

Handled by, department  
Jonas Bremholt  
Electronics  
+46 (0)10 516 5438, jonas.bremholt@sp.se

Ericsson AB  
FJB/SV Mats Falk  
Lindholmospiren 11  
417 56 Göteborg

## Radio measurements on WCDMA 1900 MHz Transceiver unit with FCC ID: TA8BKRC11819-2 and IC: 287AB-BW118192 (9 appendices)

### Test object

Radio Unit KRC 118 19/2 rev R2C

Appendix 1 provides information about the test object and the test set-up.  
Appendix 9 provides external photos of the test object.

### Summary

Standard	Compliant	Appendix
<b>FCC CFR 47 / IC RSS-133</b>		
2.1046 / RSS-133 6.4 RF power output	Yes	2
2.1049 / RSS-Gen 4.6.1 Occupied bandwidth	Yes	3
2.1051 / RSS-133 6.5 Band edge	Yes	4
2.1051 / RSS-133 6.5 Spurious emission at antenna terminals	Yes	5
2.1053 / RSS-133 6.5 Field strength of spurious radiation	Yes	6
2.1055 / RSS-133 6.3 Frequency stability	Yes	7
<b>Industry Canada RSS-133</b>		
Section 6.7 Receiver spurious emissions	Yes	8

Note: Above RSS-133 items are given as cross-reference only. Measurements were performed according to ANSI procedures referenced by FCC and covered by SP's accreditation.

### SP Technical Research Institute of Sweden Electronics - EMC

  
Christer Karlsson  
Technical Manager

  
Jonas Bremholt  
Technical Officer

### SP Technical Research Institute of Sweden

Postal address Office location Phone / Fax / E-mail  
SP Västerås +46 105 16 50 00  
Box 857 Brinellgatan 4 +46 33 13 55 02  
SE-501 15 Borås info@sp.se  
SWEDEN

Laboratories are accredited by the Swedish Board for Accreditation and Conformity Assessment (SWEDAC) under the terms of Swedish legislation. This report may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.



## REPORT

FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

### Table of contents

Description of the test object	Appendix 1
Operation mode during measurements	Appendix 1
Test setups	Appendix 1
Purpose of test	Appendix 1
RF power output	Appendix 2
Occupied bandwidth	Appendix 3
Band edge	Appendix 4
Spurious emission at antenna terminals	Appendix 5
Field strength of spurious radiation	Appendix 6
Frequency stability	Appendix 7
Receiver spurious emissions	Appendix 8
External photos	Appendix 9



FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 1

**Description – Test object**

Equipment: WCDMA Transceiver unit (RU) 1900 MHz, single and multi carrier.  
Tx Frequency range: 1932.4-1987.6 MHz  
Modulations: QPSK, 16QAM and 64QAM  
Maximum output power: Single carrier: 1x 43 dBm (20W)  
Multi carrier: 2x 40 dBm (10W)  
Nominal power voltage: -48 VDC

**Tested channels**

UARFCN	Frequency
9662	1932.4 MHz
9712	1942.4 MHz
9788	1957.6 MHz
9838	1967.6 MHz
9888	1977.6 MHz
9938	1987.6 MHz

**Operation mode during measurements**

Measurements were performed with the test object transmitting the Test models defined in 3GPP TS 25.141. Test model 1(TM1) uses the QPSK modulation only, Test model 5(TM5) includes the 16QAM modulation and Test model 6(TM6) includes the 64QAM modulation.

The settings below were found to be representative for all traffic scenarios when several settings with the different modulations were tested to find the setting for worst case.

Single carrier TM1: 64 DPCH:s at 30 ksps (SF=128)  
Multi carrier TM1: 32 DPCH:s at 30 ksps (SF=128) in each carrier

**Conducted measurements**

The test object was installed in a RBS 3308 cabinet powered with -48 VDC.  
All RF conducted measurements were performed with the test object configured for maximum transmit power. All measurements were done at the output connector (Ant A) of the Filter Unit (FU) KRC 118 20/1.

FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 1

**Radiated measurements**

All radiated measurements were performed with the test object installed in a RBS 3308 powered with -48 VDC and 120 VAC, 60 Hz.

The RU unit were allocated to the following UARFCN:

**Single Carrier:**

Downlink UARFCN	9662 (1932.4 MHz)	9788 (1957.6 MHz)	9938 (1987.6 MHz)
Uplink UARFCN	9262 (1852.4 MHz)	9388 (1877.6 MHz)	9538 (1907.6 MHz)
Power configuration	DC	DC	DC

**Multi Carrier:**

Cell	1	2
Downlink	9662 (1932.4 MHz)	9712 (1942.4 MHz)
Uplink	9262 (1852.4 MHz)	9312 (1862.4 MHz)
Power configuration	AC	

**Purpose of test**

The purpose of the tests is to verify compliance to the performance characteristics specified in applicable items of FCC CFR 47 and Industry Canada RSS-133.

**References**

Measurements were done according to relevant parts of the following standards:

ANSI 63.4-2003

ANSI/TIA/EIA-603-B-2002

3GPP TS 25.141

FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 1

**Measurement equipment**

Measurement equipment	Calibration Due	SP number
Test site Tesla	2010-10	503 881
R&S FSIQ	2009-08	503 738
R&S ESI 26	2009-07	503 292
High pass filter	2010-06	503 739
Boonton RF Peak power meter/analyzer	2008-12	503 144
Boonton Power sensor 56518-S/4	2009-06	503 146
Chase Bilog antenna CBL 6111A	2011-11	502 181
EMCO Horn Antenna 3115	2011-01	502 175
Flann Standard gain horn 16240-25	-	503 939
Flann Standard gain horn 18240-25	-	503 900
Flann Standard gain horn 20240-20	-	503 674
MITEQ Low Noise Amplifier	2009-06	503 285
Temperature chamber 2	2010-11	501 031
Climate chamber 3	2009-05	503 546
Multimeter Fluke 87	2009-04	502 190
Testo 610, Temperature and humidity meter	2009-04	502 658

**Reservation**

The test results in this report apply only to the particular test object as declared in the report.

**Delivery of test object**

The test object was delivered: 2008-09-19

**Manufacturer's representative**

Mats Falk, Ericsson AB.

**Test engineers**

Jonas Bremholt and Andreas Johnson

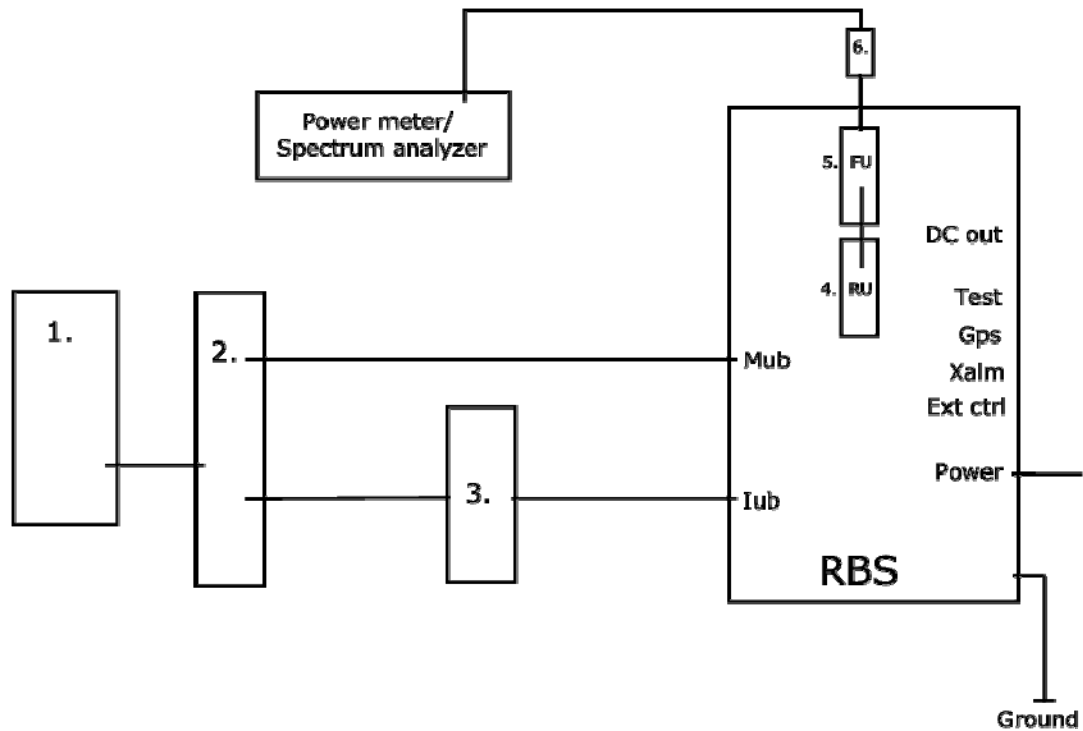
**Test witnesses**

Christer Hjort and Ove Nilsson, Ericsson AB.

FCC ID: TA8BKRC11819-2  
 IC: 287AB-BW118192

Appendix 1

**Test set-up, conducted measurements**



RBS 3308: SEB 104 083/1 with software CXP 901 2417 Rev. R10AV01 (TM1 and TM5) the software CXP 901 2959 Rev. R6Y07 was used for measurements on TM6. More information about the RBS hardware units are shown in SP document F816587-H

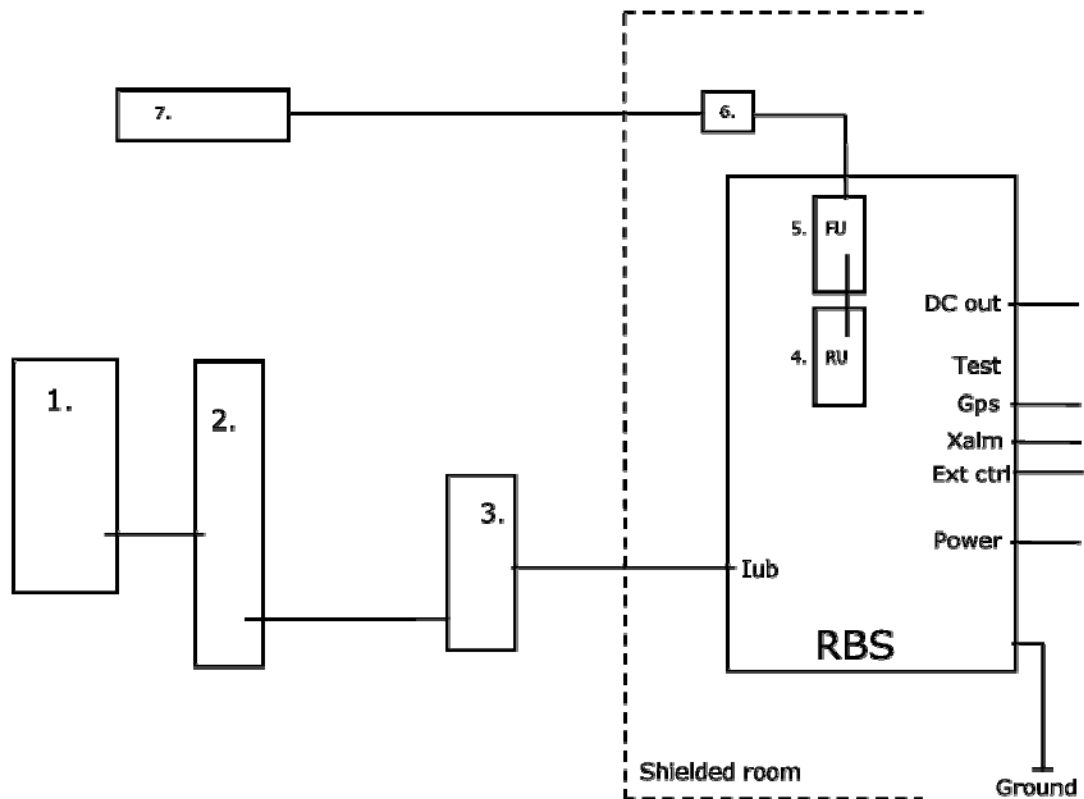
**Test object**

- 4. Test object, RU KRC 118 19/2 Rev. R2C, S/N: AE59762120 (FCC ID: TA8BKRC11819-2)

**Functional test equipment**

- 1. Computer Sunblade 1500, HP-ID E0121978
- 2. Fast Ethernet switch, Netgear FS726
- 3. RNC Sim 4780 DA, mini-SIM#60, s/n 0210 rev. BAA
- 5. FU KRC 118 20/1 Rev. R2A S/N: A400677279
- 6. Attenuator

**Test set-up, radiated measurements**



RBS 3308: SEB 104 083/1 with software CXP 901 2417 Rev. R10AV01 (TM1 and TM5) the software CXP 901 2959 Rev. R6Y07 was used for measurements on TM6. More information about the RBS hardware units are shown in SP document F816587-H

**Test object**

- 4. Test object, RU KRC 118 19/2 Rev. R2C, S/N: AE59762120 (FCC ID: TA8BKRC11819-2)

**Functional test equipment**

- 1. Computer Sunblade 1500, HP-ID E0121978
- 2. Fast Ethernet switch, Netgear GS516T
- 3. RNC Sim 4780 DA, mini-SIM#60, s/n 0210 rev. BAA
- 5. FU KRC 118 20/1 Rev. R2A, S/N: A400677279
- 6. Attenuator
- 7. Anritsu Signal Analyzer, MS2691A, SN 6200750255

**Interfaces:**

- Power, 120 VAC, 60 Hz
- Power, -48 VDC
- Coaxial cable with N connector and adaptor to 7/16"
- DC out, terminated in a resistive load
- Test, serial interface, no cable attached
- GPS, Shielded multi-wire, unterminated
- Xalm, shielded multi-wire with RJ-45 connector, unterminated
- Ext ctrl: shielded multi-wire, unterminated
- Iub, configured as T1 by CBU, shielded multi-wire with RJ-45 connector

**Type of port:**

- AC Mains
- DC power
- Antenna
- DC Power
- Test purpose
- Signal
- Signal
- Signal
- Telecom



FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 2

**RF power output measurements according to 47 CFR 2.1046/ RSS-133 6.4**

Date	Temperature	Humidity
2008-10-07	24 °C ± 3 °C	34 % ± 5 %
2008-10-08	23 °C ± 3 °C	34 % ± 5 %

**Test set-up and procedure**

The output was connected to a peak power analyzer with the CDF mode activated.

