Project name: 4_Vtech_0101_GSM

FCC TEST REPORT

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Note:
The following test results relate only to the devices specified in this document. This report shall not be reproduced in the parts without the written approval of the testing laboratory.

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1. General Information

1.1 Applicant & Manufacturer Data

Name of Applicant	Name of Manufacturer
Vtech Engineering Canada Ltd. 1108 53rd Avenue. NE Suite 101 Canada T2E 6N9 Tel: +1-403-730-5220 Fax: +1-403-730-5248	See Applicant
Contact: Mr. Gordon Ryley - Project Manager Email: Gordon Ryley@vtecheng.ab.ca	See Applicant

1.2 EUT Data

Type of Equipment	PCS-1900 Cellular Phone
Model	Vtech A700
Frequency Range	1850 to 1910 MHz
Maximum Power Level	1 Watt

1.3 Other Information

Report Number	4_Vtech_0101_GSM_REP1
Issue Date	26 February 2002

External EUT Picture:

Rear view of The EUT

Front view of the EUT

Internal Pictures of The EUT

Please refer to CellTech Test Report

2. Test Laboratory

Location (1) **Contact Person**	7 Layers Inc 8 Pasteur. Suite 110 Irvine, CA USA Tel: +1-949-789-7543 Fax:+1-949-789-7555 Fernando Rodriguez-Project Coordinator Email: Fernando.Rodriguez@7layers.com
Location (2) **Contact Person**	CellTech Research, Inc Testing and Engineering Services 1955 Moss Court Kelowna B.C Canada N1Y 9L3 Tel:+1-250-860-3130 Fax:+1-250-860-3110 John Hughes- General Manager Email:jon.Hughes@celltechlabs.com

Project Leader:

Lab Manager:

James Cunningham
Technical Manager

3. Test Report

RF Output Power (Conducted) §2.1046 §24.232

3.1 Test procedure:

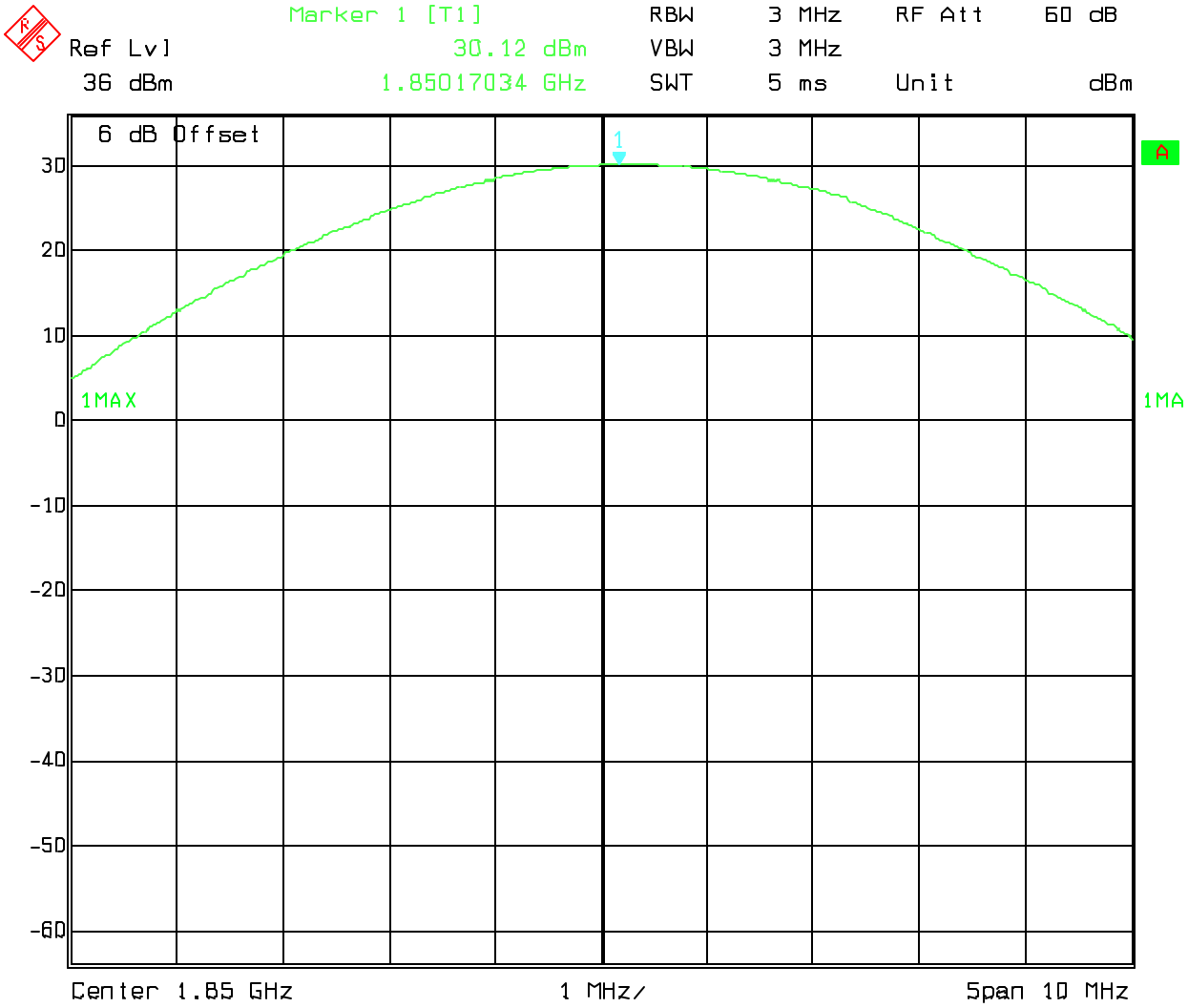
3.1.1 The EUT was set up for the max. power output level.
3.1.2 The measurements were done at 3 frequencies ranges, 1850MHz (Low Frequency Channel), 1880MHz (Mid Frequency Channel), and 1909 MHz (High Frequency Channel)
3.1.3 The limit of the power output level is 30dBm with +/-2 dB Tolerance

3.2 Test Results:

Frequency Channel (MHz)	Peak Power Output (dBm)
1850.0	30.12
1880.0	29.22
1909.8	28.39

RF Power Output (Conducted) §2.1046 §24.232

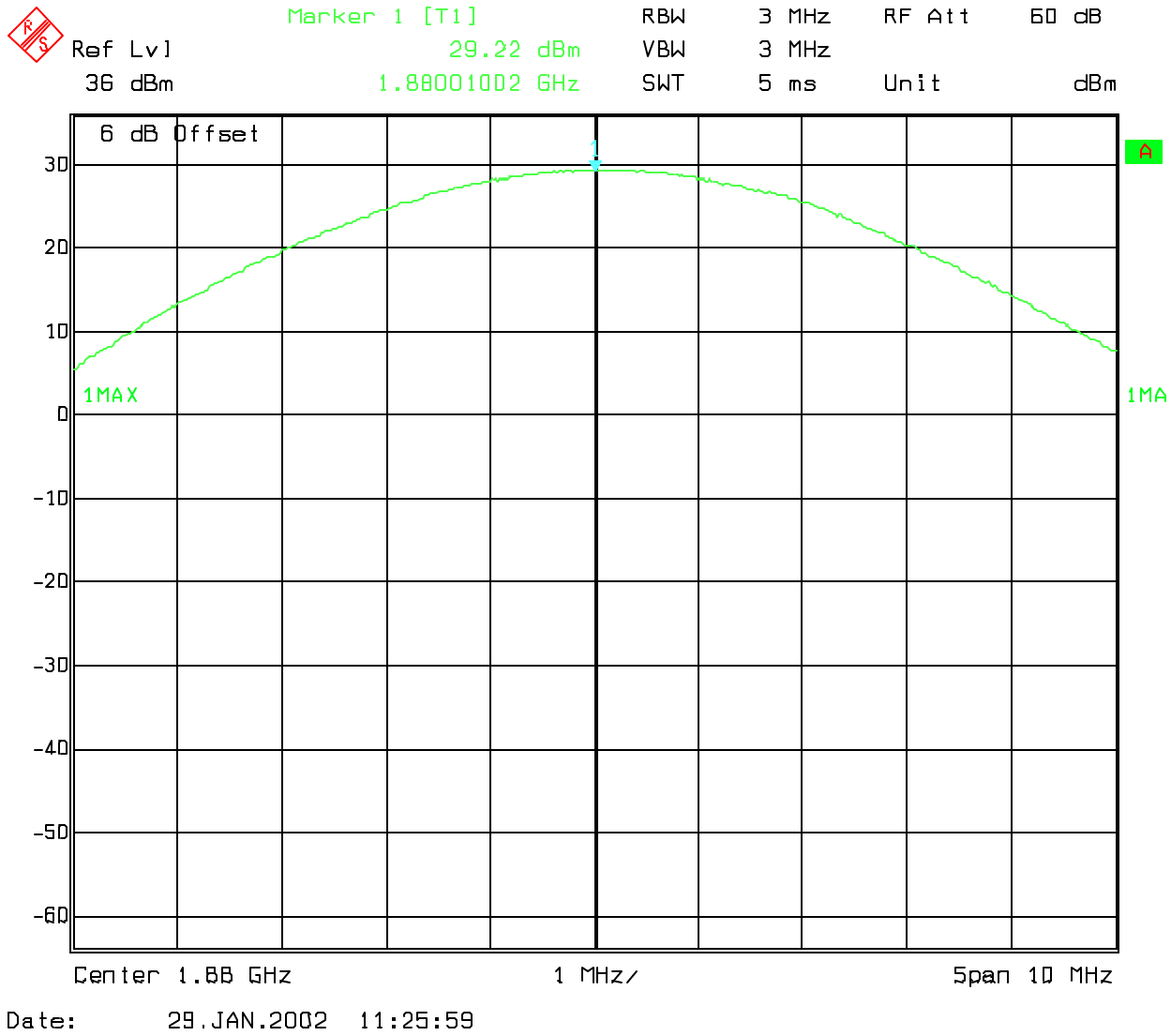
Low Freq. Channel: 1850 MHz
RF Channel Number: 512



Date: 29.JAN.2002 11:23:03

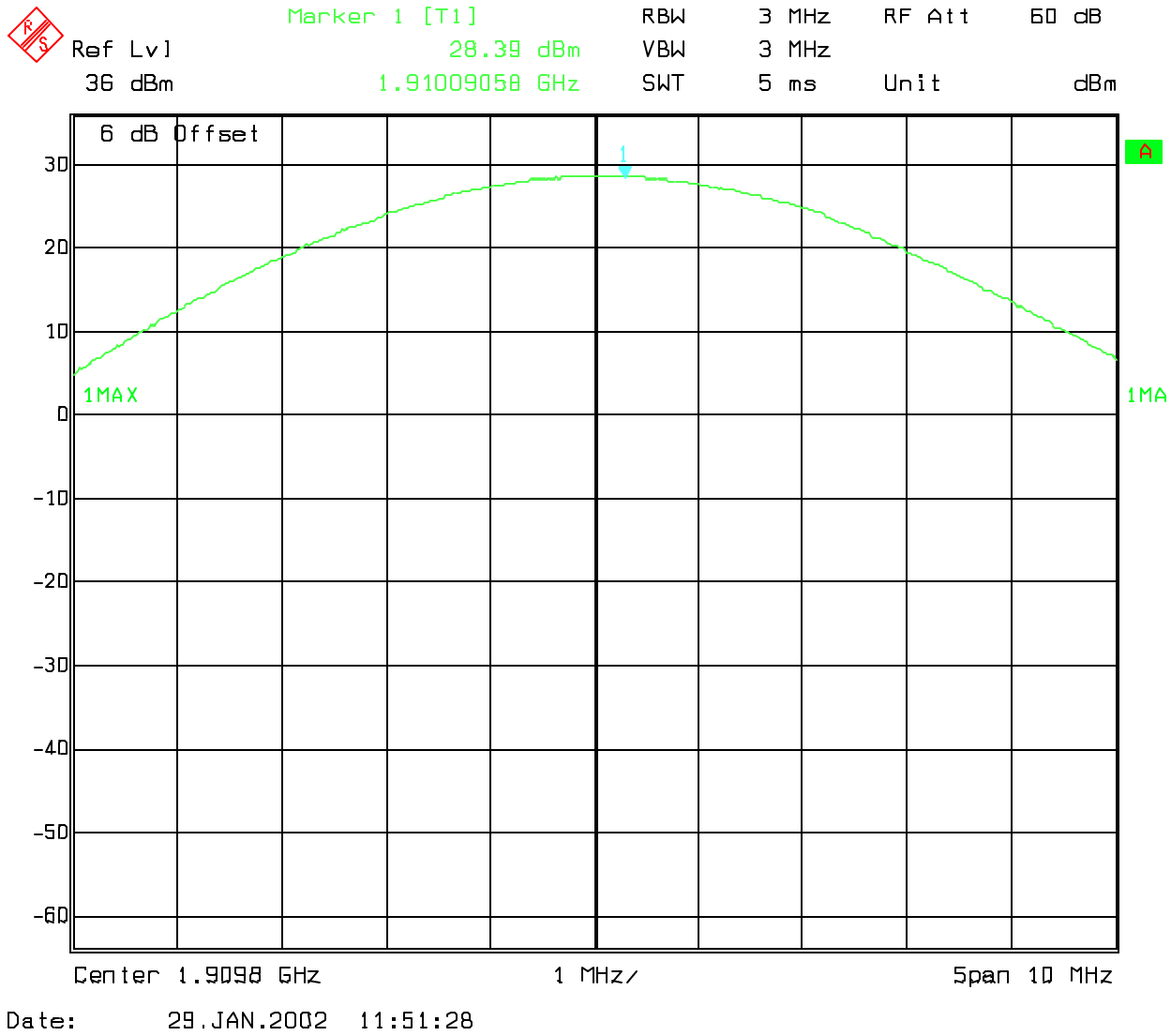
RF Power Output (Conducted) §2.1046 §24.232

