

## TEST REPORT

Test report no.: 1-4521/12-01-03



### 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-12076-01-01  
 Area of Testing: Radio/Satellite Communications

### Applicant

**InnoSenT GmbH**  
 Am Rödertor 30  
 97499 Donnersdorf / GERMANY  
 Phone: +49 9528 9518-0  
 Fax:  
 Contact: Yvonne Lutz  
 e-mail: [yvonne.lutz@innosent.de](mailto:yvonne.lutz@innosent.de)  
 Phone: +49 9528 9518-85

### Manufacturer

**InnoSenT GmbH**  
 Am Rödertor 30  
 97499 Donnersdorf / GERMANY

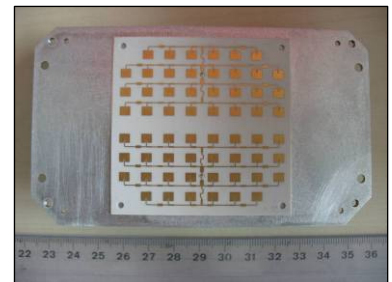
### Test standard/s

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 Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment

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

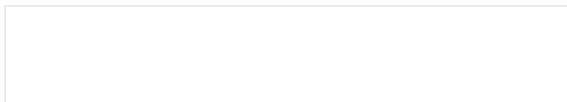
### Test Item

<b>Kind of test item:</b>	<b>K-Band VCO Transceiver</b>
<b>Model name:</b>	<b>IVS-979</b>
<b>FCC ID:</b>	<b>UXS-IVS979</b>
<b>IC:</b>	<b>-/-</b>
<b>Frequency:</b>	<b>24.000 GHz – 24.250 GHz</b>
<b>Antenna:</b>	<b>Integrated patch antenna</b>
<b>Power Supply:</b>	<b>5.5 V DC (<math>V_{cc}</math> - supply voltage) 1.7 V DC (<math>V_{tune}</math> coarse - VCO)</b>
<b>Temperature Range:</b>	<b>-30 °C to +60 °C</b>



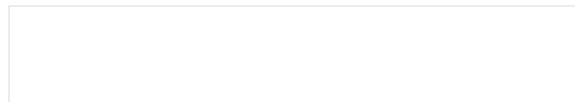
This test report is electronically signed and valid without handwriting signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

### Test report authorised:



Karsten Gerdaldy  
 Senior Testing Manager

### Test performed:



Meheza Walla  
 Expert

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

### 2.2 Application details

Date of receipt of order:	2012-03-16
Date of receipt of test item:	2012-05-21
Start of test:	2012-05-22
End of test:	2012-06-05
Person(s) present during the test:	-/-

## 3 Test standard/s

Test standard	Date	Test standard description
47 CFR Part 15	2010-10	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices
RSS - 210 Issue 8	2010-12	Spectrum Management and Telecommunications - Radio Standards Specification Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment

#### 4 Test environment

Temperature:	$T_{nom}$	+22 °C during room temperature tests
Relative humidity content:		55 %
Barometric pressure:		not relevant for this kind of testing
Power supply:	$V_{nom}$	5.5 V DC from power supply
	$V_{max}$	6.0 V DC
	$V_{min}$	5.3 V DC

#### 5 Test item

Kind of test item	:	K-Band VCO Transceiver
Type identification	:	IVS-979
S/N serial number	:	97900001 97900003
HW hardware status	:	None
SW software status	:	None
Frequency band [MHz]	:	24.125 GHz
Type of modulation	:	unmodulated carrier
Number of channels	:	1
Antenna	:	Integrated patch antenna
Power supply	:	5.5 V DC ( $V_{cc}$ - supply voltage) / 1.7 V DC ( $V_{tune}$ coarse - VCO)
Temperature range	:	+22 °C (tests made under nominal temperature only)

#### 6 Test laboratories sub-contracted

None

## 7 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	47 CFR Part 15 RSS 210, Issue 8, Annex 8	Passed	2012-06-28	-/-

Test specification clause	Test case	Temperature conditions	Power source voltages	Pass	Fail	NA	NP	Results (max.)
§15.245(b) RSS 210 / A7.1	Field strength of emissions (wanted signal)	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	111.2 dBµV
§2.1049	Occupied bandwidth (99% bandwidth)	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.83 MHz
§15.209(a) / §15.245(b)(1)(2)(3) RSS 210 / A7.1-4	Field strength of emissions (spurious)	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	complies
§15.207(a) ICES-003	Conducted emissions < 30 MHz	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	complies

**Note:** NA = Not Applicable; NP = Not Performed

## 8 RF measurement testing

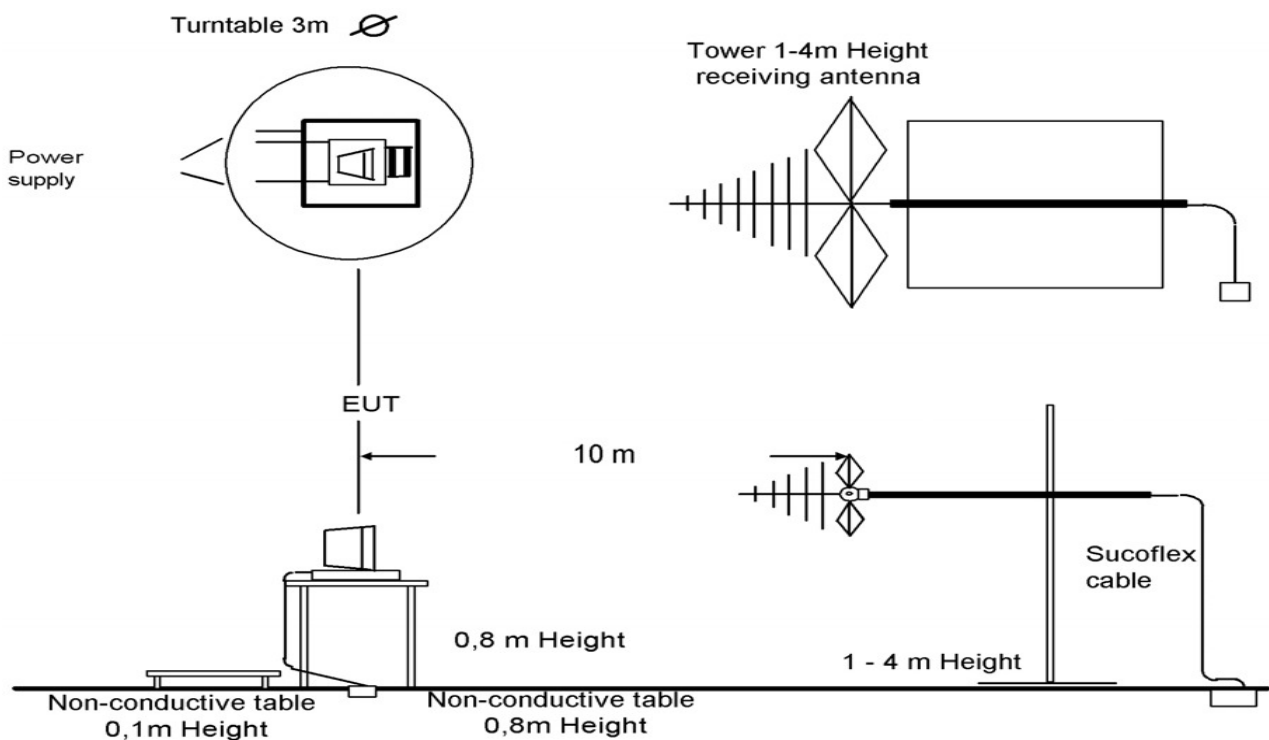
### 8.1 Description of test setup

#### 8.1.1 Radiated measurements

The radiated measurements are performed in vertical and horizontal plane in the frequency range from 9 kHz to 25 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 C63.4-2009 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 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 analyzers where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63-4-2009 clause 4.2.

Antennas are confirmed with ANSI C63.2-1996 item 15.

Semi anechoic chamber



Picture 1: Diagram radiated measurements

9 kHz - 30 MHz:	active loop antenna
30 MHz – 1 GHz:	tri-log antenna
> 1 GHz:	horn antenna

The EUT is powered by an external power supply with nominal voltage

## 8.1.2 Additional comments

Reference documents:       None

Special test descriptions:   None

Configuration descriptions:   None

Test mode:                    Normal operation, no special test mode available.

Special software is used.

## 8.2 RSP100 test report cover sheet / performance test data


Test report number	:	1-4521/12-01-03
Equipment model number	:	IVS-979
Certification number	:	-/-
Manufacturer (complete address)	:	InnoSenT GmbH Am Rödertor 30 97499 Donnersdorf / GERMANY
Tested to radio standards specification no.	:	RSS 210, Issue 8, Annex 7
Open area test site IC No.	:	IC 3462C-1
Frequency range	:	24.123 GHz
RF-field strength	:	111.2 dB $\mu$ V @ 3 m
Occupied bandwidth (99%-BW)	:	2.83 MHz
Type of modulation	:	N0N
Emission designator (TRC-43)	:	2M83N0N
Antenna information	:	Integrated patch antenna array
Transmitter spurious (worst case)	:	48 dB $\mu$ V/m (4.5 GHz) @ 3 m
Receiver spurious (worst case)	:	No stand-alone RX-Mode

### ATTESTATION:

### DECLARATION OF COMPLIANCE:

I attest that the testing was performed or supervised by me; that the test measurements were made in accordance with the above-mentioned Industry Canada standard(s); and that the equipment identified in this application has been subjected to all the applicable test conditions specified in the Industry Canada standards and all of the requirements of the standard have been met.

