Independent Testing Laboratory
CMC Centro Misure Compatibilità S.r.l.
Via dell'Elettronica, 12/C
36016 Thiene (VI) – ITALY
Tel./Fax +39 0445 367702
www.cmclab.it - info@cmclab.it

Accredited by Ministry of Communications – Notified Body EMC Directive 2004/108/EC n° NB 2044

TEST REPORT nr. R11032501

Federal Communication Commission (FCC)

Industry Canada (IC)

Test item

Description.....: RADIO ADAPTER

Trademark.....: ELIWELL

Model/Type.....: RADIO ADAPTER/S

Test Specification

Standard .....: FCC Rules & Regulations, Title 47 (2010) - Part 15 paragraph(s) : 247, 209 and 207
RSS-210 (2010) – Annex 8

Client's name.....: ELIWELL CONTROLS Srl

Address .....: Via dell' Industria, 15 - 32010 PIEVE D'ALPAGO (BL) – ITALY

Manufacturer's name.: Same ad client

Address .....:

Report

Tested by.....: A. Bertezzolo - *Technician*

Approved by.....: R. Beghetto - *Laboratory Manager*

Date of issue.....: 11.07.11

Contents .....: 81 pages

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1. Summary

Standard: FCC Rules & Regulations, Title 47
RSS-210 (2010)

Test specifications	Environmental Phenomena	Tests sequence	Result
FCC – Title 47 Part 15.203 and 15.204 IC – RSS-210	Antenna Requirement	1	Complies
Part 15.247 IC – RSS-210 Annex 8	Bandwidth	2	Complies
Part 15.247 IC – RSS-210 Annex 8	6dB Bandwidth	7	Complies
Part 15.247 IC – RSS-210 Annex 8	Peak Output Power	3	Complies
Part 15.247 IC – RSS-210 Annex 8	Power Spectral Density	8	Complies
Part 15.247 IC – RSS-210 Annex 8	Band Edge	4	Complies
Part 15.247 Part 15.209 IC – RSS-210 Annex 8	Radiated Spurious	5	Complies
Part 15.207 IC – RSS-210 Annex 8	Conducted Emission	6	Complies

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

2. Description of Equipment under test (EUT)

Power supply	:	115Vac 60Hz
Type of equipment	:	☒ Transmitter Unit ☒ Receiver Unit ☒ Fixed station ☐ Portable station ☐ Mobile station
Receiver class	:	--
Alignment range	:	2,4000 – 2,4835 GHz
Switching frequency	:	2,4000 – 2,4835 GHz
Number of channels	:	--
Channel separation	:	--
Modulation	:	O-QPSK + DSSP (Direct Sequence Spread Spectrum)
Extreme conditions	:	--
Maximum transmitter output power	:	--
Information on antenna	:	☑ Integrated ☐ Extern ☐ Other: _____
Duty cycle	:	--
Serial Number	:	--

2.1 Test Site

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

3. Testing and sampling

Date of receipt of test item	:	28.02.11
Testing start date	:	01.04.11
Testing end date	:	04.07.11
Samples tested nr.	:	1
Sampling procedure.	:	Equipment used for testing was picked up by the manufacturer, at the end of the production process with random criterion
Internal identification	:	adhesive label with the product number P110215

4. Operative conditions

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5. Photograph(s) of EUT

6. Equipment list

Id. number	*Manufacturer*	*Model*	*Description*	*Serial number*	*Last calibration*	*Due date calibration*
CMC S001	Rohde & Schwarz	ESHS30	EMC interference receiver	862024/003	January '11	January '12
CMC S108	Emco	3115	Horn antenna	9811-5622	April '10	April '13
CMC S124	Spin	AMTP42-20	Horn Antenna 18-26GHz	103	May '10	May '13
CMC S129	Rohde & Schwarz	ESPI7	Receiver	836.914/004	January '11	January '12
CMC S136	Schwarzbeck	VULB 9163	Broadband Antenna	9136-205	May '10	May '13
CMC S164	Rohde & Schwarz	ESU26	EMC interference receiver	100052	January '11	January '12

7. Measurement uncertainty

Test	*Expanded Uncertainty*	*note*
Conducted Emission		
(50Ω/50µH AMN) - (9 kHz – 150 kHz)	±3.0 dB	1
(50Ω/50µH AMN) - (150 kHz – 30 MHz)	±2.6 dB	1
(Voltage probe) - (150 kHz – 30 MHz)	±3.1 dB	1
(50Ω/5µH AMN) - (150 kHz – 108 MHz)	±2.6 dB	1
DiscontinuousConducted Emission		
Conducted Emission (50Ω/50µH AMN) - (150 kHz – 30 MHz)	±2.9 dB	1
Disturbance Power (30 MHz – 300 MHz)	±3.1 dB	1
Radiated Emission		
(0,150 MHz – 30 MHz)	±4.3 dB	1
(30 MHz – 1000 MHz)	±4.6 dB	1
(1 GHz – 6 GHz)	±4.3 dB	1
Electromagnetic field EMF	±18.8 %	1
Harmonic current emissions test	±2.5 %	1
Voltage fluctuation and flicker test	±5.3 %	1
Insertion loss test	±2.2 dB	1
Radiated electromagnetic disturbance test (loop antenna)	±2.4 dB	1
Radiated electromagnetic field immunity test	0.8 V/m at 3V/m	1
Pulse modulated radiated electromagnetic field immunity test	0.8 V/m at 3V/m	1
Injected currents immunity test	0.6 V at 3V	1
Bulk current	8.4 mA at 60 mA	1
Power frequency magnetic field immunity test	0.4 A/m at 3 A/m	1
Electrostatic discharge immunity test		2
Electrical fast transients / burst immunity test		2
Surge immunity test		2
Short interruption immunity test		2
Voltage transient emission test	±4 %	1
Transient immunity test		2

Notes

Note 1:
The expanded uncertainty reported according to EN55016-4-2(2004-10) 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 demostrated 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 (2010)	--
RSS-210 Issue 8 – December 2010	Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment
ANSI C63.4	American National Standard for Methods of Measuring of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz – 40GHz
Internal Procedure PM001 rev. 2.0 (Quality Manual)	Measure Procedure
Internal procedure INC_M rev. 8.0 (Quality Manual)	Measurement uncertainty calculation

9. Deviation from test specification

In agreement with the client, emission tests were performed with peak detector .
At the frequencies where the measures exceed the limit or within 6dB from it, the test was repeated with quasi-peak detector and/or average detector.

