



## TEST REPORT nr. R11034401

### Federal Communication Commission (FCC)

#### Test item

Description.....: RFID UHF Desktop Reader

Trademark.....: CAEN RFID

Model/Type.....: R1260U

#### Test Specification

Standard .....: FCC Rules & Regulations, Title 47 (2010) - Part 15 paragraph(s) : 247(a), 247(b), 247(c), 209 and 207

**Client's name**.....: CAEN RFID

Address .....: Via Vetraia, 11 - 55049 Viareggio (LU) – ITALY

**Manufacturer's name**.: Same ad client

Address .....:

#### Report

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

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

Date of issue.....: 28.03.11

Contents .....: 56 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

<b>1. SUMMARY</b>	<b>3</b>
<b>2. DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)</b>	<b>4</b>
2.1 TEST SITE	4
<b>3. TESTING AND SAMPLING</b>	<b>4</b>
<b>4. OPERATIVE CONDITIONS</b>	<b>4</b>
<b>5. PHOTOGRAPH(S) OF EUT</b>	<b>5</b>
<b>6. EQUIPMENT LIST</b>	<b>6</b>
<b>7. MEASUREMENT UNCERTAINTY</b>	<b>7</b>
<b>8. REFERENCE DOCUMENTS</b>	<b>8</b>
<b>9. DEVIATION FROM TEST SPECIFICATION</b>	<b>9</b>
<b>10. TEST CASE VERDICTS</b>	<b>9</b>
<b>11. RESULTS</b>	<b>9</b>
11.1 ANTENNA REQUIREMENTS	10
11.2 BANDWIDTH	11
11.3 CHANNEL SEPARATION	12
11.4 AVERAGE TIME OF OCCUPANCY	13
11.5 NUMBER OF HOPPING CHANNELS	14
11.6 PEAK OUTPUT POWER	15
11.7 BAND EDGE	17
11.8 RADIATED SPURIOUS	18
11.9 EMISSION OF MAINS TERMINAL DISTURBANCE VOLTAGE (CONTINUOUS DISTURBANCE)	21
11.10 MAXIMUM PERMISSIBLE EXPOSURE	22
<b>12. GRAPHS AND TABLES</b>	<b>23</b>



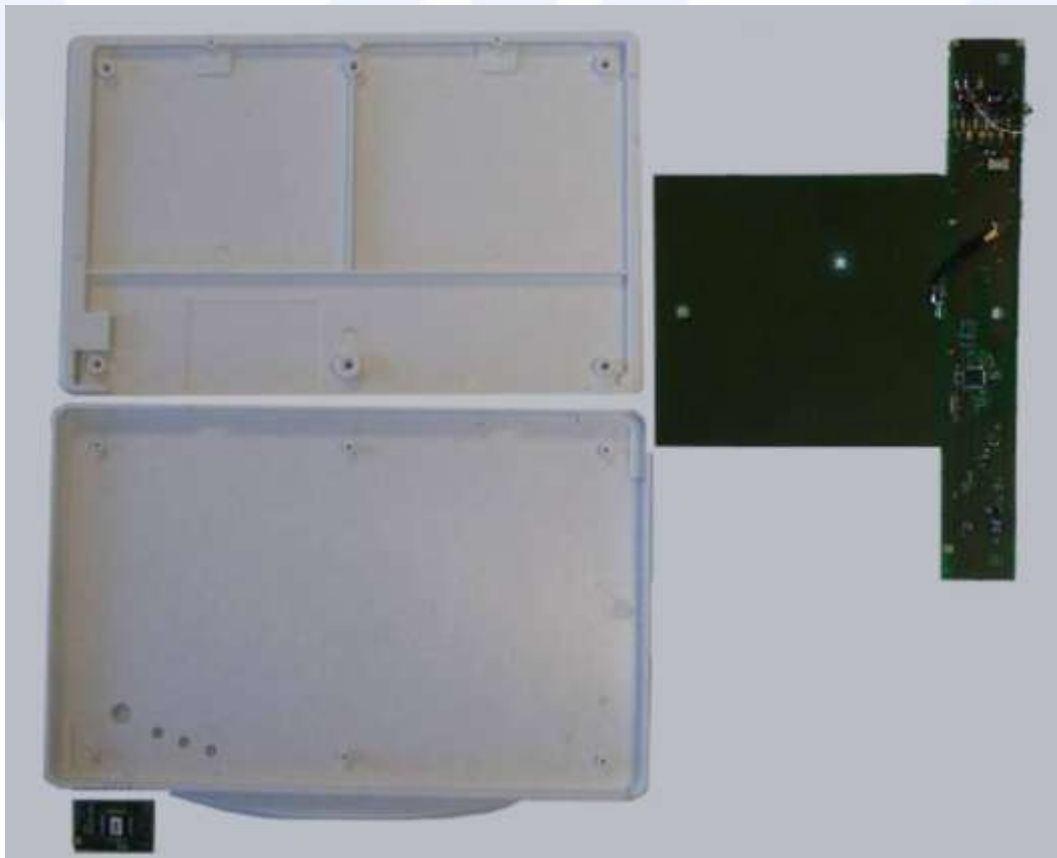
<b>1. Summary</b>			
Standard: FCC Rules & Regulations, Title 47			
Test specifications	Environmental Phenomena	Tests sequence	Result
Part 15.247(a)	Bandwidth	1	Complies
Part 15.247(a)	Channel Separation	2	Complies
Part 15.247(a)	Time of Occupancy	3	Complies
Part 15.247(a)	Number of Hopping Frequency	4	Complies
Part 15.247(b)	Peak Output Power conducted	5	Complies
Part 15.247(c)	Band Edge	6	Complies
Part 15.247(c) Part 15.209	Radiated Spurious	7	Complies
Part 15.247(c) Part 15.209	Conducted Spurious	8	Complies
Part 15.207	Conducted Emission	9	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 and IC certification.*





**5. Photograph(s) of EUT**



CMC Centro Misure Compatibilità S.r.l.



## 6. Equipment list

<i>Id. number</i>	<i>Manufacturer</i>	<i>Model</i>	<i>Description</i>	<i>Serial number</i>	<i>Last calibration</i>	<i>Due date calibration</i>
CMC 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 S127	SCHAFFNER	HLA6120	Loop Antenna	1191	January '10	January '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

CMC Centro Misure Compatibilità S.r.l.



## 7. Measurement uncertainty

Test	Expanded Uncertainty	note
<b>Conducted Emission</b>		
(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
<b>Discontinuous Conducted Emission</b>		
Conducted Emission (50Ω/50μH AMN) - (150 kHz – 30 MHz)	±2.9 dB	1
<b>Disturbance Power (30 MHz – 300 MHz)</b>		
	±3.1 dB	1
<b>Radiated Emission</b>		
(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
<b>Electromagnetic field EMF</b>		
	±18.8 %	1
<b>Harmonic current emissions test</b>		
	±2.5 %	1
<b>Voltage fluctuation and flicker test</b>		
	±5.3 %	1
<b>Insertion loss test</b>		
	±2.2 dB	1
<b>Radiated electromagnetic disturbance test (loop antenna)</b>		
	±2.4 dB	1
<b>Radiated electromagnetic field immunity test</b>		
	0.8 V/m at 3V/m	1
<b>Pulse modulated radiated electromagnetic field immunity test</b>		
	0.8 V/m at 3V/m	1
<b>Injected currents immunity test</b>		
	0.6 V at 3V	1
<b>Bulk current</b>		
	8.4 mA at 60 mA	1
<b>Power frequency magnetic field immunity test</b>		
	0.4 A/m at 3 A/m	1
<b>Electrostatic discharge immunity test</b>		
		2
<b>Electrical fast transients / burst immunity test</b>		
		2
<b>Surge immunity test</b>		
		2
<b>Short interruption immunity test</b>		
		2
<b>Voltage transient emission test</b>		
	±4 %	1
<b>Transient immunity test</b>		
		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 demonstrated that the used test equipment meets the specified requirements in the standard with at least a 95% confidence, covering factor k = 2.



## 8. Reference documents

<i>Reference no.</i>	<i>Description</i>
FCC Rules and Regulation Title 47 part 15 (2010)	--
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.

CMC Centro Misura Compatibilità S.r.l.



## 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 °C Atmospheric pressure 100 kPa Relative humidity 49 %

### 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 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 be 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

<i>Antenna Type</i>	<i>Gain</i>	<i>Remarks</i>	<i>Results</i>
Integrated	-2,6 dBi	--	Complies

### Remarks

//////////

### 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 °C Atmospheric pressure 99 kPa Relative humidity 48 %

### Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- 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
902,75	G11034402	88,8 kHz	--
914,75	G11034403	88,2 kHz	--
927,25	G11034404	87,0 kHz	--
Measurement uncertainty: ±1 kHz			

### 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



### 11.3 Channel Separation

#### Test configuration and test method

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

#### Environmental conditions

Temperature 20 °C Atmospheric pressure 99 kPa Relative humidity 48 %

#### Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- 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

Limit: Minimum 25kHz or the 20dB Bandwidth of the hopping system

#### Result

Frequency (MHz)	Graph(s)	Channel Separation	Remark
902,75	G11034405	500 kHz	--
914,75	G11034406	500 kHz	--
927,25	G11034407	500 kHz	--

Measurement uncertainty: ±1kHz

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



### 11.4 Average Time of Occupancy

#### Test configuration and test method

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

#### Environmental conditions

Temperature 21 °C Atmospheric pressure 99 kPa Relative humidity 49 %

#### Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- 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

0.4 s within 20 s period

#### Result

Frequency (MHz)	Graph(s)	Dwell time	Remark
902,75	G11034411	--	Nr. 6 transmissions in 20s
902,75	G11034408	29,0	--
914,75	G11034412	--	Nr. 6 transmissions in 20s
914,75	G11034409	29,0	--
927,25	G11034413	--	Nr. 6 transmissions in 20s
927,25	G11034410	29,0	--

Frequency (MHz)	Time of Occupancy	Remarks
902,75	6 x 29,0 = 174,0 ms	--
914,75	6 x 29,0 = 174,0 ms	--
927,25	6 x 29,0 = 174,0 ms	--

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



### 11.5 Number of Hopping Channels

#### Test configuration and test method

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

#### Environmental conditions

Temperature 22 °C Atmospheric pressure 99 kPa Relative humidity 46 %

#### Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- 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

Port	Graph(s)	Number of Hopping Frequency	Remark
Enclosure	G11034401	50	--

#### 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



## 11.6 Peak Output Power

### Test configuration and test method

Test site

Laboratory

Auxiliary equipment

See clause 4 of this test report

### Environmental conditions

Temperature 22 °C Atmospheric pressure 99 kPa Relative humidity 48 %

### Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- 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

Frequency range	RF power output
915 – 928 MHz	1,0 W / 30dBm

### Result

Frequency (MHz)	Polarization	E (dB $\mu$ V/m)	Peak Output Power (mW)	Remark
902,75	Horizontal	113,91	75,00	--
902,75	Vertical	108,53	21,87	--
914,75	Vertical	106,90	14,52	--
914,75	Horizontal	111,99	48,00	--
927,25	Horizontal	112,59	55,47	--
927,25	Vertical	109,94	28,83	--

Measurement uncertainty:  $\pm 3$ dBm



### 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 with reference to an isotropic radiator (1)

d = the distance in meters from which the field strength was measured (3m)

P = the power in watts

### Reference documents

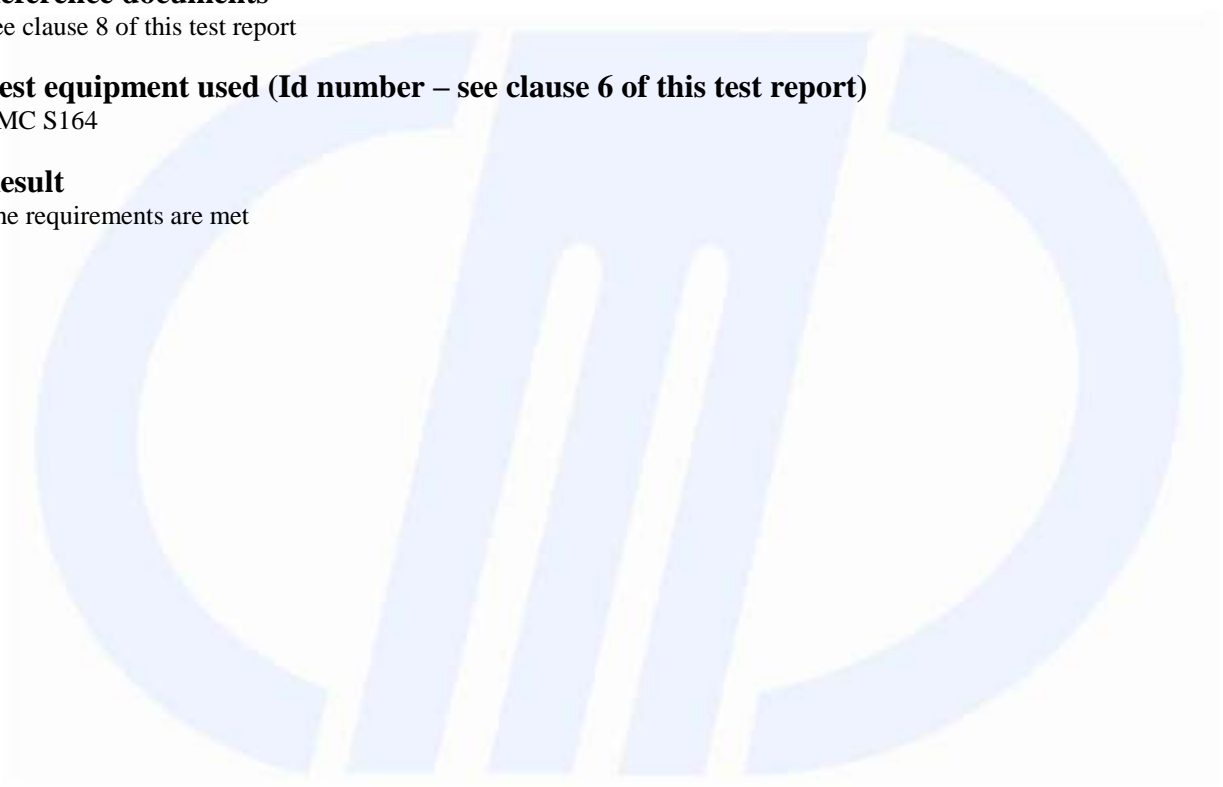
See clause 8 of this test report

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

CMC S164

### Result

The requirements are met







## 11.7 Band Edge

### Test configuration and test method

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

### Environmental conditions

Temperature 20 °C Atmospheric pressure 99 kPa Relative humidity 46 %

### Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- 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)	Attenuation Band Edge	Remark
902,75	G11034414	> 20dBc	Hopping enable
927,25	G11034415	> 20dBc	Hopping enable
902,75	G11034416	> 20dBc	Hopping disable
927,25	G11034417	> 20dBc	Hopping disable
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