### Laboratory manager:

2012-06-28	Meheza Walla	
Date	Name	Signature



## 9 Measurement results

### 9.1 Field strength of emissions (wanted signal)

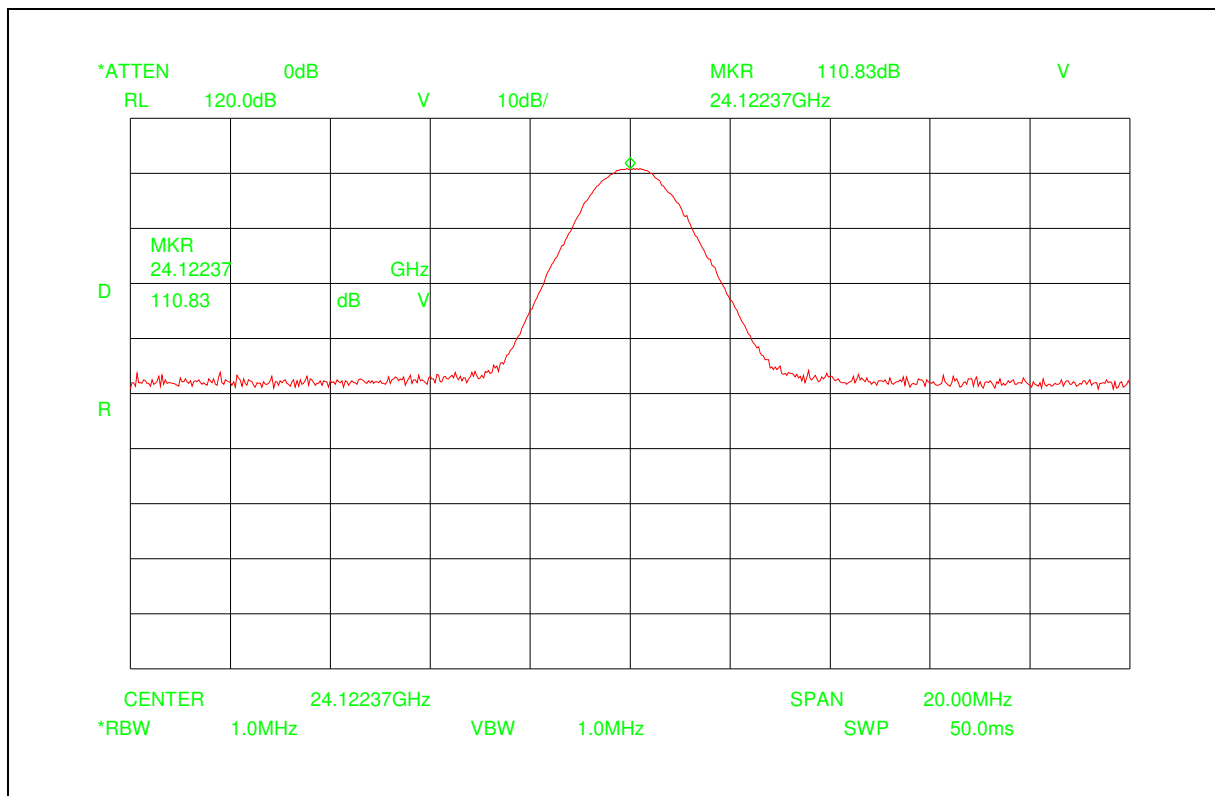
**Description:**

Measurement of the maximum radiated field strength of the wanted signal.

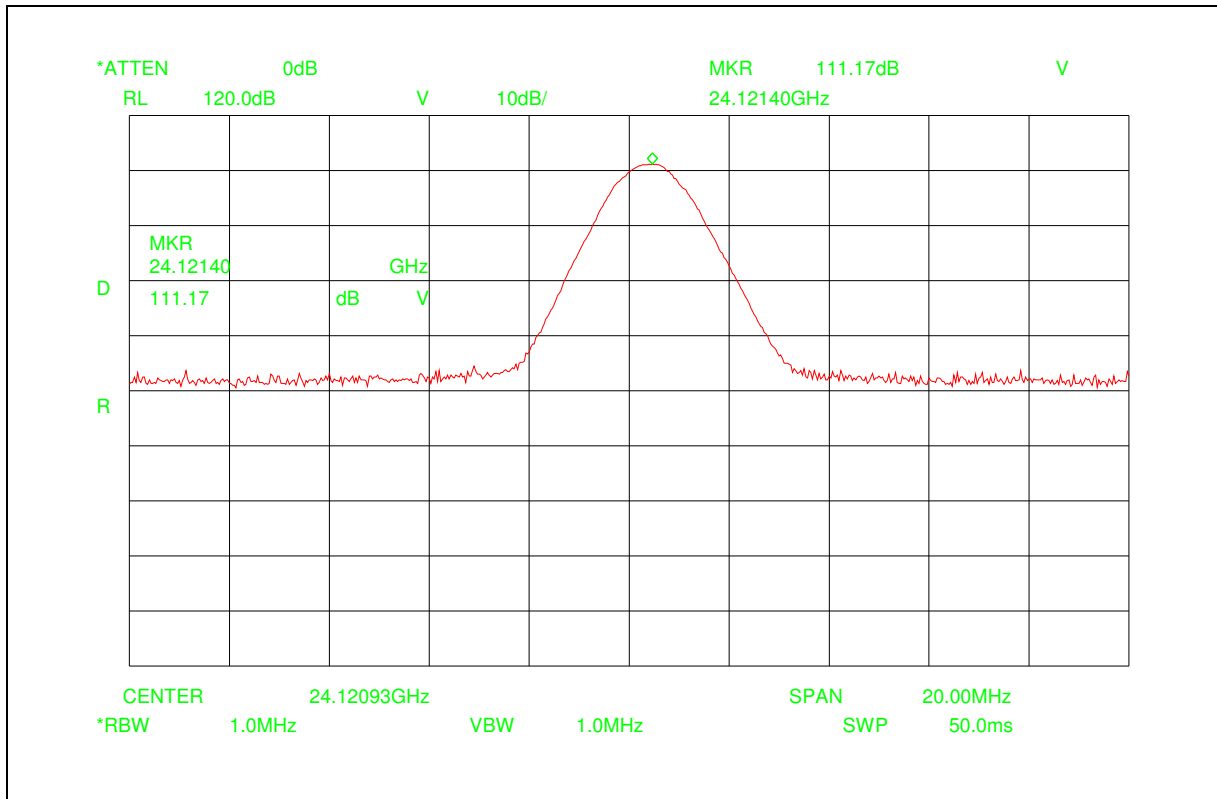
**Measurement:**

Measurement parameter	
Detector:	Pos-Peak
Sweep time:	Auto
Video bandwidth:	1 MHz
Resolution bandwidth:	1 MHz
Span:	20 MHz
Trace-Mode:	Max Hold

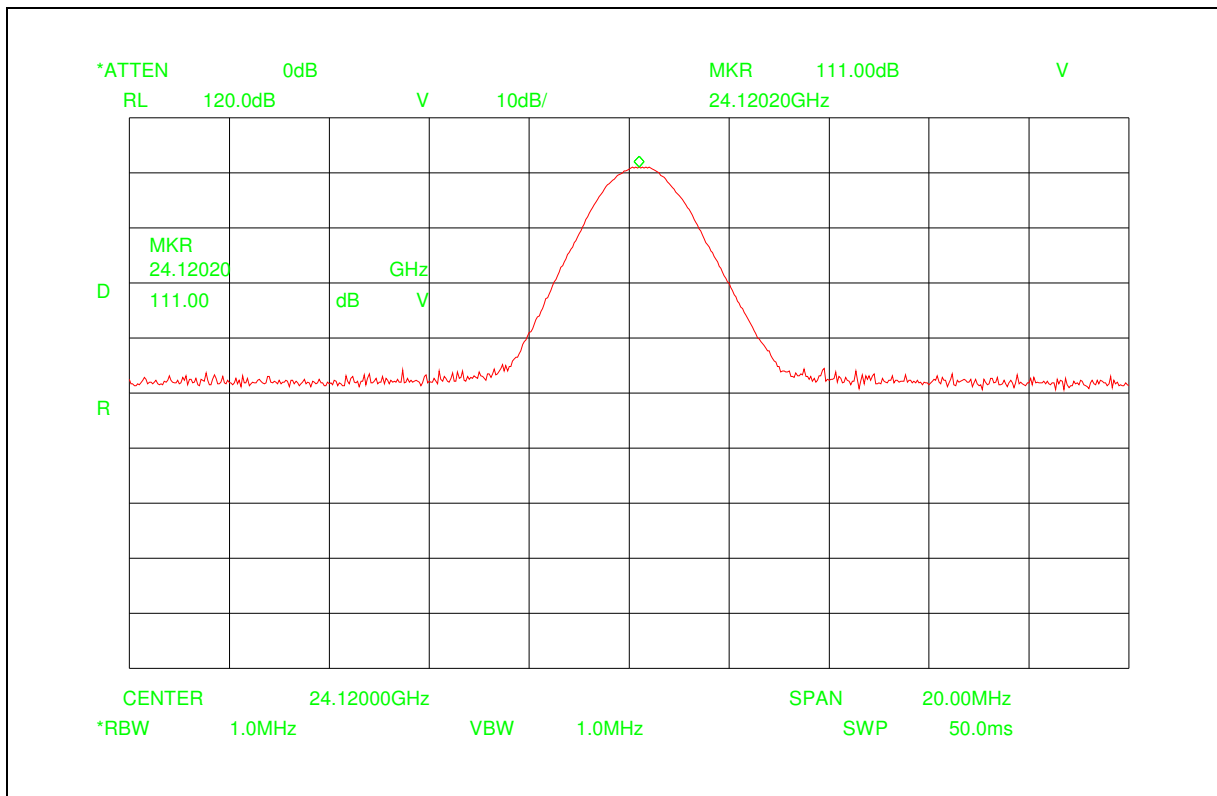
Plot 1:  $T_{nom} / V_{nom}$



Plot 2:  $T_{nom} / V_{max}$



Plot 3:  $T_{nom} / V_{min}$



**Result:**

Test condition	Maximum field strength [dB $\mu$ V/m @ 3 m]
T <sub>nom</sub> / V <sub>nom</sub>	110.8
T <sub>nom</sub> / V <sub>max</sub>	111.2
T <sub>nom</sub> / V <sub>min</sub>	111.0
Measurement uncertainty	± 3 dB

**Limits:**

FCC		IC
CFR Part 15.245(b)		RSS - 210, Annex 7
Field strength of emissions		
The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:		
Frequency [ GHz ]	Field Strength [ dB $\mu$ V/m ]	Measurement distance
24.075 – 24.175	128	3

