

# CETECOM ICT Services GmbH

Radio Satellite Communication

Untertürkheimer Straße 6-10 . D-66117 Saarbrücken

Telephone: +49 (0)681 598-0

Telefax: -9075

RSC14

issue test report consist of 74 Pages

Page 1 (74)

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Federal Communications Commission  
**FCC-Identification Number: 90462**  
**TCB ID: DE 0001**



Accredited by the  
German Accreditation Council  
**DAR-Registration Number**  
**TTI-P-G 166/98**



Independent ETSI  
compliance test house



**Accredited Bluetooth™ Test Facility (BQTF)**

**Test Report No.: 2\_3296-01-02/03**  
**FCC Part 15.247 / CANADA RSS-210**  
**AAB-1021012-BV**  
**FCC ID: PY7A1021012**  
**IC: 4170B-A1021012**

CETECOM – ICT Services GmbH  
Untertürkheimerstr. 6-10  
66117 Saarbrücken, Germany

Telephone: + 49 (0) 681 / 598-0  
Fax: + 49 (0) 681 / 589-9075

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## 1 General Information

### 1.1 Notes

The test results of this test report relate exclusively to the test item specified in 1.5. 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:

2003-10-23 RSC8411 Berg M.

Date

Section

Name

Signature



### Technical Responsibility for Area of Testing:

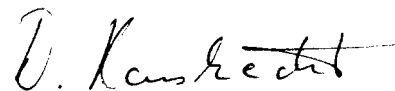
2003-10-23 RSC8412 Hausknecht D.

Date

Section

Name

Signature



## 1.2 Testing Laboratory

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

Telephone : + 49 681 598 - 0  
Telefax : + 49 681 598 - 9075  
E-mail : info@ict.cetecom.de  
Internet : www.cetecom-ict.de

### Accredited testing laboratory

**The Test laboratory (area of testing) is accredited according to DIN EN ISO/IEC 17025.**

**DAR-registration number : TTI-P-G 166/98-30**

**Accredited Bluetooth™ Test Facility (BQTF)**

[BLUETOOTH is a trademark owned by Bluetooth SIG, Inc. and licensed to CETECOM](#)

## 1.3 Details of Applicant

**Name : Sony Ericsson Mobile Communication AB**  
**Street : Nya Vattentornet**  
**City : 22188 Lund**  
**Country : Sweden**  
**Telephone : +46 46 193559**  
**Telefax : +46 46 193295**  
**Contact : Mr. Bo Johansson**  
**Telephone : +46 46 193559**  
**e-mail : hakan.sjoberg@sonyericsson.com**

## 1.4 Application Details

Date of receipt of application : 2003-06-06  
Date of receipt of test item : 2003-06-06  
Date of test : 2003-06-12/13

## 1.5 Test Item

Type of equipment : **Triple Band GSM Mobile Phone (PCS 900/1800/1900 MHz) with Bluetooth® transmitter**

Type designation : AAB-1021013-BV

Manufacturer : Applicant

Street :

City :

Country :

Serial number : IMEI :

FCC – ID : Y7A1021012

IC : 4170B-A1021012

Hardware : P1B

Software : R1A026

**Additional information :**

Frequency : 2402 – 2480 MHz

Type of modulation : 1M00FXD / 79M8FXD (FHSS)

Number of channels : 79

Antenna : Print antenna

Power supply : Li-Ion rechargeable battery 3,7V

Output power : EIRP: 1.15 mW (worst case); conducted : 1.0 mW

Field strength : max. 80.92 dBµV/m

Occupied bandwidth : 769.539 kHz

Transmitter spurious : 33.0 µV/m in 3m

Receiver spurious : -.-

Temperature range : -30°C - +60°C

**DECLARATION OF COMPLIANCE:** I declare 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.

Signature:  \_\_\_\_\_

Date: 2003-05-09 Michael Berg; Test management  
NAME AND TITLE (Please print or type):

## 1.6 Test Specifications:

**FCC Part 15 §15.247  
CANADA RSS-210**

## 2 Technical Test

## 2.1 Summary of Test Results

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 conform with specifications ANSI C63.2-1987 clause 15 and ANSI C63.4-1992 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 analysers where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63-4-1992 clause 4.2.

Antennas conform with ANSI C63.2-1996 item 15.

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

30 MHz - 200 MHz: Quasi Peak measurement, 120KHz Bandwidth, biconical antenna

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

1GHz: Average, RBW 1MHz, VBW 10 MHz, waveguide horn

All measurements are done in accordance with the Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems DA 00-705 and Appendix A "BLUETOOTH APPROVALS"

The product fulfills also the requirements for CANADA RSS-210

No deviations from the technical specification(s) were ascertained in the course of the tests performed.

**Final verdict : PASS**

**2.2 Test Report**

**TEST REPORT**

**Test Report No. : 2\_3296-01-02/03**

## TEST REPORT REFERENCE

## LIST OF MEASUREMENTS

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Equipment under test : AAB-1021012-BV  
Ambient temperature : 25.9°C  
Relative humidity : 54%

## Antenna Gain

The antenna gain of the complete system is calculated by the difference of conducted power of the module and the radiated power in EIRP.

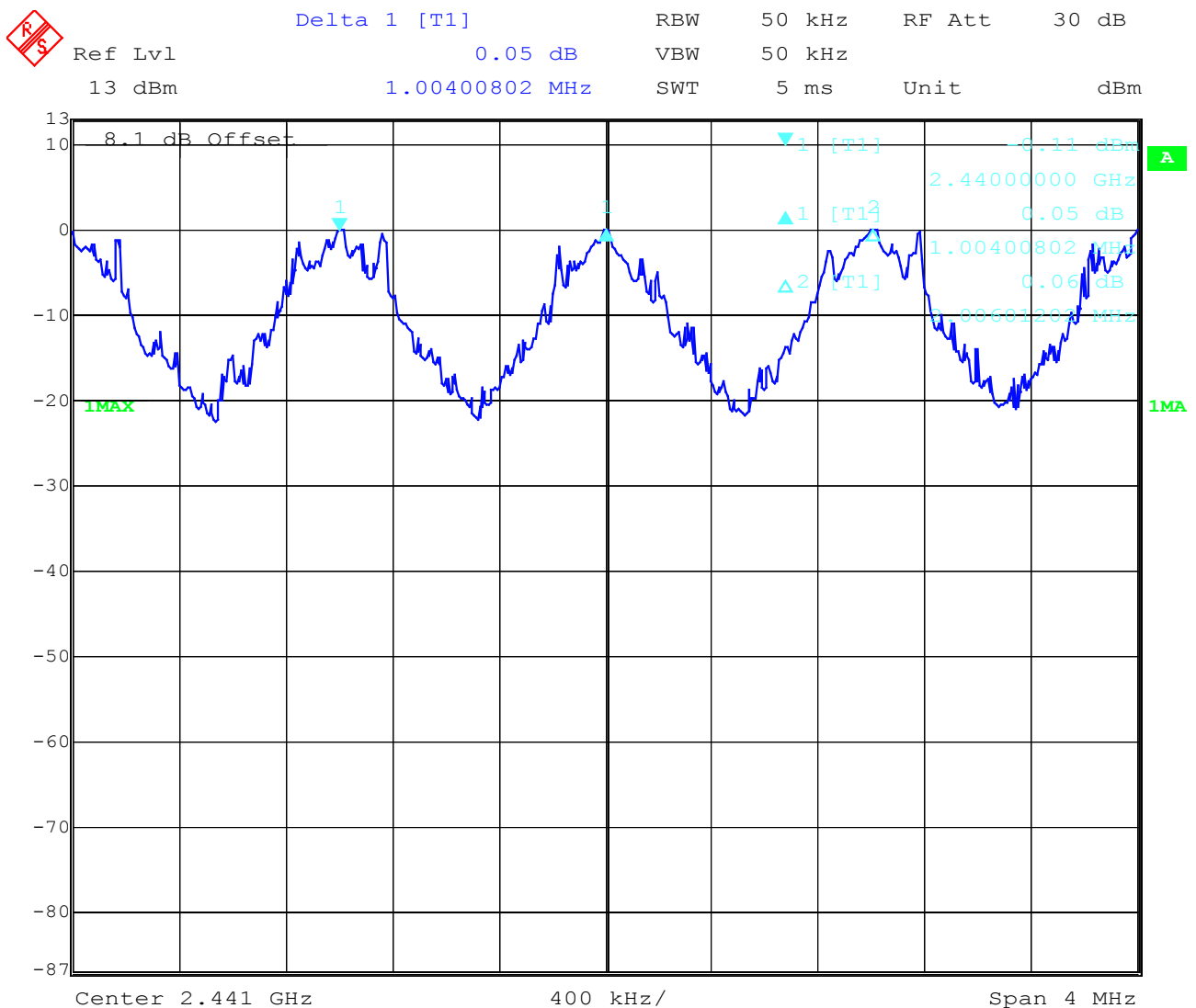
	low channel	mid channel	high channel
Conducted power	-0.02 dBm	-0.02 dBm	-0.02 dBm
Radiated power	+0.59 dBm	-0.52 dBm	-1.08 dBm
Gain	+0.61 dB	-0.54 dB	-1.10 dB

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
(for reference numbers see test equipment listing)

-

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

Carrier frequency separation §15.247(a1)



Date: 12.JUN.2003 10:12:26

Channel separation is ~ 1 MHz

**Limit: minimum 25 kHz or the 20 dB Bandwidth of the hopping system**

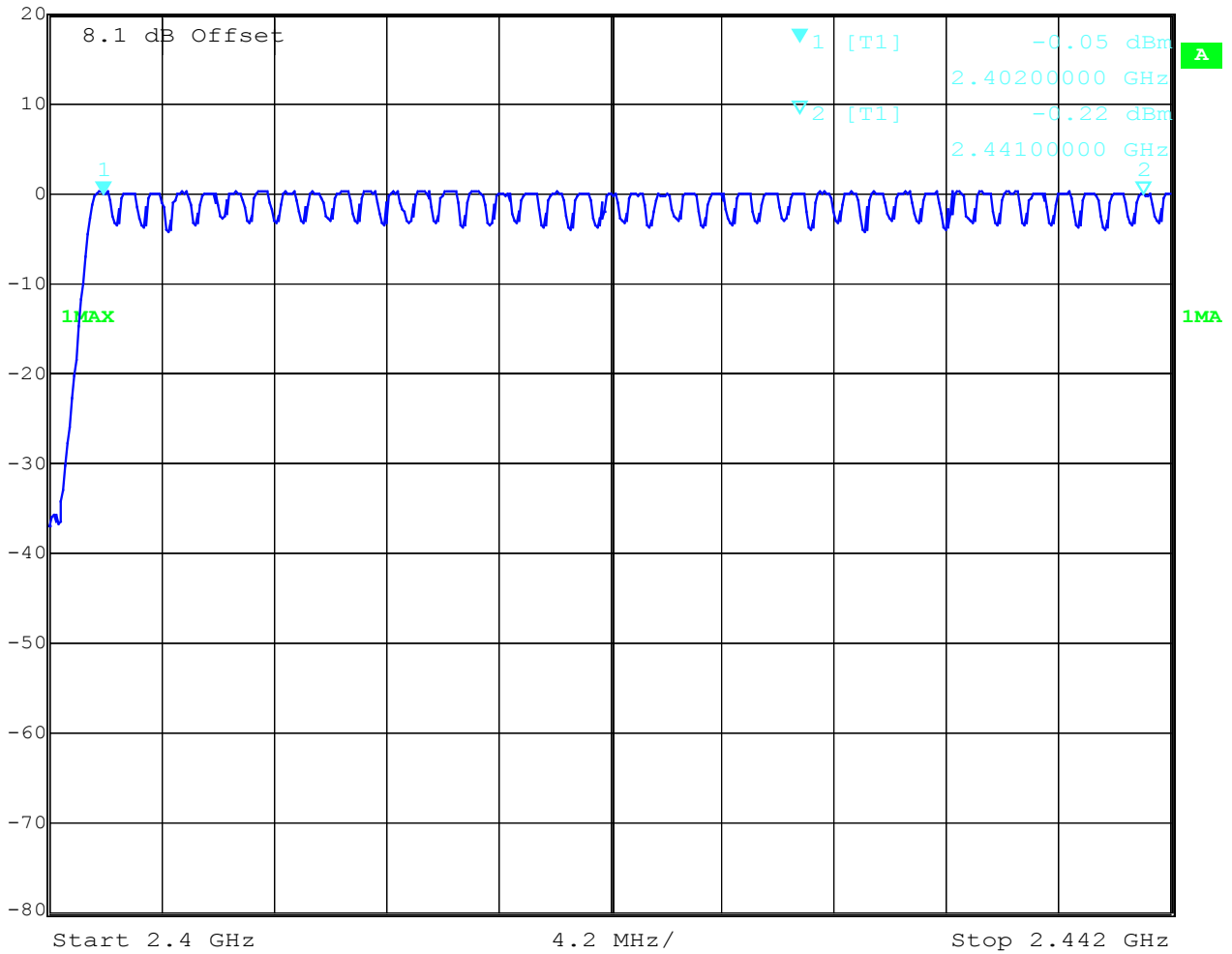
REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
 (for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

Number of hopping channels  
 Channel 1 - 40

\$15.247(a1)

	Ref Lvl	Marker 1 [T1]	RBW	500 kHz	RF Att	40 dB
	20 dBm	-0.05 dBm	VBW	500 kHz		
		2.40200000 GHz	SWT	5 ms	Unit	dBm



Date: 12.JUN.2003 10:15:12

The number of hopping channels is 79.

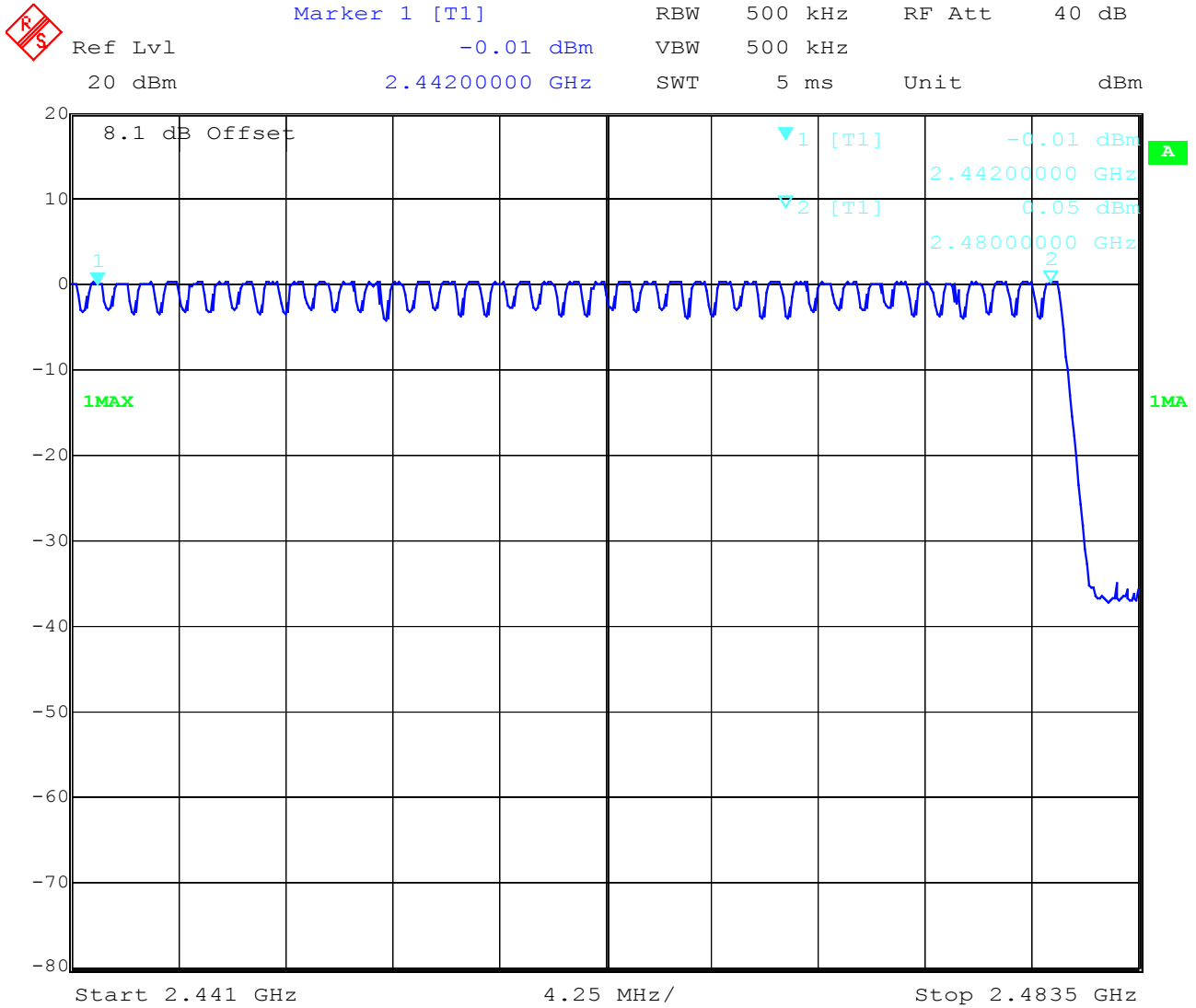
Limit: at least 15 non-overlapping channels

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
 (for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

Number of hopping channels  
 Channel 41 - 79

§15.247(a1)



Date: 12.JUN.2003 10:16:34

The number of hopping channels is 79.

Limit: at least 15 non-overlapping channels

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
 (for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
Ambient temperature : 25.9°C  
Relative humidity : 54%

**Time of occupancy (dwell time) §15.247(a1 iii)**

**For Bluetooth devives:**

The dwell time of 0.3797s within a 30 second period in data mode is independent from the packet type (packet length). The calculation for a 30 second period is a follows:

Dwell time = time slot length \* hop rate / number of hopping channels \*30s

Example for a DH1 packet (with a maximum length of one time slot)

Dwell time =  $625 \mu\text{s} * 1600 \text{ 1/s} / 79 * 30\text{s} = 0.3797\text{s}$  (in a 30s period)

For multi-slot packet the hopping is reduced according to the length of the packet.

Example for a DH5 packet (with a maximum length of five time slots)

Dwell time =  $5 * 625 \mu\text{s} * 1600 * 1/5 * 1/\text{s} / 79 * 30\text{s} = 0.3797\text{s}$  (in a 30s period)

This is according the Bluetooth Core Specification V 1.0B (+ critical errata) for all Bluetooth devices. Therefore, all Bluetooth devices **comply** with the FCC dwell time requirement in the data mode.

This was checked during the Bluetooth Qualification tests.

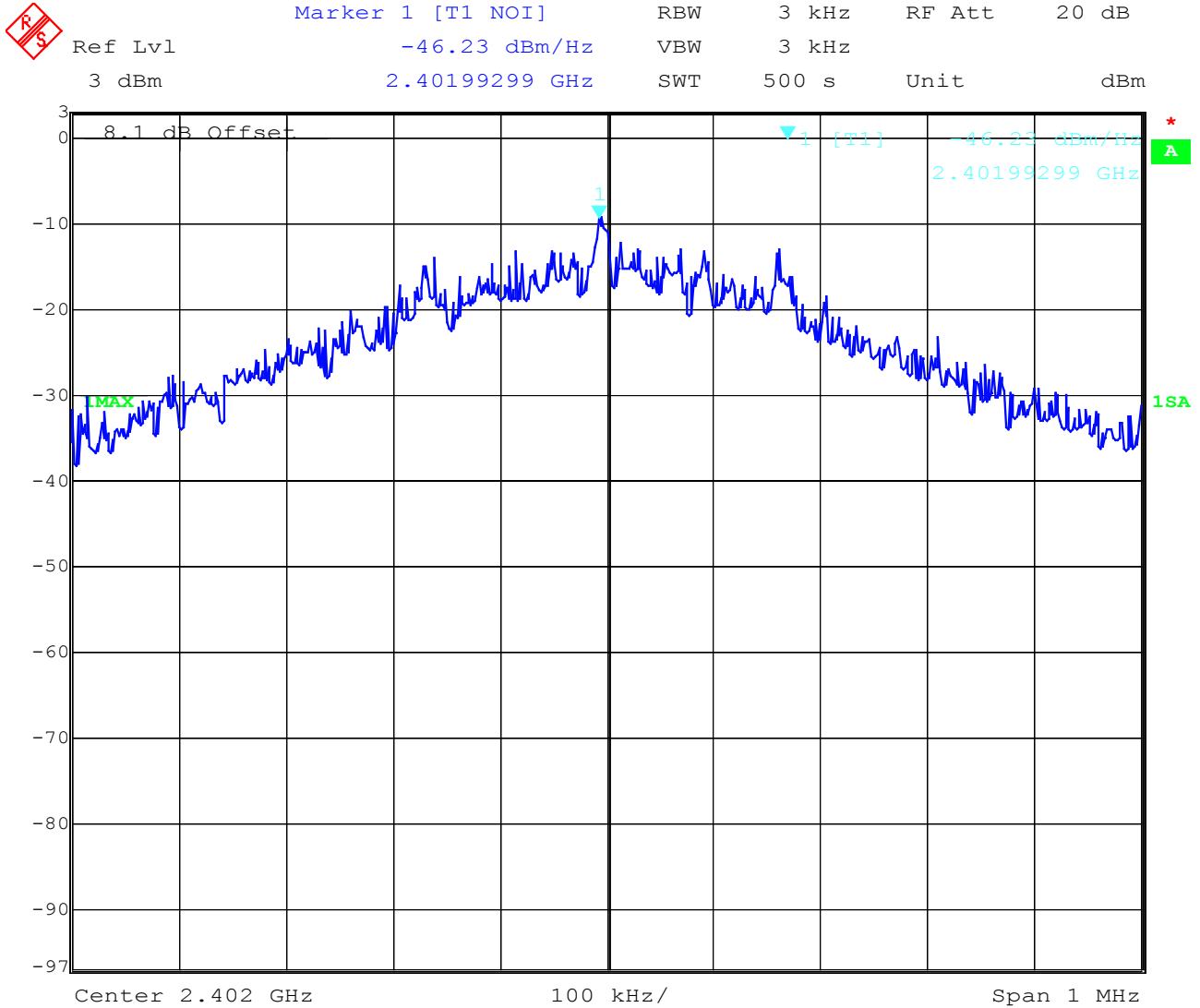
The Dwell time in hybrid mode is approximately 2.6 mS (in a 12.8s period)

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**

(for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**Power Spectral density (Hybrid system in Inquiry mode / Page scan) §15.247(d)**  
**Low channel**



