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TEST REPORT

Test report no.: 1-4679/12-01-08-A



Deutsche
Akkreditierungsstelle
D-PL-12076-01-00

Testing laboratory

CETECOM ICT Services GmbH
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Accredited Testing Laboratory:

The testing laboratory (area of testing) is accredited according to DIN EN ISO/IEC 17025 (2005) by the Deutsche Akkreditierungsstelle GmbH (DAkkS). The accreditation is valid for the scope of testing procedures as stated in the accreditation certificate with the registration number: D-PL-12076-01-00

Applicant

Marquardt GmbH
Schloss-Str. 16
78604 Rietheim-Weilheim / GERMANY
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Fax: +49 (0) 74 24 - 99 2244
Contact: Thomas Schwarz
e-mail: thomas.schwarz@marquardt.de
Phone: +49 (0) 74 24 - 99 1643

Manufacturer

Marquardt GmbH
Schloss-Str. 16
78604 Rietheim-Weilheim / GERMANY

Test standard/s

47 CFR Part 15 Title 47 of the Code of Federal Regulations; Chapter I; Part 15 - Radio frequency devices
RSS - 210 Issue 8 Spectrum Management and Telecommunications Radio Standards Specification - Licence-exempt Radio Apparatus (All Frequency Bands): Category I Equipment

For further applied test standards please refer to section 3 of this test report.

Test Item

Kind of test item: Car Key
Model name: MS1
FCC ID: IYZ-MS1
IC: 2701A-MS1
Frequency: 314.0 MHz – 314.9 MHz
Technology tested: proprietary
Antenna: Integrated antenna
Power supply: 3 V DC by battery
Temperature range: -20°C to +65°C



This test report is electronically signed and valid without handwriting signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

Test report authorised:

Stefan BöS
Radio Communications & EMC

Test performed:

Tobias Wittenmeier
Radio Communications & EMC

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2 General information

2.1 Notes and disclaimer

The test results of this test report relate exclusively to the test item specified in this test report. CETECOM ICT Services GmbH does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item.

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This test report replaces the test report with the number 1-4679/12-01-08 and dated 2014-12-19

2.2 Application details

Date of receipt of order:	2014-05-15
Date of receipt of test item:	2014-11-26
Start of test:	2014-11-27
End of test:	2014-12-17
Person(s) present during the test:	-/-

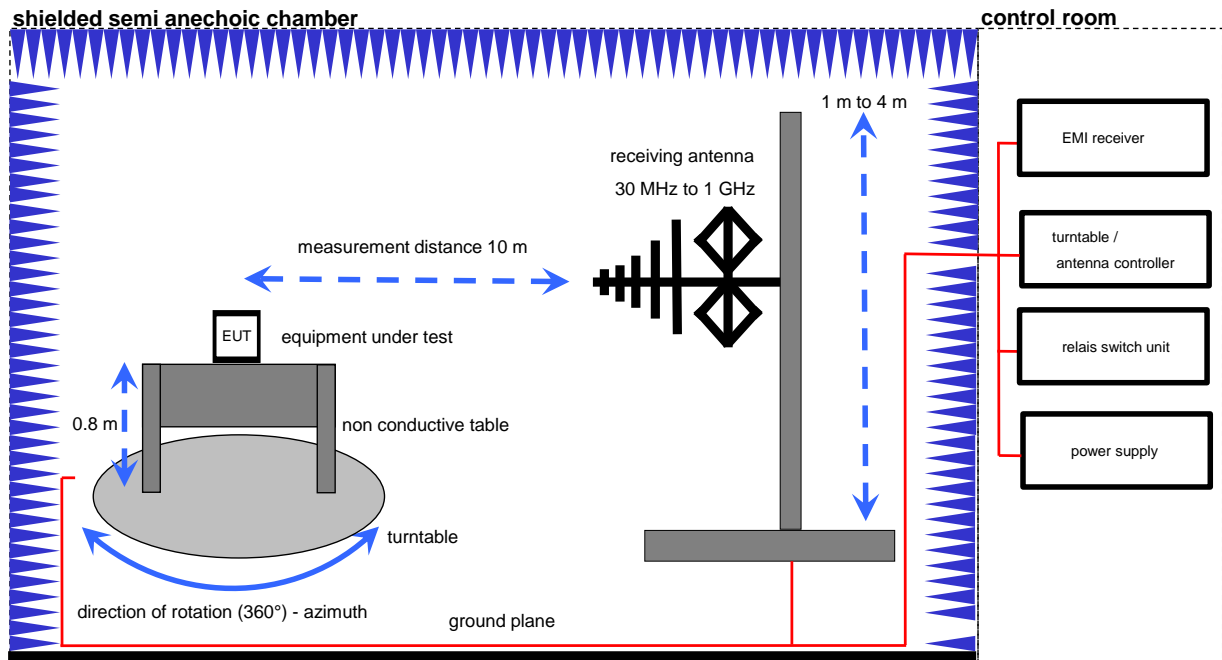
3 Test standard/s

Test standard	Date	Test standard description
47 CFR Part 15		Title 47 of the Code of Federal Regulations; Chapter I; Part 15 - Radio frequency devices
RSS - 210 Issue 8	01.12.2010	Spectrum Management and Telecommunications Radio Standards Specification - Licence-exempt Radio Apparatus (All Frequency Bands): Category I Equipment

7 Description of the test setup

7.1 Radiated measurements chamber F

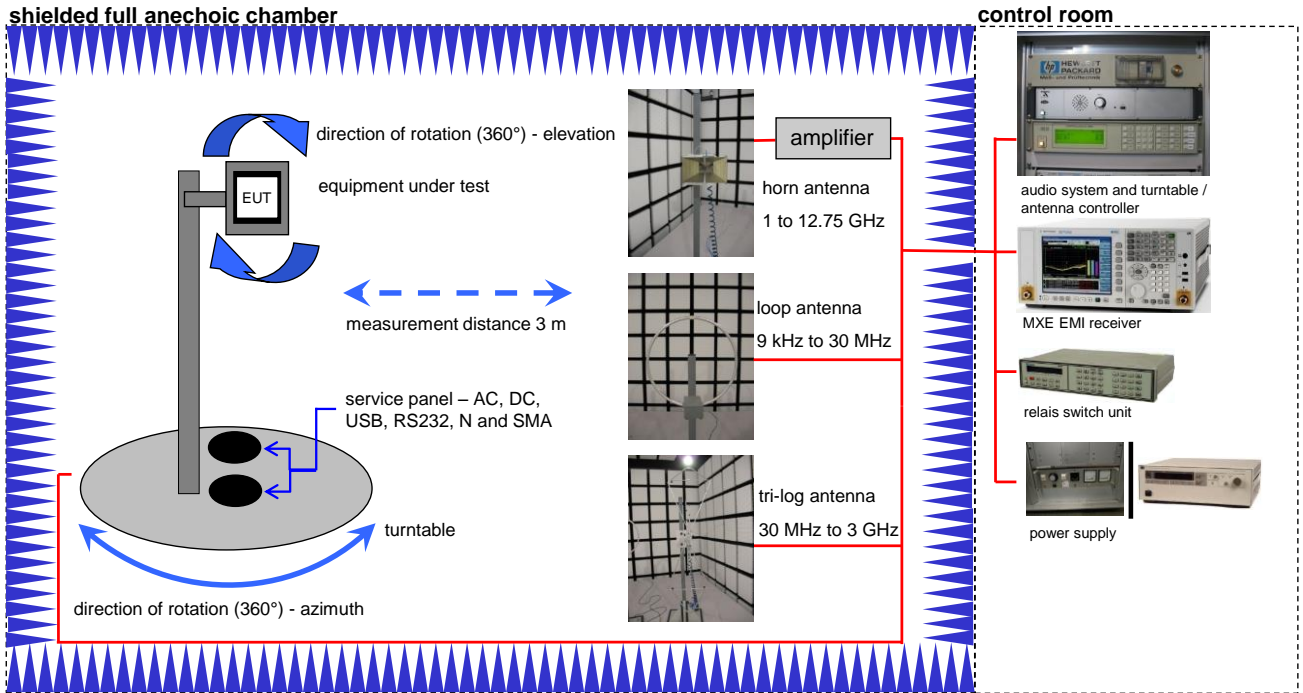
The radiated measurements are performed in vertical and horizontal plane in the frequency range from 9 kHz to 1 GHz in semi-anechoic chambers. The EUT is positioned on a non-conductive support with a height of 0.80 m above a conductive ground plane that covers the whole chamber. The receiving antennas are confirmed with specifications ANSI C63. 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 setups 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.



