



CMC Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI) – ITALY
Tel./Fax +39 0445 367702
www.cmclab.it - info@cmclab.it



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

Independent Testing Laboratory
Accredited by ACCREDIA according to UNI CEI EN ISO/IEC 17025 cert. nr. 0168

TEST REPORT nr. R19089801

Federal Communication Commission (FCC)

Test item

Description: CARD-TYPE BLUETOOTH LOW ENERGY BEACON
Trademark: BLUEUP
Model/Type: BlueBeacon Card (BlueBeacon 08)
FCC ID: 2ALP7BB0802

Test Specification

Standard.....: FCC Rules & Regulations, Title 47:2018
Part 15 paragraph(s): 203, 204, 205, 207, 209 and 247

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

Address: Loc. Belvedere, Ingresso 2 – 53034 Colle Val d'Elsa (SI) – ITALY

Manufacturer's name : Same as client

Address: --

Report

Tested by: M. Segalla

Approved by: R. Beghetto – Laboratory Manager

Date of issue: 17.09.19

Contents: 93 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.



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	6
7. MEASUREMENT UNCERTAINTY	7
8. REFERENCE DOCUMENTS	9
9. DEVIATION FROM TEST SPECIFICATION	10
10. TEST CASE VERDICTS	10
11. RESULTS	11
11.1 ANTENNA REQUIREMENTS	12
11.2 EMISSIONS IN RESTRICTED FREQUENCY BANDS AND IN UNRESTRICTED FREQUENCY BANDS	13
11.3 DTS BANDWIDTH	66
11.4 BAND EDGE	71
11.5 FUNDAMENTAL EMISSION OUTPUT POWER	77
11.6 MAXIMUM POWER SPECTRAL DENSITY LEVEL IN THE FUNDAMENTAL EMISSION	83
11.7 SPURIOUS EMISSION	89



1. Summary

Standard:

FCC Rules & Regulations, Title 47:2018
Part 15 paragraph(s): 203, 204, 205, 207, 209 and 247

Test specifications	Environmental Phenomena	Tests sequence	Result
Part 15.247 (a) (1)	Pseudo randomly ordered list of hopping frequencies	1	Complies
Part 15.203	Antenna requirements	2	Complies
Part 15.207	Conducted emissions	--	N.A. (+)
Part 15.209	Emissions in restricted frequency bands and in unrestricted frequency bands	3	Complies
Part 15.247 (a) (2)	DTS bandwidth	4	Complies
Part 15.247 (d)	Band edge	5	Complies
Part 15.209 and 15.247	Fundamental emission output power	6	Complies
Part 15.209 and 15.247	Maximum power spectral density level in the fundamental emission	7	Complies
Part 15.209	Spurious emission	8	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



2. Description of Equipment under test (EUT)

Power supply : 3 Vdc from battery

Serial Number : --

Type of equipment : Transmitter Unit
 Receiver Unit

Type of station : Fixed station
 Portable station
 Mobile station

Frequency band : 2400 – 2483,5 MHz

Nominal frequencies : F_L : 2401 MHz F_M : 2441 MHz F_H : 2480 MHz

Pseudo randomly ordered list of hopping frequencies : See document
BlueBeaconCard_OperationalDescription

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 : 182474

3. Testing and sampling

Date of receipt of test item : 08.04.19

Testing start date : 22.05.19

Testing end date : 22.05.19

Samples tested nr : 3, 1 sample for each nominal frequency

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 P190477

4. Operative conditions

EUT exercising : EUT in continuous transmission at maximum power



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

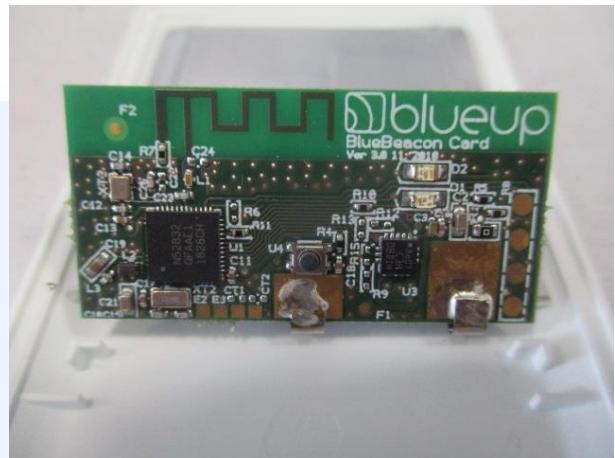


ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

5. Photograph(s) of EUT

5.1 Photograph(s) of EUT





6. Equipment list

Id. number	Manufacturer	Model	Description	Serial number	Last calibration	Due date calibration
CMC S108	EMCO	3115	Horn Antenna	9811-5622	June '16	June '19
CMC S127	Schaffner	HLA6120	Loop Antenna	1191	November '18	November '23
CMC S164	Rohde & Schwarz	ESU26	EMC interference receiver	100052	January '19	January '20
CMC S206	Rohde & Schwarz	ESCI 7	EMC Receiver 9KHz-7GHz	100781	January '19	January '20
CMC S260	CMC	Wfr_N	Shielded Cable	Wfr_ant10-1	November '18	November '19
CMC S261	CMC	Wfr_N	Shielded Cable	Wfr_ant20-1	November '18	November '19
CMC S262	CMC	Wfr_N_fix	Shielded Cable	Wfr_fix32-1	November '18	November '19
CMC S263	CMC	Wfr_N_fix	Shielded Cable	Wfr_fix31-1	November '18	November '19
CMC S264	CMC	Wfr_N	Shielded Cable	Wfr_ext03-1	November '18	November '19
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 S290	Schwarzbeck	BBHA 9170	Horn Antenna (15-40 GHz)	733	October '16	October '19



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	3,0	dB	1
Conducted emission CISPR 16 Voltage Probe 0,15-30MHz	PE001_02	2,9	dB	1
Conducted emission CISPR 16 Current Probe 0,15-30MHz	PE001_03	2,6	dB	1
Conducted emission CISPR 16 ISN 0,15-30MHz	PE001_04	4,7	dB	1
Clic CISPR 16 LISN 50uH 0,150-30,0MHz	PE001_05	3,1	dB	1
Disturbance Power 30-300 MHz	PE002_01	3,6	dB	1
Radiated Emission LAS 0,15-30MHz	PE003_01	2,0	dB	1
Radiated Emission CISPR 16 Loop Ant. 0,15-30MHz	PE004_01	4,0	dB	1
Radiated Emission CISPR 16 Bicon. Ant. 30-300MHz	PE004_02	3,9	dB	1
Radiated Emission CISPR 16 LogP. Ant. 300-1000MHz	PE004_03	3,8	dB	1
Radiated Emission CISPR 16 Horn Ant. 1-18GHz	PE004_04	4,2	dB	1
Human Exposure to electromagnetic fields	PE005_01	23,6	%	1
Harmonic current emissions test	PE006_01	10 mA	+ 2,6 %	1
Voltage fluctuation and flicker test	PE007_01		4,8 %	1
Radiated Immunity 80MHz-6GHz	PE102_XX	2,1	dB 0,82 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	6,25	% 18,7 A/m a 300A/m	1
Dumped Magnetic field	PE108_01	6,25	% 1,87 A/m a 30A/m	1
Common mode conducted immunity	PE112_01	2,21	% 0,22 V a 10V	1



Test	Test Setup	Expanded uncertainty	Note
Power/Spurious 9kHz-30MHz	PR001_01	4,0 dB	1
Power/Spurious ERP 30-1000MHz d=10m	PR001_02+03	4,7 dB	1
Misura della potenza EiRP 1-18GHz d=3m	PR001_04	4,7 dB	1
Misura della potenza EiRP 18-40GHz d=3m	PR001_05	5,4 dB	1
Frequency error	PR002_01+02	< 1x10-7	1
Timing zero span (1001pts.)	PR002_01+02	0,2 % SWT	1
Modulation bandwidth	PR002_01+02	< 1x10-7	1
Conducted RF power and spurious emission	PR002_01+02	1,1 dB	1
Adjacent channel power	PR002_01+02	1,1 dB	1
Blocking	PR002_01+02	1,1 dB	1

Test	Test Setup	Expanded uncertainty	Note
Electrostatic discharge immunity test	PE101_0X		2
Electrical fast transients / burst immunity test	PE103_0X		2
Surge immunity test	PE104_0X		2
Short interruption immunity test	PE109_01		2

Rev_19_02 date 27/03/2019

Note 1:

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

Note 2:

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



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

8. Reference documents

Reference no.	Description
FCC Rules and Regulation Title 47 part 15:2018	--
KDB 558074 D01 15.247 Meas Guidance v05	Guidance for compliance measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid System Devices operating under section 15.247 of the FCC rules
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. 9.1 (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. 9.1.

