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

LAB N° 0168

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

TEST REPORT nr. R17213001

Federal Communication Commission (FCC)

Test item

Description .....: DISHWASHER
Trademark .....: BEKO
Model/Type .....: FCC E8P (MOD. DIT25410)
FCC ID .....: 2AO7AARWM01

Test Specification

Standard.....: FCC Rules & Regulations, Title 47:2017
Part 15 paragraph(s): 203, 207, 209 and 247

Client's name .....: ARCELIK A.S. DISHWASHER PLANT
Address .....: Altinordu Cad No 3 Osb Sincan Ankara, 06935 – TURKEY

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

Report

Tested by .....: A. Bertezzolo

Approved by .....: R. Beghetto – *Laboratory Manager*
Date of issue .....: 16.10.18
Contents.....: 244 pages

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1. Summary

Standard:

FCC Rules & Regulations, Title 47:2017
Part 15 paragraph(s): 203, 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	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

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	:	120 V ~ 60 Hz single-phase + earth
Maximum power setting	:	11
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: 2412 MHz F_M: 2437 MHz F_H: 2462 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	:	182474

3. Testing and sampling

Date of receipt of test item	:	11.10.17
Testing start date	:	21.11.17
Testing end date	:	20.09.18
Samples tested nr.	:	1
		RF conducted tests (see cl. 10.4, 10.6 and 10.7 of this Test Report) have been performed directly on WiFi radio module;
		All other tests have been performed on full dishwasher
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 P171191

4. Operative conditions

EUT exercising ..... :	EUT supplied and switched ON, standby mode.
	Radiated disturbance test on frequencies below 1 GHz and continuous disturbance voltage test have been performed with EUT on "intensive 70 °C" cycle.
	Maximum settable power = 11, due to the spurious emission and to the band edge.
	All measurements have been performed with power = 11.
	Antenna Ant 0 has been set via software for all tests as worst case
Test configuration ..... :	EUT classified as floor-standing equipment

5. Equipment list

Id. number	Manufacturer	Model	Description	Serial number	Last calibration	Due date calibration
CMC S010	Rohde & Schwarz	ESH3-Z2	Limitatore di impulsi	--	January '17	January '18
CMC S164	Rohde & Schwarz	ESU26	Receiver 20 Hz - 26.5 GHz	100052	January '17	January '18
CMC S200	Schwarzbeck	NSLK 8128	V-LISN	8128-273	January '17	January '18
CMC S206	Rohde & Schwarz	ESCI 7	EMC Receiver 9KHz-7GHz	100781	January '17	January '18
CMC S241	Schwarzbeck	BBV 9718	Broadband Preamplifer (0,5-18GHz)	9718-126	January '17	January '18
CMC S251	Schwarzbeck	BBV 9745	Broadband Preamplifer (9kHz - 2GHz)	9745-0019	September '17	September '18
CMC S290	Schwarzbeck	BBHA 9170	Horn Antenna (15-26,5 GHz)	9170-043	October '16	October '19
CMC S295	Rohde & Schwarz	FSW43	Spectrum Analyzer 43GHz	104059	November '16	November '19
CMC S298	RIGOL	DSG3060	RF Signal Generator (9kHz-6GHz)	DSG3A183600076	November '17	November '18
20 dB attenuator					Calibrated before the tests	

6. 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	< 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	1,2 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

7. Reference documents

Reference no.	*Description*
FCC Rules and Regulation Title 47 part 15:2017	--
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
KDB 558074 D01 DTS Meas Guidance v04	Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247
Internal Procedure PM001 rev. 3.0 (Quality Manual)	Measure Procedure
Internal procedure INC_M rev. 9.0 (Quality Manual)	Measurement uncertainty calculation

8. Deviation from test specification

None

9. Test case verdicts

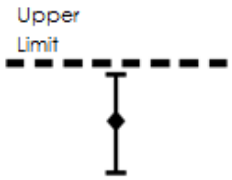
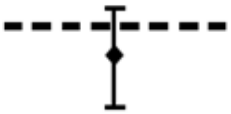
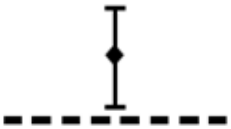
Test case does not apply to the test object	:	N.A.
Test item does meet the requirement	:	Complies
Test item does not meet the requirement	:	Does not comply
Test not performed	:	N.E.

10. 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.

10.1 Antenna requirements

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.203
- Internal procedure PM001
- See clause 4 of this test report
- Test date: November 21st, 2017
- Technician: A. Bertezzolo

Test configuration

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 (%)*
23	100	42

Result

Antenna Type	*External R.F. power amplifier*	*Gain*	*Remarks*	*Results*
Integral antenna (not used)	--	--	--	--
Internal antenna	Not Present	2 dBi	--	Complies

Result: The requirements are met

10.2 Conducted emissions

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.207
- ANSI C63.10 cl. 6.2
- Internal procedure PM001
- See clause 4 of this test report
- Test date: June 18th, 2018
- Technician: A. Bertezzolo

Test configuration and test method

Test site:
Shielded chamber

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

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

Test specification

Port: Main port
Frequency range: 150 kHz – 30 MHz
EUT – LISN distance: 80 cm
EUT – reference ground plane distance: 10 mm

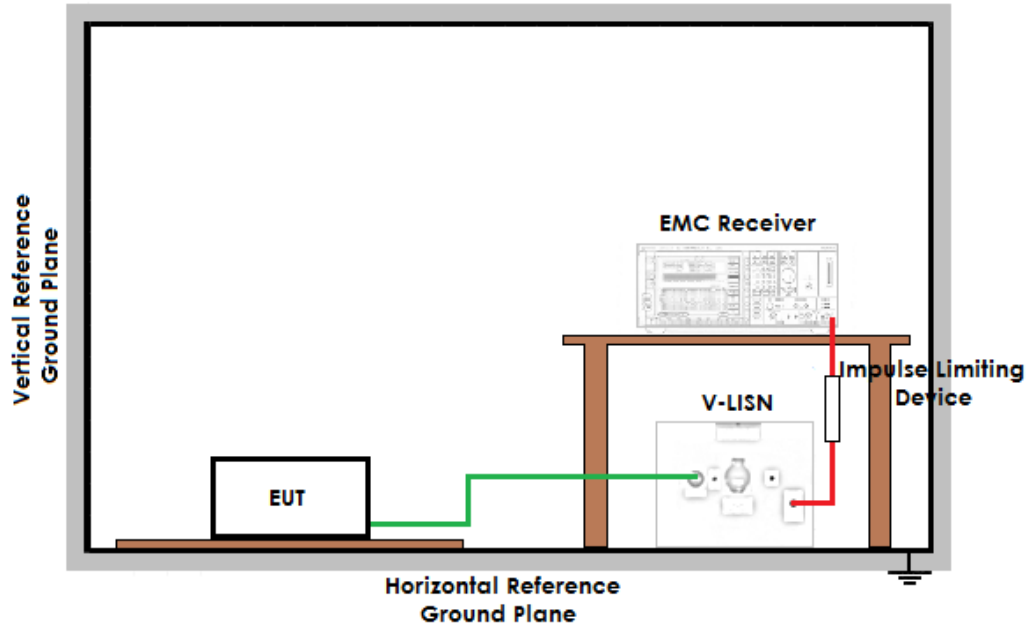
Environmental conditions

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

WiFi b mode

Line	*Graphs*	*Remarks*	*Result*
N	G172130N01	--	Complies
L1	G172130N02	--	Complies
Remarks:	Tests performed on frequency channel that provide the highest emission level		

