Accredited testing-laboratory

DAR registration number: DAT-P-176/94-D1

Federal Motor Transport Authority (KBA)
DAR registration number: KBA-P 00070-97

Recognized by the Federal Communications Commission
Anechoic chamber registration no.: 90462 (FCC)
Anechoic chamber registration no.: 3463A-1 (IC)
Certification ID: DE 0001
Accreditation ID: DE 0002

Accredited Bluetooth® Test Facility (BQTF)

Annex to Test report no.	**:**	**1-0726-01-04/08**
Type identification	**:**	**FAD-3232022-BV (MD400) / FAD-3232023-BV (MD400g)**
Applicant	**:**	**Sony Ericsson Mobile Computing**
FCC ID	**:**	**PY7F3232022 / PY7F3232023**
IC Certification No	**:**	**4170B-F3232022 / 4170B-3232023**
Test standards	**:**	**47 CFR Part 15** **RSS - 210 Issue 7**

Table of contents

1 General information

1.1 Notes

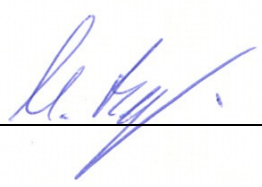
The test results of this test report relate exclusively to the test item specified in 3.1.1. The CETECOM ICT Services GmbH does not assume responsibility for any conclusions and generalisations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the CETECOM ICT Services GmbH.

Test laboratory manager:

2008-09-08	**Meheza Kpelou Walla**	
Date	Name	Signature

2008-09-08	**Stefan Bös**	
Date	Name	Signature

Technical responsibility for area of testing:

2008-09-08	**Michael Berg**	
Date	Name	Signature

1.2 Testing laboratory

CETECOM ICT Services GmbH

Untertürkheimer Straße 6 - 10
66117 Saarbrücken
Germany
Phone: + 49 681 5 98 - 0
Fax: + 49 681 5 98 - 9075
e-mail: info@ICT.cetecom.de
Internet: http://www.cetecom-ict.de

State of accreditation: **The test laboratory (area of testing) is accredited according to DIN EN ISO/IEC 17025**
DAR registration number: DAT-P-176/94-D1

Accredited by: **Federal Motor Transport Authority (KBA)**
DAR registration number: KBA-P 00070-97

Testing location, if different from CETECOM ICT Services GmbH:

Name :
Street :
Town :
Country :
Phone :
Fax :

1.3 Details of applicant

Name:	**Sony Ericsson Mobile Computing**
Street:	**7001 Development Drive**
Town:	**Research Triangle Park, NC 27709**
Country:	**USA**
Telephone:	**+1-919-472-1431**
Fax:	**+1-919-472-6030**
Contact:	**Louis Le**
E-mail:	**Louis.Le@Sonyericsson.com**
Telephone:	**+1-919-472-1431**

1.4 Application details

Date of receipt of order:	**2008-08-04**
Date of receipt of test item:	**2008-09-01**
Date of start test:	**2008-09-01**
Date of end test	**2008-09-08**
Persons(s) who have been present during the test:	**-/-**

2 Test standard/s:

47 CFR Part 15	**2007-09**	**Title 47 of the Code of Federal Regulations; Chapter I-Federal Communications Commission subchapter A - general, Part 15-Radio frequency devices**
RSS - 210 Issue 7	**2007-06**	**Spectrum Management and Telecommunications - Radio Standards Specification Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment**

3 Technical tests

3.1 Details of manufacturer

Name:	**Sony Ericsson Mobile Communications AB**
Street:	**Nya Vattentornet**
Town:	**22188 Lund**
Country:	**Sweden**

3.2 Test Item and test configuration

No.: 1 Notebook IBM ThinkPad with FAD-3232022-BV (MD400) / FAD-3232023-BV (MD400g)

4 Summary of Measurements Results and list of all performed test cases

☒ **No deviations from the technical specifications were ascertained**

☐ There were deviations from the technical specifications ascertained

Section in this Report	Test Name	Verdict
6.1	Conducted limits CFR Part 15.207, 15.107 RSS 210, Issue 7, Section 6.6 , 7.4	Pass
6.2	Receiver spurious emission radiated (Idle mode) CFR Part SUBCLAUSE § 15.109 RSS 210, Issue 7, Section 7.3 Receiver Spurious Emissions (Radiated)	Pass

5 Measurements and results

The radiated measurements are performed in vertical and horizontal plane in the frequency range from 9 kHz to 20 GHz in semi-anechoic chambers. The EUT is positioned on a non-conductive support with a height of 0.80 m above a conductive ground plane that covers the whole chamber.
The receiving antennas are confirmed with specifications ANSI C63.2-1996 clause 15 and ANSI C63.4-2003 clause 4.1.5. These antennas can be moved over the height range between 1.0 m and 4.0 m in order to search for maximum field strength emitted from EUT. The measurement distances between EUT and receiving antennas are indicated in the test set-ups for the various frequency ranges. For each measurement, the EUT is rotated in all three axes until the maximum field strength is received.
The wanted and unwanted emissions are received by spectrum analysers where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63.4-2003 clause 4.2.
Antennas are confirmed with ANSI C63.2-1996 item 15.

150 kHz - 30 MHz: Quasi Peak measurement, 9 kHz Bandwidth, passive loop antenna.

30 MHz - 200 MHz: Quasi Peak measurement, 12 KHz Bandwidth, biconical antenna

200MHz - 1GHz: Quasi Peak measurement, 120 KHz Bandwidth, log periodic antenna

>1GHz: Average, RBW 1MHz, VBW 10 Hz, wave guide horn

All measurement settings are according to FCC 15.109 and 15.107

6 FCC Part 15 Subpart B

6.1 Conducted Limits

Reference

FCC:	CFR Part 15.207, 15.107
IC:	RSS 210, Issue 7, Section 6.6 , 7.4

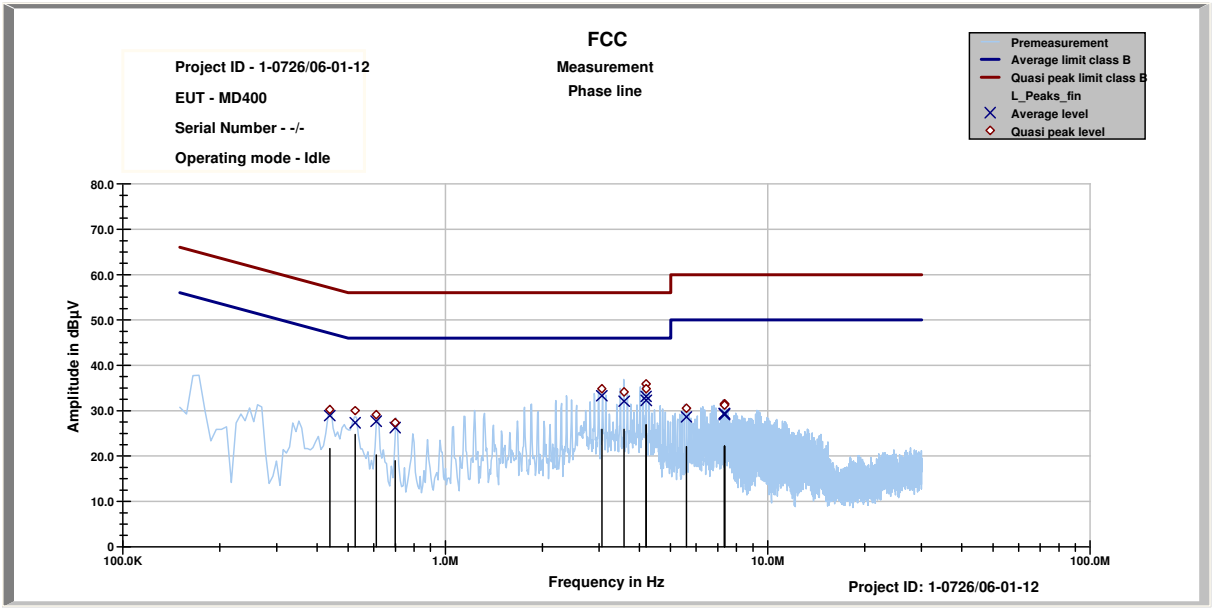
Limits: **§ 15.107 / 15.207**

Frequency of Emission (MHz)	Conducted Limit (dBµV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56 *	56 to 46 *
0.5 – 5	56	46
5 - 30	60	50

* Decreases with the logarithm of the frequency

Plot 1: MD400 – Idle Mode (Valid for all GSM and UMTS bands)

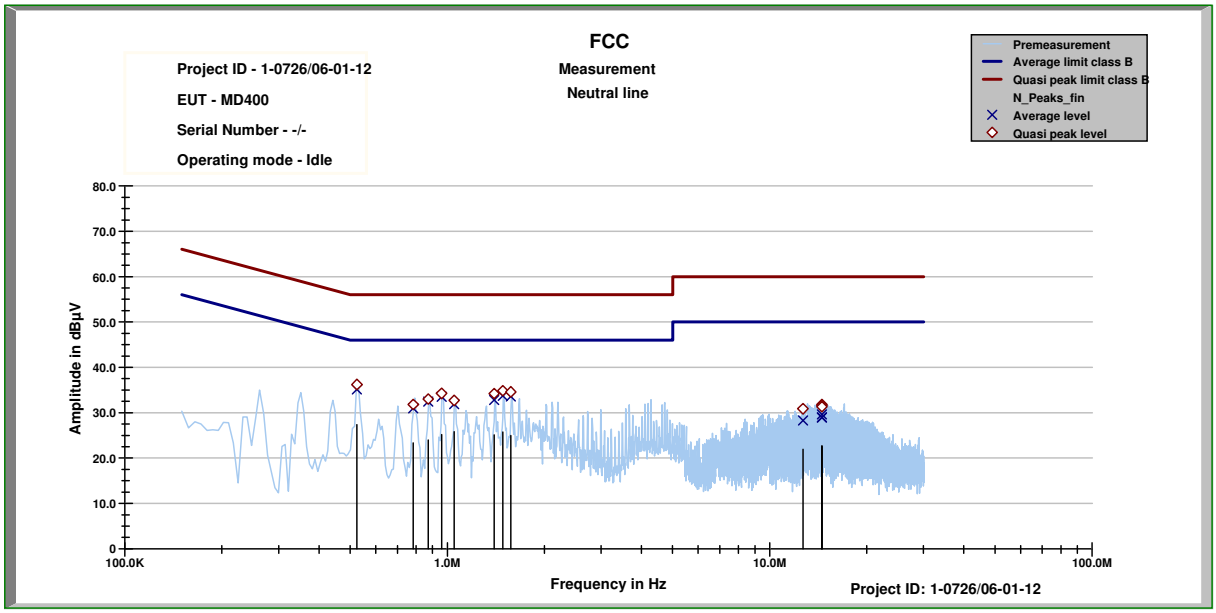
Phase Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.4382	30.25	26.85	28.92	18.85
0.5254	30.01	25.99	27.34	18.66
0.6106	29.09	26.91	27.66	18.34
0.6991	27.34	28.66	26.28	19.72
3.0581	34.82	21.18	33.28	12.72
3.5853	34.14	21.86	32.09	13.91
4.1954	35.90	20.10	33.13	12.87
4.1971	34.84	21.16	32.25	13.75
5.5940	30.51	29.49	28.63	21.37
7.3407	31.52	28.48	29.28	20.72
7.3409	31.47	28.53	29.38	20.62
7.3427	31.24	28.76	29.14	20.86