Judgement of compliance:

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

Result

Antenna Type	External R.F. power amplifier	Gain	Remarks	Results
Integrated antenna	Not Present	0 dBi	--	Complies

Result: The requirements are met



11.2 Emissions in restricted frequency bands and in unrestricted frequency bands

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 S164, CMC S271,
CMC S287, CMC S290
Measurement uncertainty: See clause 7 of this
test report

Test specification

Port: Enclosure

Frequency range: 0,009 MHz – 26000 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

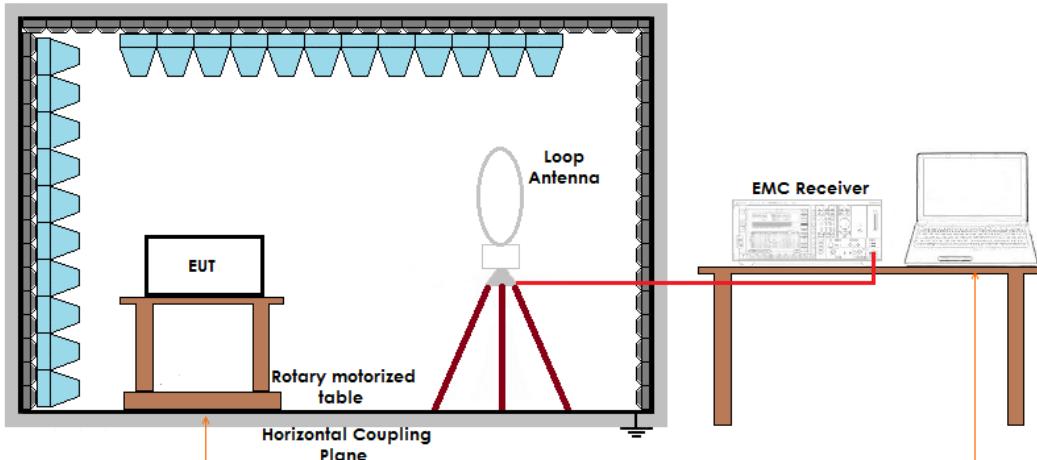
Acceptance limits

Frequency range (MHz)	Test distance (m)	Limits [dB(µV/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(µV/m)]	Peak detector [dB(µV/m)]
Above 1000	3	53,9	73,9

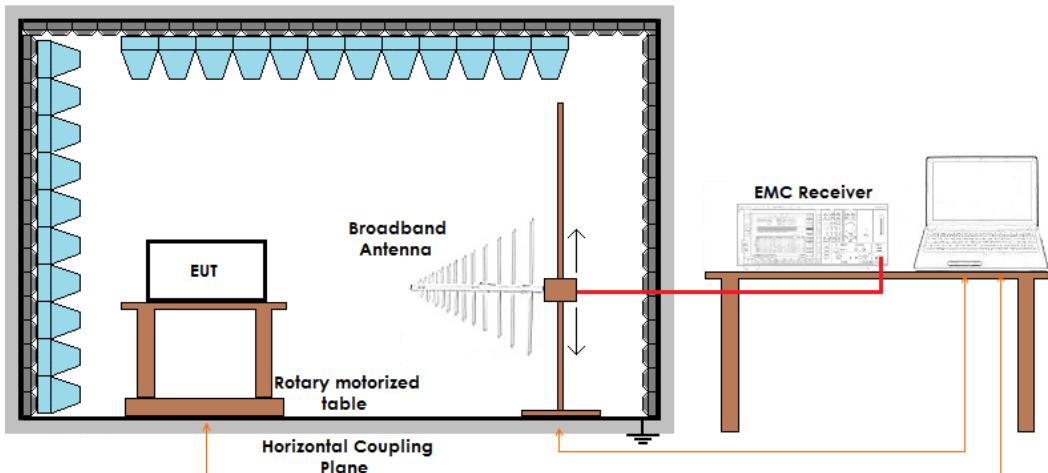
Remarks: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector. The results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

Setup

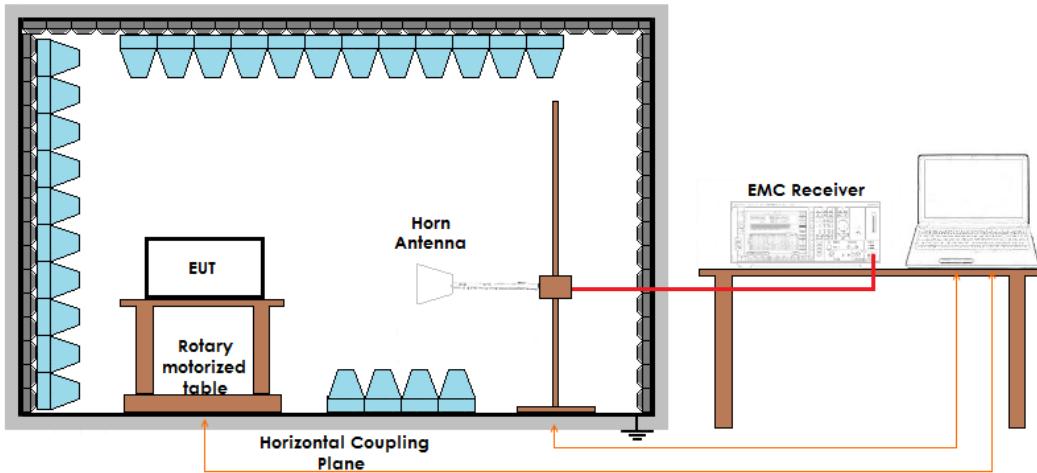
Frequency \leq 30 MHz



Frequency \leq 1 GHz



Frequency $>$ 1 GHz





Result

Polarization	Frequency Range (MHz)	Graphs	Remarks	Result
Loop	0,009 – 30	G19089801	Worst case	Complies
H	30 – 300	G19089802	Worst case	Complies
V	30 – 300	G19089803	Worst case	Complies
V	300 – 1000	G19089804	Worst case	Complies
H	300 – 1000	G19089805	Worst case	Complies
V	1000 – 4000	G19089806	Lowest channel	Complies
H	1000 – 4000	G19089807	Lowest channel	Complies
H	1000 – 4000	G19089808	Medium channel	Complies
V	1000 – 4000	G19089809	Medium channel	Complies
V	1000 – 4000	G19089810	Highest channel	Complies
H	1000 – 4000	G19089811	Highest channel	Complies
H	4000 – 10000	G19089812	Highest channel	Complies
V	4000 – 10000	G19089813	Highest channel	Complies
V	4000 – 10000	G19089814	Medium channel	Complies
H	4000 – 10000	G19089815	Medium channel	Complies
H	4000 – 10000	G19089816	Lowest channel	Complies
V	4000 – 10000	G19089817	Lowest channel	Complies
V	10000 – 18000	G19089818	Lowest channel	Complies
H	10000 – 18000	G19089819	Lowest channel	Complies
H	10000 – 18000	G19089820	Medium channel	Complies
V	10000 – 18000	G19089821	Medium channel	Complies
V	10000 – 18000	G19089822	Highest channel	Complies
H	10000 – 18000	G19089823	Highest channel	Complies
H	18000 – 26000	G19089824	Worst case	Complies
V	18000 – 26000	G19089825	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 different conversion factors, based on the measuring distance provided by the standard. Peaks above the limits are caused by the nominal transmitting frequencies or fall into non-restricted frequency bands. For the assessment of conformity of these latter peaks, see cl. 10.10 of this Test Report

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



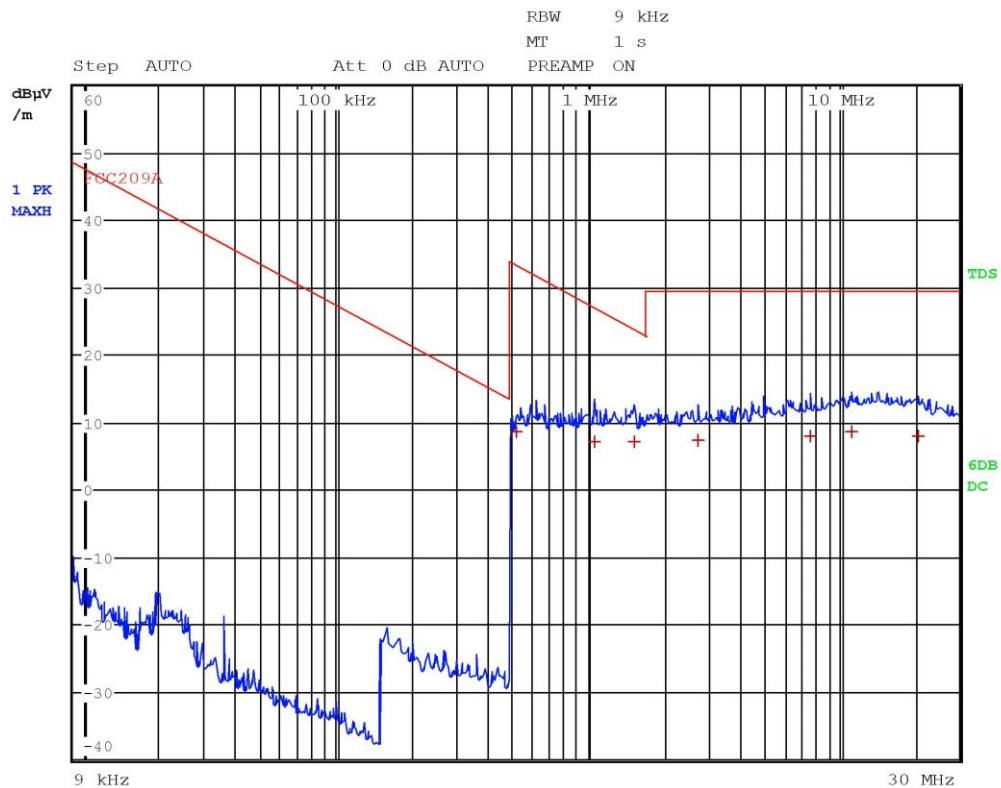
CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