10. Test case verdicts

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

Test item does meet the requirement..... : P / Pass / Complies

Test item does not meet the requirement..... : F / Fail / Does not comply

Test not performed ..... : NE / Not Executed

11. Results

In this clause tests results are reported.

All measurements are done in accordance with the Filling and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems DA-705

Measurement uncertainty is in accordance with document CMC INC_M rev. 8.0.

11.1 Antenna Requirements

Test configuration and test method

Test site	Laboratory
Auxiliary equipment	See clause 4 of this test report

Environmental conditions

Temperature	22	ºC	Atmospheric pressure	100	kPa	Relative humidity	49	%

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.203 and 15.204
- RSS-210
- Internal Procedure PM001
- See clause 4 of this test report

Test Requirements

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 unique coupling to the intentional radiator shall be considered sufficient comply with the provisions of this section.
The manufacturer may design the unit so that a broken antenna can replaced by the user, but the use of 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.

Test specification

Port: Antenna.

EUT exercising

See clause 4 of this test report

Result

Antenna Type	*Gain*	*Remarks*	*Results*
Integrated	3 dBi	--	Complies

Remarks

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Reference documents

See clause 8 of this test report

Result

The requirements are met

11.2 Bandwidth

Test configuration and test method

Test site: Laboratory
Auxiliary equipment: See clause 4 of this test report

Environmental conditions

Temperature 20 ºC Atmospheric pressure 99 kPa Relative humidity 48 %

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- RSS-210 Annex 8
- DA 00-705, march 30, 2000
- Internal Procedure PM001
- See clause 4 of this test report

Test specification

Port: Antenna;

EUT exercising

See clause 4 of this test report

Result

Frequency (MHz)	Graph(s)	Bandwidth	Remark
2405	G11032523	2676,28 kHz	--
2440	G11032522	2660,26 kHz	--
2475	G11032524	2660,26 kHz	--
Measurement uncertainty: ±1 kHz			

Remarks

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Reference documents

See clause 8 of this test report

Test equipment used (Id number – see clause 6 of this test report)

CMC S129

Result

The requirements are met

11.3 6dB Bandwidth

Test configuration and test method

Test site: Laboratory
Auxiliary equipment: See clause 4 of this test report

Environmental conditions

Temperature 22 ºC Atmospheric pressure 99 kPa Relative humidity 50 %

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- RSS-210 Annex 8
- DA 00-705, march 30, 2000
- Internal Procedure PM001
- See clause 4 of this test report

Test specification

Port: Antenna;

EUT exercising

See clause 4 of this test report

Result

Frequency (MHz)	Graph(s)	6dB Bandwidth	Remark
2440	G11032550	1,584 MHz	--
2405	G11032551	1,608 MHz	--
2475	G11032552	1,584 MHz	--
Measurement uncertainty: ±1 kHz			

Remarks

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Reference documents

See clause 8 of this test report

Test equipment used (Id number – see clause 6 of this test report)

CMC S129

Result

The requirements are met

11.4 Peak Output Power

Test configuration and test method

Test site: Laboratory
Auxiliary equipment: See clause 4 of this test report

Environmental conditions

Temperature 22 ºC Atmospheric pressure 99 kPa Relative humidity 48 %

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- RSS-210 Annex 8
- DA 00-705, march 30, 2000
- Internal Procedure PM001
- See clause 4 of this test report

Test specification

Port: Antenna;

EUT exercising

See clause 4 of this test report

Acceptance limits

Frequency range	RF power output
2400 – 2483,5 MHz	1,0 W / 30dBm

Result

Frequency (MHz)	Polarization	Graphs	E (dBµV/m)	Peak Output Power (mW)	Remark
2405	Horizontal	G11032592	97,78	0,96	--
2405	Vertical	G11032593	98,57	0,96	--
2440	Vertical	G11032594	97,37	0,73	--
2440	Horizontal	G11032595	96,30	0,73	--
2475	Horizontal	G11032596	95,77	0,54	--
2475	Vertical	G11032597	96,71	0,73	--
Measurement uncertainty: ±3dBm					

Remarks

$P = (E \times d)^2 / (30 \times G)$
Where:
E = the measured maximum fundamental field strength in V/m
G = the numeric gain of the transmitting antenna: 2 (3dBi)
d = the distance in meters from which the field strength was measured (3m)
P = the power in watts

Reference documents

See clause 8 of this test report

Test equipment used (Id number – see clause 6 of this test report)

CMC S164

Result

The requirements are met

11.5 Power Spectral Density

Test configuration and test method

Test site: Laboratory
Auxiliary equipment: See clause 4 of this test report

Environmental conditions

Temperature 20 ºC Atmospheric pressure 98 kPa Relative humidity 50 %

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- RSS-210 Annex 8
- DA 00-705, march 30, 2000
- Internal Procedure PM001
- See clause 4 of this test report

Test specification

Port: Antenna;

EUT exercising

See clause 4 of this test report

Acceptance limits

Frequency range	Power spectral density
2400 – 2483,5 MHz	8dBm / 6,31mW

Result

Frequency (MHz)	Polarization	Graphs	E (dBµV/m)	Peak Output Power (mW)	Remark
2440	Horizontal	G11032571	77,46	0,000015	--
2440	Vertical	G11032572	77,92	0,000015	--
2405	Horizontal	G11032573	78,44	0,000015	--
2405	Vertical	G11032574	79,56	0,000015	--
2475	Horizontal	G11032575	76,19	0,000015	--
2475	Vertical	G11032576	77,18	0,000015	--
Measurement uncertainty: ±3dBm					

Remarks

$P = (E \times d)^2 / (30 \times G)$
Where:
E = the measured maximum fundamental field strength in V/m
G = the numeric gain of the transmitting antenna: 2 (3dBi)
d = the distance in meters from which the field strength was measured (3m)
P = the power in watts

Reference documents

See clause 8 of this test report

Test equipment used (Id number – see clause 6 of this test report)

CMC S164

Result

The requirements are met

11.6 Band Edge

Test configuration and test method

Test site: Laboratory
Auxiliary equipment: See clause 4 of this test report

Environmental conditions

Temperature 20 ºC Atmospheric pressure 99 kPa Relative humidity 46 %

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- RSS-210 Annex 8
- DA 00-705, march 30, 2000
- Internal Procedure PM001
- See clause 4 of this test report

Test specification

Port: Antenna;

EUT exercising

See clause 4 of this test report

Acceptance limits

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in section 15.209(a) is not required. In addition, radiated emission which fall in the restricted bands, as defined in section 15.205(a), must also comply with the radiated emission limits specified in section 15.209(a) (see section 15.205(c)).