WiFi g mode

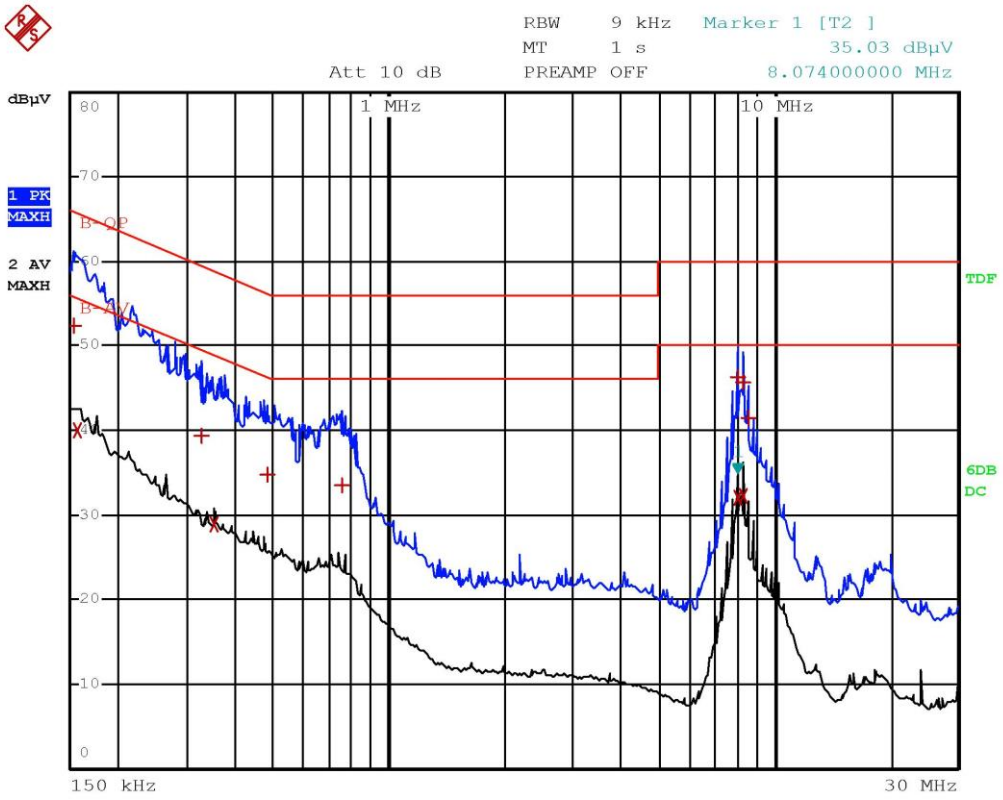
Line	*Graphs*	*Remarks*	*Result*
L1	G172130N03	--	Complies
N	G172130N04	--	Complies
Remarks:	Tests performed on frequency channel that provide the highest emission level		

WiFi n mode

Line	*Graphs*	*Remarks*	*Result*
N	G172130N05	--	Complies
L1	G172130N06	--	Complies
Remarks:	Tests performed on frequency channel that provide the highest emission level		

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

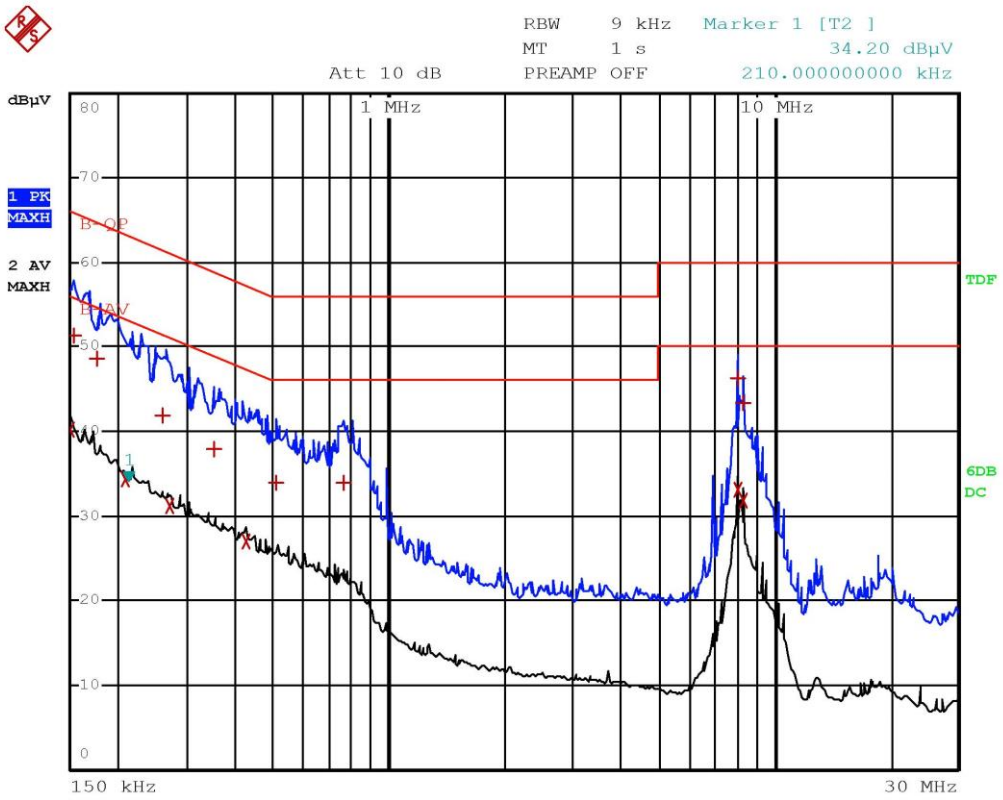
Graphs



Bertezzolo 172130N01

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	B-QP		
Trace2:	B-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	154 kHz	52.47	-13.30
2 Average	158 kHz	39.93	-15.63
1 Quasi Peak	326 kHz	39.40	-20.14
2 Average	350 kHz	28.93	-20.03
1 Quasi Peak	482 kHz	34.78	-21.52
1 Quasi Peak	754 kHz	33.58	-22.41
2 Average	8.074 MHz	32.00	-18.00
1 Quasi Peak	8.078 MHz	46.22	-13.77
1 Quasi Peak	8.326 MHz	45.69	-14.30
2 Average	8.326 MHz	32.23	-17.76
1 Quasi Peak	8.574 MHz	41.39	-18.60

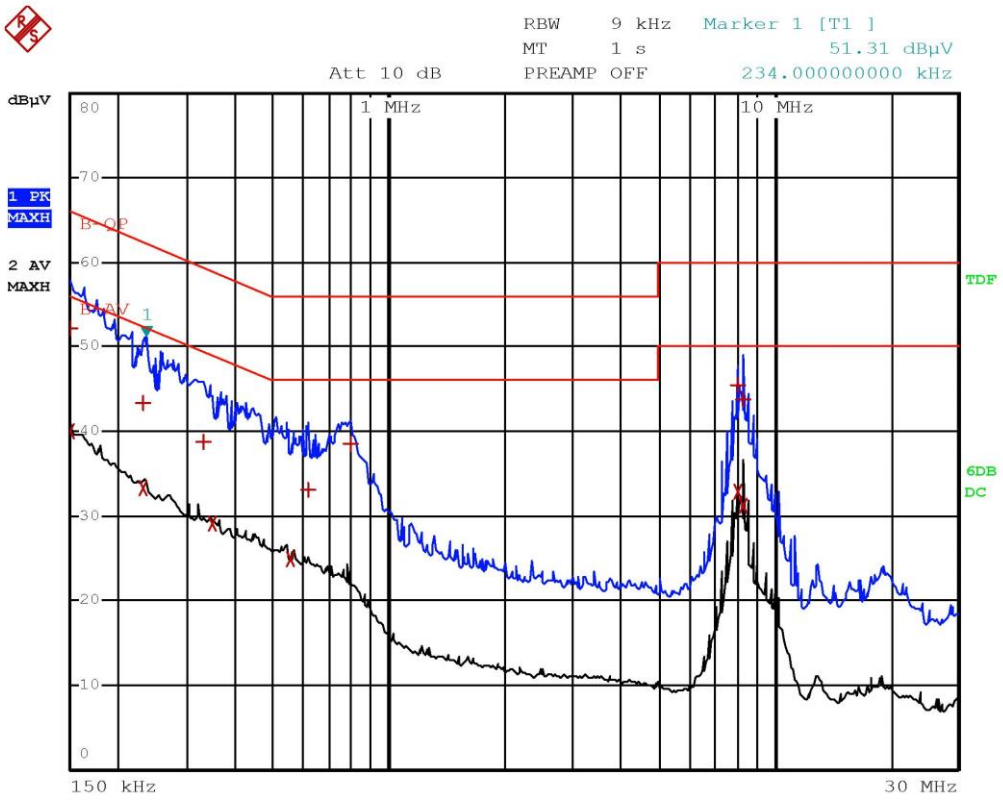
Bertezzolo 172130N01



Bertezzolo 172130N02

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	B-QP		
Trace2:	B-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
2 Average	150 kHz	40.10	-15.89
1 Quasi Peak	154 kHz	51.41	-14.36
1 Quasi Peak	178 kHz	48.52	-16.05
2 Average	210 kHz	34.36	-18.84
1 Quasi Peak	262 kHz	41.96	-19.40
2 Average	274 kHz	31.09	-19.90
1 Quasi Peak	350 kHz	37.87	-21.09
2 Average	426 kHz	27.04	-20.28
1 Quasi Peak	510 kHz	33.87	-22.12
1 Quasi Peak	762 kHz	33.92	-22.07
1 Quasi Peak	8.078 MHz	46.35	-13.64
2 Average	8.078 MHz	33.00	-16.99
1 Quasi Peak	8.33 MHz	43.40	-16.59
2 Average	8.33 MHz	31.73	-18.26

