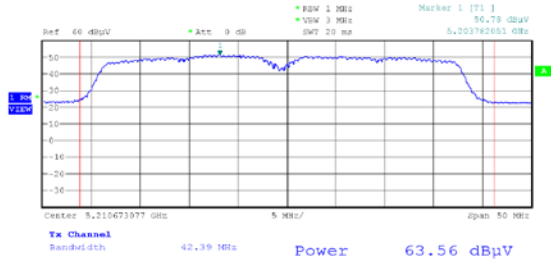


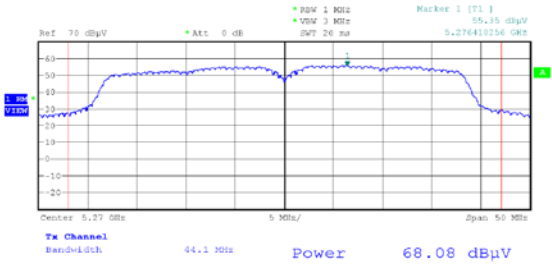
Date: 29.NOV.2013 13:18:02

Curve 91



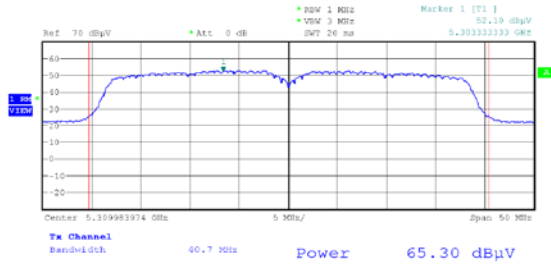
Date: 29.NOV.2013 14:14:32

Curve 92



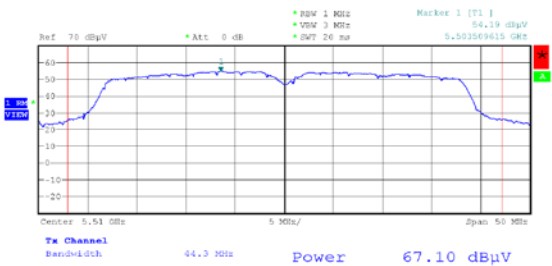
Date: 2.DEC.2013 10:33:30

Curve 93



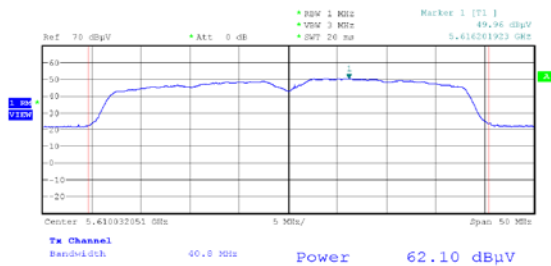
Date: 2.DEC.2013 11:49:17

Curve 94



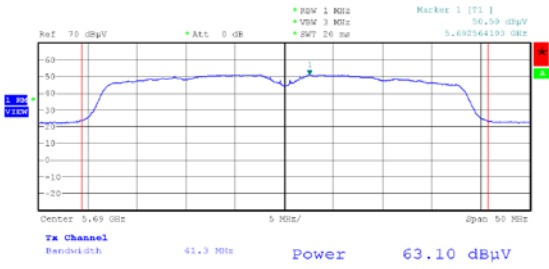
Date: 2.DEC.2013 14:17:56

Curve 95



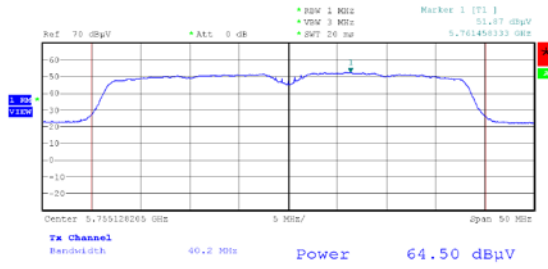
Date: 2.DEC.2013 15:14:56

Curve 96



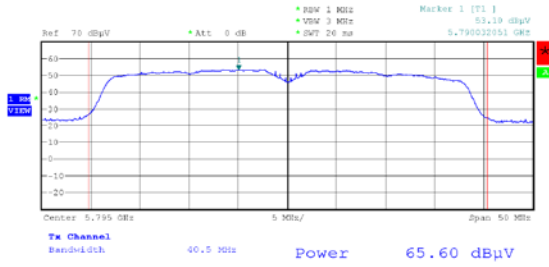
Date: 3.DEC.2013 09:53:06

Curve 97



Date: 3.DEC.2013 10:58:24

Curve 98



Date: 3.DEC.2013 13:18:19

Curve 99

Test conclusion: Complies with the requirements of the standards.

7. PEAK POWER SPECTRAL DENSITY

Standards: FCC PART 15 : 2013
RSS-210 Issue 8 : 2010

Sections: 15.407 a) (1); (2); (3)
Annex 9.2 (1); (2); (3) of RSS-210

Test configuration:

The system is tested in an open area test site (OATS).

The test unit is placed on a rotating table, 0.8 m from a ground plane. Zero degree azimuth corresponds to the front of the equipment under test.

The level was maximised in antenna height, azimuth and polarization. The maximum level measured on the spectrum analyser was recorded.

Test procedure:

789033 D01 General UNII test Procedures v01r03

Distance of antenna: 3 meters

Instrumentation test list:

CATEGORY	BRAND	TYPE	N° EMITECH
Antenna	Emco	3115	3374
Antenna mast	Maturo	AM 4.0-O	7625
Cable	Micro-Coax	N-13m	8063
Open area test site	Emitech	Aunainville	0187
Receiver	Rohde & Schwarz	FSU8	9129
Turntable	Maturo	MCU	7626

Equipment under test operating condition:

EUT is in continuous transmission mode with the RTTT software.

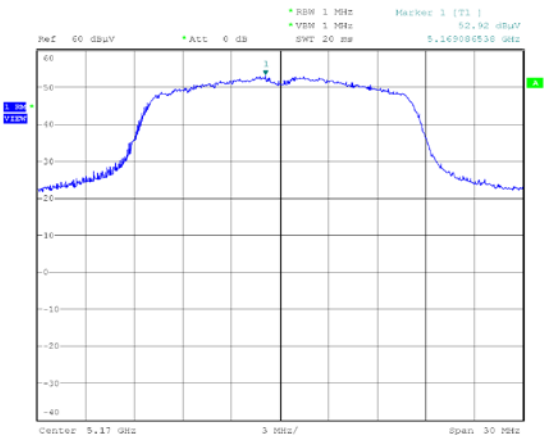
Measure conditions:

Ambient temperature (°C): 09
Relative humidity (%): 90
Resolution bandwidth: 1 MHz
Power source: 3.6 Vd.c

Results:

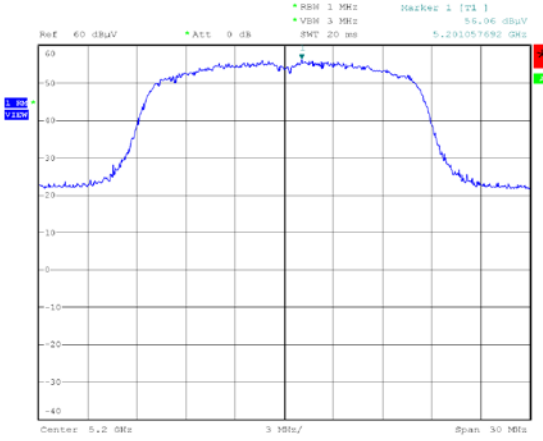
Channel	Mode	Electro-magnetic field (dBμV/m)	PPSD* (dBm)	Comments
J34 (5170 MHz)	802.11a	93.5	-1.73	See curve n°100
40 (5200 MHz)		96.8	+1.47	See curve n°101
48 (5240 MHz)		98.1	+2.87	See curve n°102
52 (5260 MHz)	802.11a	97.1	+2.27	See curve n°103
60 (5300 MHz)		99.2	+3.97	See curve n°104
64 (5320 MHz)		96.0	+0.77	See curve n°105
100 (5500 MHz)	802.11a	97.8	+2.37	See curve n°106
120 (5600 MHz)		96.6	+1.67	See curve n°107
140 (5700 MHz)		96.9	+1.67	See curve n°108
149 (5745 MHz)	802.11a	98.4	+3.17	See curve n°109
157 (5785 MHz)		100.3	+5.07	See curve n°110
161 (5805 MHz)		100.0	+4.77	See curve n°111
J34 (5170 MHz)	802.11n (20 MHz)	99.0	+3.77	See curve n°112
40 (5200 MHz)		99.0	+3.77	See curve n°113
48 (5240 MHz)		98.5	+3.27	See curve n°114
52 (5260 MHz)	802.11n (20 MHz)	99.3	+4.47	See curve n°115
60 (5300 MHz)		100.0	+4.77	See curve n°116
64 (5320 MHz)		99.6	+4.37	See curve n°117
100 (5500 MHz)	802.11n (20 MHz)	99.3	+4.07	See curve n°118
120 (5600 MHz)		98.1	+2.87	See curve n°119
140 (5700 MHz)		98.5	+3.27	See curve n°120
149 (5745 MHz)	802.11n (20 MHz)	100.0	+4.77	See curve n°121
157 (5785 MHz)		100.5	+5.27	See curve n°122
161 (5805 MHz)		100.6	+5.37	See curve n°123
36 (5180 MHz)	802.11n (40 MHz)	91.6	-3.63	See curve n°124
40 (5200 MHz)		91.5	-3.73	See curve n°125
52 (5260 MHz)	802.11n (40 MHz)	96.3	+1.47	See curve n°126
60 (5300 MHz)		93.0	-2.23	See curve n°127
100 (5500 MHz)	802.11n (40 MHz)	95.5	+2.71	See curve n°128
120 (5600 MHz)		91.4	-3.83	See curve n°129
136 (5680 MHz)		92.0	-3.23	See curve n°130
149 (5745 MHz)	802.11n (40 MHz)	93.5	-1.73	See curve n°131
157 (5785 MHz)		94.7	-0.53	See curve n°132

