



TEST REPORT nr. R17057401

Federal Communication Commission (FCC)

Test item

Description.....: TRANSCEIVER UNIT
Trademark.....: AUTEC
Model/Type: Model DJR Type NJ235
FCC ID: OQA-DJRNJ235

Test Specification

Standard.....: FCC Rules & Regulations, Title 47:2016
Part 15 paragraph(s): 203, 204, 205, 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
Approved by: R. Beghetto – Laboratory Manager
Date of issue: 17.10.17
Contents.....: 73 pages

Giovanni Gandini
.....
R. Beghetto
.....

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.



Index

1. SUMMARY	3
2. DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)	4
2.1 TEST SITE	4
3. TESTING AND SAMPLING	4
4. OPERATIVE CONDITIONS	4
5. PHOTOGRAPH(S) OF EUT	5
5.1 PHOTOGRAPH(S) OF EUT	5
6. EQUIPMENT LIST	8
7. MEASUREMENT UNCERTAINTY	9
8. REFERENCE DOCUMENTS	11
9. DEVIATION FROM TEST SPECIFICATION	12
10. TEST CASE VERDICTS	12
11. RESULTS	13
11.1 ANTENNA REQUIREMENTS	14
11.2 RADIATED EMISSIONS	15
11.3 20 DB BANDWIDTH	43
11.4 CHANNEL SEPARATION	48
11.5 NUMBER OF HOPPING CHANNELS	51
11.6 TIME OF OCCUPANCY	54
11.7 BAND EDGE	58
11.8 PEAK OUTPUT POWER	64
11.9 SPURIOUS EMISSION	69
11.10 MAXIMUM PERMISSIBLE EXPOSURE	73



1. Summary

Standard:

FCC Rules & Regulations, Title 47:2016

Part 15 paragraph(s): 203, 204, 205, 207, 209 and 247

Test specifications	Environmental Phenomena	Tests sequence	Result
Part 15.203	Antenna requirements	1	Complies
Part 15.207	Conducted emissions	--	N.A. (+)
Part 15.209	Radiated emissions	2	Complies
Part 15.247	20 dB Bandwidth	3	Complies
Part 15.247	Channel Separation	4	Complies
Part 15.247	Number of Hopping Channel	5	Complies
Part 15.247	Time of occupancy	6	Complies
Part 15.247	Band edge	7	Complies
Part 15.209 and 15.247	Peak Output Power	8	Complies
Part 15.209	Spurious emission	9	Complies
Part 1.1310	Maximum permissible exposure	10	Complies

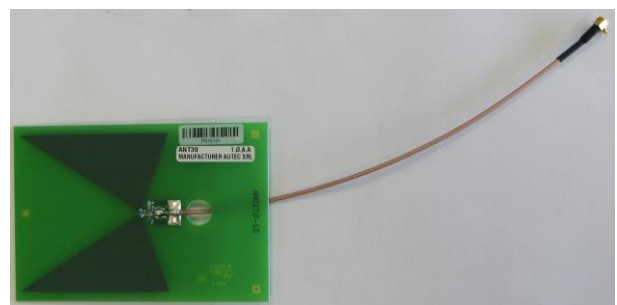
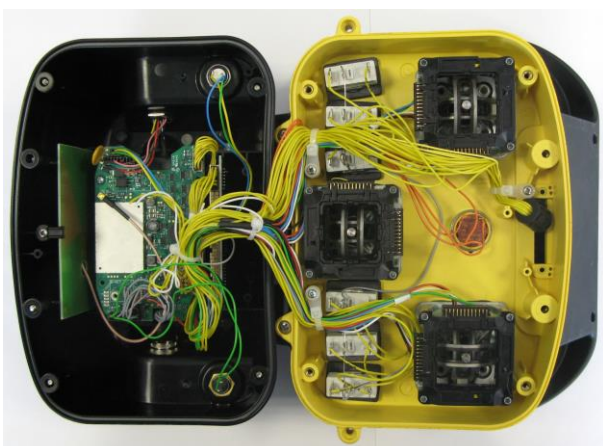
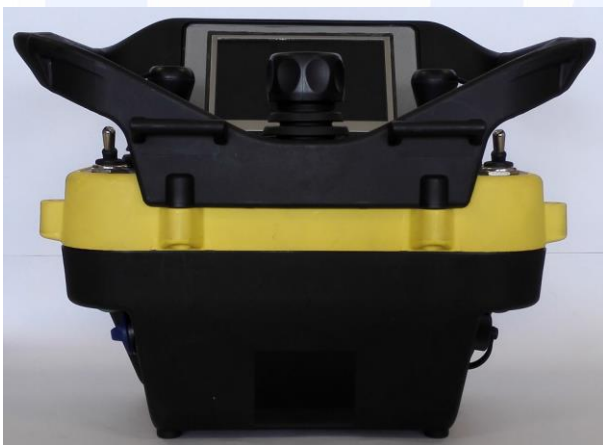
(+) Devices which only employ battery power. See FCC Part 15.207 (c)

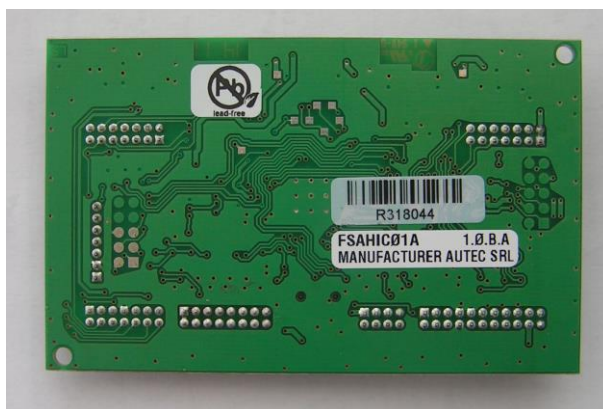
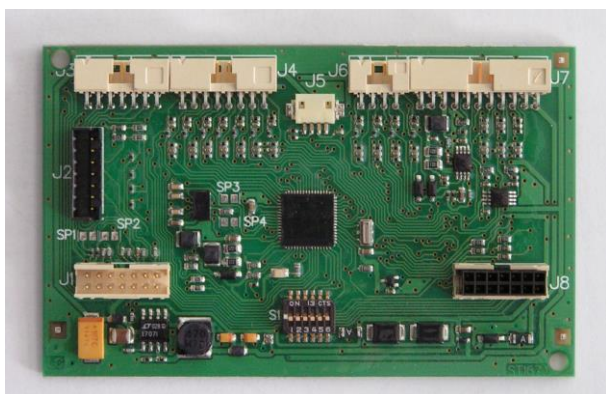
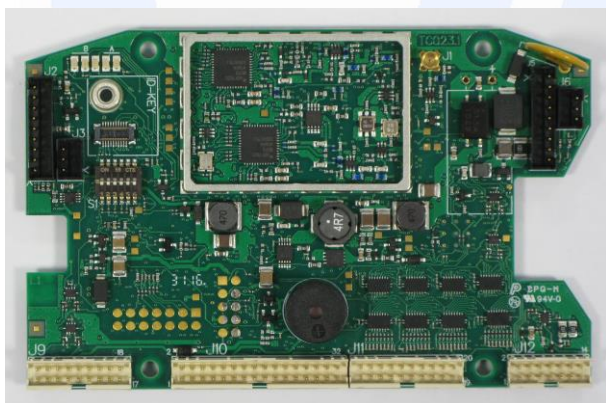
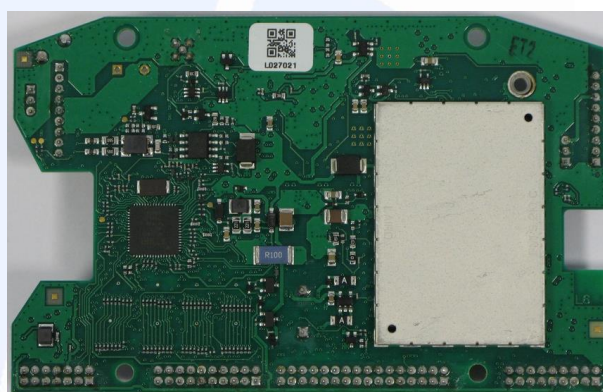
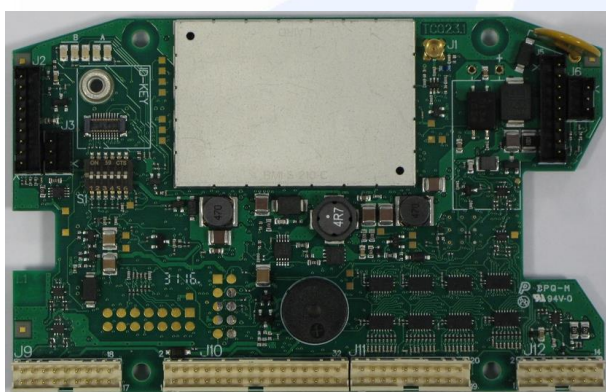
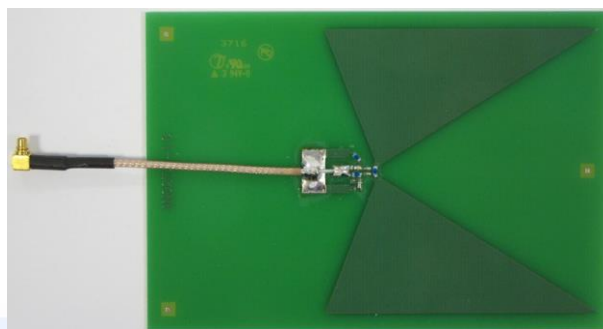
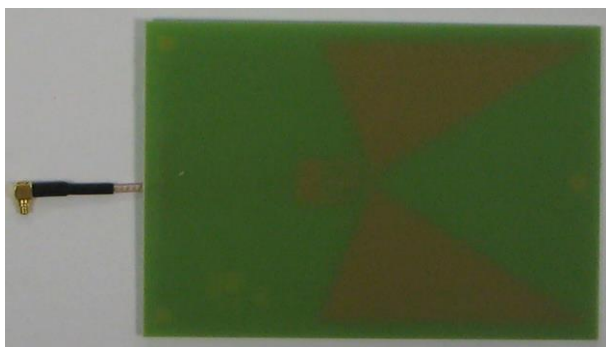
The Test Report was given to the Client representatives for necessary documentation of ratification of the tested equipment and it is valid for the FCC certification