Result

Frequency (MHz)	Graph(s)	Remark
2405	G11032525	--
	G11032526	--
2475	G11032527	--
	G11032528	--
Measurement uncertainty: ±1dB		

Remarks ////////////

Reference documents

See clause 8 of this test report

Test equipment used (Id number – see clause 6 of this test report)

CMC S129

Result The requirements are met

11.7 Radiated Spurious

Test configuration and test method

Test site: Semi-anechoic chamber
Auxiliary equipment: None

Environmental conditions

Temperature 19 ºC Atmospheric pressure 100 kPa Relative humidity 42 %

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247 and Part 15.209
- RSS-210 Annex 8
- DA 00-705, march 30, 2000
- Internal Procedure PM001
- See clause 4 of this test report

Test specification

Port: Antenna;
For measurements below 1GHz the resolution bandwidth is set to 100kHz.
For measurements above 1GHz the resolution bandwidth is set to 1MHz.

EUT exercising

See clause 4 of this test report

Acceptance limits

In any 100kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in cl. 15.205(a), must also comply with the radiated emission limits specified in cl. 15.209(a) (see cl.15.205(c)).

Result

Channel	*Polarization*	Frequency Range (MHz)	Graph(s) (peak measurements)	Remarks	Result
2405	Vertical	30 – 1000	G11032501	--	Complies
2405	Horizontal	30 – 1000	G11032502	--	Complies
2440	Horizontal	30 – 1000	G11032503	--	Complies
2440	Vertical	30 – 1000	G11032504	--	Complies
2475	Vertical	30 – 1000	G11032505	--	Complies
2475	Horizontal	30 – 1000	G11032506	--	Complies

Channel	*Polarization*	Frequency Range (GHz)	Graph(s) (peak measurements)	Remarks	Result
2405	Horizontal	18 – 26	G11032553	--	Complies
2405	Vertical	18 – 26	G11032554	--	Complies
2440	Vertical	18 – 26	G11032555	--	Complies
2440	Horizontal	18 – 26	G11032556	--	Complies
2475	Horizontal	18 – 26	G11032557	--	Complies
2475	Vertical	18 – 26	G11032558	--	Complies

Channel	*Polarization*	Frequency Range (GHz)	Graph(s) (peak measurements)	Remarks	Result
2405	Vertical	1 – 18	G11032559	--	Complies
2405	Horizontal	1 – 18	G11032560	--	Complies
2440	Horizontal	1 – 18	G11032561	--	Complies
2440	Vertical	1 – 18	G11032562	--	Complies
2475	Vertical	1 – 18	G11032563	--	Complies
2475	Horizontal	1 – 18	G11032564	--	Complies

Channel	*Antenna*	Frequency Range (MHz)	Graph(s)	Remarks	Result
2405	Loop Antenna	9kHz – 30MHz	G11032507	--	Complies
2440	Loop Antenna	9kHz – 30MHz	G11032508	--	Complies
2475	Loop Antenna	9kHz – 30MHz	G11032509	--	Complies

Nr. *Harmonics*	*AV level (dBµV/m)*						*AV Limits (dBµV/m)*	*Remark*
	2405 MHz		*2440 MHz*		*2475 MHz*			
	Frequency	*(dBµV/m)*	*Frequency*	*(dBµV/m)*	*Frequency*	*(dBµV/m)*		
II Harmonic	4808,846	< 38,5	4890,128	< 38,5	4950,865	< 40,12	54,00	--
III Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	54,00	--
IV Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	54,00	--
V Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	54,00	--
VI Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	54,00	--
VII Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	54,00	--
VIII Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	54,00	--
IX Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	54,00	--
X Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	54,00	--
Measurement Uncertainty: ±4dB								

Nr. *Harmonics*	*PK level (dBµV/m)*						*PK Limits (dBµV/m)*	*Remark*
	2405 MHz		*2440 MHz*		*2475 MHz*			
	Frequency	*(dBµV/m)*	*Frequency*	*(dBµV/m)*	*Frequency*	*(dBµV/m)*		
II Harmonic	4808,846	< 48,0	4890,128	< 48,0	4950,865	< 50,1	74,00	--
III Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	74,00	--
IV Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	74,00	--
V Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	74,00	--
VI Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	74,00	--
VII Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	74,00	--
VIII Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	74,00	--
IX Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	74,00	--
X Harmonic	--	More than 15dB below limit	--	More than 15dB below limit	--	More than 15dB below limit	74,00	--
Measurement Uncertainty: ±4dB								

Remarks
EUT was tested in 3 orthogonal planes. In results table are reported the worst case.

Reference documents
See clause 8 of this test report

Test equipment used (Id number – see clause 6 of this test report)
CMC S108, CMC S124, CMC S136, CMC S164
Measurement uncertainty: See clause 7 of this test report

Result
The requirements are met

11.8 Radiated Spurious (Receiver)

Test configuration and test method

Test site: Semi-anechoic chamber
Auxiliary equipment: See clause 4 of this test report

Environmental conditions

Temperature 22 ºC Atmospheric pressure 99 kPa Relative humidity 50 %

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.209
- DA 00-705, march 30, 2000
- RSS-210 Annex 8
- Internal Procedure PM001
- See clause 4 of this test report

Test specification

Port: Antenna;

EUT exercising

See clause 4 of this test report

Acceptance limits

In any 100kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in cl. 15.205(a), must also comply with the radiated emission limits specified in cl. 15.209(a) (see cl.15.205(c)).

Result

Channel	*Polarization*	Frequency Range (MHz)	Graph(s)	Remarks	Result
2405	Vertical	30 – 1000	G11032580	--	Complies
2405	Horizontal	30 – 1000	G11032581	--	Complies
2440	Horizontal	30 – 1000	G11032582	--	Complies
2440	Vertical	30 – 1000	G11032583	--	Complies
2475	Vertical	30 – 1000	G11032584	--	Complies
2475	Horizontal	30 – 1000	G11032585	--	Complies
2405	Vertical	1000 – 12500	G11032586	--	Complies
2405	Horizontal	1000 – 12500	G11032587	--	Complies
2440	Horizontal	1000 – 12500	G11032588	--	Complies
2440	Vertical	1000 – 12500	G11032589	--	Complies
2475	Vertical	1000 – 12500	G11032590	--	Complies
2475	Horizontal	1000 – 12500	G11032591	--	Complies

Remarks

EUT was tested in 3 orthogonal planes. In results table are reported the worst case.