Measurement equipment	SP number
Boonton RF Peak power meter/analyzer	503 144
Boonton Power sensor 56518-S/4	503 146
Multimeter Fluke 87	502 190
Testo 610, Temperature and humidity meter	502 658

**Measurement uncertainty: 0.5 dB**

**Results**

Single carrier: Rated output power level at Ant 1 connector (maximum): 1x 43 dBm

Transmitter power (dBm/ dB) RMS/ PAR		
Frequency 1932.4 MHz	Frequency 1957.6 MHz	Frequency 1987.6 MHz
42.7/ 6.5	42.7/ 6.5	42.7/ 6.5

Multi carrier: Rated output power level at Ant 1 connector (maximum): 2x 40 dBm

Transmitter combined power (dBm) RMS		
Frequencies 1932.4 MHz 1942.4 MHz	Frequencies 1957.6 MHz 1967.6 MHz	Frequencies 1977.6 MHz 1987.6 MHz
42.6/ 6.5	42.6/ 6.5	42.6/ 6.5

**Limit**

§24.232 **Federal Register** / Vol. 73, No. 86  
The maximum output power may not exceed 1640 W (EIRP)  
The Peak to Average Ratio (PAR) may not exceed 13 dB.

RSS-133 Maximum conducted output power shall not exceed 100W (50 dBm).

Complies?	Yes
-----------	-----





FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 3

**Occupied bandwidth measurements according to 47 CFR 2.1049/ RSS-Gen 6.5.1**

Date	Temperature	Humidity
2008-10-07	24 °C ± 3 °C	34 % ± 5 %
2008-10-08	23 °C ± 3 °C	34 % ± 5 %

**Test set-up and procedure**

The measurements were made as defined in §2.1049. The output was connected to a spectrum analyzer. The spectrum analyzer was connected to an external 10 MHz reference standard during the measurements.

Measurement equipment	SP number
R&S FSIQ	503 738
Testo 610, Temperature and humidity meter	502 658

**Measurement uncertainty: 3.7 dB**

**Results**

The results are shown in appendix 3.1

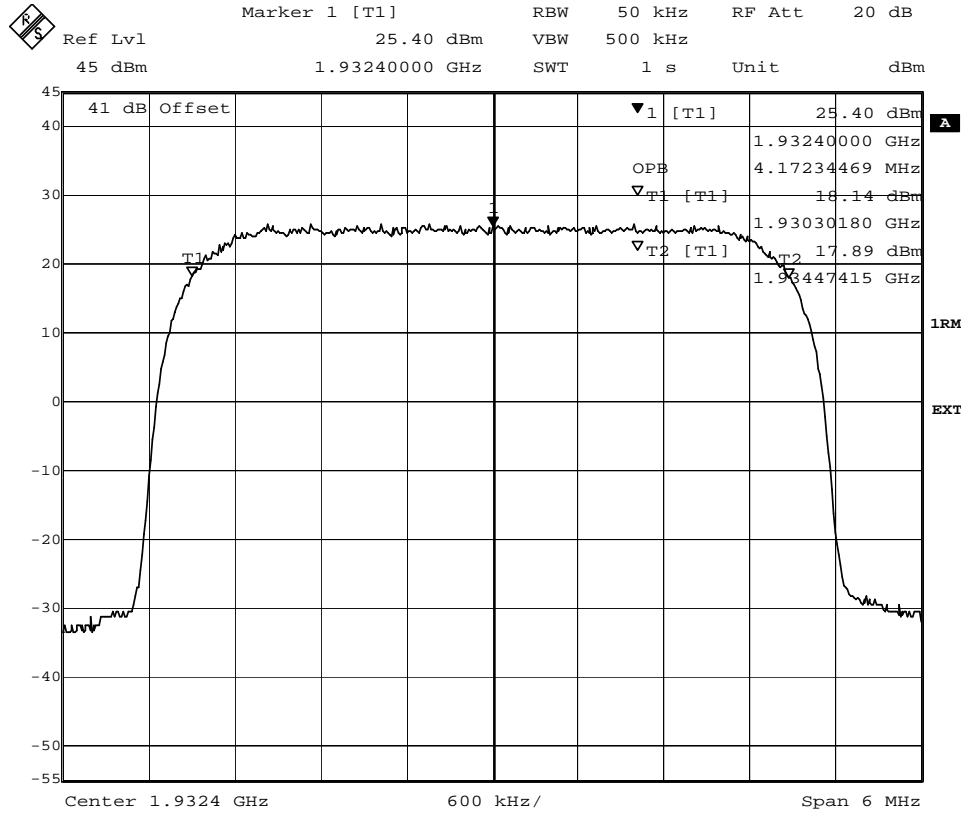
	Frequency	OBW
Diagram 1	1932.4 MHz	4.2
Diagram 2	1957.4 MHz	4.2
Diagram 3	1987.6 MHz	4.2



FCC ID: TA8BKRC11819-2

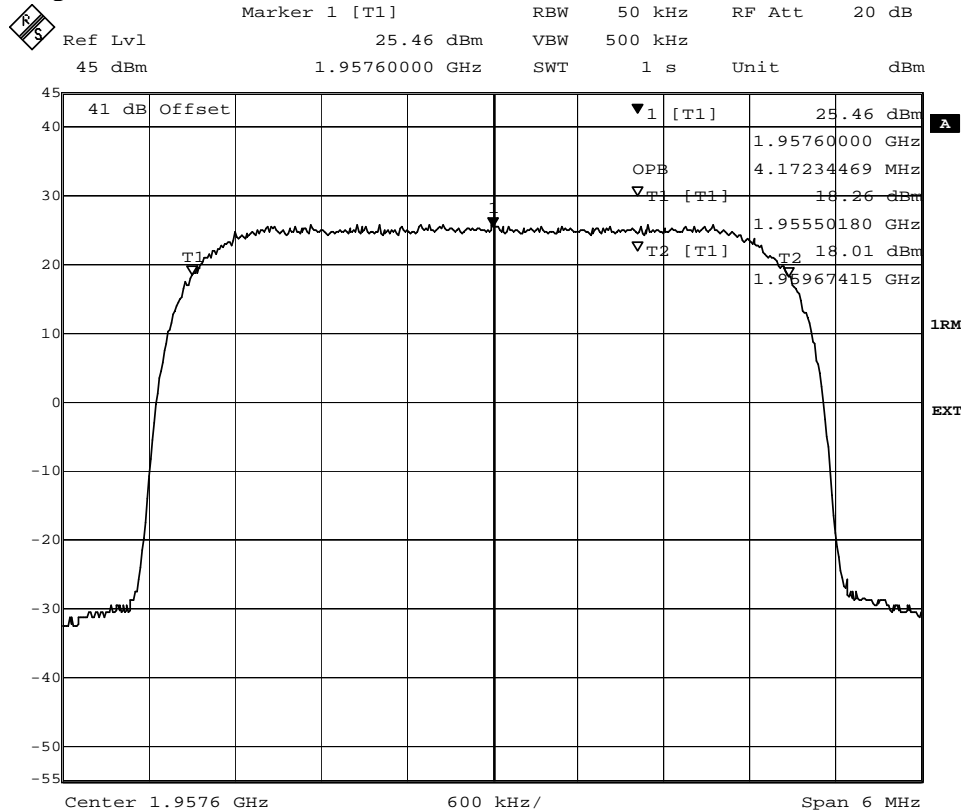
Appendix 3.1

Diagram 1



Date: 7.OCT.2008 10:53:58

Diagram 2



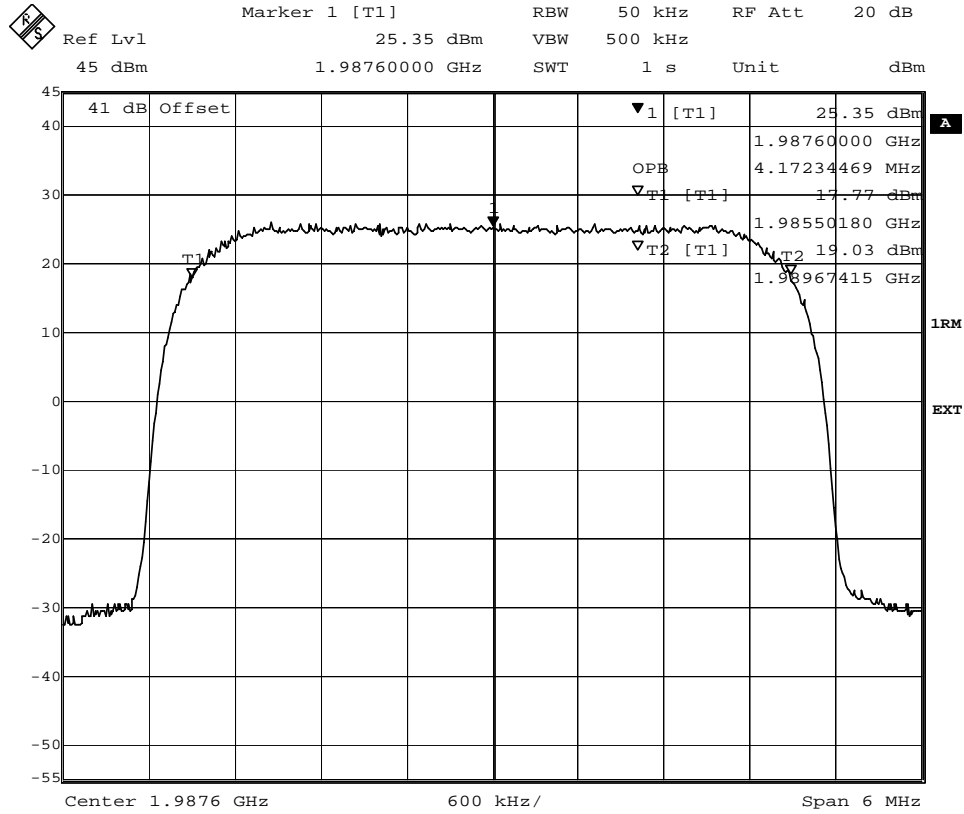
Date: 7.OCT.2008 16:07:34



FCC ID: TA8BKRC11819-2

Appendix 3.1

Diagram 3



Date: 8.OCT.2008 12:54:47



FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 4

**Band edge measurements according to 47 CFR 2.1051/ RSS-133 6.5**

Date	Temperature	Humidity
2008-10-07	24 °C ± 3 °C	34 % ± 5 %
2008-10-08	23 °C ± 3 °C	34 % ± 5 %

**Test set-up and procedure**

The measurements were made as defined in §24.238. The output was connected to a spectrum analyzer with the RMS detector activated. The spectrum analyzer was connected to an external 10 MHz reference standard during the measurements. A resolution bandwidth of 30 kHz was used up to 3.25 MHz away from the band edges. 30 kHz is <1% of the Emission BW(4.25 MHz between the 26 dB points). To compensate for the reduced measurement band width, the limit was adjusted with 1.5 dB to -14.5 dBm up to 1 MHz away from the band edges and with 15.2 dB to -28.2 dBm between 1 MHz to 3.25 MHz away from the band edges.

Measurement equipment	SP number
R&S FSIQ	503 738
Testo 610, Temperature and humidity meter	502 658

**Measurement uncertainty:** 3.7 dB

**Results**

The results are shown in appendix 4.1

Single carrier:

Diagram 1: 1932.4 MHz

Diagram 2: 1987.6 MHz

Multi carrier:

Diagram 3: 1932.4+1942.4 MHz

Diagram 4: 1977.6+1987.6 MHz

**Limits**

The power of any emission outside the frequency band shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log P$  dB.