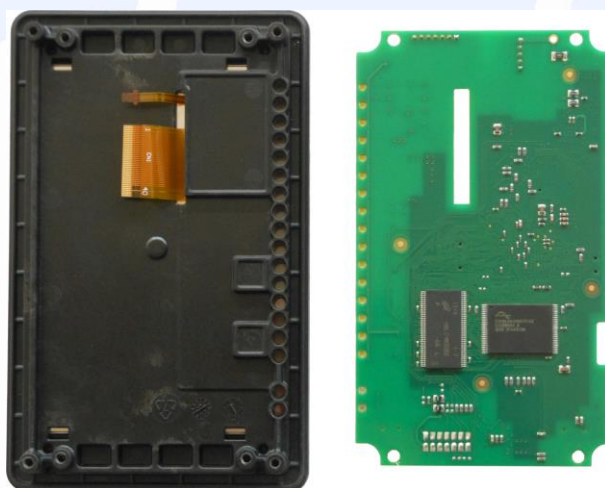


5. Photograph(s) of EUT

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 '17	January '18
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 '17	January '18
CMC S200	Schwarzbeck	NSLK 8128	V-LISN	8128-273	January '17	January '18
CMC S227	Rohde & Schwarz	ESR7	EMI Test Receiver 7GHz	101121	January '17	January '18
CMC S260	CMC	Wfr_N	Shielded Cable	Wfr_ant10-1	November '16	November '17
CMC S261	CMC	Wfr_N	Shielded Cable	Wfr_ant20-1	November '16	November '17
CMC S262	CMC	Wfr_N_fix	Shielded Cable	Wfr_fix32-1	November '16	November '17
CMC S263	CMC	Wfr_N_fix	Shielded Cable	Wfr_fix31-1	November '16	November '17
CMC S264	CMC	Wfr_N	Shielded Cable	Wfr_ext03-1	November '16	November '17
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 '16	November '17



7. Measurement uncertainty

Test	Test Setup	Expanded uncertainty	Note
Conducted emission CISPR 16 LISN 50uH 0,009-0,0150MHz	PE001_01	3,4 dB	1
Conducted emission CISPR 16 LISN 50uH 0,150-30,0MHz	PE001_01	2,8 dB	1
Conducted emission CISPR 16 Voltage Probe 0,15-30MHz	PE001_02	2,6 dB	1
Conducted emission CISPR 16 Current Probe 0,15-30MHz	PE001_03	2,2 dB	1
Conducted emission CISPR 16 ISN 0,15-30MHz	PE001_04	4,5 dB	1
Clic CISPR 16 LISN 50uH 0,150-30,0MHz	PE001_05	2,8 dB	1
Disturbance Power 30-300 MHz	PE002_01	3,4 dB	1
Radiated Emission LAS 0,15-30MHz	PE003_01	1,5 dB	1
Radiated Emission CISPR 16 Loop Ant. 0,15-30MHz	PE004_01	3,8 dB	1
Radiated Emission CISPR 16 Bicon. Ant. 30-300MHz	PE004_02	3,3 dB	1
Radiated Emission CISPR 16 LogP. Ant. 300-1000MHz	PE004_03	3,2 dB	1
Radiated Emission CISPR 16 Horn Ant. 1-18GHz	PE004_04	3,6 dB	1
Human Exposure to electromagnetic fields	PE005_01	10,5 %	1
Harmonic current emissions test	PE006_01	10 mA + 1,6 %	1
Voltage fluctuation and flicker test	PE007_01	3,9 %	1
Radiated Immunity 80MHz-6GHz	PE102_XX	2,1 dB 0,81 V/m a 3V/m	1
Conducted Immunity 0,15-230MHz	PE105_XX	1,2 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	6,22 % 18,6 A/m a 300A/m	1
Dumped Magnetic field	PE108_01	6,22 % 1,86 A/m a 30A/m	1
Common mode conducted immunity	PE112_01	2,12 % 0,21 V a 10V	1



Test	Test Setup	Expanded uncertainty	Note
Power/Spurious 9kHz-30MHz	PR001_01	3,8 dB	1
Power/Spurious ERP 30-1000MHz d=10m	PR001_02+03	4,3 dB	1
Misura della potenza EIRP 1-18GHz d=3m	PR001_04	4,3 dB	1
Misura della potenza EIRP 18-40GHz d=3m	PR001_05	5,5 dB	1
Frequency error	PR002_01+02	$< 1 \times 10^{-7}$	1
Timing zero span (1001pts.)	PR002_01+02	0,2 % SWT	1
Modulation bandwidth	PR002_01+02	$< 1 \times 10^{-7}$	1
Conducted RF power and spurious emission	PR002_01+02	1,2 dB	1
Adjacent channel power	PR002_01+02	1,2 dB	1
Blocking	PR002_01+02	1,2 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
Rev_17_01 date 20/03/2017			

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 15:2016	--
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.