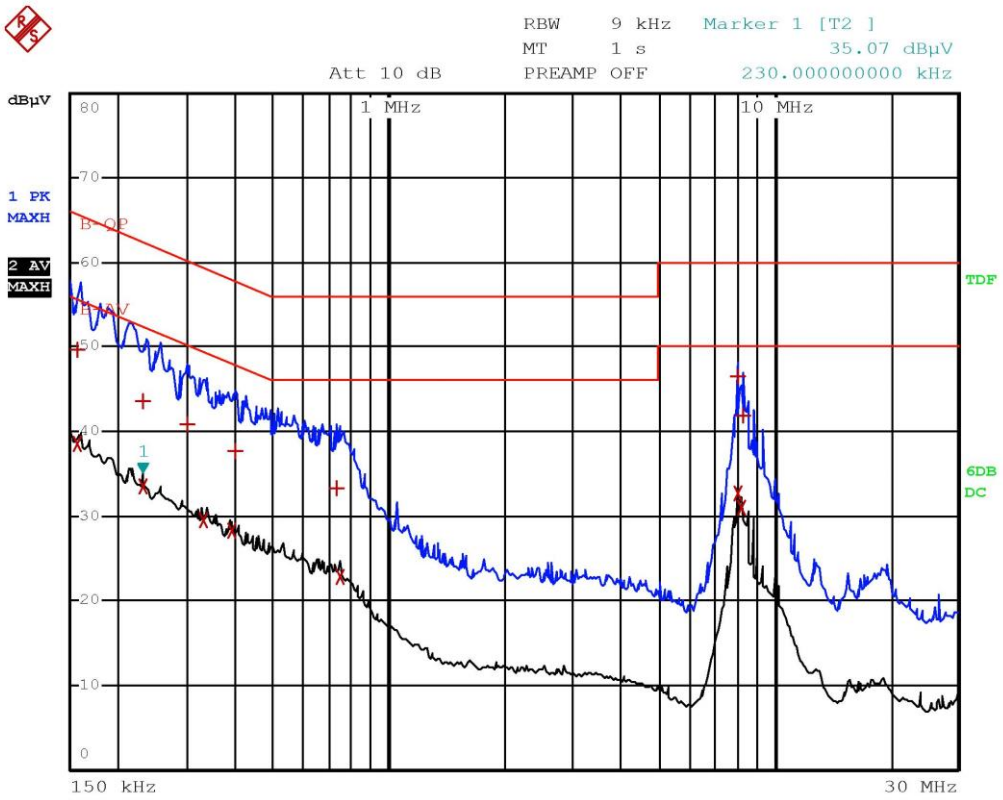
Bertezzolo 172130N02



Bertezzolo 172130N03

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	B-QP		
Trace2:	B-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	150 kHz	52.12	-13.87
2 Average	150 kHz	39.94	-16.05
2 Average	234 kHz	33.20	-19.10
1 Quasi Peak	234 kHz	43.39	-18.91
1 Quasi Peak	330 kHz	38.78	-20.66
2 Average	346 kHz	29.00	-20.05
2 Average	554 kHz	24.84	-21.15
1 Quasi Peak	614 kHz	33.03	-22.96
1 Quasi Peak	798 kHz	38.57	-17.42
1 Quasi Peak	8.082 MHz	45.49	-14.50
2 Average	8.082 MHz	32.91	-17.08
1 Quasi Peak	8.326 MHz	43.81	-16.19
2 Average	8.326 MHz	31.16	-18.83

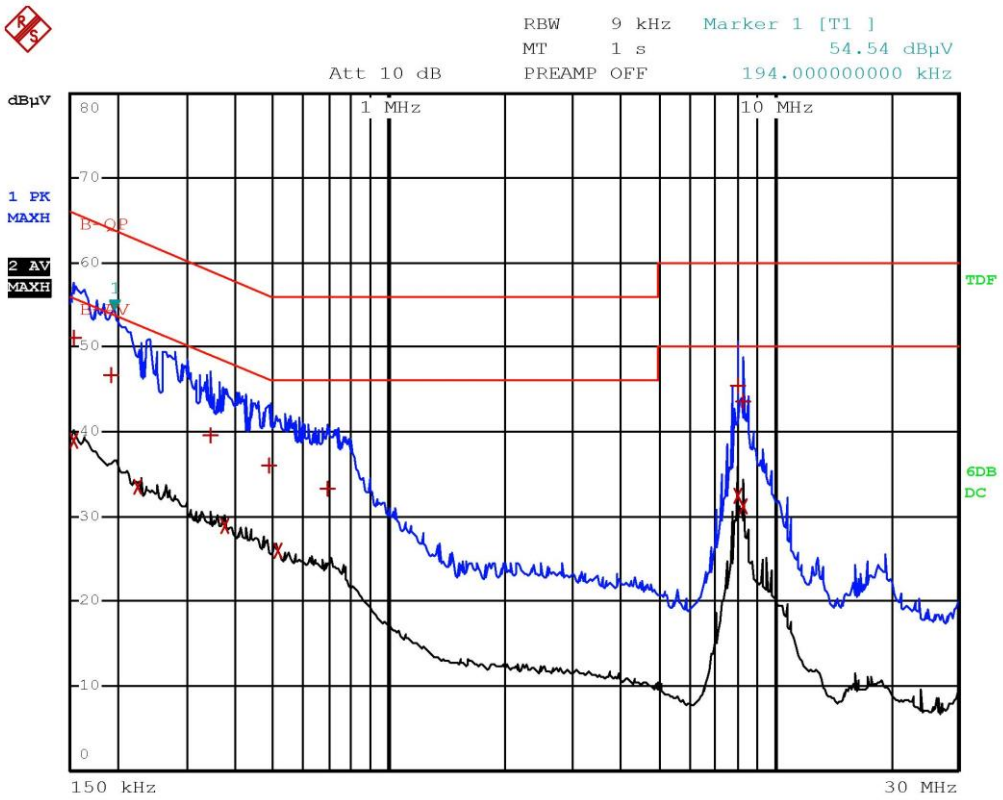
Bertezzolo 172130N03



Bertezzolo 172130N04

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	B-QP		
Trace2:	B-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	158 kHz	49.74	-15.82
2 Average	158 kHz	38.52	-17.04
2 Average	230 kHz	33.57	-18.87
1 Quasi Peak	234 kHz	43.67	-18.63
1 Quasi Peak	298 kHz	40.89	-19.40
2 Average	334 kHz	29.42	-19.92
2 Average	390 kHz	28.25	-19.81
1 Quasi Peak	398 kHz	37.61	-20.27
1 Quasi Peak	734 kHz	33.37	-22.62
2 Average	750 kHz	22.87	-23.12
1 Quasi Peak	8.082 MHz	46.50	-13.49
2 Average	8.082 MHz	32.71	-17.28
2 Average	8.206 MHz	30.91	-19.08
1 Quasi Peak	8.334 MHz	41.88	-18.11

