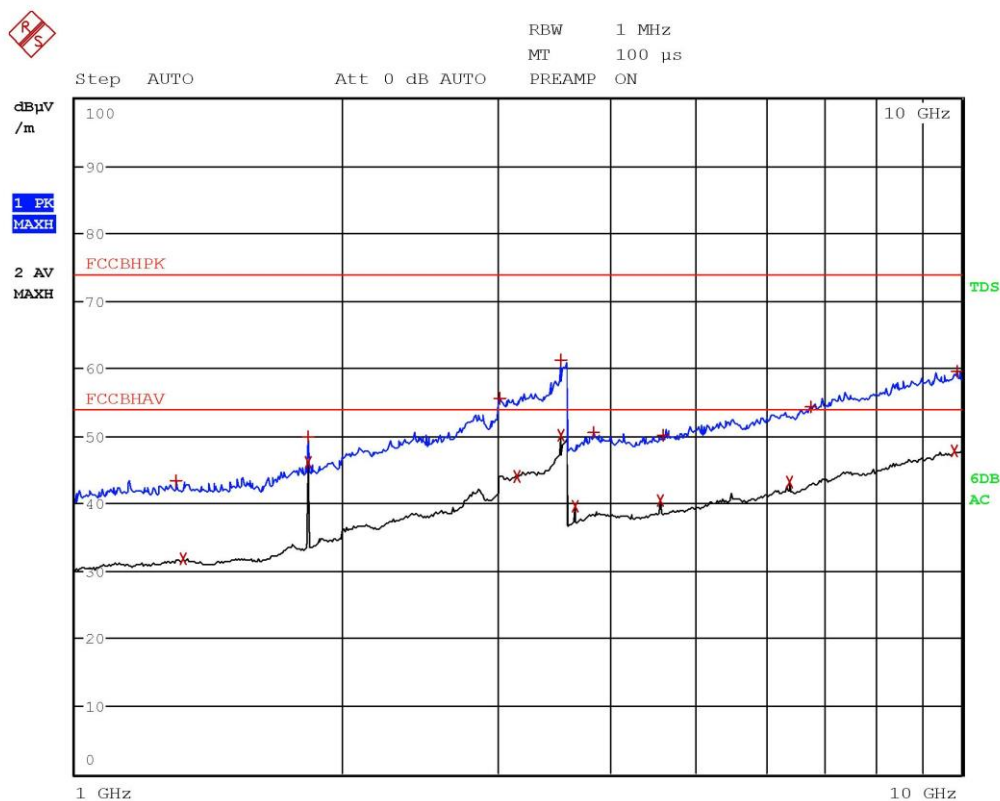




EDIT PEAK LIST (Final Measurement Results)			
Trace1:	FCC209A		
Trace2:	---		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV/m	DELTA LIMIT dB
1 Quasi Peak	498 kHz	8.81	-24.84
1 Quasi Peak	718 kHz	7.87	-22.60
1 Quasi Peak	1.686 MHz	6.96	-16.09
1 Quasi Peak	3.998 MHz	7.16	-22.37
1 Quasi Peak	7.482 MHz	7.97	-21.56
1 Quasi Peak	20.434 MHz	7.98	-21.55

Gandini 18197419

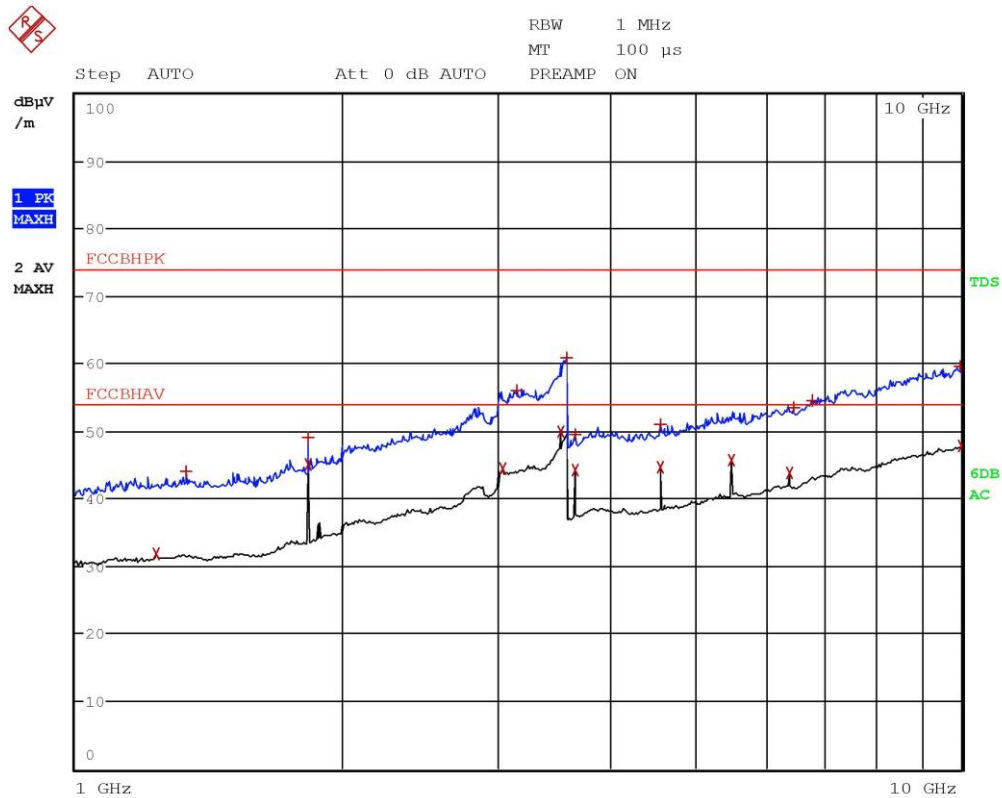


Gandini 18197450



EDIT PEAK LIST (Prescan Results)			
Trace1:	FCCBHPK		
Trace2:	FCCBHAV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV/m	DELTA LIMIT dB
1 Max Peak	1.3012 GHz	43.40	-30.57
2 Average	1.3232 GHz	31.74	-22.23
1 Max Peak	1.83 GHz	49.90	-24.07
2 Average	1.83 GHz	46.09	-7.88
1 Max Peak	3.0136 GHz	55.50	-18.47
2 Average	3.1468 GHz	44.09	-9.88
1 Max Peak	3.5256 GHz	61.17	-12.80
2 Average	3.5256 GHz	50.11	-3.86
2 Average	3.6604 GHz	39.50	-14.47
1 Max Peak	3.8404 GHz	50.52	-23.45
2 Average	4.5756 GHz	40.35	-13.62
1 Max Peak	4.6016 GHz	50.18	-23.80
2 Average	6.4056 GHz	43.23	-10.74
1 Max Peak	6.7644 GHz	54.22	-19.75
2 Average	9.8312 GHz	47.86	-6.11
1 Max Peak	9.8888 GHz	59.59	-14.38

Gandini 18197450



Gandini 18197451

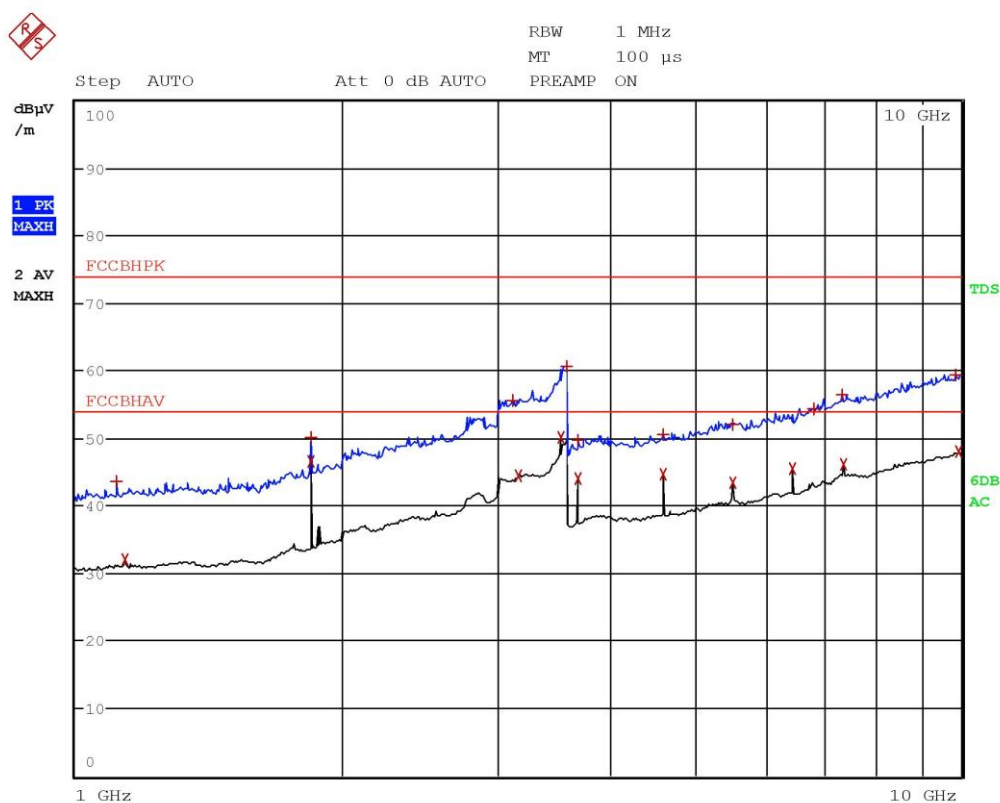
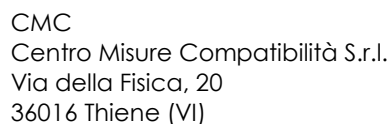


PEAK FREQUENCY

4

EDIT PEAK LIST (Prescan Results)			
Trace1:	FCCBHPK		
Trace2:	FCCBHAV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV/m	DELTA LIMIT dB
2 Average	1.2344 GHz	31.85	-22.12
1 Max Peak	1.3336 GHz	43.94	-30.03
2 Average	1.83 GHz	45.07	-8.90
1 Max Peak	1.8304 GHz	48.98	-24.99
2 Average	3.0356 GHz	44.33	-9.64
1 Max Peak	3.1508 GHz	55.98	-17.99
2 Average	3.5256 GHz	49.97	-4.00
1 Max Peak	3.586 GHz	60.88	-13.09
2 Average	3.6604 GHz	44.32	-9.65
1 Max Peak	3.6604 GHz	49.47	-24.50
1 Max Peak	4.5752 GHz	50.84	-23.13
2 Average	4.5752 GHz	44.70	-9.27
2 Average	5.4904 GHz	45.69	-8.28
2 Average	6.4056 GHz	43.80	-10.17
1 Max Peak	6.476 GHz	53.55	-20.42
1 Max Peak	6.7884 GHz	54.61	-19.36
1 Max Peak	9.9744 GHz	59.64	-14.33
2 Average	9.9852 GHz	47.69	-6.28