**Result:** The measurement is passed.

## 9.2 Occupied bandwidth (99% bandwidth)

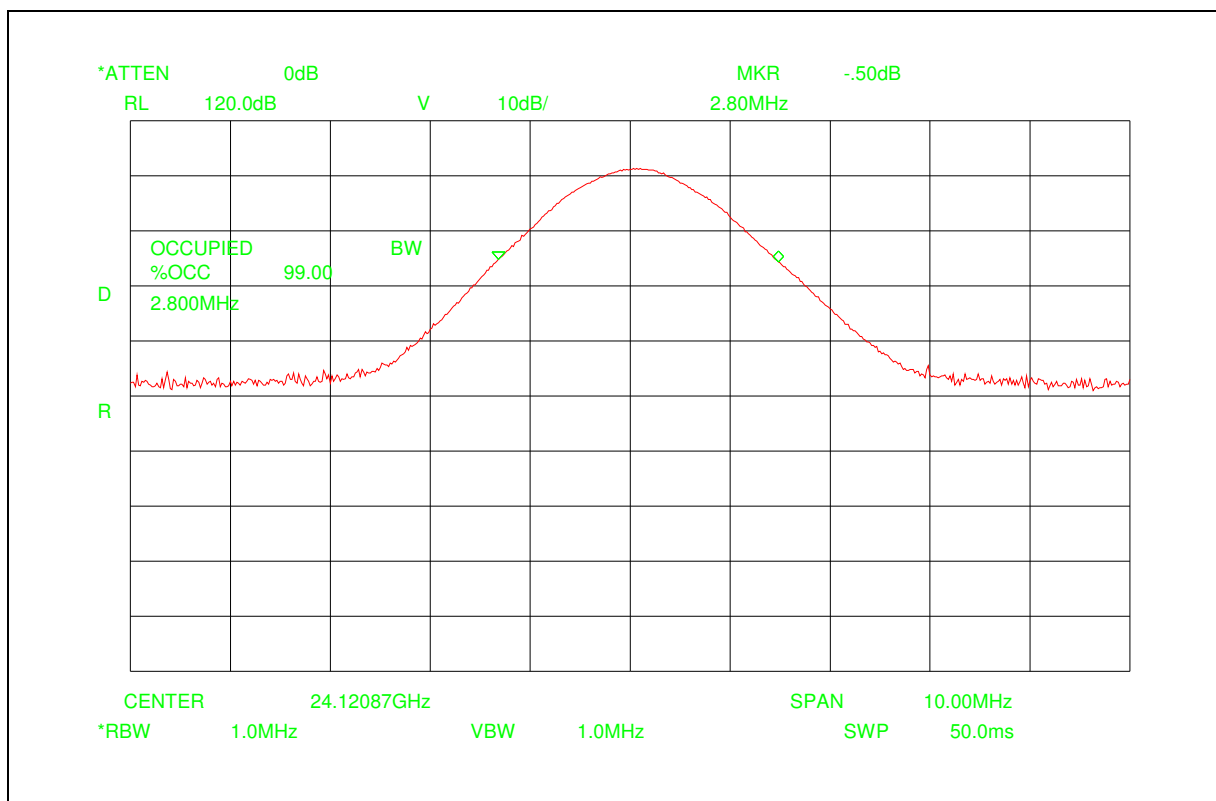
### Description:

Measurement of the 99% bandwidth of the wanted signal.

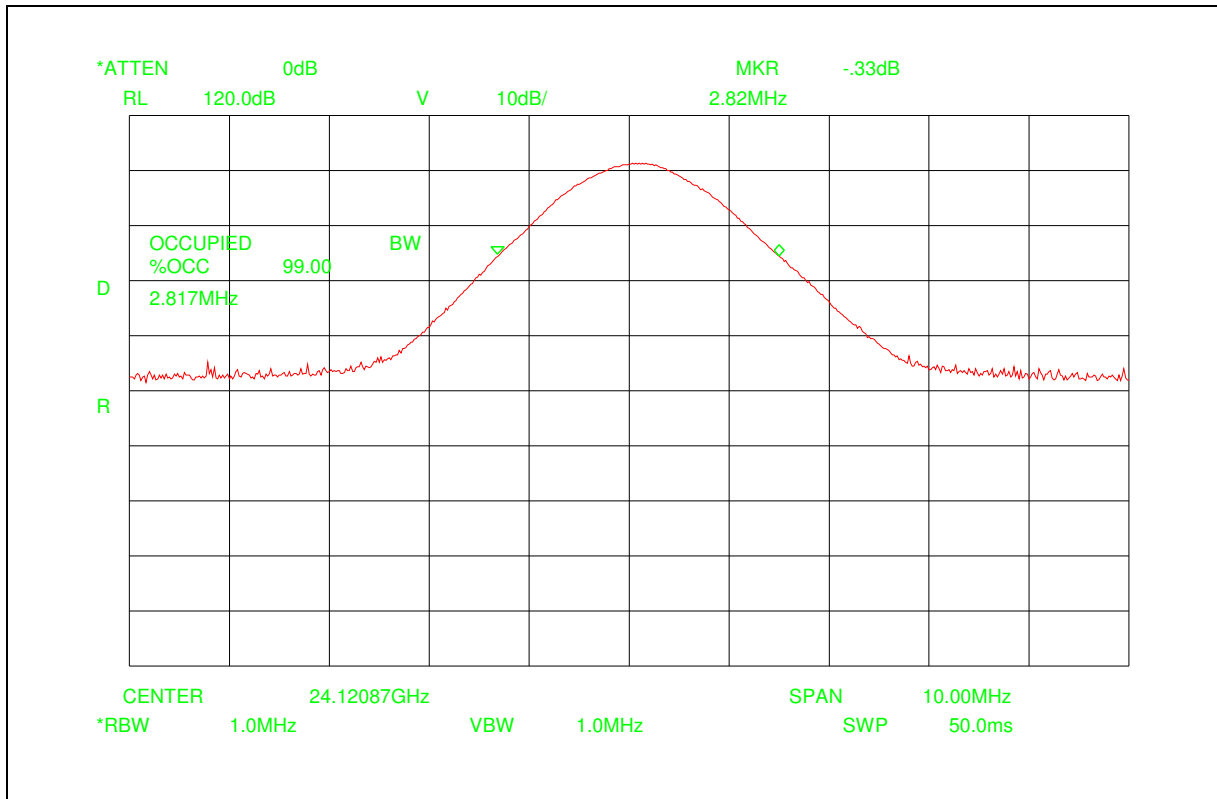
### Measurement:

Measurement parameter	
Detector:	Peak
Sweep time:	Auto
Video bandwidth:	1 MHz
Resolution bandwidth:	1 MHz
Span:	10 MHz
Trace-Mode:	Max Hold

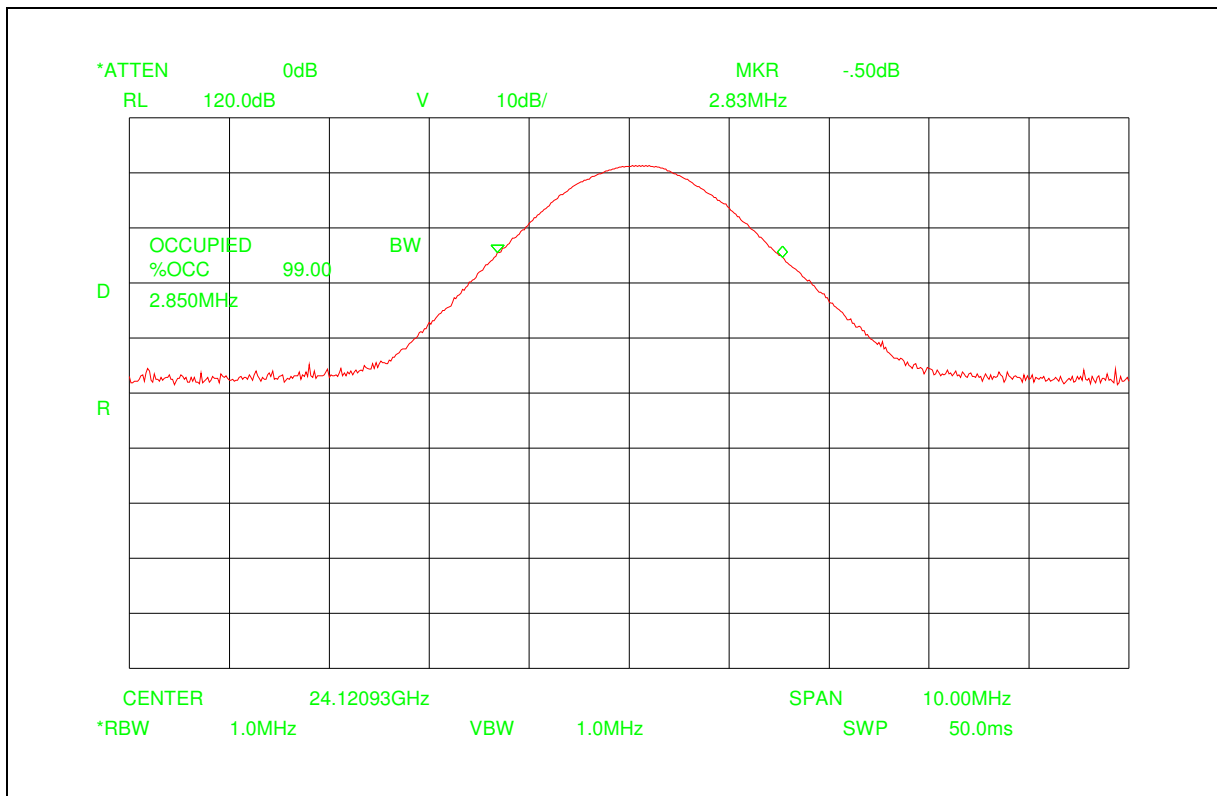
Plot 4: 99% Bandwidth,  $T_{nom} / V_{nom}$



Plot 5: 99% Bandwidth,  $T_{nom} / V_{max}$



Plot 6: 99% Bandwidth,  $T_{nom} / V_{min}$



**Result:**

Test condition	99 % Occupied Bandwidth [MHz]
$T_{\text{nom}} / V_{\text{nom}}$	2.80
$T_{\text{nom}} / V_{\text{max}}$	2.82
$T_{\text{nom}} / V_{\text{min}}$	2.83
Measurement uncertainty	$\pm \text{span}/1000$

**Result:** The measurement is passed.

### 9.3 Field strength of emissions (radiated spurious)

#### Description:

Measurement of the radiated spurious emissions in transmit mode.