## 11.8 Radiated Spurious

### Test configuration and test method

Test site Semi-anechoic chamber  
 Auxiliary equipment None

### Environmental conditions

Temperature 19 °C 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
- 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
902,75	Vertical	30 – 1000	G11034424	--	Complies
902,75	Horizontal	30 – 1000	G11034425	--	Complies
914,75	Horizontal	30 – 1000	G11034426	--	Complies
914,75	Vertical	30 – 1000	G11034427	--	Complies
927,25	Vertical	30 – 1000	G11034428	--	Complies
927,25	Horizontal	30 – 1000	G11034429	--	Complies
902,75	Horizontal	1000 – 10000	G11034418	--	Complies
902,75	Vertical	1000 – 10000	G11034419	--	Complies
914,75	Vertical	1000 – 10000	G11034420	--	Complies
914,75	Horizontal	1000 – 10000	G11034421	--	Complies
927,25	Horizontal	1000 – 10000	G11034422	--	Complies
927,25	Vertical	1000 – 10000	G11034423	--	Complies

Channel	Antenna	Frequency Range (MHz)	Graph(s)	Remarks	Result
902,75	Loop Antenna	9kHz – 30MHz	G11034430	--	Complies
914,75	Loop Antenna	9kHz – 30MHz	G11034431	--	Complies
927,25	Loop Antenna	9kHz – 30MHz	G11034432	--	Complies



Nr. Harmonics	AV level (dB $\mu$ V/m)						AV Limits (dB $\mu$ V/m)	Remark
	902,75 MHz		914,75MHz		927,25 MHz			
	Frequency	(dB $\mu$ V/m)	Frequency	(dB $\mu$ V/m)	Frequency	(dB $\mu$ V/m)		
II Harmonic	1805,50	41,3	1829,50	40,2	1854,50	41,6	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:  $\pm 4$ dB

Nr. Harmonics	PK level (dB $\mu$ V/m)						PK Limits (dB $\mu$ V/m)	Remark
	902,75 MHz		914,75MHz		927,25 MHz			
	Frequency	(dB $\mu$ V/m)	Frequency	(dB $\mu$ V/m)	Frequency	(dB $\mu$ V/m)		
II Harmonic	1805,50	47,9	1829,50	47,6	1854,50	48,5	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:  $\pm 4$ dB



### 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

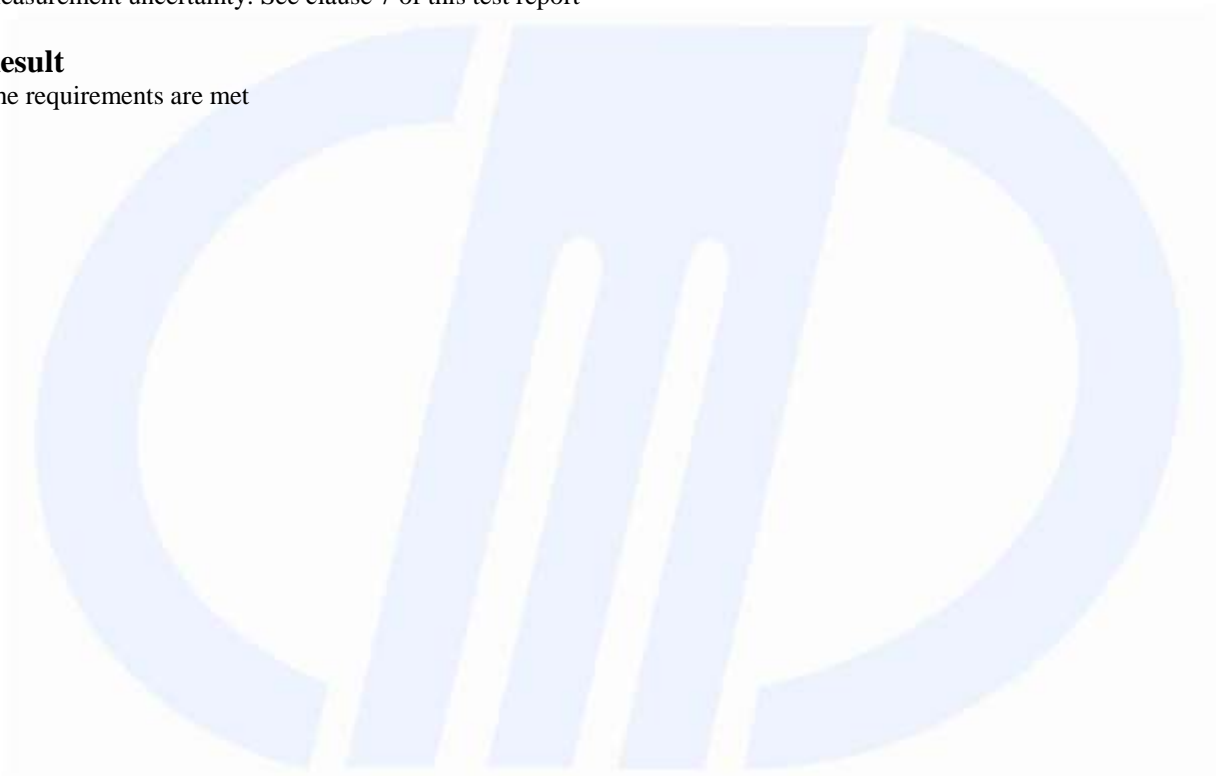
### Test equipment used (Id number – see clause 6 of this test report)

CMC S108, CMC 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 °C Atmospheric pressure 99 kPa Relative humidity 45 %

#### Test set-up and execution

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

#### Test specification

Port: AC mains

#### EUT exercising

See clause 4 of this test report

#### Acceptance limits

<i>Limits</i>		
<i>Frequency range (MHz)</i>	<i>dB(µV) Quasi-peak</i>	<i>dB(µV) Average</i>
0,15 to 0,50	66 to 56	56 to 46
0,50 to 5	56	46
5 to 30	60	50

#### Result

<i>Line</i>	<i>Graphs</i>	<i>Remarks</i>	<i>Result</i>
Line 0V (USB)	G11034433	--	Complies
Line 5V (USB)	G11034434	--	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 °C Atmospheric pressure 100 kPa Relative humidity 45 %

#### Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 1.1310
- 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<sup>2</sup> = 0,60 mW/cm<sup>2</sup> max at 20cm of distance

#### Result

Power Density Limit (mW/cm <sup>2</sup> )	Output Power (mW)	Antenna Gain (G)	Power Density at 20cm (mW/cm <sup>2</sup> )	Remarks
0,60	75,00	1	0,015	Measured
0,60	200	-2,6	0,103	Declared

#### Remarks

Power Density = (P x G) / (4πR<sup>2</sup>)