Mid Freq. Channel: 1880 MHz
RF Channel Number: 661



RF Power Output (Conducted) §2.1046 §24.232

High Freq. Channel: 1909.8 MHz
RF Channel Number: 810



RF Power Output (Radiated) §2.1046 §24.232

3.3 Test Procedure:

Refer to CellTech Test Report

3.4 Test Results:

Please refer to CellTech Test Report

Occupied Bandwidth §2.1049 §2.989

3.5 Test Procedure:

3.5.1. A speech call was established on a traffic channel (TCH) between the mobile station and the base station.

3.5.2. The Spectrum Analyzer setting are:

I. Resolution Bandwidth: 3 kHz
II. Video Bandwidth: 3 kHz
III. Sweep Span: 1 MHZ
IV. Sweep Time: 280 ms

3.5.3 Measured the bandwidth of the signal at 26 dB below the peak level.

3.5.4 Measured the bandwidth that includes 99% of the signal power

3.6 Test Results:

Frequency (MHz)	26dB bandwidth (kHz)	99% Occupied Bandwidth (kHz)
1850	310.6	245.5
1880	314.6	248.5
1909.8	314.6	244.8

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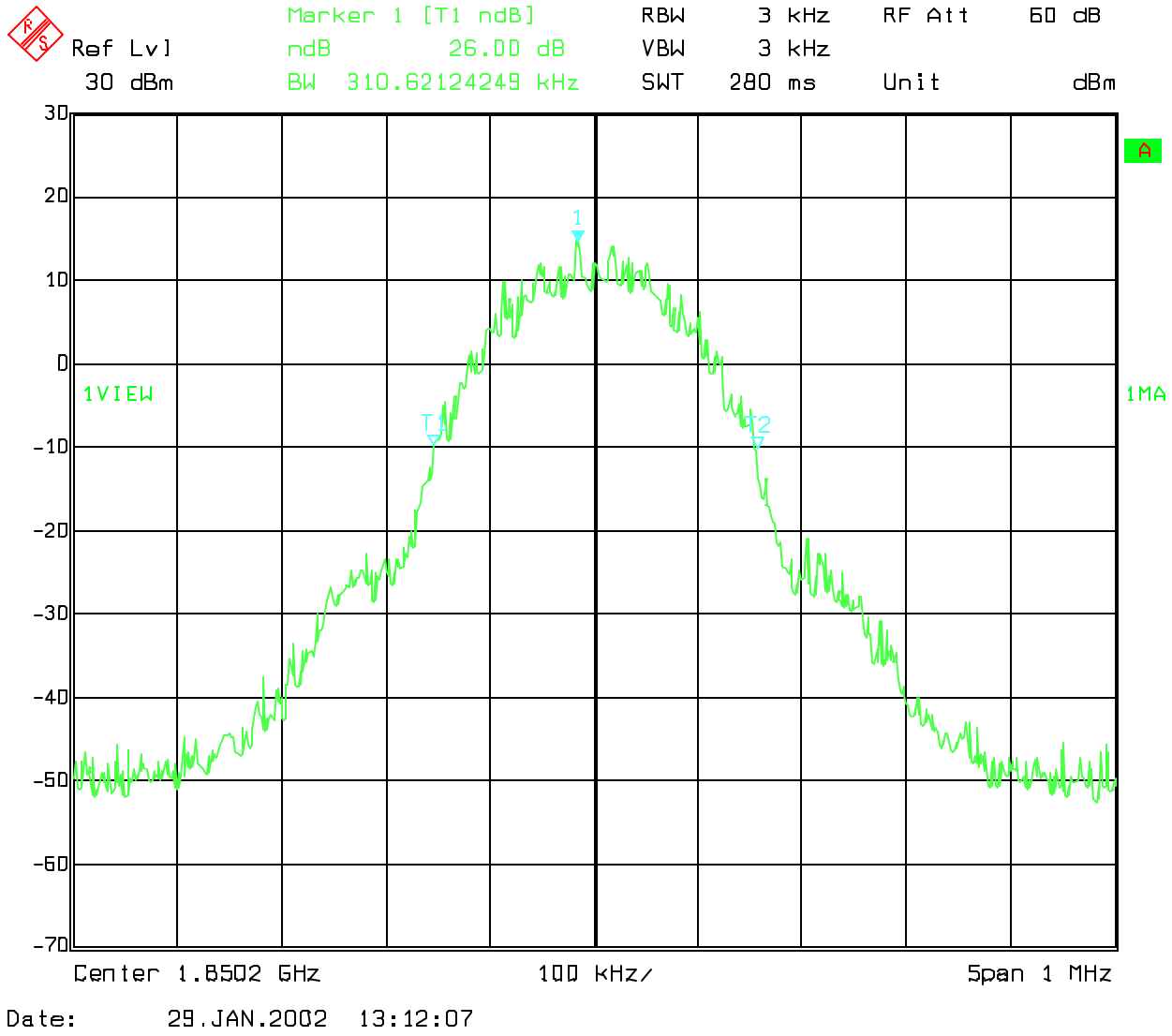
3.6 Test Results:

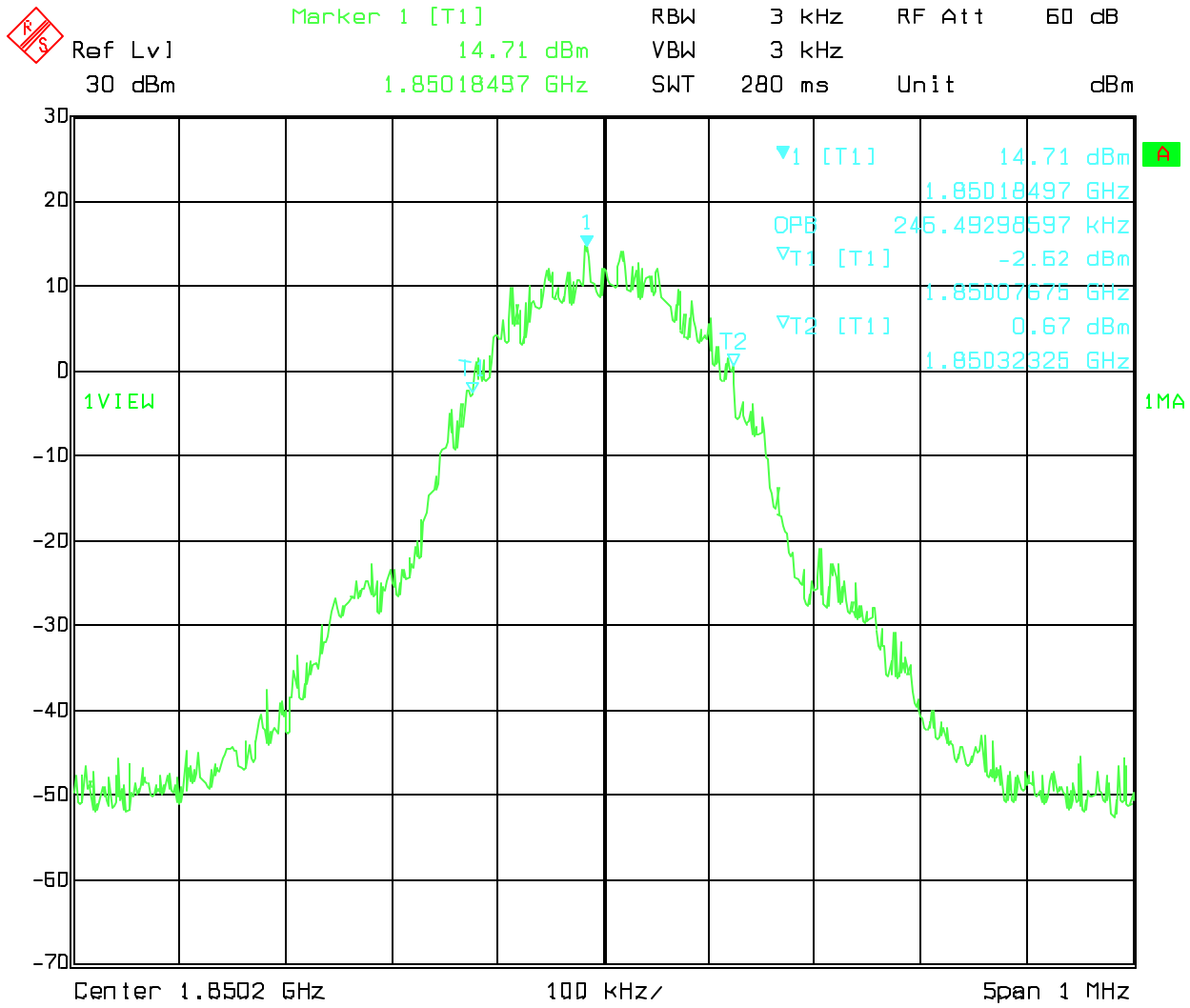
Occupied Bandwidth **§2.1049 §2.989**

Low Freq. Channel: 1850 MHz
RF Channel Number: 512
26 dB below the peak level



Occupied Bandwidth §2.1049 §2.989

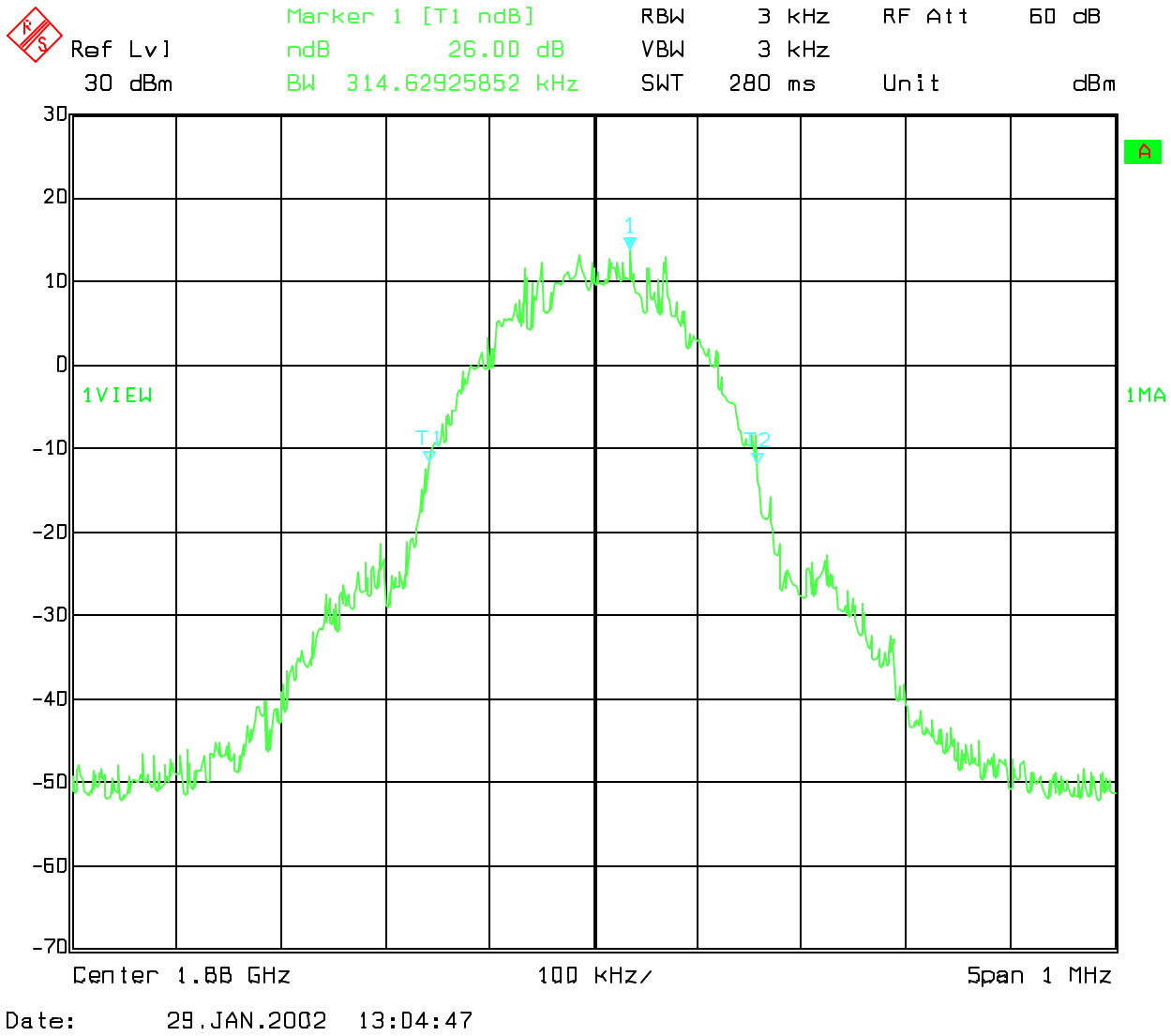
Low Freq. Channel: 1850 MHz
RF Channel Number: 512
99% of the signal power