#### Measurement:

Measurement parameter	
Detector:	Peak / Quasi Peak
Sweep time:	Auto
Video bandwidth:	Auto
Resolution bandwidth:	F < 1 GHz: 100 kHz F > 1 GHz: 1 MHz
Frequency range:	30 MHz to 110 GHz
Trace-Mode:	Max Hold

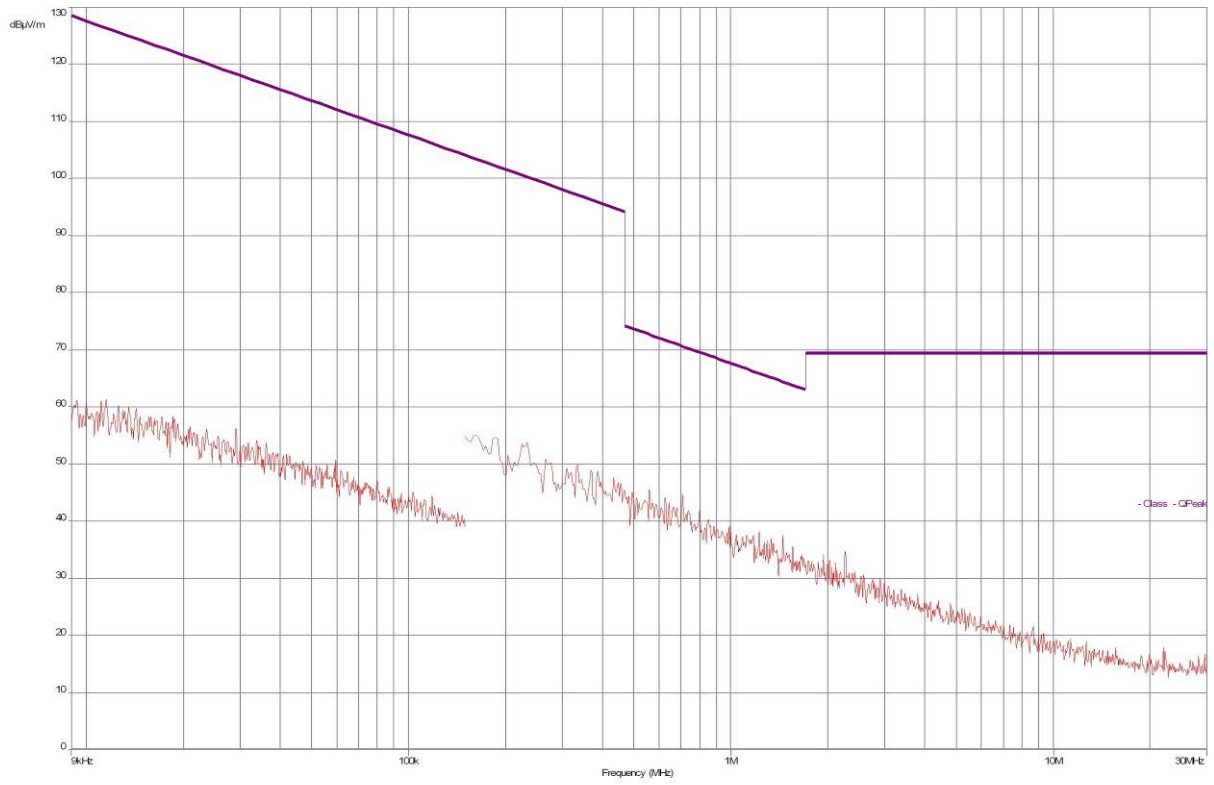
#### Limits:

FCC		IC	
CFR Part 15.209(a)		RSS - GEN	
Radiated Spurious Emissions			
Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.			
Frequency (MHz)	Field Strength (dB $\mu$ V/m)	Measurement distance	
0.009 – 0.490	2400/F(kHz)	300	
0.490 – 1.705	24000/F(kHz)	30	
1.705 – 30.0	30	30	
30 – 88	30.0	10	
88 – 216	33.5	10	
216 – 960	36.0	10	
Above 960	54.0	3	

**Note:** Harmonics shall not exceed 25.0 millivolts/meter (88.0 dB $\mu$ V/m)

**Result:** The measurement is passed.

Plot 7: TX mode up to 30 MHz





Plot 8: 30 MHz to 1 GHz, vertical / horizontal polarization

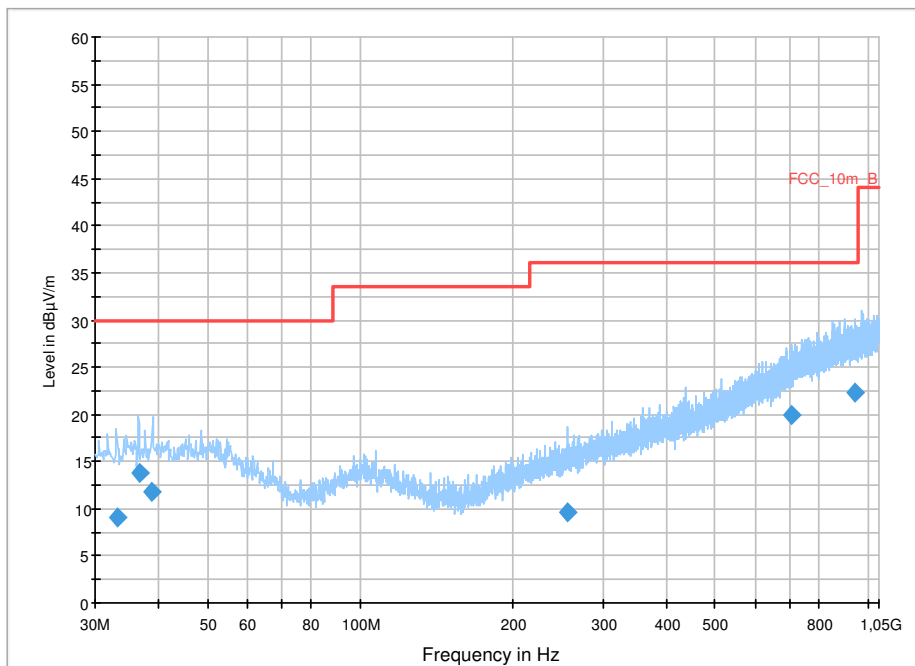
EUT:	IVS-979
Serial Number:	94900003
Test Description:	FCC part 15 B class B@10m
Operating Conditions:	TX-Mode
Operator Name:	Wolsdorfer
Comment:	DC 5.5V + 1.7V

Scan Setup: STAN\_Fin [EMI radiated]

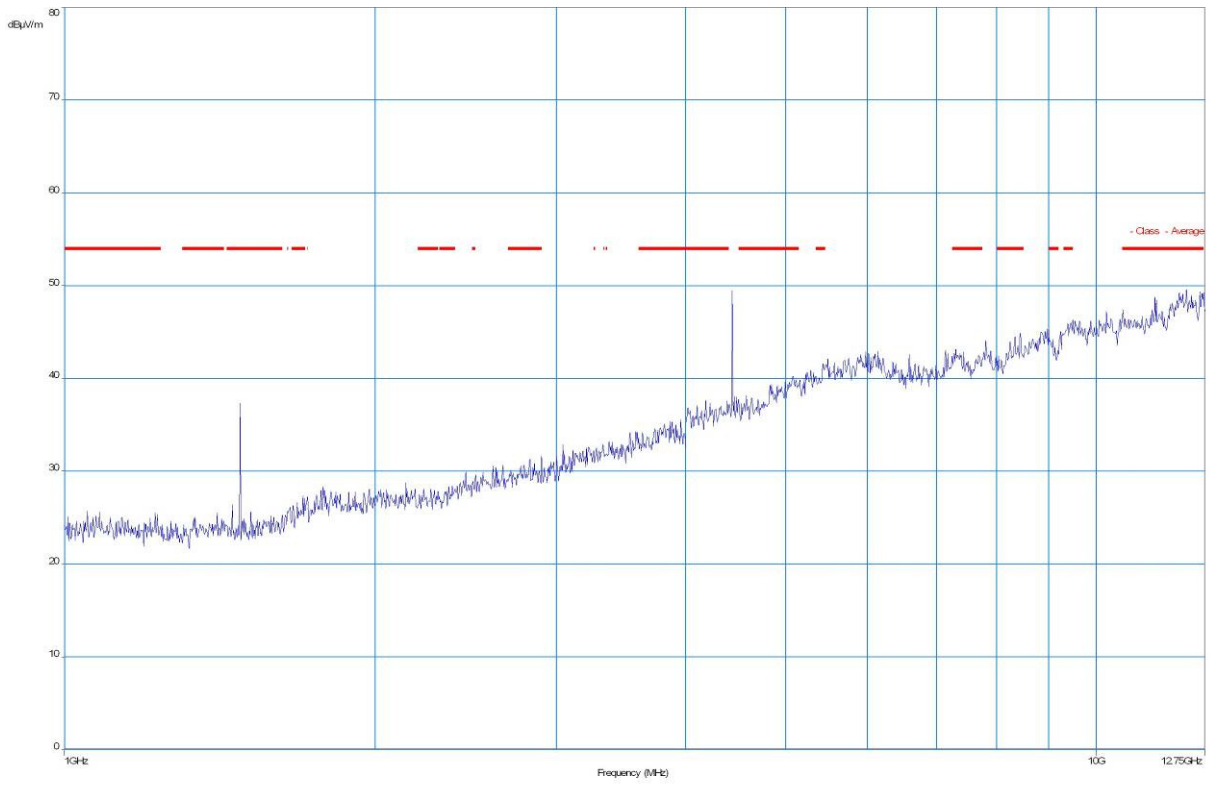
Hardware Setup:	Electric Field (NOS)
Receiver:	[ESCI 3]
Level Unit:	dBµV/m

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 2 GHz	60 kHz	QPK	120 kHz	1 s	20 dB