Date: 12.JUN.2003 10:27:06

**Power density : -46.23 dBm/Hz = -11.43 dBm / 3 KHz**

**Correction factor from dBm/Hz to dBm/3KHz is +34,8 dB**

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV

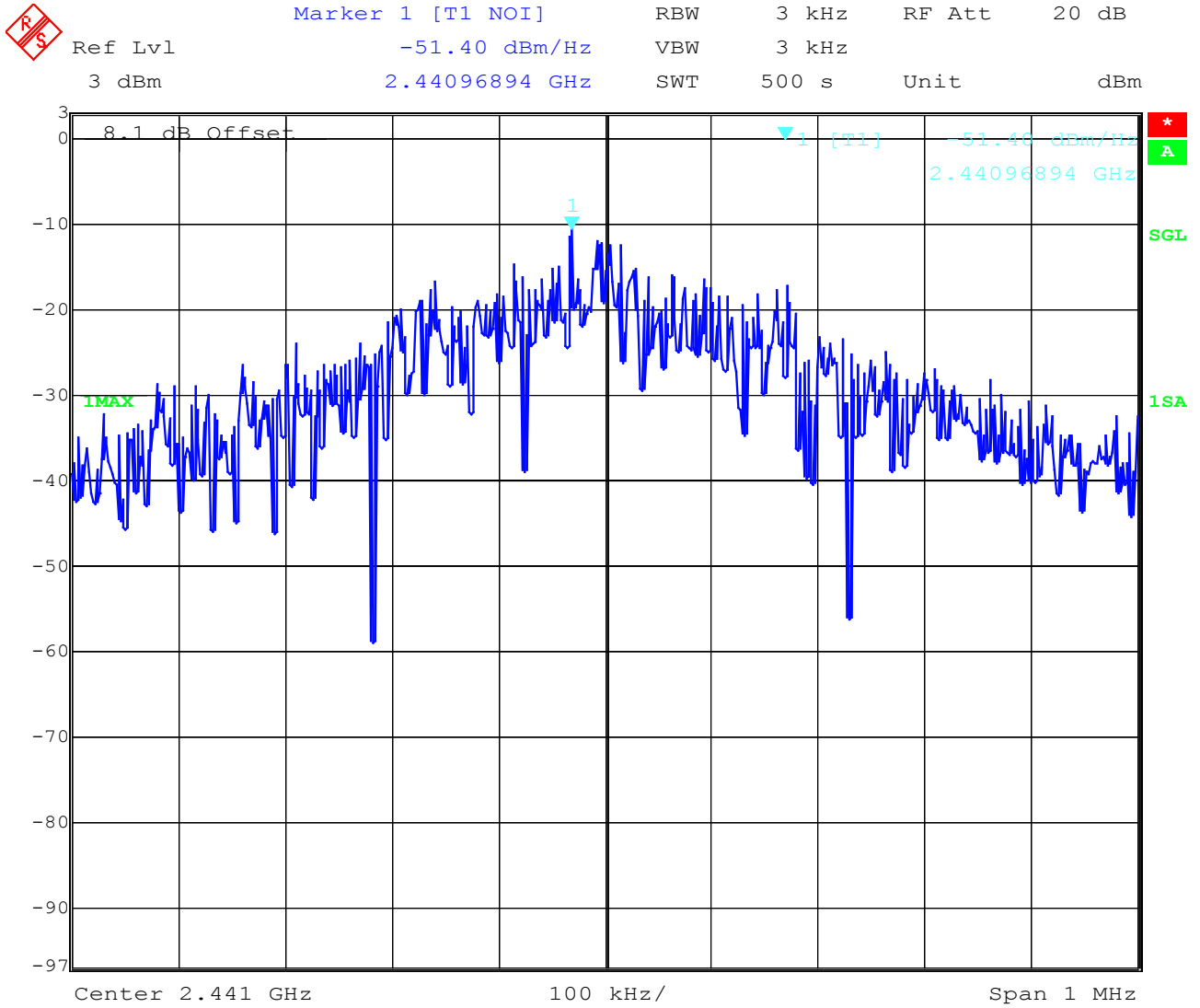
Ambient temperature : 25.9°C

Relative humidity : 54%

Power Spectral density (Hybrid system in Inquiry mode / Page scan)

§15.247(d)

Middle channel



Date: 12.JUN.2003 10:40:18

**Power density : -51.4 dBm/Hz = -16.6 dBm / 3 KHz**

**Correction factor from dBm/Hz to dBm/3KHz is +34,8 dB**

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**

(for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV

Ambient temperature : 25.9°C

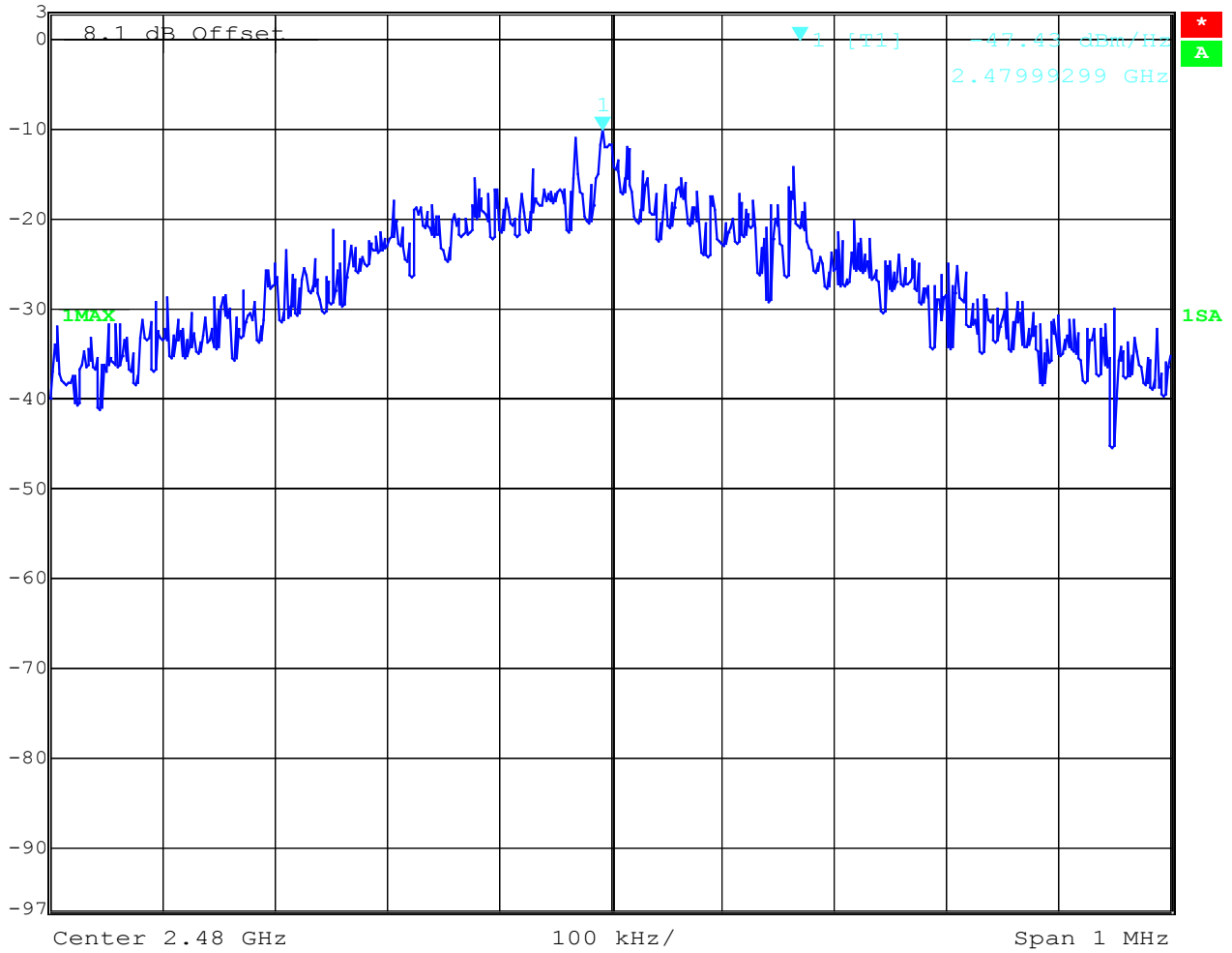
Relative humidity : 54%

Power Spectral density (Hybrid system in Inquiry mode / Page scan)

§15.247(d)

High channel

	Ref Lvl	Marker 1 [T1 NOI]	RBW	3 kHz	RF Att	20 dB
	3 dBm	-47.43 dBm/Hz	VBW	3 kHz		
		2.47999299 GHz	SWT	500 s	Unit	dBm



Date: 12.JUN.2003 10:45:52

Power density : -47.43 dBm/Hz = -12.63 dBm / 3 KHz

Correction factor from dBm/Hz to dBm/3KHz is +34,8 dB

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)



Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**Spectrum Bandwidth of a FHSS System §15.247(a1)**  
**20 dB bandwidth**

TEST CONDITIONS		20 dB BANDWIDTH ( kHz )		
		2402	2441	2480
Frequency (MHz)				
T <sub>nom</sub> ( 23 )°C	V <sub>nom</sub> ( 3.6 )V	721.443	757.515	769.539
Measurement uncertainty		±1kHz		

RBW / VBW as provided in the „Measurement Guidelines“ (DA 00-705, March 30, 2000)  
 RBW: 10 kHz / VBW 10 kHz

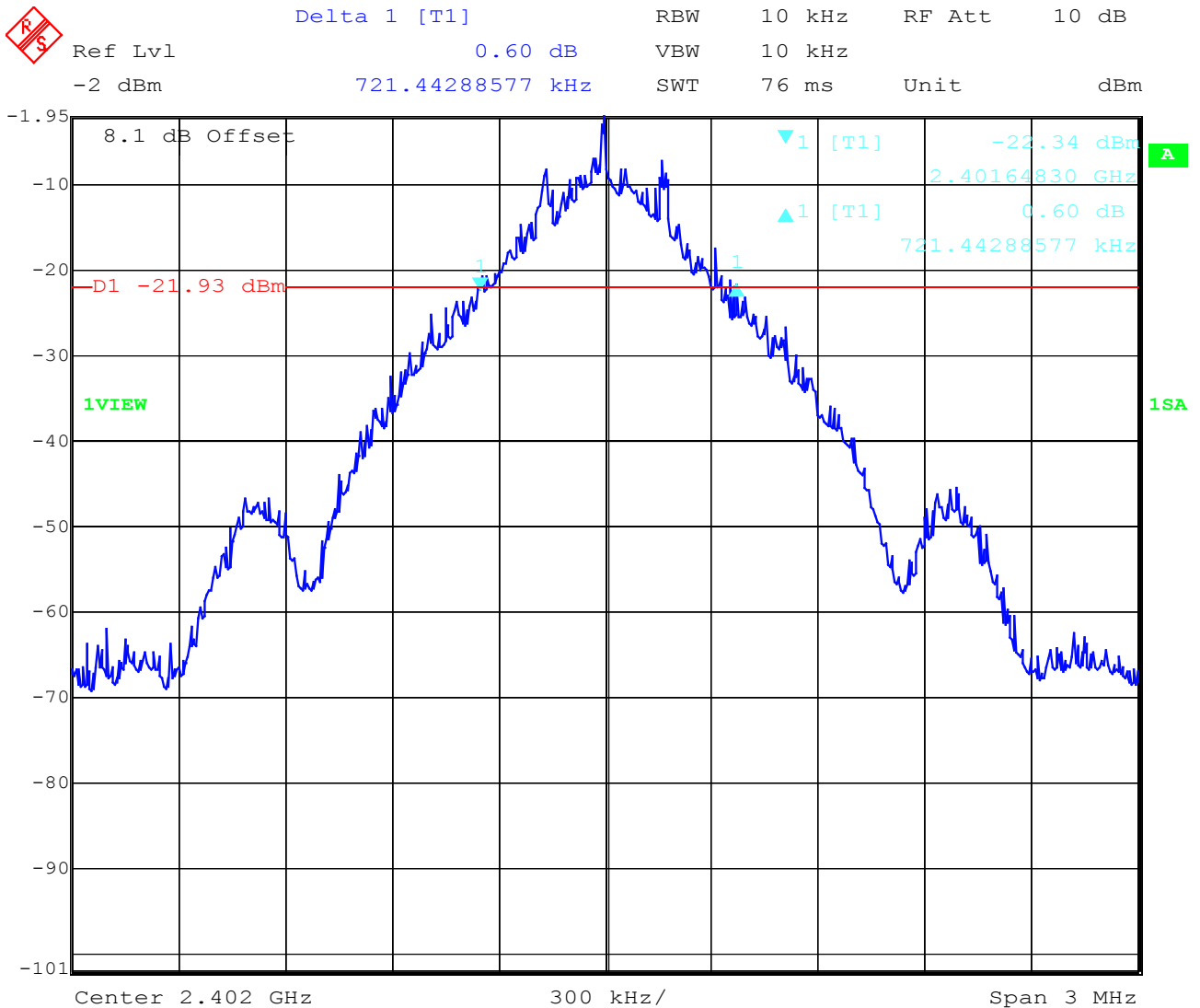
**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

Spectrum Bandwidth of a FHSS System  
 20 dB bandwidth

§15.247(a1)

Channel 1



Date: 12.JUN.2003 10:50:08

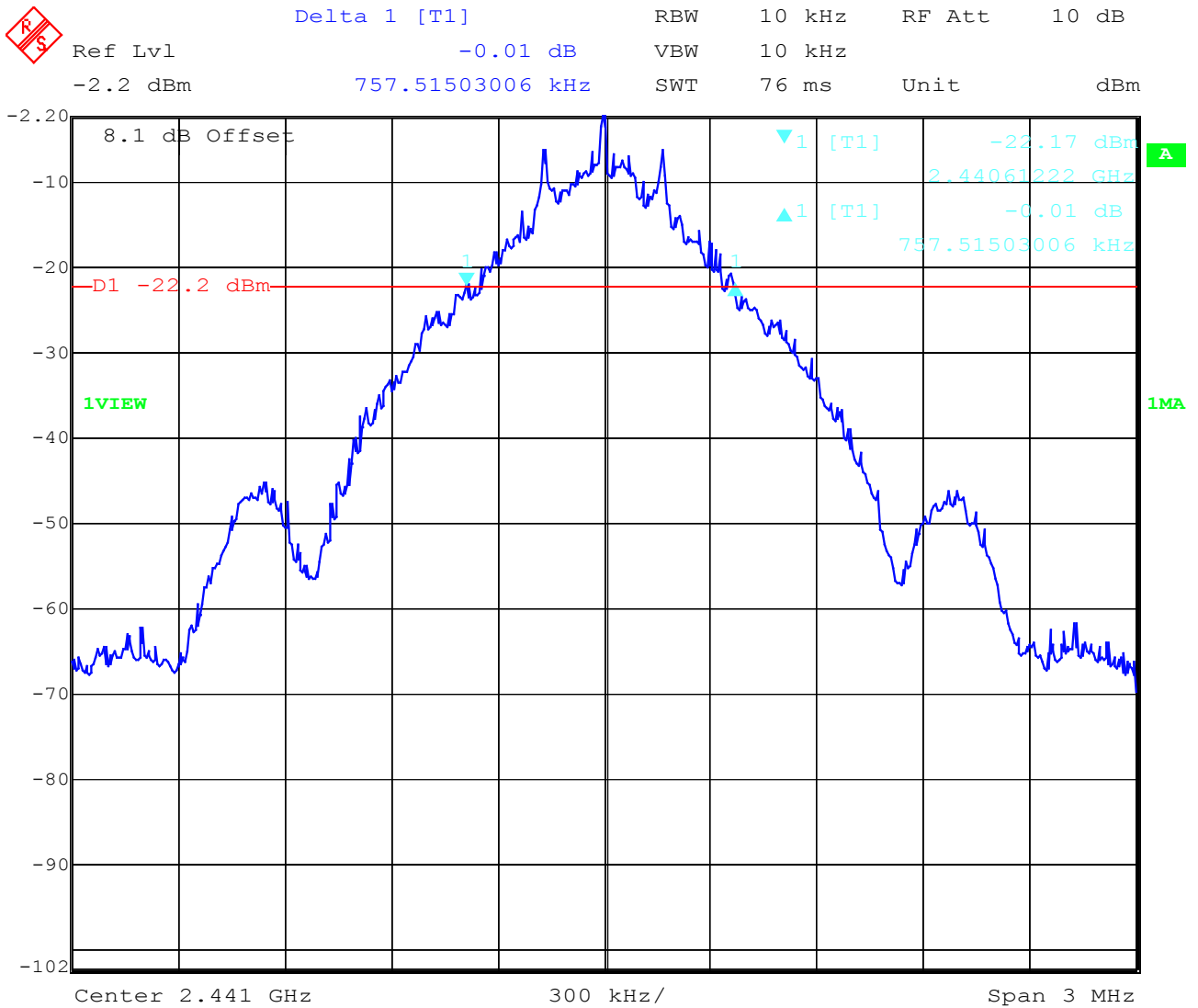
REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
 (for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**Spectrum Bandwidth of a FHSS System  
 20 dB bandwidth**

§15.247(a1)

**Channel 2**



Date: 12.JUN.2003 10:51:27

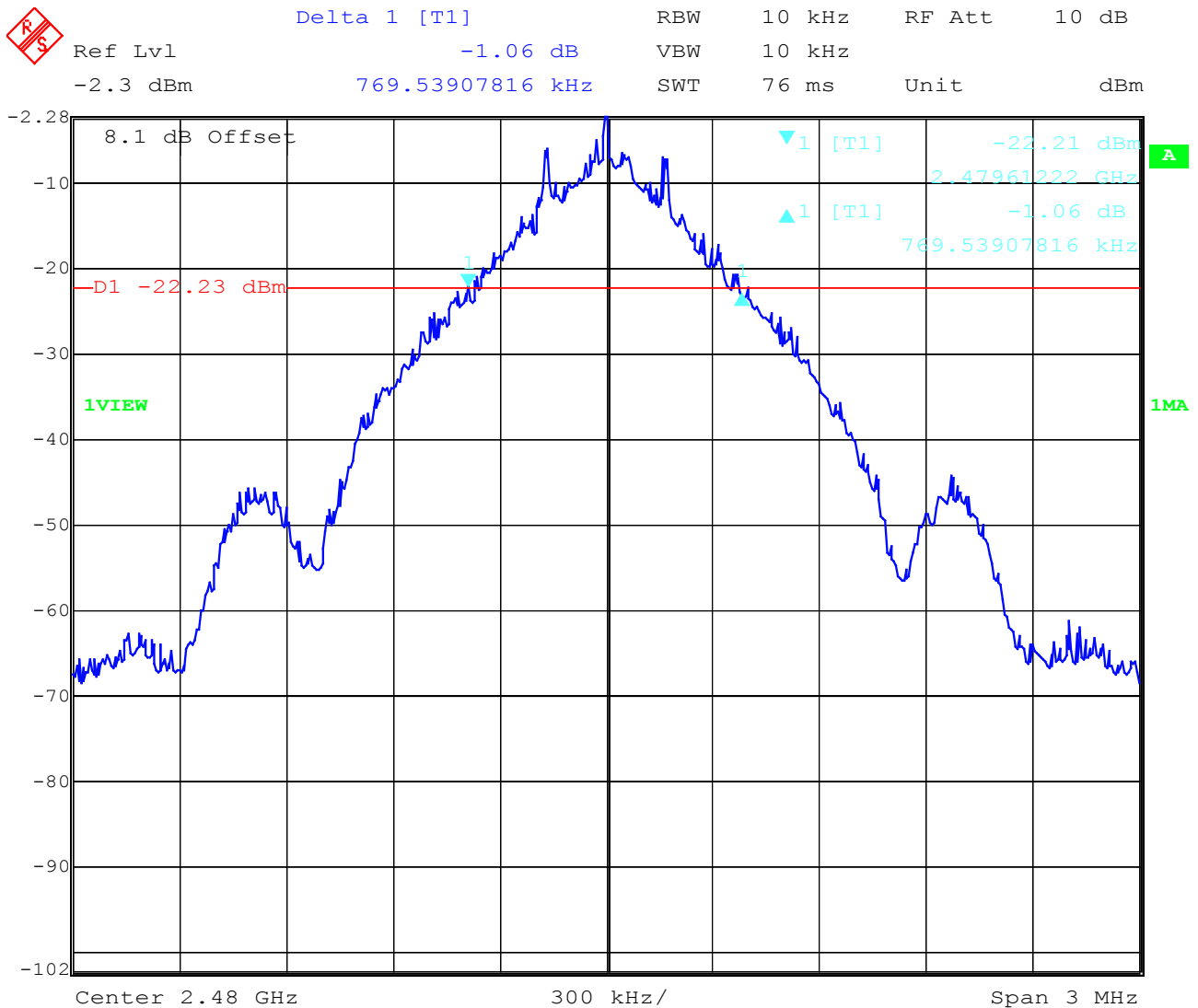
**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

## Spectrum Bandwidth of a FHSS System 20 dB bandwidth

§15.247(a1)

### Channel 3:



Date: 12.JUN.2003 10:52:46

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**MAXIMUM PEAK OUTPUT POWER      SUBCLAUSE § 15.247 (b) (1)**  
**(conducted)**

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (mW)			
		2402	2442	2480	
Frequency (MHz)		PK	0.995	0.995	0.995
T <sub>nom</sub> ( 23.3 )°C	V <sub>nom</sub> ( 3.6 )V				
De facto EIRP (Peak)		1.15 mW	0.887 mW	0.780 mW	
(Antenna gain)		( +0.61dBi)	( -0.54 dBi)	( -1.10 dBi)	
Measurement uncertainty		±3dB			