Equipment table:

Equipment	Type	Manufacturer	Serial No.	INV. No Cetecom
Software	EMC32 V. 9.12.05	R&S	-/-	-/-
Switch-Unit	3488A	HP Meßtechnik	2719A14505	30000368
DC power supply, 60Vdc, 50A, 1200 W	6032A	HP Meßtechnik	2920A04466	30000580
EMI Test Receiver	ESCI 3	R&S	100083	300003312
Amplifier	JS42-00502650-28-5A	MITEQ	1084532	300003379
Antenna Tower	Model 2175	ETS-LINDGREN	64762	300003745
Positioning Controller	Model 2090	ETS-LINDGREN	64672	300003746
Turntable Interface-Box	Model 105637	ETS-LINDGREN	44583	300003747
TRILOG Broadband Test- Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbeck	295	300003787

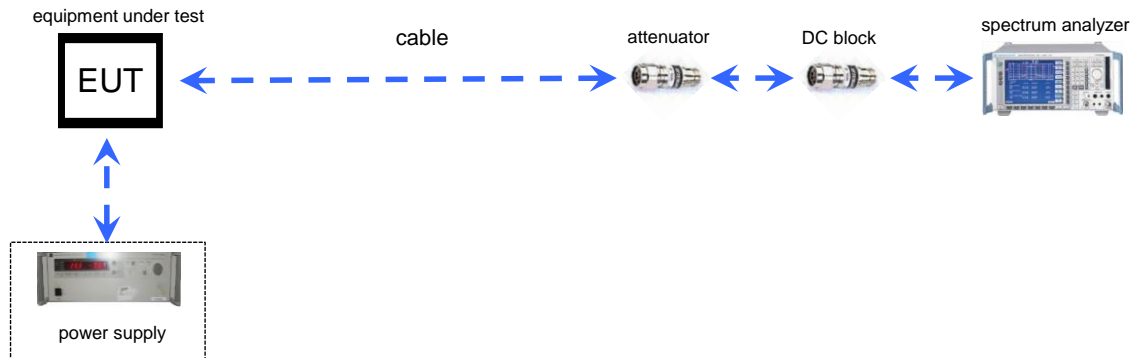
7.2 Radiated measurements chamber C



Equipment table:

Equipment	Type	Manufacturer	Serial No.	INV. No Cetecom
MXE EMI Receiver 20 Hz bis 26,5 GHz	N9038A	Agilent Technologies	MY51210197	300004405
TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbeck	371	300003854
Band Reject filter	WRCG2400/2483-2375/2505-50/10SS	Wainwright	11	300003351
Highpass Filter	WHKX7.0/18G-8SS	Wainwright	18	300003789
Double-Ridged Waveguide Horn Antenna 1-18.0GHz	3115	EMCO	8812-3088	300001032
Active Loop Antenna	6502	EMCO	8905-2342	300000256
Anechoic chamber	FAC 3/5m	MWB / TDK	87400/02	300000996
Switch / Control Unit	3488A	HP Meßtechnik	*	300000199
Switch / Control Unit	3488A	HP Meßtechnik	2719A15013	300001156
Isolating Transformer	MPL IEC625 Bus Regeltrenntravo	Erfi	91350	300001155
Three-Way Power Splitter, 50 Ohm	11850C	HP Meßtechnik		300000997
Amplifier	js42-00502650-28-5a	Parzich GMBH	928979	300003143

7.3 Conducted measurements



Equipment table:

Equipment	Type	Manufacturer	Serial No.	INV. No Cetecom
Signal Analyzer 40 GHz	FSV40	R&S	101042	300004517

8 Summary of measurement results

- No deviations from the technical specifications were ascertained
 There were deviations from the technical specifications ascertained

TC Identifier	Description	Verdict	Date	Remark
RF-Testing	CFR Part 15 RSS 210, Issue 8, Annex 8	Passed	2015-02-13	-/-

Test Specification Clause	Test Case	Temperature Conditions	Power Source Voltages	Pass	Fail	NA	NP	Remark
§ 15.35 (c)/ RSS-GEN	Timing of the transmitter (Duty cycle correction factor)	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-/-
§ 15.231 (a) (1)/ RSS-210 Issue 8	Switch off time	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-/-
§ 15.231 (3) (c)/ RSS-210 Issue 8	Emission Bandwidth	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-/-
§ 15.231 (b)/ RSS-210 Issue 8	Fieldstrength of Fundamental	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-/-
§ 15.209/ RSS-210 Issue 8	Fieldstrength of harmonics and spurious	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-/-
§ 15.209/ RSS-GEN	Receiver spurious emissions (radiated)	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-/-

Note: NA = Not Applicable; NP = Not Performed

9 RF measurements

9.1 Additional comments

Reference documents: None

Special test descriptions: None

Configuration descriptions: None

10 Measurement results

10.1 Timing of the transmitter

Measurement:

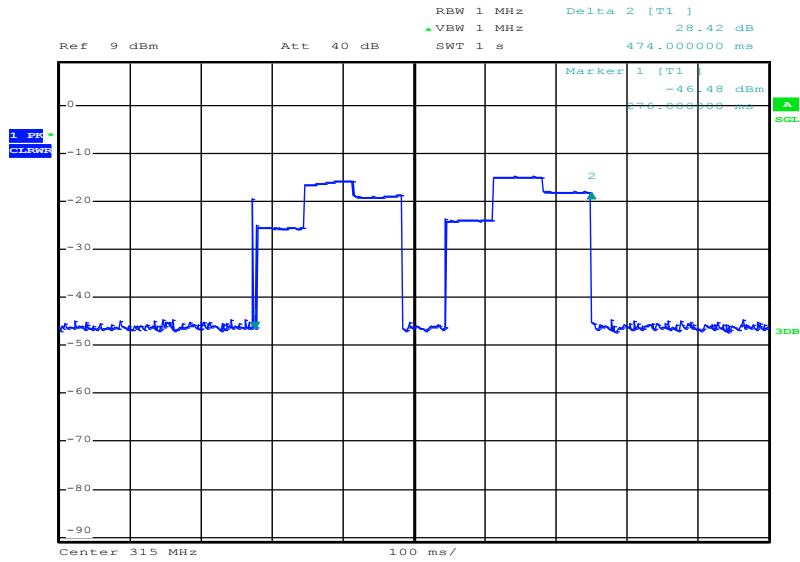
Measurement parameter	
Detector:	Peak
Sweep time:	1 s
Resolution bandwidth:	1 MHz
Video bandwidth:	1 MHz
Span:	Zero
Trace-Mode:	Single Sweep

Limits:

FCC	IC
Timing of the transmitter	
<p>(c) Unless otherwise specified, e.g. Section 15.255(b), when the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value. The exact method of calculating the average field strength shall be submitted with any application for certification or shall be retained in the measurement data file for equipment subject to notification or verification.</p>	

Result:

Plot 1: Transmit burst



Date: 16.DEC.2014 09:38:27

Result: Passed

10.2 Switch off time

Measurement:

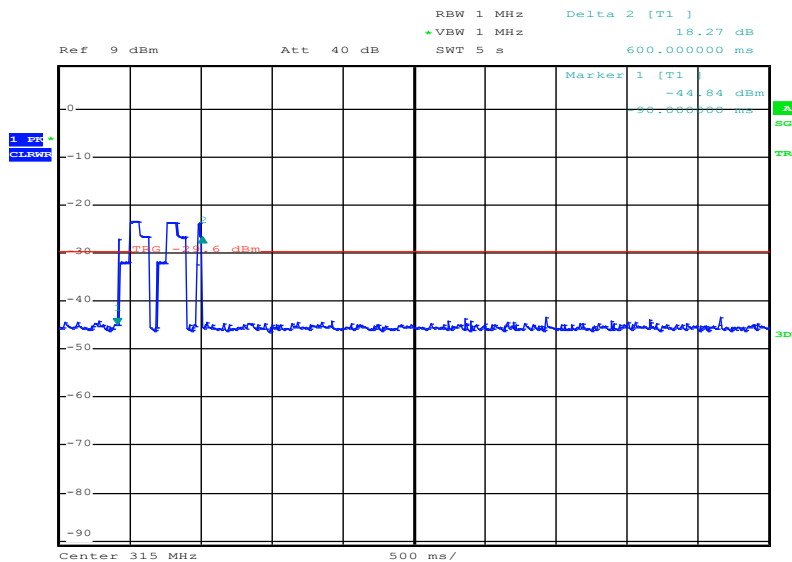
Measurement parameter	
Detector:	Peak
Sweep time:	5s
Resolution bandwidth:	1 MHz
Video bandwidth:	1 MHz
Span:	Zero span
Trace-Mode:	Max hold

Limits:

FCC	IC
Switch off time	
A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.	

