



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



ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

G161957137

Meas Type Emission 10m

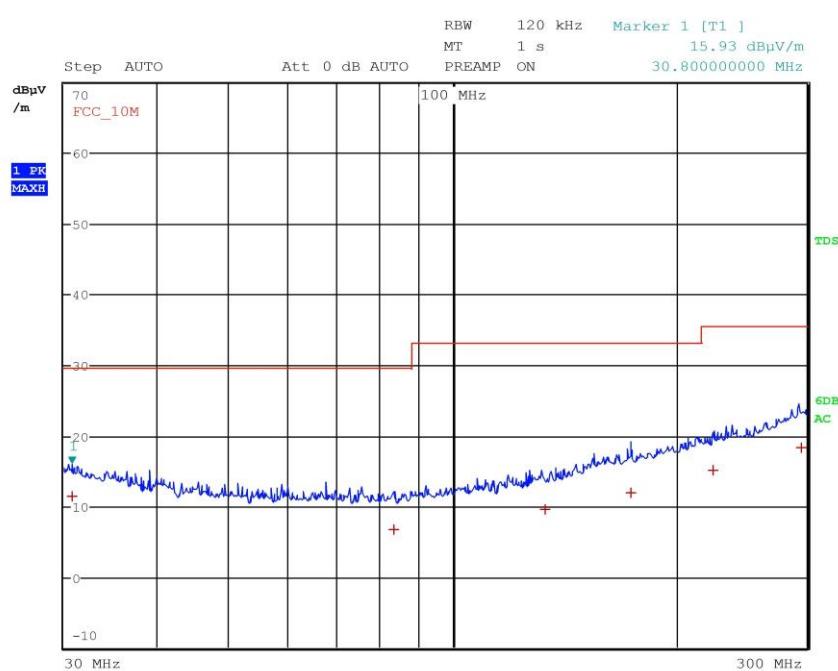
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957137

Test Spec



Final Measurement

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

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	30.800000000 MHz	11.37	Quasi Peak	-18.17
1	83.280000000 MHz	6.78	Quasi Peak	-22.76
1	133.040000000 MHz	9.58	Quasi Peak	-23.48
1	173.400000000 MHz	11.99	Quasi Peak	-21.07
1	224.000000000 MHz	15.21	Quasi Peak	-20.35
1	294.440000000 MHz	18.38	Quasi Peak	-17.18



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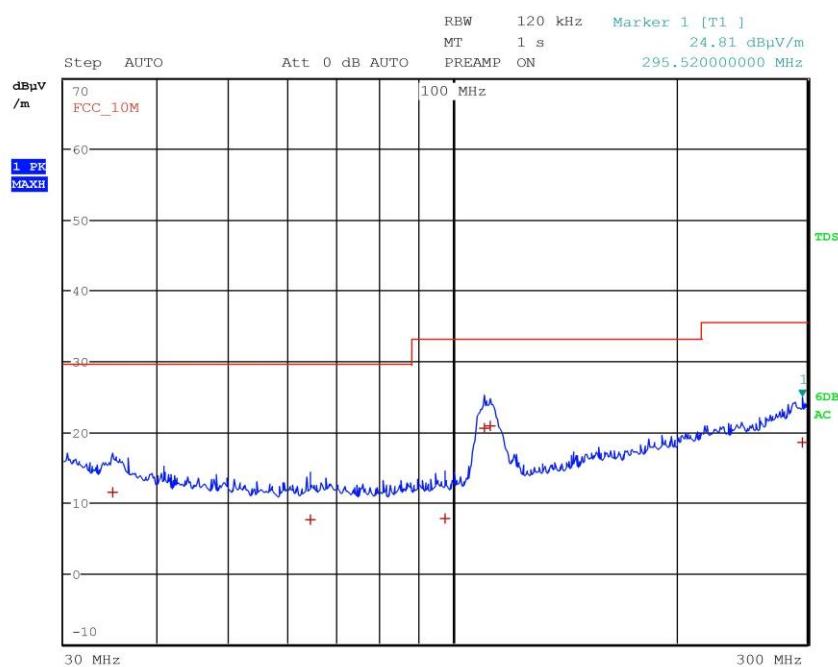


ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

G161957138

Meas Type Emission 10m
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzolo 161957138
Test Spec



Final Measurement

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

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	34.920000000 MHz	11.50	Quasi Peak	-18.04
1	64.320000000 MHz	7.60	Quasi Peak	-21.94
1	97.720000000 MHz	7.66	Quasi Peak	-25.40
1	110.280000000 MHz	20.43	Quasi Peak	-12.63
1	112.360000000 MHz	20.87	Quasi Peak	-12.19
1	295.520000000 MHz	18.53	Quasi Peak	-17.03



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G161957139

Meas Type Emission 10m

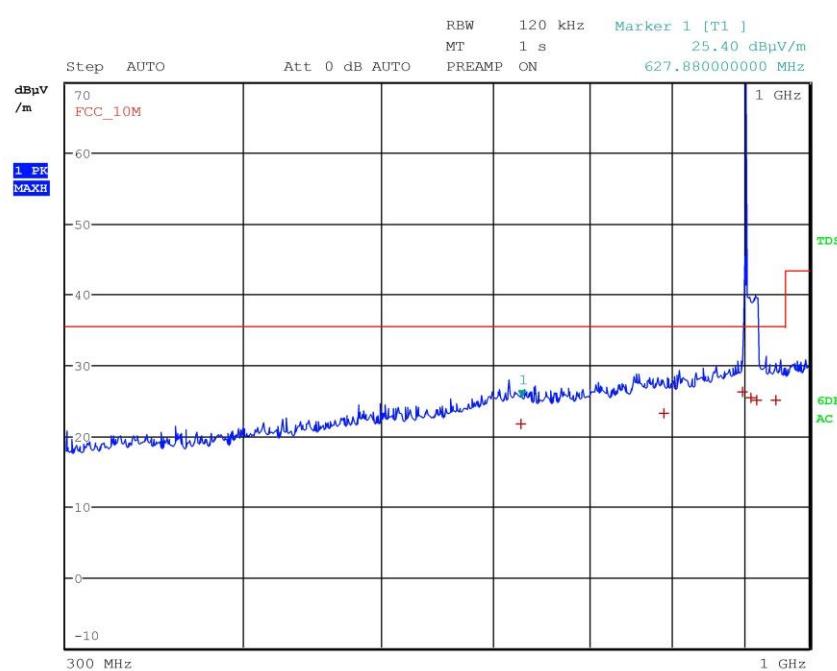
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957139

Test Spec



Final Measurement

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

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	626.640000000 MHz	21.66	Quasi Peak	-13.90
1	789.280000000 MHz	23.16	Quasi Peak	-12.40
1	897.920000000 MHz	26.26	Quasi Peak	-9.30
1	908.520000000 MHz	25.33	Quasi Peak	-10.23
1	918.720000000 MHz	25.07	Quasi Peak	-10.49
1	946.600000000 MHz	24.99	Quasi Peak	-10.57



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G161957140

Meas Type Emission 10m

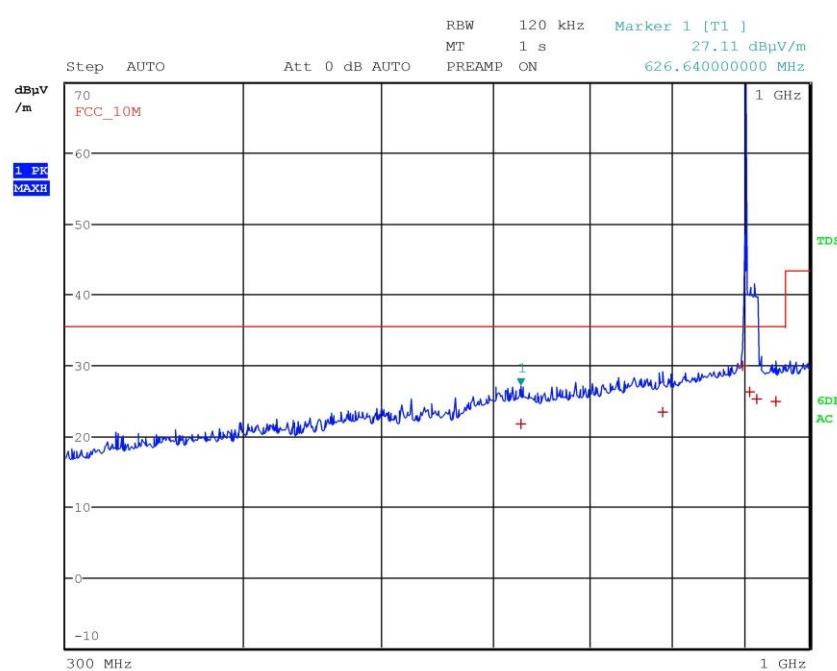
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957140

Test Spec



Final Measurement

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

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	626.640000000 MHz	21.60	Quasi Peak	-13.96
1	789.280000000 MHz	23.42	Quasi Peak	-12.14
1	897.920000000 MHz	29.93	Quasi Peak	-5.63
1	908.520000000 MHz	26.19	Quasi Peak	-9.37
1	918.720000000 MHz	25.22	Quasi Peak	-10.34
1	946.600000000 MHz	24.89	Quasi Peak	-10.67



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G161957141

Meas Type Emission 10m

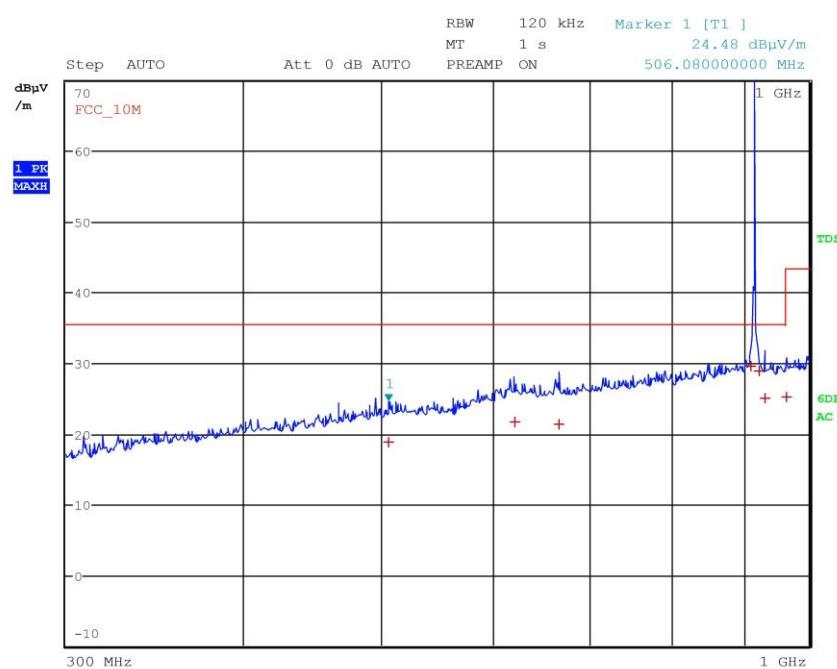
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957141

Test Spec



Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 7

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	506.080000000 MHz	18.88	Quasi Peak	-16.68
1	621.240000000 MHz	21.65	Quasi Peak	-13.91
1	666.520000000 MHz	21.42	Quasi Peak	-14.14
1	909.520000000 MHz	29.66	Quasi Peak	-5.90
1	921.240000000 MHz	28.91	Quasi Peak	-6.65
1	930.840000000 MHz	24.98	Quasi Peak	-10.58
1	964.440000000 MHz	25.28	Quasi Peak	-18.24



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G161957142

Meas Type Emission 10m

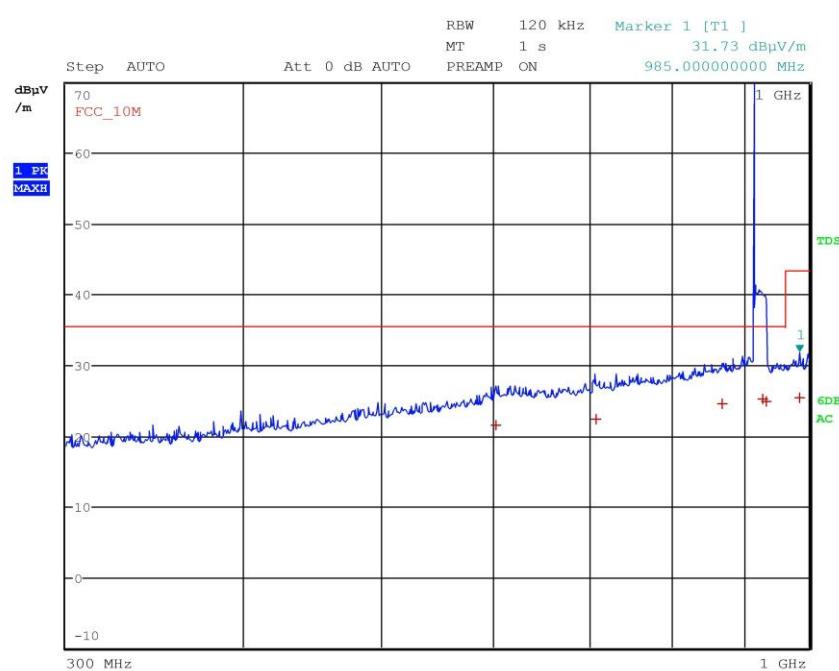
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957142

