

No of Pages : 42

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**Test report** : 51314-5 - Rev.1  
**Item tested** : KATY-ACAAA / KATY-AGAAA  
**Type of equipment** : WLAN Cordless Handset  
**FCC ID** : BXZKATY  
**Client** : Ascom Tateco AB

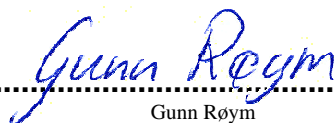
**Tested according to :**

**FCC part 15.247**  
Digital Transmission System

**RSS-210, Issue 6**  
Low Power Licence-Exempt Radiocommunication Devices

**Date of issue :** 2 December 2005

**Authorized by :** .....



Gunn Røyum  
Laboratory Manager

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## 1 GENERAL INFORMATION

### 1.1 Testhouse Info

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N-2027 Kjeller, NORWAY  
Telephone : +47 64 84 57 00  
Fax : +47 64 84 57 05  
E-mail: post@comlab.no  
Managing Director: Jon Ivar Tidemann  
FCC test firm registration # : 994405  
Industry Canada OATS registration # : 4443

### 1.2 Client Information

Name : Ascom Tateco AB  
Address : P.O.Box 8783, Grimbodalen 2, SE-402 76 Gothenburg, Sweden  
Telephone : +46 31 559 300  
Fax : +46 31 552 031

**Contact:**

Name : Tania Ottebrink  
E-mail : [tania.ottebrink@ascomtateco.se](mailto:tania.ottebrink@ascomtateco.se)

### 1.3 Manufacturer

Name : /  
Address : /  
Telephone : /  
Fax : /  
E-mail : /

## 2 Test Information

### 2.1 Tested Item

Name :	ASCOM
FCC ID :	BXZKATY
Industry Canada ID :	3724-KATY
Model/version :	KATY-ACAAA / KATY-AGAAA
Serial number :	Radiated sample: T26000005L Conducted sample: T26000003J
Hardware identity and/or version:	RP3
Software identity and/or version :	0.1.3
Frequency Range :	2412-2462
Tunable Bands :	1
Number of Channels :	11
Operating Modes :	802.11b, 802.11g
Type of Modulation :	DSSS / OFDM
Emissions Designator :	/
User Frequency Adjustment :	None
Rated Output Power :	40 mW
Type of Power Supply :	Li-Ion Battery
Antenna Connector :	None
Antenna Diversity Supported :	Yes
Desktop Charger :	660117 / 660118

#### Description of Test Item

The tested equipment is a WLAN Cordless Telephone Handset that uses the IEEE 802.11b/g standard to connect to a Wireless LAN Access Point and transmit speech as ip-packets over the WLAN radio-interface.

The tested handset has integral antennas only.

The models KATY-ACAAA and KATY-AGAAA are identical except for the color, the KATY-ACAAA will have color GREY and the KATY-AGAAA will be colored LIGHT GREY. The same goes for the two different Desktop Chargers.

## **2.2 Test Environment**

### **2.2.1 Normal test condition**

Temperature:	20 - 23 °C
Relative humidity:	30 - 50 %
Normal test voltage:	115 V AC

The values are the limit registered during the test period.

## **2.3 Test Period**

Item received date: 2005-09-27

Test period : from 2005-09-27 to 2005-09-29

### 3 TEST REPORT SUMMARY

#### 3.1 General

Manufacturer: Ascom  
Model No.: KATY-ACAAA / KATY-AGAAA  
Serial No.: Radiated sample: T26000005L  
Conducted sample: T26000003J

All measurements are traceable to national standards.

The tests were conducted for the purpose of demonstrating compliance with FCC CFR 47 Part 15, paragraph 15.247 and Industry Canada RSS-210 Issue 6.

Radiated tests were conducted in accordance with ANSI C63.4-2001. The radiated tests were made in a semi-anechoic chamber at measuring distances of 3 and 10 metres.

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> New Submission  | <input checked="" type="checkbox"/> Production Unit |
| <input type="checkbox"/> Class II Permissive Change | <input type="checkbox"/> Pre-production Unit        |
| <b>DTS</b> Equipment Code                           | <input type="checkbox"/> Family Listing             |

**THIS TEST REPORT RELATES ONLY TO THE ITEM (S) TESTED.**

**Deviations from, additions to, or exclusions from the test specifications are described in "Summary of Test Data".**



**TEST REPORT #: 51314-5**

TESTED BY:

*Frode Sveinsen*

Frode Sveinsen, Chief Engineer

DATE: 5 OCTOBER 2005

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This test report applies only to the items and configurations tested.

### 3.2 Test Summary

Name of test	FCC Part 15 reference	RSS-210 Issue 6 reference	Result
Supply Voltage Variations	15.31(e)	8 (RSS-GEN)	Pass
Number of Operating Frequencies	15.31(m)	A8.1	Pass
Antenna Requirement	15.203	7.1.4 (RSS-GEN)	Pass
Powerline Conducted Emission	15.207(a)	7.2.2 (RSS-GEN)	Pass
6 dB Bandwidth	15.247(a)(2)	A8.2	Pass
Peak Power Output	15.247(b)	A8.4	Pass
Power Spectral Density	15.247(d)	A8.2	Pass
Spurious Emissions (Antenna Conducted)	15.247(c)	A8.5	Pass
Spurious Emissions (Radiated)	15.247(c)	A8.5	Pass

### 3.3 Description of modification for Modification Filing

Not applicable.

### 3.4 Comments

The handset has two antennas for antenna diversity. The antennas are separated with a switch and can not be operated simultaneously. The conducted tests were only performed on one antenna, the radiated tests were performed on both antennas. The conducted tests were performed on a separate handset with a temporary antenna connector.

The radiated measurements were performed with the EUT powered from a fully charged battery. The conducted measurements were performed with the EUT powered from a regulated external power supply. It was checked that power variations between 3.45 V and 4.2 V DC did not have any influence on the measurements (3.45V is the switch-off voltage of the handset).

All measurements have been performed with the handset operating with 802.11b (b-mode) and 802.11g (g-mode) type modulation with a test modulation with a very high duty cycle for testing. The duty cycle of the test modulation used was 90% for g-mode and 99% for b-mode. The measurements with Power Meter have been corrected for duty-cycle. The tests were performed with the highest bitrate supported for each modulation type, 11Mbps and 54Mbps. It was checked that the bitrate did not have any significant effect the measured values.

Spurious emissions have also been tested with the handset in the charger and charging.

### 3.5 Family List Rational

Not Applicable.

## 4 TEST RESULTS

### 4.1 Powerline Conducted Emissions

Para. No.: 15.207 (a)

Test Performed By: Tore Løvlien

Date of Test: 28 September 2005

Measurement procedure: CISPR 22 1997 Clause 5.1 Class B ITE using 50  $\mu$ H/50 ohms LISN.

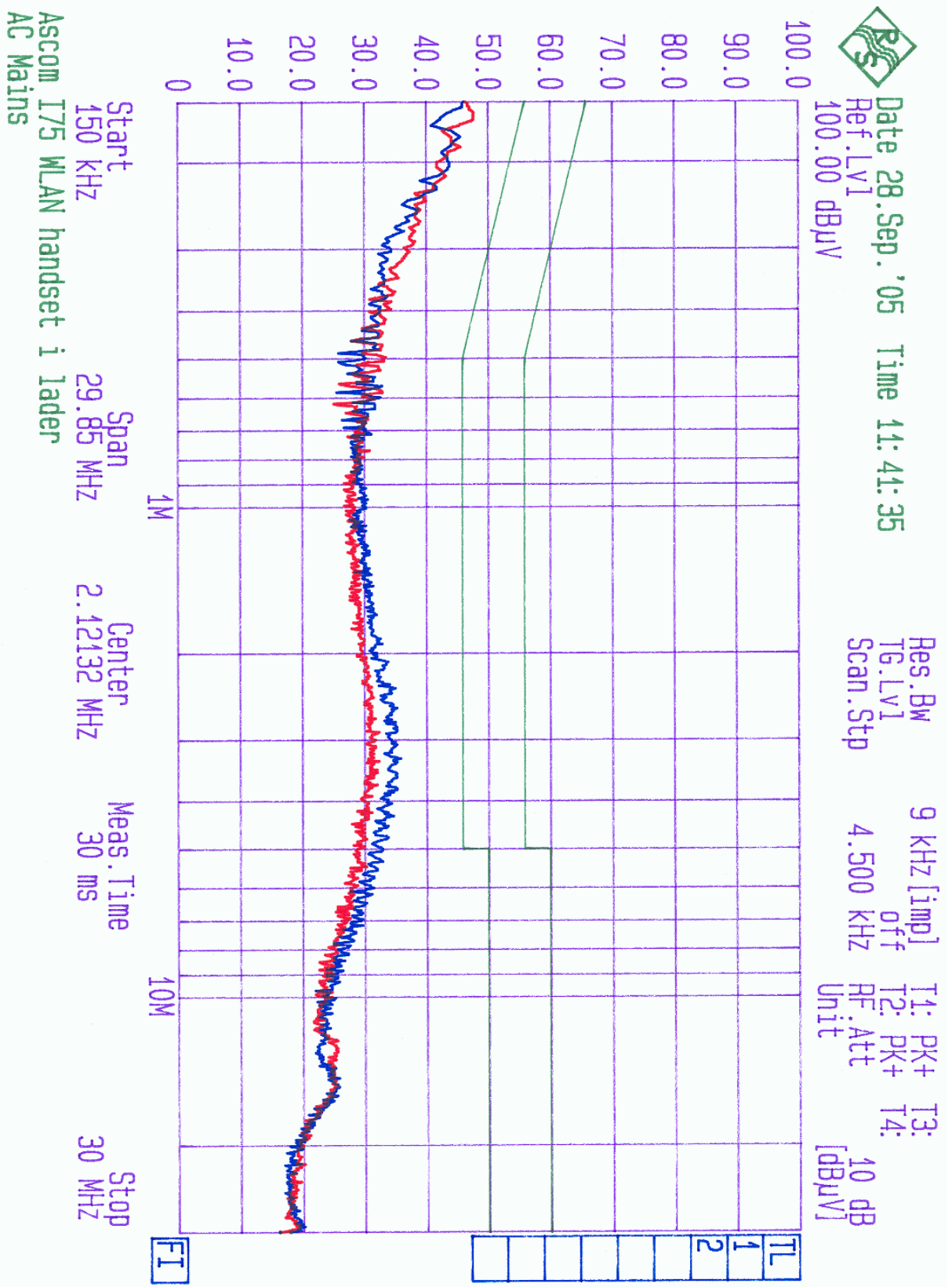
Test Results: **Complies.**

Measurement Data: **See attached graph, (Peak detector).**

Highest measured value (L1 and N): No emissions were detected.

Frequency	Detector	Measured value	Limit	Margin
KHz	Peak/QP/AV	dB $\mu$ V	dB $\mu$ V	dB
/	QP	/	/	/
/	AV	/	/	/
/	QP	/	/	/
/	AV	/	/	/





AC Mains, Handset in Charger

**4.2 6 dB Bandwidth**

Para. No.: 15.247 (a)(2)

Test Performed By: Frode Sveinsen

Date of Test: 27 September 2005

Test Results: **Complies**

Measurement Data:

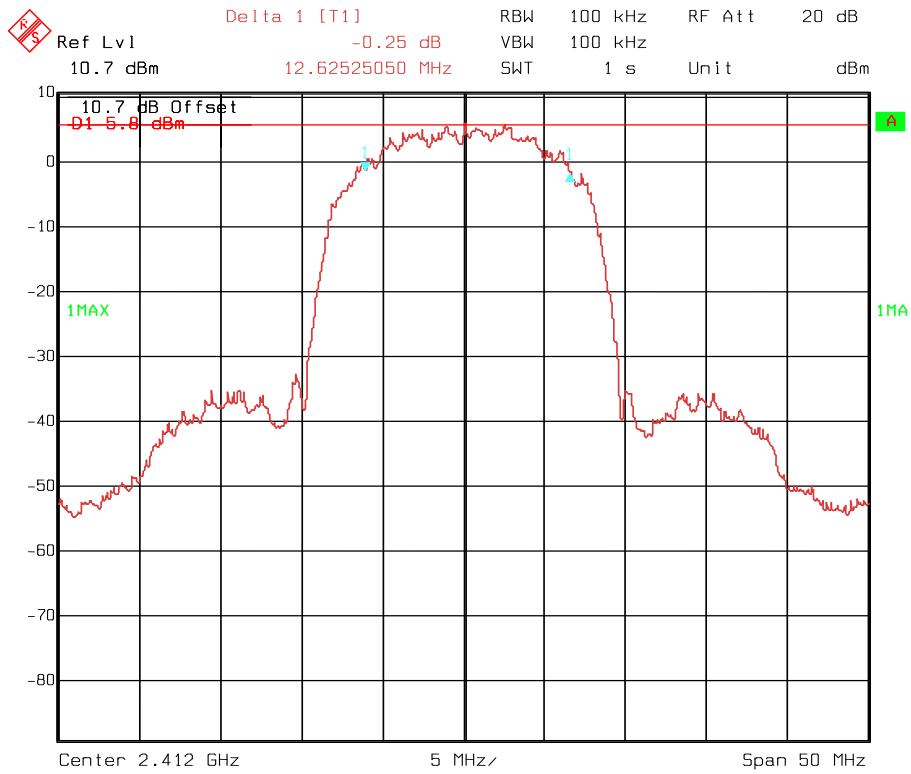
6 dB Bandwidth (MHz)			
Operating mode	Ch 1	Ch 6	Ch 11
<b>b-mode</b>	12.6	12.4	12.5
<b>g-mode</b>	16.6	16.6	16.7

Power supply variation within 85 % to 115% of nominal value has no influence on measured value.

**Requirements:**

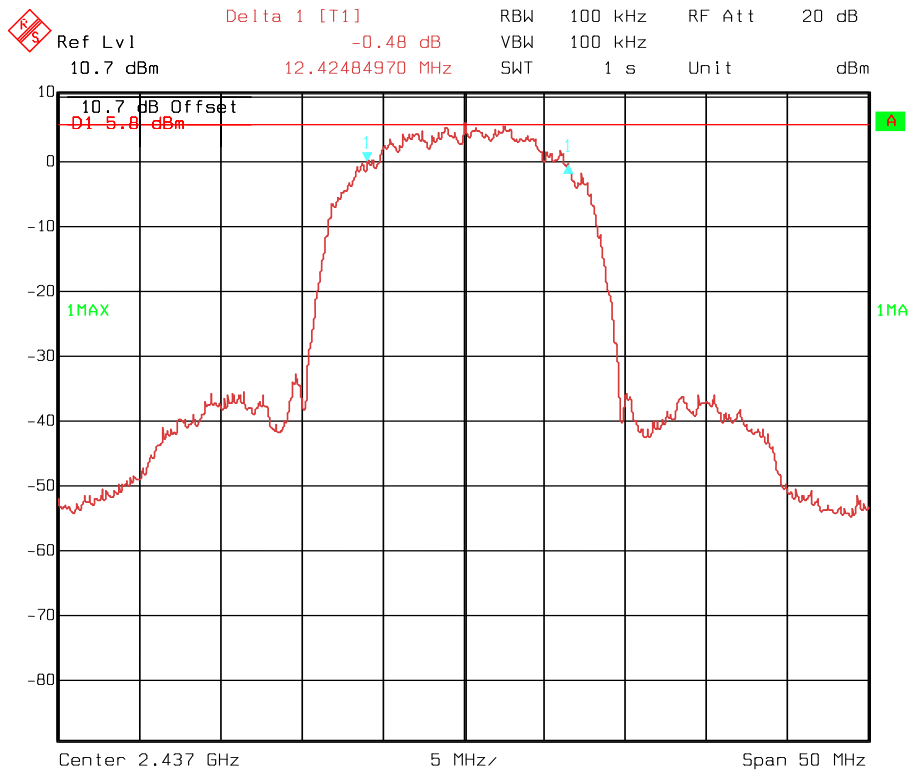
For Digital Transmission Systems in the 2400-2483.5 MHz band the minimum 6 dB bandwidth shall be at least 500 KHz.