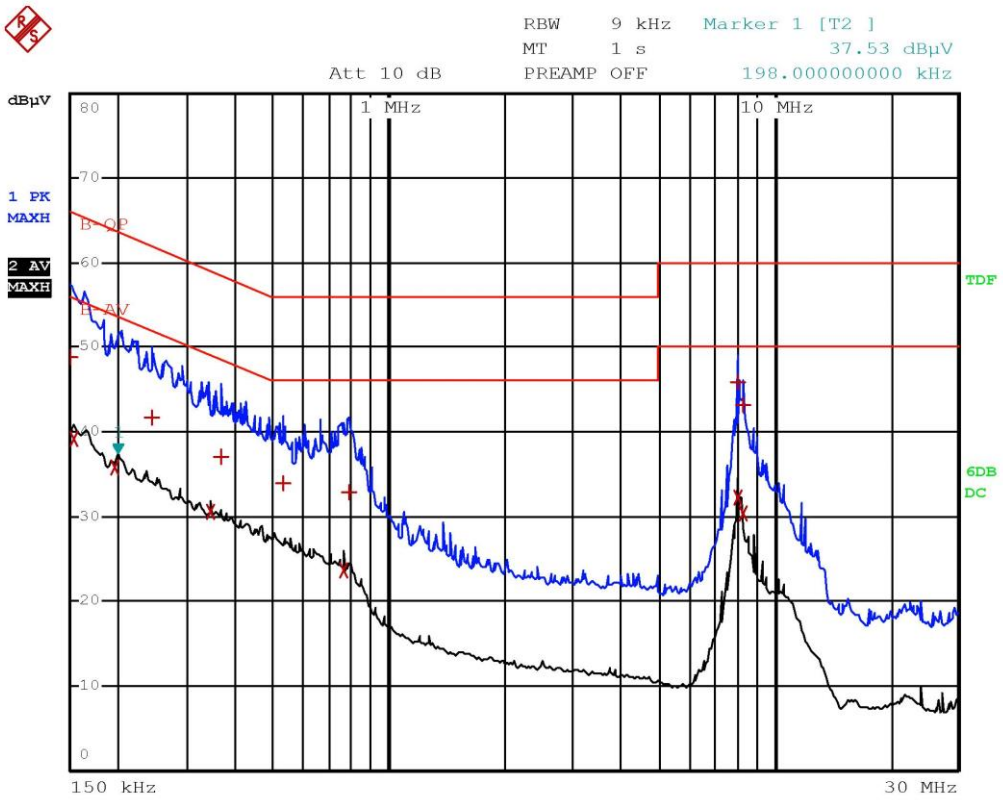
Bertezzolo 172130N04



Bertezzolo 172130N05

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	B-QP		
Trace2:	B-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	154 kHz	51.07	-14.70
2 Average	154 kHz	38.94	-16.84
1 Quasi Peak	194 kHz	46.78	-17.07
2 Average	226 kHz	33.56	-19.03
1 Quasi Peak	342 kHz	39.53	-19.62
2 Average	374 kHz	28.84	-19.56
1 Quasi Peak	490 kHz	35.98	-20.18
2 Average	514 kHz	25.89	-20.10
1 Quasi Peak	690 kHz	33.25	-22.75
1 Quasi Peak	8.082 MHz	45.48	-14.51
2 Average	8.082 MHz	32.43	-17.56
1 Quasi Peak	8.33 MHz	43.60	-16.39
2 Average	8.33 MHz	31.23	-18.77

Bertezzolo 172130N05



Bertezzolo 172130N06

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	B-QP		
Trace2:	B-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	150 kHz	48.87	-17.12
2 Average	154 kHz	39.23	-16.54
2 Average	198 kHz	35.77	-17.91
1 Quasi Peak	242 kHz	41.67	-20.35
2 Average	342 kHz	30.46	-18.68
1 Quasi Peak	366 kHz	37.03	-21.55
1 Quasi Peak	530 kHz	34.00	-21.99
2 Average	762 kHz	23.59	-22.40
1 Quasi Peak	790 kHz	32.85	-23.15
1 Quasi Peak	8.086 MHz	45.91	-14.08
2 Average	8.09 MHz	32.23	-17.77
2 Average	8.338 MHz	30.24	-19.75
1 Quasi Peak	8.338 MHz	43.17	-16.82

Bertezzolo 172130N06

Result: The requirements are met

10.3 Emissions in restricted frequency bands and in unrestricted frequency bands

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part. 15.209
- KDB 558074 D01 DTS Meas Guidance v04 cl. 11 and 12
- ANSI C63.10 cl. 6.4, 6.5 and 6.6
- Internal procedure PM001
- See clause 4 of this test report
- Test date: December 18th, 2017
- Technician: A. Bertezzolo

Test configuration

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 S164, CMC S241, CMC S251, CMC S290, CMC S298
Measurement uncertainty: See clause 7 of this test report

Test specification

Port: Enclosure
Frequency range: 30 – 26000 MHz
Antenna polarization: Horizontal (H) – Vertical (V)
EUT height about the floor:
80 cm for frequencies ≤ 1000 MHz
150 cm for frequencies > 1000 MHz
EUT – Antenna distance:
10 m for frequencies ≤ 1000 MHz
3 m for frequencies > 1000 MHz

Environmental conditions

Temperature (°C)	*Atmospheric pressure (kPa)*	*Relative humidity (%)*
22	100	42

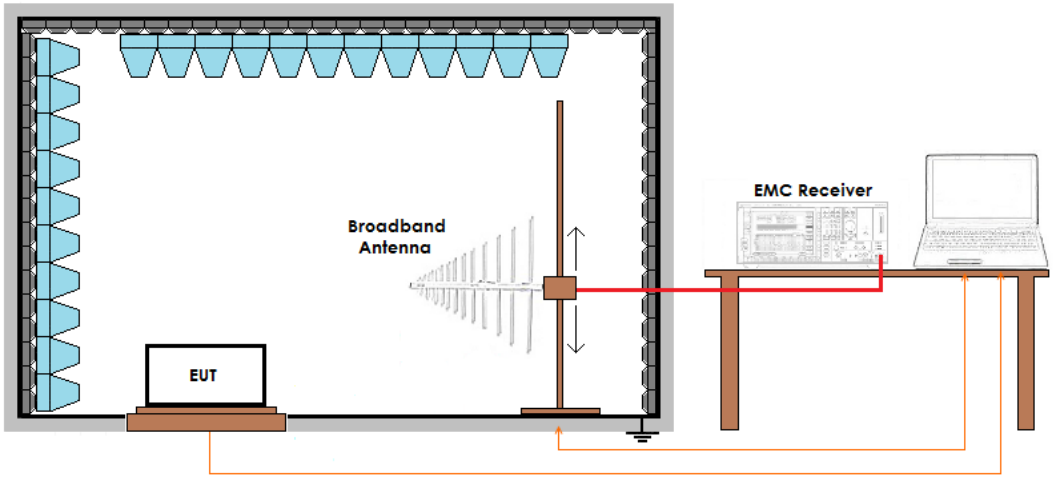
Acceptance limits

Frequency range (MHz)	*Test distance (m)*	*Limits [dB(µV/m)]*	
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

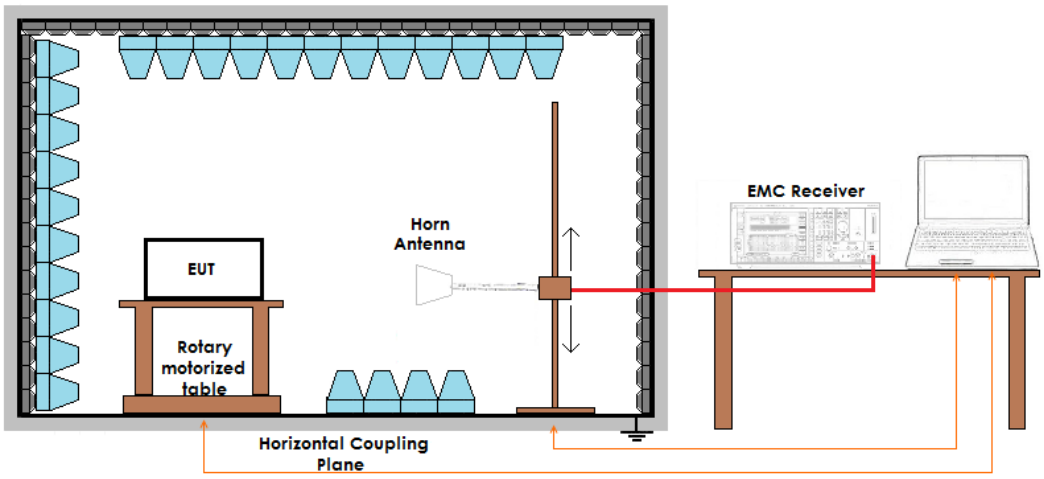
Remarks: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