Complies?	Yes
-----------	-----

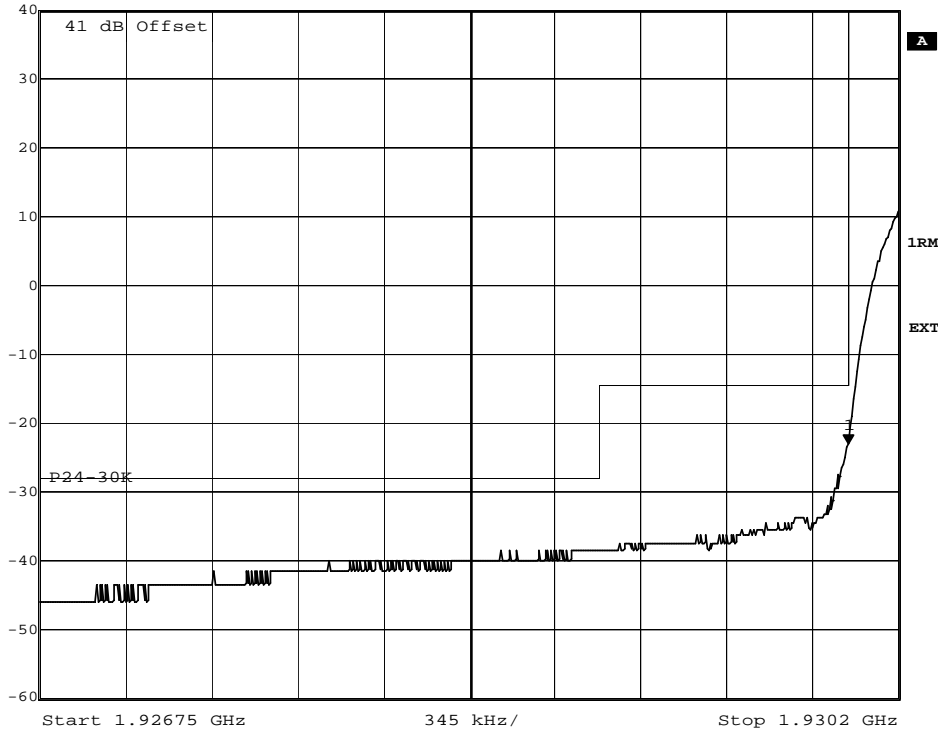


FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 4.1

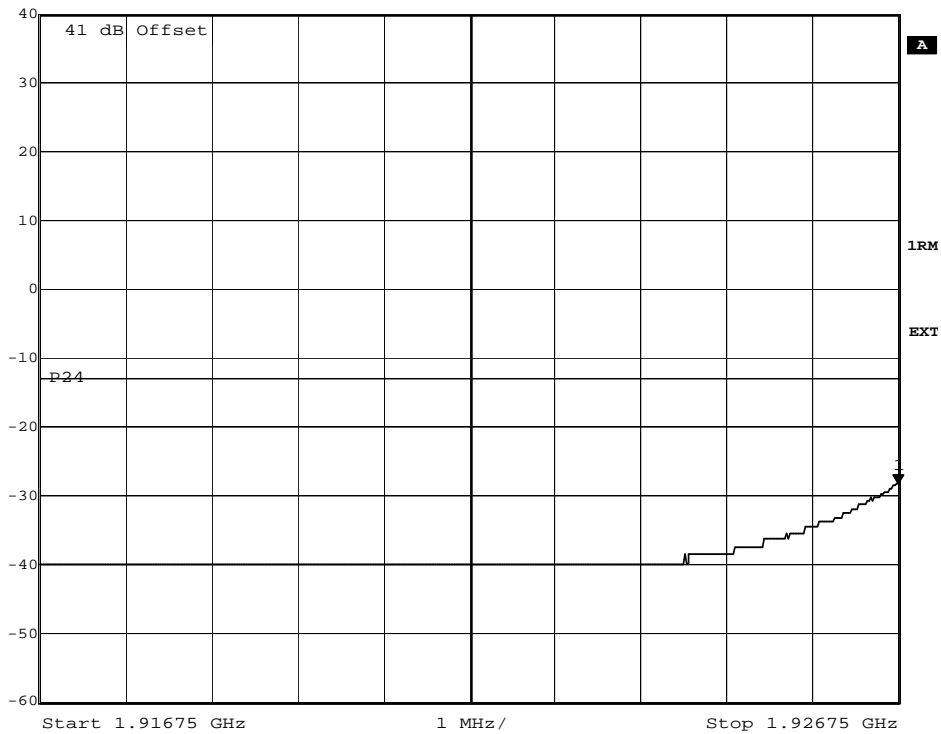
Diagram 1

Marker 1 [T1] RBW 30 kHz RF Att 10 dB  
Ref Lvl -23.10 dBm VBW 300 kHz  
40 dBm 1.93000000 GHz SWT 2 s Unit dBm



Date: 7.OCT.2008 11:14:06

Marker 1 [T1] RBW 1 MHz RF Att 10 dB  
Ref Lvl -28.33 dBm VBW 10 MHz  
40 dBm 1.92675000 GHz SWT 2 s Unit dBm



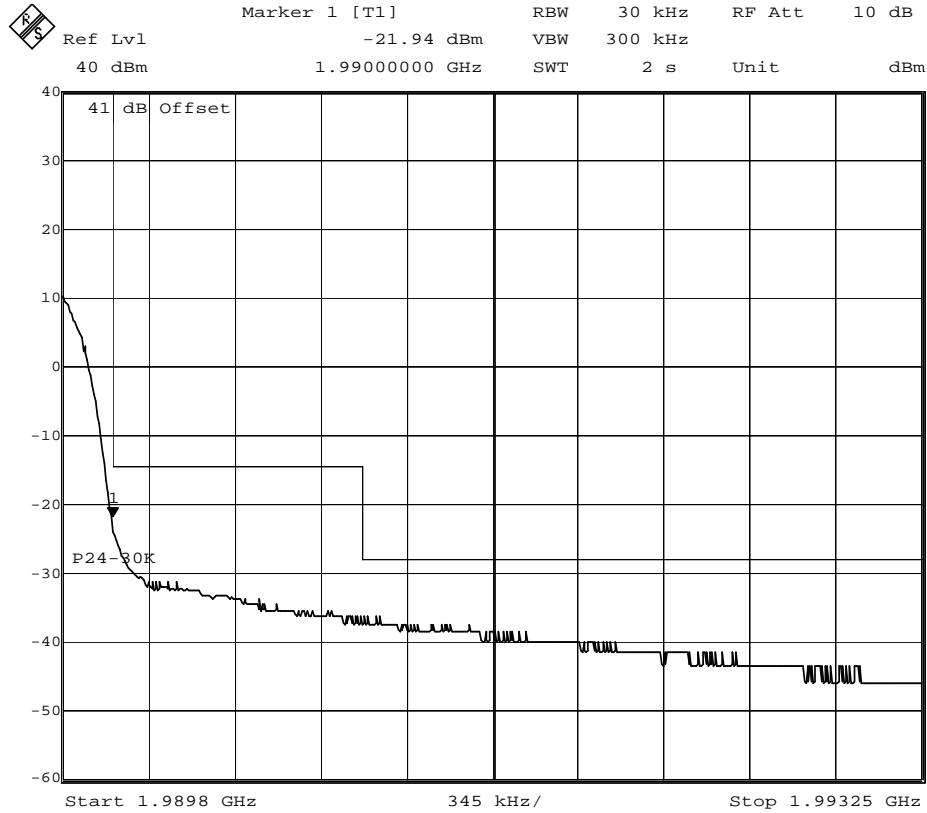
Date: 7.OCT.2008 11:22:56



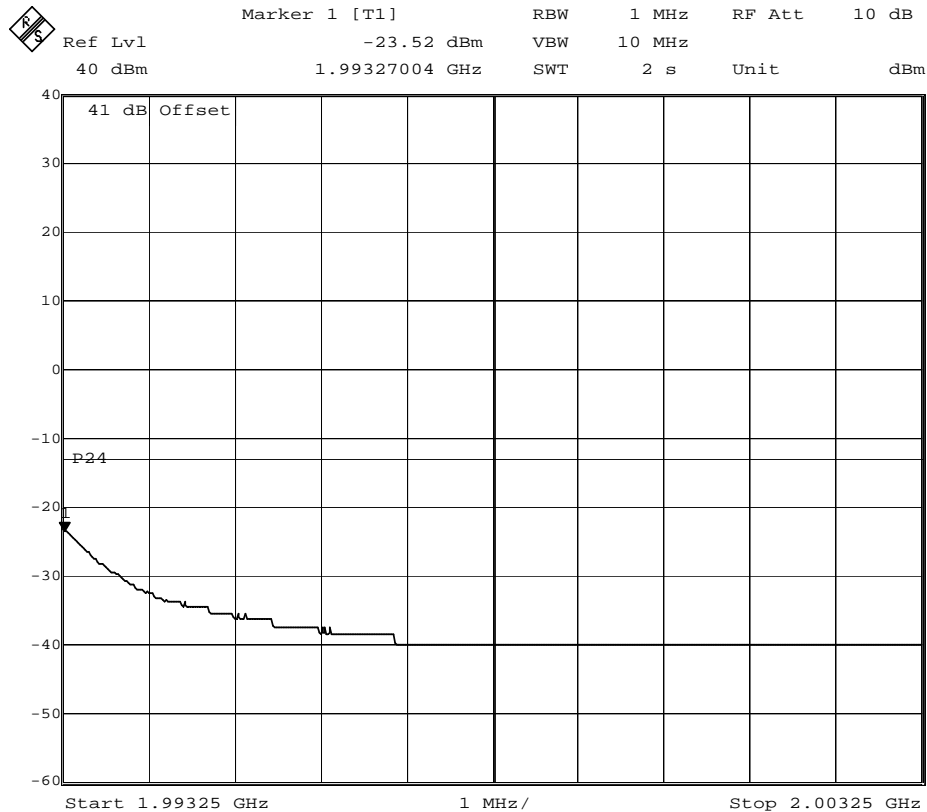
FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 4.1

Diagram 2



Date: 8.OCT.2008 09:32:46



Date: 8.OCT.2008 09:31:44

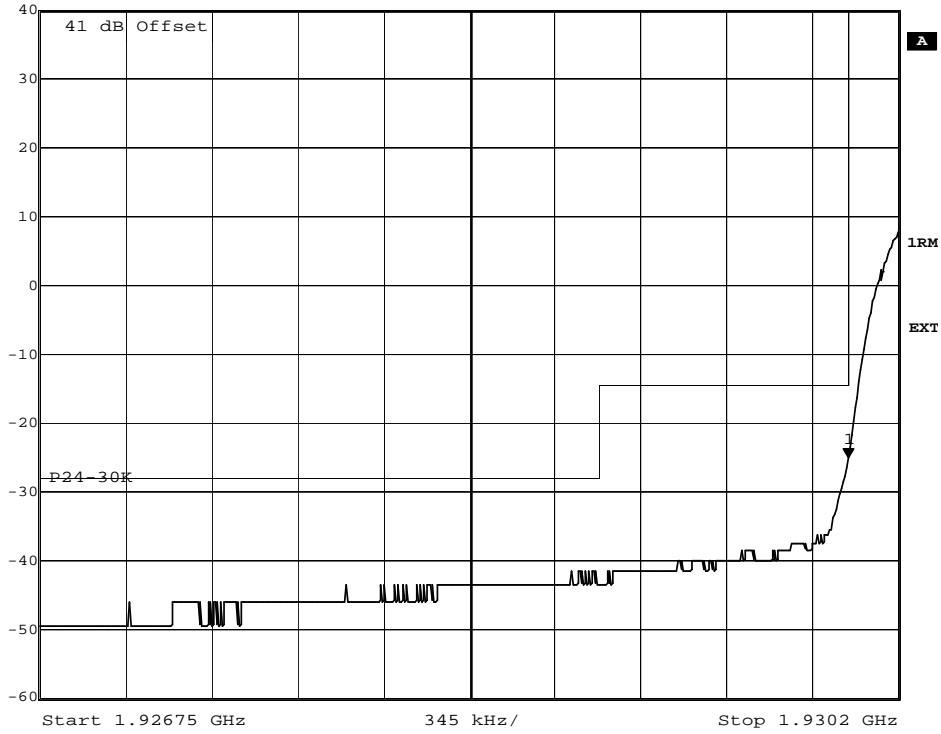


FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 4.1

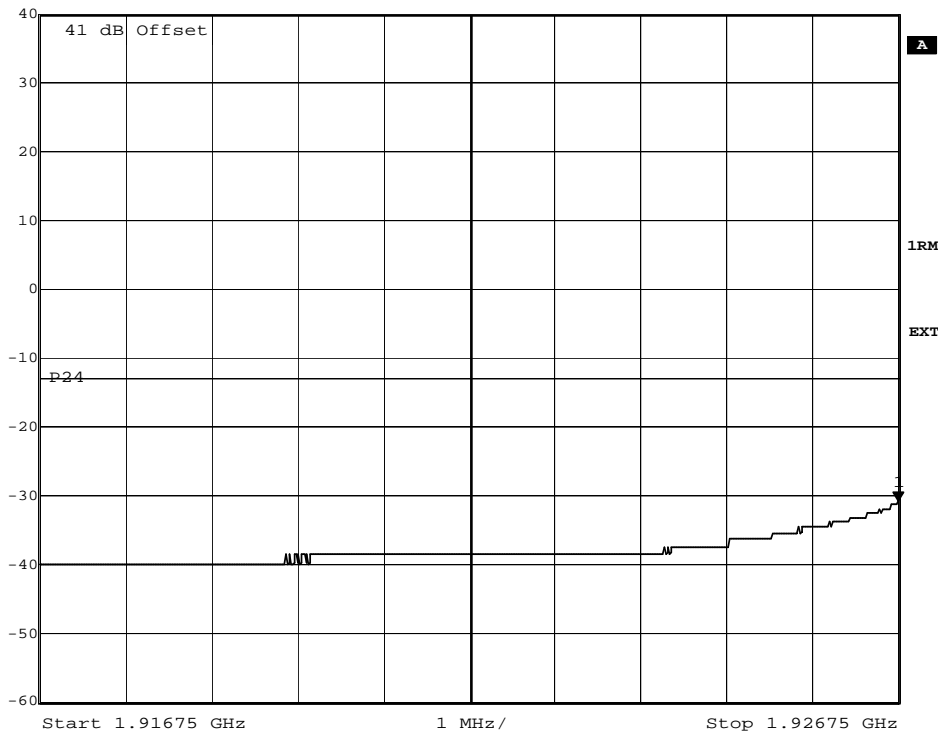
Diagram 3

Marker 1 [T1] RBW 30 kHz RF Att 10 dB  
Ref Lvl -25.20 dBm VBW 300 kHz  
40 dBm 1.9300000 GHz SWT 2 s Unit dBm