Date: 29.JAN.2002 13:13:48

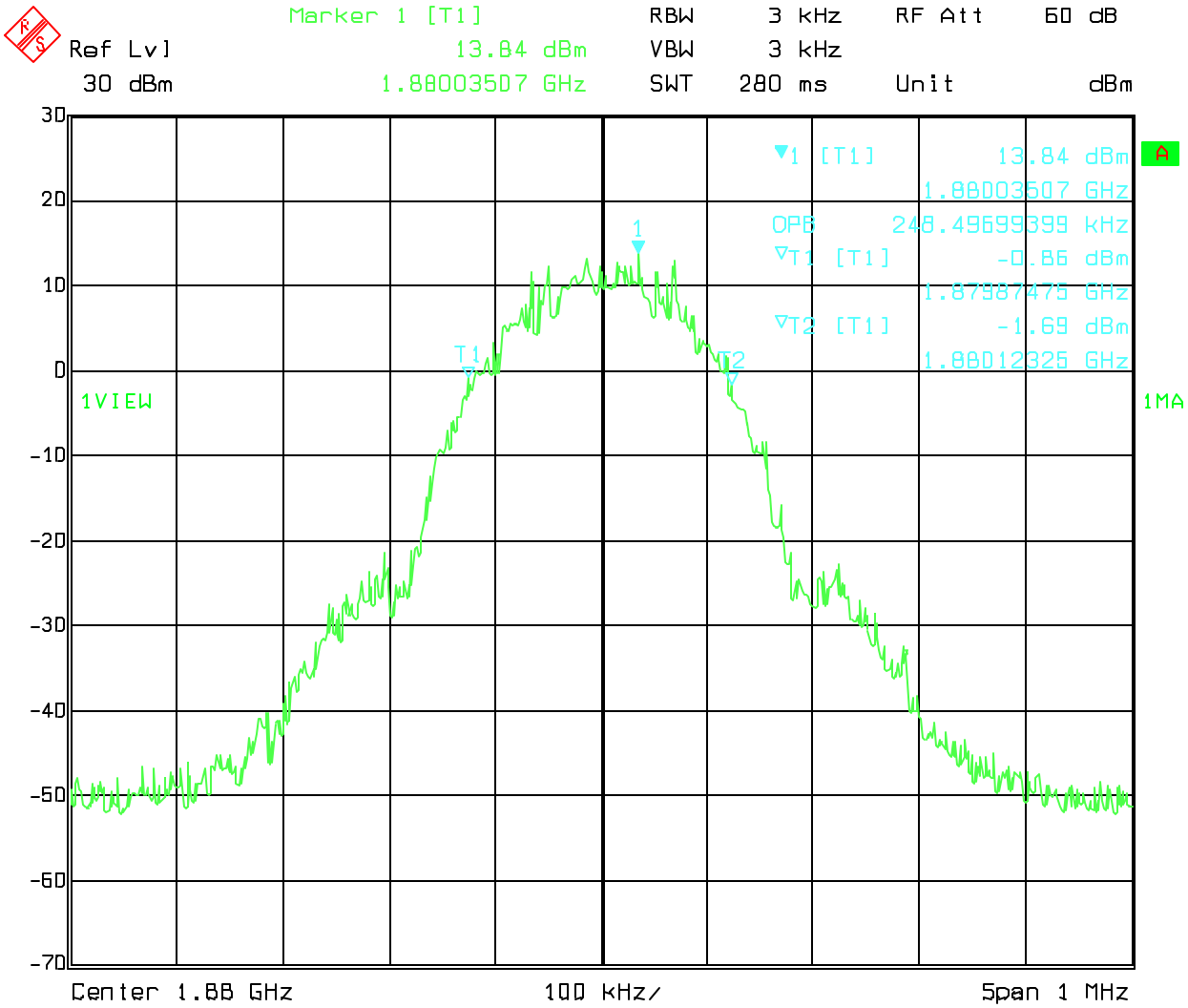
Occupied Bandwidth §2.1049 §2.989

Mid Freq. Channel: 1880 MHz
RF Channel Number: 661
26 dB below the peak level



Occupied Bandwidth §2.1049 §2.989

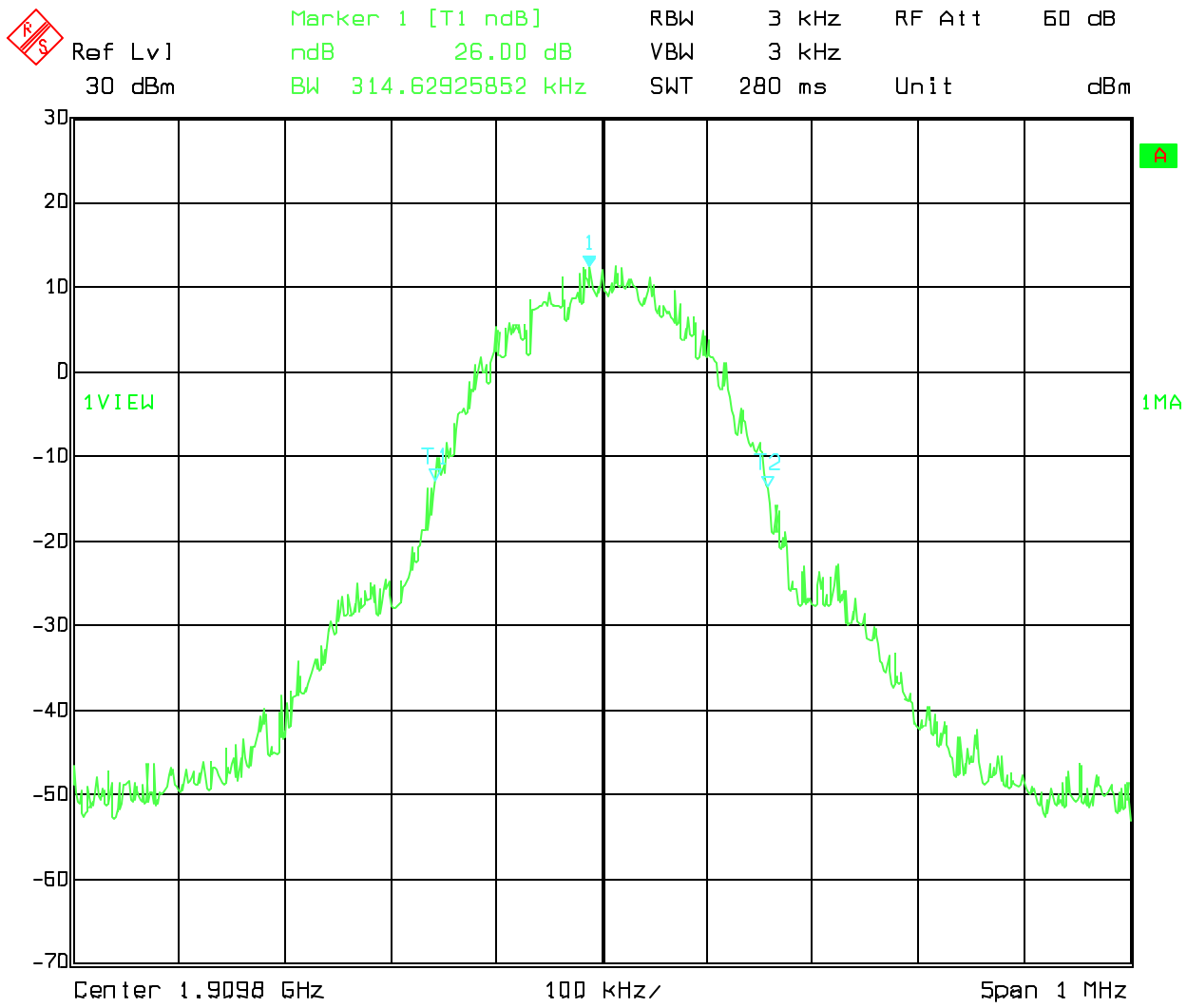
Mid Freq. Channel: 1880 MHz
RF Channel Number: 661
99% of the Signal power



Date: 29.JAN.2002 13:08:38

Occupied Bandwidth §2.1049 §2.989

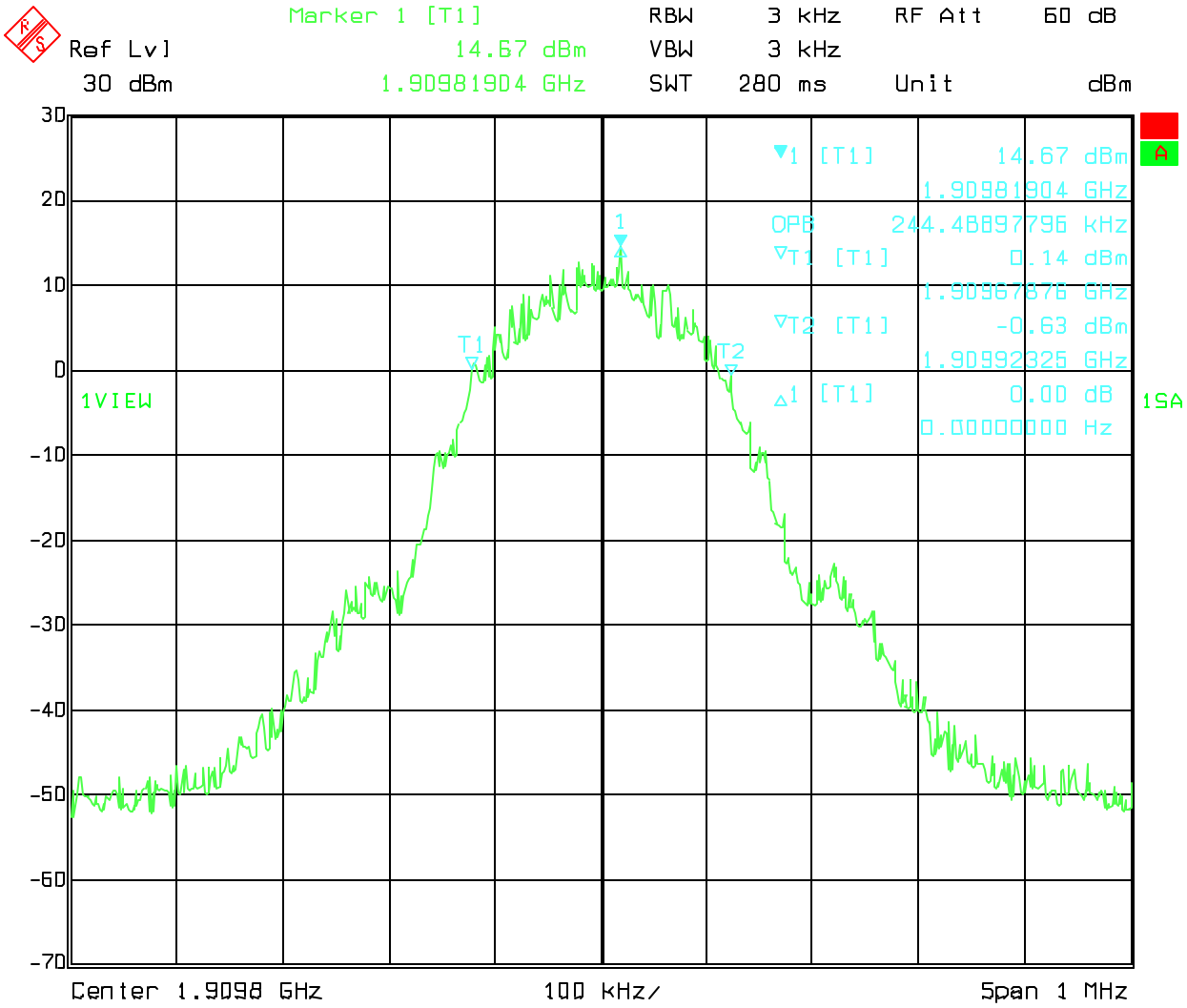
High Freq. Channel: 1909.8 MHz
RF Channel Number: 810
26 dB below the peak level



Date: 29.JAN.2002 13:10:42

Occupied Bandwidth §2.1049 §2.989

High Freq. Channel: 1909.8 MHz
RF Channel Number: 810
99% of the signal power



Spurious Emission (Conducted) §2.1051 §24.238

3.7 Test Procedure

3.7.1. A speech call was established on a traffic channel (TCH) between the mobile station and the base station.

3.7.2. The EUT was set up for the max. power output level.

3.7.3. The Spurious emissions (peak) were measured in the frequency range from10 MHz to 20 GHz.

3.7.4. The spectrum was scanned with the mobile station transmitting at carrier frequency that pertain to low, mid, and high channels of PCS band.