**RBW / VBW : 3 MHz**

**LIMIT      SUBCLAUSE § 15.247 (b) (1)**

Frequency range	RF power output
2400-2483.5 MHz	1.0 Watt

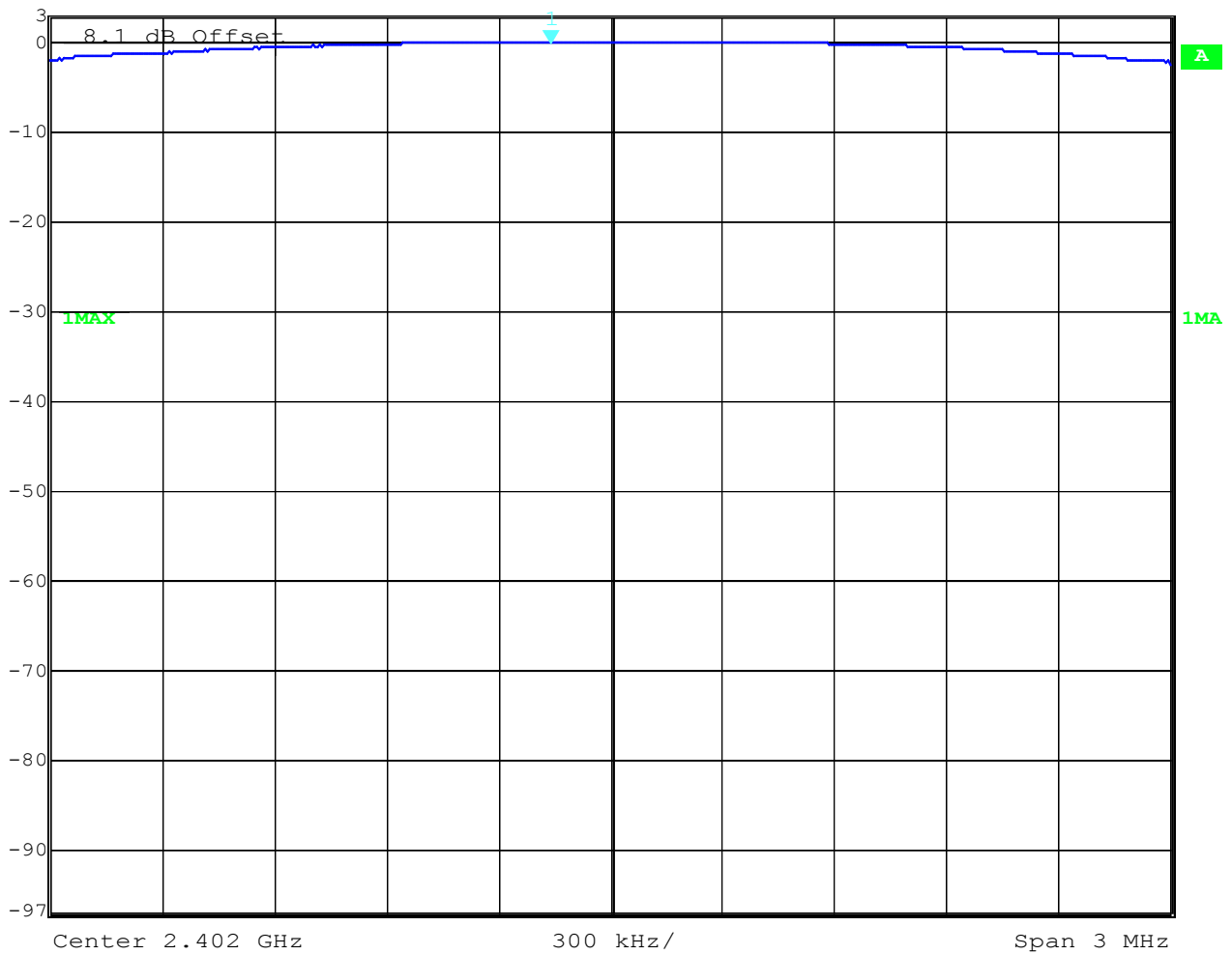
**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**MAXIMUM PEAK OUTPUT POWER  
 (conducted)  
 Channel 1**

**SUBCLAUSE § 15.247 (b) (1)**

Marker 1 [T1] RBW 3 MHz RF Att 20 dB  
 Ref Lvl -0.02 dBm VBW 3 MHz  
 3 dBm 2.40184068 GHz SWT 5 ms Unit dBm



Date: 12.JUN.2003 10:06:33

**LIMIT**

**SUBCLAUSE § 15.247 (b) (1)**

Frequency range	RF power output
2400-2483.5 MHz	1.0 Watt

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**

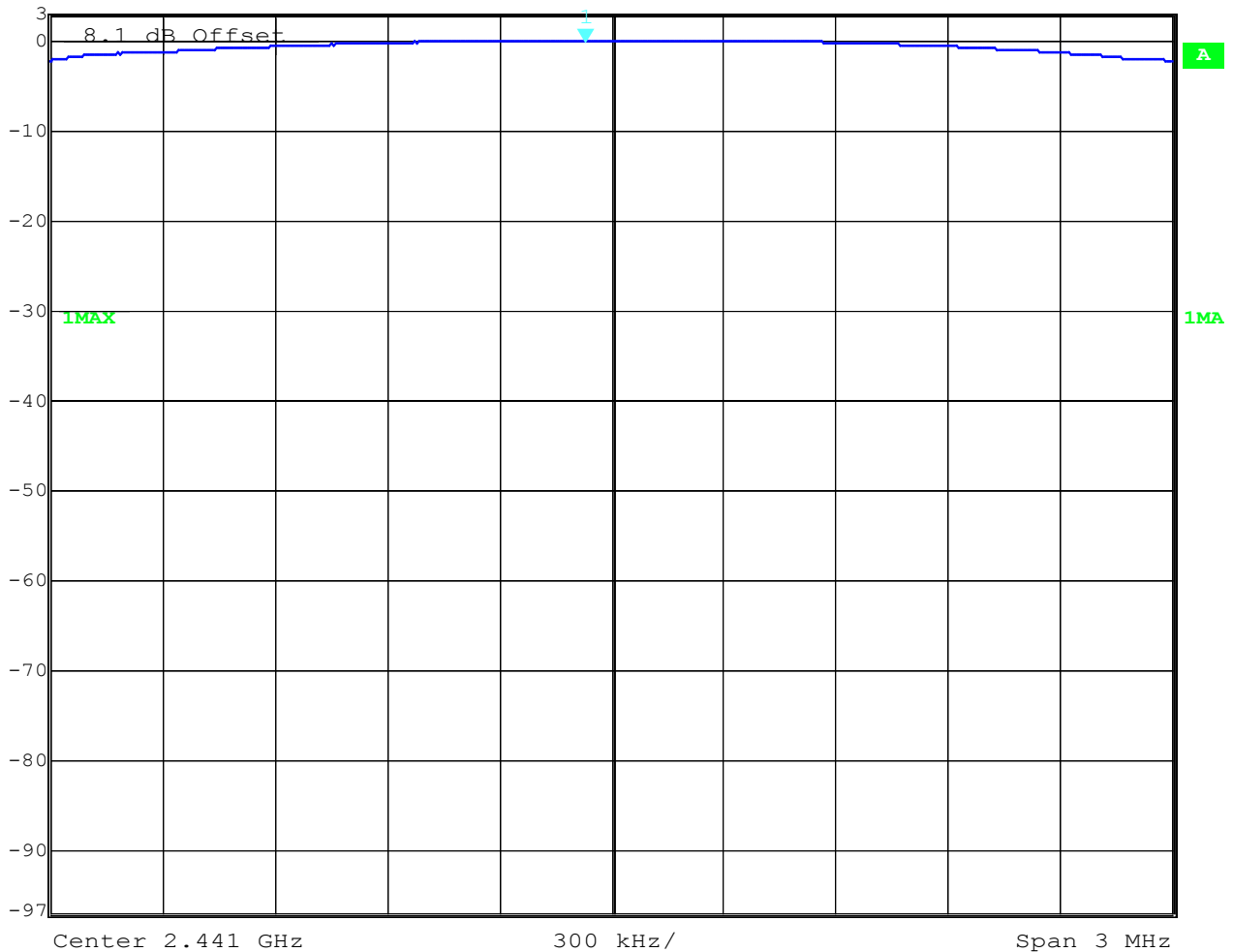
(for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**MAXIMUM PEAK OUTPUT POWER  
 (conducted)  
 Channel 2**

**SUBCLAUSE § 15.247 (b) (1)**

Marker 1 [T1] RBW 3 MHz RF Att 20 dB  
 Ref Lvl -0.02 dBm VBW 3 MHz  
 3 dBm 2.44093086 GHz SWT 5 ms Unit dBm



Date: 12.JUN.2003 10:06:06

**LIMIT**

**SUBCLAUSE § 15.247 (b) (1)**

Frequency range	RF power output
2400-2483.5 MHz	1.0 Watt

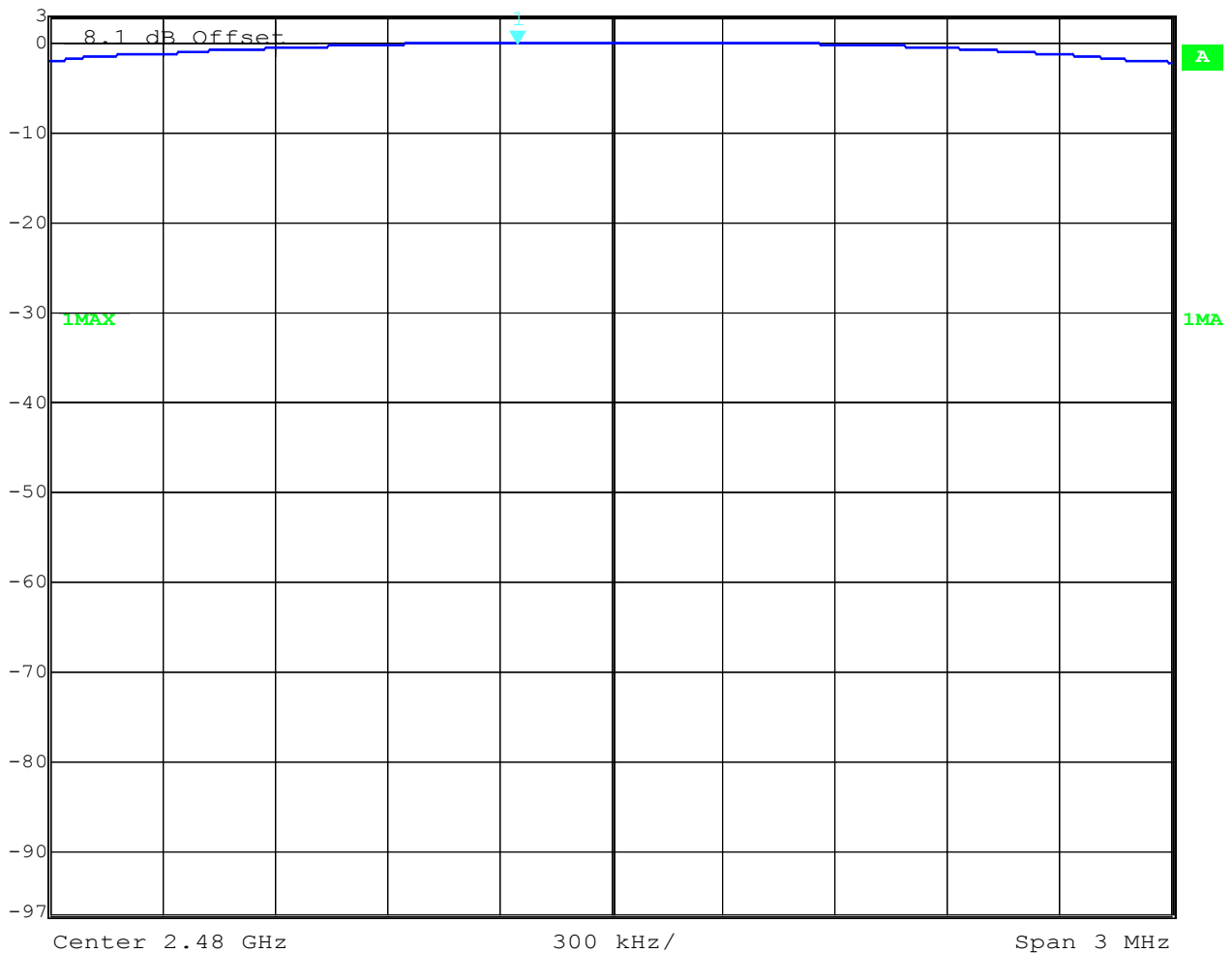
REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
 (for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**MAXIMUM PEAK OUTPUT POWER  
 (conducted)  
 Channel 3**

**SUBCLAUSE § 15.247 (b) (1)**

Marker 1 [T1]      RBW      3 MHz      RF Att      20 dB  
 Ref Lvl      -0.02 dBm      VBW      3 MHz  
 3 dBm      2.47975050 GHz      SWT      5 ms      Unit      dBm



Date: 12.JUN.2003 10:05:31

**LIMIT**

**SUBCLAUSE § 15.247 (b) (1)**

Frequency range	RF power output
2400-2483.5 MHz	1.0 Watt

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**

(for reference numbers see test equipment listing)



Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**MAXIMUM PEAK OUTPUT POWER      SUBCLAUSE § 15.247 (b) (1)**  
**(RADIATED)**

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER		
		EIRP (mW)		
Frequency (MHz)		2402	2441	2480
T <sub>nom</sub> ( 23.0 )°C	V <sub>nom</sub> ( 3.6 )V	1.15 mW	0.887 mW	0.780 mW
Measurement uncertainty		±3dB		

**RBW/VBW : 3 MHz**

**Measured at a distance of 3m**

**LIMIT      SUBCLAUSE § 15.247 (b) (1)**

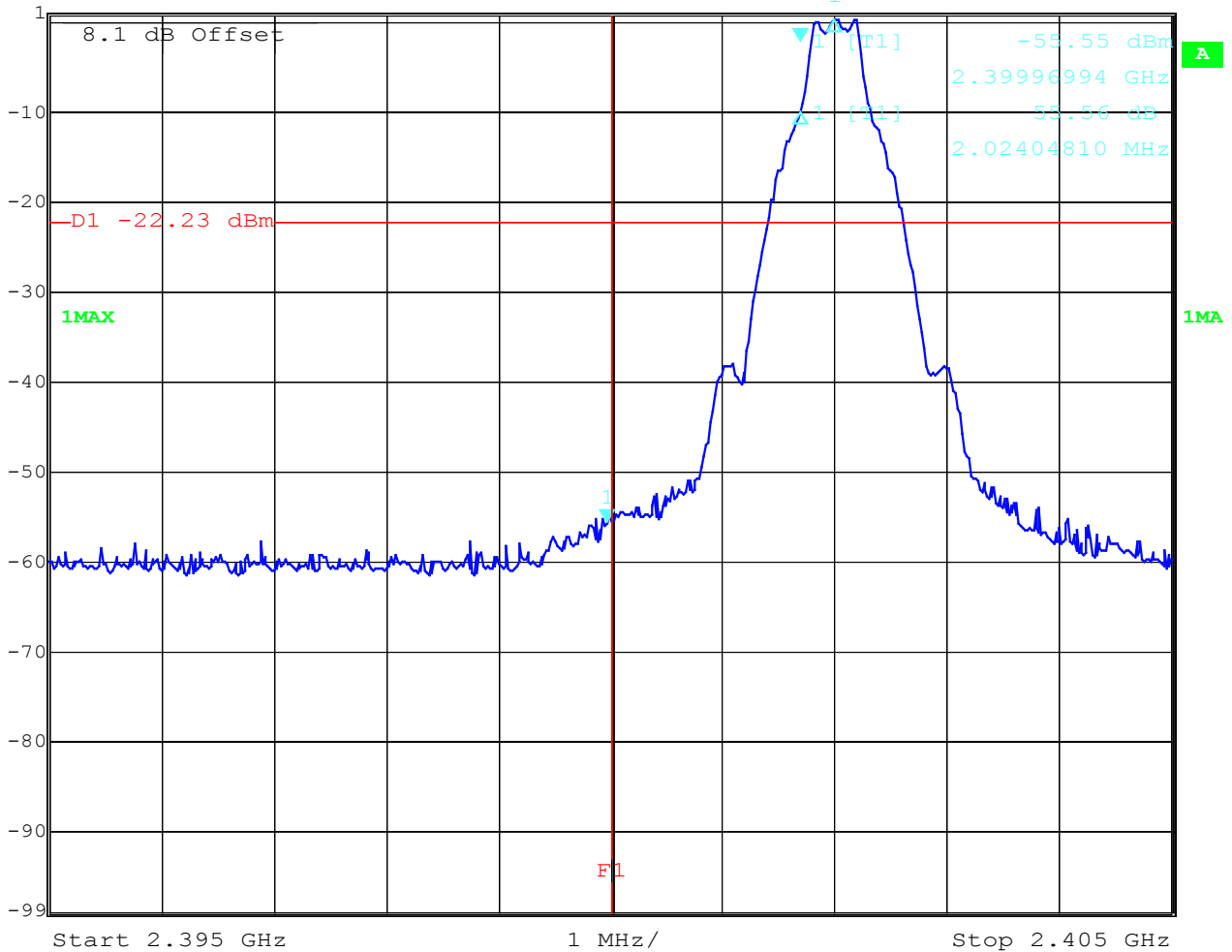
Frequency range	RF power output
2400-2483.5 MHz	1.0 Watt

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**Band-edge compliance of conducted emissions**

**§15.247 (c)**

Ref Lvl 1 dBm  
 Marker 1 [T1] 2.39996994 GHz  
 RBW 100 kHz  
 VBW 100 kHz  
 SWT 5 ms  
 RF Att 20 dB  
 Unit dBm



Date: 12.JUN.2003 10:55:51

**Low frequency section (hopping off)**

Limit: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**


(for reference numbers see test equipment listing)

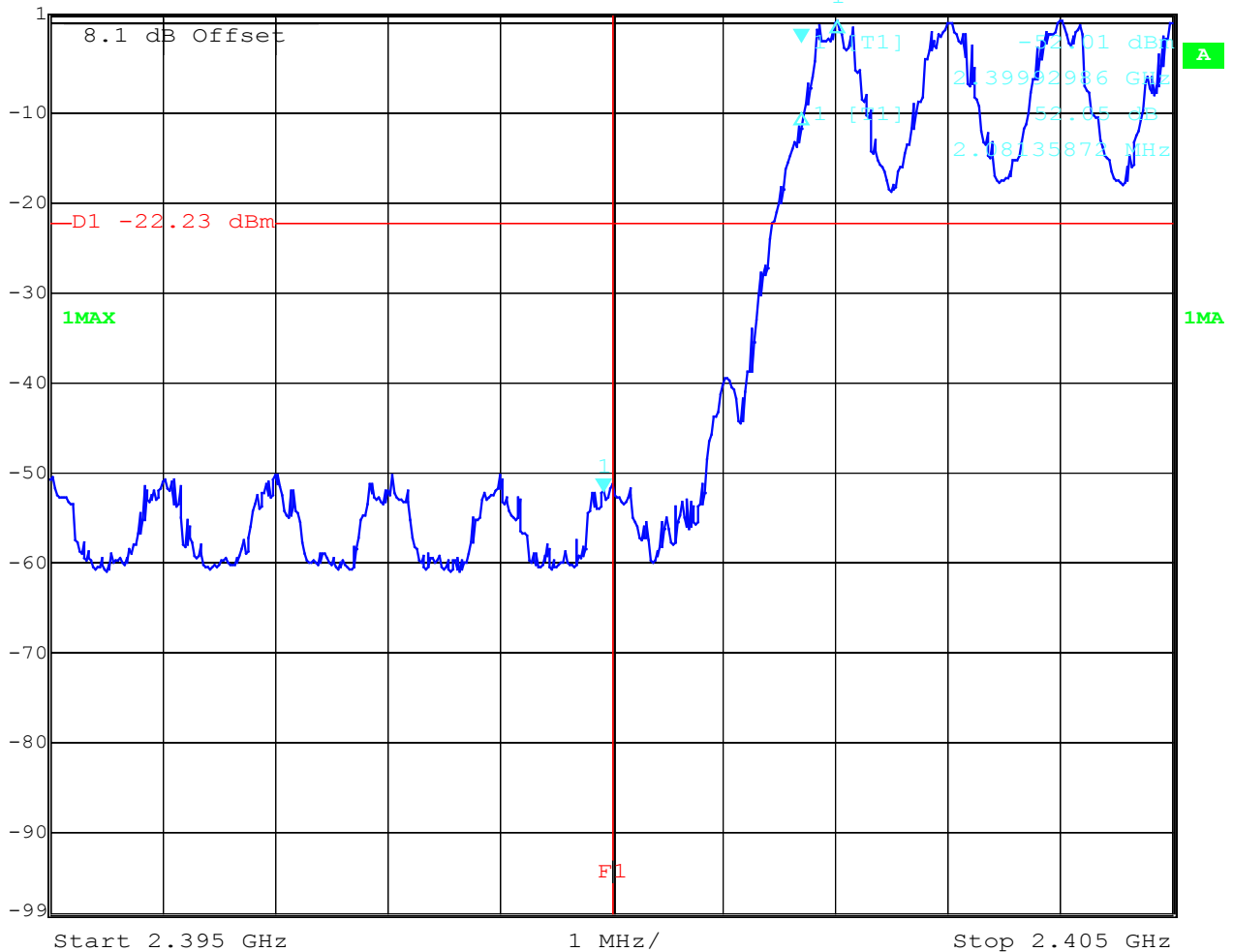
Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

Band-edge compliance of conducted emissions

§15.247 (c)

Low frequency section (hopping on)


 Marker 1 [T1] RBW 100 kHz RF Att 20 dB  
 Ref Lvl -52.01 dBm VBW 100 kHz  
 1 dBm 2.39992986 GHz SWT 5 ms Unit dBm



Date: 12.JUN.2003 10:58:12

Limit: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)  
 17 – 24, 64

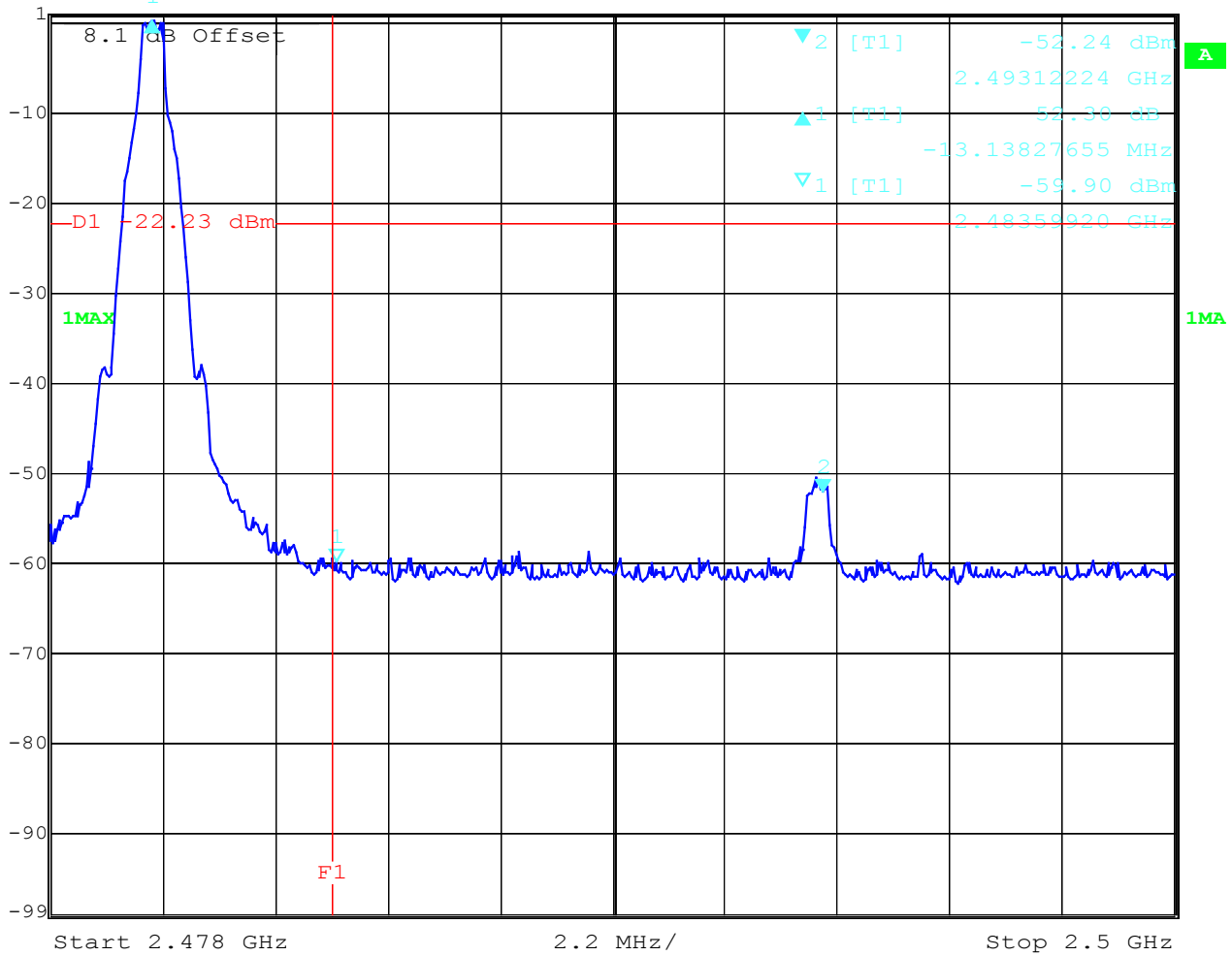
Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

Band-edge compliance of conducted emissions

§15.247 (c)

high frequency section (hopping off)

Delta 1 [T1] RBW 100 kHz RF Att 20 dB  
 Ref Lvl 52.30 dB VBW 100 kHz  
 1 dBm -13.13827655 MHz SWT 5.5 ms Unit dBm



Date: 12.JUN.2003 11:01:26

Limit: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).