Date: 7.OCT.2008 13:38:17

Marker 1 [T1] RBW 1 MHz RF Att 10 dB  
Ref Lvl -30.96 dBm VBW 10 MHz  
40 dBm 1.9267500 GHz SWT 2 s Unit dBm



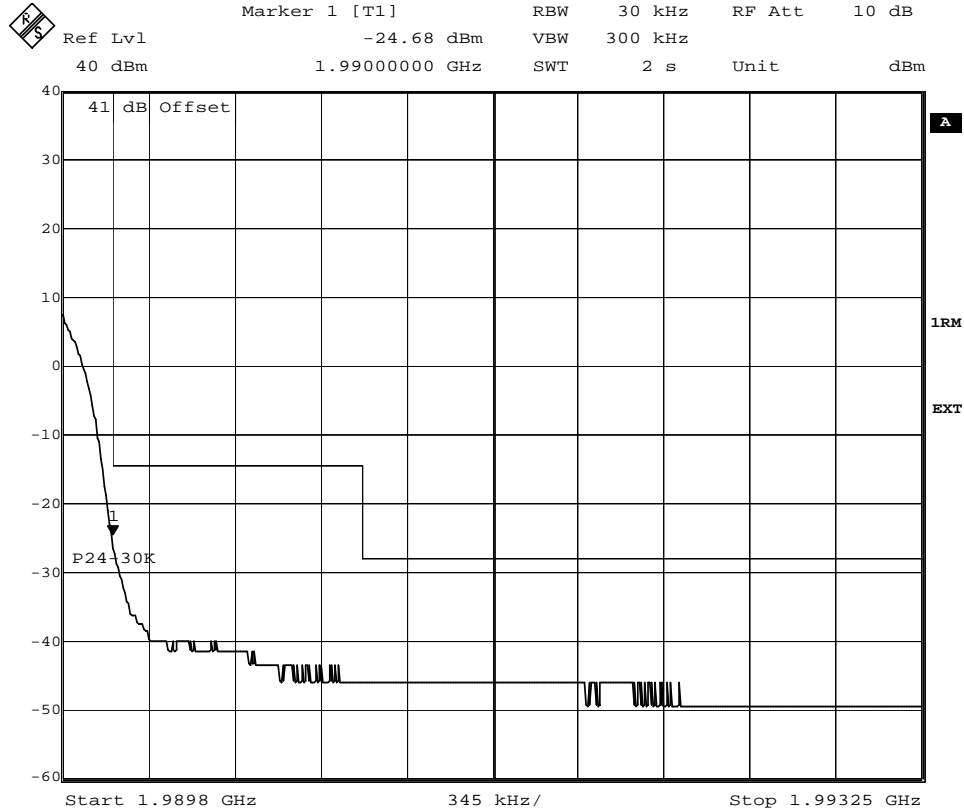
Date: 7.OCT.2008 13:39:33



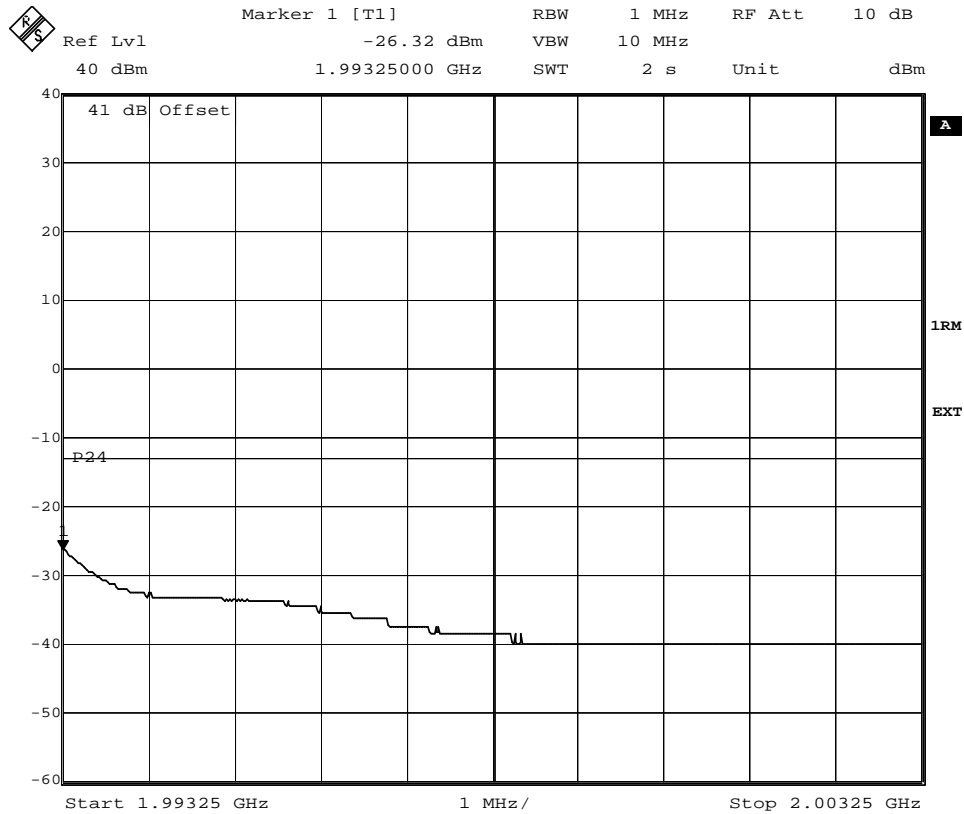
FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 4.1

Diagram 4



Date: 8.OCT.2008 11:12:26



Date: 8.OCT.2008 11:13:36





FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 5

**Conducted spurious emission measurements according to 47 CFR 2.1051/  
RSS-133 6.5**

Date	Temperature	Humidity
2008-10-07	24 °C ± 3 °C	34 % ± 5 %
2008-10-08	23 °C ± 3 °C	34 % ± 5 %

**Test set-up and procedure**

The measurements were made as defined in §24.238. The output was connected to a spectrum analyzer. First a pre-measurement with activated peak detector was performed. Emissions close to or above the limit is measured with activated RMS detector and the RMS measurement result is noted. The spectrum analyzer was connected to an external 10 MHz reference standard during the measurements.

Measurement equipment	SP number
R&S FSIQ	503 738
High pass filter	503 739
Testo 610, Temperature and humidity meter	502 658

**Measurement uncertainty:** 3.7 dB

**Results**

The results are shown in appendix 5.1

Single carrier:

- Diagram 1: 1932.4 MHz
- Diagram 2: 1957.6 MHz
- Diagram 3: 1987.6 MHz

Multi carrier:

- Diagram 4: 1932.4+1942.4 MHz
- Diagram 5: 1957.6+1967.6 MHz
- Diagram 6: 1977.6+1987.6 MHz

**Remark**

The emission at 9 kHz on the plots was not generated by the test object. A complementary measurement with a smaller RBW showed that it was related to the LO feedthrough.

**Limits**

The power of any emission outside the frequency band shall be attenuated below the transmitter power (P) by at least 43 + 10 log P dB.

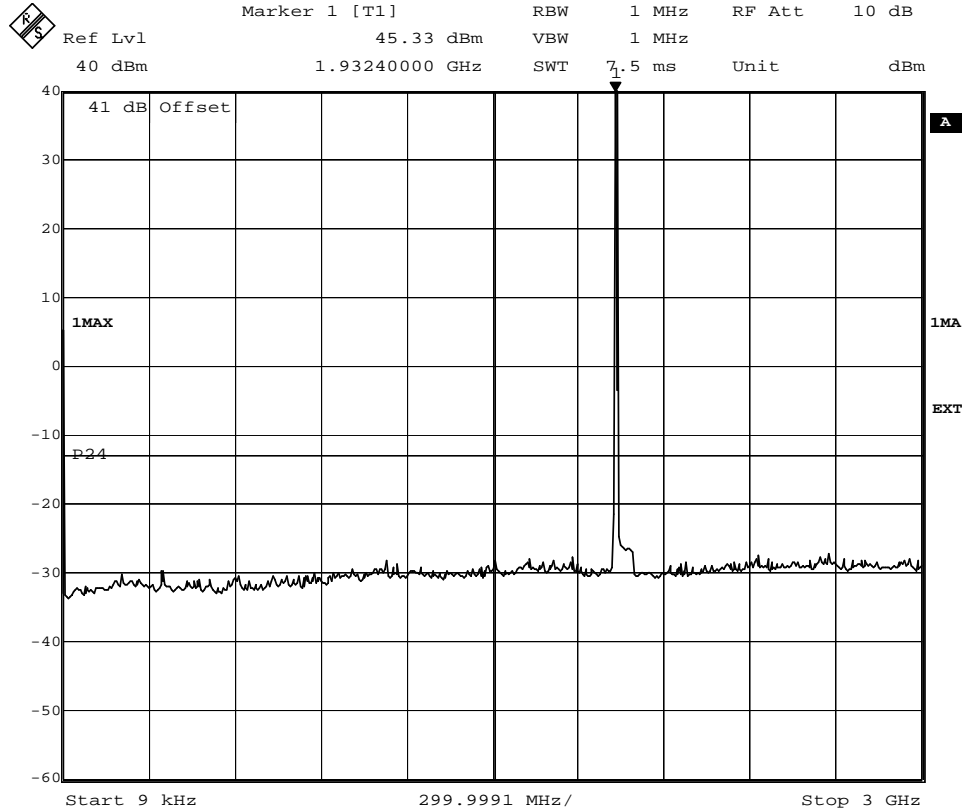
Complies?	Yes
-----------	-----



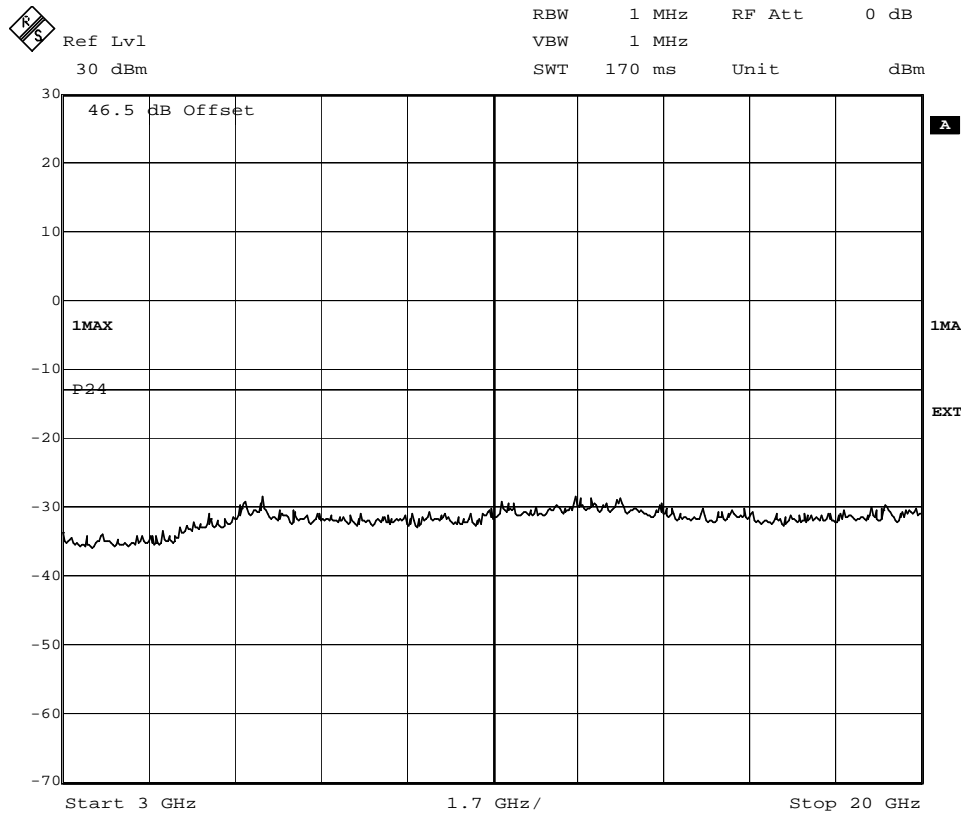
FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 5.1