Setup

Frequency ≤ 1 GHz



Frequency > 1 GHz



Result

WiFi b mode

Polarization	*Frequency Range (MHz)*	*Graphs*	*Remarks*	*Result*
H	300 – 1000	G17213028	Worst case	Complies
V	300 – 1000	G17213029	Worst case	Complies
V	30 – 1000	G172130135	Worst case	Complies
H	30 – 1000	G172130134	Worst case	Complies
V	1000 – 2400	G17213043	Lowest channel	Complies
H	1000 – 2400	G17213044	Lowest channel	Complies
H	1000 – 2400	G17213045	Medium channel	Complies
V	1000 – 2400	G17213046	Medium channel	Complies
V	1000 – 2400	G17213047	Highest channel	Complies
H	1000 – 2400	G17213048	Highest channel	Complies
V	2483,5 – 3300	G17213077	Lowest channel	Complies
H	2483,5 – 3300	G17213078	Lowest channel	Complies
H	2483,5 – 3300	G17213079	Medium channel	Complies
V	2483,5 – 3300	G17213080	Medium channel	Complies
V	2483,5 – 3300	G17213081	Highest channel	Complies
H	2483,5 – 3300	G17213082	Highest channel	Complies
H	3200 – 10000	G172130115	Lowest channel	Complies
V	3200 – 10000	G172130114	Lowest channel	Complies
V	3200 – 10000	G172130113	Medium channel	Complies
H	3200 – 10000	G172130112	Medium channel	Complies
H	3200 – 10000	G172130111	Highest channel	Complies
V	3200 – 10000	G172130110	Highest channel	Complies
V	10000 – 18000	G172130124	Worst case	Complies
H	10000 – 18000	G172130125	Worst case	Complies
H	18000 – 26000	G172130195	Worst case	Complies
V	18000 – 26000	G172130196	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

WiFi g mode

Polarization	*Frequency Range (MHz)*	*Graphs*	*Remarks*	*Result*
H	300 – 1000	G17213032	Worst case	Complies
V	300 – 1000	G17213033	Worst case	Complies
V	30 – 1000	G172130137	Worst case	Complies
H	30 – 1000	G172130136	Worst case	Complies
H	1000 – 2400	G17213049	Lowest channel	Complies
V	1000 – 2400	G17213050	Lowest channel	Complies
V	1000 – 2400	G17213051	Medium channel	Complies
H	1000 – 2400	G17213052	Medium channel	Complies
H	1000 – 2400	G17213053	Highest channel	Complies
V	1000 – 2400	G17213054	Highest channel	Complies
V	2483,5 – 3300	G17213083	Lowest channel	Complies
H	2483,5 – 3300	G17213084	Lowest channel	Complies
H	2483,5 – 3300	G17213085	Medium channel	Complies
V	2483,5 – 3300	G17213086	Medium channel	Complies
V	2483,5 – 3300	G17213087	Highest channel	Complies
H	2483,5 – 3300	G17213088	Highest channel	Complies
V	3200 – 10000	G172130121	Lowest channel	Complies
H	3200 – 10000	G172130120	Lowest channel	Complies
H	3200 – 10000	G172130119	Medium channel	Complies
V	3200 – 10000	G172130118	Medium channel	Complies
V	3200 – 10000	G172130117	Highest channel	Complies
H	3200 – 10000	G172130116	Highest channel	Complies
H	10000 – 18000	G172130123	Worst case	Complies
V	10000 – 18000	G172130122	Worst case	Complies
V	18000 – 26000	G172130197	Worst case	Complies
H	18000 – 26000	G172130198	Worst case	Complies

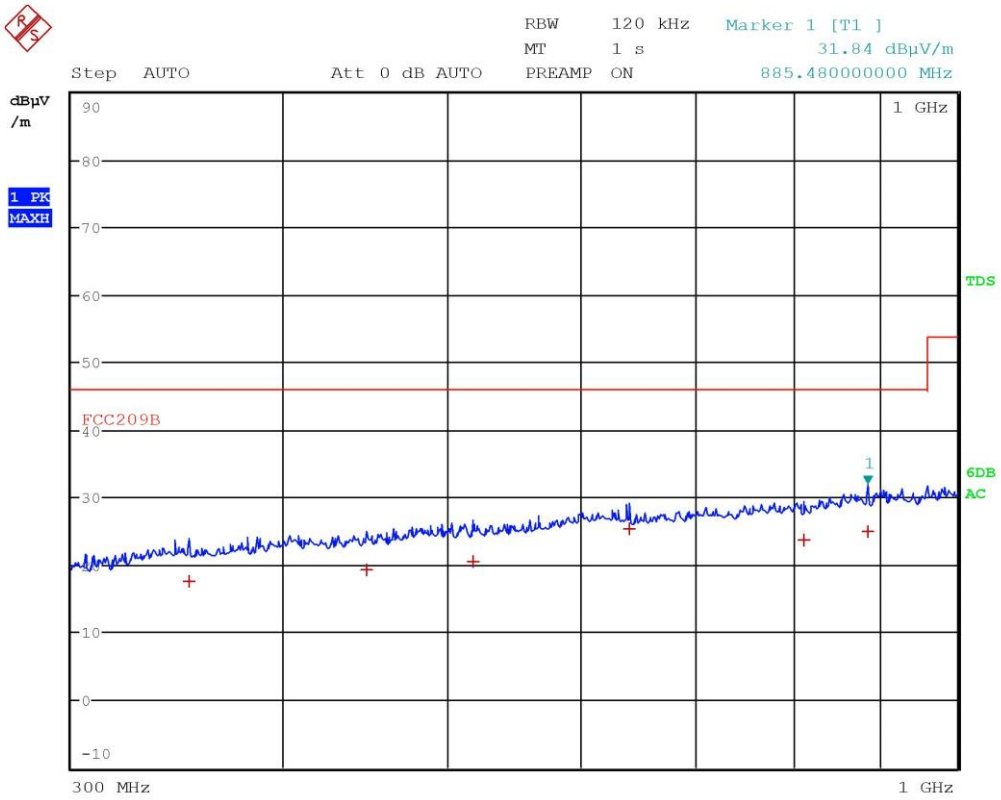
Remarks: Measurements at frequencies lower than 1000 MHz have been performed with an EUT – antenna distance of 10 m. Measured values have been corrected with different conversion factors, based on the measuring distance provided by the standard. Peaks above the limits are caused by the nominal transmitting frequencies

WiFi n mode

Polarization	*Frequency Range (MHz)*	*Graphs*	*Remarks*	*Result*
V	300 – 1000	G17213030	Worst case	Complies
H	300 – 1000	G17213031	Worst case	Complies
H	30 – 1000	G172130139	Worst case	Complies
V	30 – 1000	G172130138	Worst case	Complies
V	1000 – 2400	G17213055	Lowest channel	Complies
H	1000 – 2400	G17213056	Lowest channel	Complies
H	1000 – 2400	G17213057	Medium channel	Complies
V	1000 – 2400	G17213058	Medium channel	Complies
V	1000 – 2400	G17213059	Highest channel	Complies
H	1000 – 2400	G17213060	Highest channel	Complies
V	2483,5 – 3300	G17213089	Lowest channel	Complies
H	2483,5 – 3300	G17213090	Lowest channel	Complies
H	2483,5 – 3300	G17213091	Medium channel	Complies
V	2483,5 – 3300	G17213092	Medium channel	Complies
V	2483,5 – 3300	G17213093	Highest channel	Complies
H	2483,5 – 3300	G17213094	Highest channel	Complies
V	3200 – 10000	G17213095	Lowest channel	Complies
H	3200 – 10000	G17213096	Lowest channel	Complies
H	3200 – 10000	G17213097	Medium channel	Complies
V	3200 – 10000	G17213098	Medium channel	Complies
V	3200 – 10000	G17213099	Highest channel	Complies
H	3200 – 10000	G172130100	Highest channel	Complies
H	10000 – 18000	G172130127	Worst case	Complies
V	10000 – 18000	G172130126	Worst case	Complies
V	18000 – 26000	G172130199	Worst case	Complies
H	18000 – 26000	G172130200	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			