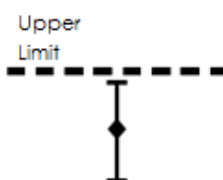
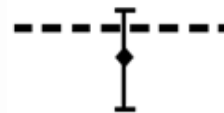
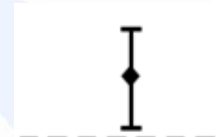


11. Results

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

Result: The requirements are met



11.2 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 – 10000 MHz
Antenna polarization: Horizontal (H) – Vertical (V)
10 m for frequencies ≤ 30 MHz
3 m for frequencies > 30 MHz

Environmental conditions

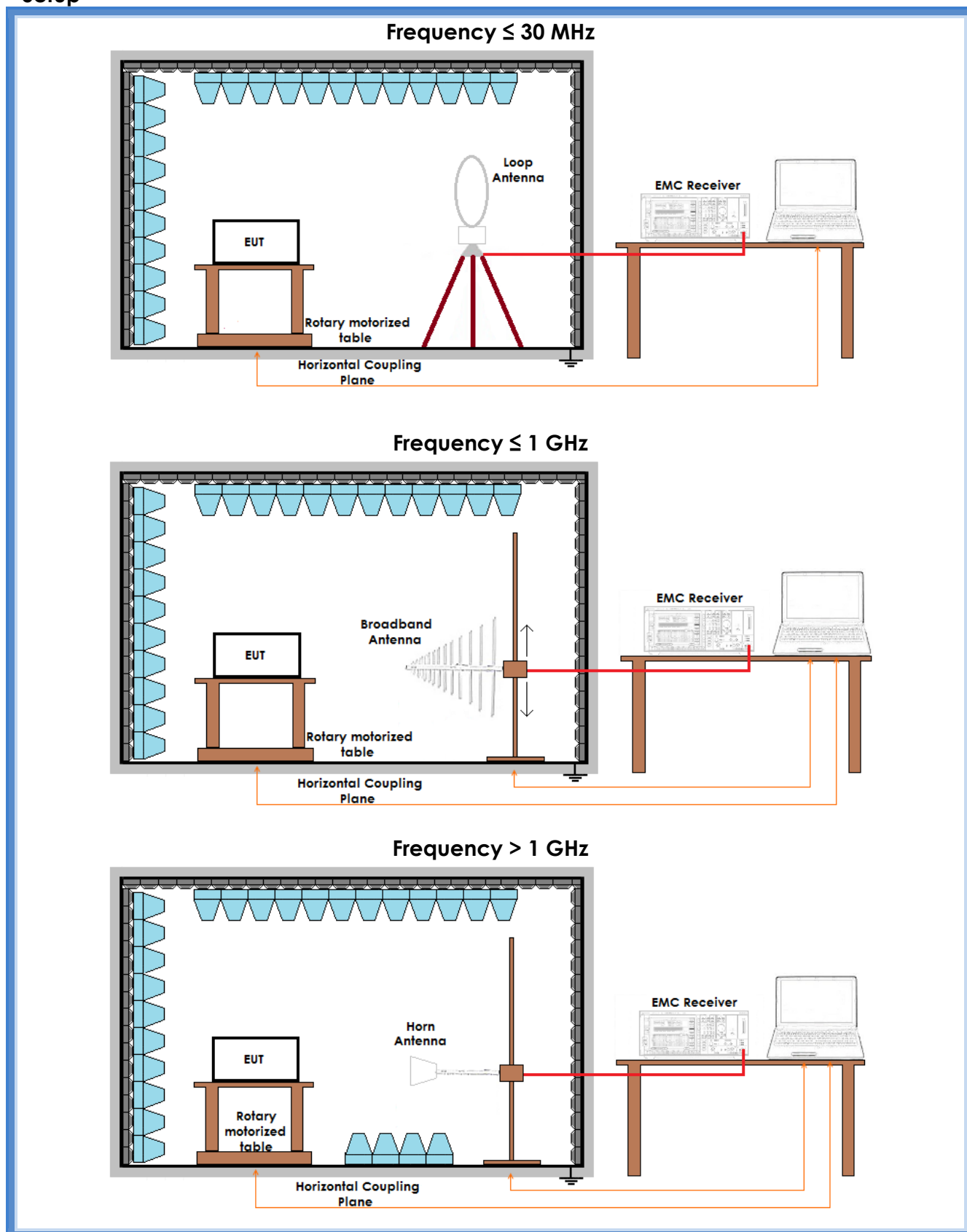
Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
22	100	45

Acceptance limits

Frequency range (MHz)	Test distance (m)	Limits [dB(μ V/m)]	
0,009 to 0,490	300	48,5 to 13,8	
0,490 to 1,705	30	33,8 to 22,9	
1,705 to 30	30	29,5	
30 to 88	3	40	
88 to 216	3	43,5	
216 to 960	3	46,0	
Above 960	3	53,9	
	Test distance (m)	Linear average detector [dB(μ V/m)]	Peak detector [dB(μ V/m)]
Above 1000	3	53,9	73,9

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. The results have been extrapolated to the specified distance using an extrapolation factor

Setup





Result

Polarization	Frequency Range (MHz)	Graphs	Remarks	Result
V	30 – 300	G17057430	Lowest frequency	Complies
H	30 – 300	G17057431	Lowest frequency	Complies
H	30 – 300	G17057432	Medium frequency	Complies
V	30 – 300	G17057433	Medium frequency	Complies
V	30 – 300	G17057434	Highest frequency	Complies
H	30 – 300	G17057435	Highest frequency	Complies
V	300 – 1000	G17057436	Highest frequency	Complies
H	300 – 1000	G17057437	Highest frequency	Complies
H	300 – 1000	G17057438	Medium frequency	Complies
V	300 – 1000	G17057439	Medium frequency	Complies
V	300 – 1000	G17057440	Lowest frequency	Complies
H	300 – 1000	G17057441	Lowest frequency	Complies
V	1000 – 10000	G17057445	Lowest frequency	Complies
H	1000 – 10000	G17057446	Lowest frequency	Complies
H	1000 – 10000	G17057447	Medium frequency	Complies
V	1000 – 10000	G17057448	Medium frequency	Complies
V	1000 – 10000	G17057449	Highest frequency	Complies
H	1000 – 10000	G17057450	Highest frequency	Complies
Loop	0,009 - 30	G17057451	Worst case	Complies
Remarks: Measurements at frequencies lower than 1000 MHz have been performed with an EUT – antenna distance of 10 m. Measured values have been corrected with FCC 3A10 factor. Peaks above the limits are caused by the nominal transmitting frequencies. Final measurements have been performed only for values with margin lower than 20 dB from limit				

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



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



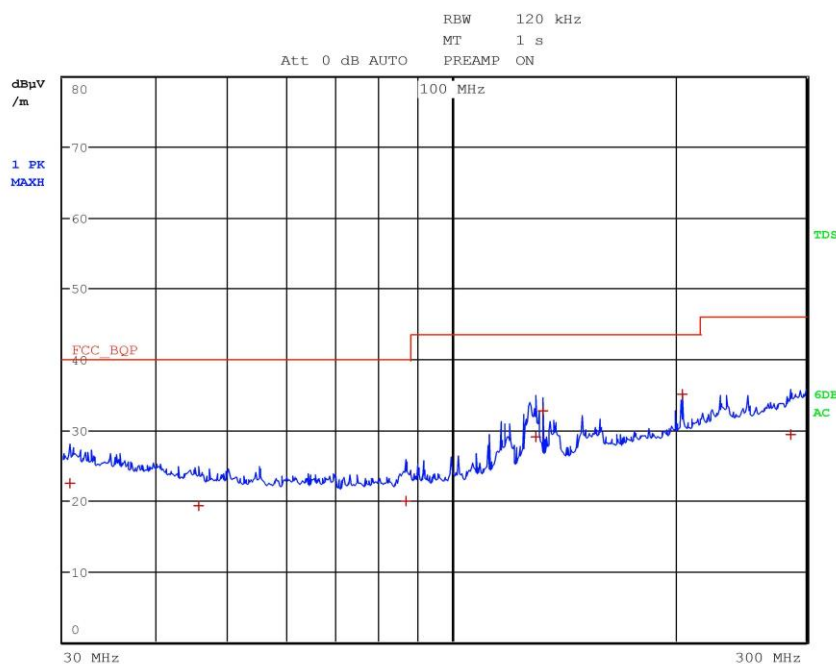
LAB N° 0168

Graphs





Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx-Rx Fmin
Operator Gandini 17057430
Test Spec
Vert