3.7.5. The emission limit is required to be below –13dBm power level.

3.8 Test Results

Spurious Emission (Conducted) **§2.1051 §24.238**

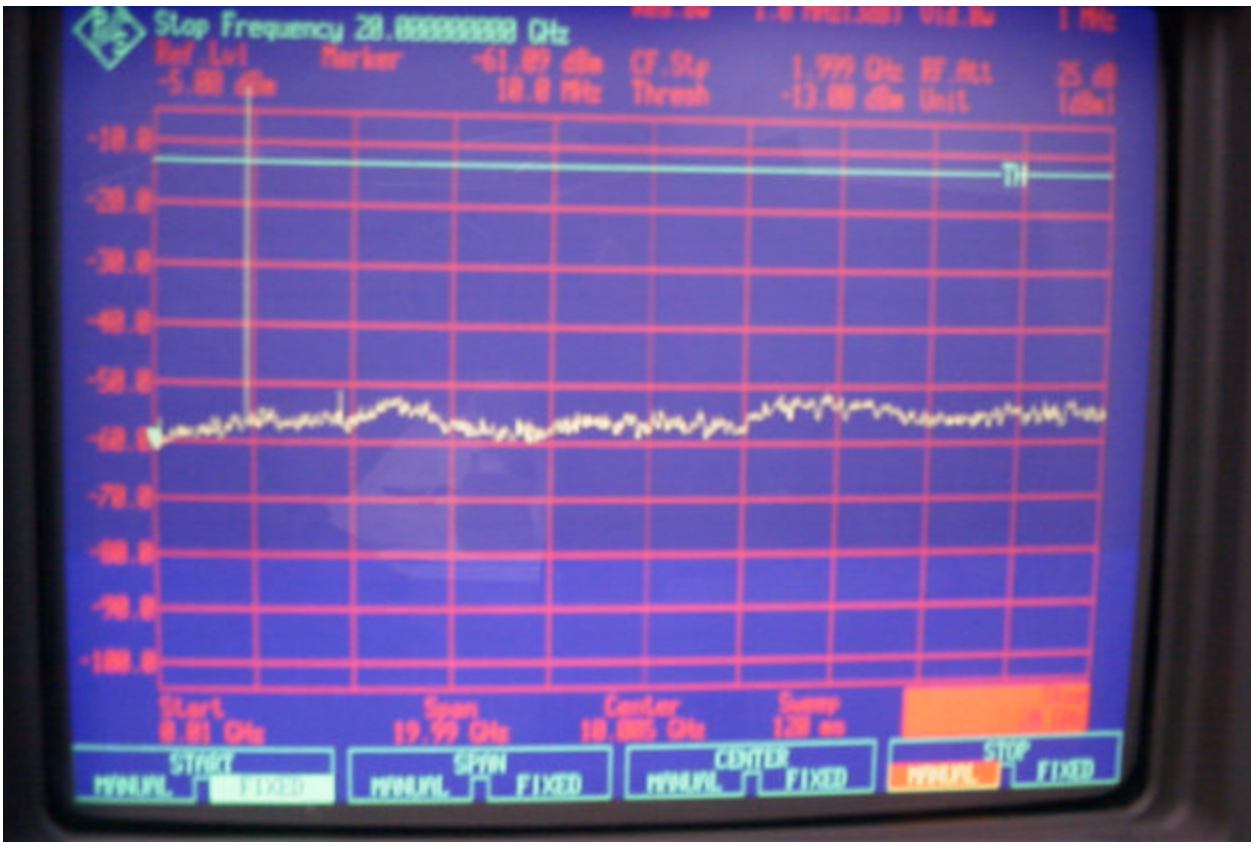
Low Freq. Channel: 1850 MHz
RF Channel Number: 512
EUT in Active Mode

Note: The peak indicates the carrier signal frequency

Spurious Emission (Conducted) **§2.1051 §24.238**

Mid Freq. Channel: 1880 MHz
RF Channel Number: 661
EUT in Active Mode

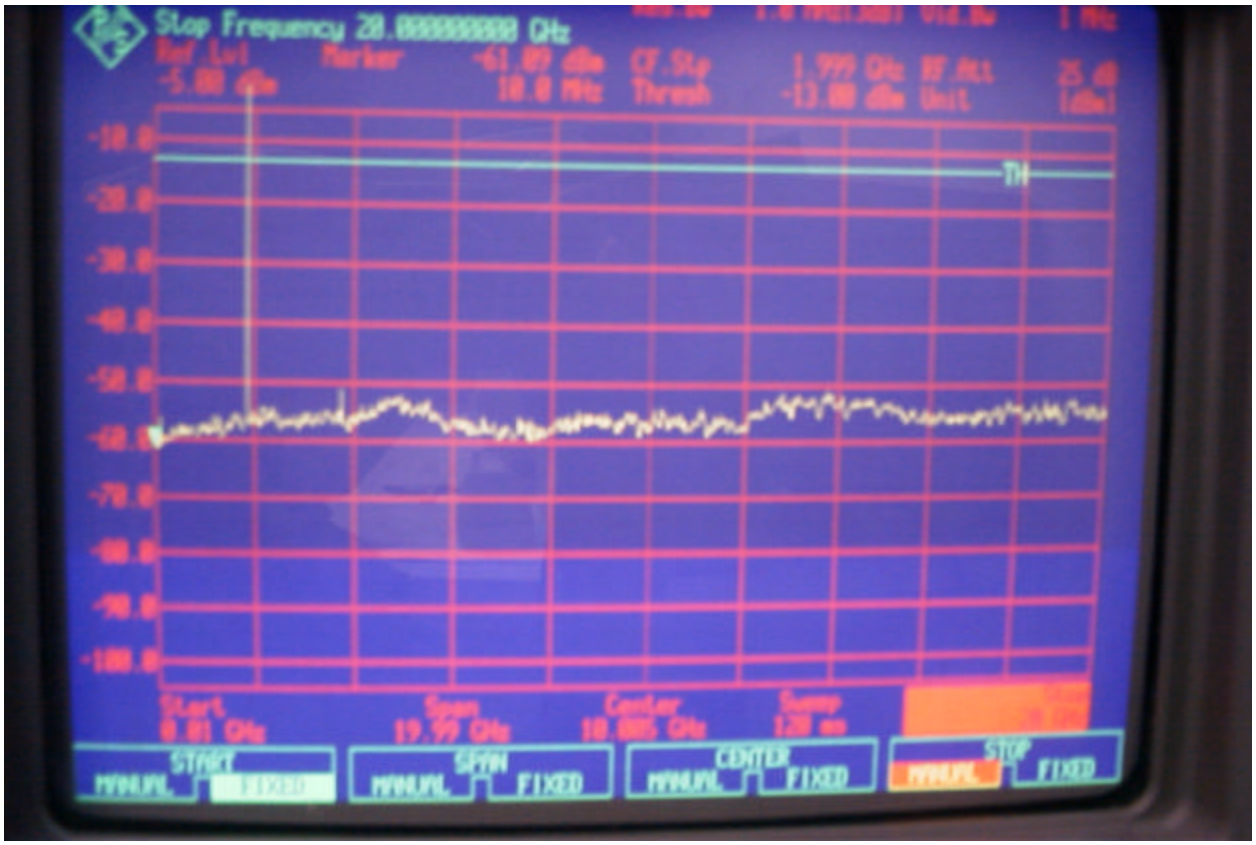
Note: The peak indicates the carrier signal frequency



Spurious Emission (Conducted) §2.1051 §24.238

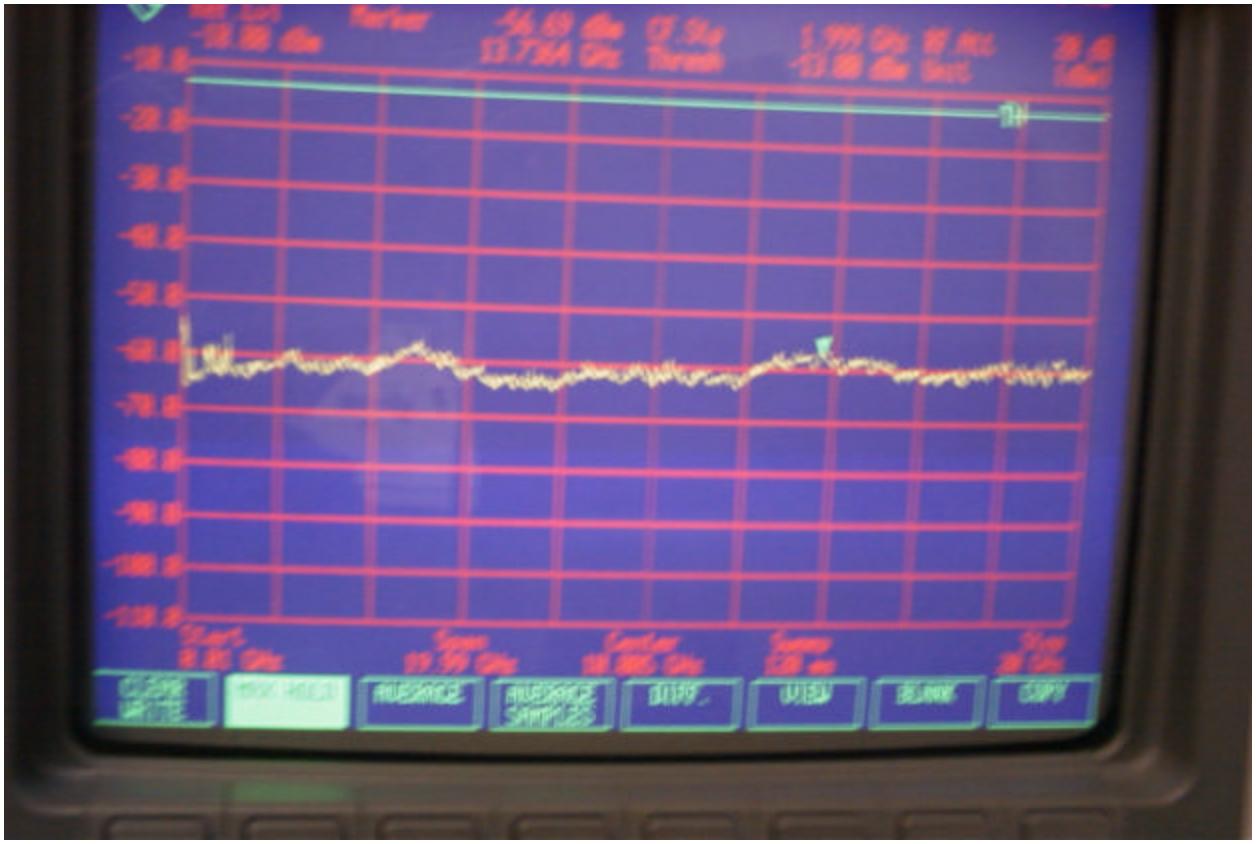
High Freq. Channel: 1909.8 MHz
RF Channel Number: 810
EUT in Active Mode

Note: The peak indicates the carrier signal frequency



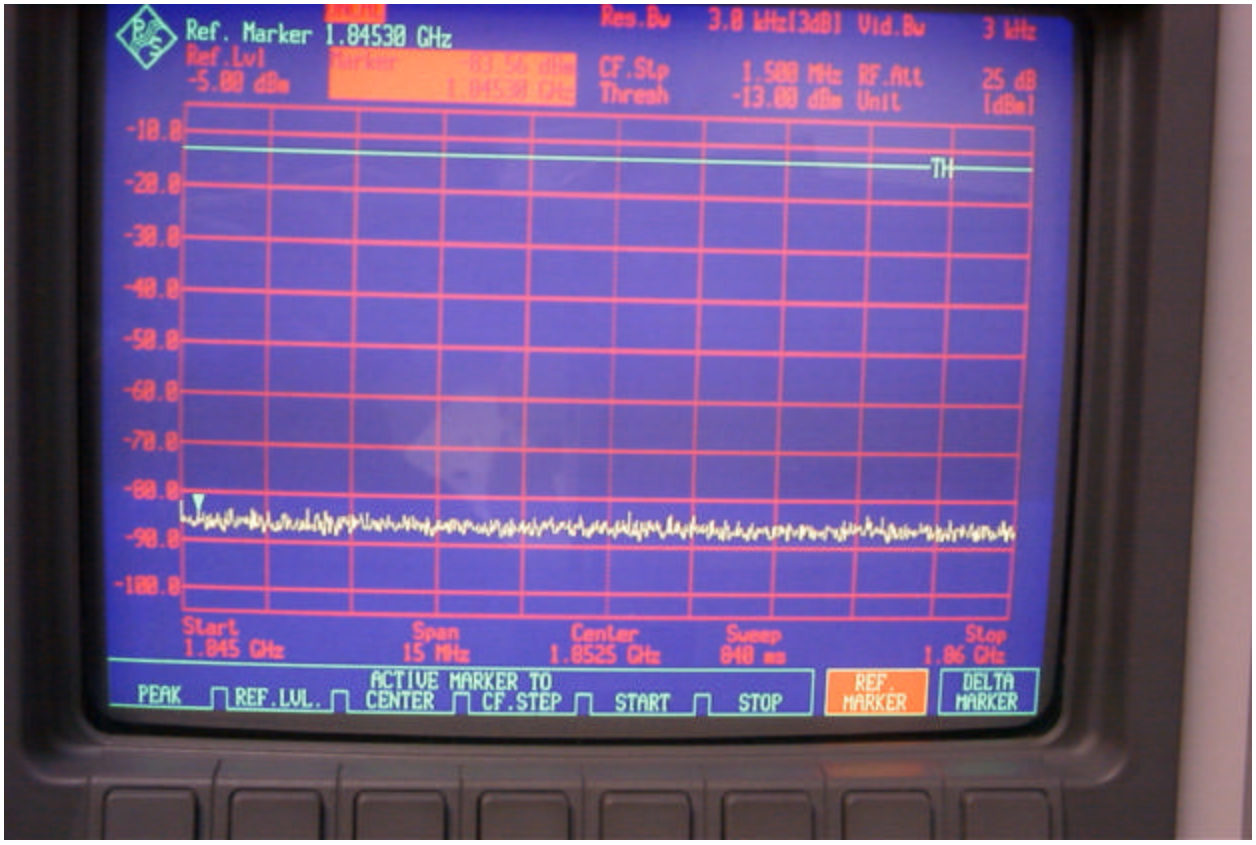
Spurious Emission (Conducted) §2.1051 §24.238

