



**EUROFINS ETS PRODUCT SERVICE GMBH**

# **TEST - REPORT**

**FCC RULES PARTS 22H and 24E  
IC RADIO STANDARDS RSS 132 and RSS 133  
for W-CDMA + HSDPA + HSUPA**

**Model Name: GI0322**

**Test report no.: G0M20806-1862-C-3**



**Certificate 1983.01**



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# 1 General information

## 1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification.

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems.

The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

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

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Reproduction or publication of extracts from the report requires the prior written approval of the EUROFINS ETS PRODUCT SERVICE GMBH.

### OPERATOR:



27.06.2008 F. Walter

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Date	Eurofins-Lab.	Name	Signature
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### Technical responsibility for area of testing:



27.06.2008 K. Damm

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Date	Eurofins	Name	Signature
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## 1.2 Testing laboratory

### 1.2.1 Location

EUROFINS ETS PRODUCT SERVICE GMBH  
Storkower Strasse 38c  
D-15526 Reichenwalde b. Berlin  
Germany  
Telephone : +49 33631 888 00  
Telefax : +49 33631 888 660

### 1.2.2 Details of accreditation status

**DAR ACCREDITED TESTING LABORATORY**  
DAR-REGISTRATION NUMBER: DAT-P-268/08

**RECOGNIZED NOTIFIED BODY EMC**  
REGISTRATION NUMBER: BNetzA-bS EMV-07/61

**RECOGNIZED NOTIFIED BODY R&TTE**  
REGISTRATION NUMBER: BNetzA-bS-02/51-53

**FCC FILED TEST LABORATORY**  
REG.-No. 96970

**A2LA ACCREDITED TESTING LABORATORY**  
CERTIFICATE No. 1983.01

**BLUETOOTH QUALIFICATION TEST FACILITY (BQTF)**  
ACCREDITED BY BLUETOOTH QUALIFICATION REVIEW BOARD

**INDUSTRY CANADA FILED TEST LABORATORY**  
REG. No. IC 3470

## 1.3 Details of approval holder

Name : Option NV  
Street : Gaston Geenslaan 14  
Town : 3001 Leuven  
Country : Belgium  
Telephone : +32 16 311694  
Fax : +32 16 207 164

Contact : Mr. Thomas Gulinck  
E-Mail : +32 16 311694

## 1.4 Application details

Date of receipt of application : 21.06.2008  
Date of receipt of test item : 21.06.2008  
Date of test : 25.06.2008

## 1.5 Test item

Description of test item : USB Wireless Modem  
GSM / GPRS / EGPRS 850 / 900 / 1800 / 1900,  
UMTS FDD I / II / V, HSUPA, HSDPA

Type identification : GI0322

Serial number : FW4286900V

Photos : See annex A.

## Technical data

### FDD V

Frequency range Tx – Cellular 850 : 826.4 - 846.6 MHz  
Frequency range Rx - Cellular 850 : 871.4 - 891.6 MHz

### FDD II

Frequency range Tx – PCS 1900 : 1852.4 - 1907.6 MHz  
Frequency range Rx – PCS 1900 : 1932.4 - 1987.6 MHz  
Antenna Type : internal antenna

Antenna Gain	: <u>(FDD V)</u> 1 dBi	<u>(FDD II)</u> 0 dBi
Power supply	: 5.0 V DC USB	
Operating mode	: duplex	
Type of modulation	: WCDMA (UTRA-FDD)	
Emission	: F9W	

### **Manufacturer:** (if applicable)

Name :  
Street :  
Town :  
Country :

## 1.6 Test standards

Technical standard : FCC Parts: 22H, 24E, 2, 15  
IC Standards: RSS 132, RSS 133

Additional information : Because of using HSPA in FDD II and V as an alternative technology in 850 MHz band, not all test cases of FCC Part 22 are required.

This test report covers the test which are related to HSPA radio technology in operating bands II and V only.

Operation in others bands or with other radio technologies are subject of other independent test reports.

## 2 Technical test

### 2.1 Summary of test results

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

or

The deviations as specified in 2.5 were ascertained in the course of the tests performed.

### 2.2 Test environment

Temperature : 25 ° C  
Voltage : Unom: 5.0 V DC  
Relative humidity content : 20 ... 75 %  
Air pressure : 86 ... 103 kPa

### 2.3 Test equipment utilized

No.	Test equipment	Type	Manufacturer
ETS 0014	Log Periodical Antenna	HL 025	R & S
ETS 0059	Kikusui amplifier	PCR 2000L	Keytek/ EMC
ETS 0085	Shielded room	SR 1	Frankonia
ETS 0251	Climatic chamber	VT 4004	Vötsch
ETS 0281	Spectrum Analyzer	FSM	R & S
ETS 0288	Artificial mains	ESH2-Z5	R & S
ETS 0294	Biconical antenna	HK 116	R & S
ETS 0295	LPD antenna	HL 223	R & S
ETS 0310	Anechoic chamber	AC 3	Frankonia
ETS 0375	Vector Signal Gener.	SMIQ03B	R & S
ETS 0376	Signal Generator	SMP22	R & S
ETS 0378	Advanced Signal Conditioning Unit	ASCU190	R & S
ETS 0379	Advanced Signal Conditioning Unit	ASCU180	R & S
ETS 0380	Advanced Signal Conditioning Unit	ASCU900	R & S
ETS 0382	Vector Signal Gener.	SMIQ03B	R & S
ETS 0383	Spectrum Analyzer	FSU26	R & S
ETS 0384	Main Frame Signal and Conditioning Unit	SSCU-GW	R & S
ETS 0385	Protocol Slave	CRTU-RU (CRTU-G)	R & S
ETS 0386	Power meter	NRVD	R & S
ETS 0390	System PC PC3600	TS-PC36	R & S
ETS 0394	Advanced Signal Conditioning Unit	ASCUFDD-WCDMA	R & S
ETS 0413	Signal Analyzer	FSIQ 26	R & S
ETS 0416	Power Supply	EX752M	TTi
ETS 0473	GSM / UMTS System Simulator	TS 8950	R&S
ETS 0476	EMI Test receiver	ESCS 30	R&S
ETS 0484	Radio Communication Tester	CMU 200	R&S
LU 0001	Radio Communication Tester	CMU 200	R&S

## 2.4 General test procedure

**POWER LINE CONDUCTED INTERFERENCE:** The procedure used was ANSI STANDARD C63.4-2003 5.2 using a 50  $\mu$ H LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

**RADIATION INTERFERENCE:** The test procedure used was ANSI STANDARD C63.4-2003 6.4 using a spectrum analyzer. The resolution bandwidth of the spectrum analyzer was 100 kHz for measurements below 1 GHz and RBW 1 MHz was used above 1 GHz. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

**FORMULA OF CONVERSION FACTORS for Field strength:** The Field Strength at 3 m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dB $\mu$ V) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

Freq. (MHz)      METER READING + ACF + CABLE LOSS (to the receiver) = FS  
33                    20 dB $\mu$ V + 10.36 dB + 6 dB = 36.36 dB $\mu$ V/m @ 3 m

**ANSI STANDARD C63.4-2003 6.2.1 MEASUREMENT PROCEDURES:** The UUT was placed on a table 80 cm high and with dimensions of 1 m by 1.5 m (non metallic table). The UUT was placed in the center of the table. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to at least 10<sup>th</sup> harmonic of the fundamental.

Peak readings were taken in three (3) orthogonal planes and the highest readings.

Measurements were made by Eurofins ETS Product Service GmbH at the registered open field test site located at Storkower Str. 38c, 15526 Reichenwalde, Germany.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1 m to 4 m. The antenna was placed in both the horizontal and vertical planes.

**ANTENNA & GROUND:**

This unit uses internal antennas.



## 2.5 Test results

 1<sup>st</sup> test

 test after modification

 production test

SECT.	TEST CASE	FCC 47 CFR PART	IC RSS	Required	Test passed	Test failed
3	<i>TRANSMITTER PARAMETERS</i>					
3.1	RF power output conducted	2.1046 22.913(a) 24.232(c)	Gen §4.6 132 §4.4 133 §4.3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.2	RF power output radiated (ERP, EIRP)	22.913(a) 24.232(c)	132 §4.4 133 §4.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3	Occupied bandwidth	2.1049	Gen §4.4.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.3	Emission bandwidth	22.917(b) 24.238(b)	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4	Frequency stability	2.1055 22.355 24.235	Gen §4.5 132 §4.3 133 §4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5	Spurious emission conducted (antenna terminal)	2.1051 22.917 24.238	Gen §4.7 132 §4.5 133 §4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6	Spurious emission radiated	2.1053 22.917 24.238	Gen §4.7 132 §4.5 133 §4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.7	Block edge compliance	22.917(b) 24.238(b)	132 §4.5.1.1 133 §4.4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.8	AC power line conducted emissions	15.207	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<i>RECEIVER PARAMETERS</i>					
4.1	Radiated emissions	2.1053 15.109	Gen 4.8 132 §4.6 133 §4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 3 Transmitter parameters

#### 3.1 RF power output, conducted

##### Reference

	Cellular telephone 850 MHz	PCS 1900 MHz
<b>FCC</b>	CFR part 22.913(a), 2.1046	CFR part 24.232(c), 2.1046
<b>IC</b>	RSS-132 Issue 2, §4.4 RSS-Gen Issue 1, §4.6	RSS-133 Issue 3, §4.3 RSS-Gen Issue 1, §4.6

##### Method of measurement

The transmitter output was connected to a calibrated coaxial attenuator, the other end of which was connected to a spectrum analyzer. Transmitter output was read off the spectrum analyzer in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the spectrum analyzer reading.

An HP power meter was also used to measure the RF power.

Tests were performed at three frequencies (low, middle, and high channels) and on all power levels, which can be set-up on the transmitters.

Test method for HSDPA subtests as defined in 3GPP TS 34.121-1 V 8.2.1 (Table C.10.1.4):

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{HS}$ (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ .

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA,  $\Delta_{ACK}$  and  $\Delta_{NACK} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ , and  $\Delta_{CQI} = 24/15$  with  $\beta_{HS} = 24/15 * \beta_c$ .

Note 3: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{HS}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the  $\beta_c/\beta_d$  ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 11/15$  and  $\beta_d = 15/15$ .

**Table C.10.1.4:  $\beta$  values for transmitter characteristics tests with HS-DPCCH**

**Test results**

	Channel	Subtest	Peak output power
<b>Cellular telephone 850 MHz UMTS / HSDPA</b>	4133	1	24.44 dBm
		2	25.51 dBm
		3	25.85 dBm
		4	25.71 dBm
	4175	1	23.36 dBm
		2	24.45 dBm
		3	24.94 dBm
		4	24.95 dBm
	4232	1	23.85 dBm
		2	24.98 dBm
		3	25.10 dBm
		4	24.87 dBm

	Channel	Subtest	Peak output power
<b>PCS 1900 MHz UMTS / HSDPA</b>	9263	1	22.63 dBm
		2	23.70 dBm
		3	24.30 dBm
		4	24.44 dBm
	9400	1	22.93 dBm
		2	24.02 dBm
		3	24.10 dBm
		4	24.26 dBm
	9537	1	21.45 dBm
		2	22.60 dBm
		3	23.02 dBm
		4	23.07 dBm

Test method for HSUPA subtests as defined in 3GPP TS 34.121-1 V 8.2.1 (Table C.11.1.3):

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{HS}$ (Note 1)	$\beta_{ec}$	$\beta_{ed}$ (Note 5) (Note 6)	$\beta_{ed}$ (SF)	$\beta_{ed}$ (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 6)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/25	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}$ : 47/15 $\beta_{ed2}$ : 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 (Note 4)	15/15 (Note 4)	64	15/15 (Note 4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{hs} = 30/15 * \beta_c$ .

Note 2: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{hs}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the  $\beta_c/\beta_d$  ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF0) to  $\beta_c = 10/15$  and  $\beta_d = 15/15$ .

Note 4: For subtest 5 the  $\beta_c/\beta_d$  ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF0) to  $\beta_c = 14/15$  and  $\beta_d = 15/15$ .

Note 5: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 6:  $\beta_{ed}$  can not be set directly, it is set by Absolute Grant Value.

**Table C.11.1.3:  $\beta$  values for transmitter characteristics tests with HS-DPCCH and E-DCH**

### Test results

	Channel	Subtest	Peak output power
Cellular telephone 850 MHz UMTS / HSUPA	4133	1	25.77 dBm
		2	25.67 dBm
		3	25.72 dBm
		4	24.15 dBm
		5	25.40 dBm
	4175	1	24.86 dBm
		2	23.97 dBm
		3	24.76 dBm
		4	23.30 dBm
		5	24.51 dBm
	4232	1	25.38 dBm
		2	24.60 dBm
		3	25.18 dBm
		4	24.07 dBm
		5	24.42 dBm

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	Channel	Subtest	Peak output power
<b>PCS 1900 MHz UMTS / HSUPA</b>	9263	1	23.97 dBm
		2	22.83 dBm
		3	23.87 dBm
		4	22.60 dBm
		5	24.01 dBm
	9400	1	24.28 dBm
		2	23.57 dBm
		3	24.62 dBm
		4	22.97 dBm
		5	24.08 dBm
	9537	1	23.12 dBm
		2	22.69 dBm
		3	22.98 dBm
		4	21.60 dBm
		5	22.86 dBm

Comment: See attached diagrams

**Test equipment:** ETS 0413, ETS 0416, ETS 0484; LU 0001,

## 3.2 RF power output, radiated

### Reference

	Cellular telephone 850 MHz	PCS 1900 MHz
FCC	CFR part 22.913(a)	CFR part 24.232(c)
IC	RSS-132 Issue 2, §4.4	RSS-133 Issue 3, §4.3

### Method of measurement

The EUT was positioned on a non-conductive turntable, 0.8 m above the ground plane on an open test site. The radiated emission at the fundamental frequency was measured at 3m distance with a test antenna and spectrum analyzer.

Worst case emission was recorded with the rotation of the turntable and the raising and lowering of the test antenna.

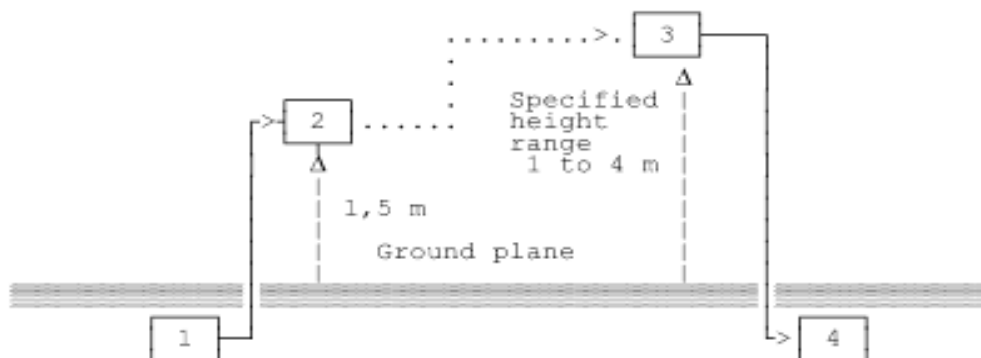
ERP in frequency band 826.6 - 846.4 MHz, and EIRP in frequency band 1852.6 - 1907.4 MHz were measured using a substitution method. The EUT was replaced by half-wave dipole (operating band V) or horn antenna (operating band II) connected to a signal generator.

### Substitution RF power measurement at ETS Product Service AG

General:

The applied substitution method follows ANSI/TIA/EIA-603, ANSI/TIA/EIA-102.CAAA or the appropriate ETSI rules respectively.

The actual signal generated by the EUT can be determined by means of a substitution measurement in which a known signal source replaces the device to be measured.



- 1) Signal generator;
- 2) Substitution antenna;
- 3) Test antenna;
- 4) Spectrum analyzer or selective voltmeter.

The substitution antenna replaces the transmitter antenna at the same position and in vertical polarization. The frequency of the signal generator shall be adjusted to the measurement frequency. The test antenna shall be raised or lowered, if necessary, to ensure that the maximum signal is still received. The input signal to the substitution antenna shall be adjusted in level until an equal or a known related level to that detected from the transmitter is obtained in the measurement receiver.

If a fully anechoic chamber is used as test site in order to provide free space conditions there is no need to change the height of the antenna.

The measurement will be repeated in horizontal position.

**Calibration:**

In order to make this kind of measurement more effective and to avoid subjective measurement faults Eurofins has installed automatic computer controlled measurement procedures.

With the above described substitution method a test site is calibrated over the full frequency range which is used in suitable frequency steps. For a certain power level on the substitution antenna the received power over the whole frequency range is documented. All necessary antenna gains, cable losses, filter losses and amplifications of preamplifiers are taken in consideration. The summary of this calibration measurement performs a transducer factor that is related to the considered test site and a certain measurement distance. Differences of the radiated power levels of different test samples are determined by internal attenuation of the measurement receiver. The proper function of such test site will be maintained by short term plausibility checks and periodical re-calibration.

**Testing:**

The test sample is put on the table at the defined position and the measurement receiver receives and documents the radiated power. On test sites with ground plane the measurement antenna will be lowered and raised to maximum values at significant frequencies.

For peak power measurements the sample is turned by the turntable over 360 degree in order to find the direction with the maximum radiation or to document the max reading with the MAXHOLD function during the rotation.

**Limits**

	<b>Cellular telephone 850 MHz</b>	<b>PCS 1900 MHz</b>
<b>FCC</b>	38,5 dBm (7 Watts), ERP	33 dBm (2 Watts), EIRP
<b>IC</b>	38 dBm (6.3 Watts), ERP	33 dBm (2 Watts), EIRP

**Test Results**

	Voltage	Frequency channel	Radiated power ERP	Radiated power EIRP
Cellular telephone 850 MHz UMTS	U <sub>nom</sub>	4133	--	--
		4175	--	--
		4232	--	--
PCS 1900 MHz UMTS	U <sub>nom</sub>	9263	--	--
		9400	--	--
		9537	--	--

Comment: Not required.

Test equipment: --



### 3.3 Occupied bandwidth, emission bandwidth

#### Reference

	<b>Cellular telephone 850 MHz</b>	<b>PCS 1900 MHz</b>
<b>FCC</b>	CFR part 22.917(b), 2.1049	CFR part 24.238(b), 2.1049
<b>IC</b>	RSS-Gen Issue 1, §4.4.1	RSS-Gen Issue 1, §4.4.1

#### Method of measurement

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power.

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

The RF output of the transceiver was connected to the input of the spectrum analyzer through sufficient attenuation.

Occupied Bandwidth was measured with a occupied bandwidth function of the analyzer.

To find the Emission Bandwidth (-26 dB) the delta markers were set -26 dB below transmitter power.

#### Test results

	<b>Frequency channel</b>	<b>Occupied bandwidth</b>
<b>Cellular telephone 850 MHz UMTS / HSDPA</b>	4133	4.148 MHz
	4175	4.168 MHz
	4232	4.188 MHz
<b>PCS 1900 MHz UMTS / HSDPA</b>	9263	4.188 MHz
	9400	4.208 MHz
	9537	4.228 MHz
<b>Cellular telephone 850 MHz UMTS / HSUPA</b>	4133	4.148 MHz
	4175	4.168 MHz
	4232	4.248 MHz
<b>PCS 1900 MHz UMTS / HSUPA</b>	9263	4.208 MHz
	9400	4.168 MHz
	9537	4.168 MHz

Comment: See attached diagrams

**Test equipment:** ETS 0413, ETS 0416, ETS 0484; ; LU 0001

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### 3.4 Frequency stability

#### Reference

	<b>Cellular telephone 850 MHz</b>	<b>PCS 1900 MHz</b>
<b>FCC</b>	CFR part 22.355, 2.1055	CFR part 24.235, 2.1055
<b>IC</b>	RSS-132 Issue 2, §4.3 RSS-Gen Issue 1, §4.5	RSS-133 Issue 3, §4.2 RSS-Gen Issue 1, §4.5

#### Method of measurement

The equipment under test was connected to an external DC power supply and the RF output was connected to a frequency counter via feed through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable, exited the chamber through an opening made for that purpose.

After the temperature stabilized the frequency output was recorded from the counter.

#### Limits

	<b>Cellular telephone 850 MHz</b>	<b>PCS 1900 MHz</b>
<b>FCC</b>	± 2.5 ppm	Must stay within the authorized frequency block
<b>IC</b>	± 2.5 ppm	± 2.5 ppm

**Test results**
**Frequency stability vs. temperature**

	$\vartheta / ^\circ\text{C}$	Frequency error (Hz)	Frequency error (ppm)
<b>Cellular telephone 850 MHz UMTS</b>	+50,00	--	--
	+40,00	--	--
	+30,00	--	--
	+20,00	--	--
	+10,00	--	--
	0,00	--	--
	-10,00	--	--
	-30,00	--	--

	$\vartheta / ^\circ\text{C}$	Frequency error (Hz)	Frequency error (ppm)
<b>PCS 1900 MHz UMTS</b>	+50,00	--	--
	+40,00	--	--
	+30,00	--	--
	+20,00	--	--
	+10,00	--	--
	0,00	--	--
	-10,00	--	--
	-30,00	--	--

**Frequency stability vs. voltage**

	$U_B / V$	Frequency error (Hz)	Frequency error (ppm)
<b>Cellular telephone 850 MHz UMTS</b>	5,80	--	--
	5,60	--	--
	5,40	--	--
	5,20	--	--
	5,00	--	--
	4,80	--	--
	4,60	--	--
	4,40	--	--
	4,20	--	--

	$U_B / V$	Frequency error (Hz)	Frequency error (ppm)
<b>PCS 1900 MHz UMTS</b>	5,80	--	--
	5,60	--	--
	5,40	--	--
	5,20	--	--
	5,00	--	--
	4,80	--	--
	4,60	--	--
	4,40	--	--
	4,20	--	--

Comment: Not required.

Test equipment: --

### 3.5 Spurious emission conducted (antenna terminal)

#### Reference

	<b>Cellular Telephone 850 MHz</b>	<b>PCS 1900 MHz</b>
<b>FCC</b>	CFR part 22.917, 2.1051	CFR part 24.238, 2.1051
<b>IC</b>	RSS-132 Issue 2, §4.5 RSS-Gen Issue 1, §4.7	RSS-133 Issue 3, §4.4 RSS-Gen Issue 1, §4.7

#### Method of measurement

The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission. The magnitude of spurious emission which are attenuated more than 20 dB below the permissible value need not be specified. Tests are performed for lowest, middle and highest transmitter block frequency.

#### Limits

	<b>Cellular telephone 850 MHz</b>	<b>PCS 1900 MHz</b>
<b>FCC</b>	$P_c - (43 + 10 \log (P) \text{ dB})$	$P_c - (43 + 10 \log (P) \text{ dB})$
<b>IC</b>	$P_c - (43 + 10 \log (P) \text{ dB})$	$P_c - (43 + 10 \log (P) \text{ dB})$

**Test results**

	Harmonic	TCX 4133 [MHz]	Level [dBm]	TCX 4175 [MHz]	Level [dBm]	TCX 4232 [MHz]	Level [dBm]
<b>Cellular telephone 850 MHz UMTS</b>	1	--	--	--	--	--	--
	2	--	--	--	--	--	--
	3	--	--	--	--	--	--
	4	--	--	--	--	--	--
	5	--	--	--	--	--	--
	6	--	--	--	--	--	--
	7	--	--	--	--	--	--
	8	--	--	--	--	--	--
	9	--	--	--	--	--	--
	10	--	--	--	--	--	--

	Harmonic	TCX 9263 [MHz]	Level [dBm]	TCX 9400 [MHz]	Level [dBm]	TCX 9537 [MHz]	Level [dBm]
<b>PCS 1900 MH UMTS</b>	1	--	--	--	--	--	--
	2	--	--	--	--	--	--
	3	--	--	--	--	--	--
	4	--	--	--	--	--	--
	5	--	--	--	--	--	--
	6	--	--	--	--	--	--
	7	--	--	--	--	--	--
	8	--	--	--	--	--	--
	9	--	--	--	--	--	--
	10	--	--	--	--	--	--

Comment: Not required.

Test equipment: --

### 3.6 Spurious emission radiated

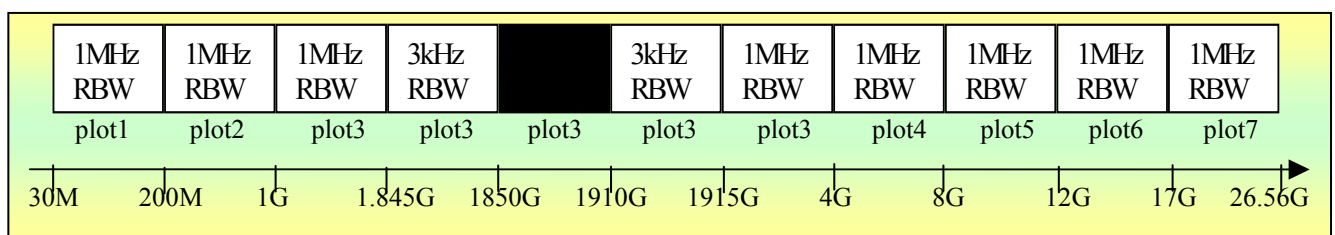
#### Reference

	Cellular telephone 850 MHz	PCS 1900 MHz
<b>FCC</b>	CFR part 22.917, 2.1053	CFR part 24.238, 2.1053
<b>IC</b>	RSS-132 Issue 2, §4.5 RSS-Gen Issue 1, §4.7	RSS-133 Issue 3, §4.4 RSS-Gen Issue 1, §4.7

#### Method of measurement

The EUT was positioned on a non-conductive turntable, 0.8m above the ground plane. The radiated emission at the fundamental frequency was measured at 3 m distance with a test antenna and spectrum analyzer.

Worst case emission was recorded with the rotation of the turntable and the raising and lowering of the test antenna.



ERP was measured using a substitution method. The EUT was replaced by horn antenna connected to a signal generator.

The frequency range up to tenth harmonic was investigated.

The tests of spurious radiated emission have been carried out with the EKS-Software from Rohde & Schwarz.

The analyzer gives automatic the measurements of spectral plots to the EKS software.

In the 1<sup>st</sup> 5 MHz band outside the band edge nearest the channel of interest a 3 kHz res. BW is used. The measurements from 30 MHz to 1845 GHz and 1915 GHz to 26.56 GHz were performed with a measurement bandwidth of 1 MHz.

Calculation of test results:

Such factors like antenna correction, cable loss, external attenuation etc. are already included in the provided measurement results. This is done by using validated test software and calibrated test system according the accreditation requirements.

The peak and average spurious emission plots was measured with the average limits.  
In the Table being listed the critical peak and average value an exhibit the compliance with the above calculated Limits.

#### Limits

	<b>Cellular telephone 850 MHz</b>	<b>PCS 1900 MHz</b>
<b>FCC</b>	$P_c - (43 + 10 \log (P) \text{ dB})$	$P_c - (43 + 10 \log (P) \text{ dB})$
<b>IC</b>	$P_c - (43 + 10 \log (P) \text{ dB})$	$P_c - (43 + 10 \log (P) \text{ dB})$



**UMTS FDDV**
**Summary table with radiated data of the test plots for Carrier Test Frequency 826,6 MHz**

Spectral Plot	Frequency Marker Indication [MHz]	Indication Power Level [dBm]	External Attn. [dB]	Worst Case Emission Level [dBm]	Compliance Limit [dBm]	Results
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--

**Summary table with radiated data of the test plots for Carrier Test Frequency 835 MHz**

Spectral Plot	Frequency Marker Indication [MHz]	Indication Power Level [dBm]	External Attn.[dB]	Worst Case Emission Level [dBm]	Compliance Limit [dBm]	Results
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--

**Summary table with radiated data of the test plots for Carrier Test Frequency 846,4 MHz**

Spectral Plot	Frequency Marker Indication [MHz]	Indication Power Level [dBm]	External Attn.[dB]	Worst Case Emission Level [dBm]	Compliance Limit [dBm]	Results
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
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--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--

**UMTS FDD II**

Summary table with radiated data of the test plots for Carrier Test Frequency 1852.6 MHz

Spectral Plot	Frequency Marker Indication [MHz]	Indication Power Level [dBm]	External Attn. [dB]	Worst Case Emission Level [dBm]	Compliance Limit [dBm]	Results
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
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--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--

Summary table with radiated data of the test plots for Carrier Test Frequency 1880.0 MHz

Spectral Plot	Frequency Marker Indication [MHz]	Indication Power Level [dBm]	External Attn.[dB]	Worst Case Emission Level [dBm]	Compliance Limit [dBm]	Results
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
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--	--	--	--	--	--	--
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--	--	--	--	--	--	--
--	--	--	--	--	--	--



### 3.7 Block edge compliance

#### Reference

	Cellular telephone 850 MHz	PCS 1900 MHz
<b>FCC</b>	CFR part 22.917(b)	CFR part 24.238(b)
<b>IC</b>	RSS-132 Issue 2, §4.5.1.1	RSS-133 Issue 3, §4.4

#### Method of measurement

In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth.

#### Limits

	Cellular telephone 850 MHz	PCS 1900 MHz
<b>FCC</b>	$P_c - (43 + 10 \log (P) \text{ dB})$	$P_c - (43 + 10 \log (P) \text{ dB})$
<b>IC</b>	$P_c - (43 + 10 \log (P) \text{ dB})$	$P_c - (43 + 10 \log (P) \text{ dB})$

#### Test results

	Frequency channel	RBW kHz	Worst case emission level dBm
<b>Cellular telephone 850 MHz HSDPA</b>	4133	3 kHz	24.38
	4332	3 kHz	24.08
<b>PCS 1900 MHz HSDPA</b>	9263	3 kHz	22.64
	9537	3 kHz	21.62
<b>Cellular telephone 850 MHz HSUPA</b>	4133	3 kHz	25.22
	4332	3 kHz	25.27
<b>PCS 1900 MHz HSUPA</b>	9263	3 kHz	24.39
	9537	3 kHz	23.14

Comment: See attached diagrams.

**Test equipment:** ETS 0413, ETS 0416, ETS 0484; LU 0001

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Test Report No.: G0M20806-1862-C-3

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Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

### 3.8 AC power line conducted emissions

#### Reference

	Cellular telephone 850 MHz	PCS 1900 MHz
<b>FCC</b>	CFR part 15.207	CFR part 15.207
<b>IC</b>	Not applicable	Not applicable

#### Method of measurement

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits. Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.

#### Limits

	Cellular telephone 850 MHz	PCS 1900 MHz	
<b>FCC</b>	Frequency of emission	Conducted limit field strength [dB $\mu$ V]	
	[MHz]	Quasi Peak	Average
	0.15 - 0.5	66 to 56	56 - 46
	0.5 - 5	56	46
	5 - 30	60	50
<b>IC</b>	Not applicable		

#### Test results

Frequency	Level	
	Quasi-peak	Average
150 kHz	--	--

Comment: Not required.

Test equipment: --

## 4 Receiver parameters

### 4.1 Radiated emissions

#### Reference

	Cellular telephone 850 MHz	PCS 1900 MHz
<b>FCC</b>	CFR part 15.109, 2.1053	CFR part 15.109, 2.1053
<b>IC</b>	RSS-132 Issue 2, 4.6 RSS-Gen Issue 1, §4.8	RSS-133 Issue 3, §4.5 RSS-Gen Issue 1, §4.8

#### Method of measurement

The receiver shall be operated in the normal receive mode near the mid-point of the band(s) over which the receiver is designed to operate.

The measurement method is the radiated emission measurement. The measurement starts at 30 MHz and ends at least 5 times the highest tunable local oscillator frequency (6 GHz).

#### Limits

	Cellular telephone 850 MHz	PCS 1900 MHz
<b>FCC</b>	Spurious frequency	Field strength
	[MHz]	microvolt/m at 3 meters
	30 - 88	100
	88 - 216	150
	216 - 960	200
	above 960	500
<b>IC</b>	Not applicable	

**Test Results**

	Frequency marker indication [MHz]	Antenna polarization	Worst case emission level [dBm]	Compliance limit [dBm]	Results [dBm]
<b>Cellular telephone 850 MHz UMTS</b>	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--

	Frequency marker indication [MHz]	Antenna polarization	Worst case emission level [dBm]	Compliance limit [dBm]	Results [dBm]
<b>PCS 1900 MHz UMTS</b>	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--

Not required.