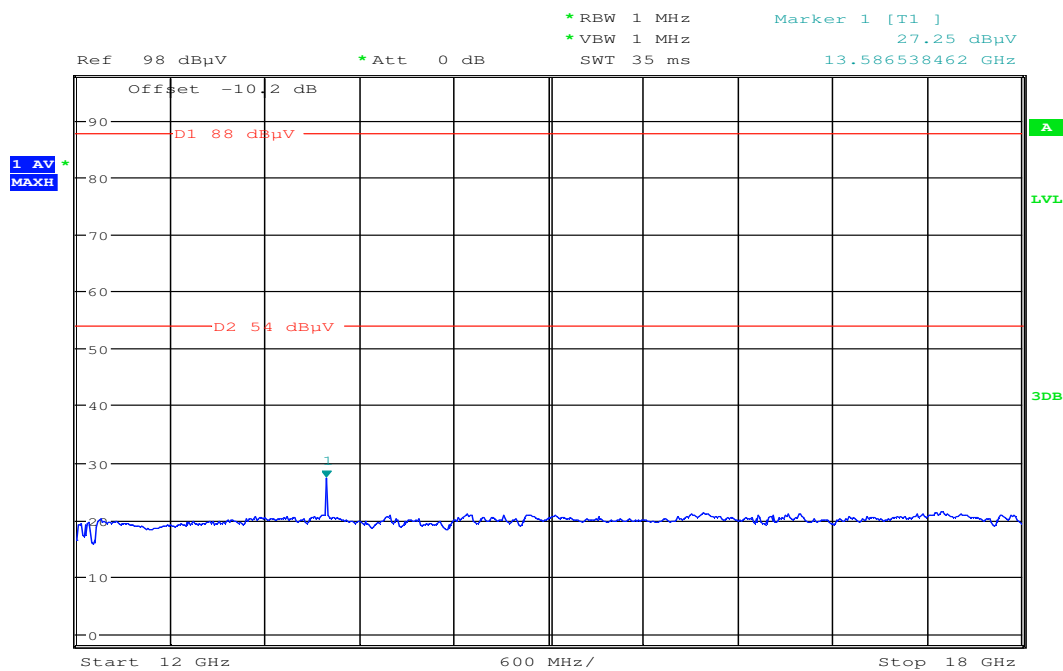
FCC\_10m(B)