* PPST = $(FS \times d)^2 / 30$ with $d = 3$ m and $FS = V/m$



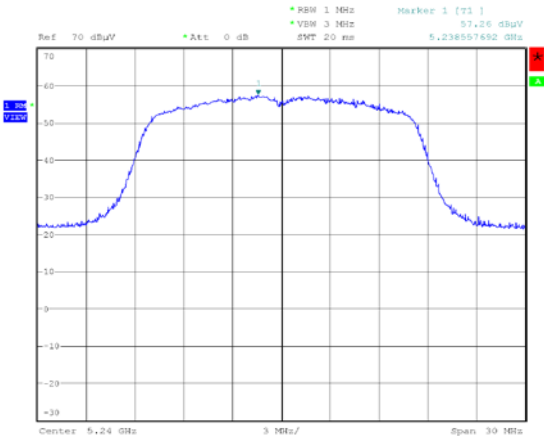
Date: 29.NOV.2013 11:03:24

Curve 100



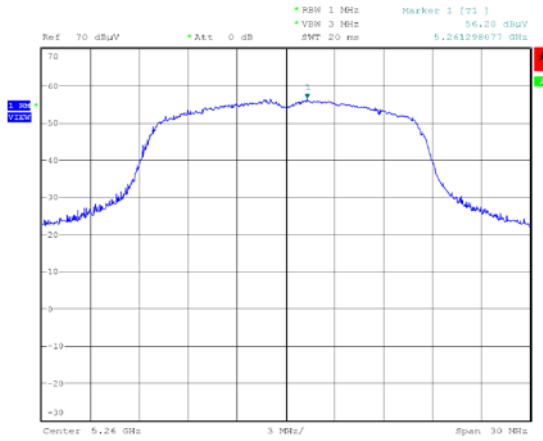
Date: 29.NOV.2013 13:39:45

Curve 101



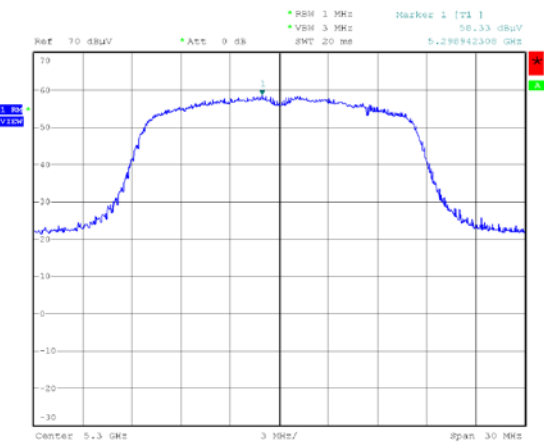
Date: 29.NOV.2013 14:27:19

Curve 102



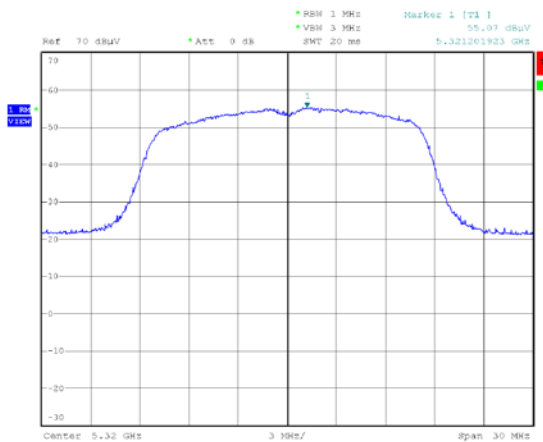
Date: 2.DEC.2013 09:55:40

Curve 103



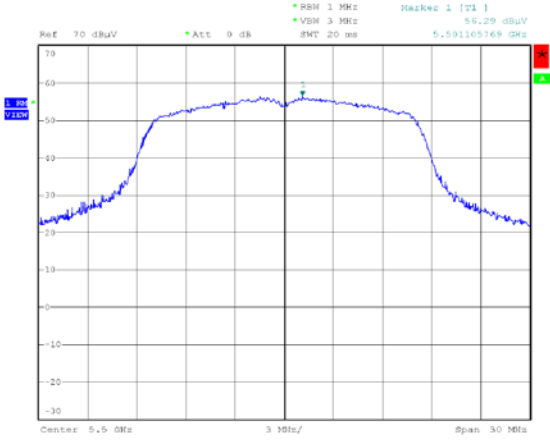
Date: 2.DEC.2013 11:06:36

Curve 104



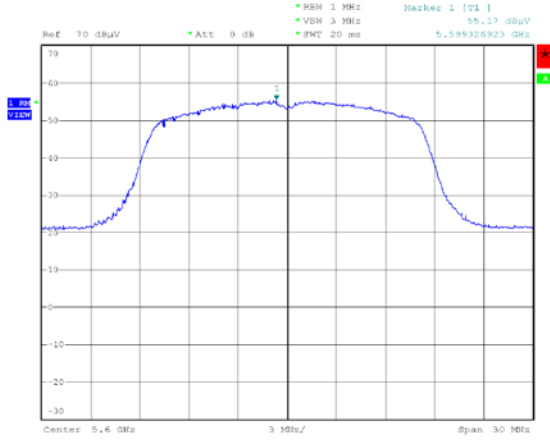
Date: 2.DEC.2013 12:56:13

Curve 105



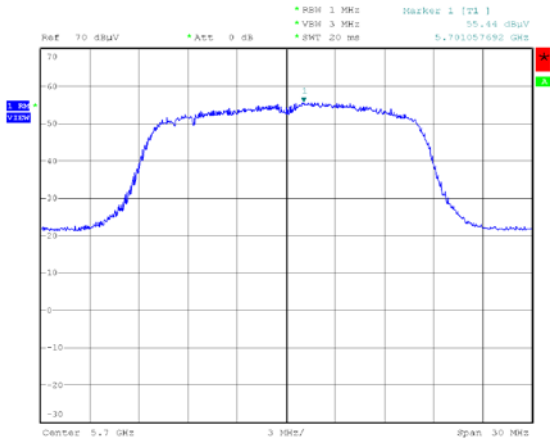
Date: 2.DEC.2013 13:39:25

Curve 106



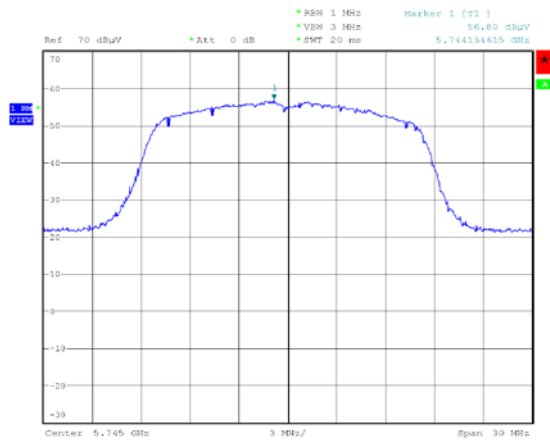
Date: 2.DEC.2013 14:40:04

Curve 107



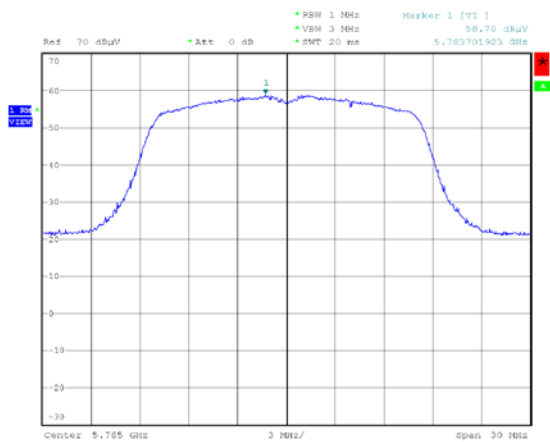
Date: 2.DEC.2013 13:26:55

Curve 108



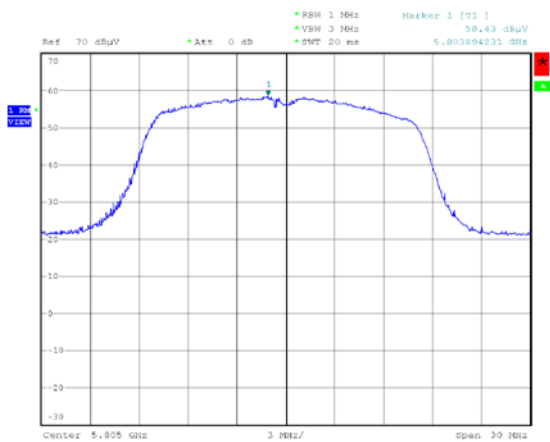
Date: 3.DEC.2013 10:23:25

Curve 109



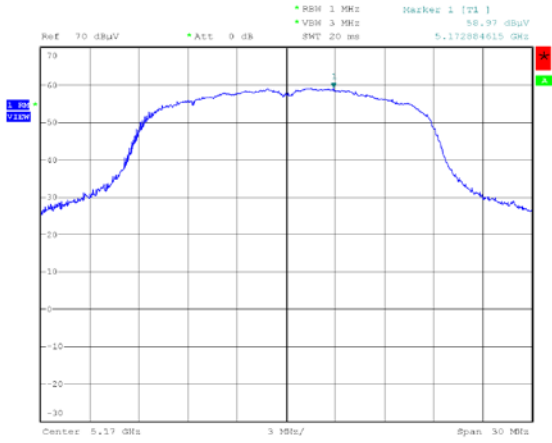
Date: 3.DEC.2013 12:42:40

Curve 110



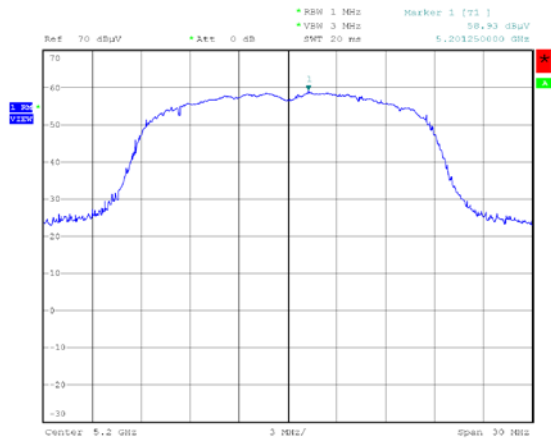
Date: 3.DEC.2013 13:39:05

Curve 111



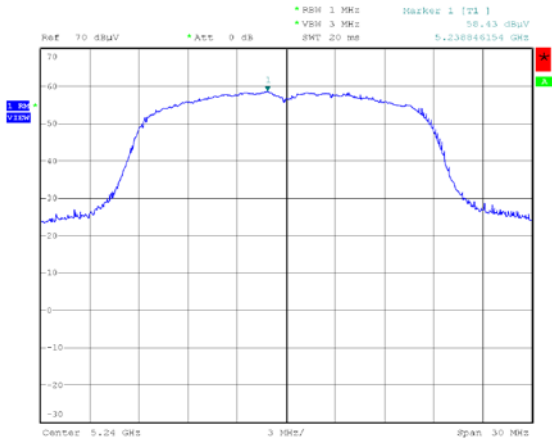
Date: 29.NOV.2013 12:47:14

Curve 112



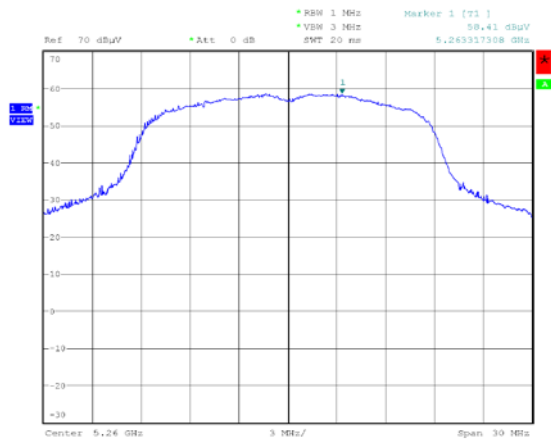
Date: 29.NOV.2013 14:01:05

Curve 113



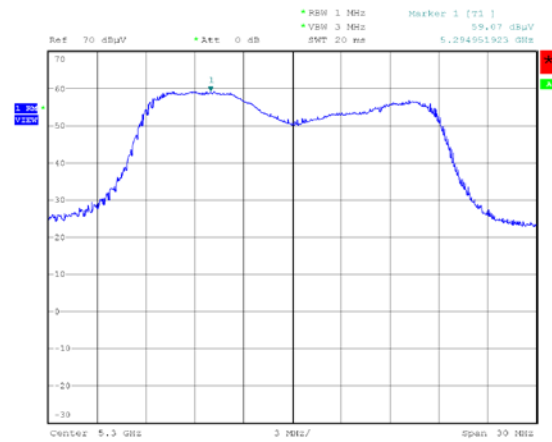
Date: 29.NOV.2013 14:49:30

Curve 114



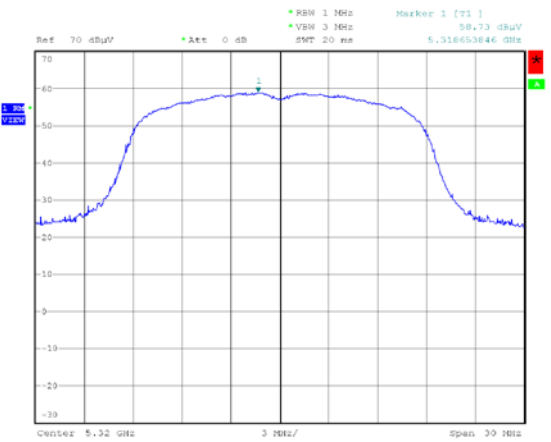
Date: 2.DEC.2013 10:21:05

Curve 115



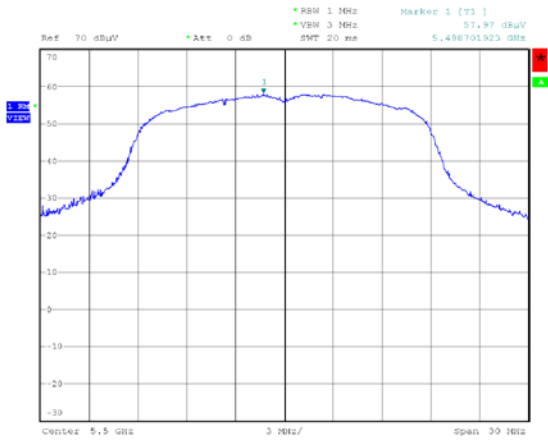
Date: 2.DEC.2013 11:19:15

Curve 116



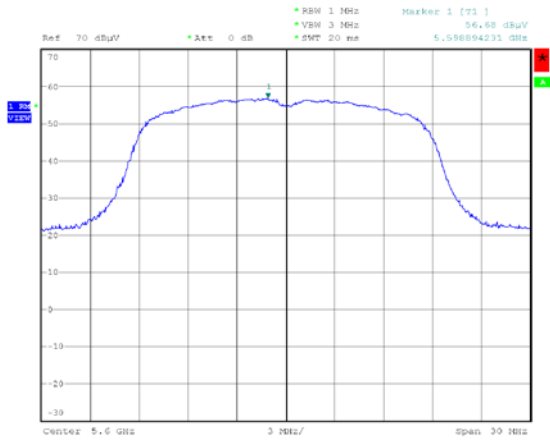
Date: 2.DEC.2013 13:15:06

Curve 117



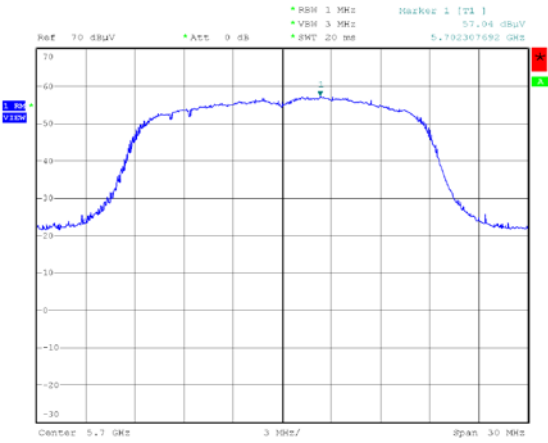
Date: 2.DEC.2013 14:00:50

Curve 118



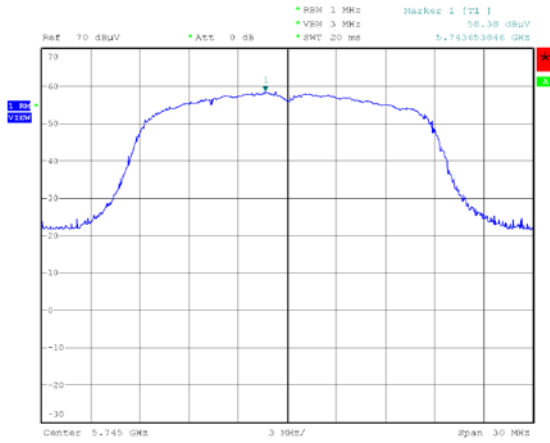
Date: 2.DEC.2013 15:04:14

Curve 119



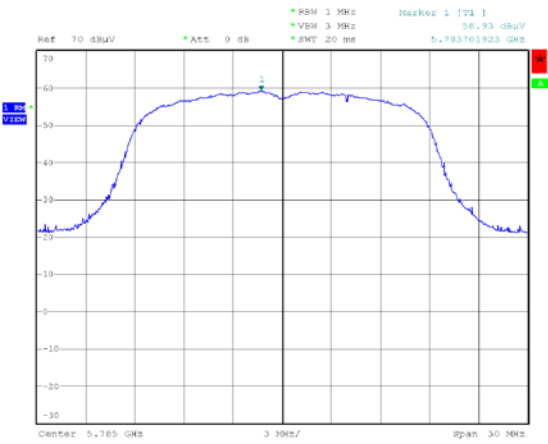
Date: 2.DEC.2013 15:47:20

Curve 120



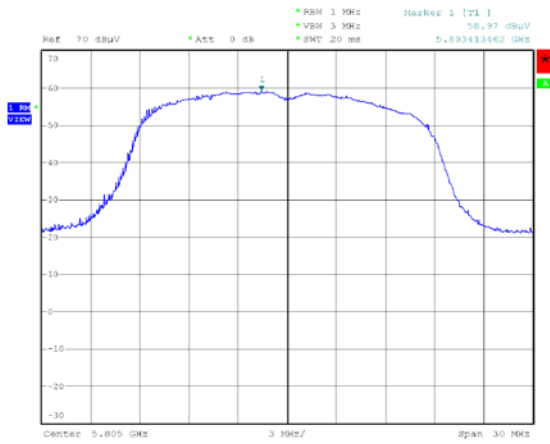