Test Spec



Final Measurement

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

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	602.080000000 MHz	21.49	Quasi Peak	-14.07
1	707.720000000 MHz	22.30	Quasi Peak	-13.26
1	869.360000000 MHz	24.47	Quasi Peak	-11.09
1	927.040000000 MHz	25.16	Quasi Peak	-10.40
1	932.520000000 MHz	24.92	Quasi Peak	-10.64
1	985.000000000 MHz	25.45	Quasi Peak	-18.07



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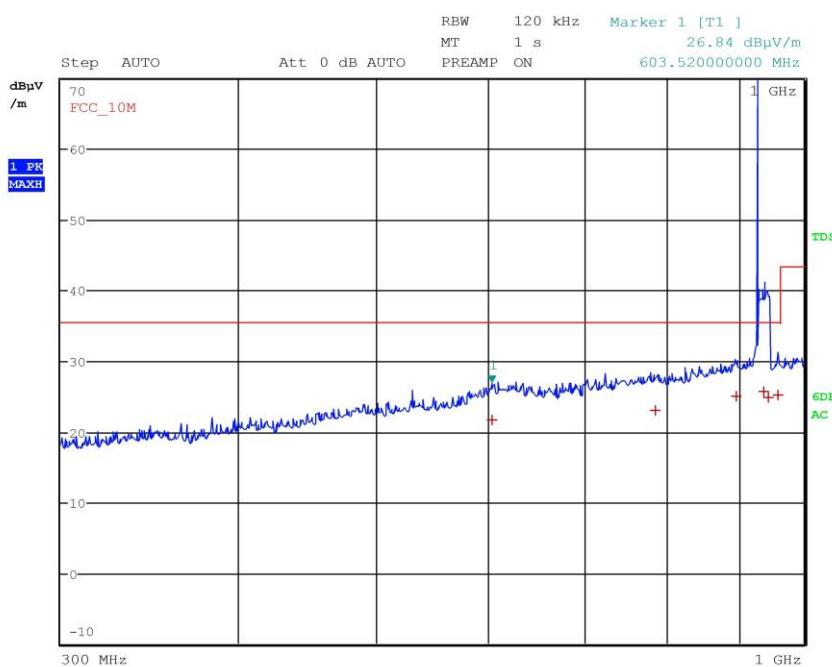


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LAB N° 0168

G161957143

Meas Type Emission 10m
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzolo 161957143
Test Spec



Final Measurement

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

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	603.520000000 MHz	21.64	Quasi Peak	-13.92
1	786.320000000 MHz	23.11	Quasi Peak	-12.45
1	895.880000000 MHz	25.03	Quasi Peak	-10.53
1	935.600000000 MHz	25.71	Quasi Peak	-9.85
1	943.960000000 MHz	24.92	Quasi Peak	-10.64
1	957.560000000 MHz	25.13	Quasi Peak	-10.43



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G161957144

Meas Type Emission 10m

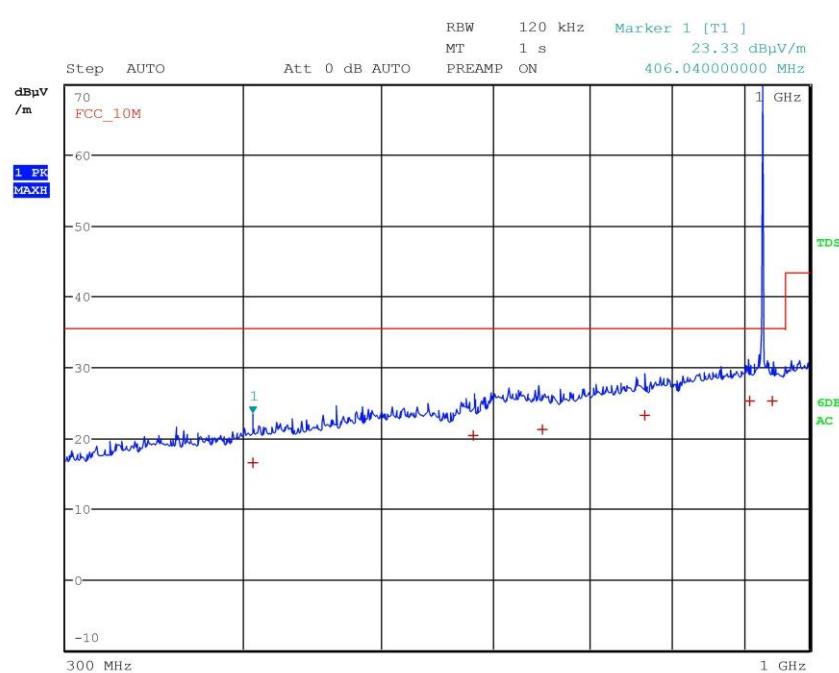
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957144

Test Spec



Final Measurement

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

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	406.040000000 MHz	16.52	Quasi Peak	-19.04
1	580.400000000 MHz	20.26	Quasi Peak	-15.30
1	649.040000000 MHz	21.19	Quasi Peak	-14.37
1	765.680000000 MHz	23.19	Quasi Peak	-12.37
1	908.080000000 MHz	25.17	Quasi Peak	-10.39
1	942.560000000 MHz	25.23	Quasi Peak	-10.33



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G161957145

Meas Type Emission 10m

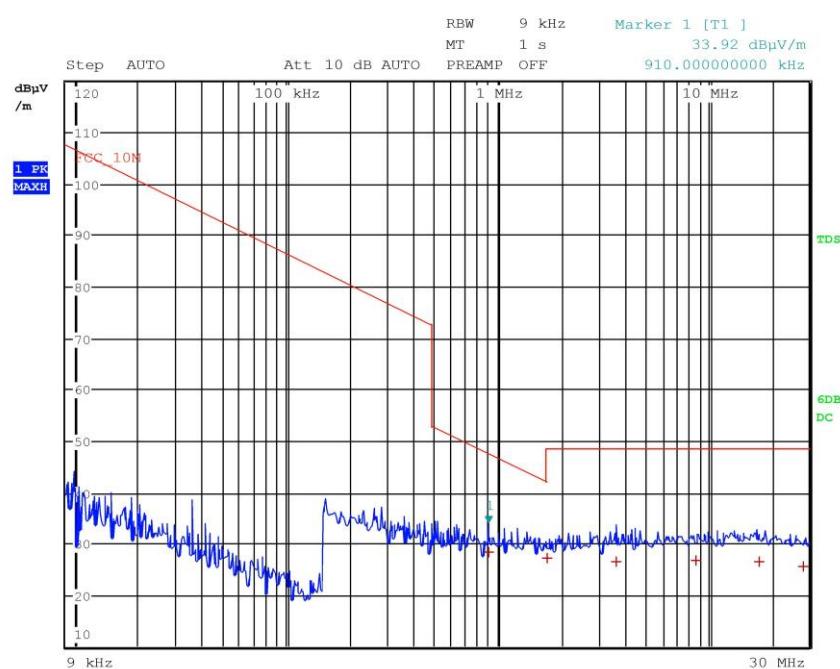
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957145

Test Spec



Final Measurement

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

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	910.000000000 kHz	28.33	Quasi Peak	-19.17
1	1.714000000 MHz	27.19	Quasi Peak	-21.44
1	3.630000000 MHz	26.63	Quasi Peak	-22.00
1	8.734000000 MHz	26.68	Quasi Peak	-21.95
1	17.418000000 MHz	26.55	Quasi Peak	-22.08
1	27.946000000 MHz	25.54	Quasi Peak	-23.09

Result: The requirements are met



11.4 20 dB bandwidth

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- DA 00-705
- Internal procedure PM001
- See clause 4 of this test report

Test configuration and test method

Test site:
Laboratory

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

CMC S108, CMC S136, CMC S227
Measurement uncertainty: See clause 7 of this test report

Test specification

See FCC Part 15.247

Environmental conditions

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

Acceptance limits: The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz



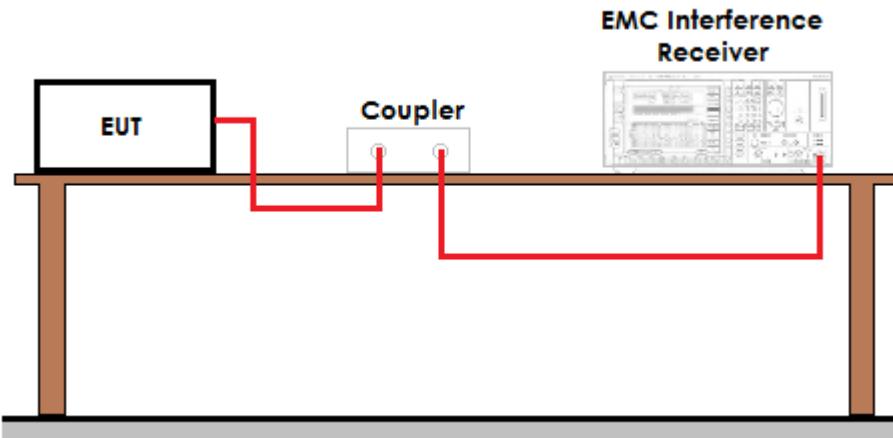
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ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

Setup



Result

Frequency (MHz)	Graphs	20 dB bandwidth (kHz)	Maximum 20 dB bandwidth allowed (kHz)	Results
902,42	G161957100	104,39	500	Complies
915,00	G161957103	105,89	500	Complies
927,58	G161957105	106,39	500	Complies



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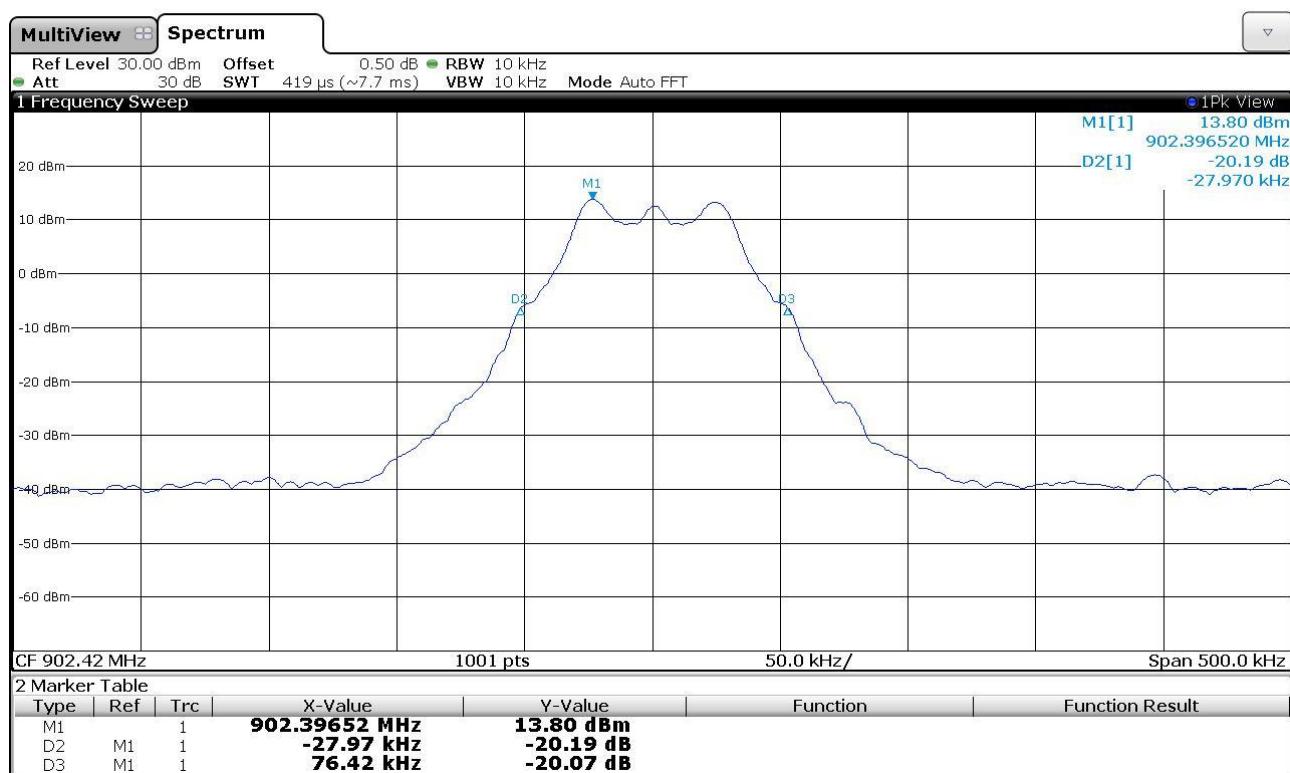
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LAB N° 0168