Reference documents

See clause 8 of this test report

Test equipment used (Id number – see clause 6 of this test report)

CMC S108, CMC S124, CMC S127, CMC S136, CMC S164
Measurement uncertainty: See clause 7 of this test report

Result

The requirements are met

11.9 Emission of mains terminal disturbance voltage (continuous disturbance)

Test configuration and test method

Test site: Laboratory
Auxiliary equipment: See clause 4 of this test report

Environmental conditions

Temperature 20 ºC Atmospheric pressure 99 kPa Relative humidity 45 %

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.207
- RSS-210 Annex 8
- Internal Procedure PM001
- See clause 4 of this test report

Test specification

Port: AC mains

EUT exercising

See clause 4 of this test report

Acceptance limits

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

Result

Line	*Graphs*	*Remarks*	*Result*
N	G11032529	--	Complies
L1	G11032530	--	Complies

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

Remarks

//////////////

Reference documents

See clause 8 of this test report

Test equipment used (Id number – see clause 6 of this test report)

CMC S001
Measurement uncertainty: See clause 7 of this test report

Result

The requirements are met

11.10 Maximum permissible Exposure

Test configuration and test method

Test site: Laboratory
Auxiliary equipment: See clause 4 of this test report

Environmental conditions

Temperature 21 ºC Atmospheric pressure 100 kPa Relative humidity 45 %

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 1.1310
- RSS-210 Annex 8
- DA 00-705, march 30, 2000
- Internal Procedure PM001
- See clause 4 of this test report

Test specification

Port: Antenna;

EUT exercising

See clause 4 of this test report

Acceptance limits

902/1500 mW/cm^2 = 0,60 mW/cm^2 max at 20cm of distance

Result

Power Density Limit (mW/cm^2)	*Output Power (mW)*	Antenna Gain (G)	Power Density at 20cm *(mW/cm^2)*	Remarks
0,60	0,96	3	0,00057	Measured
0,60	1	3	0,00060	Declared

Remarks

Power Density = (P x G) / ($4\pi R^2$)

Reference documents

See clause 8 of this test report

Test equipment used (Id number – see clause 6 of this test report)

CMC S129
Measurement uncertainty: See clause 7 of this test report

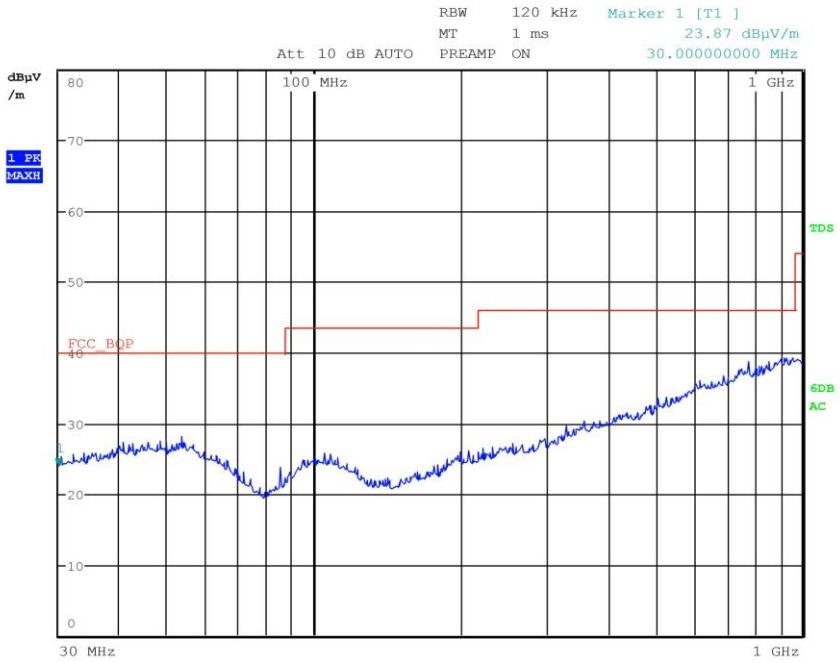
Result

The requirements are met

12. Graphs and Tables

G11032501

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition TX Fmin
Operator Bertezzolo 11032501
Test Spec
Vert



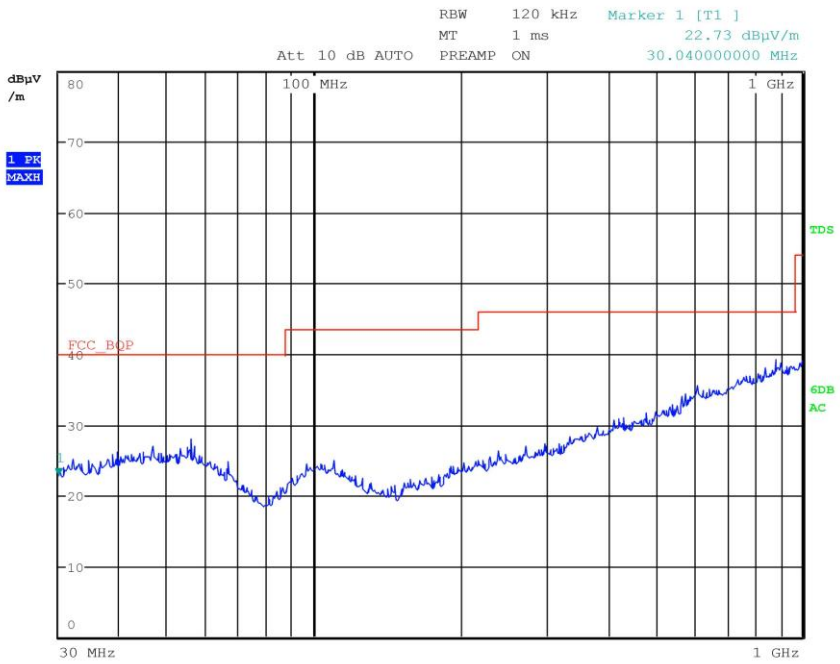
Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 0

G11032502

Meas Type	Emission
Equipment under Test	
Manufacturer	
OP Condition	TX Fmin
Operator	Bertezzolo 11032502
Test Spec	