**Test equipment:**      --

## **ANNEX**

<b>A</b>	<b>Pictures</b>	<b>14 pages</b>
<b>B</b>	<b>RF power output conducted</b>	<b>54 pages</b>
<b>C</b>	<b>Occupied bandwidth, emission bandwidth</b>	<b>12 pages</b>
<b>D</b>	<b>Block edge compliance</b>	<b>8 pages</b>

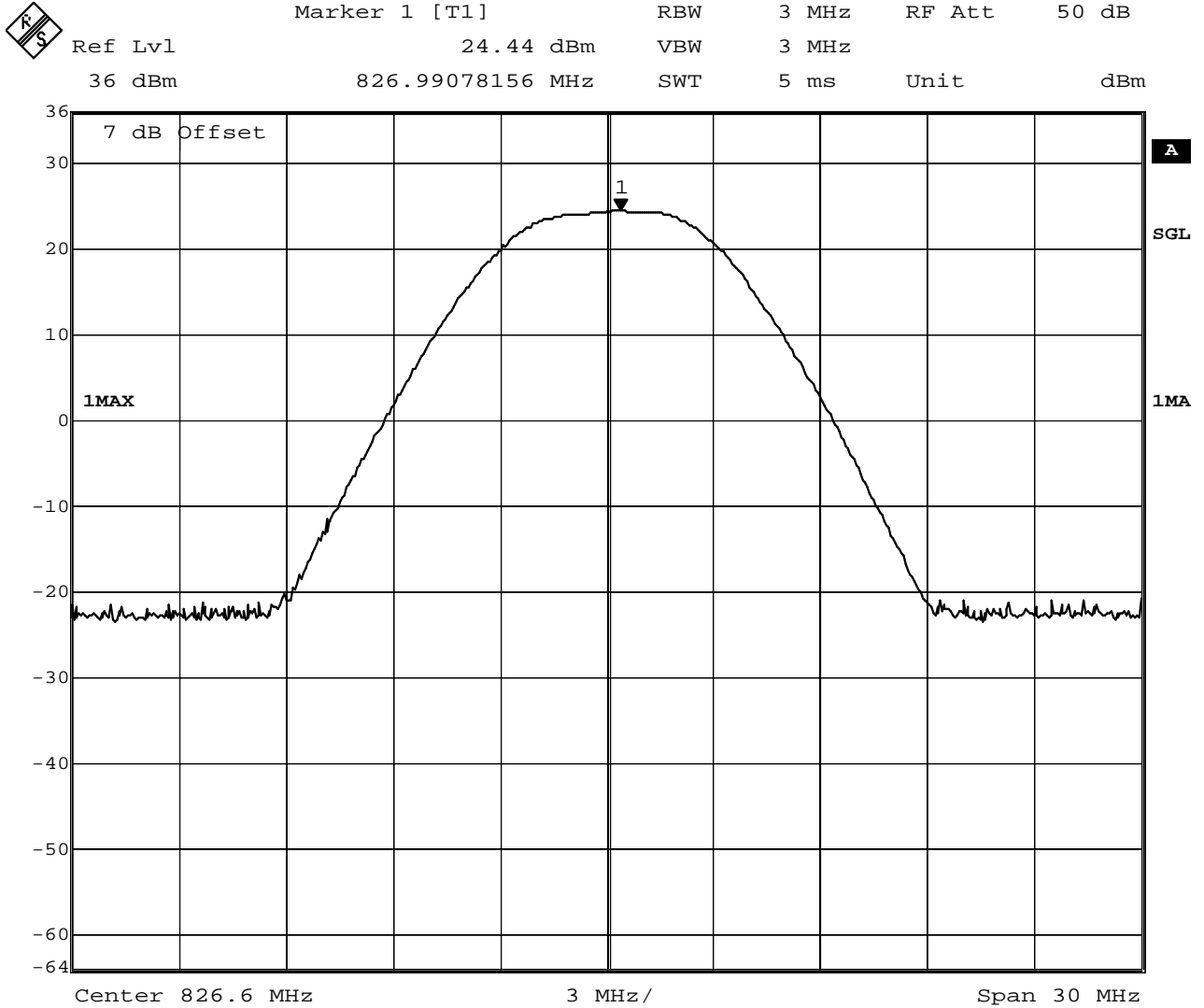


## **Annex B**

RF power output conducted

**FCC Part 22 H  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4133 / HSDPA / subtest 1
Comment 2	
Comment 3	



Date: 25.JUN.2008 14:22:11

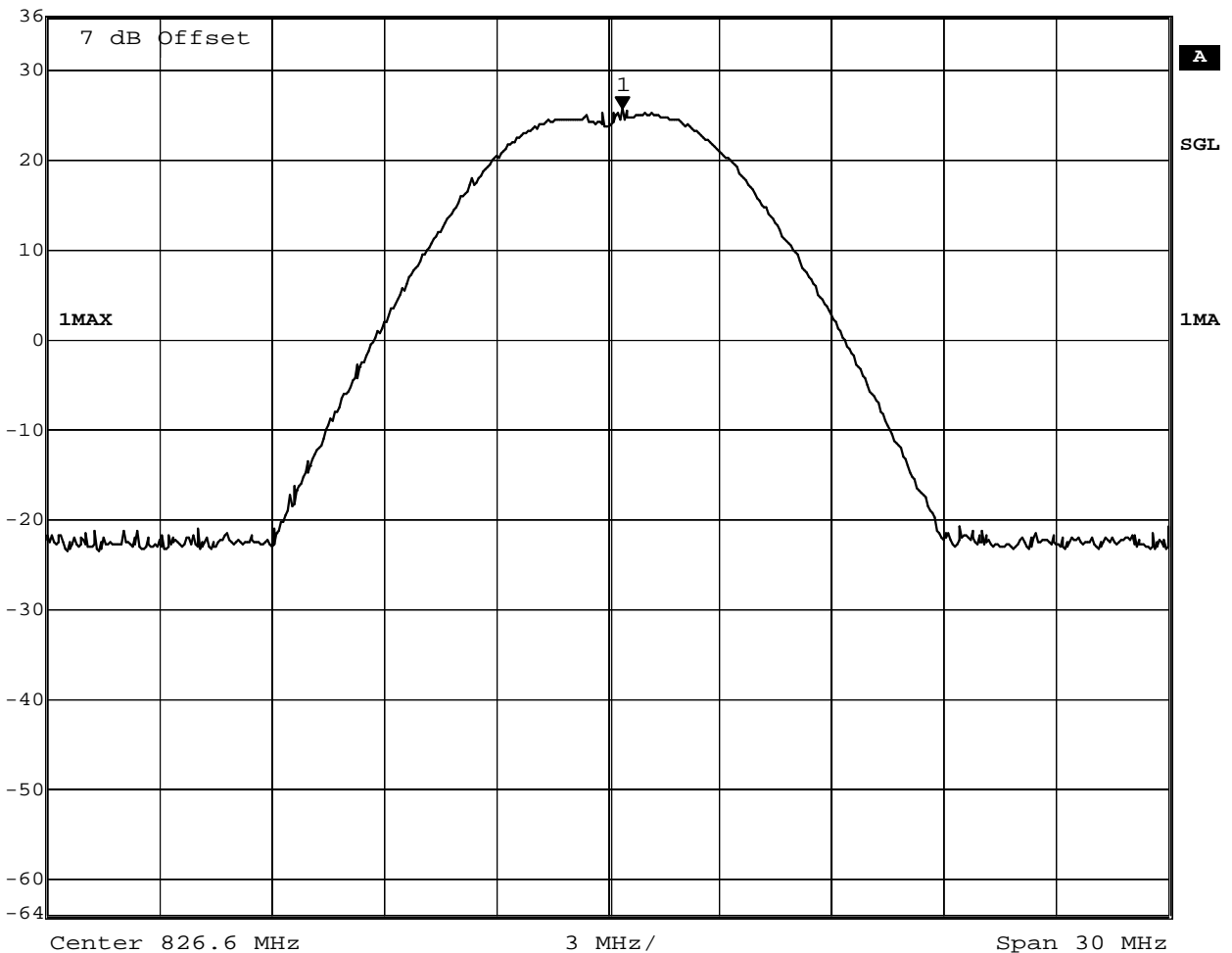
**Measurement diagram**

**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4133 / HSDPA / subtest 2
Comment 2	
Comment 3	



Marker 1 [T1]	RBW	3 MHz	RF Att	50 dB
Ref Lvl	25.51 dBm	VBW	3 MHz	
36 dBm	826.99078156 MHz	SWT	5 ms	Unit dBm



Date: 25.JUN.2008 14:21:38

Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

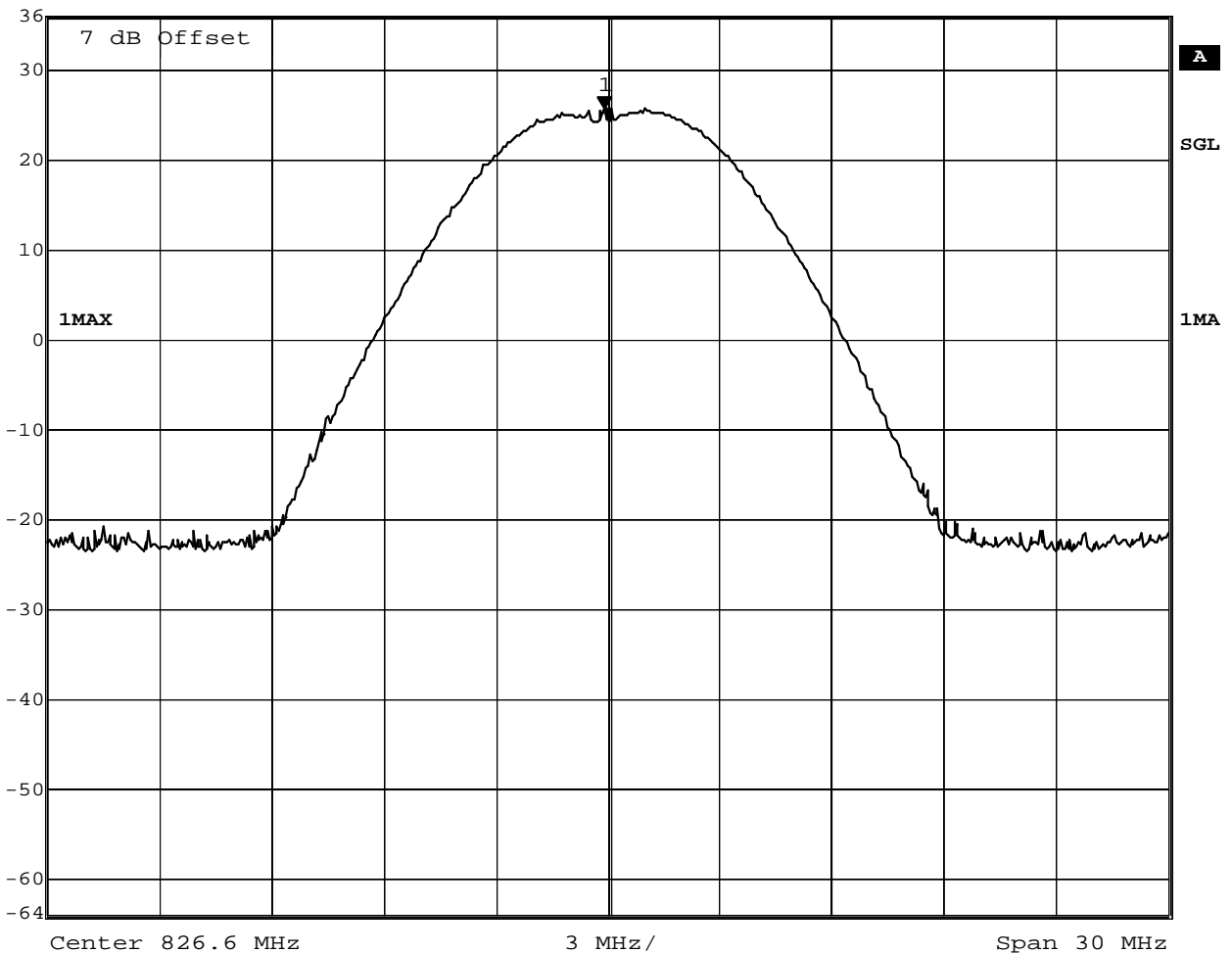


**FCC Part 22 H  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4133 / HSDPA / subtest 4
Comment 2	
Comment 3	



Marker 1 [T1]	RBW	3 MHz	RF Att	50 dB
Ref Lvl	25.71 dBm	VBW	3 MHz	
36 dBm	826.50981964 MHz	SWT	5 ms	Unit dBm



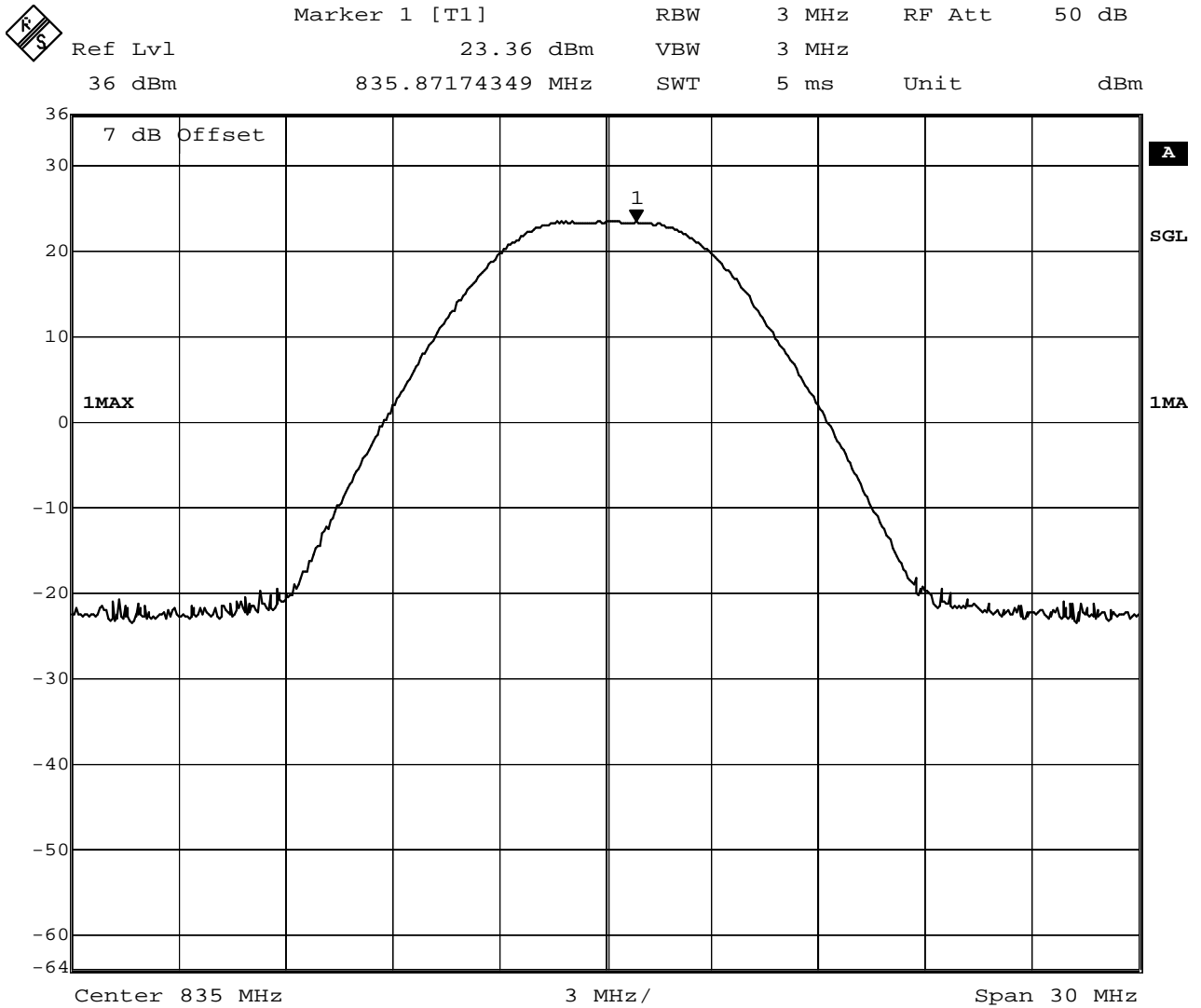
Date: 25.JUN.2008 14:20:21

**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

FCC Part 22 H  
Output power conducted

EUT USB-Stick  
Model GI0322  
Approval Holder Option Wireless Germany GmbH  
Temperature / Voltage 24°C / V\_USB 5 V +/- 0,25 V  
Test Site / Operator Eurofins Product Service GmbH / Mr. Walter  
Test Specification FCC Part 22 Subpart H  
Comment 1 Channel: 4175 / HSDPA / subtest 1  
Comment 2  
Comment 3



Date: 25.JUN.2008 14:17:10

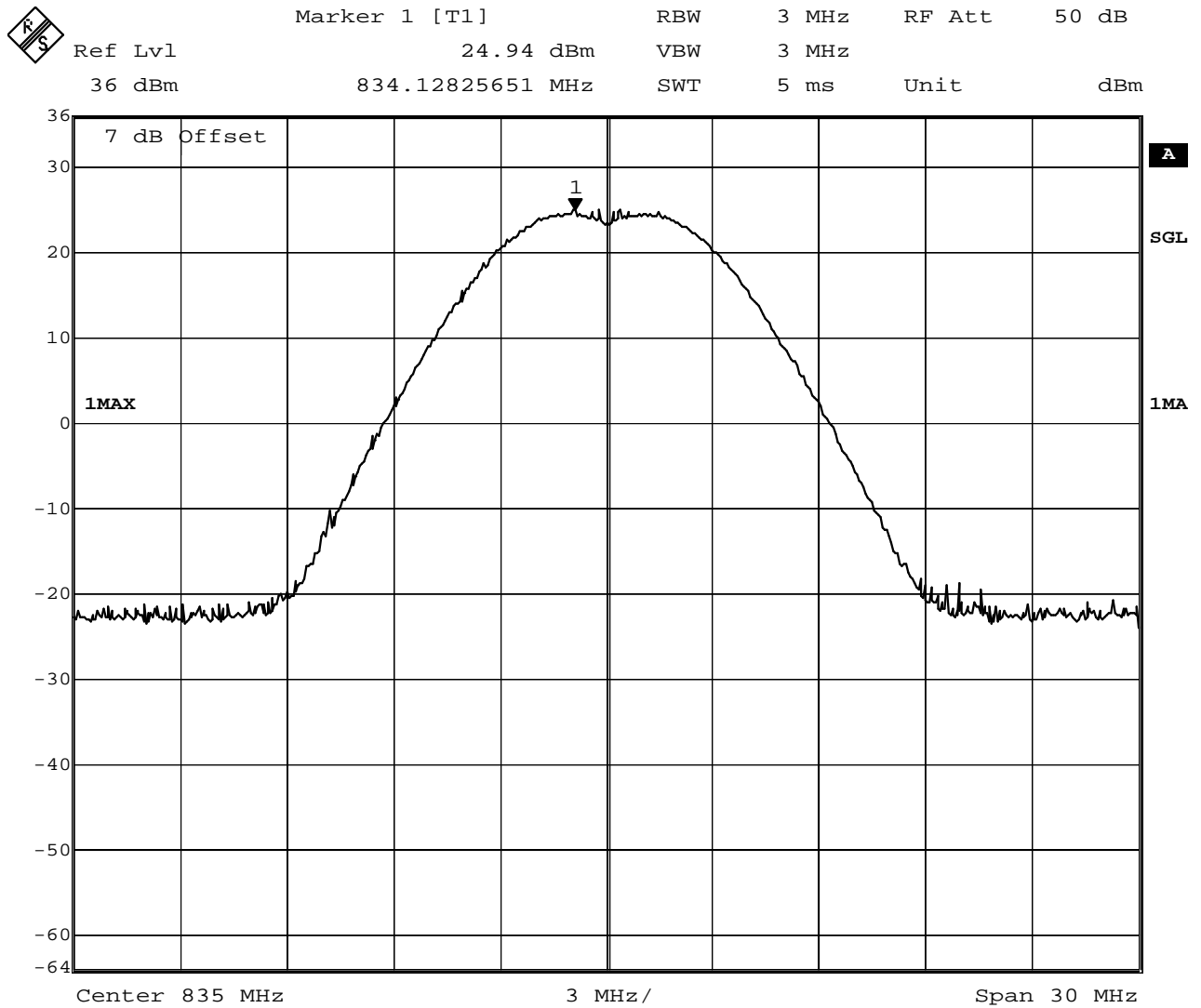
Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany



**FCC Part 22 H  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4175 / HSDPA / subtest 3
Comment 2	
Comment 3	



Date: 25.JUN.2008 14:18:30

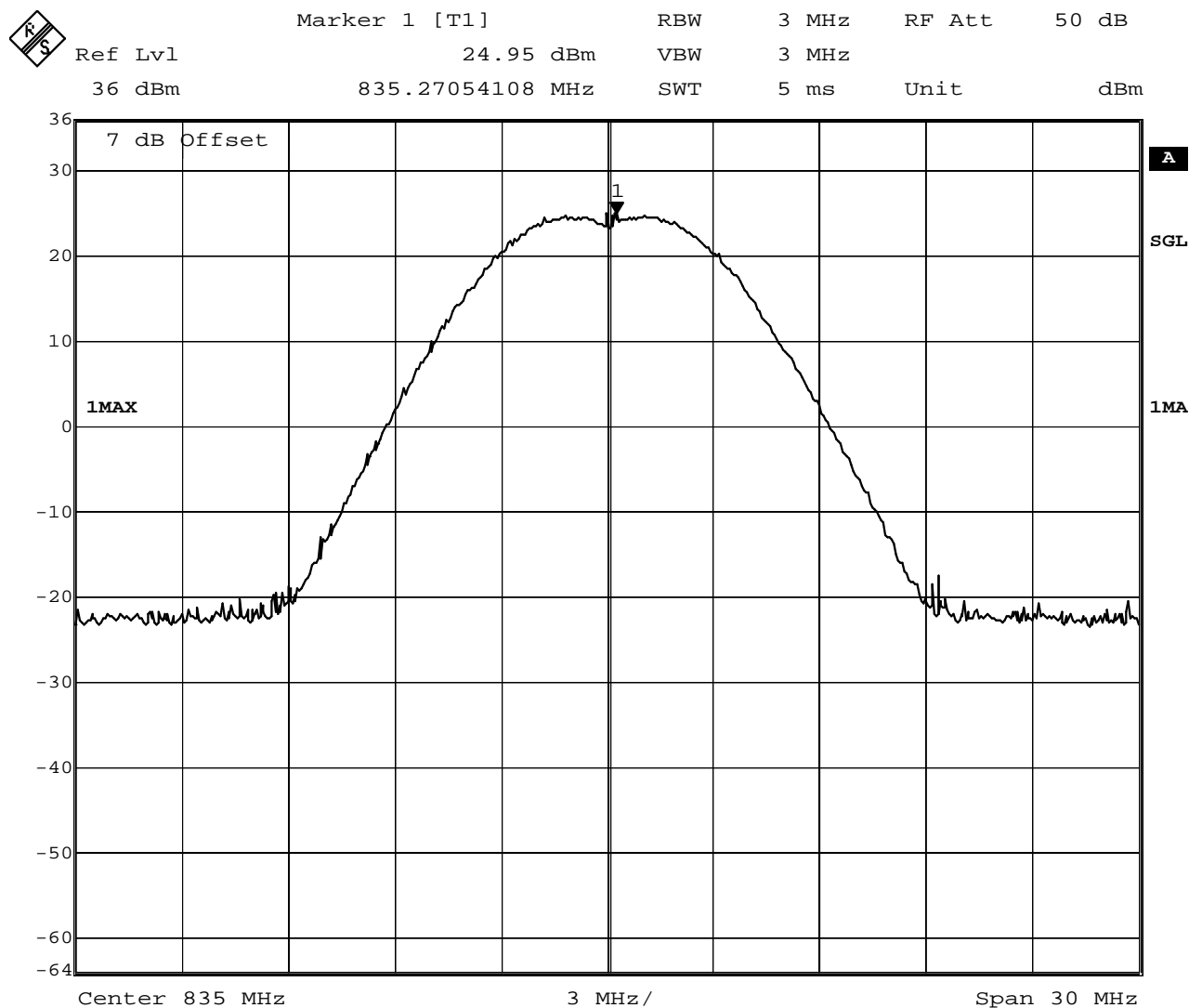
**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany



**FCC Part 22 H  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4175 / HSDPA / subtest 4
Comment 2	
Comment 3	



Date: 25.JUN.2008 14:19:05

**Measurement diagram**

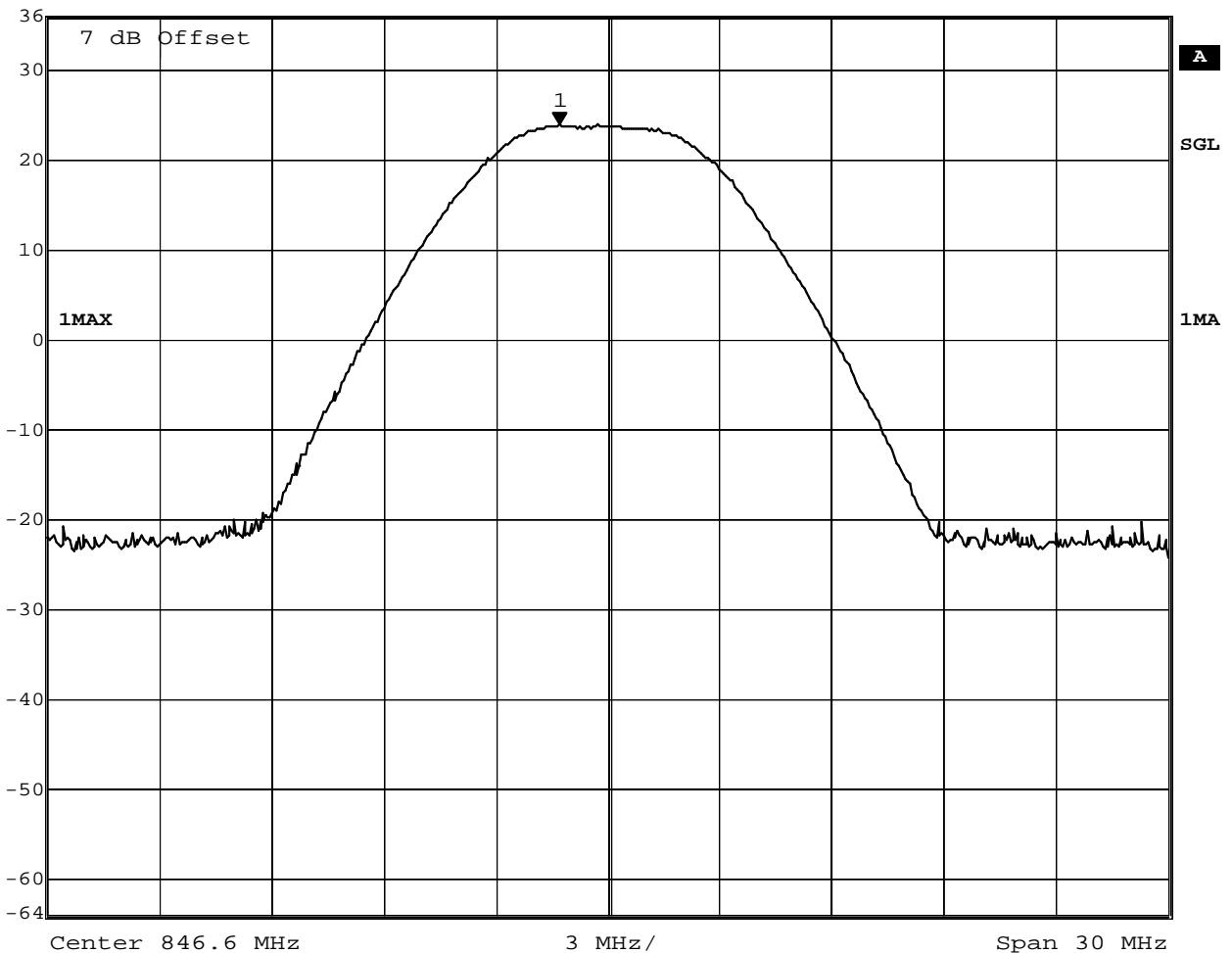
 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSDPA / subtest 1
Comment 2	
Comment 3	



Marker 1 [T1]	RBW	3 MHz	RF Att	50 dB
Ref Lvl	23.85 dBm	VBW	3 MHz	
36 dBm	845.30741483 MHz	SWT	5 ms	Unit dBm



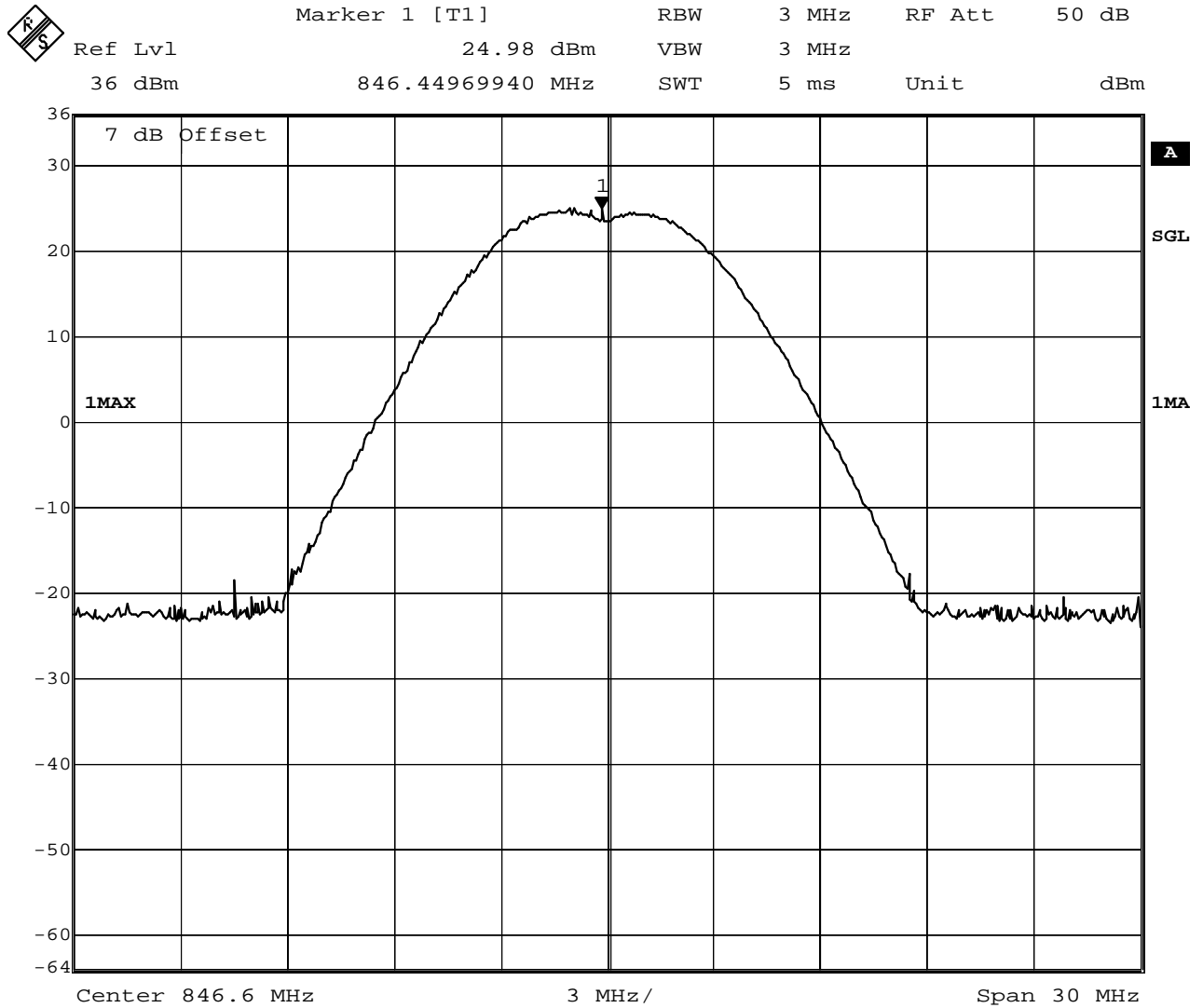
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Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSDPA / subtest 2
Comment 2	
Comment 3	



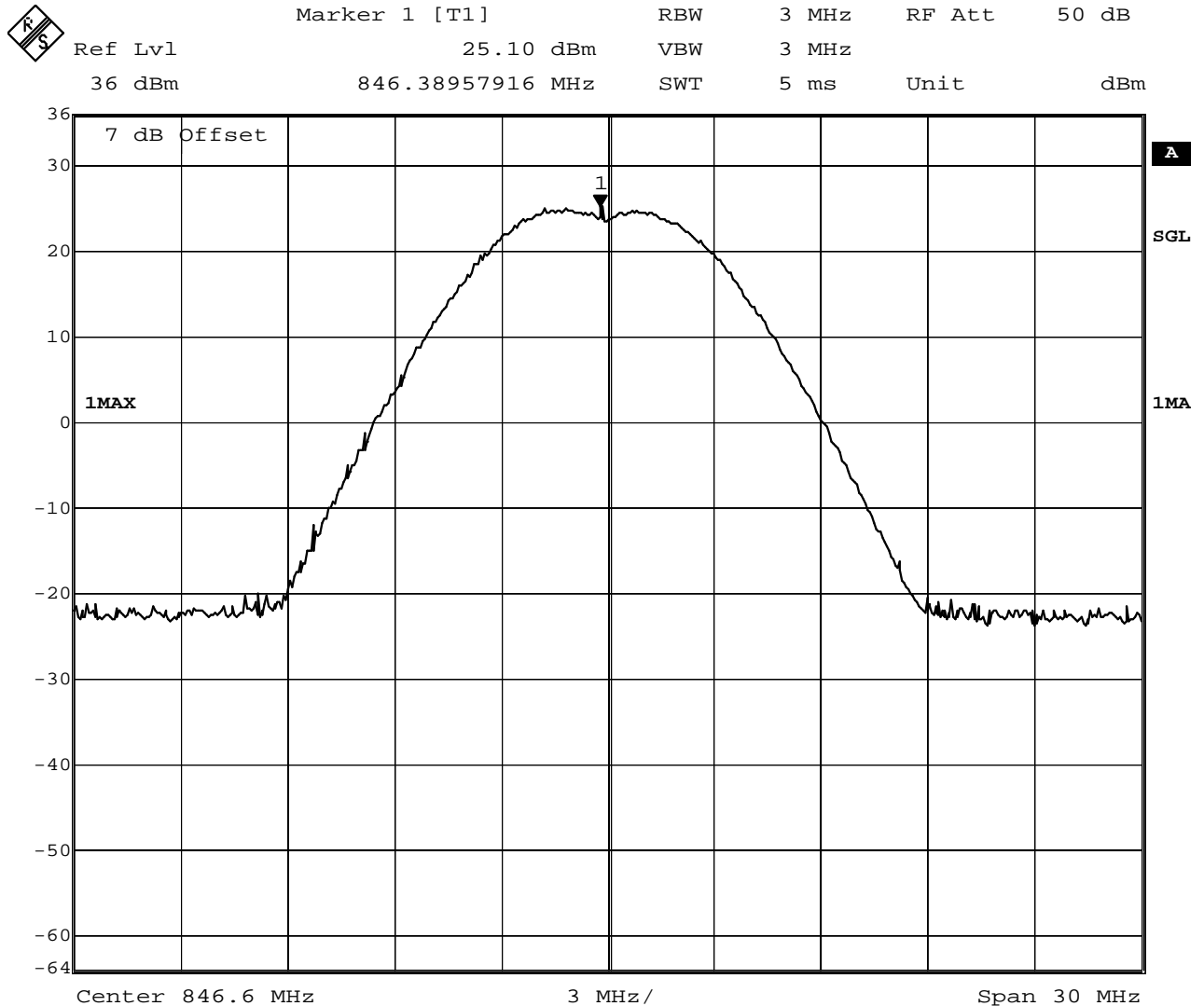
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**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSDPA / subtest 3
Comment 2	
Comment 3	



Date: 25.JUN.2008 14:10:40

**Measurement diagram**

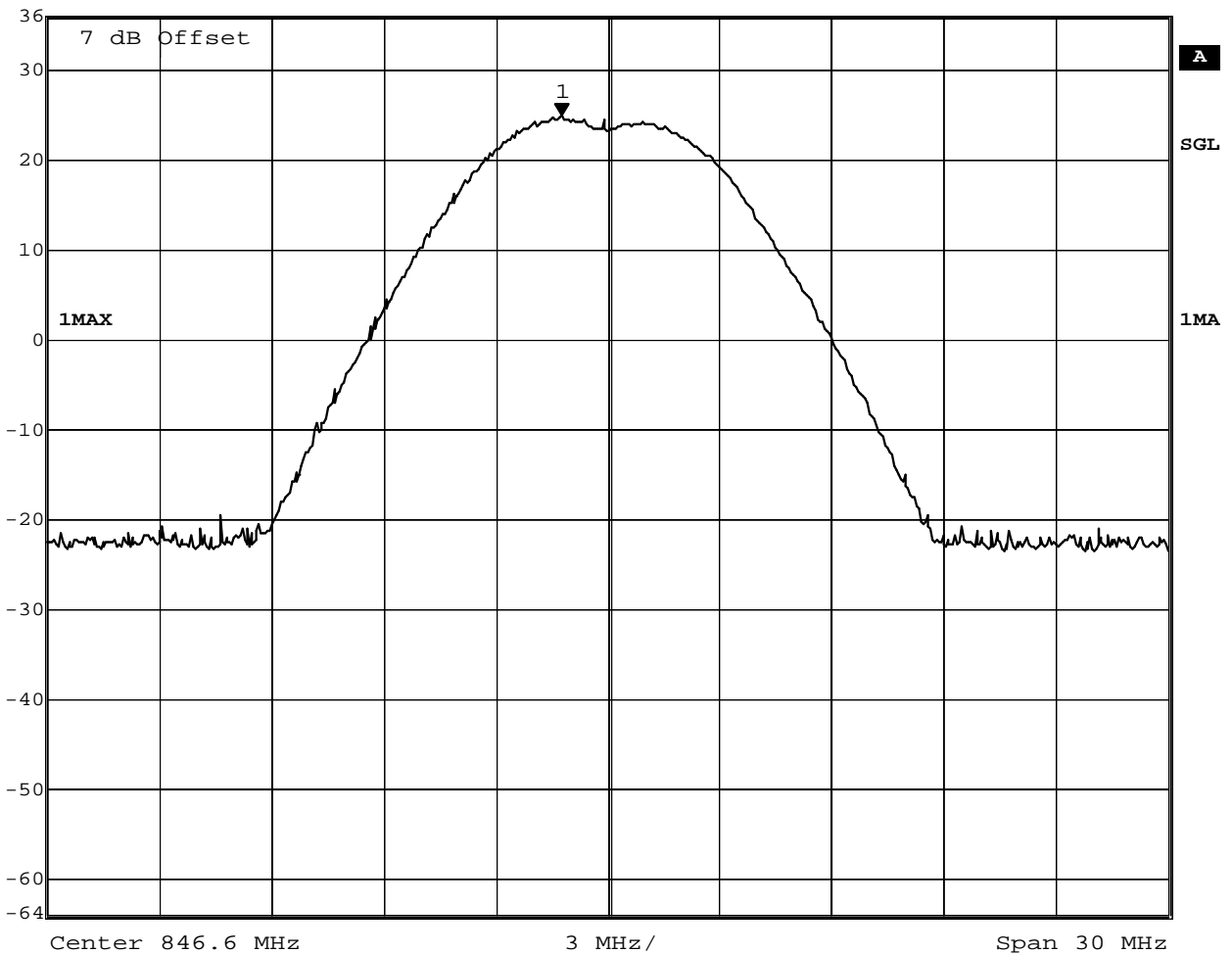
 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSDPA / subtest 4
Comment 2	
Comment 3	



Marker 1 [T1]	RBW	3 MHz	RF Att	50 dB
Ref Lvl	24.87 dBm	VBW	3 MHz	
36 dBm	845.36753507 MHz	SWT	5 ms	Unit dBm