No requirements for Frequency Hopping Systems.



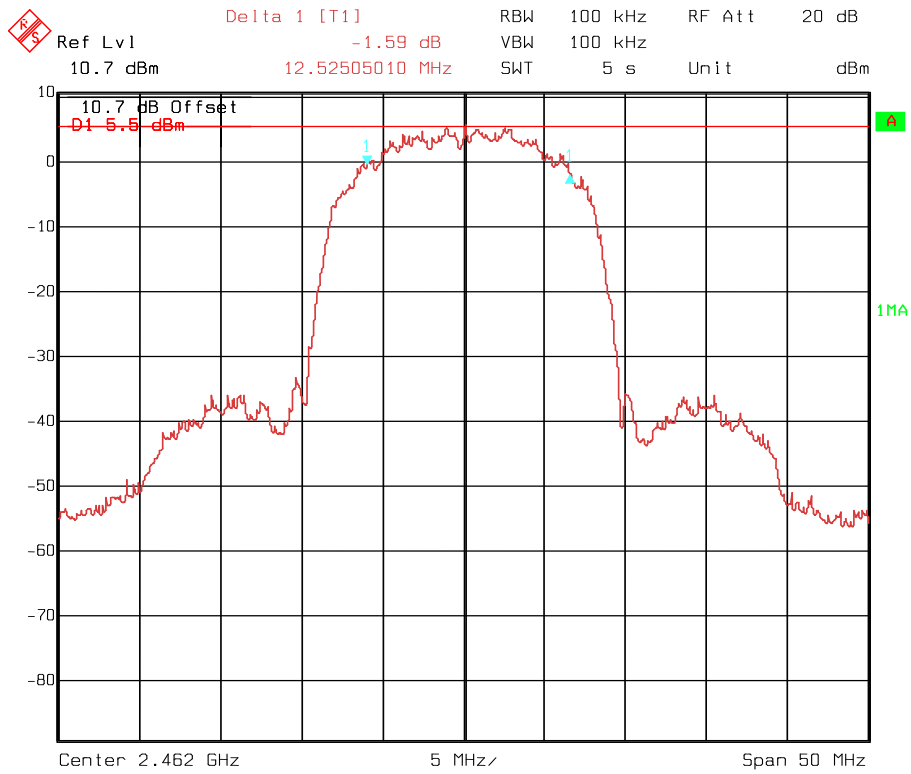
Date: 27.SEP.2005 15:03:18

6 dB Bandwidth ch 1, b-mode



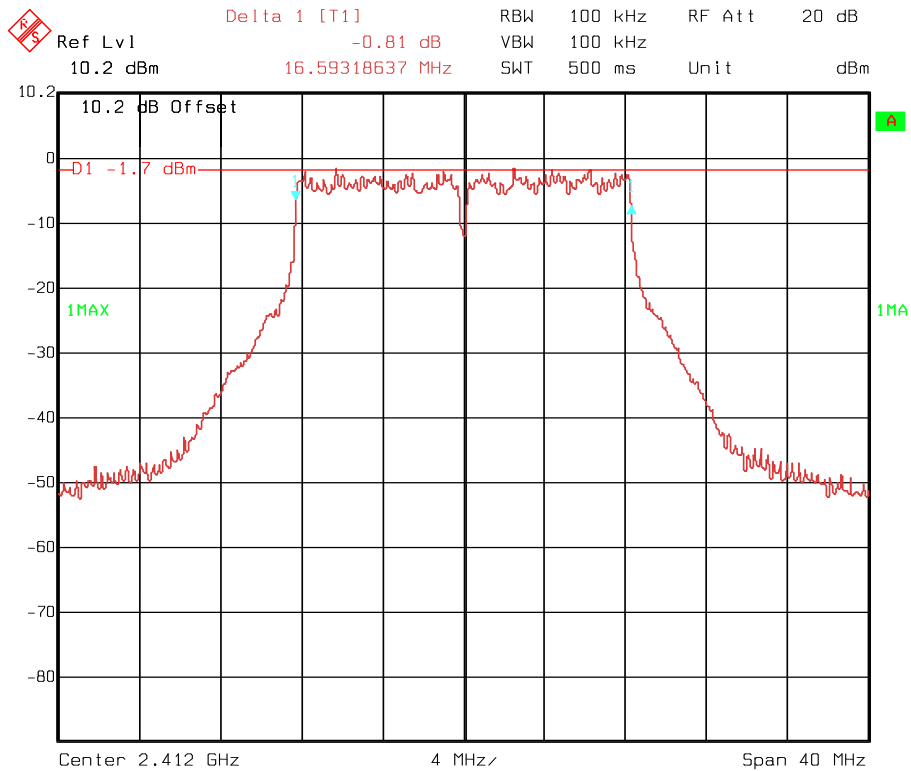
Date: 27.SEP.2005 15:00:12

6 dB Bandwidth ch 6, b-mode



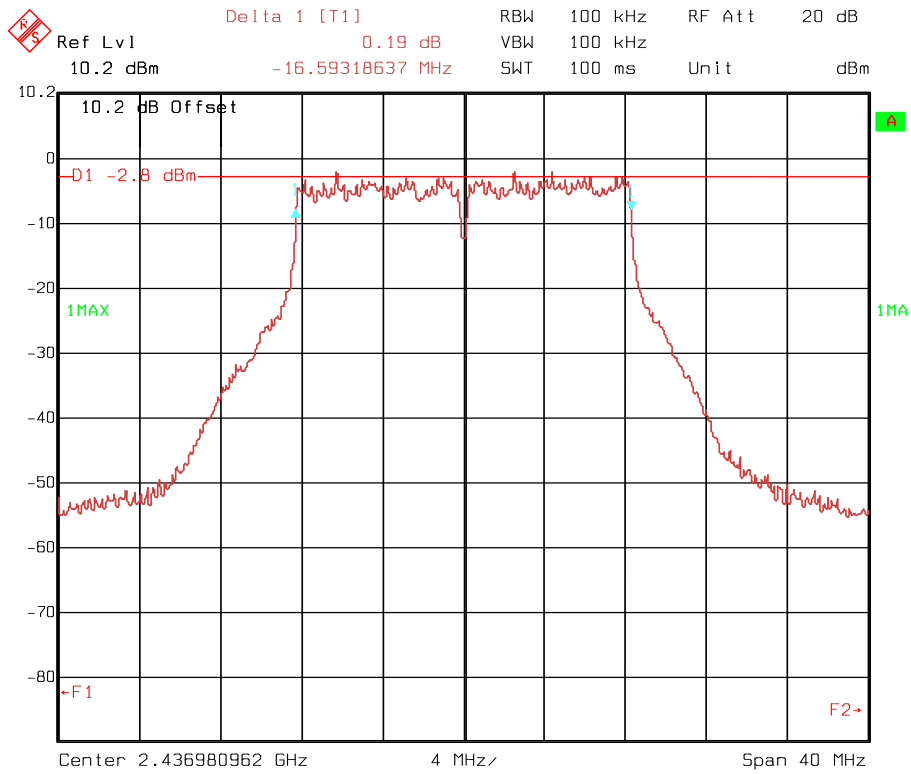
Date: 27.SEP.2005 14:10:58

**6 dB Bandwidth ch 11, b-mode**



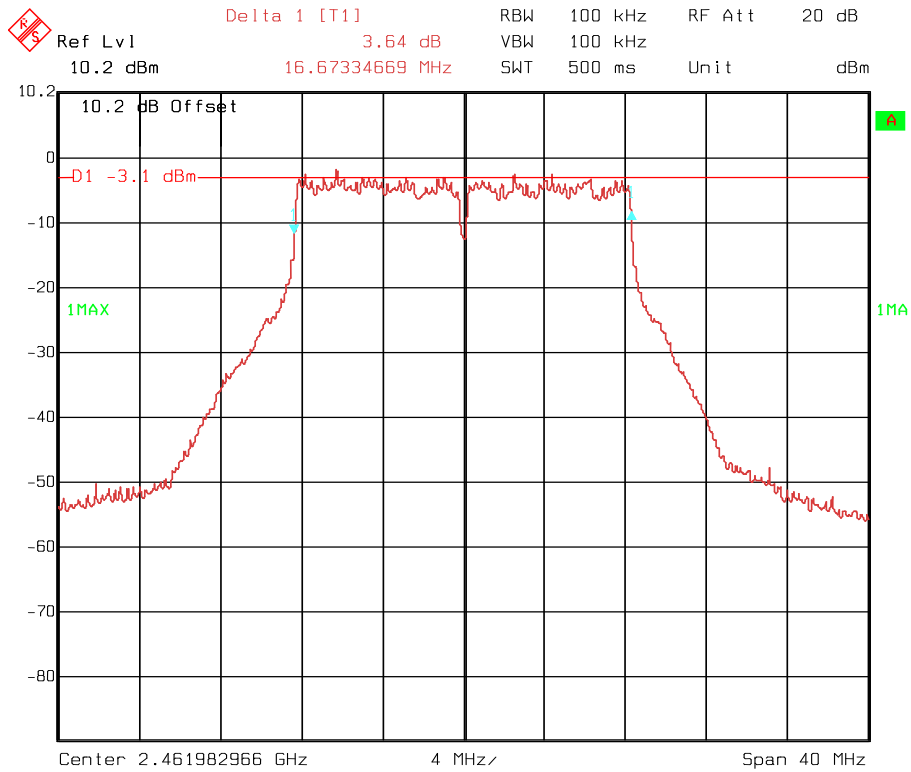
Date: 27.SEP.2005 13:35:11

**6 dB Bandwidth ch 1, g-mode**



Date: 27.SEP.2005 12:22:08

### 6 dB Bandwidth ch 6, g-mode



Date: 27.SEP.2005 13:26:04

### 6 dB Bandwidth ch 11, g-mode

**4.3 Peak Power Output**

Para. No.: 15.247 (b)

Test Performed By: Frode Sveinsen	Date of Test: 27-28 September 2005
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Test Results: Complies

Measurement Data:

Maximum Conducted Output Power, mW

Operating Mode	Ch 1	Ch 6	Ch 11
b-mode	40	41	40
g-mode	10	9	8

Maximum EIRP, mW

Operating mode	Ch 1	Ch 6	Ch 11
b-mode	66	68	74
g-mode	13	16	14
Antenna gain dBi	+2.2	+2.2	+2.7

The EUT was transmitting with test modulation during the test, the Duty Cycle was 90% in g-mode and 99% in b-mode. This has been taken into account and the power meter reading corrected by +0.5dB for g-mode and +0.1 dB for b-mode.

DC Correction =  $10 \cdot \log(1/DC)$  dB

Antenna gain =  $10 \cdot \log(EIRP/Conducted\ power)$  dBi

See attached graph.

Detachable antenna?  Yes  No

If detachable, is the antenna connector non-standard?  Yes  No

The tested equipment has only integral antennas. The conducted tests were performed on a sample with a temporary antenna connector.

**Requirements:**

The maximum peak output power shall not exceed the following limits:

For Digital Transmission Systems in the 2400 - 2483.5 MHz band: 1 Watt

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power from the intentional radiator shall be reduced below the stated value above by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 4.4 Spurious Emissions (Conducted)

Para. No.: 15.247 (d)

Test Performed By: Frode Sveinsen
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Date of Test: 27 September 2005
---------------------------------

**Test Results: Complies**

**Measurement Data:**

See attached graphs.

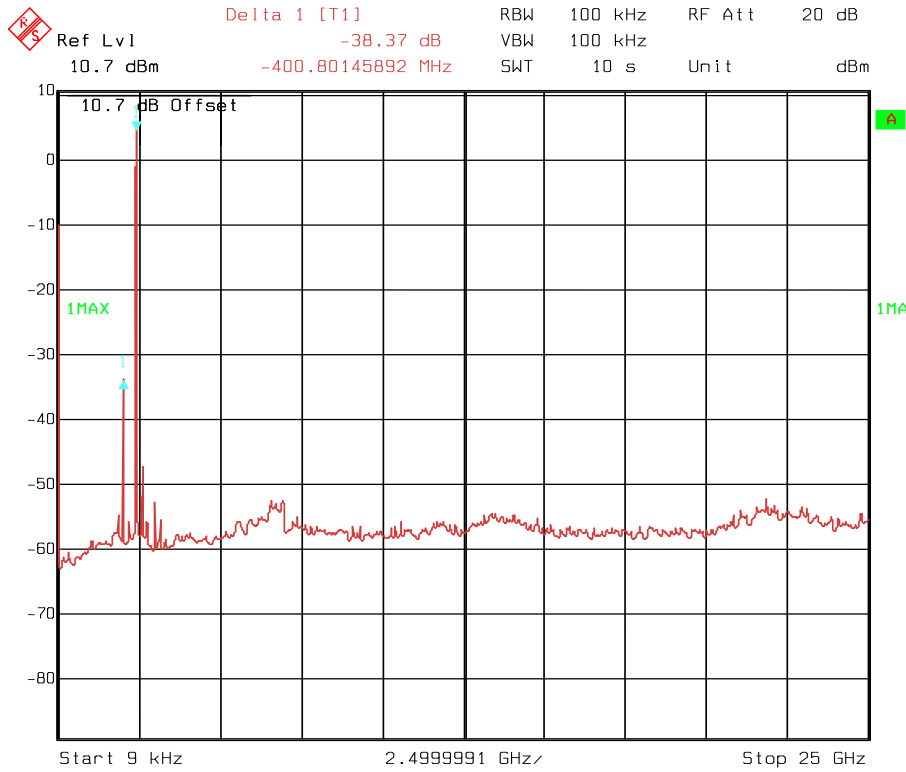
**Maximum RF level outside operating band:**