Diagram 1



Date: 7.OCT.2008 11:26:33



Date: 7.OCT.2008 11:33:06

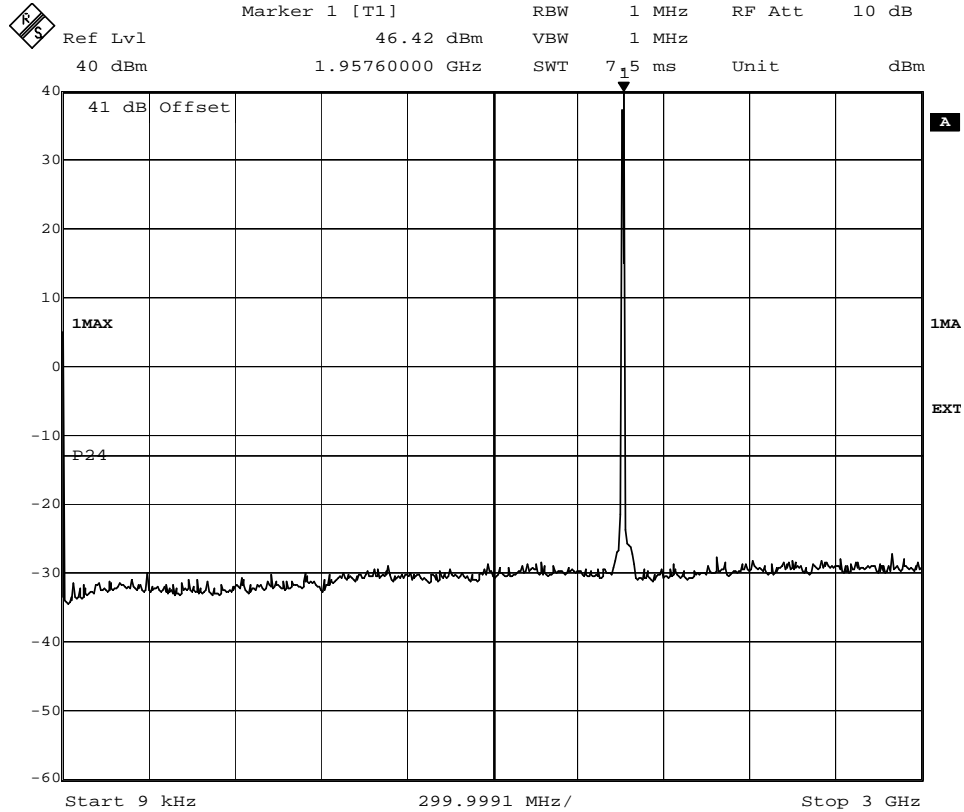


# REPORT

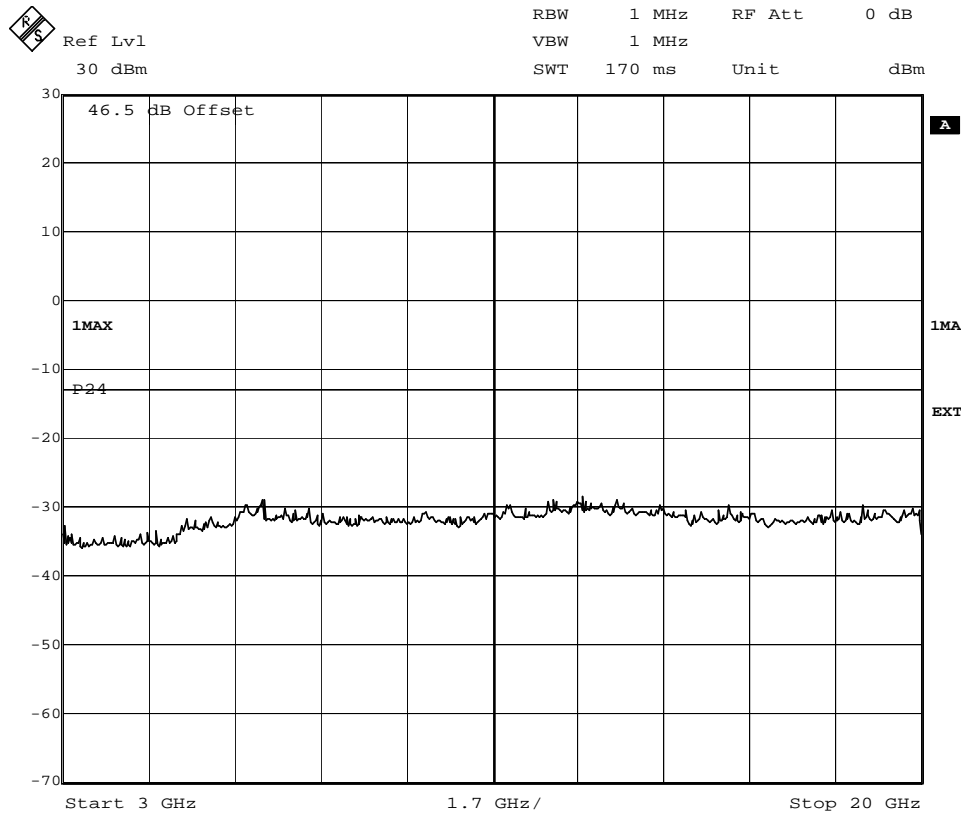
FCC ID: TA8BKRC11819-2  
 IC: 287AB-BW118192

## Appendix 5.1

### Diagram 2



Date: 7.OCT.2008 16:10:11



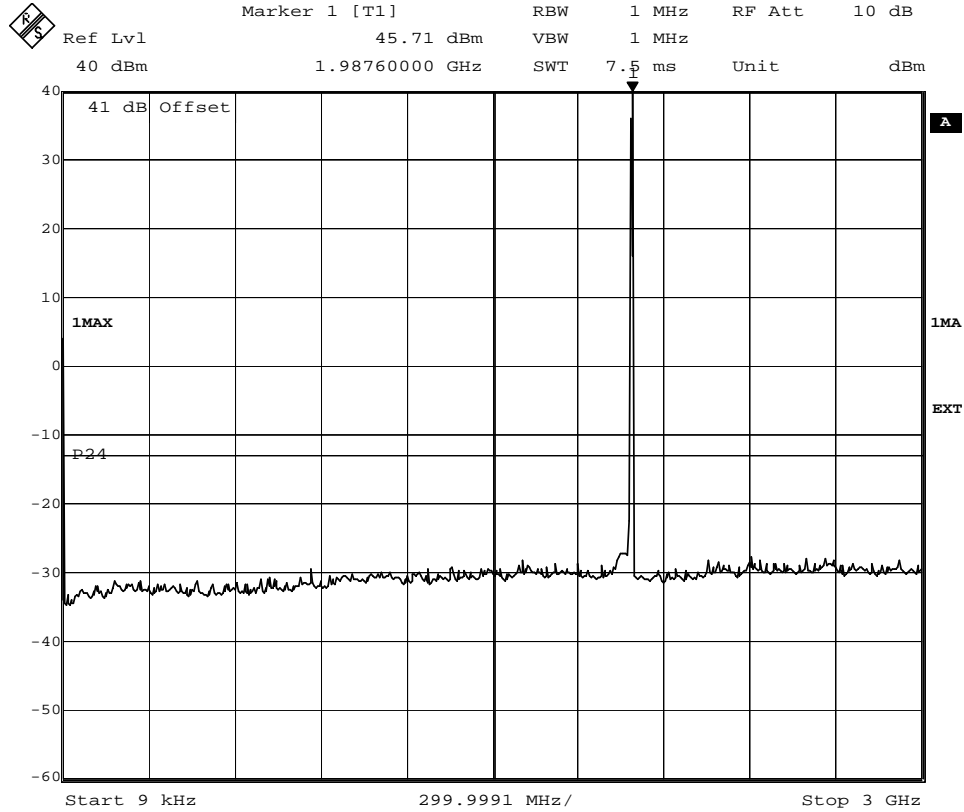
Date: 7.OCT.2008 16:13:47



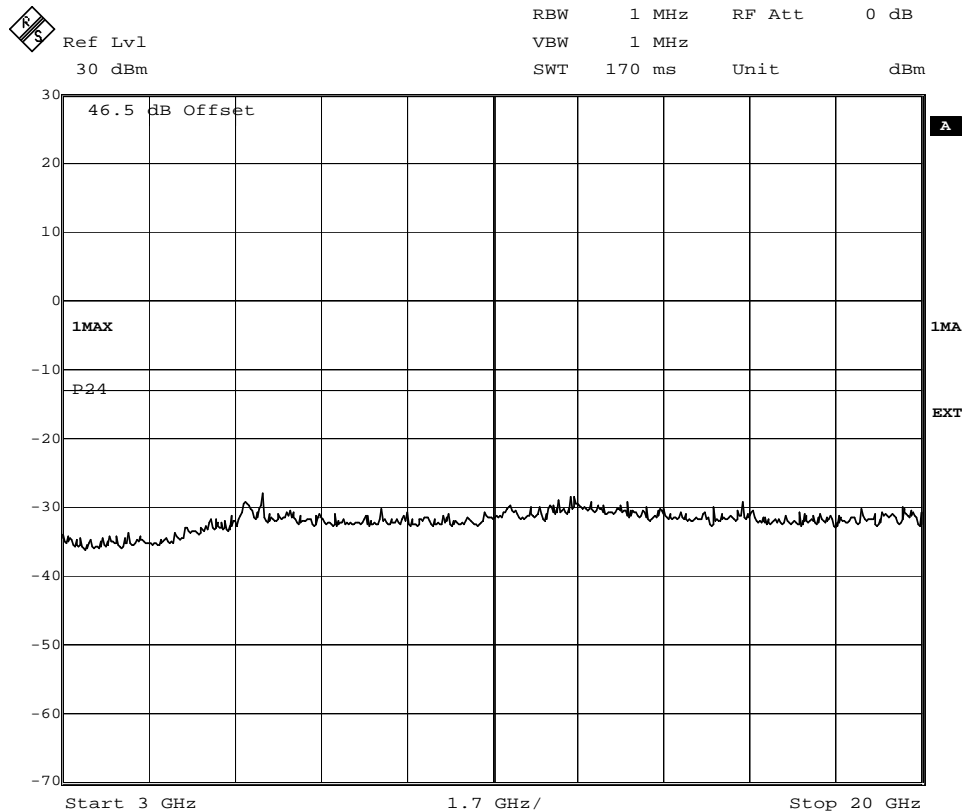
FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 5.1

