Time: 1 s
Margin: 20 dB
Subranges: 3

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	1.646000000 MHz	25.62	Quasi Peak	-16.74
1	6.246000000 MHz	26.60	Quasi Peak	-22.03
1	14.174000000 MHz	27.47	Quasi Peak	-21.16



G16178308

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx-Rx - ANT INT
Operator Gandini 16178308
Test Spec
Loop



Final Measurement

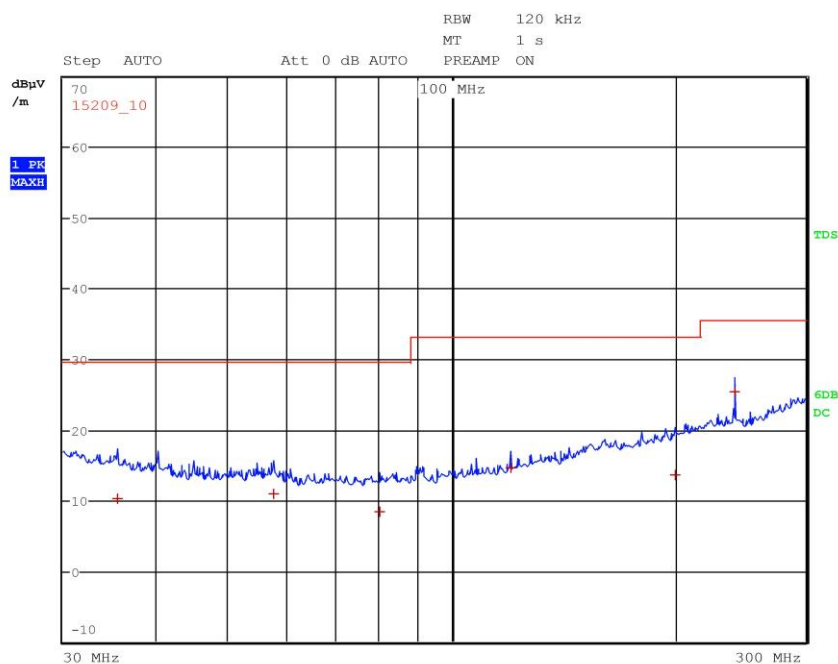
Meas Time: 1 s
Margin: 20 dB
Subranges: 4

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	506.00000000 kHz	27.44	Quasi Peak	-25.17
1	1.690000000 MHz	25.91	Quasi Peak	-16.22
1	7.594000000 MHz	26.66	Quasi Peak	-21.97
1	21.854000000 MHz	26.90	Quasi Peak	-21.73



G16178309

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmid - ANT EXT
Operator Gandini 16178309
Test Spec
Vert



Final Measurement

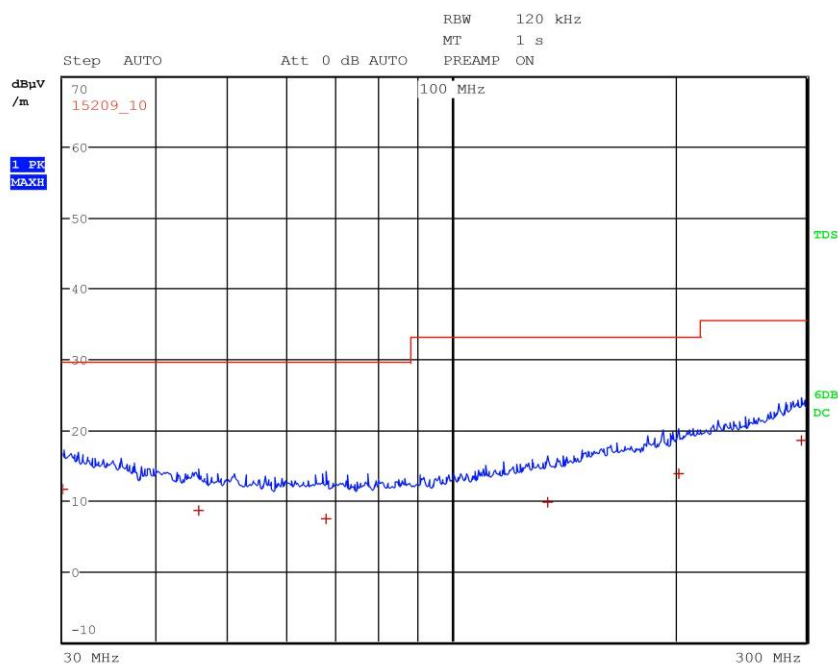
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	35.560000000 MHz	10.30	Quasi Peak	-19.24
1	57.520000000 MHz	10.90	Quasi Peak	-18.64
1	80.040000000 MHz	8.35	Quasi Peak	-21.19
1	120.000000000 MHz	14.68	Quasi Peak	-18.38
1	199.600000000 MHz	13.69	Quasi Peak	-19.37
1	240.000000000 MHz	25.29	Quasi Peak	-10.27



G16178310

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmid - ANT EXT
Operator Gandini 16178310
Test Spec
Horiz



Final Measurement

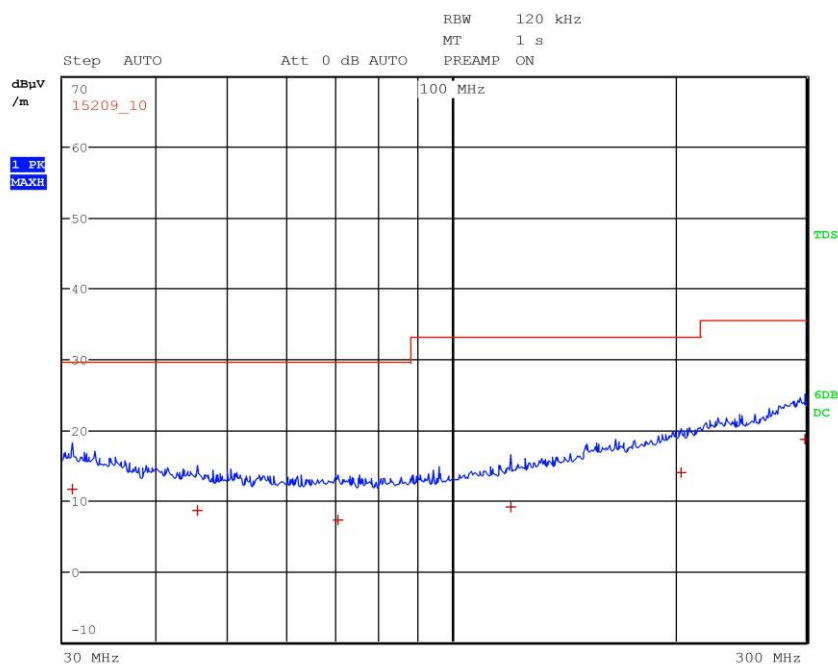
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.040000000 MHz	11.58	Quasi Peak	-17.96
1	45.720000000 MHz	8.49	Quasi Peak	-21.05
1	67.760000000 MHz	7.34	Quasi Peak	-22.20
1	134.600000000 MHz	9.76	Quasi Peak	-23.30
1	202.200000000 MHz	13.77	Quasi Peak	-19.29
1	295.960000000 MHz	18.47	Quasi Peak	-17.09