Date: 3.DEC.2013 10:43:00

Curve 121



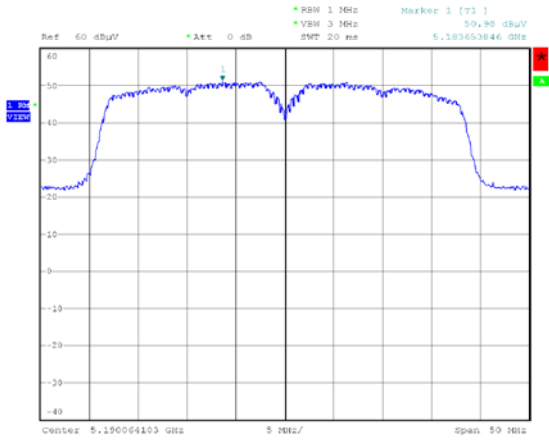
Date: 3.DEC.2013 12:59:20

Curve 122



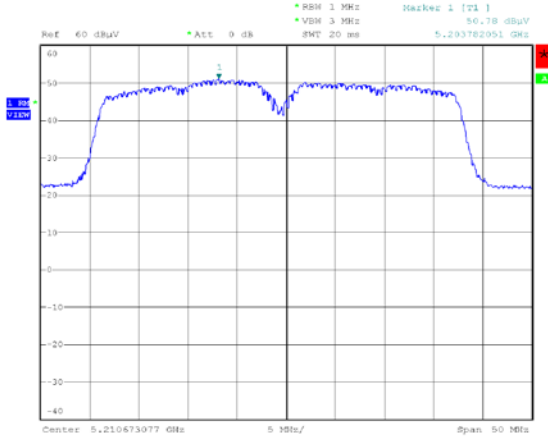
Date: 3.DEC.2013 13:57:30

Curve 123



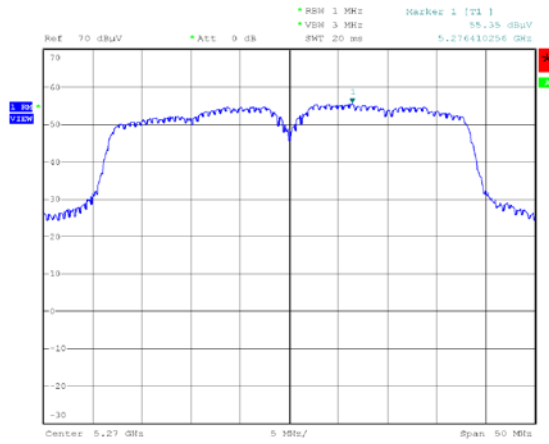
Date: 29.NOV.2013 13:18:48

Curve 124



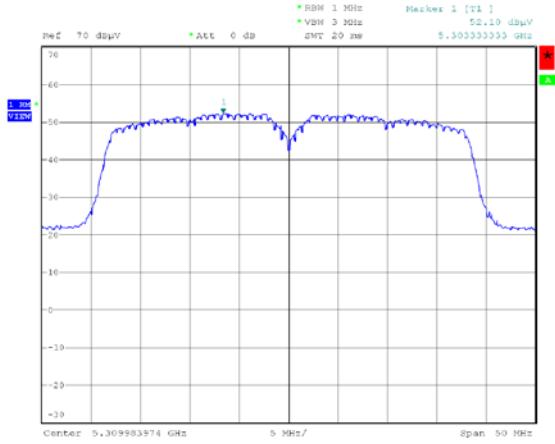
Date: 29.NOV.2013 14:15:11

Curve 125



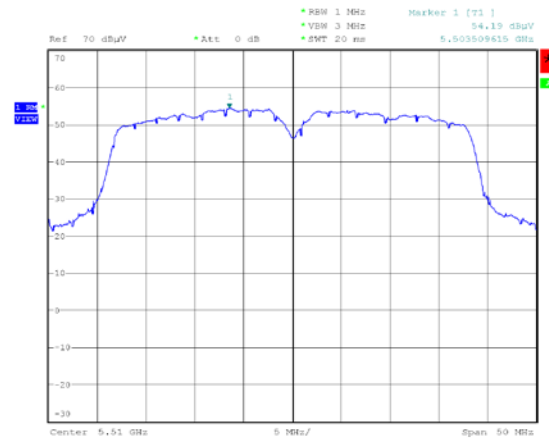
Date: 2.DEC.2013 10:34:10

Curve 126



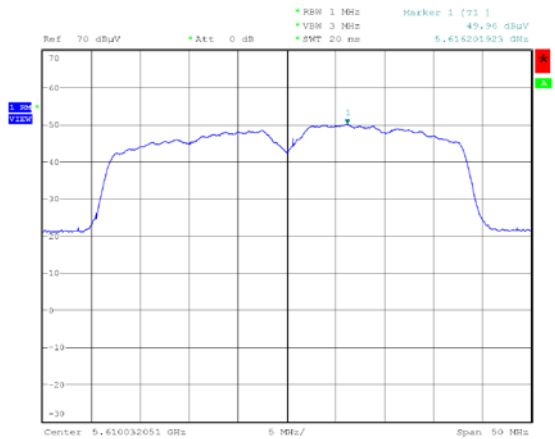
Date: 2.DEC.2013 11:50:00

Curve 127



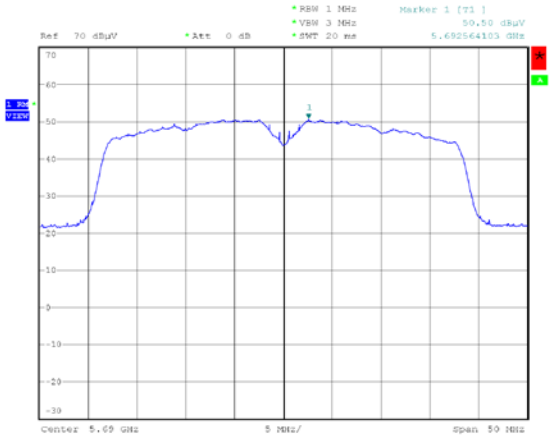
Date: 2.DEC.2013 14:18:40

Curve 128



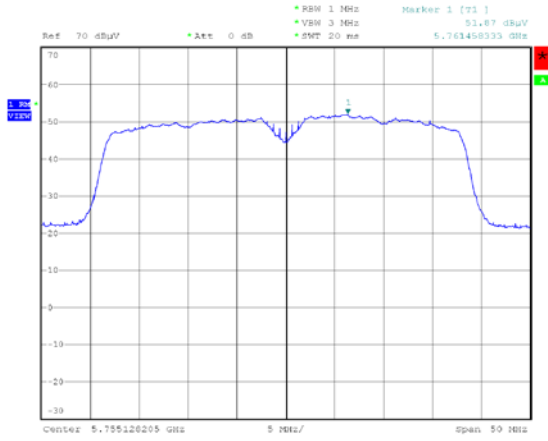
Date: 2.DEC.2013 15:15:41

Curve 129



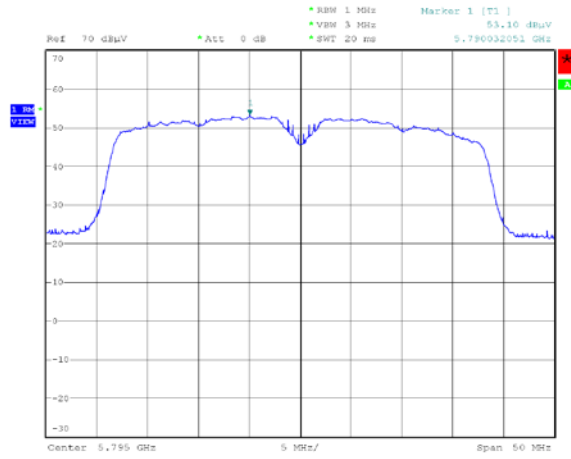
Date: 3.DEC.2013 09:53:48

Curve 130



Date: 3.DEC.2013 10:58:54

Curve 131



Date: 3.DEC.2013 13:18:58

Curve 132

Test conclusion: Complies with the requirements of the standards.

8. PEAK EXCURSION RATIO

Standard: FCC PART 15 : 2013

Section: 15.407 a) (6)

Test configuration:

The system is tested in an open area test site (OATS).

The test unit is placed on a rotating table, 0.8 m from a ground plane. Zero degree azimuth corresponds to the front of the equipment under test.

The level was maximised in antenna height, azimuth and polarization. The maximum level measured on the spectrum analyser was recorded.

Test procedure:

789033 D01 General UNII test Procedures v01r03

Distance of antenna: 3 meters

Instrumentation test list:

CATEGORY	BRAND	TYPE	N° EMITECH
Antenna	Emco	3115	3374
Antenna mast	Maturo	AM 4.0-O	7625
Cable	Micro-Coax	N-13m	8063
Open area test site	Emitech	Aunainville	0187
Receiver	Rohde & Schwarz	FSU8	9129
Turntable	Maturo	MCU	7626

Equipment under test operating condition:

EUT is in continuous transmission mode with the RTTT software.