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



Bertezzolo 17213028

EDIT PEAK LIST (Final Measurement Results)

Trace1:	FCC209B
Trace2:	---
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV/m	DELTA LIMIT dB
1 Quasi Peak	352.2 MHz	17.54	-28.47
1 Quasi Peak	447.84 MHz	19.39	-26.62
1 Quasi Peak	517.68 MHz	20.57	-25.44
1 Quasi Peak	640.04 MHz	25.32	-20.69
1 Quasi Peak	812.44 MHz	23.74	-22.27
1 Quasi Peak	885.48 MHz	25.08	-20.93

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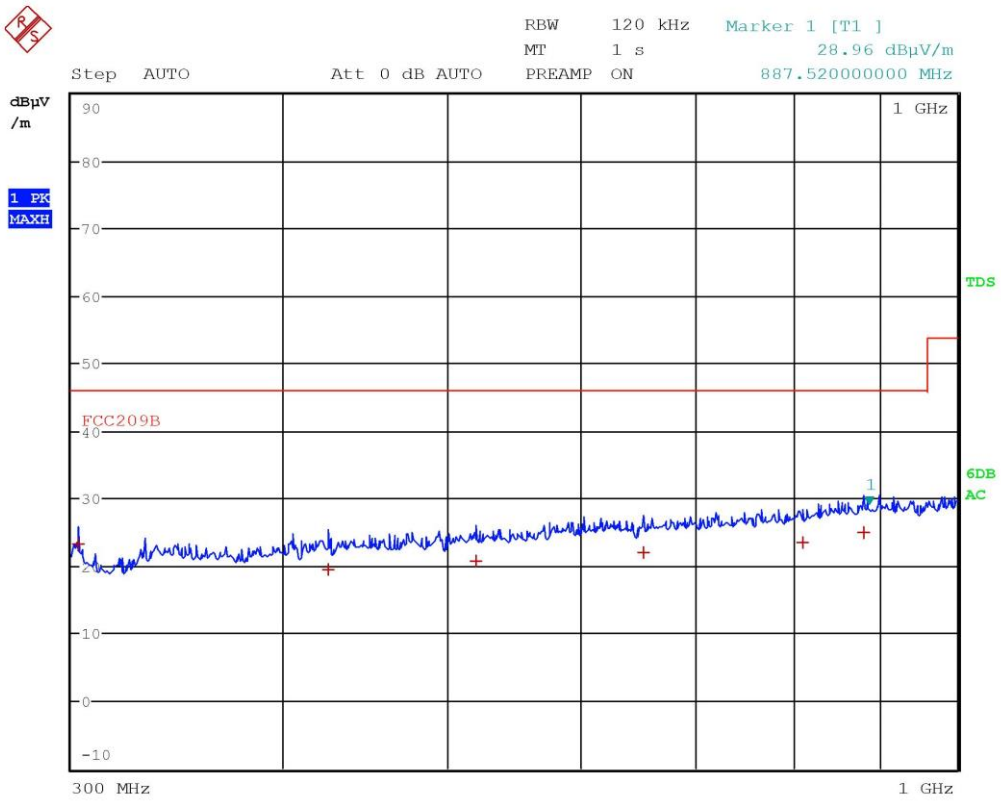


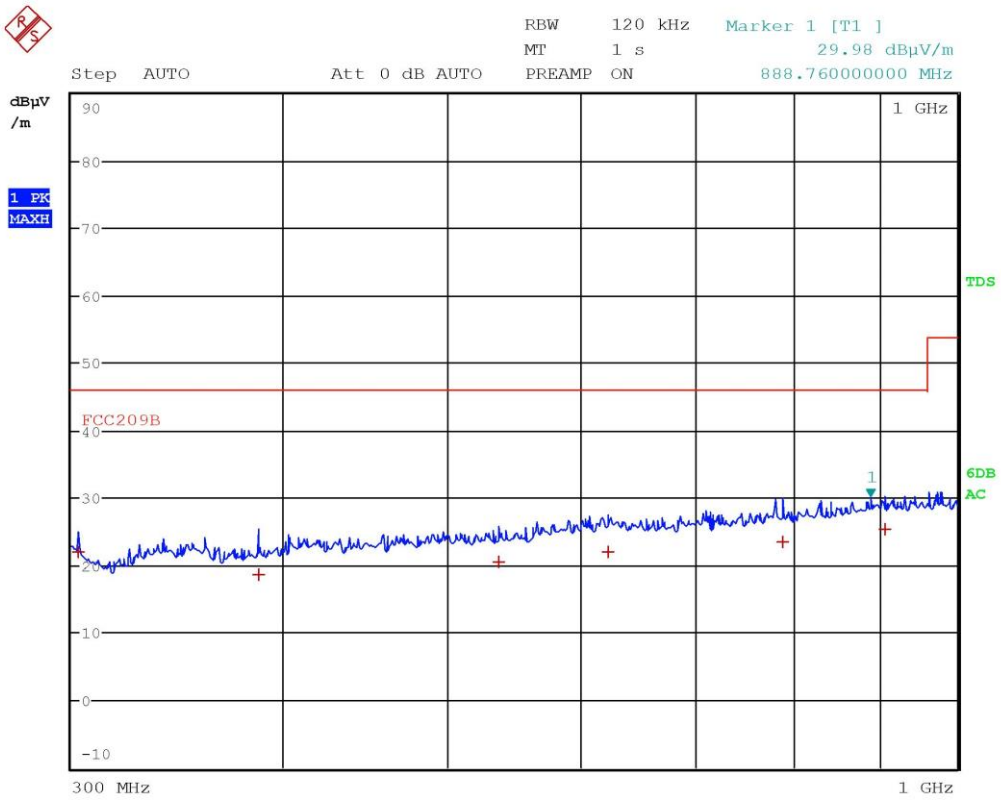
Bertezzolo 17213029

EDIT PEAK LIST (Final Measurement Results)

Trace1:	FCC209B
Trace2:	---
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV/m	DELTA LIMIT dB
1 Quasi Peak	303 MHz	23.36	-22.66
1 Quasi Peak	425.56 MHz	19.54	-26.47
1 Quasi Peak	519.68 MHz	20.82	-25.19
1 Quasi Peak	653.04 MHz	22.02	-23.99
1 Quasi Peak	810.8 MHz	23.59	-22.42
1 Quasi Peak	880.6 MHz	25.07	-20.94