G16178311

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmin - ANT EXT
Operator Gandini 16178311
Test Spec
Horiz



Final Measurement

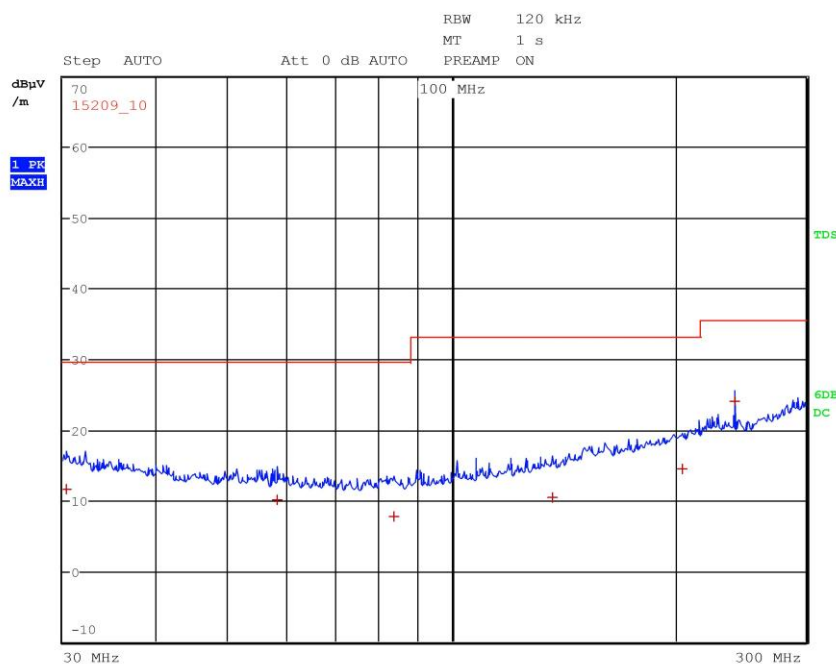
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.840000000 MHz	11.58	Quasi Peak	-17.96
1	45.560000000 MHz	8.55	Quasi Peak	-20.99
1	70.400000000 MHz	7.25	Quasi Peak	-22.29
1	120.320000000 MHz	9.07	Quasi Peak	-23.99
1	203.760000000 MHz	14.02	Quasi Peak	-19.04
1	298.520000000 MHz	18.62	Quasi Peak	-16.94



G16178312

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmin - ANT EXT
Operator Gandini 16178312
Test Spec
Vert



Final Measurement

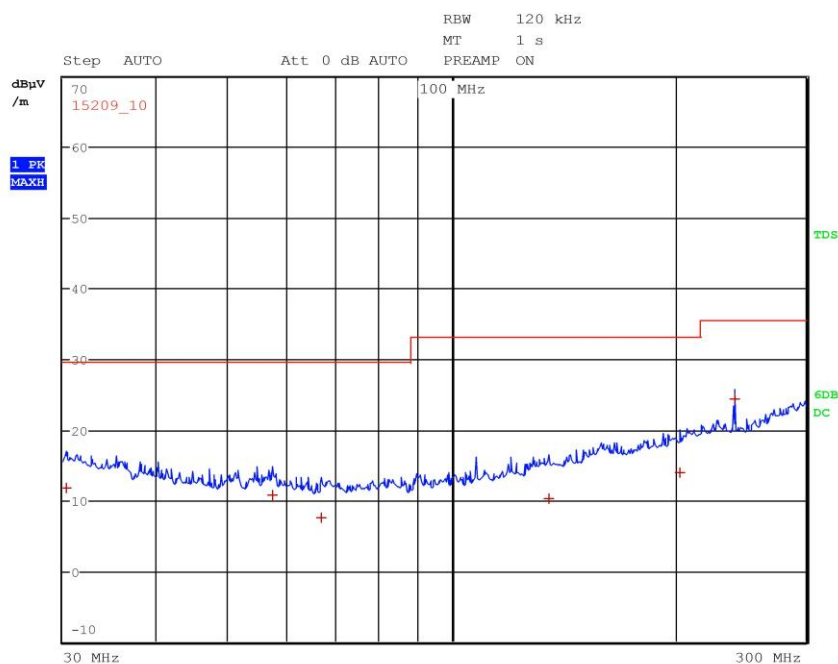
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	30.320000000 MHz	11.64	Quasi Peak	-17.90
1	58.240000000 MHz	10.11	Quasi Peak	-19.43
1	83.680000000 MHz	7.77	Quasi Peak	-21.77
1	136.800000000 MHz	10.42	Quasi Peak	-22.64
1	204.160000000 MHz	14.41	Quasi Peak	-18.65
1	240.000000000 MHz	24.12	Quasi Peak	-11.44



G16178313

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmax - ANT EXT
Operator Gandini 16178313
Test Spec
Vert



Final Measurement

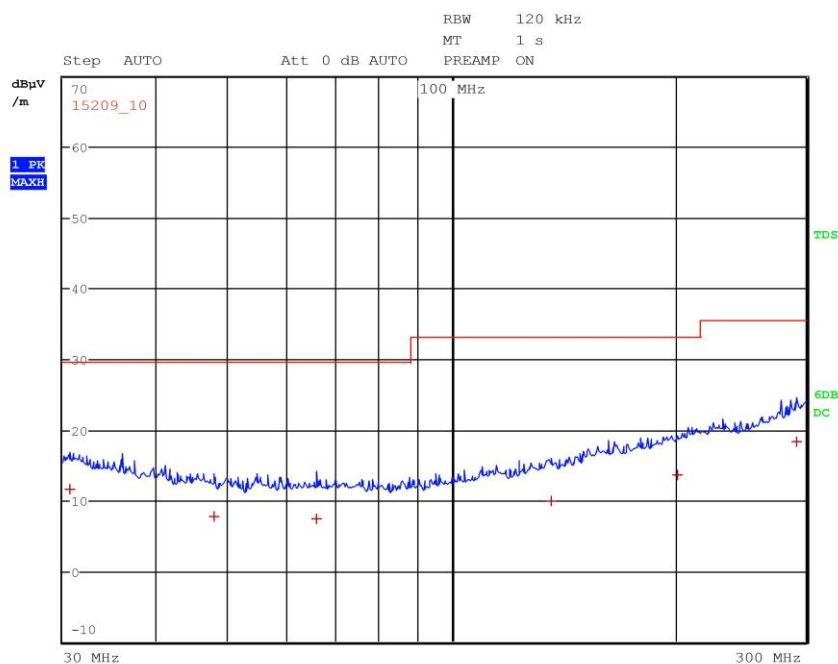
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.320000000 MHz	11.69	Quasi Peak	-17.85
1	57.480000000 MHz	10.68	Quasi Peak	-18.86
1	66.800000000 MHz	7.53	Quasi Peak	-22.01
1	135.400000000 MHz	10.32	Quasi Peak	-22.74
1	203.200000000 MHz	14.02	Quasi Peak	-19.04
1	240.000000000 MHz	24.41	Quasi Peak	-11.15