Graphs



Segalla 19089801



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	FCC209A			
Trace2:	---			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
1 Quasi Peak	518 kHz	8.68	-24.62	
1 Quasi Peak	1.058 MHz	7.20	-19.90	
1 Quasi Peak	1.526 MHz	7.21	-16.71	
1 Quasi Peak	2.722 MHz	7.30	-22.23	
1 Quasi Peak	7.682 MHz	7.94	-21.59	
1 Quasi Peak	11.106 MHz	8.72	-20.81	
1 Quasi Peak	20.498 MHz	8.07	-21.46	

Segalla 19089801

CMC Centro Misure Compatibilità S.r.l.

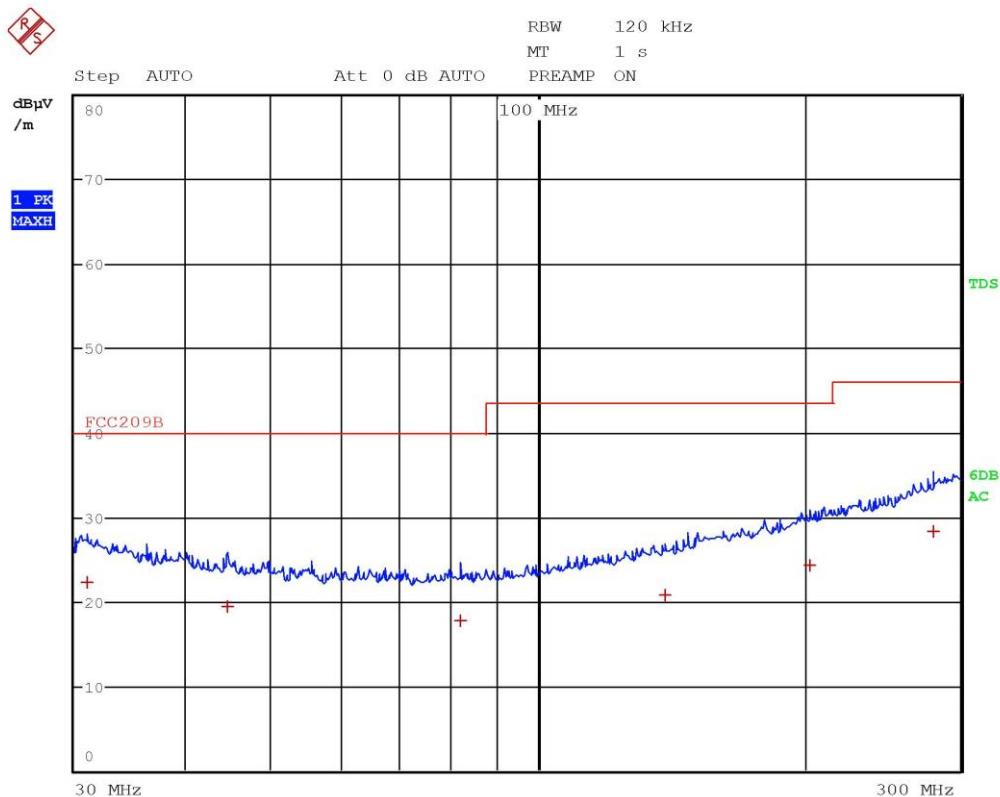


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089802



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	FCC209B			
Trace2:	---			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
1 Quasi Peak	31 MHz	22.23	-17.76	
1 Quasi Peak	44.6 MHz	19.47	-20.53	
1 Quasi Peak	81.96 MHz	17.67	-22.32	
1 Quasi Peak	139.04 MHz	20.73	-22.78	
1 Quasi Peak	202.76 MHz	24.36	-19.15	
1 Quasi Peak	280.04 MHz	28.25	-17.76	

Segalla 19089802

CMC Centro Misure Compatibilità S.r.l.



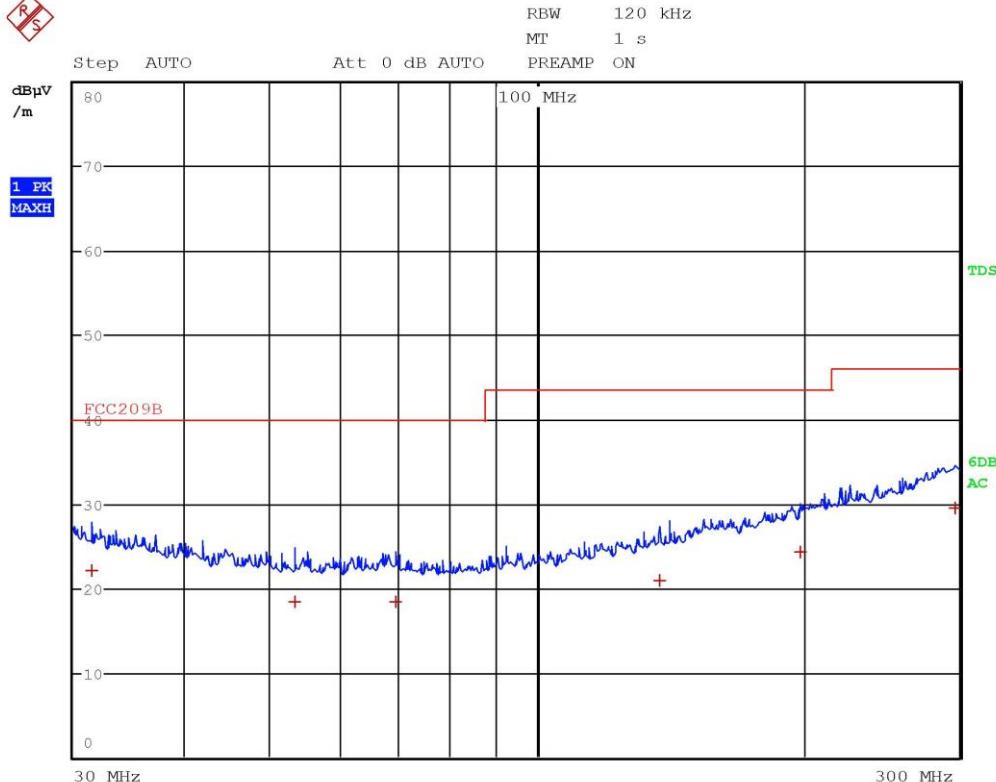
CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

R/S



Segalla 19089803



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	FCC209B			
Trace2:	---			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
1 Quasi Peak	31.44 MHz	22.04	-17.95	
1 Quasi Peak	53.24 MHz	18.45	-21.54	
1 Quasi Peak	69.24 MHz	18.34	-21.66	
1 Quasi Peak	137.92 MHz	20.85	-22.66	
1 Quasi Peak	198.04 MHz	24.20	-19.31	
1 Quasi Peak	297.08 MHz	29.49	-16.52	

Segalla 19089803

CMC Centro Misure Compatibilità S.r.l.