Horiz

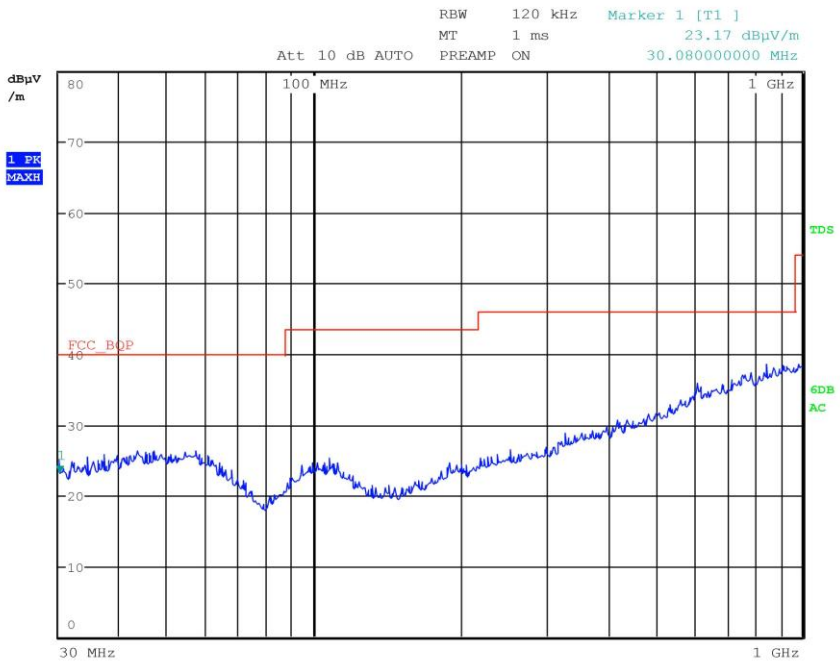


Final Measurement

Meas Time:	1 s
Margin:	6 dB
Subranges:	0

G11032503

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition TX Fmed
Operator Bertezzolo 11032503
Test Spec
Horiz

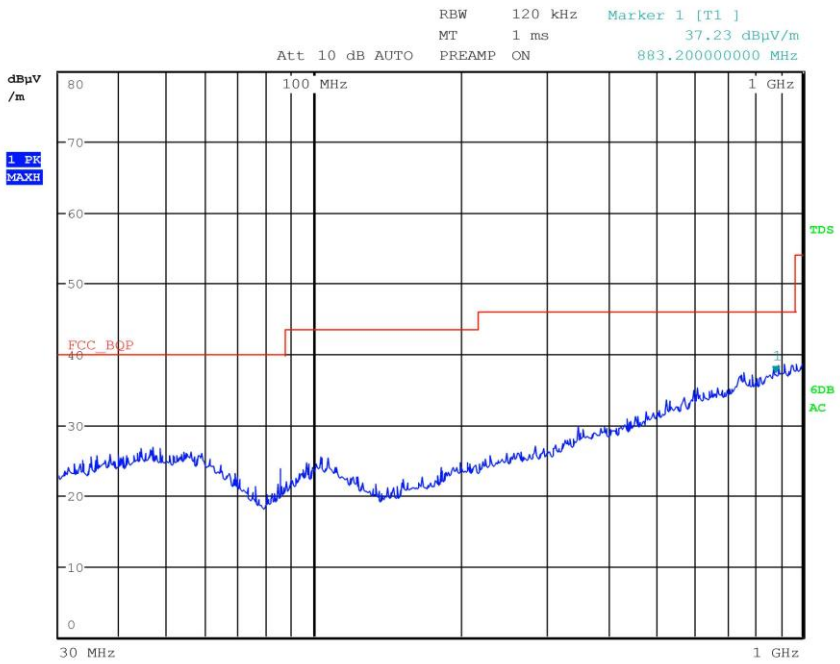


Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 0

G11032504

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition TX Fmed
Operator Bertezzolo 11032504
Test Spec
Vert

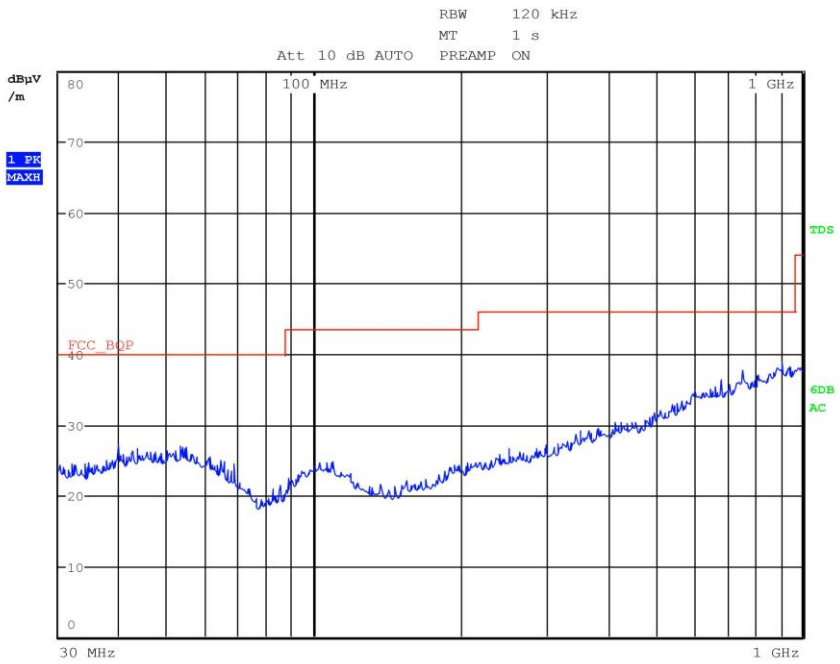


Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 0

G11032505

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition TX Fmax
Operator Bertezzolo 11032505
Test Spec
Vert



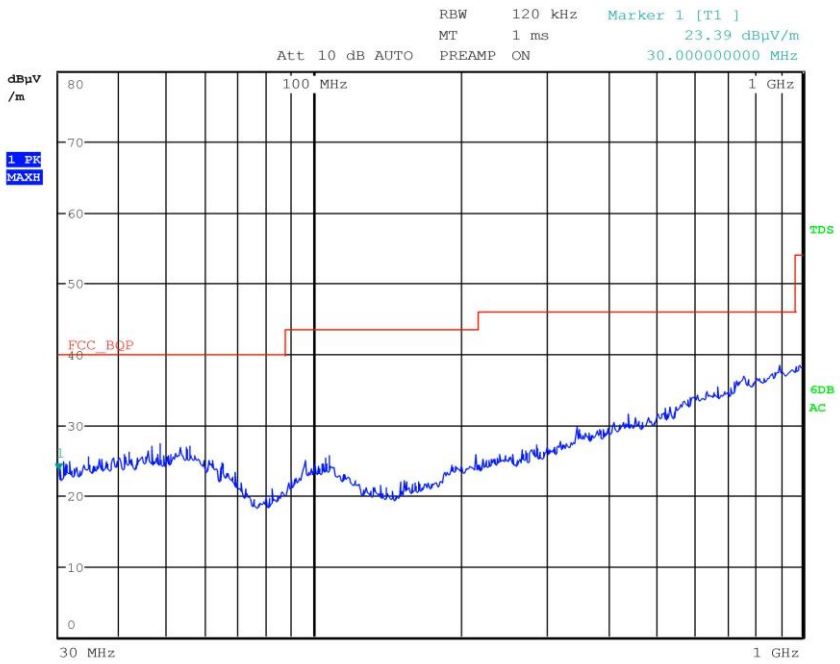
Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 0