G16178314

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmax - ANT EXT
Operator Gandini 16178314
Test Spec
Horiz



Final Measurement

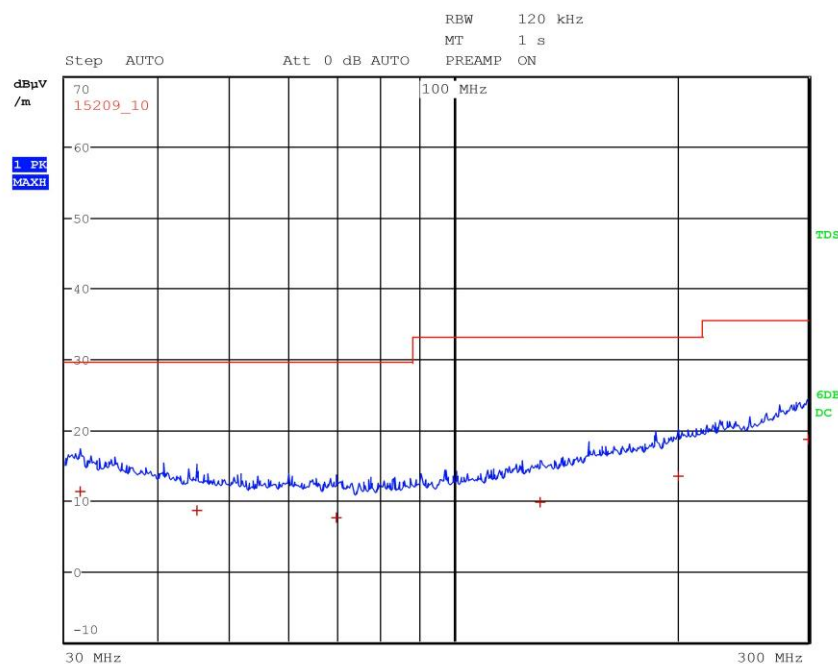
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.600000000 MHz	11.57	Quasi Peak	-17.97
1	47.840000000 MHz	7.80	Quasi Peak	-21.74
1	65.680000000 MHz	7.47	Quasi Peak	-22.07
1	136.080000000 MHz	9.97	Quasi Peak	-23.09
1	201.600000000 MHz	13.61	Quasi Peak	-19.45
1	291.400000000 MHz	18.34	Quasi Peak	-17.22



G16178315

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmax - ANT INT
Operator Gandini 16178315
Test Spec
Horiz



Final Measurement

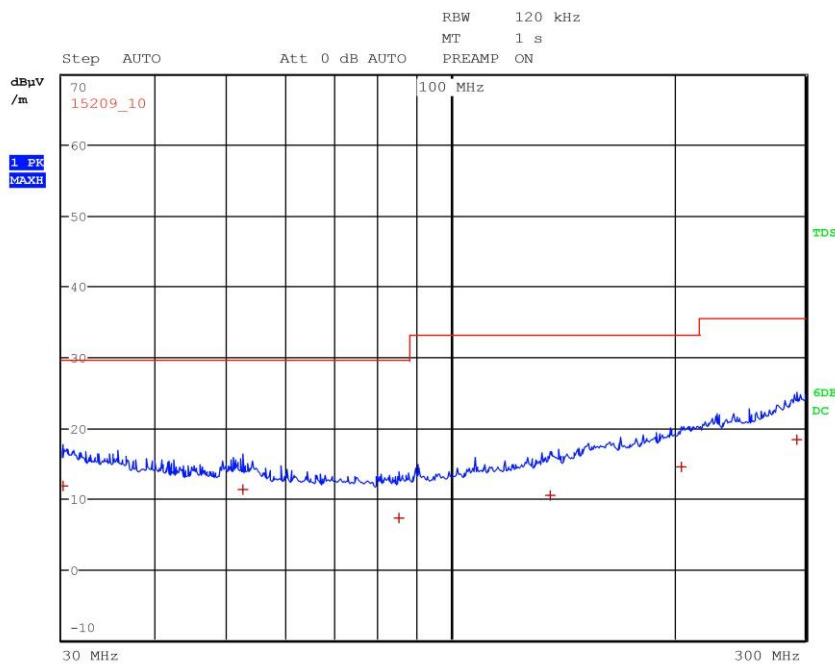
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	31.440000000 MHz	11.32	Quasi Peak	-18.22
1	45.160000000 MHz	8.59	Quasi Peak	-20.95
1	69.560000000 MHz	7.64	Quasi Peak	-21.90
1	130.920000000 MHz	9.78	Quasi Peak	-23.28
1	200.440000000 MHz	13.40	Quasi Peak	-19.66
1	299.720000000 MHz	18.66	Quasi Peak	-16.90



G16178316

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmax - ANT INT
Operator Gandini 16178316
Test Spec
Vert



Final Measurement

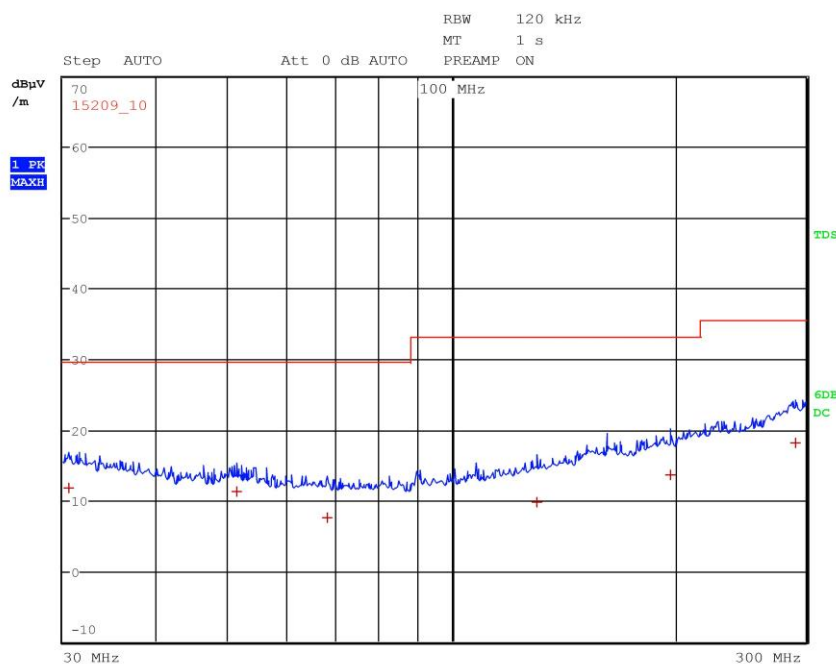
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.120000000 MHz	11.72	Quasi Peak	-17.82
1	52.480000000 MHz	11.31	Quasi Peak	-18.23
1	85.160000000 MHz	7.29	Quasi Peak	-22.25
1	136.400000000 MHz	10.39	Quasi Peak	-22.67
1	204.320000000 MHz	14.39	Quasi Peak	-18.67
1	292.560000000 MHz	18.33	Quasi Peak	-17.23