#### 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

G11034401

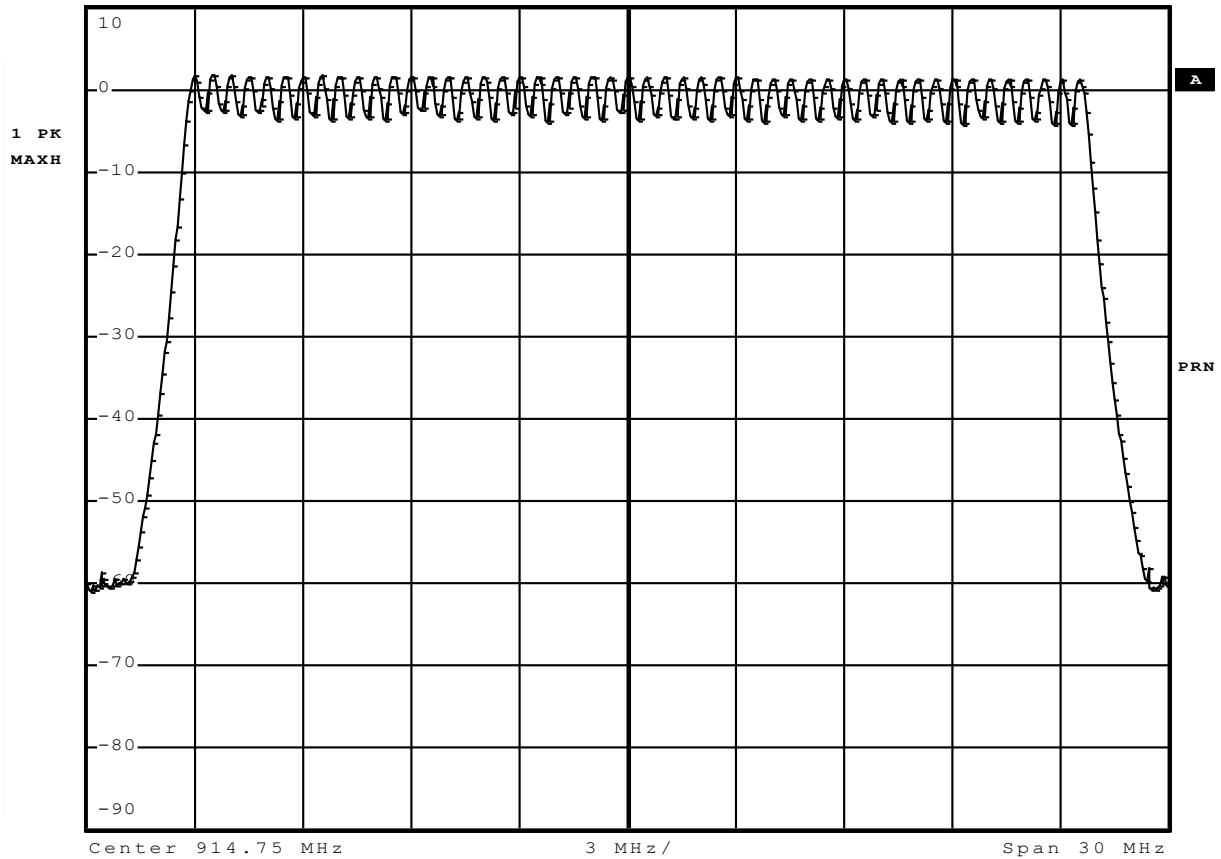
\* RBW 300 kHz

\* VBW 300 kHz

SWT 2.5 ms

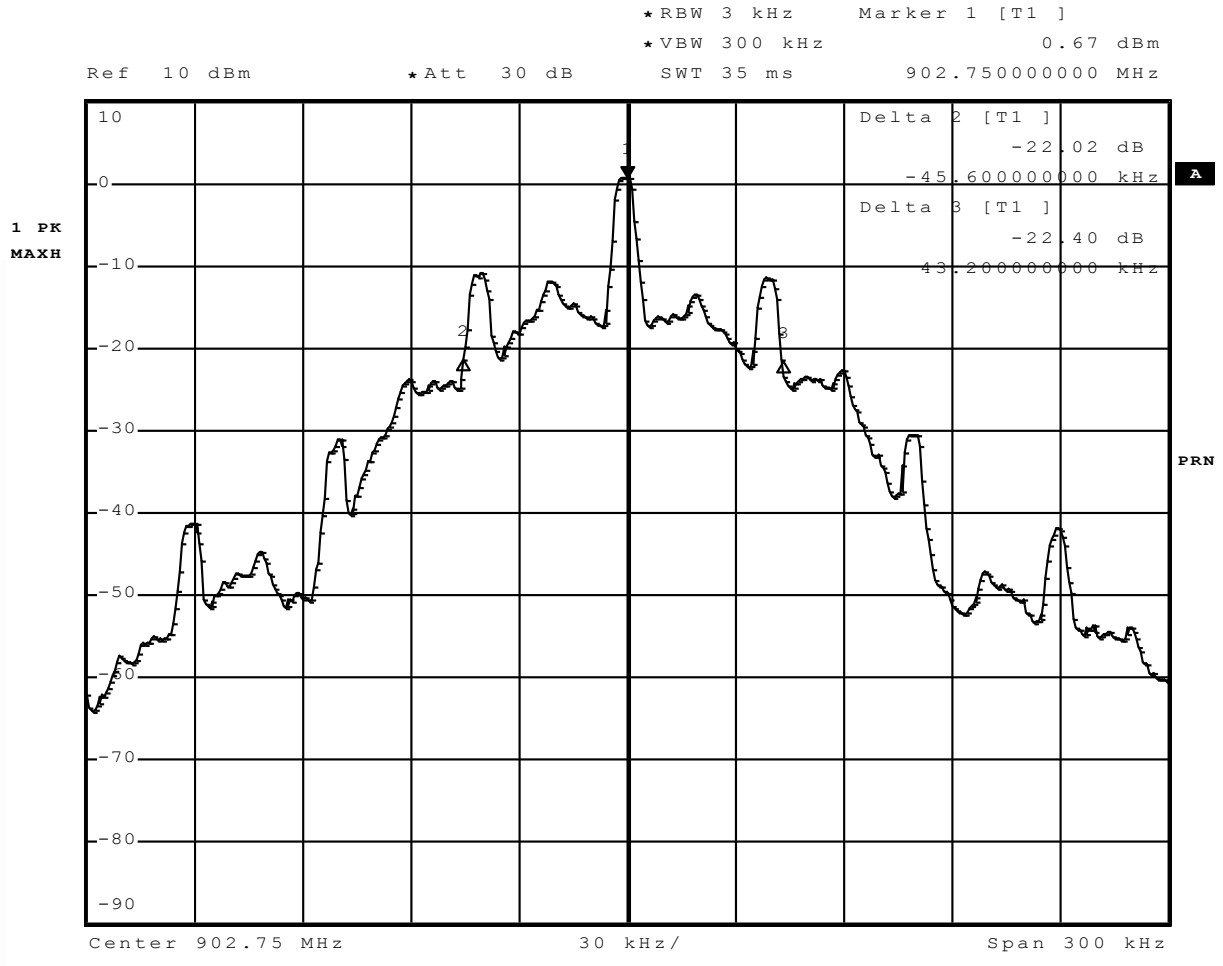
Ref 10 dBm

\* Att 30 dB





### G11034402

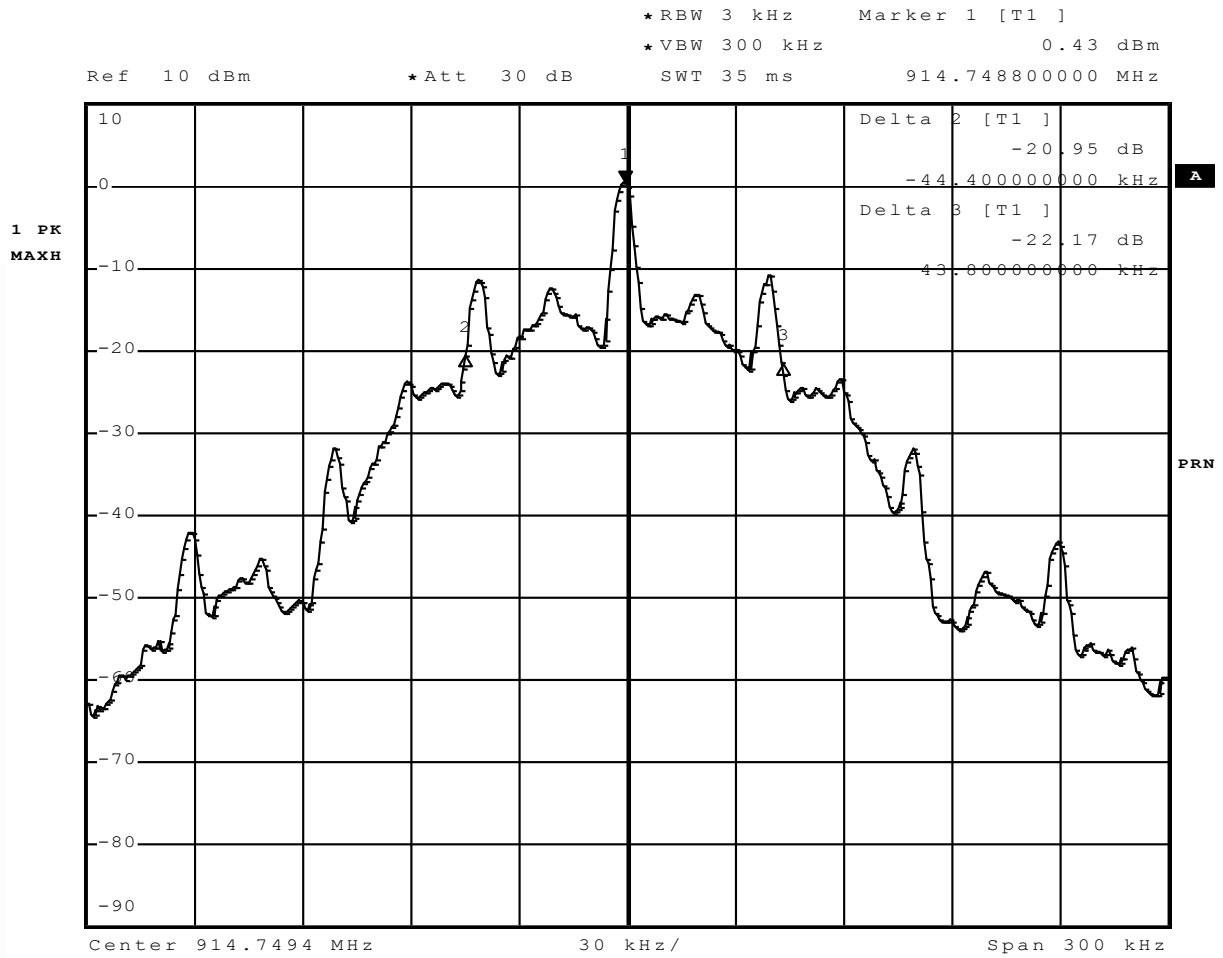


CMC Centro Misure Compatibilità S.r.l.





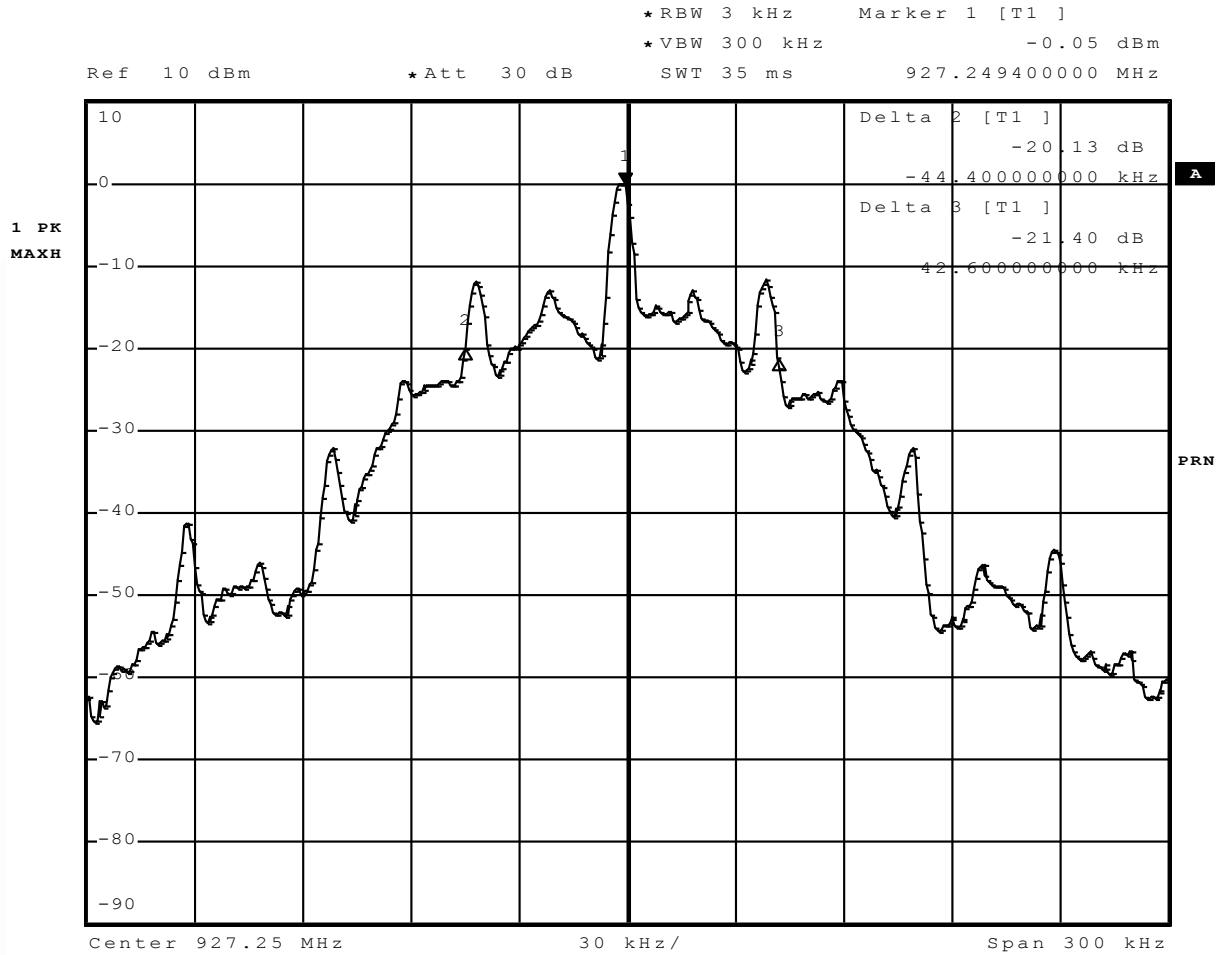
### G11034403



CMC Centro Misure Compatibilità S.r.l.



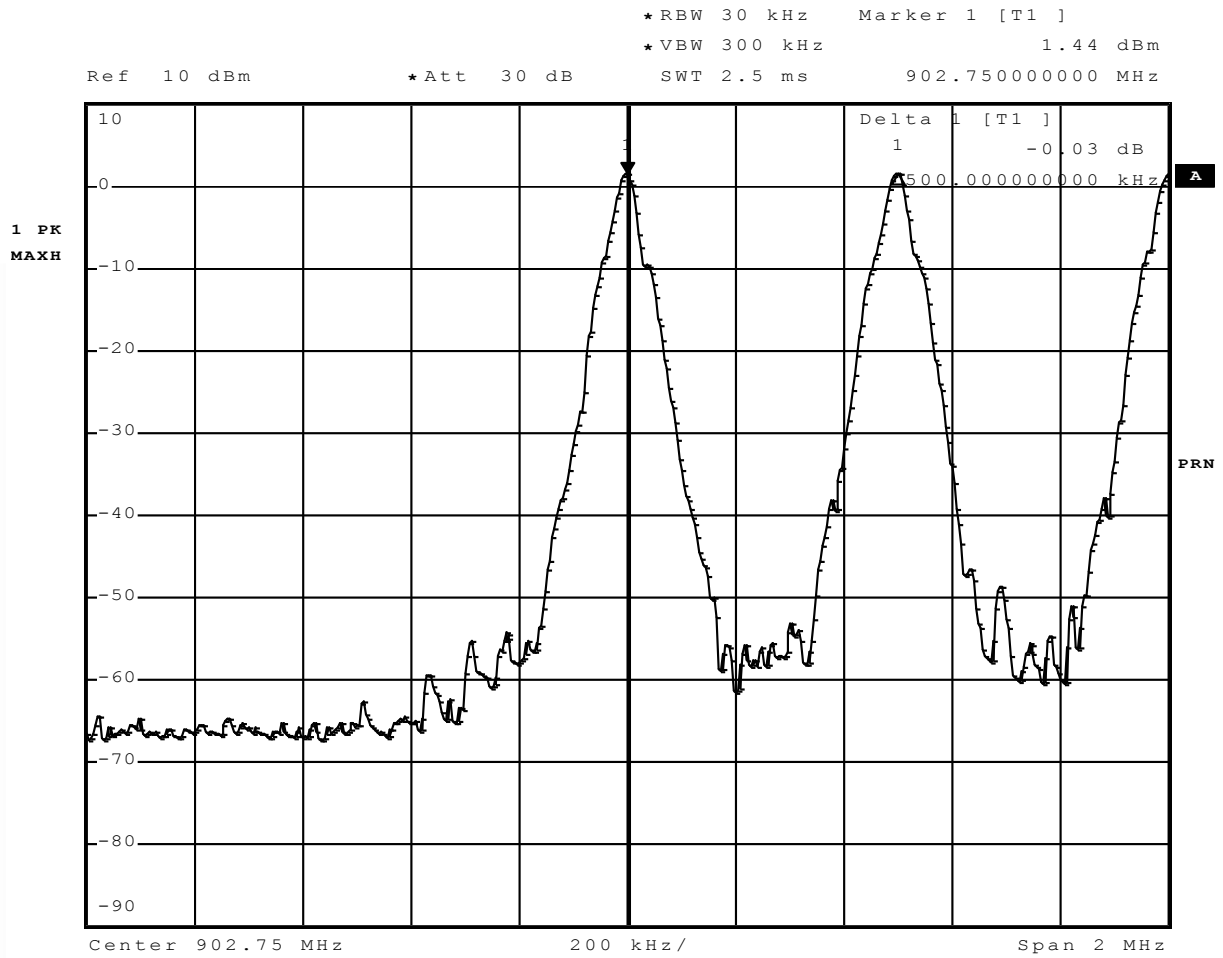
### G11034404



CMC Centro Misure Compatibilità S.r.l.