**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)  
 17 – 24, 64

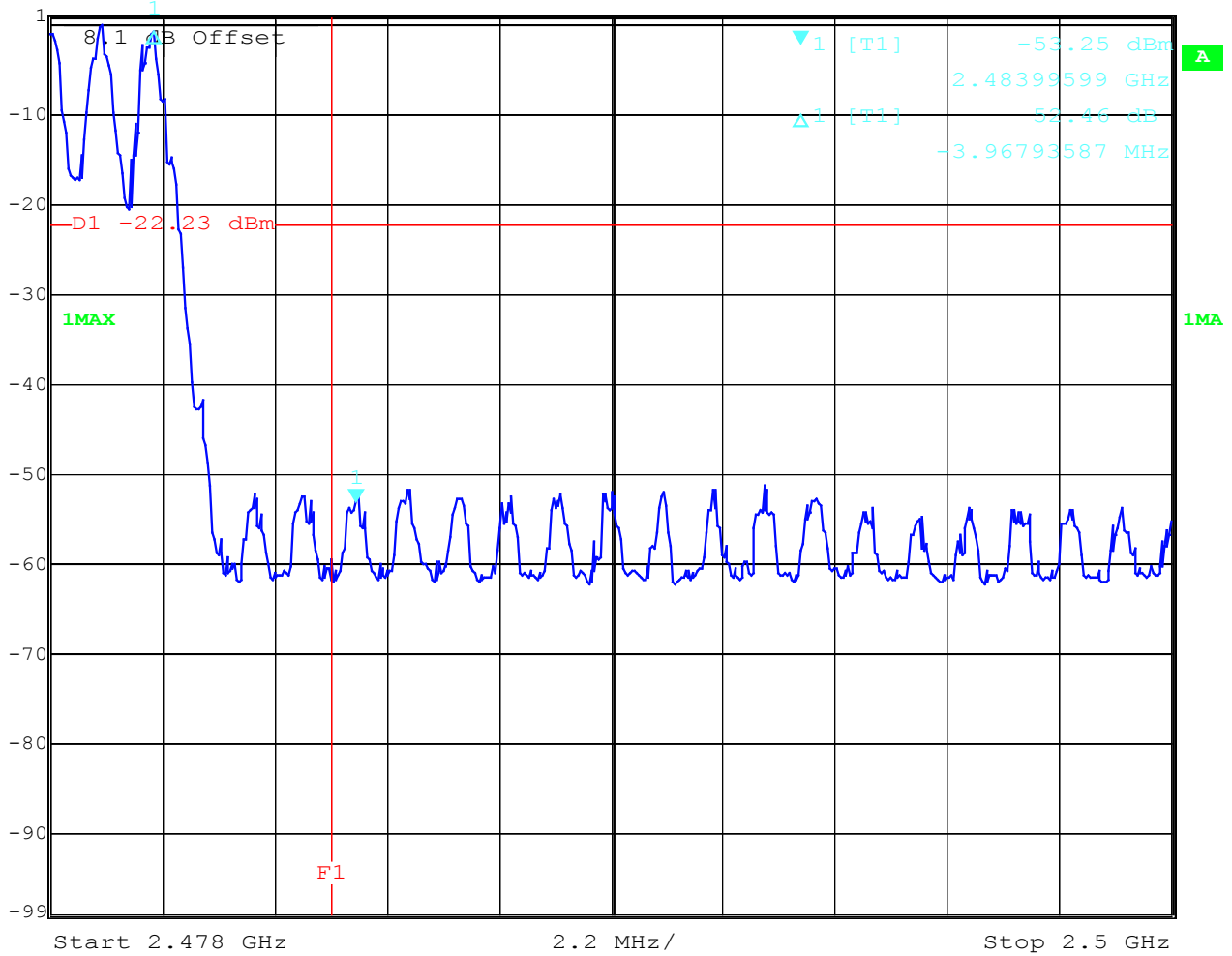
Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

Band-edge compliance of conducted emissions

§15.247 (c)

high frequency section (hopping on)


 Marker 1 [T1] RBW 100 kHz RF Att 20 dB  
 Ref Lvl -53.25 dBm VBW 100 kHz  
 1 dBm 2.48399599 GHz SWT 5.5 ms Unit dBm



Date: 12.JUN.2003 10:59:38

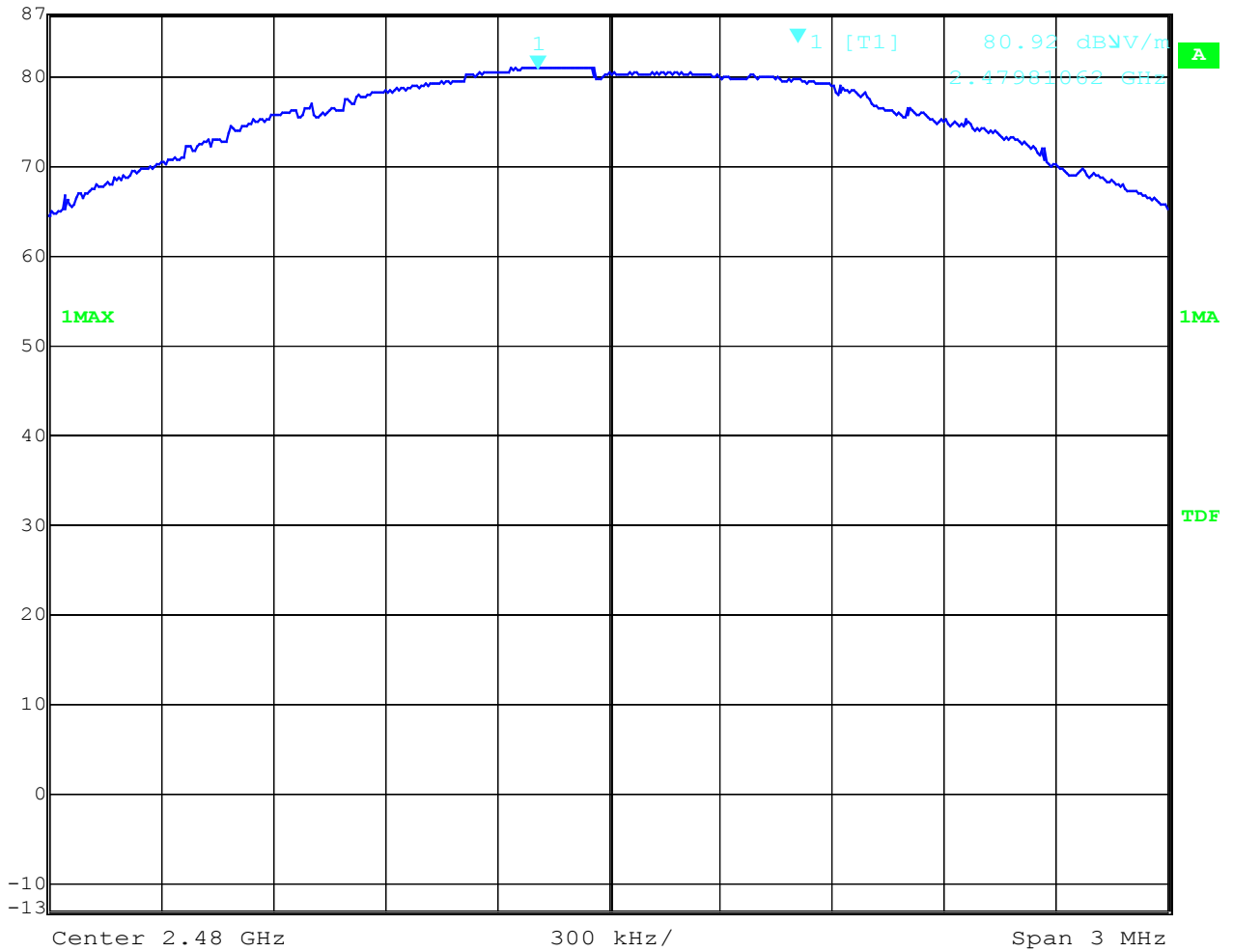
Limit: In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)  
 17 – 24, 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**Band-edge compliance radiated**  
**Max field strength in 3m distance**  
**(singel frequency)**

**Marker 1 [T1]**      RBW    1 MHz    RF Att    0 dB  
 Ref Lvl                      80.92 dBµV/m    VBW    1 MHz  
 87 dB\*                      2.47981062 GHz    SWT    5 ms    Unit    dBµV/m



Date: 12.JUN.2003 09:49:27

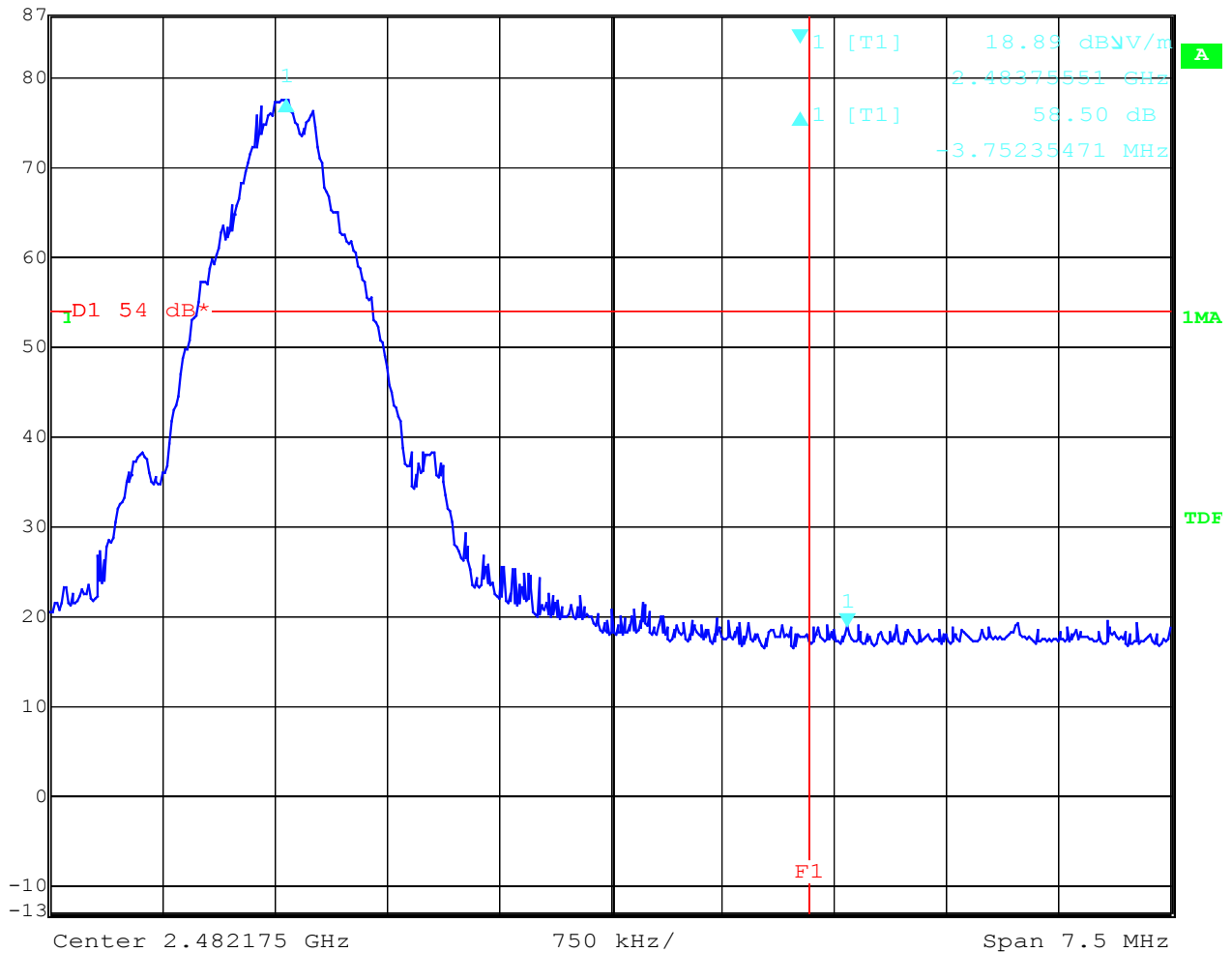
Frequency	Meter reading	Cable loss	Antenna factor	Results
2480 MHz		2.5	-6.3	81.49 dBµV/m
Coreccting factor in grafic implemented				

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)  
 17 – 24, 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

### Band-edge compliance radiated Marker-Delta Method (single carrier)

	Ref Lvl	Delta 1 [T1]	RBW	100 kHz	RF Att	0 dB
	87 dB*	58.50 dB	VBW	100 kHz		
		-3.75235471 MHz	SWT	5 ms	Unit	dBµV/m



Date: 12.JUN.2003 09:42:04

**Marker-Delta-Value : 58.50**

**This measurement was made to show that the behavior of the system is conform to**

**FCC 15.205 (restricted bands)**

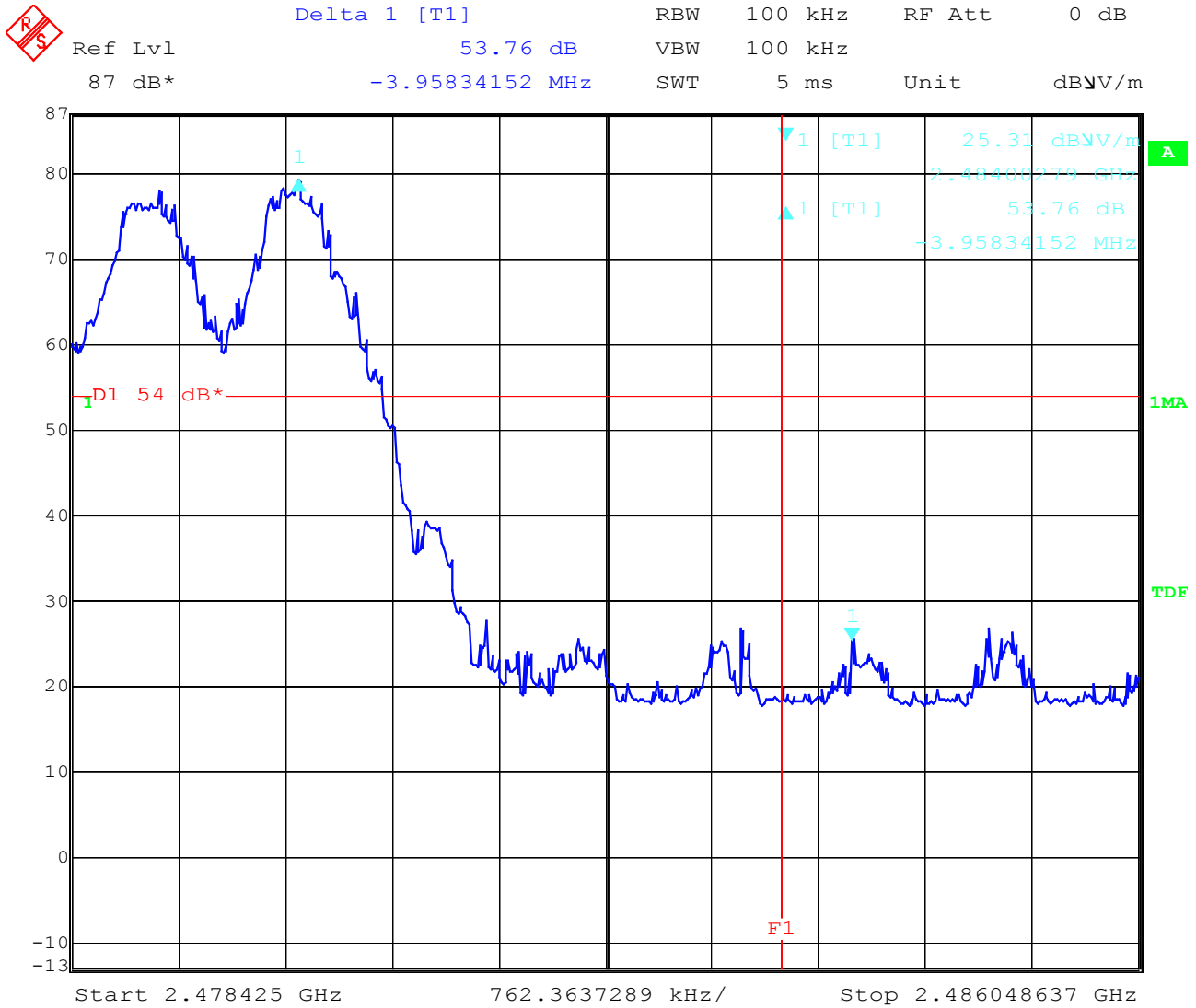
**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**

(for reference numbers see test equipment listing)

17 – 24, 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**Band-edge compliance radiated  
 Marker-Delta Method (hopping mode)**



Date: 12.JUN.2003 09:46:44

**Marker-Delta-Value : 52.76 dB**

**This measurement was made to show that the behavior of the system is conform to FCC 15.205 (restricted bands)**

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)  
 17 – 24, 64



Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**Band-edge compliance of radiated emissions**

**§15.205**

**Radiated field strength**

The field strength was measured with an EMI measuring receiver and 1 MHz RBW / VBW for peak and with 1MHz RBW / 10Hz VBW for average at a distance of 3m.

high channel	setup	measured value (3m)	correction factor (3m)	calculated value (3m)
Max. peak value	1 MHz RBW 1 MHz VBW	80.92 dBμV/m Peak	-3.8	77.12 dBμV/m
Max. average value	Calculated with duty cycle correction factor	77.12 dBμV/m peak	-0.79 dB duty cycle correction factor	76.33 dBμV/m
Delta value	Peak 30 kHz RBW/VBW	58.50 dB (single carrier) 52.76 dB (hopping mode)	-	-
Value at band edge	limit 54 dBμV/m			17.83 dBμV/m (single carrier) 23.57 dBμV/m (hopping mode)
Statement:				Complies

**The product complies with the limit of the restricted bands.**

Delta marker plots see above pages

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

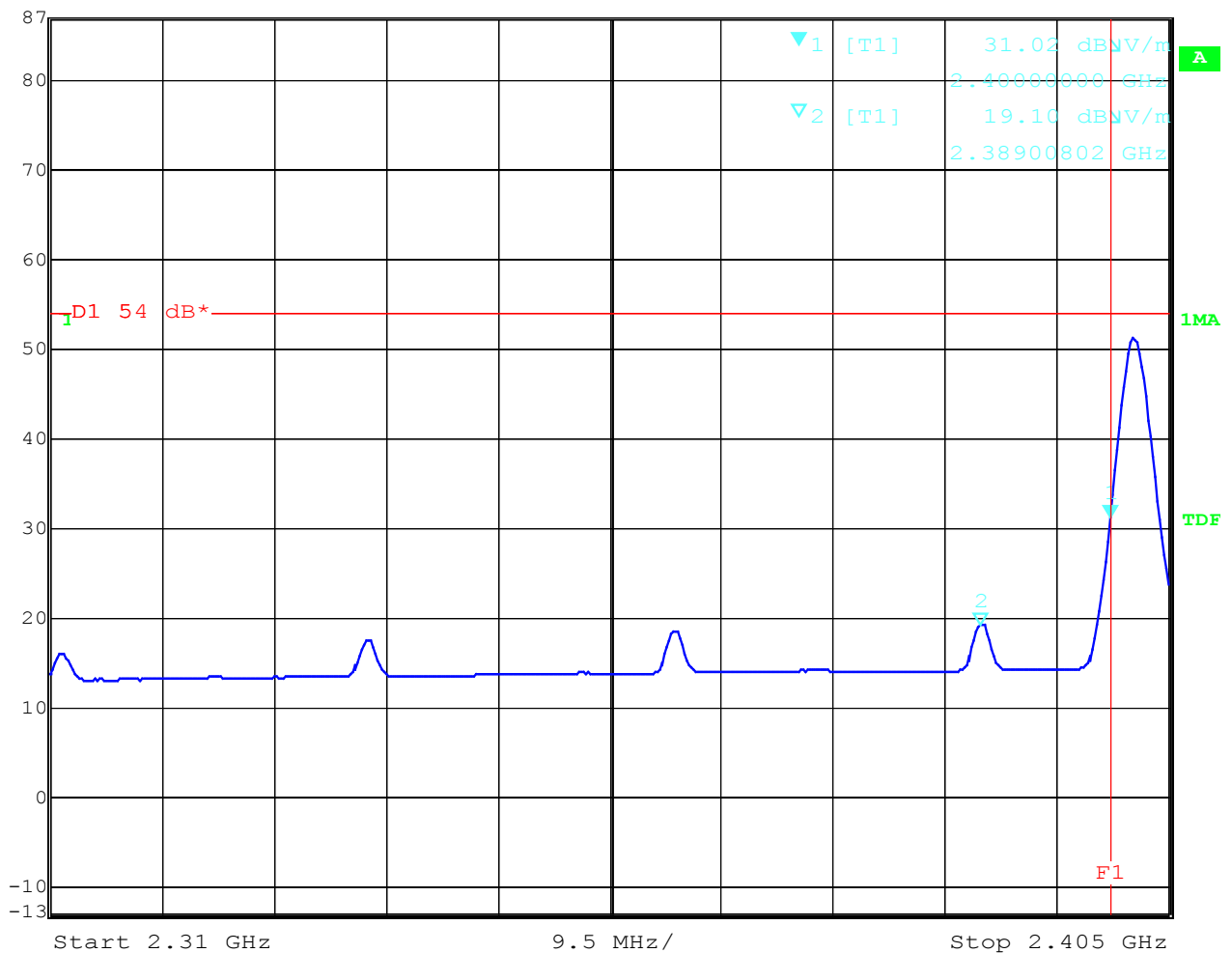
(for reference numbers see test equipment listing)

17 – 24, 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

### Band-edge compliance radiated (average) Restricted band 2310 – 2390 MHz

	Marker 1 [T1]	RBW	1 MHz	RF Att	0 dB
	Ref Lvl	31.02 dBµV/m	VBW	10 Hz	
	87 dB*	2.40000000 GHz	SWT	24 s	Unit      dBµV/m