Measure conditions:

Ambient temperature (°C): 09

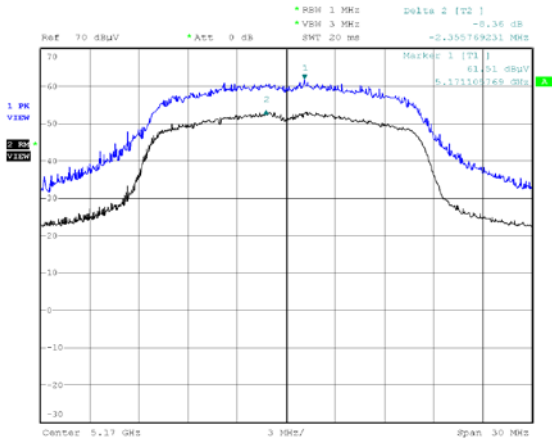
Relative humidity (%): 90

Resolution bandwidth: 1 MHz

Power source: 3.6 Vd.c

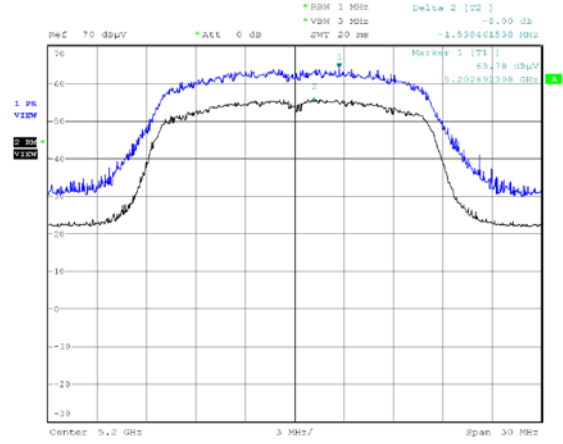
Results:

Channel	Mode	Peak excursion to average ratio (dB)	Limit (dB)	Comments
J34 (5170 MHz)	802.11a	8.36	<13	See curve n°133
40 (5200 MHz)		8.00	<13	See curve n°134
48 (5240 MHz)		8.06	<13	See curve n°135
52 (5260 MHz)	802.11a	8.93	<13	See curve n°136
60 (5300 MHz)		8.70	<13	See curve n°137
64 (5320 MHz)		8.93	<13	See curve n°138
100 (5500 MHz)	802.11a	9.21	<13	See curve n°139
120 (5600 MHz)		8.56	<13	See curve n°140
140 (5700 MHz)		8.80	<13	See curve n°141
149 (5745 MHz)	802.11a	8.69	<13	See curve n°142
157 (5785 MHz)		8.51	<13	See curve n°143
161 (5805 MHz)		8.73	<13	See curve n°144
J34 (5170 MHz)	802.11n (20 MHz)	8.23	<13	See curve n°145
40 (5200 MHz)		7.77	<13	See curve n°146
48 (5240 MHz)		8.47	<13	See curve n°147
52 (5260 MHz)	802.11n (20 MHz)	8.94	<13	See curve n°148
60 (5300 MHz)		8.57	<13	See curve n°149
64 (5320 MHz)		8.68	<13	See curve n°150
100 (5500 MHz)	802.11n (20 MHz)	9.43	<13	See curve n°151
120 (5600 MHz)		8.68	<13	See curve n°152
140 (5700 MHz)		8.58	<13	See curve n°153
149 (5745 MHz)	802.11n (20 MHz)	8.23	<13	See curve n°154
157 (5785 MHz)		8.75	<13	See curve n°155
161 (5805 MHz)		9.56	<13	See curve n°156
36 (5180 MHz)	802.11n (40 MHz)	8.44	<13	See curve n°157
40 (5200 MHz)		8.12	<13	See curve n°158
52 (5260 MHz)	802.11n (40 MHz)	9.60	<13	See curve n°159
60 (5300 MHz)		9.38	<13	See curve n°160
100 (5500 MHz)	802.11n (40 MHz)	8.53	<13	No curve
120 (5600 MHz)		9.12	<13	See curve n°161
136 (5680 MHz)		9.36	<13	See curve n°162
149 (5745 MHz)	802.11n (40 MHz)	8.73	<13	See curve n°163
157 (5785 MHz)		7.68	<13	See curve n°164