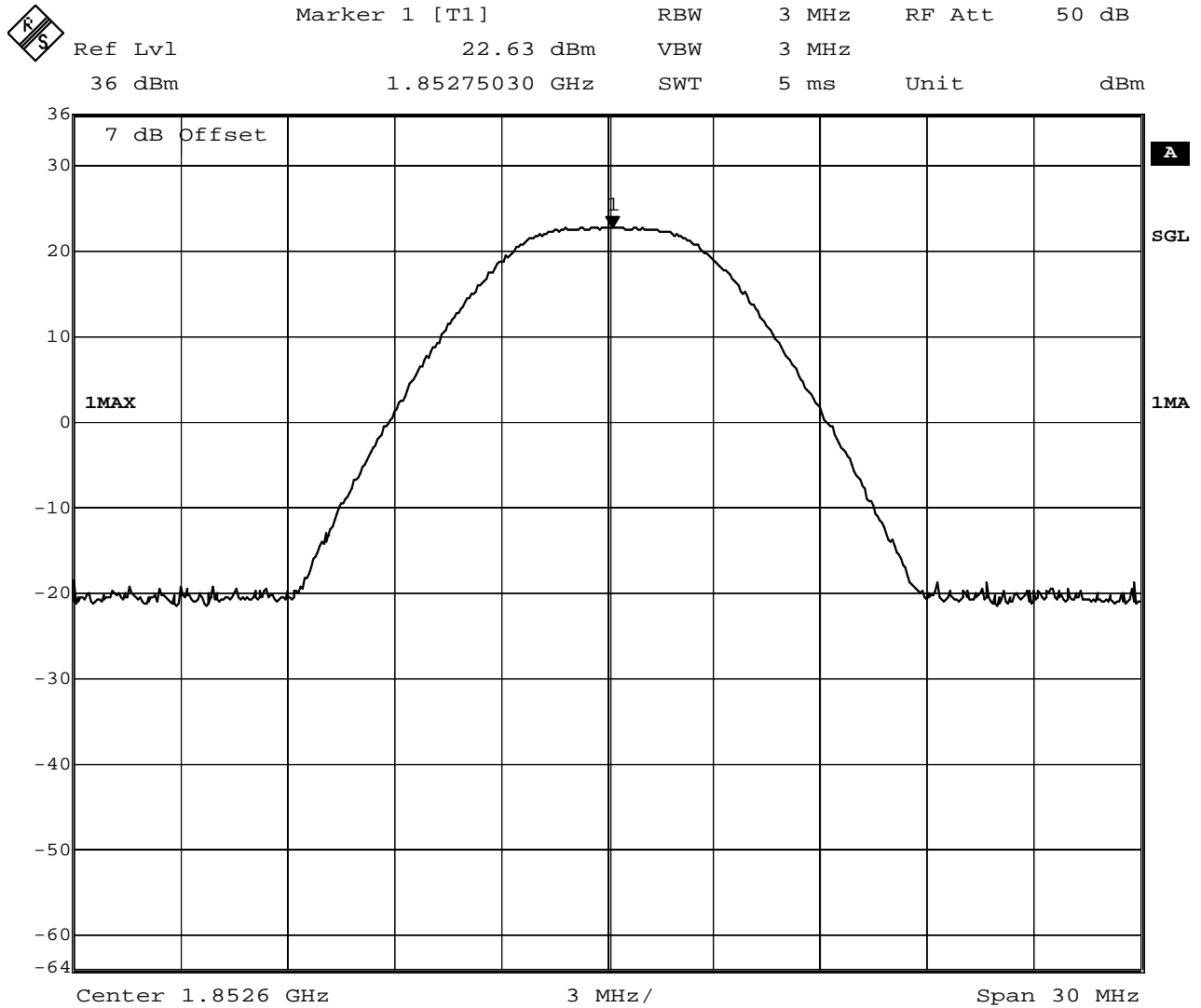
Date: 25.JUN.2008 14:09:49

Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9263 / HSDPA / subtest 1
Comment 2	
Comment 3	



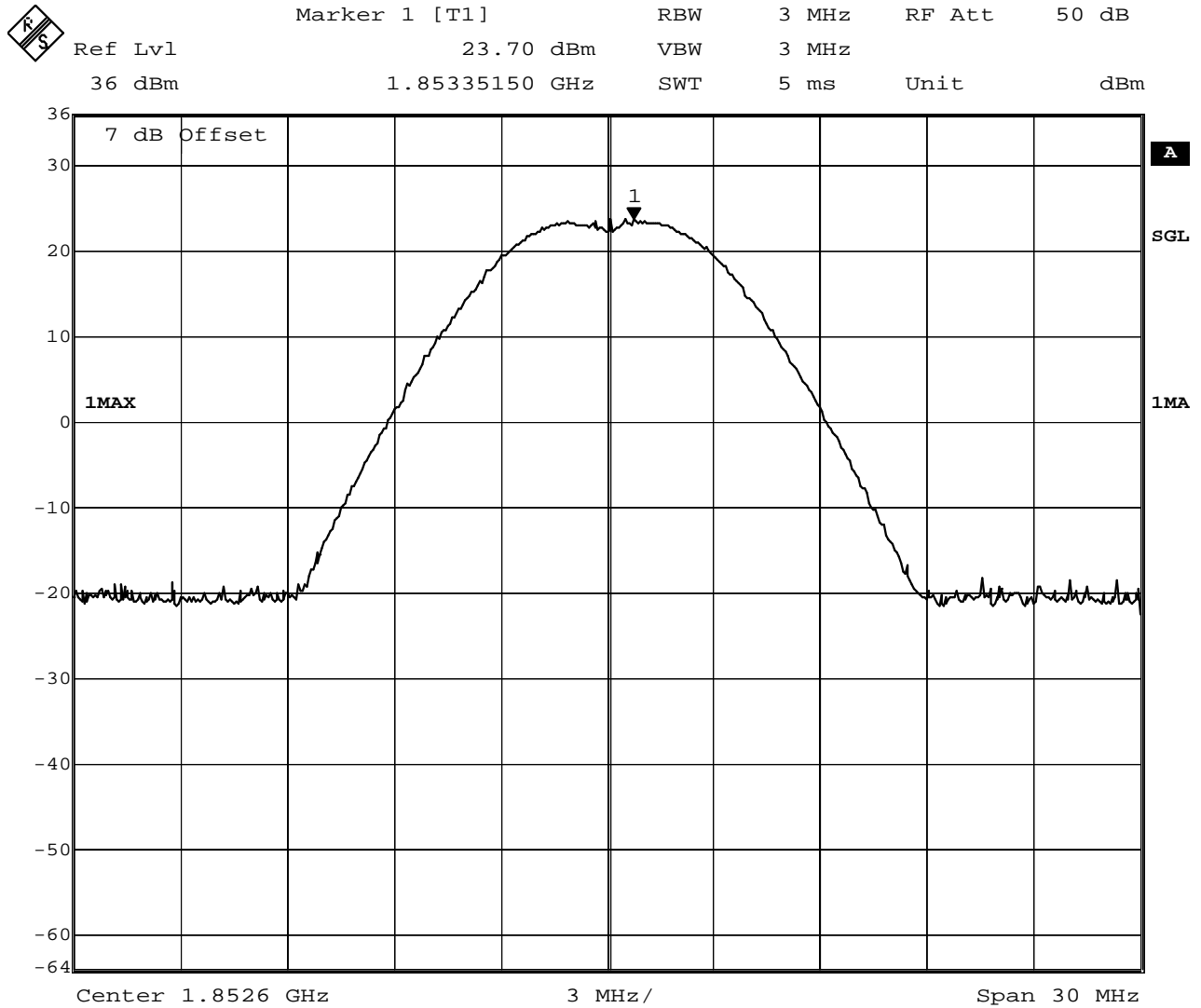
Date: 25.JUN.2008 13:12:38

**Measurement diagram**

Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9263 / HSDPA / subtest 2
Comment 2	
Comment 3	



Date: 25.JUN.2008 13:14:18

Measurement diagram

Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

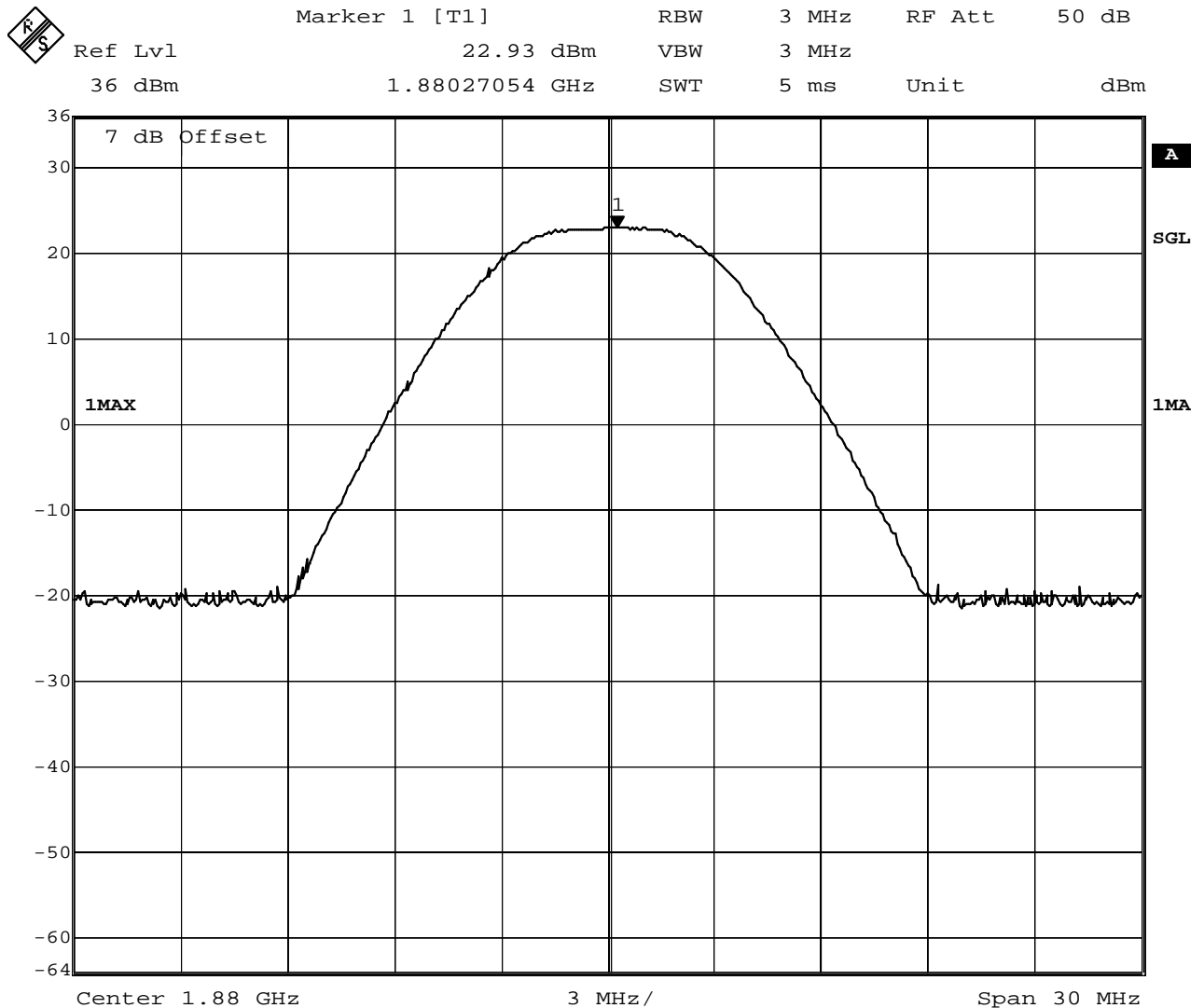






**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9400 / HSDPA / subtest 1
Comment 2	
Comment 3	



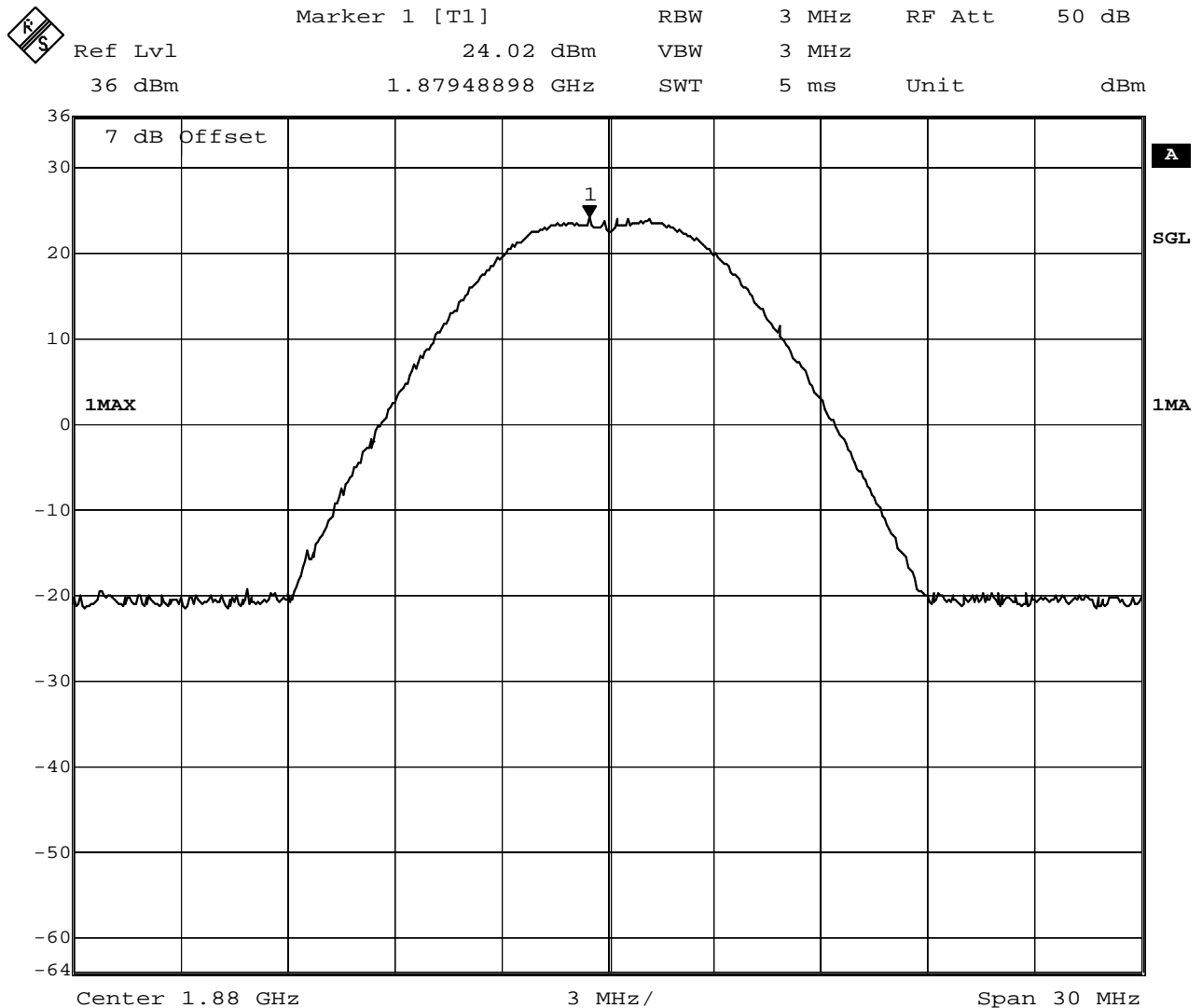
Date: 25.JUN.2008 13:11:35

**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9400 / HSDPA / subtest 2
Comment 2	
Comment 3	



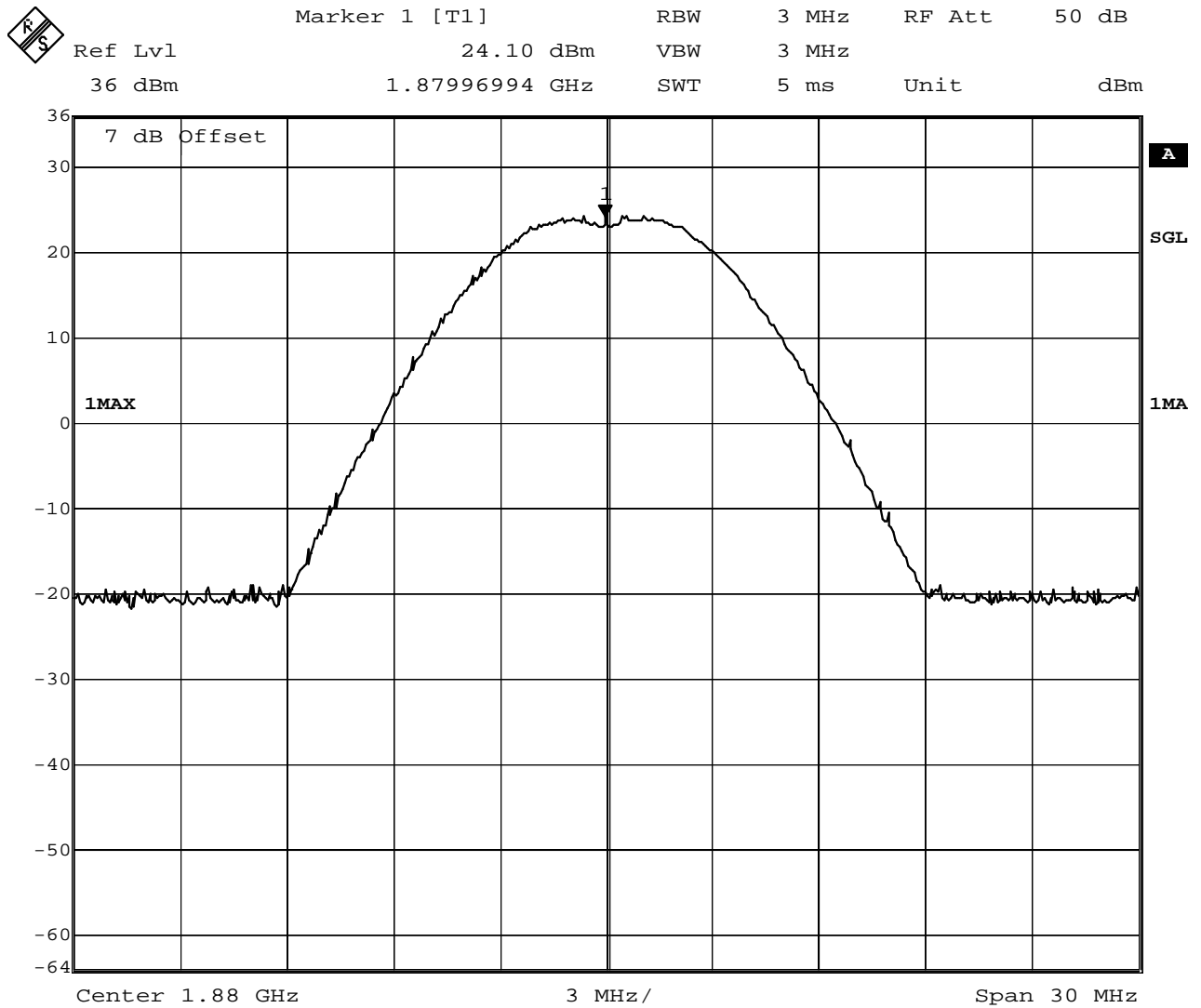
Date: 25.JUN.2008 13:10:52

**Measurement diagram**

 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

### FCC Part 24 E Output power conducted

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9400 / HSDPA / subtest 3
Comment 2	
Comment 3	



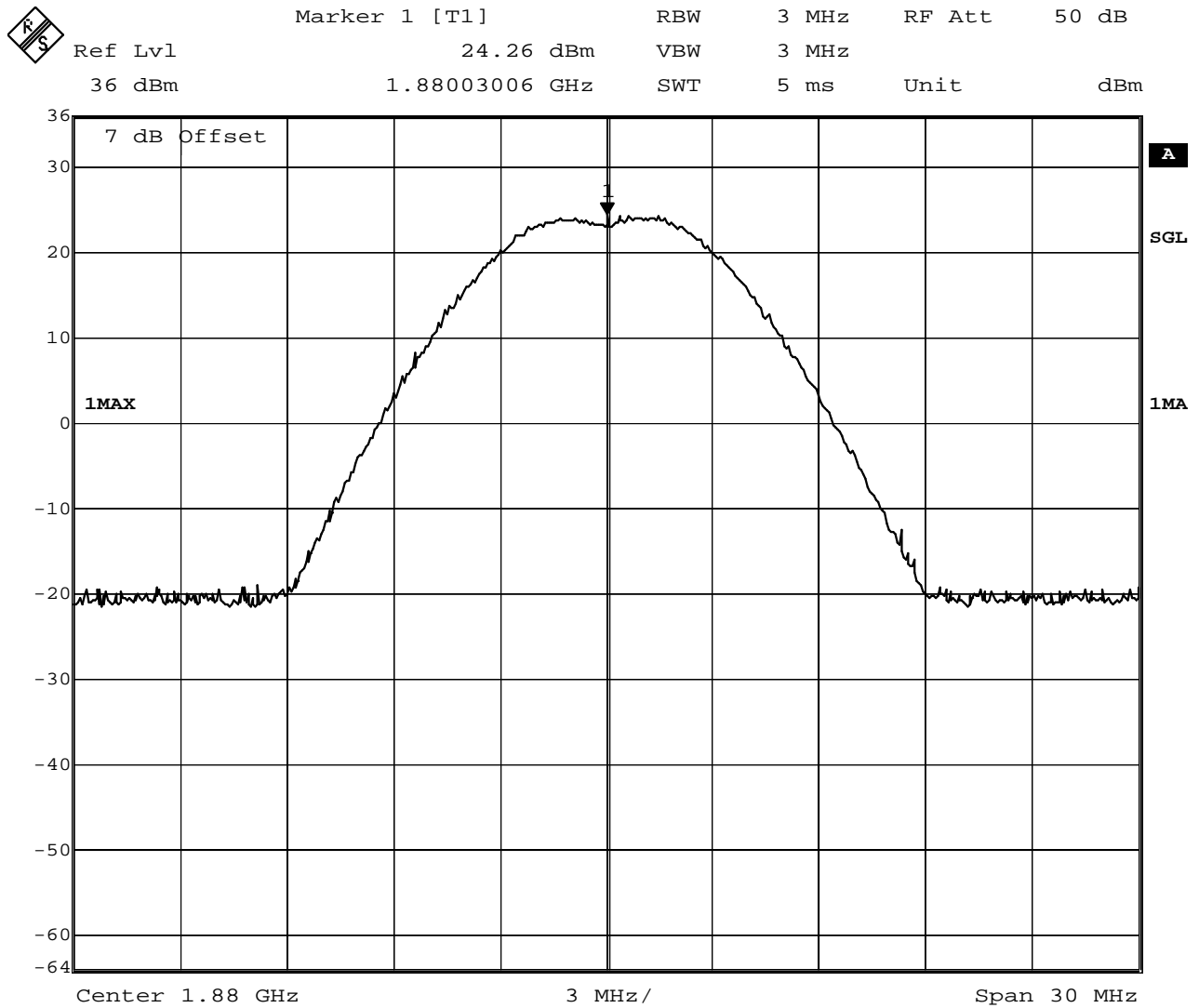
Date: 25.JUN.2008 13:09:05

#### Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9400 / HSDPA / subtest 4
Comment 2	
Comment 3	



Date: 25.JUN.2008 13:08:20

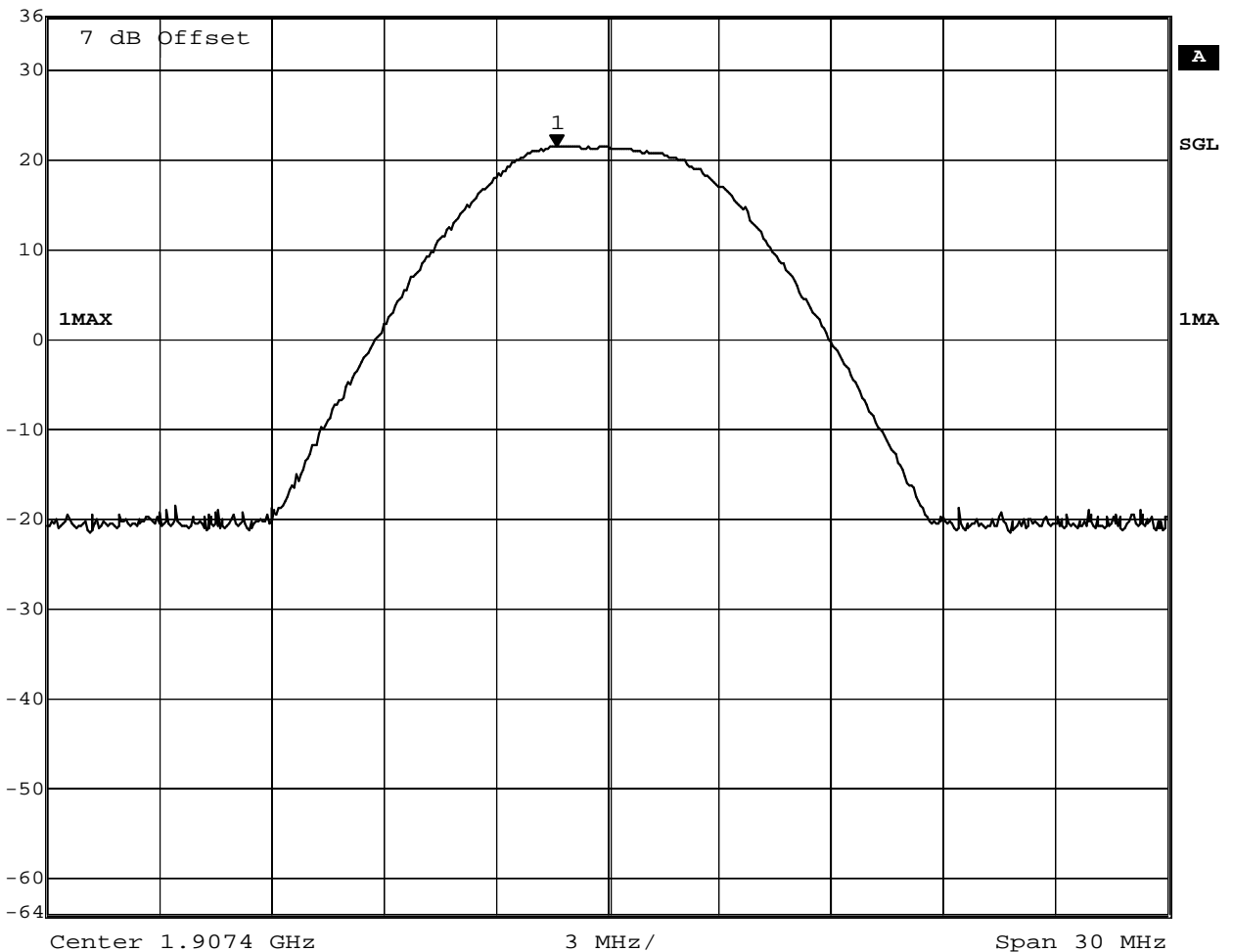
**Measurement diagram**Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

FCC Part 24 E  
Output power conducted

EUT USB-Stick  
Model GI0322  
Approval Holder Option Wireless Germany GmbH  
Temperature / Voltage 23°C / V\_USB: 5 V +/- 0.25 V  
Test Site / Operator Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter  
Test Specification FCC Part 24 Subpart E  
Comment 1 Channel: 9537 / HSDPA / subtest 1  
Comment 2  
Comment 3



Marker 1 [T1] RBW 3 MHz RF Att 50 dB  
Ref Lvl 21.45 dBm VBW 3 MHz  
36 dBm 1.90604729 GHz SWT 5 ms Unit dBm



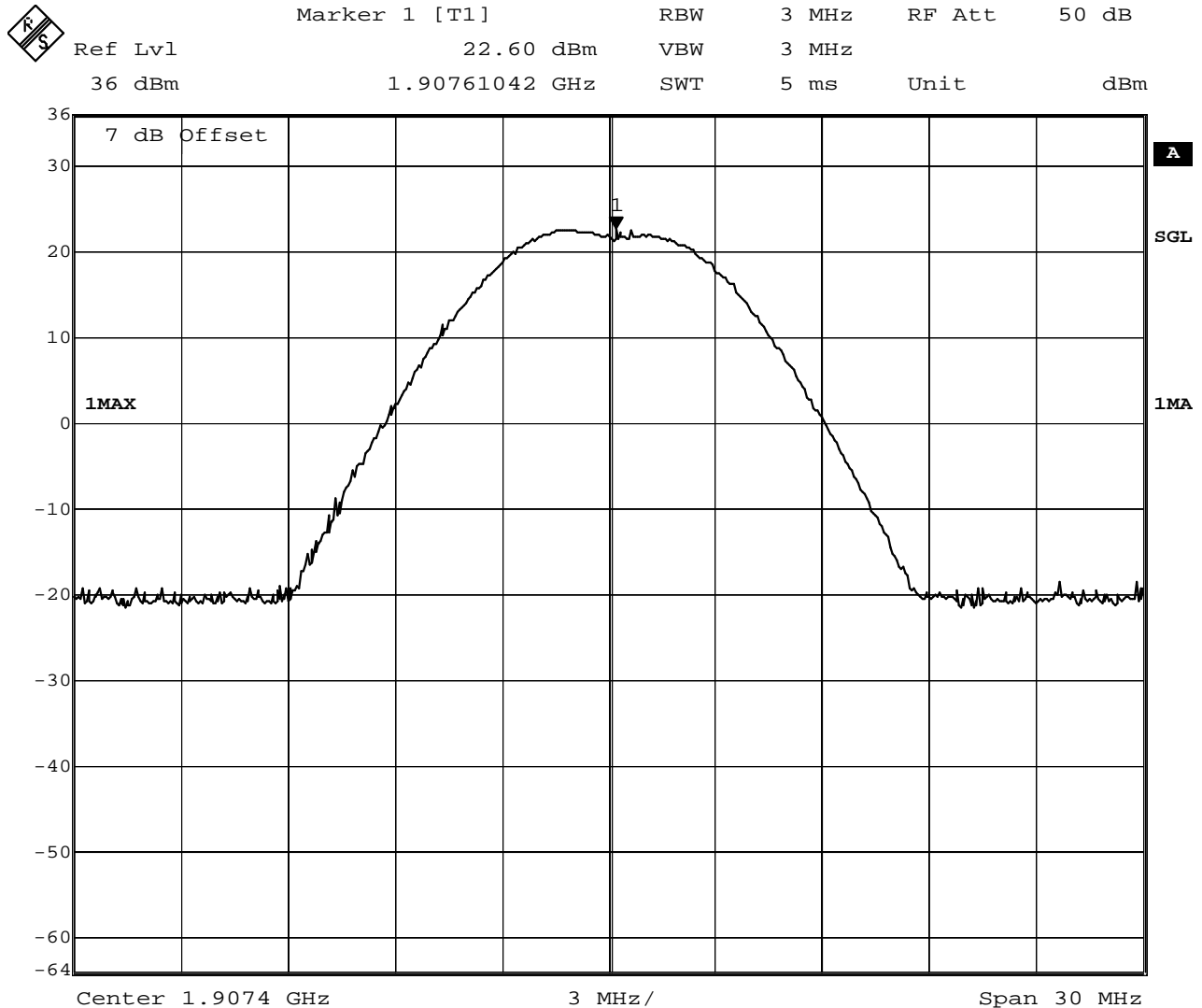
Date: 25.JUN.2008 13:03:08

Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9537 / HSDPA / subtest 2
Comment 2	
Comment 3	

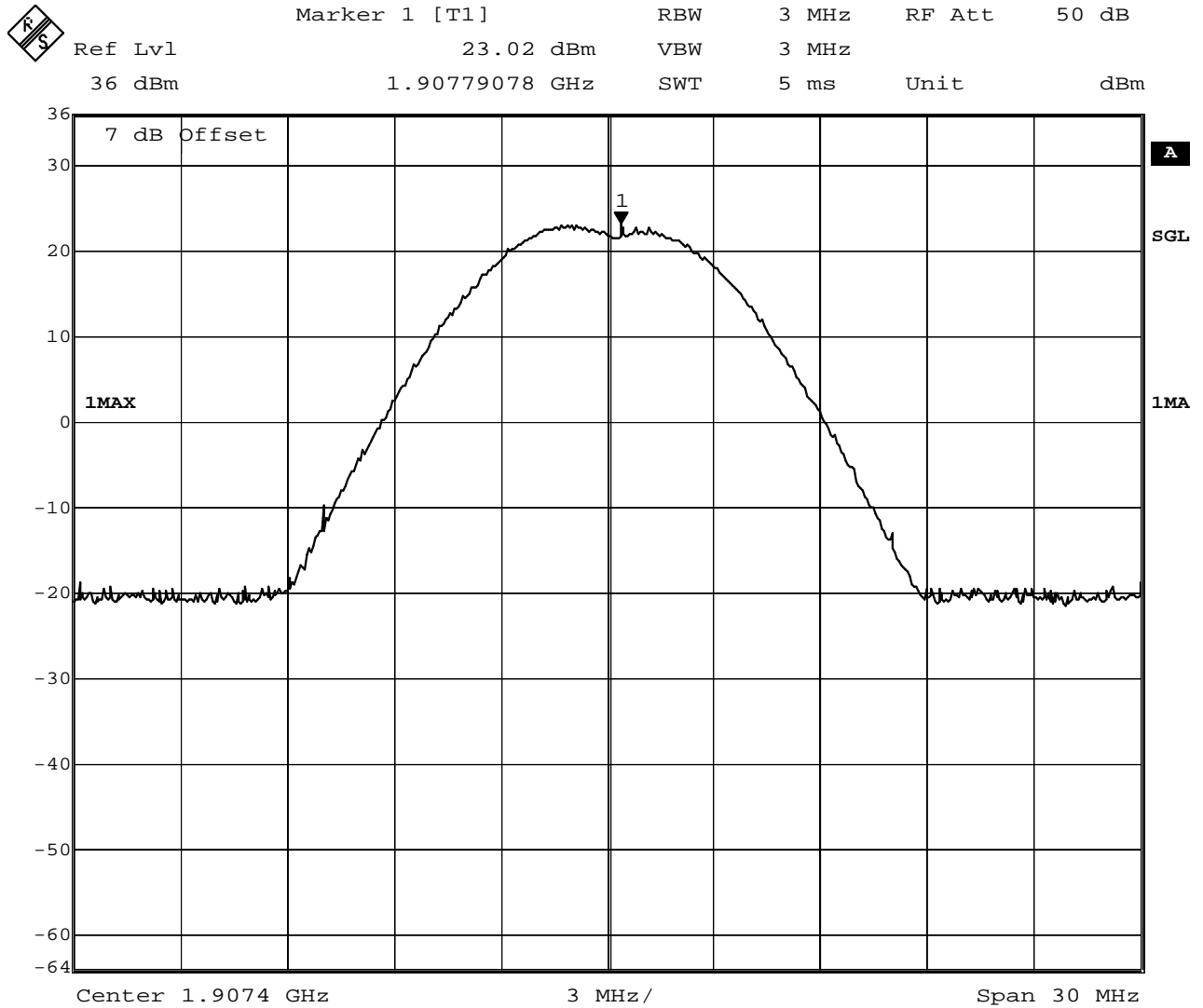


Date:      25.JUN.2008    13:04:21

**Measurement diagram**Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9537 / HSDPA / subtest 3
Comment 2	
Comment 3	



