



# REPORT

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The test site complies with RSS-Gen, IC file no: 3482A

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Reference  
FX205888-F27

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## **Class II permissive change measurements on RUS 01 B4 1700/2100 MHz radio equipment with FCC ID: TA8AKRC11859-2 and IC: 287AB-AS118592** (5 appendices)

### **Test object**

RUS 01 B4, KRC 118 59/2, Rev R2B

### **Summary**

Standard	Compliant	Appendix
<b>FCC CFR 47 / IC RSS-139</b>		
2.1046 / RSS-139 6.4 RF power output	Yes	2
2.1051 / RSS-139 6.5 Spurious emission at antenna terminals	Yes	3
2.1053 / RSS-139 6.5 Field strength of spurious radiation	Yes	4

Note: Above RSS-139 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**

Performed by

  
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**Description of the test object**

Equipment: Radio equipment RUS 01 B4 running in CDMA and LTE mode in multi standard configuration

Antenna ports: 1 TX/RX port and 1 RX port.

Frequency bands: TX: 2110 – 2155 MHz  
RX: 1710 – 1755 MHz

Nominal output power Single carrier: 1x 49.0 dBm (1x 80.0 W)  
Multi carrier: 2x 46.0 dBm (2x 40.0 W)  
3x 44.2 dBm (3x 26.6 W)  
4x 43.0 dBm (4x 20.0 W)

Nominal power voltage: -48 VDC

CDMA  
Modulation: QPSK, 8-PSK and 16QAM  
Channel bandwidth 1.25 MHz

LTE  
Modulations: QPSK, 16QAM and 64QAM  
Channel bandwidth 3 MHz, 5 MHz, 10 MHz and 15 MHz

**Tested configurations**

Configuration 1:

CDMA				LTE
Cell	1 (20 W)	2 (20 W)	3 (20 W)	1 (20 W)
Downlink	825 (2151.25 MHz)	850 (2152.5 MHz)	875 (2153.75 MHz)	2209 (2135.9 MHz)
Uplink	825 (1751.25 MHz)	850 (1752.5 MHz)	875 (1753.75 MHz)	20209 (1735.9 MHz)
Modulation	QPSK	QPSK	QPSK	QPSK
Bandwidth	1.25 MHz	1.25 MHz	1.25 MHz	3 MHz

Configuration 2:

CDMA				LTE
Cell	1 (20 W)	2 (20 W)	3 (20 W)	1 (20 W)
Downlink	25 (2111.25 MHz)	50 (2112.5 MHz)	75 (2113.75 MHz)	2141 (2129.1 MHz)
Uplink	25 (1711.25 MHz)	50 (1712.5 MHz)	75 (1713.75 MHz)	20141 (1729.1 MHz)
Modulation	QPSK	QPSK	QPSK	QPSK
Bandwidth	1.25 MHz	1.25 MHz	1.25 MHz	3 MHz

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Configuration 3:

CDMA				LTE
Cell	1 (20 W)	2 (20 W)	3 (20 W)	1 (20 W)
Downlink	825 (2151.25 MHz)	850 (2152.5 MHz)	875 (2153.75 MHz)	2341 (2149.1 MHz)
Uplink	825 (1751.25 MHz)	850 (1752.5 MHz)	875 (1753.75 MHz)	20341 (1749.1 MHz)
Modulation	QPSK	QPSK	QPSK	QPSK
Bandwidth	1.25 MHz	1.25 MHz	1.25 MHz	3 MHz

Configuration 4:

CDMA				LTE
Cell	1 (20 W)	2 (20 W)	3 (20 W)	1 (20 W)
Downlink	25 (2111.25 MHz)	50 (2112.5 MHz)	75 (2113.75 MHz)	2009 (2115.9 MHz)
Uplink	25 (1711.25 MHz)	50 (1712.5 MHz)	75 (1713.75 MHz)	20009 (1715.9 MHz)
Modulation	QPSK	QPSK	QPSK	QPSK
Bandwidth	1.25 MHz	1.25 MHz	1.25 MHz	3 MHz

Configuration 5:

CDMA			LTE
Cell	1 (30 W)	2 (30 W)	1 (20 W)
Downlink	160 (2118 MHz)	530 (2136.5 MHz)	2125 (2127.5 MHz)
Uplink	160 (1718 MHz)	530 (1736.5 MHz)	20125 (1727.5 MHz)
Modulation	QPSK	QPSK	QPSK
Bandwidth	1.25 MHz	1.25 MHz	3 MHz

Configuration 6:

CDMA			LTE
Cell	1 (30 W)	2 (30 W)	1 (20 W)
Downlink	405 (2130.25 MHz)	490 (2134.5 MHz)	2175 (2132.5 MHz)
Uplink	405 (1730.25 MHz)	490 (1734.5 MHz)	20175 (1732.5 MHz)
Modulation	QPSK	QPSK	QPSK
Bandwidth	1.25 MHz	1.25 MHz	3 MHz

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Configuration 7:

CDMA		LTE	
Cell	1 (30 W)	2 (30 W)	1 (20 W)
Downlink	370 (2128.5 MHz)	740 (2147 MHz)	2125 (2137.5MHz)
Uplink	370 (1728.5 MHz)	740 (1747 MHz)	20125 (1737.5 MHz)
Modulation	QPSK	QPSK	QPSK
Bandwidth	1.25 MHz	1.25 MHz	3 MHz

## **CDMA operation mode during measurements**

Measurements were performed with the test object transmitting in 1xRTT and EVDO configurations. 1xRTT is defined in 3GPP2 C.S0002-D-V1.0 and EVDO is defined in TIA 856-B. 1xRTT uses QPSK modulation with supported data rates of 9.6 kbps and 153.6 kbps. EVDO uses QPSK modulation with supported data rate of 614.4 kbps, 8-PSK modulation with supported data rate of 921.6 kbps and 16QAM modulation with supported data rate of 2457.6 kbps.

The settings below were found to be representative for all traffic scenarios when several settings with the different modulations, data rates and the number of carriers were tested to find the worst case setting. These settings were used for all measurements if not otherwise noted.

QPSK modulation  
Channel rate: 9.6 kbps  
Channel bandwidth: 1.25 MHz

## **LTE Operation mode during measurements**

Measurements were performed with the test object transmitting test models as defined in 3GPP TS 36.141. Test model E-TM1.1 was used to represent QPSK, test model E-TM3.2 to represent 16QAM and test model E-TM3.1 to represent 64QAM payload modulation. The setting TX single carrier with test model E-TM1.1 in channel bandwidth configuration 3 MHz was found to be representative for all traffic scenarios when several settings with different modulations and channel bandwidth configurations were compared to find a worst case setting. This setting was used for all measurements unless otherwise noted.

## **Conducted measurements**

The EUT was a RUS 01 B4 mounted in a RBS 6201 unit supplied with -48 VDC by an external power supply. All RF conducted measurements were performed with the test object configured for maximum transmit power. All RF conducted TX measurements were performed at antenna port RF A.

## **Radiated measurements**

The test object was powered with -48 VDC. All measurements were performed with the test object configured for maximum transmit power. The configurations below are the tests performed for radiated spurious emission measurements.

The RF output power port was via a RF attenuator connected to functional test equipment for supervision outside the chamber.

The RUS 01 B4 unit was tested with the following configurations:

- Configuration 1<sup>1)</sup>
- Configuration 2
- Configuration 3
- Configuration 4

<sup>1)</sup> The configuration represents worst case

## **Purpose of test**

The purpose of this test is to justify a Class II Permissive Change of the test object to include the use of multi- standard radio (MSR) for access technologies CDMA and LTE running in Contiguous and Non- contiguous mode.

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-139 and RSS-Gen.

## **References**

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

ANSI 63.4-2009

ANSI/TIA/EIA-603-C-2004

CFR 47 part 2, October 1<sup>st</sup>, 2011

CFR 47 part 27, October 1<sup>st</sup>, 2011

3GPP TS 25.141, version 8.9.0

RSS-Gen Issue 3

RSS-139 Issue 2

**Measurement equipment**

	Calibration Due	SP number
Test site Tesla	2014-01	503 881
R&S FSIQ 40	2012-07	503 738
R&S FSQ 40	2012-07	504 143
R&S ESI 26	2012-07	503 292
Control computer with R&S software EMC32 version 8.52.0	-	503 479
High pass filter	2012-07	504 199
High pass filter	2013-01	901 373
High pass filter	2012-07	503 739
High pass filter	2012-07	503 740
RF attenuator	2012-07	504 159
RF attenuator	2012-07	900 233
Boonton RF Peak power meter/analyzer	2012-11	503 144
Boonton Power sensor 56518-S/4	2012-11	503 145
Chase Bilog Antenna CBL 6111A	2013-10	503 182
EMCO Horn Antenna 3115	2014-01	502 175
Std.gain horn FLANN model 20240-20	-	503 674
µComp Nordic, Low Noise Amplifier	2013-03	901 545
MITEQ Low Noise Amplifier	2012-07	503 285
Temperature cabinet	-	503 360
Testo 635 Temperature and humidity meter	2013-05	504 203

**Uncertainties**

Measurement and test instrument uncertainties are described in the quality assurance documentation "SP-QD 10885". The uncertainties are calculated with a coverage factor  $k=2$  (95% level of confidence).