G16178317

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmed - ANT INT
Operator Gandini 16178317
Test Spec
Vert



Final Measurement

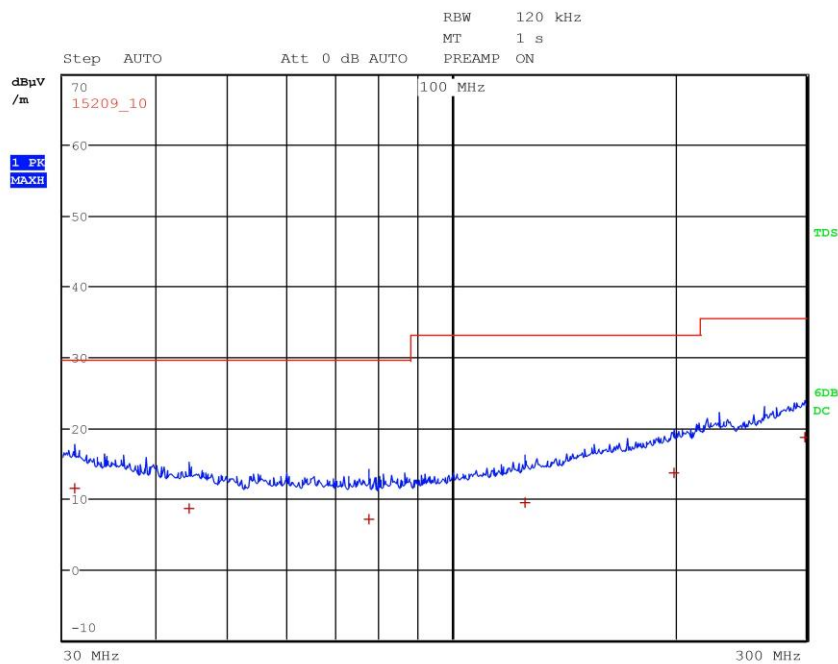
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.520000000 MHz	11.71	Quasi Peak	-17.83
1	51.360000000 MHz	11.23	Quasi Peak	-18.31
1	68.000000000 MHz	7.60	Quasi Peak	-21.94
1	130.440000000 MHz	9.68	Quasi Peak	-23.38
1	197.200000000 MHz	13.54	Quasi Peak	-19.52
1	290.200000000 MHz	18.16	Quasi Peak	-17.40



G16178318

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmed - ANT INT
Operator Gandini 16178318
Test Spec
Horiz



Final Measurement

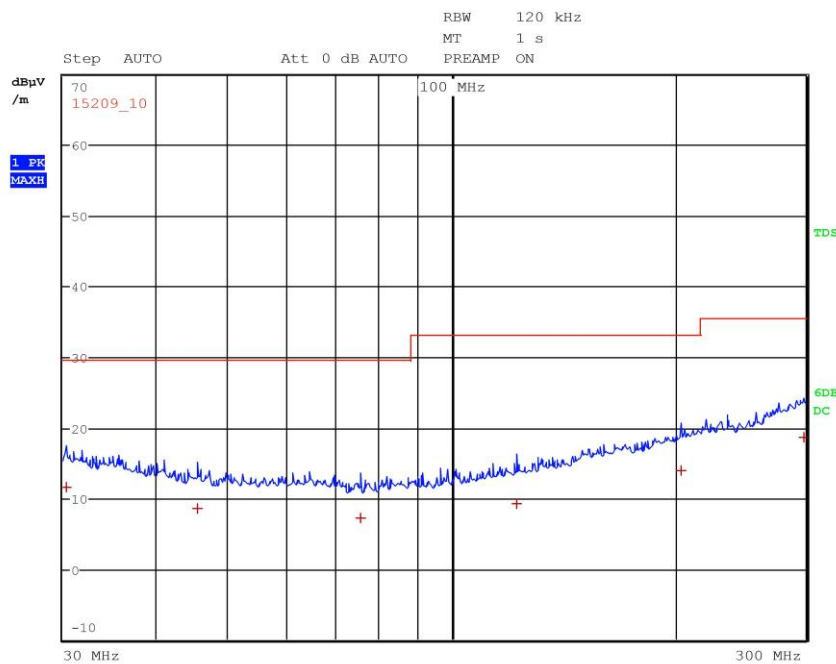
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	31.080000000 MHz	11.44	Quasi Peak	-18.10
1	44.320000000 MHz	8.57	Quasi Peak	-20.97
1	77.520000000 MHz	7.02	Quasi Peak	-22.52
1	125.520000000 MHz	9.38	Quasi Peak	-23.68
1	199.040000000 MHz	13.57	Quasi Peak	-19.49
1	299.400000000 MHz	18.65	Quasi Peak	-16.91



G16178319

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmin - ANT INT
Operator Gandini 16178319
Test Spec
Horiz



Final Measurement

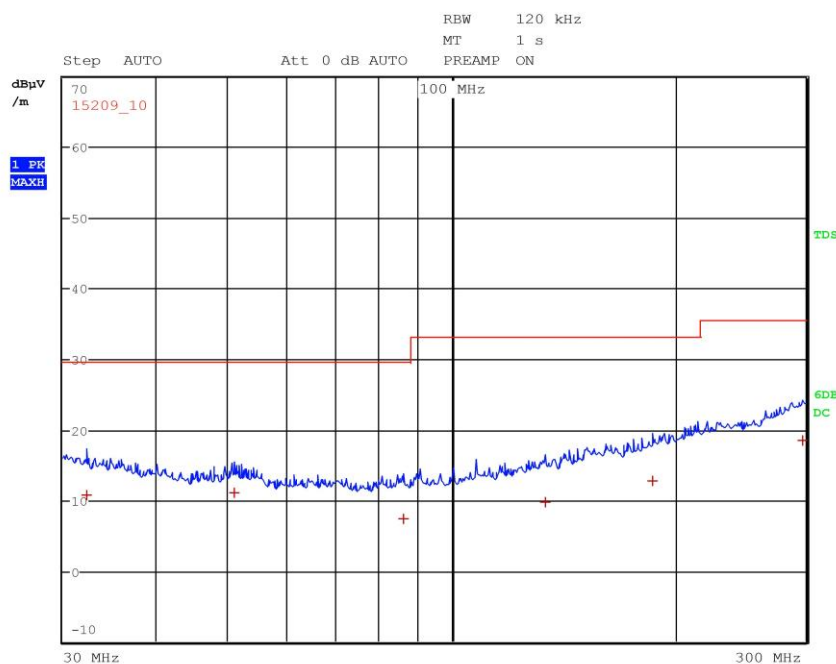
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.320000000 MHz	11.62	Quasi Peak	-17.92
1	45.400000000 MHz	8.60	Quasi Peak	-20.94
1	75.480000000 MHz	7.27	Quasi Peak	-22.27
1	122.400000000 MHz	9.22	Quasi Peak	-23.84
1	203.440000000 MHz	13.92	Quasi Peak	-19.14
1	297.920000000 MHz	18.58	Quasi Peak	-16.98