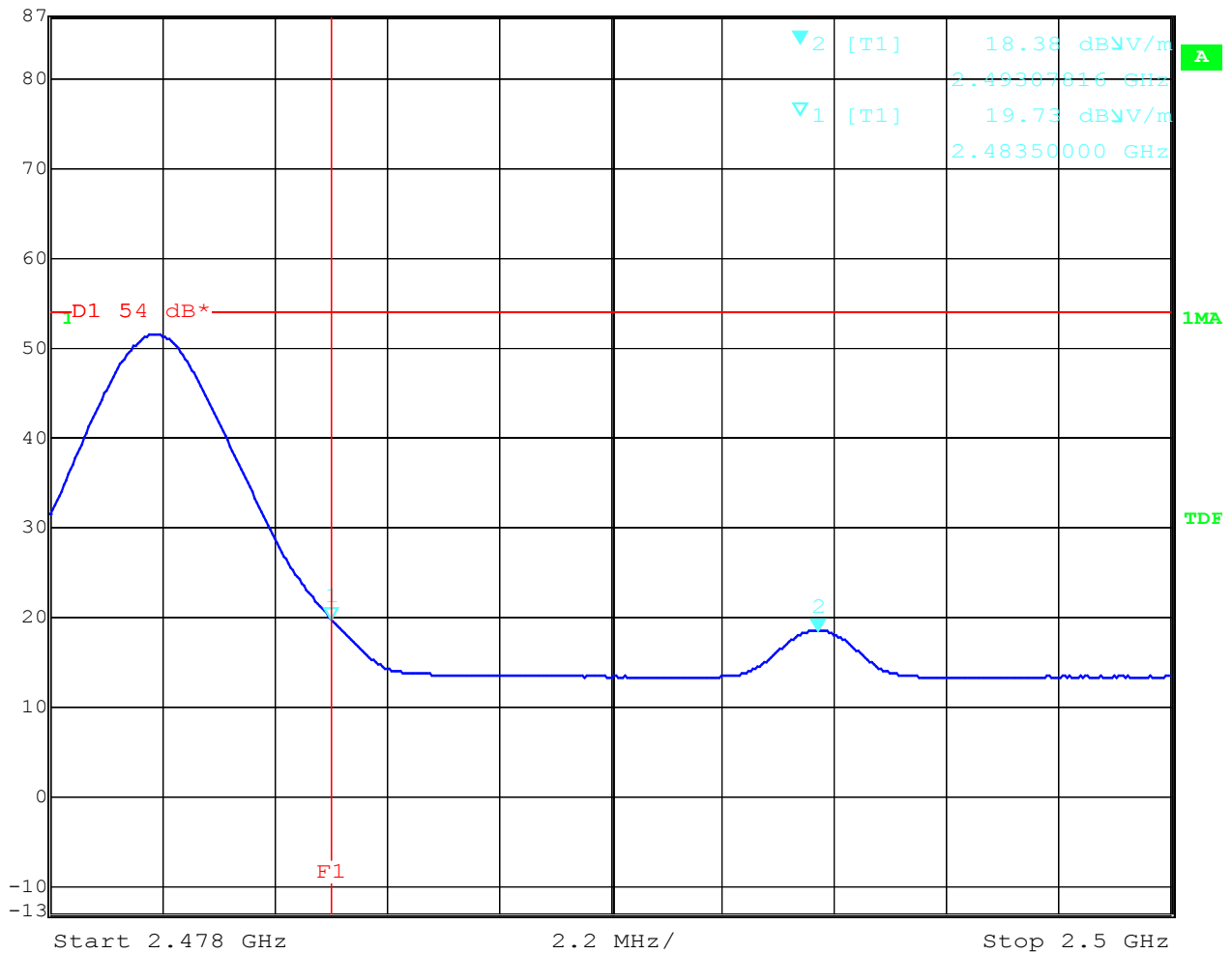


Date: 12.JUN.2003 09:36:40

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**Band-edge compliance radiated (average)**  
**Restricted band 2483.5 - 2500 MHz**

	Marker 2 [T1]	RBW	1 MHz	RF Att	0 dB
	Ref Lvl	18.38 dBµV/m	VBW	10 Hz	
	87 dB*	2.49307816 GHz	SWT	5.6 s	Unit      dBµV/m



Date: 12.JUN.2003 09:38:13

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**EMISSION LIMITATIONS- Conducted (Transmitter)**

§ 15.247 (c) (1)

EMISSION LIMITATIONS					
f (MHz)		amplitude of emission (dBm)	limit max. allowed emission power	actual attenuation below frequency of operation (dB)	results
2402		-0.02	30 dBm	-	Operating frequency
4797.7		-49.19	-20 dBc (-20.02 dBm)	49.17	complies
2441		-0.02	30 dBm	-	Operating frequency
4847.3		-48.50	-20 dBc (-20.02 dBm)	48.48	complies
2480		-0.02	30 dBm		Operating frequency
4947.5		-48.03	-20 dBc (-20.02 dBm)	48.01	complies
Measurement uncertainty		± 3dB			

RBW : 100 kHz    VBW: 100 MHz

**For emissions that fall into restricted bands you find the radiated emissions later in the report.**

**LIMITS**

**SUBCLAUSE § 15.247 (c)**

**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

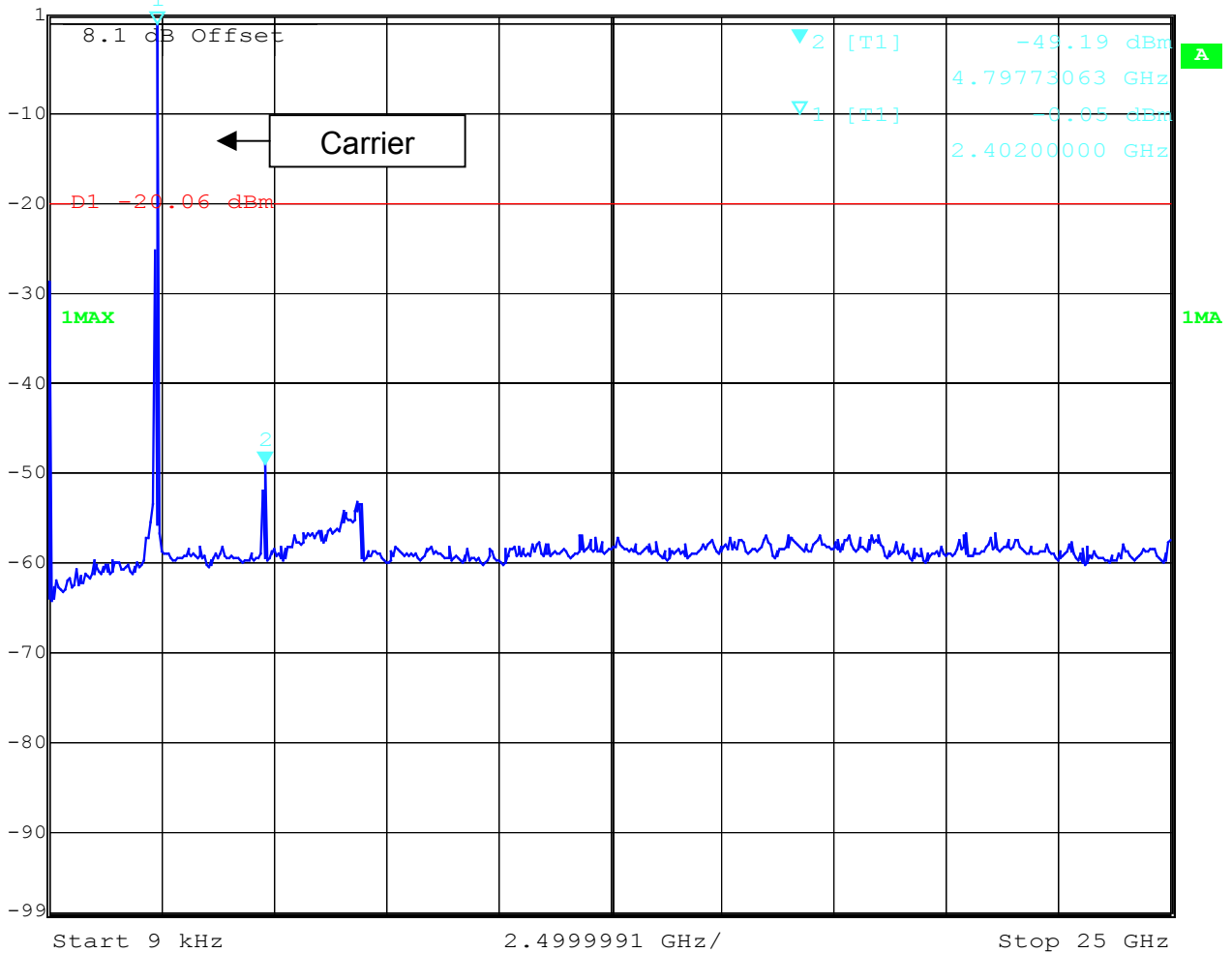
**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**EMISSION LIMITATIONS- Conducted (Transmitter)**  
**Channel 1: 9 kHz - 25 GHz**

§ 15.247 (c) (1)

RS	Ref Lvl	Marker 2 [T1]	RBW	100 kHz	RF Att	20 dB
	1 dBm	-49.19 dBm	VBW	100 kHz		
		4.79773063 GHz	SWT	6.4 s	Unit	dBm



Date: 12.JUN.2003 11:05:20

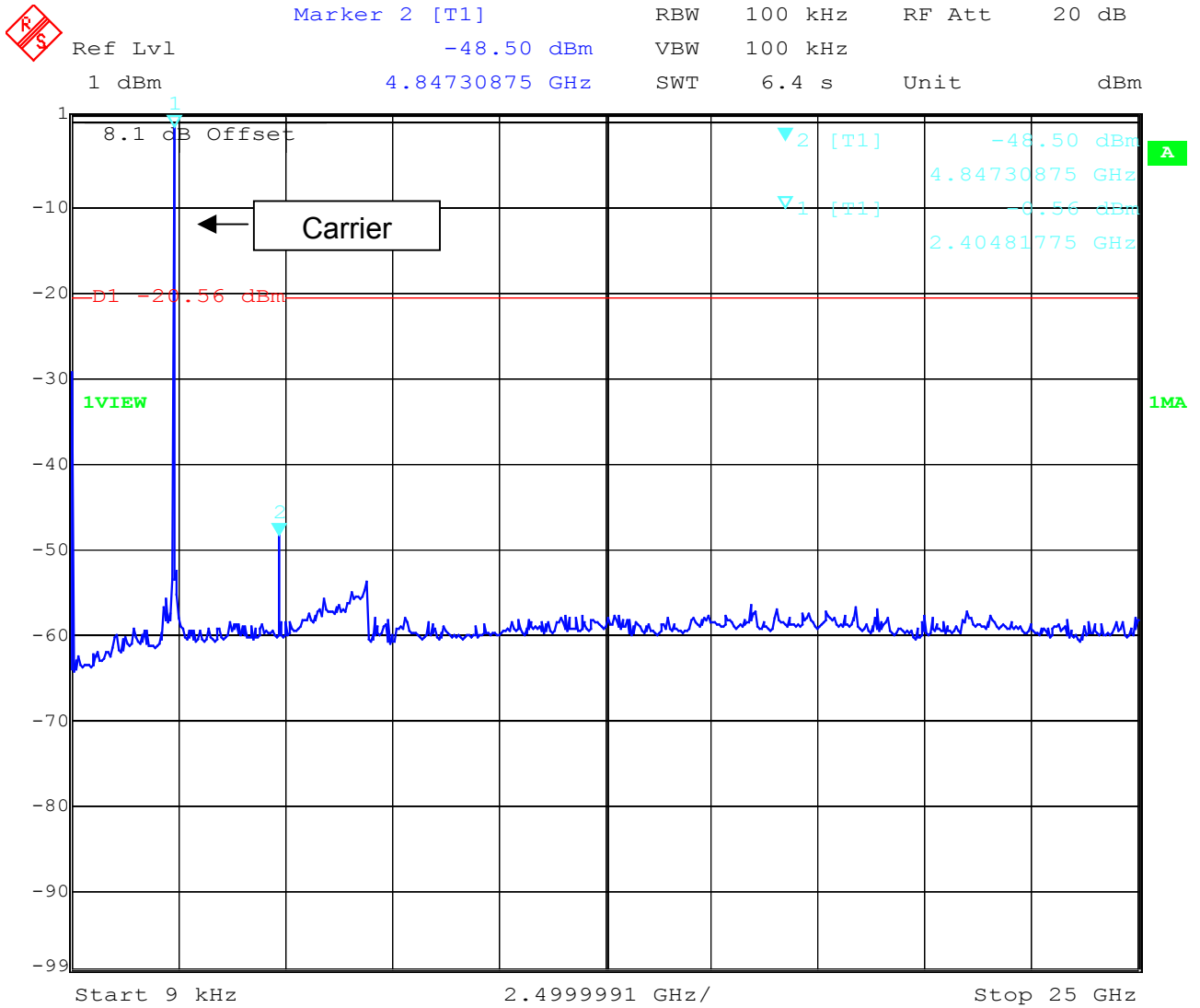
**RBW:100 kHz / VBW: 100 kHz**

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)  
 17 - 24, 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**EMISSION LIMITATIONS- Conducted (Transmitter)**  
**Channel 2: 9 kHz – 25 GHz**

§ 15.247 (c) (1)



Date: 12.JUN.2003 11:08:16

**RBW:100 kHz / VBW: 100 kHz**

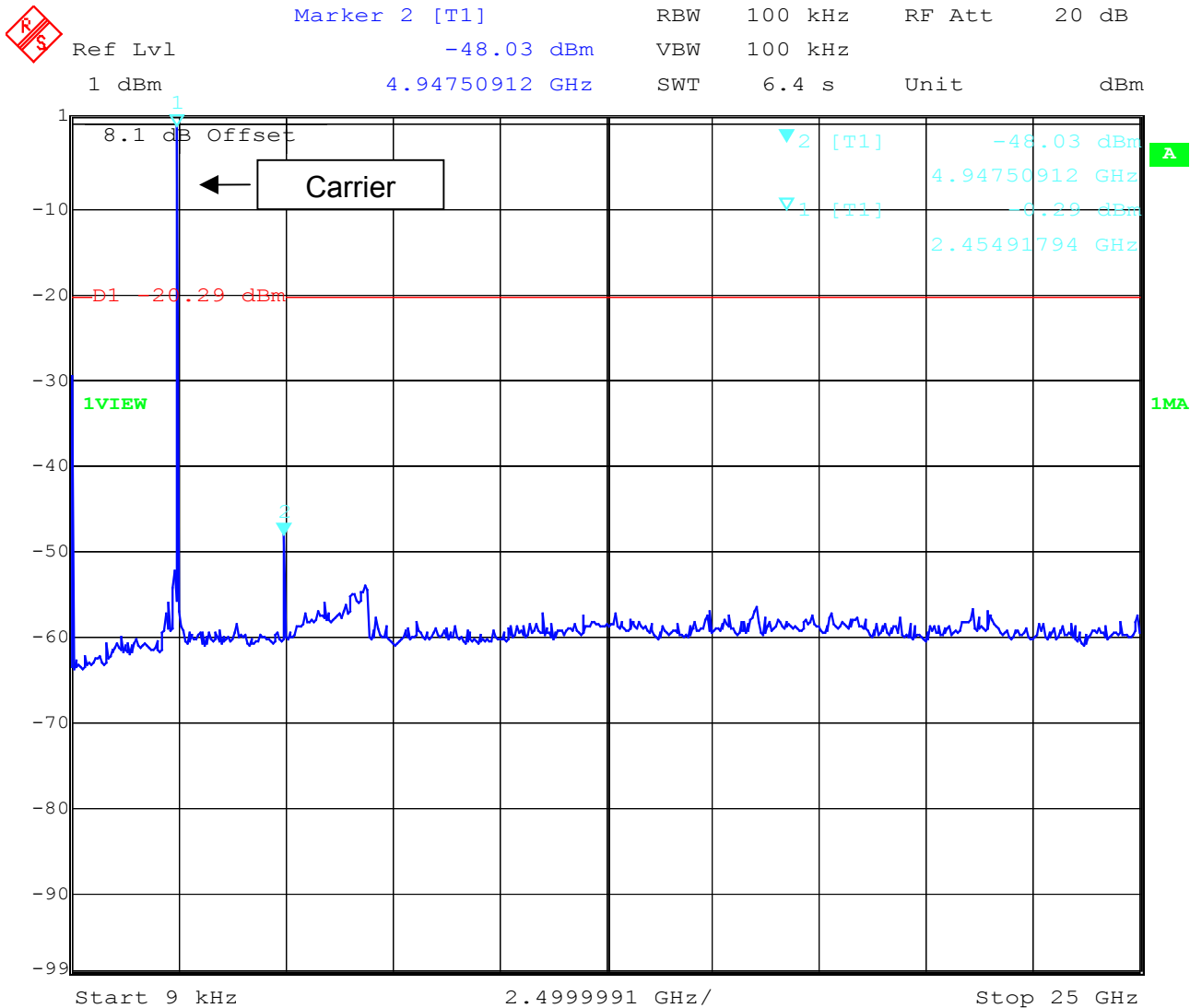
**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)  
 17 – 24, 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

## EMISSION LIMITATIONS- Conducted (Transmitter)

§ 15.247 (c) (1)

### Channel 3: 9kHz – 25 GHz



Date: 12.JUN.2003 11:09:28

**RBW:100 kHz / VBW: 100 kHz**

#### REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**SPURIOUS RADIATED EMISSION § 15.247 (c) (1)**

SPURIOUS EMISSIONS LEVEL (µV/m)								
2402 MHz			2441 MHz			2480 MHz		
f (MHz)	Detector	Level (µV/m)	f (MHz)	Detector	Level (µV/m)	f (MHz)	Detector	Level (µV/m)
< 4 GHz no peak found			< 4 GHz no peak found			< 4 GHz no peak found		
4804	AV	33.0	4-12 GHz no traceable signal found			4-12 GHz no traceable signal found		
12 to 25 GHz no traceable signal found								
Measurement uncertainty					±3 dB			

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

**LIMITS SUBCLAUSE § 15.247 (c)**

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

**Limits SUBCLAUSE § 15.209**

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
30 - 88	100 (40 dBµV/m)	3
88 - 216	150 (43.5 dBµV/m)	3
216 - 960	200 (46 dBµV/m)	3
above 960	500 (54 dBµV/m)	3

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**

(for reference numbers see test equipment listing)



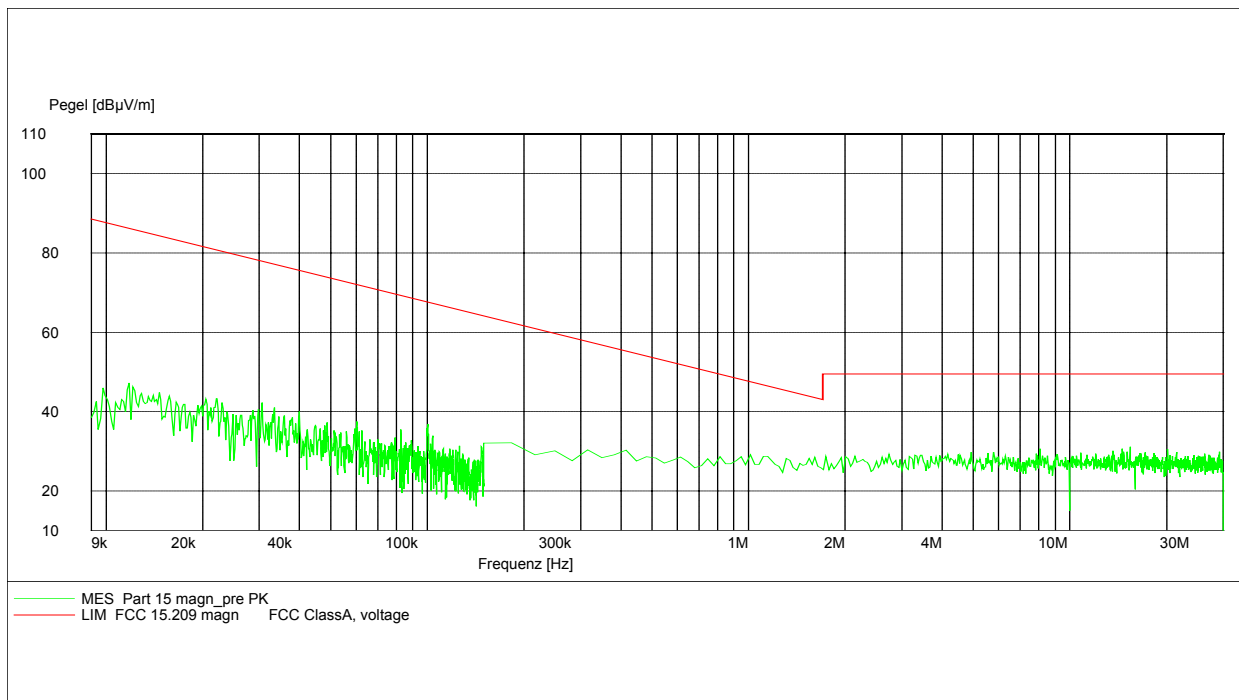
Equipment under test : AAB-1021012-BV  
Ambient temperature : 25.9°C  
Relative humidity : 54%

## EMISSION LIMITATIONS (valid for all channels)

## SUBCLAUSE § 15.247 (c) (1)

9 kHz - 30 MHz

EUT: AAB-1021012-BV  
Manufacturer: Sony Ericsson Mobile Communications AB  
Operating Condition: continuous Tx mode  
Test Site: Cetecom, Room 6  
Operator: Berg  
Test Specification:  
Comment: 115V / 60 Hz  
Start of Test: 13.06.03 / 07:42:41