Results:

Plot 1: Transmit burst



Date: 16.DEC.2014 09:43:18

The EUT automatically ceases transmission within not more than 600 ms after releasing the switch.

Result: Passed

10.3 Emission bandwidth

Measurement:

Measurement of the 20 dB bandwidth of the modulated signal

Measurement parameter	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	3 kHz
Video bandwidth:	10 kHz
Span:	300 kHz
Trace-Mode:	Max hold

Limits:

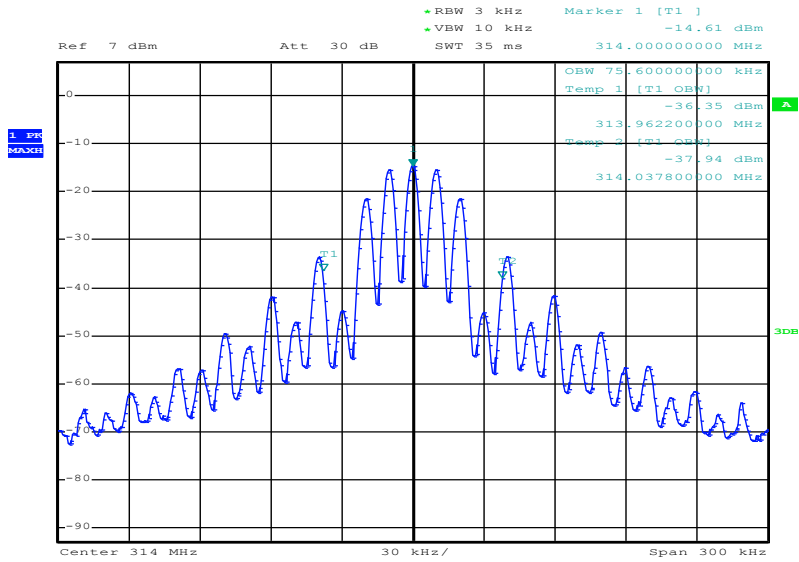
FCC	IC
Emission bandwidth	
The OBW shall not be wider than 0.25% of the centre frequency, here maximum 787.5 kHz.	

Result:

channel	20 dB bandwidth [kHz]		
	low	mid	high
	75.6	75.0	75.6
Measurement uncertainty	± 10 kHz		

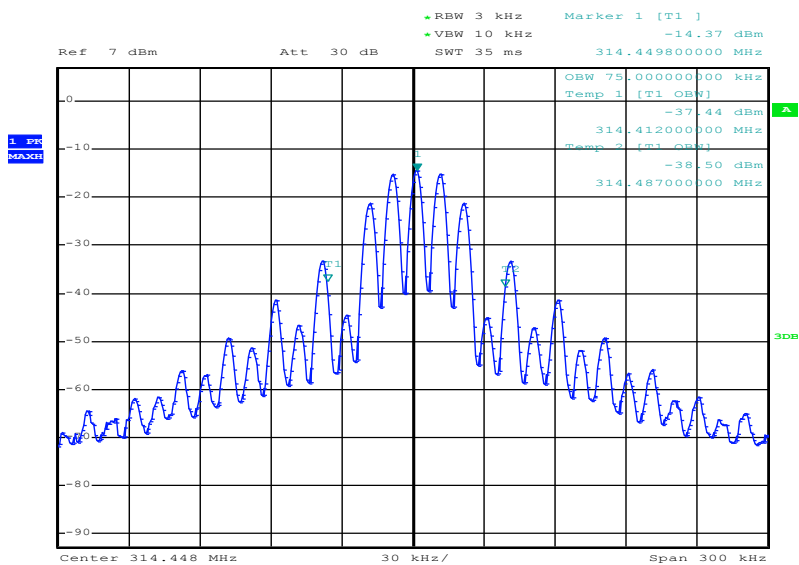
Result: Passed.

Plot 1: channel low



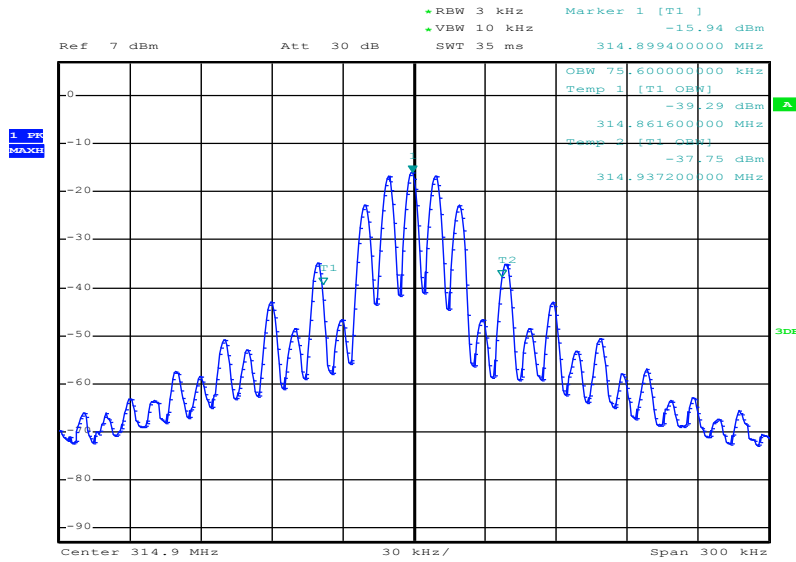
Date: 16.DEC.2014 09:49:32

Plot 2: channel mid



Date: 16.DEC.2014 09:52:53

Plot 3: channel high:



Date: 16.DEC.2014 09:51:16

10.4 Field strength of the fundamental

Measurement:

Measurement parameter	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	1 MHz
Video bandwidth:	1 MHz
Span:	5 MHz
Trace-Mode:	Max hold

Limits:

FCC	IC	
Field strength of the fundamental. In addition to the provisions of Section 15.205, the field strength of emissions from intentional radiators operated under this Section shall not exceed the following:		
Fundamental Frequency (MHz)	Field strength of Fundamental (µV/m)	Measurement distance (m)
40.66 – 40.70	2,250	3
70-130	1,250	3
130-174	1,250 to 3,750	3
174-260	3,750	3
260-470	3,750 to 12,500	3
Above 470	12,500	3

Where F is the frequency in MHz, the formulas for calculating the maximum permitted fundamental field strengths are as follows:

- for the band 130-174 MHz, µV/m at 3 meters = 56.81818(F) - 6136.3636;
- for the band 260-470 MHz, µV/m at 3 meters = 41.6667(F) - 7083.3333.

Result:

TEST CONDITIONS		MAXIMUM Field Strength (dBµV/m at 3 m distance)		
Frequency		314.00 MHz	314.45 MHz	314.90 MHz
Mode		Peak / RMS	Peak / RMS	Peak / RMS
T _{nom}	V _{nom}	77.67 / 70.08	77.27 / 71.05	74.12 / 69.82
Measurement uncertainty		±3dB		

Result: passed

10.5 Field strength of the harmonics and spurious

Measurement:

Measurement parameter	
Detector:	Peak / Average / Quasi Peak
Sweep time:	Auto
Resolution bandwidth:	120 kHz / 1 MHz
Video bandwidth:	> RBW
Span:	See plots!
Trace-Mode:	Max hold

Limits:

FCC		IC
Field strength of the fundamental.		
In addition to the provisions of Section 15.205, the field strength of emissions from intentional radiators operated under this Section shall not exceed the following:		
Fundamental Frequency (MHz)	Field strength of spurious ($\mu\text{V/m}$)	Measurement distance (m)
40.66 – 40.70	225	3
70-130	125	3
130-174	125 to 375	3
174-260	375	3
260-470	375 to 1,250	3
Above 470	1,250	3

The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level. Spurious emissions shall be attenuated to the average (or, alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in Section 15.209, whichever limit permits a higher field strength.