EUT in Idle Mode



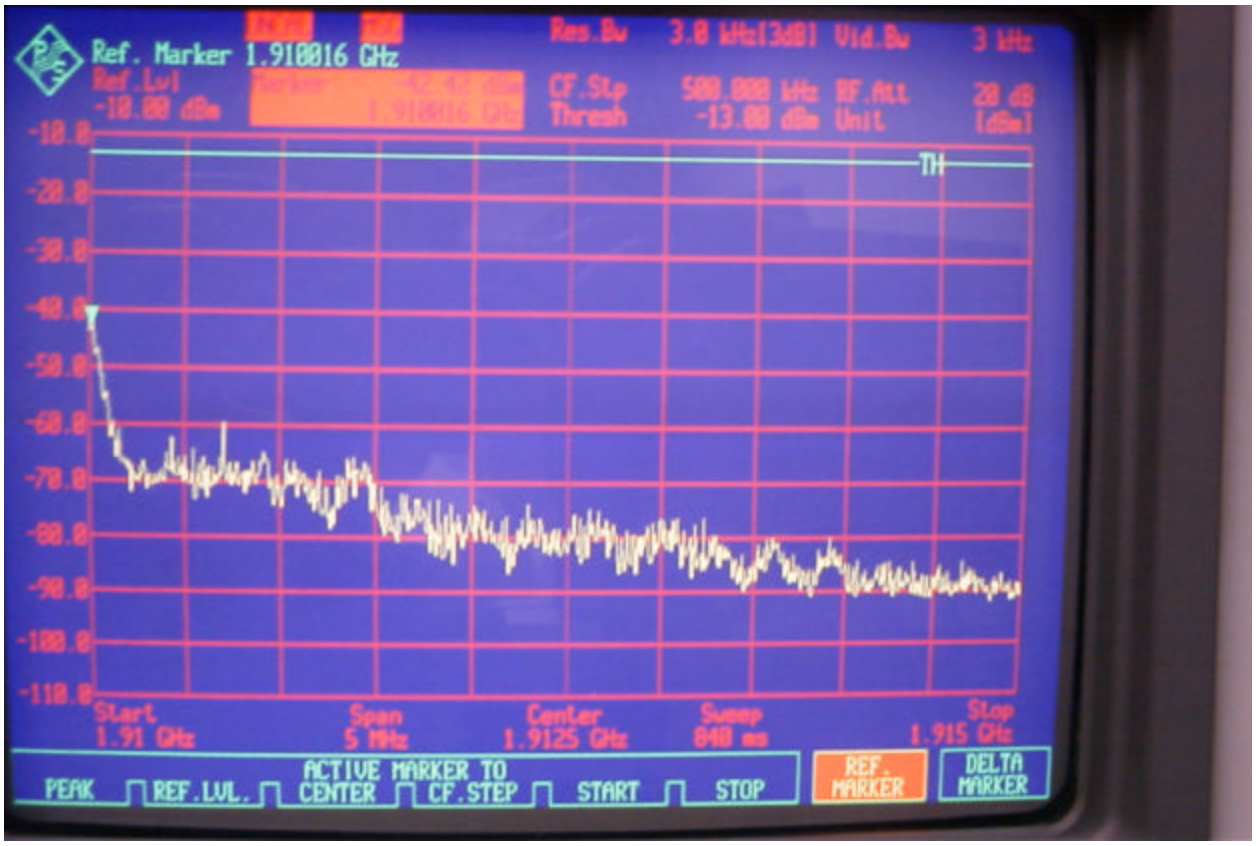
Spurious Emission (Conducted) §2.1051 §24.238

Lower Band Edge



Spurious Emission (Conducted) §2.1051 §24.238

Higher Band Edge



Spurious Emission (Radiated) §2.1051 §24.238

3.9 Test Procedure:

Please Refer to CellTech Test Report

3.10 Test results:

Please refer to CellTech Test Report

Field Strength of Spurious Emission §2.1053

3.11 Test Procedure:

Please Refer to Celltech Test Report

3.12 Test Results:

Please Refer to CellTech Test Report

Frequency Stability §2.1055 §24.235

3.13 Test Procedure (**Temperature Variation**):

3.13.1 The mobile station was placed inside the climatic chamber, and the mobile station is powered off.
3.13.2 The mobile station was coupled to the R&S CMD55 Digital Communication Tester.
3.13.3 The Temperature of Climatic Chamber was set to –30 °C and 50 °C.
3.13.4 The Temperature was raised in 10 °C increment (from –30 °C to 50 °C), or decreased by 10 °C step (from 50 °C to -30 °C).
3.13.5 The mobile station was soaked for a minimum of 1 hour at each temperature before making any measurements
3.13.6 After the temperature was stabilized, the mobile station was switched on, and a speech call will be established from CMD55 Digital Communication Tester as the following set up.
I. Output power Level: Max
II. DTX: off
III. Traffic channel (TCH): 661
3.13.7 The mobile station was tested after waiting 2 minutes.
3.13.8 The Frequency error of the mobile station was recorded by using an internal measurement function.

3.14 Test Procedure (**Voltage Variation**):

3.14.1 The mobile station was coupled to the R&S CMD55 Digital Communication Tester.
3.14.2 Vary the power supply from 85% to 115% of the nominal voltage to the mobile station.
3.14.3 Switch on the mobile station, and apply
3.14.4 A speech call will be established from CMD55 Digital Communication Tester as the following set up.
I. Output power Level: Max
II. DTX: off
III. Traffic channel (TCH): 661
3.14.5 The Frequency error of the mobile station was recorded by using an internal measurement function.

3.14.6 Measurement Limit: The frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. The frequency stability shall be ensured that the fundamental emission stays within the authorized frequency block.

3.15 Test Results:

FREQ ERROR vs TEMPERATURE

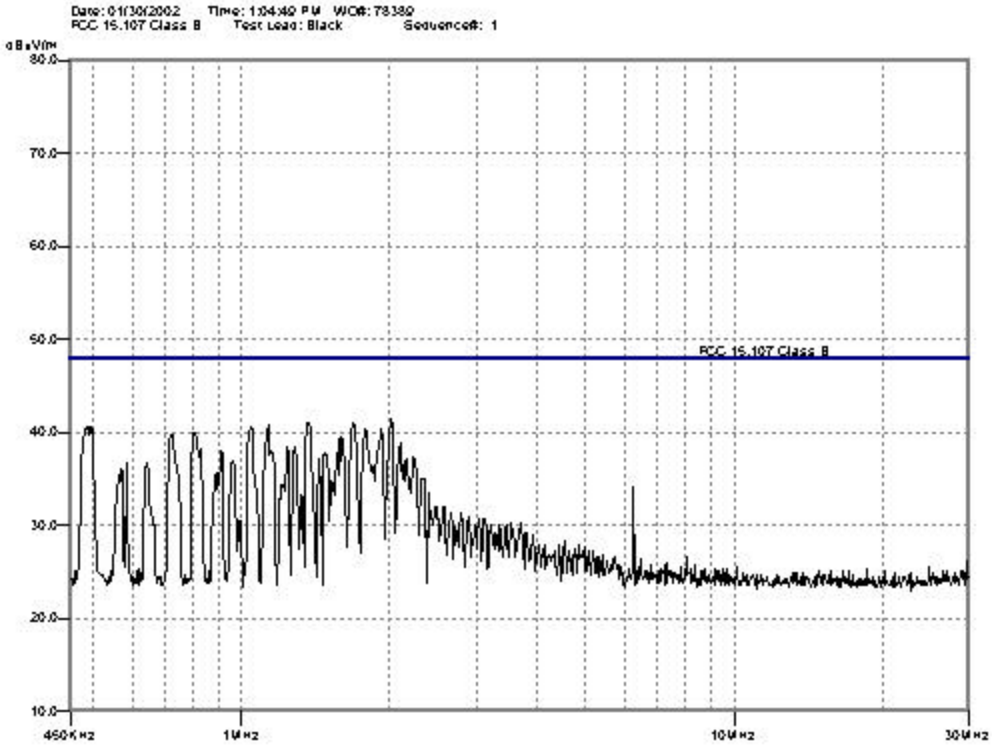
Temperature (C)	Frequency Error (Hz)	Frequency error (ppm)	Verdict (Limit 0.1 ppm)
-30	150	0.0829	Passed
-20	100	0.0532	Passed
-10	132	0.0702	Passed
0	75	0.0399	Passed
10	140	0.0745	Passed
20	79	0.0420	Passed
30	85	0.0452	Passed
40	77	0.0410	Passed
50	102	0.0543	Passed

FREQ ERROR vs VOLTAGE Min: 3.57v Normal: 4.20v Max: 4.2v

Voltage (v)	Frequency Error (Hz)	Frequency error (ppm)	Verdict (Limit 0.1 ppm)
3.57	78	0.041489362	Passed
4.20	71	0.037765957	Passed
		0	
		0	

Conducted Emissions (measured with AC/DC power adapter) §15.107/207

3.16 Test Results (15.107)



Specification:	**FCC 15.107 Class B**		
Work Order #:	**78389**	Date:	01/30/2002
Test Type:	**Conducted Emissions**	Time:	1:04:49 PM
Equipment:	**Battery Charger**	Sequence#:	1
Manufacturer:	NA		
Model:	2PS304/15		
S/N:	CN00025011930		

***Test Equipment*:**

Function	S/N	Cal Date	Cal Due Date	Asset #

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Battery Charger*	NA	2PS304/15	CN00025011930

Support Devices:

Function	Manufacturer	Model #	S/N
Cellular phone	Vtech	A700	NA

Test Conditions / Notes:

The charger is connected to the phone. The phone is charging the battery. The battery has no charge. The Charger is connected to 115 VAC 60 Hz.

Measurement Data:	Reading listed by margin.						Test Lead:			Black	
#	Freq	Rdng					Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	2.016M	41.5					+0.0	41.5	48.0	-6.5	Black
2	1.364M	41.1					+0.0	41.1	48.0	-6.9	Black
3	1.686M	41.0					+0.0	41.0	48.0	-7.0	Black
4	1.132M	40.7					+0.0	40.7	48.0	-7.3	Black
5	1.049M	40.6					+0.0	40.6	48.0	-7.4	Black
6	496.018k	40.6					+0.0	40.6	48.0	-7.4	Black
7	488.286k	40.6					+0.0	40.6	48.0	-7.4	Black

8	1.924M	40.3					+0.0	40.3	48.0	-7.7	Black
9	1.783M	40.3					+0.0	40.3	48.0	-7.7	Black
10	801.240k	39.9					+0.0	39.9	48.0	-8.1	Black
11	721.525k	39.8					+0.0	39.8	48.0	-8.2	Black
12	1.602M	39.5					+0.0	39.5	48.0	-8.5	Black
13	1.579M	39.3					+0.0	39.3	48.0	-8.7	Black
14	2.103M	38.9					+0.0	38.9	48.0	-9.1	Black
15	1.287M	38.4					+0.0	38.4	48.0	-9.6	Black
16	1.244M	38.4					+0.0	38.4	48.0	-9.6	Black
17	830.665k	38.2					+0.0	38.2	48.0	-9.8	Black
18	1.148M	38.0					+0.0	38.0	48.0	-10.0	Black
19	912.175k	38.0					+0.0	38.0	48.0	-10.0	Black
20	1.477M	37.7					+0.0	37.7	48.0	-10.3	Black
21	2.239M	37.3					+0.0	37.3	48.0	-10.7	Black
22	1.441M	37.2					+0.0	37.2	48.0	-10.8	Black
23	2.161M	37.1					+0.0	37.1	48.0	-10.9	Black
24	960.777k	36.9					+0.0	36.9	48.0	-11.1	Black

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25	640.740k	36.7					+0.0	36.7	48.0	-11.3	Black
26	583.906k	36.7					+0.0	36.7	48.0	-11.3	Black
27	2.126M	36.6					+0.0	36.6	48.0	-11.4	Black
28	1.838M	36.6					+0.0	36.6	48.0	-11.4	Black
29	568.818k	36.0					+0.0	36.0	48.0	-12.0	Black
30	574.476k	35.9					+0.0	35.9	48.0	-12.1	Black
31	887.910k	35.7					+0.0	35.7	48.0	-12.3	Black
32	2.331M	35.0					+0.0	35.0	48.0	-13.0	Black
33	2.215M	34.8					+0.0	34.8	48.0	-13.2	Black
34	1.520M	34.7					+0.0	34.7	48.0	-13.3	Black
35	1.538M	34.5					+0.0	34.5	48.0	-13.5	Black
36	1.218M	34.4					+0.0	34.4	48.0	-13.6	Black
37	6.263M	34.1					+0.0	34.1	48.0	-13.9	Black
38	2.401M	33.5					+0.0	33.5	48.0	-14.5	Black
39	1.327M	33.2					+0.0	33.2	48.0	-14.8	Black
40	2.479M	32.0					+0.0	32.0	48.0	-16.0	Black
41	2.576M	31.9					+0.0	31.9	48.0	-16.1	Black