Graphs

G161957100

Bertezzolo 161957100





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LAB N° 0168

G161957103

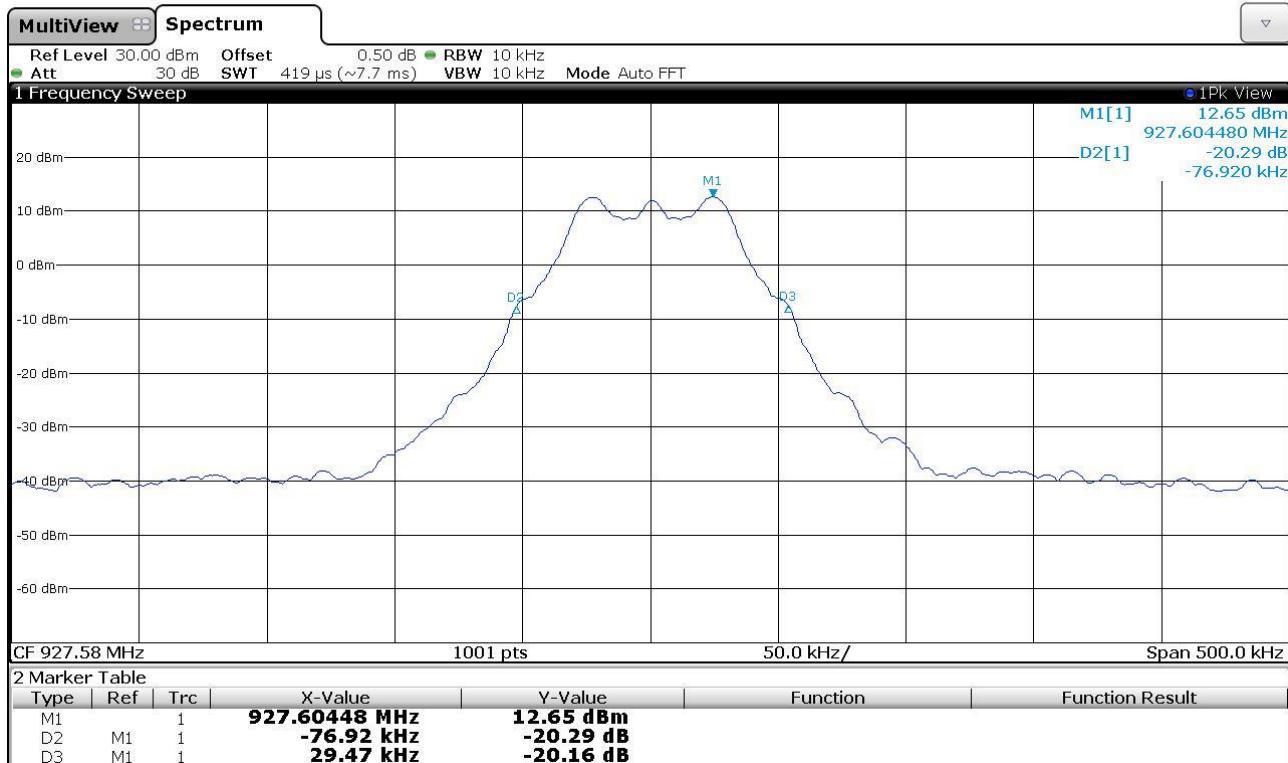
Bertezzolo 161957103





G161957105

Bertezzolo 161957105



Result: The requirements are met



11.5 Channel separation

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- DA 00-705
- Internal procedure PM001
- See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test configuration and test method

Test site:
Laboratory

Auxiliary equipment:
See clause 4 of this test report

Test equipment used

CMC S108, CMC S136, CMC S227
Measurement uncertainty: See clause 7 of this test report

Test specification

See FCC Part 15.247

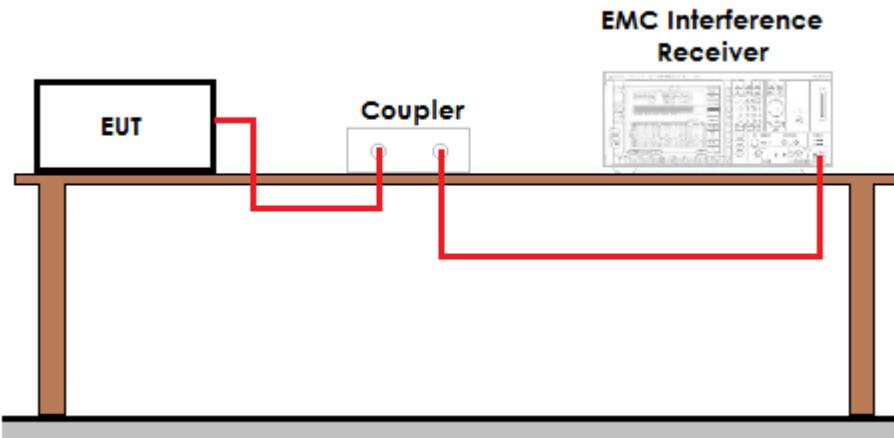
Environmental conditions

Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
20	100	42

Acceptance limits: frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400–2483,5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW



Setup



Result

Frequency band (MHz)	Graphs	Channel separation (kHz)	Minimum channel separation required (kHz)	Results
902,42 – 927,58	G161957119	339,86	25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater	Complies



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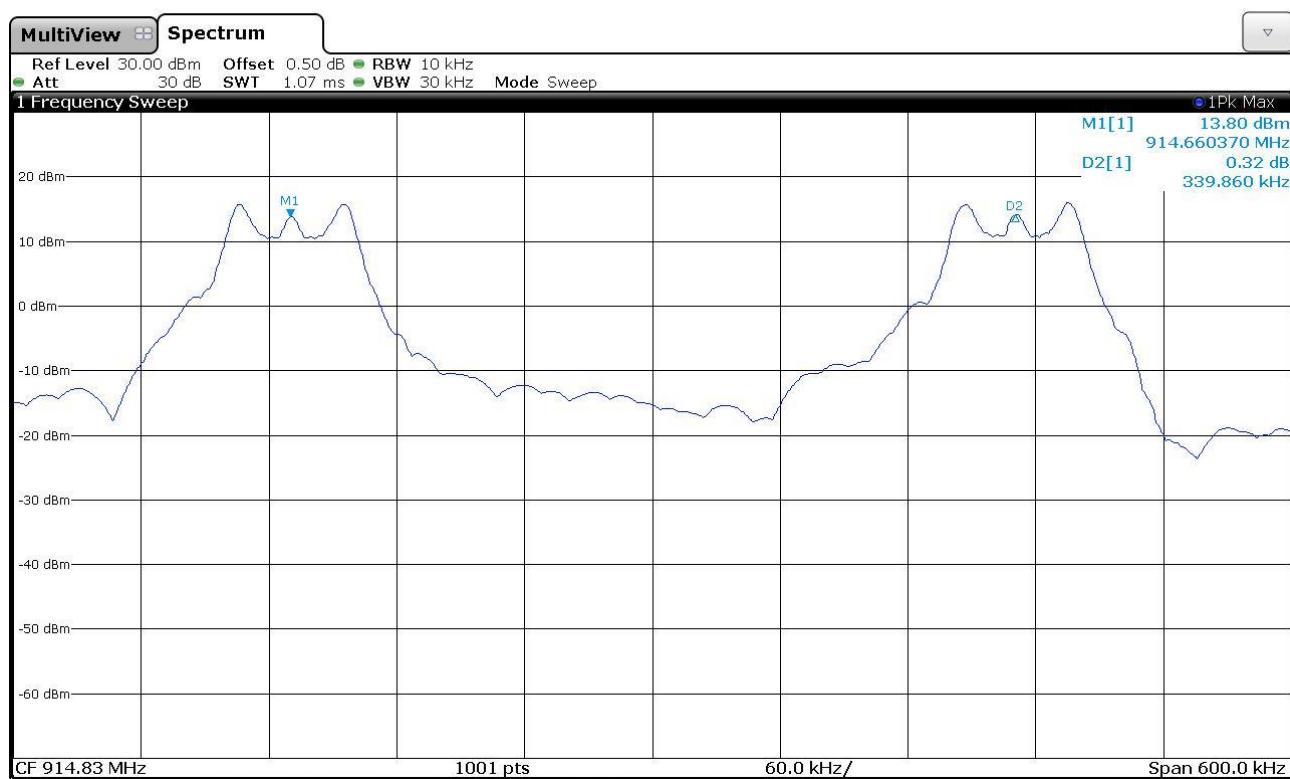
ACCREDIA
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Graphs

G161957119

Bertezzolo 161957119



Result: The requirements are met



11.6 Number of hopping channels

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- DA 00-705
- Internal procedure PM001
- See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test configuration and test method

Test site:
Laboratory

Auxiliary equipment:
See clause 4 of this test report

Test equipment used

CMC S108, CMC S136, CMC S227
Measurement uncertainty: See clause 7 of this test report

Test specification

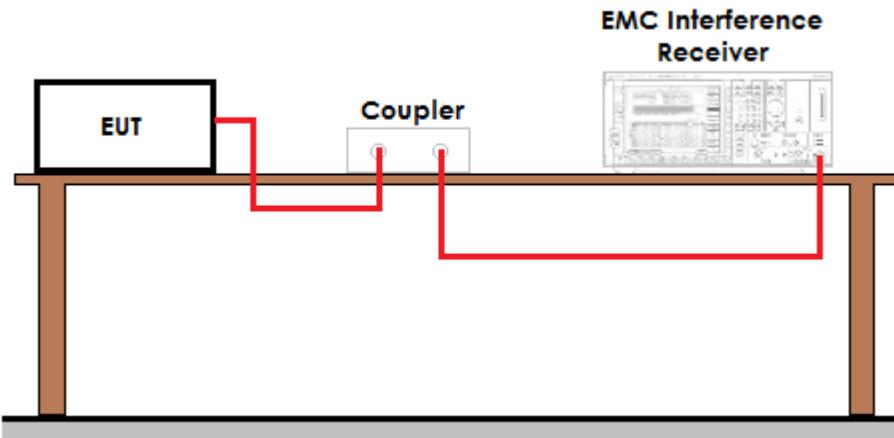
See FCC Part 15.247

Environmental conditions

Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
20	100	42

Acceptance limits: for frequency hopping systems operating in the 902–928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies. If the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies. Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels.