Diagram 3



Date: 8.OCT.2008 09:34:45



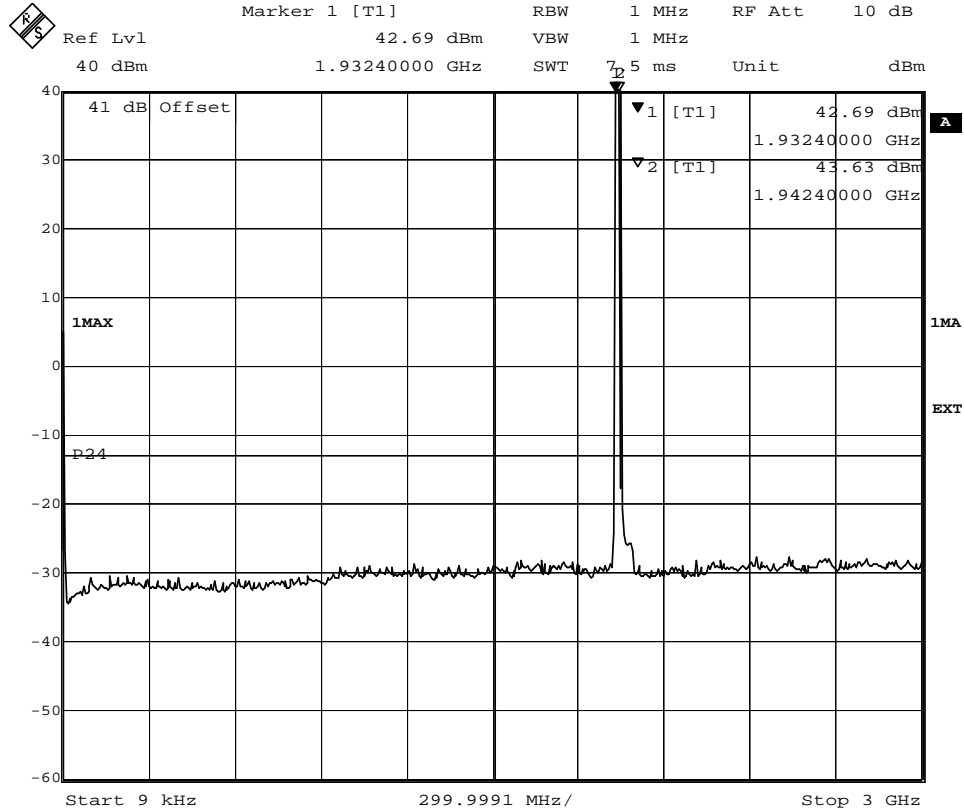
Date: 8.OCT.2008 09:36:03



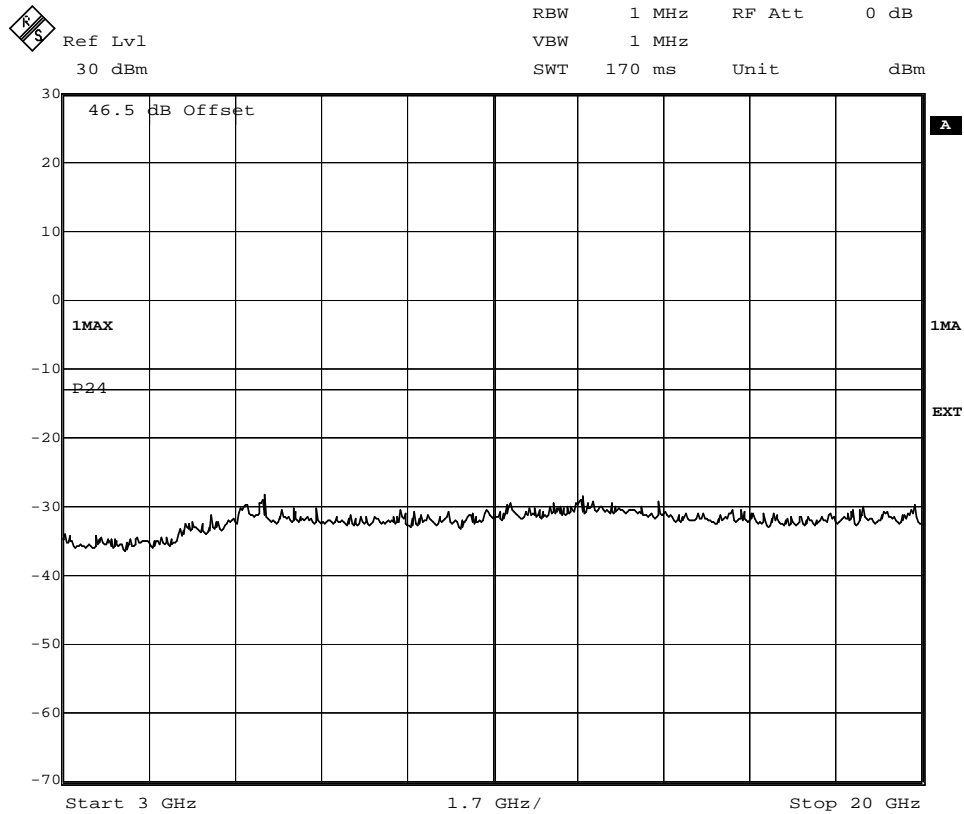
FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 5.1

Diagram 4



Date: 7.OCT.2008 13:43:20



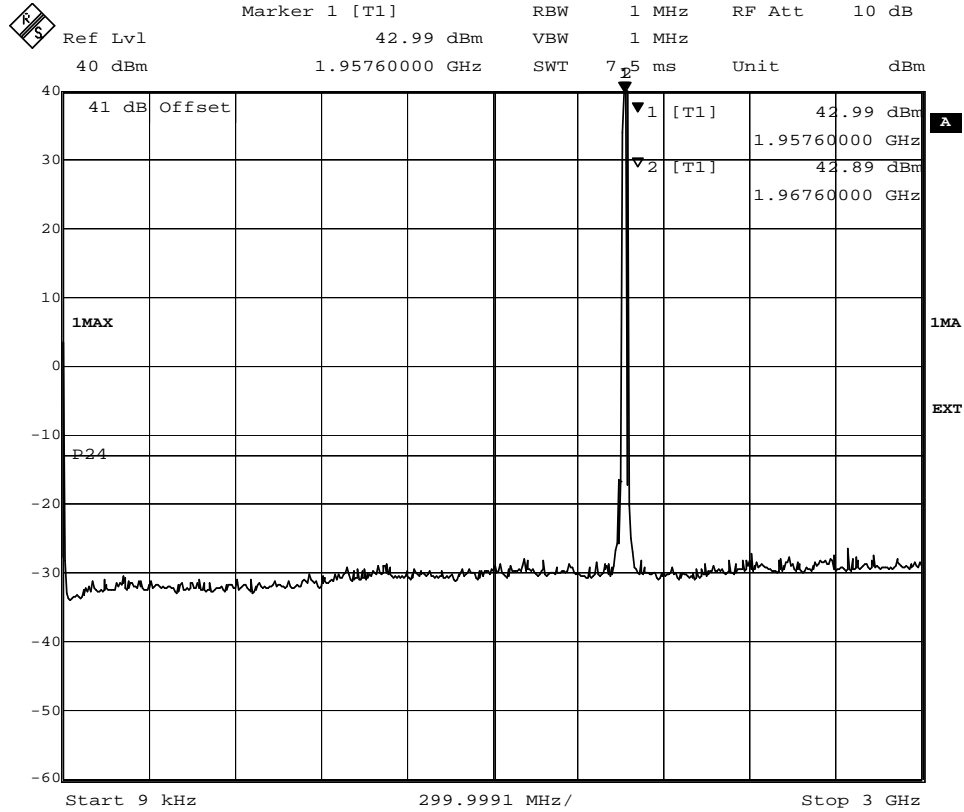
Date: 7.OCT.2008 13:44:40



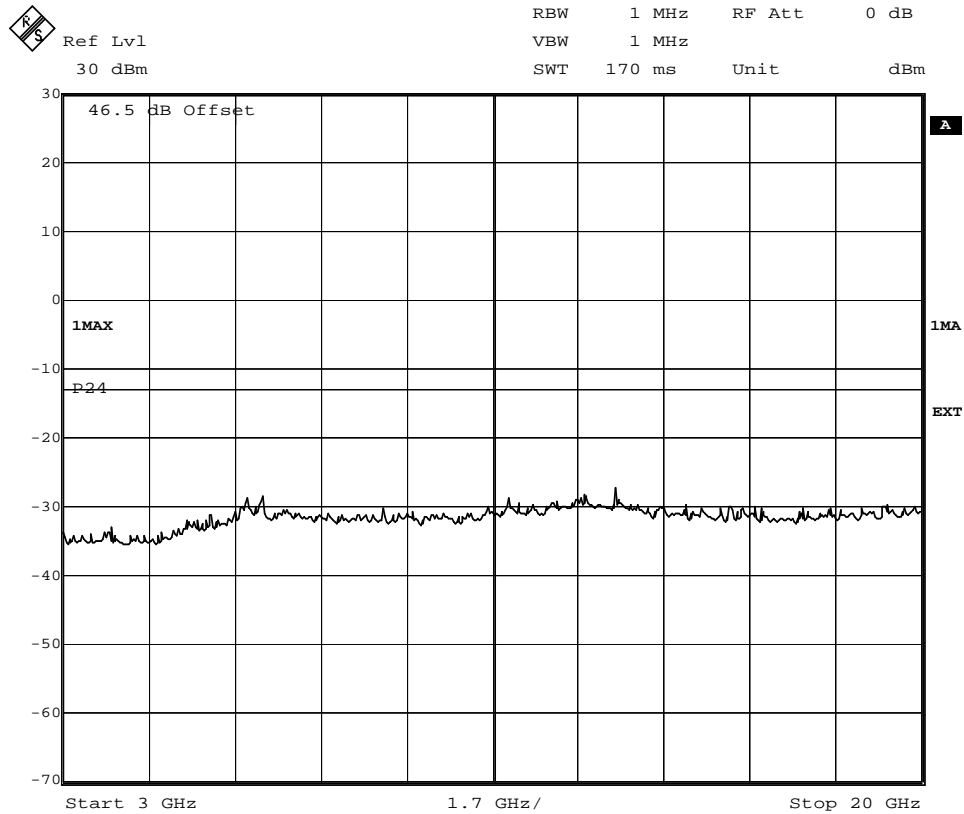
FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 5.1

Diagram 5



Date: 7.OCT.2008 16:26:52



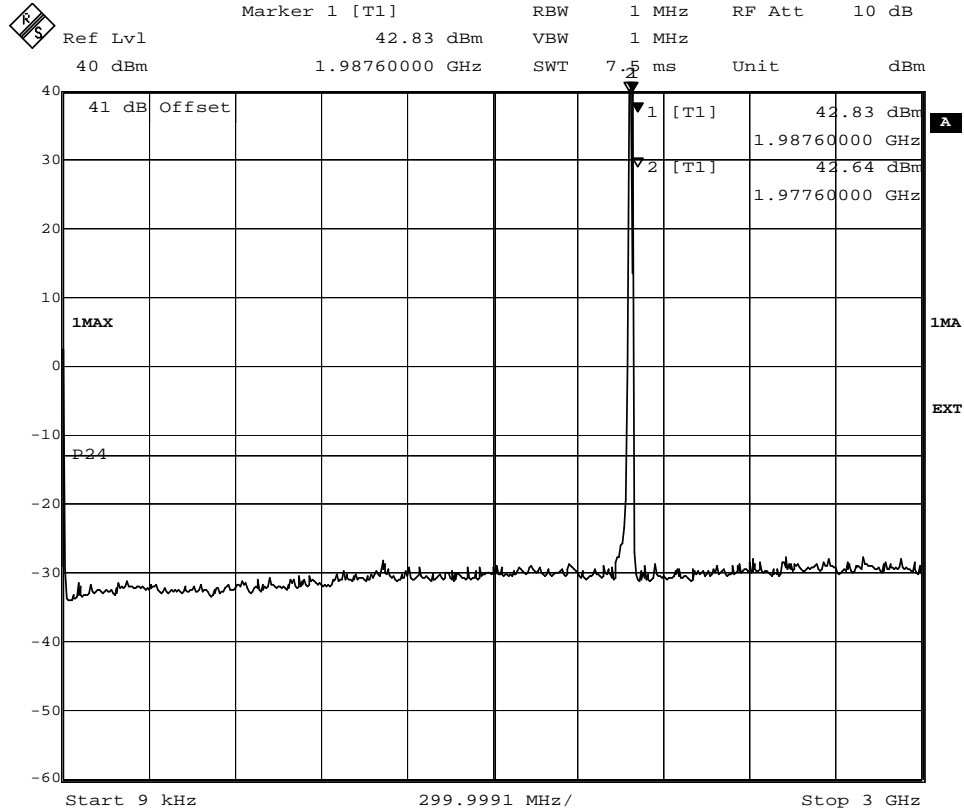
Date: 7.OCT.2008 16:24:26



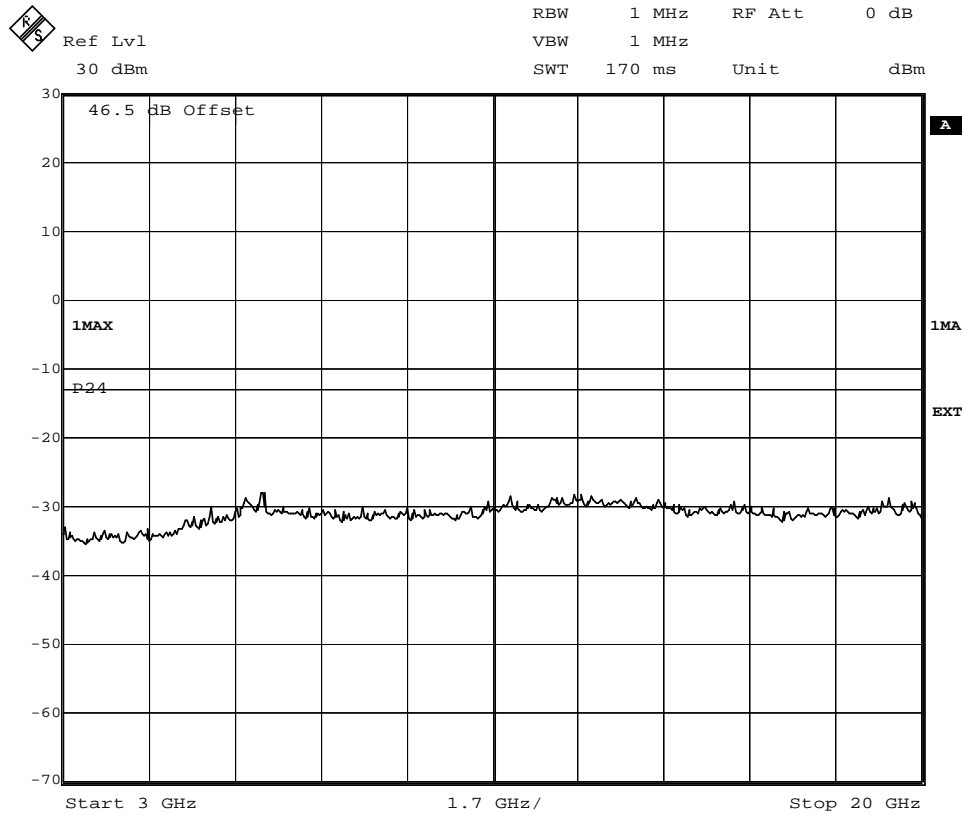
FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 5.1

Diagram 6



Date: 8.OCT.2008 10:42:02



Date: 8.OCT.2008 10:39:50

FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 6

**Field strength of spurious radiation measurements according to 47 CFR 2.1053/ RSS-133 6.5**

Date 2008-10-01 to 2008-10-03 and 2008-11-18	Temperature 22-23 °C ± 3 °C	Humidity 26-29 % ± 5 %
--	--------------------------------	---------------------------

**Test set-up and procedure**

The test site is listed at FCC, Columbia with registration number: 93866. The test site also complies with RSS-Gen, Industry Canada file no.:IC 3482. The transmitter was modulated with pseudorandom data during the measurements. The antenna ports were terminated with 50 ohm loads.