Gandini 18197451

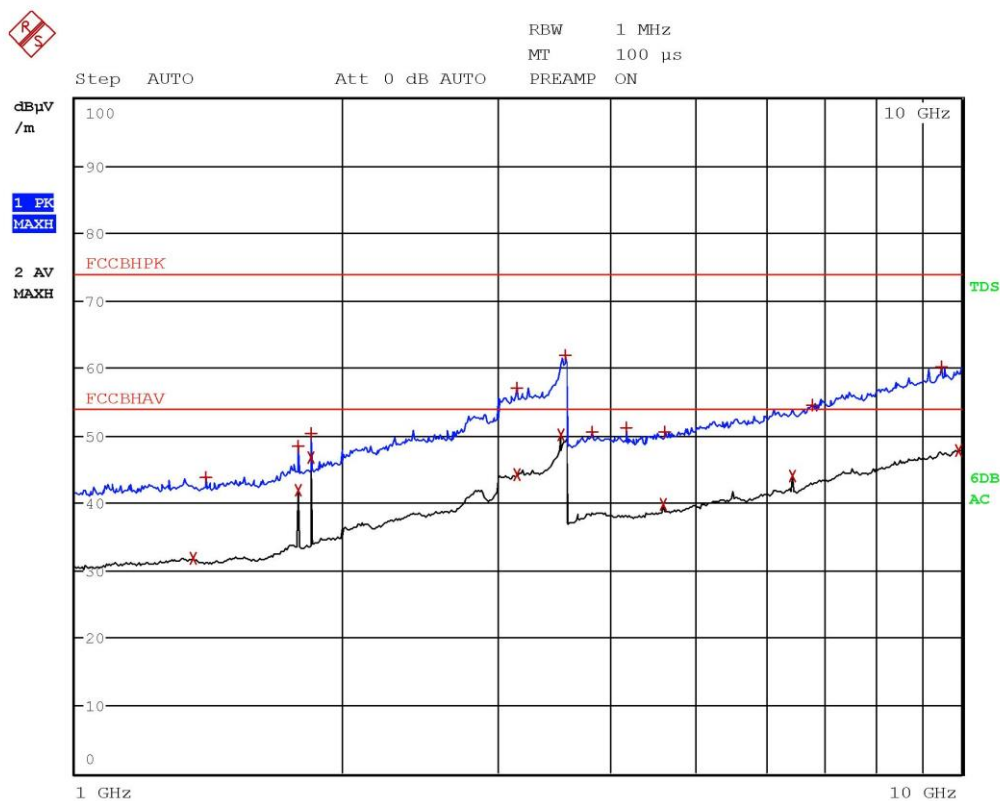


Gandini 18197452



EDIT PEAK LIST (Prescan Results)			
Trace1:	FCCBHPK		
Trace2:	FCCBHAV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV/m	DELTA LIMIT dB
1 Max Peak	1.1144 GHz	43.56	-30.41
2 Average	1.1392 GHz	31.95	-22.02
1 Max Peak	1.8428 GHz	50.20	-23.77
2 Average	1.8428 GHz	46.56	-7.41
1 Max Peak	3.1156 GHz	55.65	-18.32
2 Average	3.1616 GHz	44.33	-9.64
2 Average	3.5256 GHz	50.15	-3.82
1 Max Peak	3.594 GHz	60.67	-13.30
2 Average	3.6856 GHz	44.11	-9.86
1 Max Peak	3.686 GHz	49.75	-24.22
2 Average	4.6072 GHz	44.73	-9.24
1 Max Peak	4.6072 GHz	50.52	-23.45
1 Max Peak	5.5172 GHz	51.89	-22.08
2 Average	5.5288 GHz	43.28	-10.69
2 Average	6.45 GHz	45.42	-8.55
1 Max Peak	6.8128 GHz	54.36	-19.61
1 Max Peak	7.3232 GHz	56.44	-17.53
2 Average	7.3712 GHz	46.07	-7.90
1 Max Peak	9.8472 GHz	59.31	-14.66
2 Average	9.9168 GHz	47.91	-6.06

Gandini 18197452

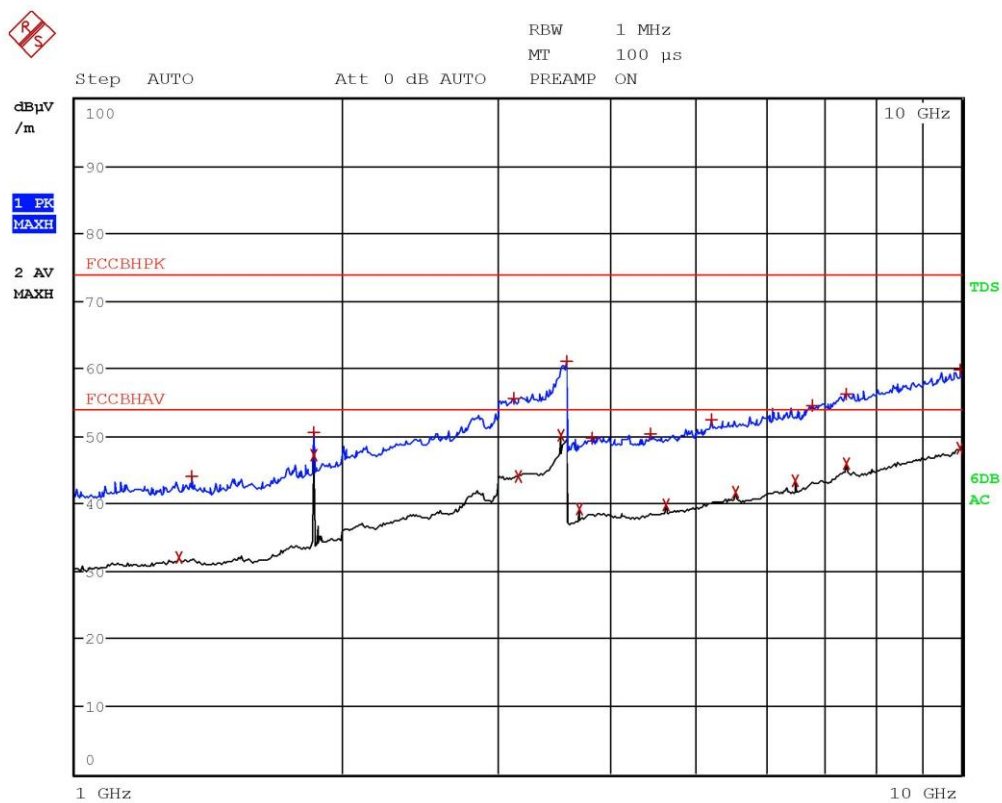


Gandini 18197453



EDIT PEAK LIST (Prescan Results)			
Trace1:	FCCBHPK		
Trace2:	FCCBHAV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV/m	DELTA LIMIT dB
2 Average	1.3576 GHz	31.80	-22.18
1 Max Peak	1.404 GHz	43.86	-30.11
1 Max Peak	1.7836 GHz	48.51	-25.47
2 Average	1.7836 GHz	41.97	-12.00
1 Max Peak	1.8428 GHz	50.30	-23.67
2 Average	1.8428 GHz	46.68	-7.29
1 Max Peak	3.154 GHz	56.94	-17.03
2 Average	3.154 GHz	44.21	-9.76
2 Average	3.5256 GHz	50.10	-3.87
1 Max Peak	3.5648 GHz	61.86	-12.11
1 Max Peak	3.8324 GHz	50.58	-23.40
1 Max Peak	4.1876 GHz	51.07	-22.91
2 Average	4.6072 GHz	39.81	-14.16
1 Max Peak	4.6192 GHz	50.51	-23.46
2 Average	6.45 GHz	44.01	-9.96
1 Max Peak	6.7816 GHz	54.50	-19.47
1 Max Peak	9.5036 GHz	60.23	-13.74
2 Average	9.9268 GHz	47.84	-6.13