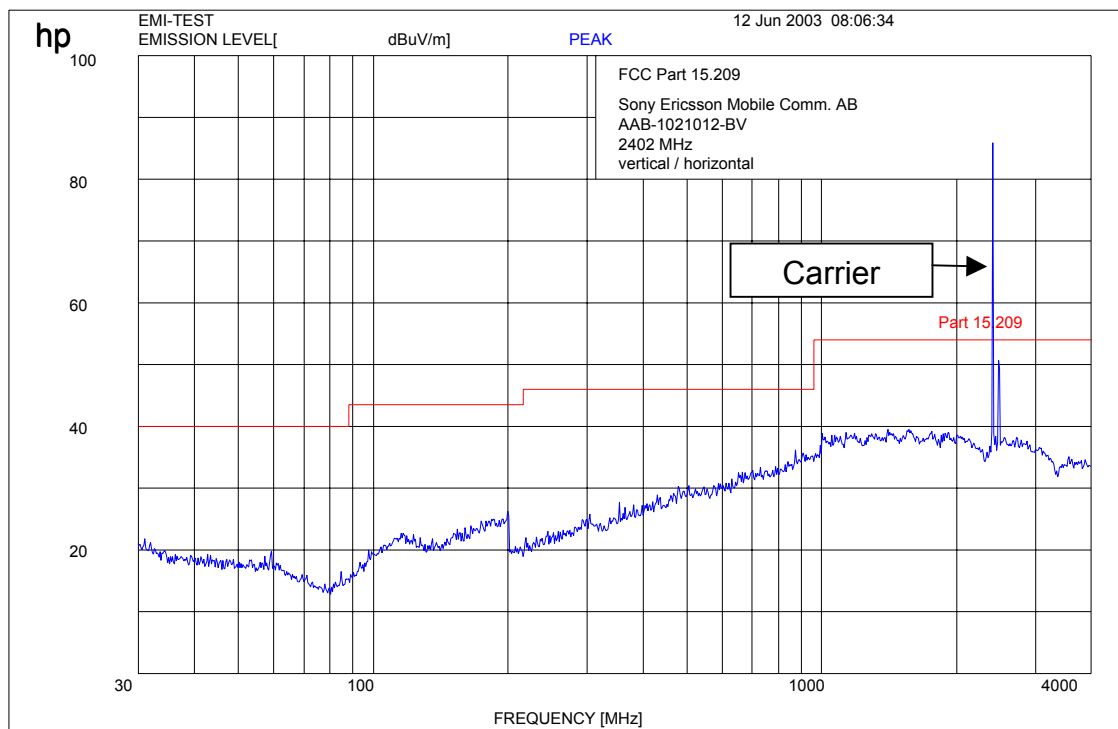


**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
(for reference numbers see test equipment listing)  
**17 - 24; 64**

Equipment under test : AAB-1021012-BV  
Ambient temperature : 25.9°C  
Relative humidity : 54%

## EMISSION LIMITATIONS 2402 MHz - 4 GHz

## SUBCLAUSE § 15.247 (c) (1)



$f < 1 \text{ GHz}$  : RBW/VBW: 100 kHz

$f \geq 1 \text{ GHz}$  : RBW/VBW: 1 MHz

## LIMITS

## SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
(for reference numbers see test equipment listing)

17 – 24; 64

Equipment under test : AAB-1021012-BV

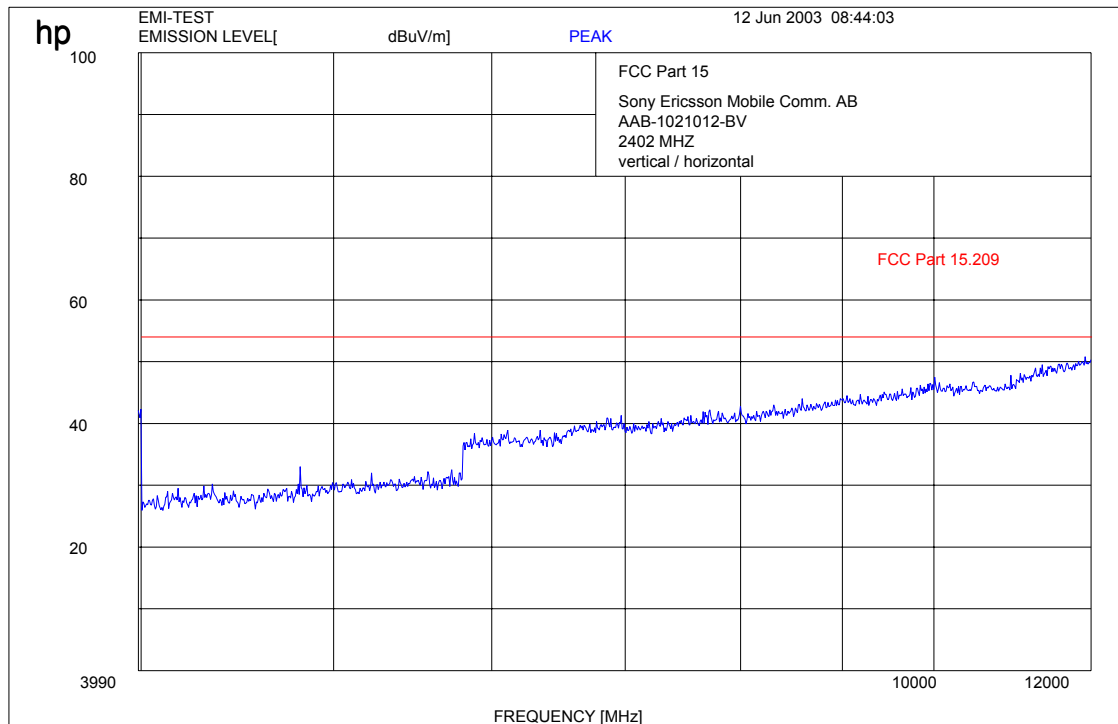
Ambient temperature : 25.9°C

Relative humidity : 54%

EMISSION LIMITATIONS

SUBCLAUSE § 15.247 (c) (1)

2402 MHz - 12 GHz



f < 1 GHz : RBW/VBW: 100 kHz

f ≥ 1GHz : RBW/VBW: 1 MHz

## LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

17 – 24; 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

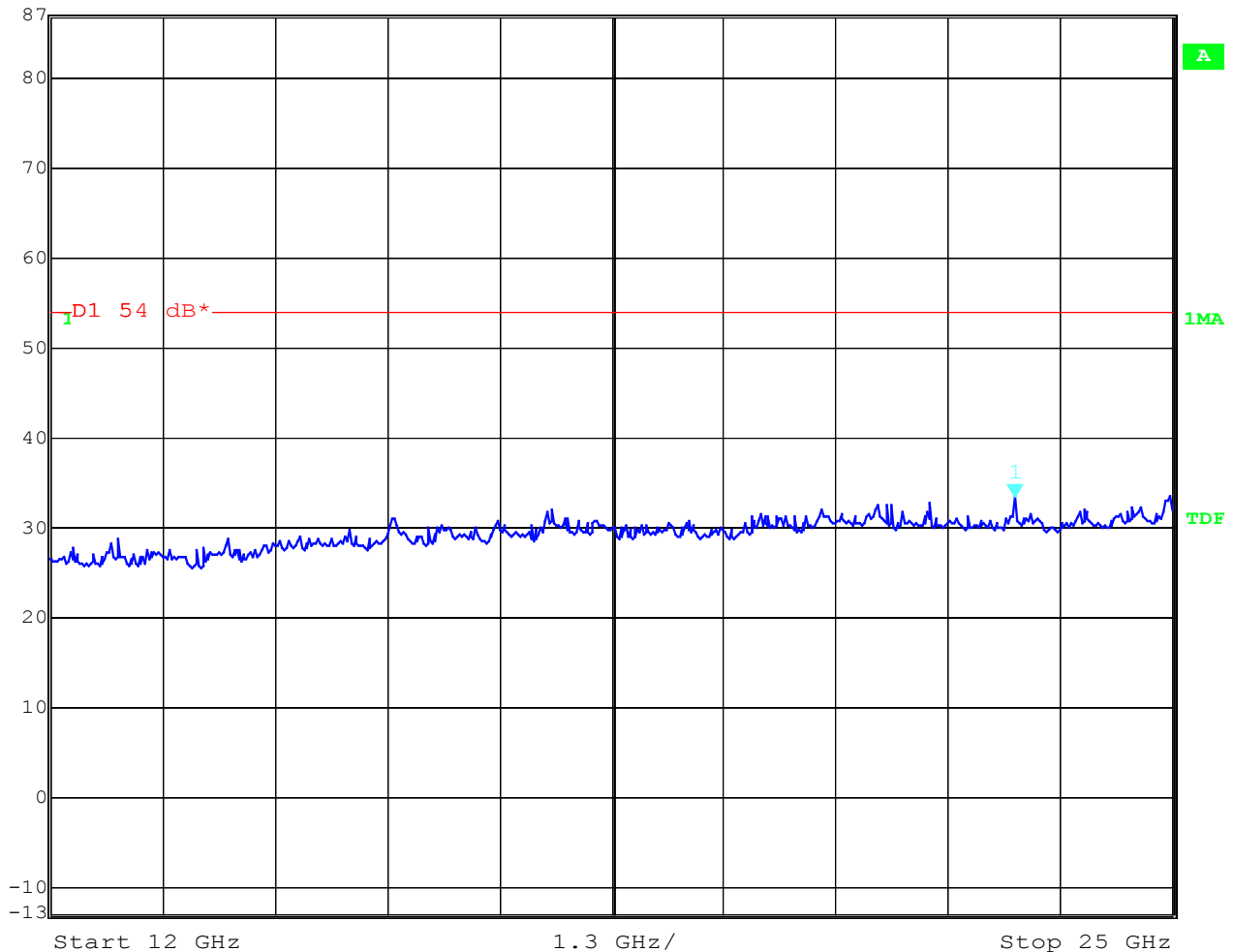
## EMISSION LIMITATIONS

## SUBCLAUSE § 15.247 (c) (1)

2402 MHz



	Marker 1 [T1]	RBW	1 MHz	RF Att	0 dB
Ref Lvl	33.47 dBµV/m	VBW	1 MHz		
87 dB*	23.17635271 GHz	SWT	74 ms	Unit	dBµV/m



Date: 12.JUN.2003 09:27:45  
 f < 1 GHz : RBW/VBW: 100 kHz      f ≥ 1GHz : RBW/VBW: 1 MHz

### LIMITS

### SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

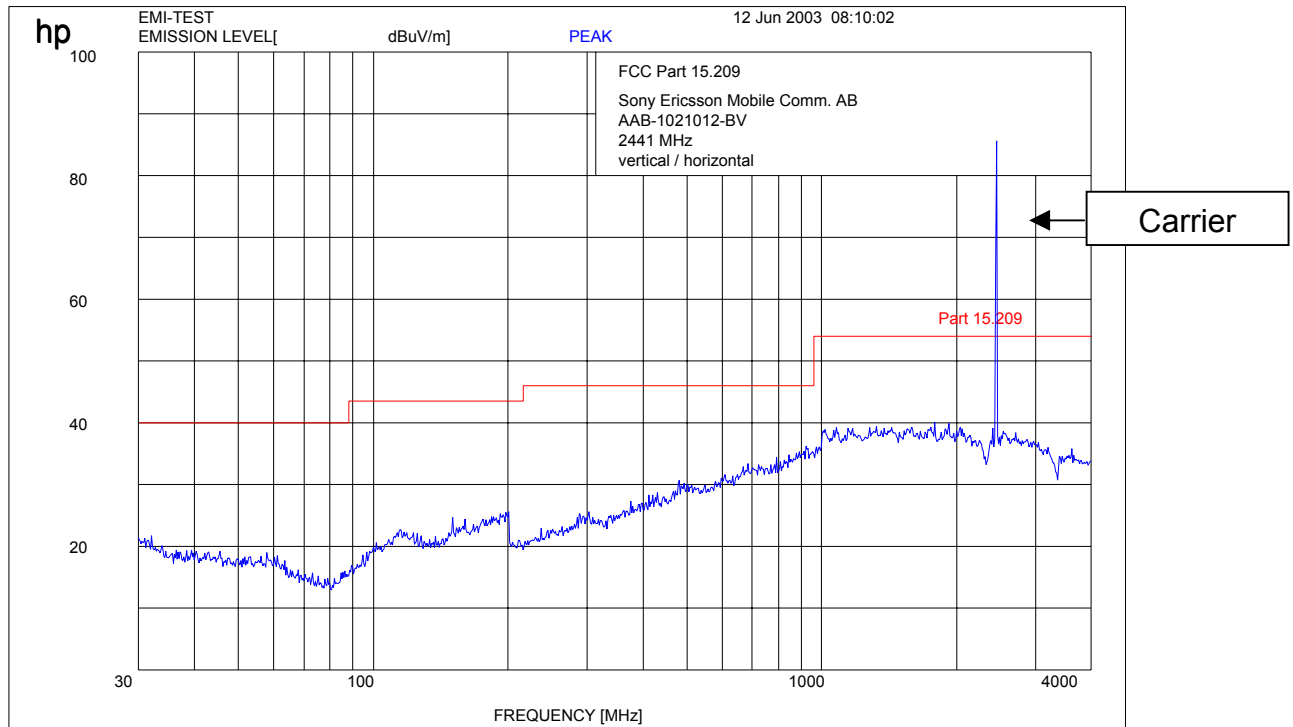
### REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**EMISSION LIMITATIONS**  
 2441 MHz -4 GHz

**SUBCLAUSE § 15.247 (c) (1)**



f < 1 GHz : RBW/VBW: 100 kHz

f ≥ 1GHz : RBW/VBW: 1 MHz

**LIMITS**

**SUBCLAUSE § 15.247 (c)**

**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**

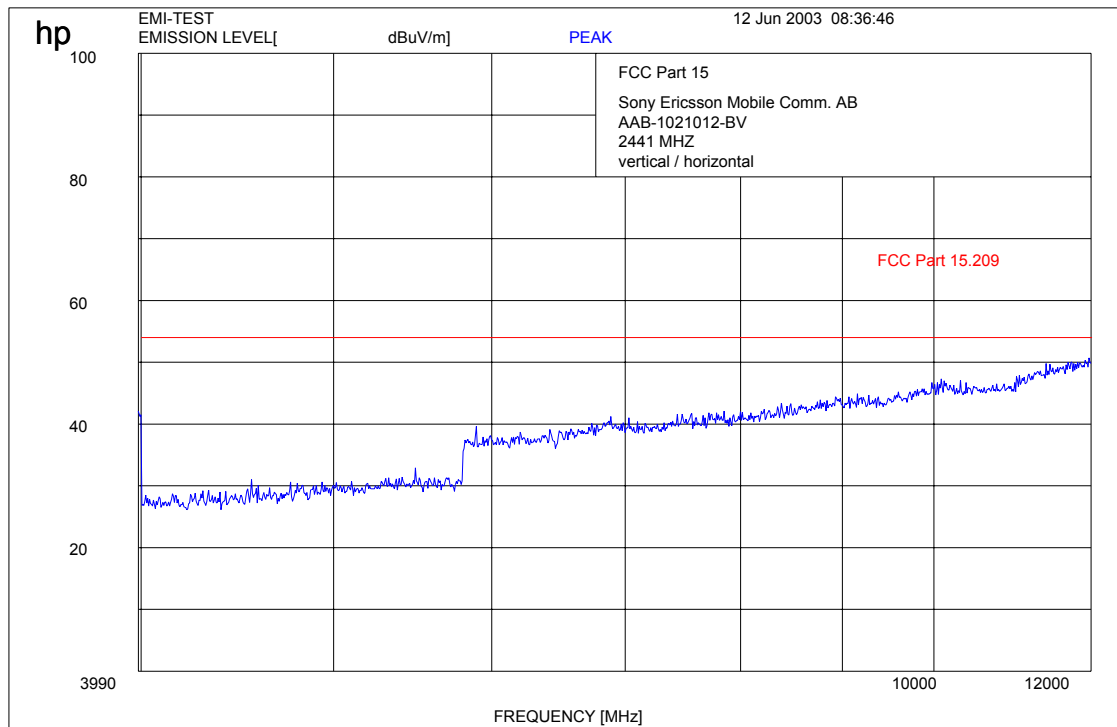
(for reference numbers see test equipment listing)

17 – 24; 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**EMISSION LIMITATIONS**  
**2441 MHz - 12 GHz**

**SUBCLAUSE § 15.247 (c) (1)**



$f < 1 \text{ GHz} : \text{RBW/VBW: } 100 \text{ kHz}$

$f \geq 1 \text{ GHz} : \text{RBW/VBW: } 1 \text{ MHz}$

**LIMITS**

**SUBCLAUSE § 15.247 (c)**

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**

(for reference numbers see test equipment listing)

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

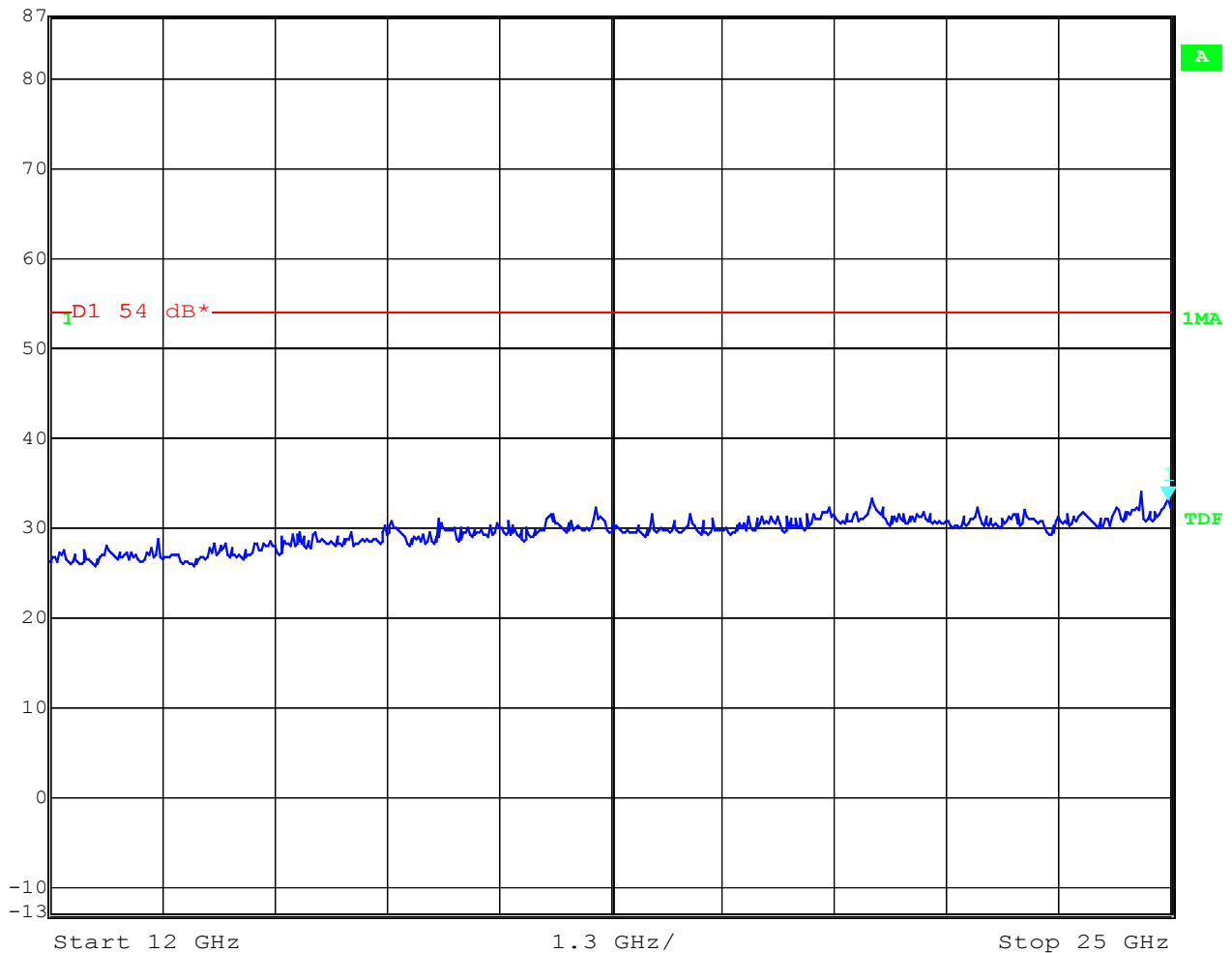
## EMISSION LIMITATIONS

## SUBCLAUSE § 15.247 (c) (1)

### 2441 MHz - 25 GHz



Marker 1 [T1]	RBW	1 MHz	RF Att	0 dB
Ref Lvl	33.17 dB $\mu$ V/m	VBW	1 MHz	
87 dB*	24.97394790 GHz	SWT	74 ms	Unit dB $\mu$ V/m



Date: 12.JUN.2003 09:27:24  
 f < 1 GHz : RBW/VBW: 100 kHz      f ≥ 1GHz : RBW/VBW: 1 MHz

## LIMITS

## SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

## REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

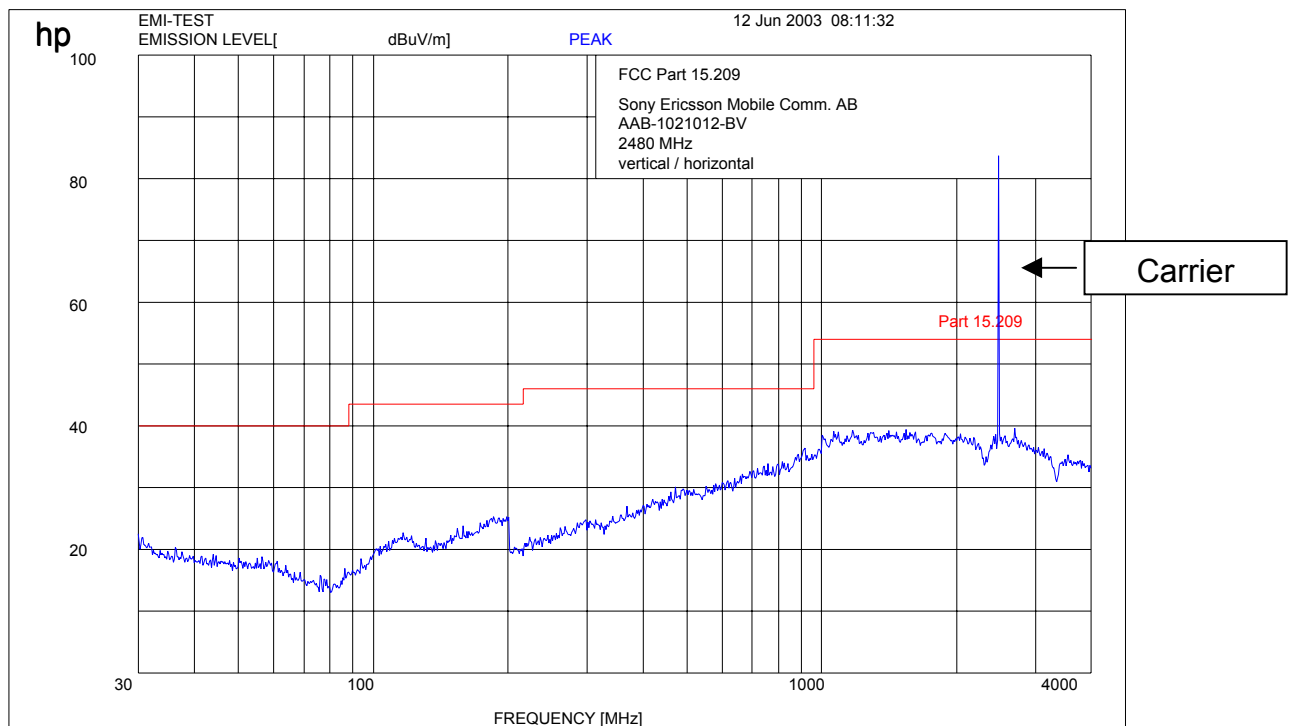
(for reference numbers see test equipment listing)

17 – 24; 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**EMISSION LIMITATIONS**  
 2480 MHz – 4 GHz