The measurements were performed with both horizontal and vertical polarization of the antenna. The antenna distance was 3 m in the frequency range 30 MHz – 18 GHz and 1m in the frequency range 18-20 GHz.

A pre-measurement was first performed:

In the frequency range 30 MHz-20 GHz the measurement was performed in power with a RBW of 1 MHz. A propagation loss in free space was calculated. The used formula was,

$$\gamma = 20 \log \left( \frac{4\pi D}{\lambda} \right), \gamma \text{ is the propagation loss and } D \text{ is the antenna distance.}$$

The measurement procedure was as the following:

1. The pre-measurement was first performed with peak detector. The EUT was measured in eight directions and with the antenna at three heights, 1.0 m, 1.5 m and 2.0 m.
2. Spurious radiation on frequencies closer than 20 dB to the limit is scanned 0-360 degrees and the antenna is scanned 1-4 m for maximum response. The emission is then measured with the RMS detector and the RMS value is reported, frequencies closer than 10 dB to the limit measured with the RMS detector were measured with the substitution method according to the standard.

Measurement equipment	SP number
Test site Tesla	503 881
R&S ESI 26	503 292
R&S FSIQ	503 738
Control computer	503 479
Software: R&S EMC32, ver. 6.30.10	-
Chase Bilog antenna CBL 6111A	502 181
EMCO Horn Antenna 3115	502 175
Flann Standard gain horn 16240-25	503 939
Flann Standard gain horn 18240-25	503 900
Flann Standard gain horn 20240-20	503 674
MITEQ Low Noise Amplifier	503 285
High pass filter	503 739
Testo 610, Temperature and humidity meter	502 658



FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 6

The test set-ups during the spurious radiation measurements are shown in the pictures below:

DC power



AC power



**Results**

Single carrier

Frequency (MHz)	Spurious emission level (dBm)	
	Vertical	Horizontal
30-20 000	All emission > 20 dB below limit	All emission > 20 dB below limit
Measurement uncertainty 4.7 dB		

Multi carrier

Frequency (MHz)	Spurious emission level (dBm)	
	Vertical	Horizontal
30-20 000	All emission > 20 dB below limit	All emission > 20 dB below limit
Measurement uncertainty 4.7 dB		

**Limits**

The power of any emission outside the frequency band shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log P$  dB.

Complies?	Yes
-----------	-----



FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 7

**Frequency stability according to 47 CFR 2.1055/ RSS-133 6.3**

Date 2008-10-09 to 2008-10-14	Temperature (test equipment) 23-24 °C ± 3 °C	Humidity (test equipment) 32-38 % ± 5 %
----------------------------------	---	--

**Test set-up and procedure**

The measurement was made per 3GPP TS 25.141. The output was connected to a spectrum analyzer. The spectrum analyzer was connected to an external 10 MHz reference standard during the measurements.

Measurement equipment	SP number
R&S FSIQ	503 738
Testo 610, Temperature and humidity meter	502 658
Temperature chamber 2	501 031

**Results**

Nominal Voltage -48 V DC  
Maximum output power at 1957.6 MHz

Test conditions		Frequency error (Hz)
Supply voltage DC (V)	T (°C)	
-48.0	+20	+18
-55.2	+20	+17
-40.8	+20	+15
-48.0	+30	-25
-48.0	+40	-25
-48.0	+50	-25
-48.0	+10	-25
-48.0	0	-19
Maximum freq. error (Hz)		-25
Measurement uncertainty		< ± 1 x 10 <sup>-7</sup>

Note: At -10°C it was not possible to enable the transmitter, the cell was not available.

**Limits (according to 3GPP TS 25.141)**

The frequency error shall be within ± 0.05 PPM ± 12 Hz (109.87 Hz).

Complies?	Yes
-----------	-----



FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 8

**Receiver conducted spurious according to Industry Canada RSS-133, section 6.7.**

Date 2008-10-08	Temperature 23 °C ± 3 °C	Humidity 34 % ± 5 %
--------------------	-----------------------------	------------------------

**Test set-up and procedure**

The measurements were performed according to ANSI C63.4.

Measurements were performed on the receiver antenna terminal (Ant 2). The measurement is first performed with peak detector. Emission on frequencies close to or above the limit is re-measured with quasi-peak detector (average detector above 1000 MHz).

Measurement equipment	SP number
R&S FSIQ 40	503 738
Testo 610, Temperature and humidity meter	502 658

**Result**

The results are shown in appendix 8.1:

- Rx frequency
- Diagram 1 1852.4 MHz
- Diagram 2 1877.4 MHz
- Diagram 3 1907.6 MHz

Note: During the measurement on the RX port Ant 2 the combined TX/RX port Ant 1 was terminated with 50 ohm, the TX was active in single carrier mode transmitting TM1.

**Limit**

The power of any spurious output signals appearing at the antenna terminals must not exceed -57 dBm (2 nanowatts) per any 4 kHz in the band 30 MHz to 1 GHz, or -53 dBm (5 nanowatts) above 1 GHz.

Emission below limit?	Yes
-----------------------	-----



# REPORT

Date  
2008-12-08

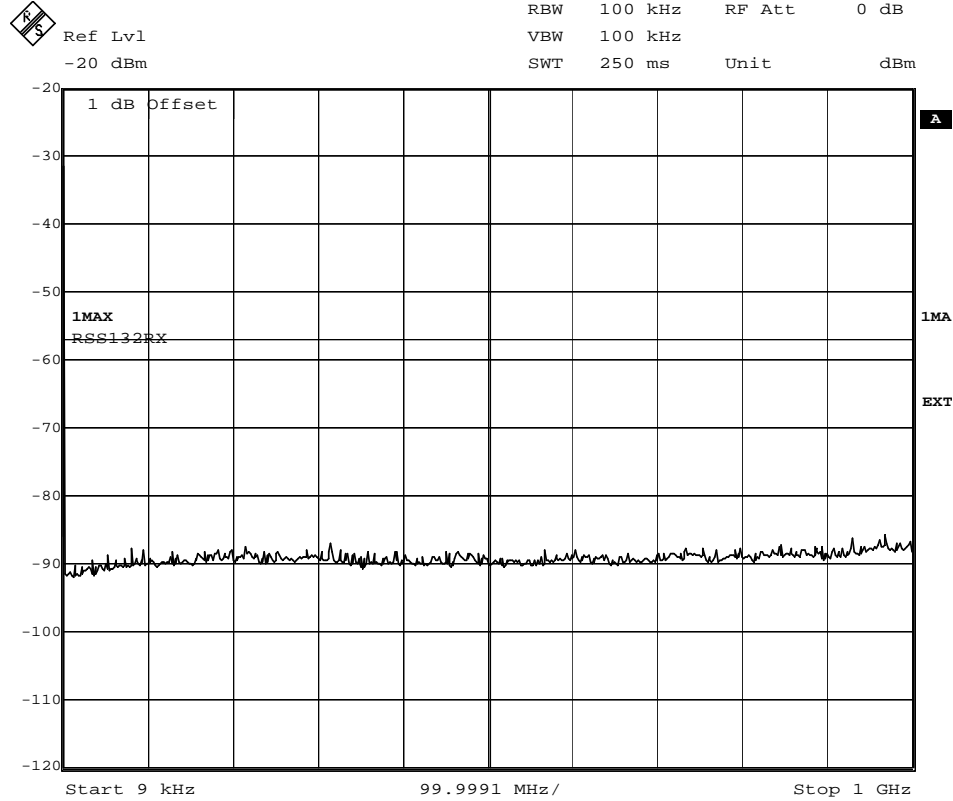
Reference  
F816587-F24

Page  
1 (3)

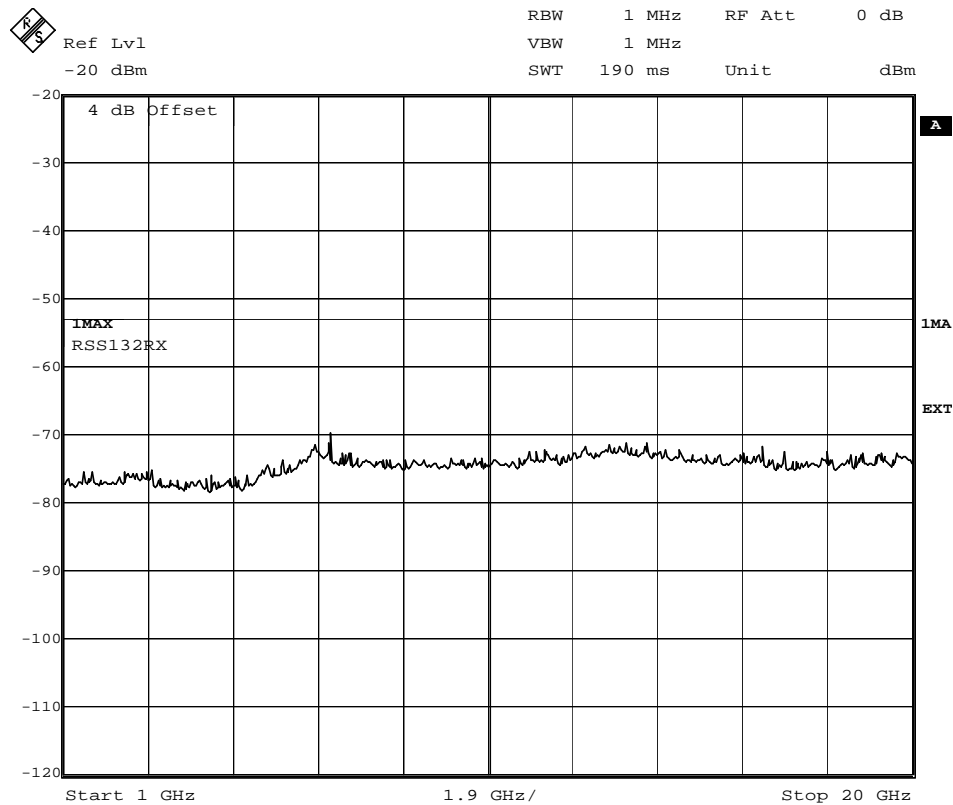
FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