Compliance evaluation is based on a shared risk principle with respect to the measurement uncertainty.

**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 2012-05-28.

**Manufacturer's representative**

Christer Gustavsson, Ericsson AB





## REPORT

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IC: 287AB-AS118592

## Appendix 1

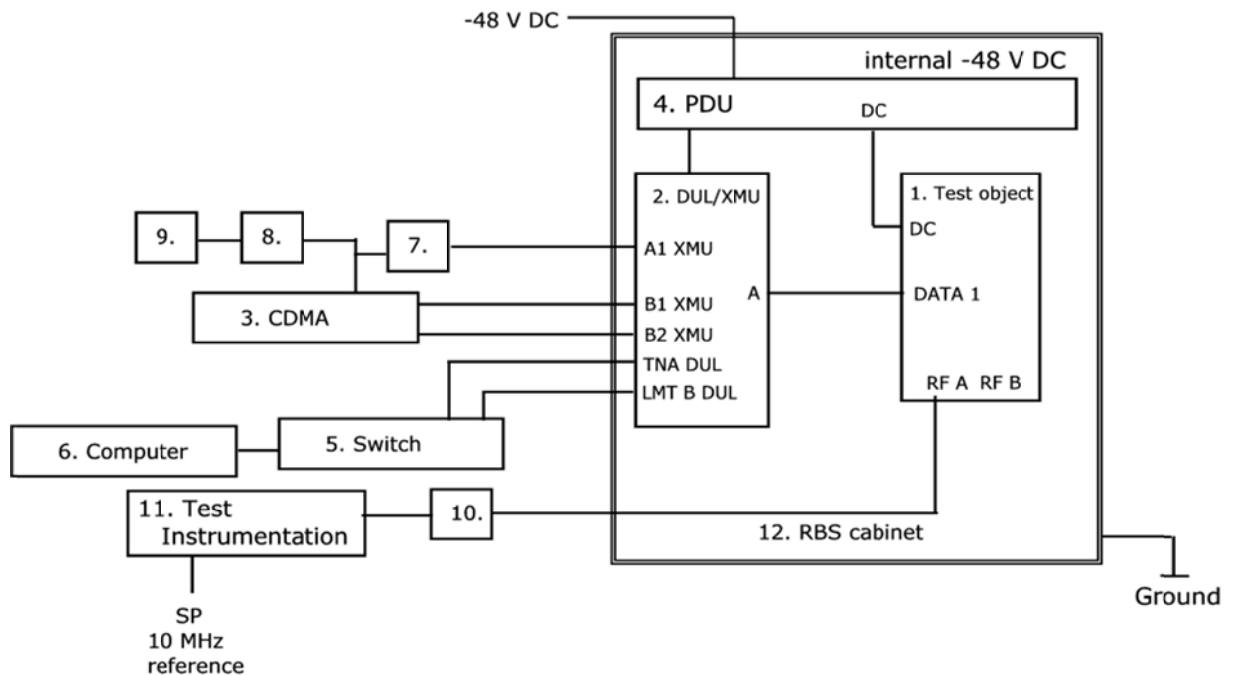
### **Test engineers**

Tomas Lennhager, Andreas Johnson, Tomas Isbring, Hyder Khalaf, Kexin Chen, Jörgen Wassholm and Martin Theorin, SP

### **Test participants**

Martin Ivanovic and Patrik Hellström, Ericsson AB (Partly present)

**Test set-up conducted measurements TX**



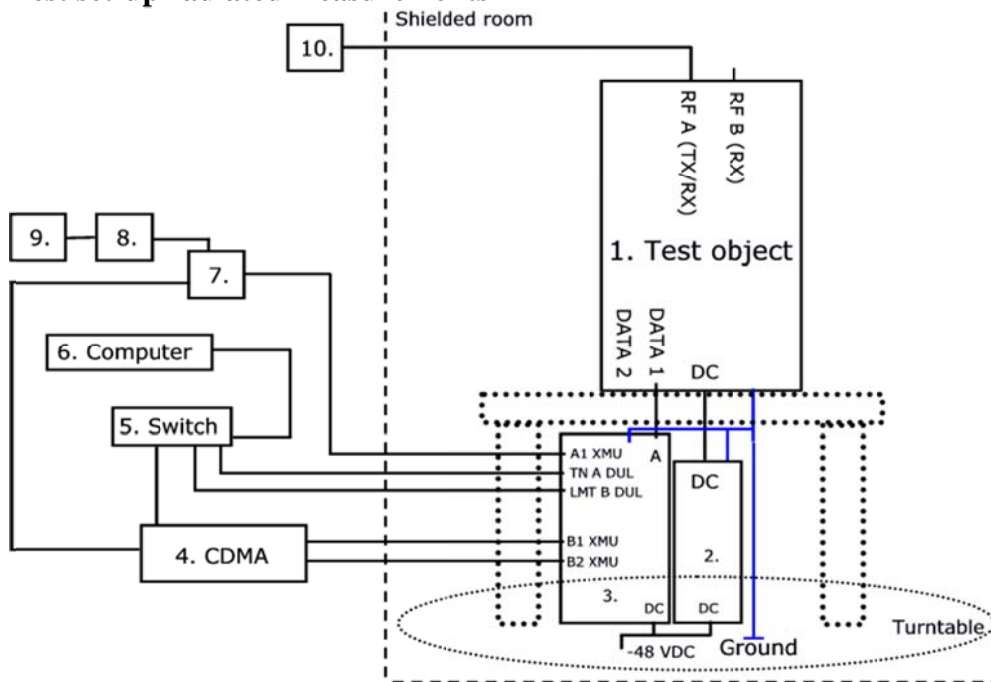
**Test object**

1. RUS 01 B4, KRC 118 59/2, rev. R2B, s/n: C825565754  
(FCC ID: TA8AKRC11859-2 / IC: 287AB-AS118592)  
with software (PIS): CXP 901 3268/6 rev. R48YA

**Functional test equipment**

2. DU 1: DUL 02 01, KDU 137 533/4, Rev R1C, S/N: C825151647 and  
DU 2: XMU 02 01, KDU 137 745/1, Rev R2A, S/N: C825513804
3. EMC CDMA NR: 0708, see details on the following page
4. PDU 02 01, BMG 980 336/4 Rev R2A, S/N: BJ31528316
5. Fast Ethernet switch, Netgear GS108E
6. Computer HP Elitbook 8540w, BAMS – 1001052043
7. GPS splitter KRY 101 1946/1 P1B BU91444275
8. GPS 0201 NCD 901 41/1 R1D A401724356
9. GPS antenna
10. SP test instrument according measurement equipment list
11. SP test instrument according measurement equipment list
12. RBS 6201 cabinet, BAMS – 1000778792

**Test set-up radiated measurements**



**Test object**

1. RUS 01 B4, KRC 118 59/2, rev. R2B, s/n: C825565754 (FCC ID: TA8AKRC11859-2 / IC: 287AB-AS118592) with software (PIS): CXP 901 3268/6 rev. R48YA

**Functional test equipment**

2. PDU 02 01, BMG 980 336/4, R2A, BJ31534775
3. RBS 6601, see details on the following page
4. CDMA MU, see details on the following page
5. Fast Ethernet switch, Netgear GS108E
6. Computer HP Elitebook 8540w, BAMS – 1001052043
7. GPS splitter, KRY 101 1946/1, R1B, BU9144427
8. GPS 02 01, NCD 901 41/1, R1D, A401724356
9. GPS antenna
10. Attenuator and EMI test receiver, Rohde & Schwarz ESI 26, SP 503 292

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Appendix 1

<b>Interfaces:</b>	<b>Type of port:</b>
Power: -48 VDC	DC Power
Antenna port (A), 7/16 connector	Antenna
Antenna port (B), 7/16 connector, N/A in this configuration	Antenna
Data 1, electrical interface	Telecom
Data 2, electrical interface	Telecom
RX A Out, N/A in this configuration	Antenna
RX A I/O, N/A in this configuration	Antenna
RX B I/O, N/A in this configuration	Antenna
Ground wire	Ground

**RBS 6601 Main Unit**

<b>Product name</b>	<b>Product number</b>	<b>R-state</b>	<b>Serial number</b>
XMU 02 01	KDU 137 745/1	R2A	C825513804
DUL 02 01	KDU 137 533/4	R1C	C825151647
SUP 6601	BFL 901 009/1	R3B	BR81526585
SCU 02 01	BGM 136 1006/2	R2A	CD31343358

**CDMA Main Unit**

EMC CDMA NR: 0708, BAMS – 1001029599

<b>Product name</b>	<b>Product number</b>	<b>R-state</b>	<b>Serial number</b>
PDU 02 01	BMG 980 336/4	R2B	C941002722
X-CEEM	NTLK86AAE5 02	-	NNTMPX00PKM1
PWR	NTLK70AA 06	-	NNTMPX00MMNN
PWR ALM	NTLK75AA 03	-	NNTMPX00PR83
DOM-A	NTLK78AAE5 03	-	NNTMPX00R3JV
DOM-A	NTLK78AAE5 03	-	NNTMPX00R3KX
X-CEEM	NTLK86AAE5 02	-	NNTMPX00MRRK
POWER SUPPLY SM 52-30	-	-	BAMS – 0000012187

**RBS software**

	<b>Software</b>	<b>Revision</b>
DUL	CXP 102 051/16	R15AVXMU2
XMU	Vortex ver. 1804_12wk07	-

**RF power output measurements according to CFR 47 §27.50 / IC RSS-139 6.4**

Date 2012-06-27	Temperature 21 °C ± 3 °C	Humidity 53 % ± 5 %
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**Test set-up and procedure**

The test object was connected to a signal analyzer measuring peak and RMS output power in CDF mode. A resolution bandwidth of 50 MHz was used.