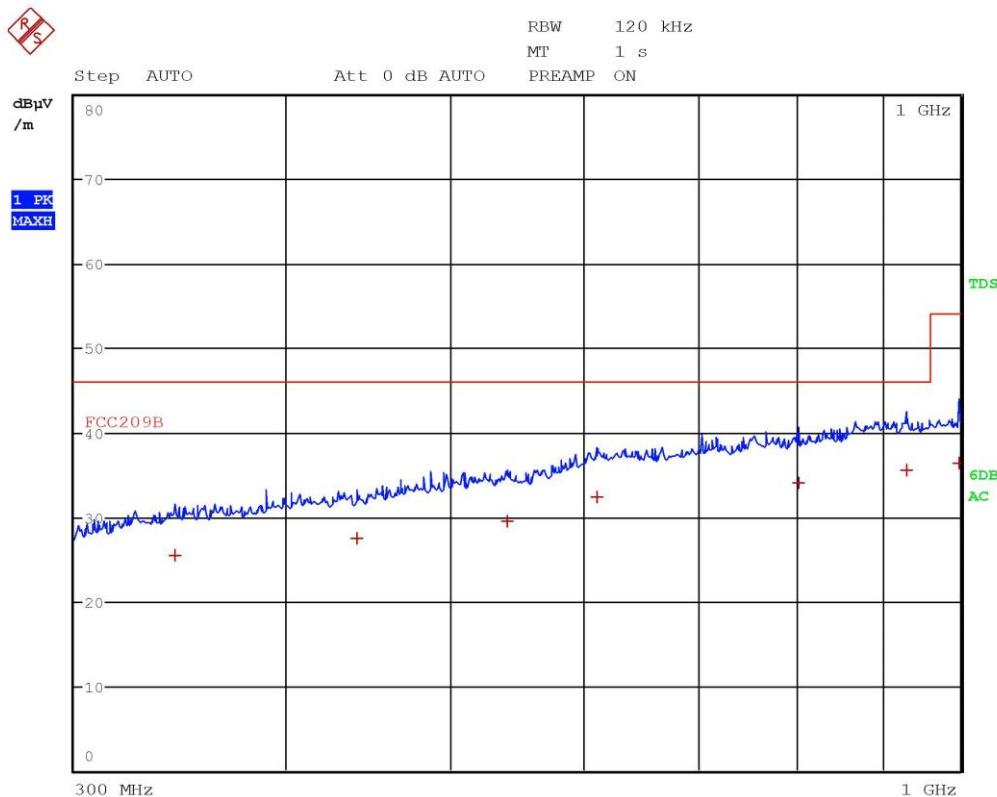


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089804



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	FCC209B			
Trace2:	---			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
1 Quasi Peak	343.84 MHz	25.54	-20.47	
1 Quasi Peak	440.6 MHz	27.46	-18.55	
1 Quasi Peak	539.84 MHz	29.53	-16.48	
1 Quasi Peak	610.64 MHz	32.30	-13.71	
1 Quasi Peak	801.92 MHz	34.09	-11.92	
1 Quasi Peak	928.84 MHz	35.63	-10.39	
1 Quasi Peak	997.76 MHz	36.32	-17.65	

Segalla 19089804

CMC Centro Misure Compatibilità S.r.l.

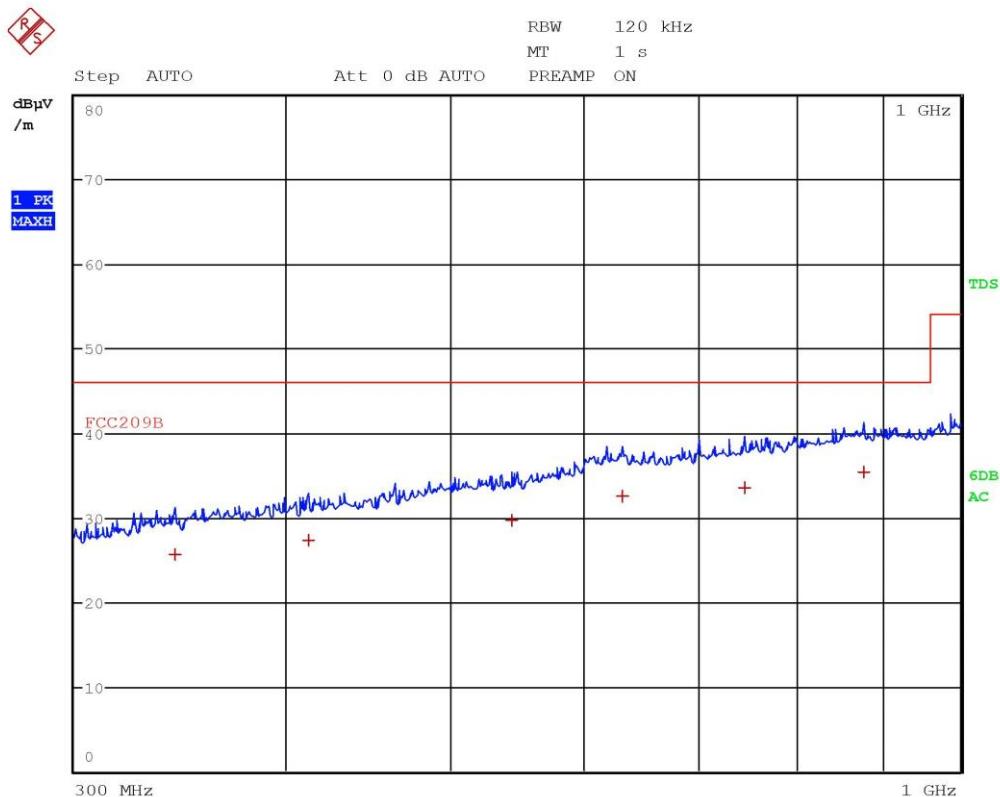


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089805

CMC Centro Misure Compatibilità S.r.l.



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	FCC209B			
Trace2:	---			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
1 Quasi Peak	344.32 MHz	25.57	-20.44	
1 Quasi Peak	412.56 MHz	27.27	-18.74	
1 Quasi Peak	543.8 MHz	29.61	-16.40	
1 Quasi Peak	631.16 MHz	32.43	-13.58	
1 Quasi Peak	746.4 MHz	33.52	-12.49	
1 Quasi Peak	876.28 MHz	35.36	-10.65	

Segalla 19089805

CMC Centro Misure Compatibilità S.r.l.

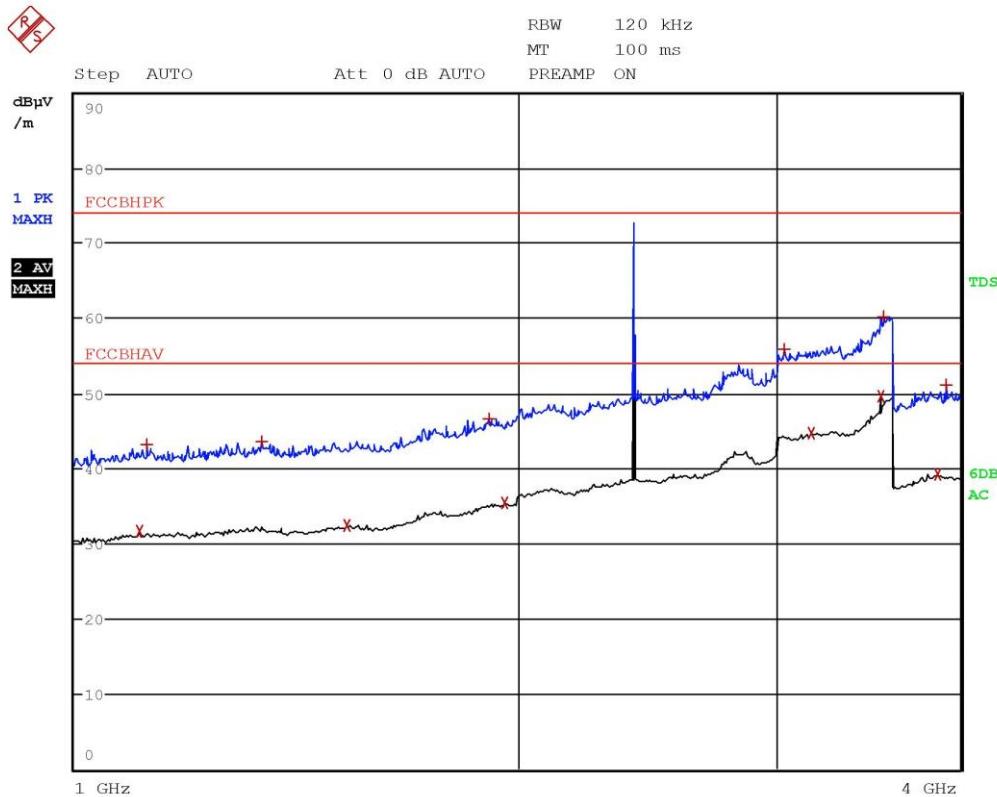


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089806



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK	LEVEL dB μ V/m	DELTA	LIMIT dB
Trace2:	FCCBHAV			
Trace3:	---			
	TRACE	FREQUENCY		
2	Average	1.1072 GHz	31.59	-22.38
1	Max Peak	1.1204 GHz	43.26	-30.71
1	Max Peak	1.3392 GHz	43.56	-30.41
2	Average	1.53 GHz	32.43	-21.54
1	Max Peak	1.9112 GHz	46.59	-27.38
2	Average	1.9596 GHz	35.41	-18.56
1	Max Peak	3.0372 GHz	55.90	-18.07
2	Average	3.1676 GHz	44.65	-9.32
2	Average	3.5316 GHz	49.55	-4.42
1	Max Peak	3.5468 GHz	60.24	-13.73
2	Average	3.8572 GHz	39.25	-14.72
1	Max Peak	3.9108 GHz	51.12	-22.86

Segalla 19089806

CMC Centro Misure Compatibilità S.r.l.