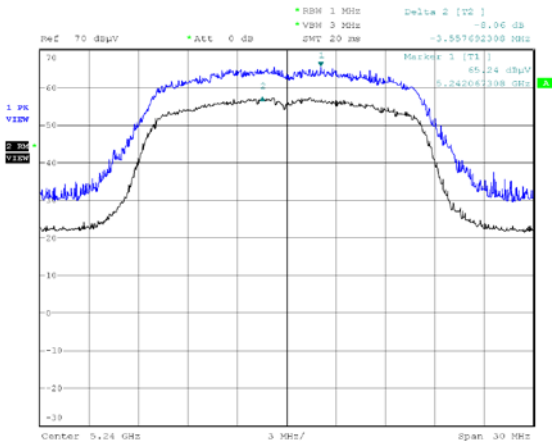
Date: 29.NOV.2013 11:07:35

Curve 133



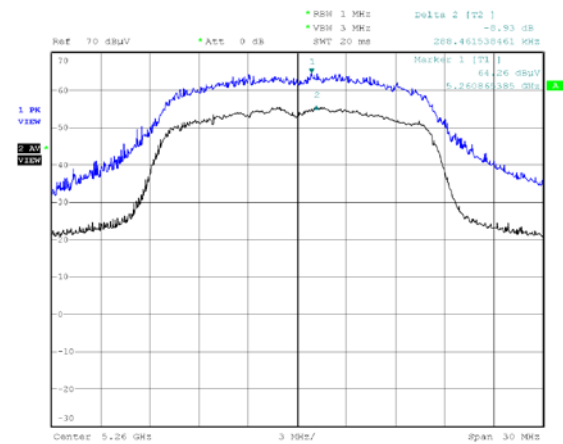
Date: 29.NOV.2013 13:41:10

Curve 134



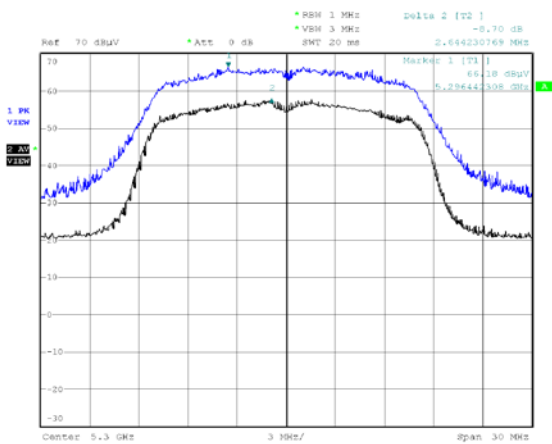
Date: 29.NOV.2013 14:28:42

Curve 135



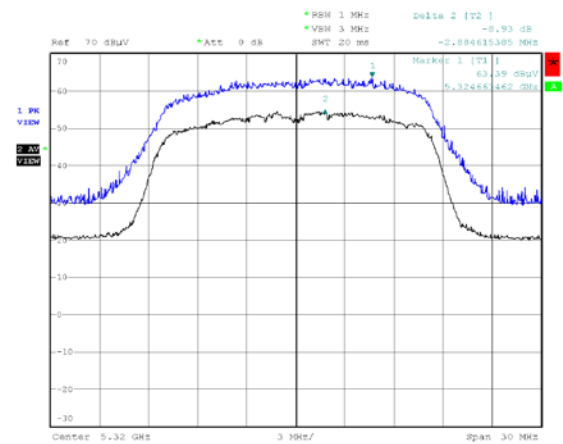
Date: 2.DEC.2013 09:58:43

Curve 136



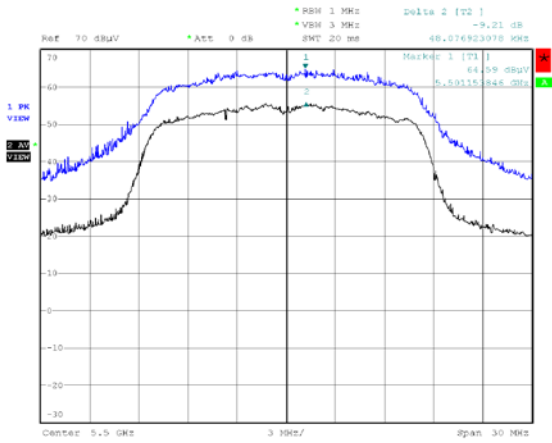
Date: 2.DEC.2013 11:08:58

Curve 137



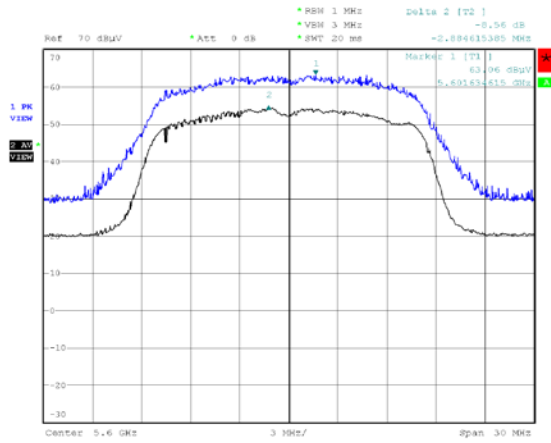
Date: 2.DEC.2013 12:58:13

Curve 138



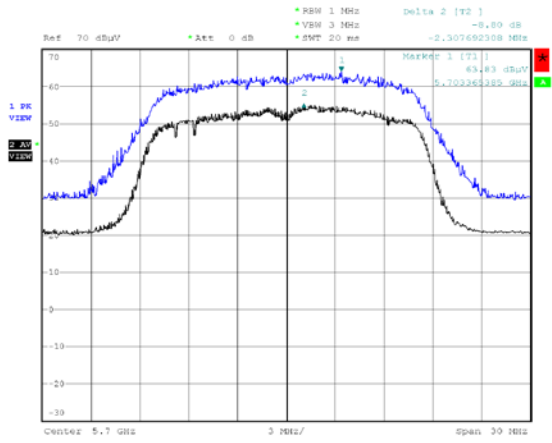
Date: 2.DEC.2013 13:43:48

Curve 139



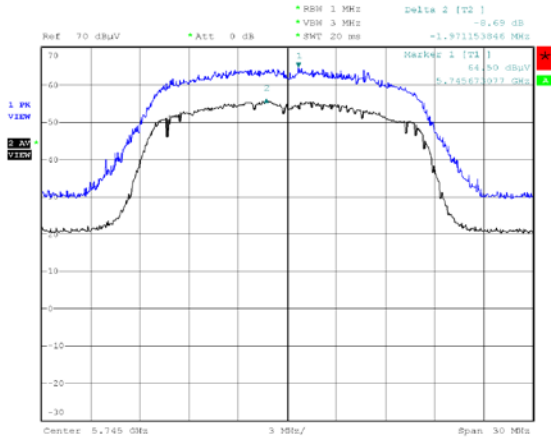
Date: 2.DEC.2013 14:41:53

Curve 140



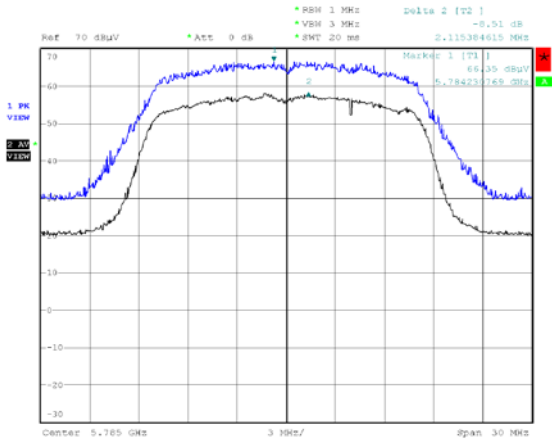
Date: 2.DEC.2013 15:28:33

Curve 141



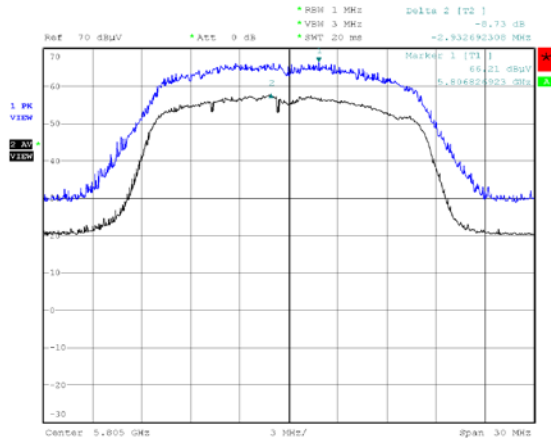
Date: 3.DEC.2013 10:25:01

Curve 142



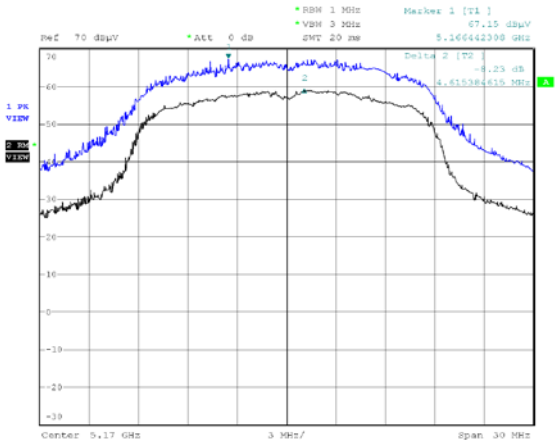
Date: 3.DEC.2013 12:44:24

Curve 143



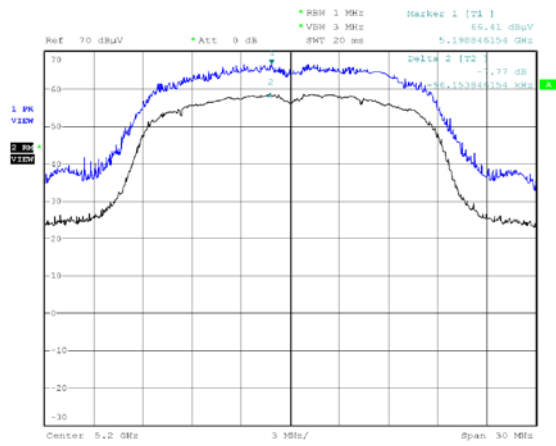
Date: 3.DEC.2013 13:40:46

Curve 144



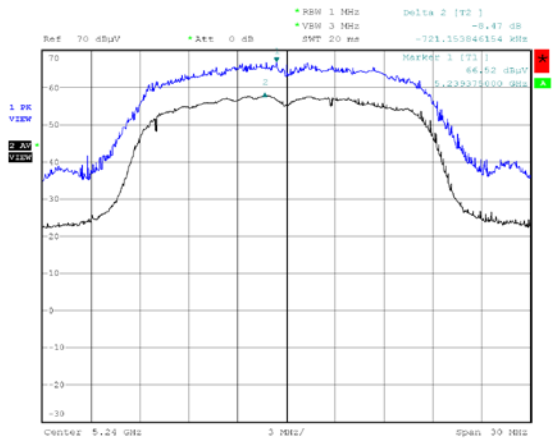
Date: 29.NOV.2013 12:49:29

Curve 145



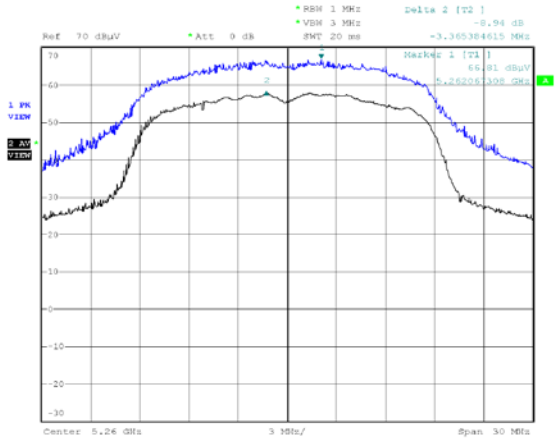
Date: 29.NOV.2013 14:03:09

Curve 146



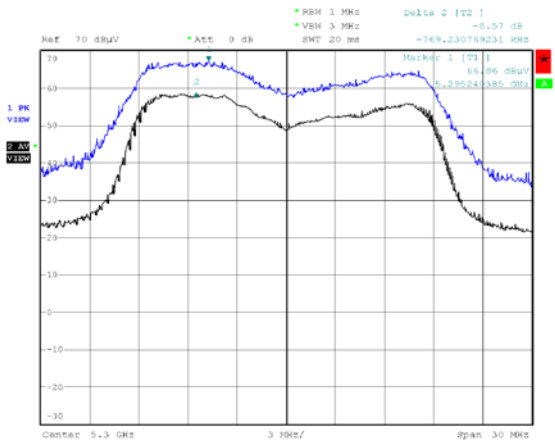
Date: 29.NOV.2013 14:51:07

Curve 147



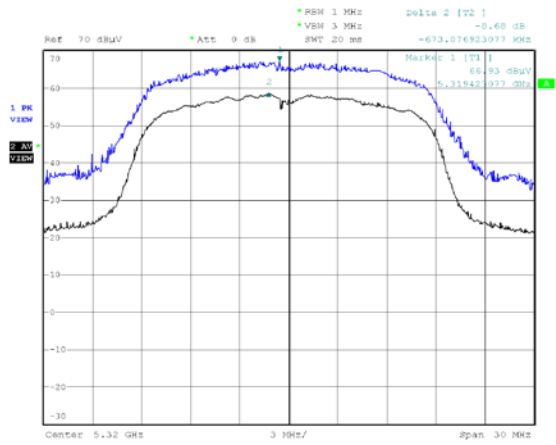
Date: 2.DEC.2013 10:23:49

Curve 148



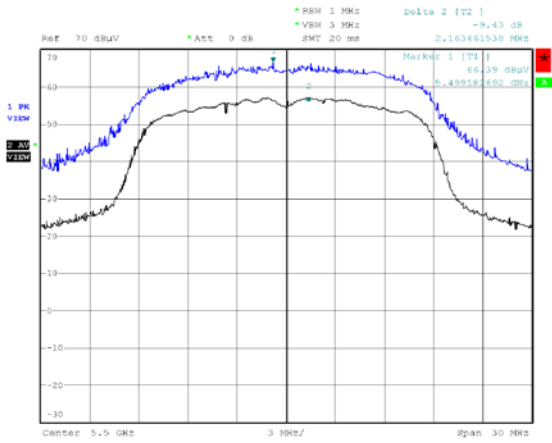
Date: 2.DEC.2013 11:21:15

Curve 149



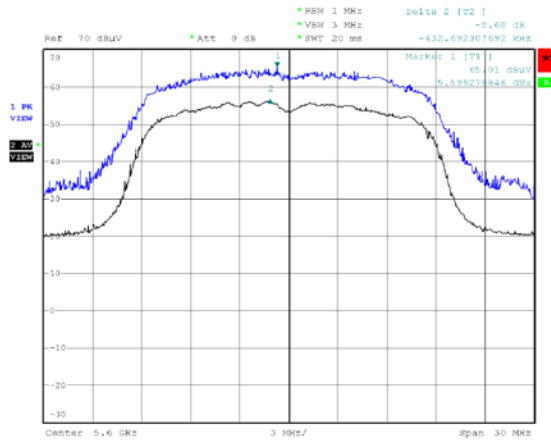
Date: 2.DEC.2013 13:17:04

Curve 150



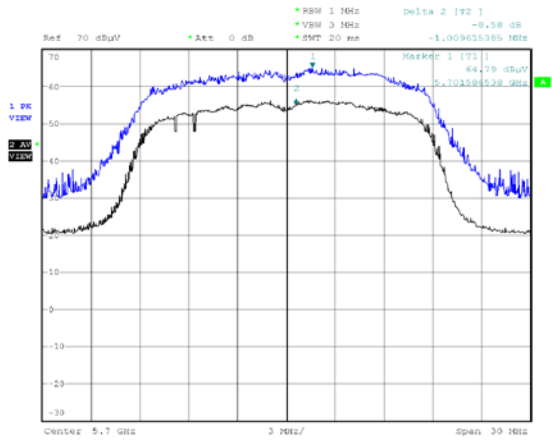
Date: 2.DEC.2013 14:02:23

Curve 151



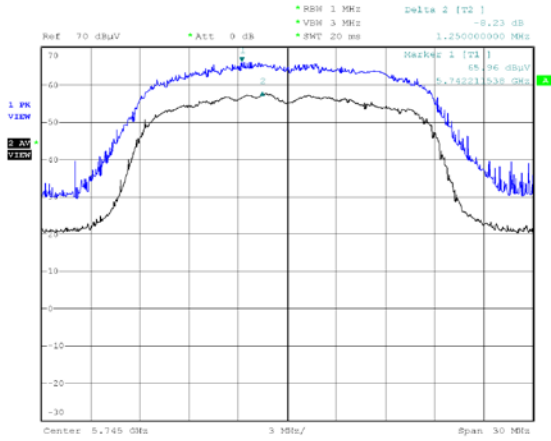
Date: 2.DEC.2013 15:05:00

Curve 152



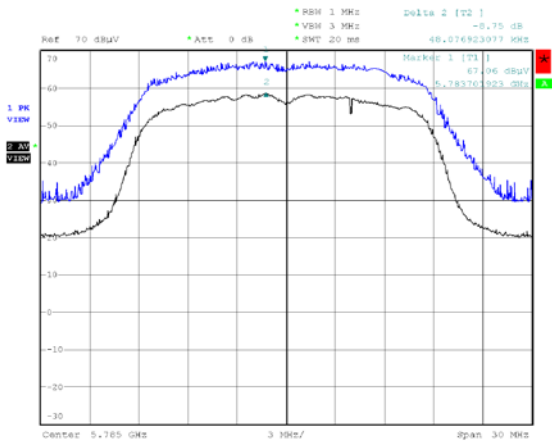
Date: 2.DEC.2013 15:40:40

Curve 153



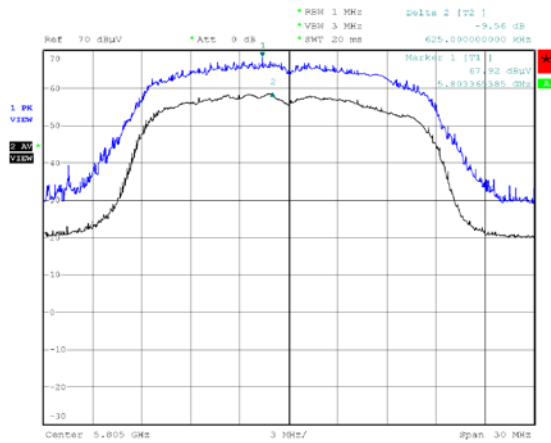
Date: 3.DEC.2013 10:44:25

Curve 154



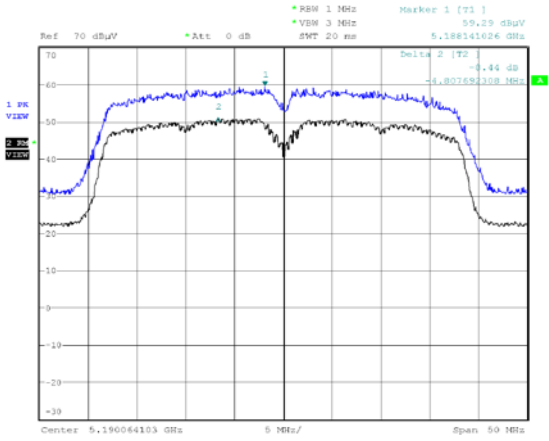
Date: 3.DEC.2013 12:56:50

Curve 155



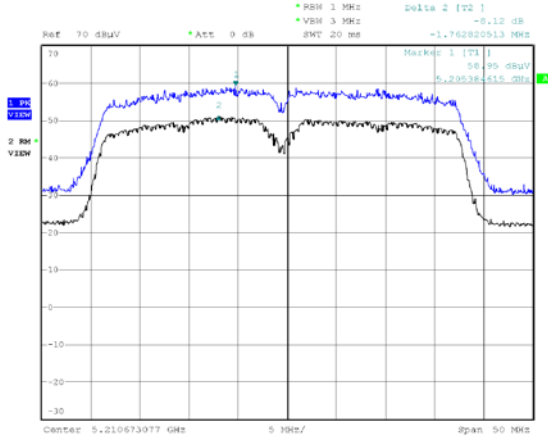
Date: 3.DEC.2013 13:58:57

Curve 156



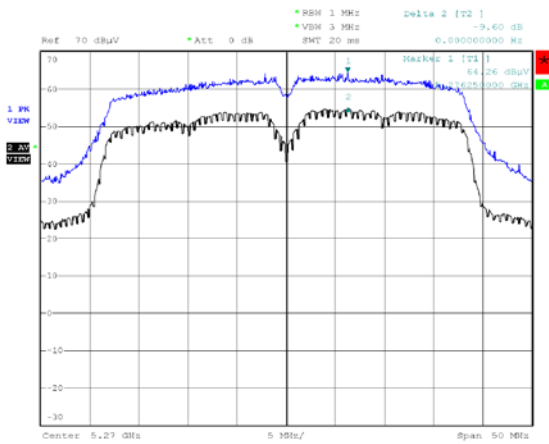
Date: 29.NOV.2013 13:20:56

Curve 157



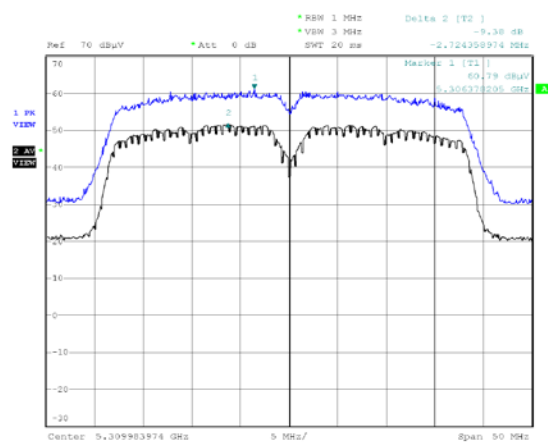
Date: 29.NOV.2013 14:16:45

Curve 158



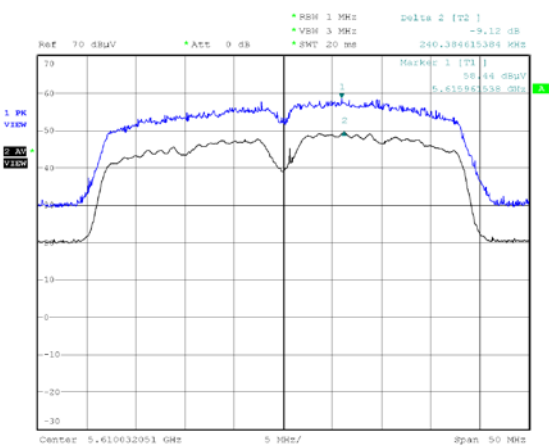
Date: 2.DEC.2013 10:36:22

Curve 159



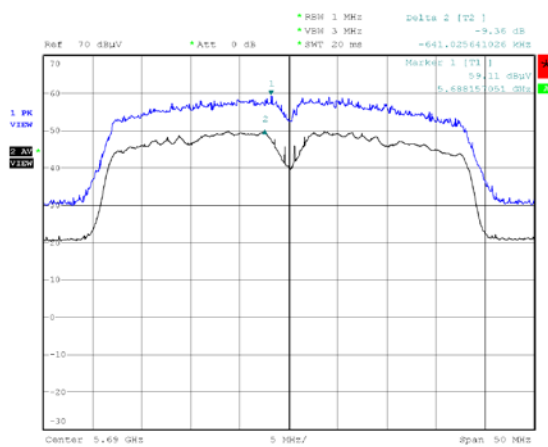
Date: 2.DEC.2013 11:51:08

Curve 160



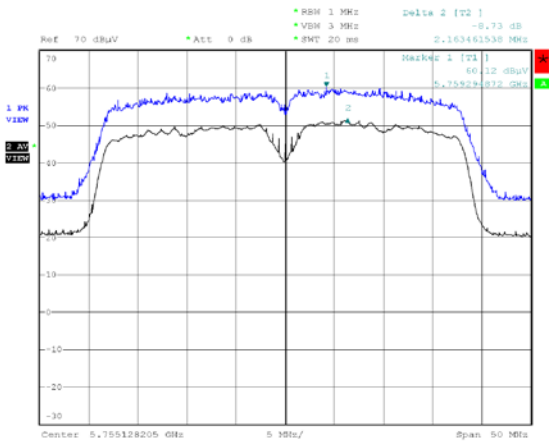
Date: 2.DEC.2013 15:16:59

Curve 161



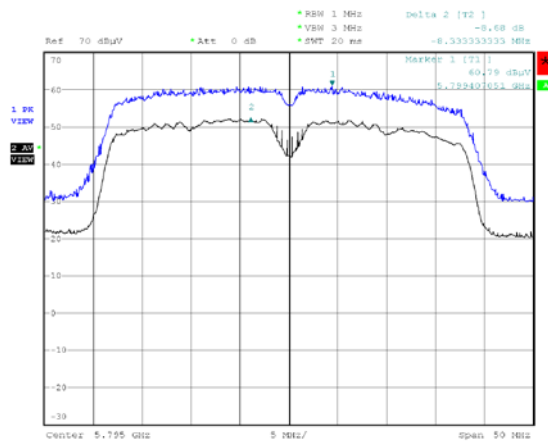
Date: 3.DEC.2013 09:55:12

Curve 162



Date: 3.DEC.2013 10:59:53

Curve 163



Date: 3.DEC.2013 13:20:29

Curve 164

Test conclusion: Complies with the requirements of the standard.

9. ADDITIONAL PROVISIONS TO THE GENERAL RADIATED EMISSIONS LIMITATION

Standards: FCC PART 15 : 2013
 RSS-Gen Issue 3 : 2010

Sections: 15.215 (b)
 7.2.2 of the RSS-Gen

Instrumentation test list:

CATEGORY	BRAND	TYPE	N° EMITECH
Antenna	Emco	3115	3374
Antenna mast	Maturo	AM 4.0-O	7625
Cable	Micro-Coax	N-13m	8063
Open area test site	Emitech	Aunainville	0187
Receiver	Rohde & Schwarz	FSU8	9129
Turntable	Maturo	MCU	7626

Equipment under test arrangement:

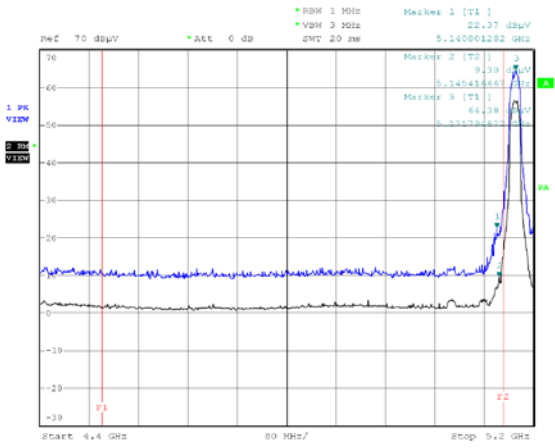
The system is tested in an open area test site (OATS).
 The test unit is placed on a rotating table, 0.8 m from a ground plane. Zero degree azimuth corresponds to the front of the equipment under test.

Results:

Ambient temperature (°C): 09
 Relative humidity (%): 90

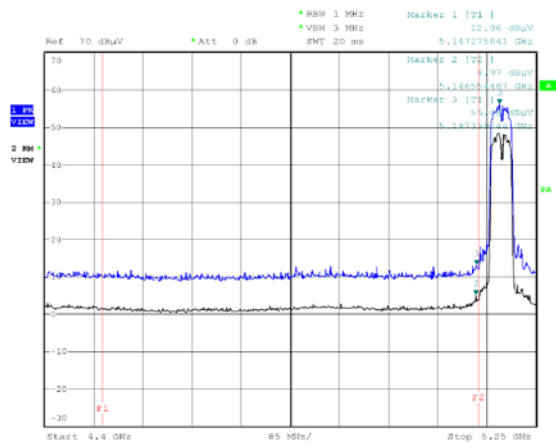
Restricted band: from 4500 MHz to 5150 MHz

Channel	Mode	Detector (Peak or Average)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Comments
J34	802.11a	Peak	54.0	68.2	14.2	No curve
J34	802.11a	Average	43.3	54.0	10.7	No curve
J34	802.11n (20 MHz)	Peak	63.1	68.2	5.1	See curve n°165
J34	802.11n (20 MHz)	Average	50.0	54.0	4.0	See curve n°165
36	802.11n (40 MHz)	Peak	53.7	68.2	14.5	See curve n°166
36	802.11n (40 MHz)	Average	45.7	54.0	8.3	See curve n°166



Date: 29.NOV.2013 12:59:21

Curve 165

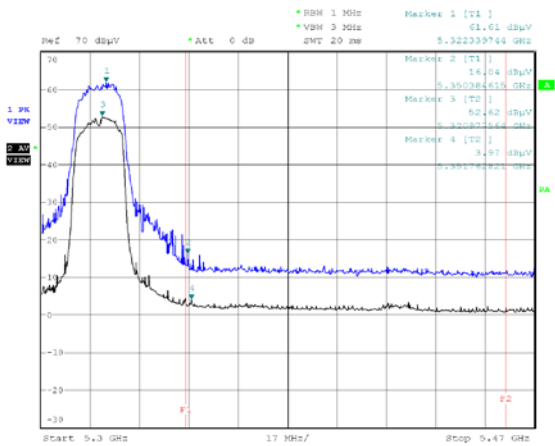


Date: 29.NOV.2013 13:26:08

Curve 166

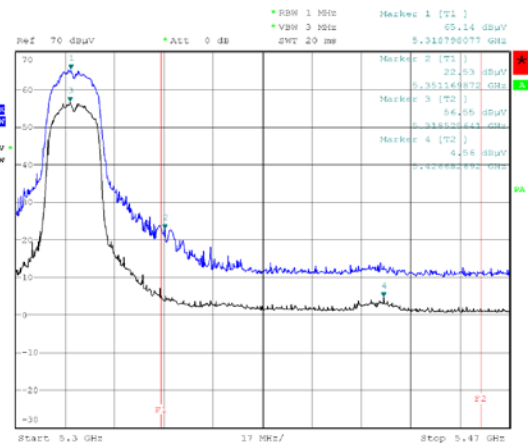
Restricted band: from 5350 MHz to 5460 MHz

Channel	Mode	Detector (Peak or Average)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Comments
64	802.11a	Peak	56.9	68.2	11.3	See curve n°167
64	802.11a	Average	44.9	54.0	9.1	See curve n°167
64	802.11n (20 MHz)	Peak	63.4	68.2	4.8	See curve n°168
64	802.11n (20 MHz)	Average	45.5	54.0	8.5	See curve n°168
60	802.11n (40 MHz)	Peak	56.7	68.2	11.5	See curve n°169
60	802.11n (40 MHz)	Average	46.5	54.0	7.5	See curve n°169



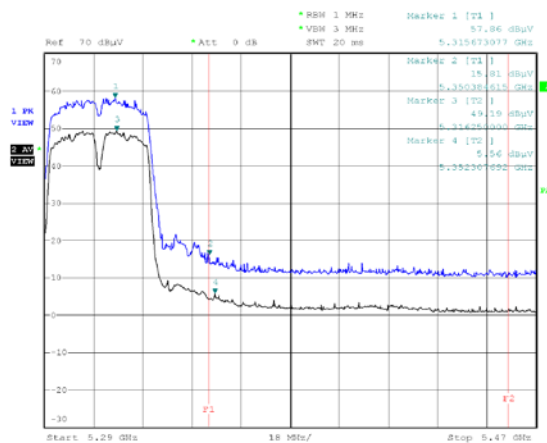
Date: 2.DEC.2013 13:02:07

Curve 167



Date: 2.DEC.2013 13:20:37

Curve 168

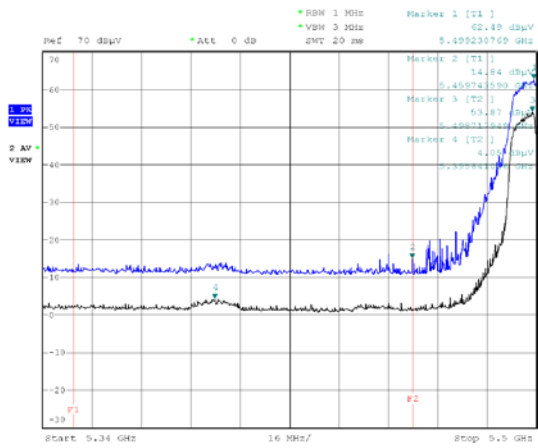


Date: 2.DEC.2013 11:57:12

Curve 169

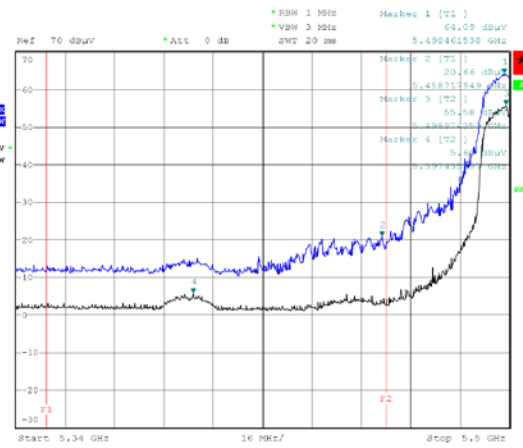
Restricted band: from 5350 MHz to 5460 MHz

Channel	Mode	Detector (Peak or Average)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Comments
100	802.11a	Peak	56.1	68.2	12.1	See curve n°170
100	802.11a	Average	45.4	54.0	8.6	See curve n°170
100	802.11n (20 MHz)	Peak	62.0	68.2	6.2	See curve n°171
100	802.11n (20 MHz)	Average	46.9	54.0	7.1	See curve n°171
100	802.11n (40 MHz)	Peak	64.6	68.2	3.6	See curve n°172
100	802.11n (40 MHz)	Average	49.5	54.0	4.5	See curve n°172



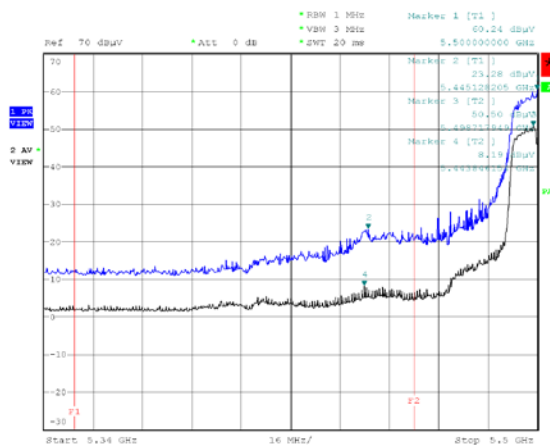
Date: 2.DEC.2013 13:47:54

Curve 170



Date: 2.DEC.2013 14:09:40

Curve 171



Date: 2.DEC.2013 14:24:25

Curve 172

10. BAND EDGE

Standards: FCC PART 15 : 2013
RSS-210 Issue 8 : 2010

Sections: 15.407 b) (1); (2); (3) and (4)
Annex 9 9.2 (1); 9.2 (2); 9.2 (3) and 9.2 (4) of RSS-Gen

Equipment under test arrangement:

The equipment under test (EUT) is placed on a non-conductive test table at 0.8 m above the horizontal metal ground plane.

For maximum meter reading at each frequency, the antenna height is adjusted between 1 m and 4 m above the ground plane. A 360 degrees rotation of the EUT is performed in vertical and horizontal polarization. The frequency azimuth and antenna height are presented in the table on the next pages.

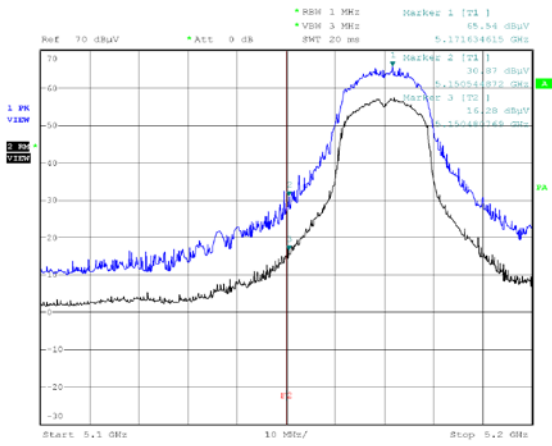
The E.U.T. is blocked in continuous transmission.