Measurement equipment	SP number
R&S FSQ 40	504 143
RF attenuator	504 159
Testo 635, temperature and humidity meter	504 203

**Measurement uncertainty:** 1.1 dB

**Results**

Tested configurations	Transmitter combined power RMS (dBm) / PAR (dB)
Configuration 5:	47.3/ 8.0
Configuration 6:	48.9/ 6.9
Configuration 7:	47.6/ 8.0

- Diagram 1: Configuration 5
- Diagram 2: Configuration 6
- Diagram 3: Configuration 7

**Limits**

§27.50: The maximum output power may not exceed 1640 W (EIRP) / MHz.  
The Peak to Average Ratio (PAR) may not exceed 13 dB.

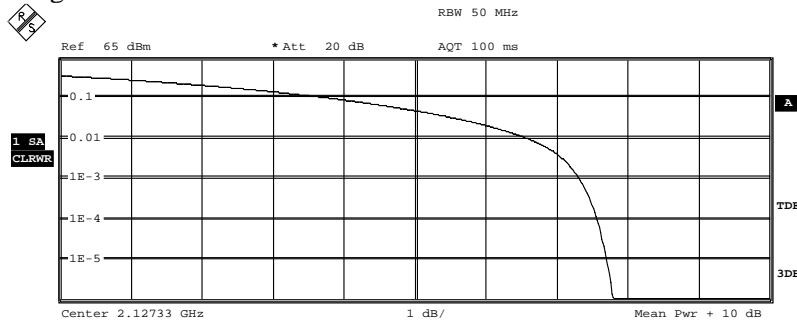
RSS-139 6.4: The average equivalent isotropically radiated power (e.i.r.p.) limits in SRSP-513 apply, resulting in a maximum EIRP of 1640 W / MHz for the scope of this report. The peak-to-average ratio of the power shall not exceed 13 dB.

Complies?	Yes
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FCC ID: TA8AKRC11859-2  
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Appendix 2

Diagram 1:

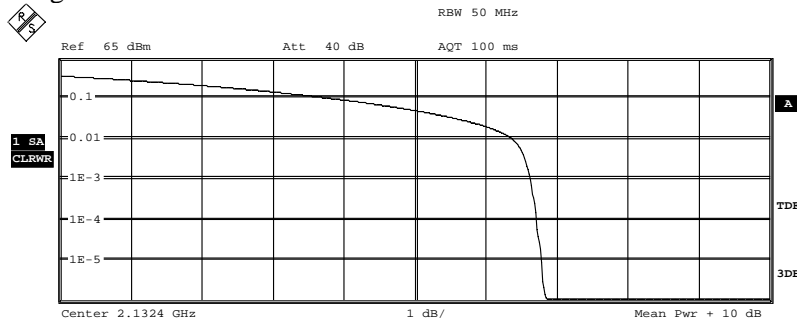


Complementary Cumulative Distribution Function  
NOF samples: 6400000, Usable BW: 37.9MHz EXT

Trace 1	
Mean	47.34 dBm
Peak	55.32 dBm
Crest	7.98 dB
10 %	3.83 dB
1 %	6.59 dB
.1 %	7.32 dB
.01 %	7.58 dB

Date: 27.JUN.2012 14:23:28

Diagram 2:



Complementary Cumulative Distribution Function  
NOF samples: 6400000, Usable BW: 37.9MHz EXT

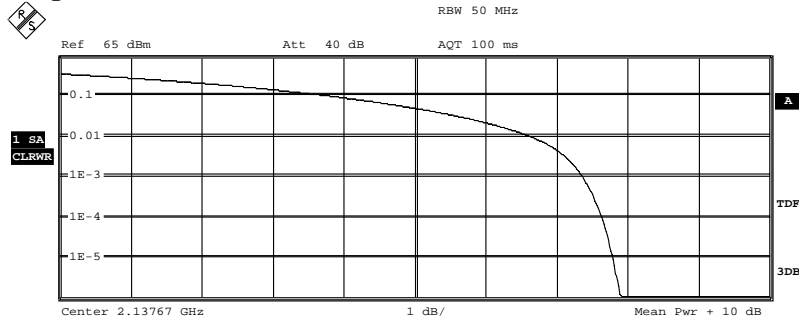
Trace 1	
Mean	48.89 dBm
Peak	55.75 dBm
Crest	6.86 dB
10 %	3.88 dB
1 %	6.38 dB
.1 %	6.63 dB
.01 %	6.71 dB

Date: 27.JUN.2012 21:53:33

FCC ID: TA8AKRC11859-2  
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Appendix 2

Diagram 3:



Complementary Cumulative Distribution Function  
NOF samples: 6400000, Usable BW: 37.9MHz

Trace 1	
Mean	47.60 dBm
Peak	55.56 dBm
Crest	7.96 dB
10 %	3.85 dB
1 %	6.63 dB
.1 %	7.37 dB
.01 %	7.64 dB

Date: 27.JUN.2012 21:00:38

**Conducted spurious emission measurements according to CFR 47 §27.53(h)/  
IC RSS-139 6.5**

Date 2012-06-27	Temperature 21 °C ± 3 °C	Humidity 53 % ± 5 %
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**Test set-up and procedure**

The measurements were made per definition in §27.53(h). The output was connected to a spectrum analyzer with a RBW setting of 1 MHz and RMS detector activated. The spectrum analyzer was connected to an external 10 MHz reference standard during the measurements.

Measurement equipment	SP number
R&S FSQ	504 143
RF attenuator	504 159
High pass filter	503 739
RF attenuator	900 229
High pass filter	503 740
Testo 635 temperature and humidity meter	504 203

Measurement uncertainty: 3.7 dB

**Results**

- Diagram 1 a-e: Configuration 5
- Diagram 2 a-d: Configuration 6
- Diagram 3 a-e: Configuration 7

**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 feed-through.

The highest internal frequency as declared by the client was 2.4576 GHz, thus the choice of the upper frequency boundary was set to  $10 \times 2.5 \text{ GHz} = 25 \text{ GHz}$  for emission measurements.

**Limits**

§27.53(h) and RSS-139 6.5

Outside a licensee's frequency band(s) of operation the power of any emission shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log (P) \text{ dB}$ , resulting in a limit of -13 dBm per 1 MHz RBW.

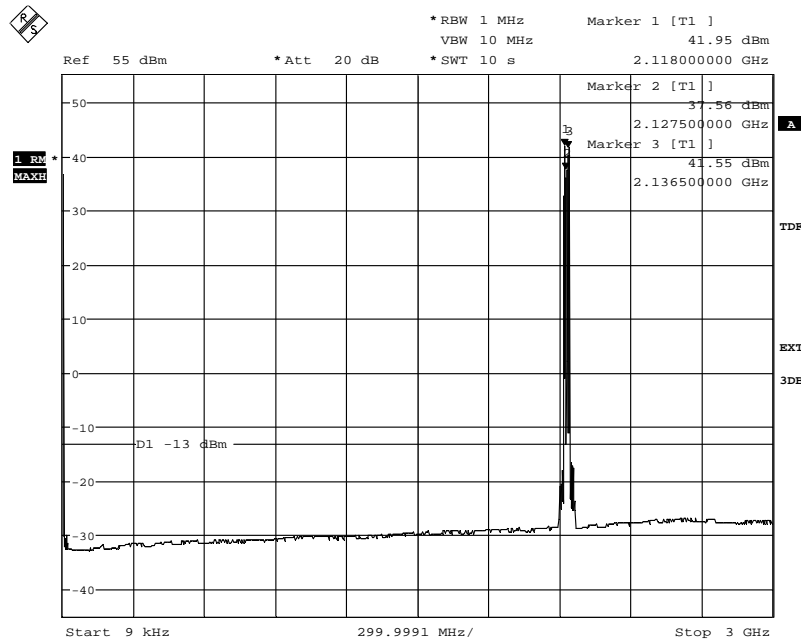
Complies?	Yes
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FCC ID: TA8AKRC11859-2  
IC: 287AB-AS118592