FCC		IC
SUBCLAUSE § 15.209		
Field strength of the harmonics and spurious.		
Frequency (MHz)	Field strength ($\mu\text{V/m}$)	Measurement distance (m)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30	30	30
30 – 88	100	3
88 – 216	150	3
216 – 960	200	3
above 960	500	3

Results:

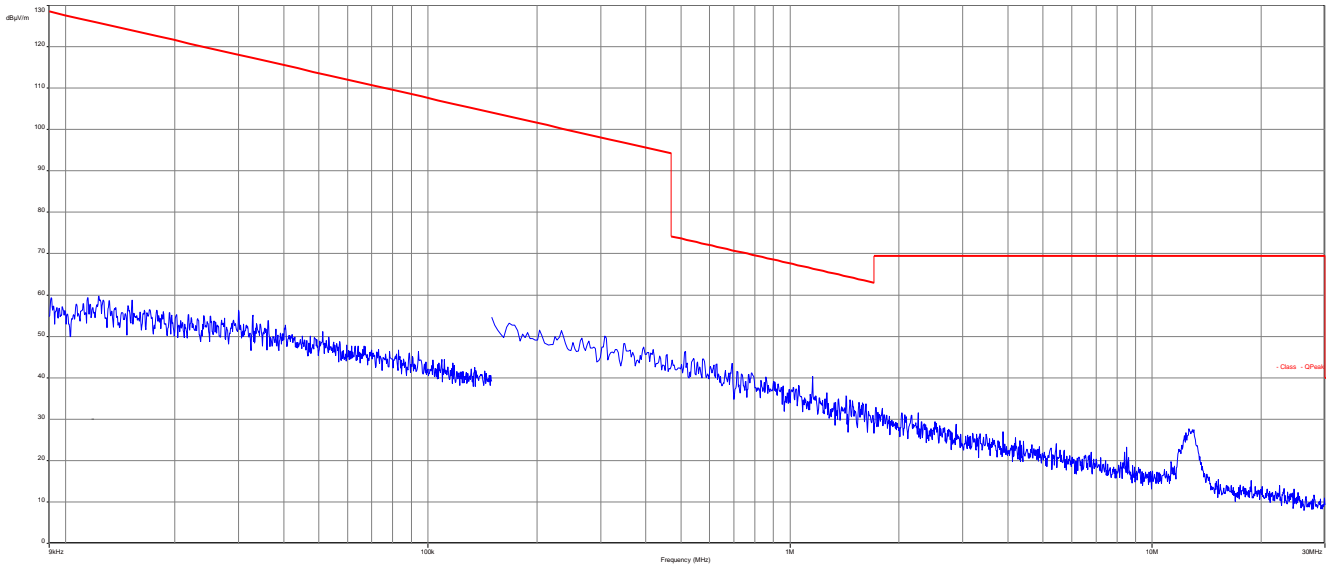
EMISSION LIMITATIONS				
f [MHz]	Detector	Limit max. allowed [dBµV/m]	Amplitude of emission [dBµV/m]	Results
No peaks close to the limit detected.				

Result: passed

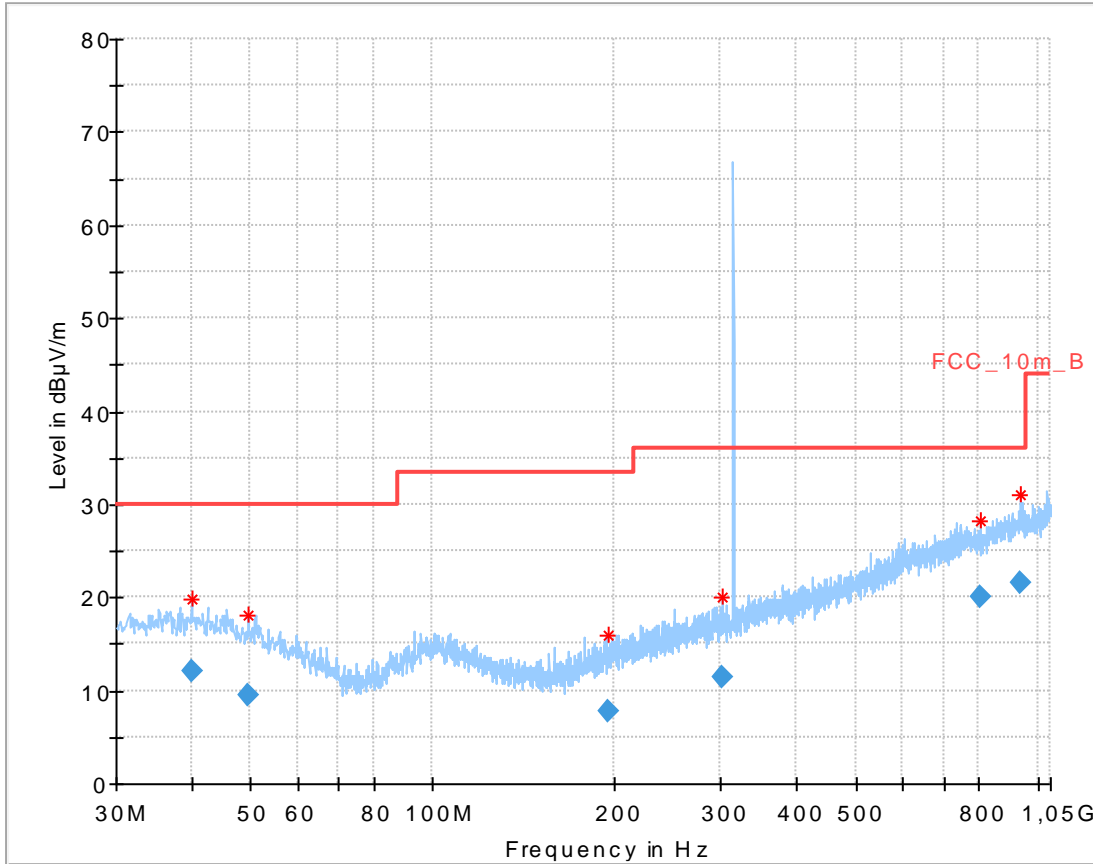
Note: The limit was recalculated with 20 dB / decade (Part 15.31) for all radiated spurious emissions 30 MHz to 1 GHz from 3 meter limit to a 10 meter distance. (40dB/decade for emissions < 30MHz)