G16178320

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmin - ANT INT
Operator Gandini 16178320
Test Spec
Vert



Final Measurement

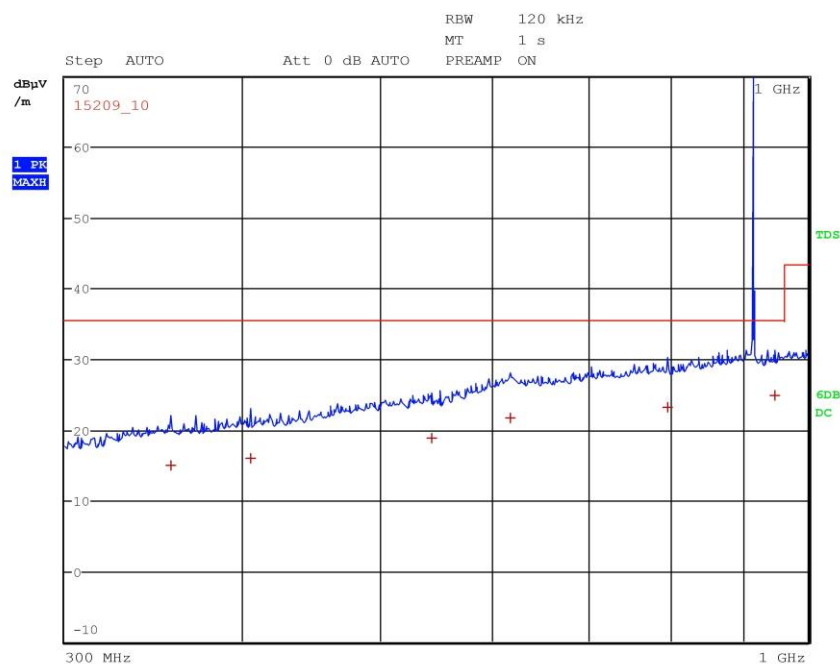
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	32.200000000 MHz	10.84	Quasi Peak	-18.70
1	50.920000000 MHz	11.07	Quasi Peak	-18.47
1	86.080000000 MHz	7.41	Quasi Peak	-22.13
1	133.600000000 MHz	9.83	Quasi Peak	-23.23
1	186.120000000 MHz	12.77	Quasi Peak	-20.29
1	296.440000000 MHz	18.48	Quasi Peak	-17.08



G16178321

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmin - ANT INT
Operator Gandini 16178321
Test Spec
Vert



Final Measurement

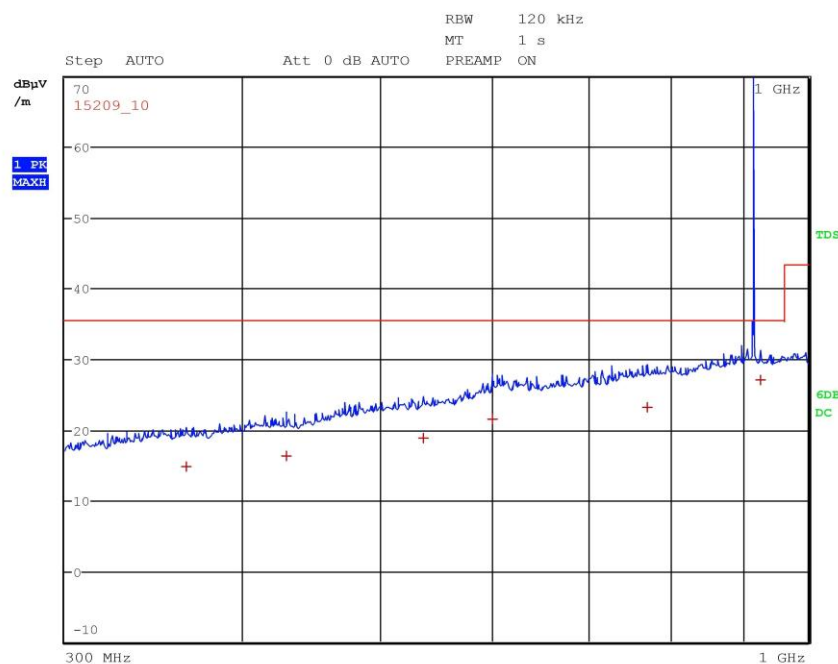
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	355.840000000 MHz	14.92	Quasi Peak	-20.64
1	405.600000000 MHz	16.01	Quasi Peak	-19.55
1	543.680000000 MHz	18.85	Quasi Peak	-16.71
1	617.480000000 MHz	21.68	Quasi Peak	-13.88
1	796.960000000 MHz	23.22	Quasi Peak	-12.34
1	947.960000000 MHz	24.87	Quasi Peak	-10.69



G16178322

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmin - ANT INT
Operator Gandini 16178322
Test Spec
Horiz



Final Measurement

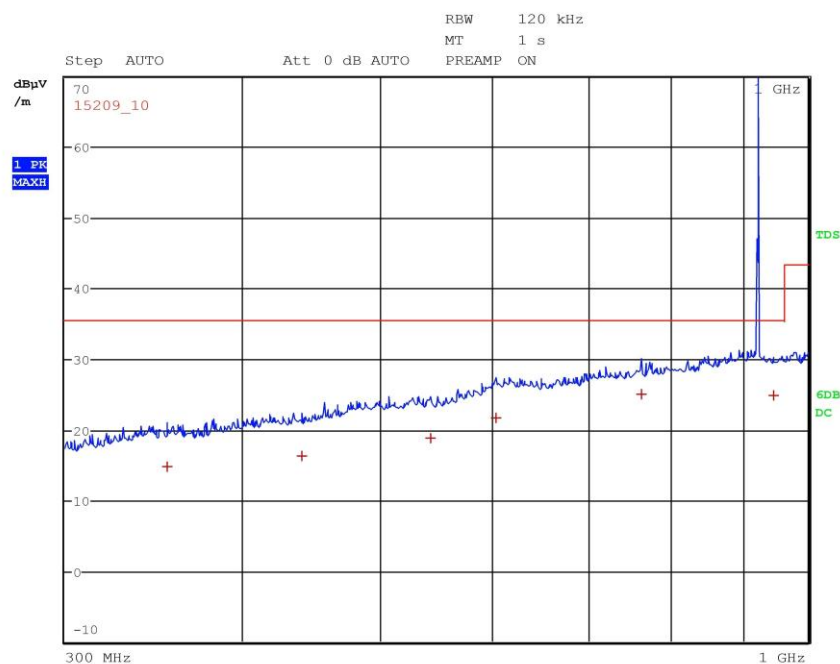
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	364.880000000 MHz	14.85	Quasi Peak	-20.71
1	429.080000000 MHz	16.23	Quasi Peak	-19.33
1	535.720000000 MHz	18.89	Quasi Peak	-16.67
1	600.120000000 MHz	21.48	Quasi Peak	-14.08
1	770.280000000 MHz	23.16	Quasi Peak	-12.40
1	926.240000000 MHz	27.10	Quasi Peak	-8.46