Appendix 3

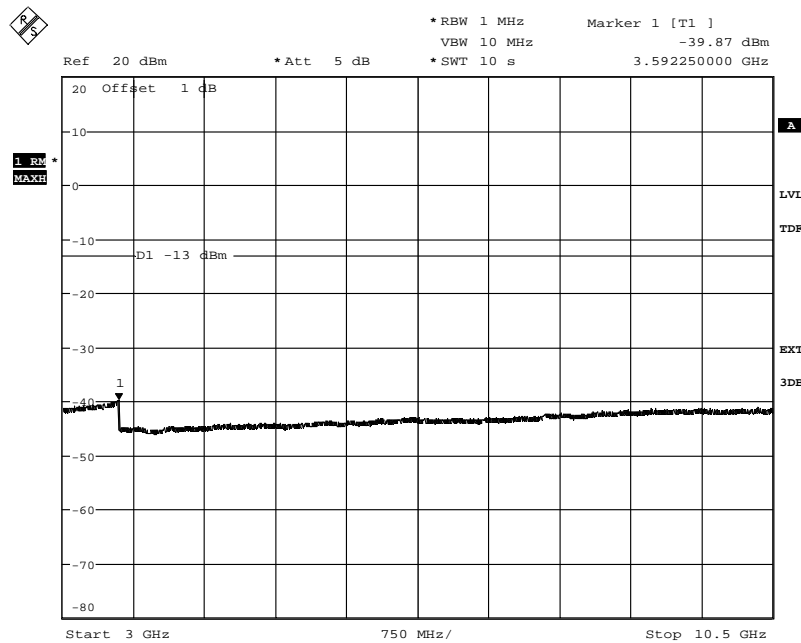
Diagram 1a



Date: 27.JUN.2012 16:03:23

The emissions around the carrier are within the operating frequency band

Diagram 1b

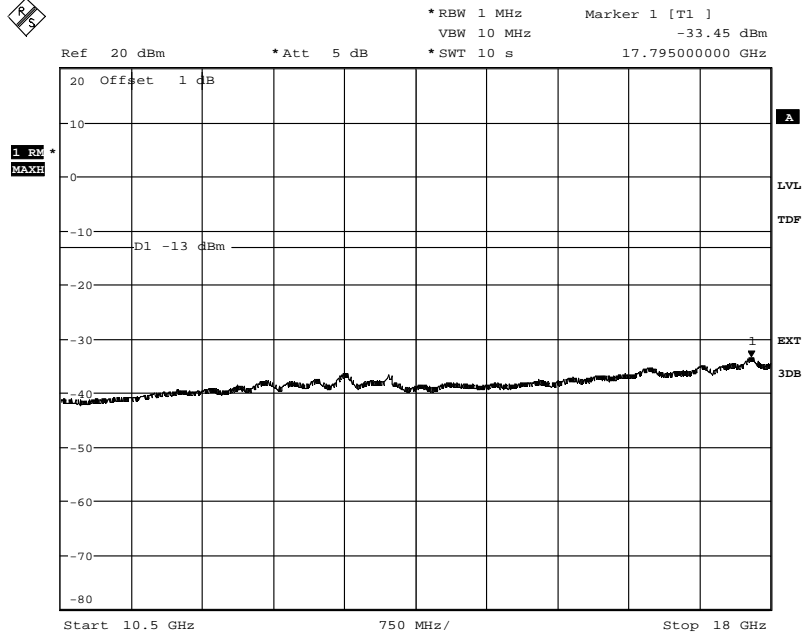


Date: 27.JUN.2012 16:05:31

FCC ID: TA8AKRC11859-2  
IC: 287AB-AS118592

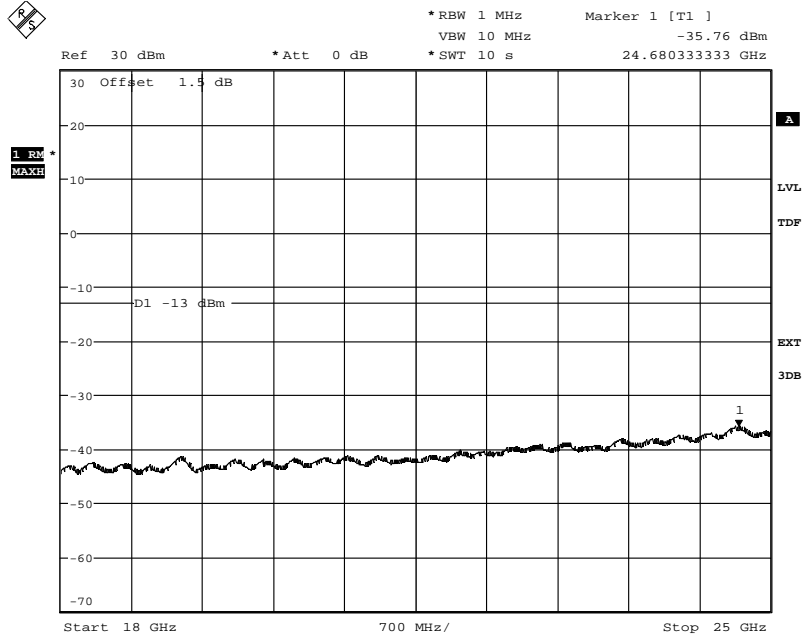
Appendix 3

Diagram 1c



Date: 27.JUN.2012 16:06:28

Diagram 1d

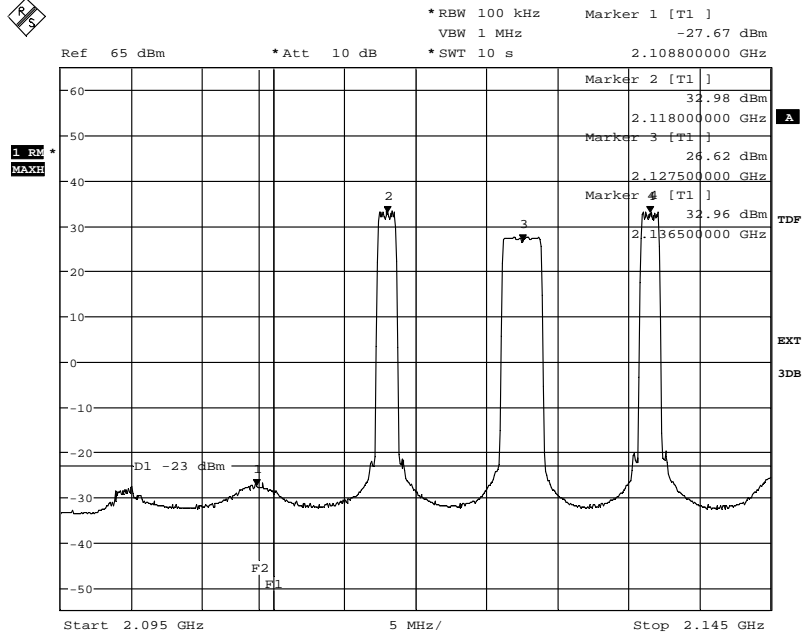


Date: 27.JUN.2012 16:09:10

FCC ID: TA8AKRC11859-2  
IC: 287AB-AS118592

Appendix 3

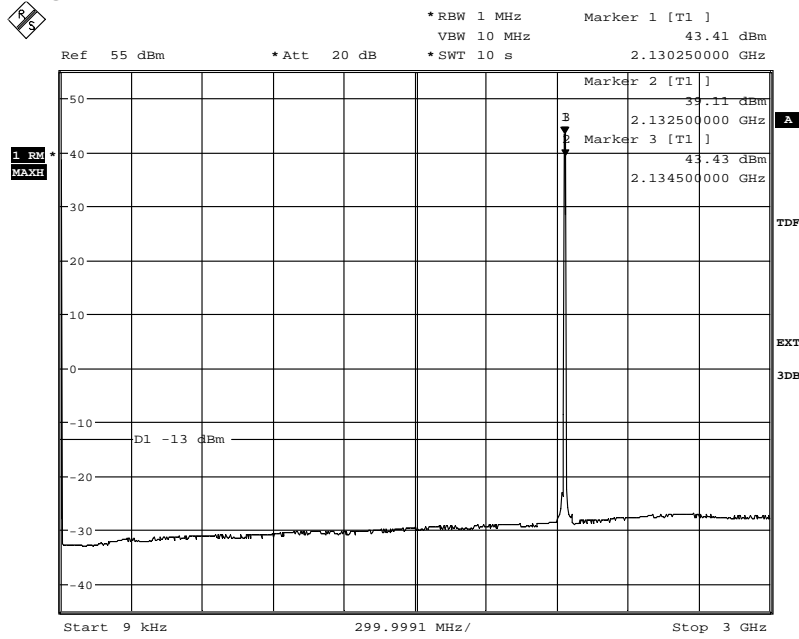
Diagram 1e



Date: 27.JUN.2012 15:59:24

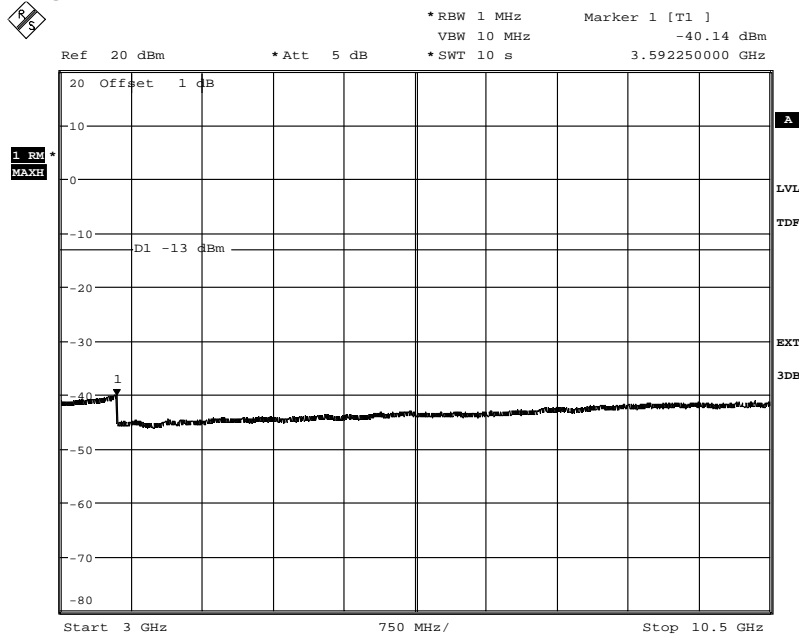
The emission at 2108.8 MHz was -19.60 dBm measured with the channel power method with 1 MHz channel bandwidth.