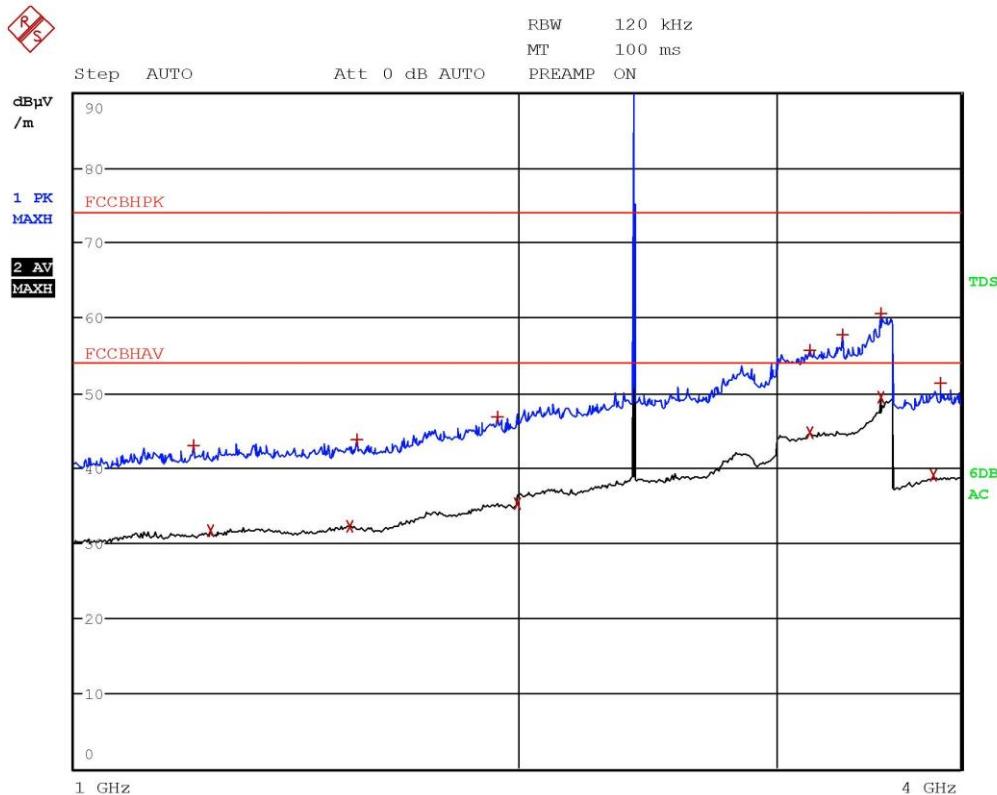


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089807



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK	LEVEL dB μ V/m	DELTA	LIMIT dB
Trace2:	FCCBHAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
1 Max Peak	1.2056 GHz	42.94	-31.03	
2 Average	1.2368 GHz	31.71	-22.26	
2 Average	1.5396 GHz	32.27	-21.70	
1 Max Peak	1.5552 GHz	43.71	-30.26	
1 Max Peak	1.94 GHz	46.70	-27.27	
2 Average	2 GHz	35.29	-18.68	
1 Max Peak	3.1596 GHz	55.65	-18.32	
2 Average	3.1632 GHz	44.63	-9.34	
1 Max Peak	3.3256 GHz	57.72	-16.25	
1 Max Peak	3.5316 GHz	60.51	-13.46	
2 Average	3.5316 GHz	49.44	-4.53	
2 Average	3.838 GHz	38.97	-15.00	
1 Max Peak	3.8744 GHz	51.31	-22.66	

Segalla 19089807

CMC Centro Misure Compatibilità S.r.l.

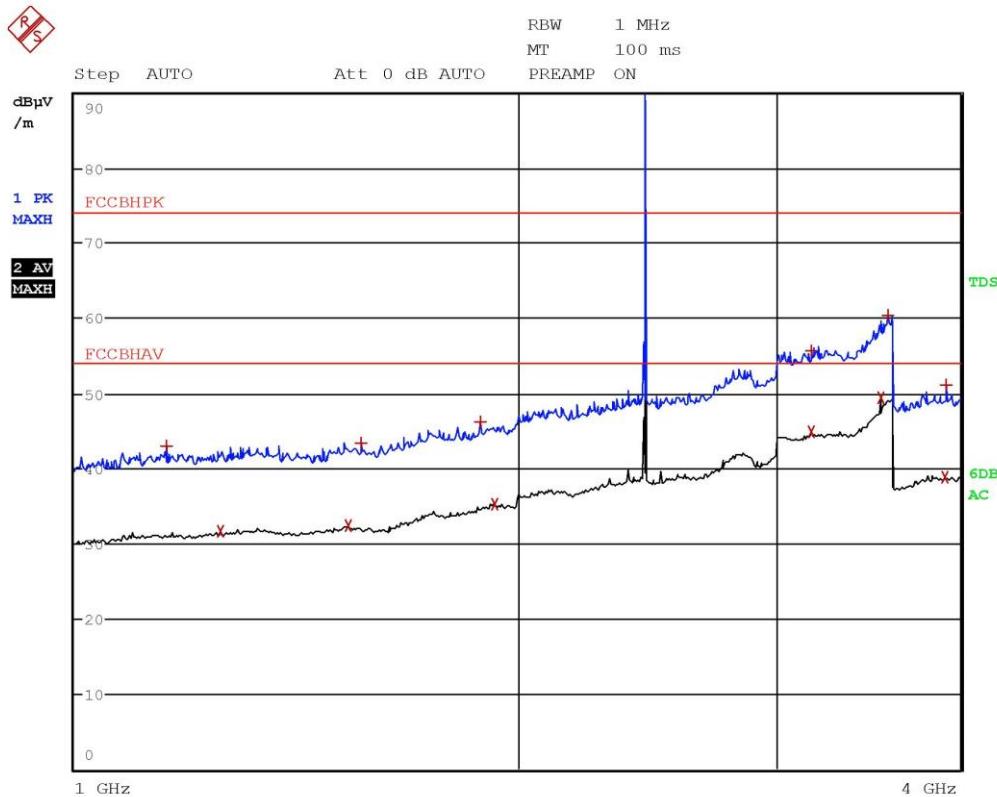


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089808



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK	LEVEL dB μ V/m	DELTA	LIMIT dB
Trace2:	FCCBHAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
1 Max Peak	1.1552 GHz	43.10	-30.87	
2 Average	1.2564 GHz	31.63	-22.34	
2 Average	1.5356 GHz	32.40	-21.57	
1 Max Peak	1.5664 GHz	43.43	-30.54	
1 Max Peak	1.8864 GHz	46.29	-27.68	
2 Average	1.9316 GHz	35.31	-18.66	
1 Max Peak	3.1672 GHz	55.65	-18.32	
2 Average	3.17 GHz	44.82	-9.15	
2 Average	3.5316 GHz	49.49	-4.48	
1 Max Peak	3.5732 GHz	60.38	-13.59	
2 Average	3.9064 GHz	38.93	-15.04	
1 Max Peak	3.9156 GHz	51.16	-22.81	

Segalla 19089808

CMC Centro Misure Compatibilità S.r.l.

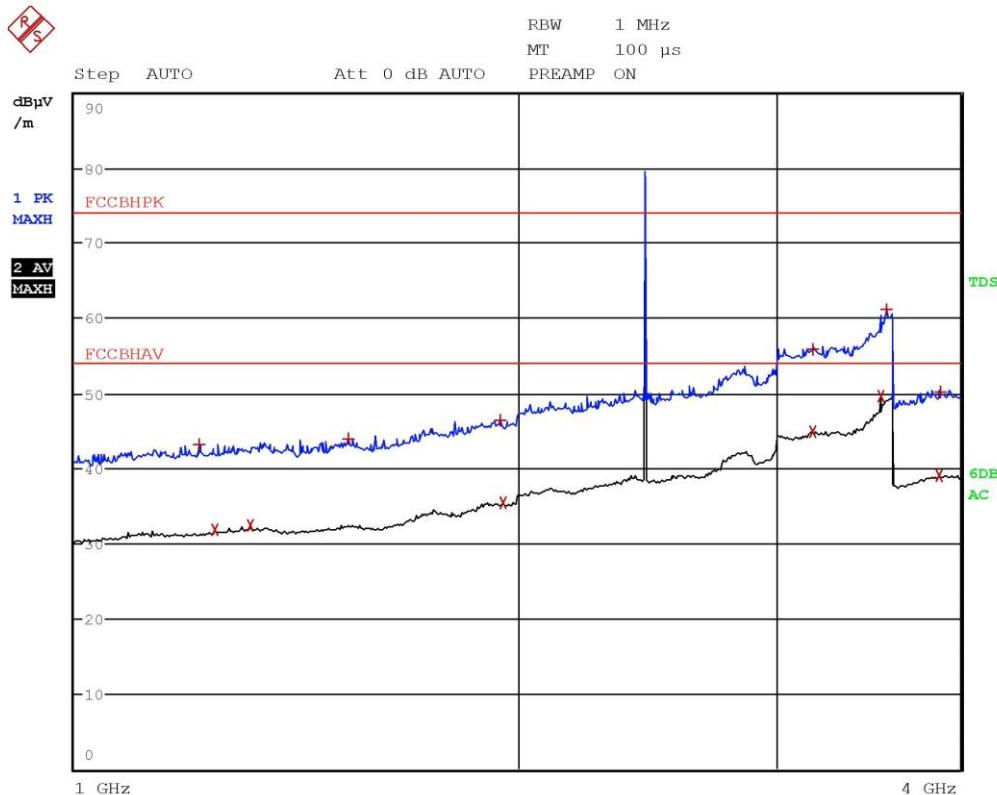


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089809



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK	LEVEL dB μ V/m	DELTA	LIMIT dB
Trace2:	FCCBHAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
1 Max Peak	1.2156 GHz	43.28	-30.70	
2 Average	1.2448 GHz	31.83	-22.14	
2 Average	1.3164 GHz	32.50	-21.47	
1 Max Peak	1.536 GHz	43.94	-30.03	
1 Max Peak	1.9452 GHz	46.38	-27.59	
2 Average	1.9564 GHz	35.49	-18.48	
1 Max Peak	3.174 GHz	55.91	-18.06	
2 Average	3.1748 GHz	44.91	-9.06	
2 Average	3.5316 GHz	49.68	-4.29	
1 Max Peak	3.562 GHz	61.10	-12.87	
2 Average	3.8688 GHz	38.97	-15.00	
1 Max Peak	3.8776 GHz	50.26	-23.71	