**SUBCLAUSE § 15.247 (c) (1)**



$f < 1 \text{ GHz} : \text{RBW/VBW: } 100 \text{ kHz}$

$f \geq 1 \text{ GHz} : \text{RBW/VBW: } 1 \text{ MHz}$

**LIMITS**

**SUBCLAUSE § 15.247 (c)**

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)

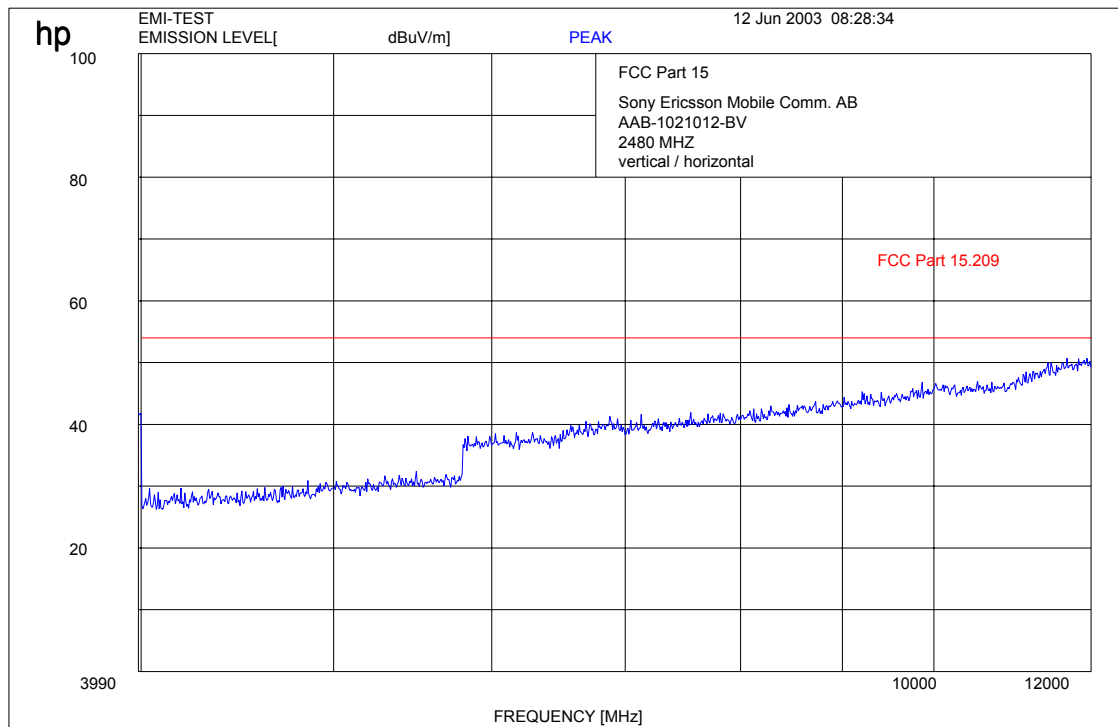
17 – 24; 64



Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**EMISSION LIMITATIONS**  
**2480 MHz – 12 GHz**

**SUBCLAUSE § 15.247 (c) (1)**



$f < 1 \text{ GHz} : \text{RBW/VBW} : 100 \text{ kHz}$

$f \geq 1 \text{ GHz} : \text{RBW/VBW} : 1 \text{ MHz}$

**LIMITS**

**SUBCLAUSE § 15.247 (c)**

**In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).**

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**

(for reference numbers see test equipment listing)

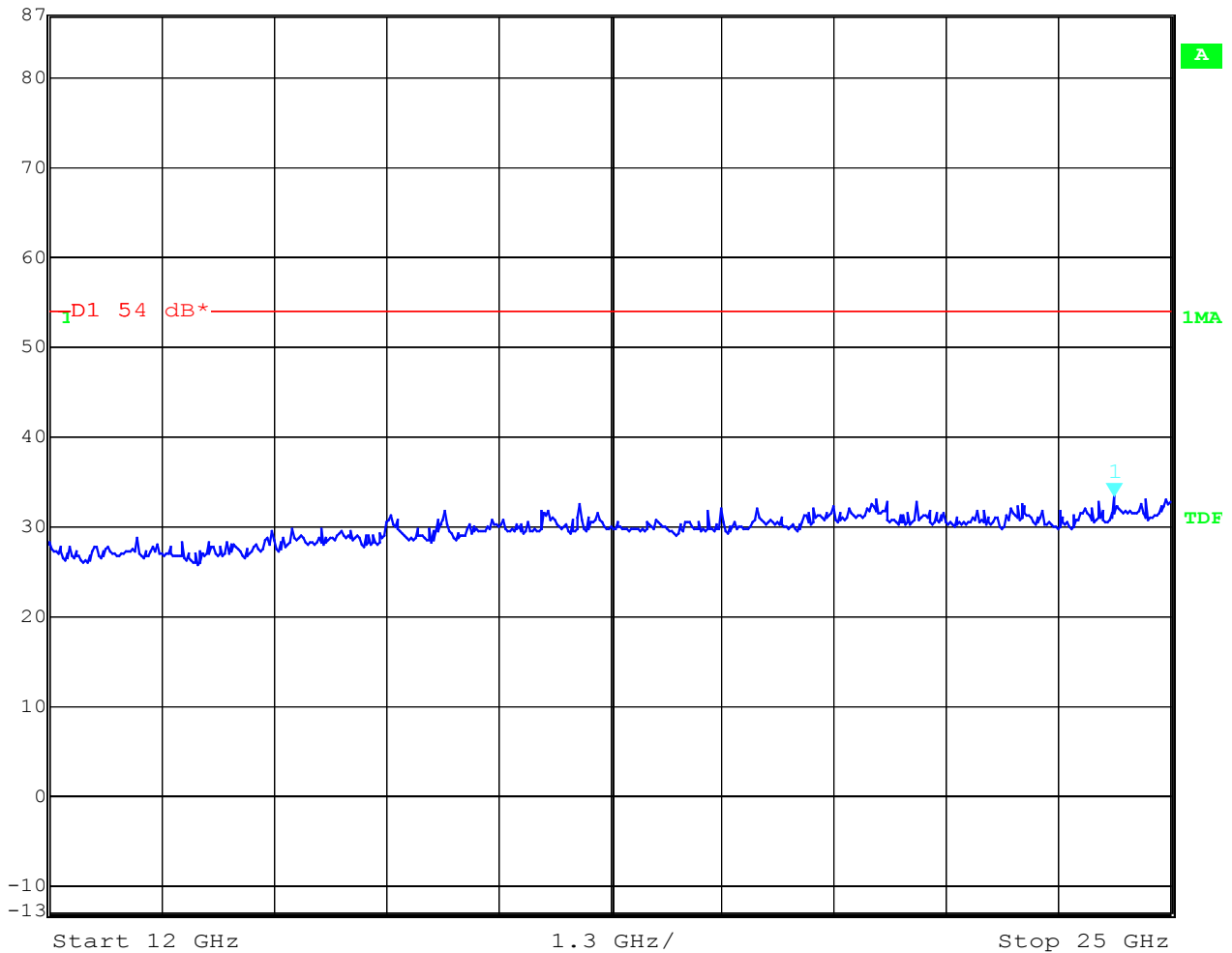
17 – 24; 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**EMISSION LIMITATIONS**  
**2480 MHz –25 GHz**

**SUBCLAUSE § 15.247 (c) (1)**

	Marker 1 [T1]	RBW	1 MHz	RF Att	0 dB
	Ref Lvl	33.45 dB $\mu$ V/m	VBW	1 MHz	
	87 dB*	24.34869739 GHz	SWT	74 ms	Unit      dB $\mu$ V/m



Date: 12.JUN.2003 09:24:15

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

**LIMITS** **SUBCLAUSE § 15.247 (c)**

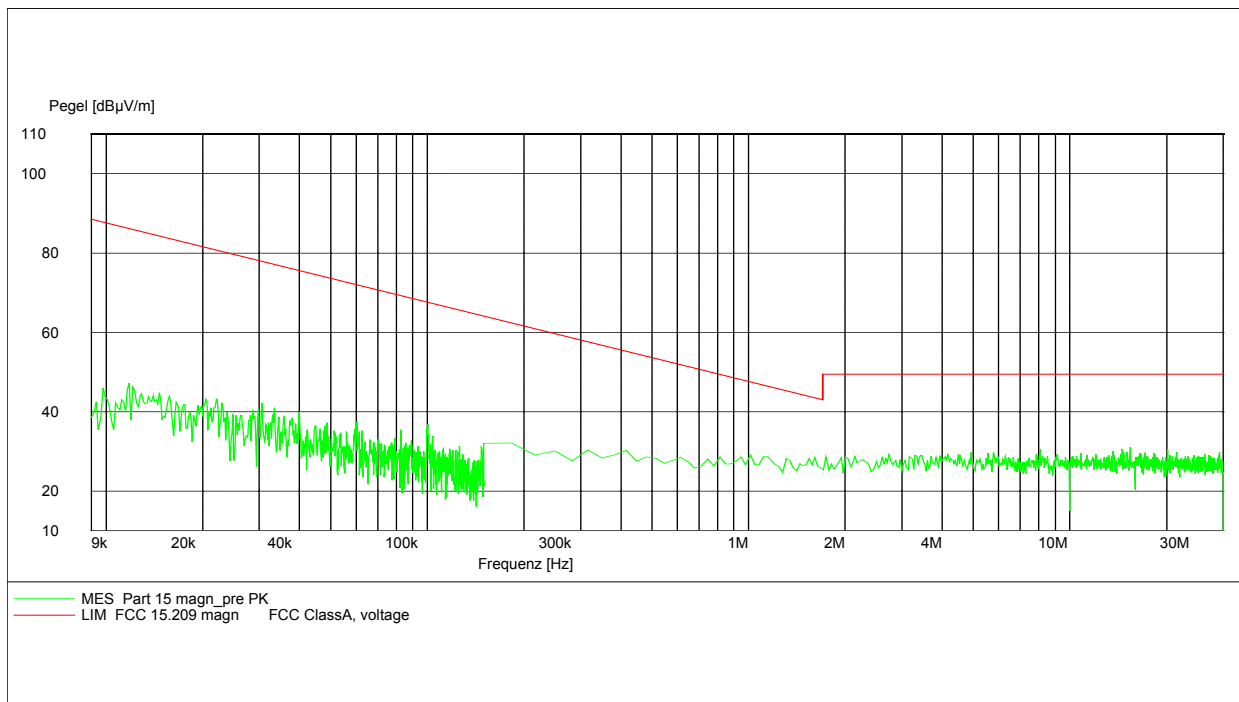
In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

**REFERENCE NUMBER(S) OF TEST EQUIPMENT USED**  
 (for reference numbers see test equipment listing)  
 17 – 24; 64

Equipment under test : AAB-1021012-BV  
Ambient temperature : 25.9°C  
Relative humidity : 54%

## EMISSION LIMITATIONS (Receiver) SUBCLAUSE § 15.109 9 kHz –30 MHz

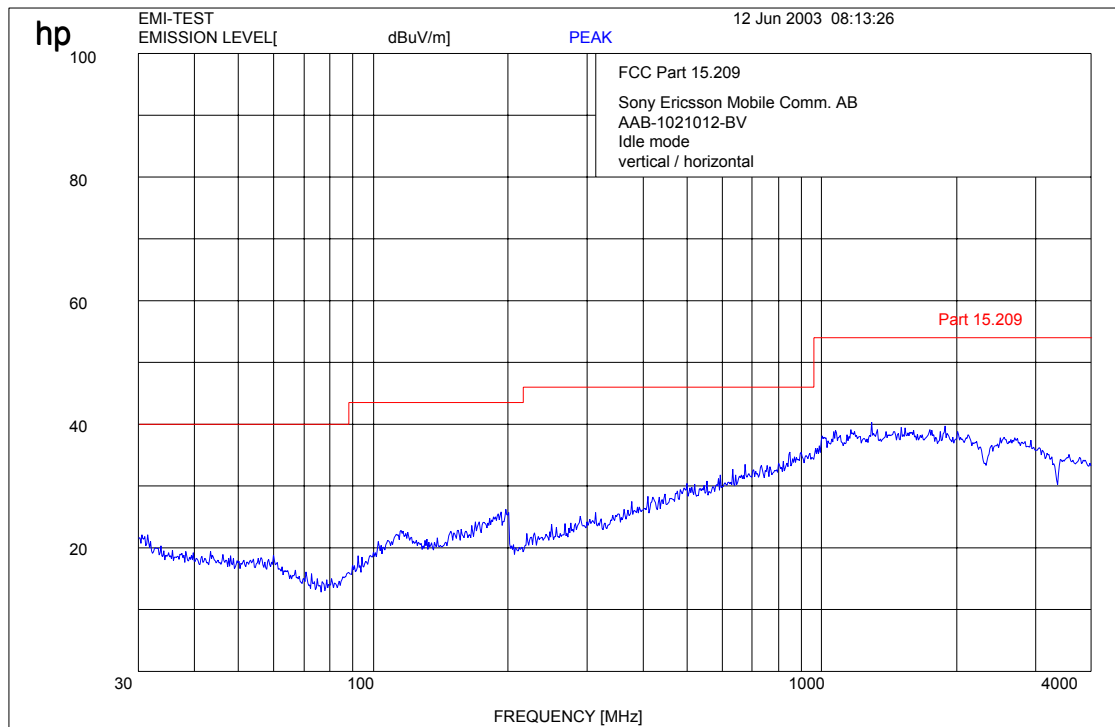
EUT: AAB-1021012-BV  
Manufacturer: Sony Ericsson Mobile Communocations AB  
Operating Condition: Rx, Idle mode  
Test Site: Cetecom, Room 6  
Operator: Berg  
Test Specification:  
Comment: 115V / 60 Hz  
Start of Test: 13.06.03 / 07:45:58



REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
(for reference numbers see test equipment listing)  
17 – 24; 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

## EMISSION LIMITATIONS ( Receiver)      SUBCLAUSE § 15.109



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

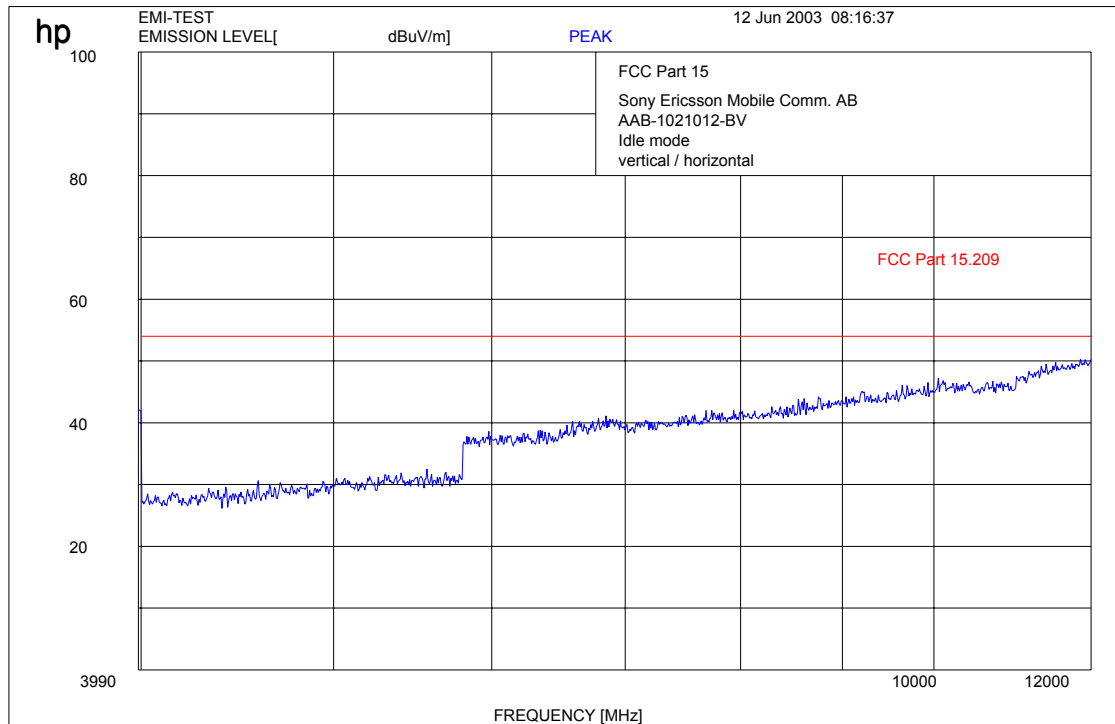
## Limits      SUBCLAUSE § 15.109

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
30 - 88	100 (40 dBµV/m)	3
88 - 216	150 (43.5 dBµV/m)	3
216 - 960	200 (46 dBµV/m)	3
above 960	500 (54 dBµV/m)	3

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
 (for reference numbers see test equipment listing)  
 17 – 24; 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

## EMISSION LIMITATIONS ( Receiver)      SUBCLAUSE § 15.109



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 (40 dBµV/m)	3
88 - 216	150 (43.5 dBµV/m)	3
216 - 960	200 (46 dBµV/m)	3
above 960	500 (54 dBµV/m)	3

### REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

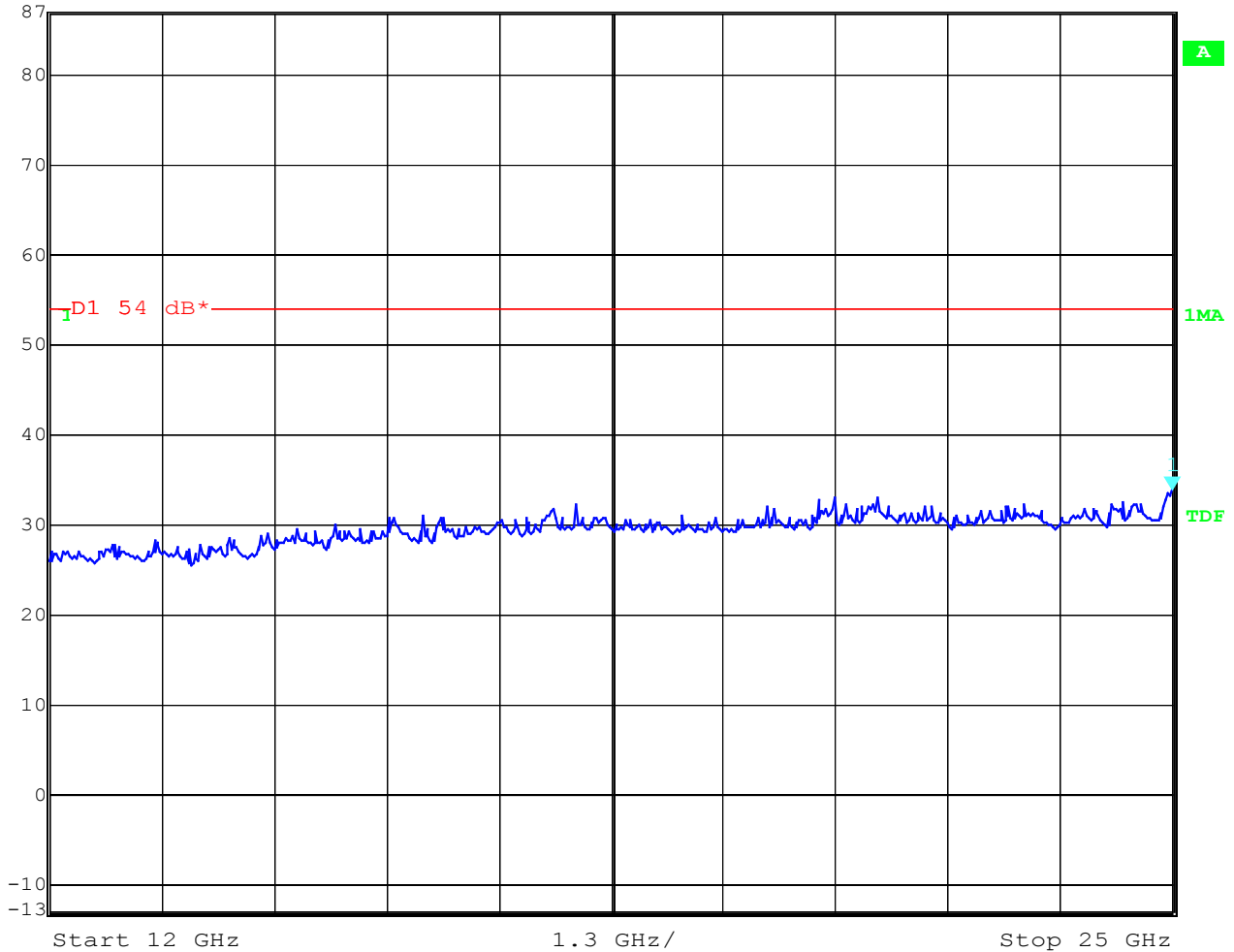
(for reference numbers see test equipment listing)

17 – 24; 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

## EMISSION LIMITATIONS ( Receiver) SUBCLAUSE § 15.109

Ref Lvl      Marker 1 [T1]      RBW      1 MHz      RF Att      0 dB  
 87 dB\*      33.87 dBµV/m      VBW      1 MHz  
 25.00000000 GHz      SWT      74 ms      Unit      dBµV/m



Date: 12.JUN.2003 09:28:09  
 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 (40 dBµV/m)	3
88 - 216	150 (43.5 dBµV/m)	3
216 - 960	200 (46 dBµV/m)	3
above 960	500 (54 dBµV/m)	3

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
 (for reference numbers see test equipment listing)  
 17 - 24; 64

Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

**RECEIVER SPURIOUS RADIATION**  
 Radiated

§ 15.109

SPURIOUS EMISSIONS LEVEL (µV/m)								
CH 1 / 2 / 3								
f (MHz)	Detector	Level (µV/m)	f (MHz)	Detector	Level (µV/m)	f (MHz)	Detector	Level (µV/m)
no traceable peak found								
Measurement uncertainty			±3 dB					

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

Measurement distance see table

**Limits**

**SUBCLAUSE § 15.109**

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
30 - 88	100 (40 dBµV/m)	3
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Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