RF ch 1: >30 dB/C, margin >10 dB

RF ch 6: >30 dB/C, margin >10 dB

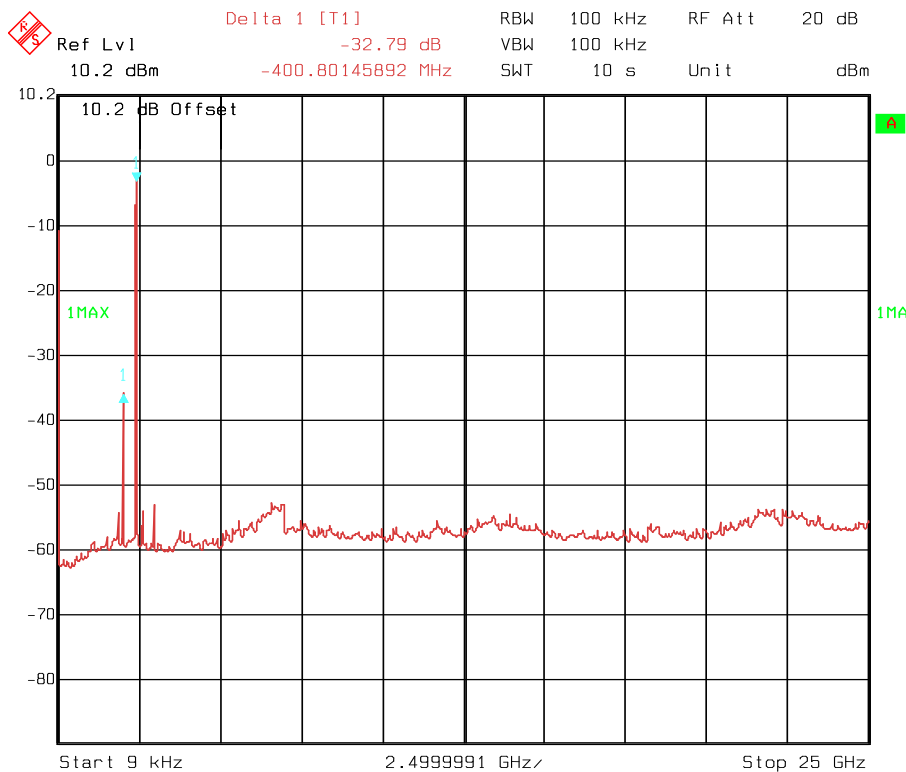
RF ch 11: >30 dB/C, margin >10 dB

**Conducted Emissions, 9 kHz - 25 GHz**



Date: 27.SEP.2005 15:04:54

**Channel 1, b-mode**

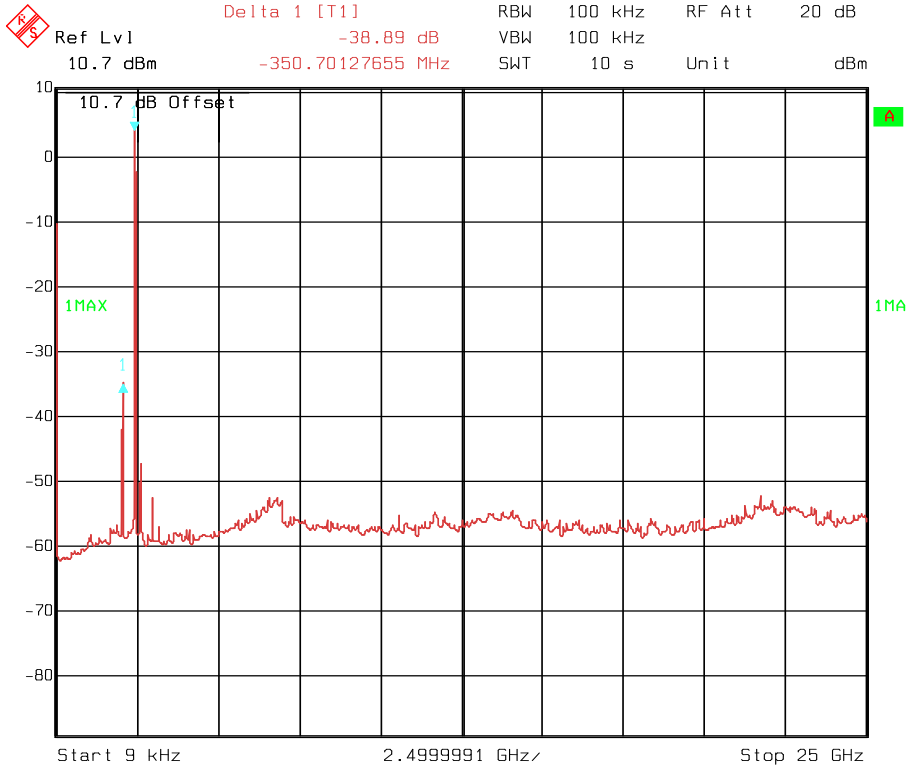


Date: 27.SEP.2005 13:38:33

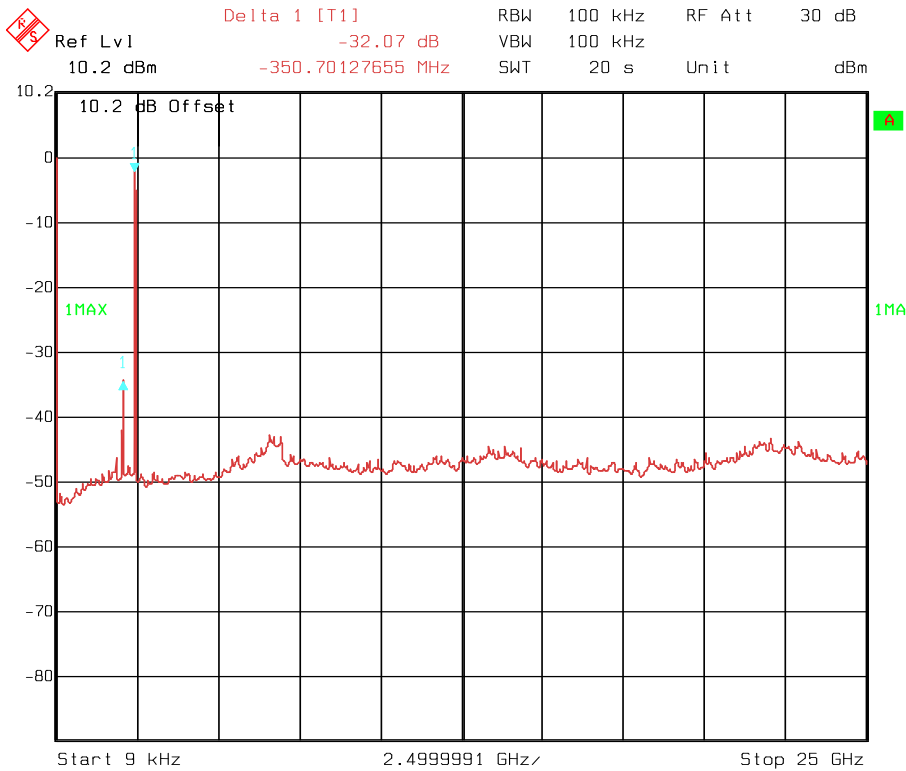
**Channel 1, g-mode**



Conducted Emissions, 9 kHz - 25 GHz

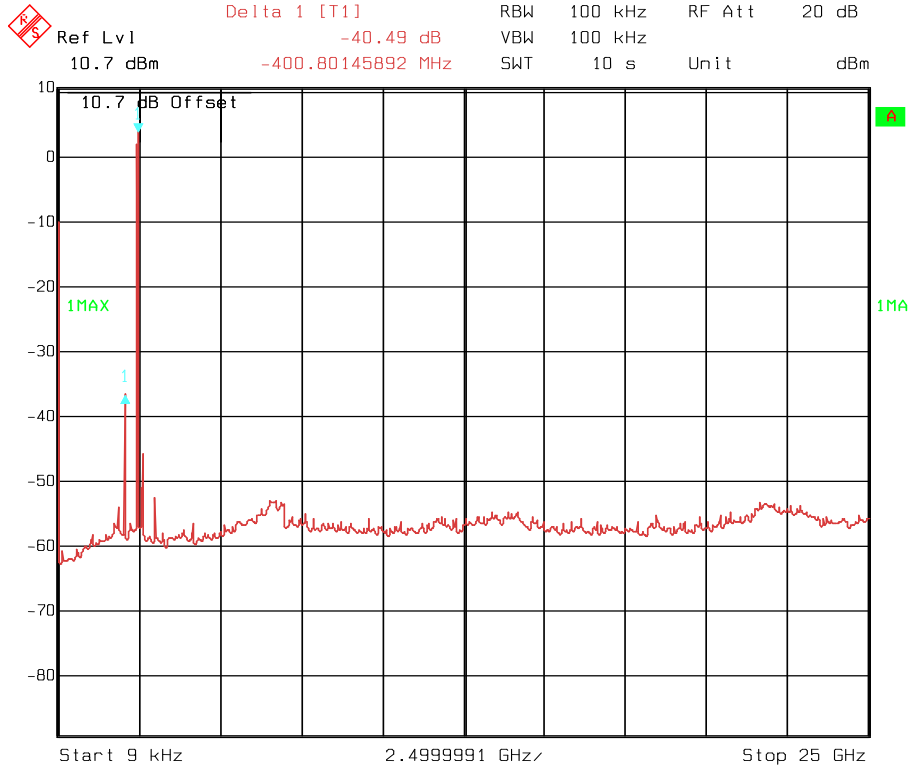


Channel 6, b-mode



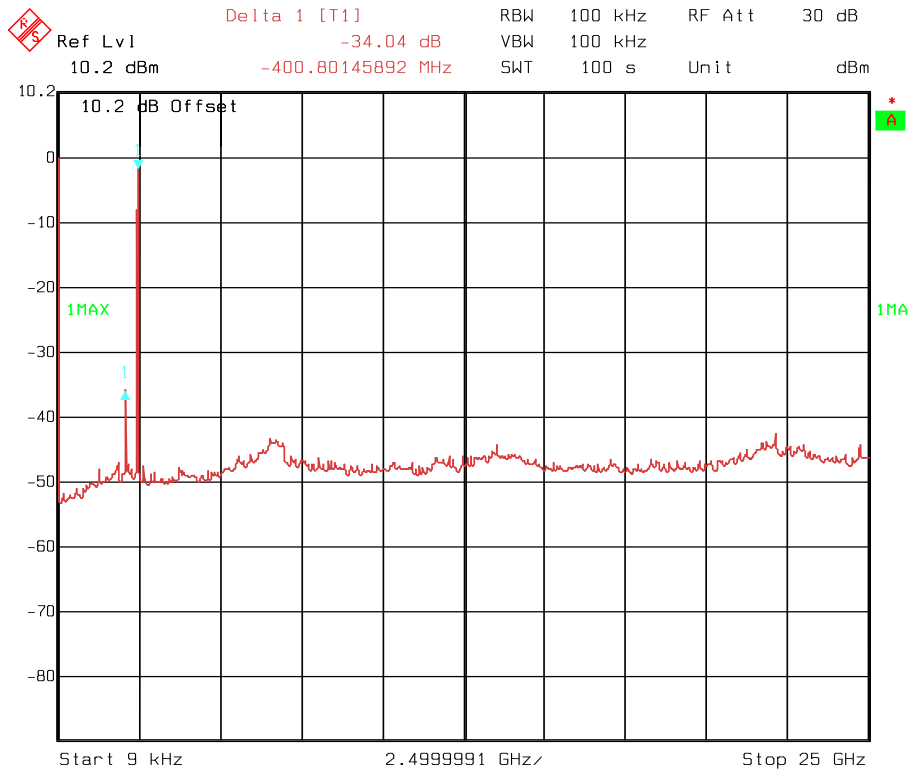
Channel 6, g-mode

Conducted Emissions, 9 kHz - 25 GHz



Date: 27.SEP.2005 14:23:15

Channel 11, b-mode

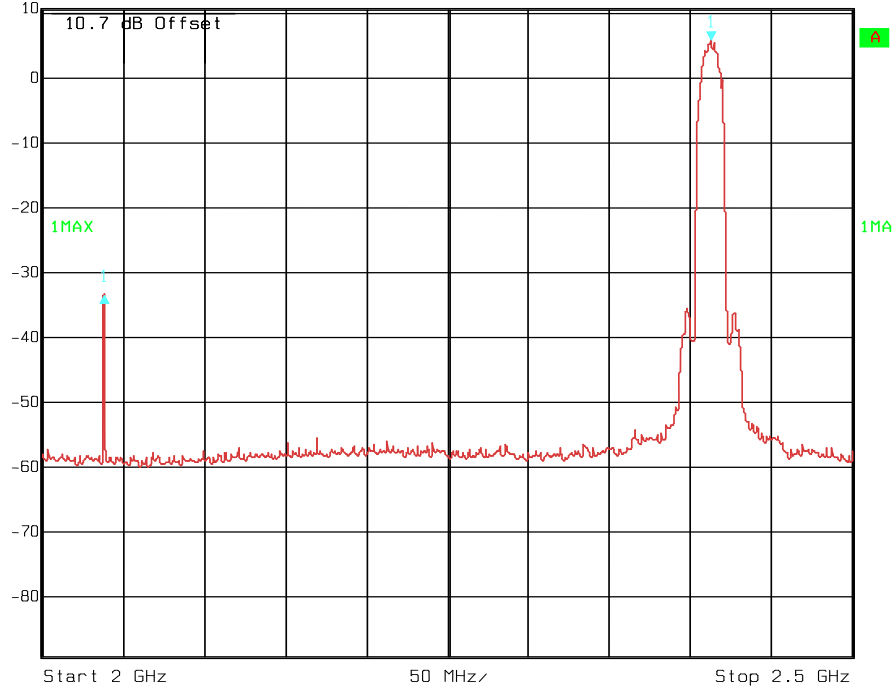


Date: 27.SEP.2005 13:06:23

Channel 11, g-mode

Conducted Emissions, 2 GHz - 2.5 GHz

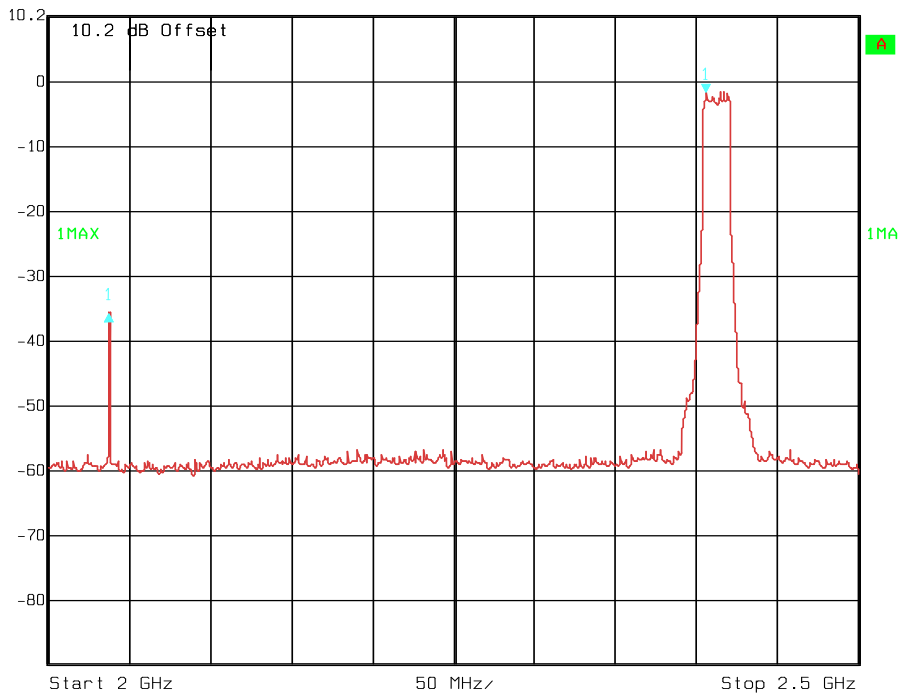
Delta 1 [T1] RBW 100 kHz RF Att 20 dB  
Ref Lvl 10.7 dBm -39.32 dB VBW 100 kHz  
-374.74949900 MHz SWT 10 s Unit dBm



Date: 27.SEP.2005 15:06:14

Channel 1, b-mode

Delta 1 [T1] RBW 100 kHz RF Att 20 dB  
Ref Lvl 10.2 dBm -33.99 dB VBW 100 kHz  
-368.73747495 MHz SWT 10 s Unit dBm