Gandini 18197453

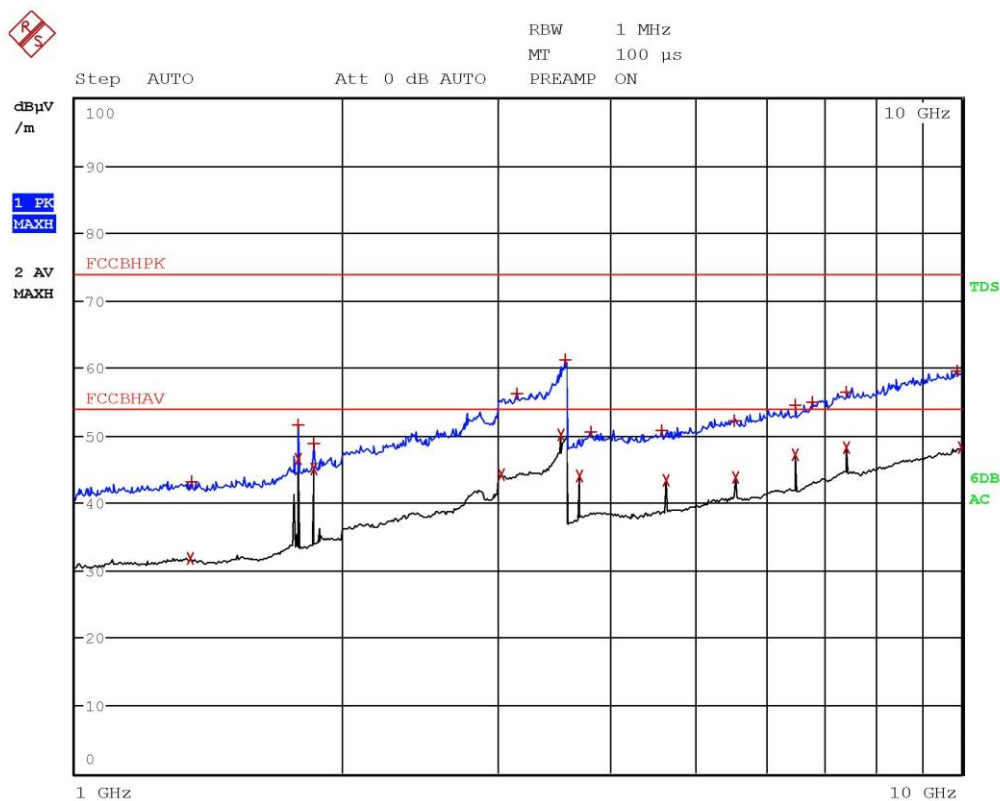


Gandini 18197454



EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK			
Trace2:	FCCBHAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV/m	DELTA LIMIT dB	
2 Average	1.3096 GHz	32.12	-21.86	
1 Max Peak	1.3516 GHz	43.91	-30.07	
1 Max Peak	1.8556 GHz	50.51	-23.46	
2 Average	1.8556 GHz	47.22	-6.75	
1 Max Peak	3.124 GHz	55.50	-18.47	
2 Average	3.1576 GHz	44.03	-9.94	
2 Average	3.5256 GHz	50.16	-3.81	
1 Max Peak	3.5996 GHz	60.92	-13.05	
2 Average	3.7112 GHz	39.27	-14.70	
1 Max Peak	3.8312 GHz	49.60	-24.37	
1 Max Peak	4.454 GHz	50.26	-23.71	
2 Average	4.6392 GHz	39.89	-14.08	
1 Max Peak	5.2196 GHz	52.42	-21.55	
2 Average	5.5668 GHz	41.73	-12.24	
2 Average	6.4948 GHz	43.38	-10.59	
1 Max Peak	6.7948 GHz	54.42	-19.55	
1 Max Peak	7.4212 GHz	56.20	-17.77	
2 Average	7.4224 GHz	45.86	-8.11	
2 Average	9.952 GHz	48.21	-5.76	
1 Max Peak	9.9808 GHz	59.73	-14.25	

Gandini 18197454



Gandini 18197455



EDIT PEAK LIST (Prescan Results)				
Trace1:	FCCBHPK			
Trace2:	FCCBHAV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV/m	DELTA LIMIT dB	
2 Average	1.3476 GHz	31.92	-22.05	
1 Max Peak	1.3528 GHz	43.27	-30.70	
1 Max Peak	1.7832 GHz	51.65	-22.32	
2 Average	1.7832 GHz	46.59	-7.38	
1 Max Peak	1.8556 GHz	48.81	-25.16	
2 Average	1.8556 GHz	45.05	-8.92	
2 Average	3.0276 GHz	44.24	-9.73	
1 Max Peak	3.154 GHz	56.13	-17.84	
2 Average	3.5256 GHz	50.16	-3.81	
1 Max Peak	3.5756 GHz	61.33	-12.64	
2 Average	3.7112 GHz	44.05	-9.92	
1 Max Peak	3.8124 GHz	50.45	-23.52	
1 Max Peak	4.5896 GHz	50.78	-23.19	
2 Average	4.6392 GHz	43.40	-10.57	
1 Max Peak	5.5508 GHz	52.12	-21.85	
2 Average	5.5668 GHz	43.88	-10.09	
1 Max Peak	6.4948 GHz	54.52	-19.45	
2 Average	6.4948 GHz	47.12	-6.85	
1 Max Peak	6.7992 GHz	54.85	-19.12	
1 Max Peak	7.4036 GHz	56.37	-17.60	

Gandini 18197455



EDIT PEAK LIST (Prescan Results)			
Trace1:	FCCBHPK		
Trace2:	FCCBHAV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV/m	DELTA LIMIT dB
2 Average	7.4228 GHz	48.11	-5.86
1 Max Peak	9.89 GHz	59.45	-14.52
2 Average	9.9944 GHz	48.14	-5.83

Gandini 18197455

Result: The requirements are met



11.3 20 dB bandwidth

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- ANSI C63.10 cl. 7.8.7
- 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 S295
Measurement uncertainty: See clause 7 of this test report

Test specification

See FCC Part 15.247

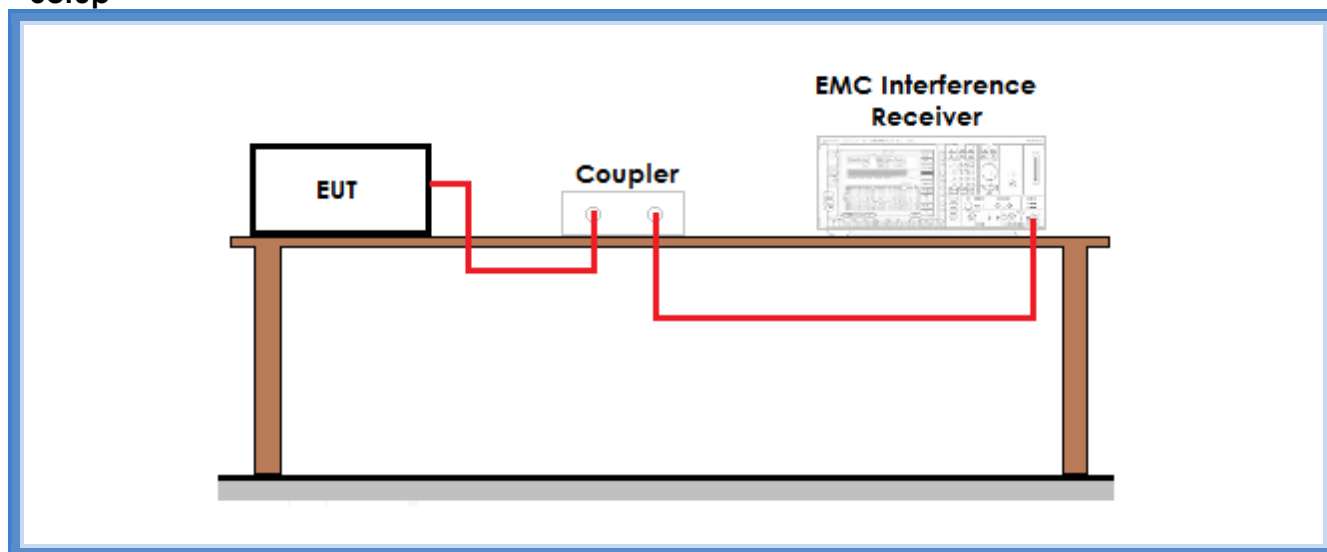
Environmental conditions

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



Setup



Result

Frequency (MHz)	Graphs	20 dB bandwidth (kHz)	Maximum 20 dB bandwidth allowed (kHz)	Results
915,075	G18197421	23,58	500	Complies
921,425	G18197426	23,58	500	Complies
927,825	G18197429	23,68	500	Complies



Graphs

Gandini 18197421



Gandini 18197426





Gandini 18197429



Result: The requirements are met



11.4 Channel separation

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- KDB 558074 D01 15.247 Meas Guidance v05 cl. 9 b)
- ANSI C63.10 cl. 7.8.2
- 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 S295
Measurement uncertainty: See clause 7 of this test report