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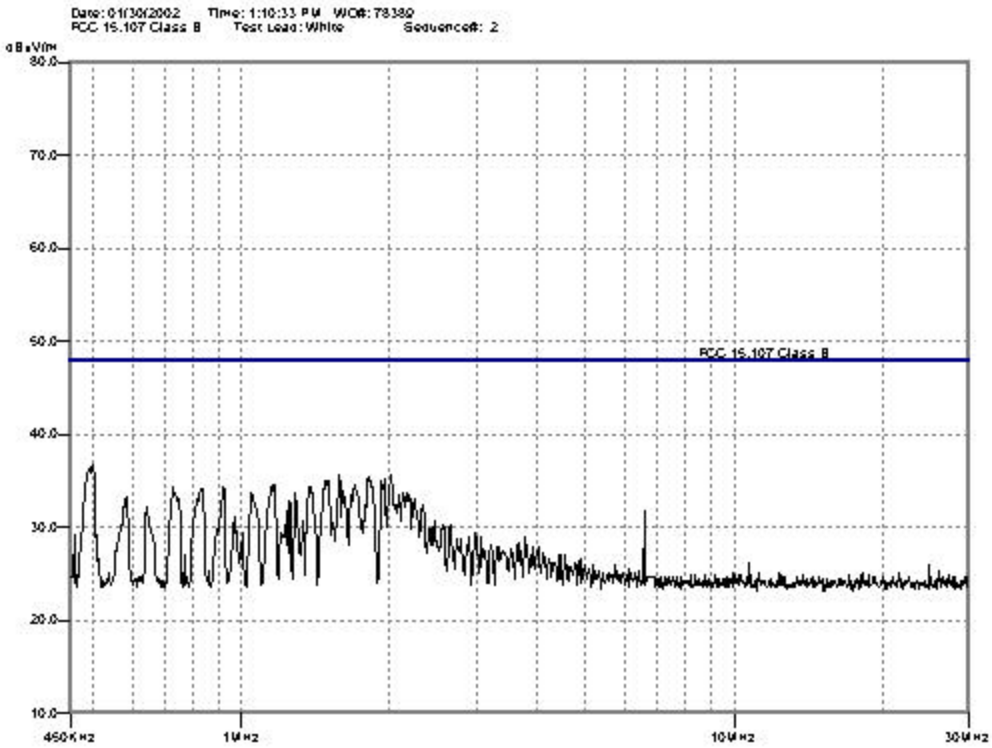
42	2.789M	31.4					+0.0	31.4	48.0	-16.6	Black
43	2.667M	31.4					+0.0	31.4	48.0	-16.6	Black
44	2.891M	31.0					+0.0	31.0	48.0	-17.0	Black
45	3.035M	30.8					+0.0	30.8	48.0	-17.2	Black
46	3.125M	30.7					+0.0	30.7	48.0	-17.3	Black
47	663.210k	30.6					+0.0	30.6	48.0	-17.4	Black
48	992.672k	30.5					+0.0	30.5	48.0	-17.5	Black
49	3.696M	30.2					+0.0	30.2	48.0	-17.8	Black
50	3.542M	30.2					+0.0	30.2	48.0	-17.8	Black



Specification:	**FCC 15.107 Class B**		
Work Order #:	**78389**	Date:	01/30/2002
Test Type:	**Conducted Emissions**	Time:	1:10:33 PM
Equipment:	**Battery Charger**	Sequence#:	2
Manufacturer:	NA		
Model:	2PS304/15		
S/N:	CN00025011930		

***Test Equipment*:**

Function	S/N	Cal Date	Cal Due Date	Asset #

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N

Battery Charger*	NA	2PS304/15	CN00025011930

Support Devices:

Function	Manufacturer	Model #	S/N
Cellular phone	Vtech	A700	NA

Test Conditions / Notes:

The charger is connected to the phone. The phone is charging the battery. The battery has no charge. The Charger is connected to 115 VAC 60 Hz.

Measurement Data:	Reading listed by margin.						Test Lead:			White	
#	Freq	Rdng					Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	498.282k	36.8					+0.0	36.8	48.0	-11.2	White
2	489.606k	36.3					+0.0	36.3	48.0	-11.7	White
3	2.004M	35.6					+0.0	35.6	48.0	-12.4	White
4	1.585M	35.6					+0.0	35.6	48.0	-12.4	White
5	1.815M	35.4					+0.0	35.4	48.0	-12.6	White
6	1.958M	35.2					+0.0	35.2	48.0	-12.8	White
7	1.499M	35.1					+0.0	35.1	48.0	-12.9	White
8	1.926M	35.0					+0.0	35.0	48.0	-13.0	White
9	1.480M	34.9					+0.0	34.9	48.0	-13.1	White

10	1.993M	34.6					+0.0	34.6	48.0	-13.4	White
11	1.693M	34.6					+0.0	34.6	48.0	-13.4	White
12	1.165M	34.5					+0.0	34.5	48.0	-13.5	White
13	918.250k	34.4					+0.0	34.4	48.0	-13.6	White
14	729.015k	34.4					+0.0	34.4	48.0	-13.6	White
15	1.373M	34.3					+0.0	34.3	48.0	-13.7	White
16	836.550k	34.2					+0.0	34.2	48.0	-13.8	White
17	1.605M	33.9					+0.0	33.9	48.0	-14.1	White
18	2.138M	33.8					+0.0	33.8	48.0	-14.2	White
19	1.048M	33.8					+0.0	33.8	48.0	-14.2	White
20	2.175M	33.7					+0.0	33.7	48.0	-14.3	White
21	1.290M	33.7					+0.0	33.7	48.0	-14.3	White
22	2.085M	33.5					+0.0	33.5	48.0	-14.5	White
23	1.672M	33.4					+0.0	33.4	48.0	-14.6	White
24	583.152k	33.3					+0.0	33.3	48.0	-14.7	White
25	2.251M	33.0					+0.0	33.0	48.0	-15.0	White
26	580.134k	33.0					+0.0	33.0	48.0	-15.0	White

27	1.255M	32.9					+0.0	32.9	48.0	-15.1	White
28	1.135M	32.6					+0.0	32.6	48.0	-15.4	White
29	2.331M	32.4					+0.0	32.4	48.0	-15.6	White
30	2.221M	32.4					+0.0	32.4	48.0	-15.6	White
31	642.345k	32.1					+0.0	32.1	48.0	-15.9	White
32	1.233M	31.8					+0.0	31.8	48.0	-16.2	White
33	6.577M	31.7					+0.0	31.7	48.0	-16.3	White
34	967.611k	31.2					+0.0	31.2	48.0	-16.8	White
35	2.464M	30.8					+0.0	30.8	48.0	-17.2	White
36	1.527M	30.7					+0.0	30.7	48.0	-17.3	White
37	1.334M	30.6					+0.0	30.6	48.0	-17.4	White
38	2.658M	30.3					+0.0	30.3	48.0	-17.7	White
39	2.568M	30.2					+0.0	30.2	48.0	-17.8	White
40	892.190k	29.9					+0.0	29.9	48.0	-18.1	White
41	2.404M	29.8					+0.0	29.8	48.0	-18.2	White
42	655.720k	29.8					+0.0	29.8	48.0	-18.2	White
43	1.208M	29.5					+0.0	29.5	48.0	-18.5	White

44	1.003M	29.4					+0.0	29.4	48.0	-18.6	White
45	2.993M	29.3					+0.0	29.3	48.0	-18.7	White
46	457.921k	29.1					+0.0	29.1	48.0	-18.9	White
47	3.077M	29.0					+0.0	29.0	48.0	-19.0	White
48	2.895M	29.0					+0.0	29.0	48.0	-19.0	White
49	3.782M	28.9					+0.0	28.9	48.0	-19.1	White
50	2.789M	28.8					+0.0	28.8	48.0	-19.2	White

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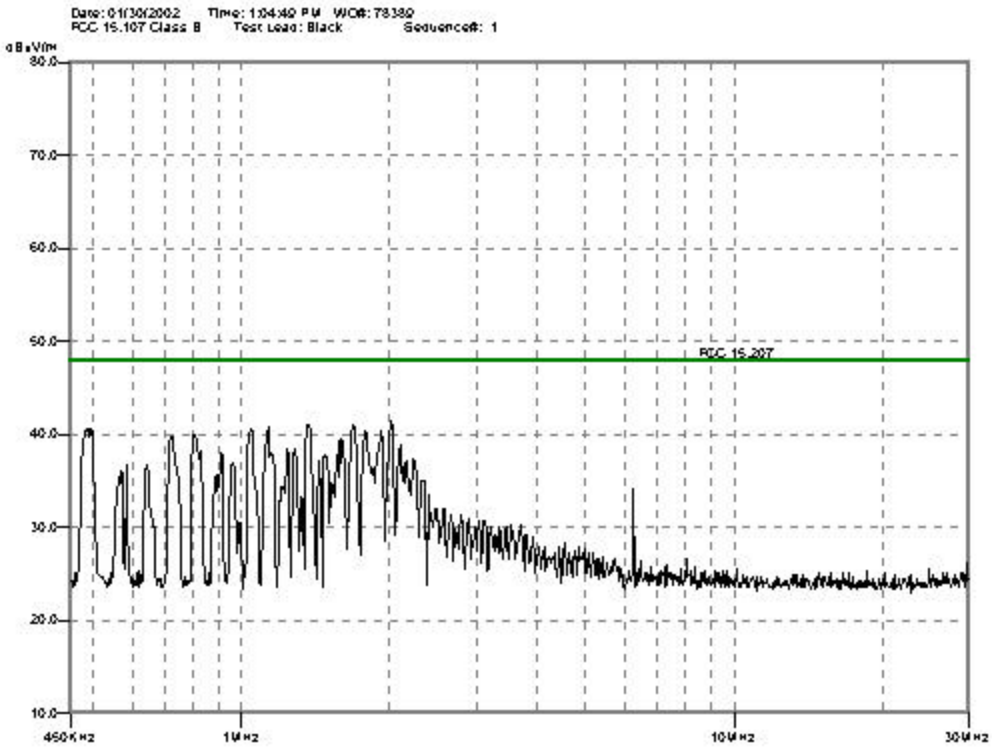
3.16 Test Results (15.207)



Specification:	**FCC 15.207**		
Work Order #:	**78389**	Date:	01/30/2002
Test Type:	**Conducted Emissions**	Time:	1:04:49 PM
Equipment:	**Battery Charger**	Sequence#:	1
Manufacturer:	NA		
Model:	2PS304/15		
S/N:	CN00025011930		

***Test Equipment*:**

Function	S/N	Cal Date	Cal Due Date	Asset #

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Battery Charger*	NA	2PS304/15	CN00025011930

Support Devices:

Function	Manufacturer	Model #	S/N
Cellular phone	Vtech	A700	NA

Test Conditions / Notes:

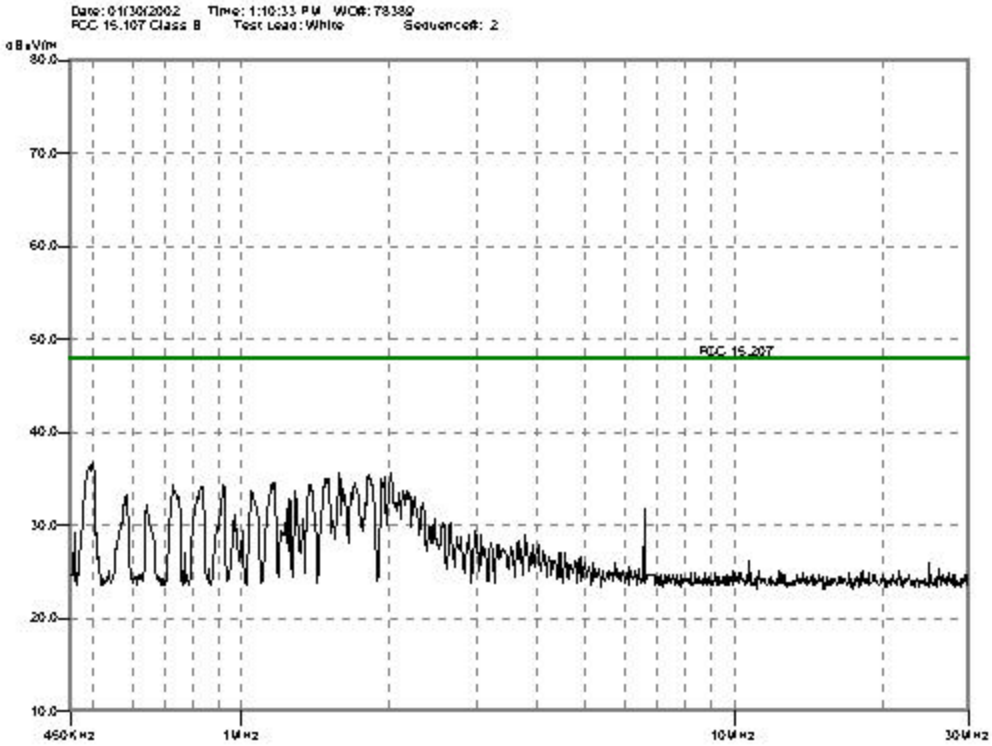
The charger is connected to the phone. The phone is charging the battery. The battery has no charge. The Charger is connected to 115 VAC 60 Hz.