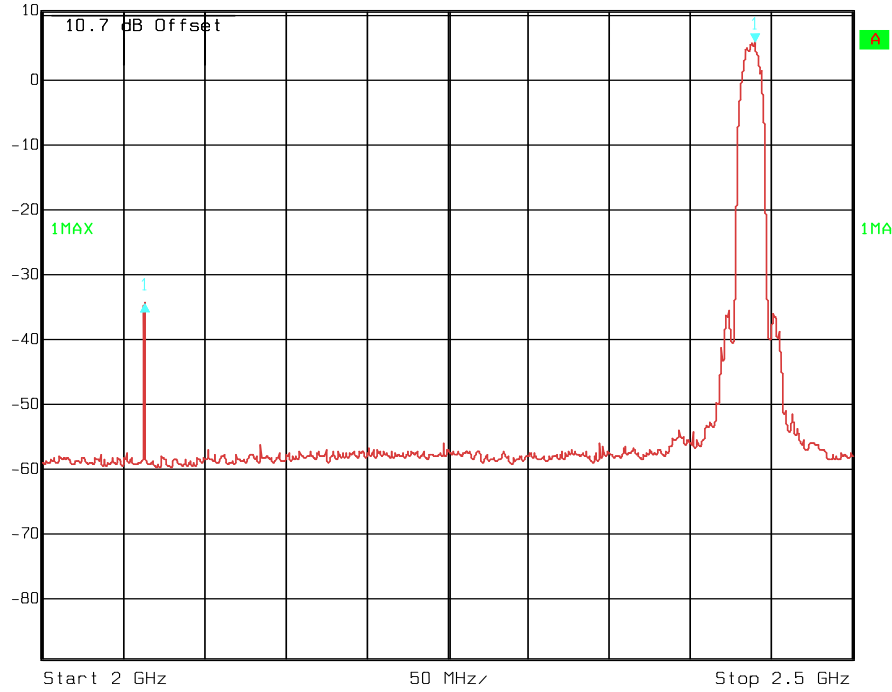


Date: 27.SEP.2005 13:39:57

Channel 1, g-mode


**Conducted Emissions, 2 GHz - 2.5 GHz**

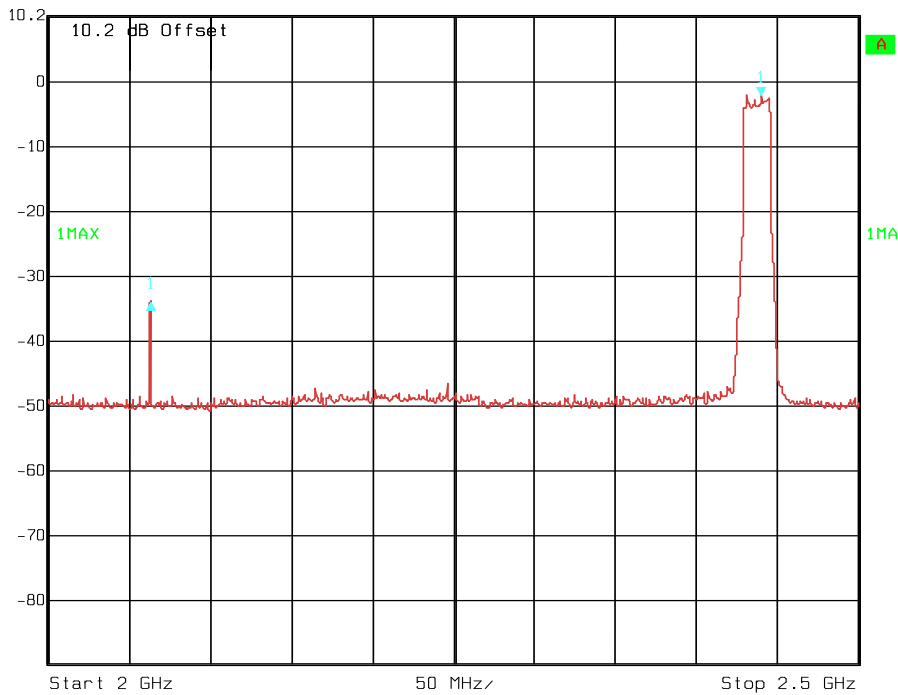
	Delta 1 [T1]	RBW	100 kHz	RF Att	20 dB
	Ref Lvl	-40.14 dB	VBW	100 kHz	
	10.7 dBm	-376.75350701 MHz	SWT	10 s	Unit



Date: 27.SEP.2005 14:37:55

**Channel 6, b-mode**


	Delta 1 [T1]	RBW	100 kHz	RF Att	30 dB
	Ref Lvl	-31.84 dB	VBW	100 kHz	
	10.2 dBm	-376.75350701 MHz	SWT	1 s	Unit

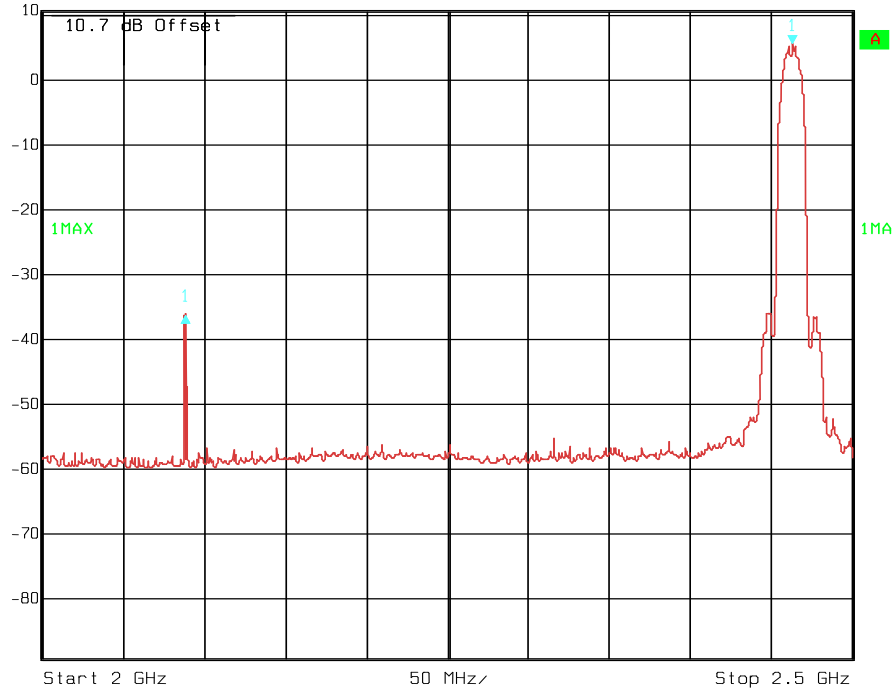


Date: 27.SEP.2005 12:59:51

**Channel 6, g-mode**


**Conducted Emissions, 2 GHz - 2.5 GHz**

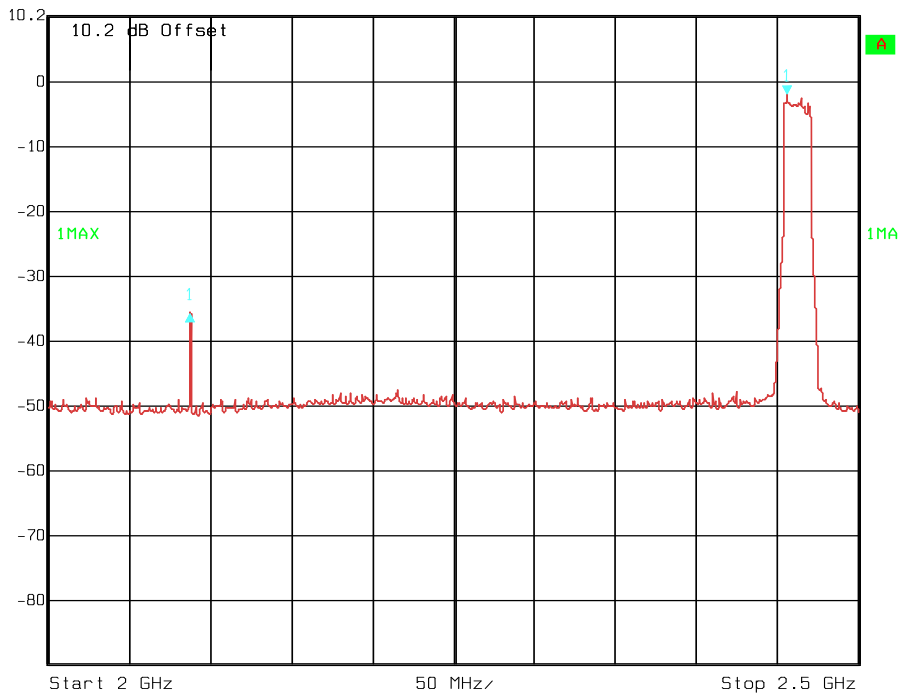
	Delta 1 [T1]	RBW	100 kHz	RF Att	20 dB
	Ref Lvl	-41.71 dB	VBW	100 kHz	
	10.7 dBm	-374.74949900 MHz	SWT	10 s	Unit



Date: 27.SEP.2005 14:24:28

**Channel 11, b-mode**

	Delta 1 [T1]	RBW	100 kHz	RF Att	30 dB
	Ref Lvl	-33.74 dB	VBW	100 kHz	
	10.2 dBm	-368.73747495 MHz	SWT	1 s	Unit



Date: 27.SEP.2005 13:03:00

**Channel 11, g-mode**

## 4.5 Spurious Emissions (Radiated)

Para. No.: 15.205(a), 15.209 (a)

Test Performed By: Frode Sveinsen

Date of Test: 28 and 29 September 2005

Test Results: Complies

### Measurement Data:

Band-edge field strength measured at RF channels 1 / 11:

Frequency	Measured Level		Limit	Detector	Margin
GHz	dB $\mu$ V/m		dB $\mu$ V/m		dB
2.39	b-mode	53	74	Peak	21
		47	54	Average	7
	g-mode	60	74	Peak	14
		46	54	Average	8
2.4835	b-mode	57	74	Peak	17
		51	54	Average	3
	g-mode	59	74	Peak	15
		45	54	Average	9

The Average detector values are calculated from the Peak values using the Duty Cycles shown on the next page.

See attached graphs.

### Radiated Emissions, 1-25 GHz

1-18 GHz measured at a distance of 3m, 18-25 GHz measured at 1m.

No spurious emissions were detected in any of the restricted bands.

See attached graphs.

Antenna factor, amplifier gain and cable loss are included in spectrum analyzer "Transducer factor".

**Duty Cycle Calculation:**

The Duty cycle values are the maximum values declared by the manufacturer, since the tests were performed with a test modulation to have near continuous transmission and since the duty cycle will vary depending on many factors, it was not possible to measure the actual duty cycle.

Since the duty cycle differs for different modulations and for different data-rates we have included the calculations for all rates.

	<b>802.11b 1 Mbit/s</b>	<b>802.11b 11 Mbit/s</b>	<b>802.11g 6 Mbit/s</b>	<b>802.11g 54 Mbit/s</b>
<b>Duty Cycle</b>	11.5 %	2.8 %	1.85 %	0.43 %
<b>Duty Cycle</b>	9.4 dB	15.5 dB	17.3 dB	23.7 dB
<b>Duty Cycle 3 party call</b>	23 %	5.7 %	3.7 %	0.85 %
<b>Duty Cycle 3 party call</b>	6.4 dB	12.4 dB	14.3 dB	20.7 dB

RF duty cycle calculation is according to RF burst Para 15.35 (c).

Maximum duty cycle according to Para 15.35 (b): **802.11b: 6.4 dB**  
**802.11g: 14.3 dB**

These values are used when measuring average field strength above 1 GHz with Peak Detector function employed on the spectrum analyzer.

**Radiated emission 30 – 1000 MHz.****Detector: Quasi-Peak**

Measuring distance 3 m.

Tested in with transmitter operating and in standby mode with the handset in the charger and charging.

Frequency	Operational condition	Field strength	Measuring distance	Limit FCC15.209	Margin
MHz		dB $\mu$ V/m	metres	dB $\mu$ V/m	dB
49.85	Standby in charger	17.6	3	40	22.4
50.15	Standby in charger	31.6	3	40	8.4
59.0	Standby in charger	24.1	3	40	15.9
63.6	Standby in charger	26.1	3	40	13.9
64.15	Standby in charger	14.9	3	40	35.1
111.85	Standby in charger	22.0	3	43.5	21.5
114.75	Standby in charger	22.5	3	43.5	21.0
125.2	Standby in charger	21.9	3	43.5	21.6
130.35	Standby in charger	13.8	3	43.5	29.7
150.65	Standby in charger	16.4	3	43.5	27.1

See attached graphs.

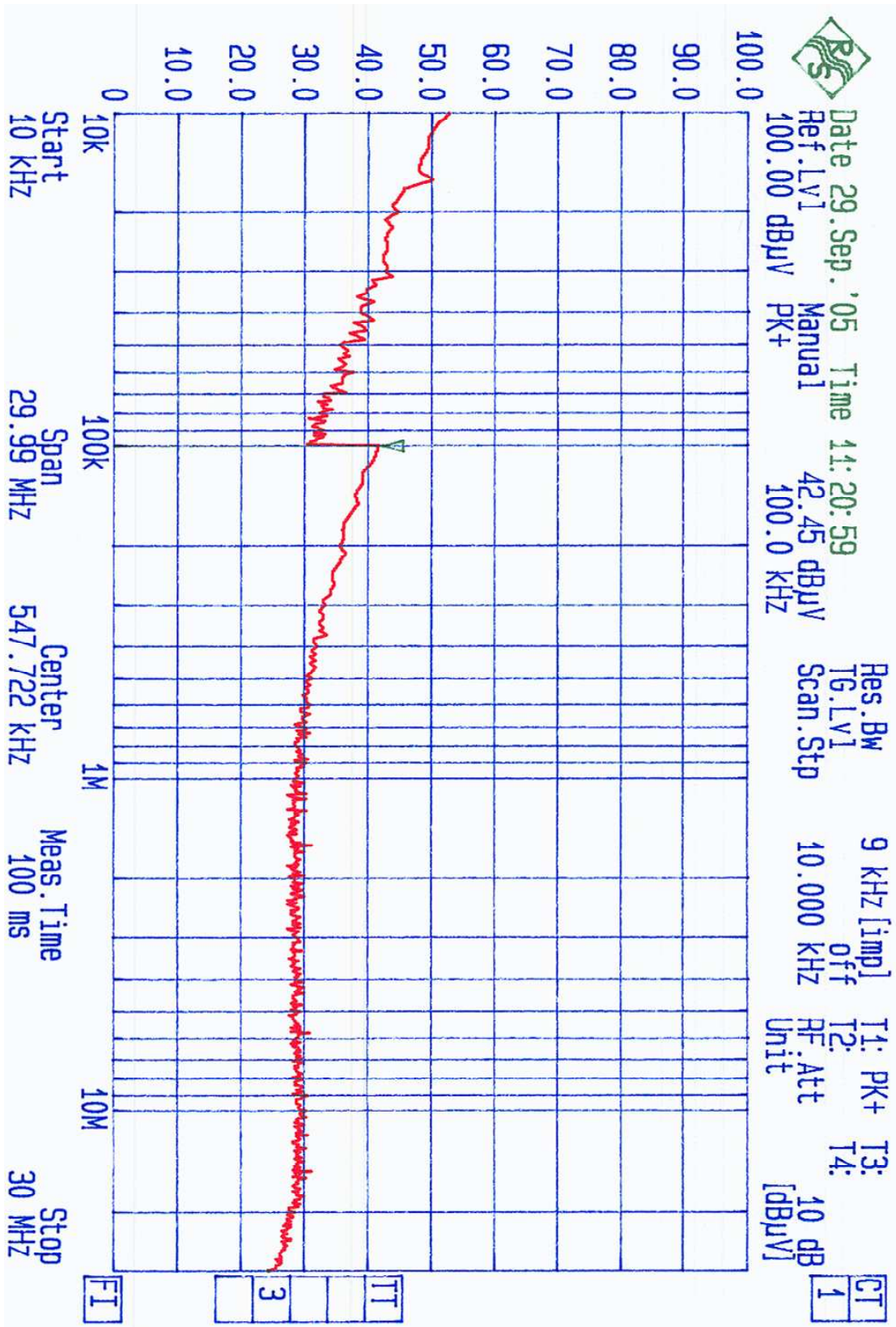
**Radiated emission 10 kHz-30 MHz.**

Measuring distance 10 m, measured with Peak detector.