## Appendix 8.1

Diagram 1



Date: 8.OCT.2008 14:49:54



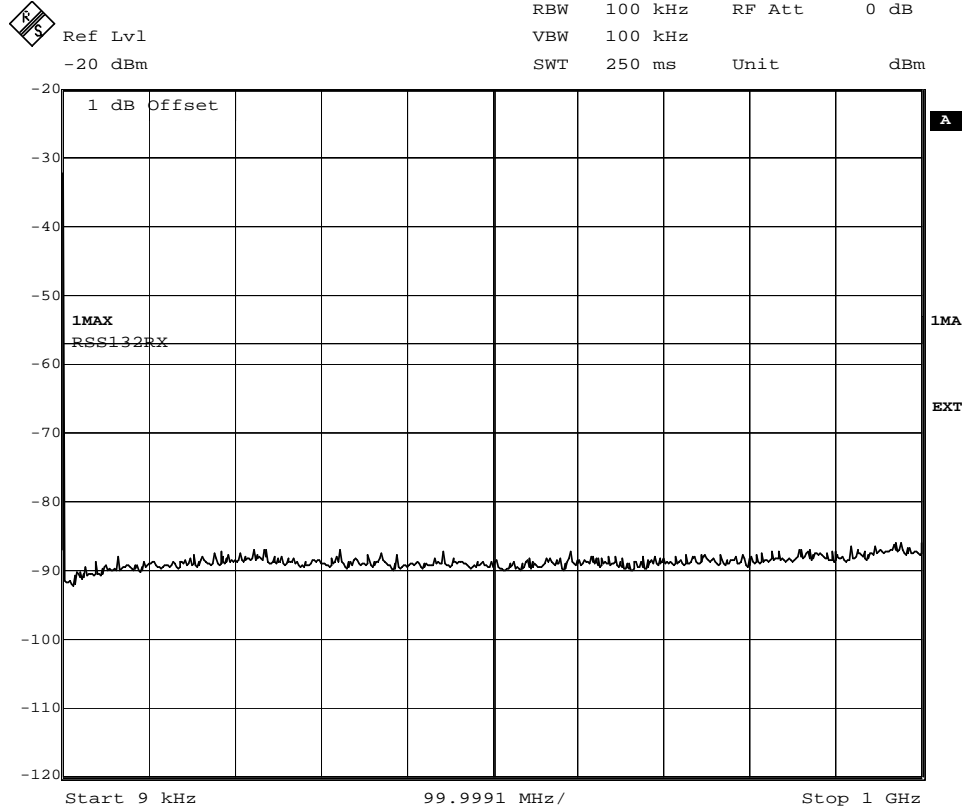
Date: 8.OCT.2008 14:49:16



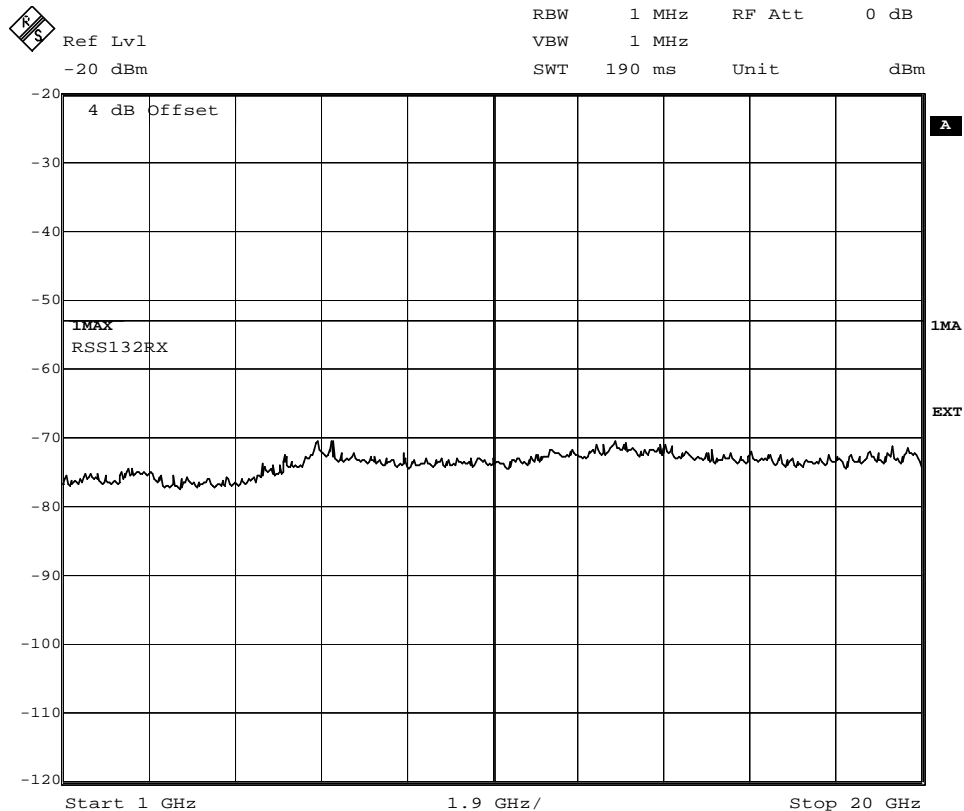
FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 8.1

Diagram 2



Date: 8.OCT.2008 14:27:59



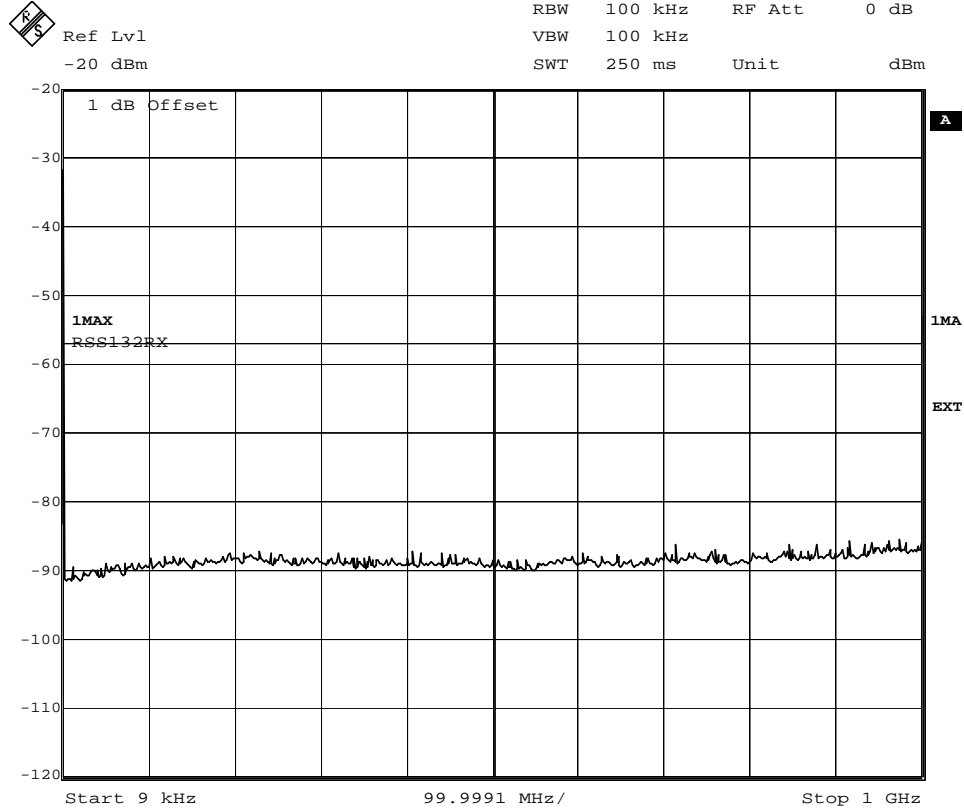
Date: 8.OCT.2008 14:34:04



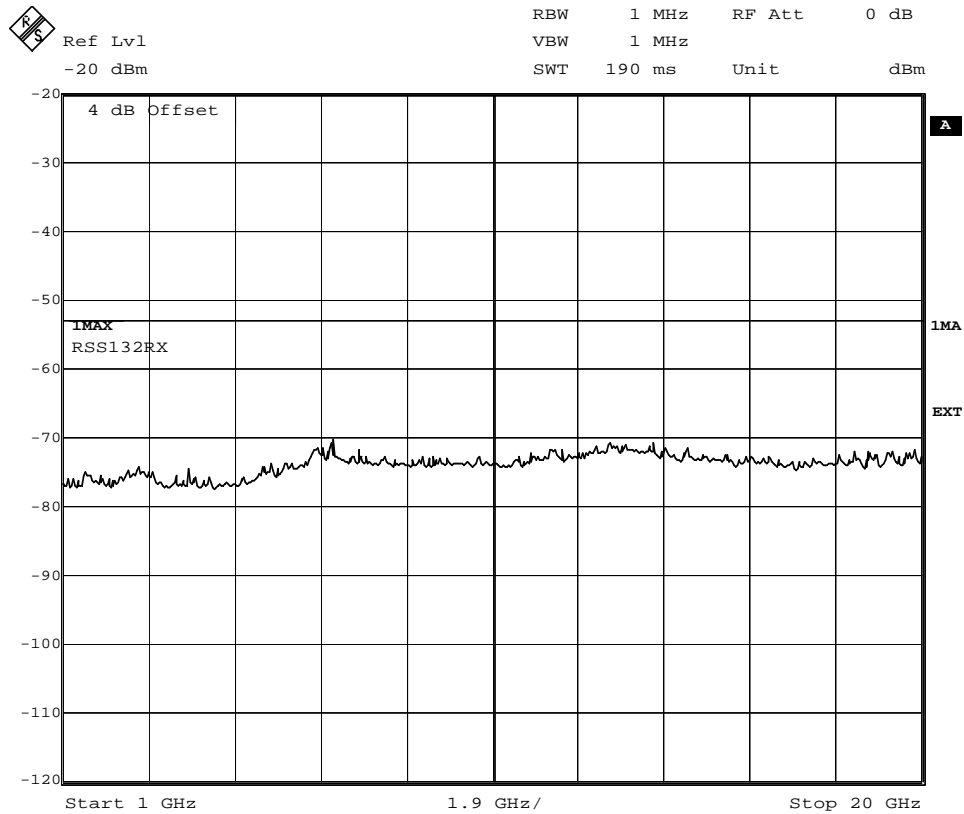
FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 8.1

Diagram 3



Date: 8.OCT.2008 13:15:44



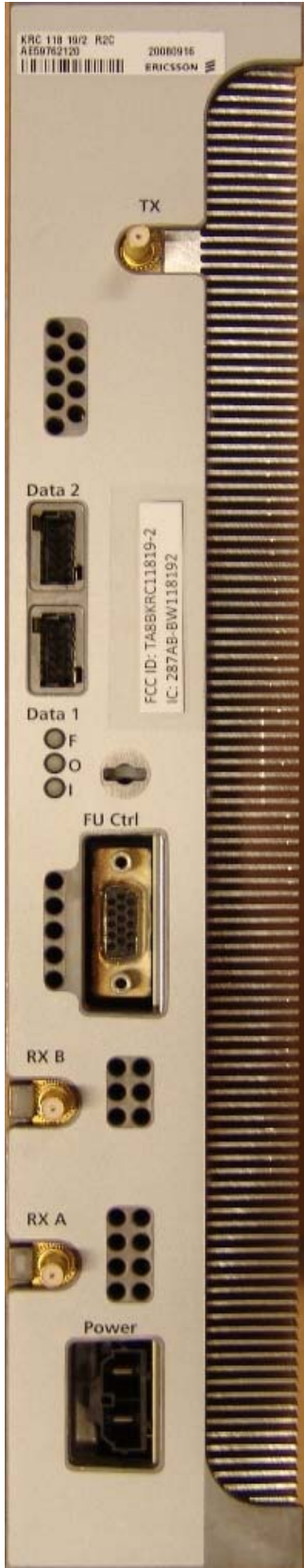
Date: 8.OCT.2008 13:12:24

FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 9

**Photos**  
**Radio Unit KRC 118 19/2**

Front side



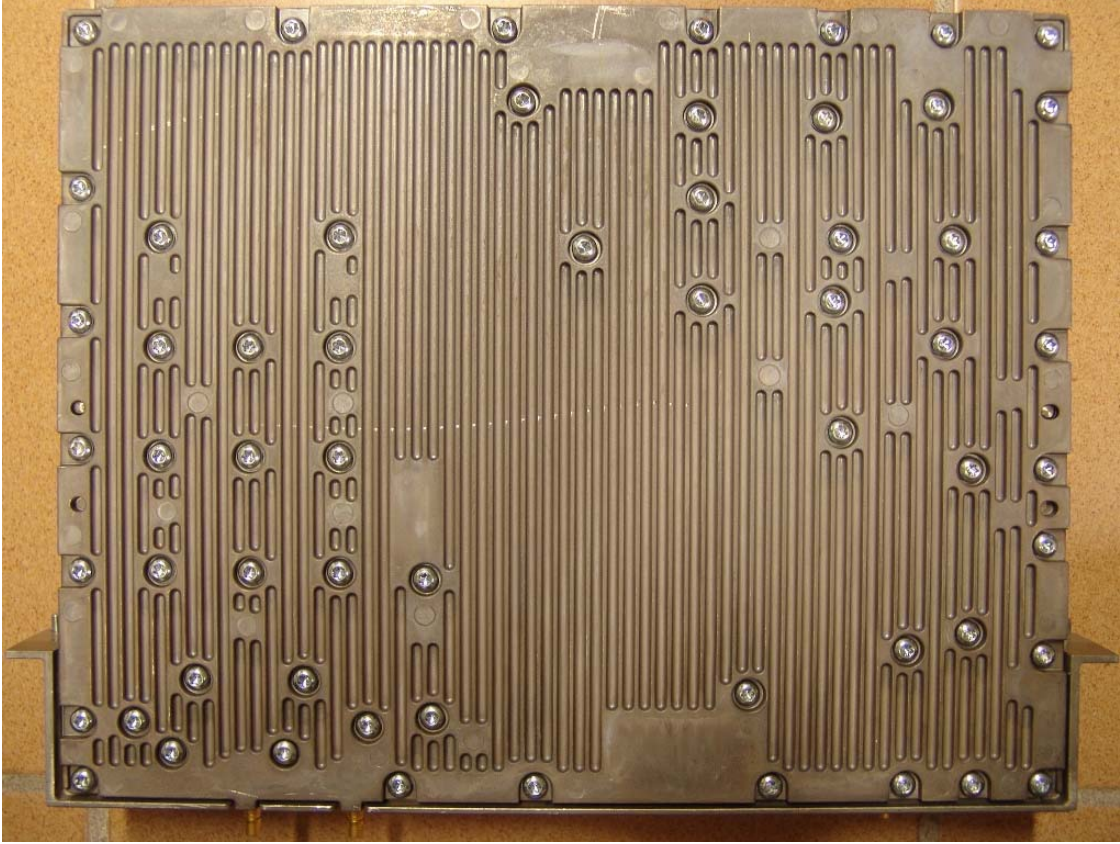
Rear side



FCC ID: TA8BKRC11819-2  
IC: 287AB-BW118192

Appendix 9

Left side



Right side