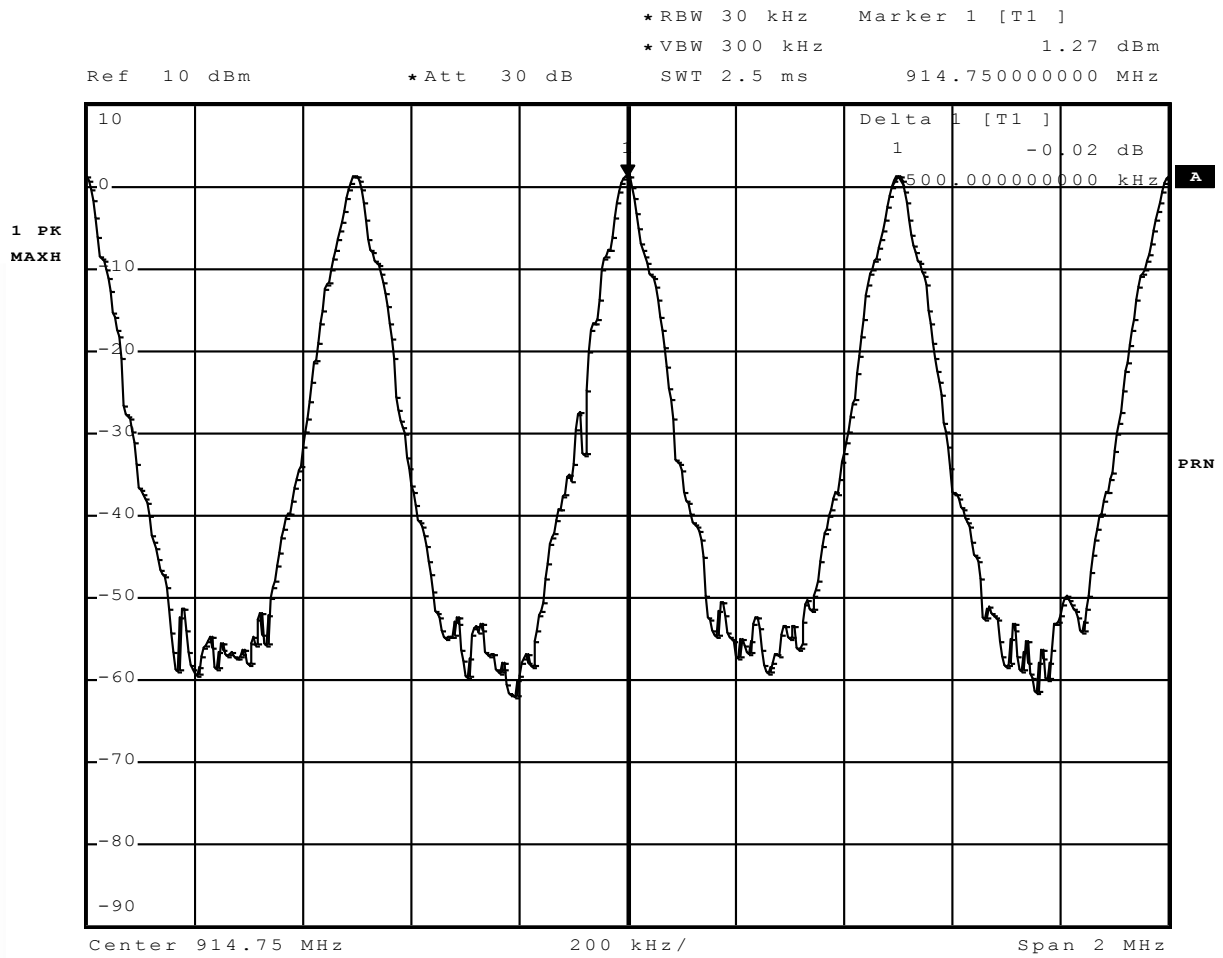
### G11034405



CMC Centro Misure Compatibilità S.r.l.



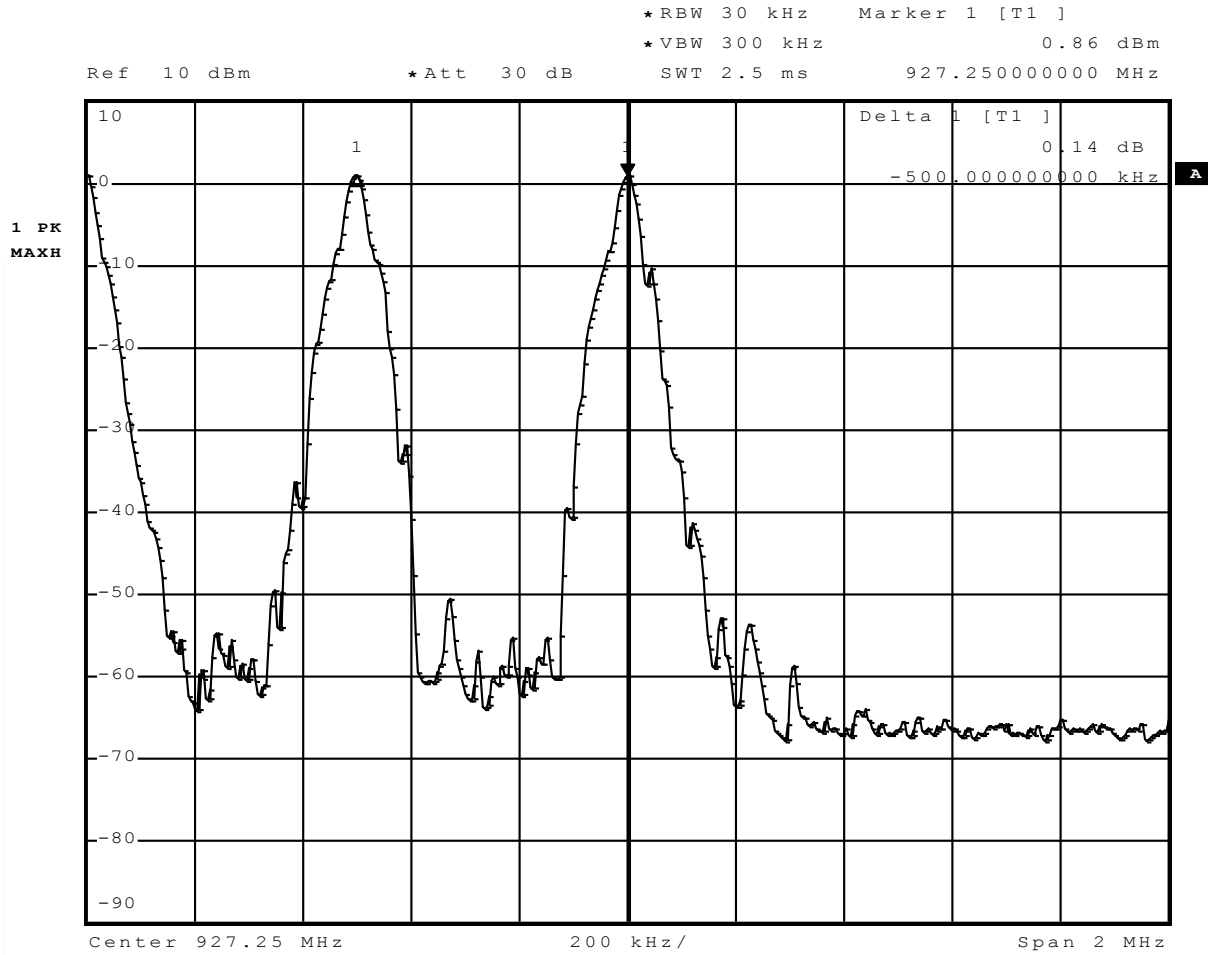
### G11034406



CMC Centro Misure Compatibilità S.r.l.



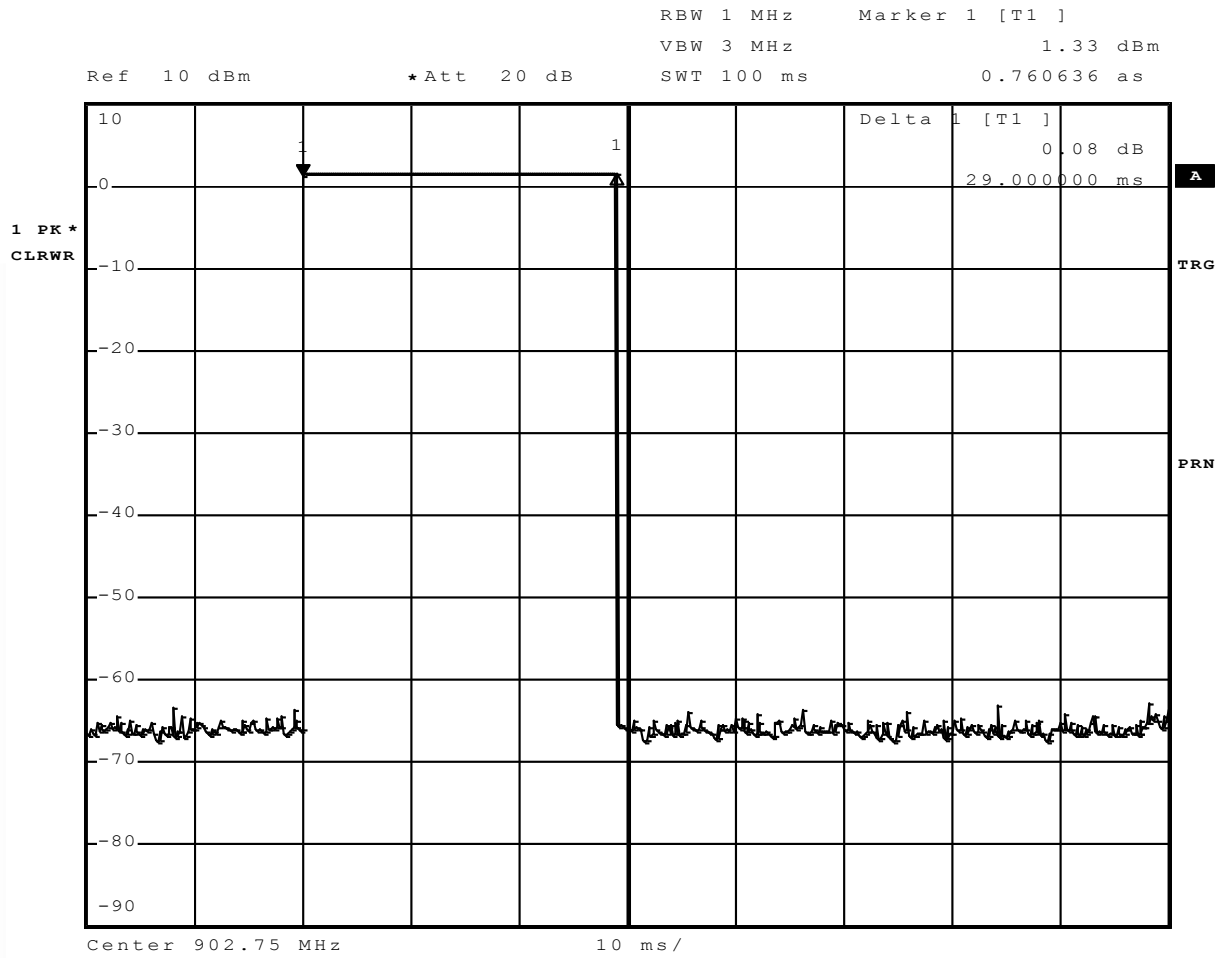
### G11034407



CMC Centro Misure Compatibilità S.r.l.