G11032506

Meas Type	Emission
Equipment under Test	
Manufacturer	
OP Condition	TX Fmax
Operator	Bertezzolo 11032506
Test Spec	

Horiz



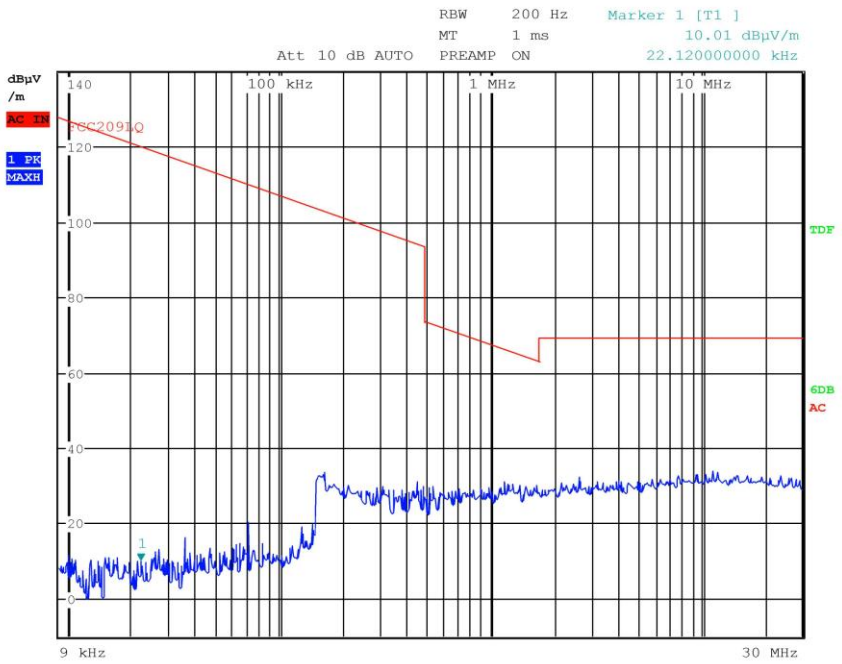
Final Measurement

Meas Time:	1 s
Margin:	6 dB
Subranges:	0

G11032507

Meas Type	Emission
Equipment under Test	
Manufacturer	
OP Condition	TX Fmin
Operator	Bertezzolo 11032507
Test Spec	

Loop

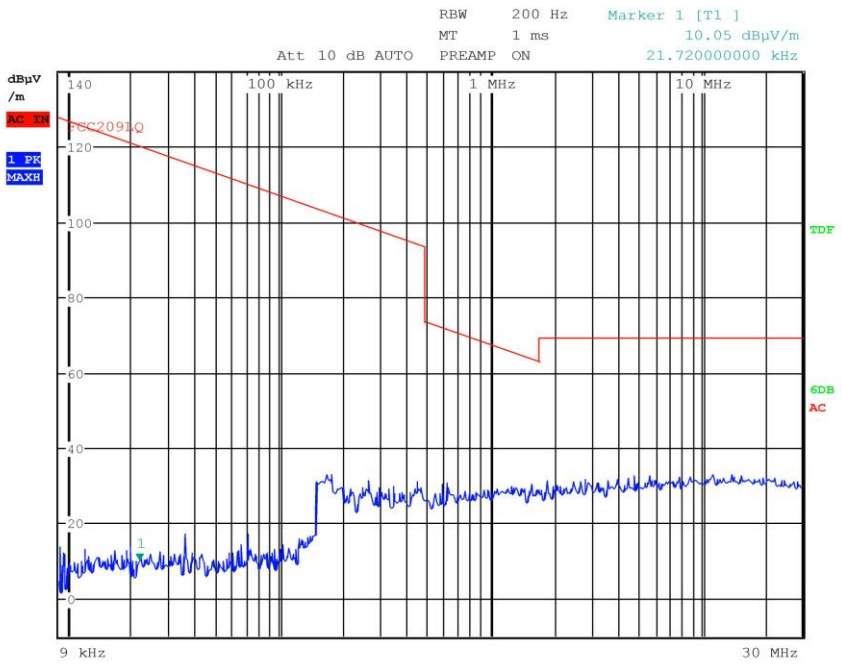


Final Measurement

Meas Time:	1 s
Margin:	6 dB
Subranges:	0

G11032508

Meas Type Emission
Equipment under Test
Manufacturer
OP Condition TX Fmed
Operator Bertezzolo 11032508
Test Spec
Loop



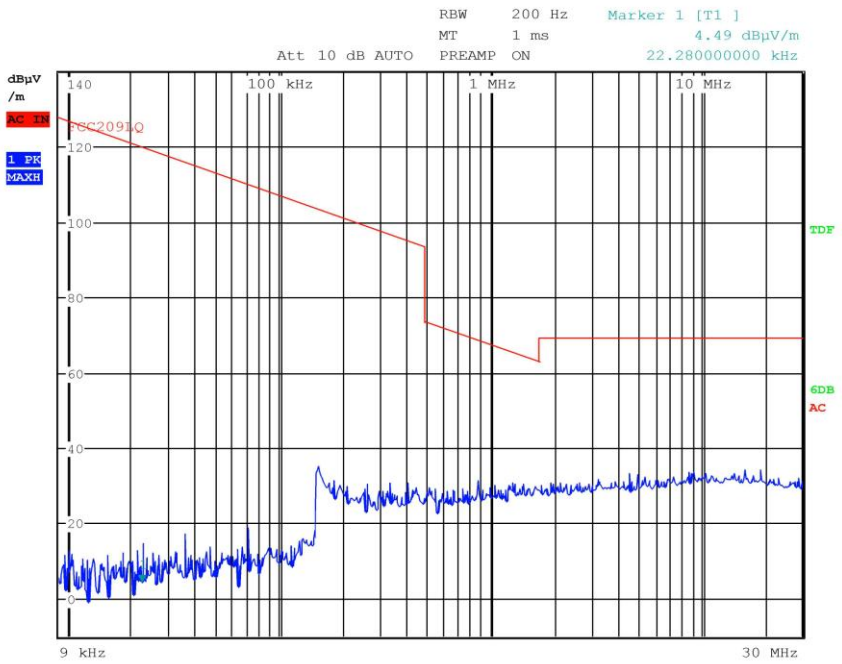
Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 0