Bertezzolo 17213029



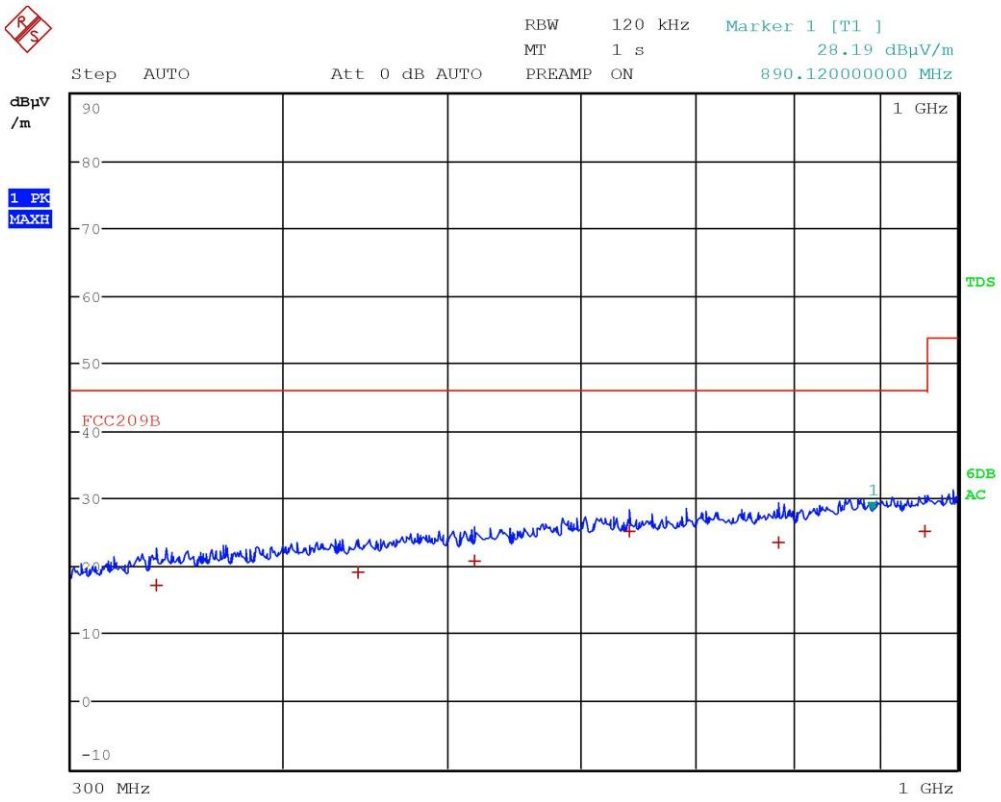
Bertezzolo 17213030

EDIT PEAK LIST (Final Measurement Results)

Trace1:	FCC209B
Trace2:	---
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV/m	DELTA LIMIT dB
1 Quasi Peak	302.96 MHz	22.04	-23.97
1 Quasi Peak	386.68 MHz	18.65	-27.37
1 Quasi Peak	535.92 MHz	20.64	-25.37
1 Quasi Peak	622.2 MHz	22.06	-23.95
1 Quasi Peak	788.76 MHz	23.50	-22.52
1 Quasi Peak	905.64 MHz	25.40	-20.61

Bertezzolo 17213030



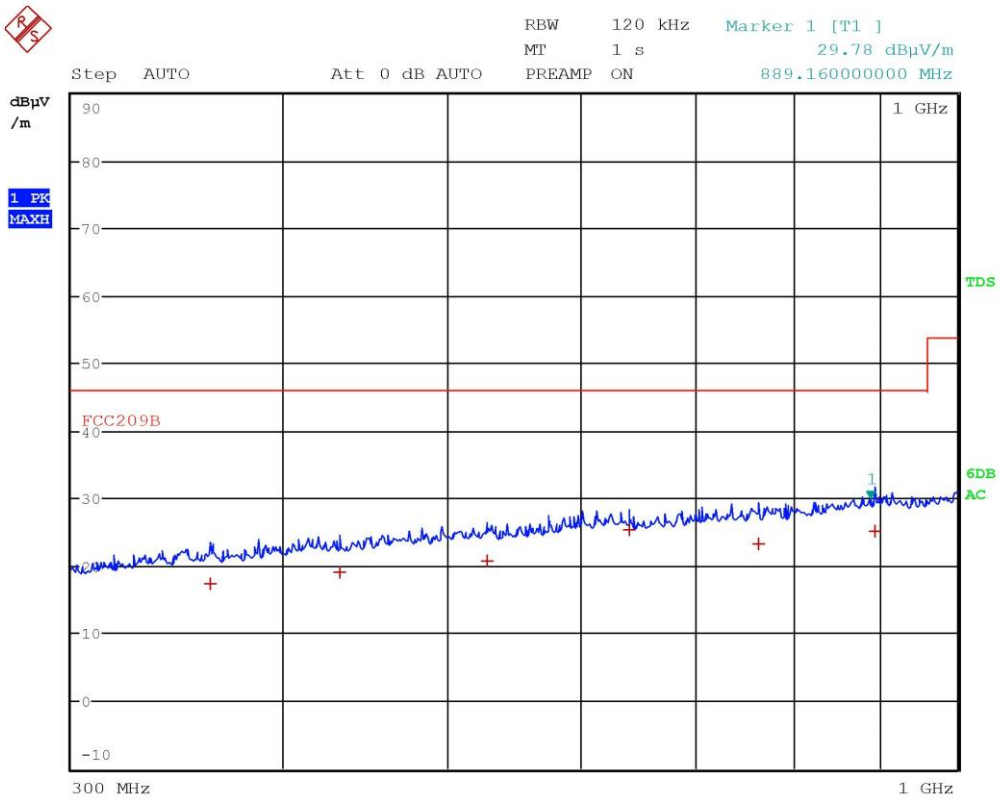
Bertezzolo 17213031

EDIT PEAK LIST (Final Measurement Results)

Trace1:	FCC209B
Trace2:	---
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV/m	DELTA LIMIT dB
1 Quasi Peak	336.6 MHz	17.17	-28.84
1 Quasi Peak	442.8 MHz	19.17	-26.84
1 Quasi Peak	518.96 MHz	20.69	-25.32
1 Quasi Peak	640.04 MHz	25.27	-20.74
1 Quasi Peak	783.88 MHz	23.60	-22.41
1 Quasi Peak	957.16 MHz	25.18	-20.84

Bertezzolo 17213031



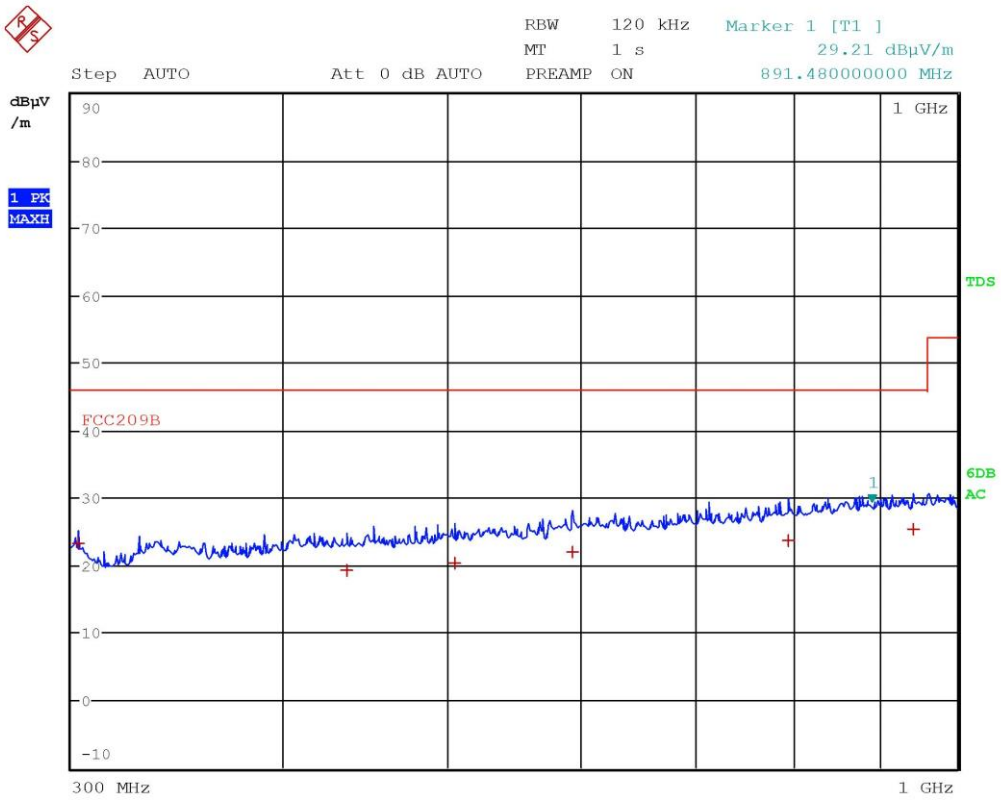
Bertezzolo 17213032

EDIT PEAK LIST (Final Measurement Results)

Trace1:	FCC209B
Trace2:	---
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV/m	DELTA LIMIT dB
1 Quasi Peak	362.68 MHz	17.52	-28.49
1 Quasi Peak	431.96 MHz	19.17	-26.84
1 Quasi Peak	527.52 MHz	20.72	-25.29
1 Quasi Peak	640.04 MHz	25.30	-20.71
1 Quasi Peak	762.56 MHz	23.27	-22.74
1 Quasi Peak	894.12 MHz	25.09	-20.92