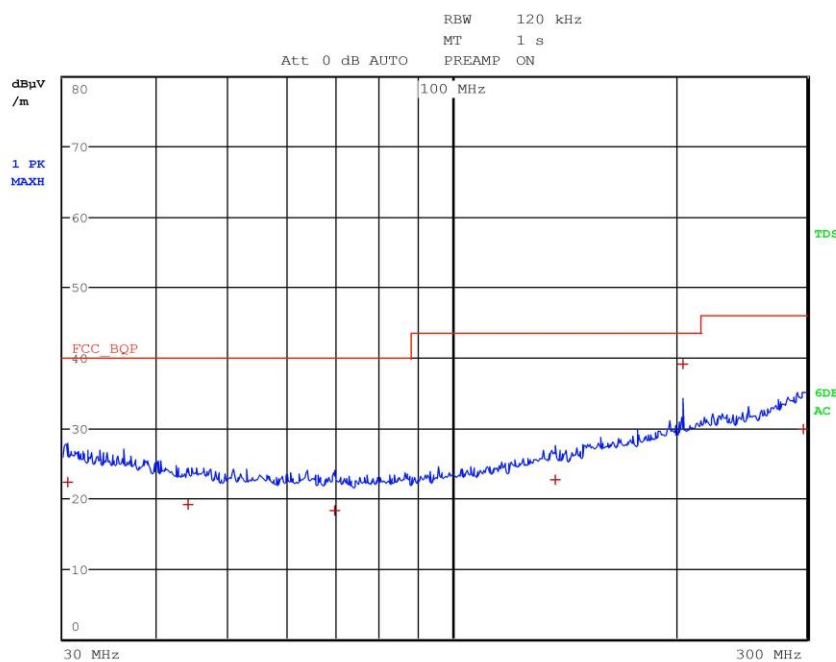
Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 7

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.600000000 MHz	22.36	Quasi Peak	-17.64
1	45.640000000 MHz	19.27	Quasi Peak	-20.73
1	86.840000000 MHz	19.91	Quasi Peak	-20.09
1	129.720000000 MHz	28.95	Quasi Peak	-14.57
1	132.600000000 MHz	32.70	Quasi Peak	-10.82
1	204.000000000 MHz	35.09	Quasi Peak	-8.43
1	286.200000000 MHz	29.30	Quasi Peak	-16.72



Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx-Rx Fmin
Operator Gandini 17057431
Test Spec
Horiz



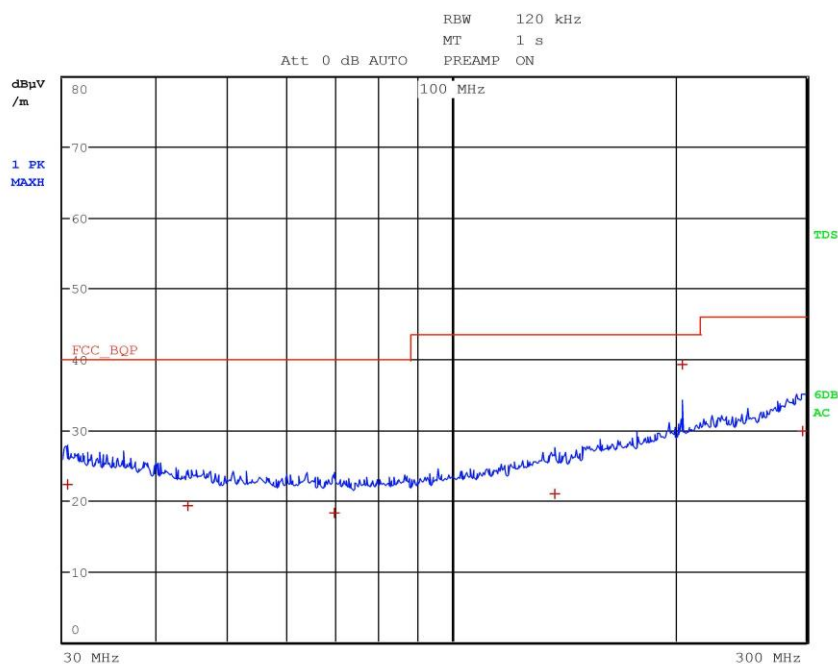
Final Measurement

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

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.40000000 MHz	22.21	Quasi Peak	-17.79
1	44.12000000 MHz	19.13	Quasi Peak	-20.87
1	69.48000000 MHz	18.24	Quasi Peak	-21.76
1	137.84000000 MHz	22.61	Quasi Peak	-20.91
1	204.00000000 MHz	39.07	Quasi Peak	-4.45
1	296.96000000 MHz	29.84	Quasi Peak	-16.18



Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx-Rx Fmid
Operator Gandini 17057432
Test Spec
Horiz



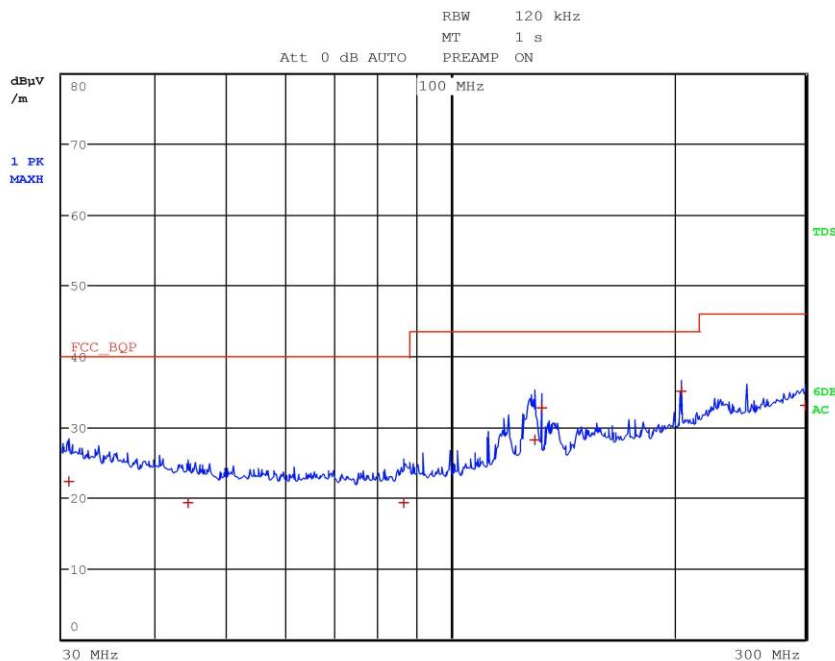
Final Measurement

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

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.40000000 MHz	22.29	Quasi Peak	-17.71
1	44.12000000 MHz	19.22	Quasi Peak	-20.78
1	69.48000000 MHz	18.24	Quasi Peak	-21.76
1	137.84000000 MHz	20.88	Quasi Peak	-22.64
1	204.00000000 MHz	39.16	Quasi Peak	-4.36
1	296.96000000 MHz	29.88	Quasi Peak	-16.14



Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx-Rx Fmid
Operator Gandini 17057433
Test Spec
Vert



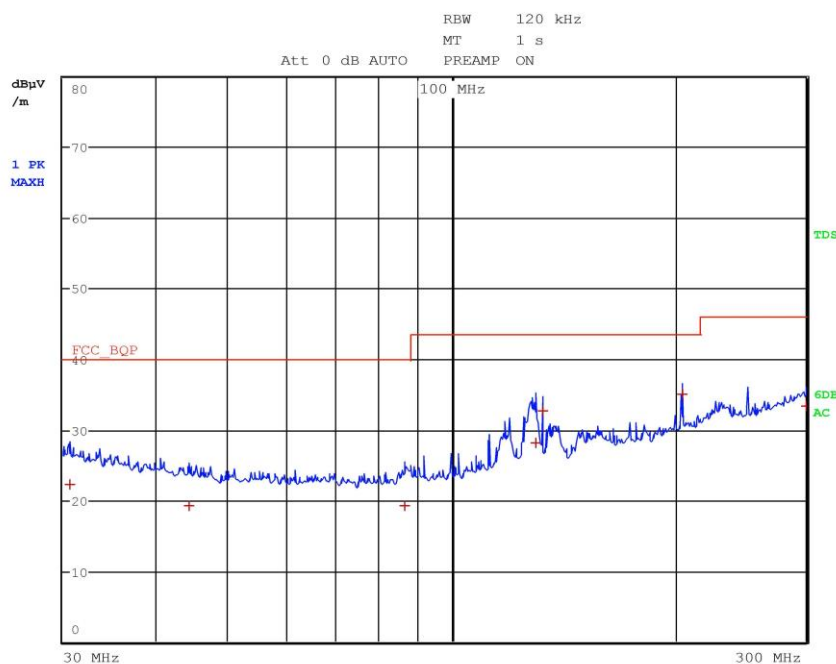
Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 7