Diagram 2a



Date: 27.JUN.2012 21:51:56

Diagram 2b

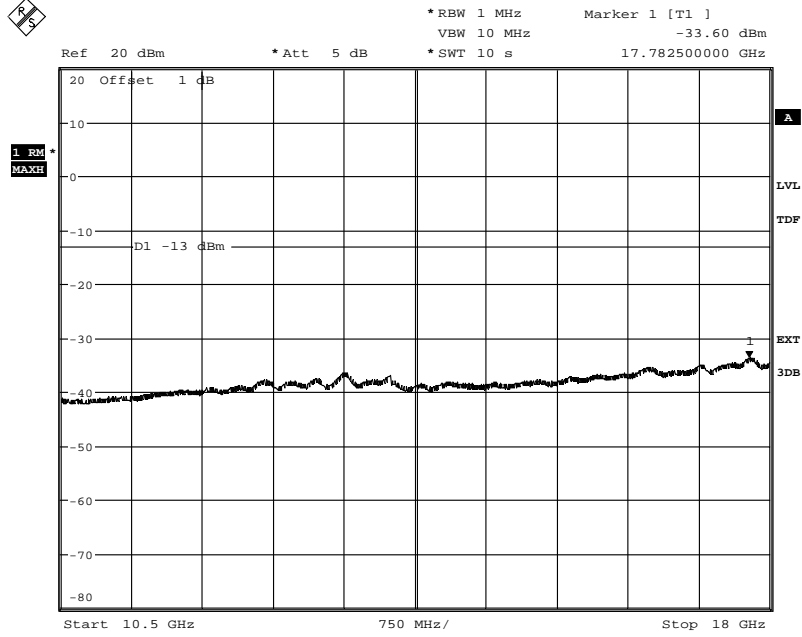


Date: 27.JUN.2012 21:48:05

FCC ID: TA8AKRC11859-2  
IC: 287AB-AS118592

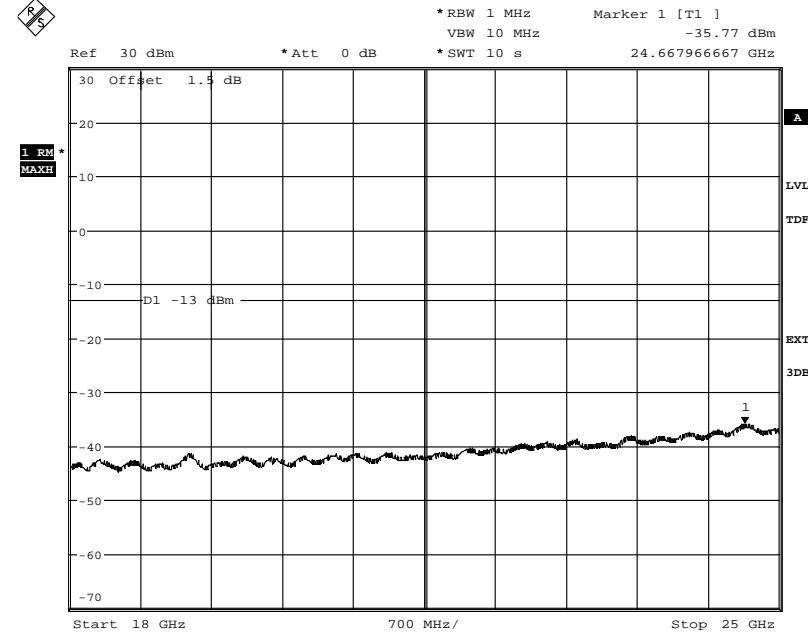
Appendix 3

Diagram 2c



Date: 27.JUN.2012 21:47:06

Diagram 2d

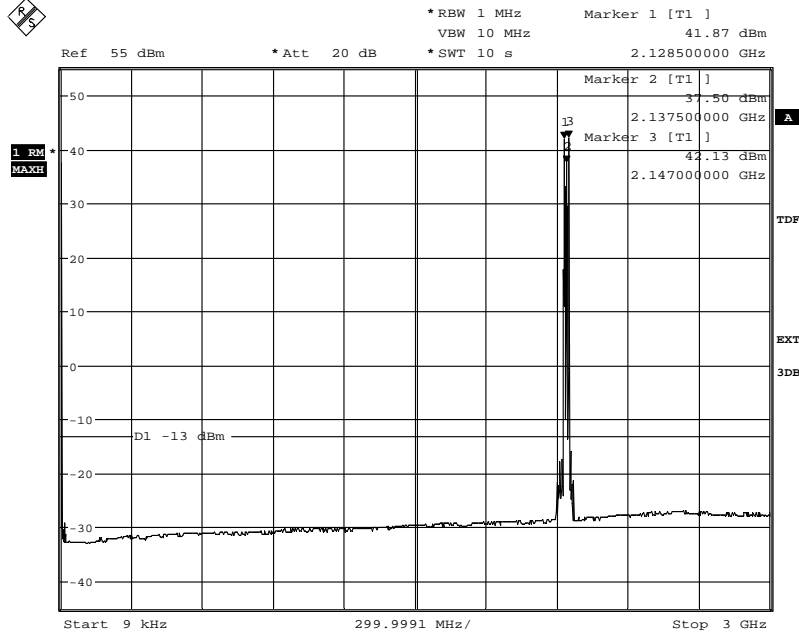


Date: 27.JUN.2012 21:45:06

FCC ID: TA8AKRC11859-2  
IC: 287AB-AS118592

Appendix 3

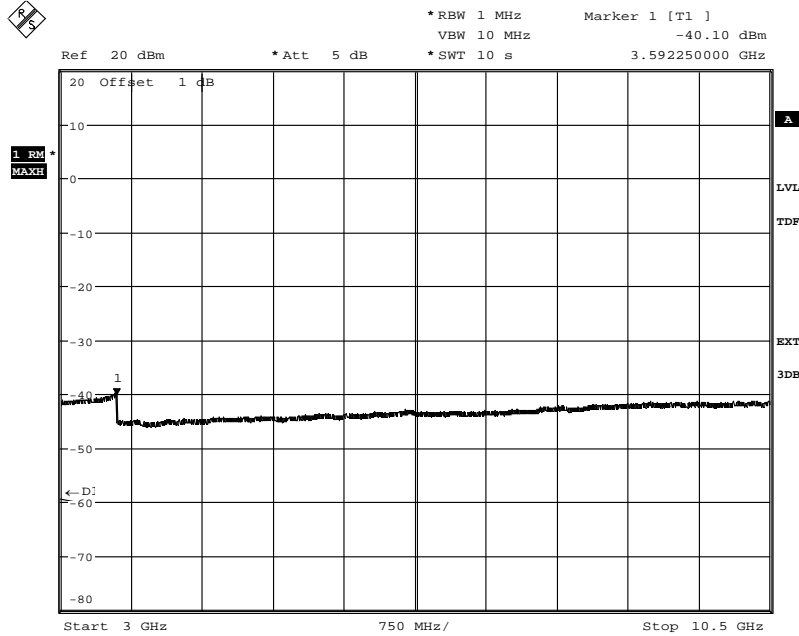
Diagram 3a



Date: 27.JUN.2012 21:15:07

The emissions around the carrier are within the operating frequency band

Diagram 3b

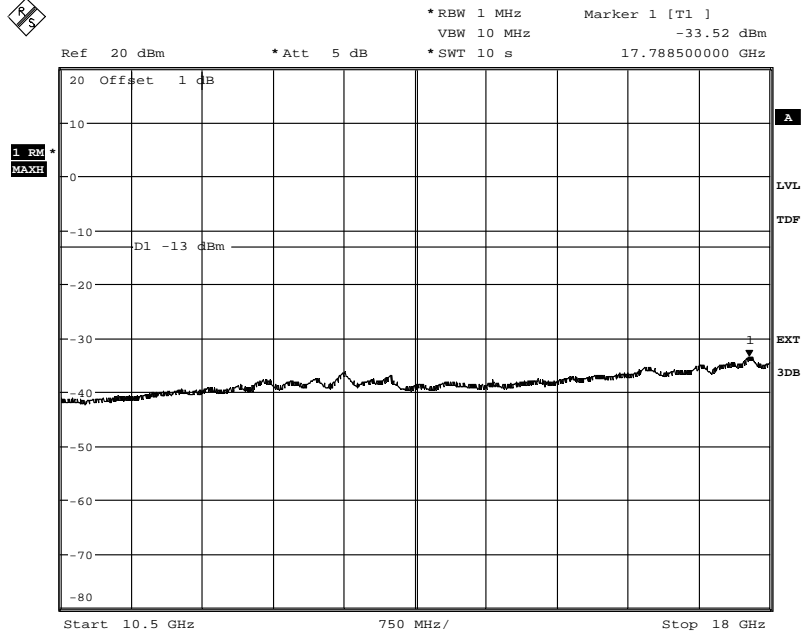


Date: 27.JUN.2012 21:17:41

FCC ID: TA8AKRC11859-2  
IC: 287AB-AS118592

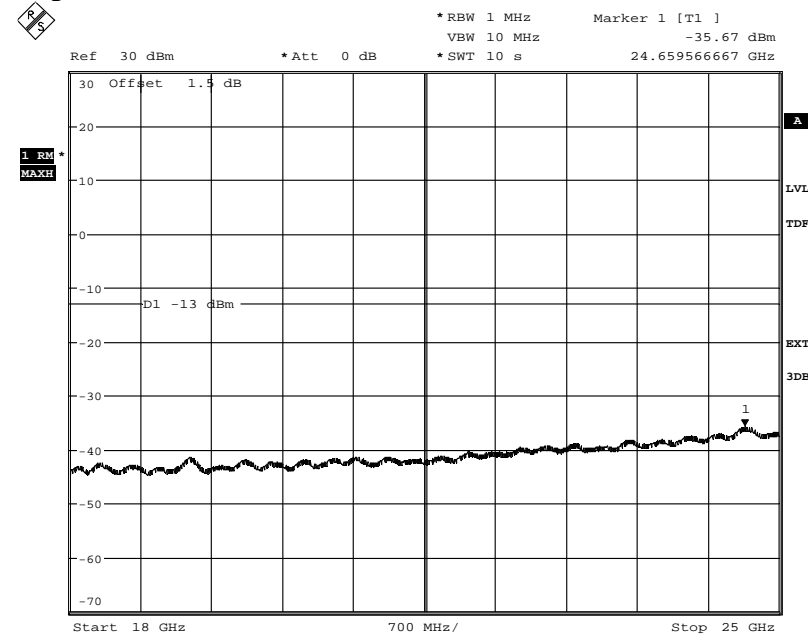
Appendix 3

Diagram 3c



Date: 27.JUN.2012 21:18:35

Diagram 3d

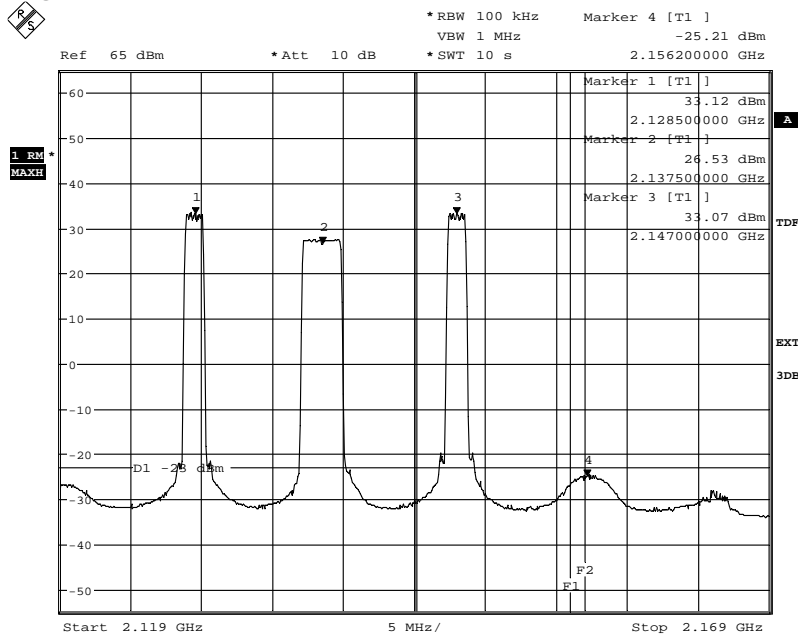


Date: 27.JUN.2012 21:20:19

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Appendix 3

Diagram 3e



Date: 27.JUN.2012 20:58:48

The emission at 2156.3 MHz was -16.47 dBm measured with the channel power method with 1 MHz channel bandwidth.