Plot 2: MD400 – Idle Mode

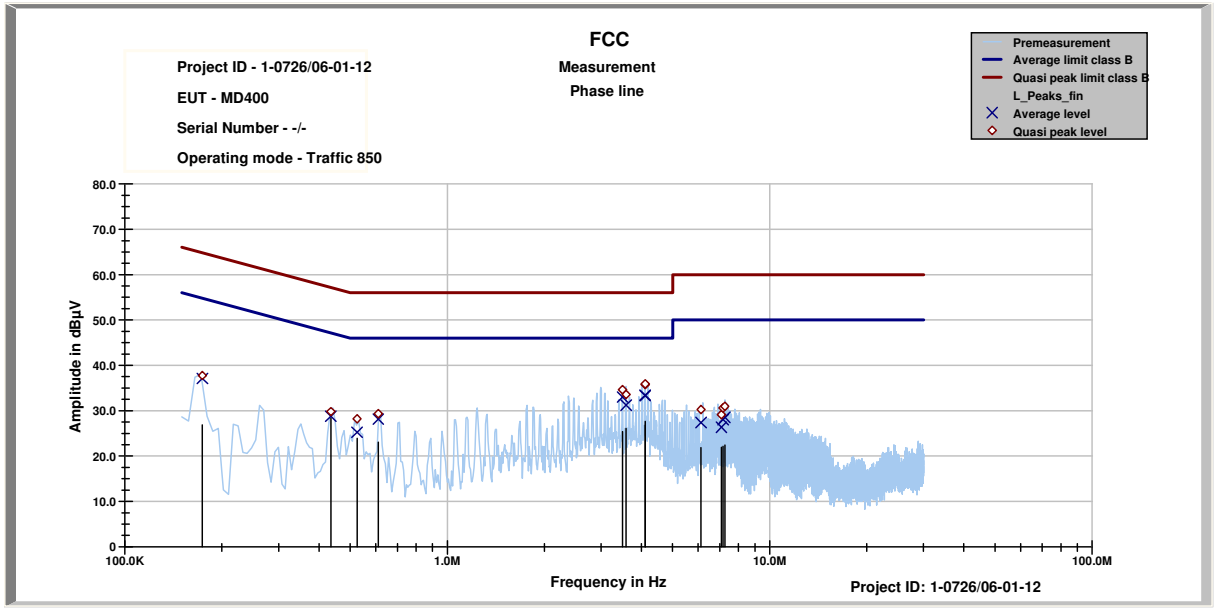
Neutral Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.5247	36.19	19.81	35.09	10.91
0.7840	31.81	24.19	30.95	15.05
0.8727	32.99	23.01	32.45	13.55
0.9594	34.24	21.76	33.51	12.49
1.0502	32.68	23.32	31.87	14.13
1.3972	34.21	21.79	32.81	13.19
1.4867	34.81	21.19	33.68	12.32
1.5733	34.57	21.43	33.60	12.40
12.6720	30.87	29.13	28.30	21.70
14.5050	31.80	28.20	29.62	20.38
14.5070	31.57	28.43	28.98	21.02
14.5080	31.29	28.71	28.89	21.11

Plot 3: MD400 – Traffic 850

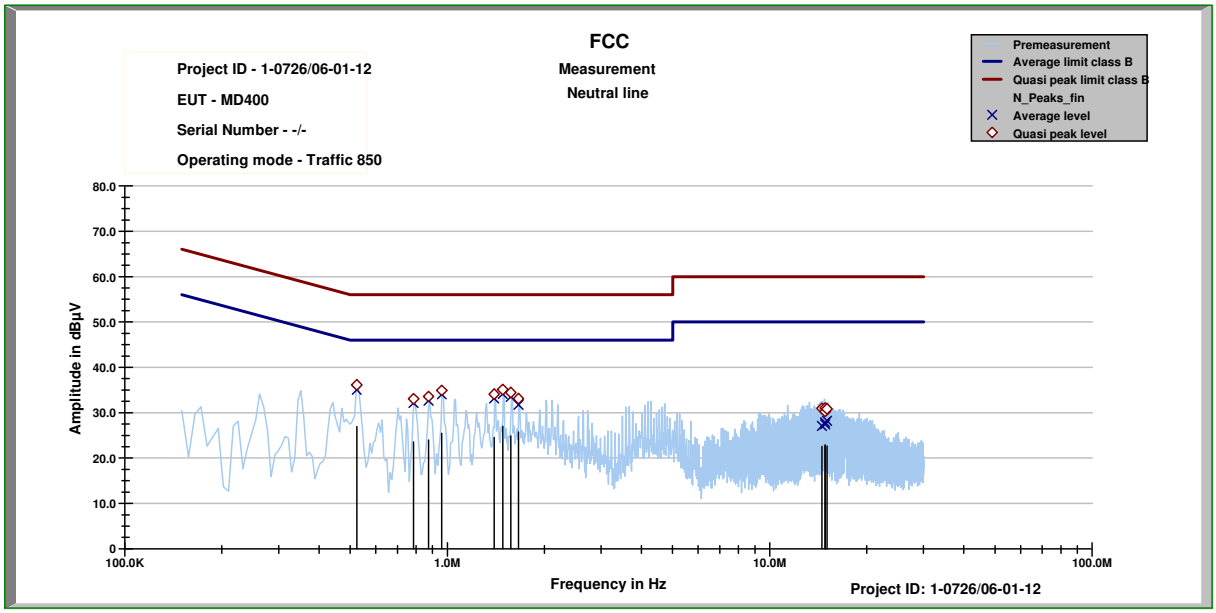
Phase Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.1740	37.75	27.02	37.07	18.24
0.4354	29.80	27.35	28.76	19.09
0.5251	28.21	27.79	25.22	20.78
0.6110	29.32	26.68	28.13	17.87
3.4953	34.64	21.36	32.99	13.01
3.5856	33.55	22.45	31.21	14.79
4.1067	35.75	20.25	33.43	12.57
4.1083	35.91	20.09	33.28	12.72
6.1202	30.23	29.77	27.38	22.62
7.0802	29.11	30.89	26.33	23.67
7.1659	30.60	29.40	28.04	21.96
7.2528	30.95	29.05	28.52	21.48

Plot 4: MD400 – Traffic 850

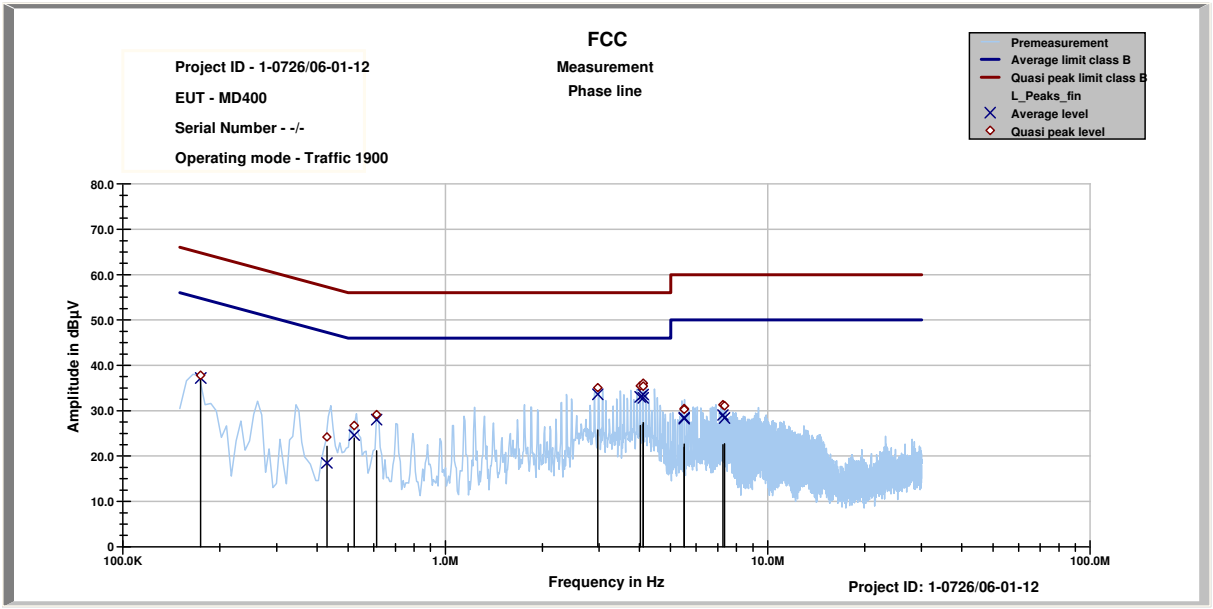
Neutral Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.5234	36.14	19.86	35.06	10.94
0.7864	33.03	22.97	32.11	13.89
0.8744	33.57	22.43	32.67	13.33
0.9617	34.90	21.10	34.02	11.98
1.3978	34.08	21.92	33.11	12.89
1.4843	35.08	20.92	34.14	11.86
1.5727	34.43	21.57	33.51	12.49
1.6616	33.10	22.90	31.74	14.26
14.5110	30.92	29.08	27.08	22.92
14.8540	31.02	28.98	27.40	22.60
14.8590	30.24	29.76	27.86	22.14
15.0340	30.84	29.16	28.19	21.81

Plot 5: MD400 – Traffic 1900

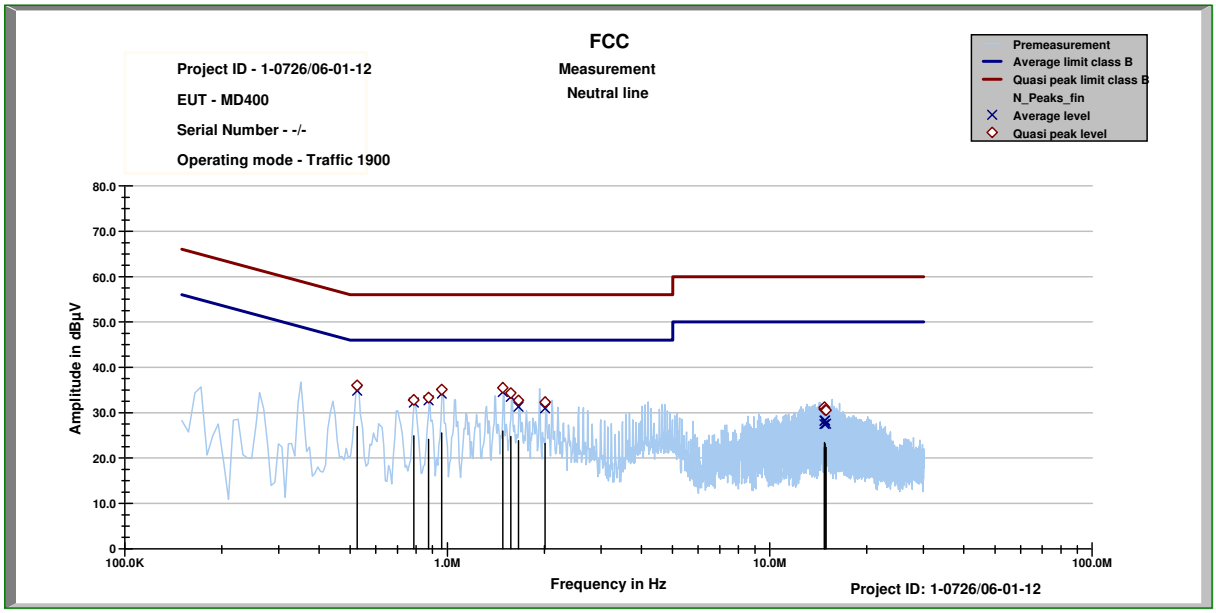
Phase Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.1743	37.82	26.94	37.17	18.13
0.4294	24.19	33.07	18.45	29.57
0.5217	26.70	29.30	24.58	21.42
0.6123	29.14	26.86	28.01	17.99
2.9717	35.06	20.94	33.61	12.39
4.0220	35.46	20.54	33.01	12.99
4.1093	36.03	19.97	33.56	12.44
4.1107	35.42	20.58	32.83	13.17
5.5073	30.45	29.55	28.45	21.55
5.5089	30.26	29.74	28.24	21.76
7.2557	31.32	28.68	29.05	20.95
7.3449	31.10	28.90	28.38	21.62