Setup



Result

Frequency band (MHz)	Graphs	Number of hopping channels	Minimum number of hopping channels required	Results
902,42 – 927,58	G161957122	75	50 if the 20 dB bandwidth is less than 250 kHz 25 if the 20 dB bandwidth is 250 kHz or greater	Complies



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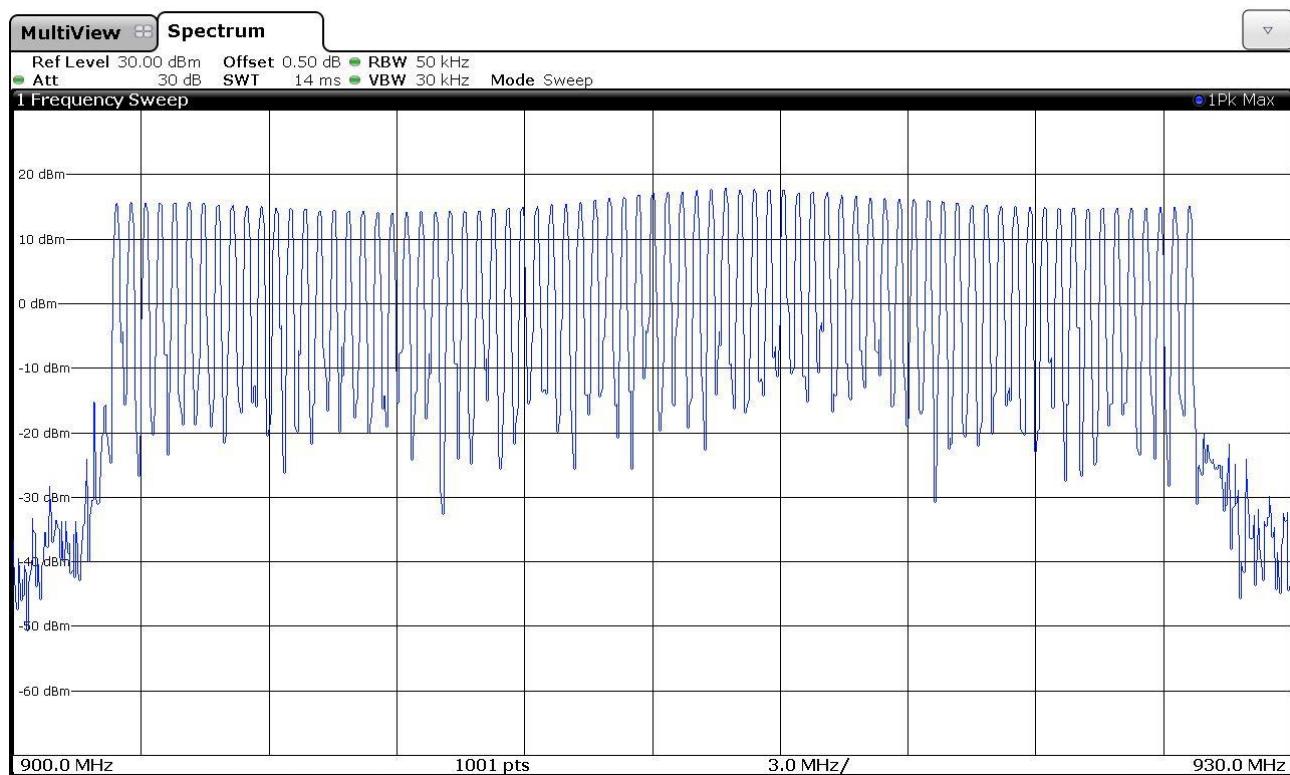
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LAB N° 0168

Graphs

G161957122

Bertezzolo 161957122



Result: The requirements are met



11.7 Time of occupancy

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- DA 00-705
- Internal procedure PM001
- See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test specification

See FCC Part 15.247

Environmental conditions

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

Acceptance limits:

For frequency hopping systems operating in the 902–928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0,4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0,4 seconds within a 10 second period

Test configuration and test method

Test site:
Laboratory

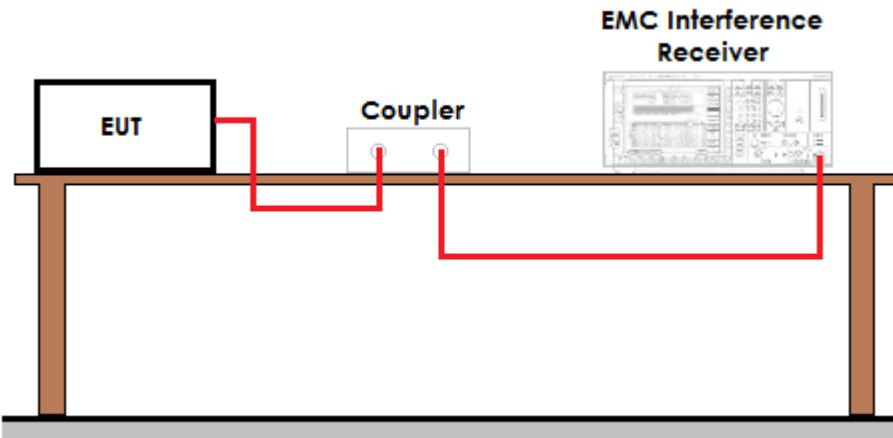
Auxiliary equipment:
See clause 4 of this test report

Test equipment used

CMC S108, CMC S136, CMC S227
Measurement uncertainty: See clause 7 of this test report



Setup



Result

Dwell time of transmission

Frequency (MHz)	Graphs	Dwell time (ms)
927,58	G161957123	257,7

Frequency (MHz)	Transmission duration on 1 channel	
927,58	G161957125	379,5 ms

Frequency (MHz)	Time between 2 transmission on different channels	
927,58	G161957125	13,15 ms



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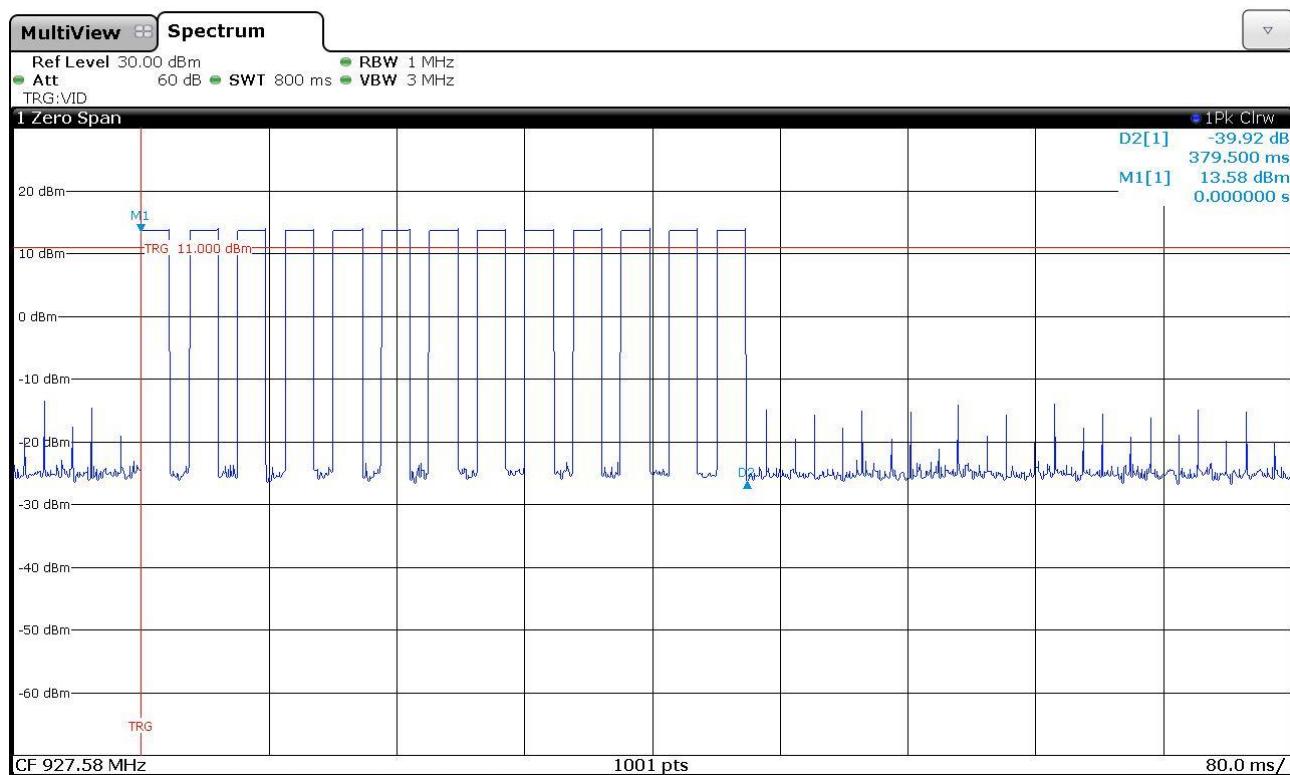
ACCREDIA
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LAB N° 0168

Graphs

G161957123

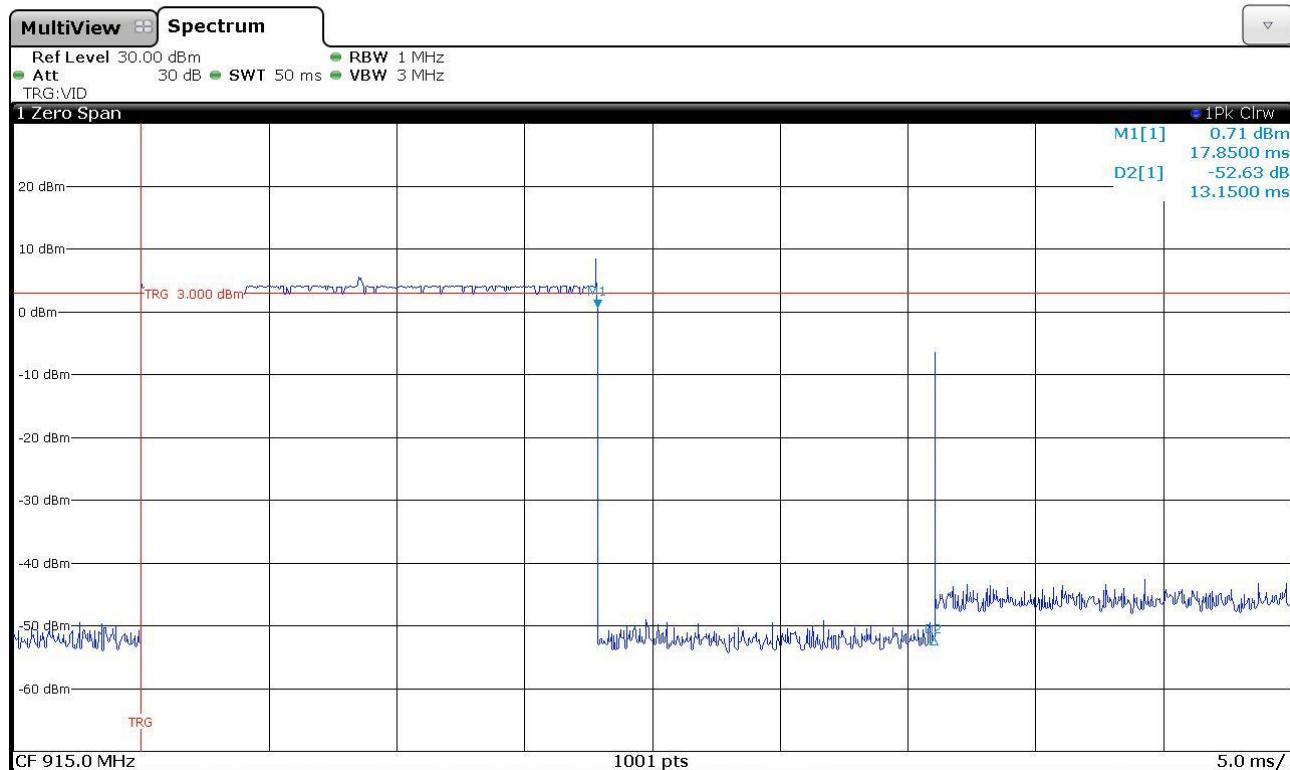
Bertezzolo 161957123





G161957125

Bertezzolo 161957125



Result: The requirements are met



11.8 Band edge

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- DA 00-705
- Internal procedure PM001
- See clause 4 of this test report

Test configuration and test method

Test site:
Laboratory

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

CMC S108, CMC S136, CMC S227
Measurement uncertainty: See clause 7 of this test report

Test specification

See FCC Part 15.247

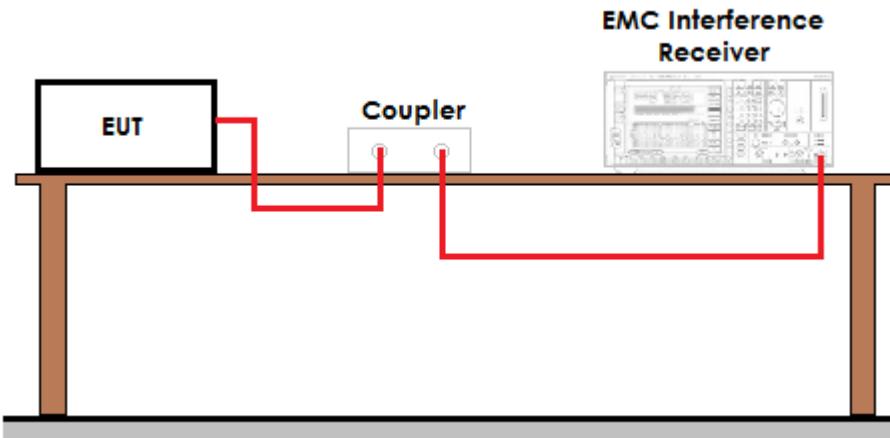
Environmental conditions

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

Acceptance limits: operation within the band 902 – 928 MHz



Setup



Result

Frequency (MHz)	Graph(s) – Hopping	Results	
902,42	G161957118	$F_L: 902,2957 \text{ MHz}$	Complies
927,58	G161957115	$F_H: 927,7203 \text{ MHz}$	Complies

Frequency (MHz)	Graph(s) – No hopping	Results	
902,42	G161957117	$F_L: 902,3517 \text{ MHz}$	Complies
927,58	G161957116	$F_H: 927,6504 \text{ MHz}$	Complies