G16178323

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmed - ANT INT
Operator Gandini 16178323
Test Spec
Horiz



Final Measurement

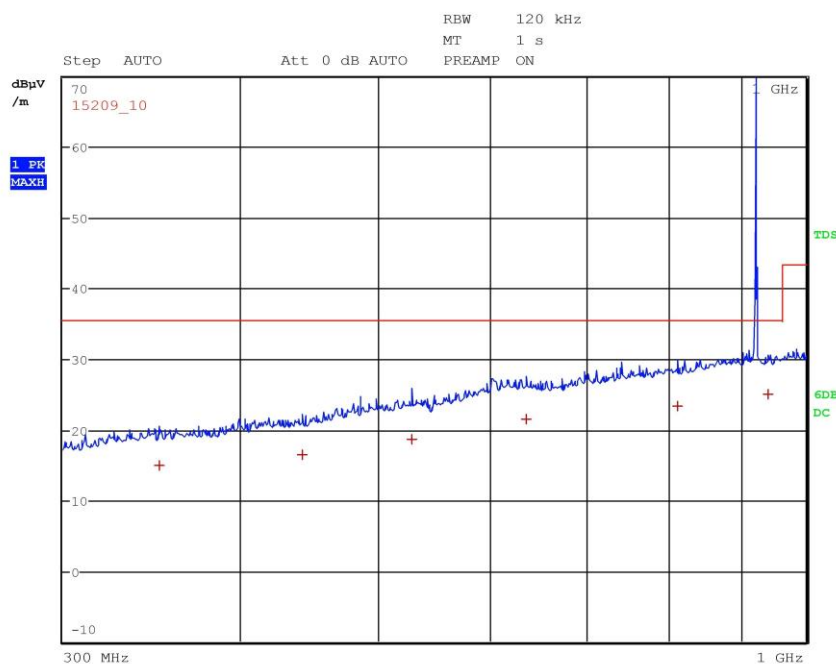
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	354.04000000 MHz	14.83	Quasi Peak	-20.73
1	440.28000000 MHz	16.32	Quasi Peak	-19.24
1	542.88000000 MHz	18.91	Quasi Peak	-16.65
1	603.40000000 MHz	21.60	Quasi Peak	-13.96
1	763.08000000 MHz	25.03	Quasi Peak	-10.53
1	945.72000000 MHz	24.83	Quasi Peak	-10.73



G16178324

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmed - ANT INT
Operator Gandini 16178324
Test Spec
Vert



Final Measurement

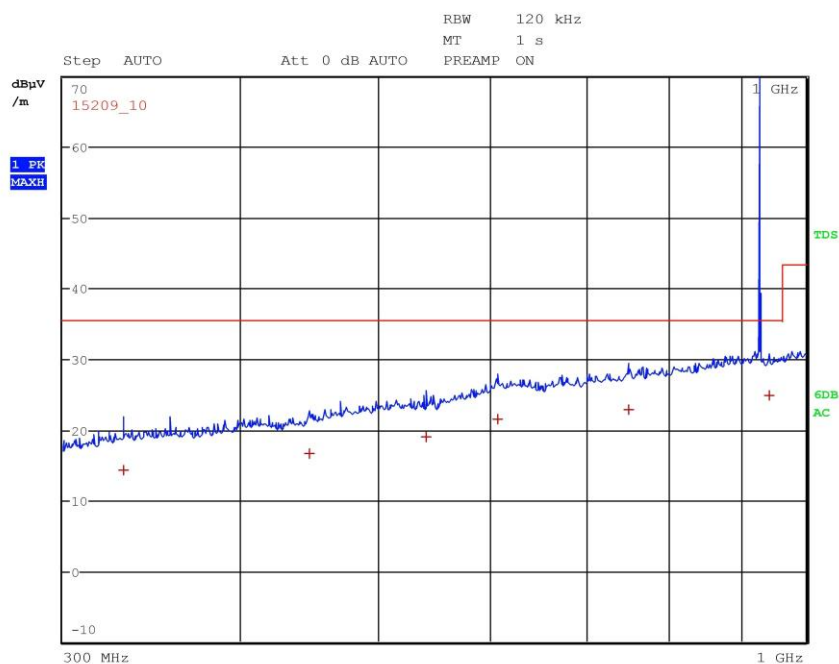
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	351.00000000 MHz	14.94	Quasi Peak	-20.62
1	441.96000000 MHz	16.42	Quasi Peak	-19.14
1	528.08000000 MHz	18.74	Quasi Peak	-16.82
1	635.68000000 MHz	21.52	Quasi Peak	-14.04
1	811.52000000 MHz	23.29	Quasi Peak	-12.27
1	939.64000000 MHz	25.09	Quasi Peak	-10.47



G16178325

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmax - ANT INT
Operator Gandini 16178325
Test Spec
Vert



Final Measurement

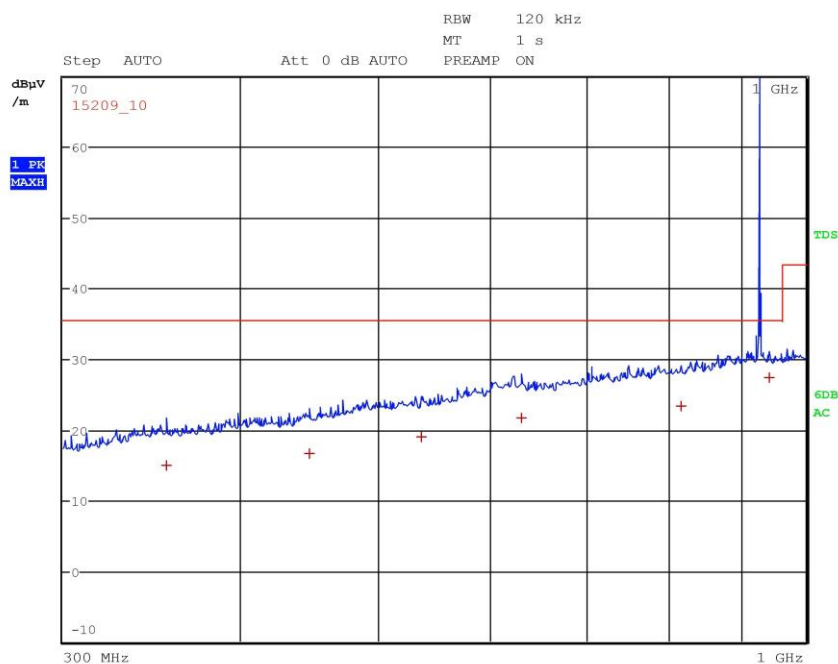
Meas Time: 1 s
Margin: 20 dB
Subranges: 6