Measurement Data:		Reading listed by margin.						Test Lead:		Black		
#	Freq	Rdng					Dist	Corr	Spec		Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m		dB	Ant
1	2.016M	41.5					+0.0	41.5	48.0		-6.5	Black
2	1.364M	41.1					+0.0	41.1	48.0		-6.9	Black
3	1.686M	41.0					+0.0	41.0	48.0		-7.0	Black
4	1.132M	40.7					+0.0	40.7	48.0		-7.3	Black
5	1.049M	40.6					+0.0	40.6	48.0		-7.4	Black
6	496.018k	40.6					+0.0	40.6	48.0		-7.4	Black
7	488.286k	40.6					+0.0	40.6	48.0		-7.4	Black
8	1.924M	40.3					+0.0	40.3	48.0		-7.7	Black

9	1.783M	40.3					+0.0	40.3	48.0	-7.7	Black
10	801.240k	39.9					+0.0	39.9	48.0	-8.1	Black
11	721.525k	39.8					+0.0	39.8	48.0	-8.2	Black
12	1.602M	39.5					+0.0	39.5	48.0	-8.5	Black
13	1.579M	39.3					+0.0	39.3	48.0	-8.7	Black
14	2.103M	38.9					+0.0	38.9	48.0	-9.1	Black
15	1.287M	38.4					+0.0	38.4	48.0	-9.6	Black
16	1.244M	38.4					+0.0	38.4	48.0	-9.6	Black
17	830.665k	38.2					+0.0	38.2	48.0	-9.8	Black
18	1.148M	38.0					+0.0	38.0	48.0	-10.0	Black
19	912.175k	38.0					+0.0	38.0	48.0	-10.0	Black
20	1.477M	37.7					+0.0	37.7	48.0	-10.3	Black
21	2.239M	37.3					+0.0	37.3	48.0	-10.7	Black
22	1.441M	37.2					+0.0	37.2	48.0	-10.8	Black
23	2.161M	37.1					+0.0	37.1	48.0	-10.9	Black
24	960.777k	36.9					+0.0	36.9	48.0	-11.1	Black
25	640.740k	36.7					+0.0	36.7	48.0	-11.3	Black

26	583.906k	36.7					+0.0	36.7	48.0	-11.3	Black
27	2.126M	36.6					+0.0	36.6	48.0	-11.4	Black
28	1.838M	36.6					+0.0	36.6	48.0	-11.4	Black
29	568.818k	36.0					+0.0	36.0	48.0	-12.0	Black
30	574.476k	35.9					+0.0	35.9	48.0	-12.1	Black
31	887.910k	35.7					+0.0	35.7	48.0	-12.3	Black
32	2.331M	35.0					+0.0	35.0	48.0	-13.0	Black
33	2.215M	34.8					+0.0	34.8	48.0	-13.2	Black
34	1.520M	34.7					+0.0	34.7	48.0	-13.3	Black
35	1.538M	34.5					+0.0	34.5	48.0	-13.5	Black
36	1.218M	34.4					+0.0	34.4	48.0	-13.6	Black
37	6.263M	34.1					+0.0	34.1	48.0	-13.9	Black
38	2.401M	33.5					+0.0	33.5	48.0	-14.5	Black
39	1.327M	33.2					+0.0	33.2	48.0	-14.8	Black
40	2.479M	32.0					+0.0	32.0	48.0	-16.0	Black
41	2.576M	31.9					+0.0	31.9	48.0	-16.1	Black
42	2.789M	31.4					+0.0	31.4	48.0	-16.6	Black

43	2.667M	31.4					+0.0	31.4	48.0	-16.6	Black
44	2.891M	31.0					+0.0	31.0	48.0	-17.0	Black
45	3.035M	30.8					+0.0	30.8	48.0	-17.2	Black
46	3.125M	30.7					+0.0	30.7	48.0	-17.3	Black
47	663.210k	30.6					+0.0	30.6	48.0	-17.4	Black
48	992.672k	30.5					+0.0	30.5	48.0	-17.5	Black
49	3.696M	30.2					+0.0	30.2	48.0	-17.8	Black
50	3.542M	30.2					+0.0	30.2	48.0	-17.8	Black



Specification:	**FCC 15.207**		
Work Order #:	**78389**	Date:	01/30/2002
Test Type:	**Conducted Emissions**	Time:	1:10:33 PM
Equipment:	**Battery Charger**	Sequence#:	2
Manufacturer:	NA		
Model:	2PS304/15		
S/N:	CN00025011930		

***Test Equipment*:**

Function	S/N	Cal Date	Cal Due Date	Asset #

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Battery Charger*	NA	2PS304/15	CN00025011930

Project name: 4_Vtech_0101_GSM

Support Devices:

Function	Manufacturer	Model #	S/N
Cellular phone	Vtech	A700	NA

Test Conditions / Notes:

The charger is connected to the phone. The phone is charging the battery. The battery has no charge. The Charger is connected to 115 VAC 60 Hz.

Measurement Data:		Reading listed by margin.						Test Lead:		White	
#	Freq	Rdng					Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	498.282k	36.8					+0.0	36.8	48.0	-11.2	White
2	489.606k	36.3					+0.0	36.3	48.0	-11.7	White
3	2.004M	35.6					+0.0	35.6	48.0	-12.4	White
4	1.585M	35.6					+0.0	35.6	48.0	-12.4	White
5	1.815M	35.4					+0.0	35.4	48.0	-12.6	White
6	1.958M	35.2					+0.0	35.2	48.0	-12.8	White
7	1.499M	35.1					+0.0	35.1	48.0	-12.9	White
8	1.926M	35.0					+0.0	35.0	48.0	-13.0	White
9	1.480M	34.9					+0.0	34.9	48.0	-13.1	White
10	1.993M	34.6					+0.0	34.6	48.0	-13.4	White

11	1.693M	34.6					+0.0	34.6	48.0	-13.4	White
12	1.165M	34.5					+0.0	34.5	48.0	-13.5	White
13	918.250k	34.4					+0.0	34.4	48.0	-13.6	White
14	729.015k	34.4					+0.0	34.4	48.0	-13.6	White
15	1.373M	34.3					+0.0	34.3	48.0	-13.7	White
16	836.550k	34.2					+0.0	34.2	48.0	-13.8	White
17	1.605M	33.9					+0.0	33.9	48.0	-14.1	White
18	2.138M	33.8					+0.0	33.8	48.0	-14.2	White
19	1.048M	33.8					+0.0	33.8	48.0	-14.2	White
20	2.175M	33.7					+0.0	33.7	48.0	-14.3	White
21	1.290M	33.7					+0.0	33.7	48.0	-14.3	White
22	2.085M	33.5					+0.0	33.5	48.0	-14.5	White
23	1.672M	33.4					+0.0	33.4	48.0	-14.6	White
24	583.152k	33.3					+0.0	33.3	48.0	-14.7	White
25	2.251M	33.0					+0.0	33.0	48.0	-15.0	White
26	580.134k	33.0					+0.0	33.0	48.0	-15.0	White
27	1.255M	32.9					+0.0	32.9	48.0	-15.1	White

28	1.135M	32.6					+0.0	32.6	48.0	-15.4	White
29	2.331M	32.4					+0.0	32.4	48.0	-15.6	White
30	2.221M	32.4					+0.0	32.4	48.0	-15.6	White
31	642.345k	32.1					+0.0	32.1	48.0	-15.9	White
32	1.233M	31.8					+0.0	31.8	48.0	-16.2	White
33	6.577M	31.7					+0.0	31.7	48.0	-16.3	White
34	967.611k	31.2					+0.0	31.2	48.0	-16.8	White
35	2.464M	30.8					+0.0	30.8	48.0	-17.2	White
36	1.527M	30.7					+0.0	30.7	48.0	-17.3	White
37	1.334M	30.6					+0.0	30.6	48.0	-17.4	White
38	2.658M	30.3					+0.0	30.3	48.0	-17.7	White
39	2.568M	30.2					+0.0	30.2	48.0	-17.8	White
40	892.190k	29.9					+0.0	29.9	48.0	-18.1	White
41	2.404M	29.8					+0.0	29.8	48.0	-18.2	White
42	655.720k	29.8					+0.0	29.8	48.0	-18.2	White
43	1.208M	29.5					+0.0	29.5	48.0	-18.5	White
44	1.003M	29.4					+0.0	29.4	48.0	-18.6	White

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45	2.993M	29.3					+0.0	29.3	48.0	-18.7	White
46	457.921k	29.1					+0.0	29.1	48.0	-18.9	White
47	3.077M	29.0					+0.0	29.0	48.0	-19.0	White
48	2.895M	29.0					+0.0	29.0	48.0	-19.0	White
49	3.782M	28.9					+0.0	28.9	48.0	-19.1	White
50	2.789M	28.8					+0.0	28.8	48.0	-19.2	White

SAR Testing

3.17 Test Procedure:

Refer to CellTech test report.

3.18 Test Results:

Refer to CellTech test report.

4. Test Equipment

No	Instrument	Type	Manufacturer	Serial No.
1.	Spectrum Analyzer	FSEB	Rohde & Schwarz	846287/018
2.	Spectrum Analyzer	FSM	Rohde & Schwarz	826188/007
3.	Digital Communication Tester	CMD 55	Rohde & Schwarz	844618/015
4.	Power Splitter	HP11667B	Hewlett Packard	51747
5.	DC Power Supply	HPE3610A	Hewlett Packard	KR83 24155
6.	Climatic Chamber	2800	Thermotron	393/25-1389-27RF

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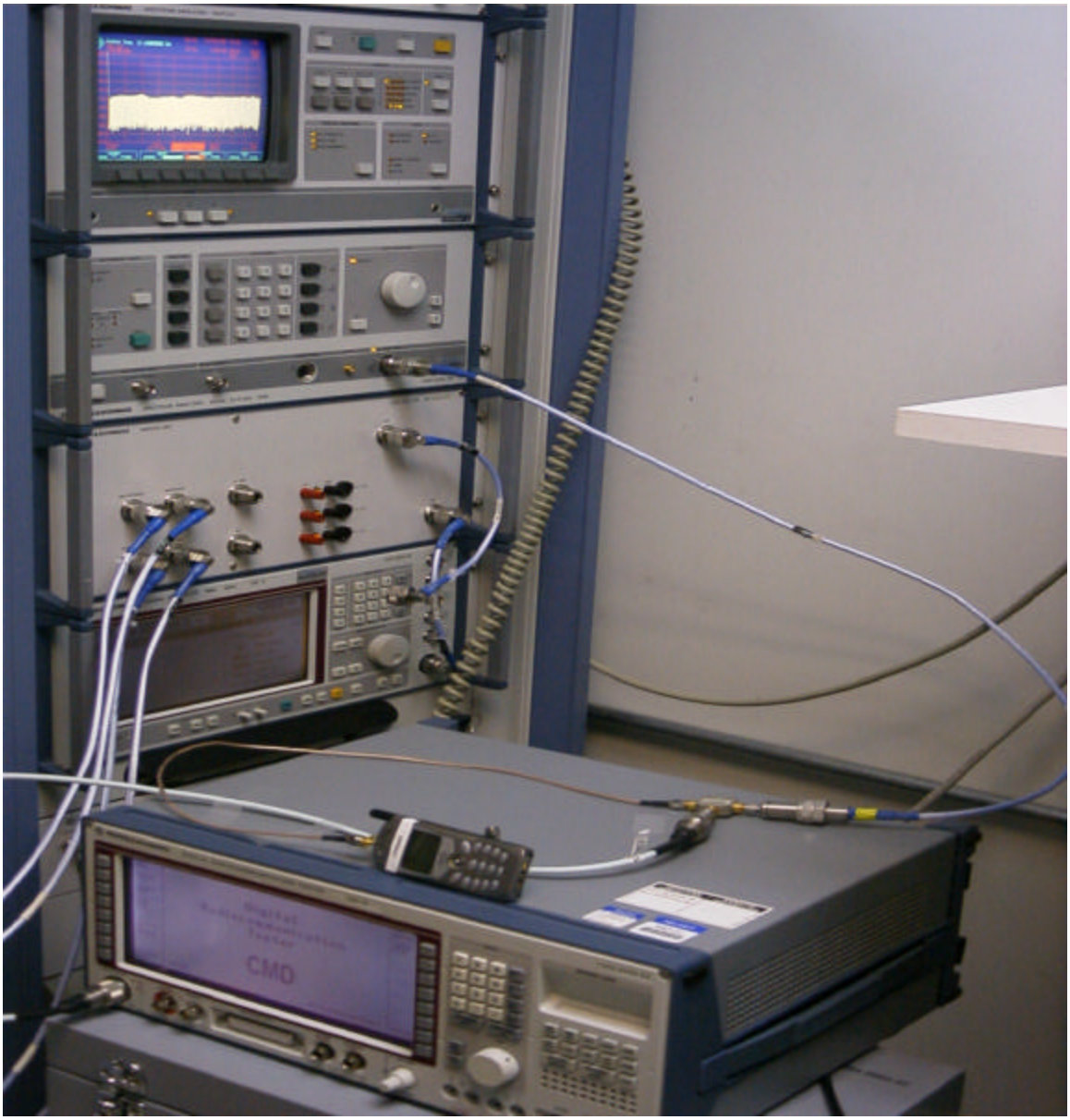
Test set up

RF Power Output (Conducted) and Occupied Bandwidth

RF Power Output (Radiated)

See CellTech Test Report

Spurious Emission at Antenna Terminal (Conducted)