Test specification

See FCC Part 15.247

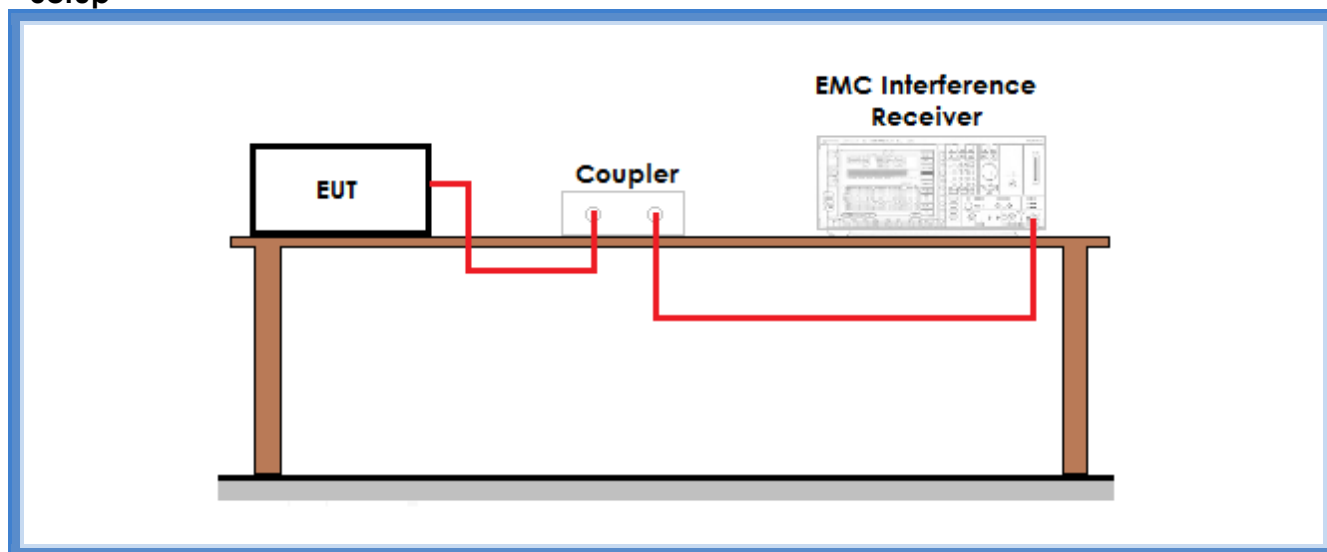
Environmental conditions

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



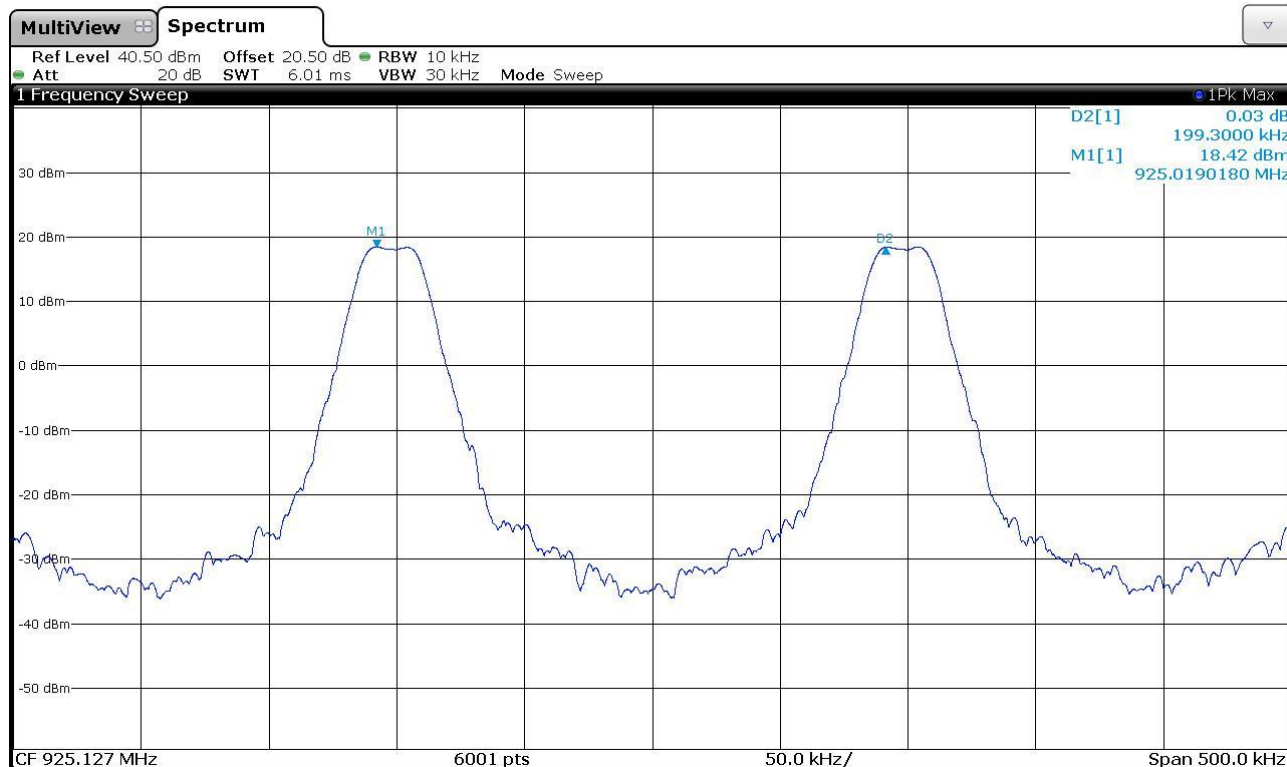
Result

Frequency band (MHz)	Graphs	Channel separation (kHz)	Minimum channel separation required (kHz)	Results
902 – 928	G18197458	199,3	25	Complies



Graphs

Bertezzo 18197458



Result: The requirements are met



11.5 Number of hopping channels

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- KDB 558074 D01 15.247 Meas Guidance v05 cl. 9 b)
- ANSI C63.10 cl. 7.8.3
- 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 S295
Measurement uncertainty: See clause 7 of this test report

Test specification

See FCC Part 15.247

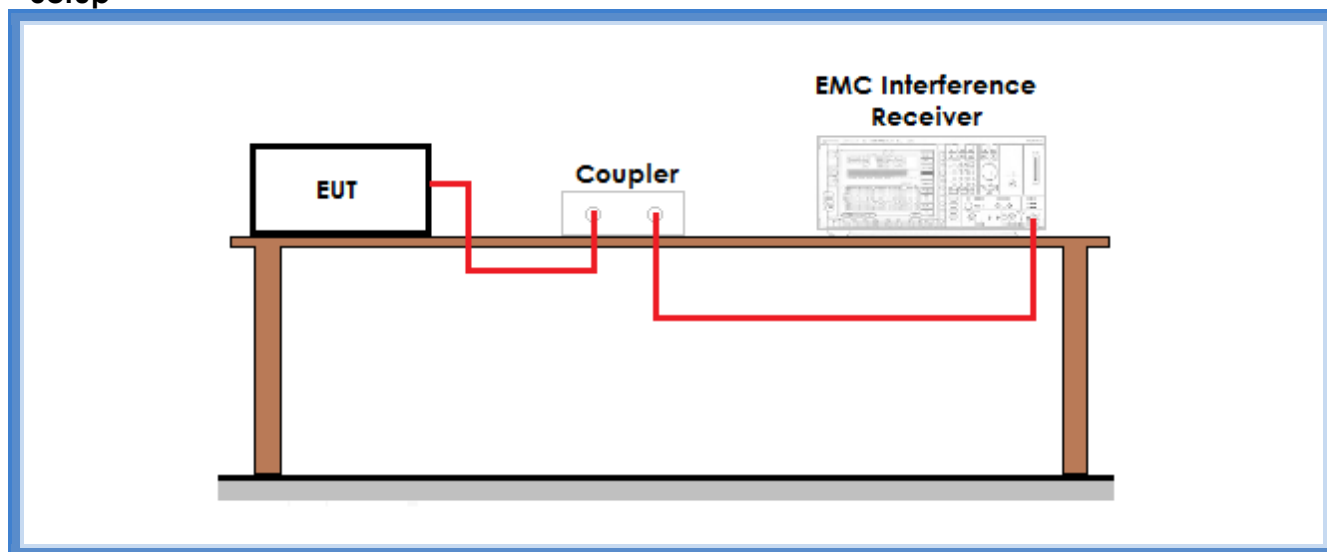
Environmental conditions

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



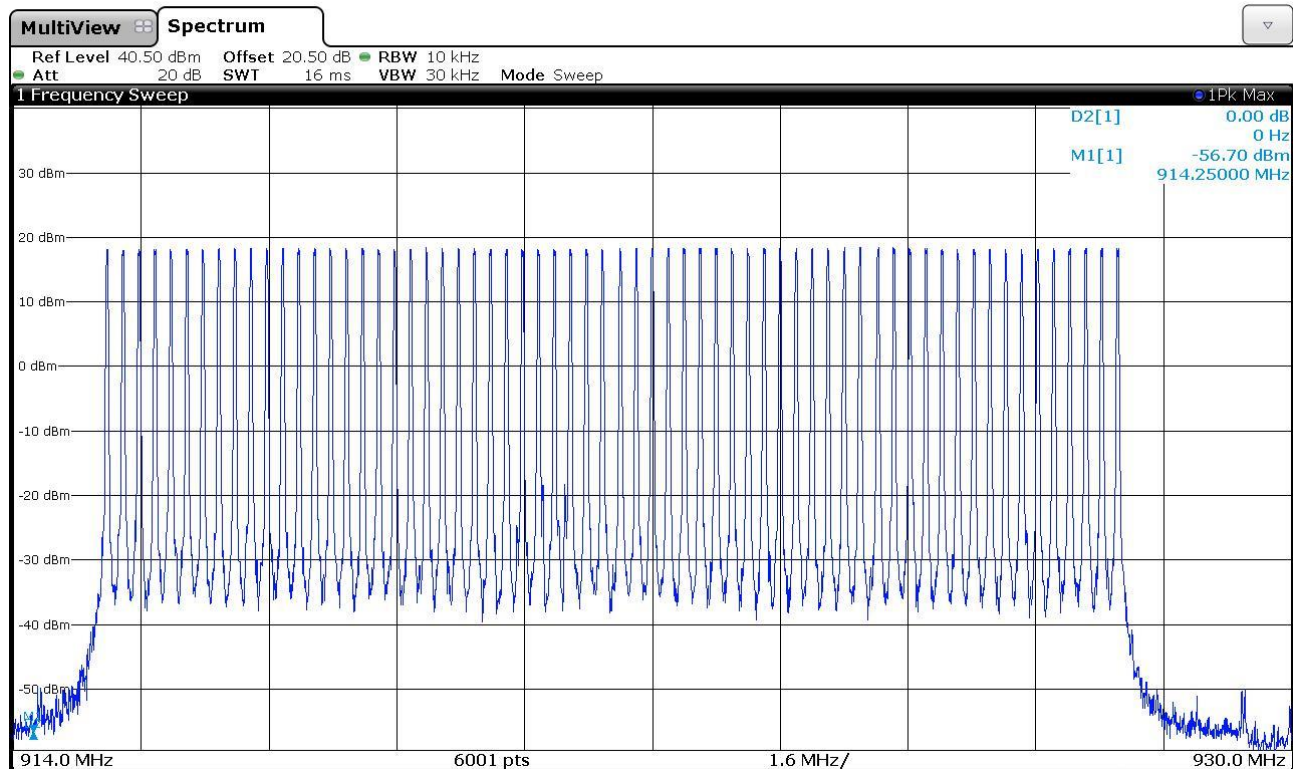
Result

Frequency band (MHz)	Graphs	Number of hopping channels	Minimum number of hopping channels required	Results
902 – 928	G18197459	64	50	Complies



Graphs

Bertezzo 18197459



Result: The requirements are met



11.6 Time of occupancy

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- KDB 558074 D01 15.247 Meas Guidance v05 cl. 9 b)
- ANSI C63.10 cl. 7.8.4
- 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 S295
Measurement uncertainty: See clause 7 of this test report

Test specification

See FCC Part 15.247

Environmental conditions

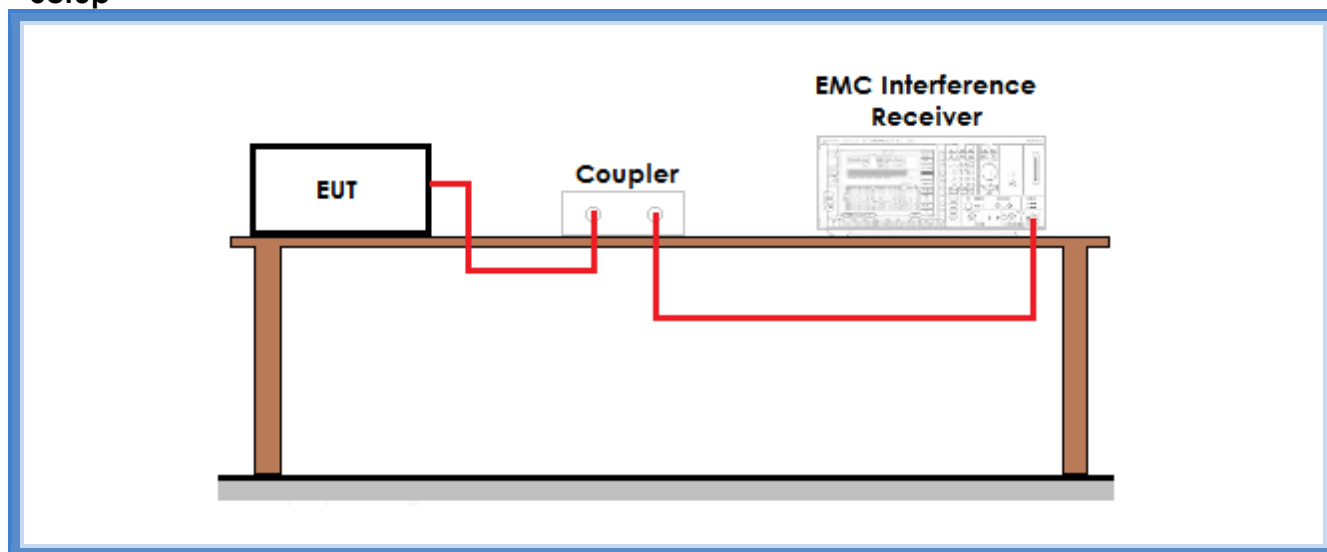
Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
22	100	42