Results:

Ambient temperature (°C): 09
Relative humidity (%): 90

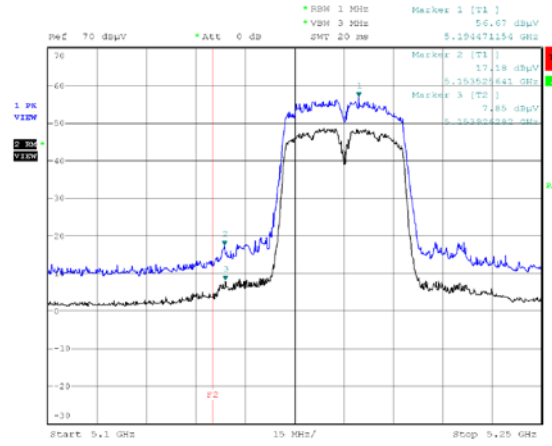
Band edge: from 5150 MHz to 5350 MHz

Channel	Mode	Detector (Peak or Average)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Comments
J34	802.11a	Peak	61.8	68.2	6.4	No curve
J34	802.11a	Average	46.7	54.0	7.3	No curve
J34	802.11n (20 MHz)	Peak	67.9	68.2	0.3	See curve n°173
J34	802.11n (20 MHz)	Average	53.0	54.0	1.0	See curve n°173
36	802.11n (40 MHz)	Peak	57.9	68.2	10.3	See curve n°174
36	802.11n (40 MHz)	Average	48.6	54.0	5.4	See curve n°174



Date: 29.NOV.2013 13:06:16

Curve 173

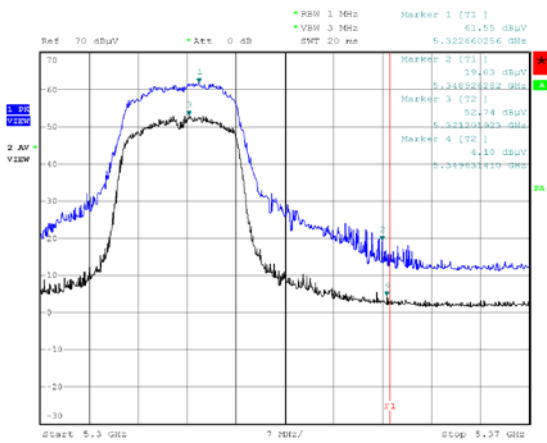


Date: 29.NOV.2013 13:29:44

Curve 174

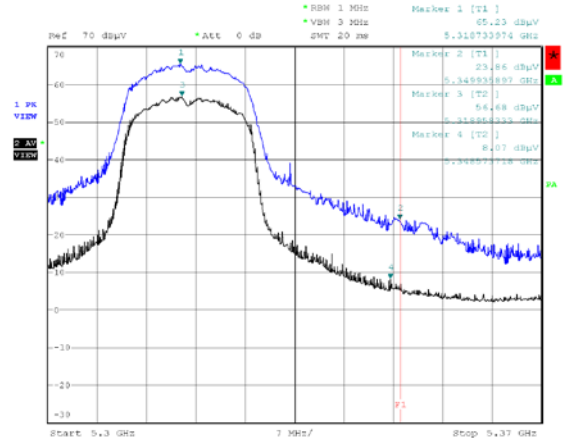
Band edge: from 5150 MHz to 5350 MHz

Channel	Mode	Detector (Peak or Average)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Comments
64	802.11a	Peak	59.9	68.2	8.3	See curve n°175
64	802.11a	Average	45.0	54.0	9.0	See curve n°175
64	802.11n (20 MHz)	Peak	64.8	68.2	3.4	See curve n°176
64	802.11n (20 MHz)	Average	49.0	54.0	5.0	See curve n°176
60	802.11n (40 MHz)	Peak	56.1	68.2	12.1	See curve n°177
60	802.11n (40 MHz)	Average	46.9	54.0	7.1	See curve n°177



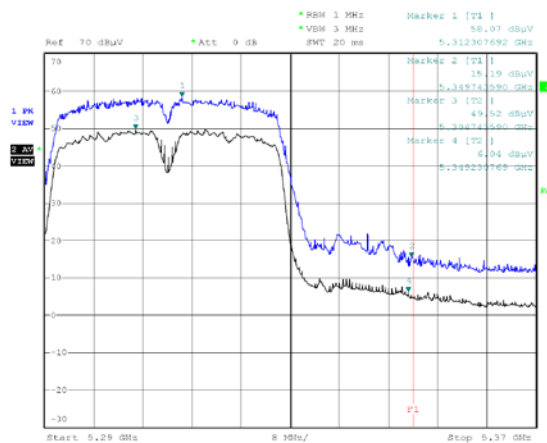
Date: 2.DEC.2013 13:04:53

Curve 175



Date: 2.DEC.2013 13:24:06

Curve 176

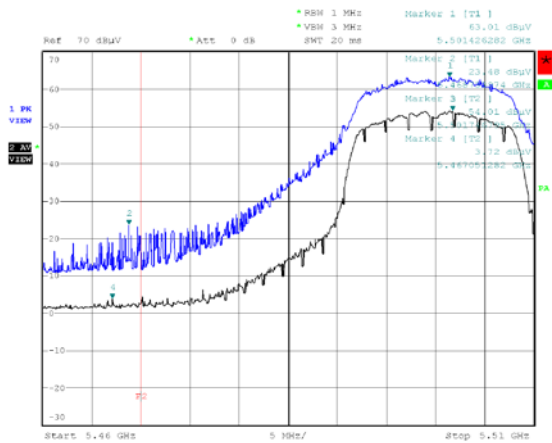


Date: 2.DEC.2013 12:01:57

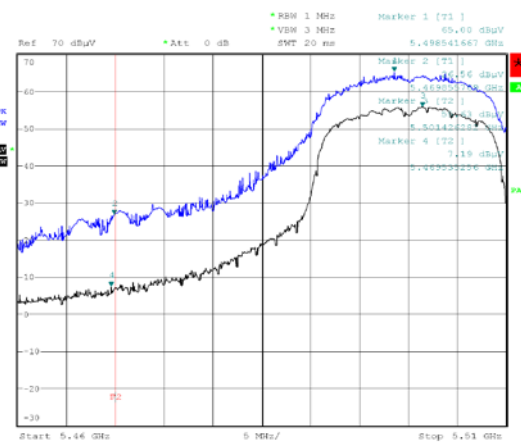
Curve 177

Band edge: from 5470 MHz to 5725 MHz

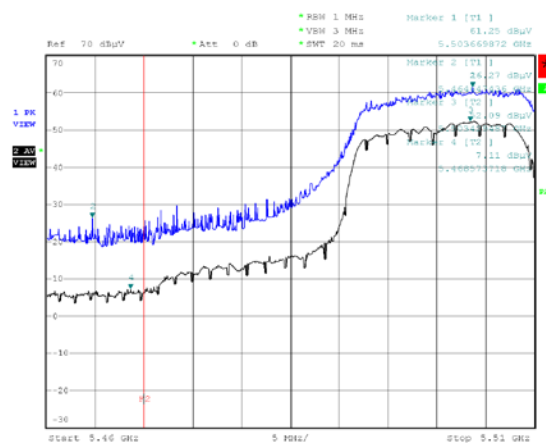
Channel	Mode	Detector (Peak or Average)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Comments
100	802.11a	Peak	64.8	68.2	3.4	See curve n°178
100	802.11a	Average	45.0	54.0	9.0	See curve n°178
100	802.11n (20 MHz)	Peak	67.9	68.2	0.3	See curve n°179
100	802.11n (20 MHz)	Average	48.5	54.0	5.5	See curve n°179
100	802.11n (40 MHz)	Peak	67.6	68.2	0.6	See curve n°180
100	802.11n (40 MHz)	Average	48.4	54.0	5.6	See curve n°180



Curve 178



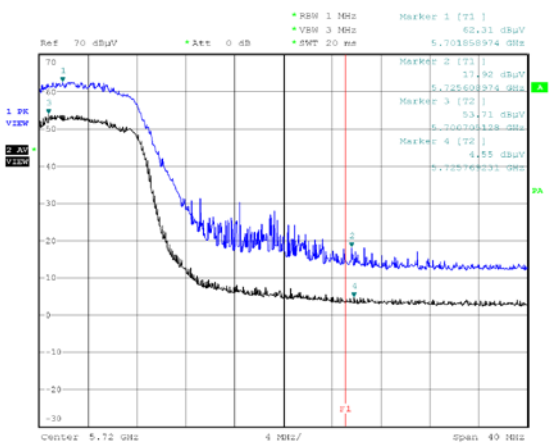
Curve 179



Curve 180

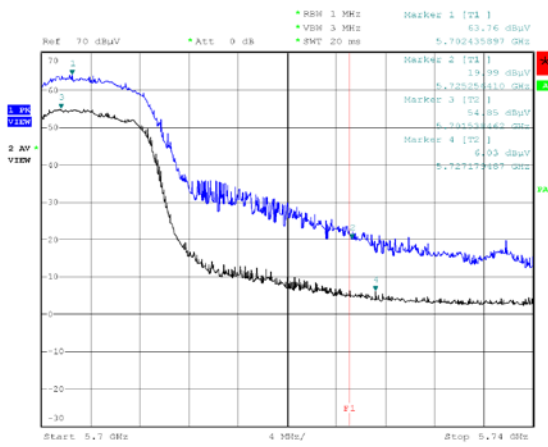
Band edge: from 5470 MHz to 5725 MHz

Channel	Mode	Detector (Peak or Average)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Comments
140	802.11a	Peak	59.4	68.2	8.8	See curve n°181
140	802.11a	Average	46.1	54.0	7.9	See curve n°181
140	802.11n (20 MHz)	Peak	61.5	68.2	6.7	See curve n°182
140	802.11n (20 MHz)	Average	47.5	54.0	6.5	See curve n°182
136	802.11n (40 MHz)	Peak	58.1	68.2	10.1	See curve n°183
136	802.11n (40 MHz)	Average	46.8	54.0	7.2	See curve n°183



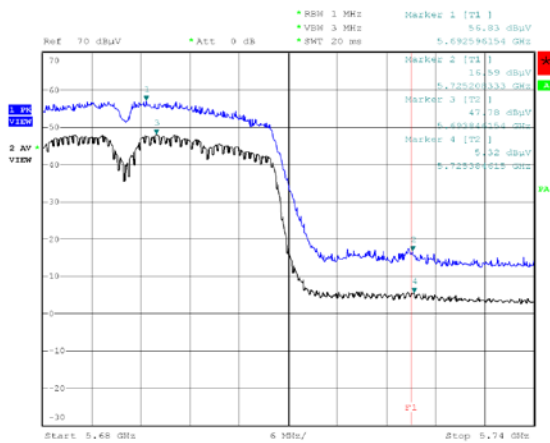
Date: 2.DEC.2013 15:04:38

Curve 181



Date: 2.DEC.2013 15:52:00

Curve 182

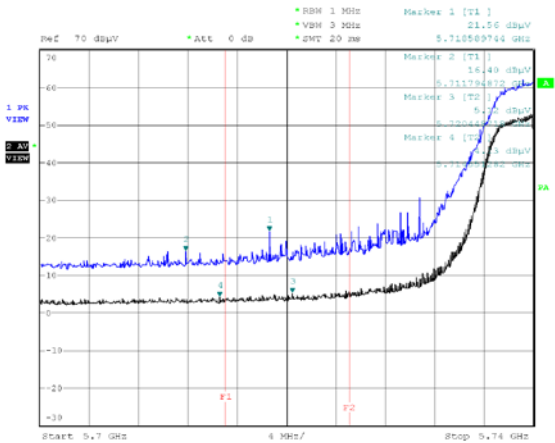


Date: 3.DEC.2013 09:58:44

Curve 183

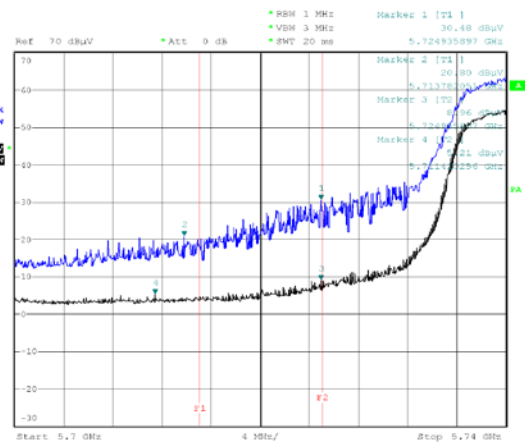
Band edge: from 5725 MHz to 5825 MHz

Channel	Mode	Detector (Peak or Average)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Comments
149	802.11a	Peak	63.2	78.2	15.0	See curve n°184
149	802.11a	Average	46.7	54.0	7.3	See curve n°184
149 (-10 MHz)	802.11a	Peak	58.0	68.2	10.2	See curve n°184
149 (-10 MHz)	802.11a	Average	45.7	54.0	8.3	See curve n°184
149	802.11n (20 MHz)	Peak	72.1	78.2	6.1	See curve n°185
149	802.11n (20 MHz)	Average	50.6	54.0	3.4	See curve n°185
149 (-10 MHz)	802.11n (20 MHz)	Peak	62.4	68.2	5.8	See curve n°185
149 (-10 MHz)	802.11n (20 MHz)	Average	46.8	54.0	7.2	See curve n°185
149	802.11n (40 MHz)	Peak	62.6	78.2	15.6	See curve n°186
149	802.11n (40 MHz)	Average	51.6	54.0	2.4	See curve n°186
149 (-10 MHz)	802.11n (40 MHz)	Peak	58.3	68.2	9.9	See curve n°186
149 (-10 MHz)	802.11n (40 MHz)	Average	46.5	54.0	7.5	See curve n°186