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.600000000 MHz	22.28	Quasi Peak	-17.72
1	44.280000000 MHz	19.22	Quasi Peak	-20.78
1	86.480000000 MHz	19.27	Quasi Peak	-20.73
1	129.760000000 MHz	28.21	Quasi Peak	-15.31
1	132.600000000 MHz	32.70	Quasi Peak	-10.82
1	204.000000000 MHz	35.06	Quasi Peak	-8.46
1	300.000000000 MHz	32.95	Quasi Peak	-13.07



Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx-Rx Fmax
Operator Gandini 17057434
Test Spec
Vert



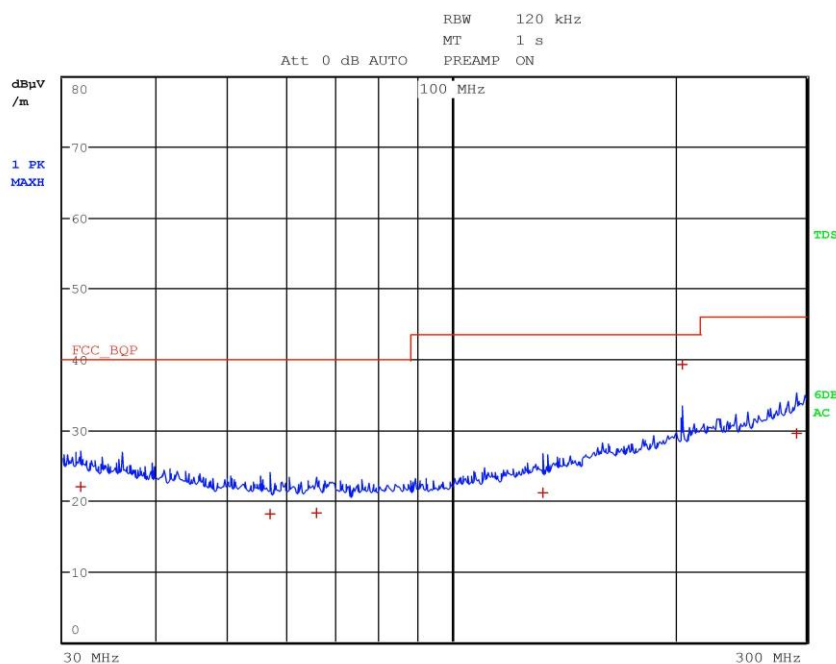
Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 7

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	30.600000000 MHz	22.33	Quasi Peak	-17.67
1	44.280000000 MHz	19.28	Quasi Peak	-20.72
1	86.480000000 MHz	19.31	Quasi Peak	-20.69
1	129.760000000 MHz	28.15	Quasi Peak	-15.37
1	132.600000000 MHz	32.73	Quasi Peak	-10.79
1	204.000000000 MHz	35.06	Quasi Peak	-8.46
1	300.000000000 MHz	33.32	Quasi Peak	-12.70



Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx-Rx Fmax
Operator Gandini 17057435
Test Spec
Horiz



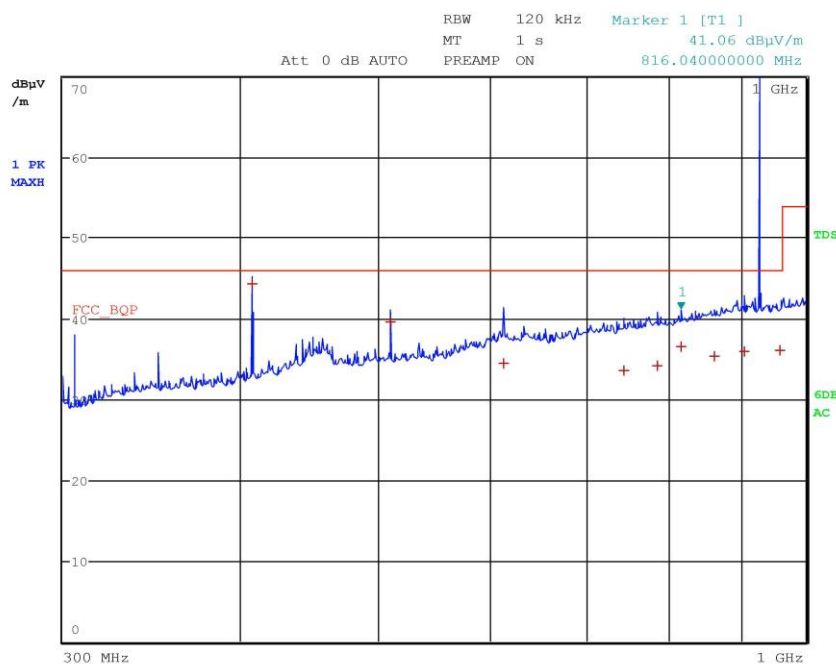
Final Measurement

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

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	31.640000000 MHz	21.86	Quasi Peak	-18.14
1	56.920000000 MHz	18.05	Quasi Peak	-21.95
1	65.680000000 MHz	18.15	Quasi Peak	-21.85
1	132.560000000 MHz	21.17	Quasi Peak	-22.36
1	204.000000000 MHz	39.21	Quasi Peak	-4.31
1	291.640000000 MHz	29.54	Quasi Peak	-16.48



Meas Type Emission 300-1000 Mhz 10m
Equipment under Test
Manufacturer
OP Condition Tx- radio F-Hi
Operator Panozzo 17057436
Test Spec
Vert.



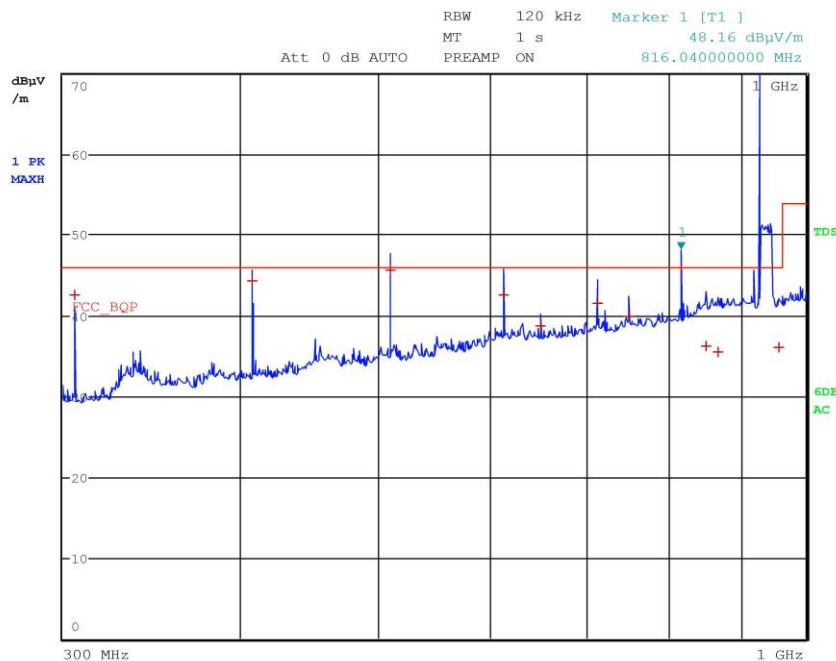
Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 9

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	408.00000000 MHz	44.32	Quasi Peak	-1.70
1	510.04000000 MHz	39.58	Quasi Peak	-6.44
1	612.04000000 MHz	34.52	Quasi Peak	-11.50
1	744.92000000 MHz	33.67	Quasi Peak	-12.35
1	785.60000000 MHz	34.15	Quasi Peak	-11.87
1	816.04000000 MHz	36.60	Quasi Peak	-9.42
1	862.48000000 MHz	35.36	Quasi Peak	-10.66
1	904.20000000 MHz	35.99	Quasi Peak	-10.03
1	959.36000000 MHz	36.18	Quasi Peak	-9.84



Meas Type Emission 300-1000 Mhz 10m
Equipment under Test
Manufacturer
OP Condition Tx- radio F-Hi
Operator Panozzo 17057437
Test Spec
Horiz



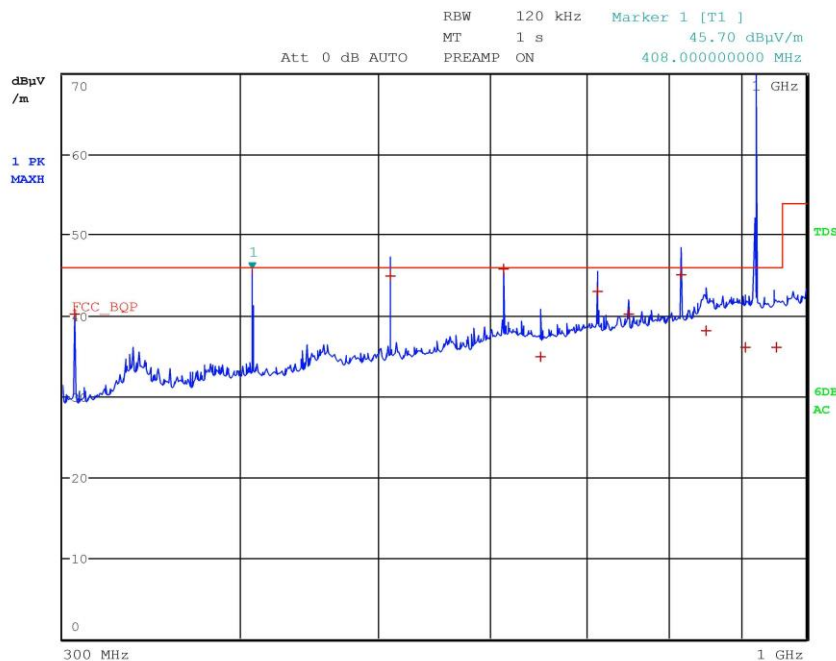
Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 11

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	306.00000000 MHz	42.58	Quasi Peak	-3.44
1	408.04000000 MHz	44.40	Quasi Peak	-1.62
1	510.04000000 MHz	45.71	Quasi Peak	-0.31
1	612.04000000 MHz	42.50	Quasi Peak	-3.52
1	650.00000000 MHz	38.82	Quasi Peak	-7.20
1	714.00000000 MHz	41.51	Quasi Peak	-4.51
1	750.00000000 MHz	39.90	Quasi Peak	-6.12
1	816.04000000 MHz	45.89	Quasi Peak	-0.13
1	850.00000000 MHz	36.25	Quasi Peak	-9.77
1	867.08000000 MHz	35.58	Quasi Peak	-10.44
1	956.96000000 MHz	36.14	Quasi Peak	-9.88



Meas Type Emission 300-1000 Mhz 10m
Equipment under Test
Manufacturer
OP Condition Tx- radio F-Med
Operator Panozzo 17057438
Test Spec
Horiz



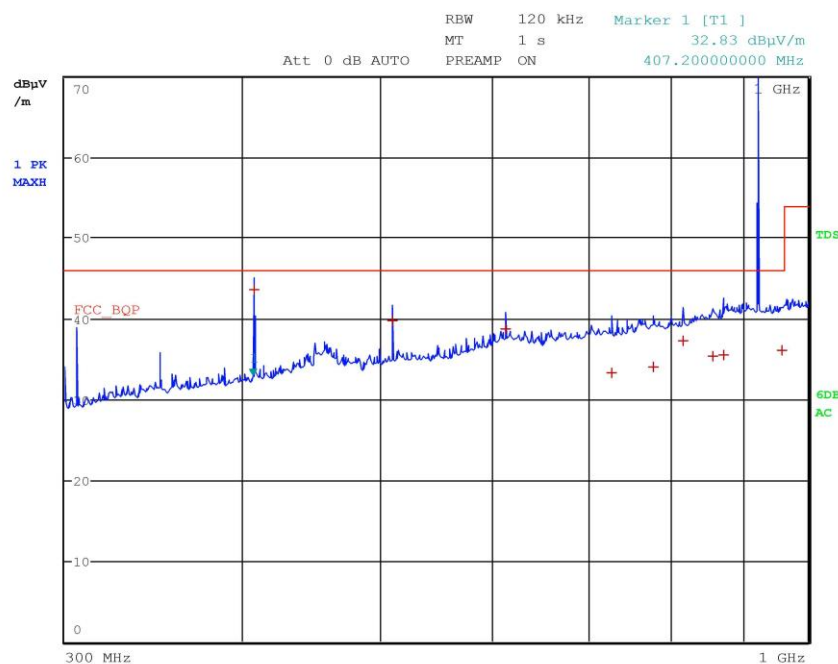
Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 11

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	306.000000000 MHz	40.22	Quasi Peak	-5.80
1	408.000000000 MHz	45.92	Quasi Peak	-0.10
1	510.040000000 MHz	44.94	Quasi Peak	-1.08
1	612.040000000 MHz	45.74	Quasi Peak	-0.28
1	650.040000000 MHz	34.95	Quasi Peak	-11.07
1	714.040000000 MHz	42.95	Quasi Peak	-3.07
1	750.000000000 MHz	40.18	Quasi Peak	-5.84
1	816.040000000 MHz	45.14	Quasi Peak	-0.88
1	849.960000000 MHz	38.13	Quasi Peak	-7.89
1	906.280000000 MHz	36.17	Quasi Peak	-9.85
1	953.040000000 MHz	36.11	Quasi Peak	-9.91



Meas Type Emission 300-1000 Mhz 10m
Equipment under Test
Manufacturer
OP Condition Tx- radio F-Med
Operator Panozzo 17057439
Test Spec
Vert.



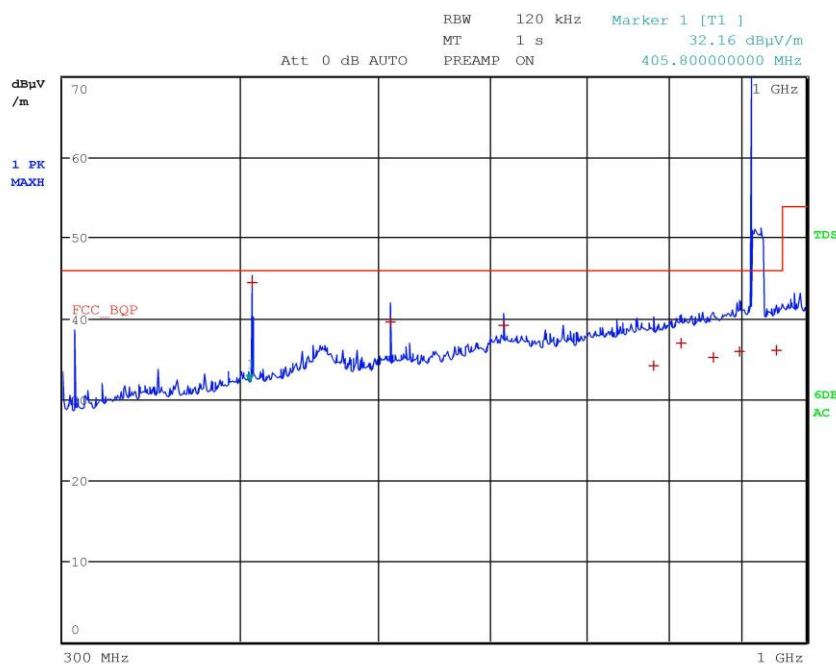
Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 9

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	408.040000000 MHz	43.56	Quasi Peak	-2.46
1	510.040000000 MHz	39.78	Quasi Peak	-6.24
1	612.040000000 MHz	38.76	Quasi Peak	-7.26
1	727.360000000 MHz	33.34	Quasi Peak	-12.68
1	778.320000000 MHz	34.09	Quasi Peak	-11.93
1	816.040000000 MHz	37.28	Quasi Peak	-8.74
1	857.120000000 MHz	35.37	Quasi Peak	-10.65
1	872.240000000 MHz	35.56	Quasi Peak	-10.46
1	958.000000000 MHz	36.14	Quasi Peak	-9.88



Meas Type Emission 300-1000 Mhz 10m
Equipment under Test
Manufacturer
OP Condition Tx- radio F-low
Operator Panozzo 17057439
Test Spec
Vert.



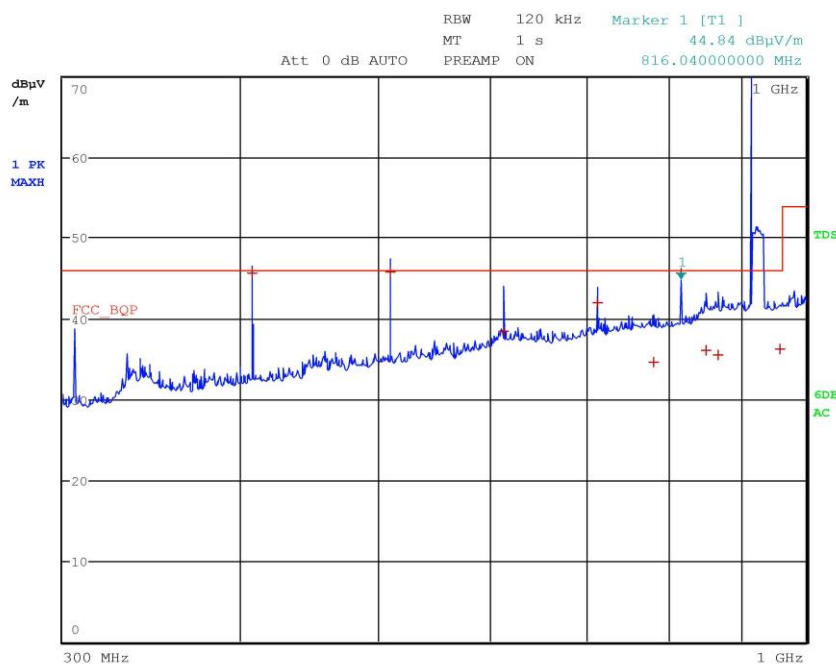
Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 8

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	408.00000000 MHz	44.50	Quasi Peak	-1.52
1	510.04000000 MHz	39.57	Quasi Peak	-6.45
1	612.04000000 MHz	39.15	Quasi Peak	-6.87
1	780.68000000 MHz	34.16	Quasi Peak	-11.86
1	816.00000000 MHz	37.03	Quasi Peak	-8.99
1	860.32000000 MHz	35.29	Quasi Peak	-10.73
1	898.16000000 MHz	35.94	Quasi Peak	-10.08
1	953.24000000 MHz	36.04	Quasi Peak	-9.98



Meas Type Emission 300-1000 Mhz 10m
Equipment under Test
Manufacturer
OP Condition Tx- radio F-low
Operator Panozzo 17057440
Test Spec
Horiz.



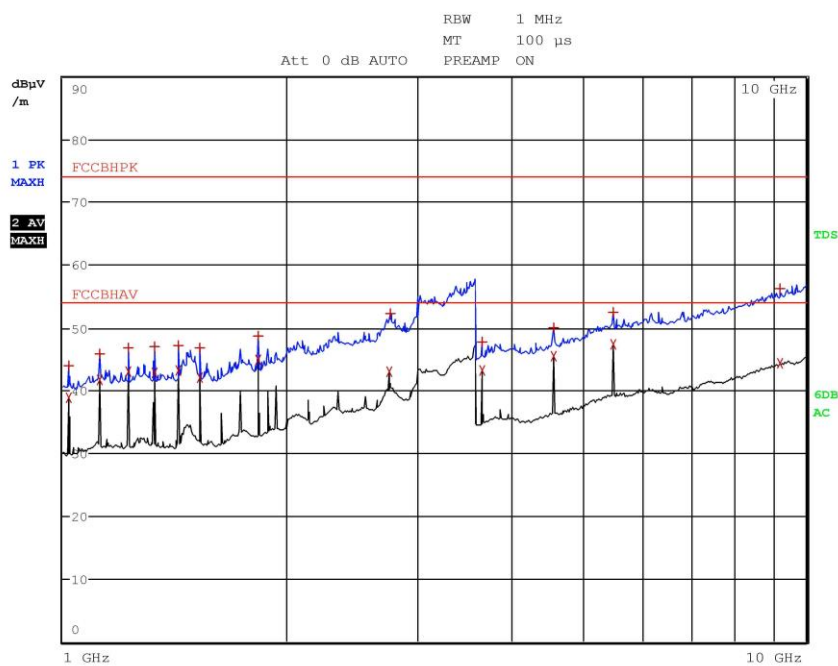
Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 9

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	408.00000000 MHz	45.67	Quasi Peak	-0.35
1	510.04000000 MHz	45.79	Quasi Peak	-0.23
1	612.04000000 MHz	38.40	Quasi Peak	-7.62
1	714.04000000 MHz	41.93	Quasi Peak	-4.09
1	781.84000000 MHz	34.59	Quasi Peak	-11.43
1	816.04000000 MHz	45.65	Quasi Peak	-0.37
1	849.96000000 MHz	36.11	Quasi Peak	-9.91
1	866.56000000 MHz	35.52	Quasi Peak	-10.50
1	957.92000000 MHz	36.24	Quasi Peak	-9.78



Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmin
Operator Gandini 17057445
Test Spec
Vert





Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmin
Operator Gandini 17057445
Test Spec
Vert

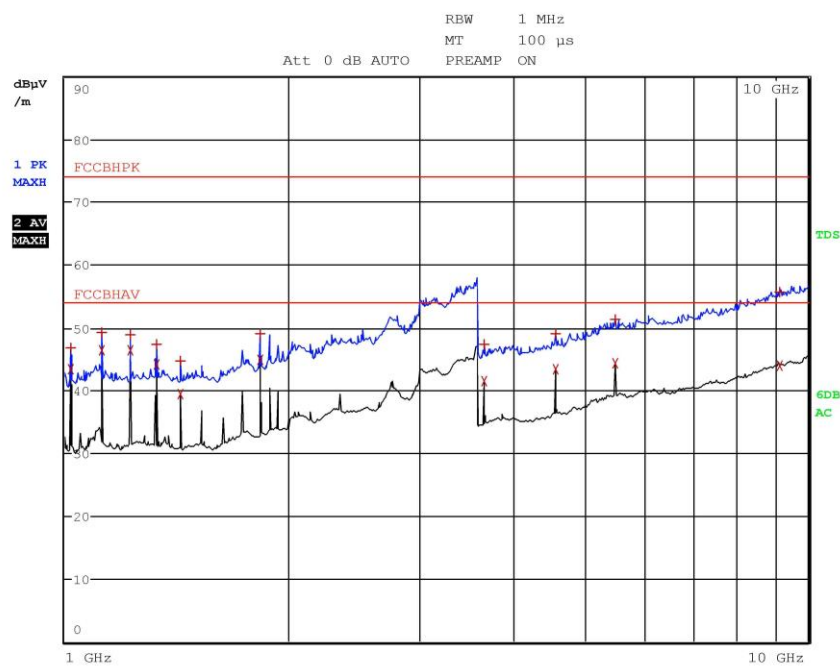
Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 24