Plot 6: MD400 – Traffic 1900

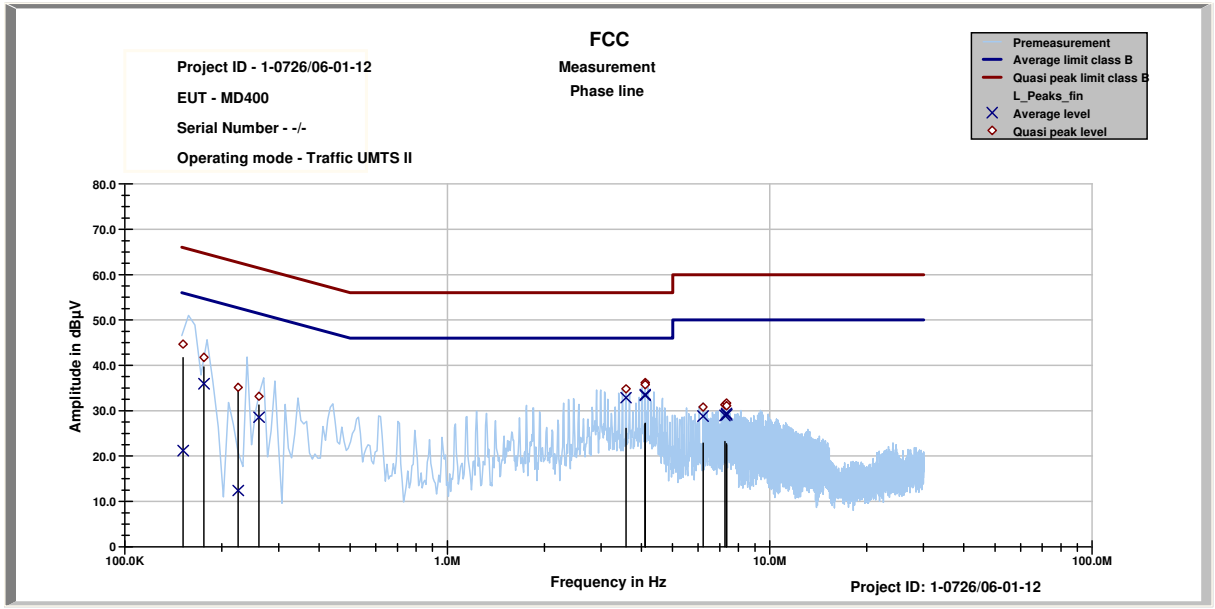
Neutral Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.5251	36.02	19.98	34.83	11.17
0.7869	32.81	23.19	32.20	13.80
0.8743	33.31	22.69	32.72	13.28
0.9612	35.08	20.92	34.16	11.84
1.4858	35.50	20.50	34.58	11.42
1.5739	34.30	21.70	33.48	12.52
1.6626	32.72	23.28	31.33	14.67
2.0113	32.31	23.69	30.96	15.04
14.7700	30.82	29.18	27.46	22.54
14.7710	31.19	28.81	28.18	21.82
14.8620	30.60	29.40	28.27	21.73
14.9510	30.52	29.48	27.58	22.42

Plot 7: MD400 – Traffic UMTS II

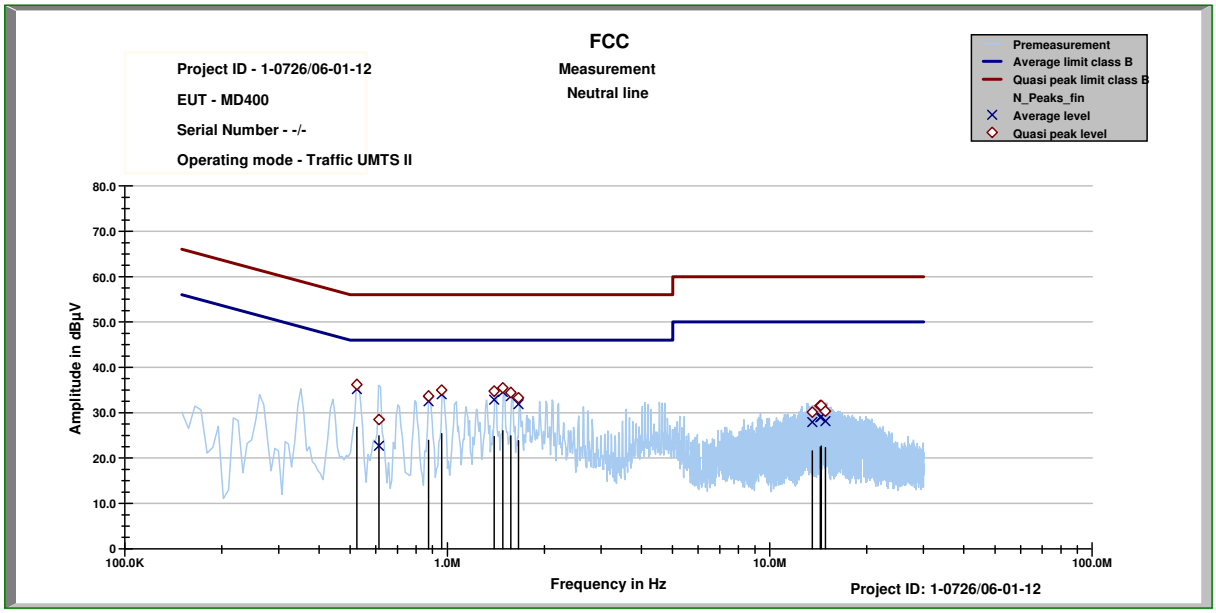
Phase Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.1516	44.66	21.25	21.18	34.77
0.1760	41.75	22.92	35.92	19.34
0.2246	35.15	27.49	12.40	41.47
0.2607	33.15	28.26	28.54	24.29
3.5840	34.80	21.20	32.86	13.14
4.1099	36.18	19.82	33.57	12.43
4.1107	35.76	20.24	33.36	12.64
6.2071	30.77	29.23	28.79	21.21
7.2576	31.30	28.70	28.95	21.05
7.3443	31.69	28.31	29.36	20.64
7.3469	31.09	28.91	29.08	20.92

Plot 8: MD400 – Traffic UMTS II

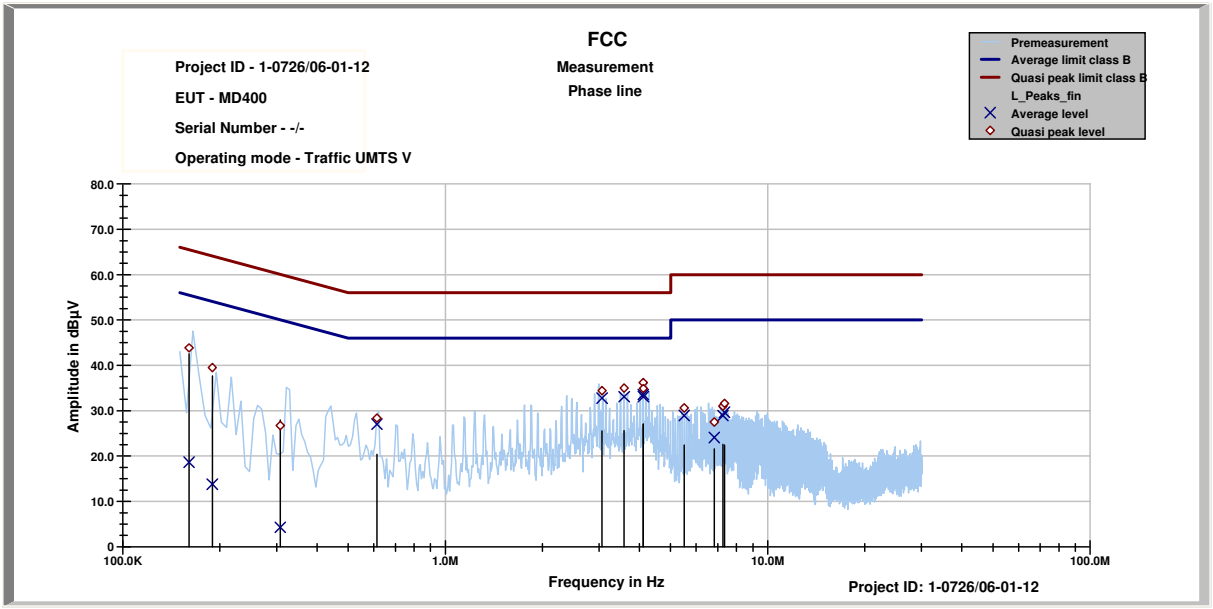
Neutral Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.5239	36.19	19.81	35.19	10.81
0.6139	28.48	27.52	22.70	23.30
0.8741	33.65	22.35	32.52	13.48
0.9608	34.99	21.01	34.01	11.99
1.3976	34.73	21.27	32.83	13.17
1.4864	35.45	20.55	34.55	11.45
1.5738	34.42	21.58	33.62	12.38
1.6610	33.29	22.71	31.89	14.11
13.5510	30.10	29.90	27.91	22.09
14.3380	31.54	28.46	29.00	21.00
14.4290	31.56	28.44	29.11	20.89
14.8650	30.32	29.68	28.16	21.84

Plot 9: MD400 – Traffic UMTS V

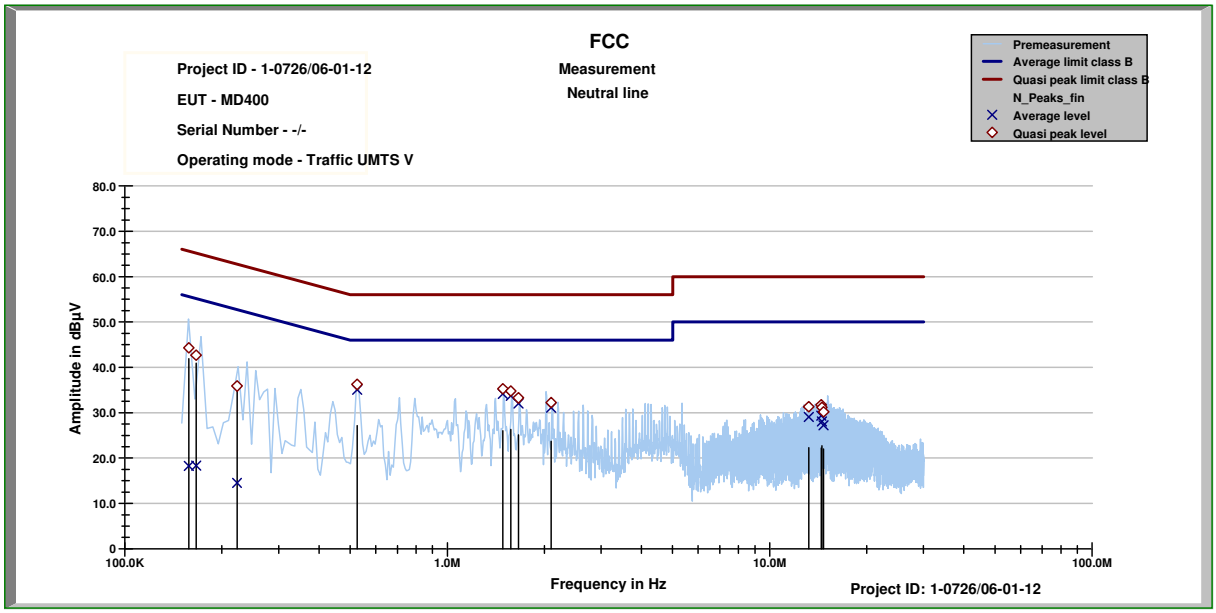
Phase Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.1604	43.86	21.59	18.61	37.09
0.1894	39.47	24.59	13.78	41.10
0.3078	26.70	33.33	4.27	47.22
0.6138	28.35	27.65	27.03	18.97
3.0621	34.38	21.62	32.77	13.23
3.5856	34.98	21.02	33.05	12.95
4.1099	36.17	19.83	33.56	12.44
4.1112	34.88	21.12	33.09	12.91
5.5089	30.62	29.38	28.94	21.06
6.8252	27.47	32.53	24.07	25.93
7.2586	31.02	28.98	28.89	21.11
7.3457	31.63	28.37	29.62	20.38

Plot 10: MD400 – Traffic UMTS V

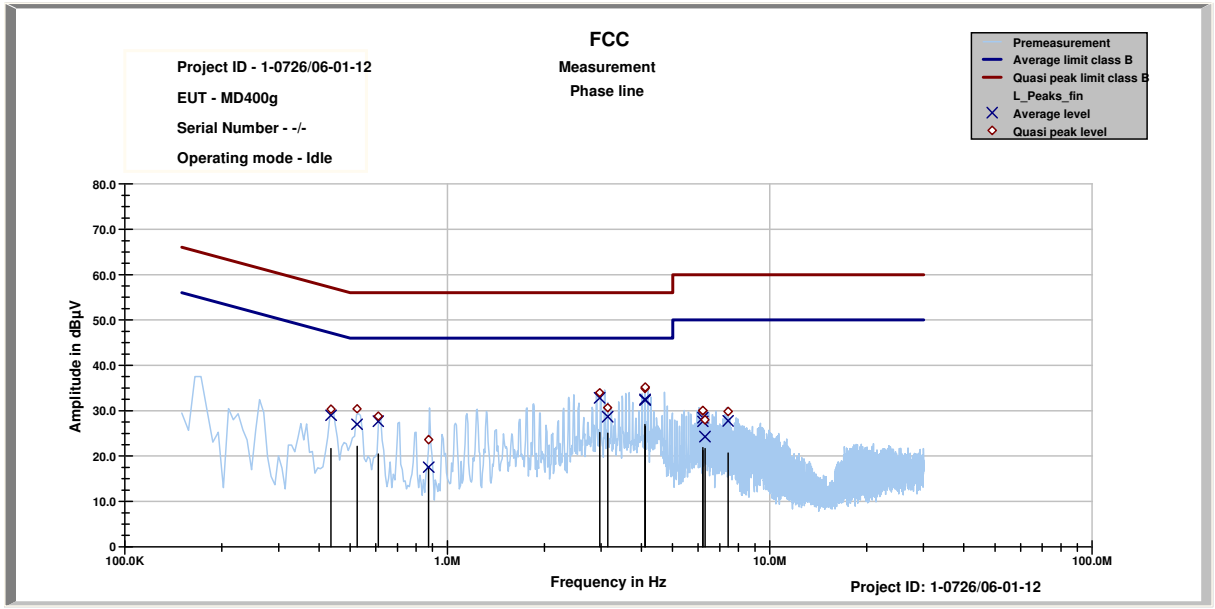
Neutral Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.1579	44.31	21.27	18.25	37.53
0.1663	42.67	22.48	18.29	37.24
0.2227	35.87	26.85	14.53	39.40
0.5250	36.22	19.78	35.07	10.93
1.4872	35.24	20.76	34.14	11.86
1.5736	34.75	21.25	33.71	12.29
1.6610	33.26	22.74	32.04	13.96
2.0987	32.21	23.79	31.06	14.94
13.2040	31.30	28.70	29.03	20.97
14.4280	31.70	28.30	29.34	20.66
14.5190	31.18	28.82	28.04	21.96
14.6880	30.17	29.83	27.22	22.78

Plot 11: MD400g – Idle Mode (Valid for all GSM and UMTS bands)

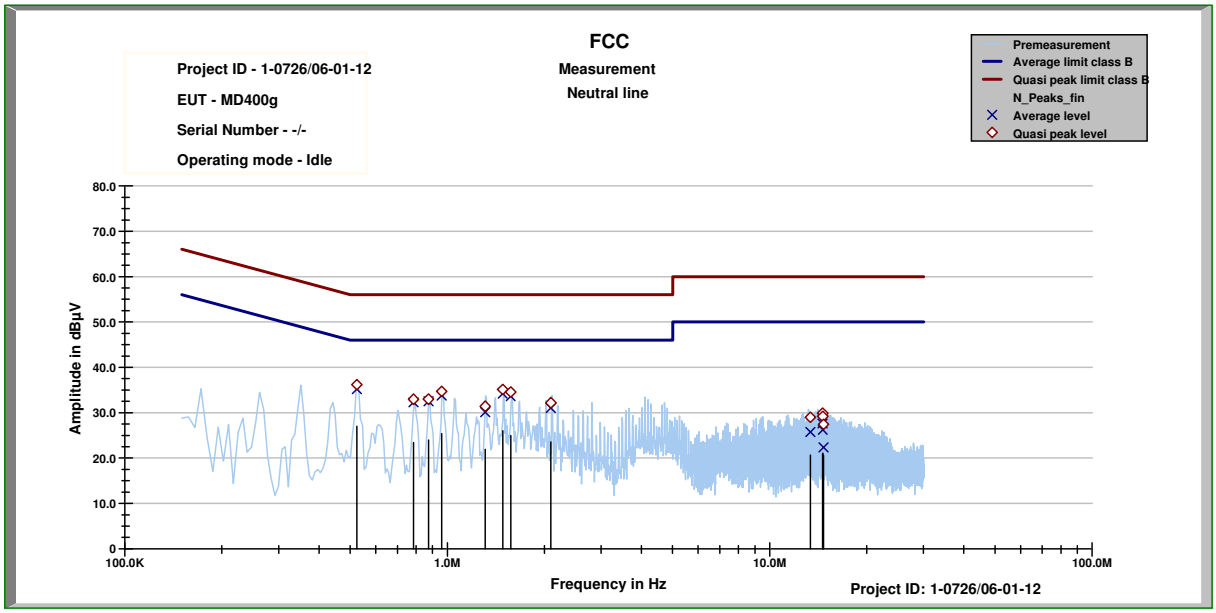
Phase Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.4358	30.33	26.81	28.97	18.86
0.5248	30.41	25.59	26.98	19.02
0.6110	28.79	27.21	27.66	18.34
0.8753	23.62	32.38	17.55	28.45
2.9684	33.95	22.05	32.81	13.19
3.1424	30.64	25.36	28.66	17.34
4.1043	34.89	21.11	32.50	13.50
4.1065	35.16	20.84	32.28	13.72
6.2023	29.93	30.07	28.45	21.55
6.2046	30.03	29.97	27.65	22.35
6.2939	27.97	32.03	24.27	25.73
7.4260	29.84	30.16	27.74	22.26

Plot 12: MD400g – Idle Mode

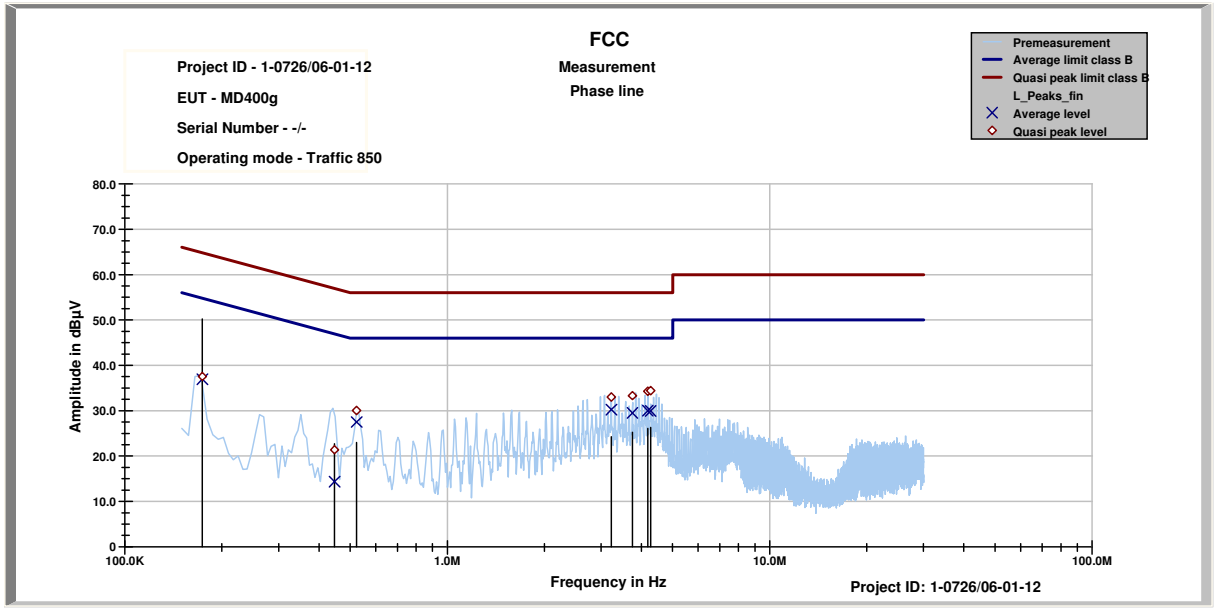
Neutral Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.5241	36.17	19.83	35.16	10.84
0.7859	32.95	23.05	32.26	13.74
0.8737	32.96	23.04	32.52	13.48
0.9606	34.68	21.32	33.76	12.24
1.3112	31.40	24.60	30.13	15.87
1.4846	35.10	20.90	34.20	11.80
1.5717	34.55	21.45	33.60	12.40
2.0962	32.17	23.83	31.00	15.00
13.367	28.98	31.02	25.76	24.24
14.587	29.86	30.14	27.60	22.40
14.591	29.15	30.85	26.25	23.75
14.680	27.42	32.58	22.36	27.64

Plot 13:MD400g – Traffic 850

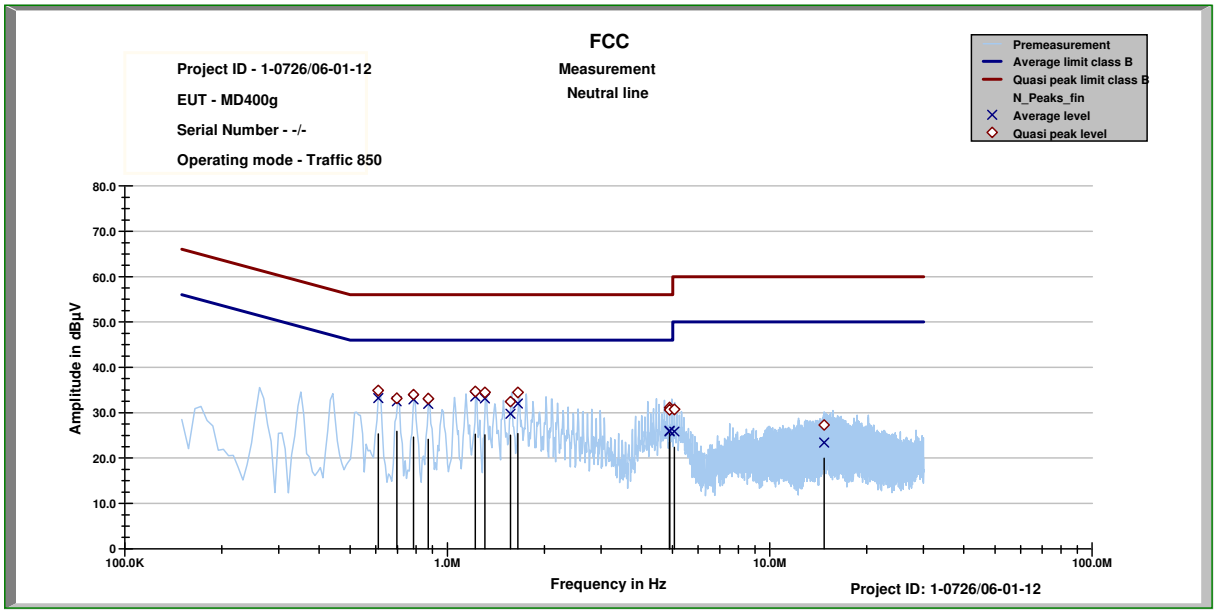
Phase Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.1740	37.54	27.22	36.93	18.38
0.4472	21.38	35.54	14.33	33.18
0.5234	30.04	25.96	27.49	18.51
3.2272	32.99	23.01	30.22	15.78
3.7514	33.31	22.69	29.48	16.52
4.1873	34.28	21.72	29.99	16.01
4.2749	34.39	21.61	29.93	16.07

Plot 14: MD400g – Traffic 850

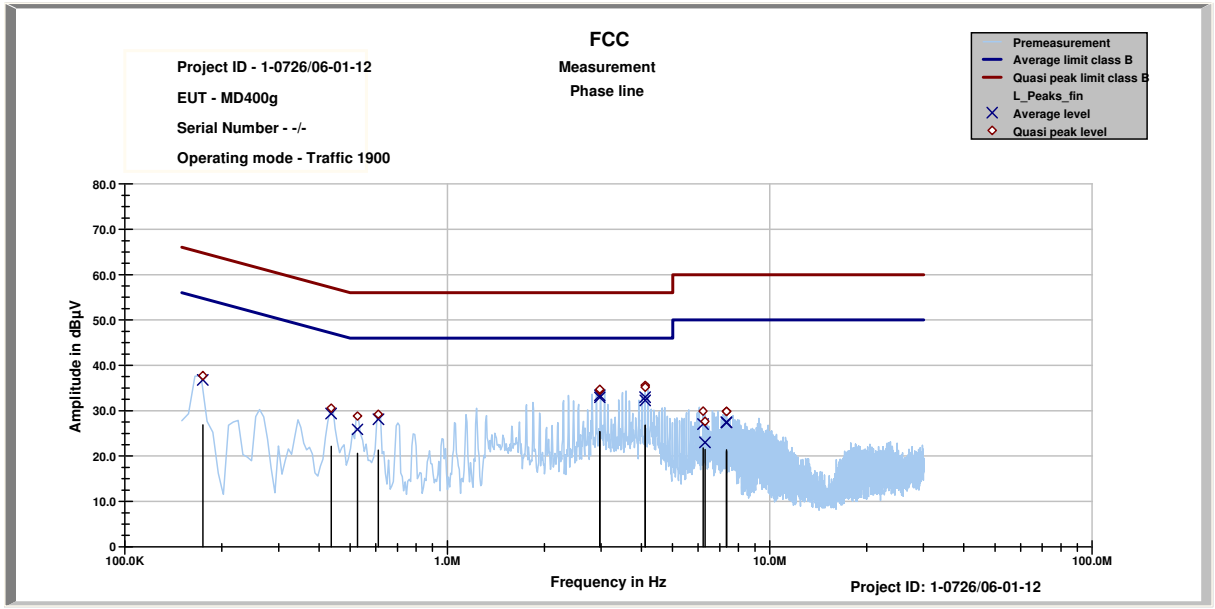
Neutral Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.6106	34.88	21.12	33.17	12.83
0.6969	33.16	22.84	32.53	13.47
0.7853	34.00	22.00	32.88	13.12
0.8734	33.09	22.91	31.91	14.09
1.2217	34.66	21.34	33.57	12.43
1.3089	34.45	21.55	33.15	12.85
1.5704	32.41	23.59	29.76	16.24
1.6562	34.46	21.54	32.02	13.98
4.8860	31.11	24.89	25.89	20.11
4.8864	30.61	25.39	26.02	19.98
5.0614	30.71	29.29	25.83	24.17
14.7390	27.28	32.72	23.41	26.59

Plot 15: MD400g – Traffic 1900

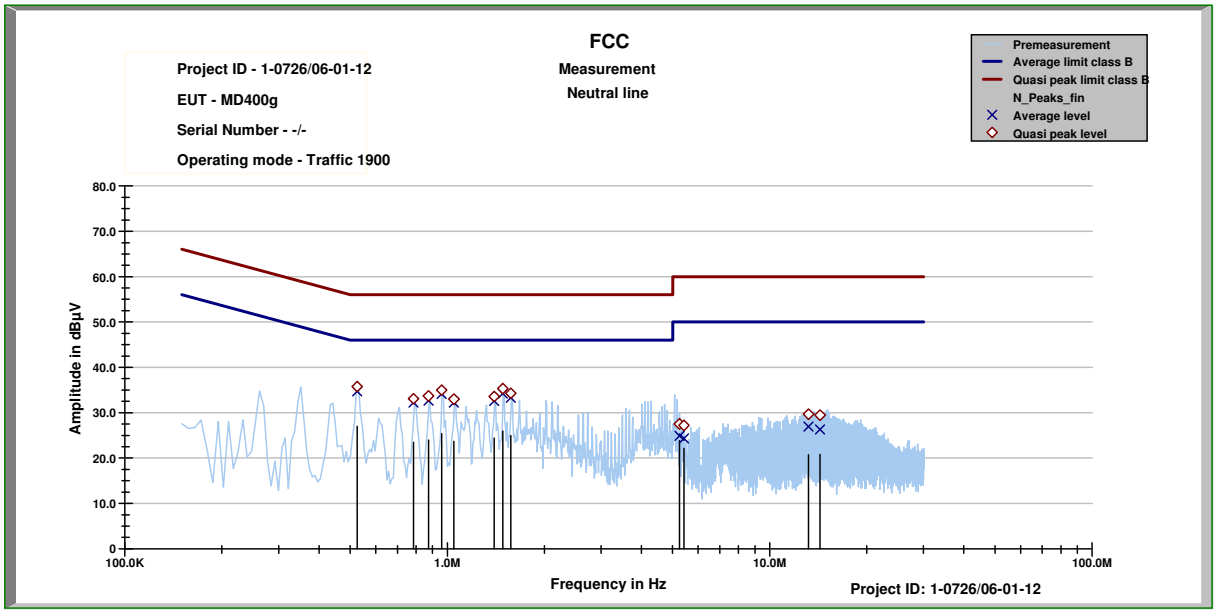
Phase Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.1744	37.73	27.01	36.79	18.51
0.4363	30.58	26.55	29.34	18.48
0.5264	28.81	27.19	25.88	20.12
0.6112	29.22	26.78	28.10	17.90
2.9695	34.48	21.52	32.91	13.09
2.9711	34.71	21.29	33.39	12.61
4.1066	35.58	20.42	32.97	13.03
4.1084	35.17	20.83	32.25	13.75
6.2060	29.89	30.11	27.04	22.96
6.2954	27.64	32.36	23.01	26.99
7.3395	29.86	30.14	27.45	22.55
7.3414	29.84	30.16	27.36	22.64

Plot 16: MD400g – Traffic 1900

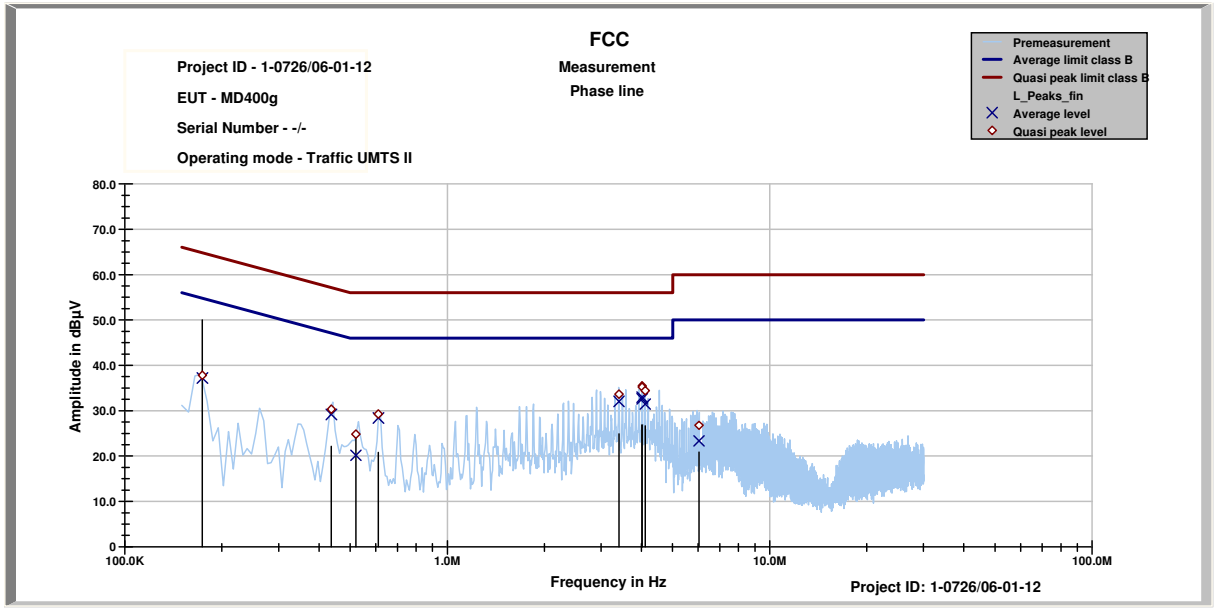
Neutral Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.5254	35.76	20.24	34.70	11.30
0.7859	33.05	22.95	32.21	13.79
0.8736	33.67	22.33	32.65	13.35
0.9606	34.96	21.04	34.13	11.87
1.0479	32.98	23.02	32.22	13.78
1.3980	33.54	22.46	32.54	13.46
1.4855	35.29	20.71	34.23	11.77
1.5730	34.27	21.73	33.25	12.75
5.2449	27.53	32.47	24.86	25.14
5.4161	27.18	32.82	24.29	25.71
13.1940	29.66	30.34	26.94	23.06
14.3270	29.45	30.55	26.27	23.73

Plot 17: MD400g – Traffic UMTS II

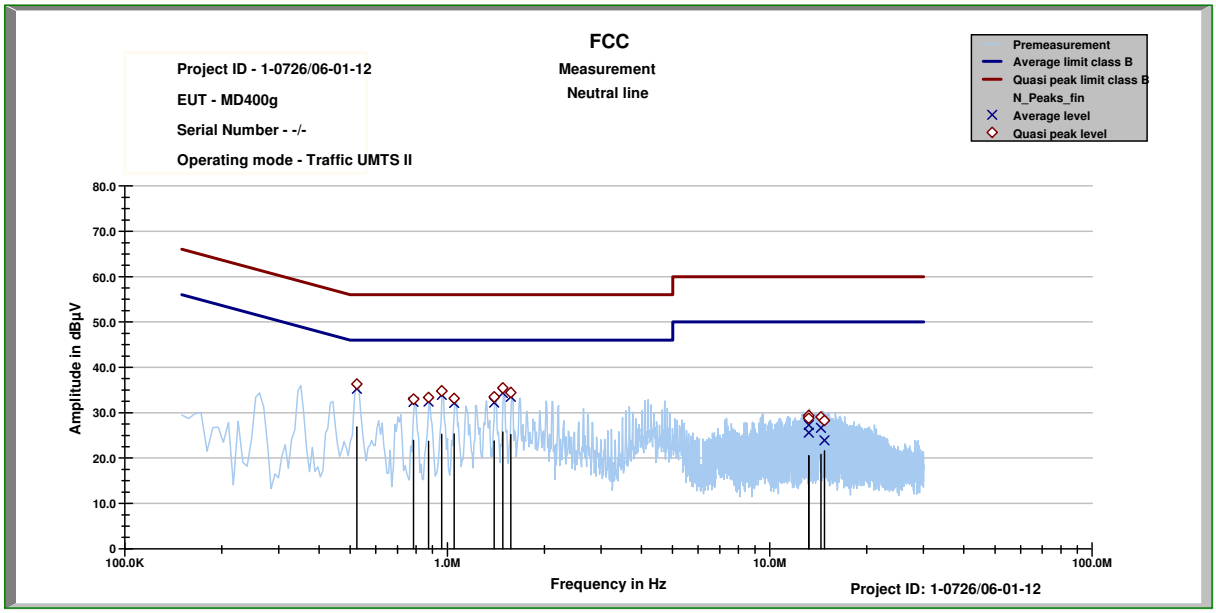
Phase Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.1740	37.80	26.97	37.17	18.14
0.4370	30.32	26.80	29.17	18.63
0.5204	24.80	31.20	20.16	25.84
0.6110	29.25	26.75	28.39	17.61
3.4075	33.66	22.34	32.03	13.97
4.0195	35.50	20.50	32.97	13.03
4.0205	35.21	20.79	32.61	13.39
4.1088	34.39	21.61	31.45	14.55
6.0330	26.77	33.23	23.31	26.69

Plot 18: MD400g – Traffic UMTS II

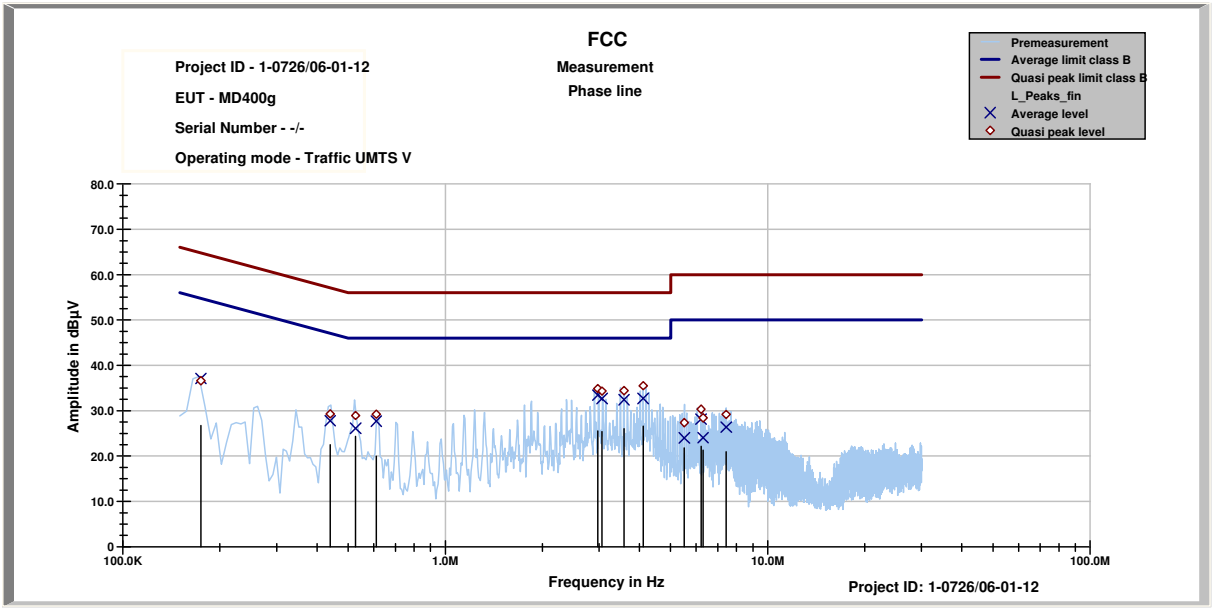
Neutral Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.5243	36.33	19.67	35.23	10.77
0.7864	32.97	23.03	32.35	13.65
0.8741	33.36	22.64	32.41	13.59
0.9614	34.79	21.21	33.90	12.10
1.0496	33.13	22.87	32.11	13.89
1.3987	33.47	22.53	32.23	13.77
1.4854	35.43	20.57	34.32	11.68
1.5725	34.43	21.57	33.49	12.51
13.1980	29.34	30.66	27.24	22.76
13.2010	28.76	31.24	25.59	24.41
14.4150	29.05	30.95	26.65	23.35
14.7700	28.26	31.74	23.88	26.12

Plot 19: MD400g – Traffic UMTS V

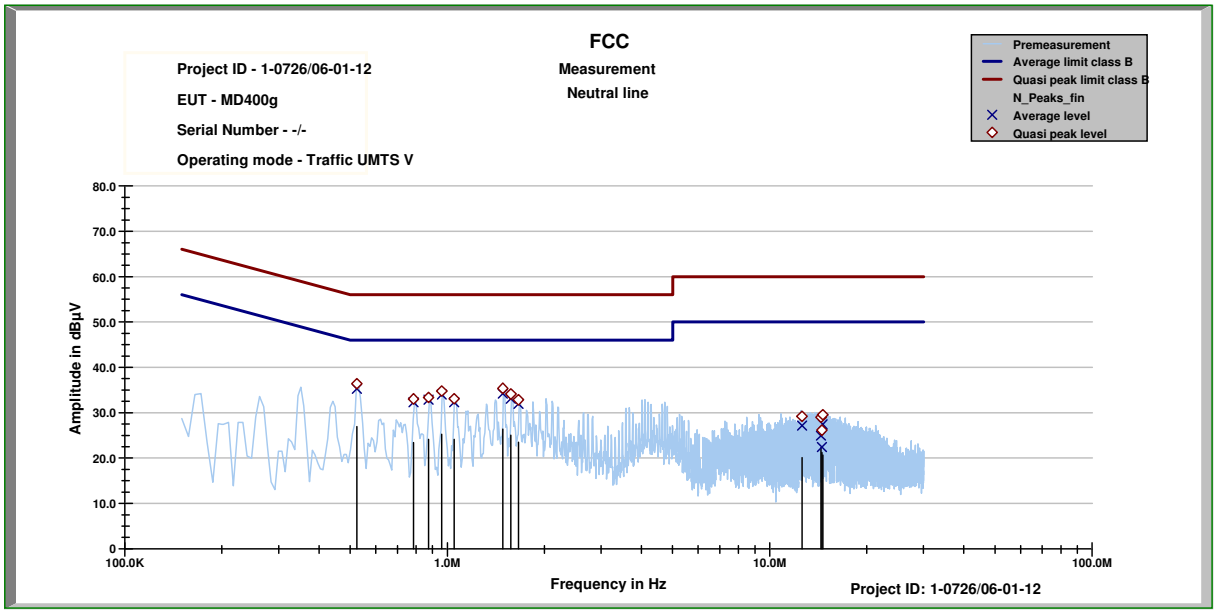
Phase Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.1745	36.60	28.14	37.07	18.23
0.4395	29.27	27.80	27.79	19.94
0.5270	28.93	27.07	26.10	19.90
0.6110	29.22	26.78	27.68	18.32
2.9720	34.86	21.14	33.40	12.60
3.0612	34.31	21.69	32.66	13.34
3.5832	34.38	21.62	32.40	13.60
4.1082	35.50	20.50	32.69	13.31
5.5117	27.32	32.68	23.98	26.02
6.2082	30.31	29.69	28.13	21.87
6.2980	28.43	31.57	24.04	25.96
7.4334	29.17	30.83	26.37	23.63

Plot 20: MD400g – Traffic UMTS V

Neutral Line:



Frequency	Quasi peak level	Margin quasi peak	Average level	Margin average
MHz	dBµV	dBµV	dBµV	dBµV
0.5240	36.38	19.62	35.24	10.76
0.7859	33.01	22.99	32.29	13.71
0.8744	33.33	22.67	32.86	13.14
0.9617	34.77	21.23	33.95	12.05
1.0494	33.07	22.93	32.30	13.70
1.4861	35.36	20.64	34.16	11.84
1.5750	34.11	21.89	33.06	12.94
1.6610	32.83	23.17	31.91	14.09
12.5890	29.17	30.83	27.12	22.88
14.4200	28.99	31.01	24.91	25.09
14.5170	26.12	33.88	22.40	27.60
14.5980	29.54	30.46	27.39	22.61

6.2 Receiver spurious emission radiated (Idle Mode)

Reference

FCC:	CFR Part SUBCLAUSE § 15.109
IC:	RSS 210, Issue 7, Section 7.3 Receiver Spurious Emissions (Radiated)

SPURIOUS EMISSIONS LEVEL (µV/m)								
MHz			MHz			MHz		
Frequency [MHz]	Detector	Level [µV/m]	Frequency [MHz]	Detector	Level [µV/m]	Frequency [MHz]	Detector	Level [µV/m]
No critical peak detected !								
Measurement uncertainty		±3 dB						

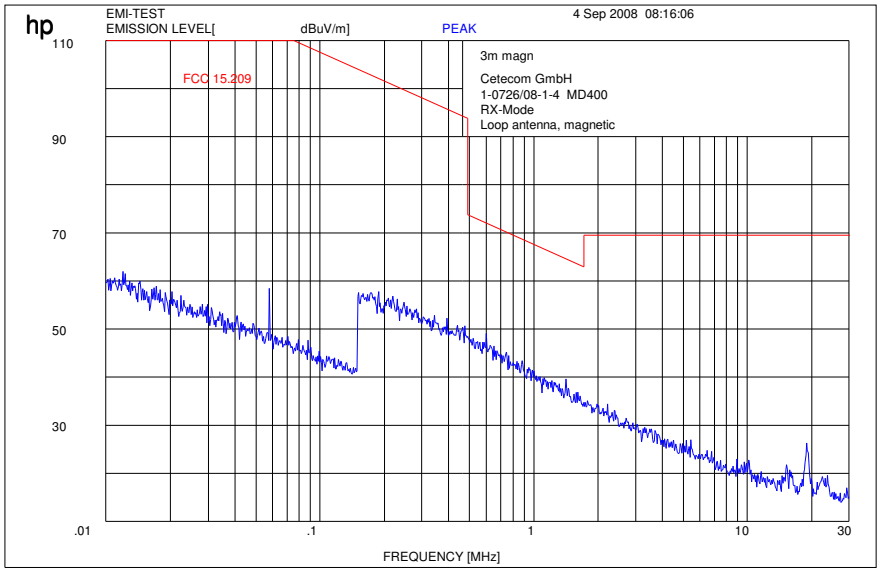
f < 1 GHz : RBW/VBW: 100 kHz f ≥ 1GHz : RBW/VBW: 1 MHz

Limits **SUBCLAUSE § 15.109**

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

The results of this test report are valid for both types (with and without GPS-receiver). The Idle measurements were performed also with GPS active. The plots show the worst case.

Plot 1: MD400 - Idle: 9 kHz to 30 MHz (Valid for all GSM and UMTS Bands)



Plot 2: MD400 - Idle: 30 MHz to 1 GHz (Valid for all GSM and UMTS Bands)

Information

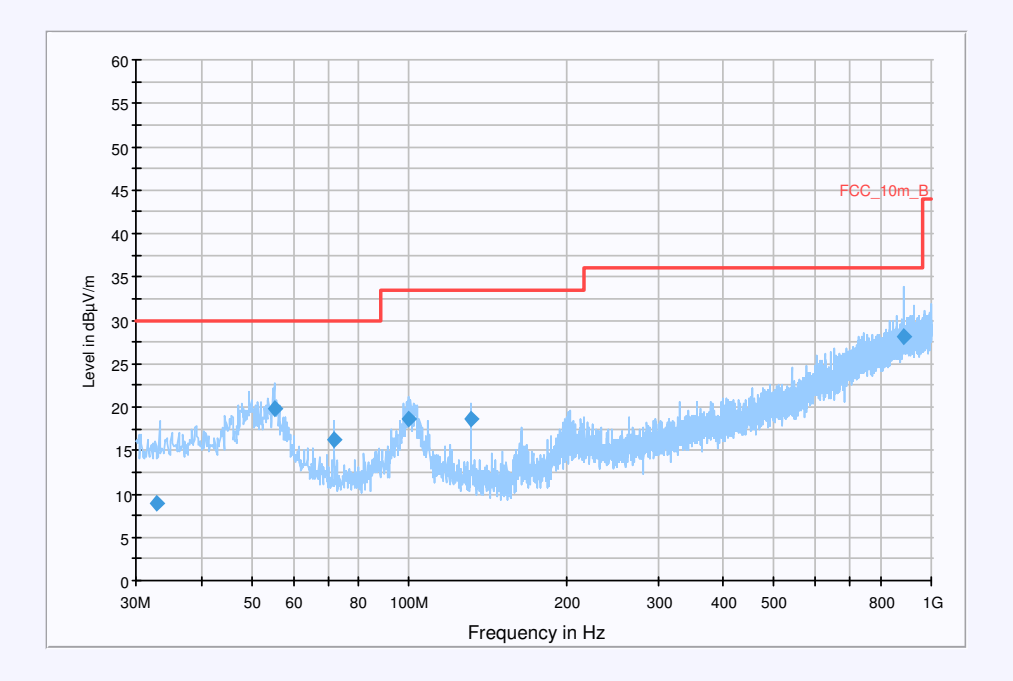
EUT:	FAD-3232022-BV (MD400)
Serial Number:	BDX0002SPP
Test Description:	FCC Part 15 @ 10 m
Operating Conditions:	Idle
Operator Name:	Folz

Scan Setup: FCC_Fin [EMI radiated]

Hardware Setup:	EMI radiated\Electric Field (NOS)
Level Unit:	dBµV/m

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30MHz - 1GHz	QuasiPeak	120kHz	15s	Receiver

FCC_1GHz



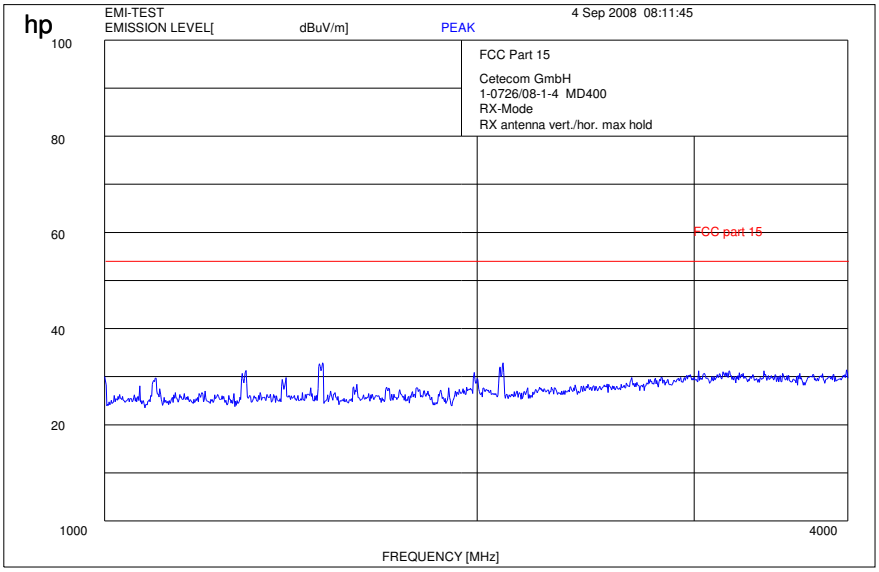
Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
33.003750	8.8	15000.000	120.000	202.0	H	131.0	13.0	21.2	30.0	
55.150250	19.8	15000.000	120.000	152.0	V	187.0	13.1	10.2	30.0	
71.984000	16.2	15000.000	120.000	151.0	V	124.0	9.6	13.8	30.0	
99.926000	18.6	15000.000	120.000	114.0	V	40.0	12.3	14.9	33.5	
131.634250	18.6	15000.000	120.000	127.0	V	5.0	9.6	14.9	33.5	
881.621450	28.2	15000.000	120.000	100.0	H	249.0	25.8	7.8	36.0	

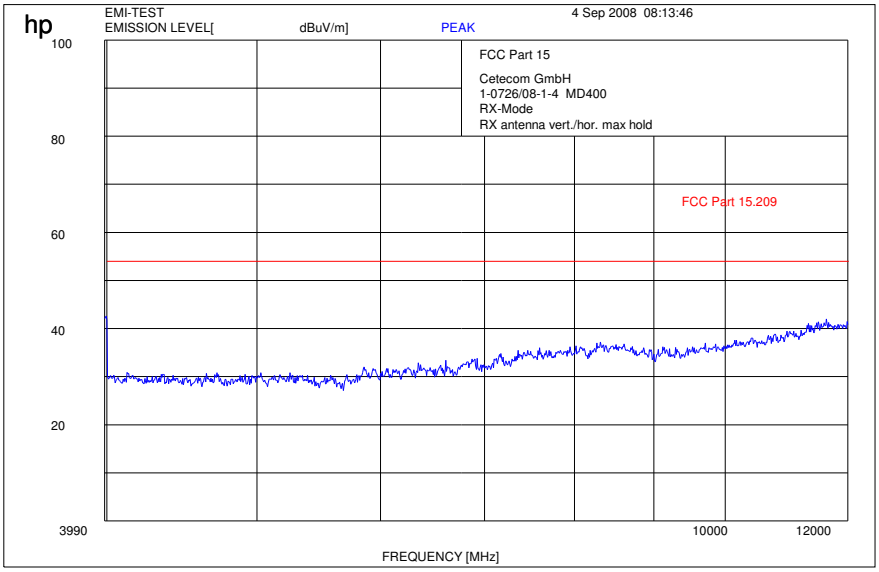
Hardware Setup: EMI radiated\Electric Field (NOS) - [EMI radiated]

Subrange 1	
Frequency Range:	30MHz - 2GHz
Receiver:	Receiver [ESCI 3] @ GPIB0 (ADR 20), SN 100083/003, FW 3.32, CAL 07.01.2009
Signal Path:	without Notch FW 1.0
Antenna:	VULB 9163 SN 9163-295, FW ---, CAL 08.04.2010 Correction Table (vertical): VULP6113 Correction Table (horizontal): VULP6113 Correction Table: Cabel with switch (0408)
Antenna Tower:	Tower [EMCO 2090 Antenna Tower] @ GPIB0 (ADR 8), FW REV 3.12
Turntable:	Turntable [EMCO Turntable] @ GPIB0 (ADR 9), FW REV 3.12

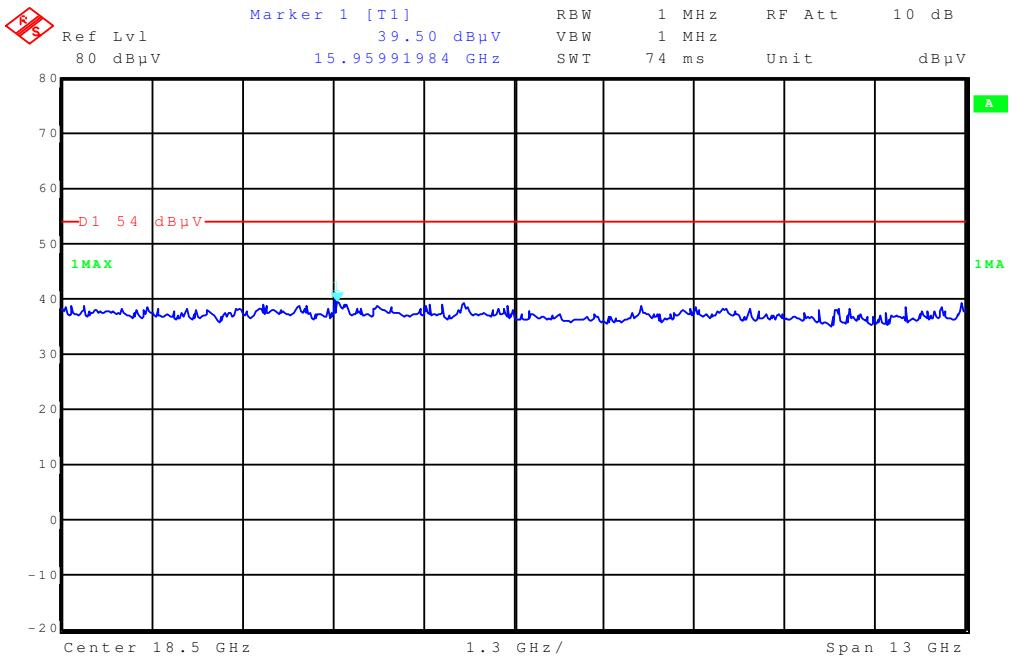
Plot 3: MD400 - Idle: 1 GHz to 4 GHz (Valid for all GSM and UMTS Bands)



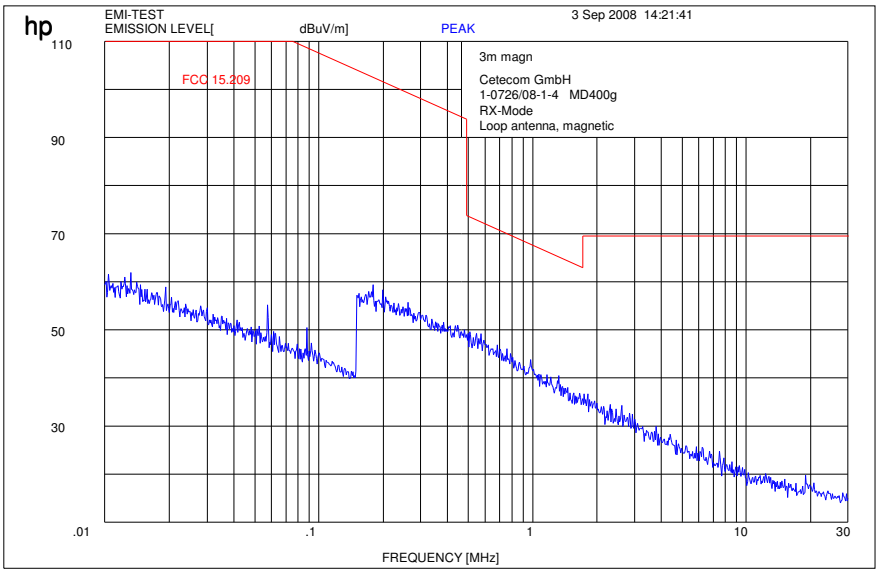
Plot 4: MD400 - Idle: 4 GHz to 12 GHz (Valid for all GSM and UMTS Bands)



Plot 5: MD400 - Idle: 12 GHz to 25 GHz (Valid for all GSM and UMTS Bands)



Plot 6: MD400g - Idle: 9 kHz to 30 MHz (Valid for all GSM and UMTS Bands)



Plot 7: MD400g - Idle: 30 MHz to 1 GHz (Valid for all GSM and UMTS Bands)

Information

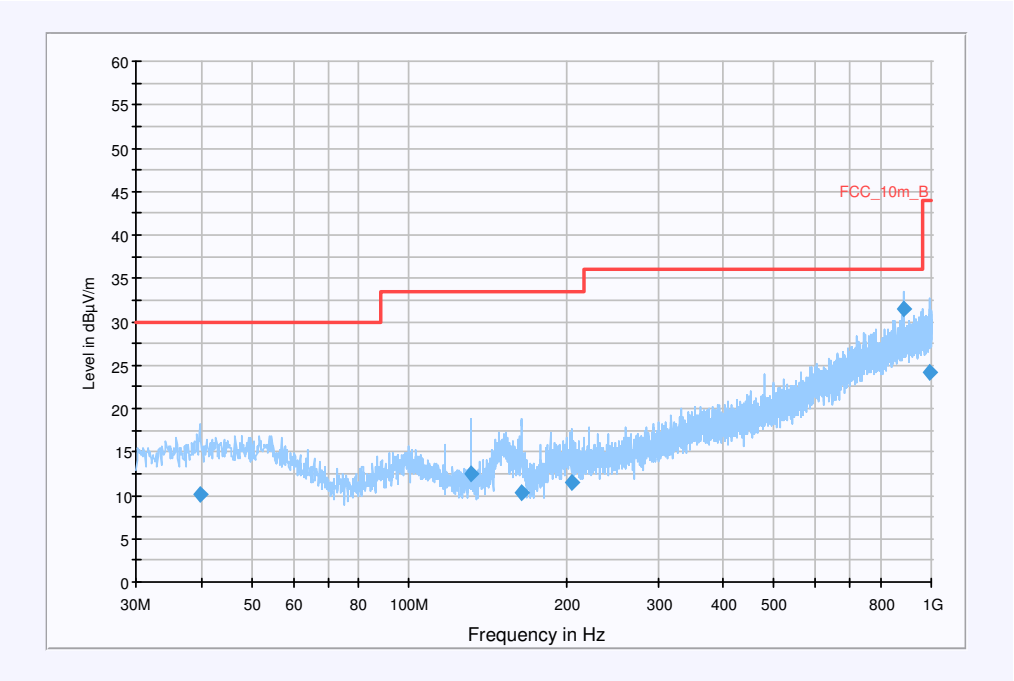
EUT:	FAD-3232023-BV (MD400g)
Serial Number:	BDX0002T61
Test Description:	FCC Part 15 @ 10 m
Operating Conditions:	Idle
Operator Name:	Folz
Comment:	