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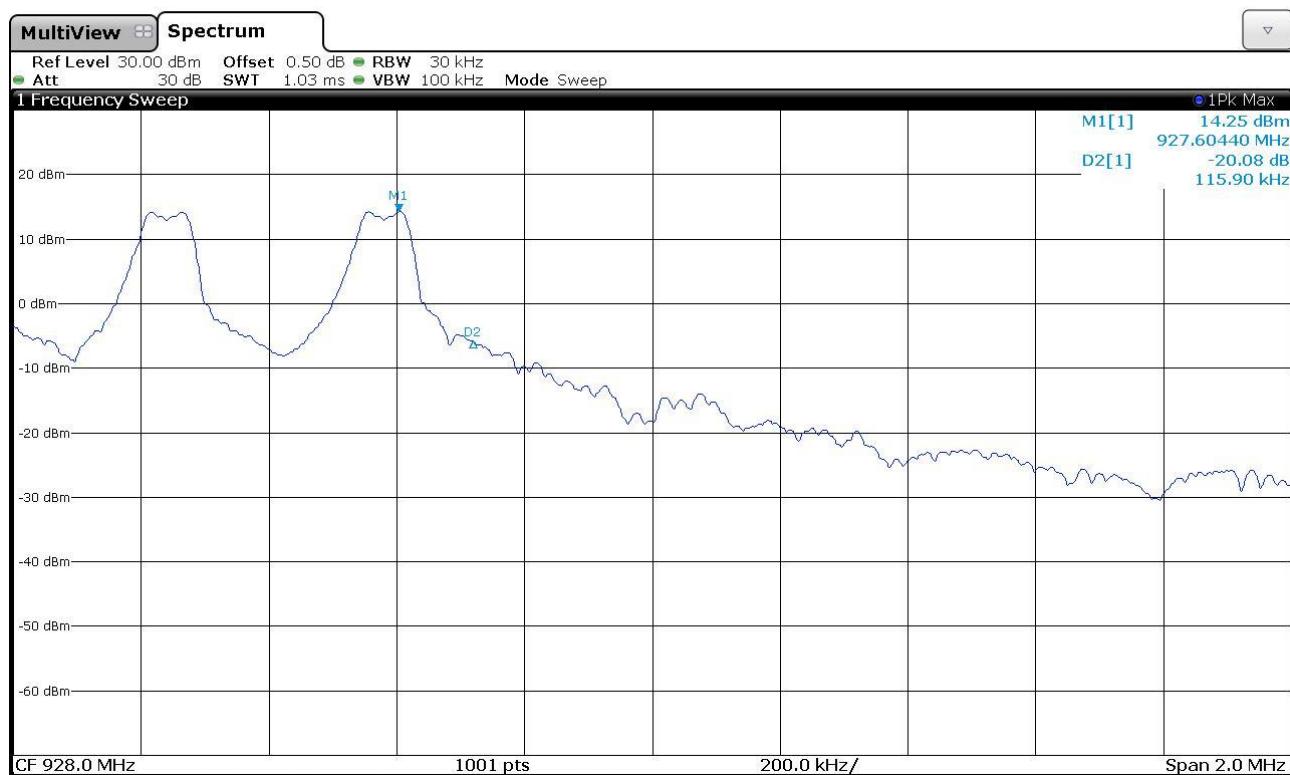
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LAB N° 0168

Graphs

G16195715

Bertezzolo 161957115





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36016 Thiene (VI)

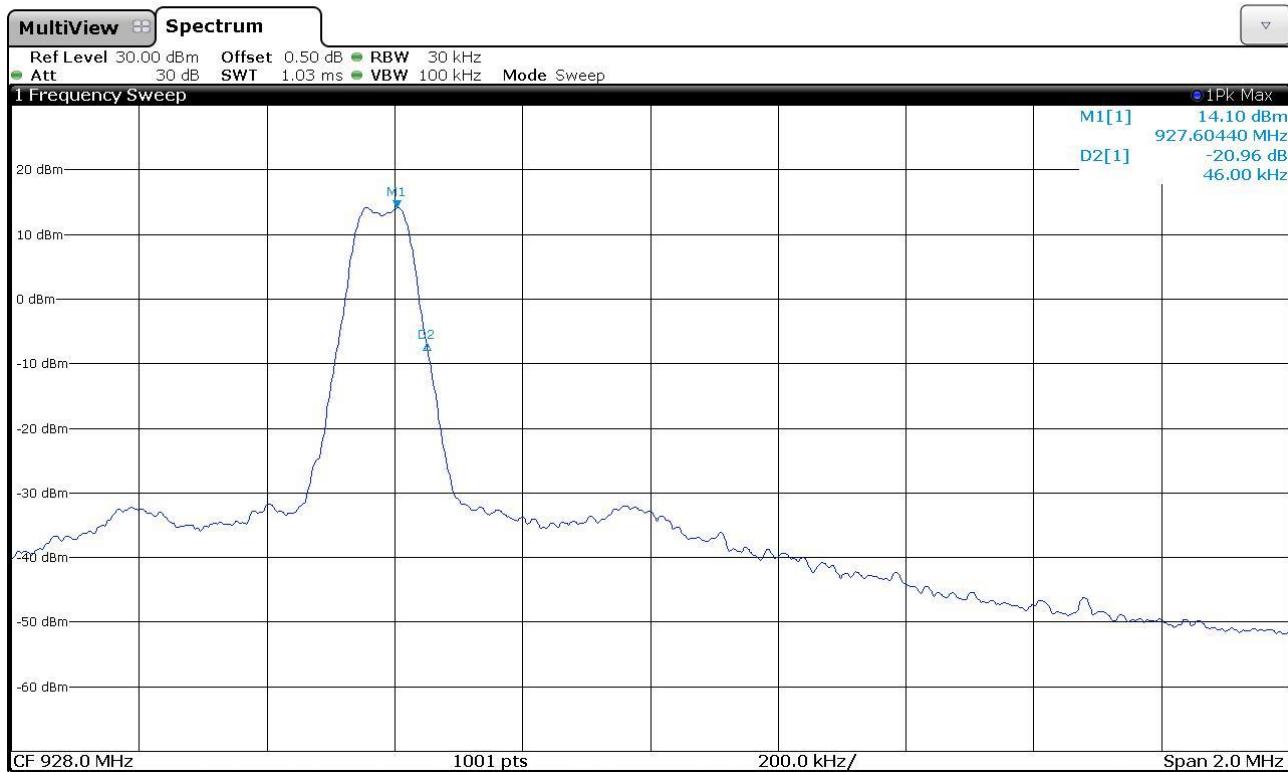


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LAB N° 0168

G16195716

Bertezzolo 161957116





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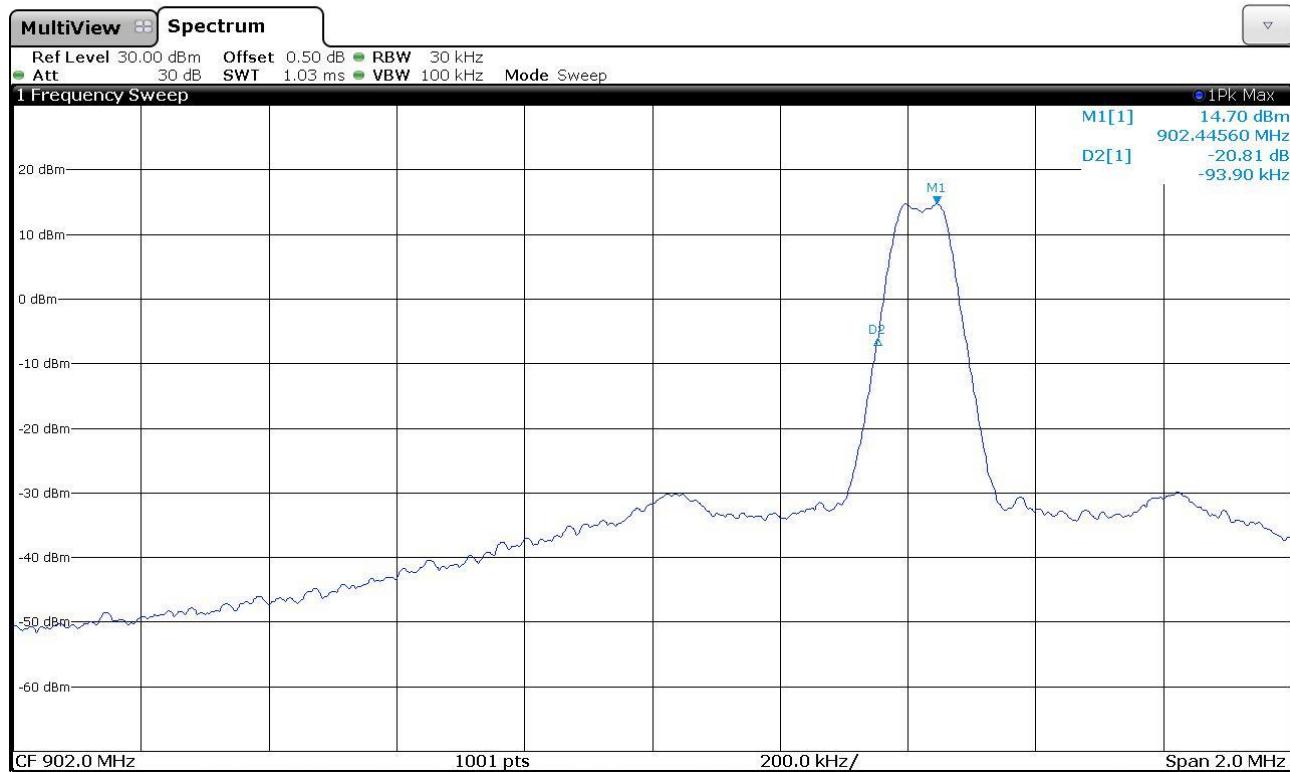


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LAB N° 0168

G16195717

Bertezzolo 161957117





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Via della Fisica, 20
36016 Thiene (VI)

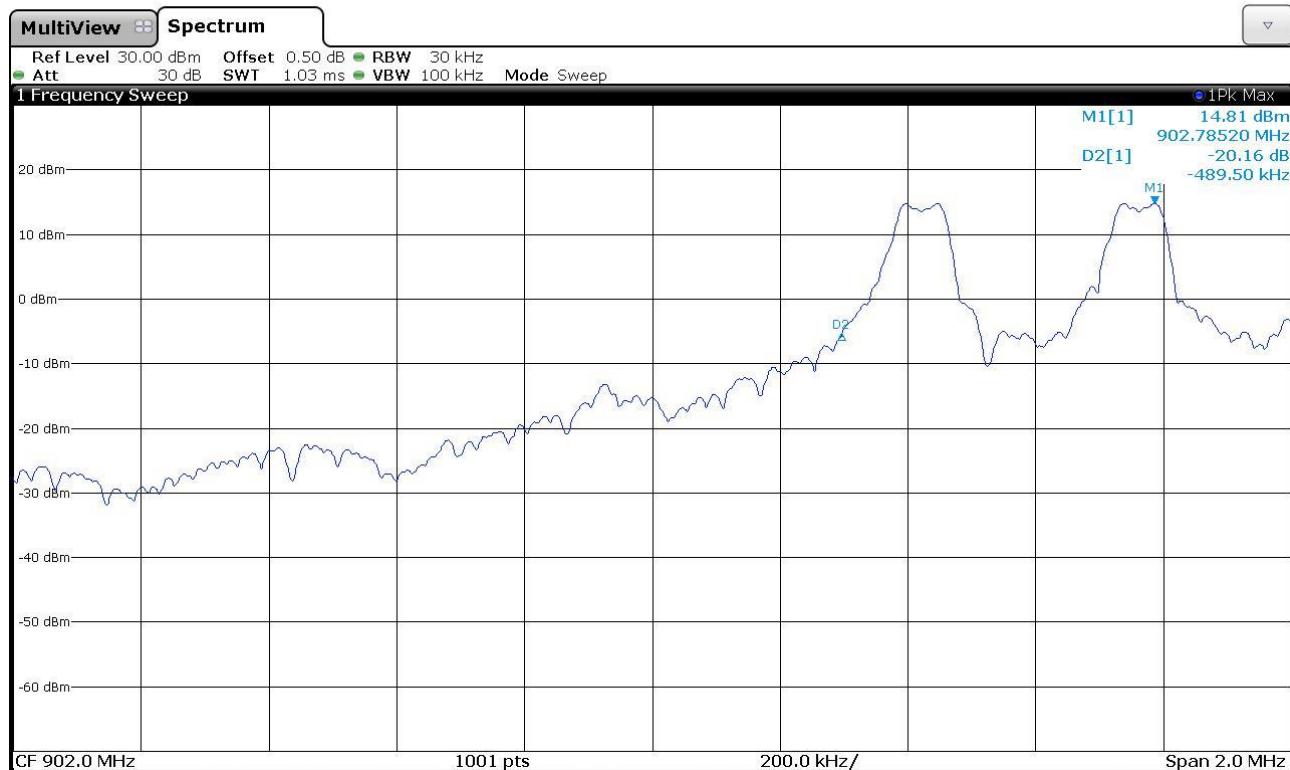


ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

LAB N° 0168

G16195718

Bertezzolo 161957118



Result: The requirements are met



11.9 Peak Output Power

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- DA 00-705
- Internal procedure PM001
- See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test configuration and test method