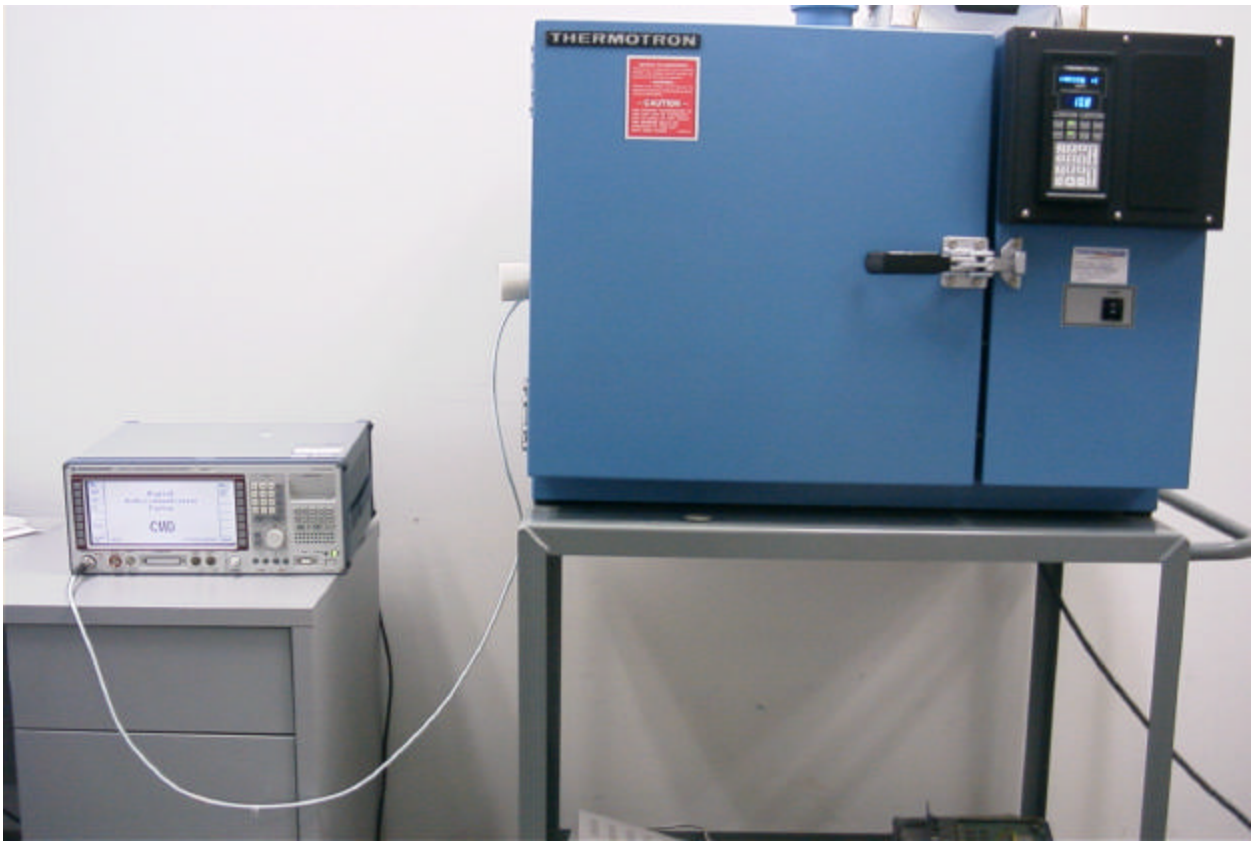
Spurious Emission at Antenna Terminal (Radiated)

See CellTech Test Report

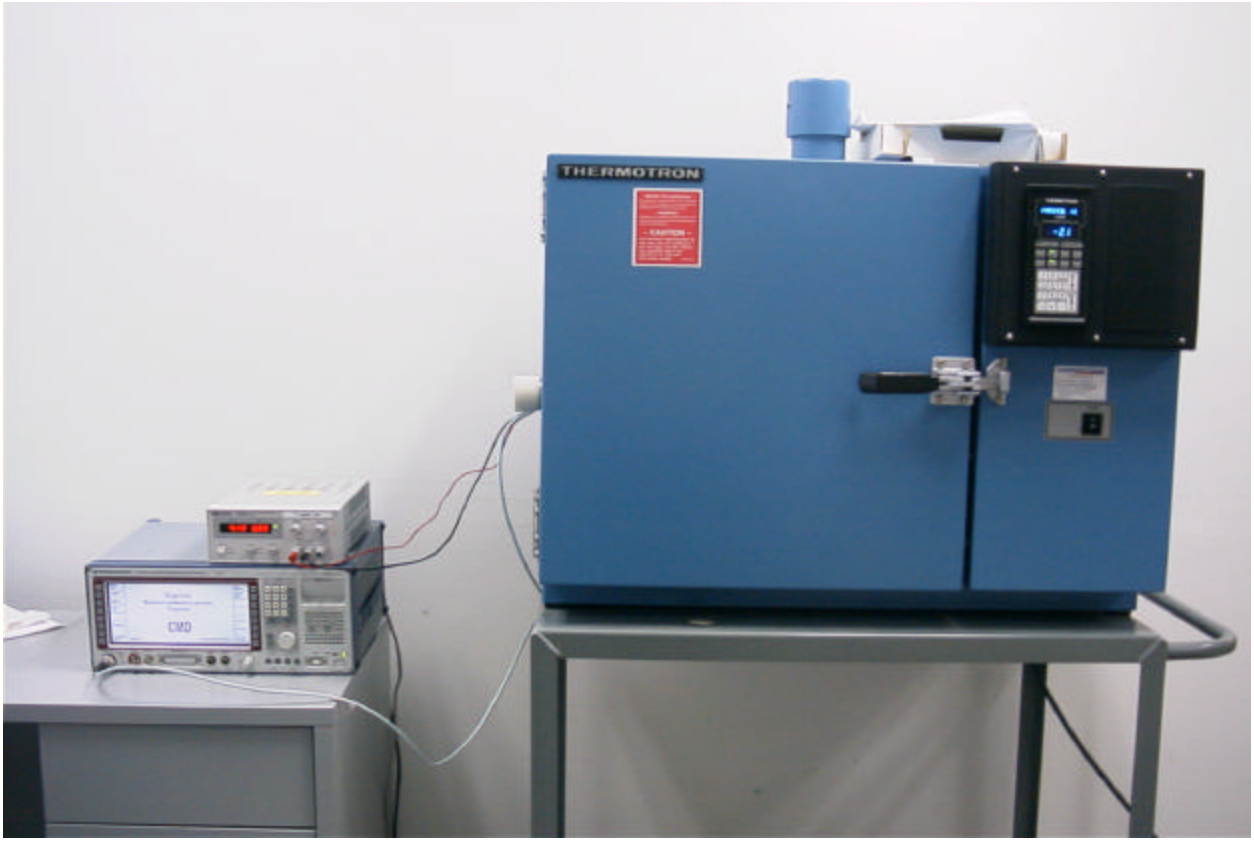
Field Strength of Spurious Radiation

See CellTech Test Report

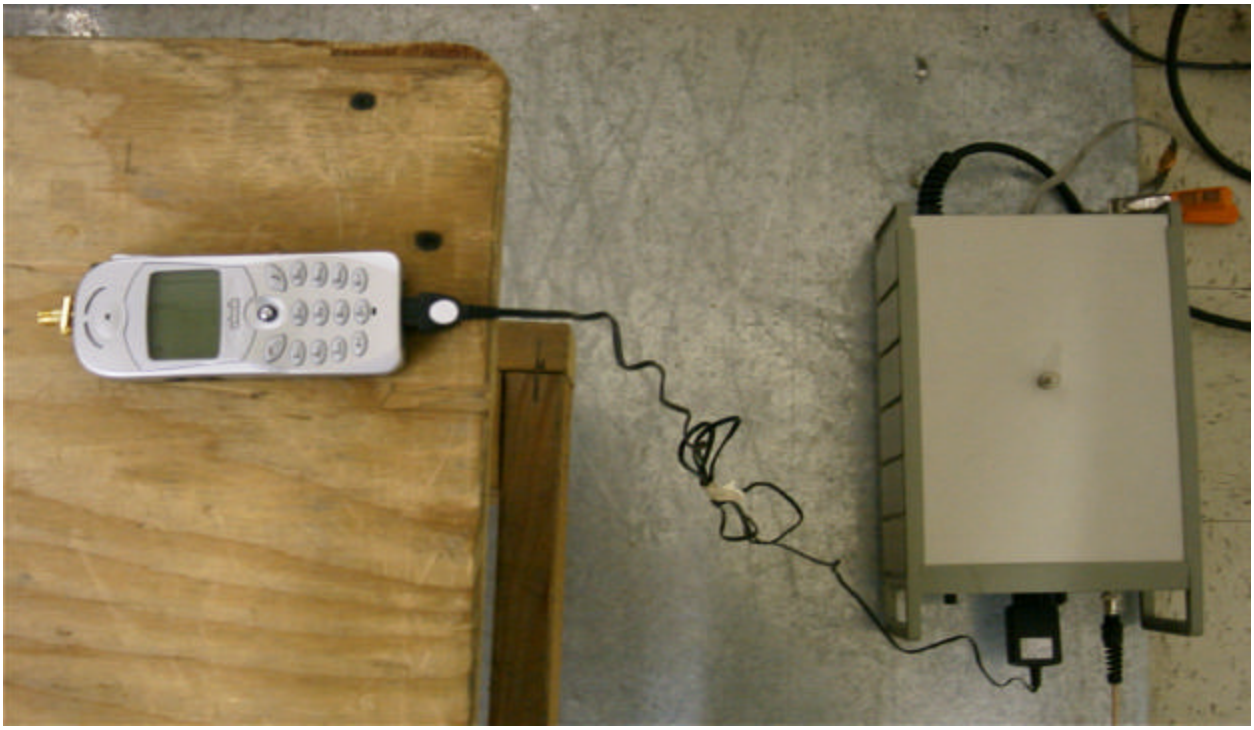
Frequency Stability (Temperature Variation)

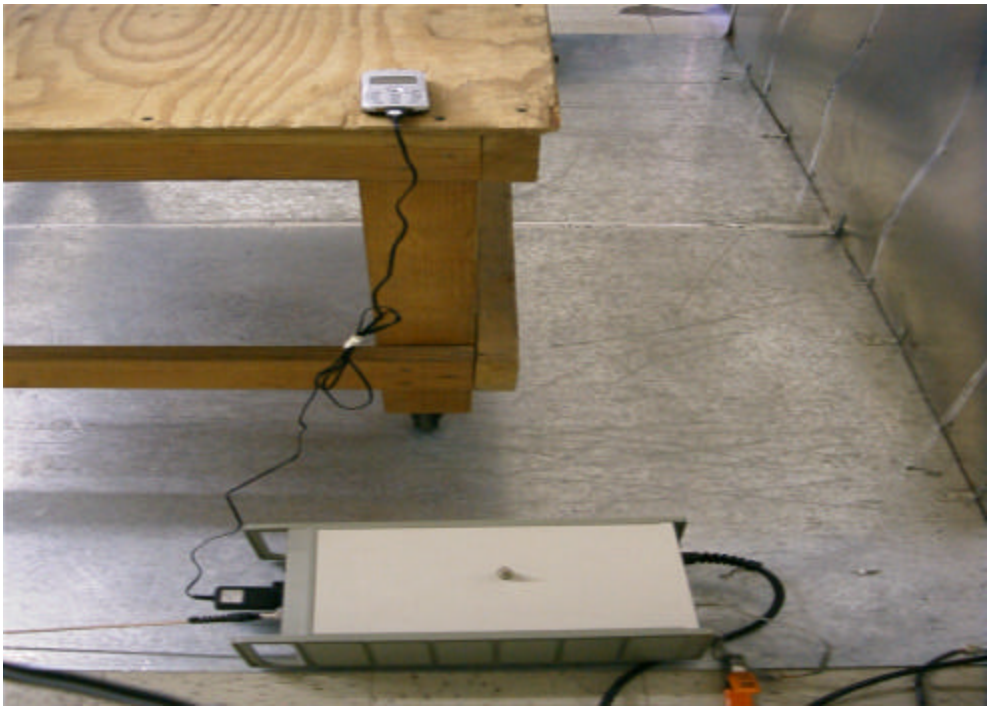


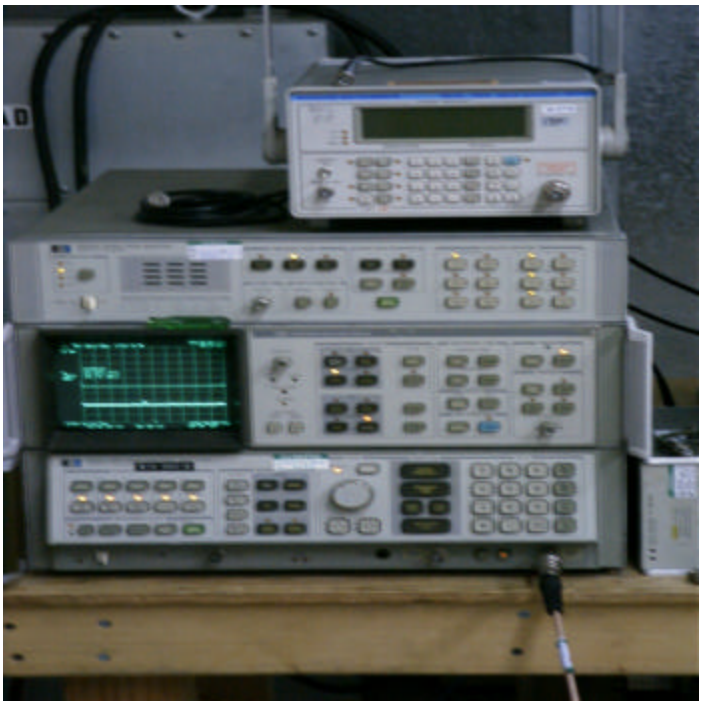
Frequency Stability (Voltage Variation)



Conducted Emission (measured with AC/DC power adapter)







SAR testing

See CellTech Test Report

Annex 1

Annex 2