Segalla 19089809

CMC Centro Misure Compatibilità S.r.l.

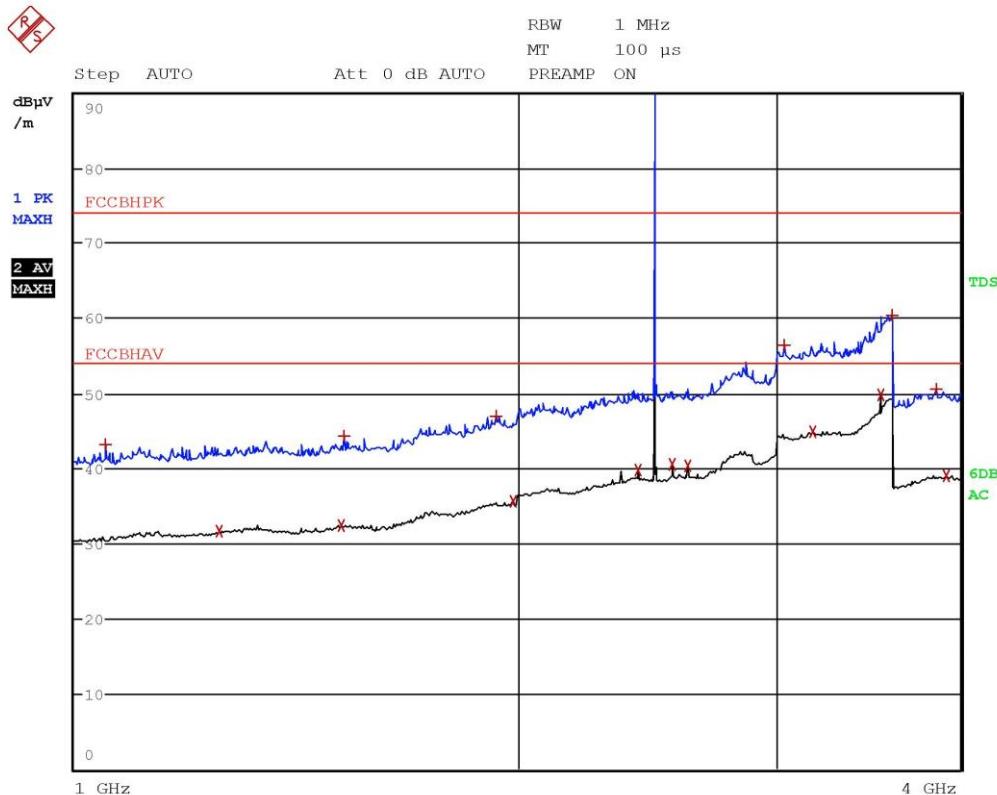


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089810



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK	LEVEL dB μ V/m	DELTA	LIMIT dB
Trace2:	FCCBHAV			
Trace3:	---			
	TRACE	FREQUENCY		
1	Max Peak	1.0496 GHz	43.12	-30.85
2	Average	1.2548 GHz	31.65	-22.32
2	Average	1.5184 GHz	32.48	-21.49
1	Max Peak	1.5248 GHz	44.32	-29.65
1	Max Peak	1.9356 GHz	46.96	-27.02
2	Average	1.988 GHz	35.72	-18.26
2	Average	2.4168 GHz	39.75	-14.22
2	Average	2.5452 GHz	40.49	-13.48
2	Average	2.6092 GHz	40.41	-13.56
1	Max Peak	3.034 GHz	56.35	-17.62
2	Average	3.1732 GHz	44.85	-9.12
2	Average	3.5316 GHz	49.81	-4.16
1	Max Peak	3.5996 GHz	60.40	-13.57
1	Max Peak	3.848 GHz	50.59	-23.38
2	Average	3.9144 GHz	39.06	-14.91

Segalla 19089810

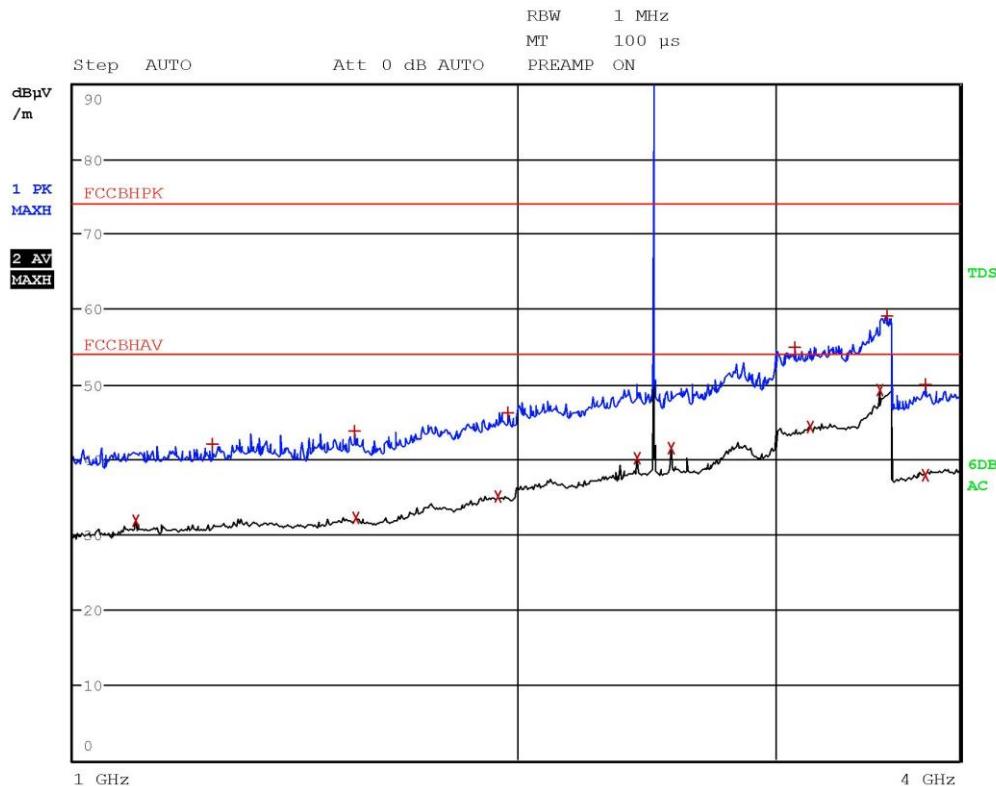


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089811

CMC Centro Misure Compatibilità S.r.l.



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK	LEVEL dB μ V/m	DELTA	LIMIT dB
Trace2:	FCCBHAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
2 Average	1.1012 GHz	31.79	-22.18	
1 Max Peak	1.242 GHz	42.15	-31.82	
1 Max Peak	1.5536 GHz	43.70	-30.27	
2 Average	1.5552 GHz	32.32	-21.65	
2 Average	1.9444 GHz	35.13	-18.85	
1 Max Peak	1.9748 GHz	46.23	-27.74	
2 Average	2.4172 GHz	40.20	-13.77	
2 Average	2.5448 GHz	41.51	-12.46	
1 Max Peak	3.0896 GHz	55.01	-18.96	
2 Average	3.1688 GHz	44.37	-9.60	
2 Average	3.5316 GHz	49.18	-4.79	
1 Max Peak	3.574 GHz	59.08	-14.89	
1 Max Peak	3.7884 GHz	49.95	-24.02	
2 Average	3.7916 GHz	37.92	-16.05	

Segalla 19089811

CMC Centro Misure Compatibilità S.r.l.