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.020000000 GHz	44.03	Max Peak	-29.95
2	1.020000000 GHz	38.89	Average	-15.09
1	1.122000000 GHz	45.92	Max Peak	-28.06
2	1.122000000 GHz	41.74	Average	-12.24
1	1.224000000 GHz	46.79	Max Peak	-27.19
2	1.224000000 GHz	43.08	Average	-10.90
1	1.326000000 GHz	46.91	Max Peak	-27.07
2	1.326000000 GHz	42.91	Average	-11.07
1	1.428000000 GHz	47.17	Max Peak	-26.81
2	1.428000000 GHz	43.25	Average	-10.73
1	1.530000000 GHz	46.86	Max Peak	-27.12
2	1.530000000 GHz	42.16	Average	-11.82
2	1.830400000 GHz	44.98	Average	-9.00
1	1.830400000 GHz	48.76	Max Peak	-25.22
2	2.745600000 GHz	43.09	Average	-10.89
1	2.754000000 GHz	52.21	Max Peak	-21.77
1	3.660400000 GHz	47.81	Max Peak	-26.17
2	3.660800000 GHz	43.24	Average	-10.74
2	4.575600000 GHz	45.41	Average	-8.57
1	4.575600000 GHz	50.05	Max Peak	-23.93
2	5.490800000 GHz	47.34	Average	-6.64
1	5.490800000 GHz	52.39	Max Peak	-21.59
2	9.224800000 GHz	44.28	Average	-9.70
1	9.230800000 GHz	56.21	Max Peak	-17.77



Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmin
Operator Gandini 17057446
Test Spec
Horiz



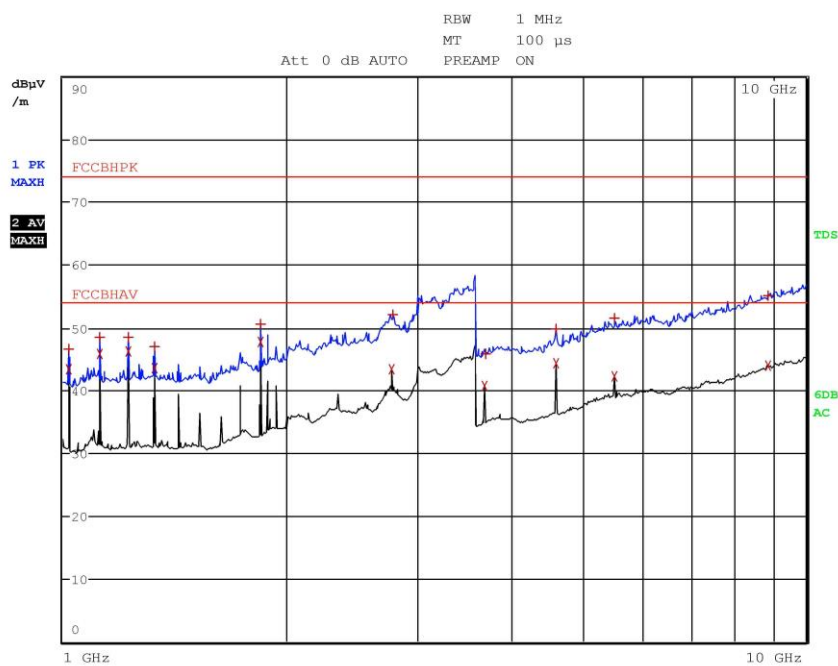


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



LAB N° 0168

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmid
Operator Gandini 17057447
Test Spec
Horiz





Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmid
Operator Gandini 17057447
Test Spec
Horiz

Final Measurement

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

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
2	1.020000000 GHz	43.47	Average	-10.51
1	1.020000000 GHz	46.68	Max Peak	-27.30
2	1.122000000 GHz	45.82	Average	-8.16
1	1.122000000 GHz	48.47	Max Peak	-25.51
2	1.224000000 GHz	46.22	Average	-7.76
1	1.224000000 GHz	48.45	Max Peak	-25.53
2	1.326000000 GHz	43.53	Average	-10.45
1	1.326000000 GHz	46.90	Max Peak	-27.08
2	1.842800000 GHz	47.72	Average	-6.26
1	1.842800000 GHz	50.59	Max Peak	-23.39
2	2.764400000 GHz	43.48	Average	-10.50
1	2.781200000 GHz	52.15	Max Peak	-21.83
2	3.686000000 GHz	40.79	Average	-13.19
1	3.711600000 GHz	45.80	Max Peak	-28.18
1	4.607600000 GHz	49.80	Max Peak	-24.18
2	4.607600000 GHz	44.37	Average	-9.61
1	5.527200000 GHz	51.46	Max Peak	-22.52
2	5.529200000 GHz	42.30	Average	-11.68
2	8.879200000 GHz	43.91	Average	-10.07
1	8.887200000 GHz	55.03	Max Peak	-18.95

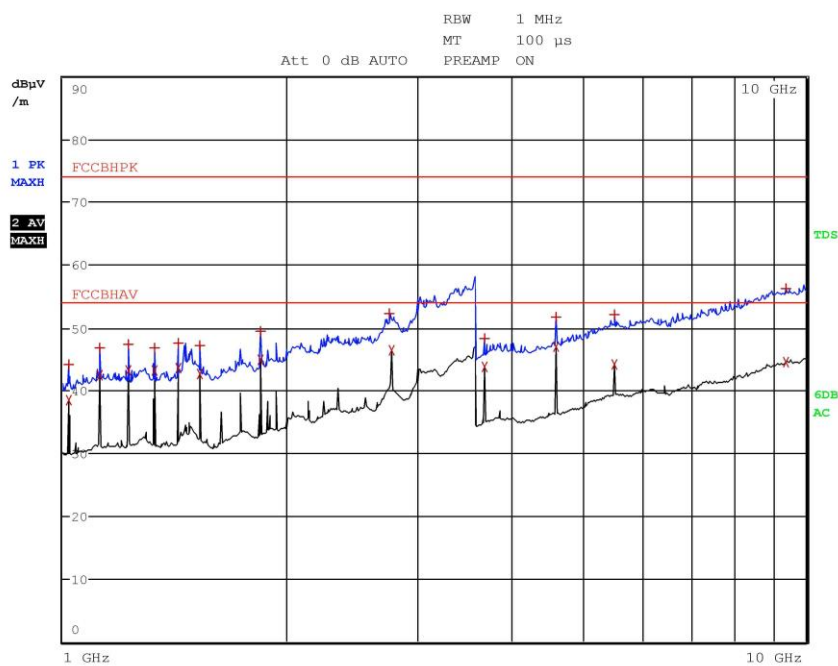


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



LAB N° 0168

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmid
Operator Gandini 17057448
Test Spec
Vert





Meas Type Emission
Equipment under Test
Manufacturer
OP Condition Tx - Fmid
Operator Gandini 17057448
Test Spec
Vert

Final Measurement

Meas Time: 1 s
Margin: 20 dB
Subranges: 24

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.020000000 GHz	44.11	Max Peak	-29.87
2	1.020000000 GHz	38.49	Average	-15.49
1	1.122000000 GHz	46.87	Max Peak	-27.11
2	1.122000000 GHz	42.52	Average	-11.46
1	1.224000000 GHz	47.35	Max Peak	-26.63
2	1.224000000 GHz	43.22	Average	-10.76
1	1.326000000 GHz	46.78	Max Peak	-27.20
2	1.326000000 GHz	43.26	Average	-10.72
1	1.428000000 GHz	47.48	Max Peak	-26.50
2	1.428000000 GHz	43.67	Average	-10.31
1	1.530000000 GHz	47.18	Max Peak	-26.80
2	1.530000000 GHz	42.71	Average	-11.27
1	1.842800000 GHz	49.40	Max Peak	-24.58
2	1.843200000 GHz	44.88	Average	-9.10
1	2.748800000 GHz	52.30	Max Peak	-21.68
2	2.764400000 GHz	46.34	Average	-7.64
2	3.686000000 GHz	43.78	Average	-10.20
1	3.686000000 GHz	48.32	Max Peak	-25.66
2	4.607600000 GHz	46.90	Average	-7.08
1	4.607600000 GHz	51.63	Max Peak	-22.35
2	5.529200000 GHz	44.24	Average	-9.74
1	5.529200000 GHz	52.12	Max Peak	-21.86
2	9.380400000 GHz	44.54	Average	-9.44
1	9.406000000 GHz	56.16	Max Peak	-17.82