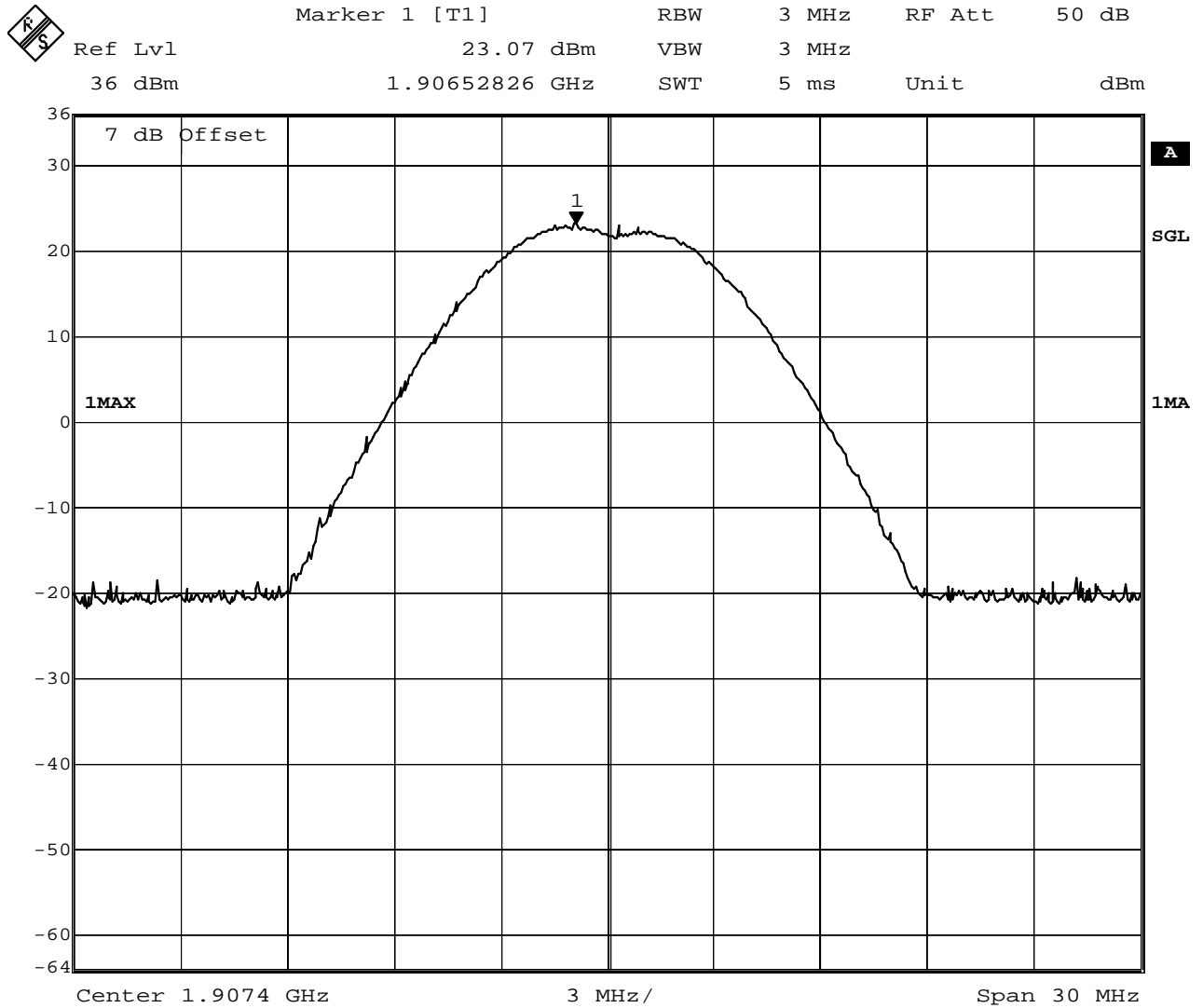
Date: 25.JUN.2008 13:05:45

**Measurement diagram**Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany



**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9537 / HSDPA / subtest 4
Comment 2	
Comment 3	



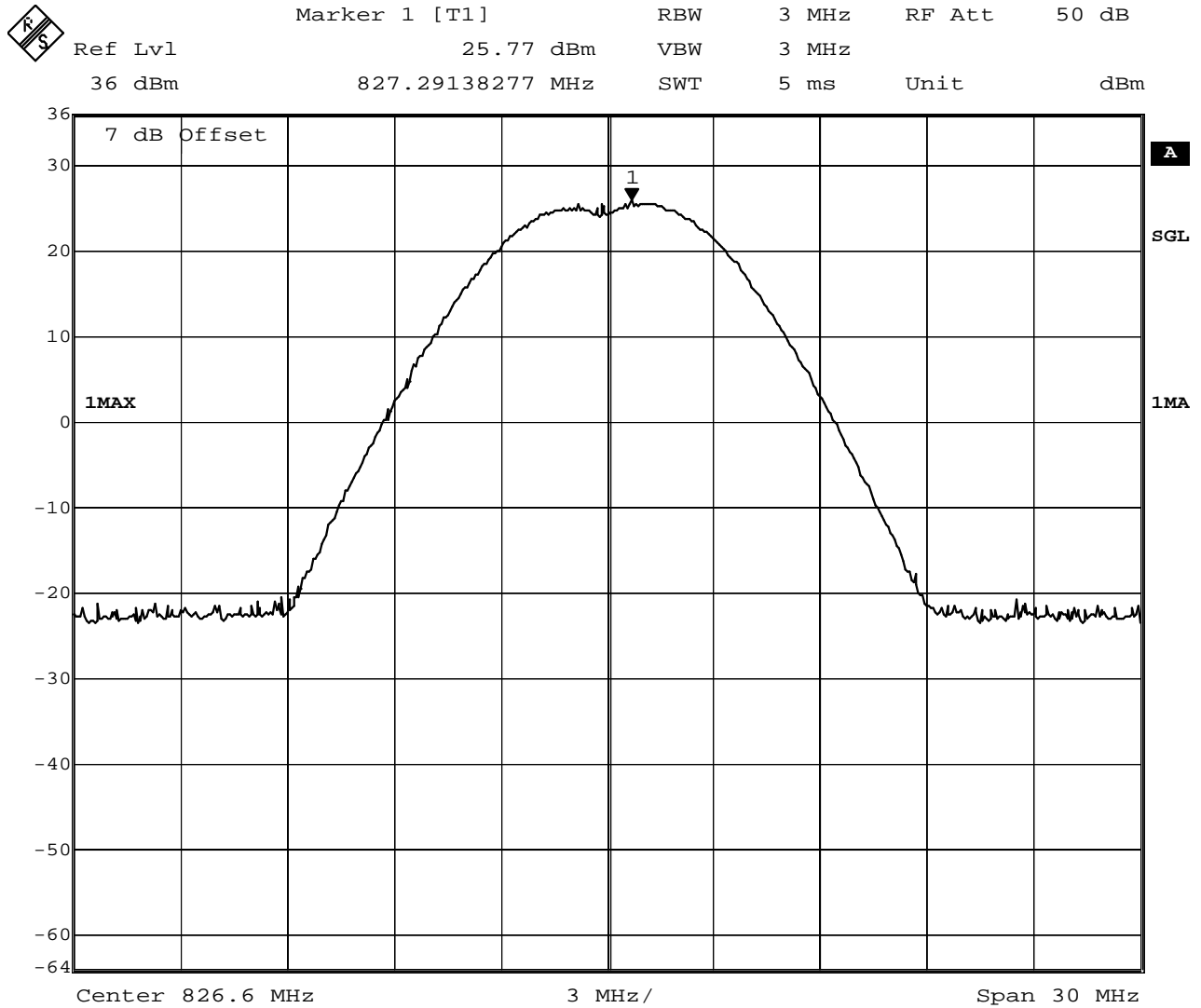
Date: 25.JUN.2008 13:06:52

**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4133 / HSUPA / subtest1
Comment 2	
Comment 3	



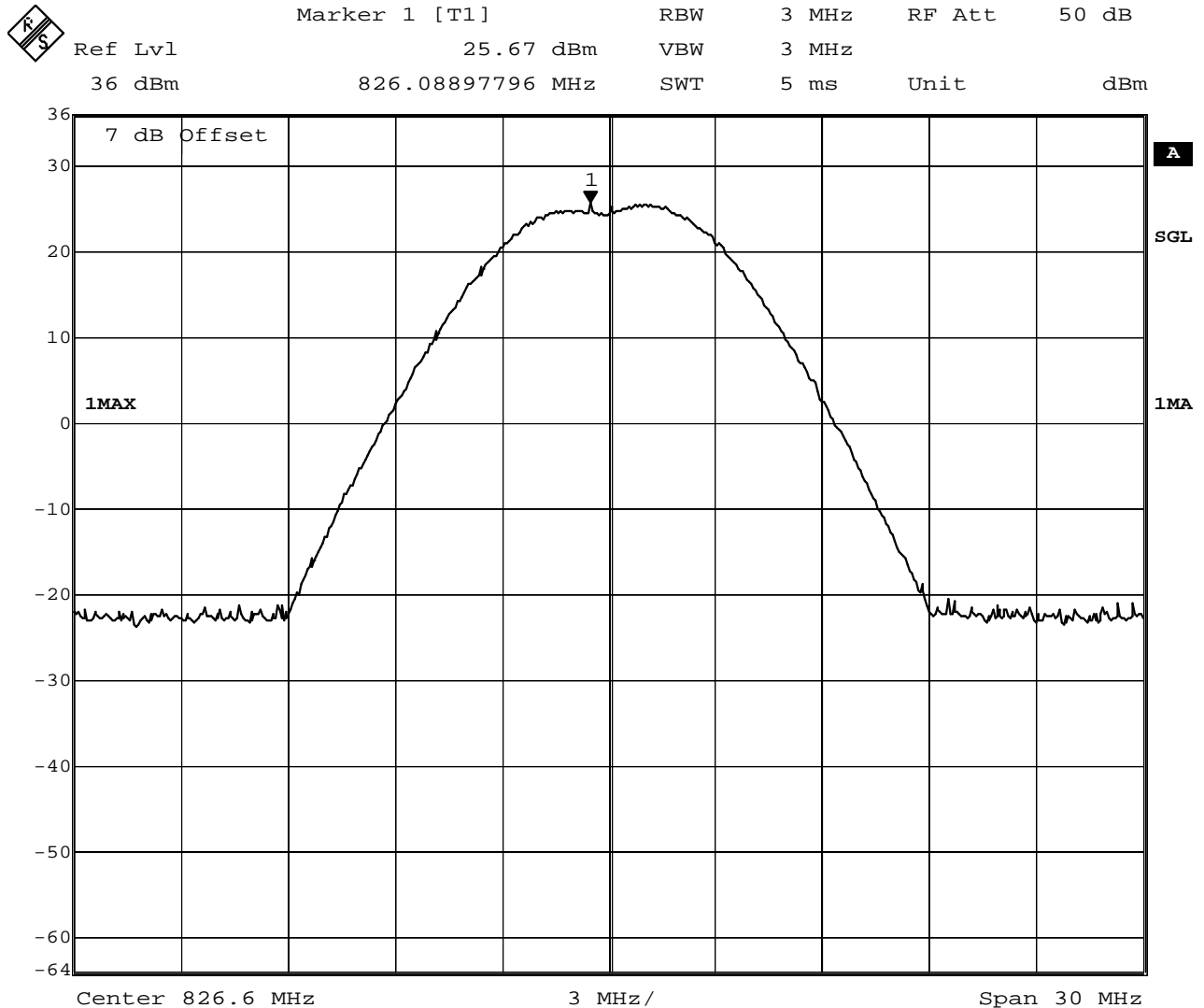
Date: 25.JUN.2008 13:42:58

**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4133 / HSUPA / subtest2
Comment 2	
Comment 3	



Date: 25.JUN.2008 13:45:09

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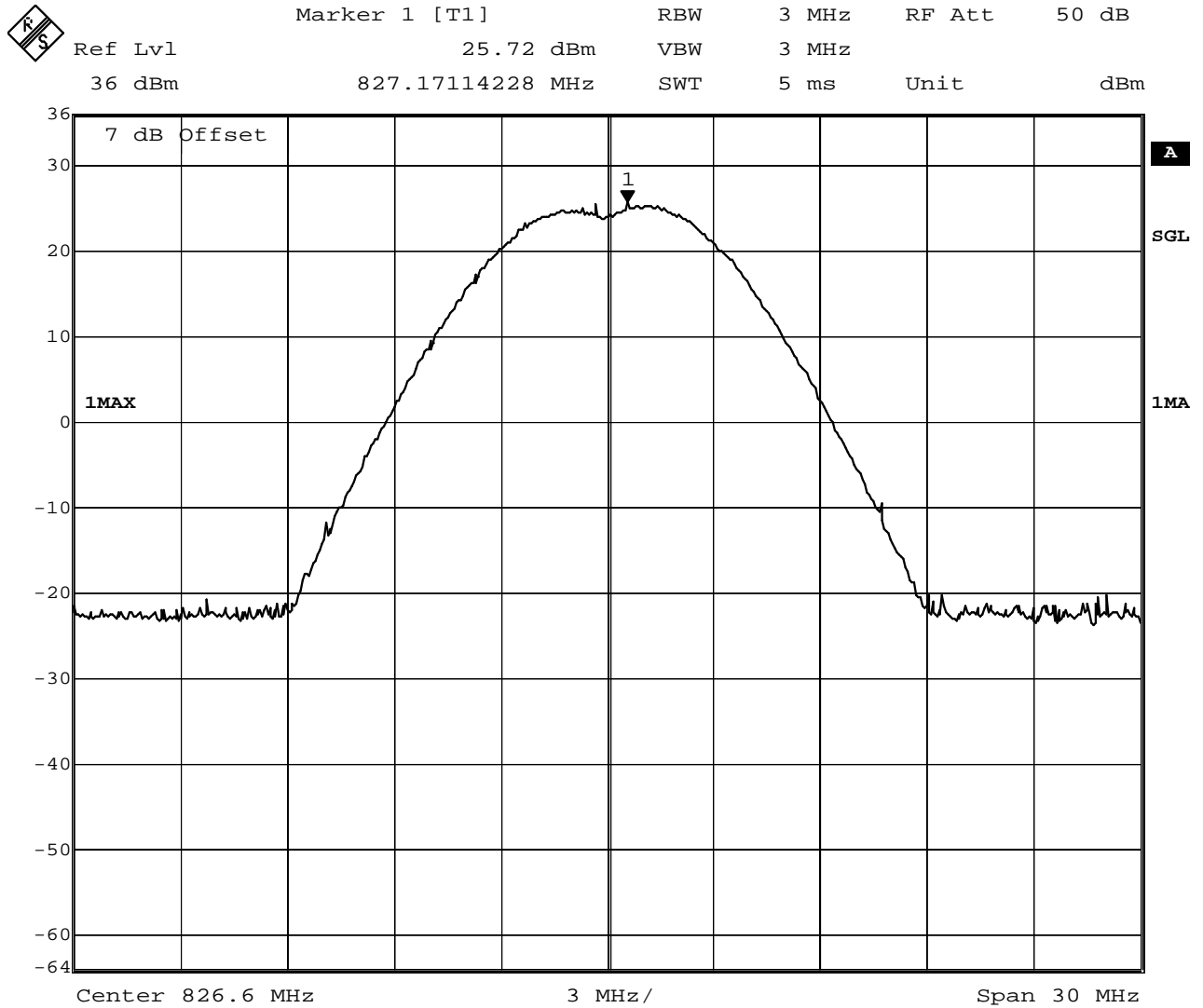
**Measurement diagram**


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 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4133 / HSUPA / subtest3
Comment 2	
Comment 3	



Date: 25.JUN.2008 13:46:05

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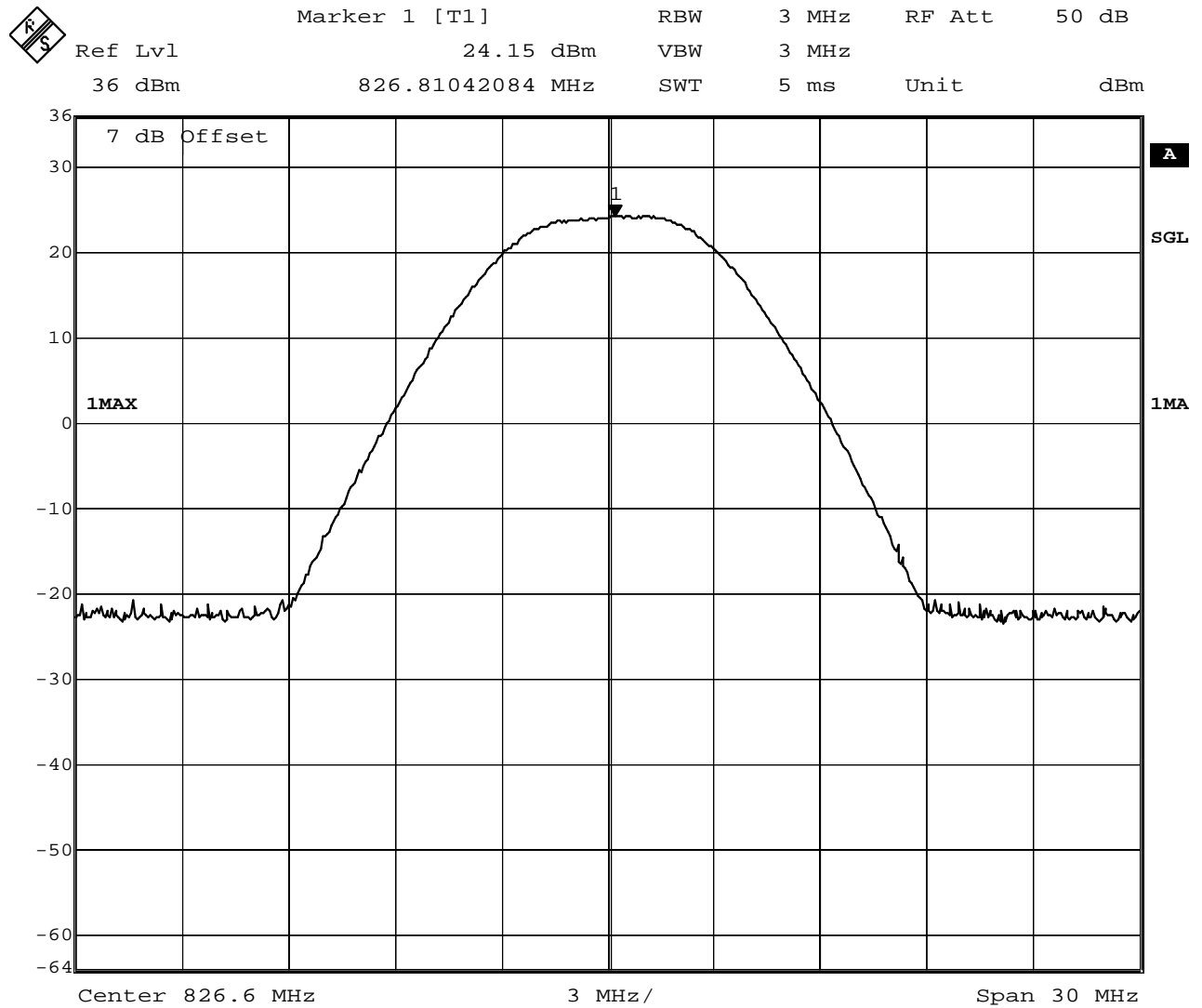
**Measurement diagram**


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 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

FCC Part 22 H  
Output power conducted

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4133 / HSUPA / subtest4
Comment 2	
Comment 3	

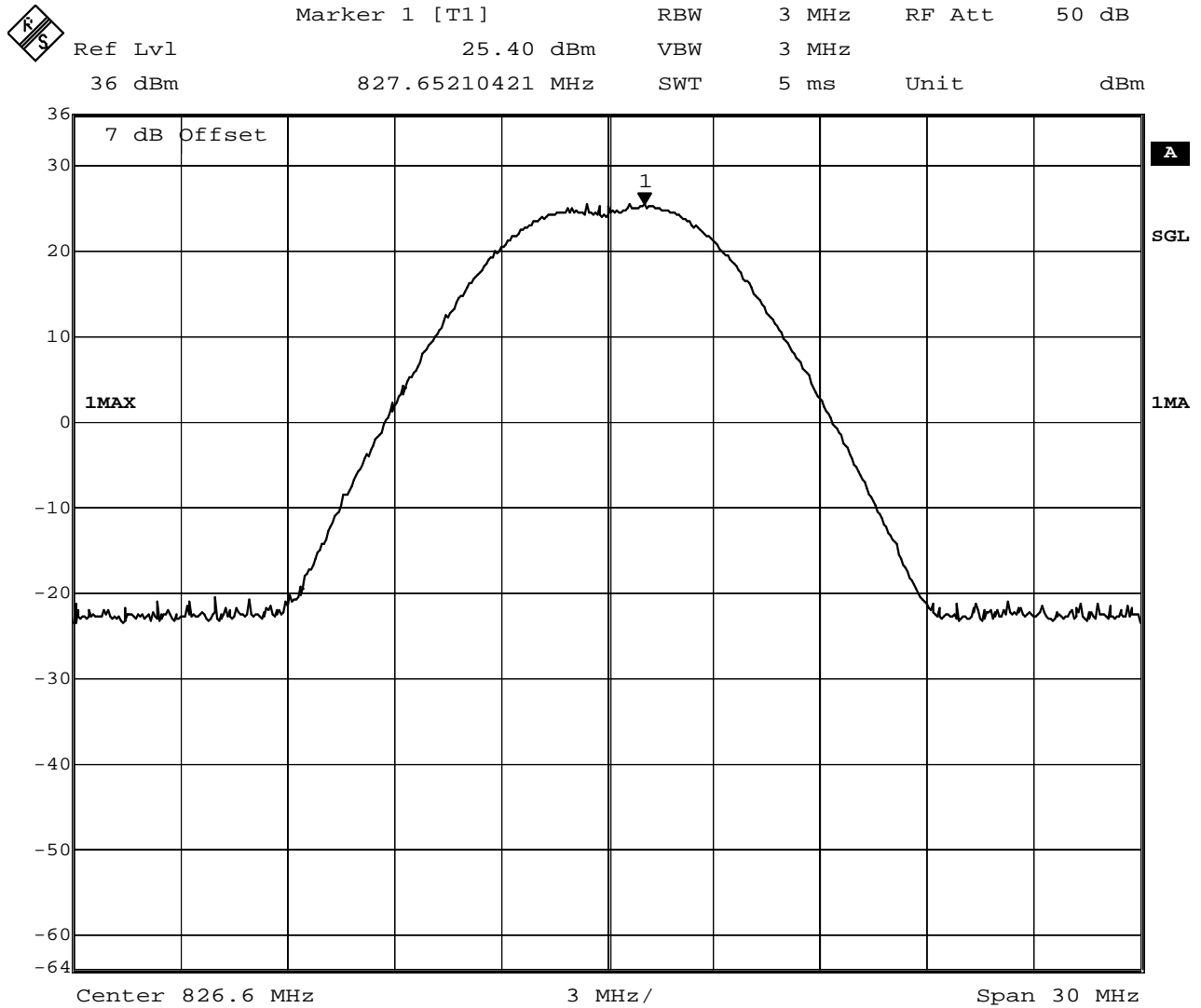


Date: 25.JUN.2008 13:46:43

Measurement diagram

**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4133 / HSUPA / subtest5
Comment 2	
Comment 3	



Date: 25.JUN.2008 13:47:19

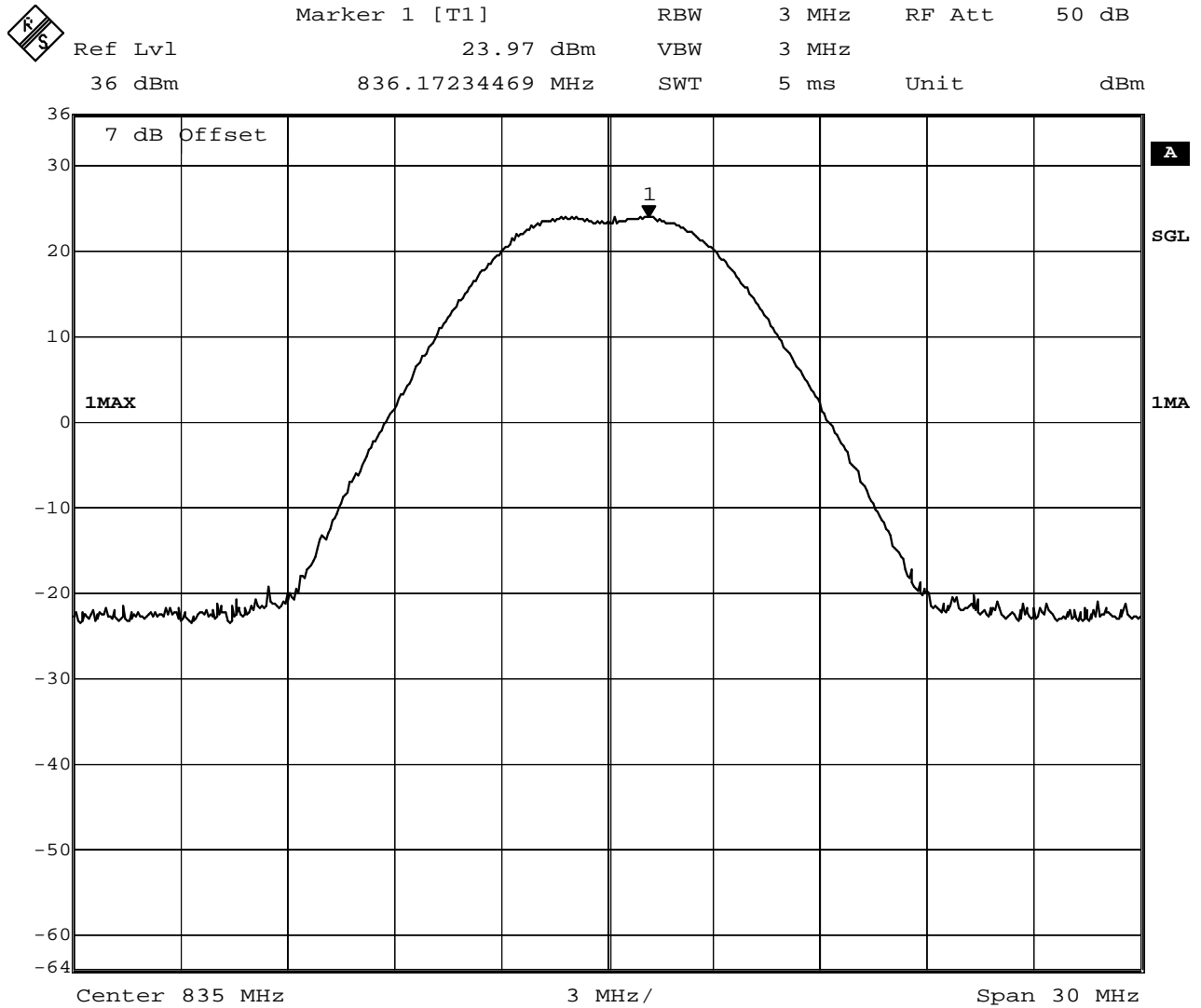
**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany



**FCC Part 22 H  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4175 / HSUPA / subtest 2
Comment 2	
Comment 3	



Date: 25.JUN.2008 13:51:14

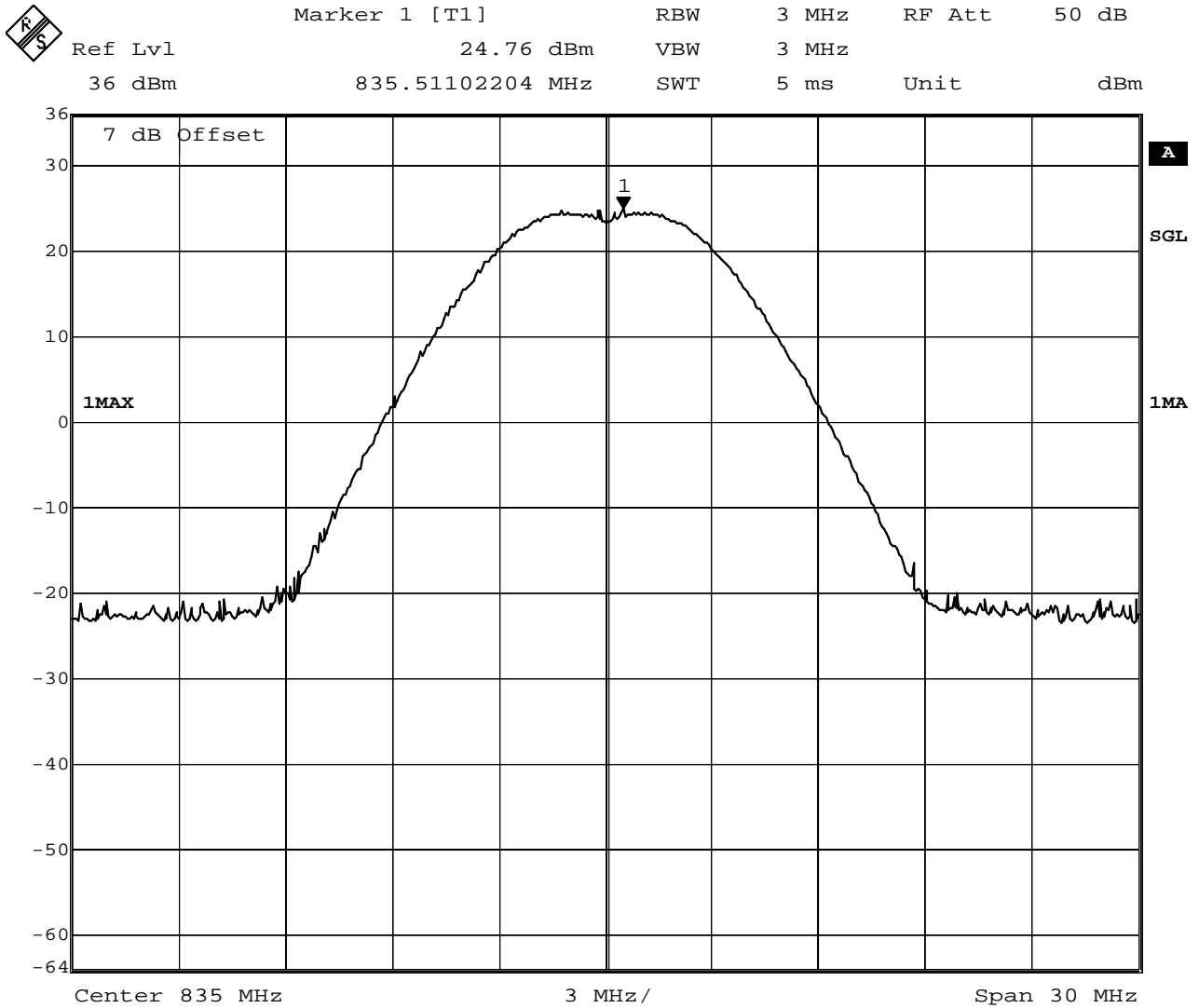
**Measurement diagram**

 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany



**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4175 / HSUPA / subtest 3
Comment 2	
Comment 3	



Date: 25.JUN.2008 13:50:39

Measurement diagram

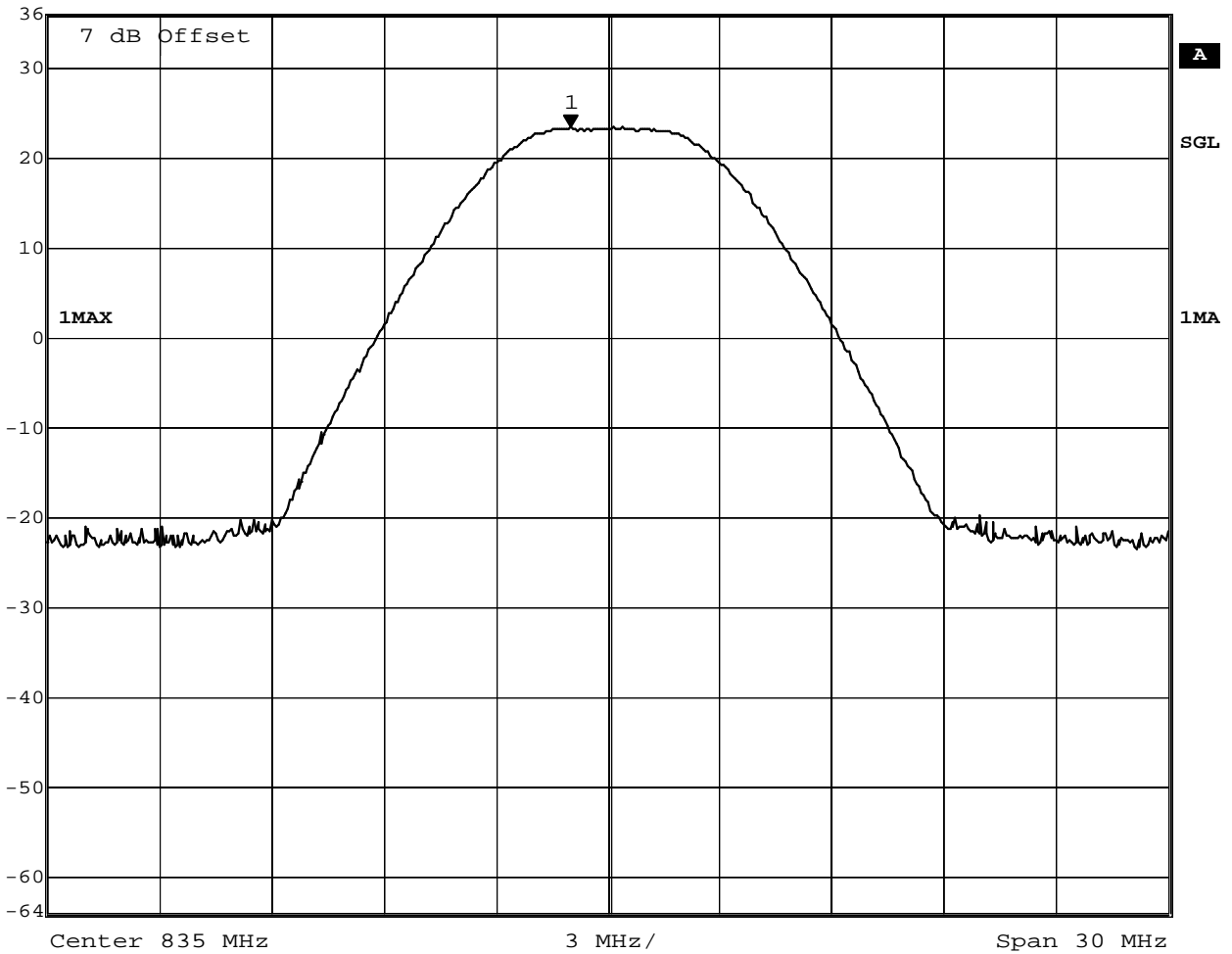
Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4175 / HSUPA / subtest 4
Comment 2	
Comment 3	



	Marker 1 [T1]	RBW	3 MHz	RF Att	50 dB
Ref Lvl	23.30 dBm	VBW	3 MHz		
36 dBm	834.00801603 MHz	SWT	5 ms	Unit	dBm



Date: 25.JUN.2008 13:49:59

**Measurement diagram**

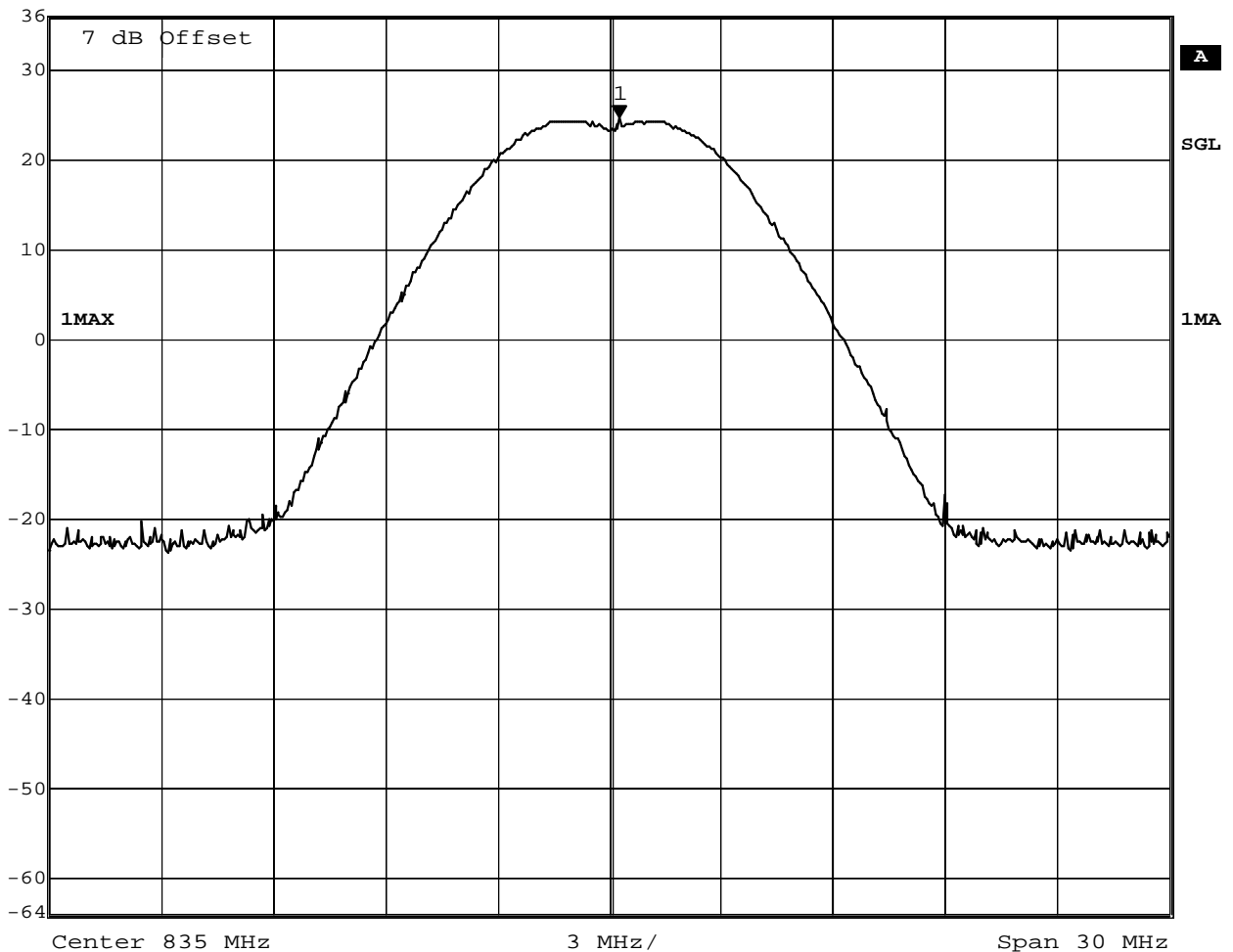
Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4175 / HSUPA / subtest 5
Comment 2	
Comment 3	