Bertezzolo 17213032



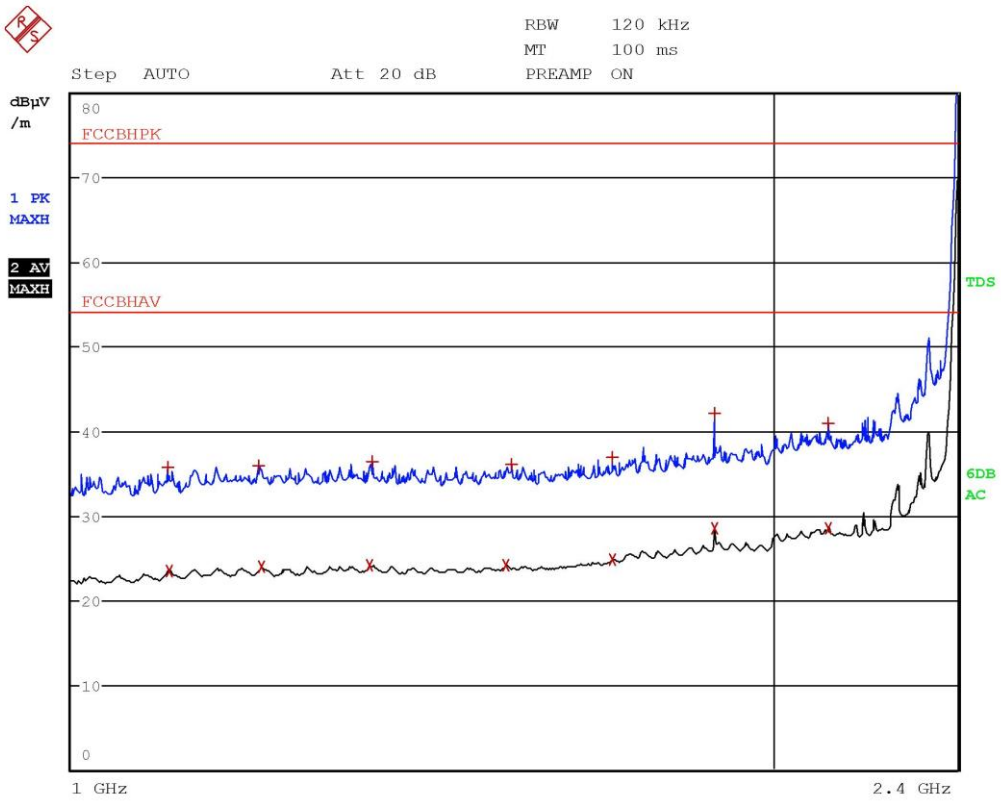
Bertezzolo 17213033

EDIT PEAK LIST (Final Measurement Results)

Trace1:	FCC209B
Trace2:	---
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV/m	DELTA LIMIT dB
1 Quasi Peak	303 MHz	23.30	-22.71
1 Quasi Peak	436 MHz	19.37	-26.64
1 Quasi Peak	504.68 MHz	20.41	-25.60
1 Quasi Peak	593.28 MHz	22.00	-24.01
1 Quasi Peak	794.2 MHz	23.72	-22.29
1 Quasi Peak	942.4 MHz	25.47	-20.54

Bertezzolo 17213033



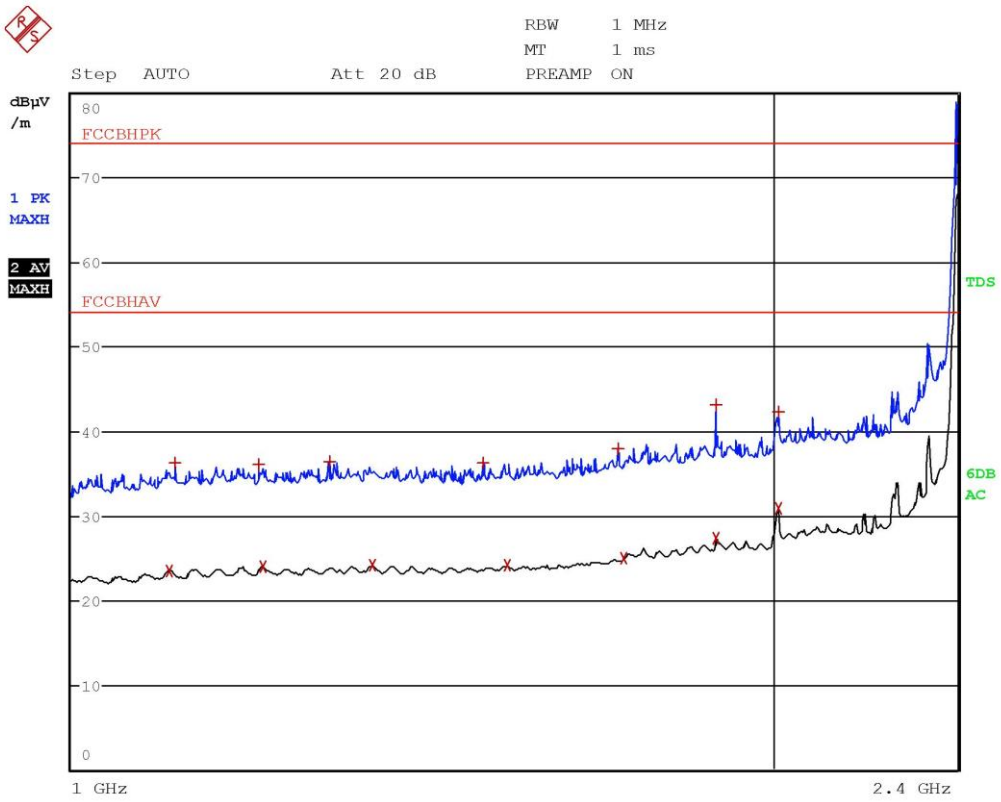
Bertezzolo 17213043

EDIT PEAK LIST (Prescan Results)

Trace1:	FCCBHPK
Trace2:	FCCBHAV
Trace3:	---

	TRACE	FREQUENCY	LEVEL dBµV/m	DELTA LIMIT dB
1	Max Peak	1.0996 GHz	35.74	-38.23
2	Average	1.1012 GHz	23.50	-30.47
1	Max Peak	1.2032 GHz	35.85	-38.12
2	Average	1.206 GHz	23.97	-30.00
2	Average	1.342 GHz	24.06	-29.91
1	Max Peak	1.3456 GHz	36.33	-37.64
2	Average	1.5364 GHz	24.08	-29.89
1	Max Peak	1.5448 GHz	36.06	-37.91
1	Max Peak	1.7072 GHz	36.89	-37.09
2	Average	1.7072 GHz	24.85	-29.12
1	Max Peak	1.8888 GHz	42.08	-31.89
2	Average	1.8888 GHz	28.44	-25.53
1	Max Peak	2.1108 GHz	40.96	-33.01
2	Average	2.1128 GHz	28.47	-25.50

Bertezzolo 17213043



Bertezzolo 17213044

EDIT PEAK LIST (Prescan Results)			
Trace1:	FCCBHPK		
Trace2:	FCCBHAV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV/m	DELTA LIMIT dB
2 Average	1.1016 GHz	23.49	-30.48
1 Max Peak	1.1076 GHz	36.24	-37.73
1 Max Peak	1.2036 GHz	36.01	-37.96
2 Average	1.208 GHz	23.91	-30.06
1 Max Peak	1.2904 GHz	36.33	-37.65
2 Average	1.346 GHz	24.06	-29.92
1 Max Peak	1.5012 GHz	36.29	-37.68
2 Average	1.5376 GHz	24.06	-29.91
1 Max Peak	1.7152 GHz	37.93	-36.04
2 Average	1.7268 GHz	24.92	-29.05
1 Max Peak	1.8896 GHz	43.13	-30.84
2 Average	1.8896 GHz	27.33	-26.64
1 Max Peak	2.01 GHz	42.31	-31.66
2 Average	2.01 GHz	30.86	-23.11

Bertezzolo 17213044