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	330.960000000 MHz	14.21	Quasi Peak	-21.35
1	446.920000000 MHz	16.64	Quasi Peak	-18.92
1	540.560000000 MHz	18.95	Quasi Peak	-16.61
1	607.160000000 MHz	21.54	Quasi Peak	-14.02
1	749.600000000 MHz	22.90	Quasi Peak	-12.66
1	942.480000000 MHz	24.86	Quasi Peak	-10.70



G16178326

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmax - ANT INT
Operator Gandini 16178326
Test Spec
Horiz



Final Measurement

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

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	355.00000000 MHz	14.92	Quasi Peak	-20.64
1	447.48000000 MHz	16.64	Quasi Peak	-18.92
1	535.88000000 MHz	18.96	Quasi Peak	-16.60
1	630.48000000 MHz	21.64	Quasi Peak	-13.92
1	816.16000000 MHz	23.43	Quasi Peak	-12.13
1	942.12000000 MHz	27.41	Quasi Peak	-8.15



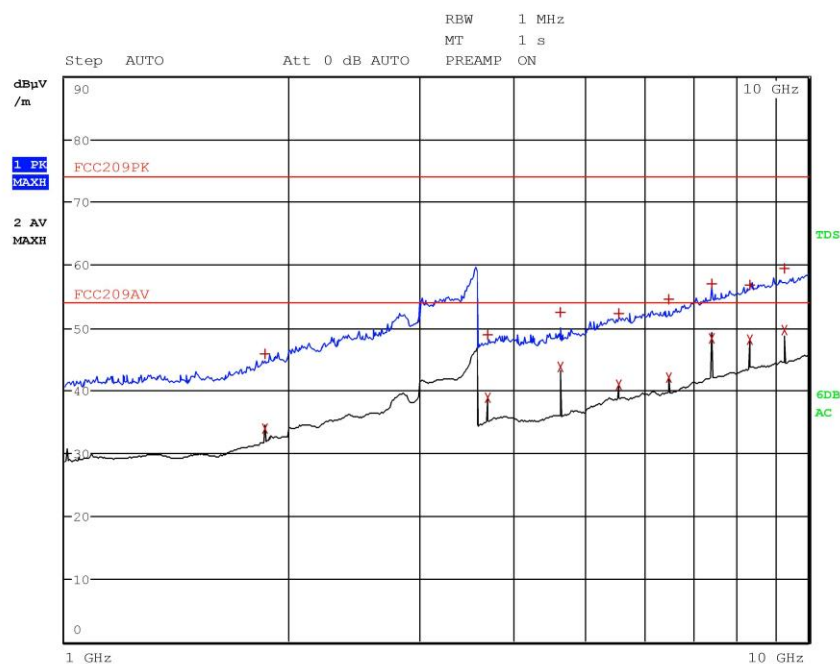
CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



LAB N° 0168

G16178329

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmax - Ant. Int.
Operator Gandini 16178329
Test Spec
Vert





Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmax - Ant. Int.
Operator Gandini 16178329
Test Spec
Vert

Final Measurement

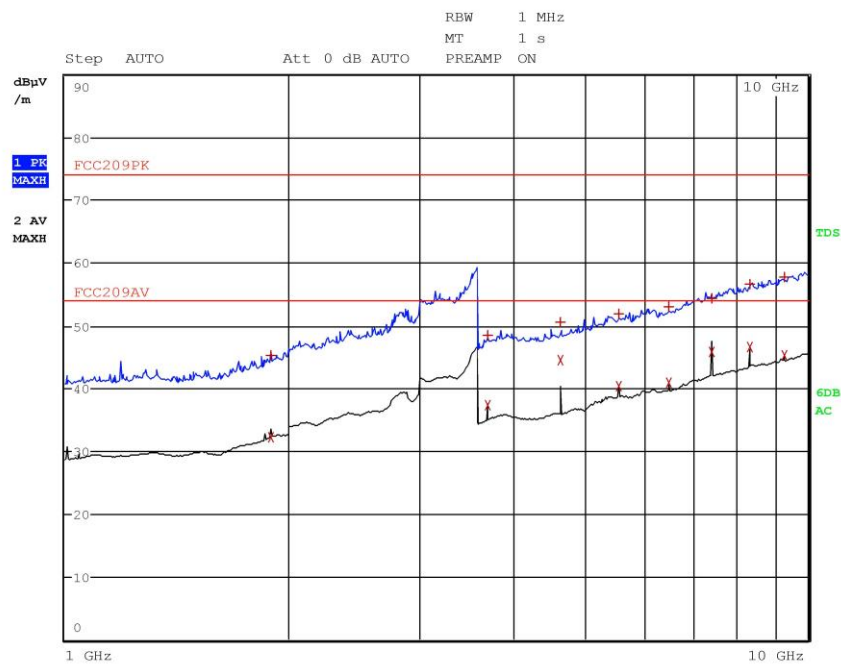
Meas Time: 1 s
Margin: 20 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
2	1.855600000 GHz	33.93	Average	-20.05
1	1.856000000 GHz	45.82	Max Peak	-28.16
1	3.701200000 GHz	48.92	Max Peak	-25.06
2	3.711600000 GHz	38.76	Average	-15.22
1	4.639200000 GHz	52.41	Max Peak	-21.57
2	4.639200000 GHz	43.86	Average	-10.12
2	5.567200000 GHz	41.02	Average	-12.96
1	5.571200000 GHz	52.31	Max Peak	-21.67
1	6.494800000 GHz	54.51	Max Peak	-19.47
2	6.494800000 GHz	42.01	Average	-11.97
1	7.422800000 GHz	56.98	Max Peak	-17.00
2	7.422800000 GHz	48.39	Average	-5.59
1	8.350800000 GHz	56.87	Max Peak	-17.11
2	8.350800000 GHz	48.18	Average	-5.80
1	9.278400000 GHz	59.54	Max Peak	-14.44
2	9.278400000 GHz	49.71	Average	-4.27



G16178330

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmax - Ant. Int.
Operator Gandini 16178330
Test Spec
Horiz





Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmax - Ant. Int.
Operator Gandini 16178330
Test Spec
Horiz