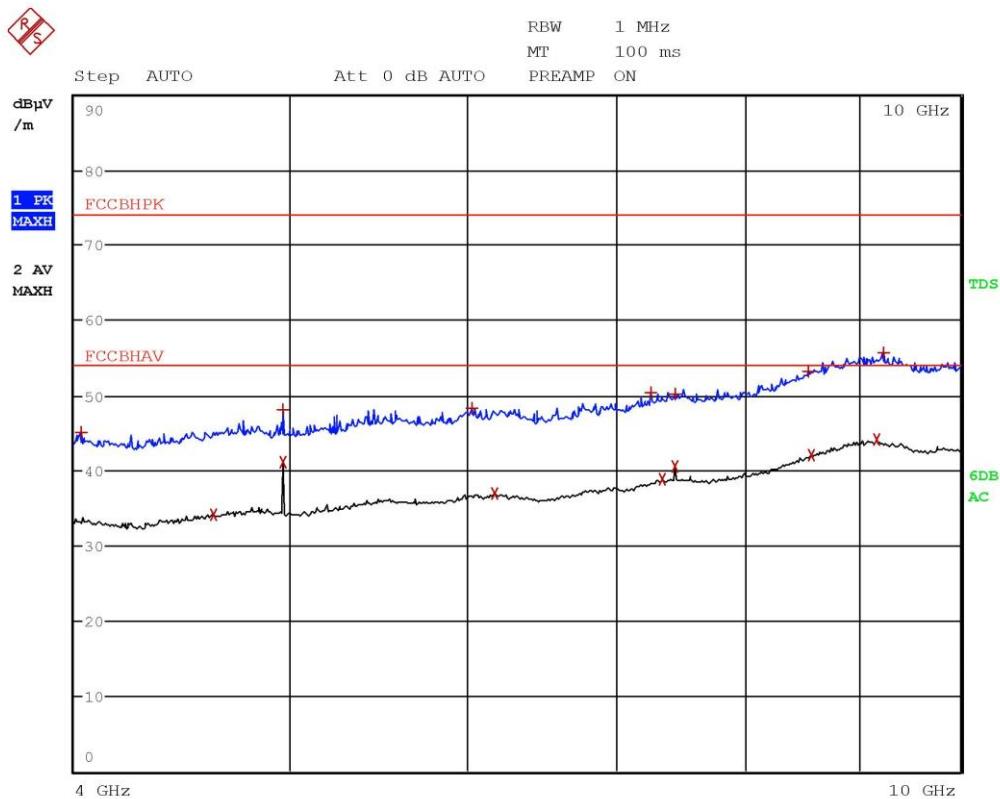


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089812

CMC Centro Misure Compatibilità S.r.l.



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK	LEVEL dB μ V/m	DELTA	LIMIT dB
Trace2:	FCCBHAV			
Trace3:	---			
	TRACE	FREQUENCY		
1	Max Peak	4.0268 GHz	45.15	-28.82
2	Average	4.6168 GHz	34.21	-19.77
2	Average	4.960 GHz	41.15	-12.83
1	Max Peak	4.9604 GHz	48.17	-25.80
1	Max Peak	6.036 GHz	48.37	-25.60
2	Average	6.1812 GHz	36.97	-17.00
1	Max Peak	7.2652 GHz	50.47	-23.50
2	Average	7.3448 GHz	38.77	-15.21
2	Average	7.4408 GHz	40.50	-13.47
1	Max Peak	7.4412 GHz	50.14	-23.83
1	Max Peak	8.5436 GHz	53.31	-20.66
2	Average	8.5672 GHz	41.99	-11.98
2	Average	9.1672 GHz	44.08	-9.89
1	Max Peak	9.2416 GHz	55.64	-18.33

Segalla 19089812

CMC Centro Misure Compatibilità S.r.l.

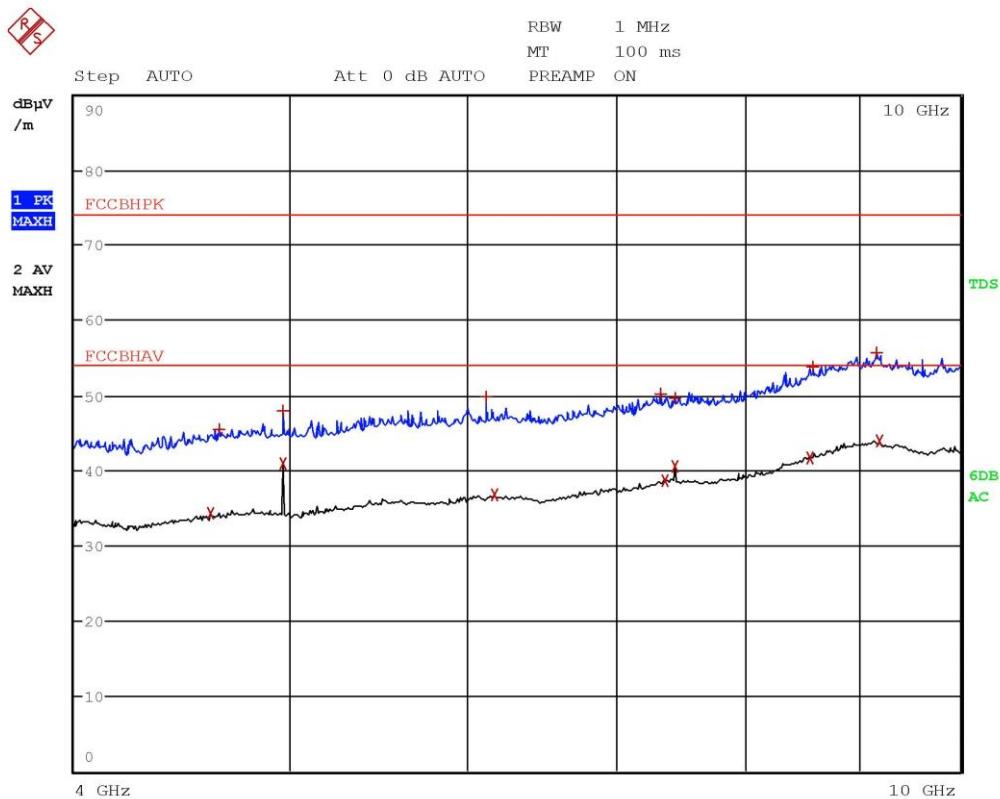


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089813



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK	LEVEL dB μ V/m	DELTA	LIMIT dB
Trace2:	FCCBHAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
2 Average	4.6072 GHz	34.34	-19.63	
1 Max Peak	4.6468 GHz	45.55	-28.43	
1 Max Peak	4.960 GHz	47.91	-26.06	
2 Average	4.960 GHz	40.92	-13.05	
1 Max Peak	6.1196 GHz	49.89	-24.08	
2 Average	6.18 GHz	36.78	-17.19	
1 Max Peak	7.3352 GHz	50.16	-23.81	
2 Average	7.364 GHz	38.63	-15.34	
2 Average	7.4408 GHz	40.62	-13.35	
1 Max Peak	7.4412 GHz	49.71	-24.26	
2 Average	8.5584 GHz	41.76	-12.21	
1 Max Peak	8.5772 GHz	53.82	-20.15	
1 Max Peak	9.1636 GHz	55.75	-18.22	
2 Average	9.1992 GHz	43.89	-10.08	

Segalla 19089813

CMC Centro Misure Compatibilità S.r.l.