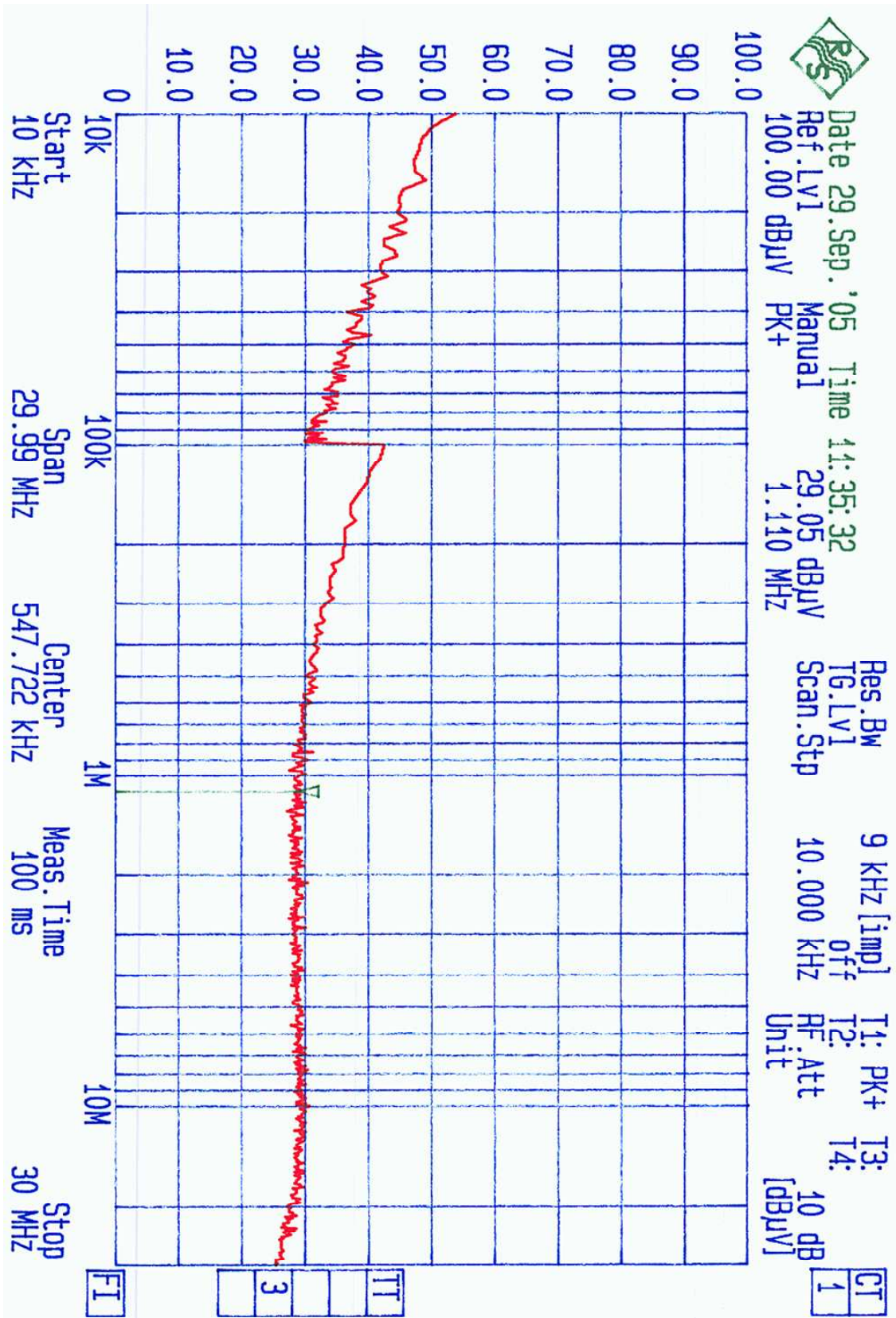
No component detected, see attached graph.

Limit is converted to 10 m using 40 dB/decade according to 15.31 (f) (2).





10kHz - 30 MHz Standby handset in Charger



10kHz - 30 MHz Transmitter Active

## Nemko Comlab AS PK

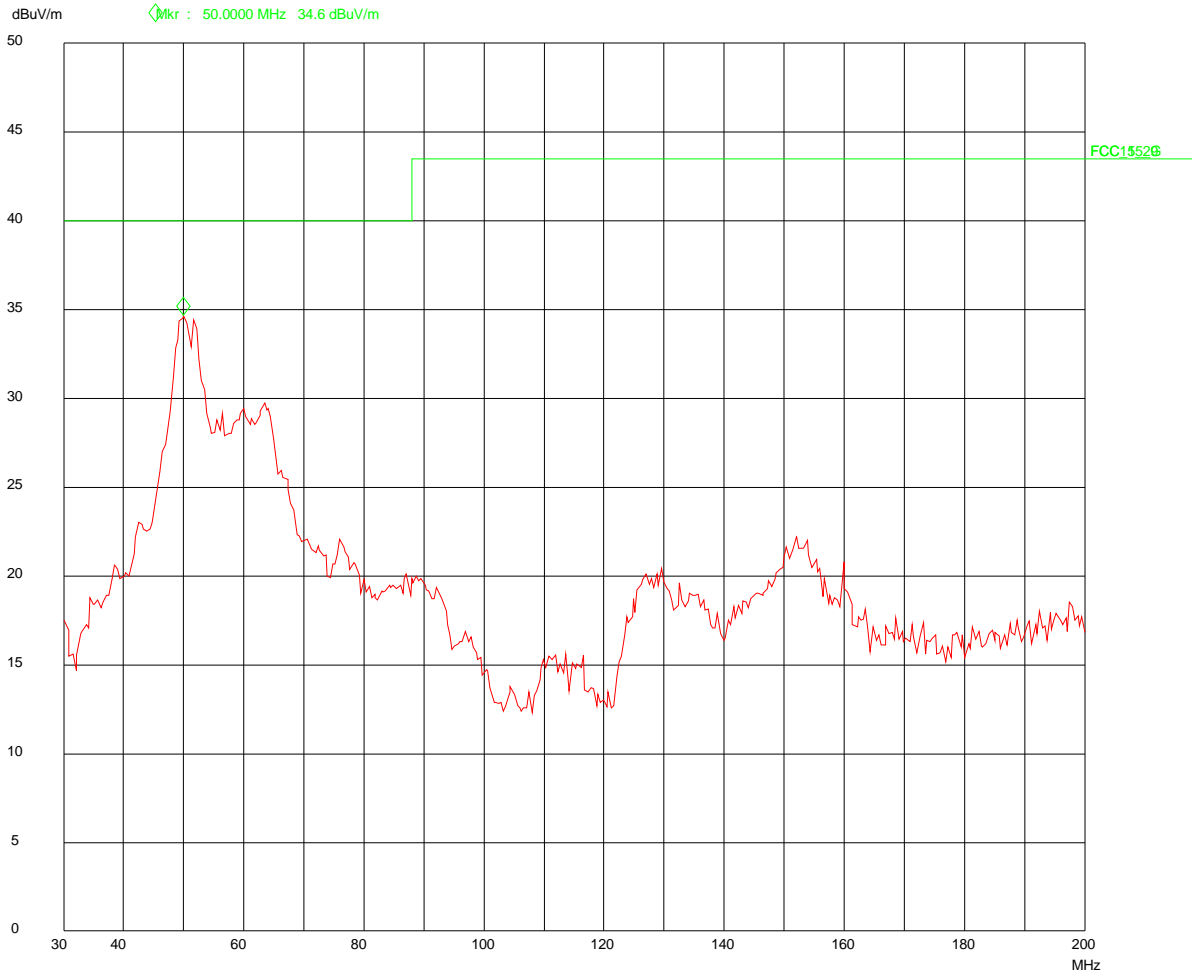
28. Sep 05 09:59

EUT: ASCOM 802.11b/g Cordless Handset  
Manuf: Ascom  
Op Cond: 1m VP  
Operator: FS  
Test Spec: FCC 15.209, 3m  
Comment: Standby with Charger

### Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
30M	200M	50k	120k	PK	50ms	AUTO	LN ON	60dB

Transducer No.	Start	Stop	Name
20	30M	200M	HK116



30-200 MHz, Vertical Polarization, Standby In Charger

## Nemko Comlab AS PK

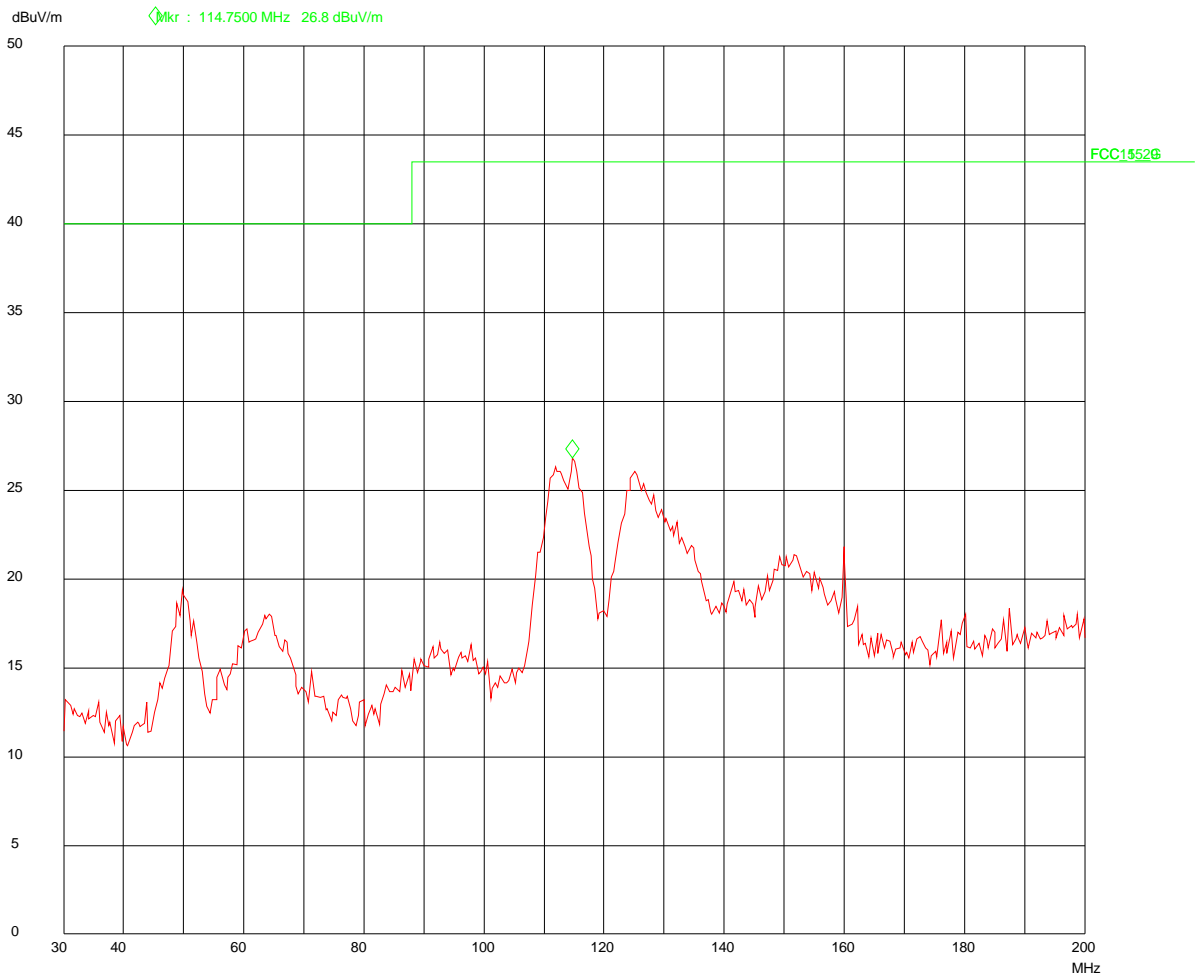
28. Sep 05 10:08

EUT: ASCOM 802.11b/g Cordless Handset  
Manuf: Ascom  
Op Cond: 1m HP  
Operator: FS  
Test Spec: FCC 15.209, 3m  
Comment: Transmitter OFF with Charger

### Scan Settings (1 Range)

----- Frequencies ----- ||----- Receiver Settings -----|  
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge  
30M 200M 50k 120k PK 50ms AUTO LN ON 60dB

Transducer No. Start Stop Name  
20 30M 200M HK116



30-200 MHz, Horizontal Polarization, Standby In Charger

## Nemko Comlab AS PK

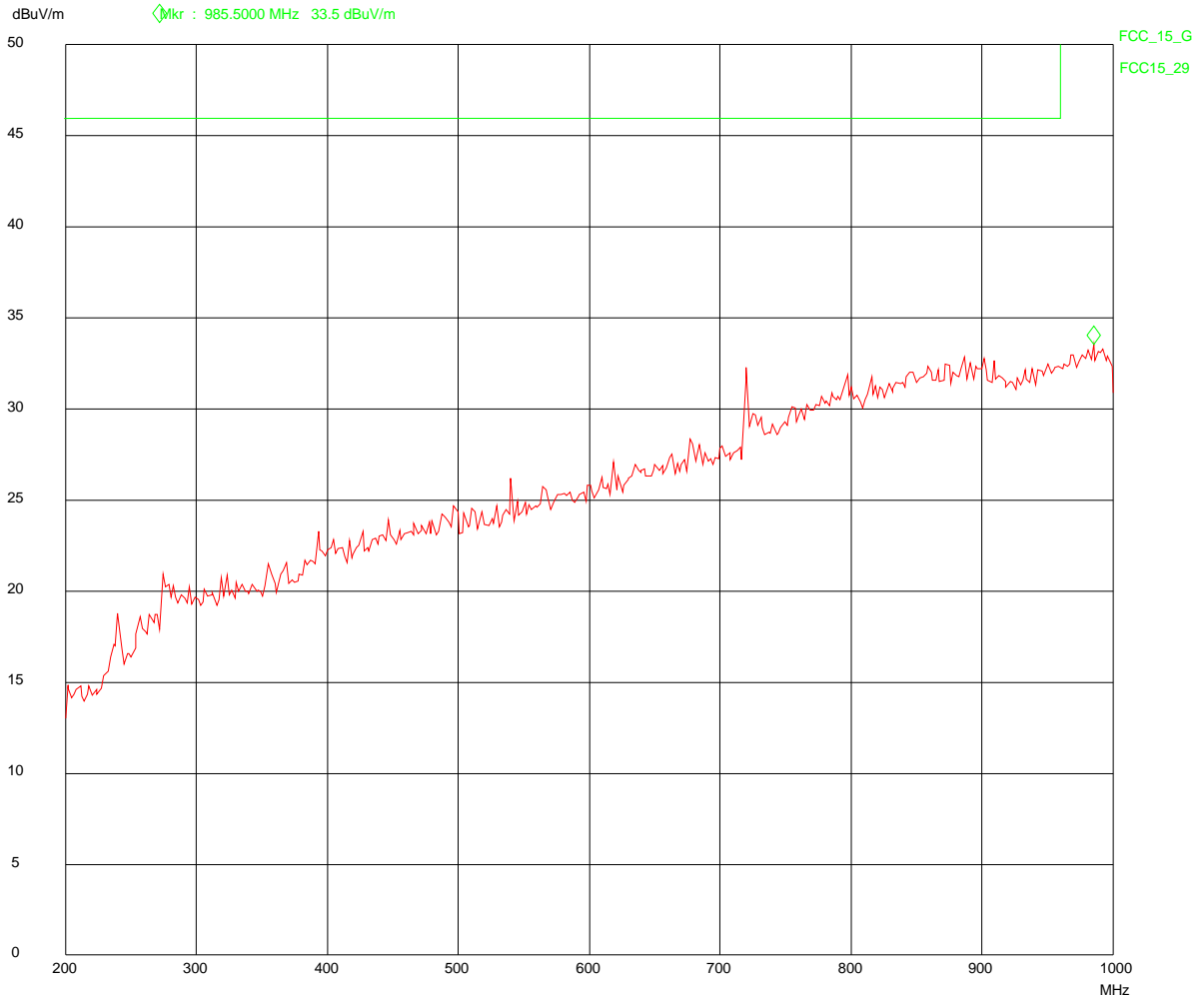
28. Sep 05 10:44

EUT: ASCOM 802.11b/g Cordless Handset  
Manuf: Ascom  
Op Cond: 1m VP  
Operator: FS  
Test Spec: FCC 15.209, 3m  
Comment: Standby with Charger