Ref Lvl	Marker 1 [T1]	RBW	3 MHz	RF Att	50 dB
36 dBm	24.51 dBm	VBW	3 MHz		
	835.27054108 MHz	SWT	5 ms	Unit	dBm



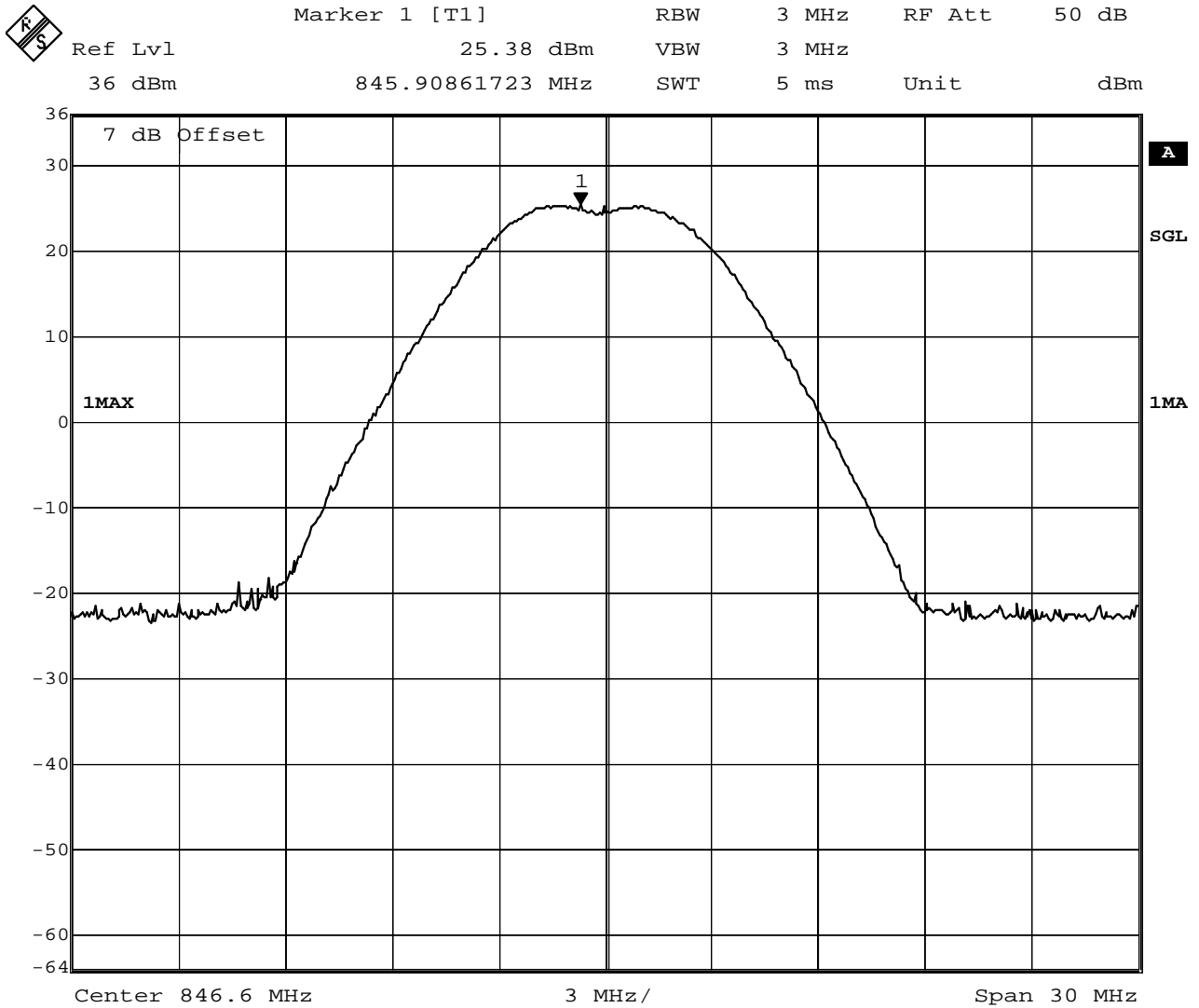
Date: 25.JUN.2008 13:49:06

**Measurement diagram**

 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSUPA / subtest 1
Comment 2	
Comment 3	



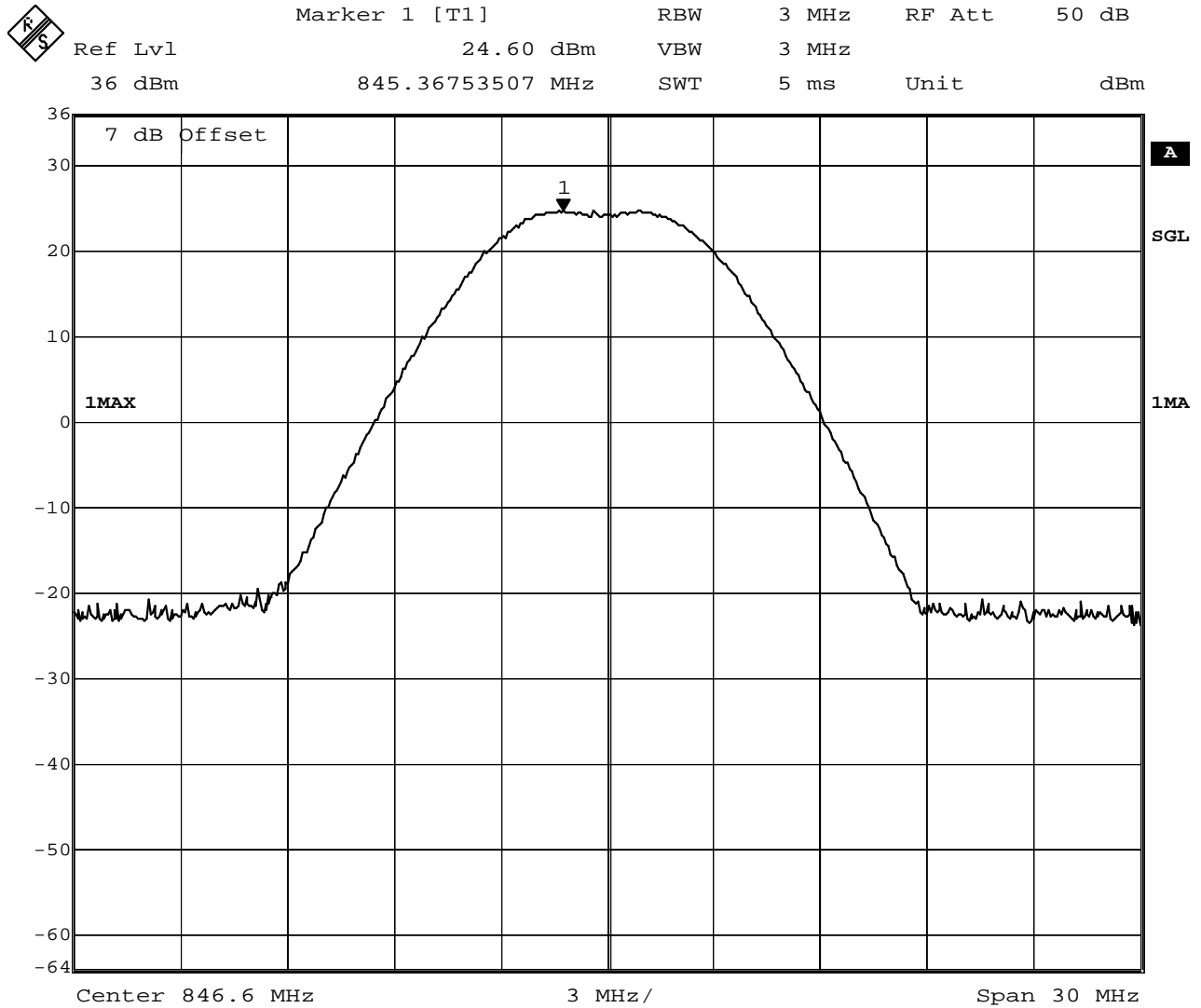
Date: 25.JUN.2008 13:56:41

**Measurement diagram**

Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSUPA / subtest 2
Comment 2	
Comment 3	



Date: 25.JUN.2008 13:57:17

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**Measurement diagram**


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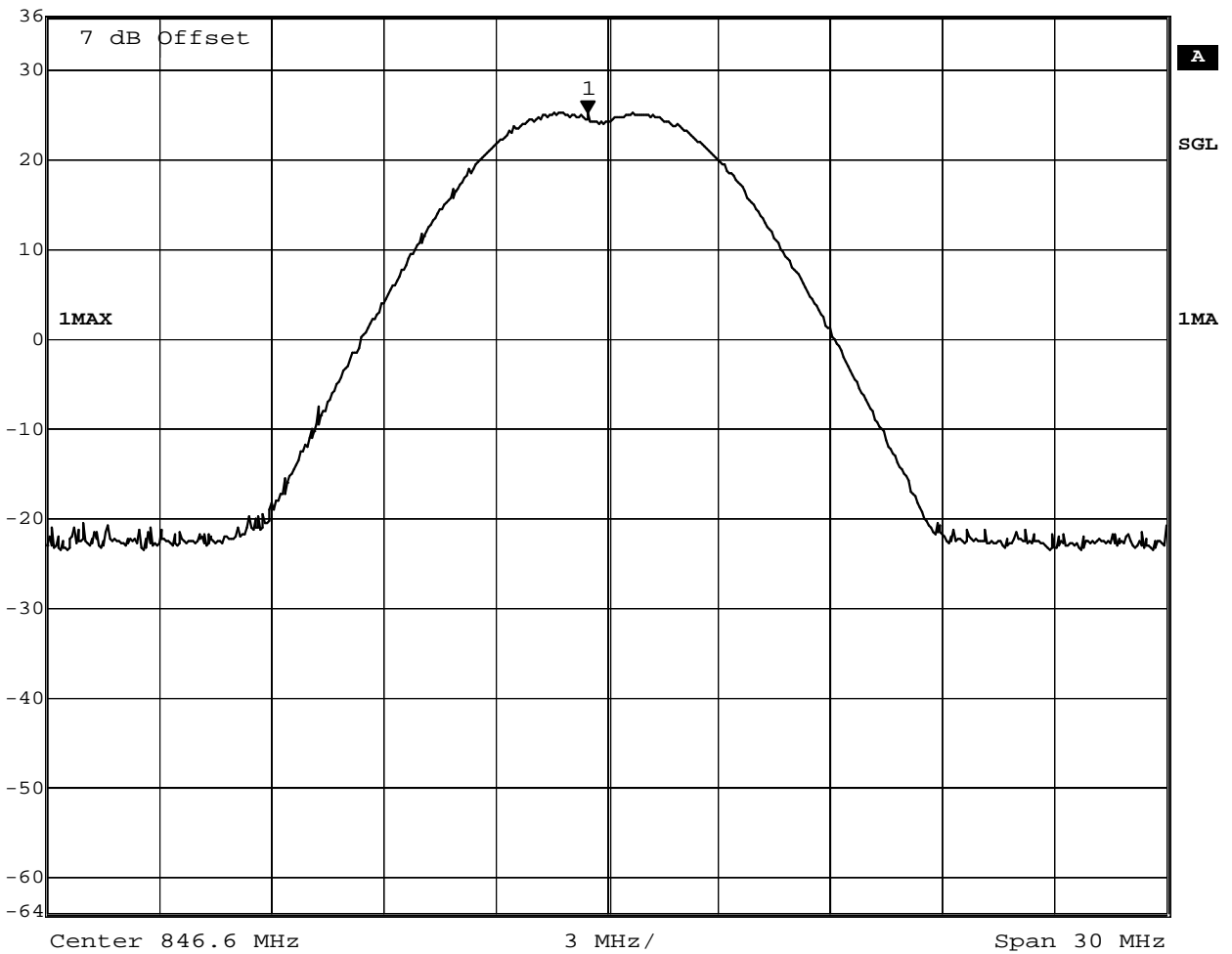
 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSUPA / subtest 3
Comment 2	
Comment 3	



Marker 1 [T1]	RBW	3 MHz	RF Att	50 dB
Ref Lvl	25.18 dBm	VBW	3 MHz	
36 dBm	846.08897796 MHz	SWT	5 ms	Unit dBm



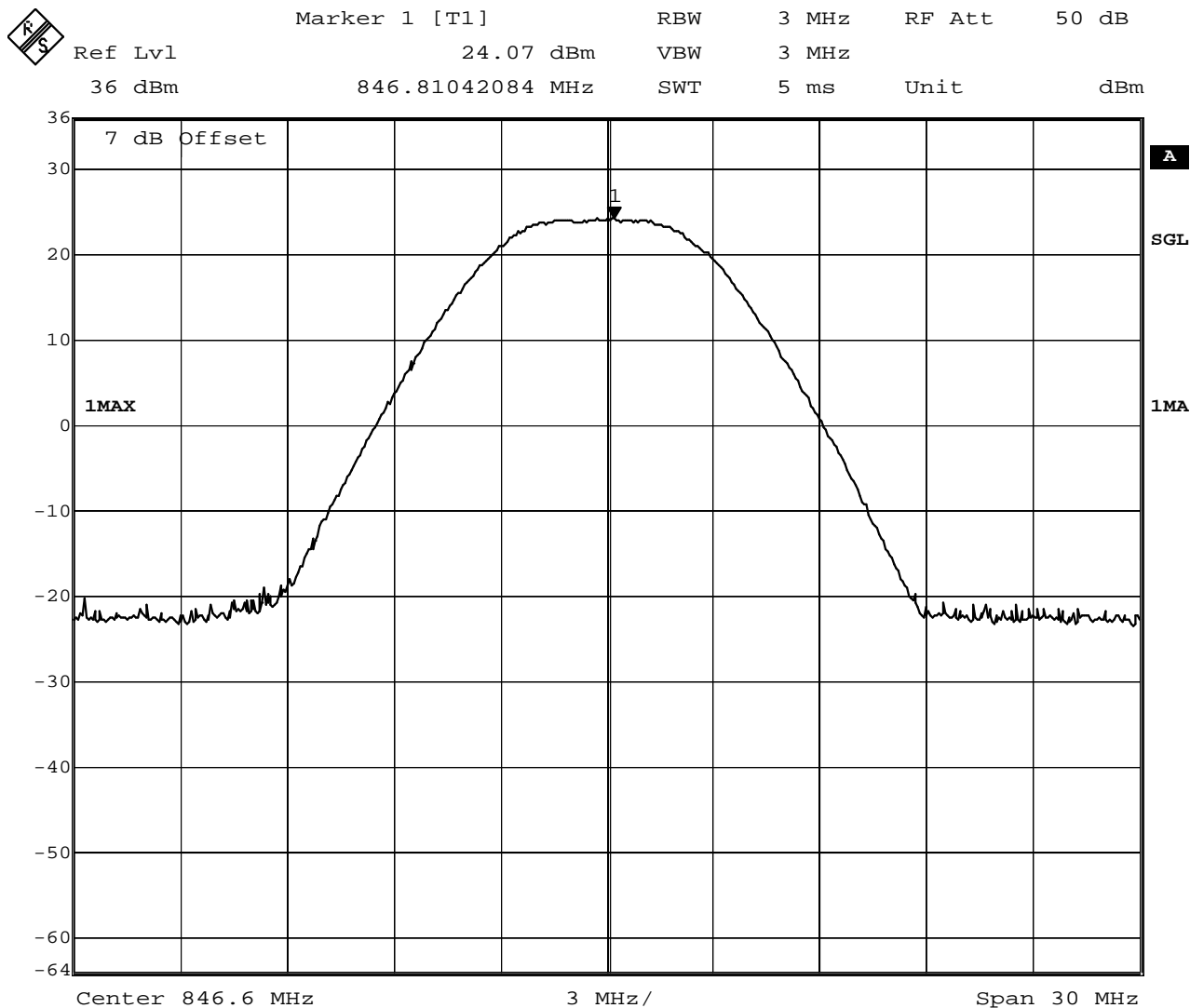
Date: 25.JUN.2008 13:59:55

Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSUPA / subtest 4
Comment 2	
Comment 3	

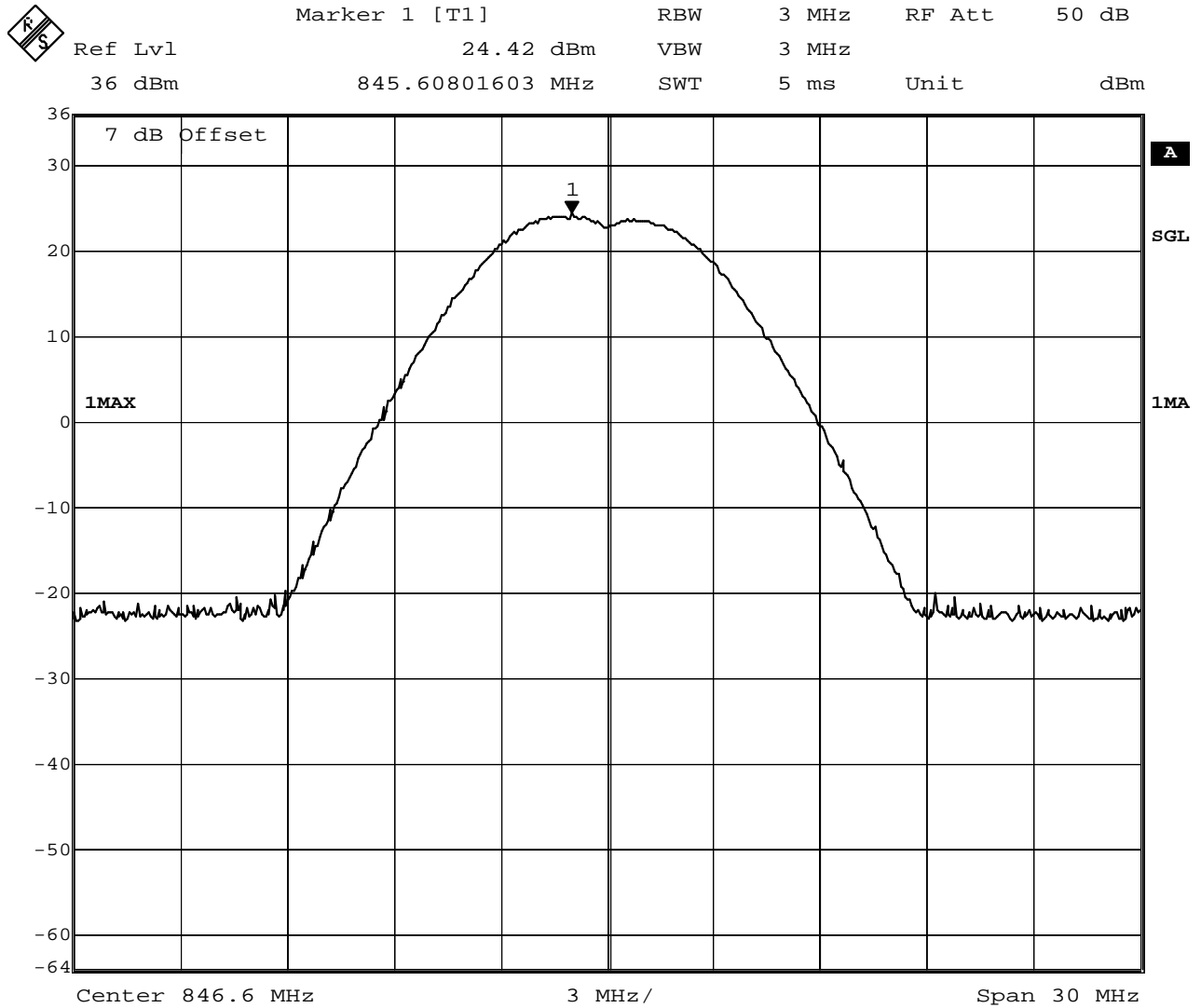


Date: 25.JUN.2008 14:00:44

**Measurement diagram**

**FCC Part 22 H**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSUPA / subtest 5
Comment 2	
Comment 3	



Date: 25.JUN.2008 14:08:06

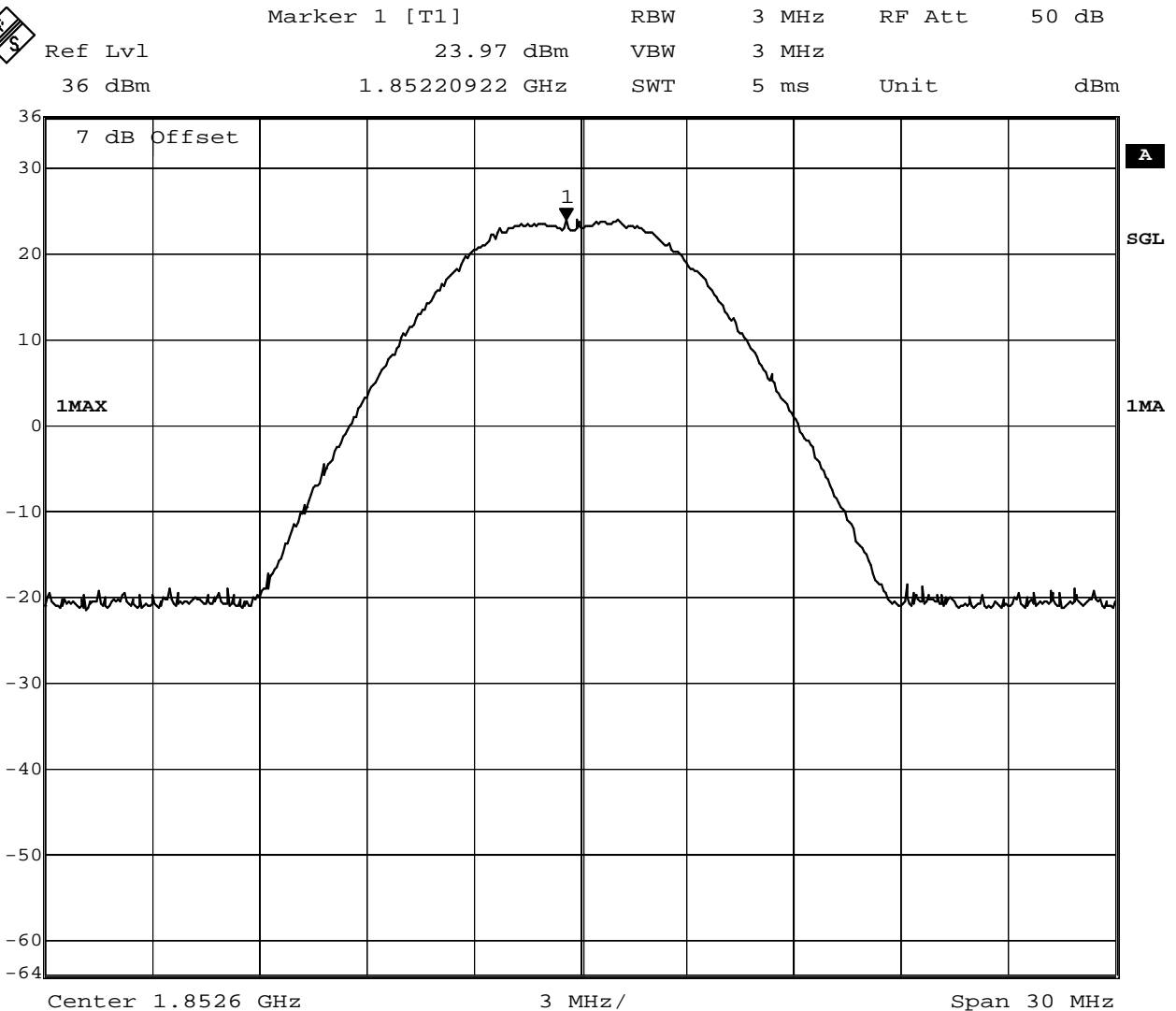
Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany



FCC Part 24 E  
Output power conducted

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9263 / HSUPA / subtest 1
Comment 2	
Comment 3	



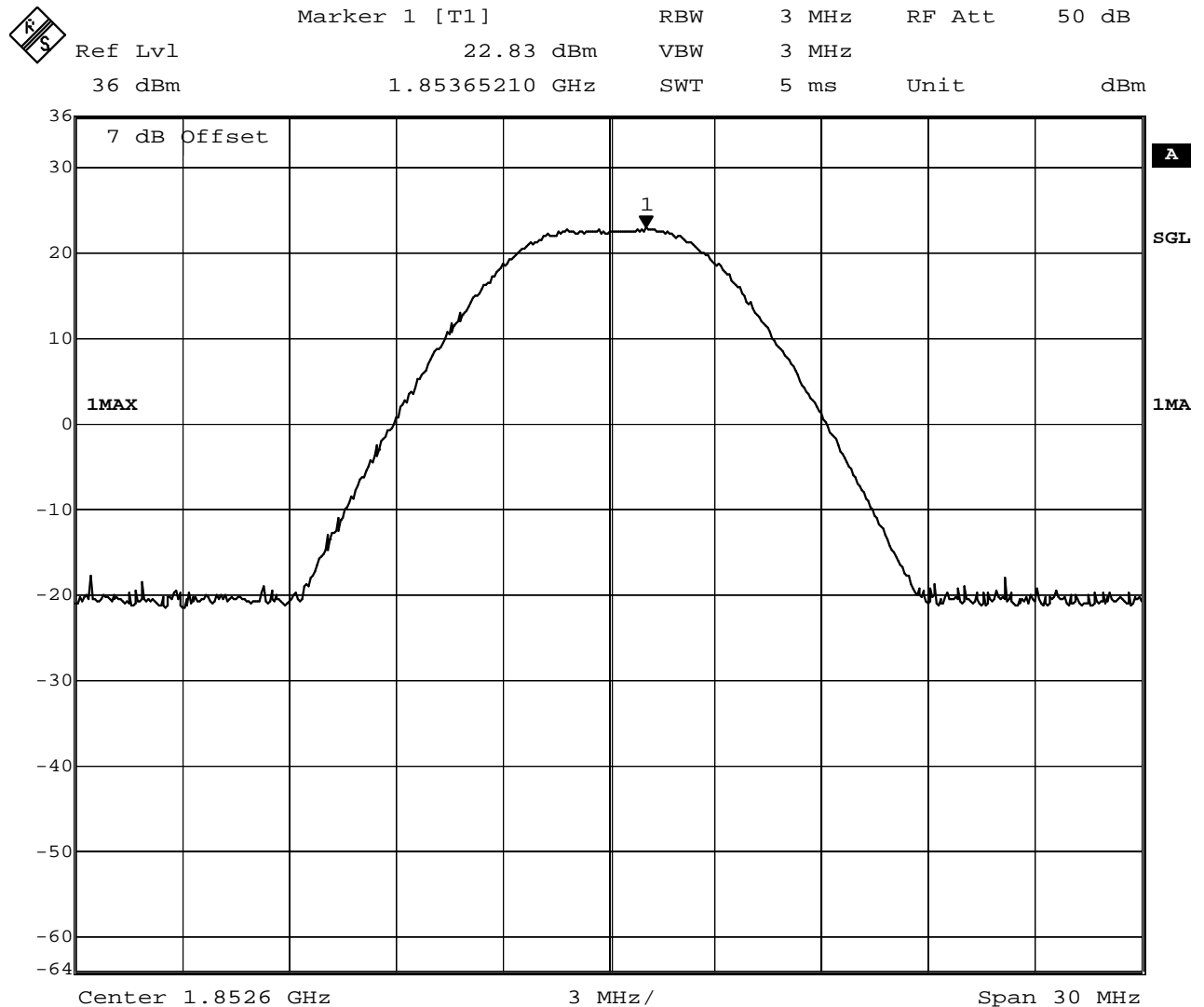
Date: 25.JUN.2008 12:23:24

Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

### FCC Part 24 E Output power conducted

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9263 / HSUPA / subtest 2
Comment 2	
Comment 3	



Date: 25.JUN.2008 12:26:39

#### Measurement diagram

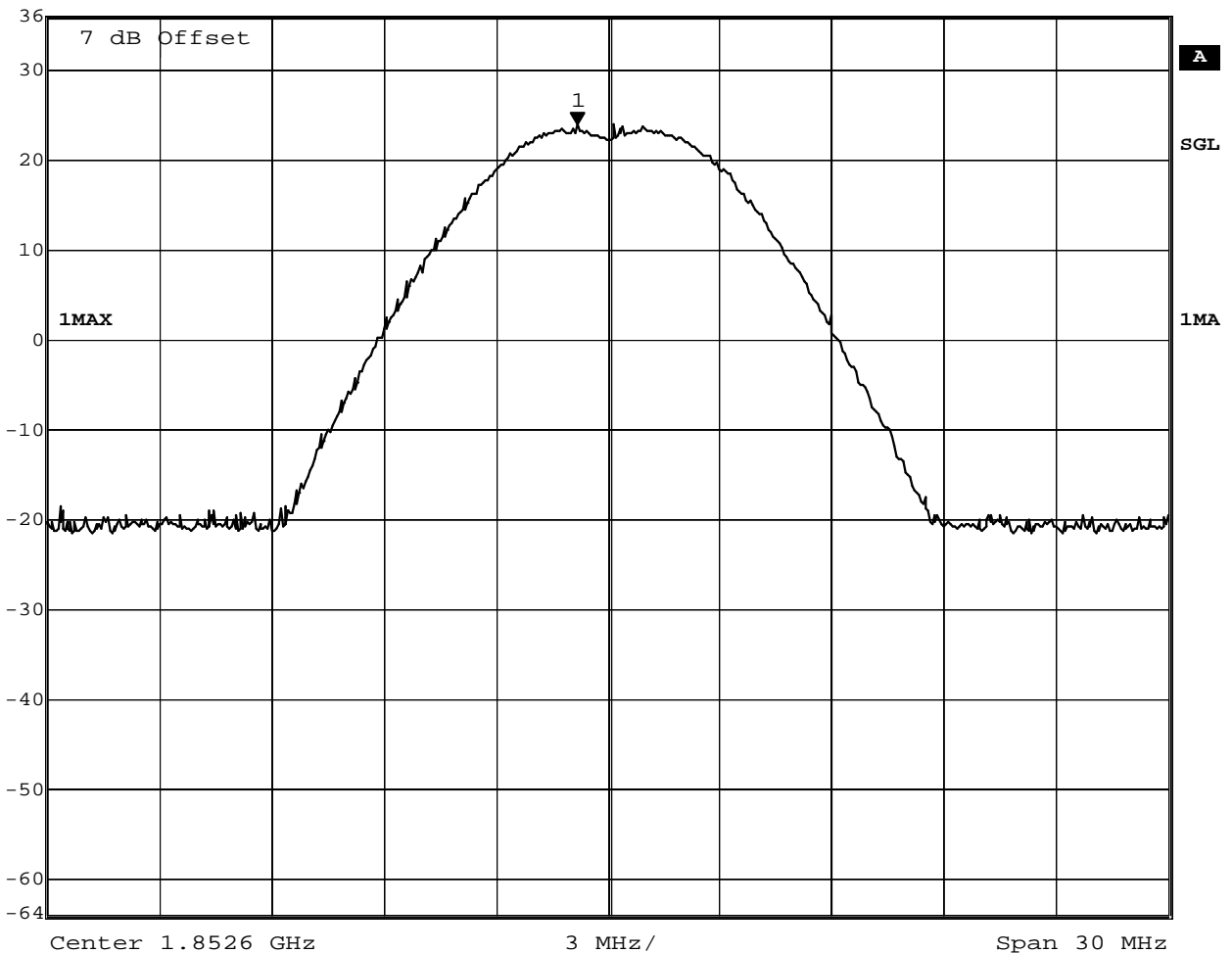
Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9263 / HSUPA / subtest 3
Comment 2	
Comment 3	



Marker 1 [T1]	RBW	3 MHz	RF Att	50 dB
Ref Lvl	23.87 dBm	VBW	3 MHz	
36 dBm	1.85178838 GHz	SWT	5 ms	Unit dBm



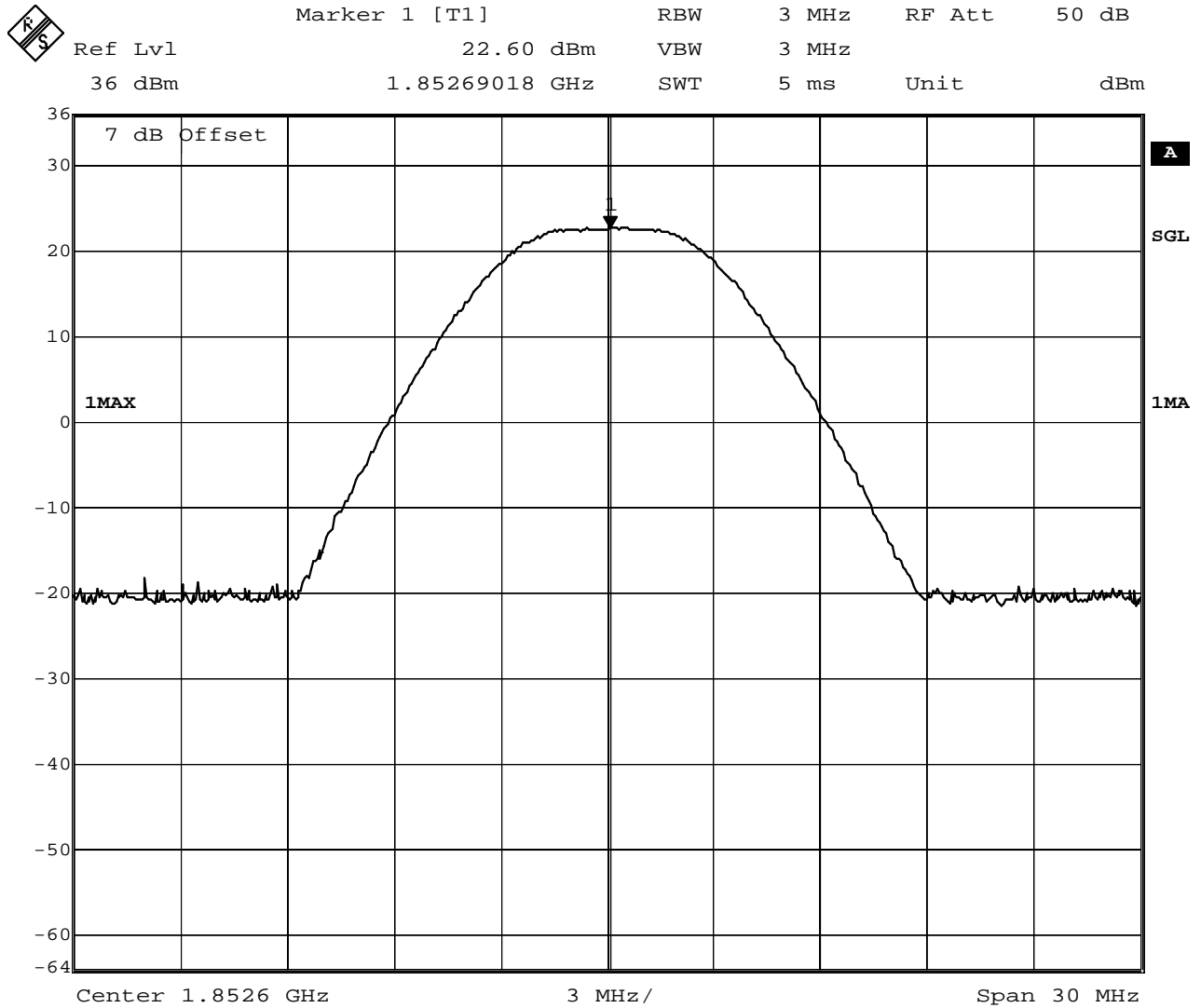
Date: 25.JUN.2008 12:32:11

Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9263 / HSUPA / subtest 4
Comment 2	
Comment 3	