### G11034408

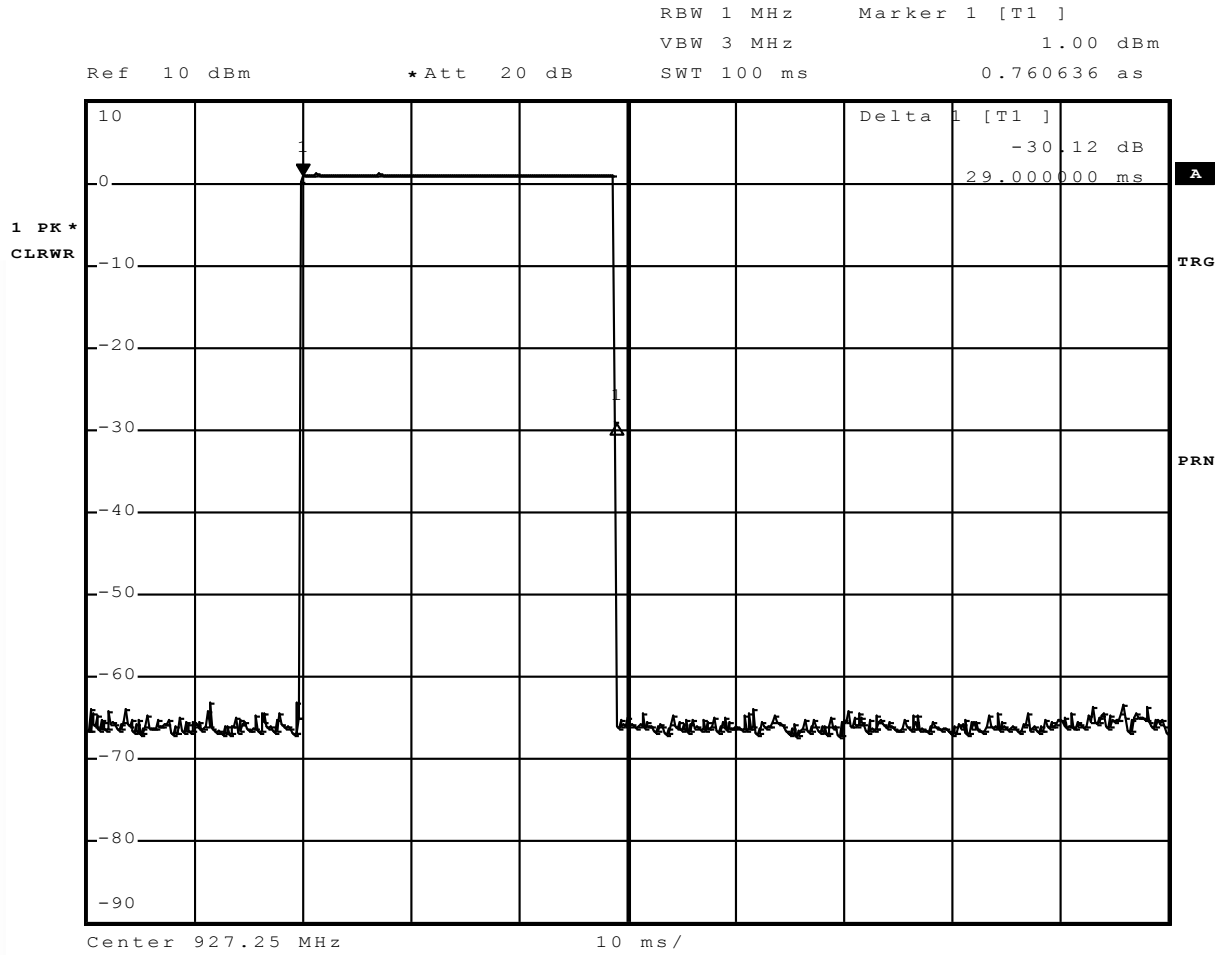


CMC Centro Misure Compatibilità S.r.l.





### G11034410

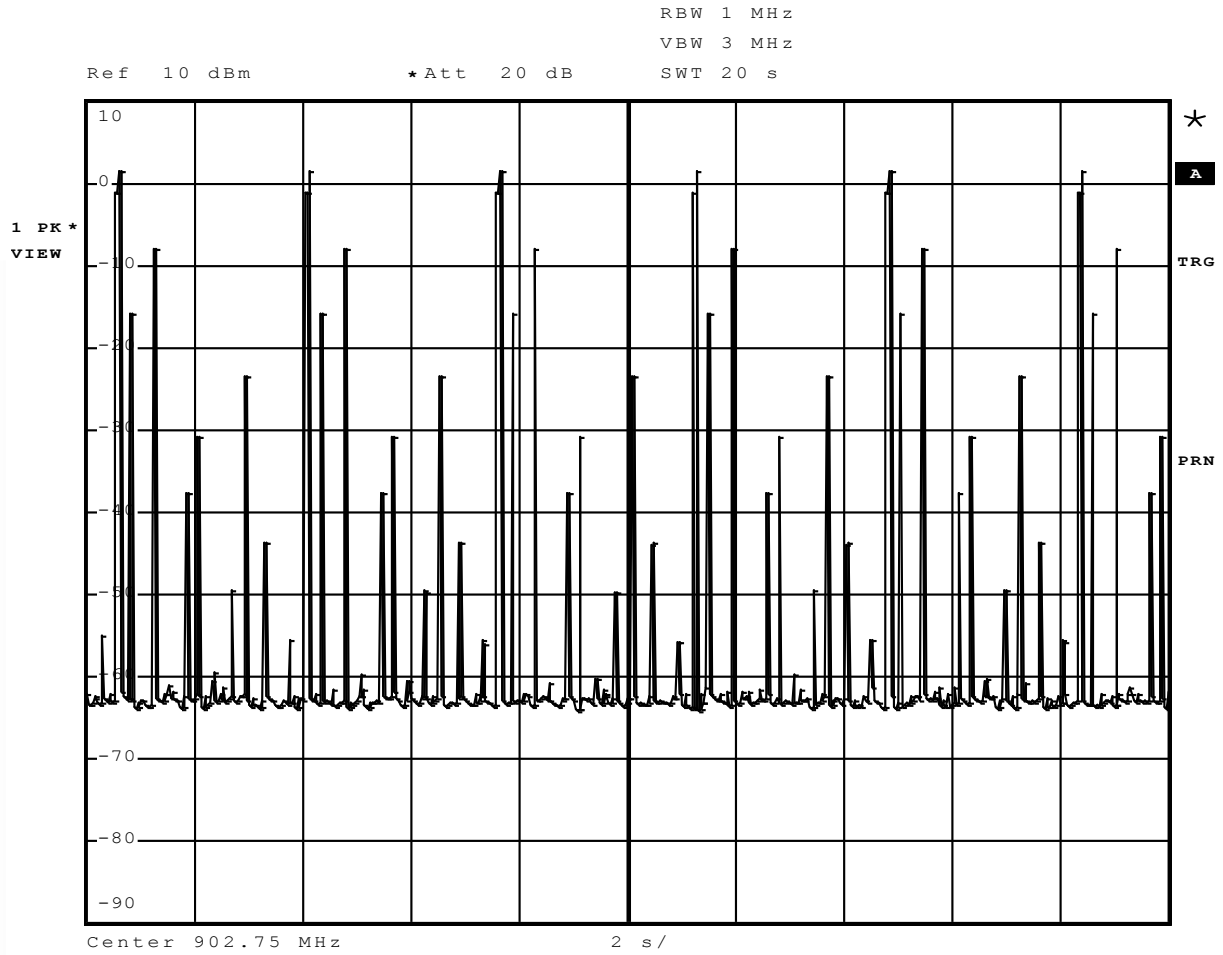


CMC Centro Misure Compatibilità S.r.l.





### G11034411



CMC Centro Misure Compatibilità S.r.l.



### G11034412

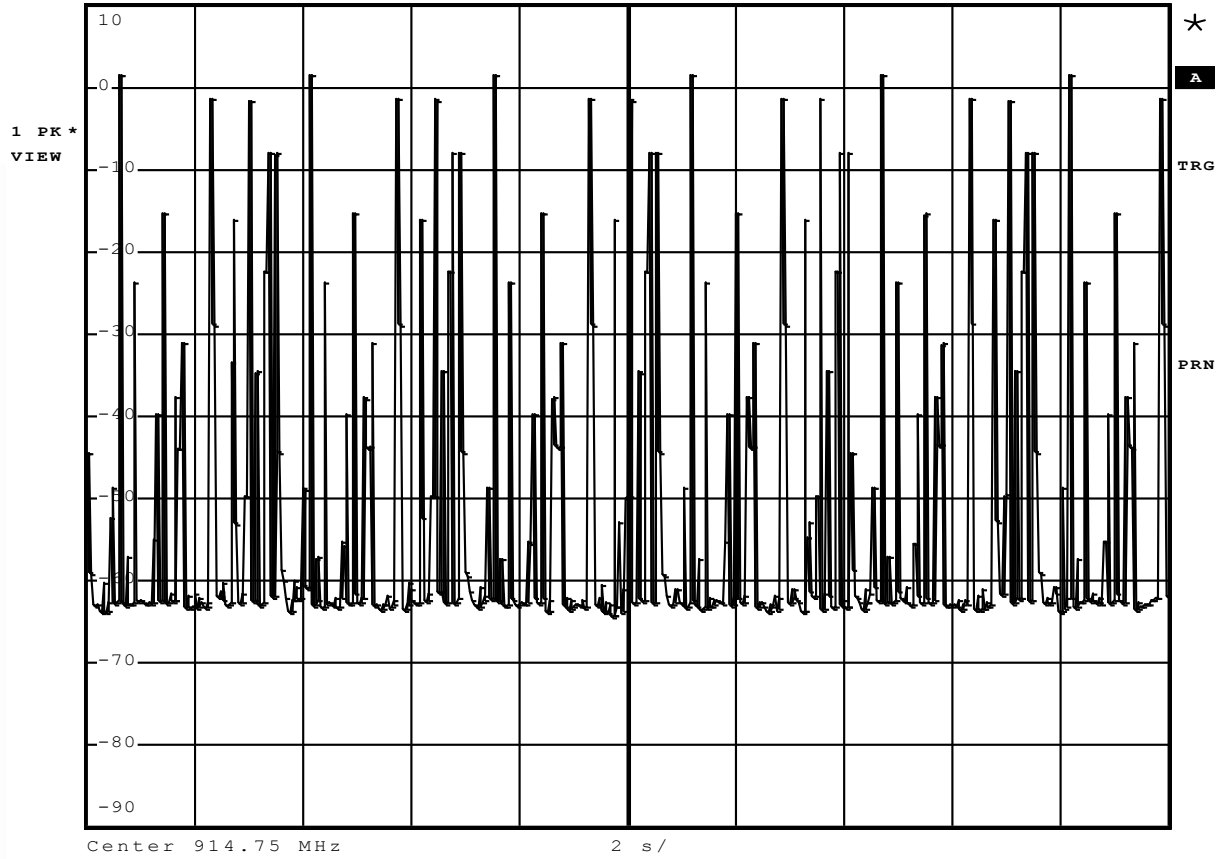
RBW 1 MHz

VBW 3 MHz

SWT 20 s

Ref 10 dBm

\*Att 20 dB



CMC Centro Misure Compatibilità S.r.l.