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



Setup



Result

Frequency (MHz)	Graphs	Dwell time (ms)
915,425	G18197460	40,54

Frequency (MHz)	Graphs	Number of transmissions	Period
915,425	G18197461	7	20 s

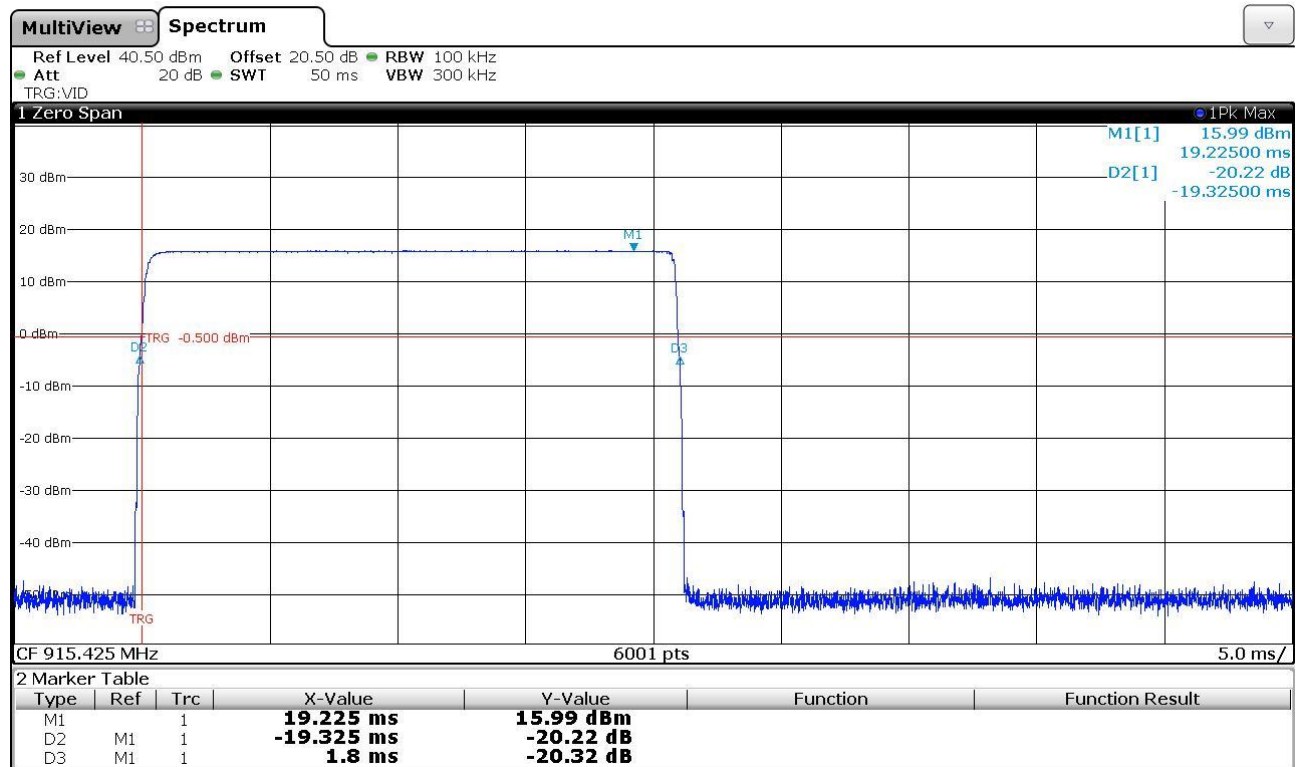
Remarks: only the highest peaks have been considered. The lowest peaks are due to the auxiliary receiver unit

Time of occupancy (Dwell time x Nr. transmissions)	Maximum allowed time of occupancy	Results
283,78 ms	400 ms	Complies



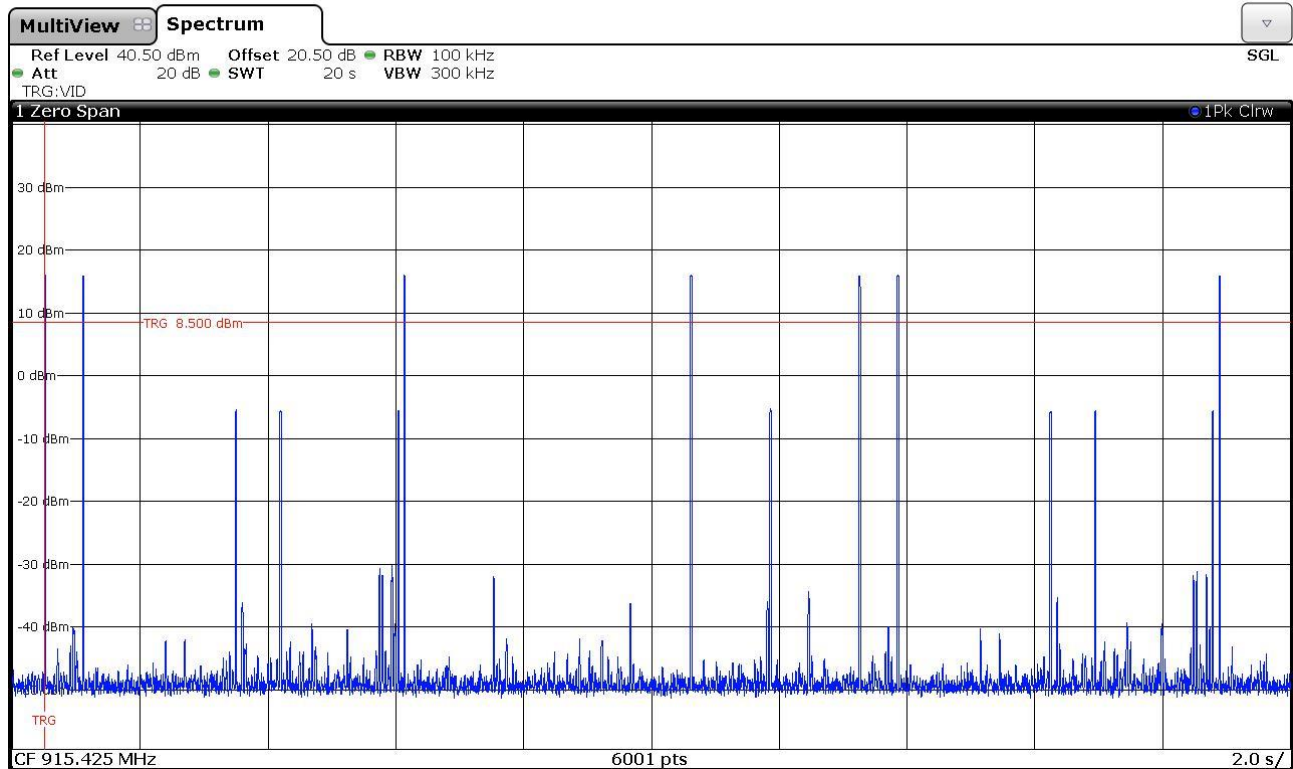
Graphs

Bertezzo 18197460





Bertezzo 18197461



Result: The requirements are met



11.7 Band edge

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- ANSI C63.10 cl. 7.8.6
- 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 S295
Measurement uncertainty: See clause 7 of this test report

Test specification

See FCC Part 15.247

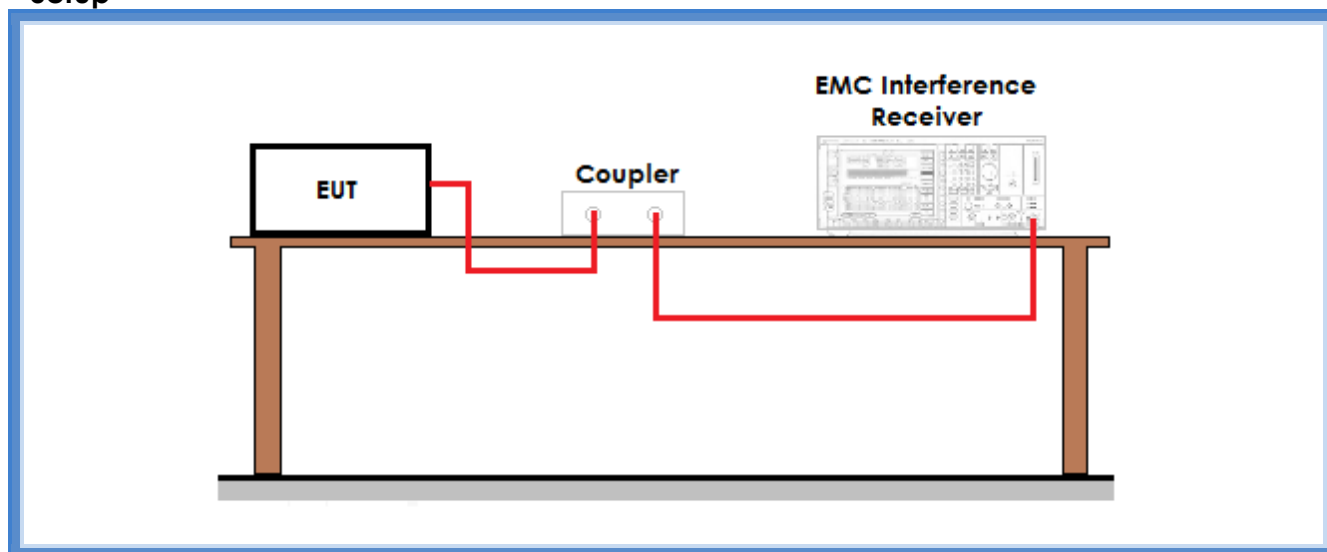
Environmental conditions

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

Acceptance limits: operation within the band 902 – 928 MHz



Setup



Result

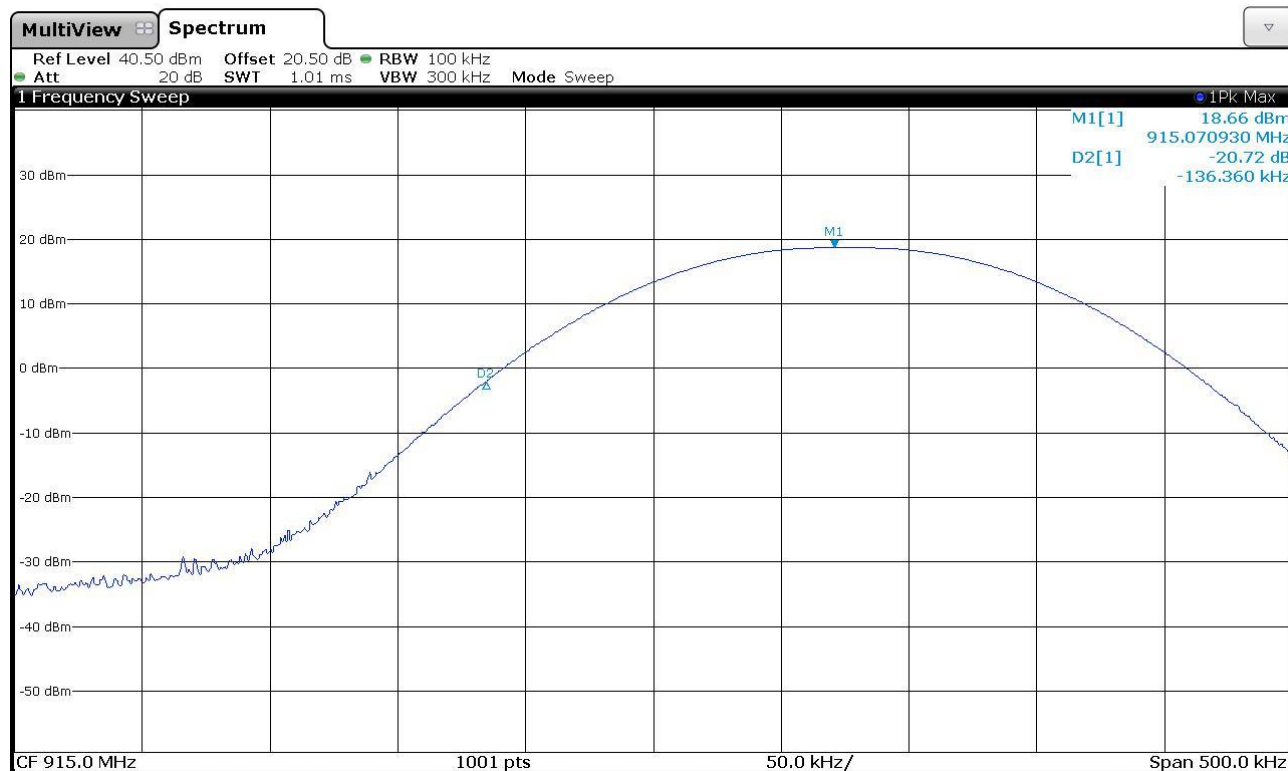
Frequency (MHz)	Graph(s) – Hopping	Results	
915,075	G18197423	F _L : 914,93457 MHz	Complies
927,825	G18197431	F _H : 927,96610 MHz	Complies

Frequency (MHz)	Graph(s) – No hopping	Results	
915,075	G18197456	F _L : 914,937893 MHz	Complies
927,825	G18197457	F _H : 927,962690 MHz	Complies



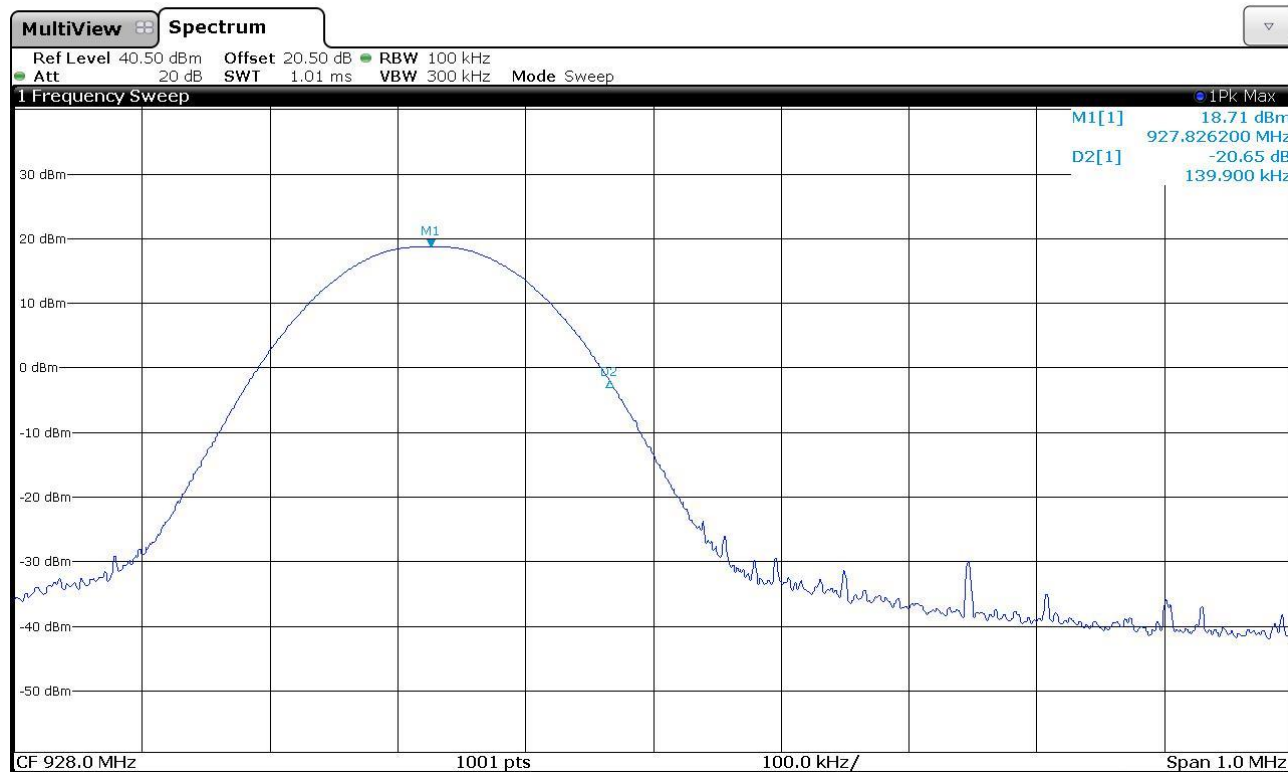
Graphs

Gandini 18197423



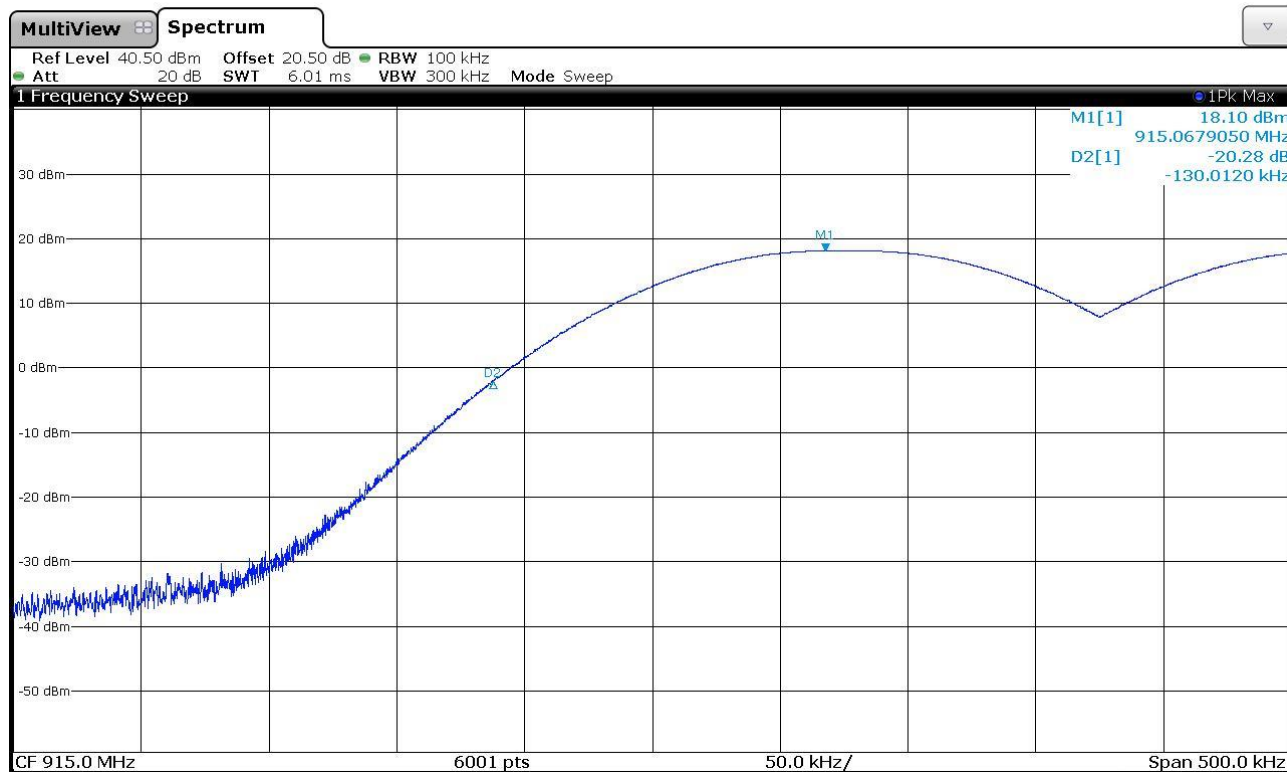


Gandini 18197431



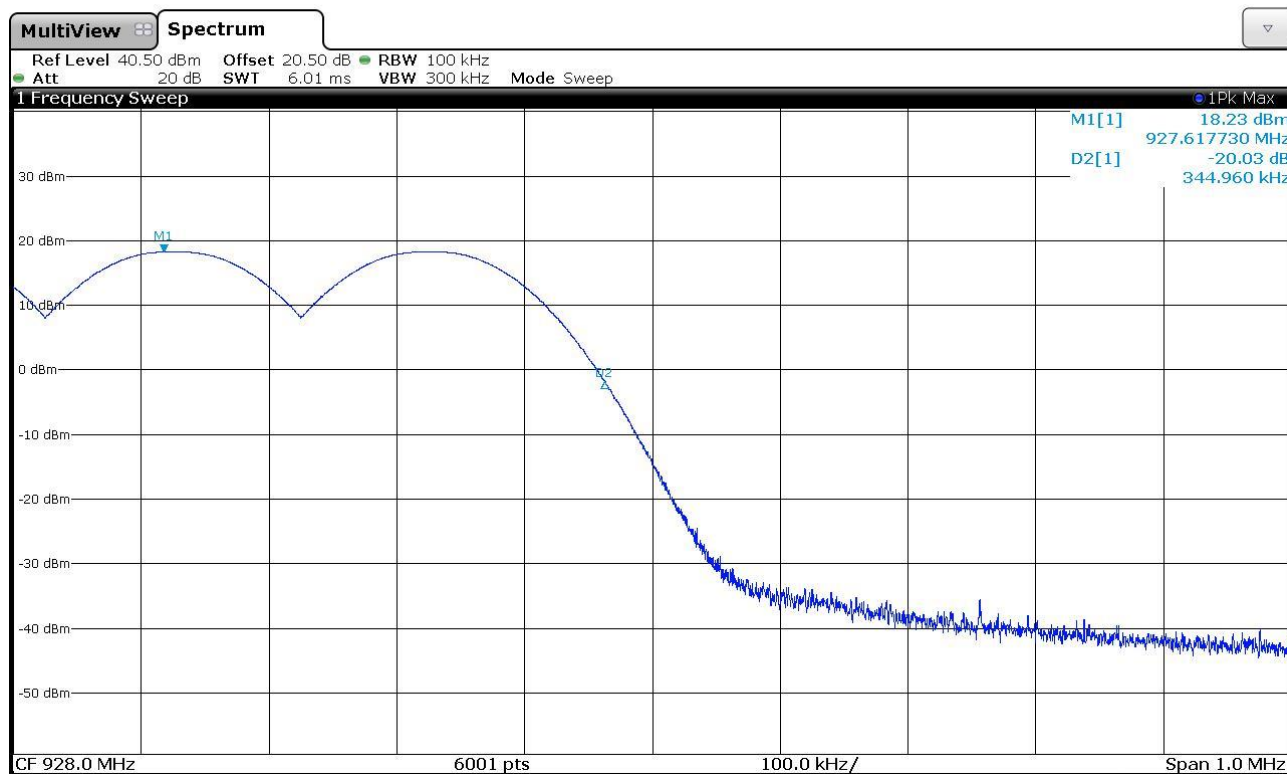


Bertezzo 18197456





Bertezzo 18197457



Result: The requirements are met



11.8 Peak Output Power

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.247
- KDB 558074 D01 15.247 Meas Guidance v05 cl. 2.2
- ANSI C63.10 cl. 7.8.5
- 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 S295
Measurement uncertainty: See clause 7 of this test report

Test specification

Port: Antenna

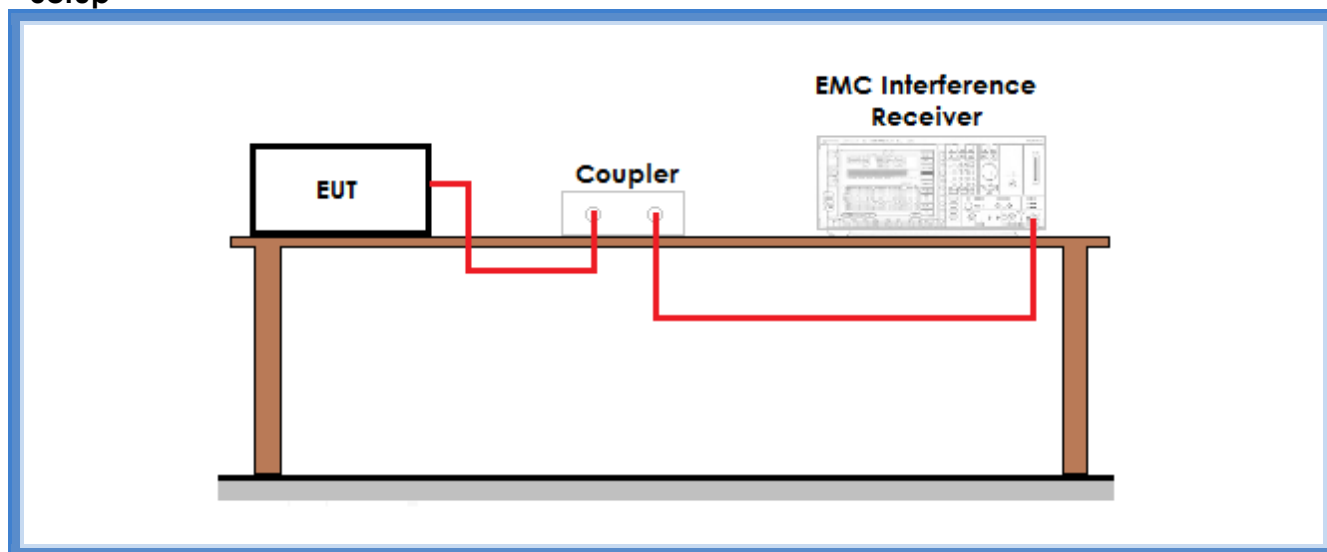
Environmental conditions

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



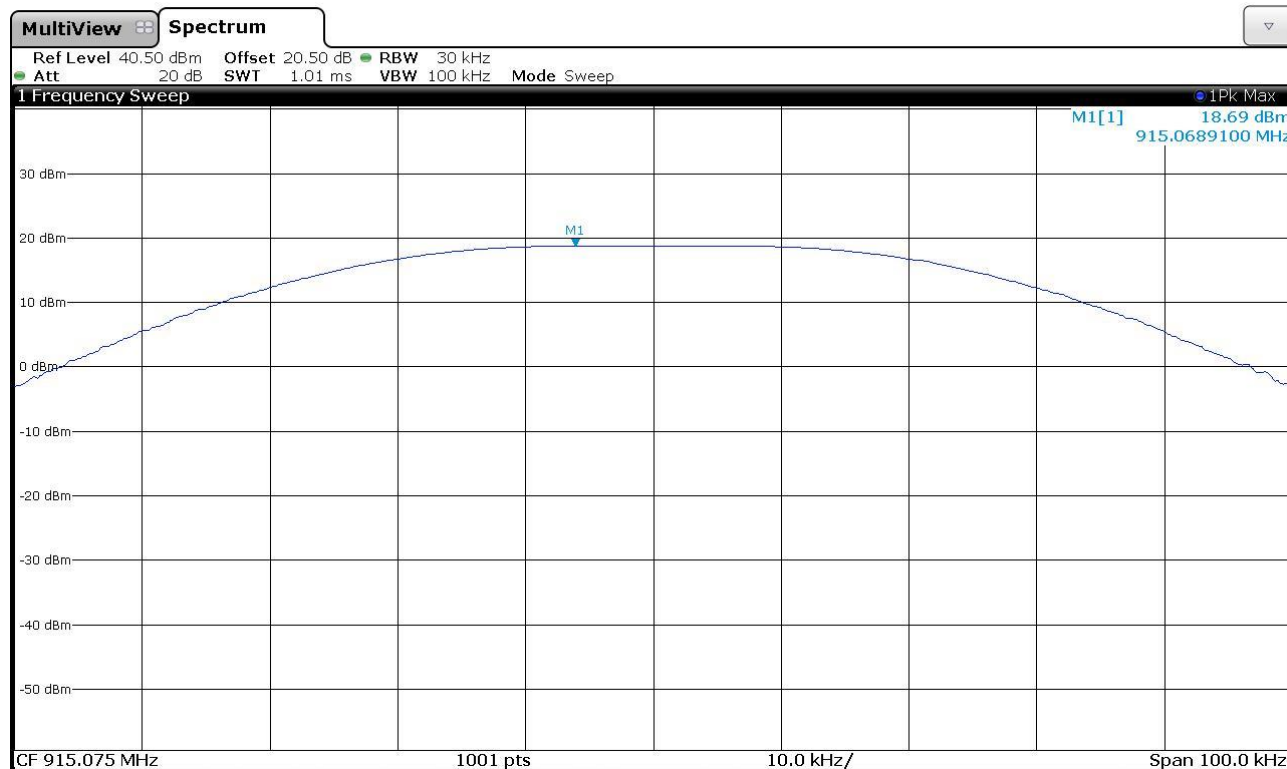
Result

Frequency (MHz)	Graphs	Conducted measured level (dBm)	Conducted power level (mW)	Limit (mW)	Verdict	Calculated radiated level (dBμV/m)
915,068910	G18197422	18,69	73,96	1000	Pass	115,92
921,418810	G18197425	18,68	73,79	1000	Pass	115,91
927,818010	G18197430	18,71	74,30	1000	Pass	115,94

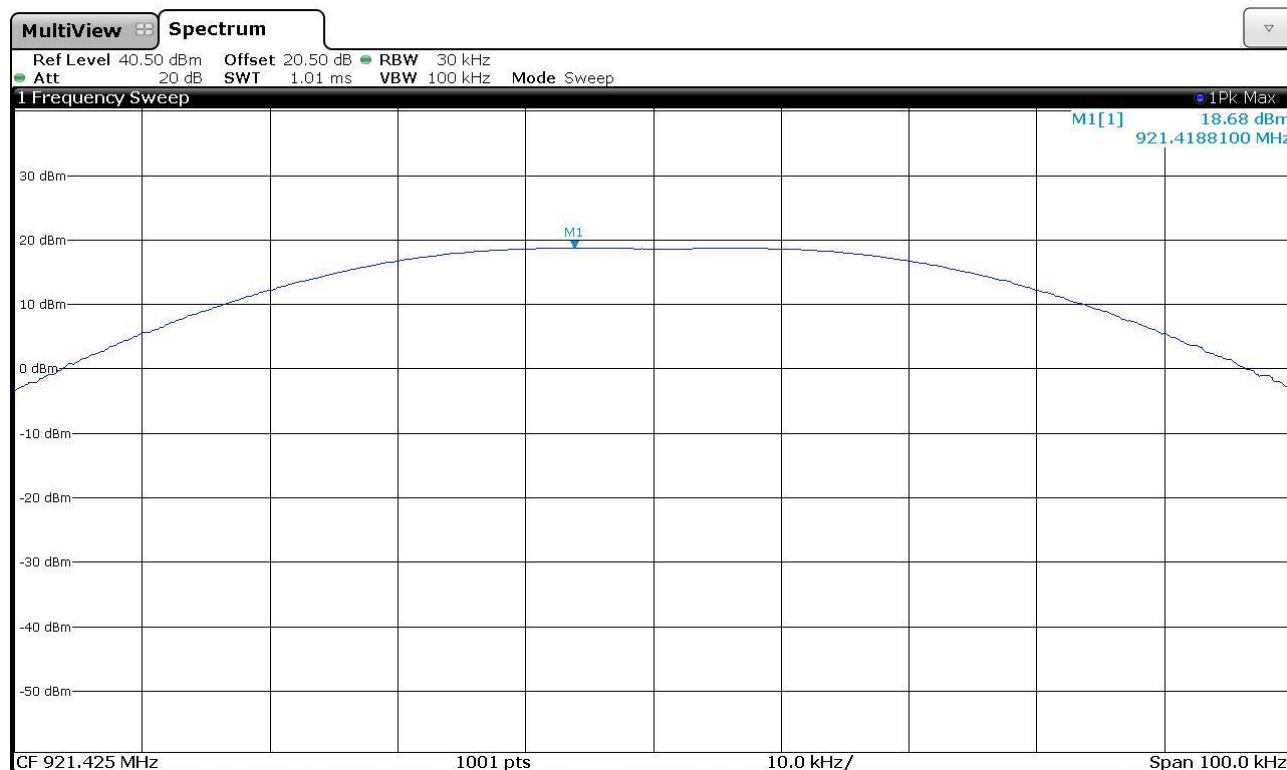


Graphs

Gandini 18197422

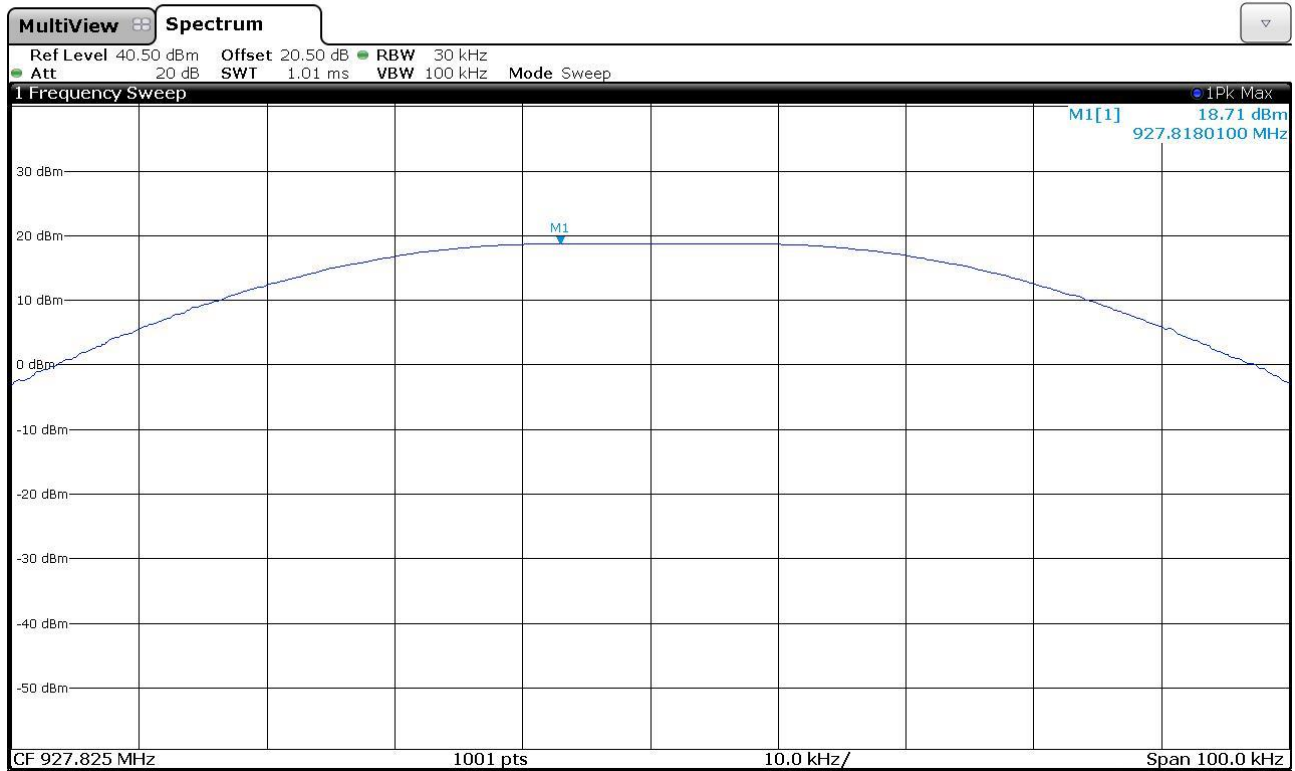


Gandini 18197425





Gandini 18197430



Result: The requirements are met



11.9 Spurious Emission

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.209
- Internal procedure PM001
- 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

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: Enclosure
Frequency range: 0,009 MHz – 10000 MHz
Antenna polarization: Horizontal (H) – Vertical (V)
10 m for frequencies ≤ 30 MHz
3 m for frequencies > 30 MHz

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(μ V/m)]	Peak limits [dB(μ V/m)]
> 1000	54	74



The restricted frequency bands are listed in the following table

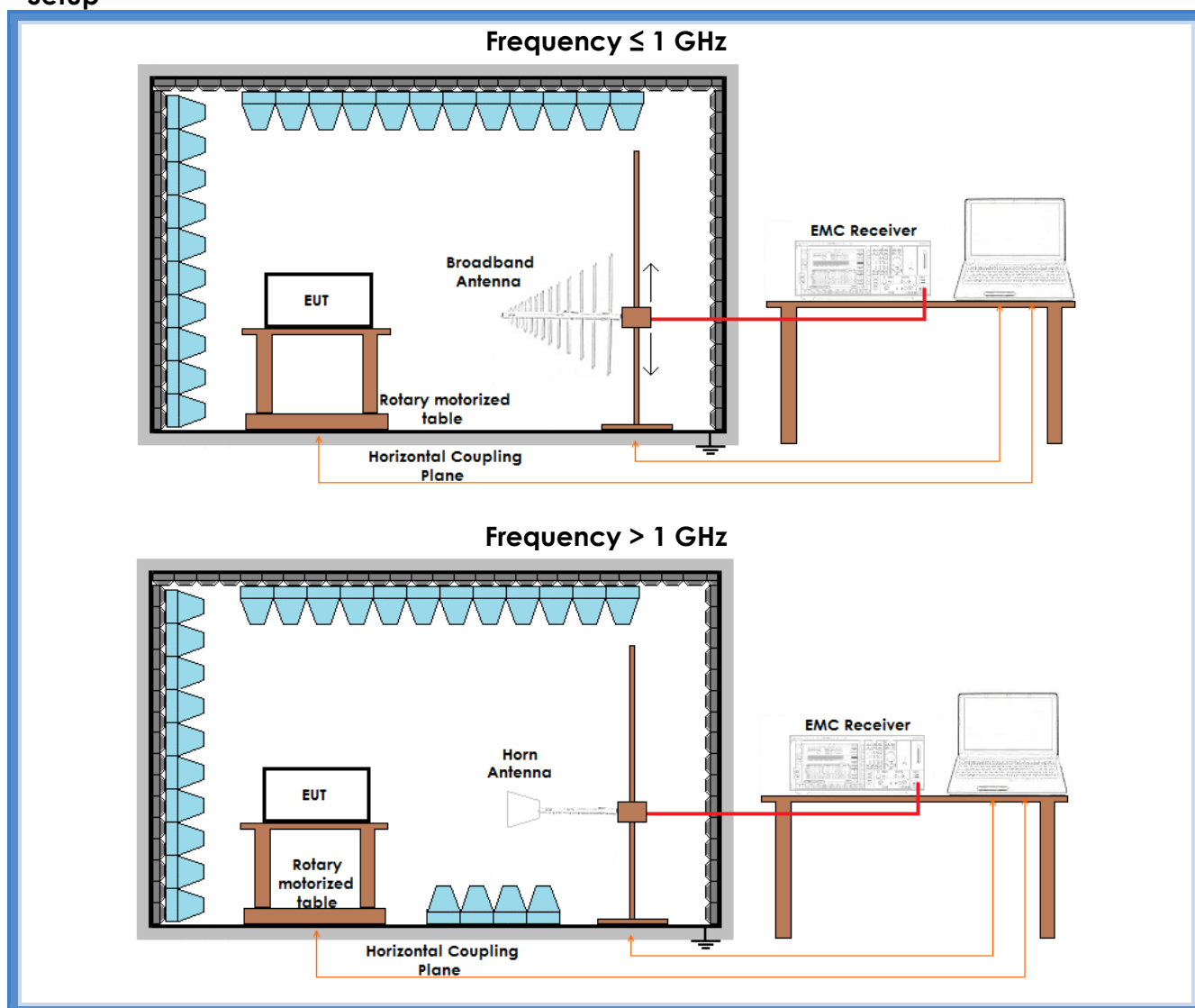
MHz	MHz	MHz	GHz
0,090 – 0,110	16,42 – 16,423	399,9 – 410	4,5 – 5,15
0,495 – 0,505	16,69475 – 16,69525	608 – 614	5,35 – 5,46
2,1735 – 2,1905	16,80425 – 16,80475	960 – 1240	7,25 – 7,75
4,125 – 4,128	25,5 – 25,67	1300 – 1427	8,025 – 8,5
4,17725 – 4,17775	37,5 – 38,25	1435 – 1626,5	9,0 – 9,2
4,20725 – 4,20775	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





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	46,09	54,00	46,68	54,00	47,22	54,00	Complies
III	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
IV	44,32	54,00	50,10	54,00	44,05	54,00	Complies
V	44,70	54,00	44,73	54,00	43,40	54,00	Complies
VI	45,69	54,00	43,28	54,00	43,88	54,00	Complies
VII	43,80	54,00	45,42	54,00	47,12	54,00	Complies
VIII	More than 20 dB below limit	54,00	46,07	54,00	48,11	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. No spurious other than harmonics have been found. The results have been extrapolated to the specified distance using an extrapolation factor. For all harmonics it was considered the limit of 54 dB μ V/m as a worse 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	49,90	74,00	50,30	74,00	50,51	74,00	Complies
III	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
IV	49,47	74,00	61,86	74,00	More than 20 dB below limit	74,00	Complies
V	50,84	74,00	50,52	74,00	More than 20 dB below limit	74,00	Complies
VI	More than 20 dB below limit	74,00	51,89	74,00	More than 20 dB below limit	74,00	Complies
VII	More than 20 dB below limit	74,00	More than 20 dB below limit	74,00	54,52	74,00	Complies
VIII	More than 20 dB below limit	74,00	More than 20 dB below limit	74,00	56,20	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. No spurious other than harmonics have been found. The results have been extrapolated to the specified distance using an extrapolation factor. For all harmonics it was considered the limit of 74 dB μ V/m as a worse case.							

Result: The requirements are met