Plot 9: 1 GHz to 12 GHz, vertical / horizontal polarization

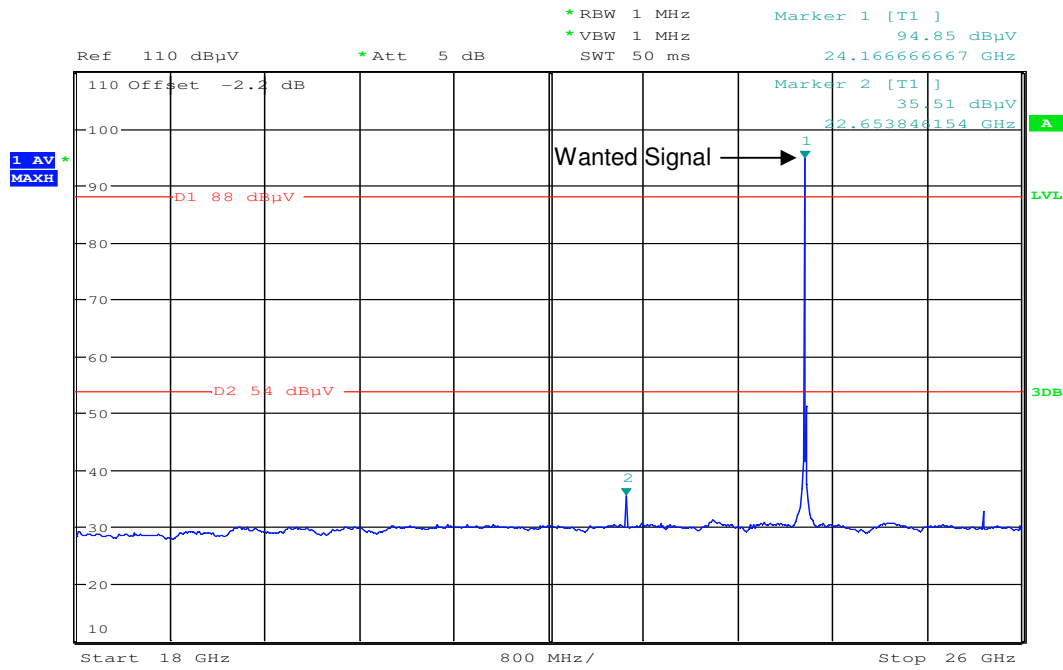


Plot 10: 12 GHz to 18 GHz, vertical / horizontal polarization



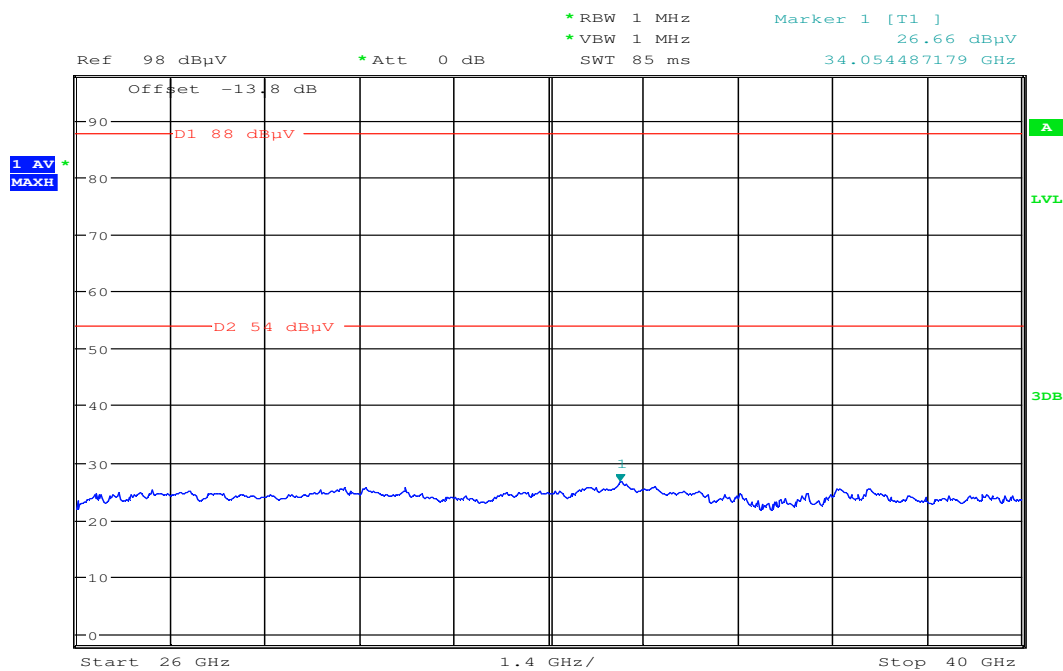
Date: 29.MAY.2012 11:26:48

Plot 11: 18 GHz to 26 GHz, vertical / horizontal polarization



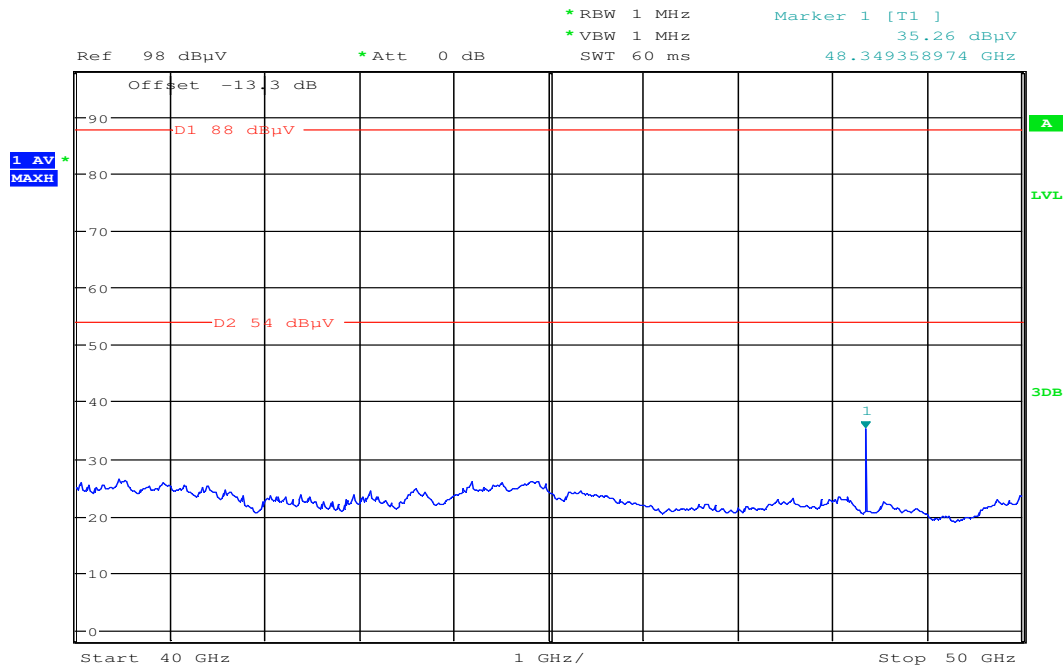
Date: 29.MAY.2012 11:46:44

Plot 12: 26 GHz to 40 GHz, vertical / horizontal polarization



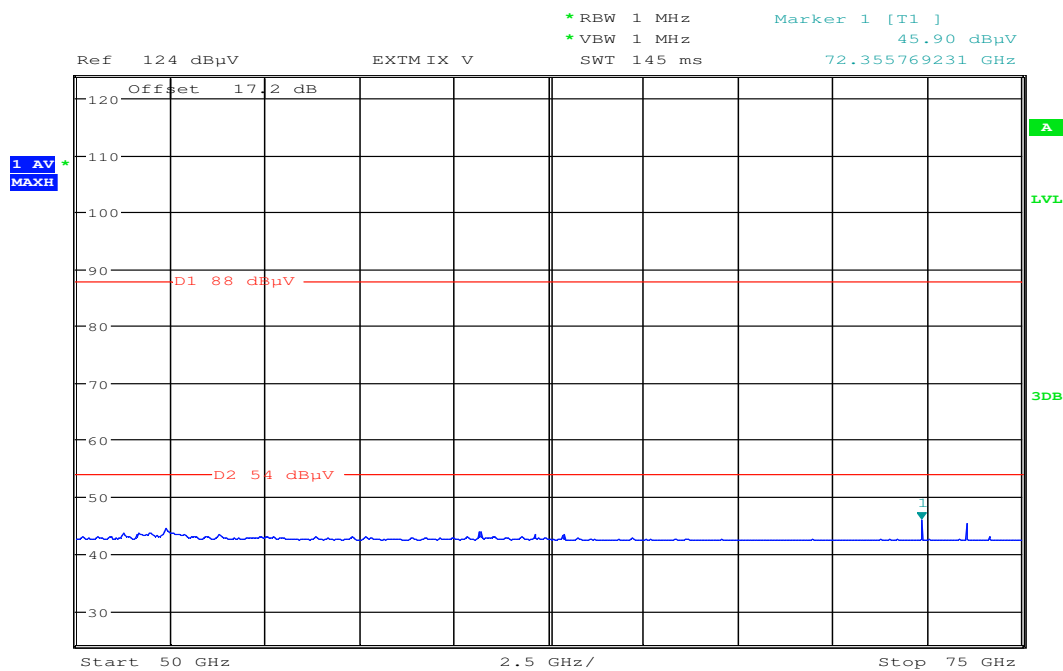
Date: 29.MAY.2012 14:31:48

Plot 13: 40 GHz to 50 GHz, horizontal / vertical polarization



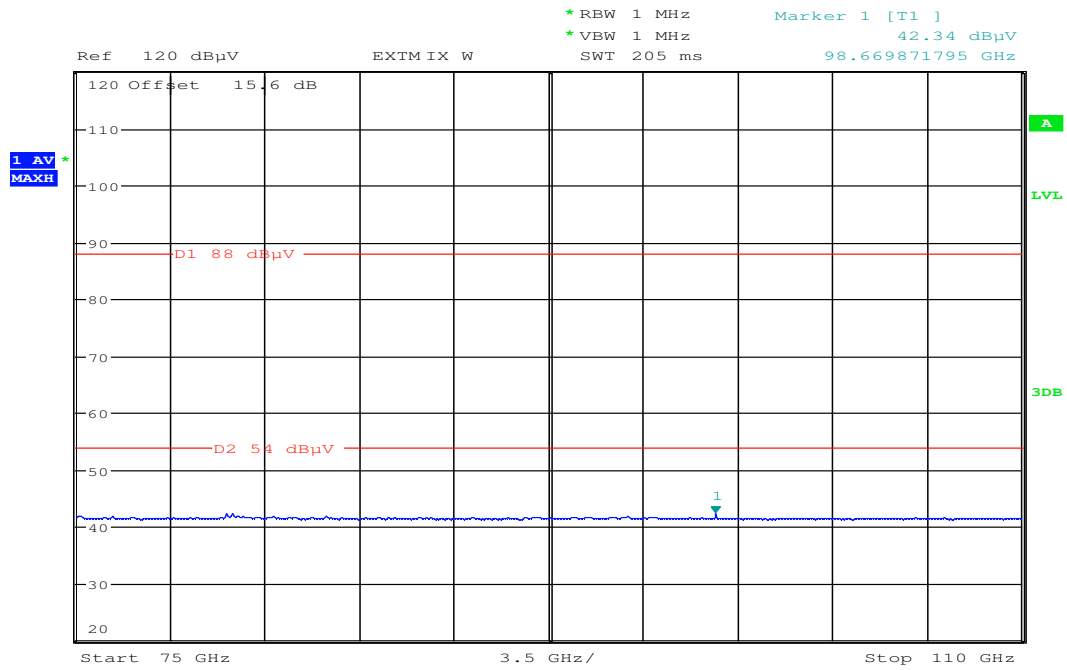
Date: 29.MAY.2012 14:38:53

Plot 14: 50 GHz to 75 GHz, horizontal / vertical polarization



Date: 29.MAY.2012 14:54:50

Plot 15: 75 GHz to 110 GHz, horizontal / vertical polarization



Date: 29.MAY.2012 15:28:05

## 9.4 Conducted spurious emissions < 30 MHz

### Description:

Measurement of the conducted spurious emissions in transmit mode below 30 MHz. Both power lines, phase and neutral line, are measured. Found peaks are re-measured with average and quasi peak detection to show compliance to the limits.

### Measurement:

Measurement parameter	
Detector:	Peak - Quasi Peak / Average
Sweep time:	Auto
Video bandwidth:	F < 150 kHz: 200 Hz F > 150 kHz: 9 kHz
Resolution bandwidth:	F < 150 kHz: 1 kHz F > 150 kHz: 100 kHz
Span:	9 kHz to 30 MHz
Trace-Mode:	Max Hold

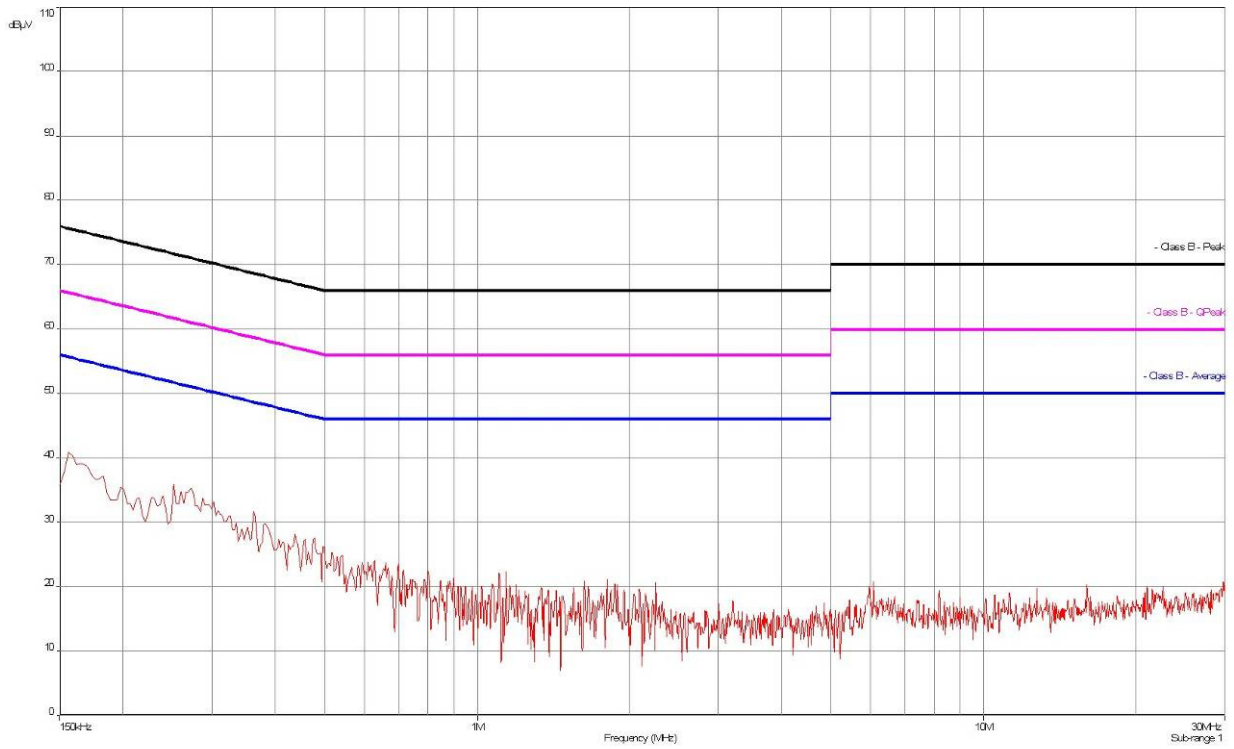
### Limits:

FCC		IC	
CFR Part 15.207(a)		ICES-003, Issue 4	
Conducted Spurious Emissions < 30 MHz			
Frequency (MHz)	Quasi-Peak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	
0.15 – 0.5	66 to 56*	56 to 46*	
0.5 – 5	56	46	
5 – 30.0	60	50	

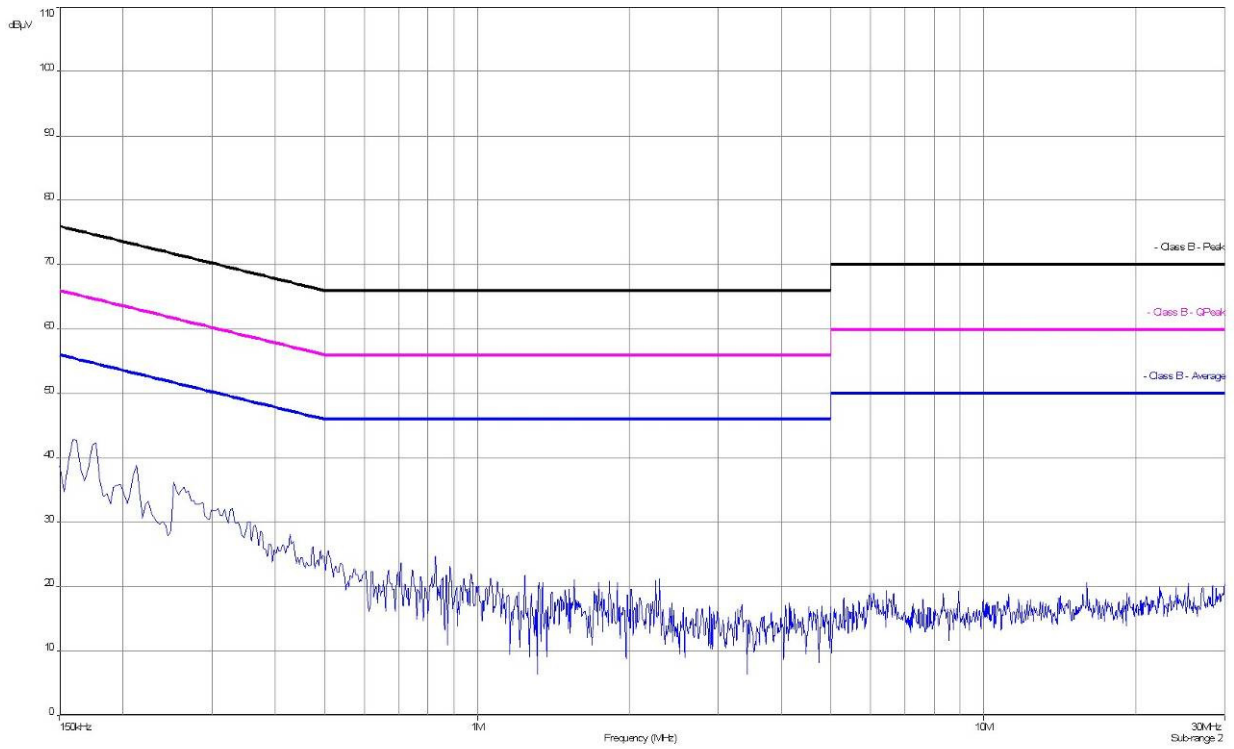
\*Decreases with the logarithm of the frequency