Test site:
Laboratory

Auxiliary equipment:
See clause 4 of this test report

Test equipment used

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

Test specification

Port: Antenna

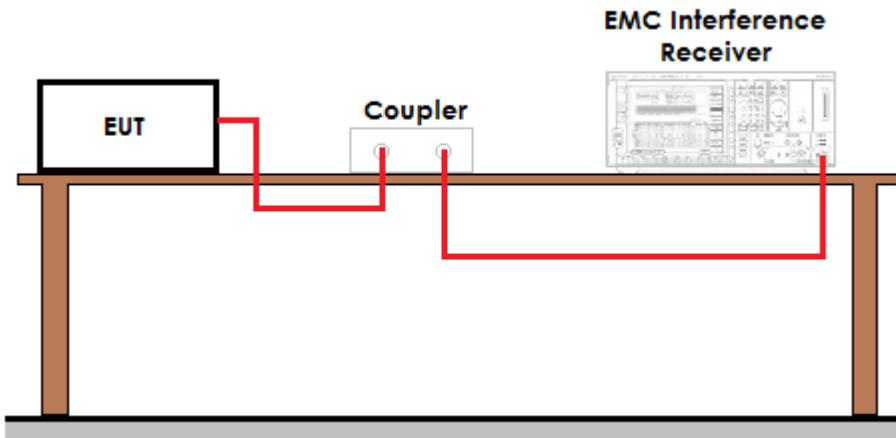
Environmental conditions

Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
20	100	45

For frequency hopping systems operating in the 2400–2483,5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483,5 MHz band: 0,125 watts. For frequency hopping systems operating in the 902–928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0,25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels.



Setup



Result

Frequency (MHz)	Graphs	Conducted measured level (dBm)	Conducted power level (mW)	Calculated radiated level (dB μ V/m)
902,42	G161957106	14,56	28,58	111,94
915,00	G161957107	15,84	38,37	113,22
927,58	G161957108	13,92	24,66	111,30



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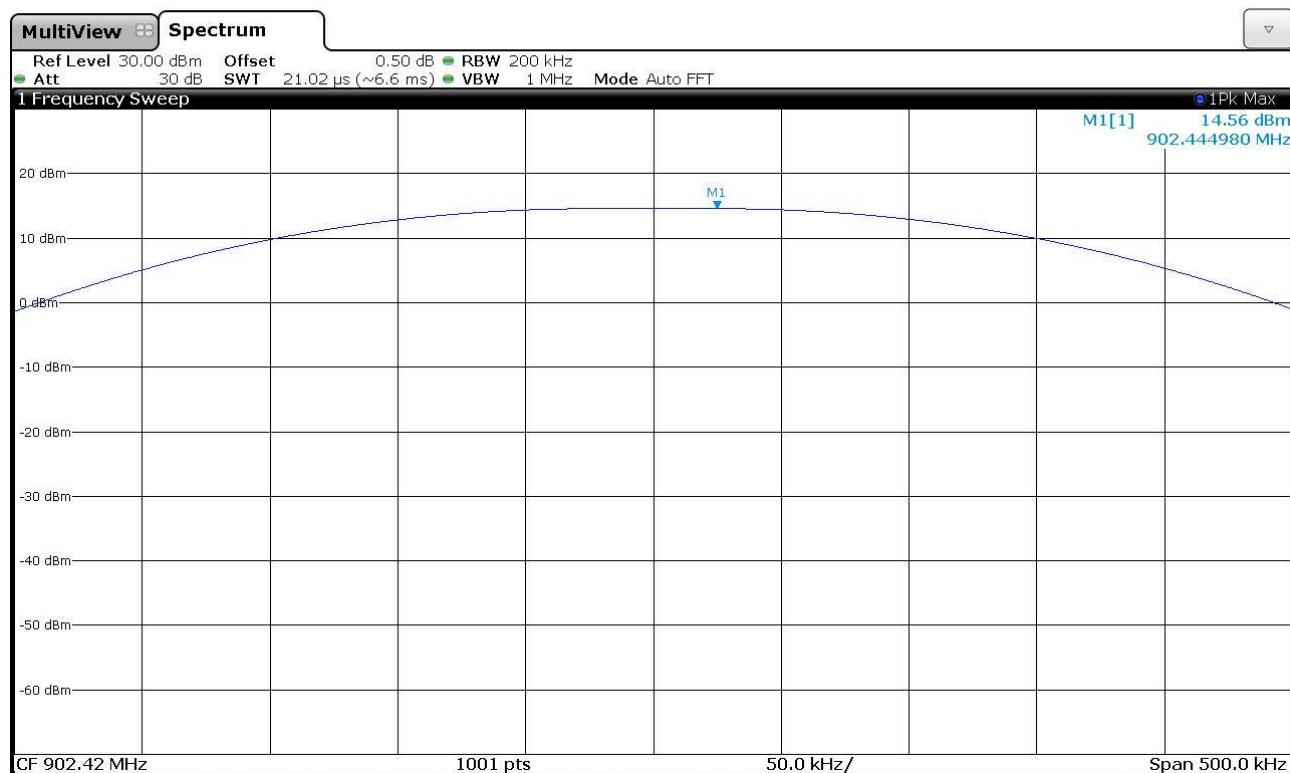
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LAB N° 0168

Graphs

G161957106

Bertezzolo 161957106





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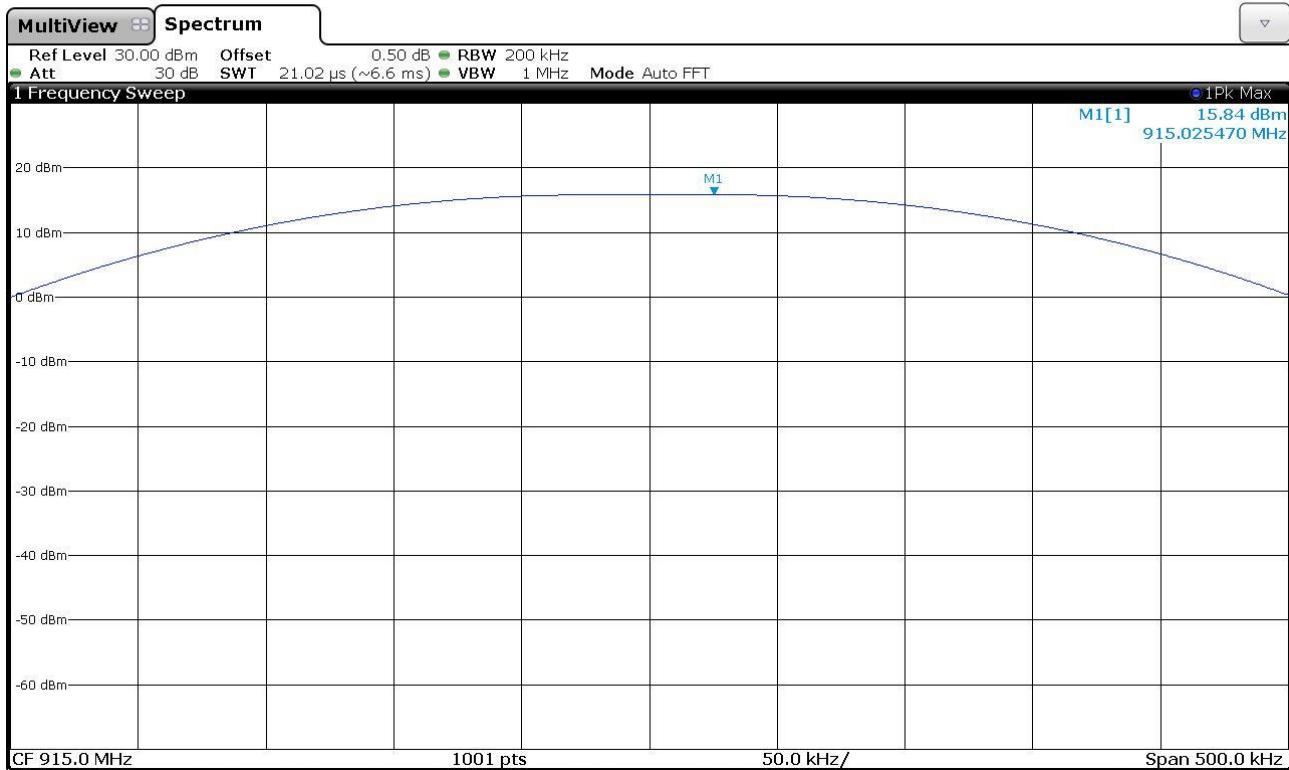


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LAB N° 0168

G161957107

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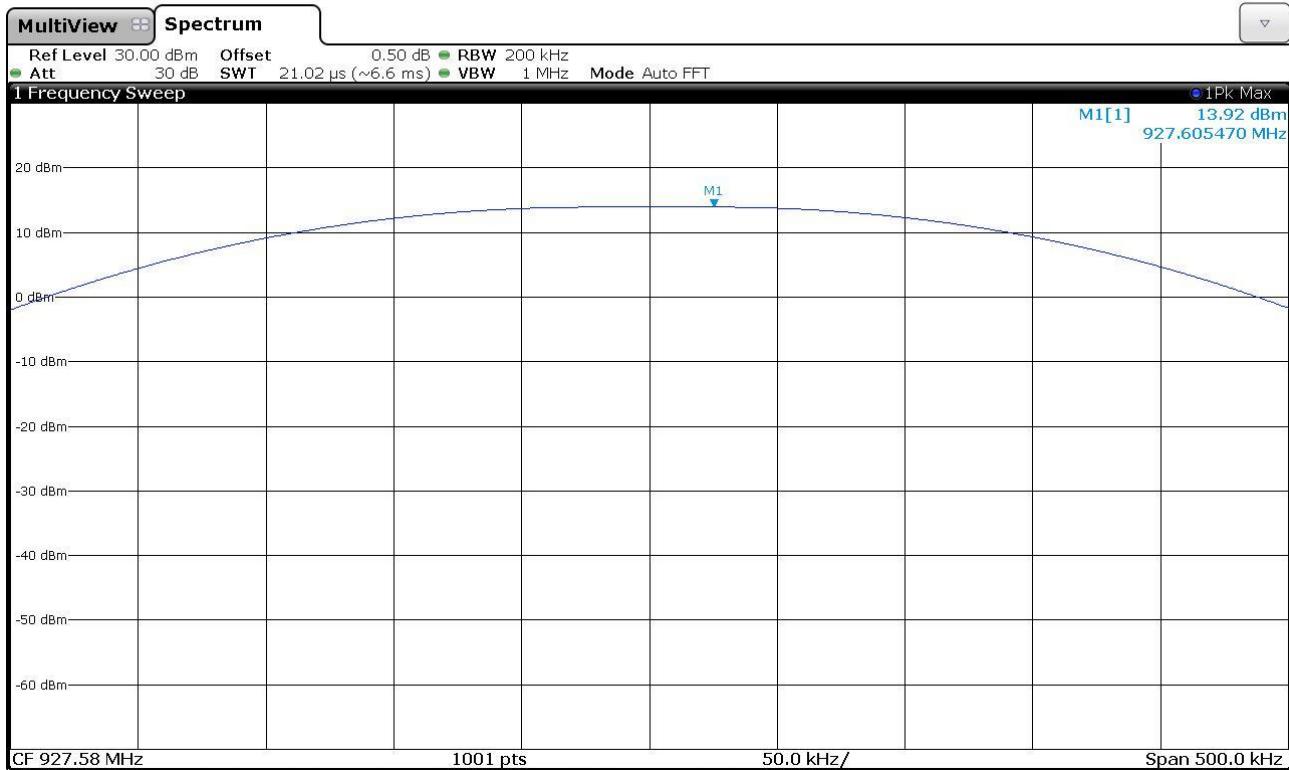


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G161957108

Bertezzolo 161957108



Result: The requirements are met



11.10 Spurious Emission

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.209
- DA 00-705
- Internal procedure PM001
- See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test configuration and test method