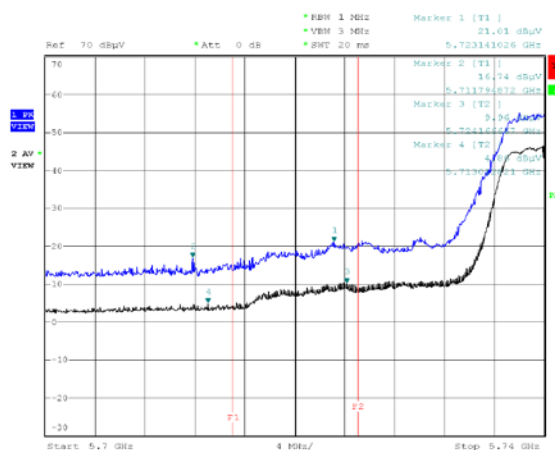
Date: 3.DEC.2013 10:34:05

Curve 184



Date: 3.DEC.2013 10:49:54

Curve 185

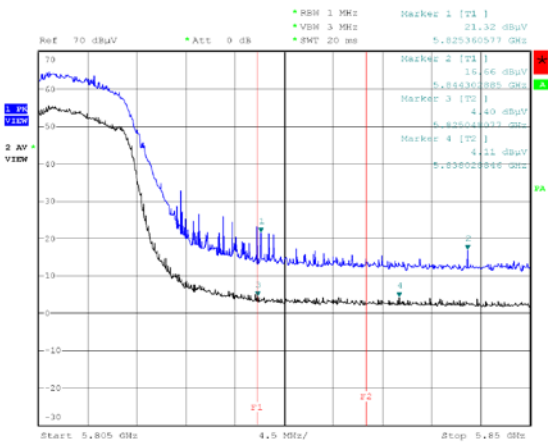


Date: 3.DEC.2013 11:03:35

Curve 186

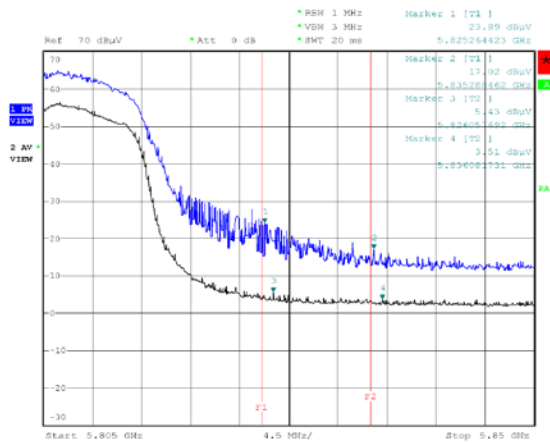
Band edge: from 5725 MHz to 5825 MHz

Channel	Mode	Detector (Peak or Average)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Comments
161	802.11a	Peak	62.9	78.2	15.3	See curve n°187
161	802.11a	Average	46.0	54.0	8.0	See curve n°187
161 (+10 MHz)	802.11a	Peak	58.3	68.2	9.9	See curve n°187
161 (+10 MHz)	802.11a	Average	45.7	54.0	8.3	See curve n°187
161	802.11n (20 MHz)	Peak	65.5	78.2	12.7	See curve n°188
161	802.11n (20 MHz)	Average	47.0	54.0	7.0	See curve n°188
161 (+10 MHz)	802.11n (20 MHz)	Peak	58.6	68.2	9.6	See curve n°188
161 (+10 MHz)	802.11n (20 MHz)	Average	45.1	54.0	8.9	See curve n°188
161	802.11n (40 MHz)	Peak	59.7	78.2	18.5	See curve n°189
161	802.11n (40 MHz)	Average	50.5	54.0	3.5	See curve n°189
161 (+10 MHz)	802.11n (40 MHz)	Peak	58.1	68.2	10.1	See curve n°189
161 (+10 MHz)	802.11n (40 MHz)	Average	47.5	54.0	6.5	See curve n°189



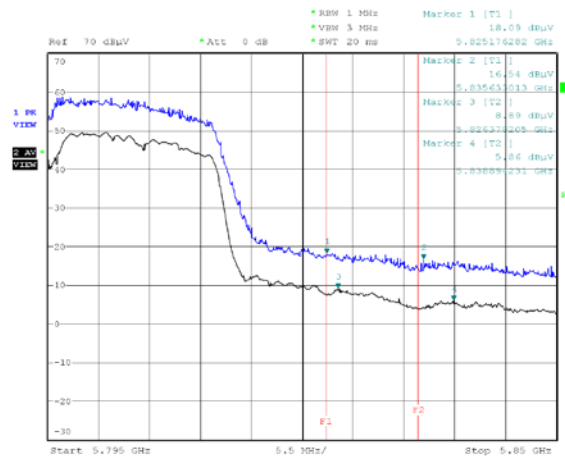
Date: 3.DEC.2013 13:45:04

Curve 187



Date: 3.DEC.2013 14:02:08

Curve 188



Date: 3.DEC.2013 13:26:19

Curve 189

11. UNINTENTIONAL RADIATED EMISSIONS AND TRANSMITTER UNWANTED EMISSION IN THE BAND 9 KHz – 25 GHz

Standards: FCC PART 15 : 2013
RSS-Gen Issue 3 : 2010

Sections: 15.205; 15.209 and 15.247
4.9 of RSS-Gen

Equipment under test arrangement:

The equipment under test (EUT) is placed on a non-conductive test table at 0.8 m above the horizontal metal ground plane.

For maximum meter reading at each frequency, the antenna height is adjusted between 1 m and 4 m above the ground plane. A 360 degrees rotation of the EUT is performed in vertical and horizontal polarization. The frequency azimuth and antenna height are presented in the table on the next pages.

The E.U.T. is blocked in continuous transmission.

Frequency range: 9 kHz – 30 MHz
30 MHz - 1 GHz
1 GHz – 25 GHz

Detection mode: Quasi-peak for 9 kHz – 30 MHz
Quasi-peak for 30 MHz - 1 GHz
Average for 1 GHz – 25 GHz

Resolution bandwidth: 200 Hz for 9 kHz – 150 kHz
9 kHz for 150 kHz – 30 MHz
120 kHz for 30 MHz - 1 GHz
1 MHz for 1 GHz – 25 GHz

Measurement distance: 30 meters from 9 kHz to 30 MHz
3 meters from 30 MHz to 25 GHz

- Limit for emission radiated outside the frequency band, except the harmonics, shall be attenuated by at least 20 dB below the level of fundamental or the general radiated emission limits in § 15.407 (see table).

From 9 kHz to 30 MHz

Frequency range	Limit $\mu\text{V/m}$
9 – 490 kHz	$2400/F$ (F in kHz) *
490 – 1705 kHz	$24000/F$ (F in kHz)
1.705 – 30 MHz	30

* Limits in $\mu\text{V/m}$ can be extrapolated to 30 m using 20 dB / decade.

From 30 MHz to 25 GHz

Frequency range (MHz)	Limit	
	(dB $\mu\text{V/m}$)	$\mu\text{V/m}$
30 to 88	40.0	100
88 to 216	43.5	150
216 to 960	46.0	200
Above 960	54.0	500

Instrumentation test list:

CATEGORY	BRAND	TYPE	N° EMITECH
Antenna	Schwarzbeck	VHA 9103	0317
Antenna	Oritel	CM 42/25	1045
Antenna	Schwarzbeck	UHALP 9108	3106
Antenna	Emco	3115	3374
Antenna	Emco	6502	9579
Antenna mast	Maturo	AM 4.0-O	7625
Cable	Câbles & Connectiques	N-13m	2452
Cable	-	N-2m	2805
Cable	Câbles & Connectiques	N-SMA	2864
Cable	-	N-30m	4359
Cable	-	N-8m	8021
Cable	Micro-Coax	N-13m	8063
Filter	Trilithic	6HC1300-2.5-KK	1097
Filter	Trilithic	5EHLX500-3-KK	1529
Filter	Micro-tronics	HPM 14758	4691
Open area test site	Emitech	Aunainville	0187
Preamplifier	Mini-Circuits	ZFL-1000LN	0048
Preamplifier	MITEQ	AFS42-00102650-42-10P-42	3229
Spectrum analyzer	Rohde & Schwarz	FSP40 (V 4.00SP1-V3.0-10-2)	5175
Turntable	Maturo	MCU	7626

Results:

- *Mode a*

Channel J34, 48, 52, 64, 100, 140, 149, 161:

No significant frequency has been found other than those given above between 9 kHz and 25 GHz.

- *Mode n (20 MHz)*

Channel J34, 48, 52, 64, 100, 140, 149, 161:

No significant frequency has been found other than those given above between 9 kHz and 25 GHz.

- *Mode n (40 MHz)*

Channel 36, 40, 52, 60, 100, 136, 149, 157:

No significant frequency has been found other than those given above between 9 kHz and 25 GHz.

Test conclusion: The equipment complies with the requirements of the standards FCC and RSS-Gen.

12. RECEIVER SPURIOUS EMISSIONS

Standard: RSS-Gen Issue 3 : 2010

Section: 4.10 of RSS-Gen

Equipment under test arrangement:

The equipment under test (EUT) is placed on a non-conductive test table at 0.8 m above the horizontal metal ground plane.

For maximum meter reading at each frequency, the antenna height is adjusted between 1 m and 4 m above the ground plane. A 360 degrees rotation of the EUT is performed in vertical and horizontal polarization. The frequency azimuth and antenna height are presented in the table on the next pages.

The E.U.T. is blocked in standby / reception mode.

Frequency range: 30 MHz - 1 GHz
1 GHz – 25 GHz

Detection mode: Quasi-peak for 30 MHz - 1 GHz
Average for 1 GHz – 25 GHz

Resolution bandwidth: 120 kHz for 30 MHz - 1 GHz
1 MHz for 1 GHz – 25 GHz

Measurement distance: 3 meters from 30 MHz to 25 GHz

- Limit for emission radiated outside the frequency band, except the harmonics, shall be attenuated by at least 20 dB below the level of fundamental or the general radiated emission limits in § 15.407 (see table).

From 30 MHz to 25 GHz

Frequency range (MHz)	Limit	
	(dB μ V/m)	μ V/m
30 to 88	40.0	100
88 to 216	43.5	150
216 to 960	46.0	200
Above 960	54.0	500

Instrumentation test list:

CATEGORY	BRAND	TYPE	N° EMITECH
Antenna	Schwarzbeck	VHA 9103	0317
Antenna	Oritel	CM 42/25	1045
Antenna	Schwarzbeck	UHALP 9108	3106
Antenna	Emco	3115	3374
Antenna	Emco	6502	9579
Antenna mast	Maturo	AM 4.0-O	7625
Cable	Câbles & Connectiques	N-13m	2452
Cable	-	N-2m	2805
Cable	Câbles & Connectiques	N-SMA	2864
Cable	-	N-30m	4359
Cable	-	N-8m	8021
Cable	Micro-Coax	N-13m	8063
Filter	Trilithic	6HC1300-2.5-KK	1097
Filter	Trilithic	5EHLX500-3-KK	1529
Filter	Micro-tronics	HPM 14758	4691
Open area test site	Emitech	Aunainville	0187
Preamplifier	Mini-Circuits	ZFL-1000LN	0048
Preamplifier	MITEQ	AFS42-00102650-42-10P-42	3229
Spectrum analyzer	Rohde & Schwarz	FSP40 (V 4.00SP1-V3.0-10-2)	5175
Turntable	Maturo	MCU	7626

Results:

- *Mode a*

Channel J34, 48, 52, 64, 100, 140, 149, 161

No significant frequency has been found other than those given above between 30 MHz and 25 GHz.

- *Mode n (20 MHz)*

Channel J34, 48, 52, 64, 100, 140, 149, 161

No significant frequency has been found other than those given above between 30 MHz and 25 GHz.

- *Mode n (40 MHz)*

Channel 36, 40, 52, 60, 100, 136, 149, 157

No significant frequency has been found other than those given above between 30 MHz and 25 GHz.

Test conclusion: The equipment complies with the requirements of the standard RSS-Gen.