G11032509

Meas Type	Emission
Equipment under Test	
Manufacturer	
OP Condition	TX Fmax
Operator	Bertezzolo 11032509
Test Spec	

Loop

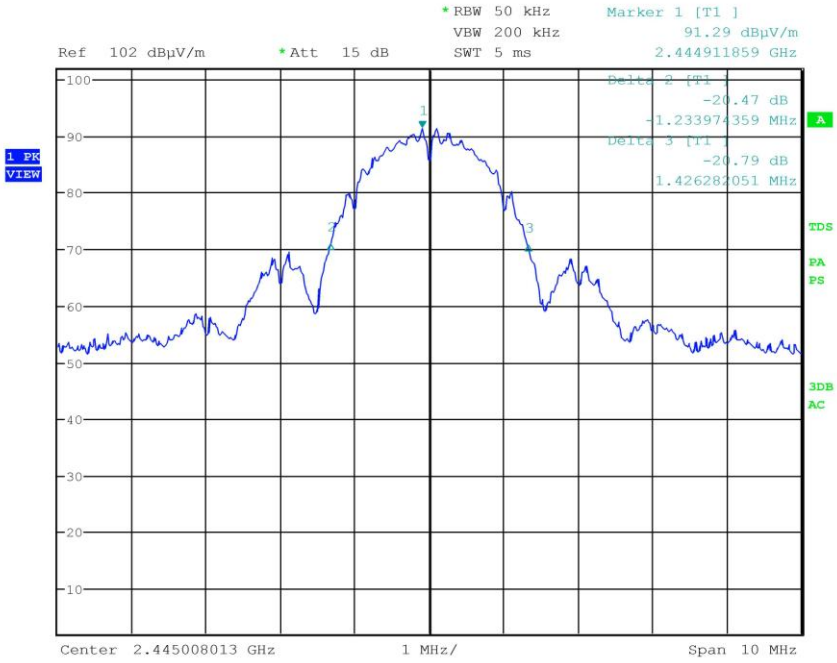


Final Measurement

Meas Time:	1 s
Margin:	6 dB
Subranges:	0

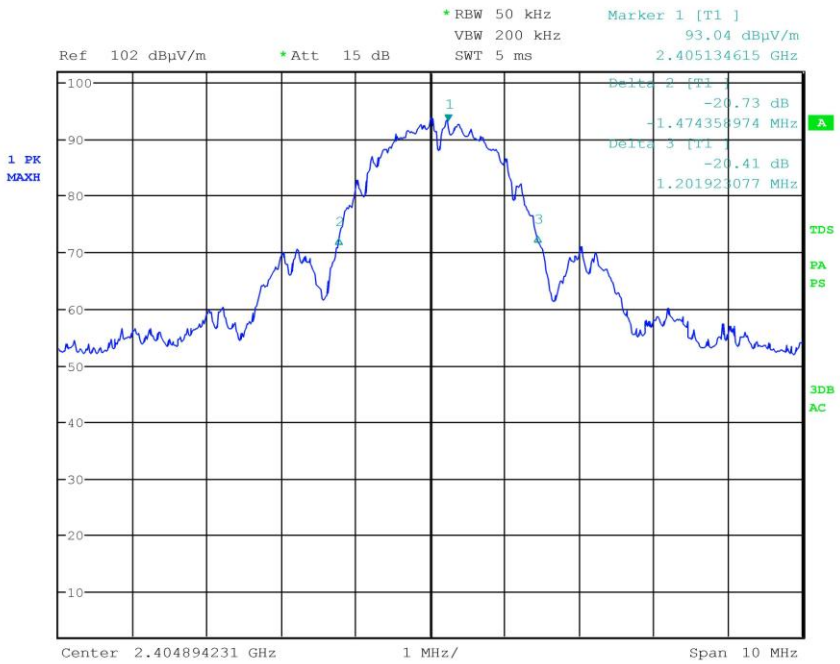
G11032522

Meas Type	Emission
Equipment under Test	
Manufacturer	
OP Condition	TX Fmed
Operator	Bertezzolo 11032522
Test Spec	



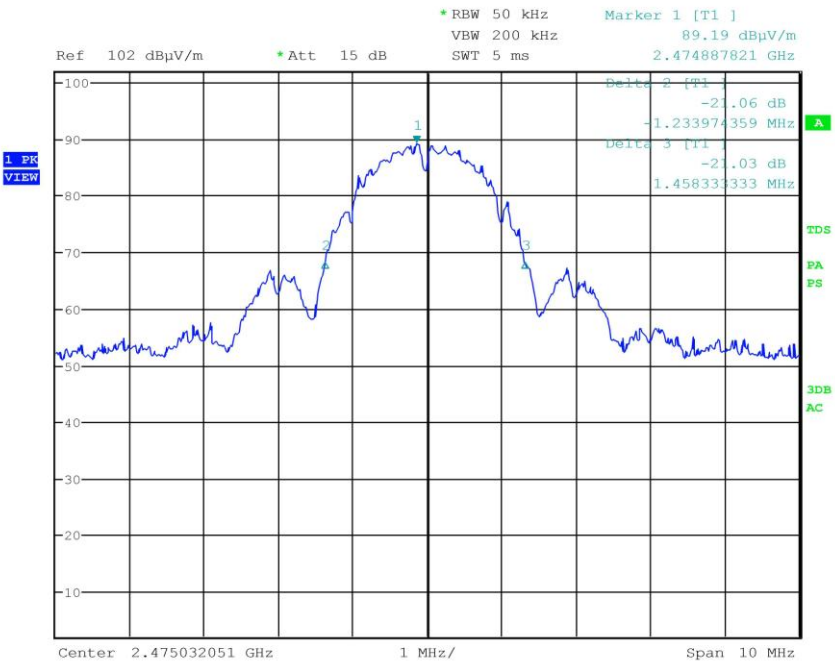
G11032523

Meas Type	Emission
Equipment under Test	
Manufacturer	
OP Condition	TX Fmin
Operator	Bertezzolo 11032523
Test Spec	