### G11034413

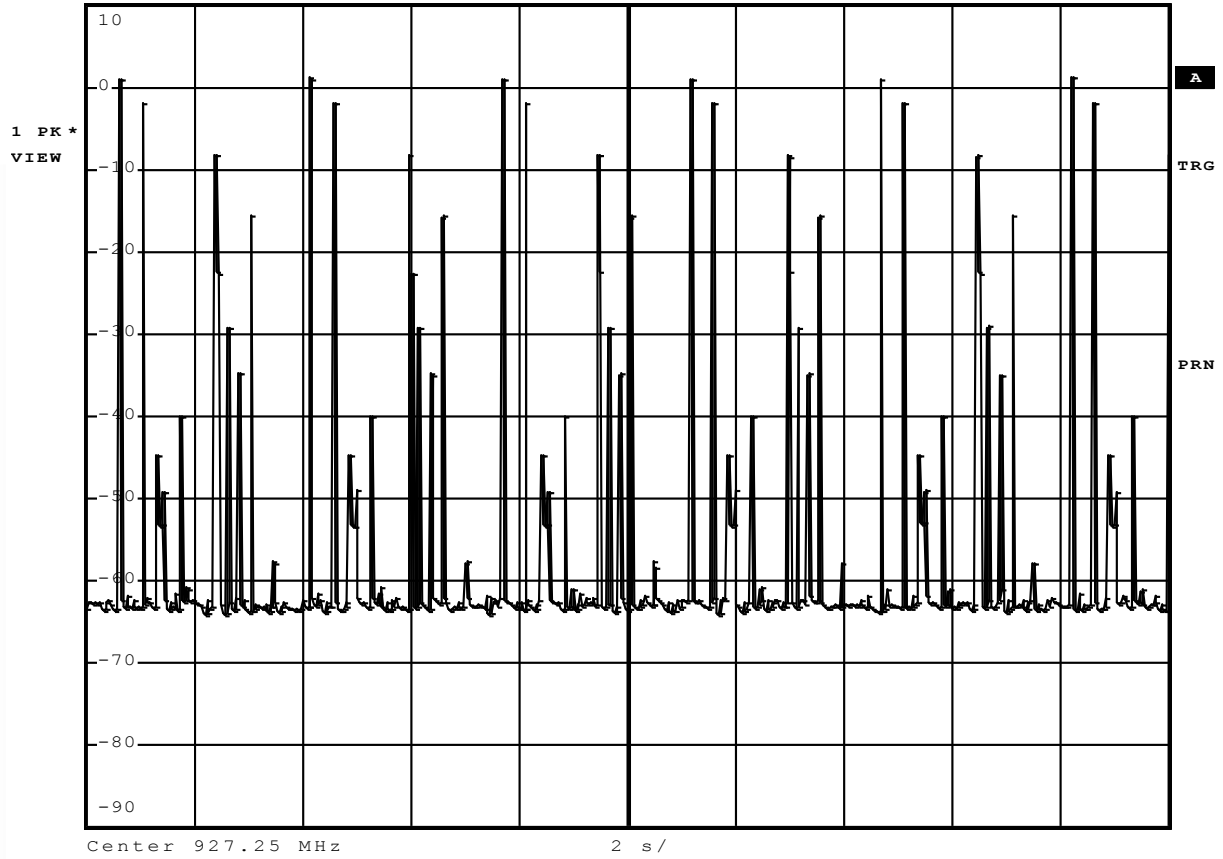
RBW 1 MHz

VBW 3 MHz

SWT 20 s

Ref 10 dBm

\*Att 20 dB

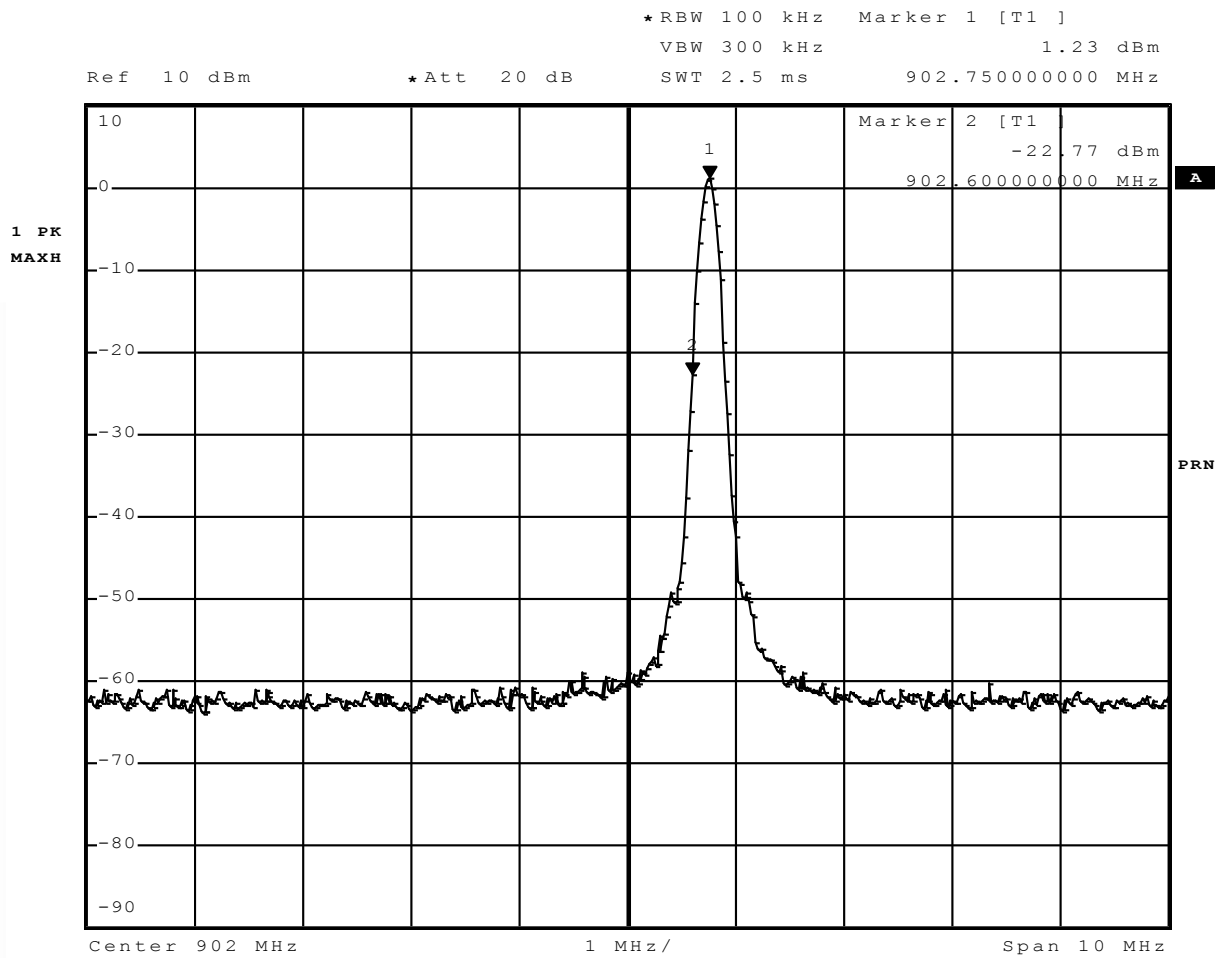








### G11034416



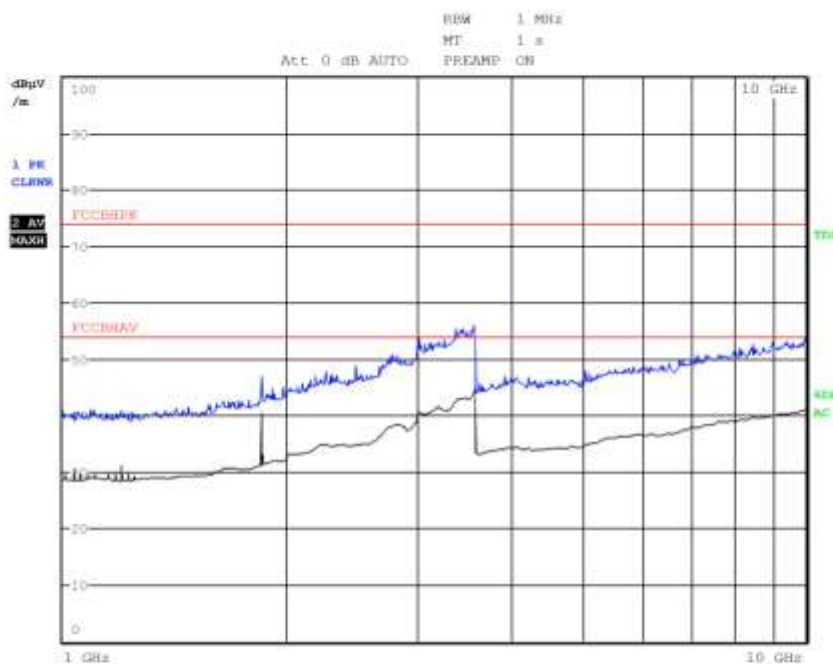
CMC Centro Misure Compatibilità S.r.l.





G11034418

**Meas Type** Emission 1000-10000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 927.25MHz  
**Operator** Bertezolo 11034418  
**Test Spec**  
Horiz



**Final Measurement**

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

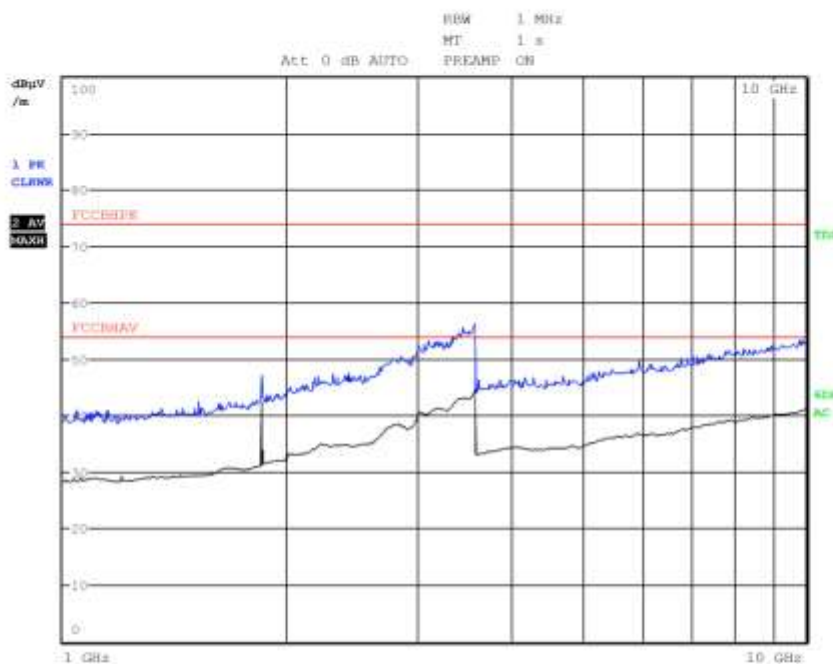
CMC Centro Misure Compatibilità S.r.l.





G11034419

**Meas Type** Emission 1000-10000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 927.25MHz  
**Operator** Bertezolo 11034419  
**Test Spec**  
Vert



**Final Measurement**

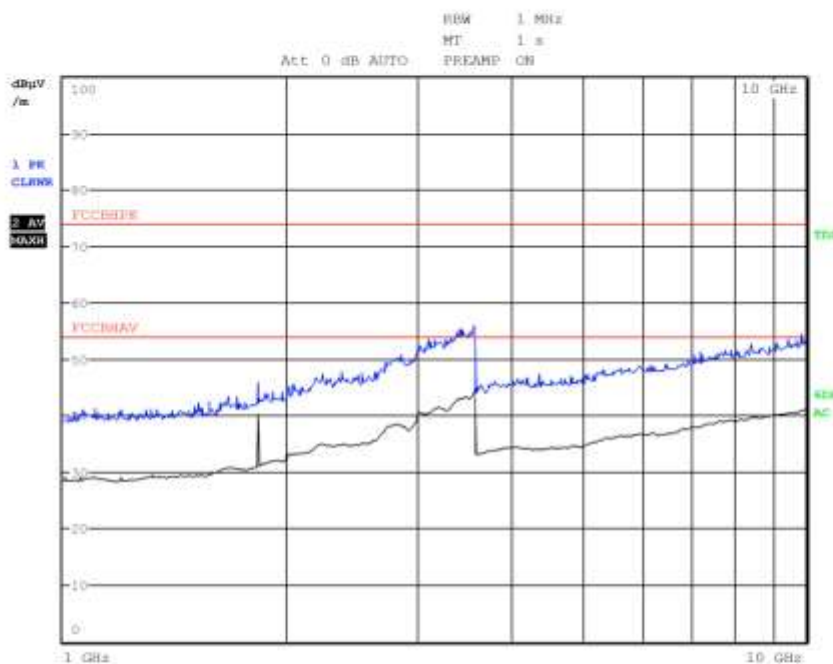
Meas Time: 1 s  
Margin: 6 dB  
Subranges: 0

CMC Centro Misure Compatibilità S.r.l.



G11034420

**Meas Type** Emission 1000-10000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 914.75MHz  
**Operator** Bertezolo 11034420  
**Test Spec**  
Vert



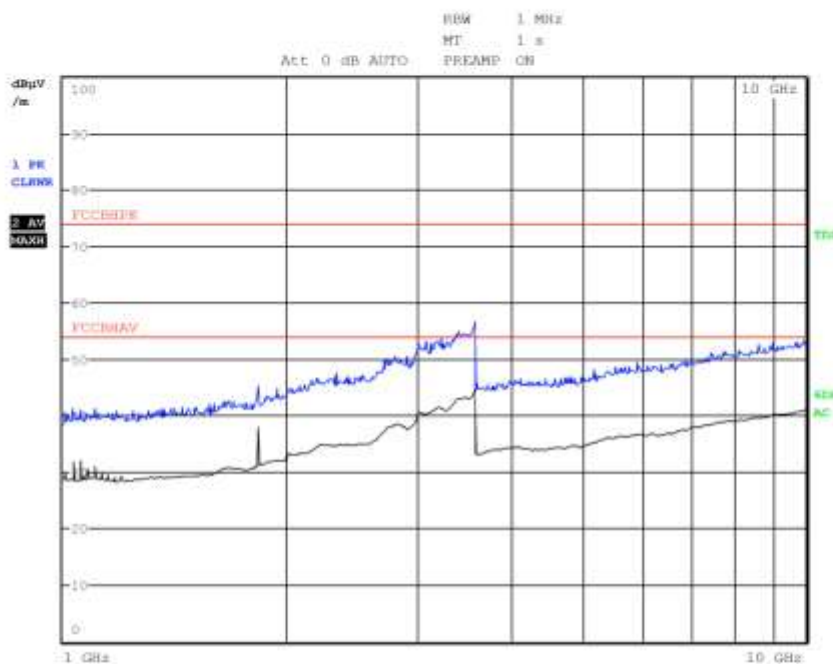
### Final Measurement

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



G11034421

**Meas Type** Emission 1000-10000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 914.75MHz  
**Operator** Bertezolo 110344201  
**Test Spec**  
Horiz



**Final Measurement**

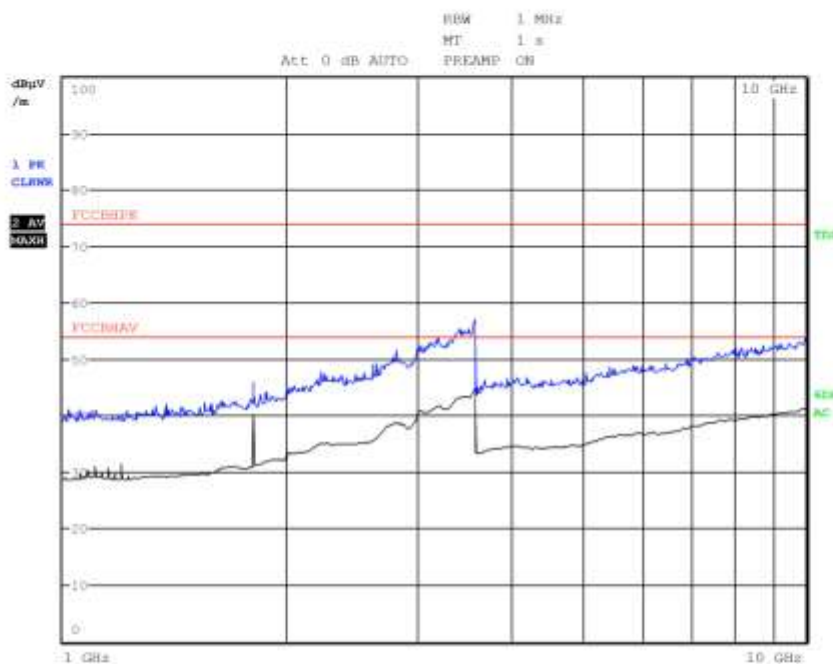
Meas Time: 1 s  
Margin: 6 dB  
Subranges: 0

CMC Centro Misure Compatibilità S.r.l.