Scan Setup: FCC_Fin [EMI radiated]

Hardware Setup:	EMI radiated\Electric Field (NOS)
Level Unit:	dBµV/m

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30MHz - 1GHz	QuasiPeak	120kHz	15s	Receiver

FCC_1GHz



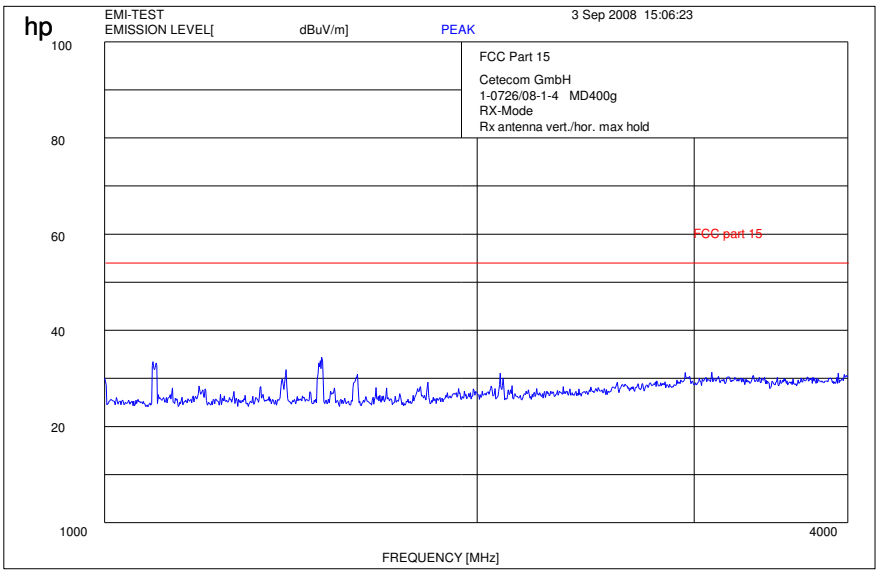
Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
39.899950	10.1	15000.000	120.000	151.0	H	137.0	13.6	19.9	30.0	
131.472850	12.6	15000.000	120.000	146.0	V	1.0	9.6	20.9	33.5	
164.168500	10.4	15000.000	120.000	115.0	V	222.0	9.7	23.1	33.5	
204.375600	11.4	15000.000	120.000	135.0	V	105.0	12.1	22.1	33.5	
881.525050	31.5	15000.000	120.000	115.0	H	245.0	25.8	4.5	36.0	
992.069000	24.1	15000.000	120.000	100.0	V	105.0	26.9	19.9	44.0	

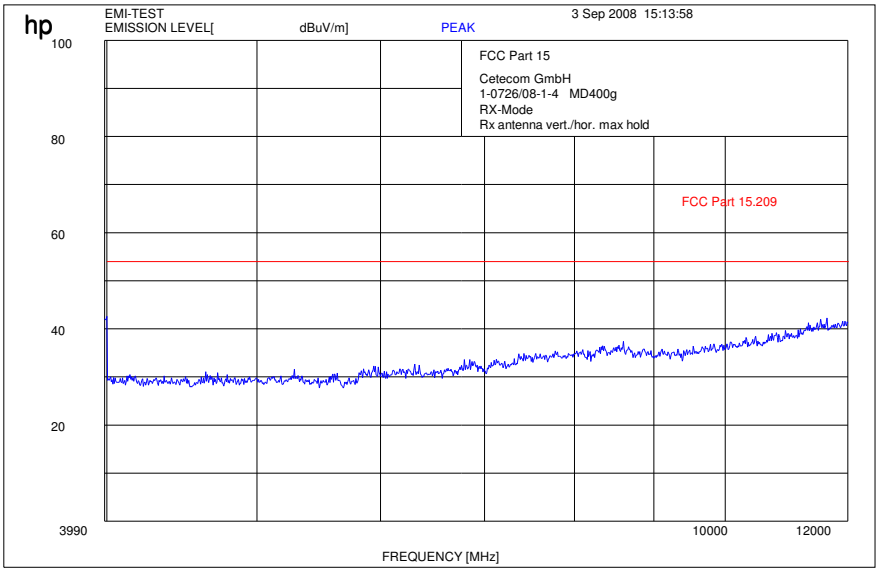
Hardware Setup: EMI radiated\Electric Field (NOS) - [EMI radiated]

Subrange 1	
Frequency Range:	30MHz - 2GHz
Receiver:	Receiver [ESCI 3] @ GPIB0 (ADR 20), SN 100083/003, FW 3.32, CAL 07.01.2009
Signal Path:	without Notch FW 1.0
Antenna:	VULB 9163 SN 9163-295, FW ---, CAL 08.04.2010 Correction Table (vertical): VULP6113 Correction Table (horizontal): VULP6113 Correction Table: Cabel with switch (0408)
Antenna Tower:	Tower [EMCO 2090 Antenna Tower] @ GPIB0 (ADR 8), FW REV 3.12
Turntable:	Turntable [EMCO Turntable] @ GPIB0 (ADR 9), FW REV 3.12

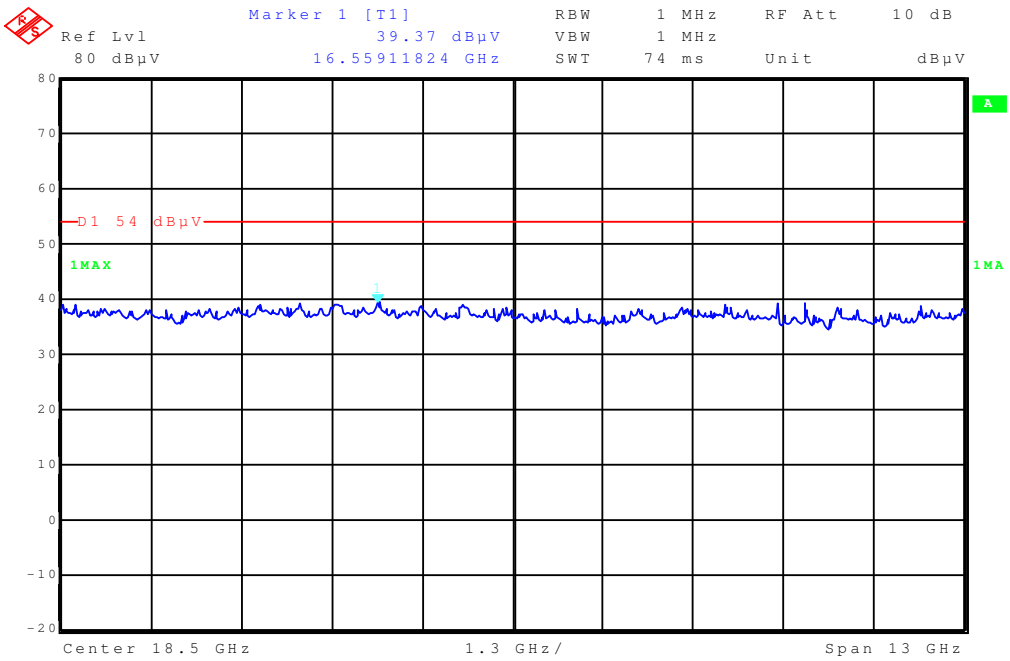
Plot 8: MD400g - Idle: 1 GHz to 4 GHz (Valid for all GSM and UMTS Bands)



Plot 9: MD400g - Idle: 4 GHz to 12 GHz (Valid for all GSM and UMTS Bands)



Plot 10: MD400g - Idle: 12 GHz to 25 GHz (Valid for all GSM and UMTS Bands)



7 Test equipment and ancillaries used for tests

To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

Anechoic chamber C:

No	Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last Calibration	Frequency (months)	Next Calibration
1	Anechoic chamber	MWB	87400/02	300000996	Monthly verification		
2	System-Rack 85900	HP I.V.	*	300000222	n.a.		
3	Measurement System 1						
4	Spektrum Analyzer 8566B	HP	2747A05306	300001000	05.10.2006	24	05.10.2008
5	Spektrum Analyzer Display 85662A	HP	2816A16541	300002297	05.10.2006	24	05.10.2008
6	Quasi-Peak-Adapter 85650A	HP	2811A01131	300000999	05.10.2006	24	05.10.2008
7	RF-Preselector 85685A	HP	2837A00779	300000218	08.11.2006	24	08.11.2008
8	PC Vectra VL	HP		300001688	n.a.		
9	Software EMI	HP		300000983	n.a.		
10	Measurement System 2						
11	FSP 30	R&S	100623	ICT 300003464	05.10.2007	24	15.10.2009
12	PC	F+W			n.a.		
13	TILE	TILE			n.a.		
14	Biconical antenna	EMCO	S/N: 860 942/003		Monthly verification (System cal.)		
15	Log. Period. Antenna 3146	EMCO	2130	300001603	Monthly verification (System cal.)		
16	Double Ridged Antenna HP 3115P	EMCO	3088	300001032	Monthly verification (System cal.)		
17	Active Loop Antenna 6502	EMCO	2210	300001015	Monthly verification (System cal.)		
18	Power Supply 6032A	HP	2818A03450	300001040	12.05.2007	36	12.05.2010
19	Busisolator	Kontron		300001056	n.a.		
20	Leitungsteiler 11850C	HP		300000997	Monthly verification (System cal.)		
21	Power attenuator 8325	Byrd	1530	300001595	Monthly verification (System cal.)		
22	Band reject filter WRCG1855/1910	Wainwright	7	300003350	Monthly verification (System cal.)		
23	Band reject filter WRCG2400/2483	Wainwright	11	300003351	Monthly verification (System cal.)		

Signalling Units:

No	Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last Calibration	Frequency (months)	Next Calibration
1	CBT	R&S	100313	300003516	24.10.2006	24	24.10.2008
2	CBT	R&S	100185	300003416	21.02.2006	24	21.02.2008
3	CMU-200	R&S	103992	300003231	27.04.2007	12	27.04.2008
4	CMU-200	R&S	106240	300003321	02.05.2006	24	02.05.2008
5	CMU-200	R&S	832221/0055	300002862	20.03.2008	24	20.03.2010

Anechoic chamber F:

No	Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last Calibration	Frequency (months)	Next Calibration
1	Control Computer	F+W	FW0502032	300003303	-/-	-/-	-/-
2	Trilog Antenna	9163-295	-/-	-/-	30.04.2008	24	30.04.2010
3	Amplifier - 0518C-138	Veritech Micro-wave Inc.	-/-	-/-	-/-	-/-	-/-
4	Switch - 3488A	HP		300000368	-/-	-/-	-/-
5	EMI Test receiver - ESCI	R&S	100083	300003312	31.01.2009	24	31.01.2009
6	Turntable Controller - 1061 3M	EMCO	1218	300000661	-/-	-/-	-/-
7	Tower Controller 1051 Controller	EMCO	1262	300000625	-/-	-/-	-/-
8	Tower - 1051	EMCO	1262	300000625	-/-	-/-	-/-
10	Ultra Notch-Filter Rejected band Ch. 62	WRCD	9	-/-	-/-	-/-	-/-