**Result: The measurement is passed.**

Plot 16: Phase line



Plot 17: Neutral line



## 10 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 (Labor/Item).

No.	Lab / Item	Equipment	Type	Manufact.	Serial No.	INV. No Cetecom	Kind of Calibration	Last Calibration	Next Calibration
1	n. a.	Isolating Transformer	RT5A	Grundig	8041	300001626	g		
2	n. a.	DC power supply, 60Vdc, 50A, 1200 W	6032A	HP Meßtechnik	2818A03450	300001040	Ve	12.01.2012	12.01.2015
3	n. a.	Coaxial Attenuator 30dB/500W	8325	Bird	1530	300001595	ev		
4	n. a.	Double-Ridged Waveguide Horn Antenna 1-18.0GHz	3115	EMCO	8812-3088	300001032	vIKI!	11.05.2011	11.05.2013
5	n. a.	Active Loop Antenna	6502	EMCO	2210	300001015	ne		
6	n. a.	Anechoic chamber	FAC 3/5m	MWB / TDK	87400/02	300000996		23.03.2009	
7	Spec.A. 2_2e	System rack for EMI measurement solution	85900	HP I.V.	*	300000222	ne		
8	9	Artificial Mains 9 kHz to 30 MHz	ESH3-Z5	R&S	828576/020	300001210	Ve	06.01.2012	06.01.2014
9	n. a.	Relais Matrix	3488A	HP Meßtechnik	2719A15013	300001156	ne		
10	n. a.	Relais Matrix	PSU	R&S	890167/024	300001168	ne		
11	n. a.	Isolating Transformer	RT5A	Grundig	9242	300001263	ne		
12	n. a.	Three-Way Power Splitter, 50 Ohm	11850C	HP Meßtechnik		300000997	ne		
13	n. a.	Switch / Control Unit	3488A	HP	2605e08770	300001443	ne		
14	n. a.	Amplifier	js42-00502650-28-5a	Parzich GMBH	928979	300003143	ne		
15	n. a.	Band Reject filter	WRCG185 5/1910-1835/1925-40/8SS	Wainwright	7	300003350	ev		
16	n. a.	Band Reject filter	WRCG240 0/2483-2375/2505-50/10SS	Wainwright	11	300003351	ev		
17	n. a.	TILE-Software Emission	Quantum Change, Modell TILE-ICS/FULL	EMCO	none	300003451	ne		
18	n. a.	Highpass Filter	WHKX2.9/1 8G-12SS	Wainwright	1	300003492	ev		
19	n. a.	Highpass Filter	WHK1.1/15 G-10SS	Wainwright	3	300003255	ev		
20	n. a.	Highpass Filter	WHKX7.0/1 8G-8SS	Wainwright	18	300003789	ne		
21	n. a.	PSA Spectrum Analyzer 3 Hz - 26.5 GHz	E4440A	Agilent Technologies	MY48250080	300003812	k	08.09.2010	08.09.2012
22	n. a.	MXG Microwave Analog Signal Generator	N5183A	Agilent Technologies	MY47420220	300003813	k	13.09.2010	13.09.2012



23	n. a.	RF Filter Section 9kHz - 1GHz	N9039A	Agilent Technologies	MY48260003	300003825	vIKI!	08.09.2010	08.09.2012
24	n. a.	TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbeck	371	300003854	vIKI!	14.10.2011	14.10.2014
25	45	Switch-Unit	3488A	HP Meßtechnik	2719A14505	300000368	g		
26	50	DC power supply, 60Vdc, 50A, 1200 W	6032A	HP Meßtechnik	2920A04466	300000580	ne		
27	n. a.	software	SPS_PHE 1.4f	Spitzberger & Spieß	B5981; 5D1081;B5979	300000210	ne		
28	n. a.	EMI Test Receiver	ESCI 1166.5950.03	R&S	100083	300003312	k	04.01.2012	04.01.2014
29	n. a.	Analyzer-Reference-System (Harmonics and Flicker)	ARS 16/1	SPS	A3509 07/0 0205	300003314	k	14.07.2011	14.07.2013
30	n. a.	Amplifier	JS42-00502650-28-5A	MITEQ	1084532	300003379	ev		
31	n. a.	Antenna Tower	Model 2175	ETS-LINDGREN	64762	300003745	izw		
32	n. a.	Positioning Controller	Model 2090	ETS-LINDGREN	64672	300003746	izw		
33	n. a.	Turntable Interface-Box	Model 105637	ETS-LINDGREN	44583	300003747	izw		
34	n. a.	TRILOG Broadband Test-Antenna 30 MHz - 3 GHz	VULB9163	Schwarzbeck	295	300003787	k		
35	n. a.	Spectrum-Analyzer	FSU26	R&S	200809	300003874	k	10.01.2011	10.01.2013
36	5	DC Power Supply, 60V, 10A	6038A	HP Meßtechnik	2848A07027	300001174	Ve	05.01.2012	05.01.2015
37	n. a.	Spectrum Analyzer 20 Hz - 50 GHz	FSU50	R&S	200012	300003443	ve	01.07.2010	01.07.2012
38	11b	Microwave System Amplifier, 0.5-26.5 GHz; 25 dB gain	83017A	HP Meßtechnik	00419	300002268	ev		
39	A026	Std. Gain Horn Antenna 12.4 to 18.0 GHz	639	Narda		300000787	ne		
40	A029	Std. Gain Horn Antenna 18.0 to 26.5 GHz	638	Narda		300002442	ne		
41	A021	Std. Gain Horn Antenna 26.4-40.1 GHz	2224-20	Flann	233	300001973	ne		
42	n. a.	Std. Gain Horn Antenna 33-50 GHz	2324-20	Flann	57	-/-	ne		
43	n. a.	Broadband Low Noise Amplifier 18-50GHz	CERNEX	CBL19503070	19338	300004273	ne		

## 11 Observations

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

**Annex A Photographs of the test setup**

Photo 1:

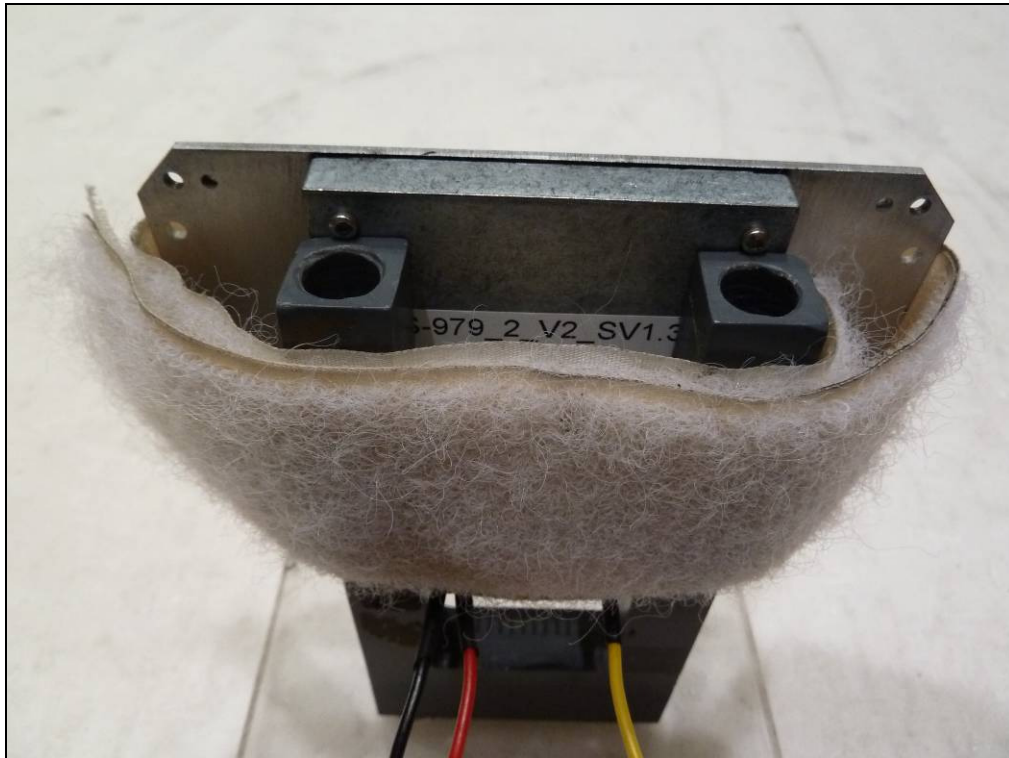


Photo 2:

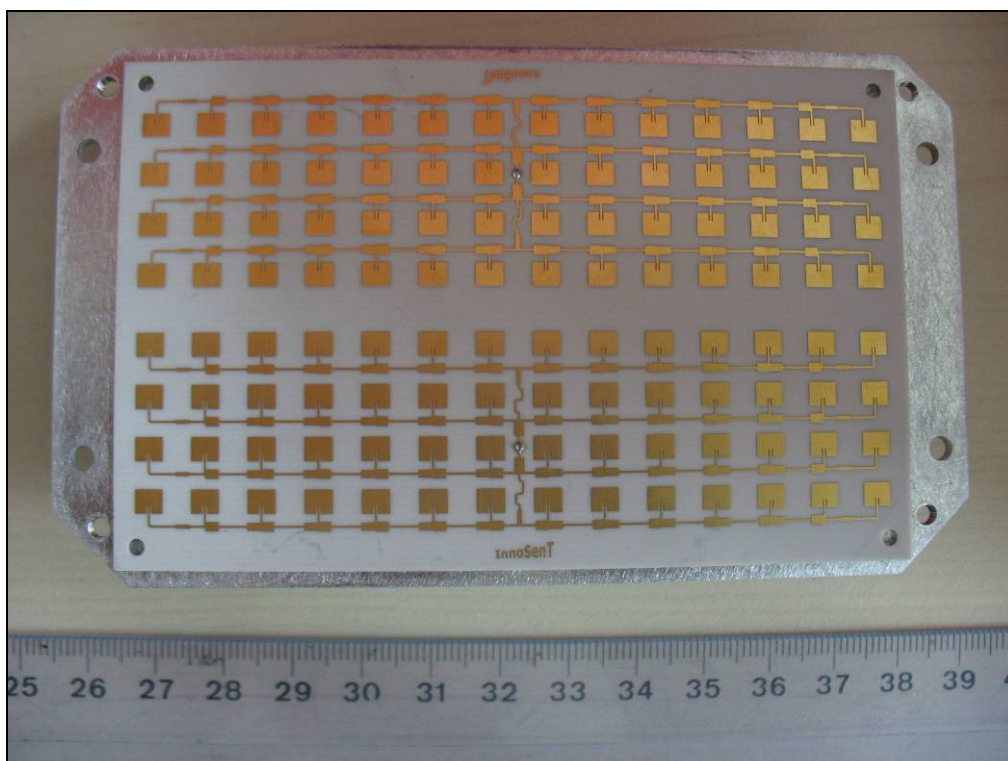


**Annex B External photographs of the EUT**

Photo 3:



Photo 4:





**Annex C Internal photographs of the EUT**

Photo 5:

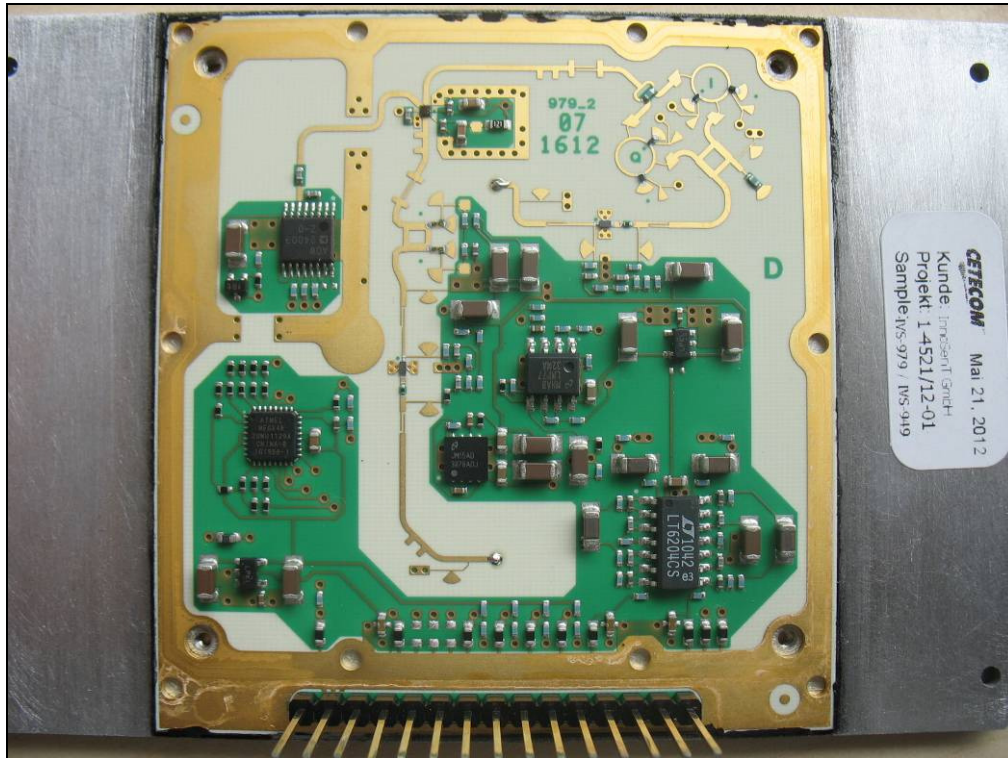


Photo 6:

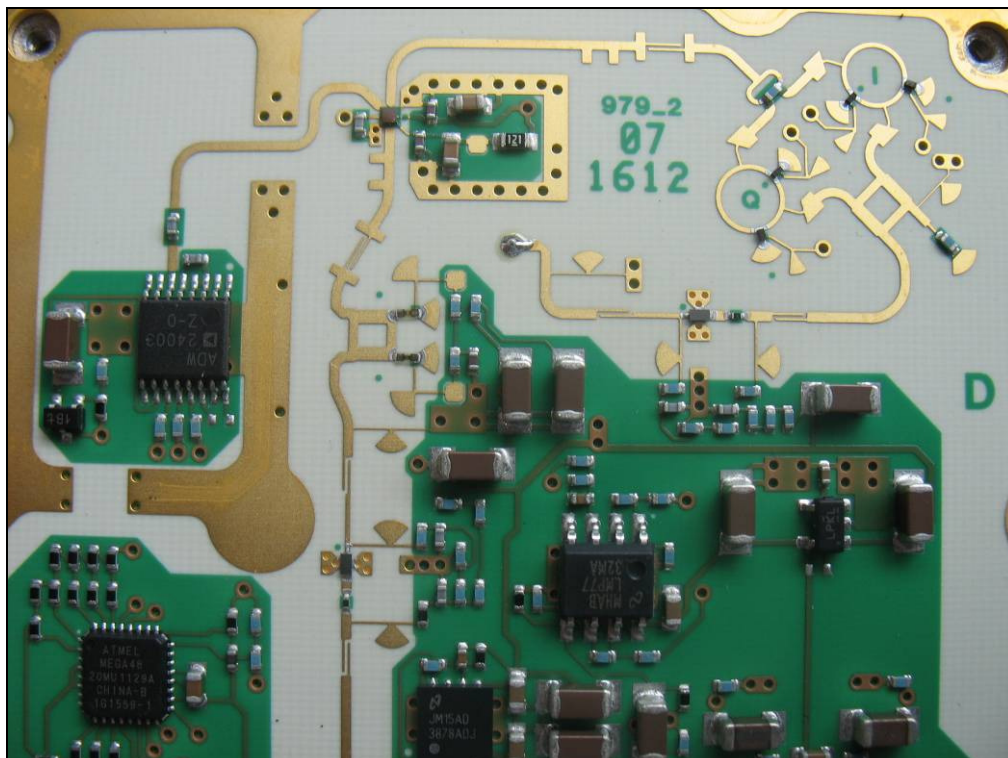
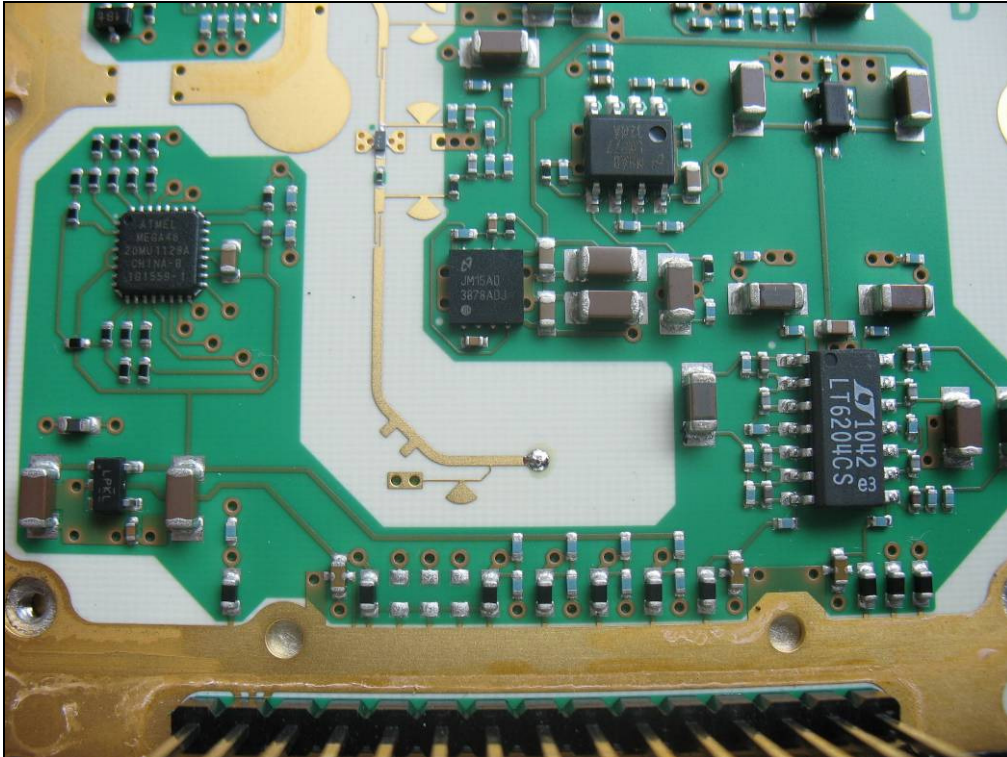


Photo 7:



**Annex D Document history**

Version	Applied changes	Date of release
1.0	Initial release	2012-06-28

**Annex E 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 F Accreditation Certificate



Deutsche Akkreditierungsstelle GmbH  
German Accreditation Body

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV  
Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition



### Accreditation

The Deutsche Akkreditierungsstelle GmbH (German Accreditation Body) attests that the testing laboratory

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

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the following fields:

Wired communications and DECT  
Acoustic  
Radio  
Short Range Devices (SRD)  
RFID  
WiMax and Richtfunk  
Mobile radio (GSM / DCS), Over the Air (OTA) Performance  
Electromagnetic Compatibility (EMC) incl. Automotive  
Product safety  
SAR and Hearing Aid Compatibility (HAC)  
Environmental simulation  
Smart Card Terminals  
Bluetooth  
Wi-Fi-Services

The accreditation certificate shall only apply in connection with the notice of accreditation of 13.04.2011 with the accreditation number D-PL-12076-01 and is valid until 03.09.2014. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 82 pages.

Registration number of the certificate: **D-PL-12076-01-01**

Frankfurt am Main, 13.04.2011

Dipl.-Ing. (FH) Dr. Egner  
Head of Division 2

This document is a translation. The definitive version is the original German accreditation certificate.  
See www.dakks.de

Front side of certificate

Deutsche Akkreditierungsstelle GmbH

Office Berlin  
Spittelmarkt 10  
10117 Berlin

Office Frankfurt am Main  
Gartenstraße 5  
60594 Frankfurt am Main

Office Braunschweig  
Bundesallee 100  
38116 Braunschweig

The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAKKS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.

No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAKKS.

The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) of 31 July 2009 (Federal Law Gazette I p. 2625) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (Official Journal of the European Union L 218 of 9 July 2008, p. 30). DAKKS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC). The signatories to these agreements recognise each other's accreditations.

The up-to-date state of membership can be retrieved from the following websites:

EA: [www.european-accreditation.org](http://www.european-accreditation.org)  
ILAC: [www.ilac.org](http://www.ilac.org)  
IAF: [www.iaf.nu](http://www.iaf.nu)

Back side of certificate

### Note:

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

[http://www.cetecom.com/fileadmin/de/CETECOM\\_D\\_Saarbruecken/accreditations\\_Jan\\_2010/DAKKS\\_Akkredi\\_Urk\\_EN17025-En\\_incl\\_Annex.pdf](http://www.cetecom.com/fileadmin/de/CETECOM_D_Saarbruecken/accreditations_Jan_2010/DAKKS_Akkredi_Urk_EN17025-En_incl_Annex.pdf)