G11034422

**Meas Type** Emission 1000-10000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 902.75MHz  
**Operator** Bertezolo 11034422  
**Test Spec**  
Horiz



### Final Measurement

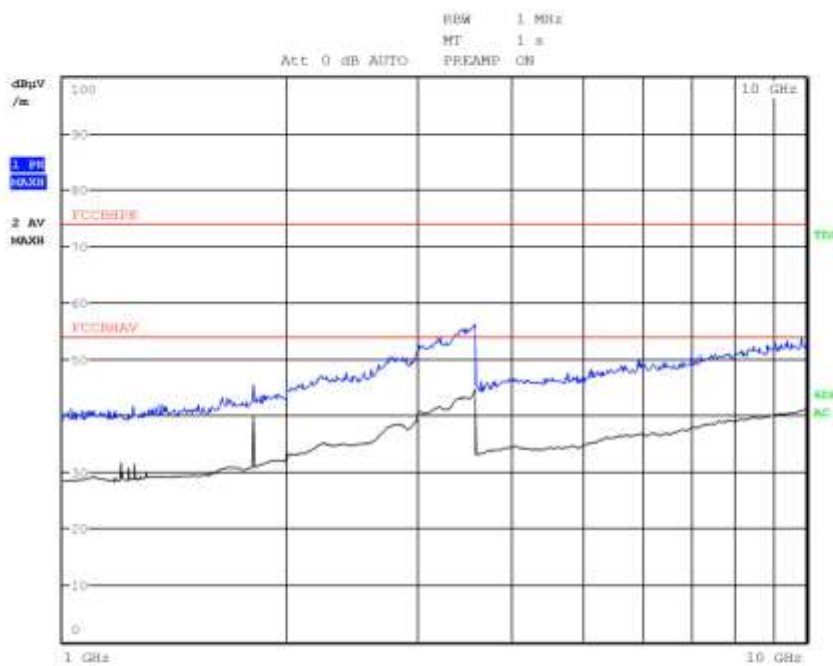
Meas Time: 1 s  
Margin: 6 dB  
Subranges: 0

CMC Centro Misure Compatibilità S.r.l.



G11034423

**Meas Type** Emission 1000-10000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 902.75MHz  
**Operator** Bertezolo 11034423  
**Test Spec**  
Vert



**Final Measurement**

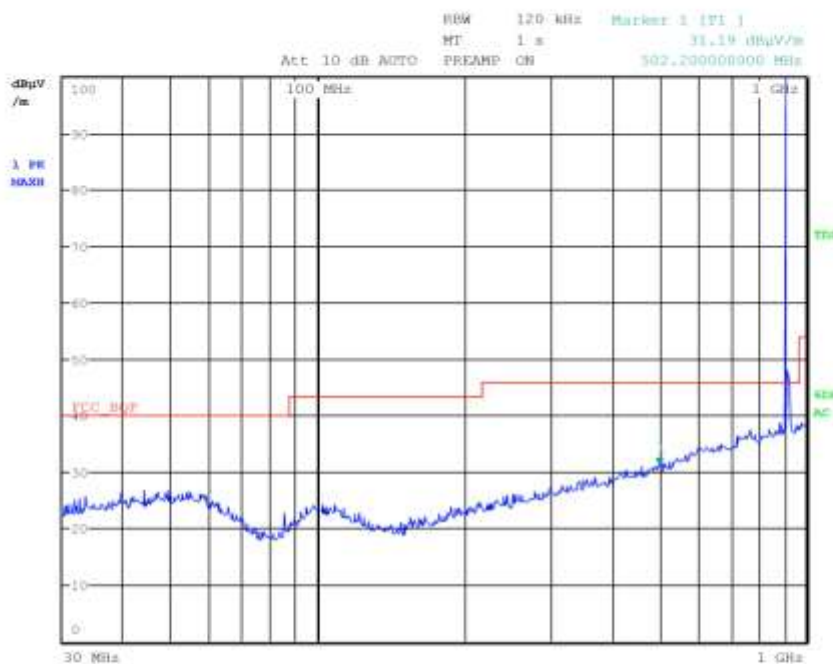
Meas Time: 1 s  
Margin: 6 dB  
Subranges: 0

CMC Centro Misure Compatibilità S.r.l.



G11034424

**Meas Type** Emission 30-1000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 902.75MHz  
**Operator** Bertezolo 11034424  
**Test Spec**  
Vert



**Final Measurement**

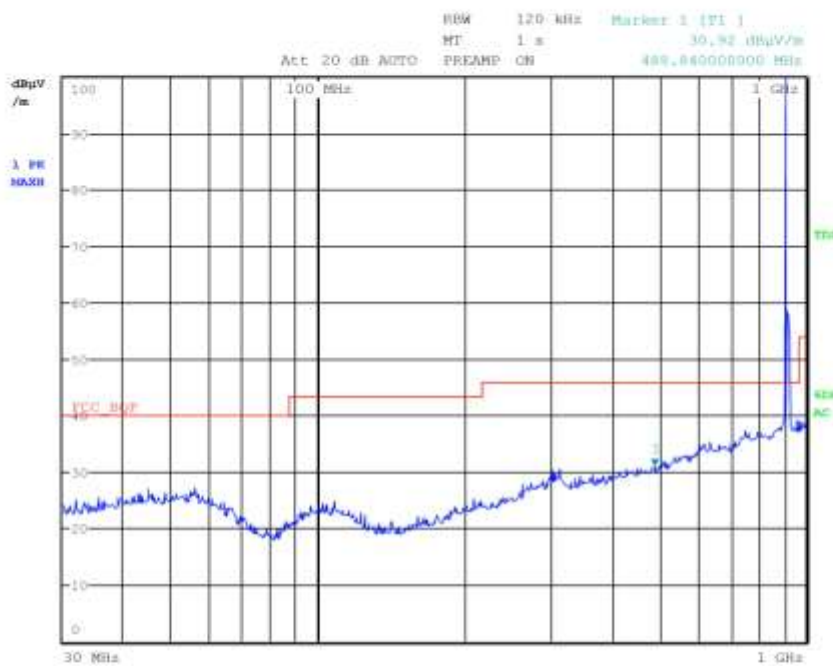
Meas Time: 1 s  
Margin: 6 dB  
Subranges: 0

CMC Centro Misure Compatibilità S.r.l.



G11034425

**Meas Type** Emission 30-1000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 902.75MHz  
**Operator** Bertezolo 11034425  
**Test Spec**  
Horiz



### Final Measurement

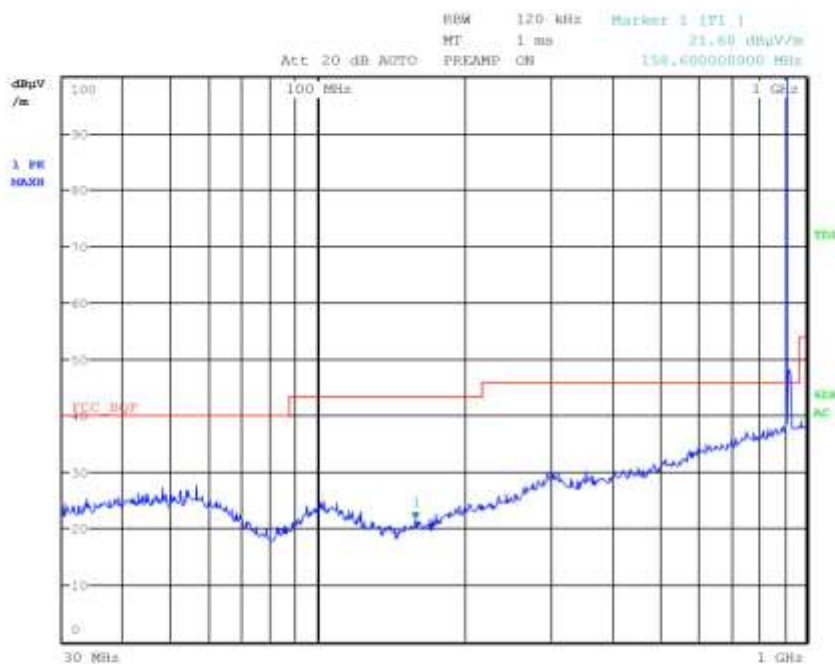
Meas Time: 1 s  
Margin: 6 dB  
Subranges: 0

CMC Centro Misure Compatibilità S.r.l.



G11034426

**Meas Type** Emission 30-1000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 914.75MHz  
**Operator** Bertezolo 11034426  
**Test Spec**  
Horiz



**Final Measurement**

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

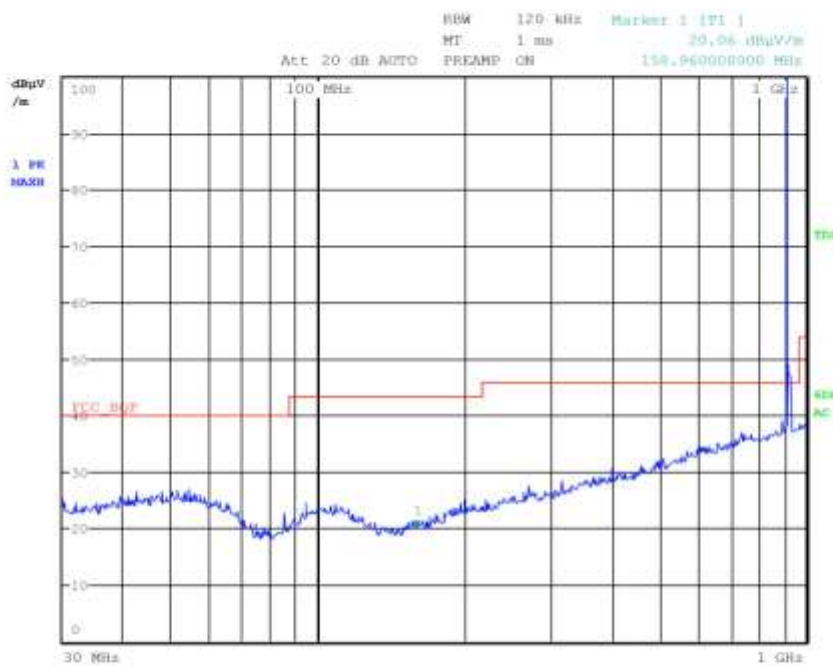
CMC Centro Misure Compatibilità S.r.l.





G11034427

**Meas Type** Emission 30-1000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 914.75MHz  
**Operator** Bertezolo 11034427  
**Test Spec**  
Vert



**Final Measurement**

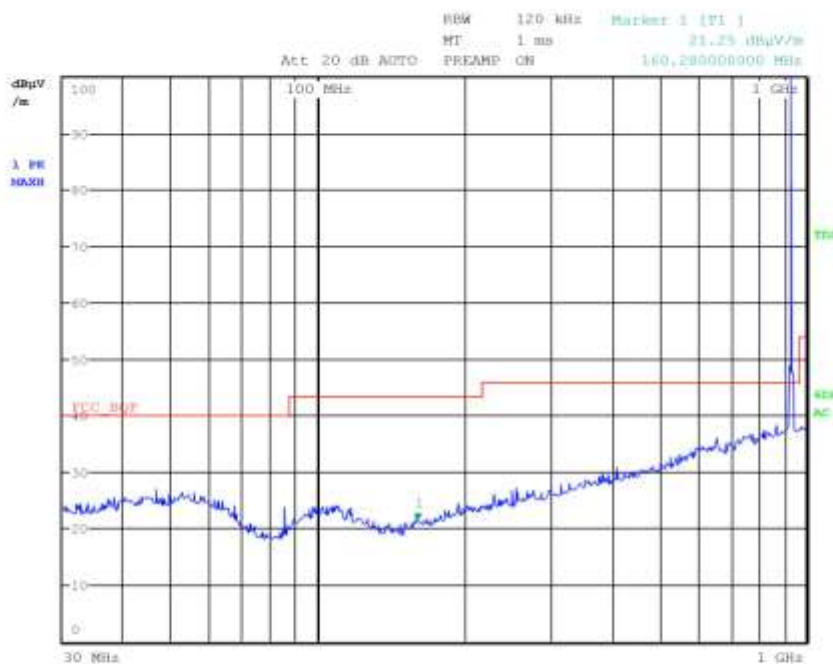
Meas Time: 1 s  
Margin: 6 dB  
Subranges: 0

CMC Centro Misure Compatibilità S.r.l.



G11034428

**Meas Type** Emission 30-1000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 927.25MHz  
**Operator** Bertezolo 11034428  
**Test Spec**  
Vert



**Final Measurement**

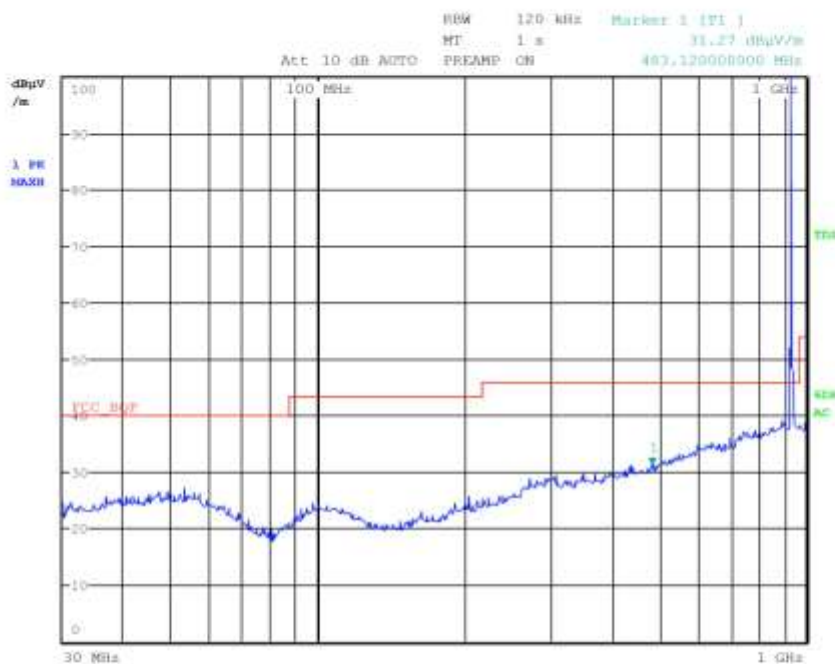
Meas Time: 1 s  
Margin: 6 dB  
Subranges: 0

CMC Centro Misure Compatibilità S.r.l.