**Field strength of spurious radiation measurements according to 47 CFR 27.53 (h) / IC RSS-139 6.5**

Date	Temperature	Humidity
2012-06-15	23°C ± 3°C	33 % ± 5 %
2012-06-16	23°C ± 3°C	31 % ± 5 %
2012-06-23	23°C ± 3°C	37 % ± 5 %
2012-06-24	23°C ± 3°C	37 % ± 5 %

**Test set-up and procedure**

The test sites are listed at FCC, Columbia with registration number: 93866. The test site complies with RSS-Gen, Industry Canada file no. 3482A-1.

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 - 25 GHz.

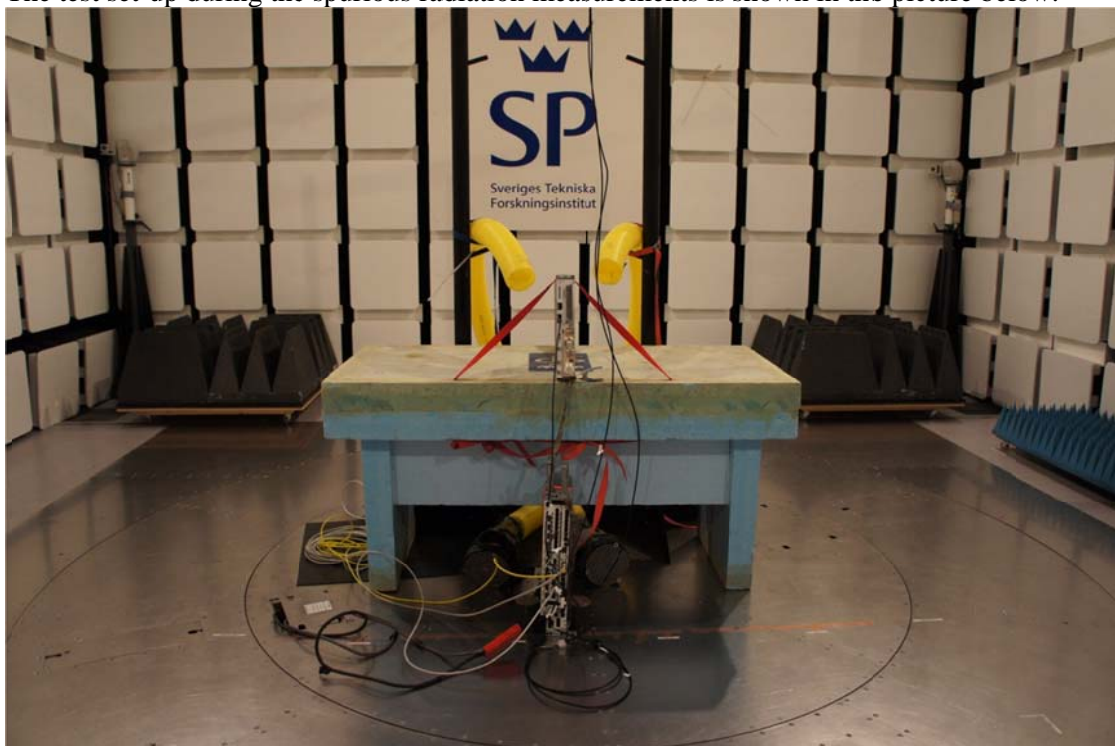
In the frequency range 30 MHz - 25 GHz the measurement was performed in power with a RBW of 1 MHz. A propagation loss in free space was calculated. The used formula was

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

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 in the pre-measurement 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 when measured with the RMS detector were measured with the substitution method according to the standard.