Plots low channel

Plot 1: 9 kHz – 30 MHz; magnetic



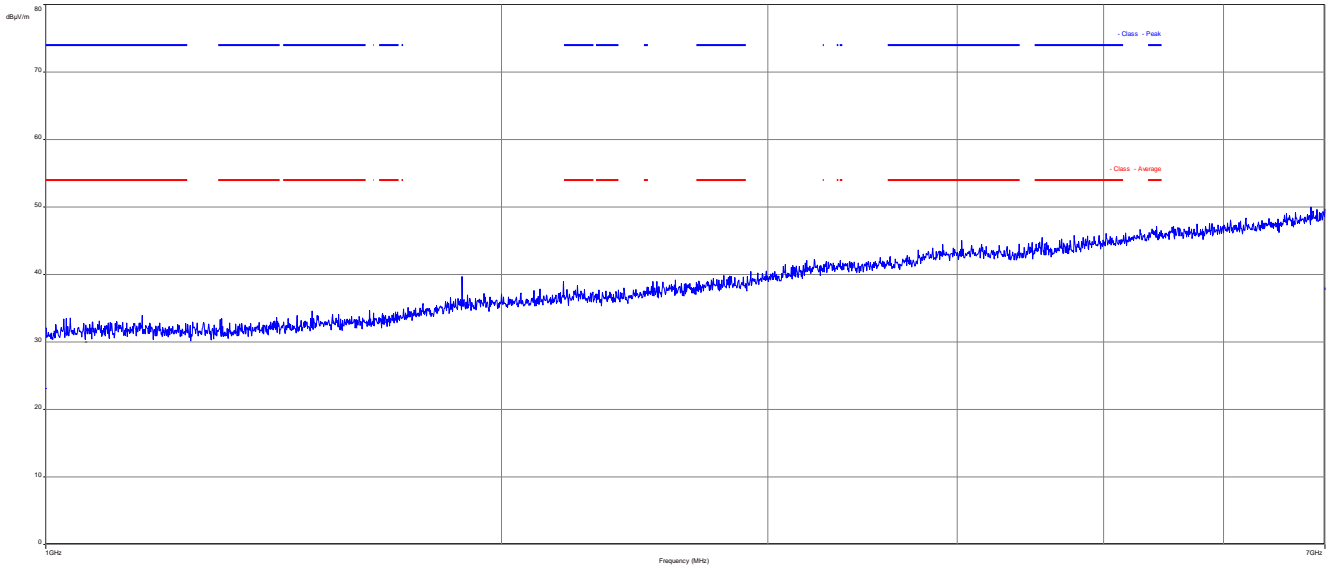
Plot 2: 30 MHz – 1000 MHz



Final Result

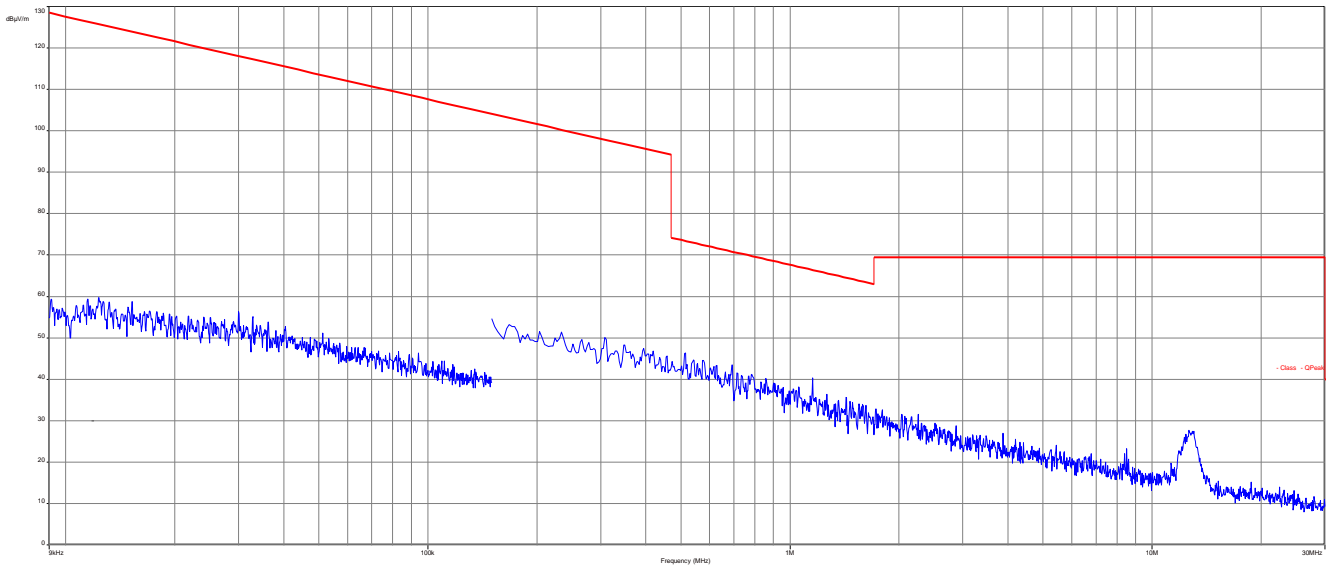
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
39.974400	12.13	30.00	17.87	1000.0	120.000	170.0	V	25	14.0
49.636800	9.43	30.00	20.57	1000.0	120.000	98.0	H	90	12.7
194.559900	7.69	33.50	25.81	1000.0	120.000	170.0	V	205	11.3
301.860150	11.44	36.00	24.56	1000.0	120.000	170.0	H	269	14.5
803.410800	20.13	36.00	15.87	1000.0	120.000	170.0	V	270	22.8
934.954650	21.60	36.00	14.40	1000.0	120.000	170.0	H	245	24.2