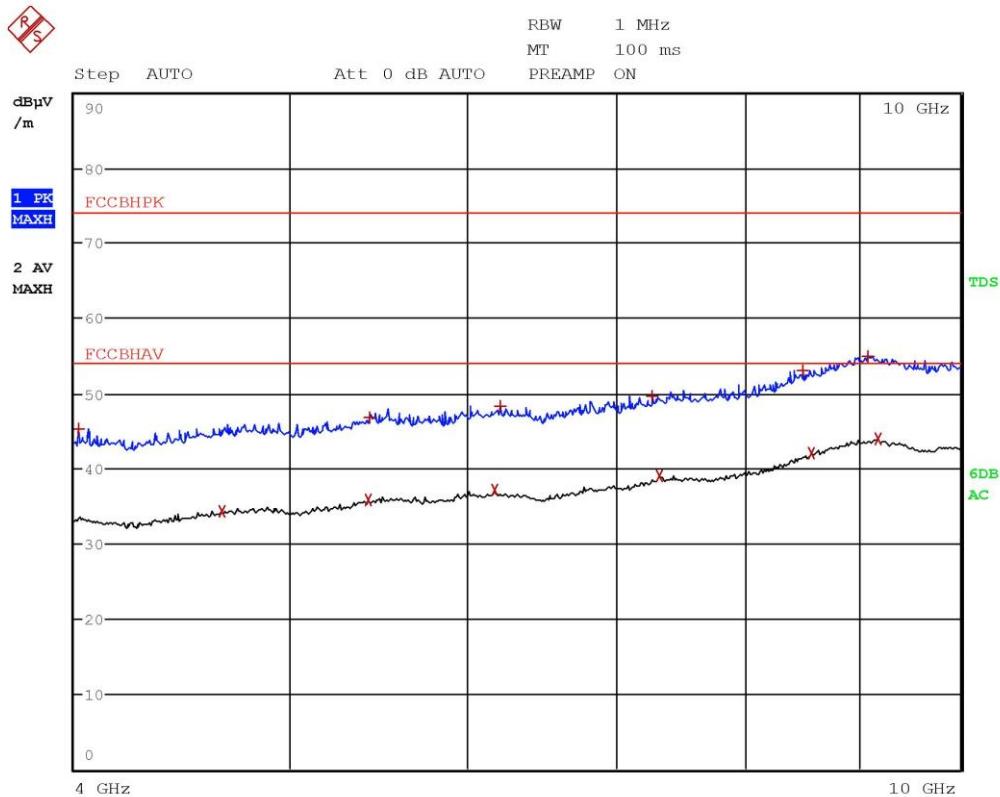


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089814



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK	LEVEL dB μ V/m	DELTA	LIMIT dB
Trace2:	FCCBHAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
1 Max Peak	4.02 GHz	45.36	-28.61	
2 Average	4.6572 GHz	34.37	-19.60	
2 Average	5.4176 GHz	35.82	-18.15	
1 Max Peak	5.4284 GHz	46.71	-27.26	
2 Average	6.178 GHz	37.08	-16.89	
1 Max Peak	6.2172 GHz	48.36	-25.61	
1 Max Peak	7.2688 GHz	49.63	-24.34	
2 Average	7.3228 GHz	39.11	-14.86	
1 Max Peak	8.4964 GHz	53.07	-20.90	
2 Average	8.5724 GHz	42.11	-11.86	
1 Max Peak	9.0896 GHz	54.94	-19.03	
2 Average	9.1784 GHz	43.91	-10.06	

Segalla 19089814

CMC Centro Misure Compatibilità S.r.l.

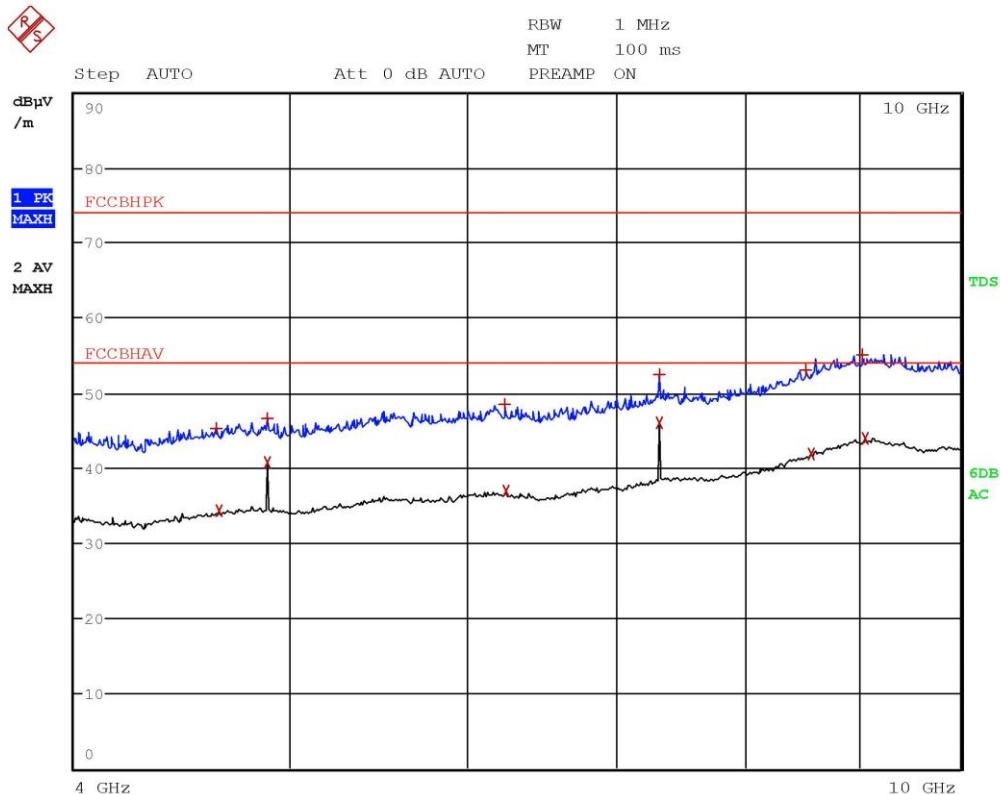


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089815



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK	LEVEL dB μ V/m	DELTA	LIMIT dB
Trace2:	FCCBHAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
1 Max Peak	4.634 GHz	45.36	-28.61	
2 Average	4.6456 GHz	34.39	-19.59	
1 Max Peak	4.8816 GHz	46.63	-27.34	
2 Average	4.882 GHz	40.69	-13.28	
1 Max Peak	6.2452 GHz	48.44	-25.53	
2 Average	6.2472 GHz	36.90	-17.07	
2 Average	7.3228 GHz	46.05	-7.92	
1 Max Peak	7.3232 GHz	52.50	-21.47	
1 Max Peak	8.5168 GHz	53.09	-20.88	
2 Average	8.5672 GHz	41.88	-12.09	
1 Max Peak	9.034 GHz	55.17	-18.80	
2 Average	9.064 GHz	43.91	-10.06	

Segalla 19089815

CMC Centro Misure Compatibilità S.r.l.

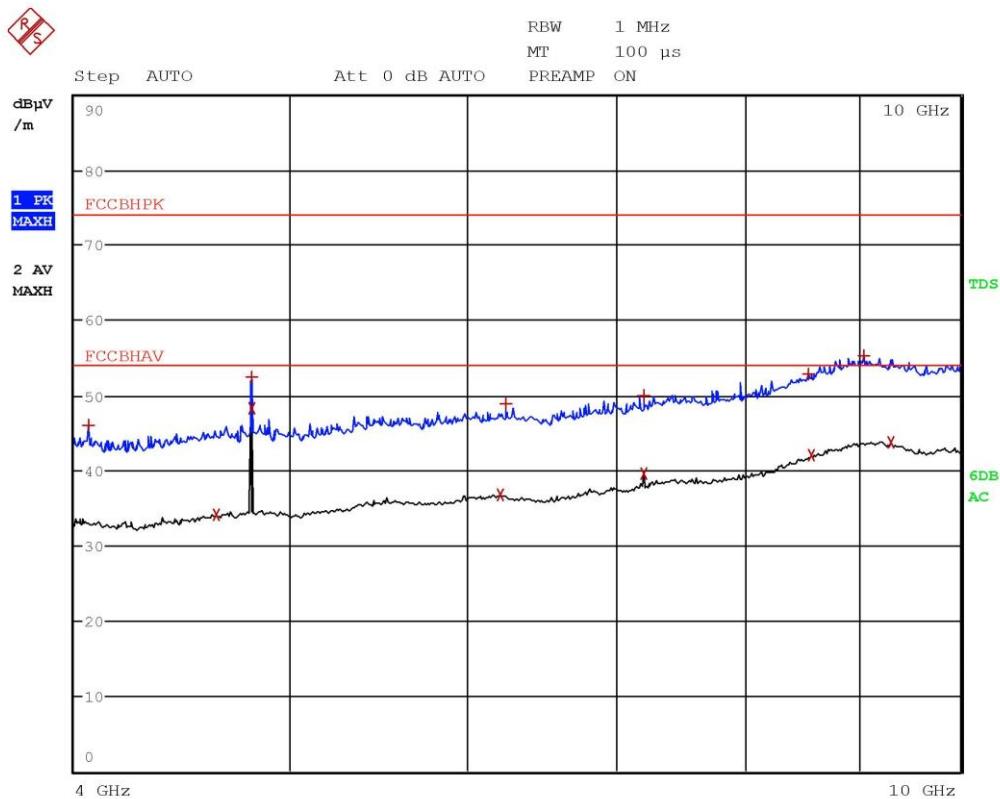


CMC
Centro Misure Compatibilità S.r.l.
Via della Fisica, 20
36016 Thiene (VI)



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168



Segalla 19089816



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK	LEVEL dB μ V/m	DELTA	LIMIT dB
Trace2:	FCCBHAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB μ V/m	DELTA	LIMIT dB
1 Max Peak	4.0592 GHz	46.03	-27.94	
2 Average	4.6352 GHz	34.20	-19.77	
2 Average	4.802 GHz	48.33	-5.64	
1 Max Peak	4.8024 GHz	52.38	-21.59	
2 Average	6.2176 GHz	36.82	-17.15	
1 Max Peak	6.2472 GHz	48.82	-25.15	
2 Average	7.2028 GHz	39.60	-14.38	
1 Max Peak	7.2052 GHz	50.00	-23.97	
1 Max Peak	8.5492 GHz	52.88	-21.09	
2 Average	8.5768 GHz	41.99	-11.98	
1 Max Peak	9.0536 GHz	55.31	-18.66	
2 Average	9.3072 GHz	43.77	-10.20	

Segalla 19089816

CMC Centro Misure Compatibilità S.r.l.