The test set-up during the spurious radiation measurements is shown in the picture below:



### Measurement equipment

	SP number
Test site Tesla	503 881
R&S ESU 26	901 553
Control computer	-
R&S FSIQ 40	503 738
Software: R&S EMC32, ver. 8.52.0	503 745
Chase Bilog antenna CBL 6111A	503 182
µComp Nordic, Low Noise Amplifier	901 545
Miteq, Low Noise Amplifier	503 285
EMCO Horn Antenna 3115	502 175
Standard gain antenna 20240-20	503 674
High pass filter, Wainright	504 200
High pass filter, RLC Electronics	503 739
Testo 635 Temperature and humidity meter	504 203



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Appendix 4

**Results**, representing worst case

Diagram 1:a-d configuration 1

Frequency (MHz)	Spurious emission level (dBm)	
	Vertical	Horizontal
30-25 000	All emission > 20 dB below limit	All emission > 20 dB below limit

**Measurement uncertainty:**

3.2 dB up to 18 GHz, 3.6 dB above 18 GHz

**Limits**

§27.53(h) and RSS-139 6.5

Outside a licensee's frequency band(s) of operation the power of any emission shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB, resulting in a limit of -13 dBm per 1 MHz RBW.

Complies?	Yes
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Diagram 1a:

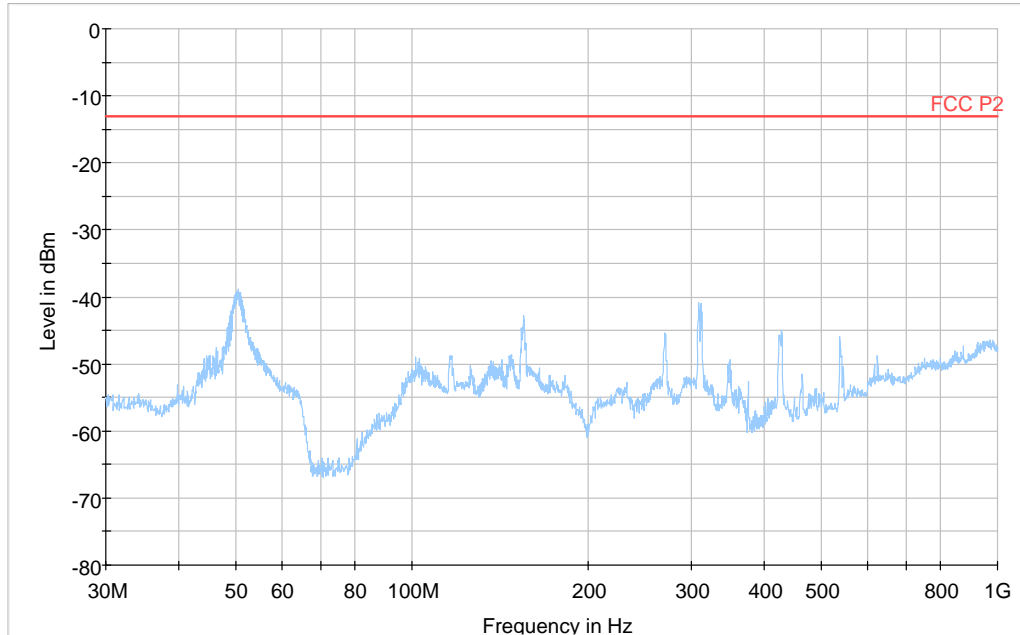
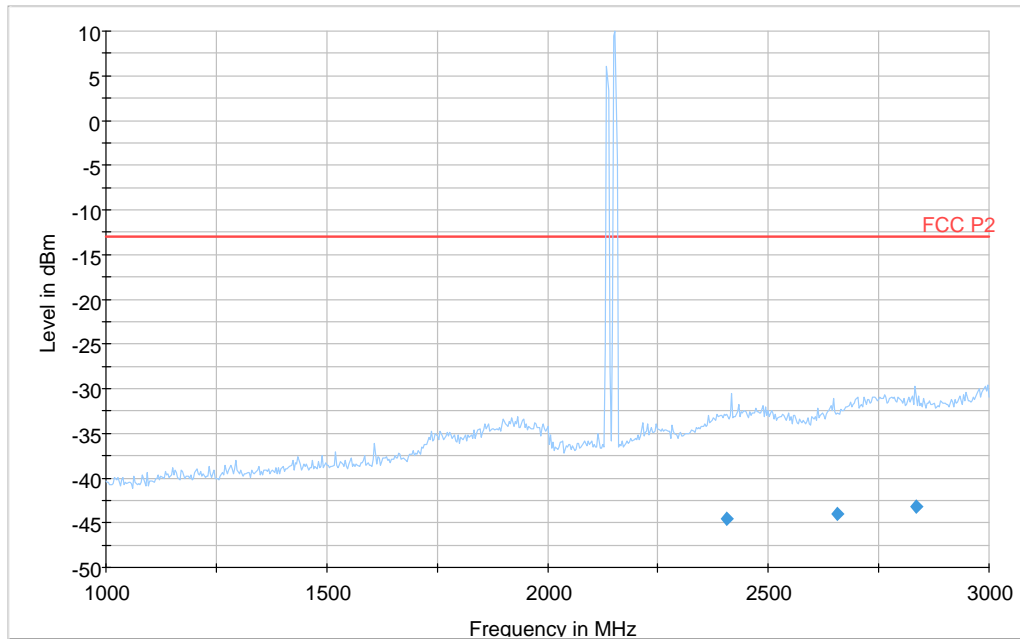


Diagram 1b:



Note: The emission between 2136 MHz and 2154 MHz is the carrier frequency and shall be ignored in the context.

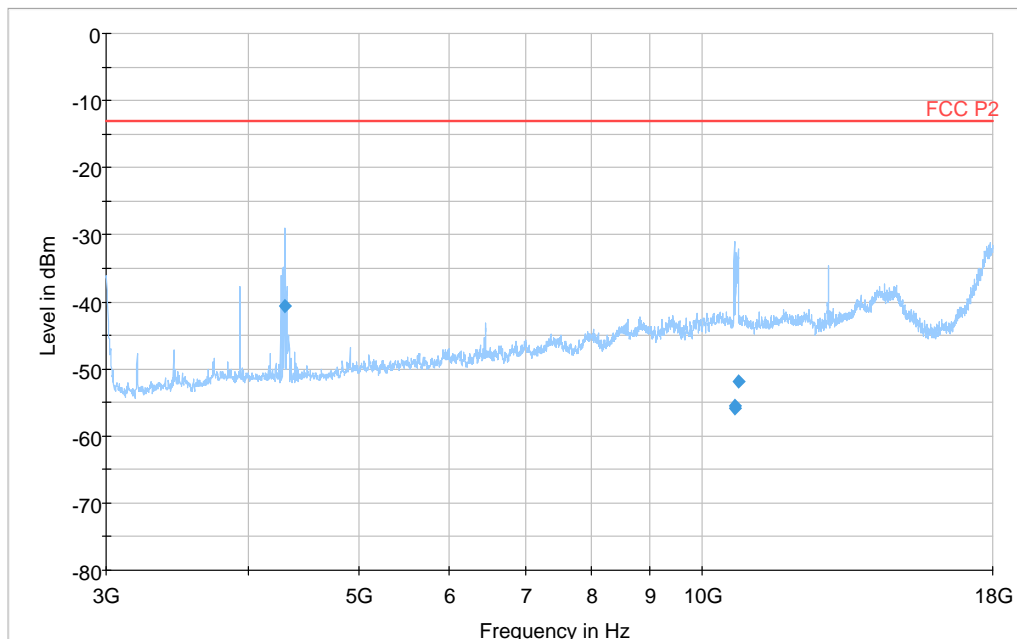
### Final RMS Result

Frequency (MHz)	RMS (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBm)
2406.325	-44.5	5000.0	1000.000	100.0	H	333.0	-59.4	31.5	-13.0
2657.448	-44.0	5000.0	1000.000	143.0	H	317.0	-58.6	31.0	-13.0
2836.239	-43.2	5000.0	1000.000	173.0	V	277.0	-58.1	30.2	-13.0

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Appendix 4

Diagram 1c:



**Final Result 1**

Frequency (MHz)	RMS (dBm)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBm)
4305.276	-40.6	5000.0	1000.000	138.0	V	188.0	-103.3	27.6	-13.0
10679.028	-55.9	5000.0	1000.000	147.0	V	81.0	-90.0	42.9	-13.0
10679.515	-55.4	5000.0	1000.000	213.0	V	88.0	-90.0	42.4	-13.0
10765.253	-51.9	5000.0	1000.000	166.0	V	81.0	-90.2	38.9	-13.0