Test site:
Semi-anechoic chamber

Auxiliary equipment:
See clause 4 of this test report

Test equipment used

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

Test specification

Port: Enclosure

Antenna polarization: Horizontal (H) – Vertical (V)

EUT – Antenna distance: 3 m

Detector AV + Peak

Environmental conditions

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

Acceptance limits

Acceptance limits for emissions in restricted frequency bands		
Frequency (MHz)	AV limits [dB(μV/m)]	Peak limits [dB(μV/m)]
> 1000	54	74



The restricted frequency bands are listed in the following table

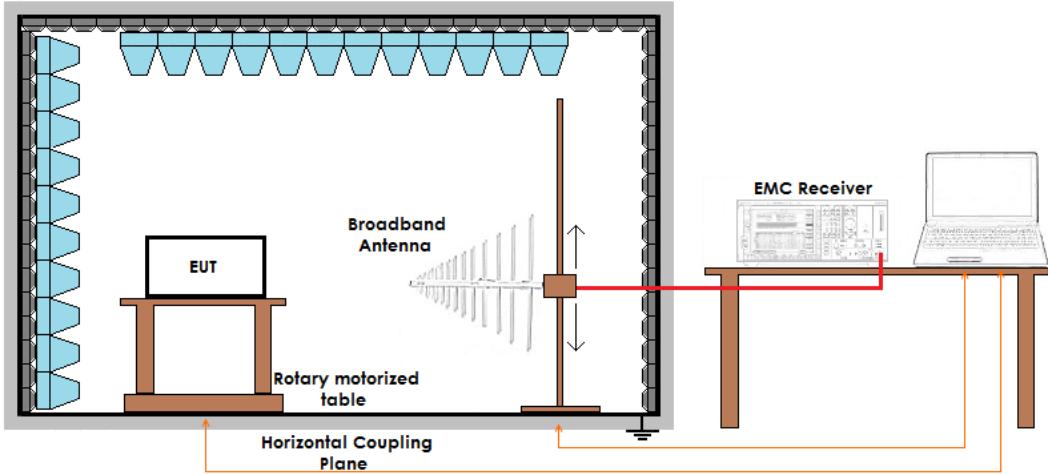
MHz	MHz	MHz	GHz
0,090 – 0,110	16,42 – 16,423	399,9 – 410	4,5 – 5,15
0,495 – 0,505	16,69475 – 16,69525	608 – 614	5,35 – 5,46
2,1735 – 2,1905	16,80425 – 16,80475	960 – 1240	7,25 – 7,75
4,125 – 4,128	25,5 – 25,67	1300 – 1427	8,025 – 8,5
4,17725 – 4,17775	37,5 – 38,25	1435 – 1626,5	9,0 – 9,2
4,20725 – 4,20775	73 – 74,6	1645,5 – 1646,5	9,3 – 9,5
6,215 – 6,218	74,8 – 75,2	1660 – 1710	10,6 – 12,7
6,26775 – 6,26825	108 – 121,94	1718,8 – 1722,2	13,25 – 13,4
6,31175 – 6,31225	123 – 138	2200 – 2300	14,47 – 14,5
8,291 – 8,294	149,9 – 150,05	2310 – 2390	15,35 – 16,2
8,362 – 8,366	156,52475 – 156,52525	2483,5 – 2500	17,7 – 21,4
8,37625 – 8,38675	156,7 – 156,9	2690 – 2900	22,01 – 23,12
8,41425 – 8,41475	162,0125 – 167,17	3260 – 3267	23,6 – 24,0
12,29 – 12,293	167,72 – 173,2	3332 – 3339	31,2 – 31,8
12,51975 – 12,52025	240 – 285	3345,8 – 3358	36,43 – 36,5
12,57675 – 12,57725	322 – 335,4	3600 – 4400	Above 38,6
13,36 – 13,41			

Acceptance limits for emissions in non-restricted frequency bands

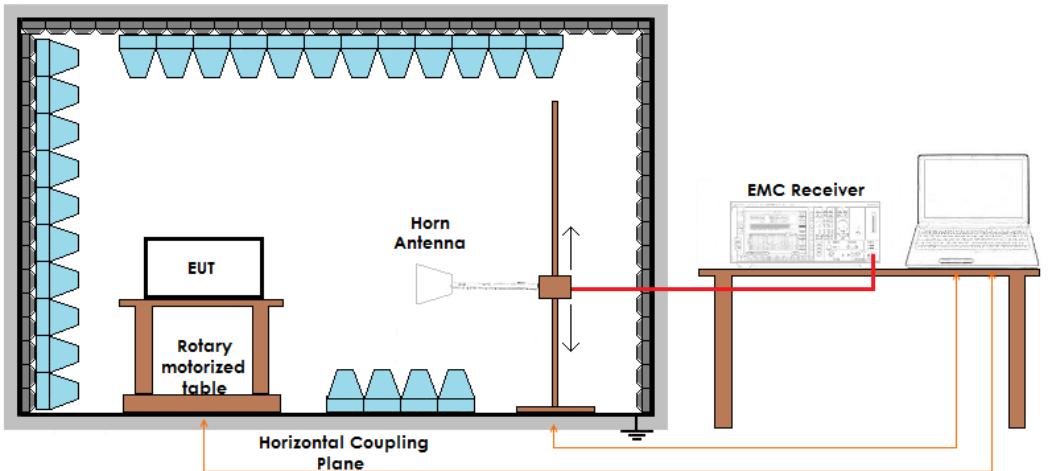
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

Setup

Frequency \leq 1 GHz



Frequency $>$ 1 GHz



Graphs:

G161957131, G161957132, G161957133,
G161957134, G161957135 and G161957136



Result – AV detector

Harmonic	Lowest channel		Medium channel		Highest channel		Results
	Level (dB μ V/m)	Limits (dB μ V/m)	Level (dB μ V/m)	Limits (dB μ V/m)	Level (dB μ V/m)	Limits (dB μ V/m)	
II	50,16*	54,00	51,41*	54,00	49,00*	54,00	Complies
III	44,69	54,00	47,26	54,00	44,86	54,00	Complies
IV	40,82	54,00	37,71	54,00	34,63	54,00	Complies
V	38,58	54,00	36,88	54,00	35,37	54,00	Complies
VI	41,17	54,00	42,35*	54,00	41,25*	54,00	Complies
VII	41,46*	54,00	46,83*	54,00	45,21*	54,00	Complies
VIII	42,82*	54,00	44,84	54,00	More than 20 dB below limit	54,00	Complies
IX	More than 20 dB below limit	54,00	More than 20 dB below limit	54,00	More than 20 dB below limit	54,00	Complies
X	More than 20 dB below limit	54,00	More than 20 dB below limit	54,00	More than 20 dB below limit	54,00	Complies

Remarks: EUT was tested in 3 orthogonal planes. The results in this table show the highest values. The emission values marked with * have been detected in non-restricted frequency bands. In these bands the limits have been always considered 54 dB μ V/m as worst case.

Result – Peak detector

Harmonic	Lowest channel		Medium channel		Highest channel		Results
	Level (dB μ V/m)	Limits (dB μ V/m)	Level (dB μ V/m)	Limits (dB μ V/m)	Level (dB μ V/m)	Limits (dB μ V/m)	
II	54,49*	74,00	54,50*	74,00	52,85*	74,00	Complies
III	55,59	74,00	56,16	74,00	54,54	74,00	Complies
IV	53,03	74,00	50,96	74,00	47,96	74,00	Complies
V	51,17	74,00	47,74	74,00	48,26	74,00	Complies
VI	51,07	74,00	51,60*	74,00	50,87*	74,00	Complies
VII	51,70*	74,00	51,38*	74,00	52,54*	74,00	Complies
VIII	53,46*	74,00	53,71	74,00	More than 20 dB below limit	74,00	Complies
IX	More than 20 dB below limit	74,00	More than 20 dB below limit	74,00	More than 20 dB below limit	74,00	Complies
X	More than 20 dB below limit	74,00	More than 20 dB below limit	74,00	More than 20 dB below limit	74,00	Complies

Remarks: EUT was tested in 3 orthogonal planes. The results in this table show the highest values. The emission values marked with * have been detected in non-restricted frequency bands. In these bands the limits have been always considered 74 dB μ V/m as worst case.



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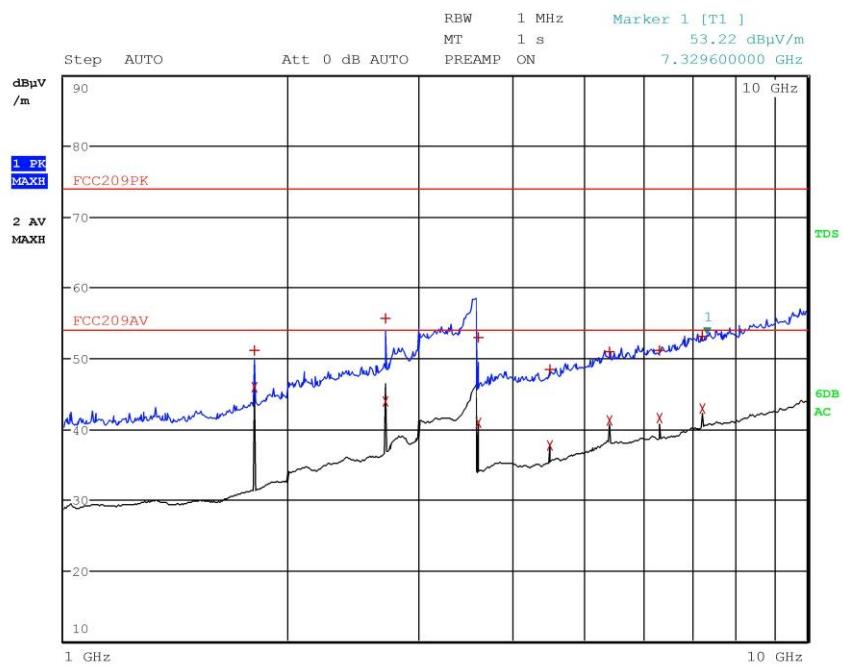
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Graphs

G161957131

Meas Type Emission 3m
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzolo 161957131
Test Spec





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Meas Type Emission 3m
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzolo 161957131
Test Spec

Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 14

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	1.804800000 GHz	51.15	Max Peak	-22.83
2	1.804800000 GHz	45.83	Average	-8.15
1	2.707600000 GHz	55.59	Max Peak	-18.39
2	2.707600000 GHz	43.79	Average	-10.19
1	3.610000000 GHz	53.01	Max Peak	-20.97
2	3.610000000 GHz	40.82	Average	-13.16
1	4.511600000 GHz	48.34	Max Peak	-25.64
2	4.512000000 GHz	37.72	Average	-16.26
1	5.409600000 GHz	50.90	Max Peak	-23.08
2	5.414400000 GHz	41.17	Average	-12.81
2	6.316800000 GHz	41.46	Average	-12.52
1	6.338000000 GHz	51.16	Max Peak	-22.82
2	7.219200000 GHz	42.82	Average	-11.16
1	7.229200000 GHz	53.07	Max Peak	-20.91



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G161957132

Meas Type Emission 3m

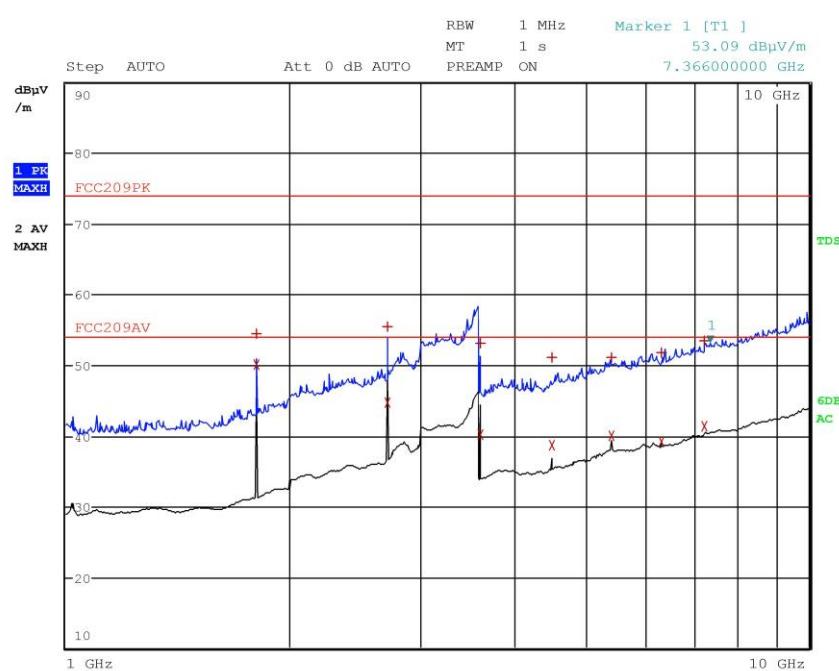
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957132