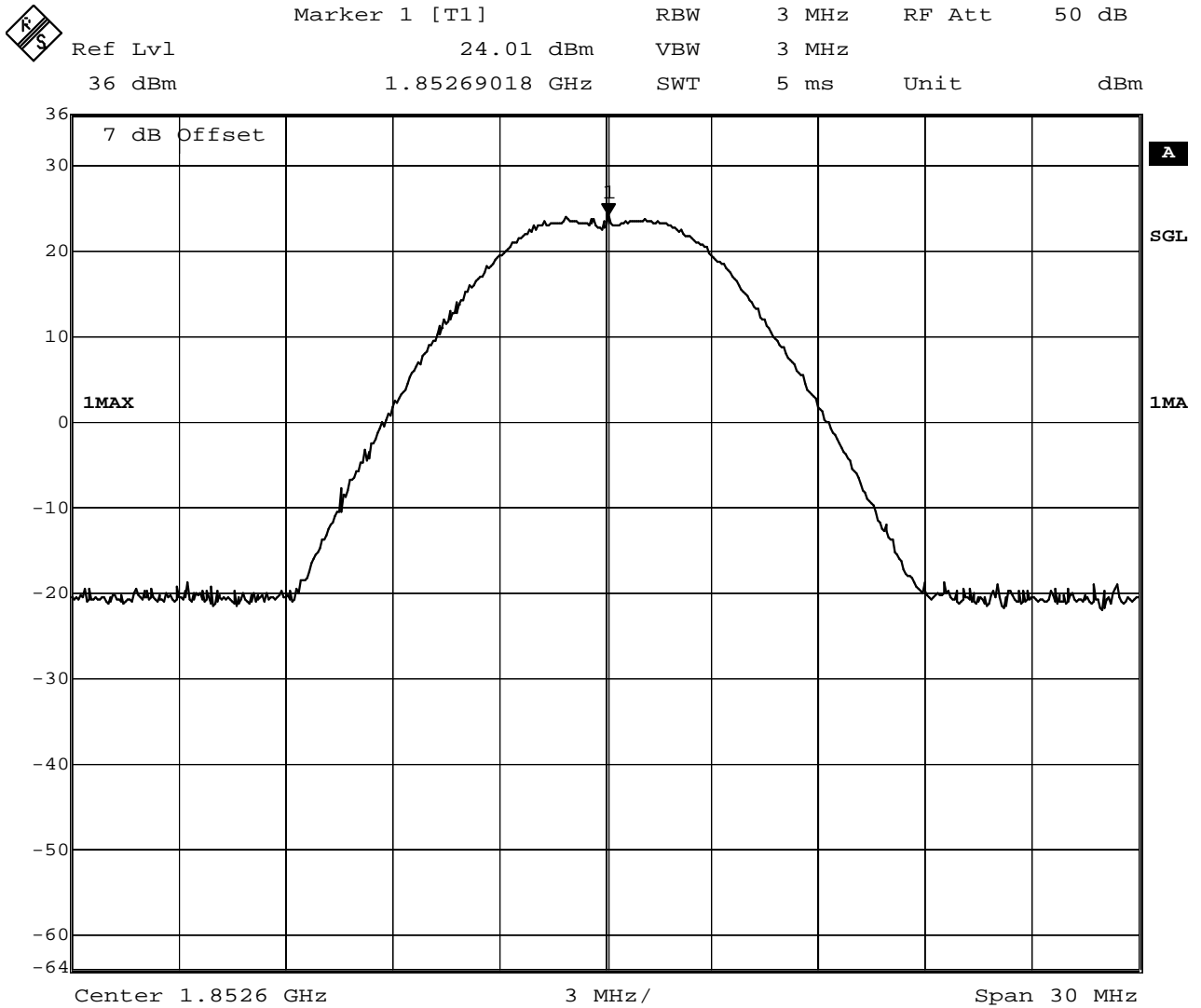


Date: 25.JUN.2008 12:38:37

**Measurement diagram**Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9263 / HSUPA / subtest 5
Comment 2	
Comment 3	



Date: 25.JUN.2008 12:40:16

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**Measurement diagram**

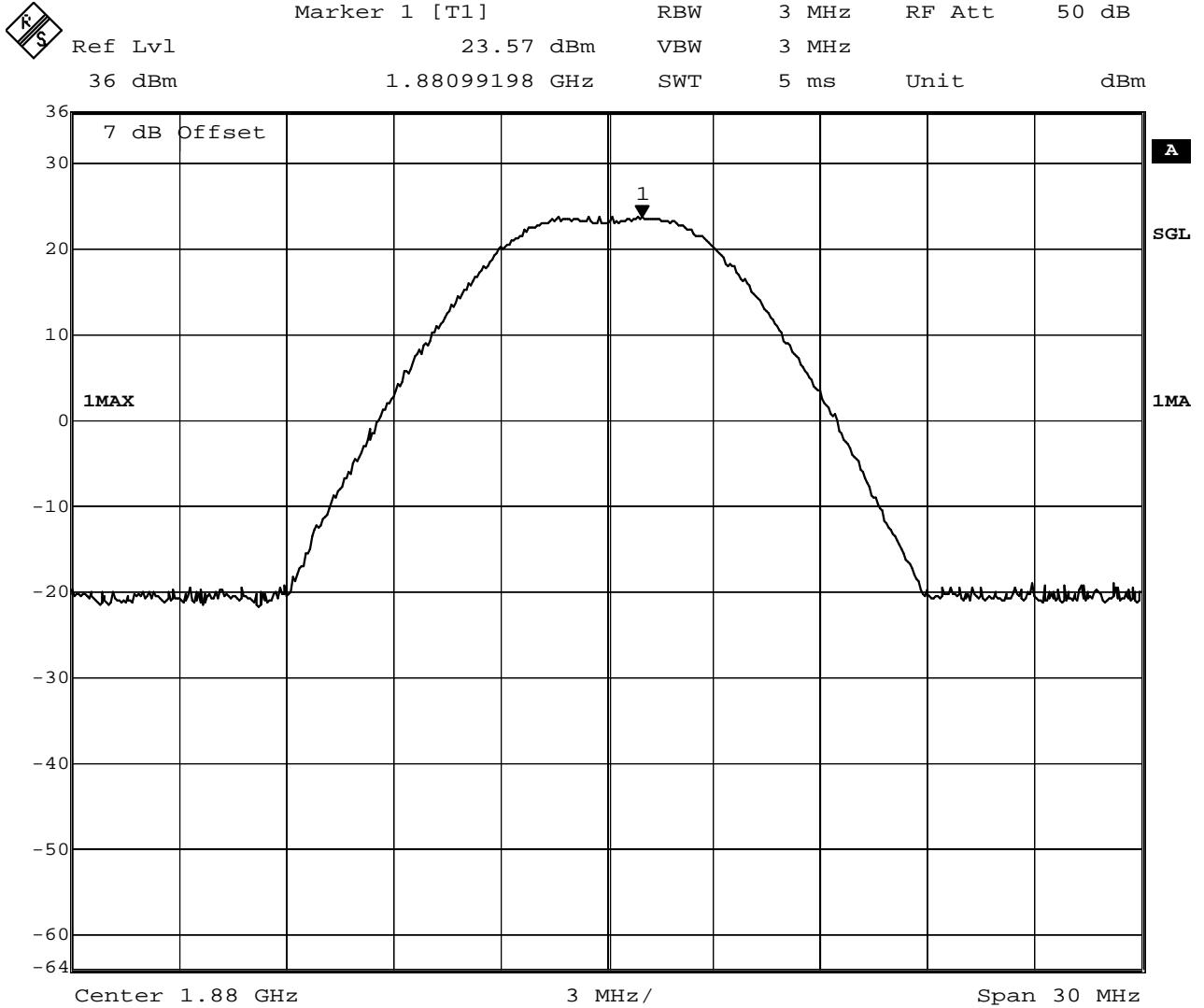

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 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany



**FCC Part 24 E  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9400 / HSUPA / subtest 2
Comment 2	
Comment 3	



Date: 25.JUN.2008 12:49:23

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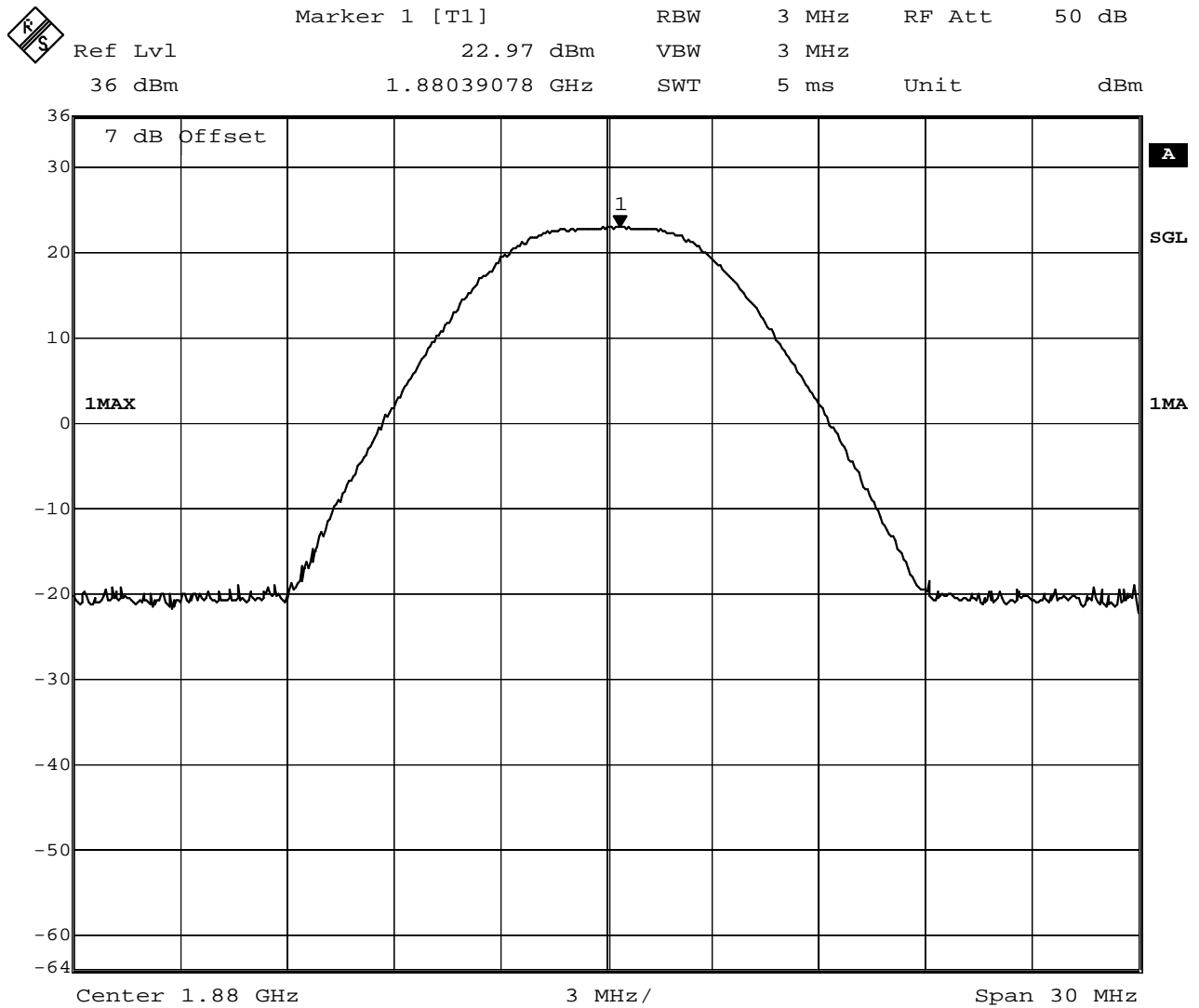
**Measurement diagram**


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 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9400 / HSUPA / subtest 4
Comment 2	
Comment 3	



Date: 25.JUN.2008 12:47:18

**Measurement diagram**

 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

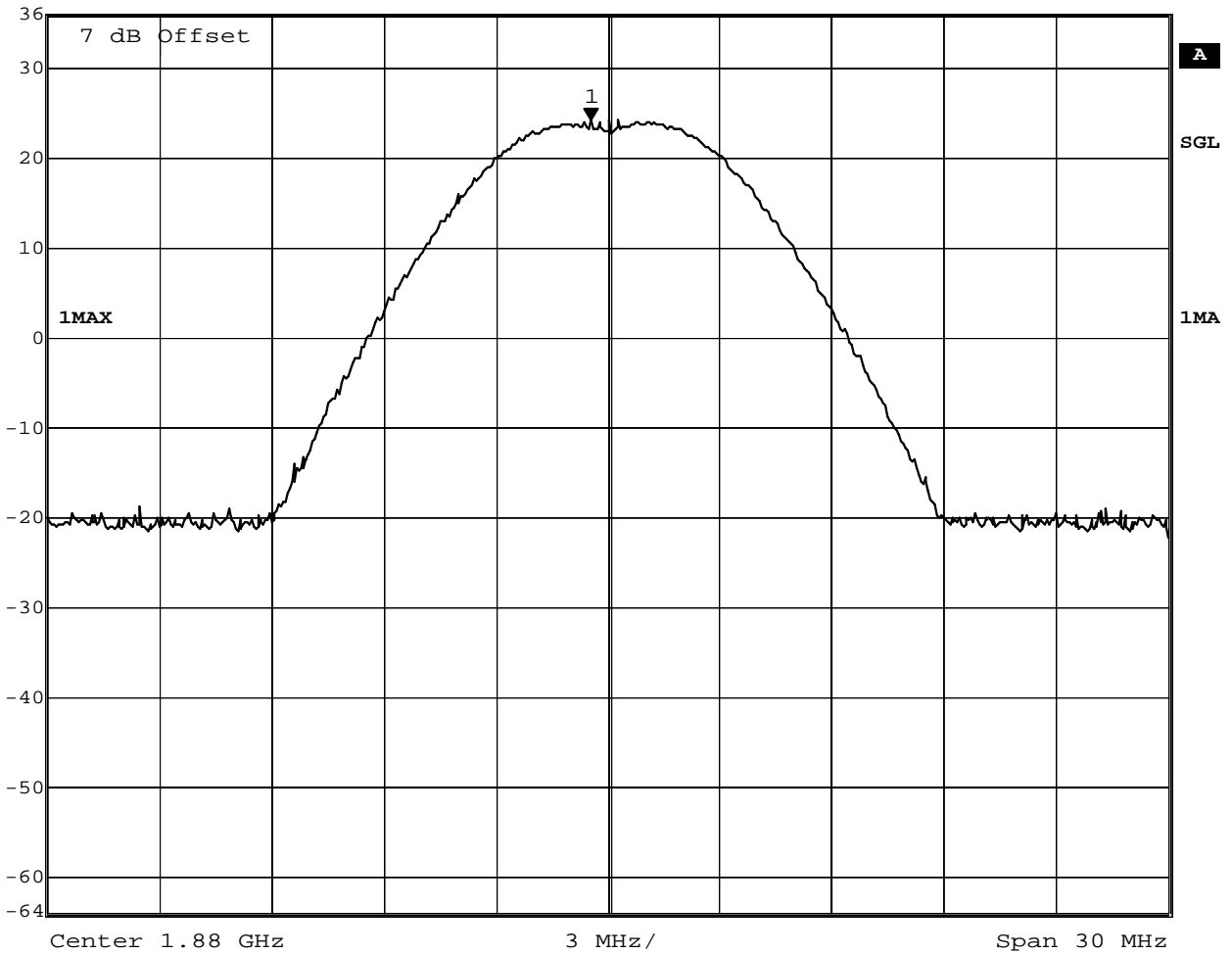


**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9400 / HSUPA / subtest 5
Comment 2	
Comment 3	



Marker 1 [T1]	RBW	3 MHz	RF Att	50 dB
Ref Lvl	24.08 dBm	VBW	3 MHz	
36 dBm	1.87954910 GHz	SWT	5 ms	Unit dBm



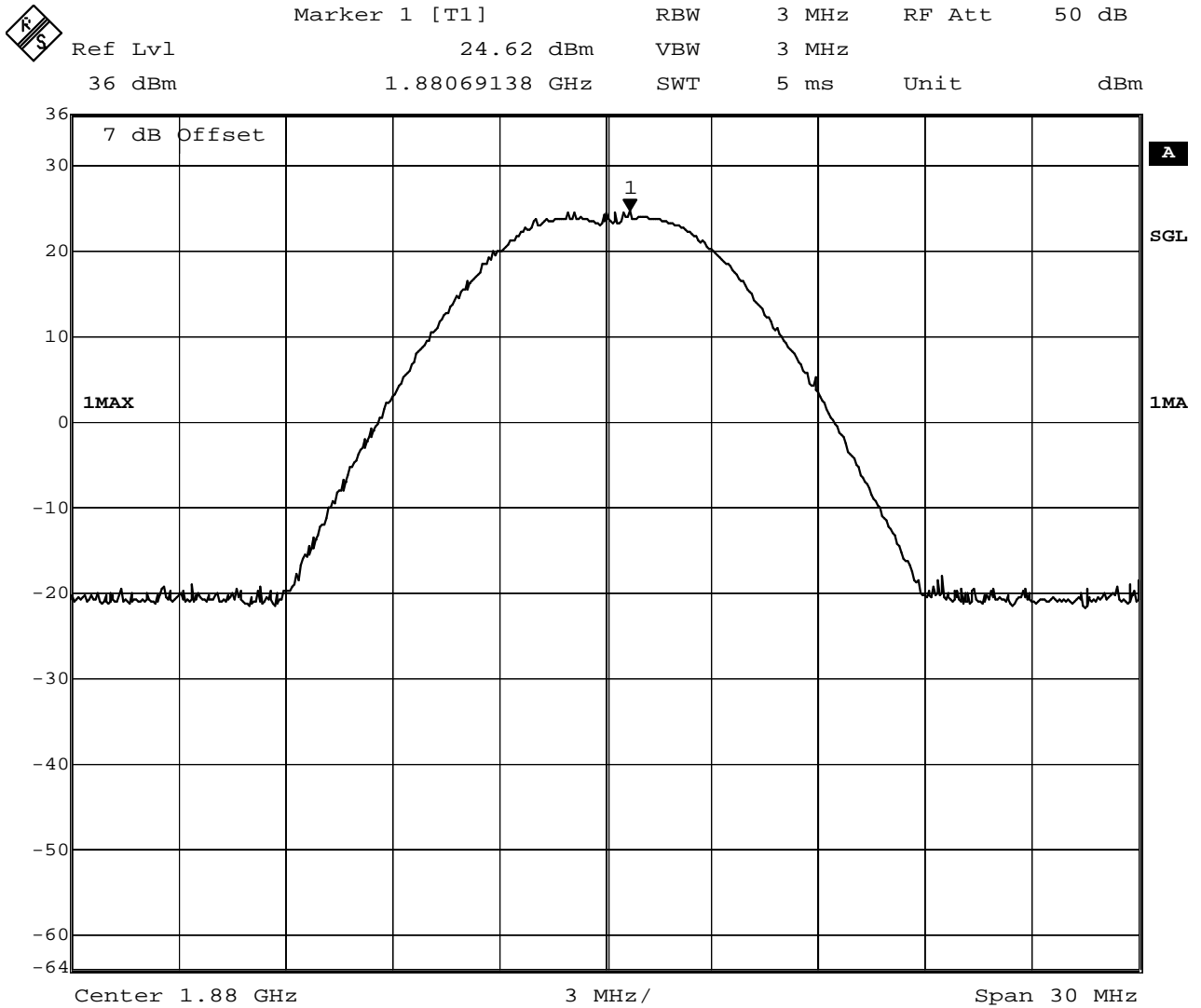
Date: 25.JUN.2008 12:44:54

Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9400 / HSUPA / subtest 3
Comment 2	
Comment 3	



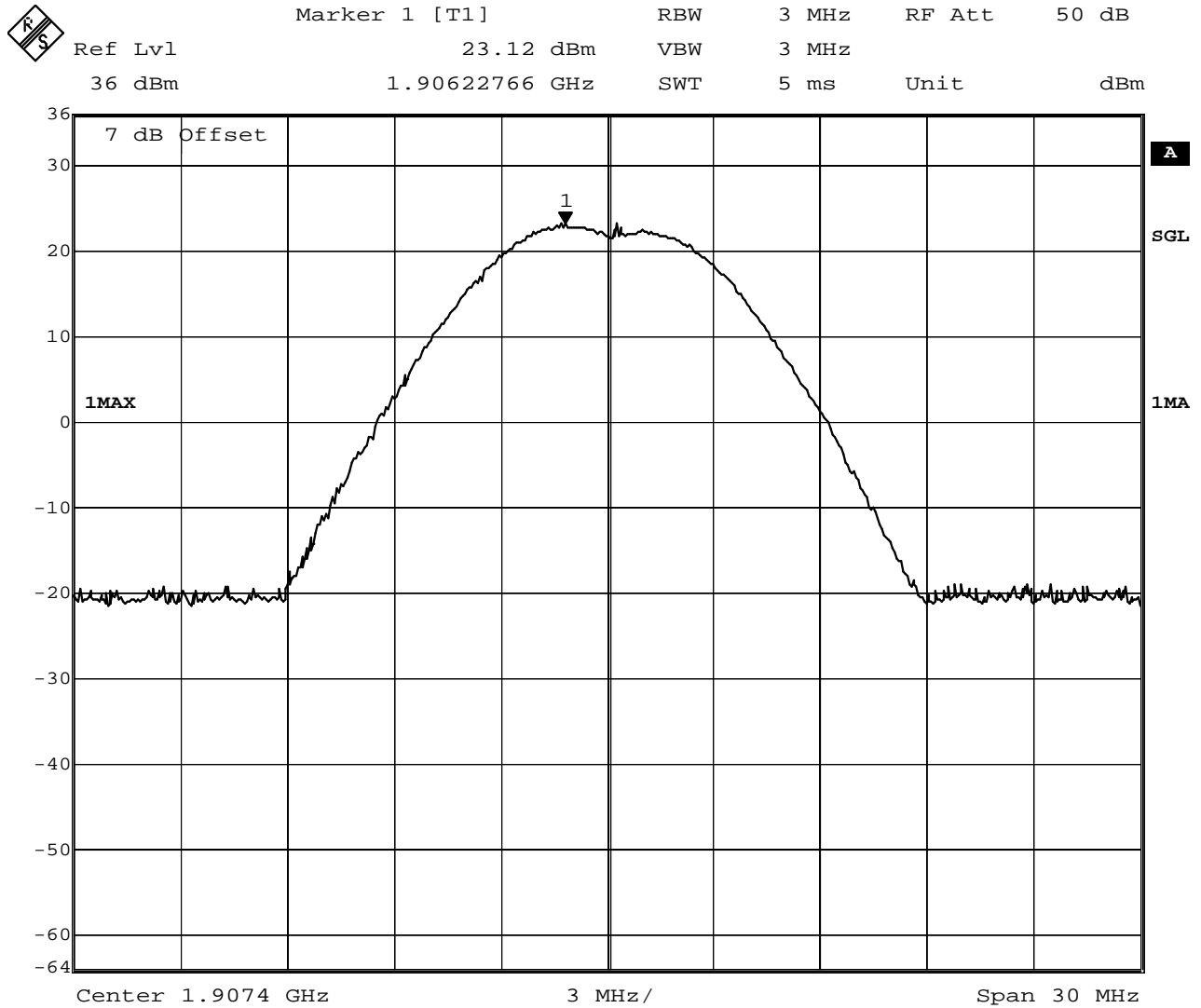
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**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9537 / HSUPA / subtest 1
Comment 2	
Comment 3	



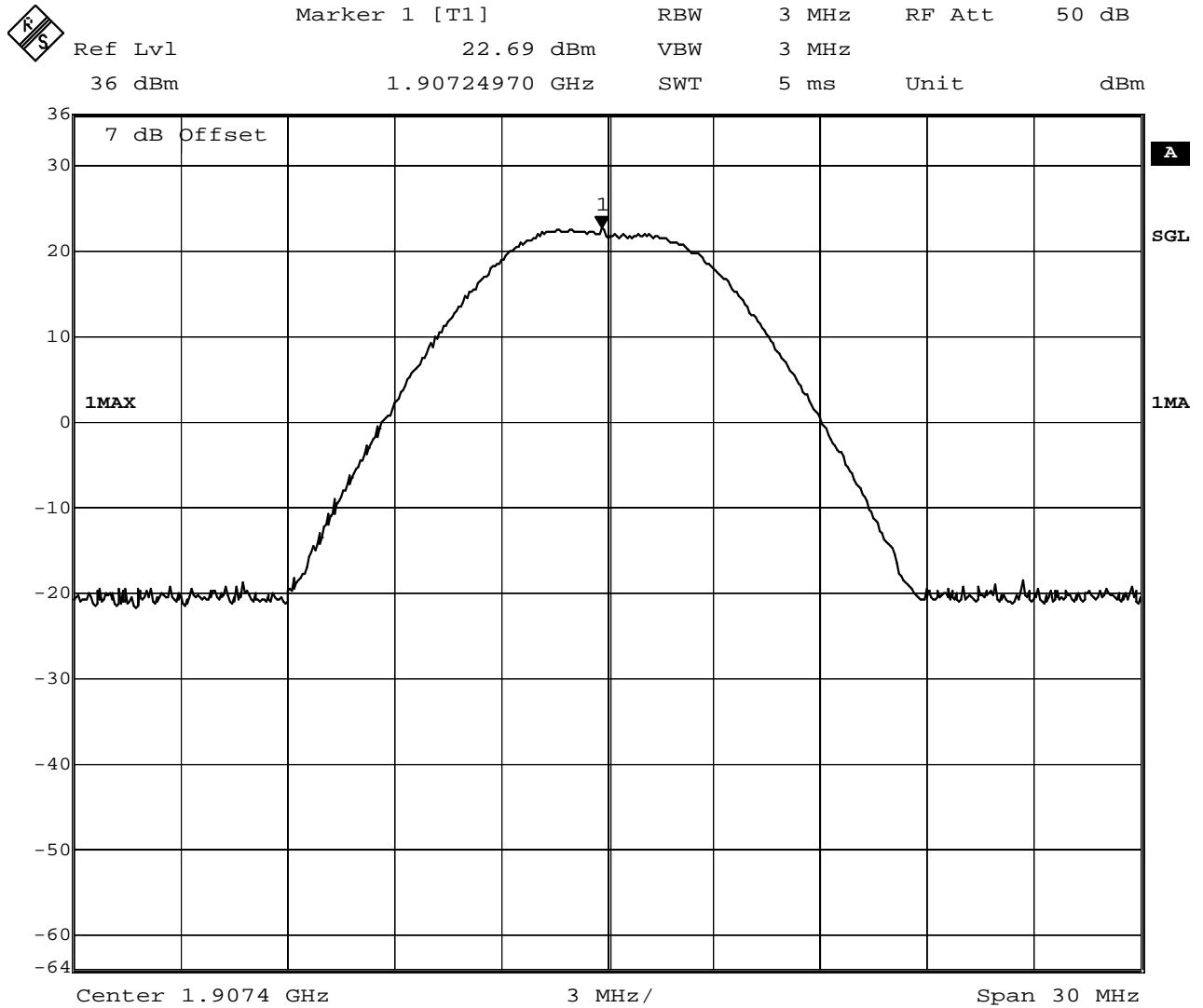
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Measurement diagram

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9537 / HSUPA / subtest 2
Comment 2	
Comment 3	



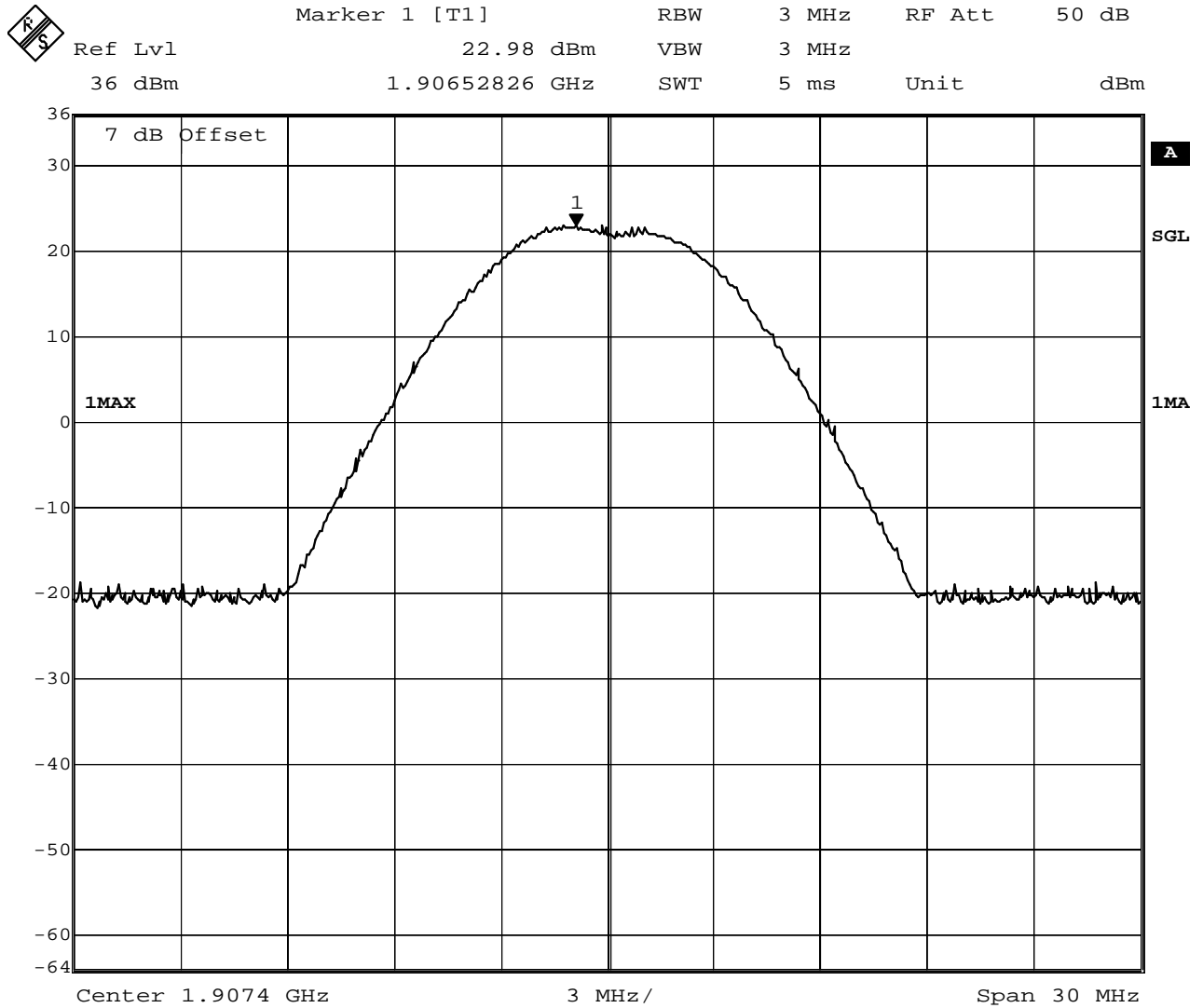
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**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E  
Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9537 / HSUPA / subtest 3
Comment 2	
Comment 3	



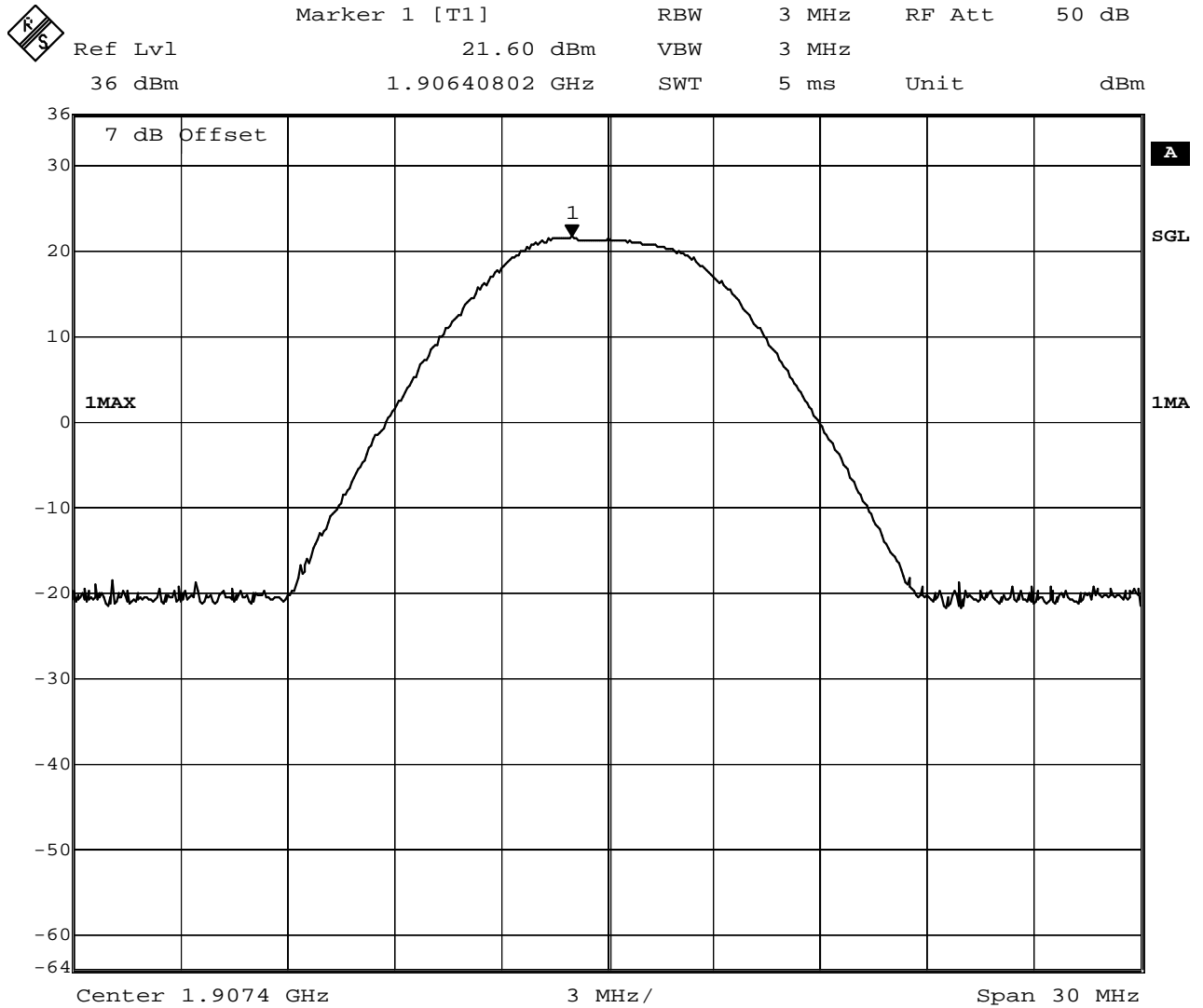
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**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9537 / HSUPA / subtest 4
Comment 2	
Comment 3	



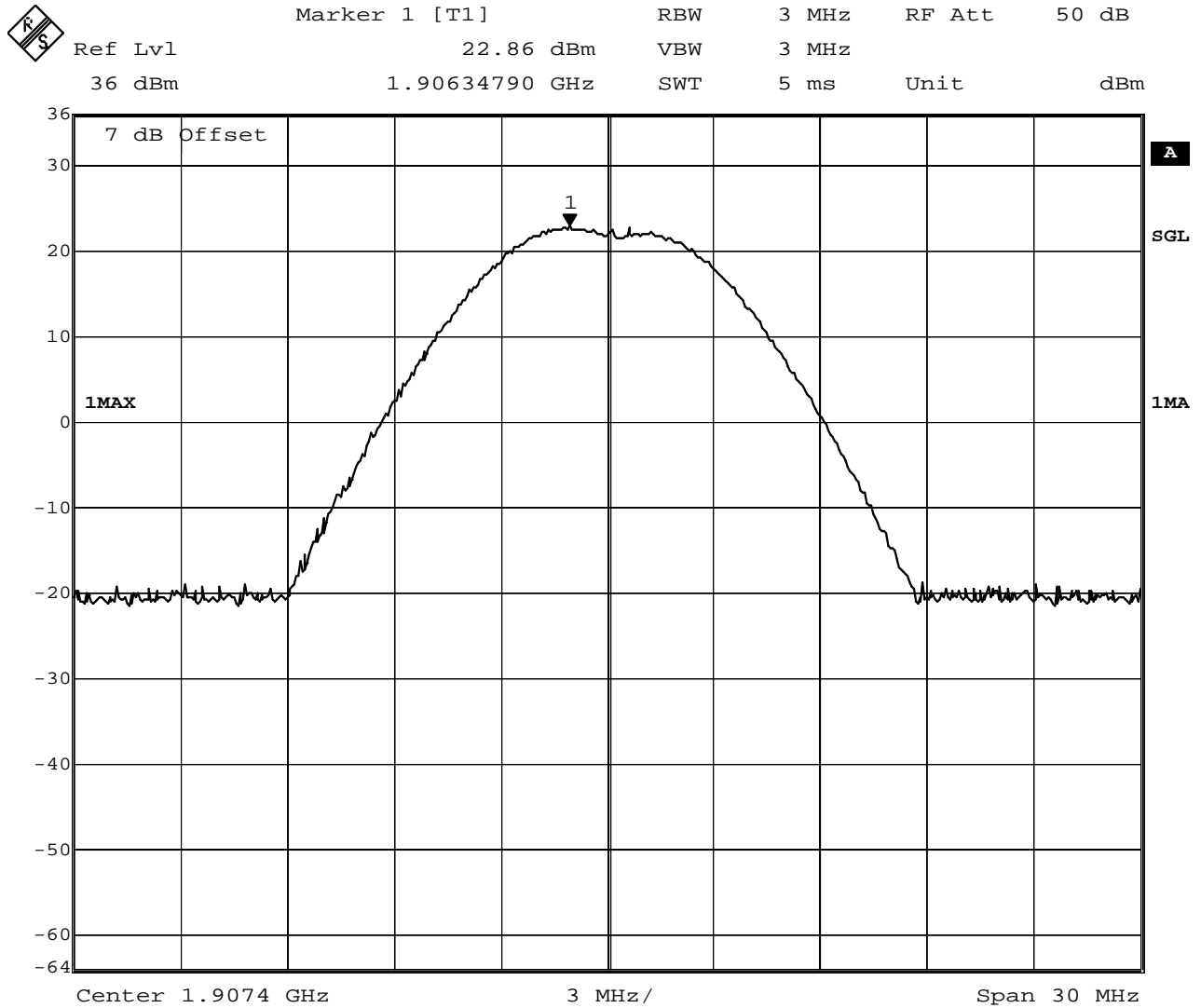
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**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Output power conducted**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9537 / HSUPA / subtest 5
Comment 2	
Comment 3	