## Conducted emissions

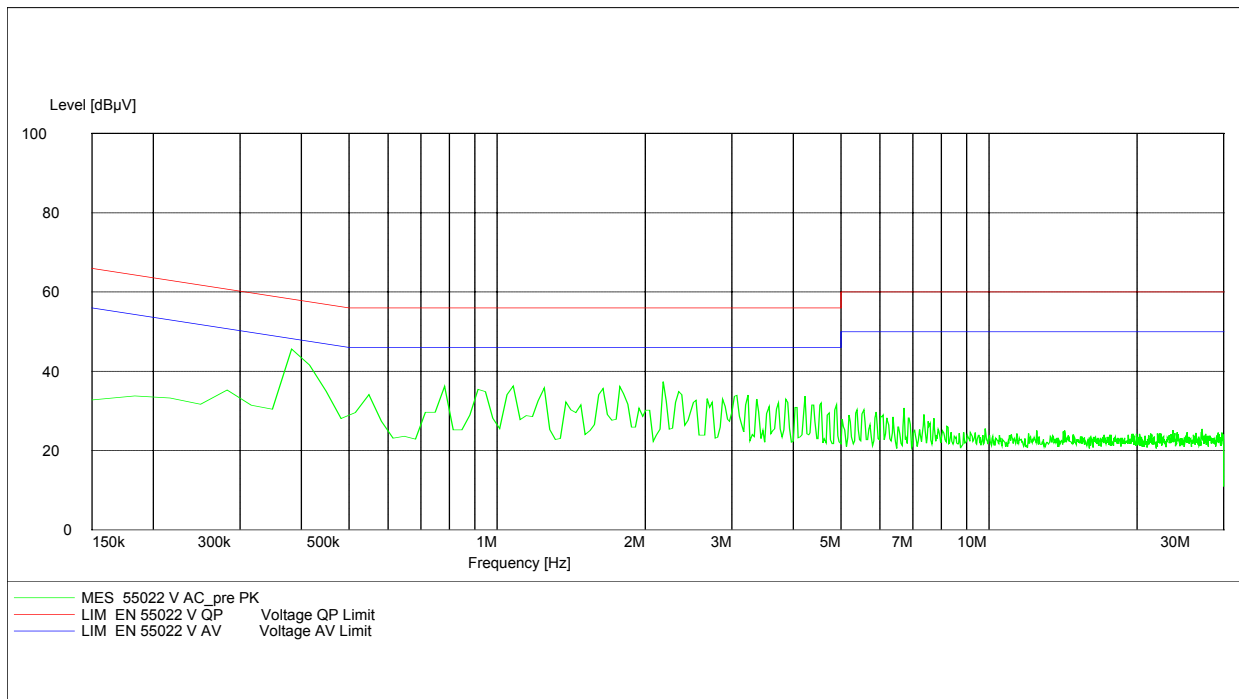
§ 15.107/207

FCC Part 15 / CISPR 22  
 EN 55022

EUT: AAB-1021012-BV  
 Manufacturer: Sony Ericsson Mobile Communications AB  
 Operating Condition: With charging unit, idle mode  
 Test Site: Room 006  
 Operator:  
 Test Specification: EN 55022  
 Comment: 115V / 60 Hz  
 Start of Test: 13.06.03 / 07:24:08

### SCAN TABLE: "EN 55022 V"

Short Description:			Voltage Mains 1.60			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	30.0 MHz	7.5 kHz	MaxPeak	100.0 ms	10 kHz	ESH3-Z5 L1 1458
			Average			



REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
 (for reference numbers see test equipment listing)



Equipment under test : AAB-1021012-BV  
 Ambient temperature : 25.9°C  
 Relative humidity : 54%

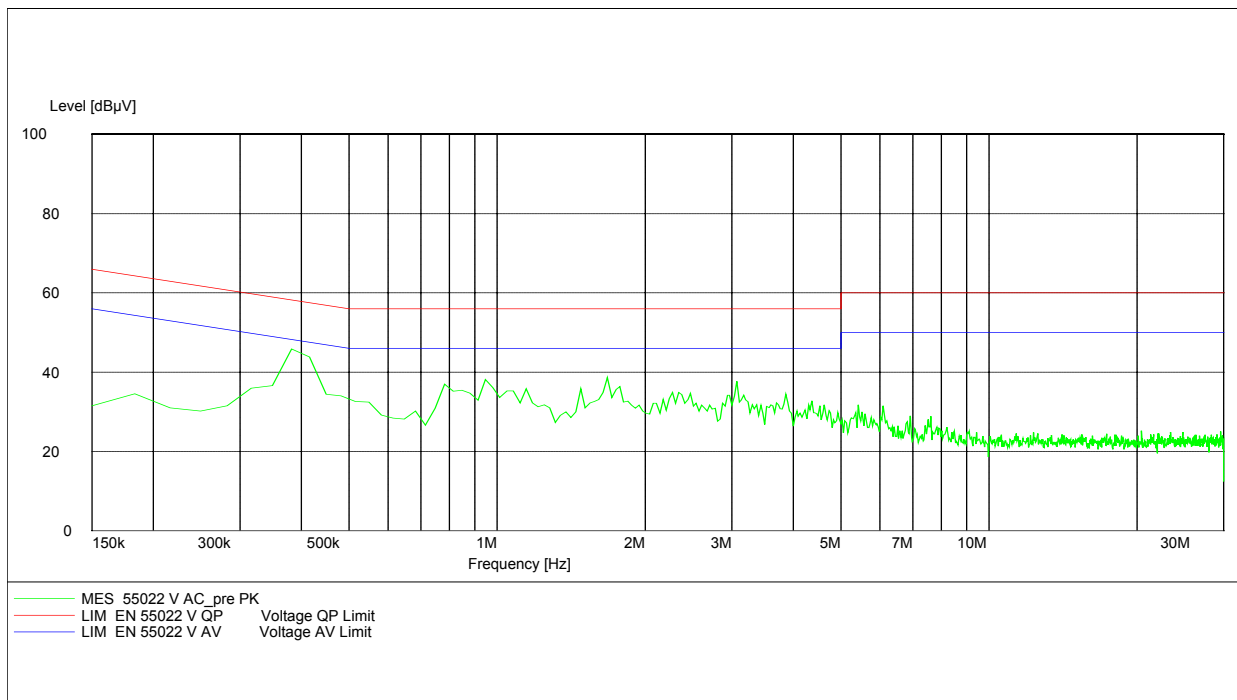
## Conducted emissions

§ 15.107/207

EUT: AAB-1021012-BV  
 Manufacturer: Sony Ericsson Mobile Communications AB  
 Operating Condition: With charging unit, Traffic mode  
 Test Site: Room 006  
 Operator:  
 Test Specification: EN 55022  
 Comment: 115V / 60 Hz  
 Start of Test: 13.06.03 / 07:33:35

### SCAN TABLE: "EN 55022 V"

Short Description:	Voltage Mains 1.60					
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
Frequency	Frequency	Width				
150.0 kHz	30.0 MHz	7.5 kHz	MaxPeak	100.0 ms	10 kHz	ESH3-Z5 L1 1458
			Average			



### Limit § 15.207

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	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

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED  
 (for reference numbers see test equipment listing)

## 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.

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
01	Spectrum Analyzer	8566 A	Hewlett-Packard	1925A00257
02	Analyzer Display	8566 A	Hewlett-Packard	1925A00860
03	Oscilloscope	7633	Tektronix	230054
04	Radio Analyzer	CMTA 54	Rohde & Schwarz	894 043/010
05	System Power Supply	6038 A	Hewlett-Packard	2848A07027
06	Signal Generator	8111 A	Hewlett-Packard	2215G00867
07	Signal Generator	8662 A	Hewlett-Packard	2224A01012
08	Funktionsgenerator	AFGU	Rohde & Schwarz	862 480/032
09	Regeltrenntrafo	MPL	Erfi	91350
10	Netznachbildung	NNLA 8120	Schwarzbeck	8120331
11	Relais-Matrix	PSU	Rohde & Schwarz	893 285/020
12	Power-Meter	436 A	Hewlett-Packard	2101A12378
13	Power-Sensor	8484 A	Hewlett-Packard	2237A10156
14	Power-Sensor	8482 A	Hewlett-Packard	2237A00616
15	Modulationsmeter	9008	Racal-Dana	2647
16	Frequenzzähler	5340 A	Hewlett-Packard	1532A03899
17	Absorber Schirmkabine	---	MWB	87400/002
18	Spectrum Analyzer	85660 B	Hewlett-Packard	2747A05306
19	Analyzer Display	85662 A	Hewlett-Packard	2816A16541
20	Quasi Peak Adapter	85650 A	Hewlett-Packard	2811A01131
21	RF-Preselector	85685 A	Hewlett-Packard	2833A00768
22	Biconical Antenne	3104	Emco	3758
23	Log. Per. Antenne	3146	Emco	2130
24	Double Ridge Horn	3115	Emco	3088
25	EMI-Testreceiver	ESAI	Rohde & Schwarz	863 180/013
26	EMI-Analyzer-Display	ESAI-D	Rohde & Schwarz	862 771/008
27	Biconical Antenne	HK 116	Rohde & Schwarz	888 945/013
28	Log. Per. Antenne	HL 223	Rohde & Schwarz	825 584/002
29	Relais-Switch-Unit	RSU	Rohde & Schwarz	375 339/002
30	Highpass	HM985955	FSY Microwave	001
31	Amplifier	P42-GA29	Tron-Tech	B 23602
32	Absorber Schirmkabine		Frankonia	
33	Steuerrechner	PSM 7	Rohde & Schwarz	834 621/004
34	EMI Test Reciever	ESMI	Rohde & Schwarz	827 063/010
35	EMI Test Receiver	Display	Rohde & Schwarz	829 808/010

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
36	Controler	HD 100	Deisel	100/322/93
37	Relais Matrix	PSN	Rohde & Schwarz	829 065/003
38	Control Unit	GB 016 A2	Rohde & Schwarz	344 122/008
39	Relais Switch Unit	RSU	Rohde & Schwarz	316 790/001
40	Power Supply	6032A	Hewlett Packard	2846A04063
41	Spektrum Monitor	EZM	Rohde & Schwarz	883 720/006
42	Meßempfänger	ESH 3	Rohde & Schwarz	890 174/002
43	Meßempfänger	ESVP	Rohde & Schwarz	891 752/005
44	Biconi Ant. 20-300MHz	HK 116	Rohde & Schwarz	833 162/011
45	Logper Ant. 0.3-1 GHz	HL 223	Rohde & Schwarz	832 914/010
46	Amplifier 0.1-4 GHz	AFS4	Miteq Inc.	206461
47	Logper Ant. 1-18 GHz	HL 024 A2	Rohde & Schwarz	342 662/002
48	Polarisationsnetzwerk	HL 024 Z1	Rohde & Schwarz	341 570/002
49	Double Ridge G Horn Antenne 1-26.5 GHz	3115	EMCO	9107-3696
50	Microw. Sys. Amplifier 0.5- 26.5 GHz	8317A	Hewlett Packard	3123A00105
51	Audio Analyzer	UPD	Rohde & Schwarz	1030.7500.04
52	Steuerrechner	PSM 7	Rohde & Schwarz	883 086/026
53	DC V-Netzwerk	ESH3-Z6	Rohde & Schwarz	861 406/005
54	DC V-Netzwerk	ESH3-Z6	Rohde & Schwarz	893 689/012
55	AC 2 Phasen V-Netzwerk	ESH3-Z5	Rohde & Schwarz	861 189/014
56	AC 2 Phasen V-Netzwerk	ESH3-Z5	Rohde & Schwarz	894 981/019
57	AC-3 Phasen V-Netzwerk	ESH2-Z5	Rohde & Schwarz	882 394/007
58	Stromversorgung	6032A	Rohde & Schwarz	2933A05441
59	HF-Test Empfänger	ESVP.52	Rohde & Schwarz	881 487/021
60	Spectrum Monitor	EZM	Rohde & Schwarz	883 086/026
61	HF-Test Empfänger	ESH3	Rohde & Schwarz	881 515/002
62	Relais Matrix	PSU	Rohde & Schwarz	882 943/029
63	Relais Matrix	PSU	Rohde & Schwarz	828 628/007
64	Spectrum Analyzer	FSIQ 26	Rohde & Schwarz	119.6001.27
65	Spectrum Analyzer	HP 8565E	Hewlett Packard	3473A00773
66				

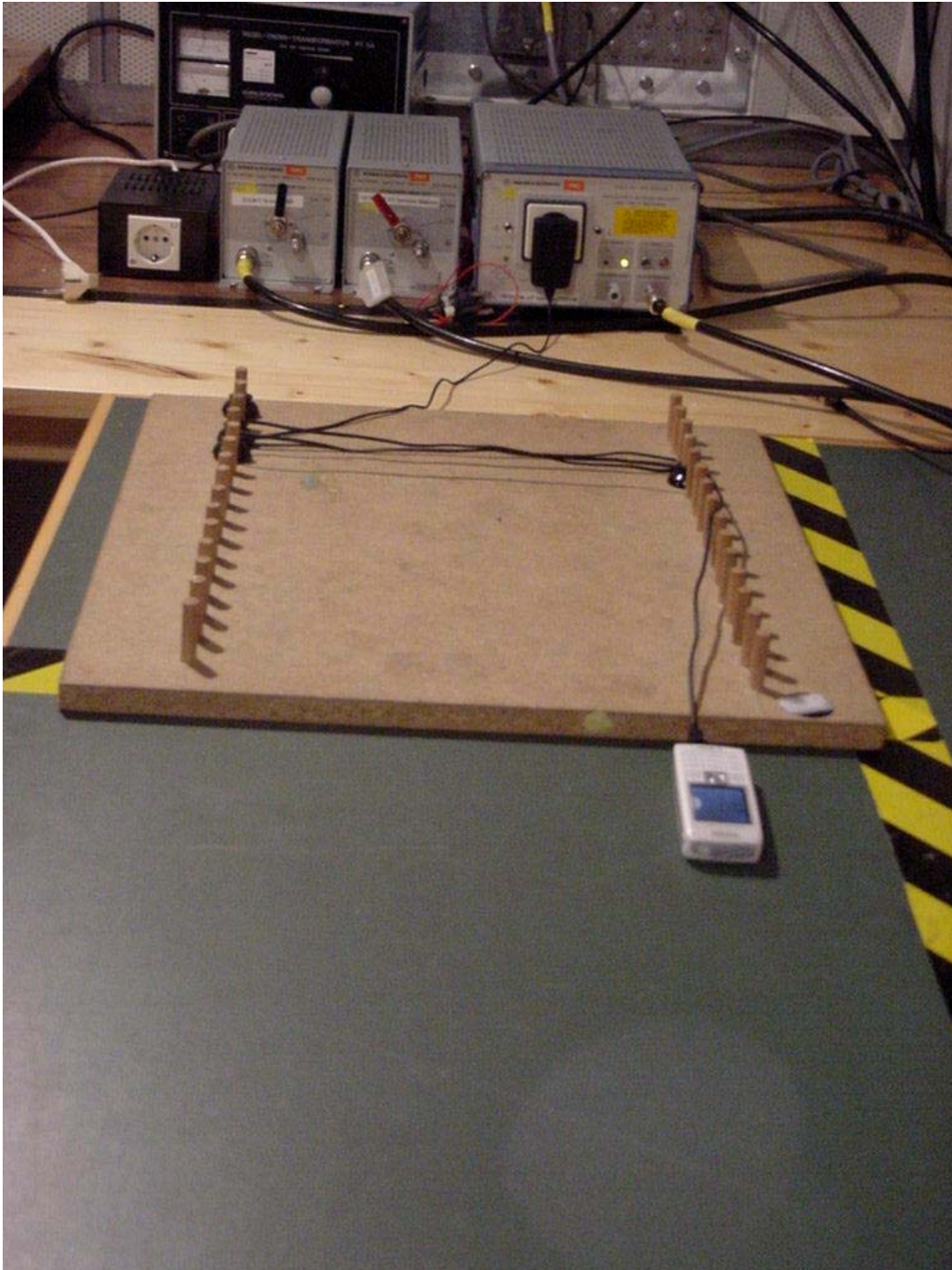
Test setup



**Test site**  
**Radiated Emissions**



Test site  
Conducted emissions



Photographs of the equipment



PHOTOGRAPH OF THE EQUIPMENT





PHOTOGRAPH OF THE EQUIPMENT



PHOTOGRAPH OF THE EQUIPMENT



PHOTOGRAPH OF THE EQUIPMENT



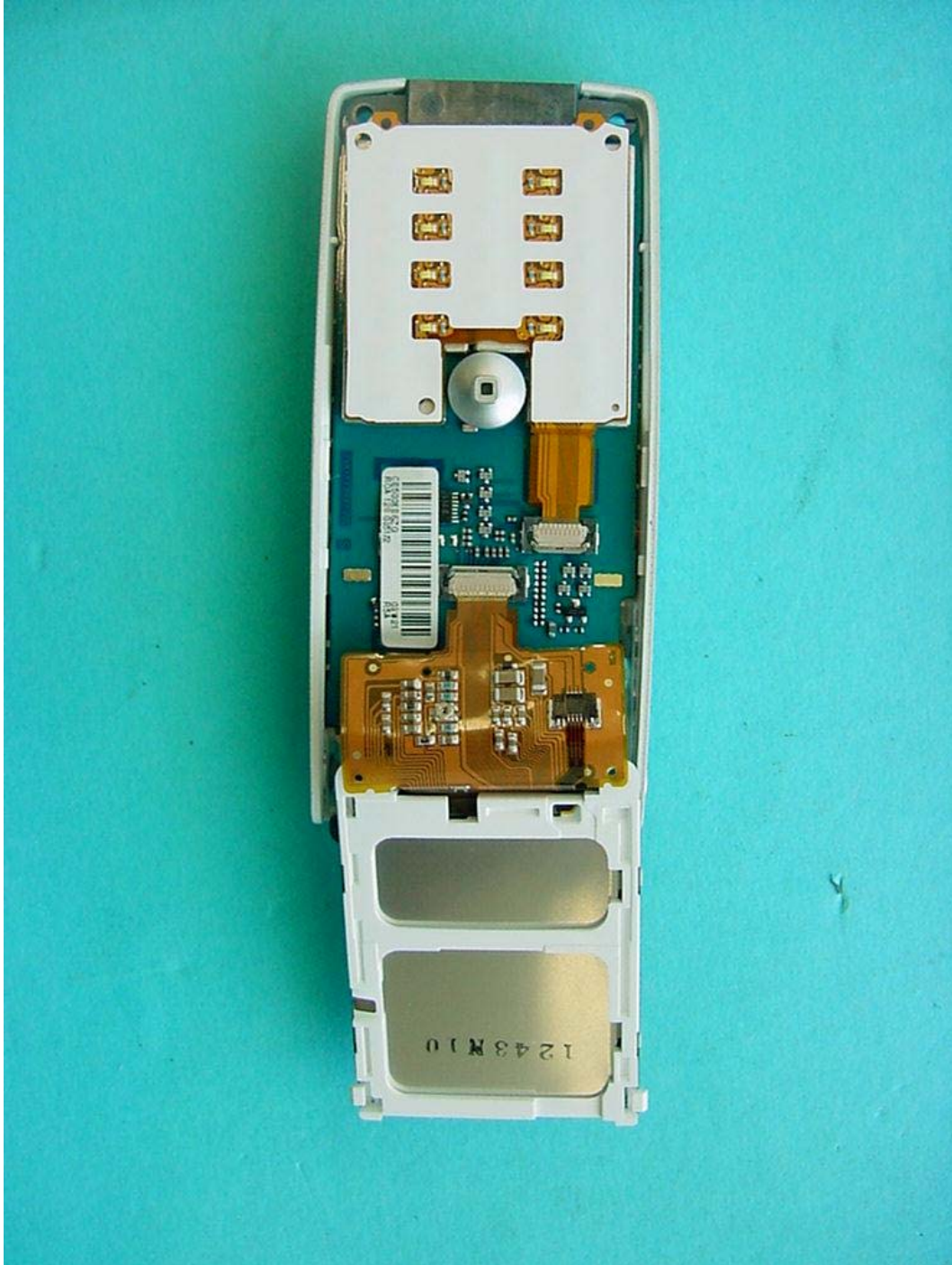
PHOTOGRAPH OF THE EQUIPMENT



**PHOTOGRAPH OF THE EQUIPMENT**



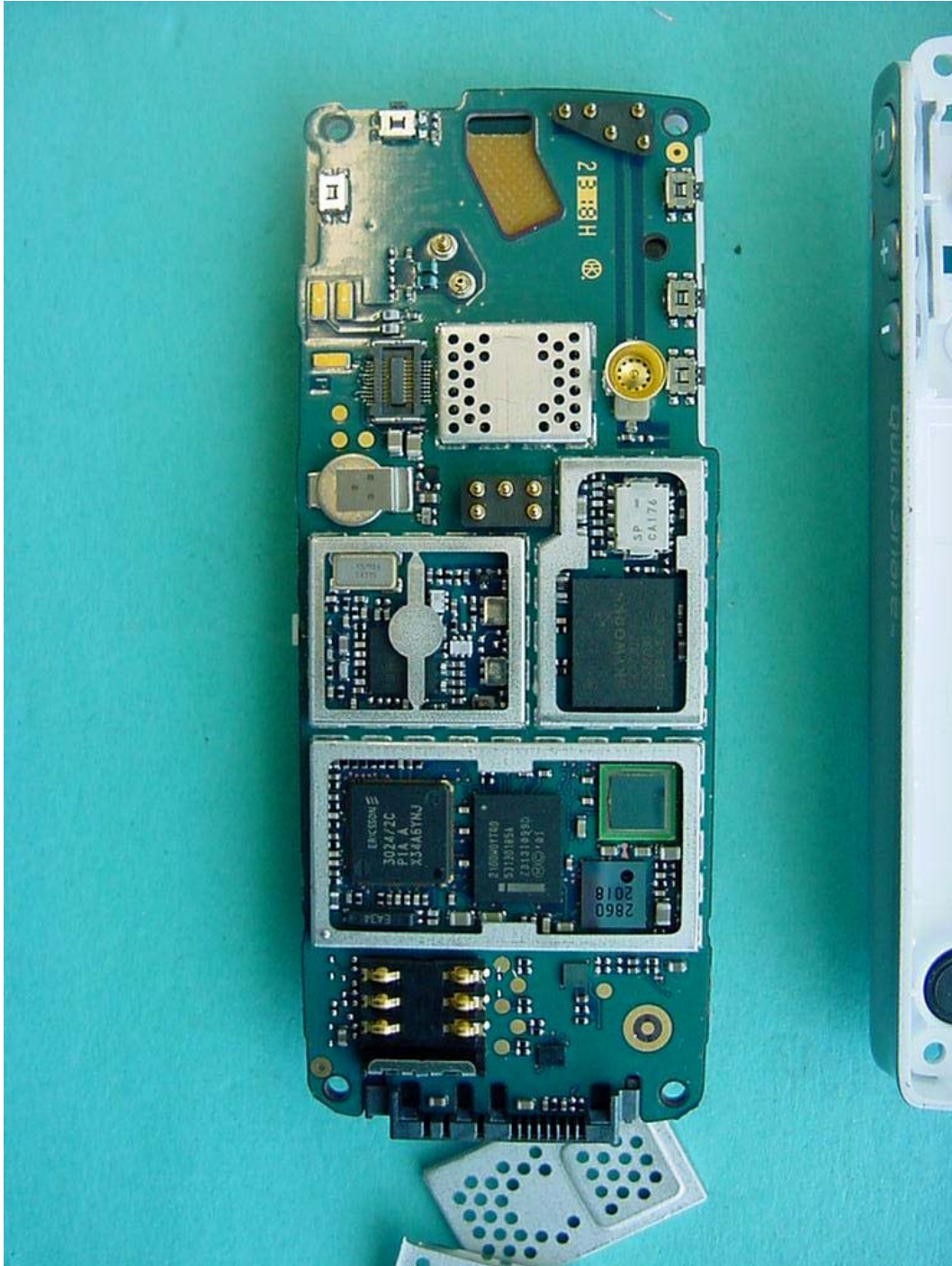
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