### Scan Settings (1 Range)

|----- Frequencies -----|----- Receiver Settings -----|  
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge  
200M 1000M 50k 120k PK 50ms AUTO LN ON 60dB

Transducer No. Start Stop Name  
21 200M 1000M HL223



200-1000 MHz, Vertical Polarization, Standby In Charger

## Nemko Comlab AS PK

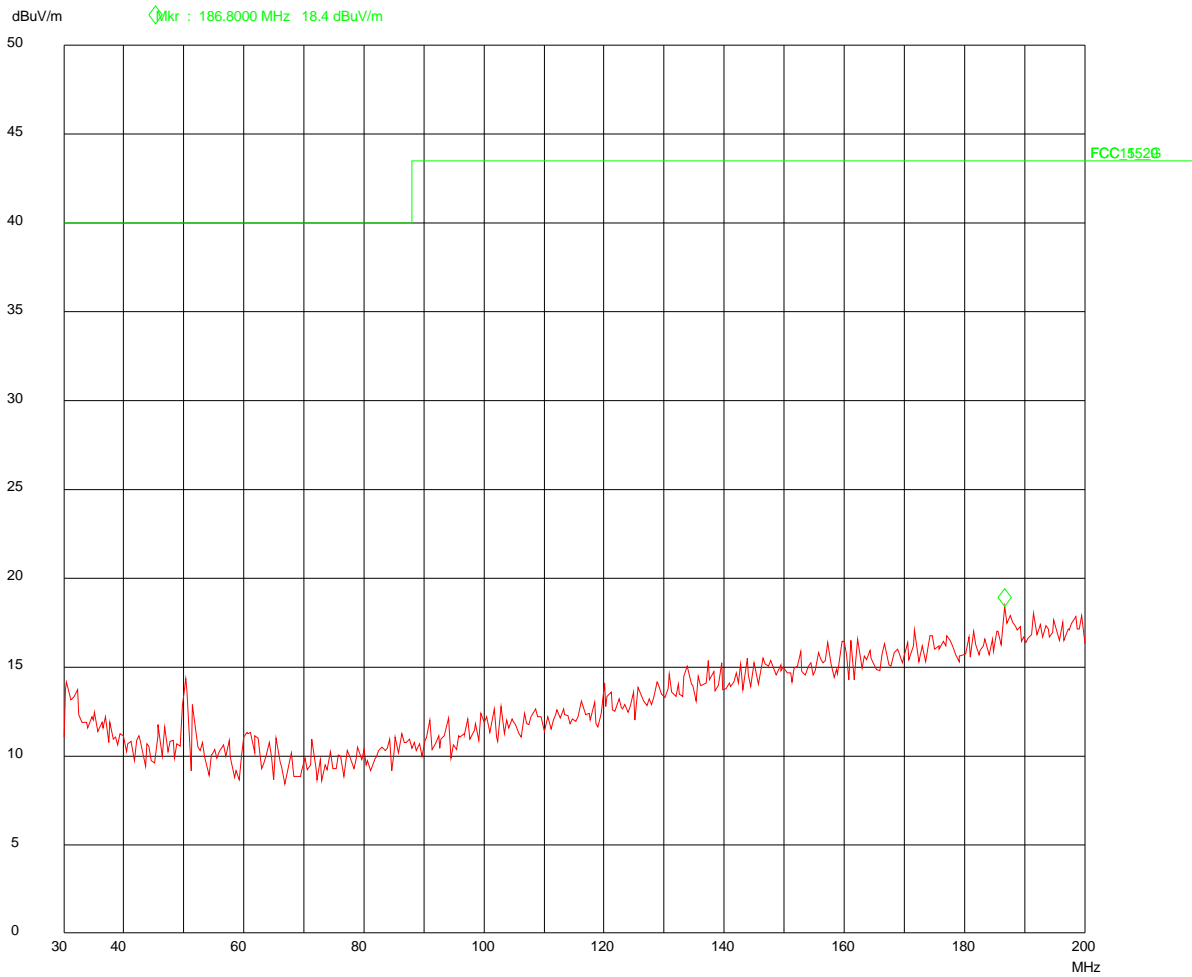
28. Sep 05 09:41

EUT: ASCOM 802.11b/g Cordless Handset  
Manuf: Ascom  
Op Cond: 1m VP  
Operator: FS  
Test Spec: FCC 15.209, 3m  
Comment: Transmitter ON

### Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
30M	200M	50k	120k	PK	50ms	AUTO	LN ON	60dB

Transducer No.	Start	Stop	Name
20	30M	200M	HK116



30-200 MHz, Vertical Polarization, Transmitter ON

## Nemko Comlab AS PK

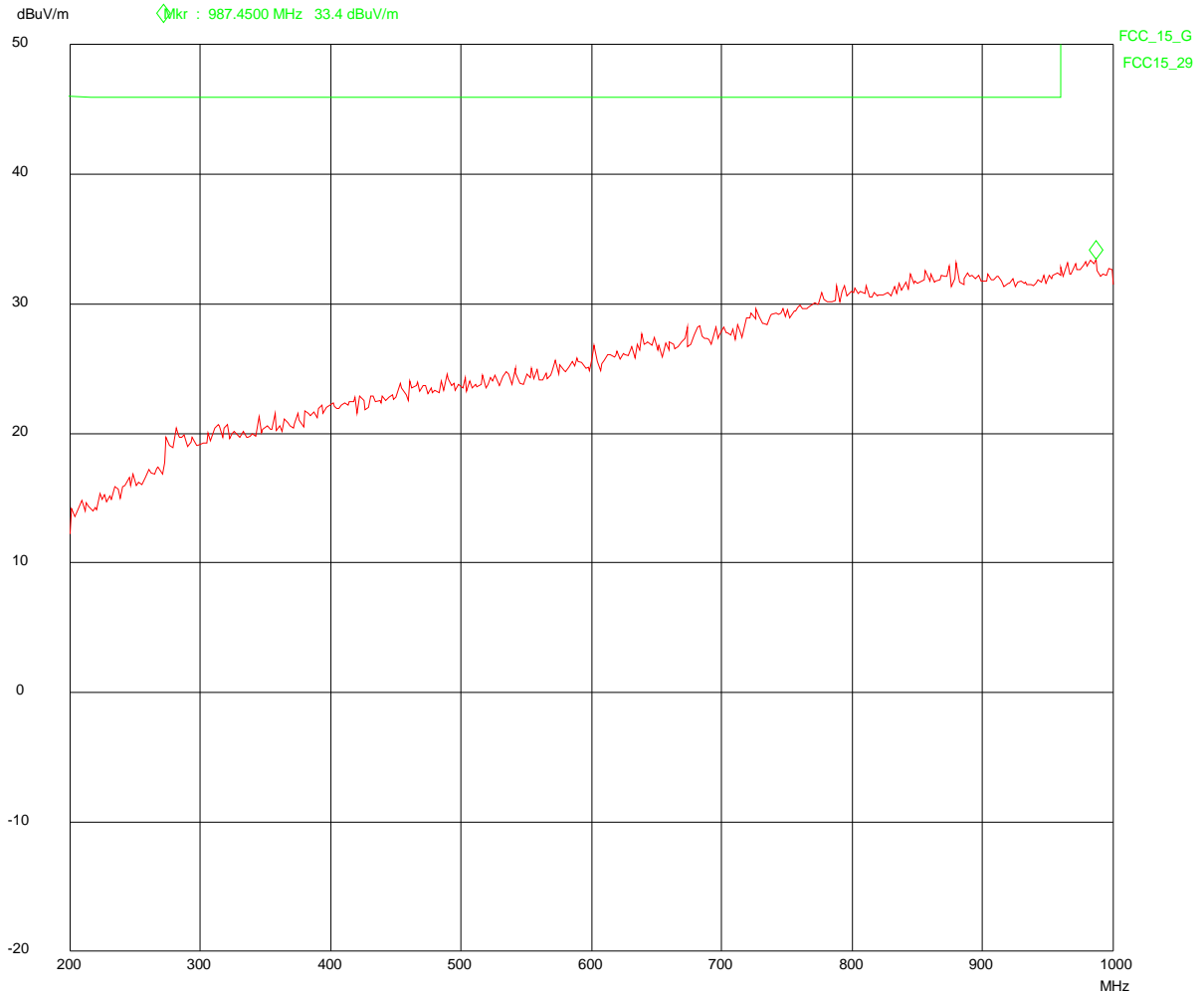
28. Sep 05 11:58

EUT: ASCOM 802.11b/g Cordless Handset  
Manuf: Ascom  
Op Cond: 1m VP  
Operator: FS  
Test Spec: FCC 15.209, 3m  
Comment: Transmitter ON

### Scan Settings (1 Range)

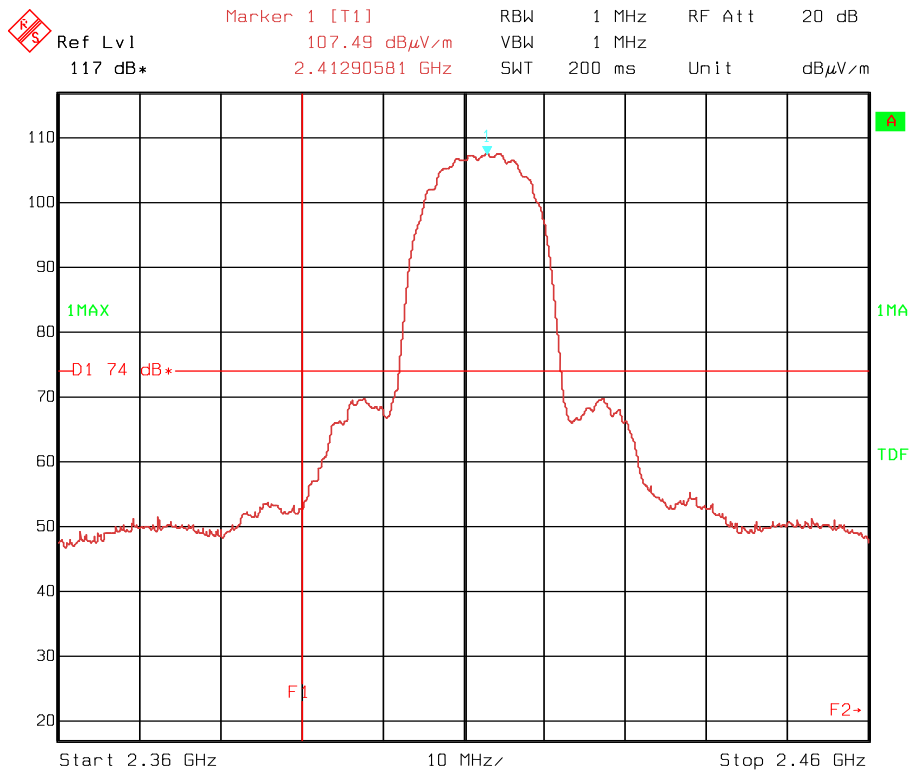
----- Frequencies -----|----- Receiver Settings -----|  
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge  
200M 1000M 50k 120k PK 50ms AUTO LN ON 60dB

Transducer No. Start Stop Name  
21 200M 1000M HL223



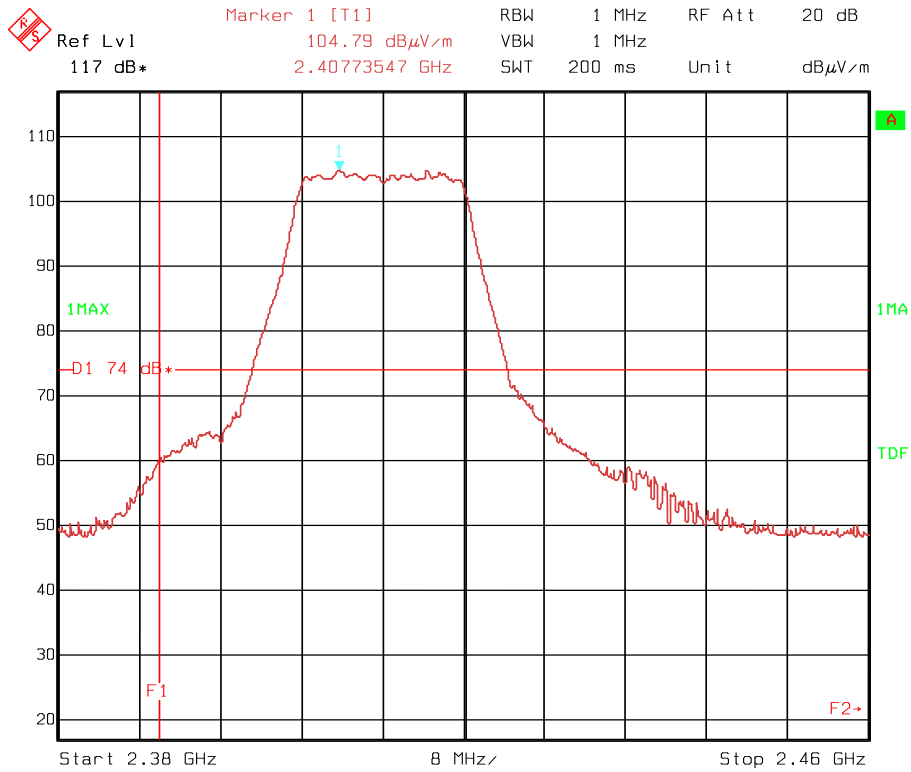
200-1000 MHz, Vertical Polarization, Transmitter ON