Final Measurement

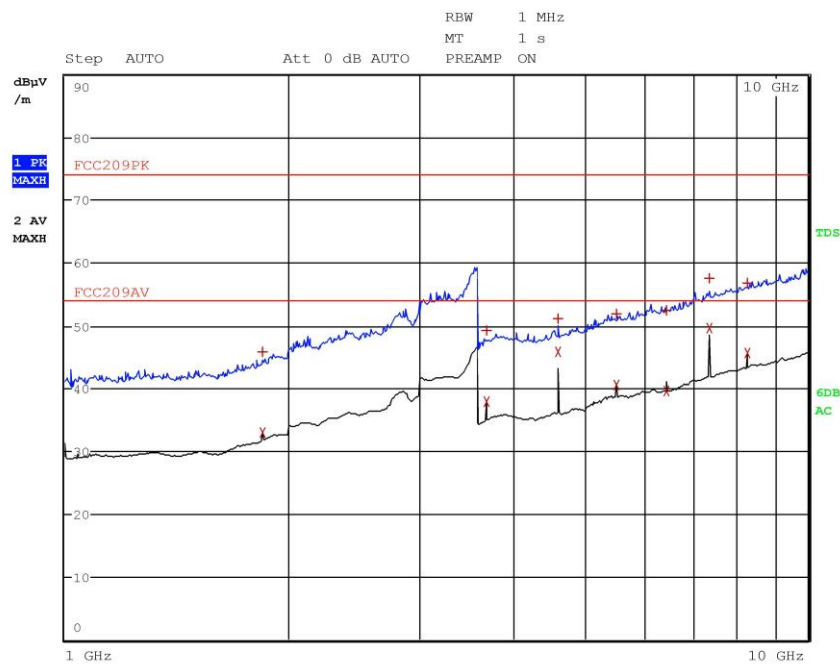
Meas Time: 1 s
Margin: 20 dB
Subranges: 16

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
2	1.893200000 GHz	32.28	Average	-21.70
1	1.893200000 GHz	45.29	Max Peak	-28.69
1	3.710000000 GHz	48.40	Max Peak	-25.58
2	3.711600000 GHz	37.27	Average	-16.71
1	4.639200000 GHz	50.53	Max Peak	-23.45
2	4.639200000 GHz	44.45	Average	-9.53
1	5.557200000 GHz	51.91	Max Peak	-22.07
2	5.567200000 GHz	40.33	Average	-13.65
2	6.494800000 GHz	40.99	Average	-12.99
1	6.500400000 GHz	52.98	Max Peak	-21.00
1	7.405600000 GHz	54.41	Max Peak	-19.57
2	7.422800000 GHz	45.80	Average	-8.18
2	8.350800000 GHz	46.55	Average	-7.43
1	8.353600000 GHz	56.68	Max Peak	-17.30
1	9.273600000 GHz	57.79	Max Peak	-16.19
2	9.278400000 GHz	45.24	Average	-8.74



G16178331

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmid - Ant. Int.
Operator Gandini 16178331
Test Spec
Horiz





Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmid - Ant. Int.
Operator Gandini 16178331
Test Spec
Horiz

Final Measurement

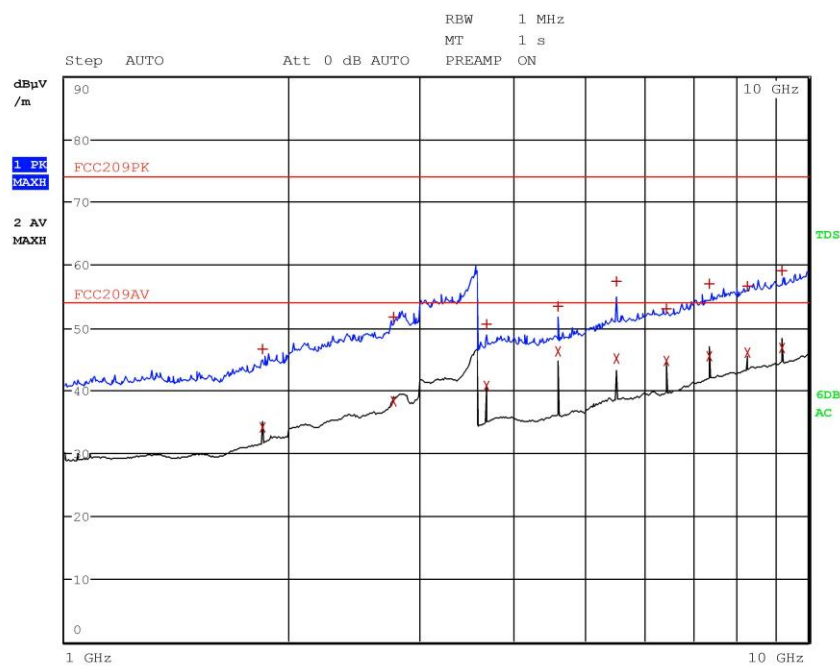
Meas Time: 1 s
Margin: 20 dB
Subranges: 14

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
2	1.843200000 GHz	32.92	Average	-21.06
1	1.844800000 GHz	45.94	Max Peak	-28.04
1	3.686000000 GHz	49.24	Max Peak	-24.74
2	3.686000000 GHz	37.83	Average	-16.15
2	4.607600000 GHz	45.83	Average	-8.15
1	4.608000000 GHz	51.08	Max Peak	-22.90
1	5.524000000 GHz	51.84	Max Peak	-22.14
2	5.529200000 GHz	40.60	Average	-13.38
1	6.435600000 GHz	52.55	Max Peak	-21.43
2	6.450000000 GHz	39.62	Average	-14.36
1	7.372000000 GHz	57.52	Max Peak	-16.46
2	7.372000000 GHz	49.72	Average	-4.26
1	8.282400000 GHz	56.75	Max Peak	-17.23
2	8.293600000 GHz	45.64	Average	-8.34



G16178332

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmid - Ant. Int.
Operator Gandini 16178332
Test Spec
Vert





Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmid - Ant. Int.
Operator Gandini 16178332
Test Spec
Vert

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 18

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.842800000 GHz	46.63	Max Peak	-27.35
2	1.843200000 GHz	34.21	Average	-19.77
2	2.764400000 GHz	38.34	Average	-15.64
1	2.766000000 GHz	51.70	Max Peak	-22.28
1	3.686000000 GHz	50.51	Max Peak	-23.47
2	3.686000000 GHz	40.66	Average	-13.32
1	4.607600000 GHz	53.36	Max Peak	-20.62
2	4.607600000 GHz	46.28	Average	-7.70
1	5.529200000 GHz	57.32	Max Peak	-16.66
2	5.529200000 GHz	45.10	Average	-8.88
1	6.436800000 GHz	53.12	Max Peak	-20.86
2	6.450400000 GHz	44.80	Average	-9.18
1	7.372000000 GHz	57.02	Max Peak	-16.96
2	7.372000000 GHz	45.51	Average	-8.47
2	8.293600000 GHz	46.12	Average	-7.86
1	8.297600000 GHz	56.71	Max Peak	-17.27
1	9.214800000 GHz	59.17	Max Peak	-14.81
2	9.215200000 GHz	46.89	Average	-7.09