Test Spec





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LAB N° 0168

Meas Type Emission 3m
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzolo 161957132
Test Spec

Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 14

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	1.804800000 GHz	54.49	Max Peak	-19.49
2	1.804800000 GHz	50.16	Average	-3.82
1	2.707600000 GHz	55.44	Max Peak	-18.54
2	2.707600000 GHz	44.69	Average	-9.29
1	3.610000000 GHz	53.03	Max Peak	-20.95
2	3.610000000 GHz	40.09	Average	-13.89
1	4.511600000 GHz	51.17	Max Peak	-22.81
2	4.512000000 GHz	38.58	Average	-15.40
1	5.409600000 GHz	51.07	Max Peak	-22.91
2	5.414400000 GHz	40.06	Average	-13.92
2	6.316800000 GHz	39.23	Average	-14.75
1	6.338000000 GHz	51.70	Max Peak	-22.28
2	7.219200000 GHz	41.32	Average	-12.66
1	7.229200000 GHz	53.46	Max Peak	-20.52



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G161957133

Meas Type Emission 3m

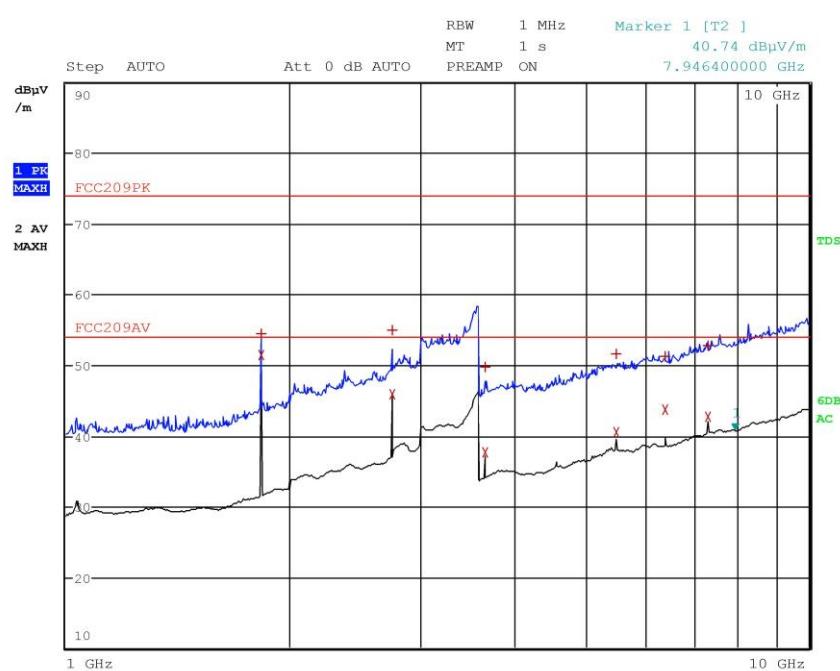
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957133

Test Spec





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Meas Type Emission 3m
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzolo 161957133
Test Spec

Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 12

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	1.830000000 GHz	54.50	Max Peak	-19.48
2	1.830000000 GHz	51.41	Average	-2.57
1	2.745200000 GHz	54.90	Max Peak	-19.08
2	2.745200000 GHz	45.80	Average	-8.18
1	3.660000000 GHz	49.69	Max Peak	-24.29
2	3.660000000 GHz	37.71	Average	-16.27
2	5.490000000 GHz	40.54	Average	-13.44
1	5.510000000 GHz	51.60	Max Peak	-22.38
1	6.388400000 GHz	51.34	Max Peak	-22.64
2	6.405200000 GHz	43.66	Average	-10.32
1	7.319600000 GHz	52.77	Max Peak	-21.21
2	7.320000000 GHz	42.68	Average	-11.30



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Meas Type Emission 3m

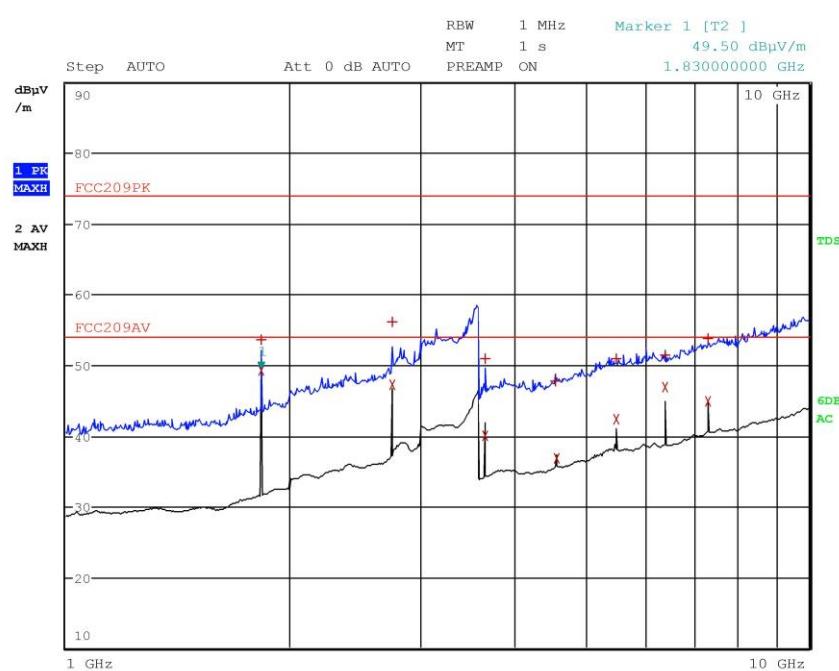
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957134

Test Spec





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Meas Type Emission 3m
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzolo 161957134
Test Spec

Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 14

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
2	1.830000000 GHz	49.17	Average	-4.81
1	1.830000000 GHz	53.60	Max Peak	-20.38
2	2.745200000 GHz	47.26	Average	-6.72
1	2.745200000 GHz	56.16	Max Peak	-17.82
1	3.659600000 GHz	50.96	Max Peak	-23.02
2	3.660000000 GHz	39.96	Average	-14.02
1	4.559600000 GHz	47.74	Max Peak	-26.24
2	4.574800000 GHz	36.88	Average	-17.10
2	5.490000000 GHz	42.35	Average	-11.63
1	5.490400000 GHz	50.99	Max Peak	-22.99
1	6.404800000 GHz	51.38	Max Peak	-22.60
2	6.405200000 GHz	46.83	Average	-7.15
1	7.320000000 GHz	53.71	Max Peak	-20.27
2	7.320000000 GHz	44.84	Average	-9.14



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Meas Type Emission 3m

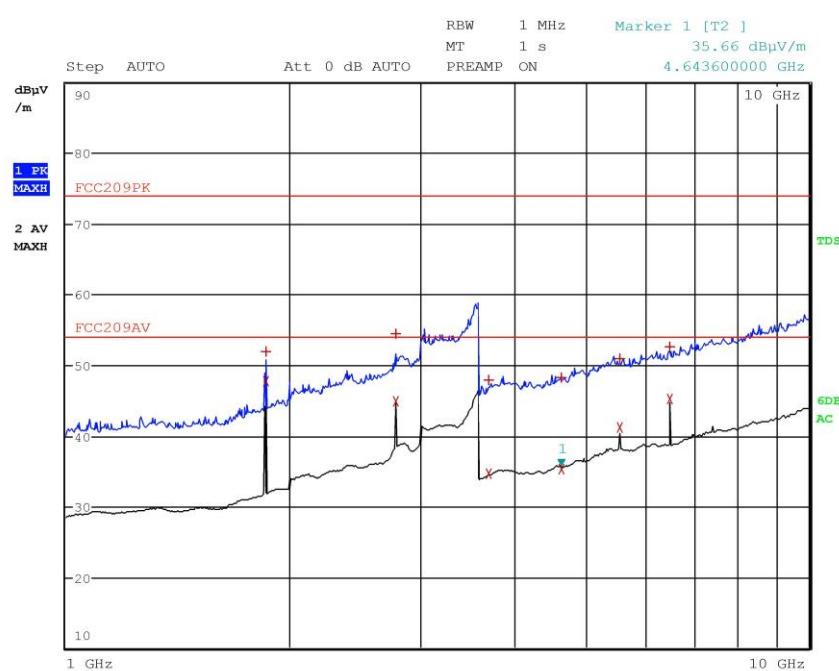
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957135

Test Spec





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Meas Type Emission 3m
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzolo 161957135
Test Spec

Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 12

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	1.855200000 GHz	51.90	Max Peak	-22.08
2	1.855200000 GHz	47.78	Average	-6.20
1	2.782800000 GHz	54.54	Max Peak	-19.44
2	2.782800000 GHz	44.86	Average	-9.12
1	3.704000000 GHz	47.96	Max Peak	-26.02
2	3.710400000 GHz	34.63	Average	-19.35
1	4.635600000 GHz	48.26	Max Peak	-25.72
2	4.643600000 GHz	35.37	Average	-18.61
1	5.565600000 GHz	50.87	Max Peak	-23.11
2	5.565600000 GHz	41.25	Average	-12.73
1	6.493200000 GHz	52.54	Max Peak	-21.44
2	6.493200000 GHz	45.21	Average	-8.77



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Meas Type Emission 3m

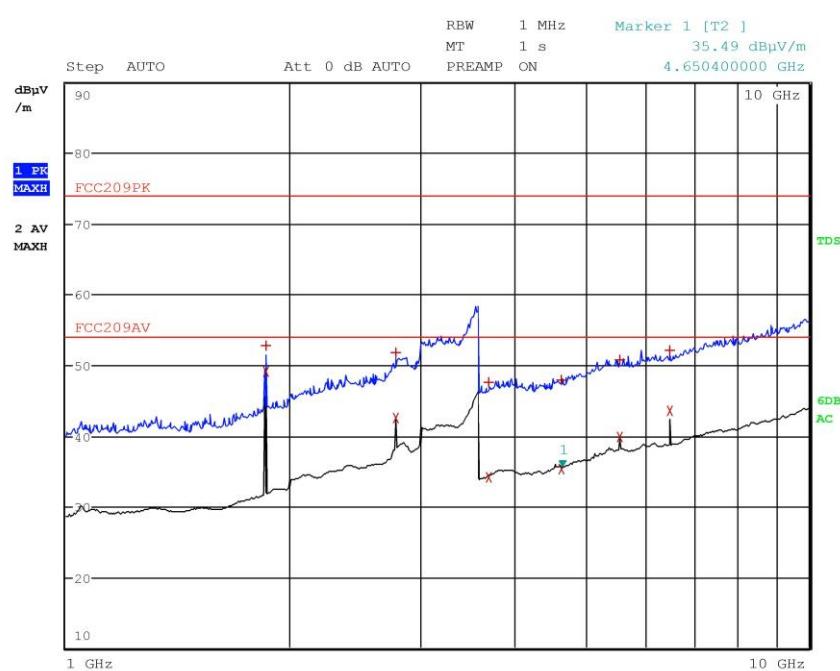
Equipment under Test

Manufacturer

OP Condition

Operator Bertezzolo 161957136

Test Spec





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Meas Type Emission 3m
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzolo 161957136
Test Spec

Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 12

Trace	Frequency	Level (dB μ V/m)	Detector	Delta Limit/dB
1	1.855200000 GHz	52.85	Max Peak	-21.13
2	1.855200000 GHz	49.00	Average	-4.98
1	2.782800000 GHz	51.70	Max Peak	-22.28
2	2.782800000 GHz	42.49	Average	-11.49
1	3.704000000 GHz	47.63	Max Peak	-26.35
2	3.710400000 GHz	34.04	Average	-19.94
1	4.635600000 GHz	47.92	Max Peak	-26.06
2	4.643600000 GHz	35.37	Average	-18.61
1	5.565600000 GHz	50.80	Max Peak	-23.18
2	5.565600000 GHz	39.79	Average	-14.19
1	6.493200000 GHz	52.15	Max Peak	-21.83
2	6.493200000 GHz	43.47	Average	-10.51

Result: The requirements are met



11.11 Maximum permissible exposure

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 1.1310
- Internal procedure PM001
- See clause 4 of this test report

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

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

Test specification

Port: Antenna

Acceptance limits

1 mW/cm² max at 20 cm of distance

Result

Power Density Limit (mW/cm ²)	Maximum Output Power (mW)	Antenna Gain (G)	Power Density at 20 cm (mW/cm ²)	Remarks
1,00	38,37	2,15 dBi	0,016	Measured

Remarks: Power Density = $(P \times G) / (4\pi R^2)$

Result: The requirements are met