G11034429

**Meas Type** Emission 30-1000MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 927.25MHz  
**Operator** Bertezolo 11034429  
**Test Spec**  
Horiz



**Final Measurement**

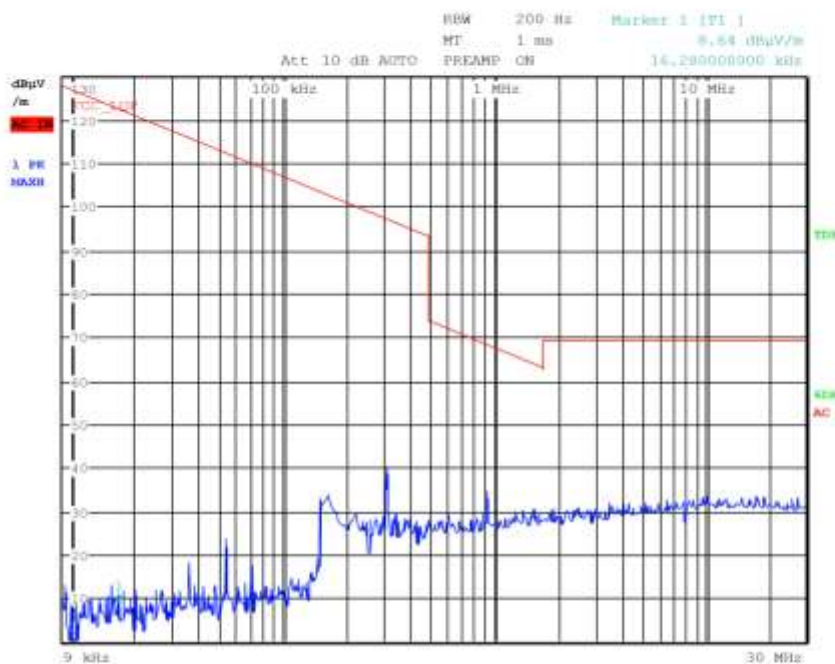
Meas Time: 1 s  
Margin: 6 dB  
Subranges: 0

CMC Centro Misure Compatibilità S.r.l.



G11034430

**Meas Type** Emission 0.009-30MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 902.75MHz  
**Operator** Bertezolo 11034430  
**Test Spec**  
Loop



**Final Measurement**

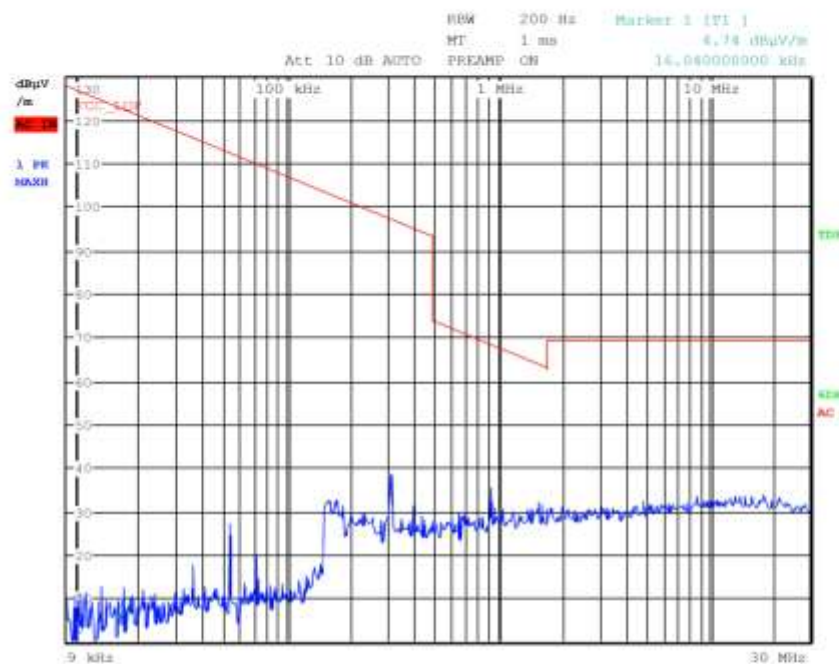
Meas Time: 1 s  
Margin: 6 dB  
Subranges: 0

CMC Centro Misure Compatibilità S.r.l.



G11034431

**Meas Type** Emission 0.009-30MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 914.75MHz  
**Operator** Bertezolo 11034431  
**Test Spec**  
**Loop**



**Final Measurement**

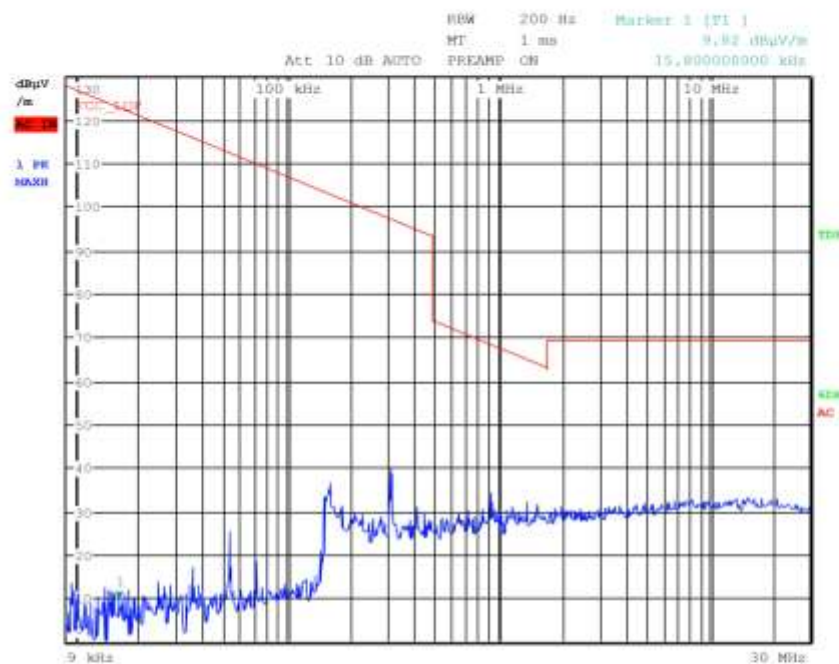
Meas Time: 1 s  
Margin: 6 dB  
Subranges: 0

CMC Centro Misure Compatibilità S.r.l.



G11034432

**Meas Type** Emission 0.009-30MHz  
**Equipment under Test**  
**Manufacturer**  
**OP Condition** TX 927.25MHz  
**Operator** Bertezolo 11034432  
**Test Spec**  
**Loop**



**Final Measurement**

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

CMC Centro Misure Compatibilità S.r.l.

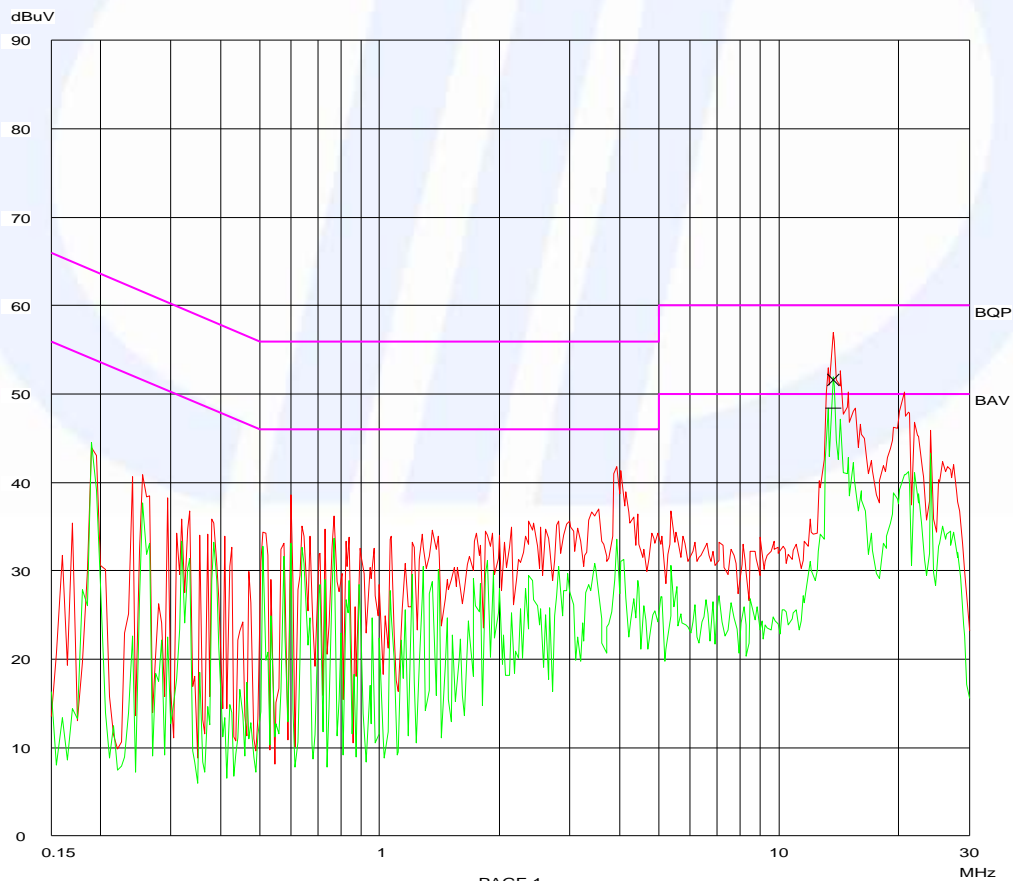


G11034433

CMC Centro misure compatibilita srl

Emission 0.15-30MHz

Op Cond: TX  
Operator: Bert. 11034433  
Test Spec: Line N



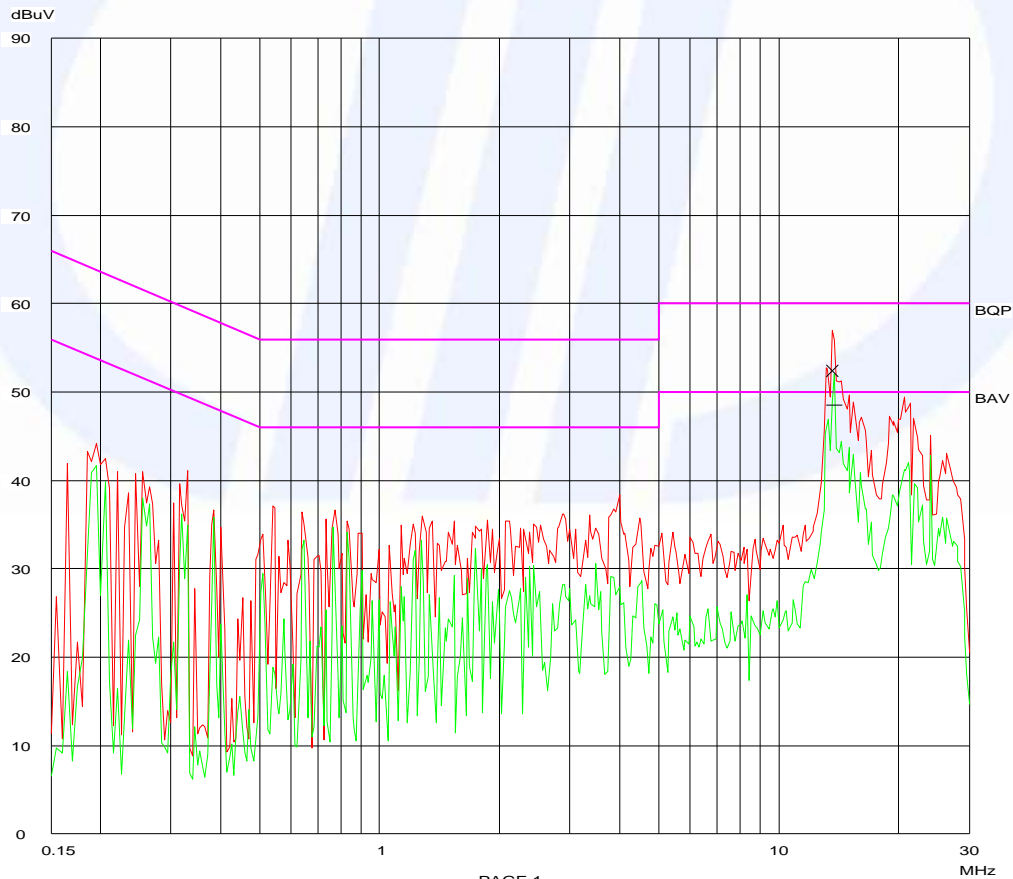


G11034434

CMC Centro misure compatibilita srl

Emission 0.15-30MHz

Op Cond: TX  
Operator: Bert. 11034434  
Test Spec: Line L



PAGE 1