**REPORT**

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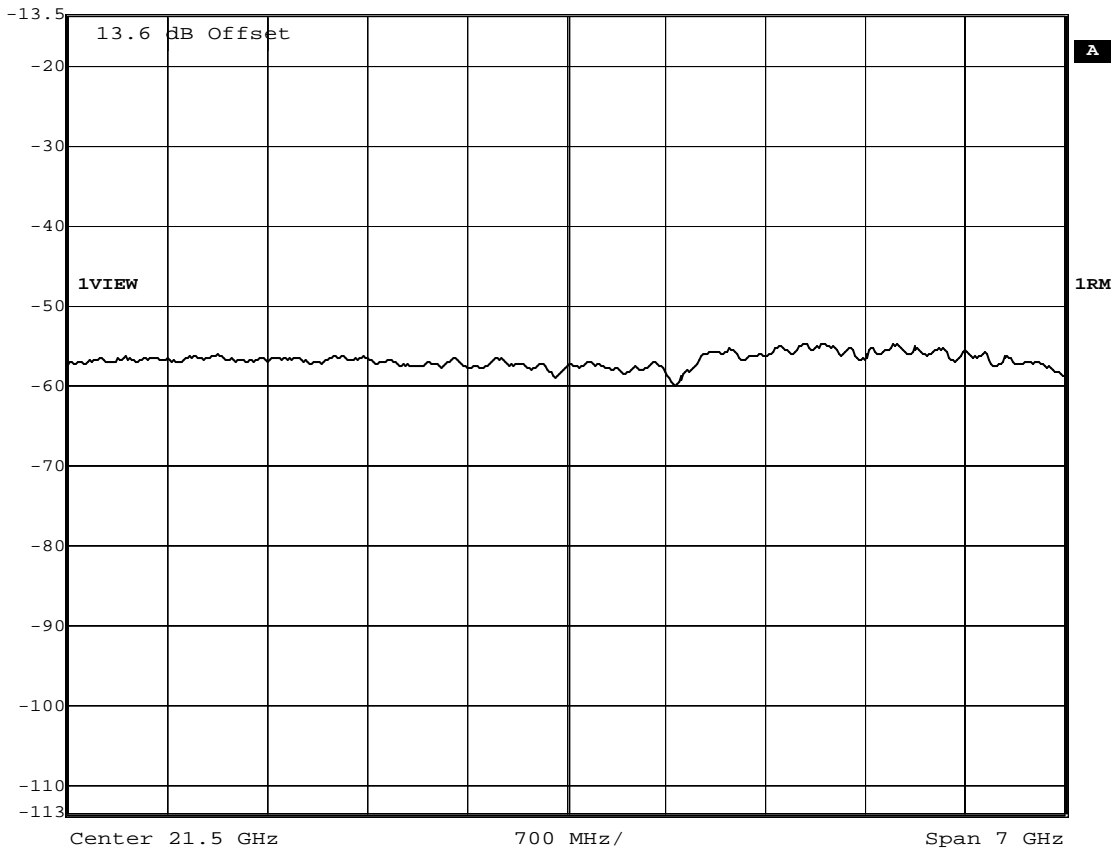
Appendix 4

Diagram Id:



Ref Lvl  
-13.5 dBm

RBW	1 MHz	RF Att	0 dB
VBW	10 MHz		
SWT	100 ms	Unit	dBm



Date: 24.MAY.2012 09:30:40

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Appendix 5

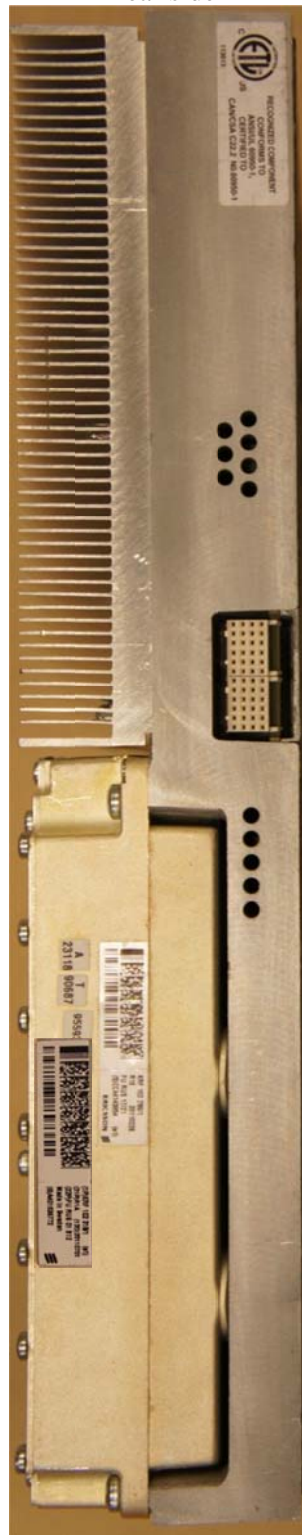
**External photos**

Front side



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IC: 287AB-AS118592  
IC MODEL NO: AS118592

Rear side



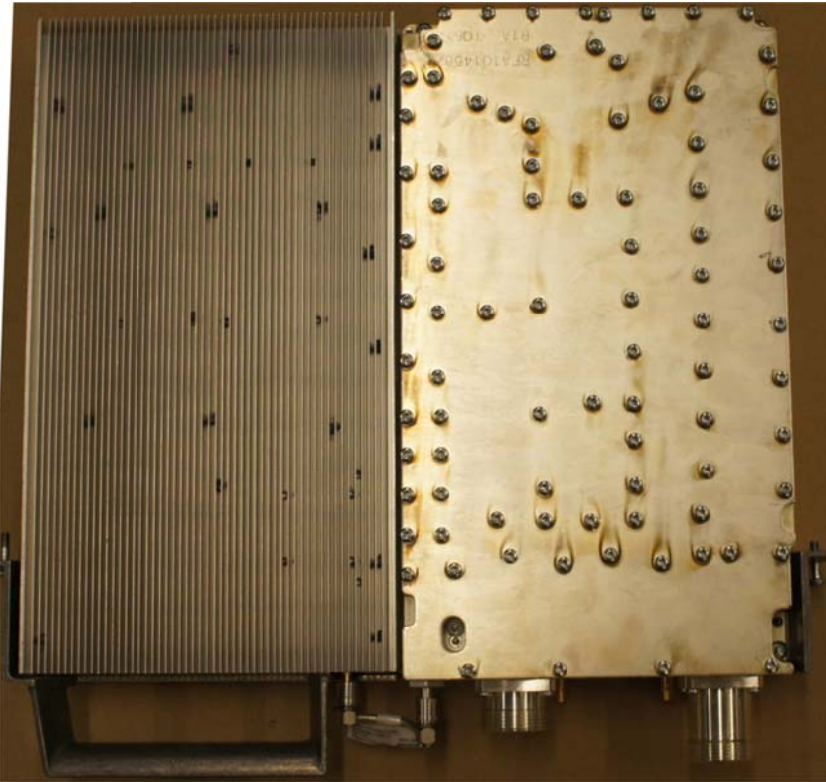
KRC 118 59/2 R2B  
(S)C825565754 20111220  
FRICORON

Left side

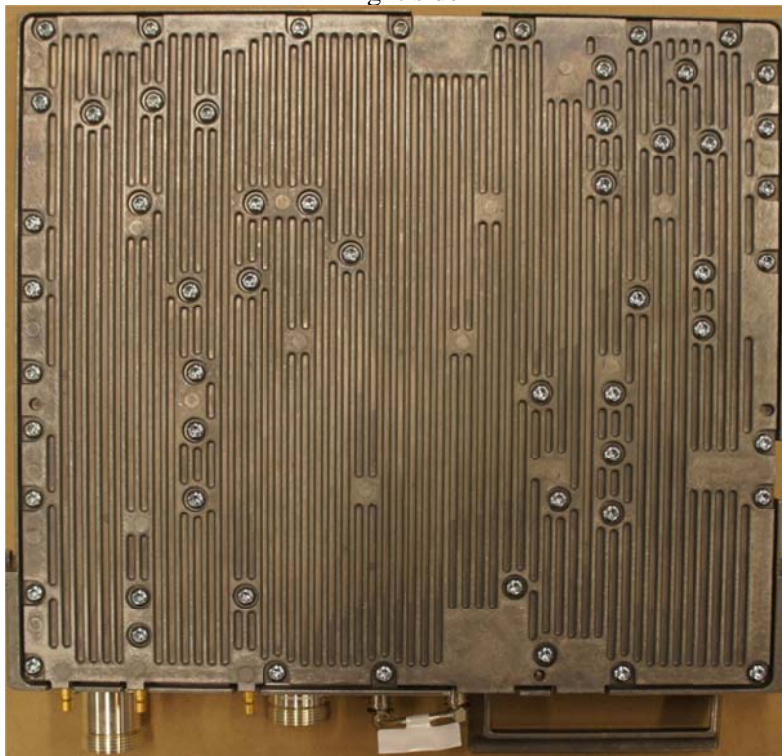


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Appendix 5



Right side



Top side

Bottom side



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Appendix 5