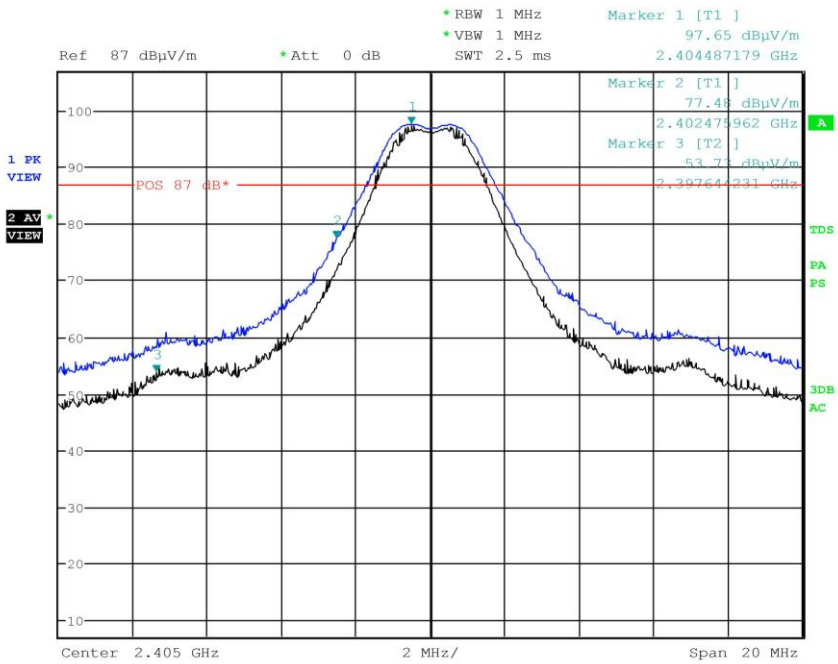
G11032524

Meas Type	Emission
Equipment under Test	
Manufacturer	
OP Condition	TX Fmax
Operator	Bertezzolo 11032524
Test Spec	



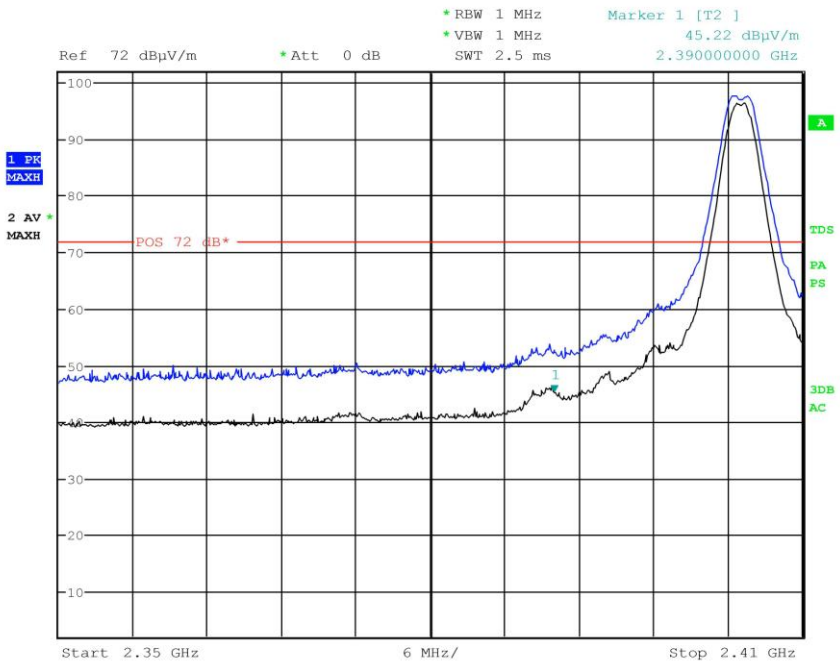
G11032525

Meas Type	Emission
Equipment under Test	
Manufacturer	
OP Condition	TX Fmin
Operator	Bertezzolo 11032525
Test Spec	



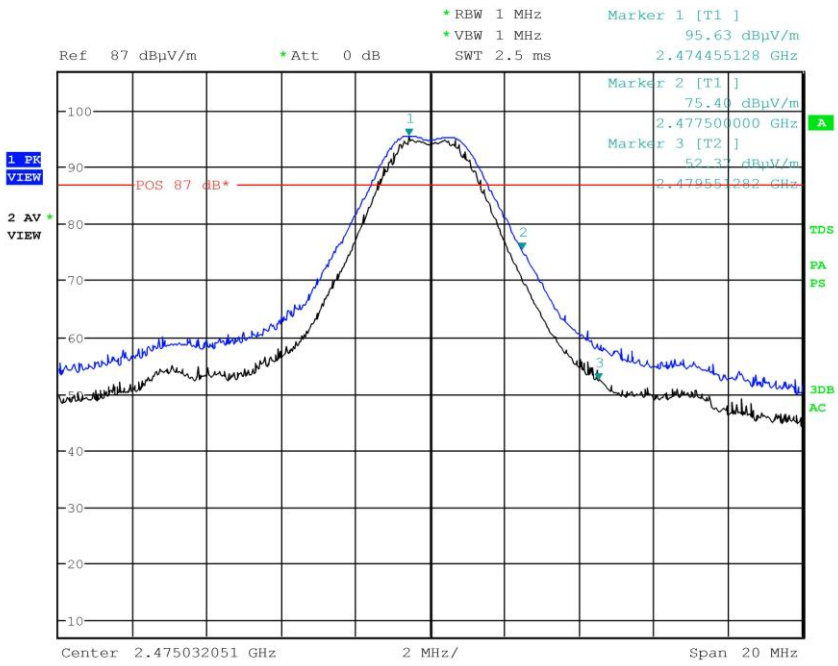
G11032526

Meas Type	Emission
Equipment under Test	
Manufacturer	
OP Condition	TX Fmin
Operator	Bertezzolo 11032526
Test Spec	



G11032527

Meas Type	Emission
Equipment under Test	
Manufacturer	
OP Condition	TX Fmax
Operator	Bertezzolo 11032527
Test Spec	



G11032528

Meas Type	Emission
Equipment under Test	
Manufacturer	
OP Condition	TX Fmax
Operator	Bertezzolo 11032528
Test Spec