Plot 2: 1 GHz – 7 GHz

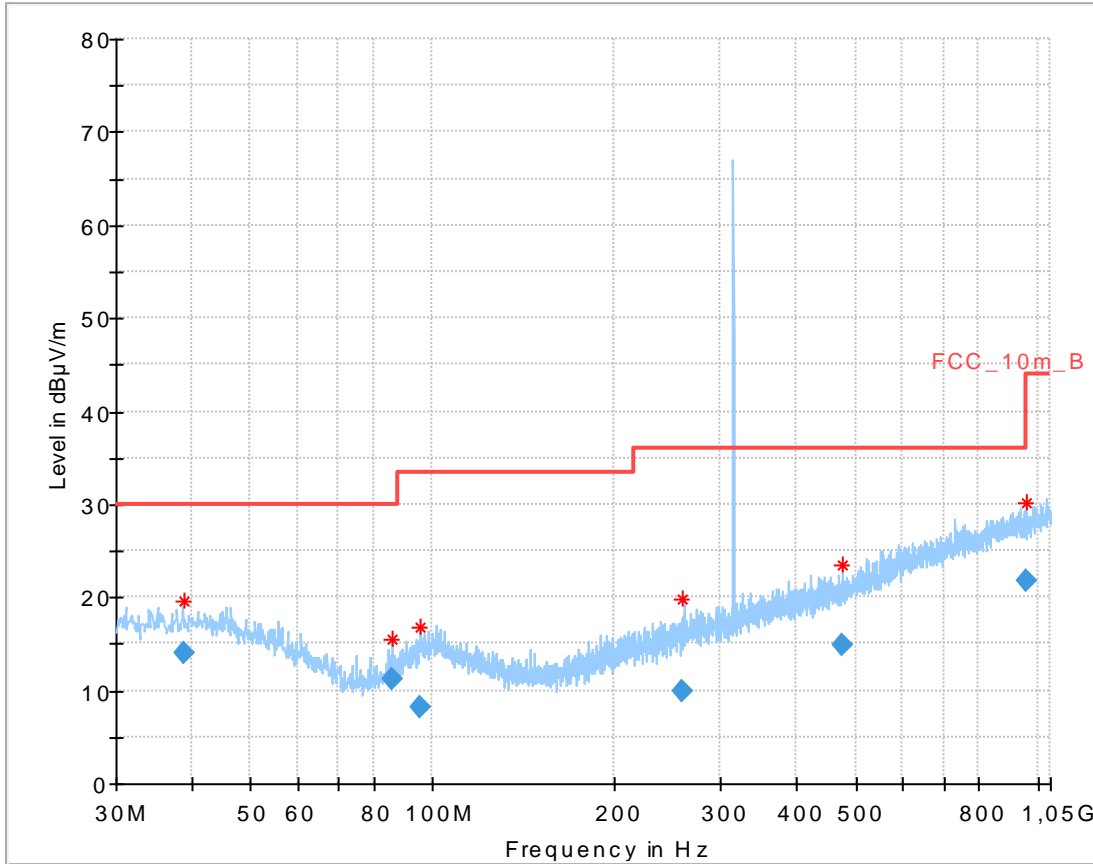


Plots middle channel

Plot 1: 9 kHz – 30 MHz; magnetic



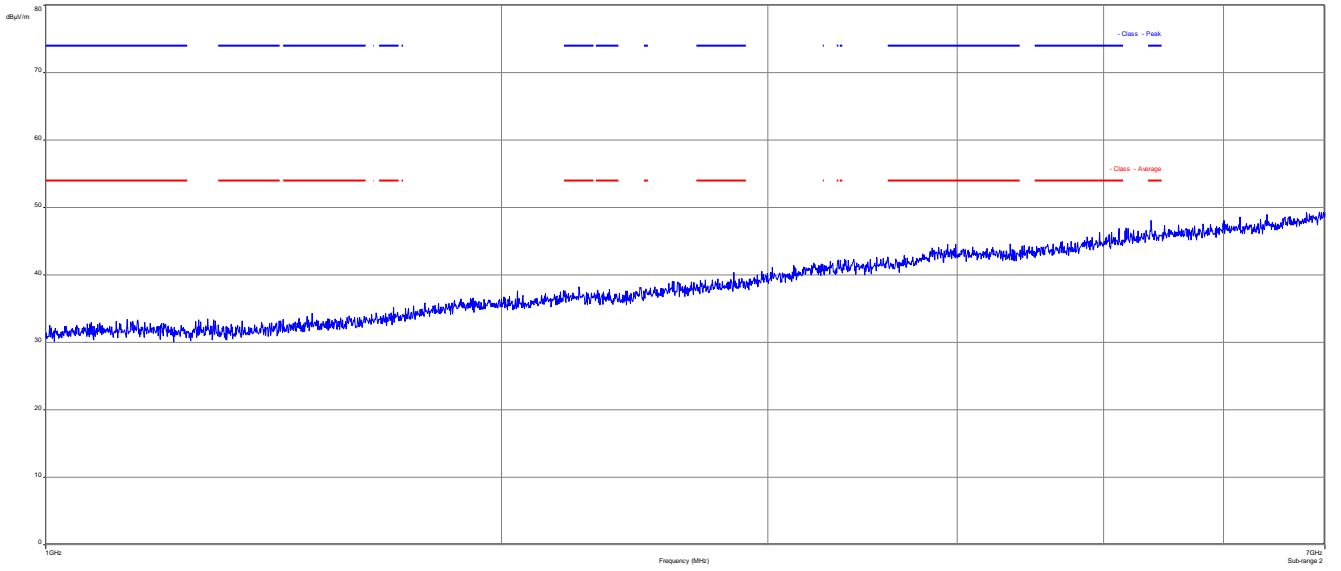
Plot 2: 30 MHz – 1000 MHz



Final Result

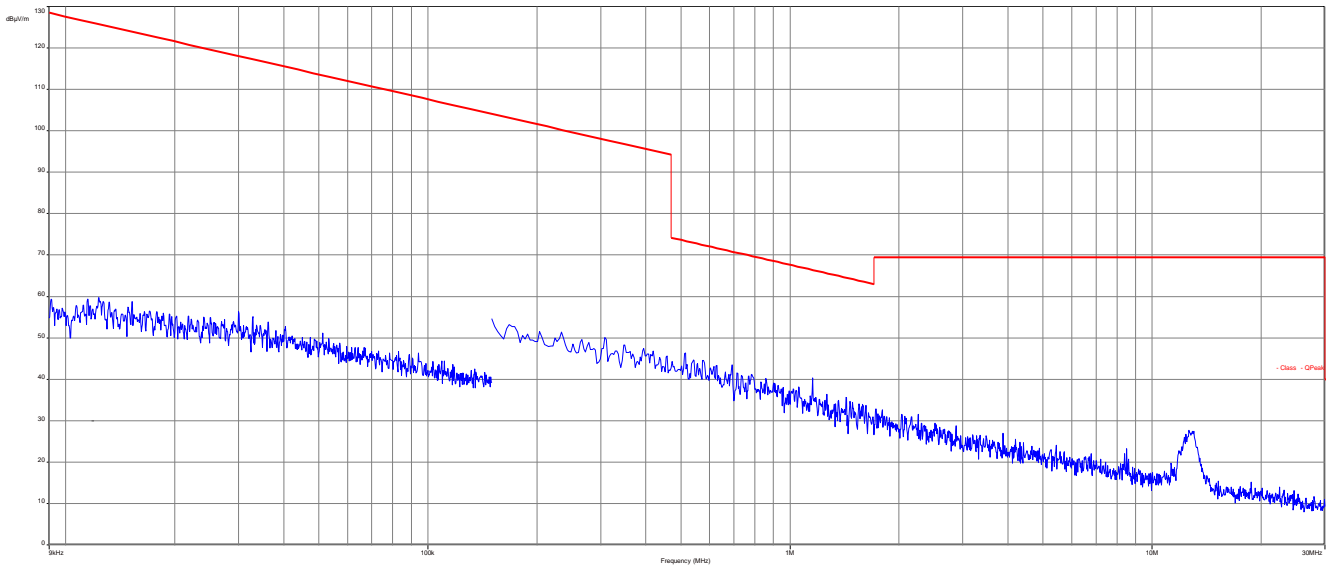
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
38.717850	13.91	30.00	16.09	1000.0	120.000	170.0	V	115	14.0
85.995900	11.28	30.00	18.72	1000.0	120.000	170.0	V	269	9.5
95.446800	8.16	33.50	25.34	1000.0	120.000	170.0	V	270	11.4
259.466400	9.87	36.00	26.13	1000.0	120.000	98.0	V	65	13.6
476.044350	14.95	36.00	21.05	1000.0	120.000	101.0	V	25	18.2
956.137800	21.72	36.00	14.28	1000.0	120.000	170.0	H	115	24.3

Plot 2: 1 GHz – 7 GHz

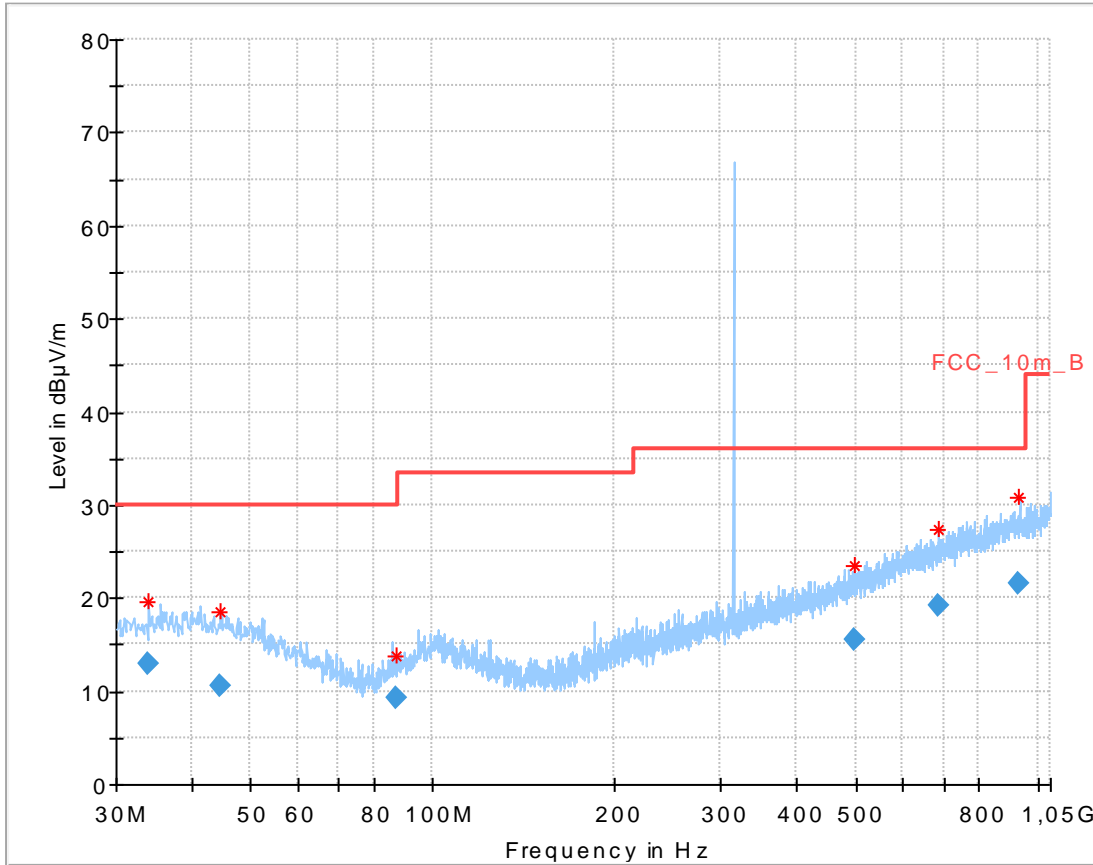


Plots high channel

Plot 1: 9 kHz – 30 MHz; magnetic



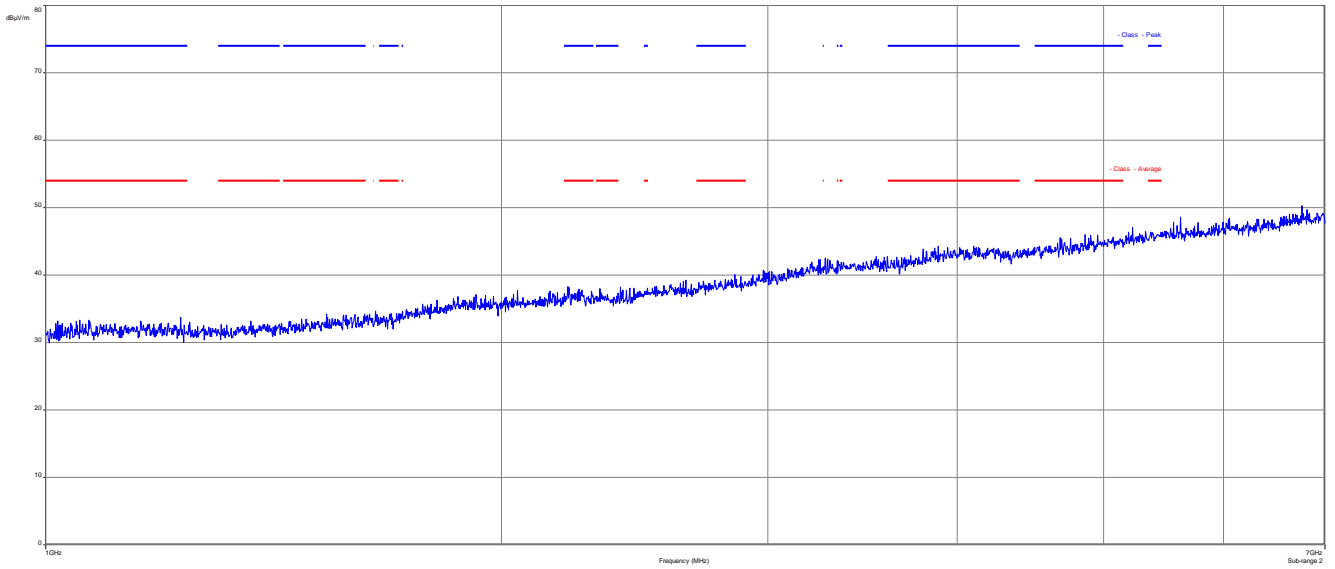
Plot 2: 30 MHz – 1000 MHz



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
33.991350	12.94	30.00	17.06	1000.0	120.000	170.0	H	65	13.7
44.556450	10.64	30.00	19.36	1000.0	120.000	170.0	V	155	13.9
87.014700	9.31	30.00	20.69	1000.0	120.000	170.0	V	0	9.8
497.789700	15.59	36.00	20.41	1000.0	120.000	170.0	H	115	18.7
685.536600	19.27	36.00	16.73	1000.0	120.000	170.0	H	269	21.4
933.006900	21.58	36.00	14.42	1000.0	120.000	170.0	H	89	24.2