Date: 28.SEP.2005 17:03:49

**Lower Band Edge, Ch 1, Ant 0, H Pol, b-mode**

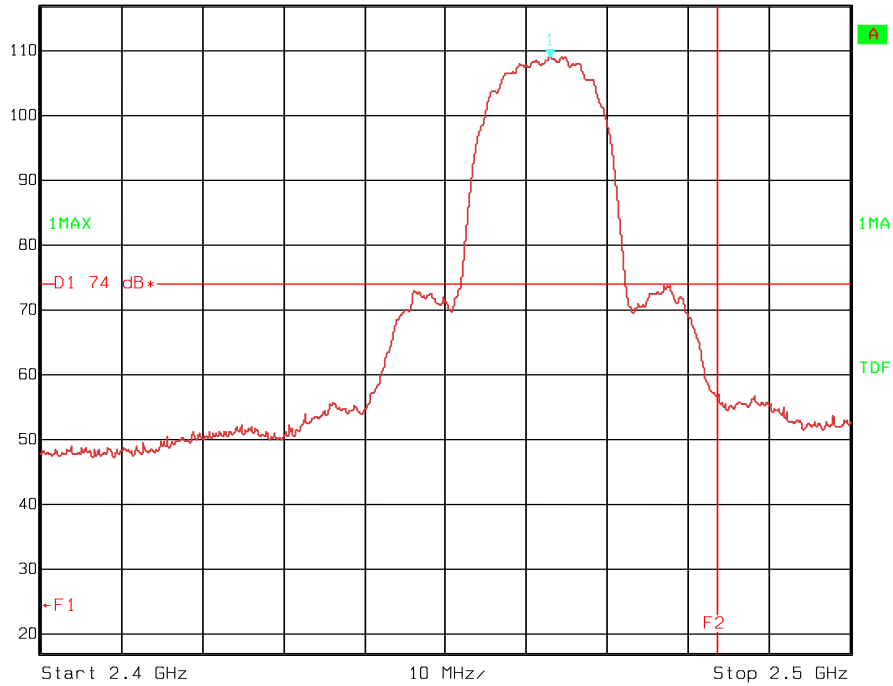


Date: 28.SEP.2005 15:08:23

**Lower Band Edge, Ch 1, Ant 0, H Pol, g-mode**



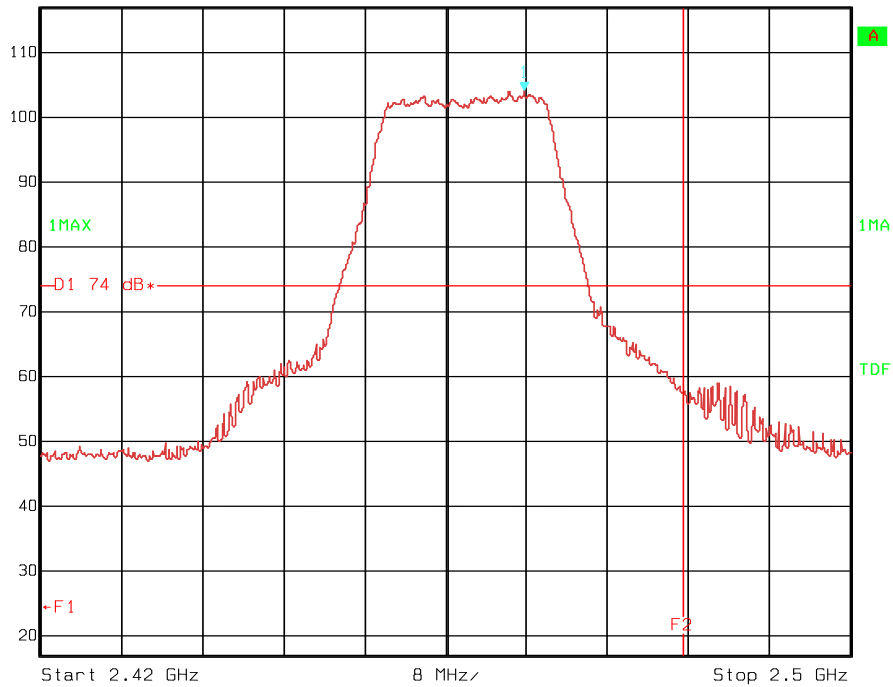
KES
 Marker 1 [T1]      RBW    1 MHz    RF Att    20 dB  
 Ref Lvl                108.91 dB $\mu$ V/m    VBW    1 MHz  
 117 dB\*                2.46292585 GHz    SWT    500 ms    Unit    dB $\mu$ V/m



Date: 28.SEP.2005 17:18:34

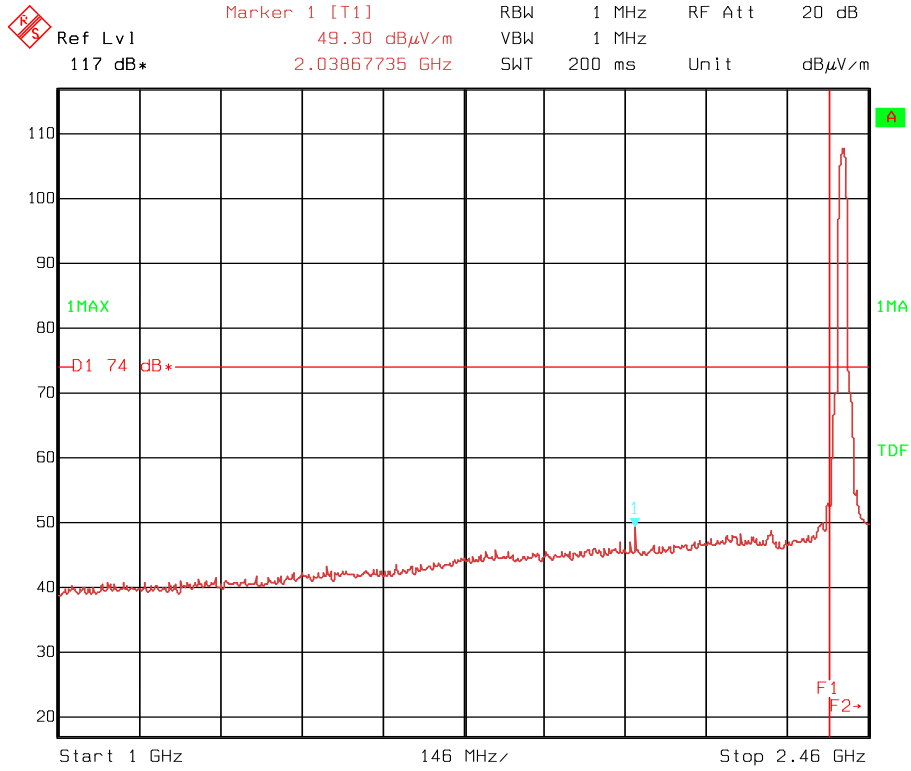
### Upper Band Edge, Ch 11, Ant 0, H Pol, b-mode

KES
 Marker 1 [T1]      RBW    1 MHz    RF Att    20 dB  
 Ref Lvl                104.21 dB $\mu$ V/m    VBW    1 MHz  
 117 dB\*                2.46777555 GHz    SWT    200 ms    Unit    dB $\mu$ V/m