Date: 25.JUN.2008 12:57:25

**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

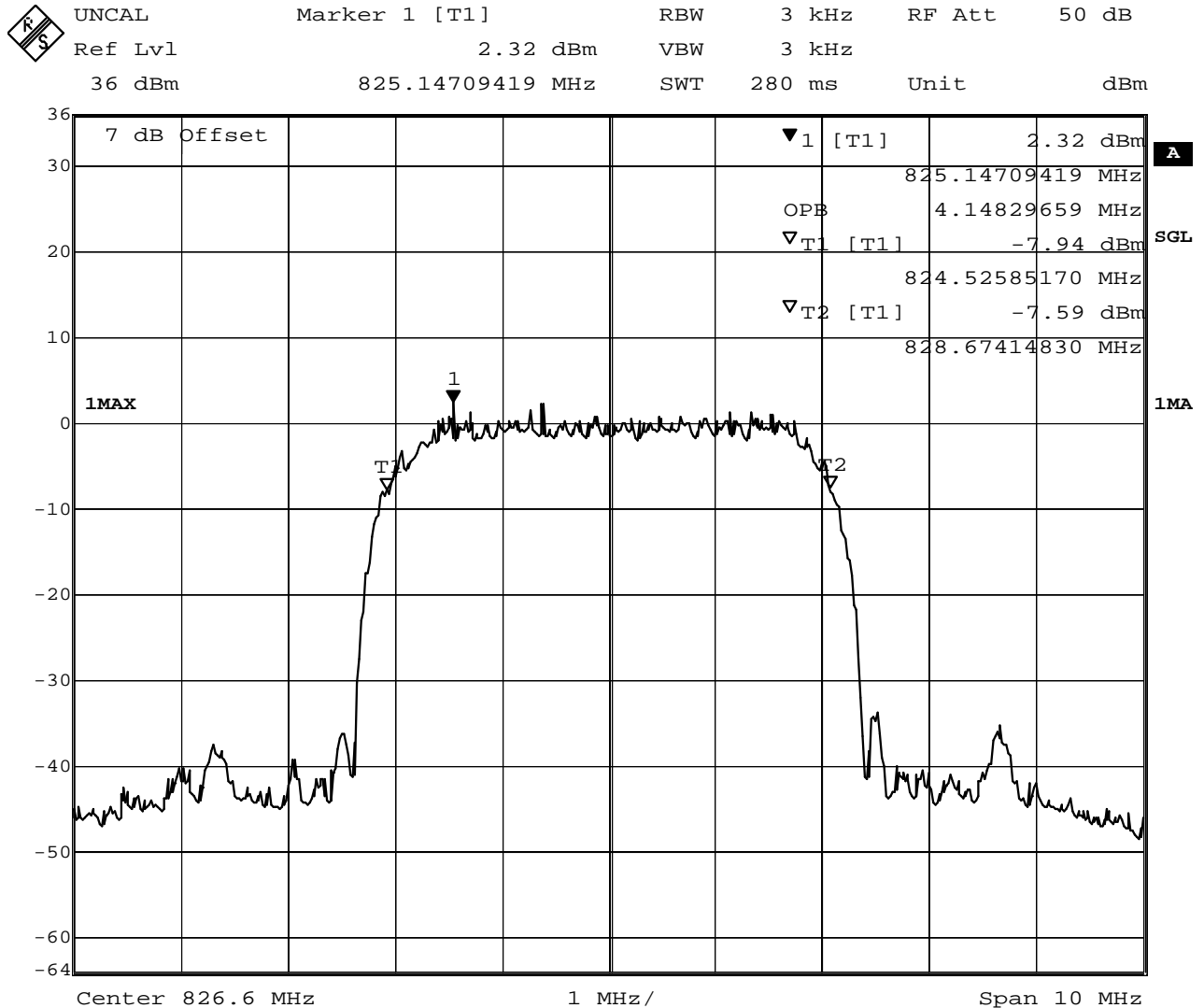
## Annex C

Occupied bandwidth, emission bandwidth



**FCC Part 22 H  
Occupied Bandwidth**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4133 / HSDPA
Comment 2	
Comment 3	



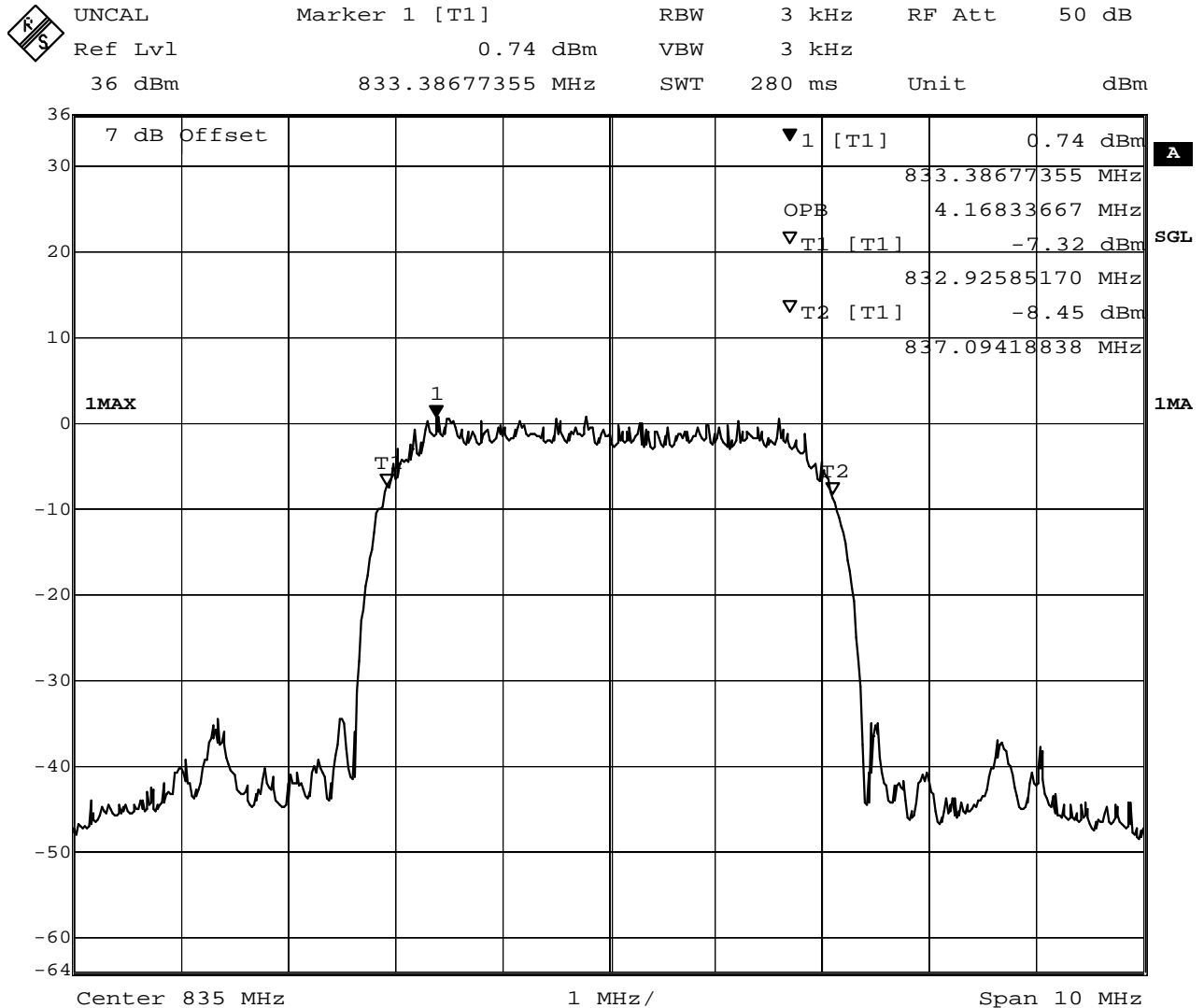
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**Measurement diagram**

 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Occupied Bandwidth**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4175 / HSDPA
Comment 2	
Comment 3	



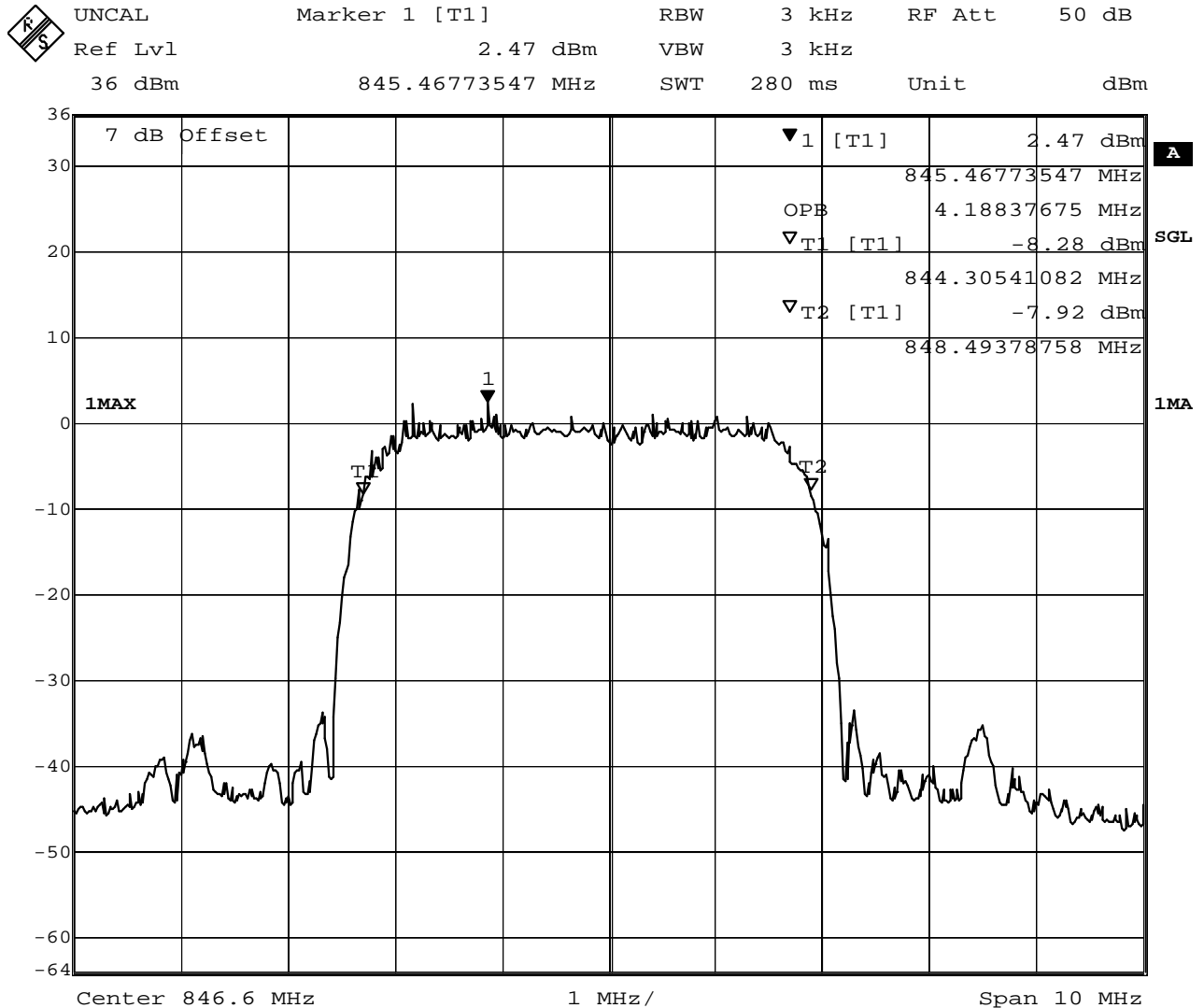
Date: 25.JUN.2008 14:15:49

**Measurement diagram**

 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Occupied Bandwidth**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSDPA
Comment 2	
Comment 3	



Date: 25.JUN.2008 14:12:59

**Measurement diagram**

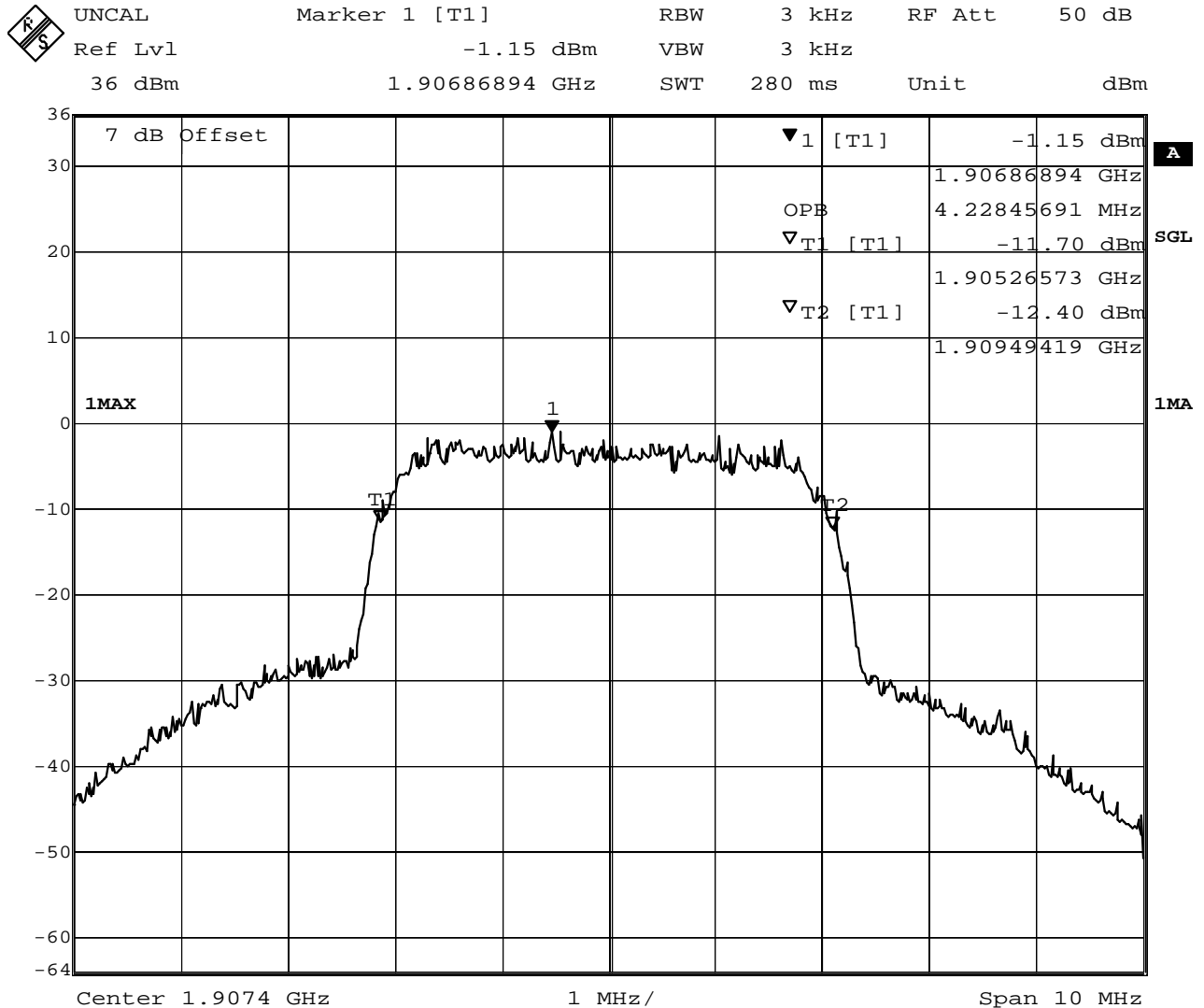
Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany





**FCC Part 24 E  
Occupied Bandwidth**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9537 HSDPA
Comment 2	
Comment 3	



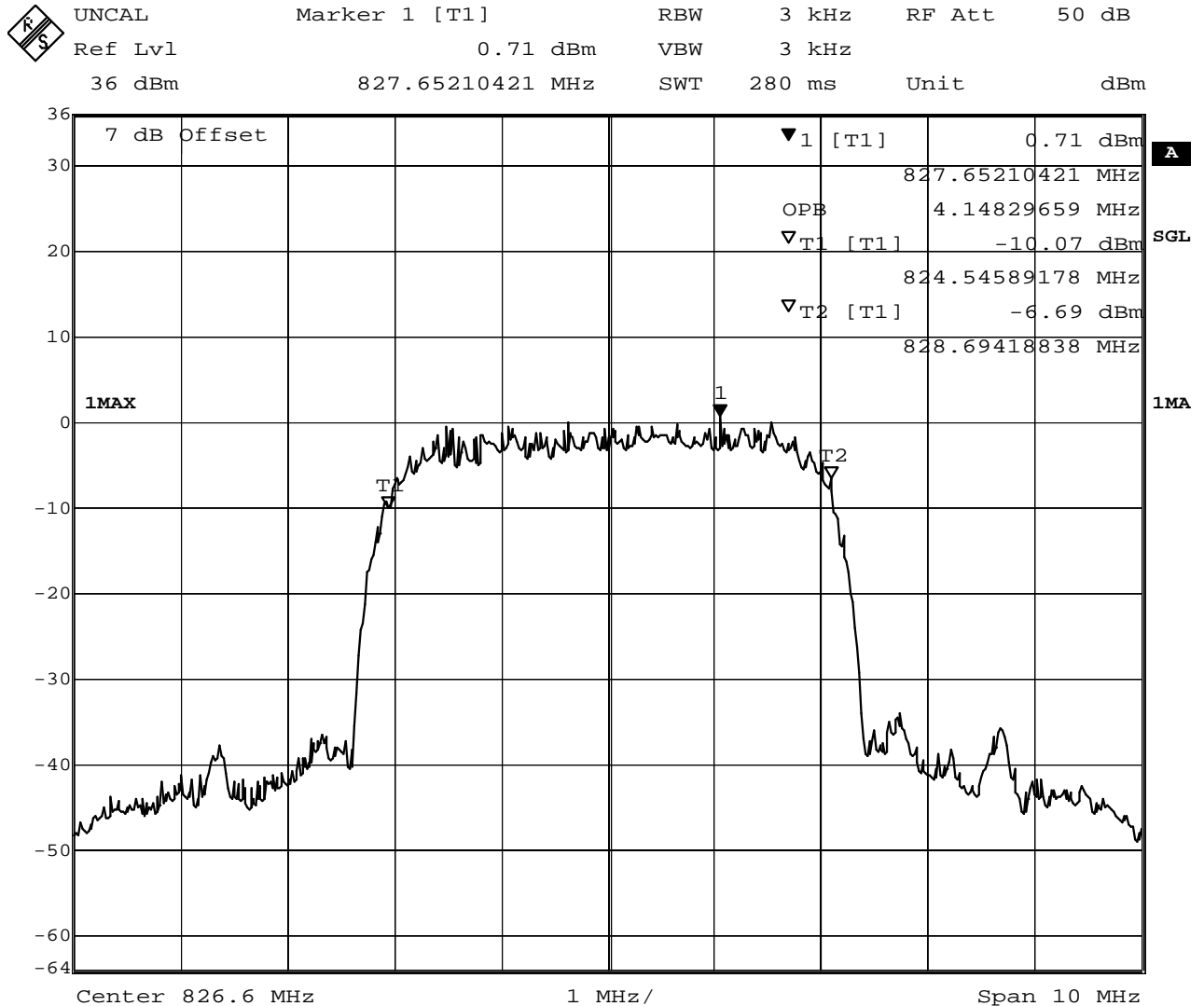
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**Measurement diagram**

 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Occupied Bandwidth**

EUT USB-Stick  
 Model GI0322  
 Approval Holder Option Wireless Germany GmbH  
 Temperature / Voltage 23°C / V\_USB: 5 V +/- 0.25 V  
 Test Site / Operator Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter  
 Test Specification FCC Part 22 Subpart H  
 Comment 1 Channel: 4133  
 Comment 2  
 Comment 3



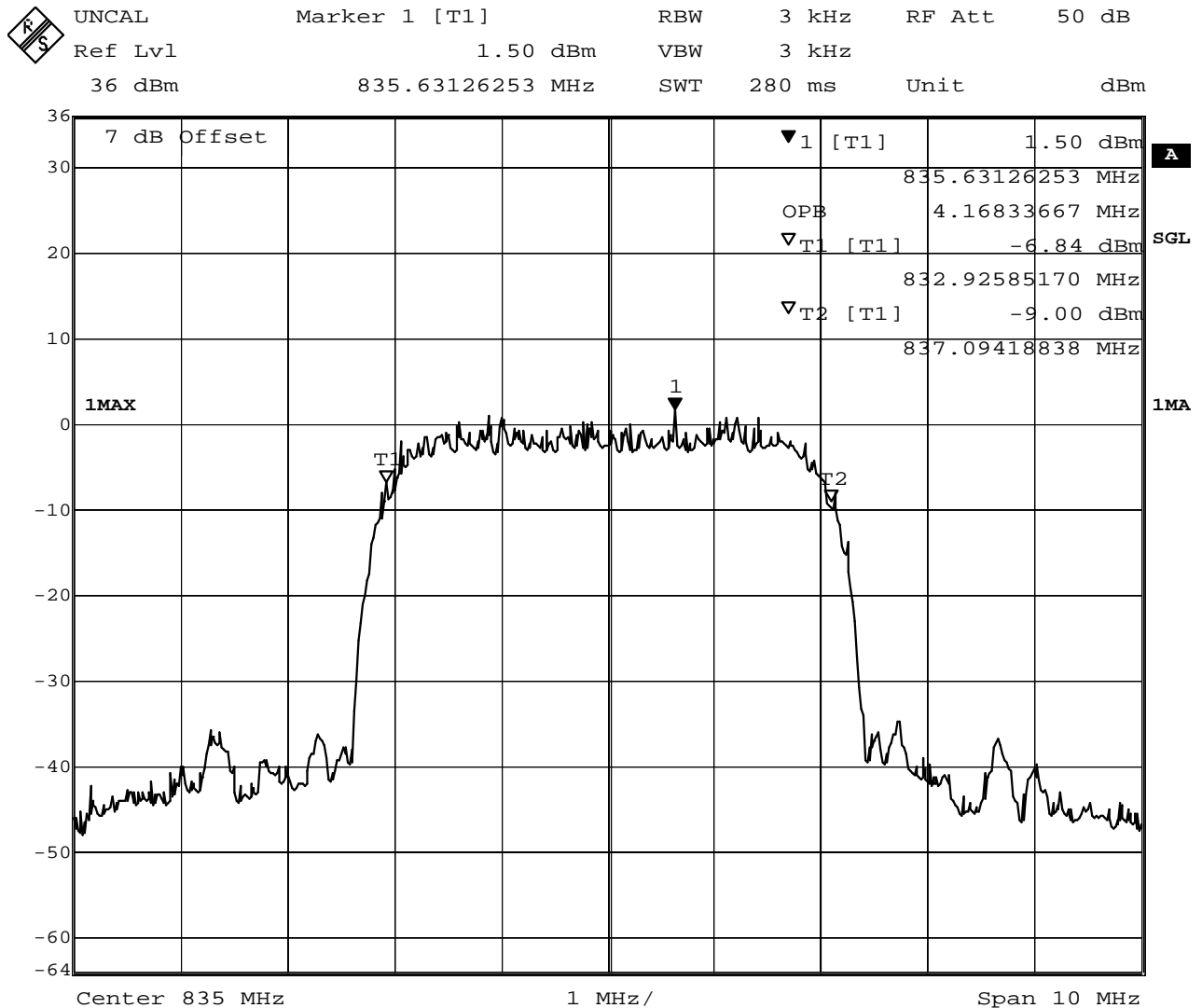
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**Measurement diagram**

Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Occupied Bandwidth**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4175 / HSUPA
Comment 2	
Comment 3	



Date: 25.JUN.2008 13:52:59

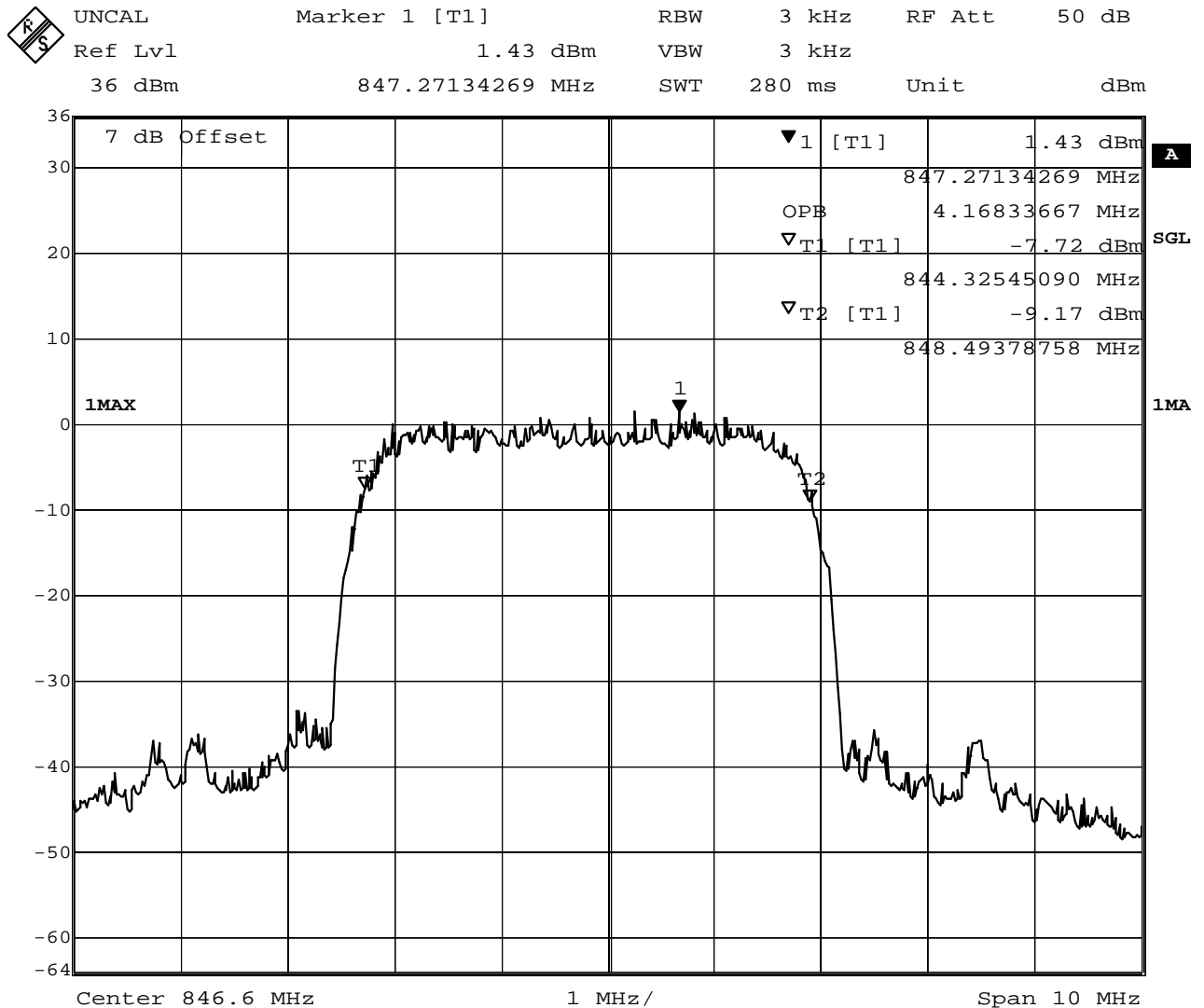
**Measurement diagram**

 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany



**FCC Part 22 H  
Occupied Bandwidth**

EUT USB-Stick  
 Model GI0322  
 Approval Holder Option Wireless Germany GmbH  
 Temperature / Voltage 23°C / V\_USB: 5 V +/- 0.25 V  
 Test Site / Operator Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter  
 Test Specification FCC Part 22 Subpart H  
 Comment 1 Channel: 4232 / HSUPA  
 Comment 2  
 Comment 3



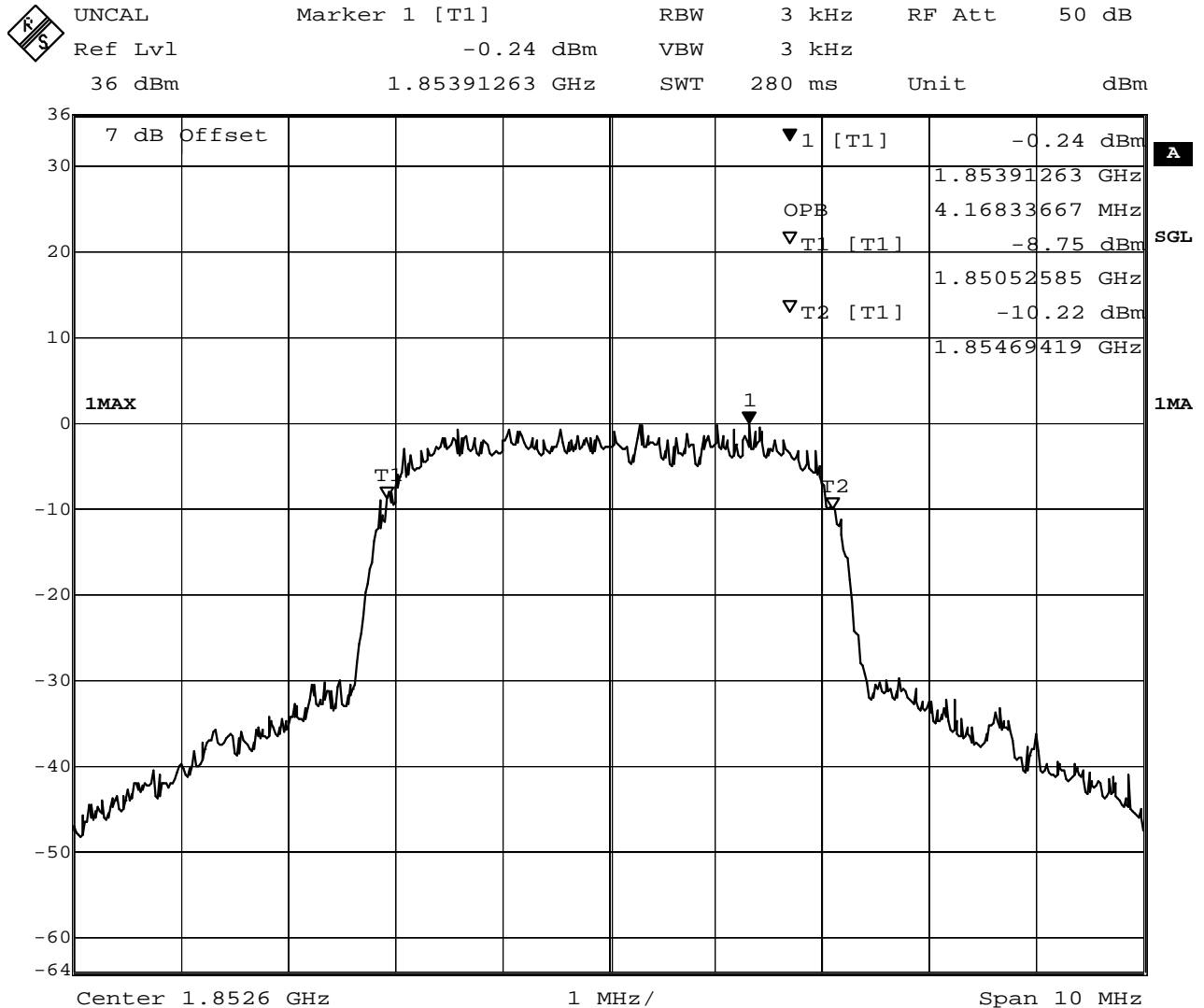
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**Measurement diagram**

Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E  
Occupied Bandwidth**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9263 / HSUPA
Comment 2	
Comment 3	



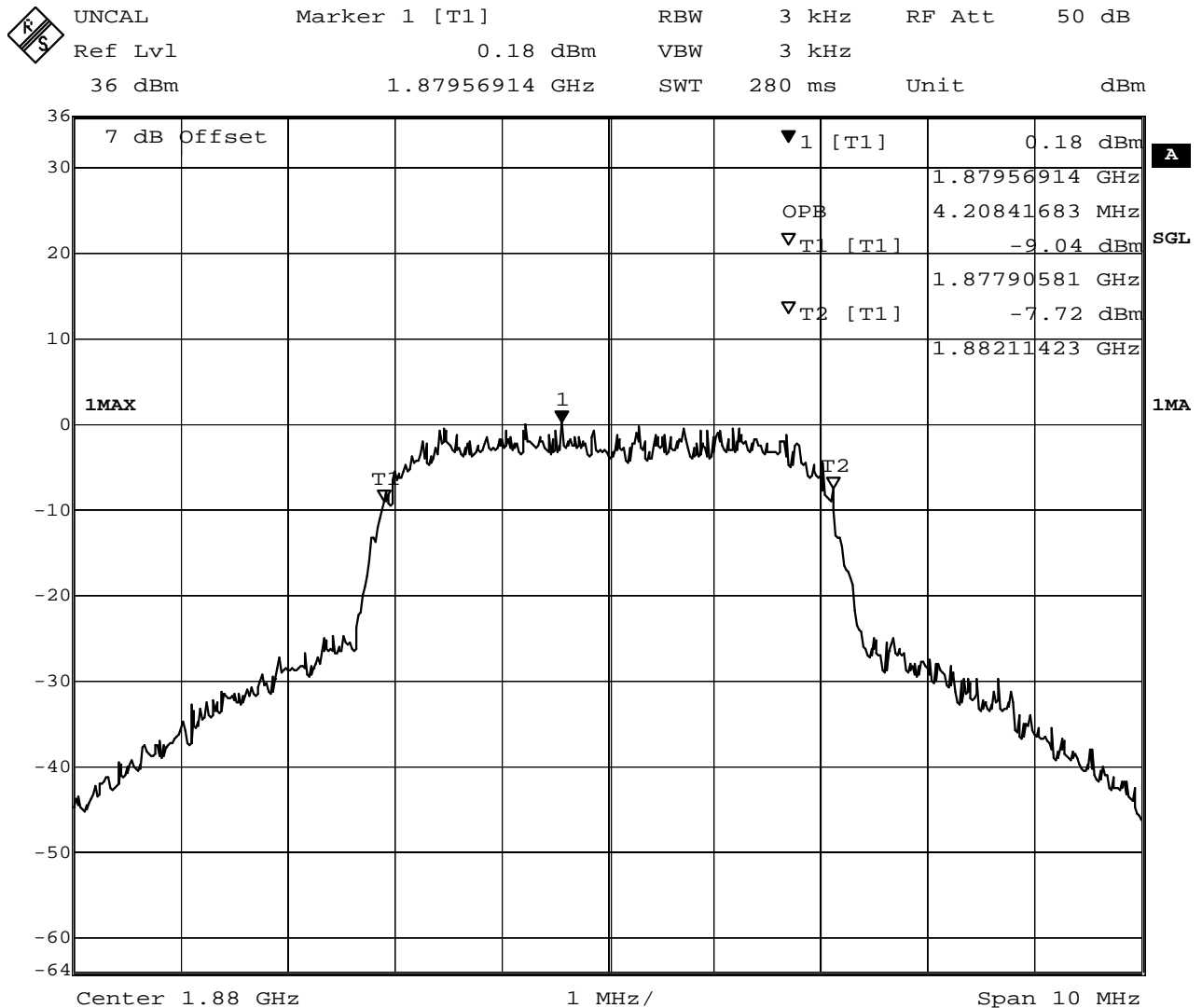
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**Measurement diagram**