Plot 2: 1 GHz – 7 GHz



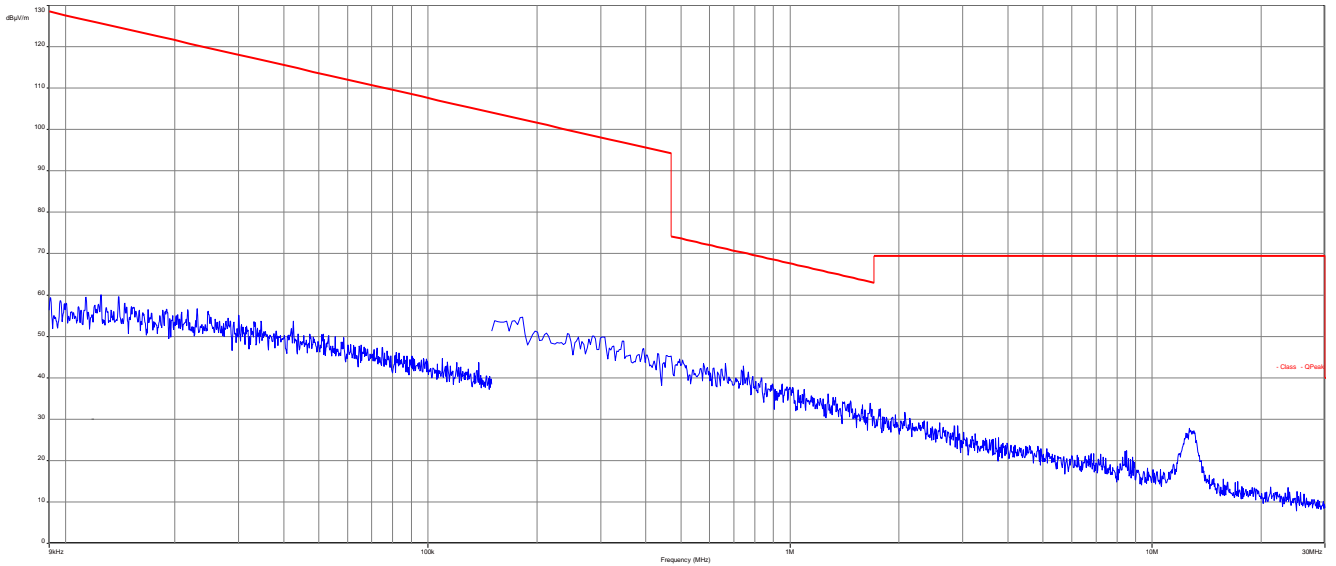
10.6 Receiver spurious emission (radiated)**Measurement:**

Measurement parameter	
Detector:	Peak / Average / Quasi Peak
Sweep time:	Auto
Resolution bandwidth:	120 kHz / 1 MHz
Video bandwidth:	> RBW
Span:	See plots!
Trace-Mode:	Max hold

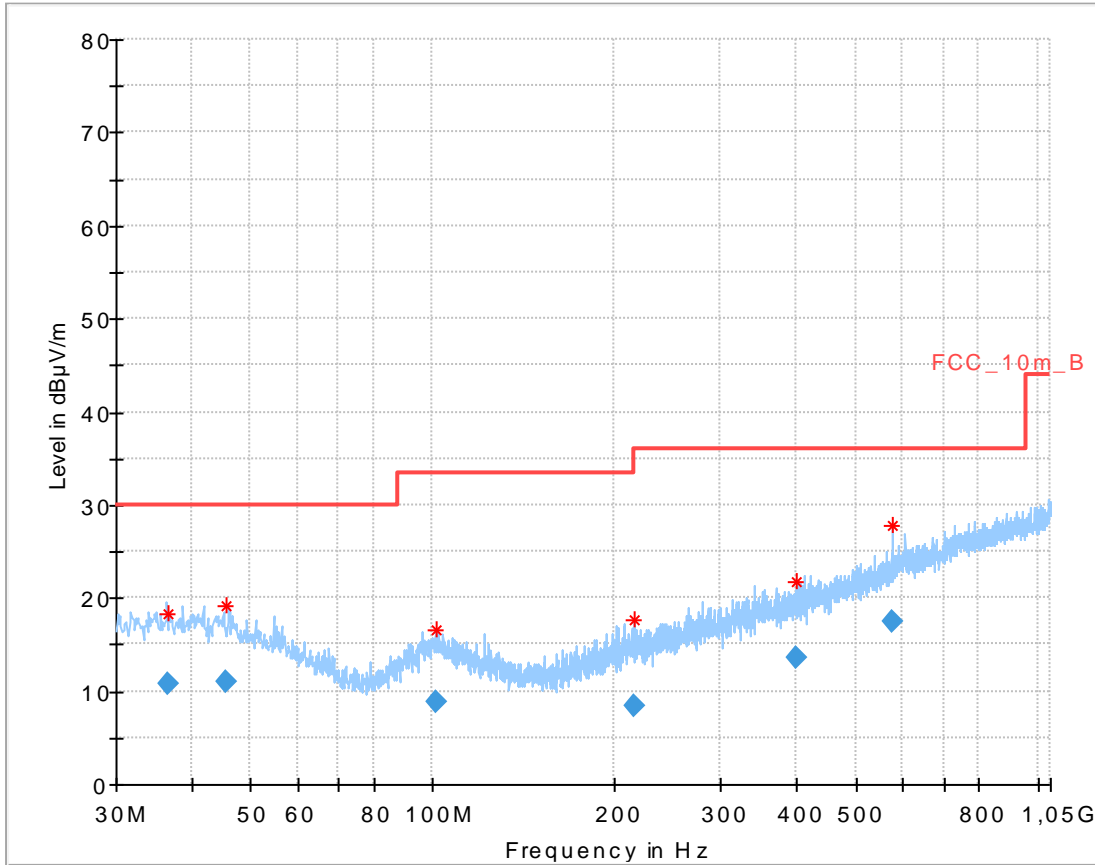
Limits:

FCC		IC
Receiver Spurious Emission (radiated)		
Frequency (MHz)	Field strength ($\mu\text{V/m}$)	Measurement distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

Plot 1: 9 kHz – 30 MHz;



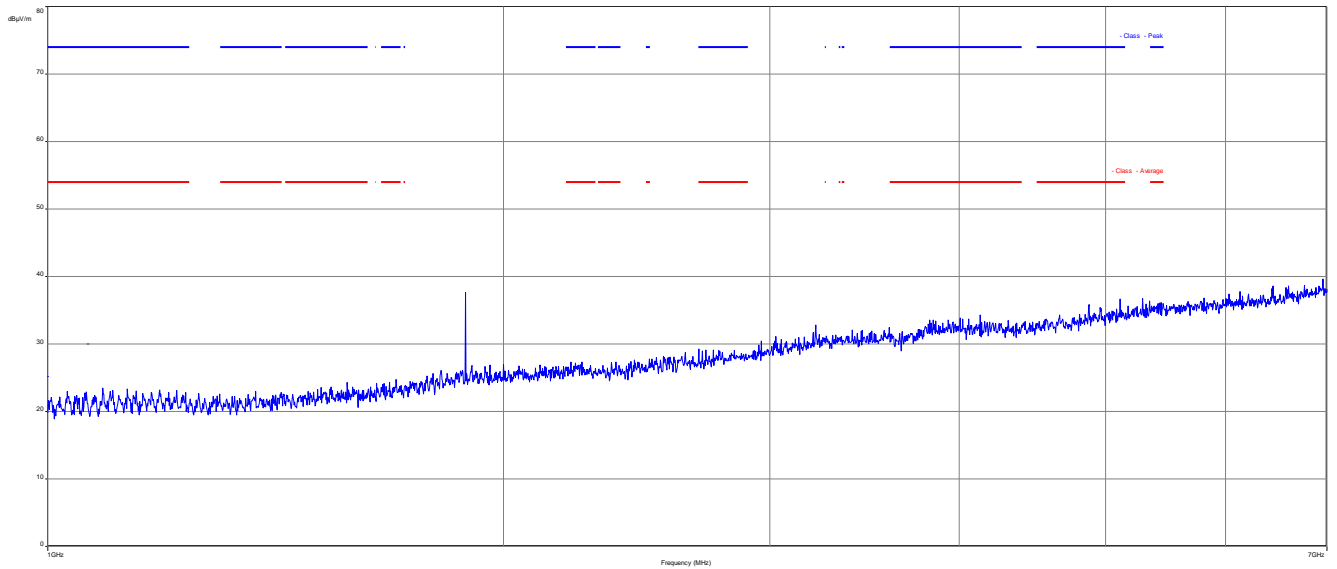
Plot 2: 30 MHz – 1000 MHz



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
36.666000	10.88	30.00	19.12	1000.0	120.000	101.0	H	295	13.9
45.767700	10.94	30.00	19.06	1000.0	120.000	100.0	V	155	13.7
101.241150	8.94	33.50	24.56	1000.0	120.000	101.0	V	155	12.0
216.088350	8.39	36.00	27.61	1000.0	120.000	98.0	V	270	12.3
400.327200	13.67	36.00	22.33	1000.0	120.000	170.0	H	0	16.9
576.729750	17.53	36.00	18.47	1000.0	120.000	170.0	V	0	20.1

Plot 3: 1 GHz – 7 GHz



11 Test equipment and ancillaries used for tests

Typically, the calibrations of the test apparatus are commissioned to and performed by an accredited calibration laboratory. The calibration intervals are determined in accordance with the DIN EN ISO/IEC 17025. In addition to the external calibrations, the laboratory executes comparison measurements with other calibrated test systems or effective verifications. Weekly chamber inspections and range calibrations are performed. Where possible, rf-generating and signalling equipment as well as measuring receivers and analyzers are connected to an external high-precision 10 MHz reference (GPS-based or rubidium frequency standard).

In order to simplify the identification of the equipment used at some special tests, some items of test equipment and ancillaries can be provided with an identifier or number in the equipment list below (Lab/Item).

No.	Lab / Item	Equipment	Type	Manufact.	Serial No.	INV. No Cetecom	Kind of Calibration	Last Calibration	Next Calibration
1	n. a.	Double-Ridged Waveguide Horn Antenna 1-18.0GHz	3115	EMCO	8812-3088	300001032	vIK!	08.05.2013	08.05.2015
2	n. a.	Anechoic chamber	FAC 3/5m	MWB / TDK	87400/02	300000996	ev		
3	n. a.	Switch / Control Unit	3488A	HP Meßtechnik	*	300000199	ne		
4	90	Active Loop Antenna 10 kHz to 30 MHz	6502	Kontron Psychotech	8905-2342	300000256	k	13.06.2013	13.06.2015
5	90	Amplifier	js42-00502650-28-5a	Parzich GMBH	928979	300003143	ne		
6	90	TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbeck	371	300003854	vIK!	29.10.2014	29.10.2017
7	90	MXE EMI Receiver 20 Hz bis 26,5 GHz	N9038A	Agilent Technologies	MY51210197	300004405	k	13.03.2014	13.03.2015
8	90	4U RF Switch Platform	L4491A	Agilent Technologies	MY50000037	300004509	ne		
9	45	Switch-Unit	3488A	HP Meßtechnik	2719A14505	300000368	g		
10	50	DC power supply, 60Vdc, 50A, 1200 W	6032A	HP Meßtechnik	2920A04466	300000580	ne		
11	50	EMI Test Receiver	ESCI 3	R&S	100083	300003312	k	27.01.2014	27.01.2015
12	50	Antenna Tower	Model 2175	ETS-LINDGREN	64762	300003745	izw		
13	50	Positioning Controller	Model 2090	ETS-LINDGREN	64672	300003746	izw		
14	50	Turntable Interface-Box	Model 105637	ETS-LINDGREN	44583	300003747	izw		
15	50	TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbeck	295	300003787	k	22.04.2014	22.04.2016
16	50	Spectrum-Analyzer	FSU26	R&S	200809	300003874	k	22.01.2014	22.01.2015
17	50	Breitband Doppelsteg-Hornantenne	BBHA9120 B	Schwarzbeck	188	300003896	k	10.06.2013	10.06.2015
18	n. a.	Spectrum Analyzer 9kHz to 30GHz - 140..+30dBm	FSP30	R&S	100886	300003575	k	26.08.2014	26.08.2016
19	n. a.	DC Power Supply 0 - 32V	1108-32	Heiden	001802	300001383	Ve	29.01.2014	29.01.2017
20	n. a.	Temperature Test Chamber	T-40/50	CTS GmbH	064023	300003540	Ve	26.09.2013	26.09.2015

Agenda: Kind of Calibration

k calibration / calibrated
 ne not required (k, ev, izw, zw not required)
 ev periodic self verification
 Ve long-term stability recognized
 vIK! Attention: extended calibration interval
 NK! Attention: not calibrated

EK limited calibration
 zw cyclical maintenance (external cyclical maintenance)
 izw internal cyclical maintenance
 g blocked for accredited testing
 *) next calibration ordered / currently in progress

12 Observations

No observations except those reported with the single test cases have been made.

Annex A Document history

Version	Applied changes	Date of release
	Initial release	2014-12-19
A	Updated manufacturer data	2015-02-13

Annex B Further information**Glossary**

AVG	-	Average
DUT	-	Device under test
EMC	-	Electromagnetic Compatibility
EN	-	European Standard
EUT	-	Equipment under test
ETSI	-	European Telecommunications Standard Institute
FCC	-	Federal Communication Commission
FCC ID	-	Company Identifier at FCC
HW	-	Hardware
IC	-	Industry Canada
Inv. No.	-	Inventory number
N/A	-	Not applicable
PP	-	Positive peak
QP	-	Quasi peak
S/N	-	Serial number
SW	-	Software

Annex C Accreditation Certificate

Front side of certificate

Back side of certificate



Deutsche Akkreditierungsstelle GmbH

Belehrung gemäß § 8 Absatz 1 AkkStelleG i.V.m. § 1 Absatz 1 AkkStelleGBV
 Unterzeichnerin der Multilateralen Abkommen
 von EA, ILAC und IAF zur gegenseitigen Anerkennung

Akkreditierung



Die Deutsche Akkreditierungsstelle GmbH bestätigt hiermit, dass das Prüflaboratorium

CETECOM ICT Services GmbH
 Untertürkheimer Straße 6-10, 66117 Saarbrücken

die Kompetenz nach DIN EN ISO/IEC 17025:2005 besitzt, Prüfungen in folgenden Bereichen durchzuführen:

- Drahtgebundene Kommunikation einschließlich xDSL
- VoIP und DECT
- Akustik
- Funk einschließlich WLAN
- Short Range Devices (SRD)
- RFID
- WiFiMax und Richtfunk
- Mobilfunk (GSM / GPRS / UTRAN Performance)
- Elektromagnetische Verträglichkeit (EMV) einschließlich Automotive
- Produktsicherheit
- SAR und Hearing Aid Compatibility (HAC)
- Umweltsimulation
- Smart Card Terminals
- Bluetooth
- Wi-Fi Services

Die Akkreditierungsurkunde gilt nur in Verbindung mit dem Bescheid vom 07.03.2014 mit der Akkreditierungsnummer D-PL-12076-01 und ist gültig bis 17.01.2018. Sie besteht aus diesem Deckblatt, der Rückseite des Deckblatts und der folgenden Anlage mit insgesamt 77 Seiten.

Registrierungsnummer der Urkunde: D-PL-12076-01-00

Frankfurt am Main, 07.03.2014
 Deutsche Akkreditierungsstelle

In Auftrag gegeben durch
 Akkreditierungsstelle
 Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH

Standort Berlin Spittelmarkt 10 10117 Berlin	Standort Frankfurt am Main Gartenstraße 6 60594 Frankfurt am Main	Standort Braunschweig Bundesallee 100 38116 Braunschweig
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 IAF: www.iaf.or.jp
 ILAC: www.ilac.or.jp

Note:

The current certificate including annex is published on our website (see link below) or may be received from CETECOM ICT Services on request.

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