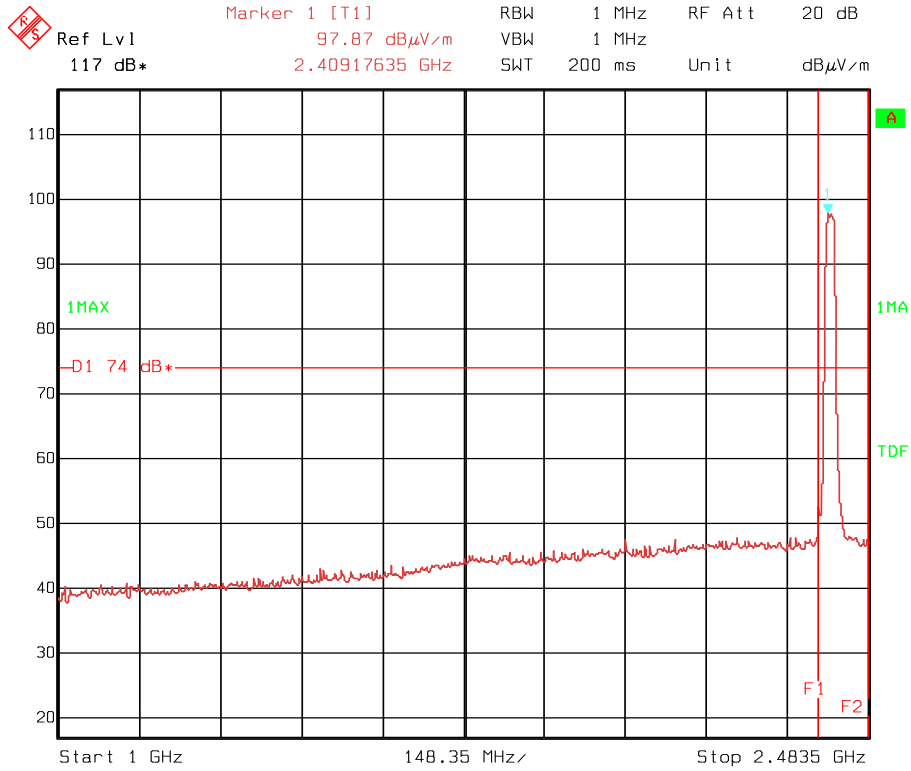
Date: 28.SEP.2005 15:47:51

### Upper Band Edge, Ch 11, Ant 0, H Pol, g-mode



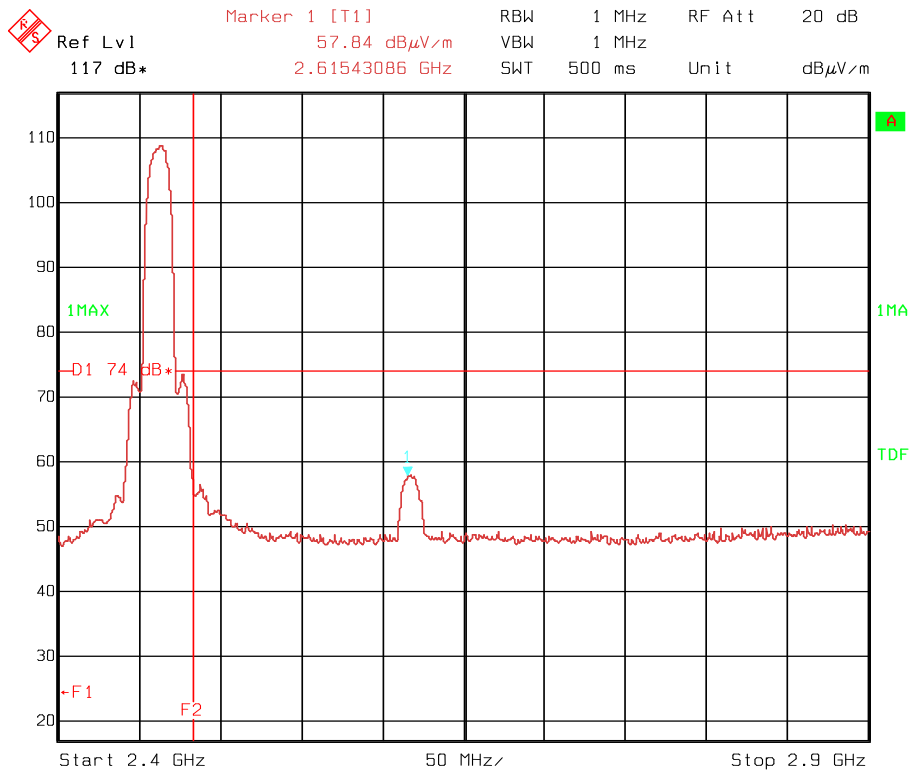
Date: 28.SEP.2005 17:04:55

1-2.5 GHz Ch 1, Ant 0, H Pol, b-mode



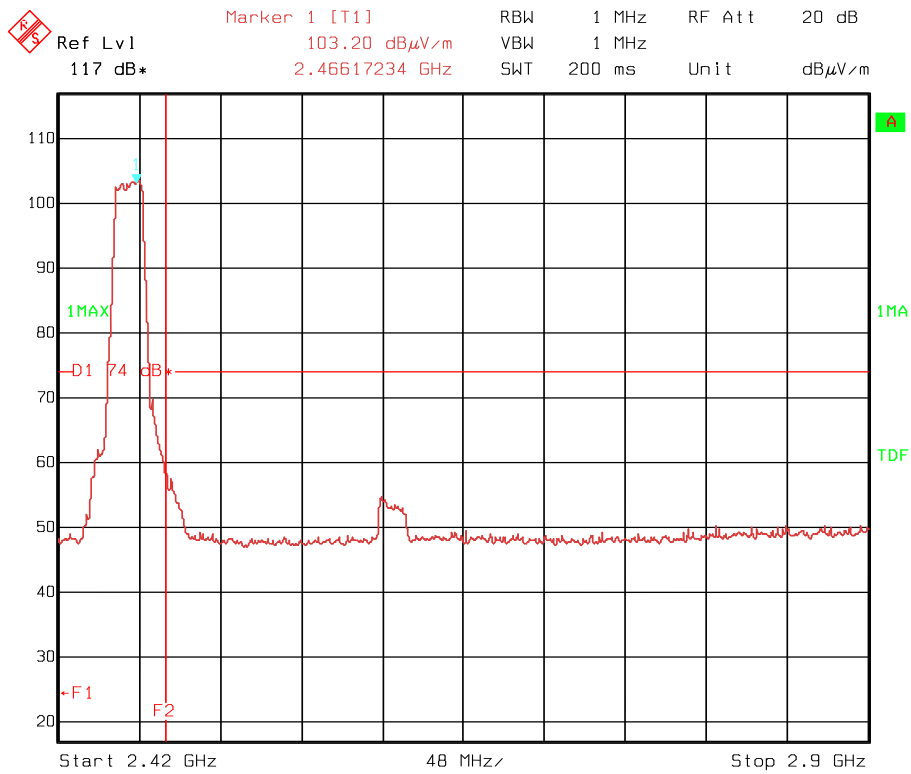
Date: 28.SEP.2005 15:15:25

1-2.5 GHz Ch 1, Ant 1, V Pol, g-mode



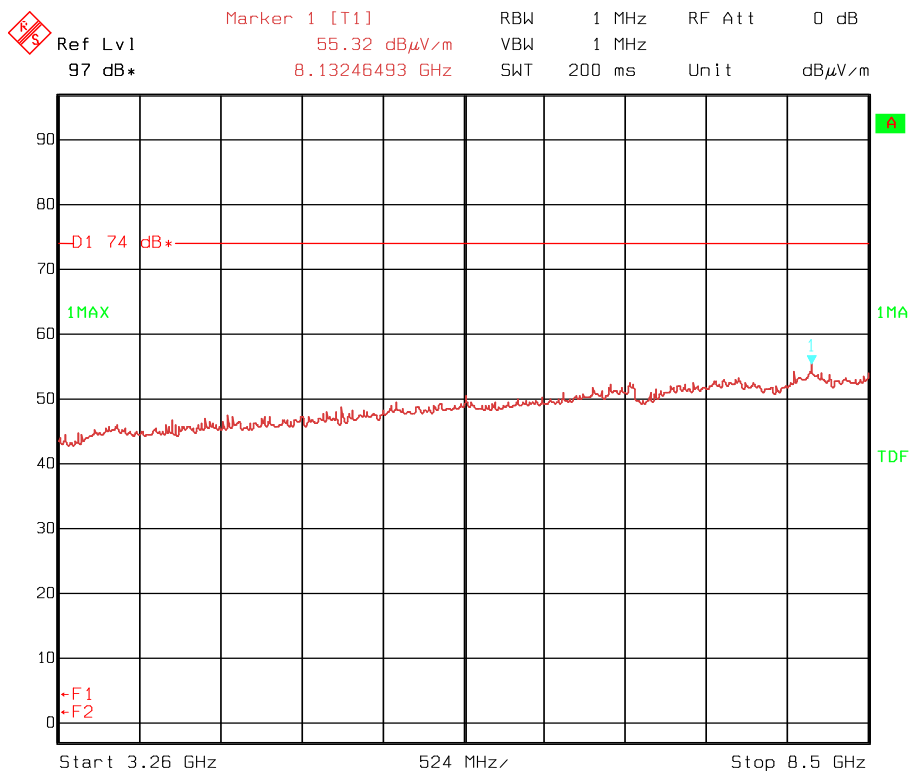
Date: 28.SEP.2005 17:21:02

### 2.4-2.9 GHz Ch 11, Ant 0, H Pol, b-mode



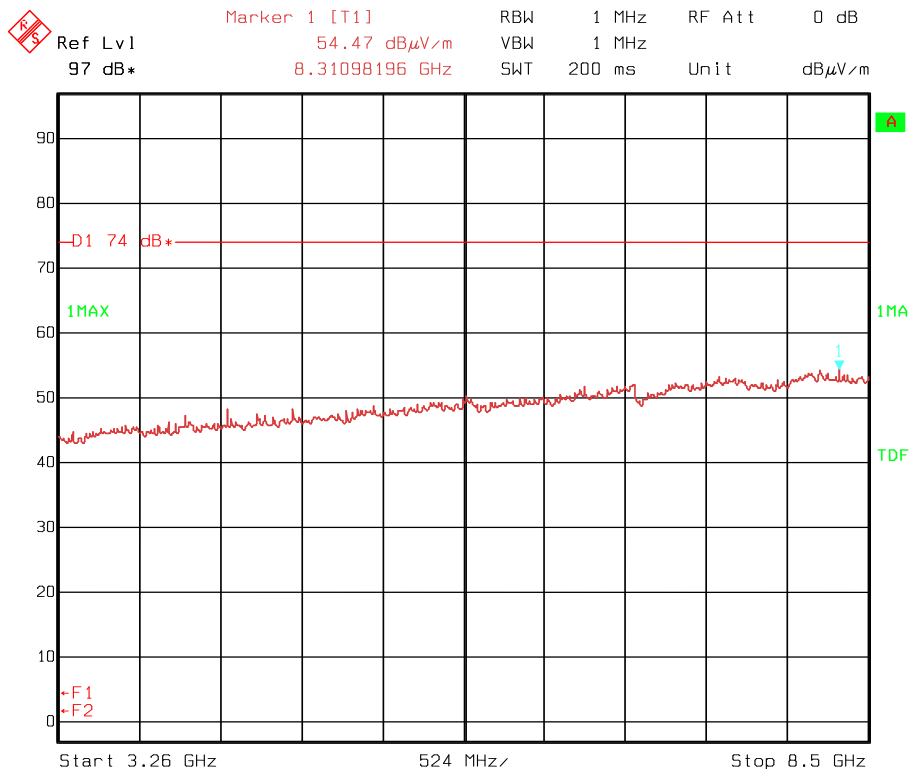
Date: 28.SEP.2005 15:50:16

### 2.4-2.9 GHz Ch 11, Ant 0, H Pol, g-mode



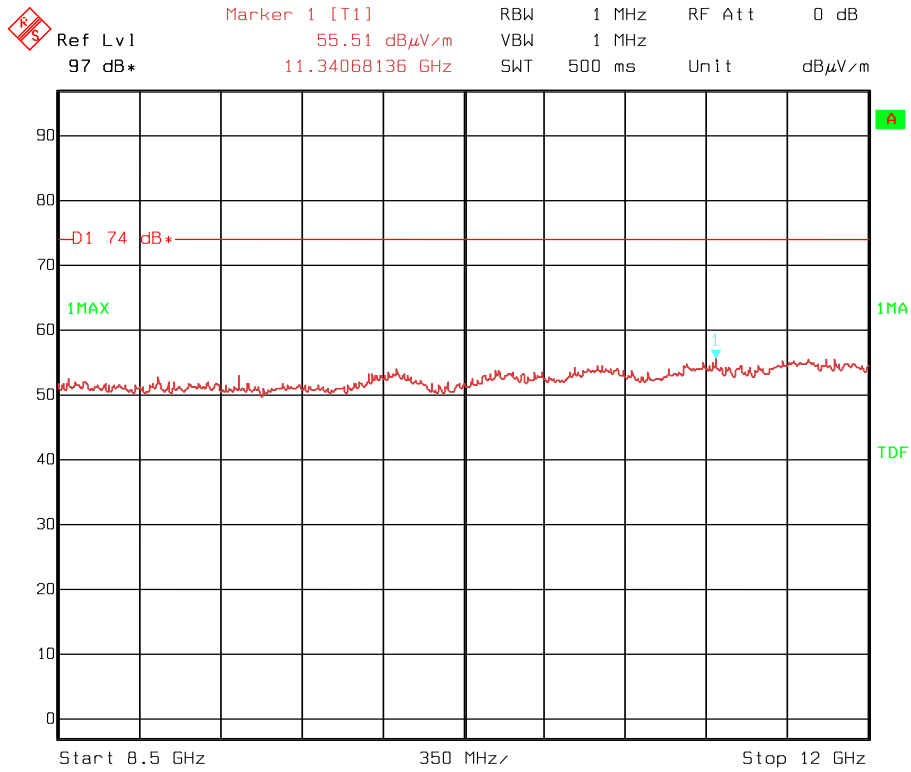
Date: 28.SEP.2005 17:32:03

### 3.26-8.5 GHz, Ch 11, Ant 0 H Pol, b-mode



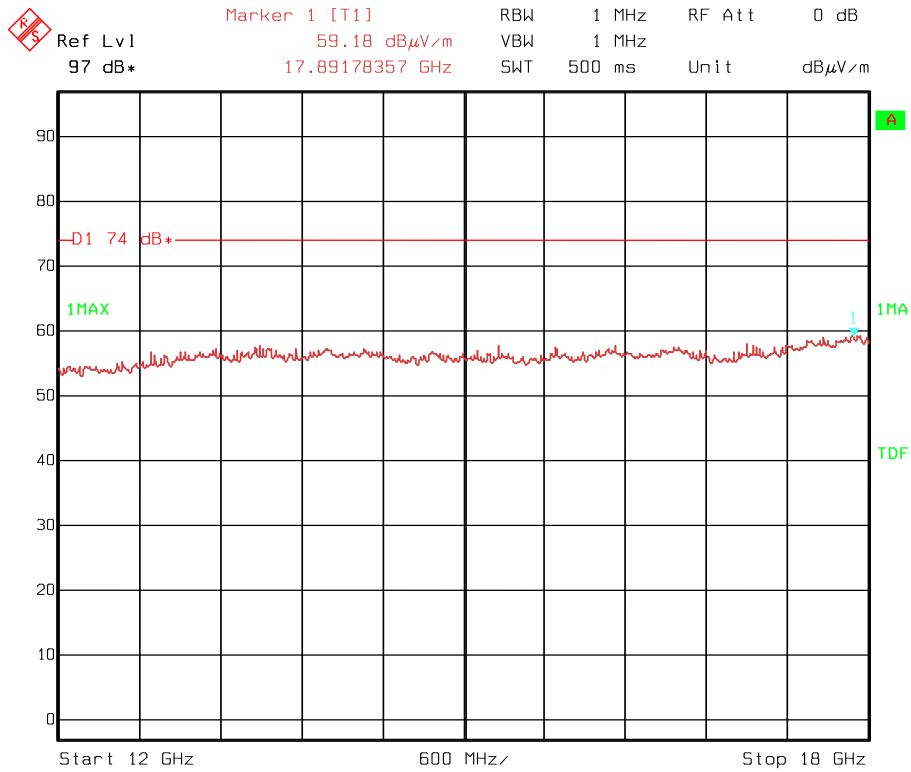
Date: 28.SEP.2005 15:55:08

### 3.26-8.5 GHz, Ch 11, Ant 0 H Pol, g-mode




Date: 28.SEP.2005 17:43:48

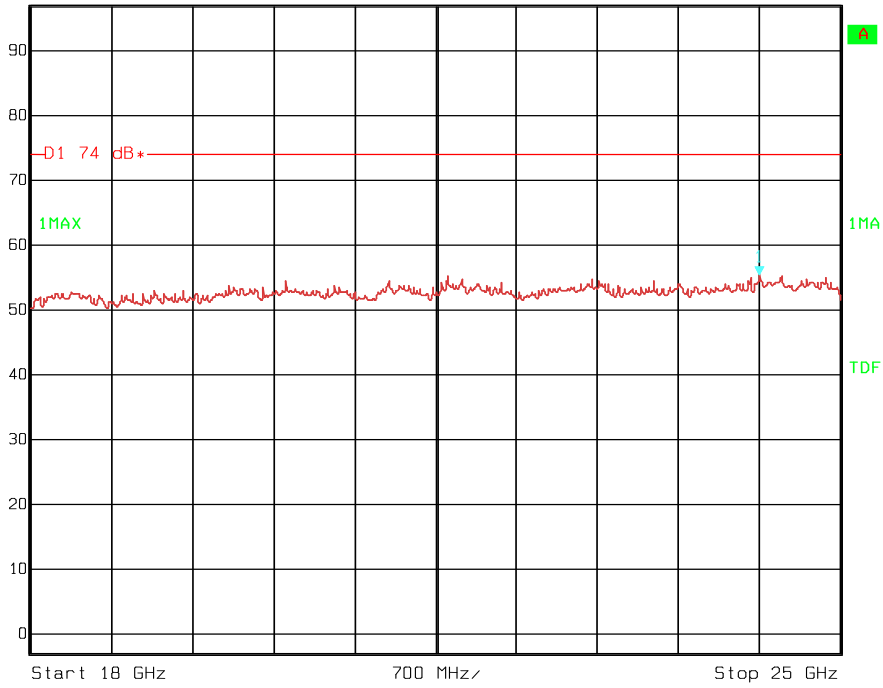
8.5-12 GHz, Ch 6, Ant 0 H Pol, b-mode



Date: 28.SEP.2005 17:50:36

12-18 GHz, Ch 6, Ant 0 H Pol, b-mode

 Ref Lvl 97 dB\*      Marker 1 [T1] 24.29859719 GHz      RBW 1 MHz      RF Att 0 dB  
55.26 dB $\mu$ V/m      VBW 1 MHz  
Unit dB $\mu$ V/m      SWT 500 ms



Date: 29.SEP.2005 8:53:55

**18-25 GHz, Ch 6, Ant 1 H Pol, b-mode**

**4.6 Power Spectral Density (PSD)**

Para. No.: 15.247 (d)

Test Performed By: Frode Sveinsen

Date of Test: 27-28 September 2005

**Test Results: Passed****Measured and Calculated Data:**

The test is performed conducted using the test procedures described in guidance on measurements for Digital Transmission Systems.

**Maximum spectral power density, dBm (values are inclusive antenna gain)**

Operating mode	Ch 1	Ch 6	Ch 11
b-mode	-6.9	-6.8	-6.0
g-mode	-13.3	-12.4	-11.8
Antenna gain dBi	+2.2	+2.2	+2.7

**Requirements:**

The Power Spectral Density of a Digital Transmission System shall be no greater than +8 dBm in any 3kHz band

No requirements for Frequency Hopping Systems.

## 5 LIST OF TEST EQUIPMENT

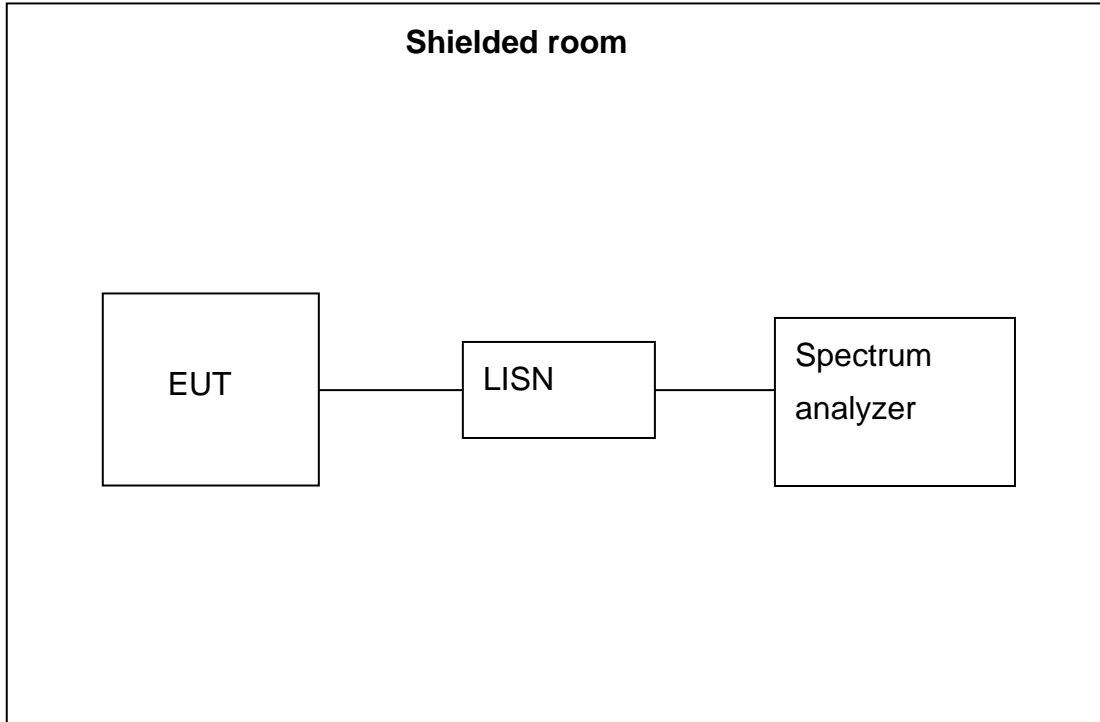
To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment and ancillaries are identified (numbered) by the Test Laboratory.

No.	Instrument/ancillary	Type of instrument/ancillary	Manufacturer	Ref. no.
1	FSEK	Spectrum Analyzer	Rohde & Schwarz	LR 1337
2	ESAI	Spectrum Analyzer	Rohde & Schwarz	LR 1090
3	3115	Antenna horn	EMCO	LR 1330
4	643	Antenna horn	Narda	LR 093
5	642	Antenna horn	Narda	LR 220
6	PM7320X	Antenna horn	Siverts lab	LR 103
7	DBF-520-20	Antenna horn	Systron Donner	LR 101
8	638	Antenna horn	Narda	LR 098
9	5VF1000/2000	BP filter	Trilithic	LR 1174
10	5VF2000/4000	BP filter	Texscan	LR 42
11	ESH3-Z3	LISN	Rohde & Schwarz	LR 1076
12	8449B	Amplifier	Hewlett Packard	LR 1322
13	959C	Printer	Hewlett Packard	LR 1414
14	HFH2-Z2	Antenna loop	Rohde and Schwarz	LR 285
15	10855A	Amplifier	Hewlett Packard	LR 1445
16	HL223	Antenna log.per	Rohde & Schwarz	LR 1261
17	HK116	Antenna biconic	Rohde & Schwarz	LR 1260
18	ESN	Test Receiver	Rohde & Schwarz	LR 1237



**6 BLOCK DIAGRAM**

**6.1 Powerline Conducted Emission**



**6.2 Test Site Radiated Emission**