 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E  
Occupied Bandwidth**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9400 / HSUPA
Comment 2	
Comment 3	



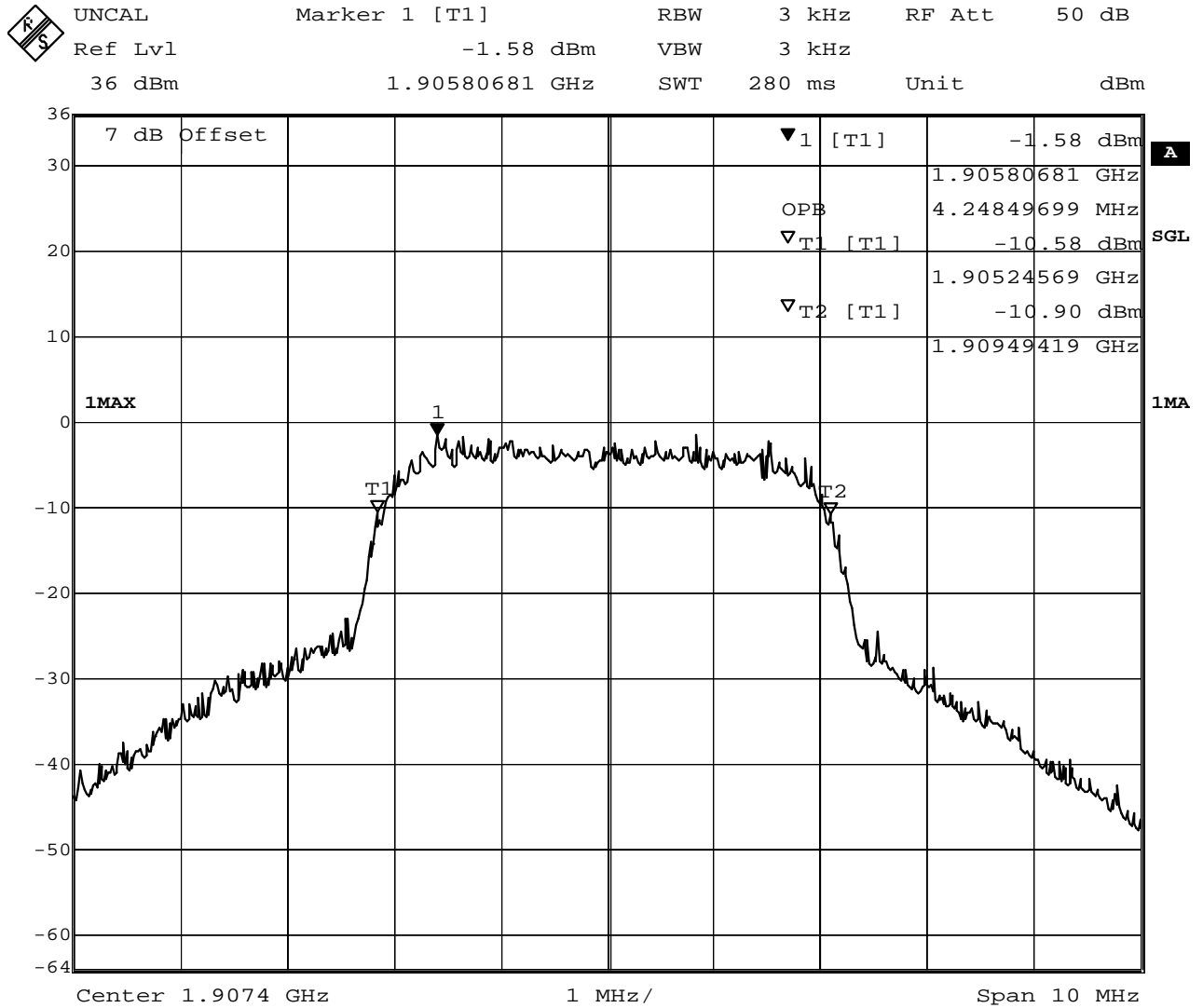
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**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E  
Occupied Bandwidth**

EUT USB-Stick  
 Model GI0322  
 Approval Holder Option Wireless Germany GmbH  
 Temperature / Voltage 23°C / V\_USB: 5 V +/- 0.25 V  
 Test Site / Operator Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter  
 Test Specification FCC Part 24 Subpart E  
 Comment 1 Channel: 9537 / HSUPA  
 Comment 2  
 Comment 3



Date: 25.JUN.2008 13:28:16

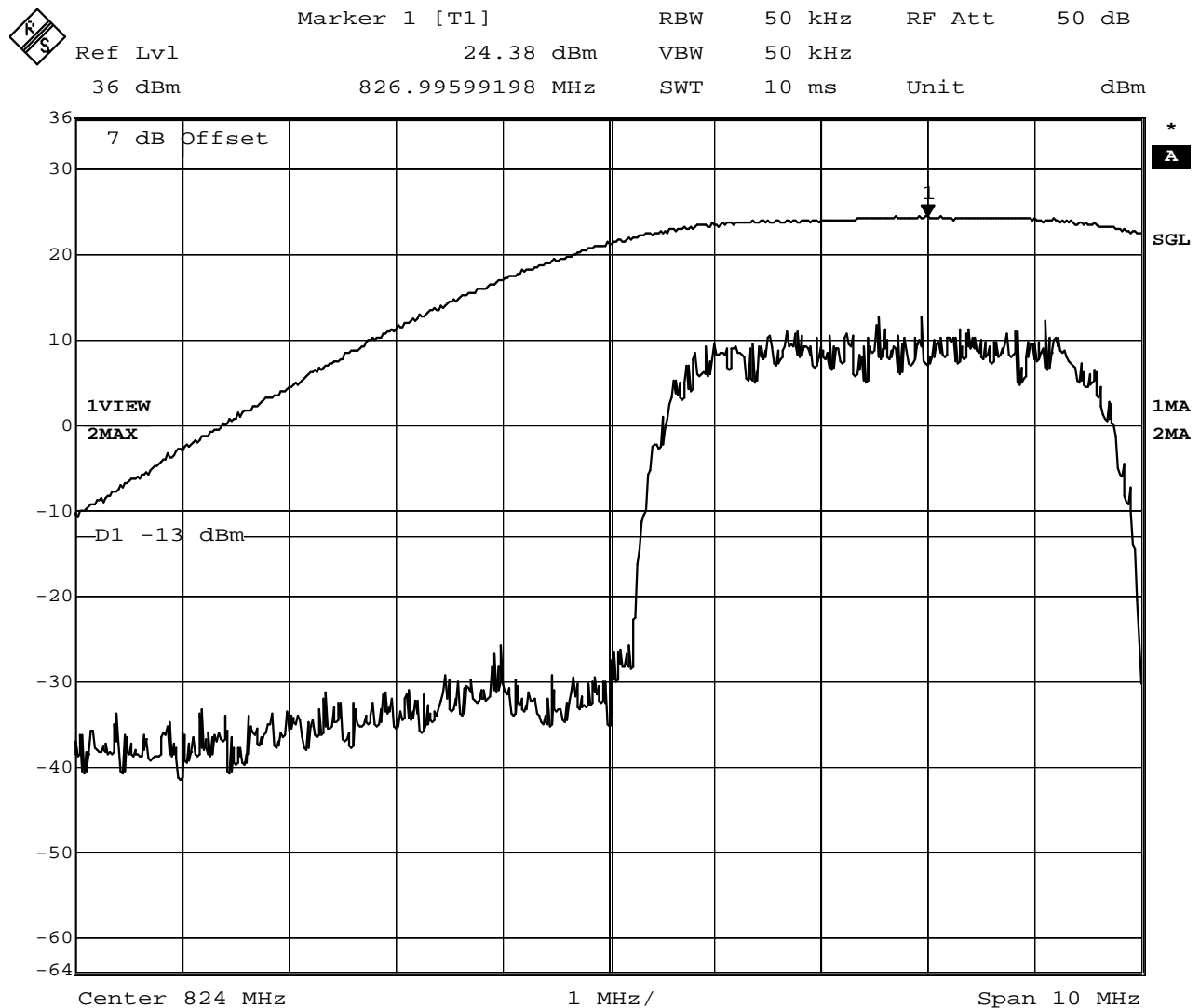
Measurement diagram

## **Annex D**

Block edge compliance

**FCC Part 22 H  
Lower Block edge**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4133 / HSDPA
Comment 2	
Comment 3	



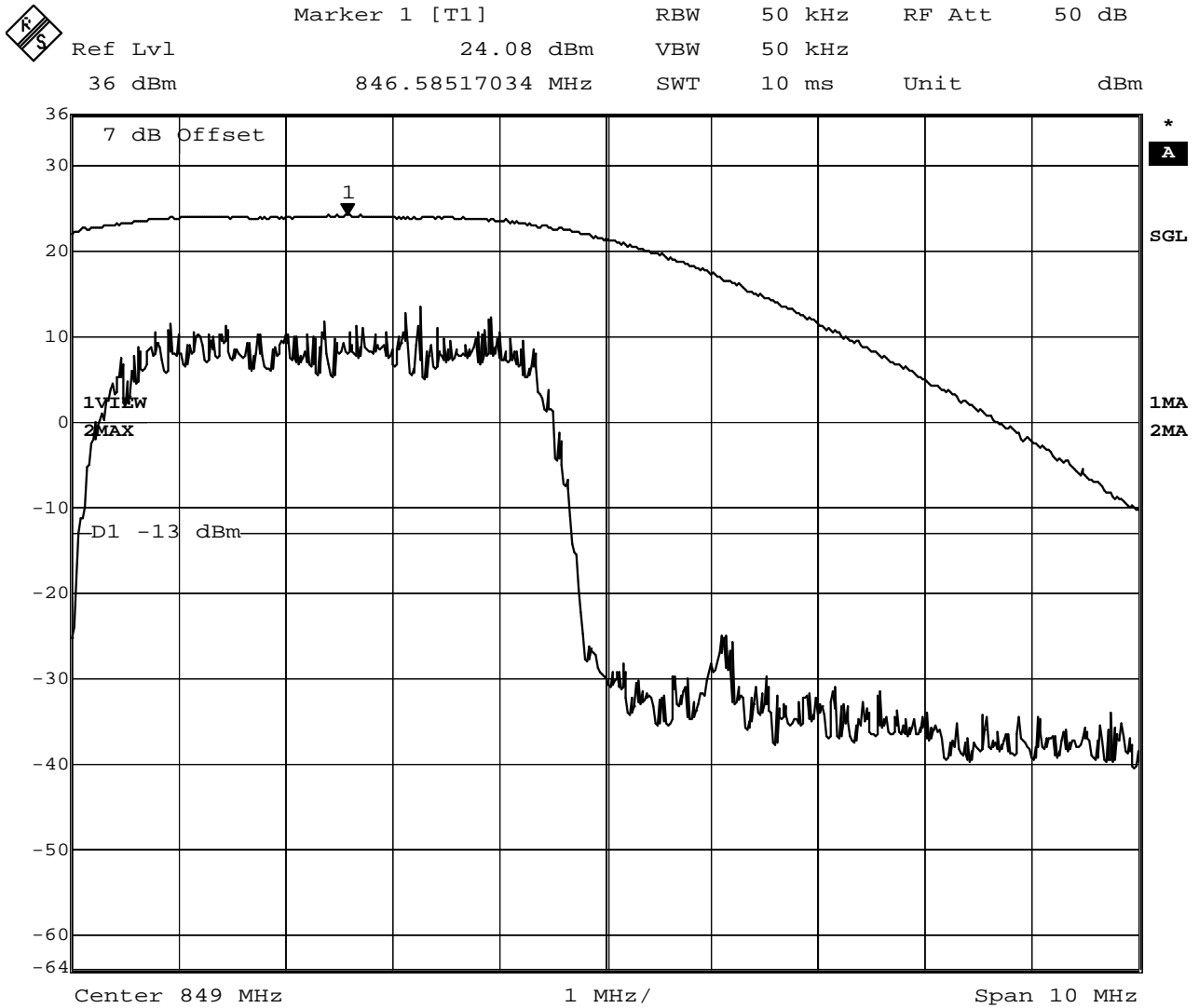
Date: 25.JUN.2008 14:24:31

**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Higher Block edge**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	24°C / V_USB 5 V +/- 0,25 V
Test Site / Operator	Eurofins Product Service GmbH / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSDPA
Comment 2	
Comment 3	



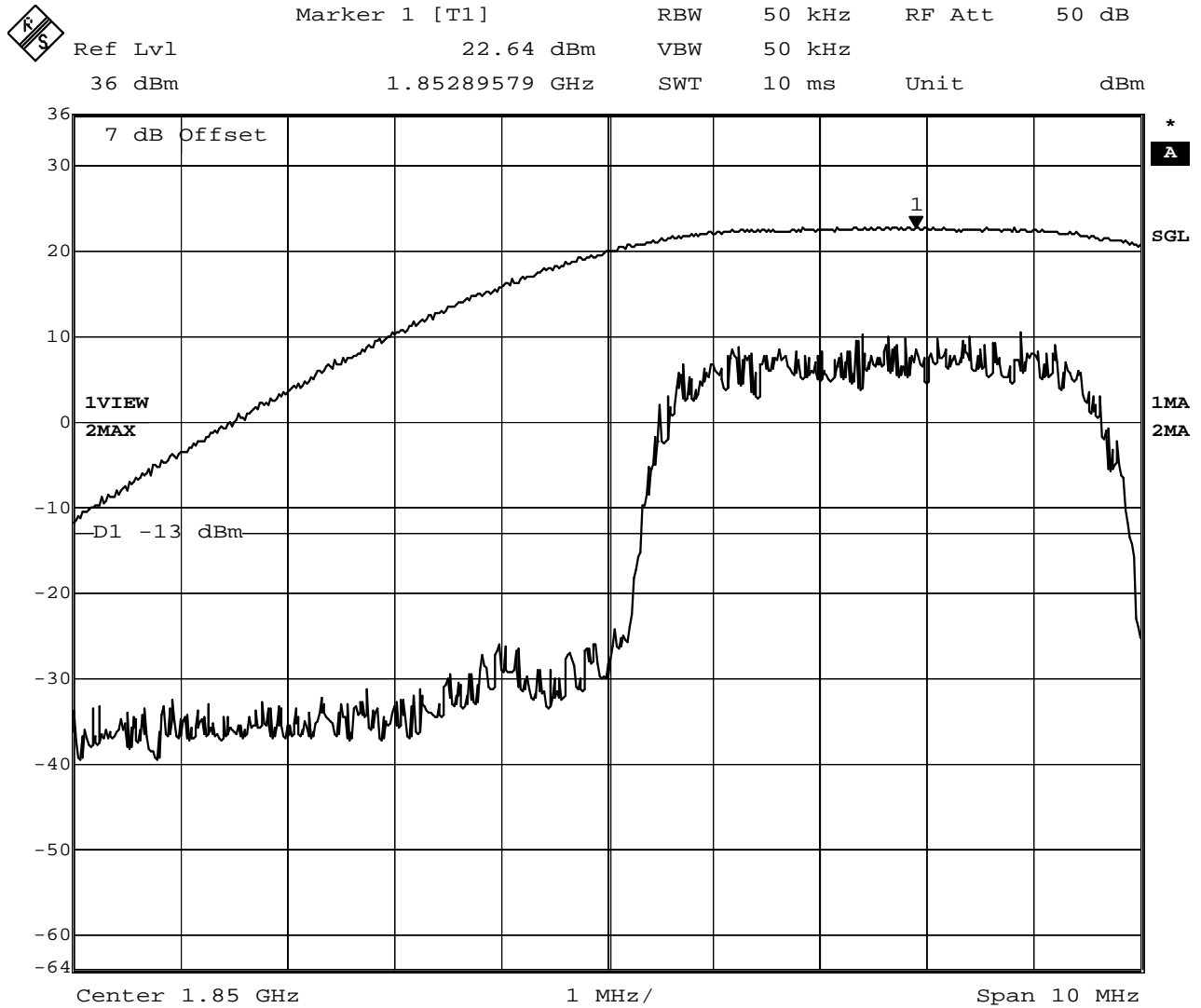
Date: 25.JUN.2008 14:14:29

Measurement diagram

Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E  
Lower Block edge**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9263 / HSDPA
Comment 2	
Comment 3	



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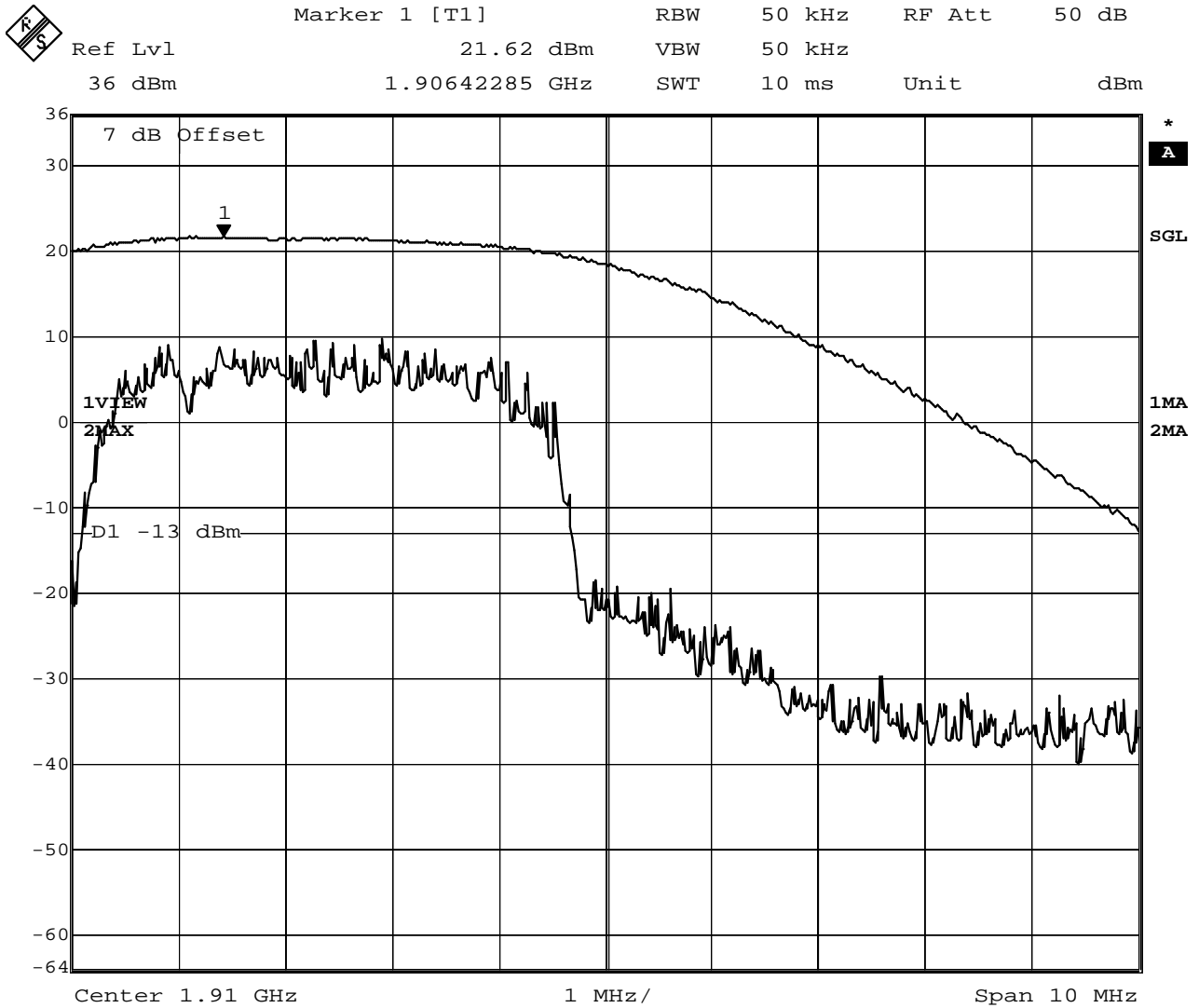
Measurement diagram

Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany



**FCC Part 24 E**  
**Higher Block edge**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9537 / HSDPA
Comment 2	
Comment 3	



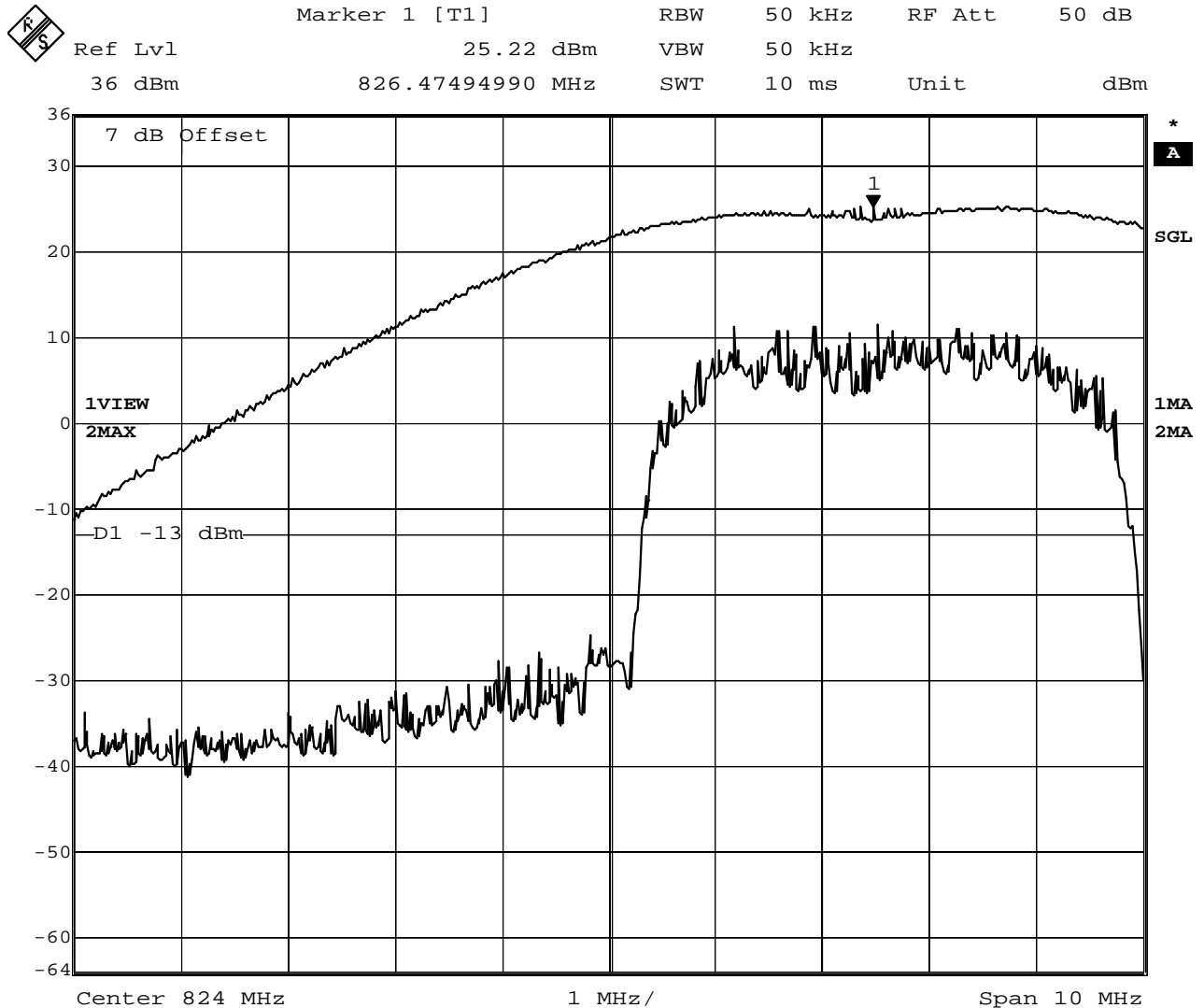
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Measurement diagram

Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Lower Block edge**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4133
Comment 2	
Comment 3	



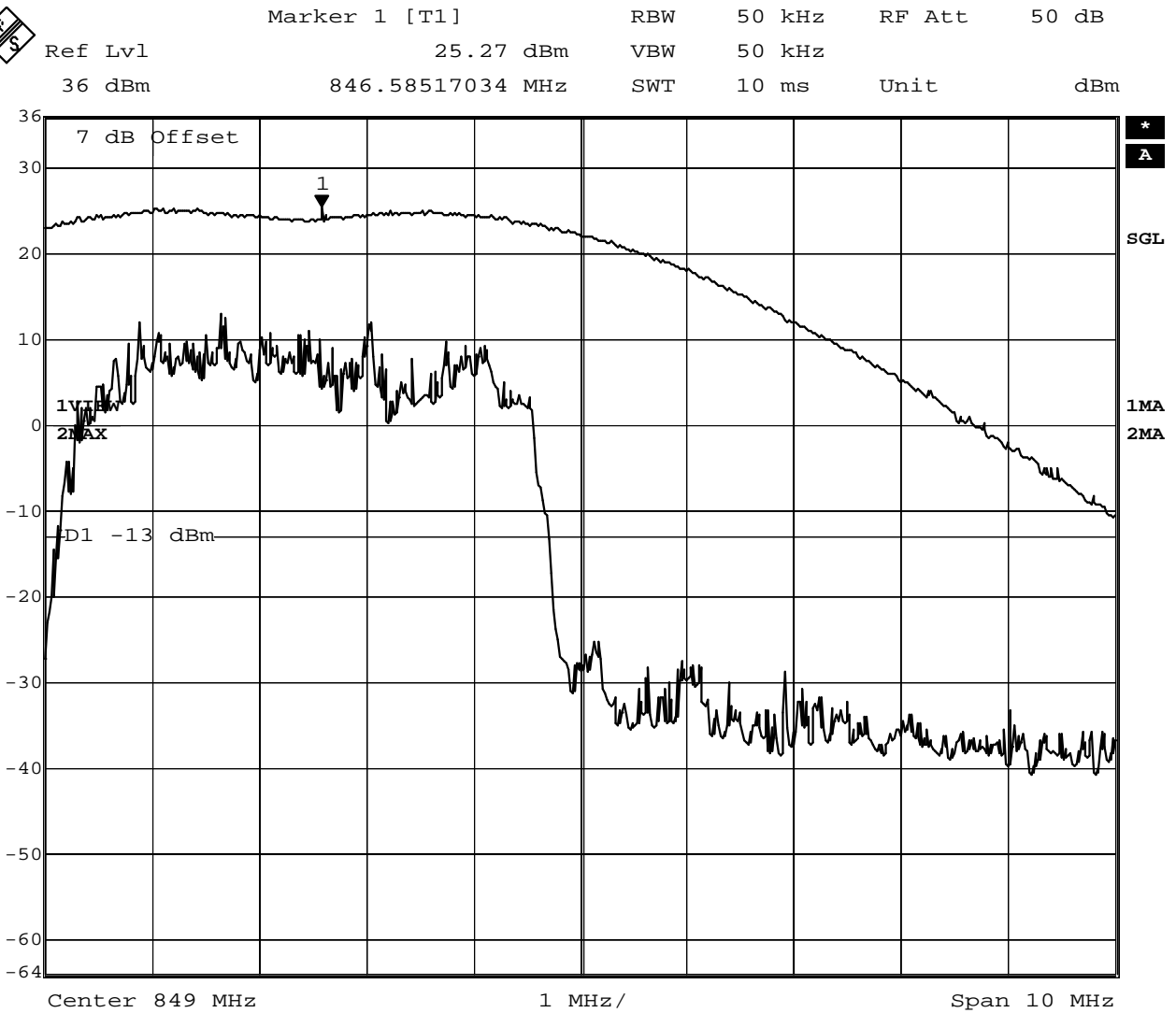
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Measurement diagram

Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 22 H  
Higher Block edge**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 22 Subpart H
Comment 1	Channel: 4232 / HSUPA
Comment 2	
Comment 3	



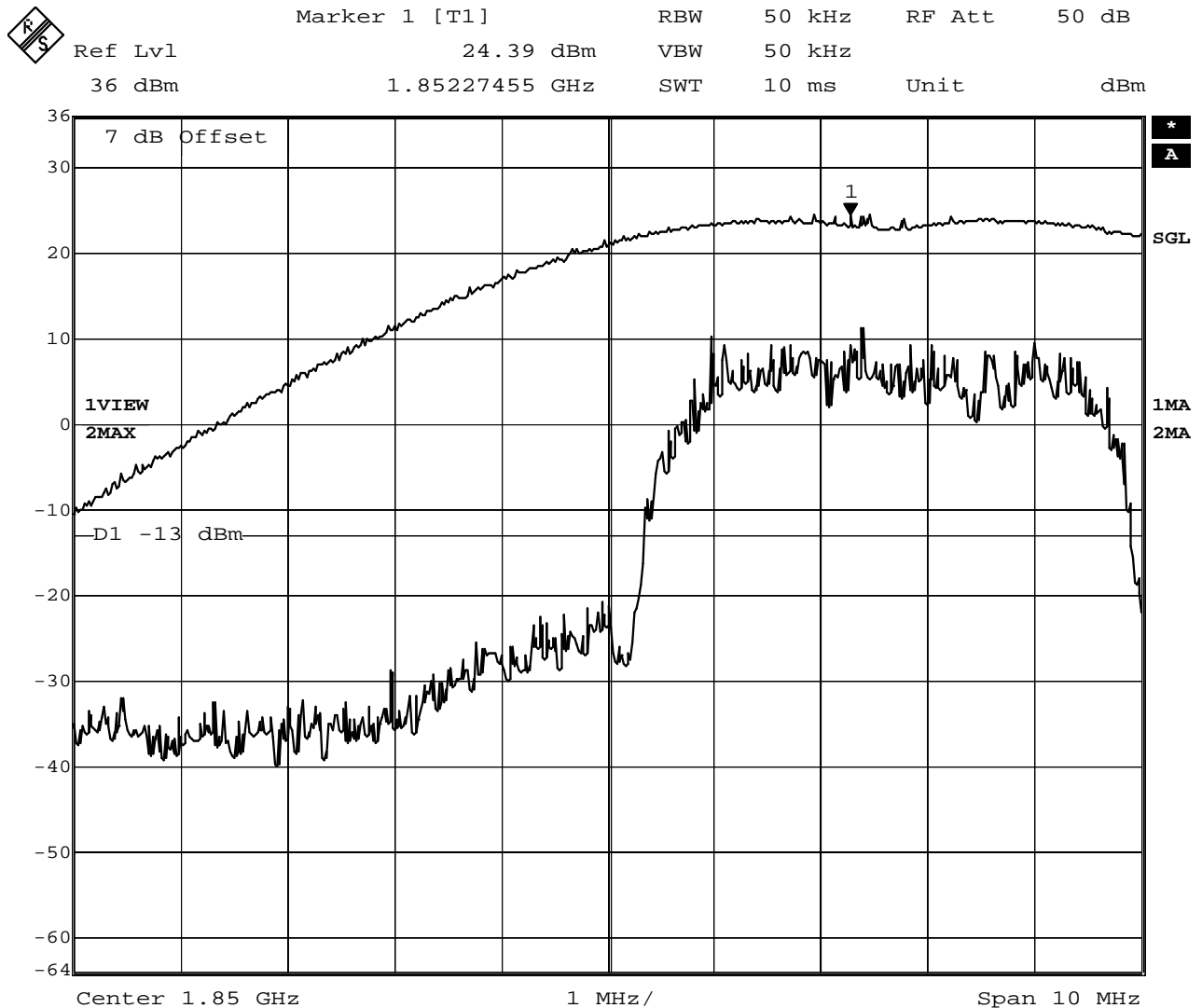
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**Measurement diagram**

Eurofins ETS Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E  
Lower Block edge**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9263 / HSUPA
Comment 2	
Comment 3	



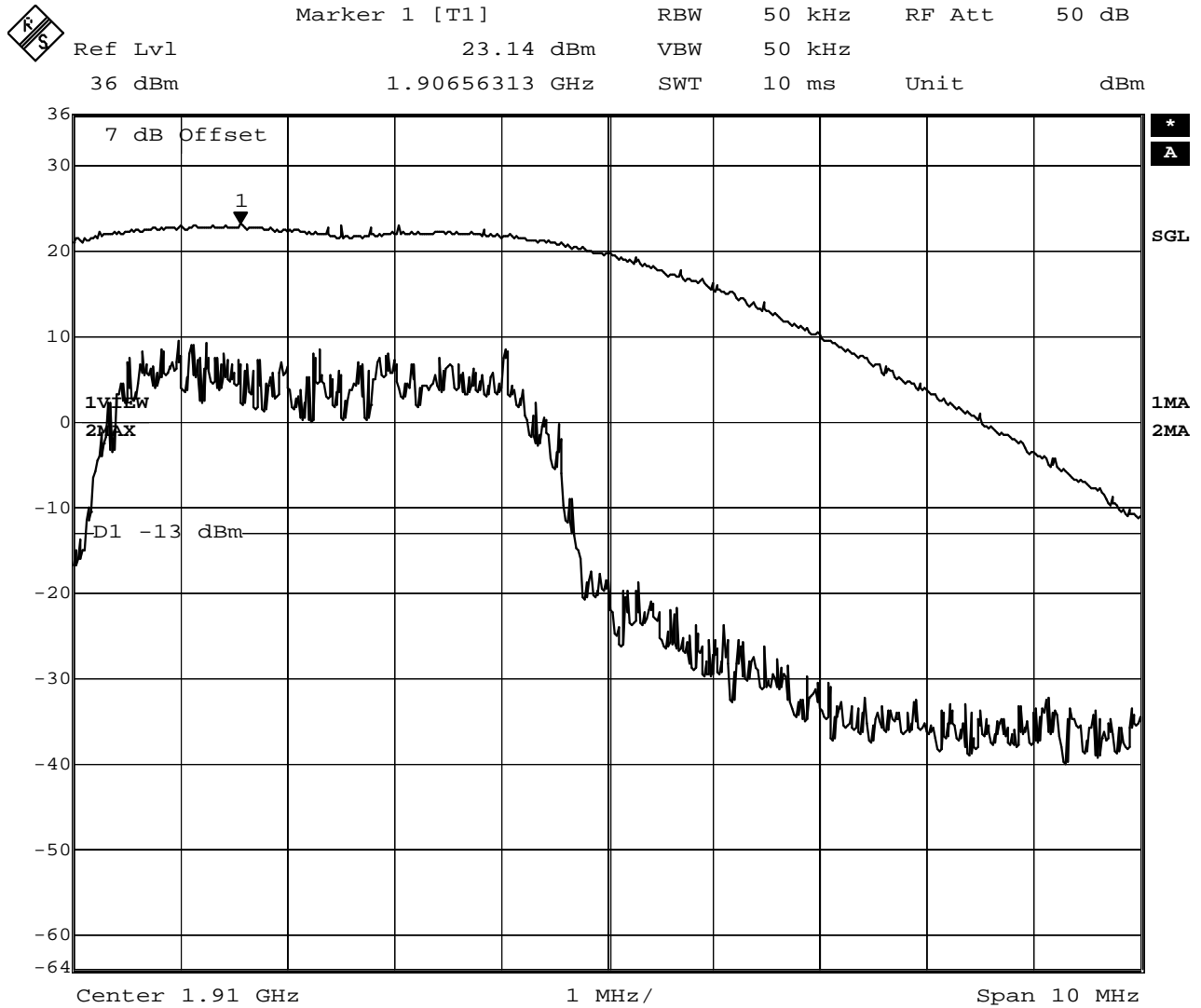
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**Measurement diagram**

 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**FCC Part 24 E**  
**Higher Block edge**

EUT	USB-Stick
Model	GI0322
Approval Holder	Option Wireless Germany GmbH
Temperature / Voltage	23°C / V_USB: 5 V +/- 0.25 V
Test Site / Operator	Eurofins Product Service GmbH / G0M20806-1862 / Mr. Walter
Test Specification	FCC Part 24 Subpart E
Comment 1	Channel: 9537 / HSUPA
Comment 2	
Comment 3	



Date: 25.JUN.2008 13:29:03

## Measurement diagram

 Eurofins ETS Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany