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REPORT

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Date	Reference	Page
2005-04-04	F504182-F22	1 (1)

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Equipment Authorization measurements on GSM Base station Transceiver unit with FCC ID: B5KAKRC1311010-2 in the RBS 2250 cabinet

(10 appendices)

Test object

Transceiver Unit dTRU 10-8 Edge, KRC 131 1010/2, R2A

Summary

Standard	Compliant	Appendix	Remarks
FCC CFR 47			
2.1046 RF Power output	Yes	2	
2.1047 Modulation characteristics	Yes	3	
2.1049 Occupied bandwidth	Yes	4	
2.1049 Band Edge	Yes	5	Note 1
2.1051 Spurious emission at antenna	Yes	6	
2.1053 Field strength of spurious radiation	Yes	7	
2.1055 Frequency stability	Yes	8	

Note 1: The maximum peak output powers with GMSK modulation that can be used on the channels adjacent to the frequency band edges are 41.2 dBm (channel 128) and 42.5 dBm (channel 251) in order to comply.

SP Swedish National Testing and Research Institute
Electronics - EMC

Jan Welinder
Technical Manager

Jonas Bremholt
Technical Officer

FCC ID: B5KAKRC1311010-2 Appendix 1

Description - Equipment Under Test (EUT)

Equipment: GSM Base station transceiver 800 MHz

Tx Frequency range: 869.2-893.8 MHz

Nominal power voltage: 24 V DC

Tested Channels

All tests were performed with the EUT operating together with power amplifier, MCPA KRB 111 102/1 Rev R1B with FCC ID: E675JS0071.

Radiated measurements:

RF configuration 1x4

dTRU	ARFCN	Frequency	Modulation
No 1	128	869.2 MHz	GMSK
	169	877.4 MHz	8-PSK
No 2	210	885.6 MHz	GMSK
	251	893.8 MHz	8-PSK

RF configuration 1x8

dTRU	ARFCN	Frequency	Modulation
No 1	128	869.2 MHz	GMSK
	146	872.8 MHz	8-PSK
No 2	164	876.4 MHz	GMSK
	182	880.0 MHz	8-PSK
No 3	197	883.0 MHz	GMSK
	215	886.6 MHz	8-PSK
No 4	233	890.2 MHz	GMSK
	251	893.8 MHz	8-PSK

RF configuration 1x12

dTRU	ARFCN	Frequency	Modulation
No 1	128	869.2 MHz	GMSK
	139	871.4 MHz	8-PSK
No 2	150	873.6 MHz	GMSK
	161	875.8. MHz	8-PSK
No 3	172	878.0 MHz	GMSK
	183	880.2 MHz	8-PSK
No 4	196	882.8 MHz	GMSK
	207	885.0 MHz	8-PSK
No 5	218	887.2 MHz	GMSK
	229	889.4 MHz	8-PSK
No 6	240	891.6 MHz	GMSK
	251	893.8 MHz	8-PSK

Note : For configuration 1x12 the maximum output power was limited to 2 dB below maximum output power.

The radiated spurious emission measurements were done with the three RF configurations listed above at the same time to simulate worst case.
All radiated measurements were performed with the EUT installed in a RBS 2250 TRX cabinet powered with DC power. The RBS 2250 is a dual band cabinet. During the test the RBS 2250 was also equipped with 1900 MHz transceivers and activated to simulate worst case scenario.

Conducted measurements:

ARFCN	Frequency
128	869.2 MHz
129	869.4 MHz
153	874.2 MHz
190	881.6 MHz
226	888.8 MHz
250	893.6 MHz
251	893.8 MHz

All RF conducted measurements were performed with the EUT installed in a RBS 2250 TRX cabinet powered with DC power. The measurements were done at the output connector of CDU-L8 (BFL 119 437/1 rev. R1B) with serial number A400154972. The dTRU with serial number AE51645885 was used for the measurements. The measurement was performed with configurations that represents worst case scenario.

Manufacturer's representative

Per Helmersson, Ericsson AB

Purpose of test

The purpose of the tests is to verify compliance to the performance characteristics specified in FCC CFR47.

References

Measurements were done according to relevant parts of the following standards:
ANSI/TIA/EIA-603-B-2002
J-STD007A Vol 1
ANSI/TIA/EIA 136-280-B-2000

Reservation

The test results in this report apply only to the particular Equipment Under Test (EUT) as declared in the report.

Delivery of test object

The test object was delivered: 2005-02-28

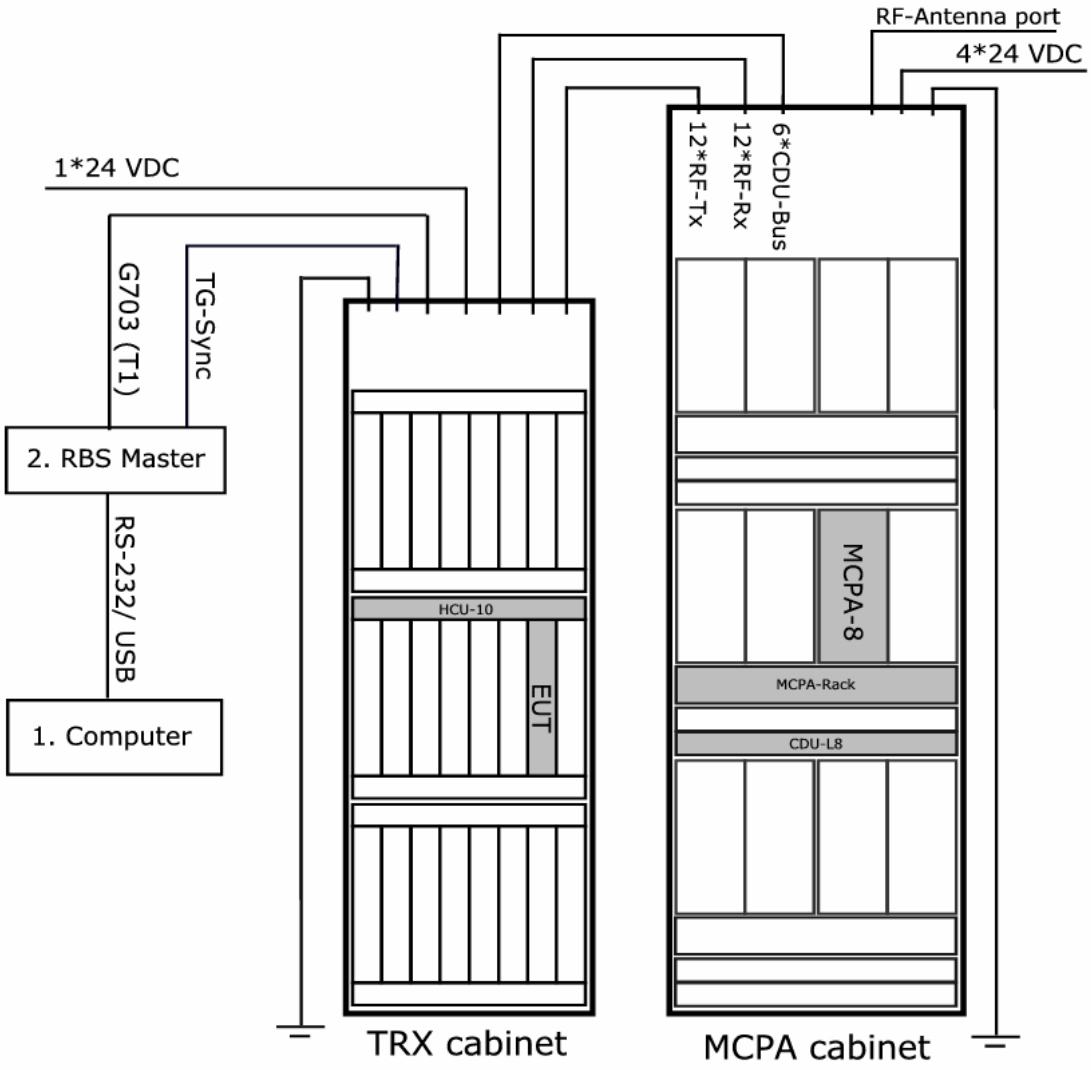
Test engineers

Reinhold Reul, Peter Grahn, and Jonas Bremholt

Test witnesses

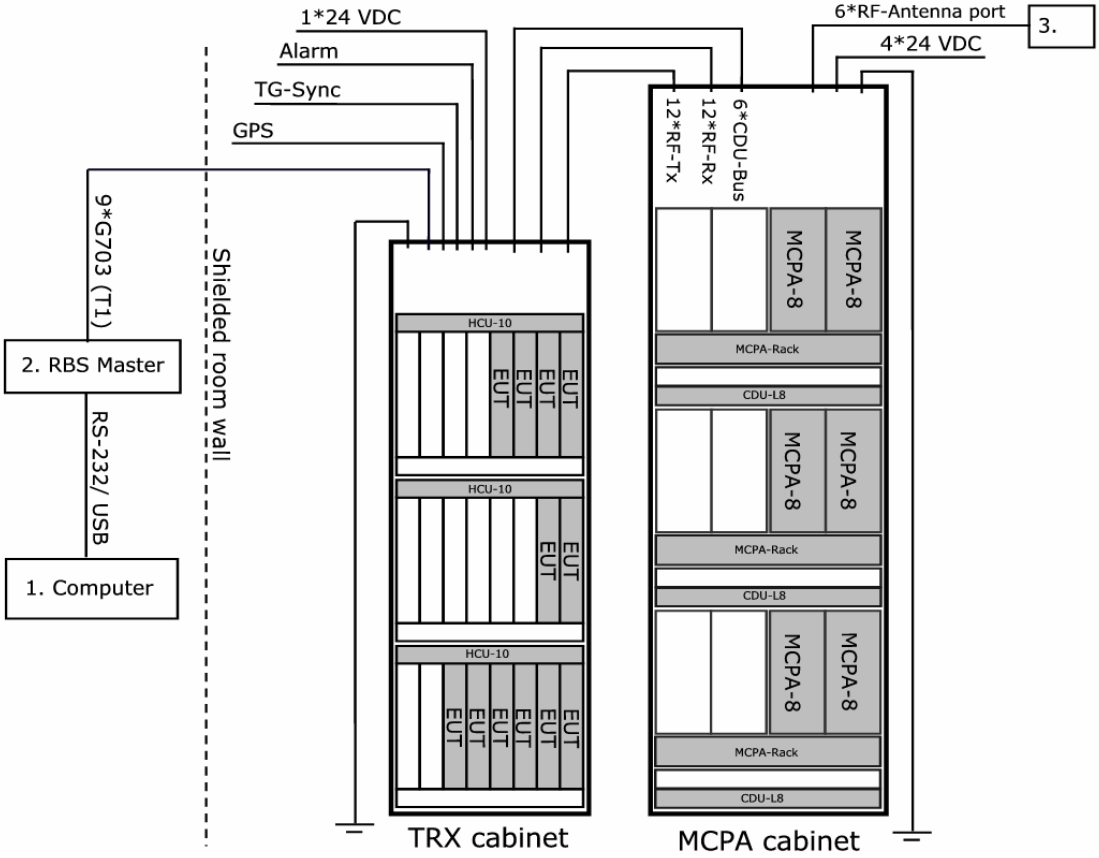
Lars Hagbjörk, Ericsson AB

Test set-up, conducted measurements



1. Computer, with software RBSMMI ver. R9A02
2. Ericsson RBS Master 2 LPY 107 1007/1 software ver. R4C01

Test set-up, radiated measurements



1. 3 units, Computers, with software RBSMMI ver. R9A02
2. 3 units, Ericsson RBS Master 2 LPY 107 1007/1 software ver. R4C01
3. 6 units, Dummy loads (50 ohm)

Interfaces:	**Type of port:**
24 VDC	DC power
Antenna: Coaxial cable (50 ohm)	Antenna
G703: T1, shielded multi-wire (120 ohm)	Telecom
TG-sync: Shielded multi-wire	Signal
Alarm: Unshielded 4 wire	Signal
GPS: Shielded multiwire	Signal

RF Power output measurements according to 47CFR 2.1046

Date	Temperature	Humidity
2005-03-07	22 °C ± 3 °C	20 % ± 5 %

Test set-up and procedure

Measurements were made at CDU-L8 output connector. The output was connected to a Peak power analyser via a 50 ohm attenuator. The transmitter was modulated with pseudorandom data and with maximum power in all the time slots during the measurements.

Measurement equipment	Calibration Due	SP number
Boonton RF Peak power meter/analyzer	2005-03	503 144
Boonton Power sensor 56518-S/4	2005-03	503 145
Multimeter Fluke 87	2005-11	502 190
Testo 610, Temperature and humidity meter	2006-12	502 658

Measurement uncertainty: 0.5 dB

Results

GMSK

Rated output power level after CDU-L8 (maximum): 45.5 dBm

Test conditions T_{nom} 22 °C/ V_{nom} 24 V DC	Transmitter power (dBm) Peak/ Average		
	Channel 128	Channel 190	Channel 251
TRX 1:	45.7/ 45.0	45.5/ 44.8	45.0/ 44.2
TRX 2:	45.5/ 44.7	45.4/ 44.7	44.7/ 44.0

8-PSK

Rated output power level after CDU-L8 (maximum): 45.5 dBm

Test conditions T_{nom} 22 °C/ V_{nom} 24 V DC	Transmitter power (dBm) Peak/ Average		
	Channel 128	Channel 190	Channel 251
TRX 1:	45.8/ 41.9	45.7/ 41.8	45.0/ 41.1
TRX 2:	45.4/ 41.6	45.4/ 41.5	44.7/ 40.9

Limit

GMSK: The measured output power shall be within ± 2dB of the rated output power (J-STD007A Vol 1)

8-PSK: The measured output power shall be within +1 to -3 dB of the rated output power (ANSI/TIA/EIA 136-280-B)

Complies?	Yes

Modulation characteristics measurements according to 47CFR 2.1047

Date	Temperature	Humidity
2005-03-02	21 °C ± 3 °C	22 % ± 5 %

Test set-up and procedure

Measurements were made at CDU-L8 output connector. The output was connected to a spectrum analyser. The spectrum analyser was connected to an external 10 MHz reference standard during measurement.
The transmitter was activated at maximum output power and modulated with pseudorandom data during the measurements.

Measurement equipment	Calibration Due	SP number
R&S FSIQ	2005-04	503 738
Multimeter Fluke 87	2005-11	502 190
Testo 610, Temperature and humidity meter	2006-12	502 658

Results

Tested channel: 190 (881.6 MHz)

GMSK

Test conditions		Phase error ($°_{RMS}$)	
Supply voltage DC (V)	T (°C)	TRX 1	TRX 2
24.0	+20	0.8	1.0
Maximum phase error (°)		1.0	

8-PSK

Test conditions		EVM ($\%_{RMS}$)	
Supply voltage DC (V)	T (°C)	TRX 1	TRX 2
24.0	+20	1.6	2.2
Maximum EVM ($\%_{RMS}$)		2.2	

Test conditions		Origin offset (dBc)	
Supply voltage DC (V)	T (°C)	TRX 1	TRX 2
24.0	+20	-44.4	-42.5
Maximum origin offset (dBc)		-42.5	

Limits

GMSK: The tolerance of the maximum output phase error shall not be greater than 5 degrees (J-STD007A Vol 1).
8-PSK: The Error Vector Magnitude (EVM) shall be less than 12.5 $\%_{RMS}$
The origin offset in any burst shall be less than –30 dBc.
(ANSI/TIA/EIA 136-280-B)

Complies?	Yes

Occupied bandwidth measurements according to 47CFR 2.1049

Date	Temperature	Humidity
2005-03-07	22 °C ± 3 °C	20 % ± 5 %

Test set-up and procedure

Measurements were made at CDU-L8 output connector. The output was connected to a spectrum analyser. The spectrum analyser was connected to an external 10 MHz reference standard during the measurements. The transmitter was activated at maximum output power and modulated with pseudorandom data during the measurements.

Measurement equipment	Calibration Due	SP number
R&S FSIQ	2005-04	503 738
Testo 610, Temperature and humidity meter	2006-12	502 658

Measurement uncertainty: 3.7 dB

Results

The results are shown in appendix 4.1

GMSK

TRX 1:

Diagram 1 Ch 190 Reference level
Diagram 2 Ch 190 26 dB points

TRX 2:

Diagram 3 Ch 190 Reference level
Diagram 4 Ch 190 26 dB points

8-PSK

TRX 1:

Diagram 5 Ch 190 Reference level
Diagram 6 Ch 190 26 dB points

TRX 2:

Diagram 7 Ch 190 Reference level
Diagram 8 Ch 190 26 dB points

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: B5KAKRC1311010-2 Appendix 4.1

Diagram 1

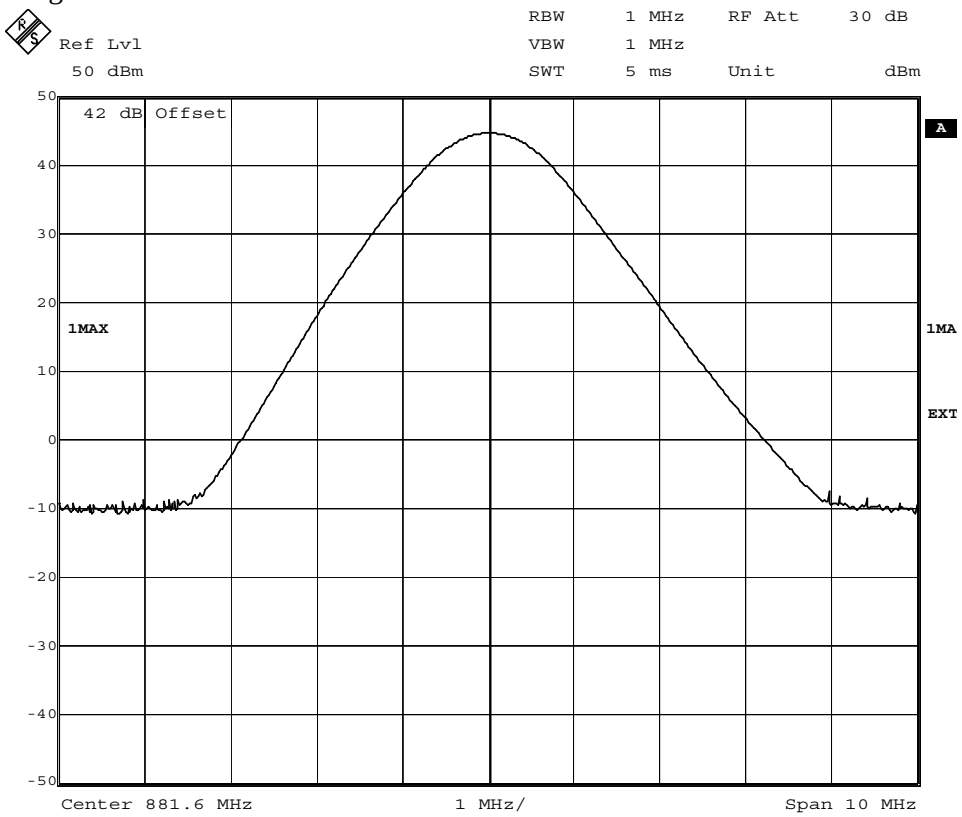


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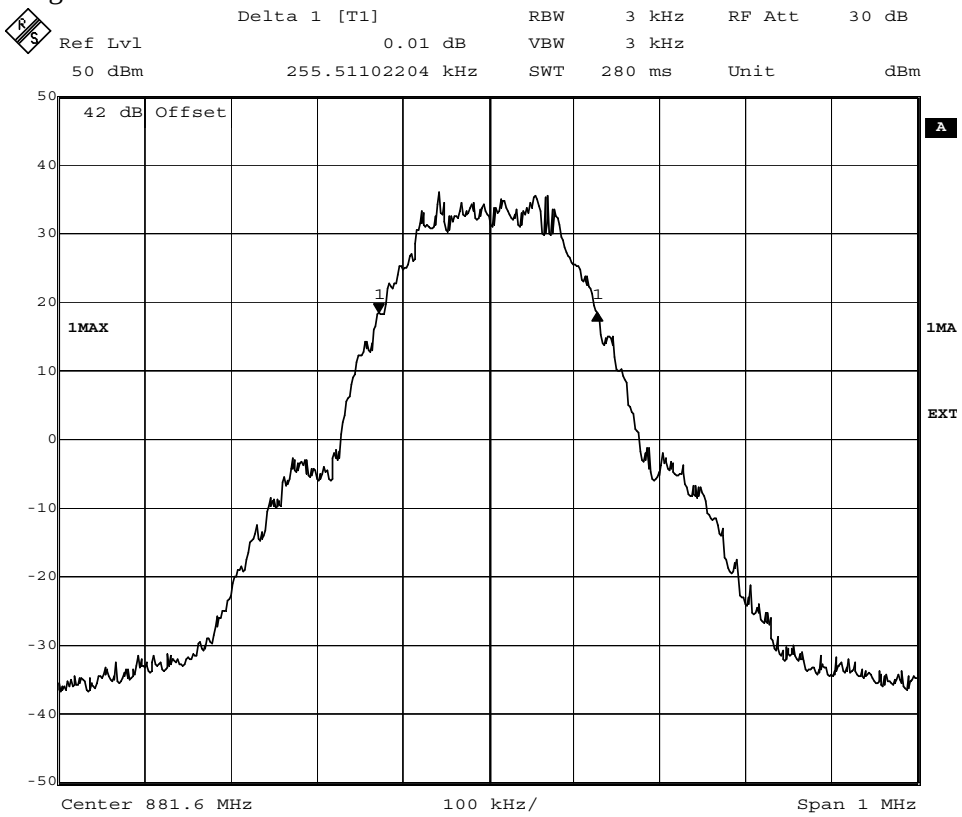
Diagram 2



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FCC ID: B5KAKRC1311010-2 Appendix 4.1

Diagram 3

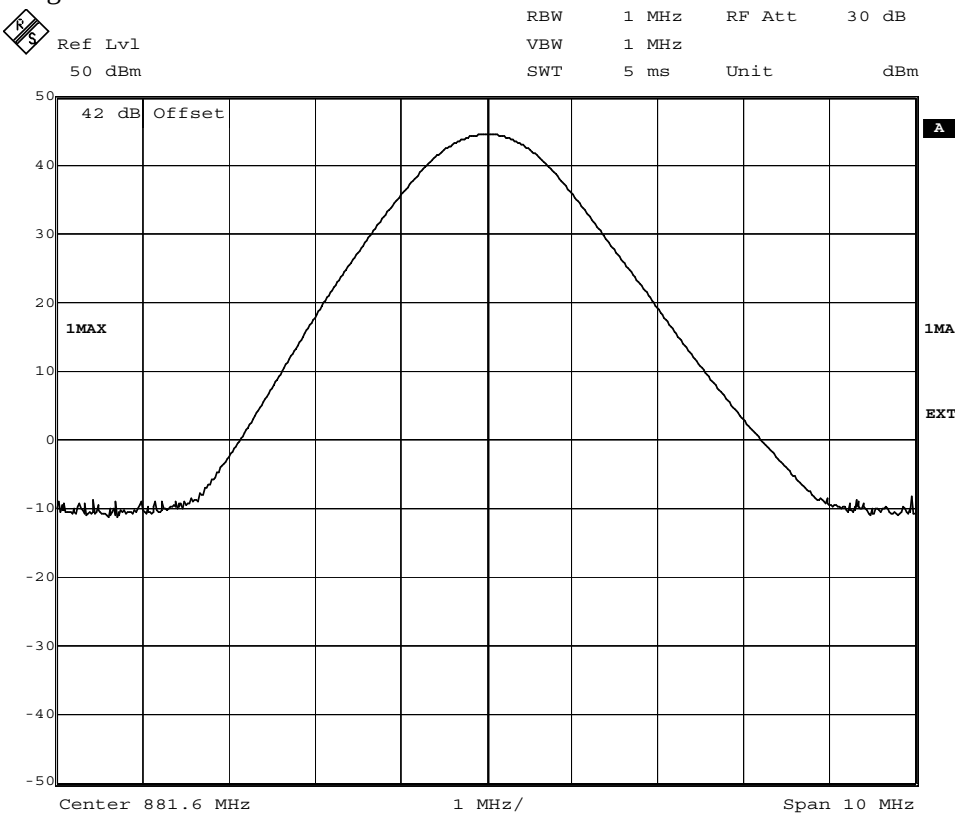

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Diagram 4

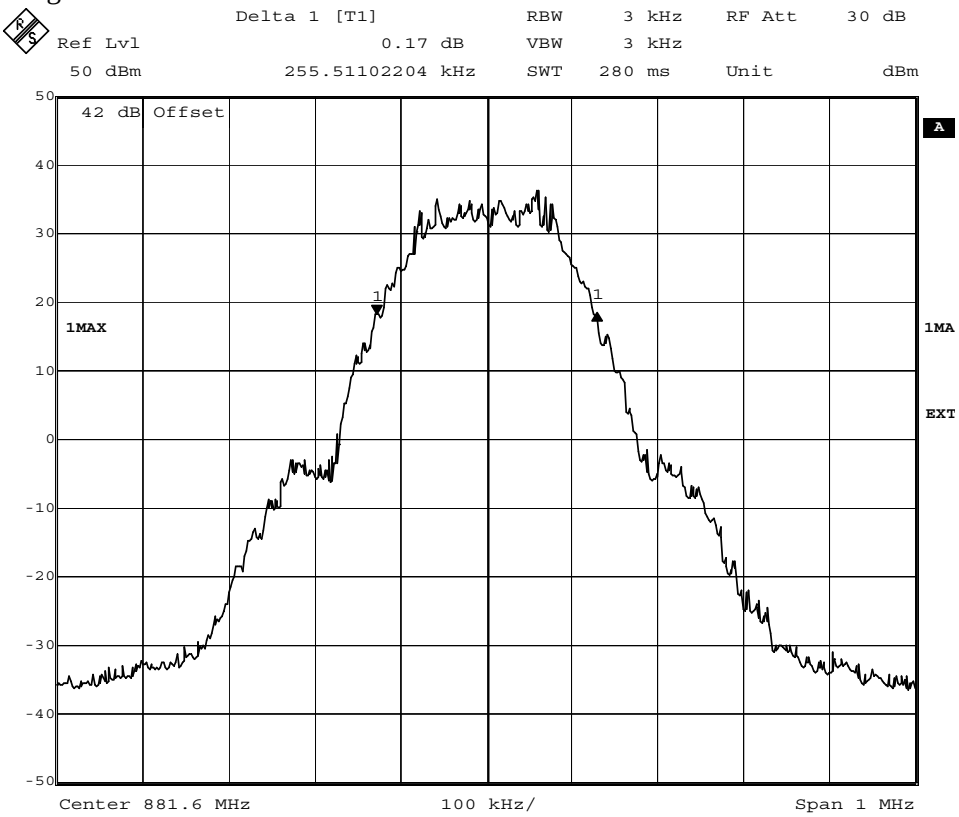

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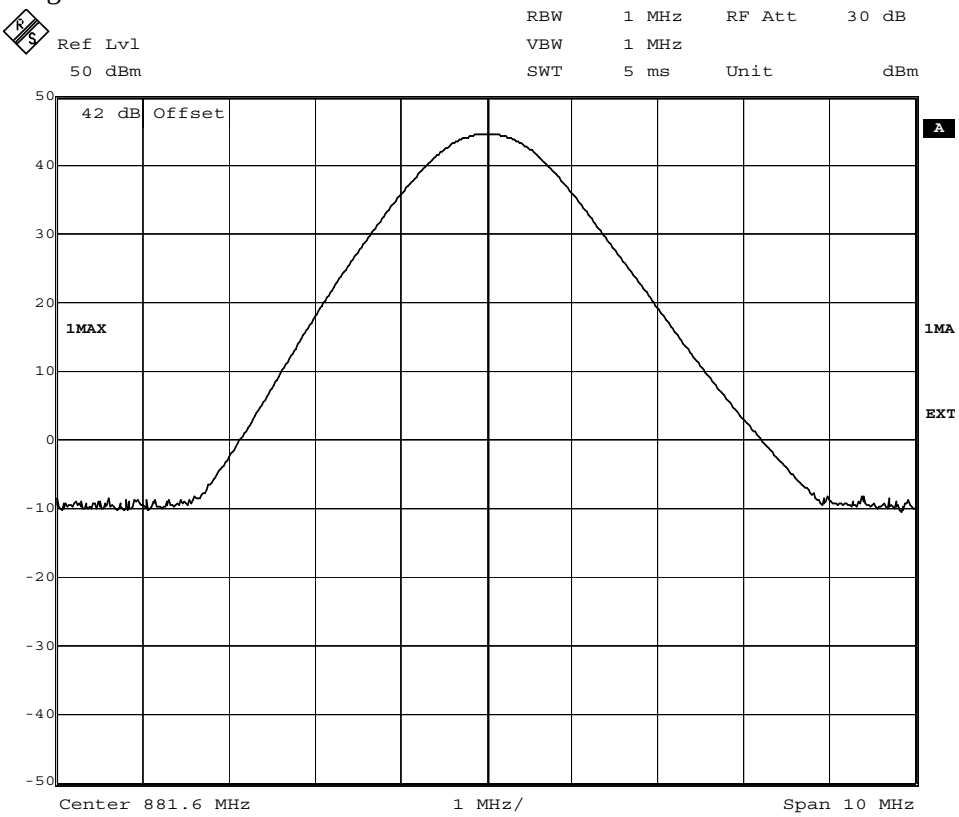
Diagram 5



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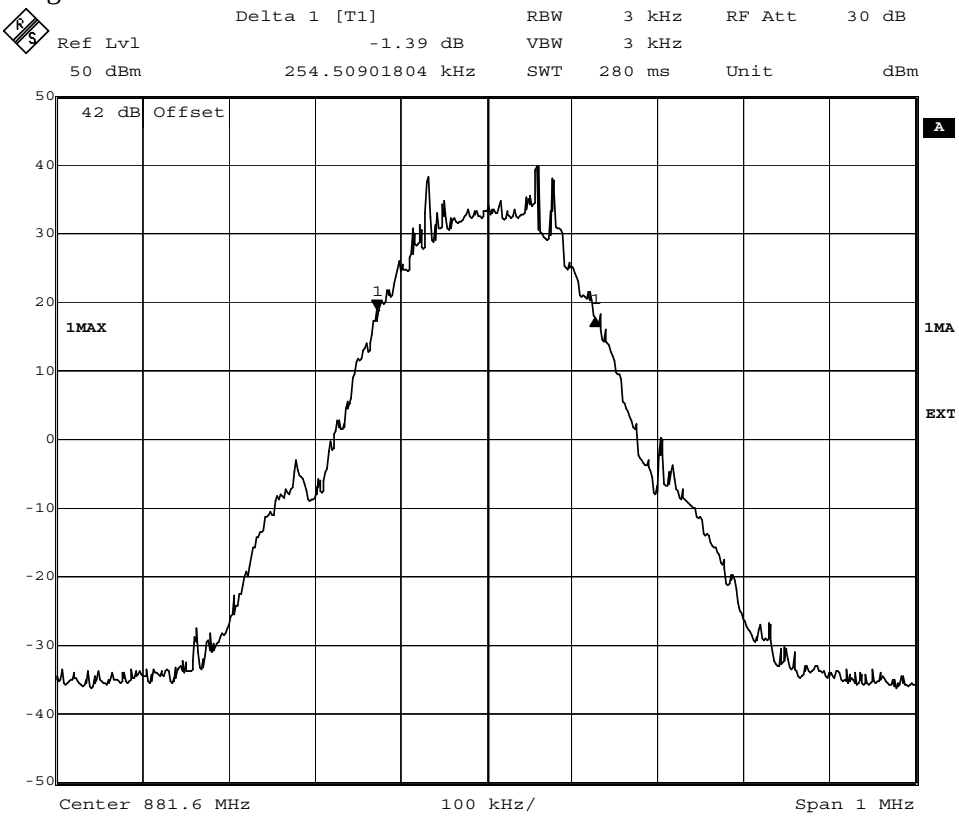

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Diagram 7

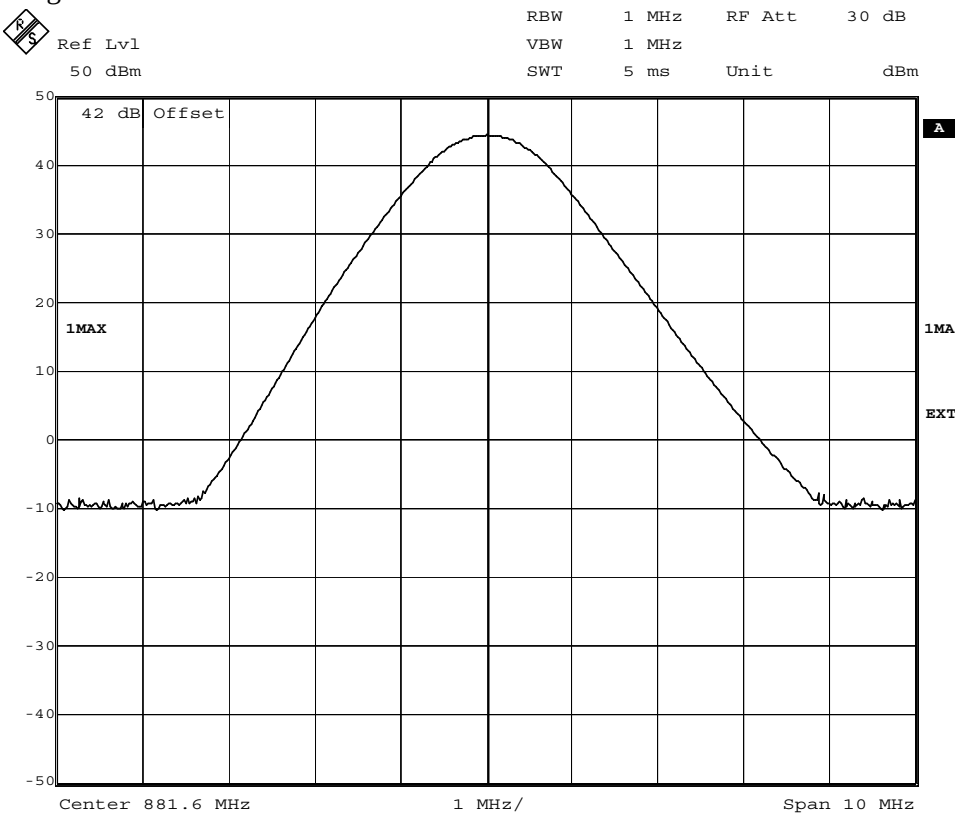

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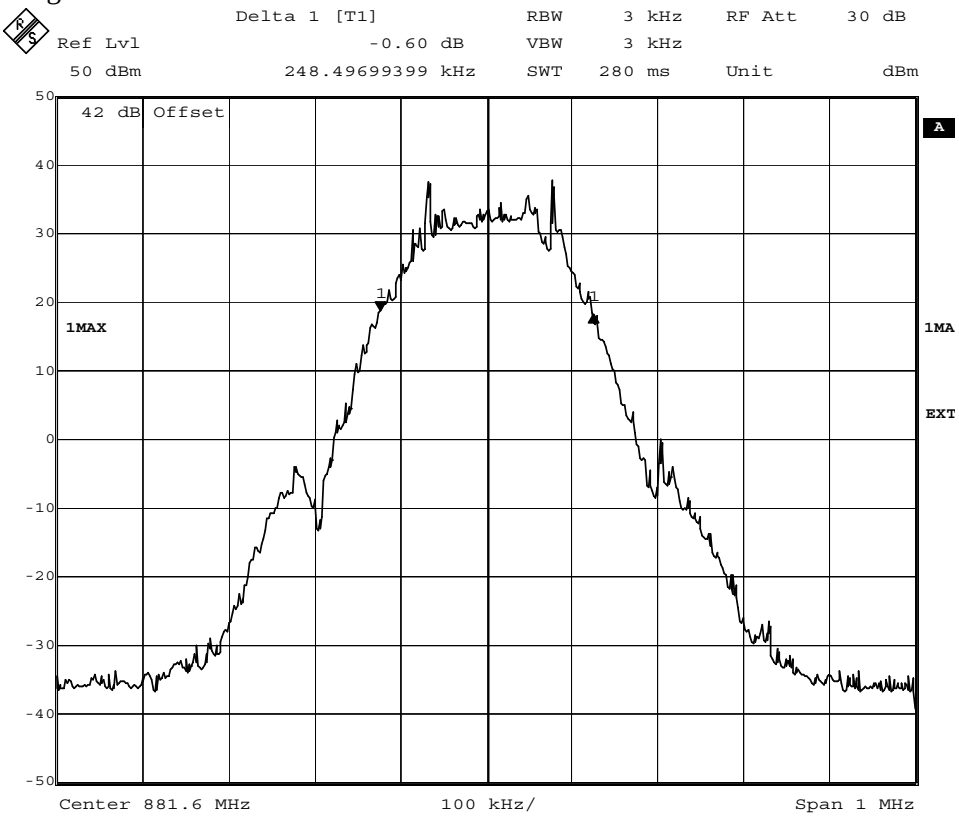
Diagram 8



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Band edge measurements according to 47CFR 2.1049

Date	Temperature	Humidity
2005-03-07	22 °C ± 3 °C	20 % ± 5 %

Test set-up and procedure

The measurements were made per definition in 22.917. The measurements were made at CDU-L8 output connector. The output was connected to a spectrum analyser with the average detector activated. A resolution bandwidth of 3 kHz (1% of OBW) was used up to 5 MHz away from the band edges. As the FCC rules specify a RBW of 100 kHz for measurements of emissions >1 MHz away from the band edges, the limit was adjusted with 15.2 dB to –28.2 dBm to compensate for the reduced measurement bandwidth.
The spectrum analyzer was connected to an external 10 MHz reference standard during the measurements. The transmitter was modulated with pseudorandom data during the measurements.

Measurement equipment	Calibration Due	SP number
R&S FSIQ	2005-04	503 738
Testo 610, Temperature and humidity meter	2004-12	502 658

Measurement uncertainty: 3.7 dB

Results

The results are shown in appendix 5.1

GMSK

TRX 1:

Diagram 1 Ch 128 (869.2 MHz) Band edge 41.2 dBm output power
Diagram 2 Ch 129 (869.4 MHz) Band edge 45.5dBm output power
Diagram 3 Ch 250 (893.6 MHz) Band edge 45.5dBm output power
Diagram 4 Ch 251 (893.8 MHz) Band edge 42.5 dBm output power

TRX 2:

Diagram 5 Ch 128 (869.2 MHz) Band edge 41.2 dBm output power
Diagram 6 Ch 129 (869.4 MHz) Band edge 45.5 dBm output power
Diagram 7 Ch 250 (893.6 MHz) Band edge 45.5 dBm output power
Diagram 8 Ch 251 (893.8 MHz) Band edge 42.5 dBm output power

8-PSK

TRX 1:

Diagram 9 Ch 128 (869.2 MHz) Band edge 45.5 dBm output power
Diagram 10 Ch 251 (893.8 MHz) Band edge 45.5 dBm output power

TRX 2:

Diagram 11 Ch 128 (869.2 MHz) Band edge 45.5 dBm output power
Diagram 12 Ch 251 (893.8 MHz) Band edge 45.5 dBm output power

Remarks

The maximum peak output powers with GMSK modulation that can be used on the channels adjacent to the frequency band edges are 41.2 dBm (channel 128) and 42.5 dBm (channel 251) in order to comply.

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: B5KAKRC1311010-2 Appendix 5.1

Diagram 1

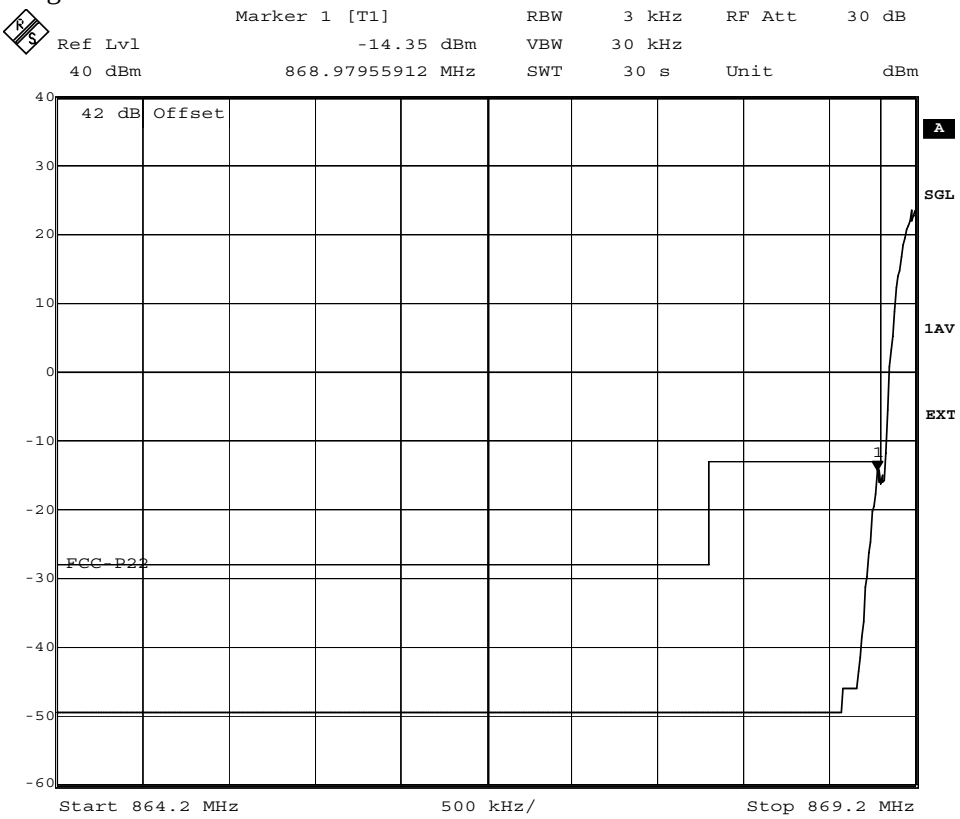

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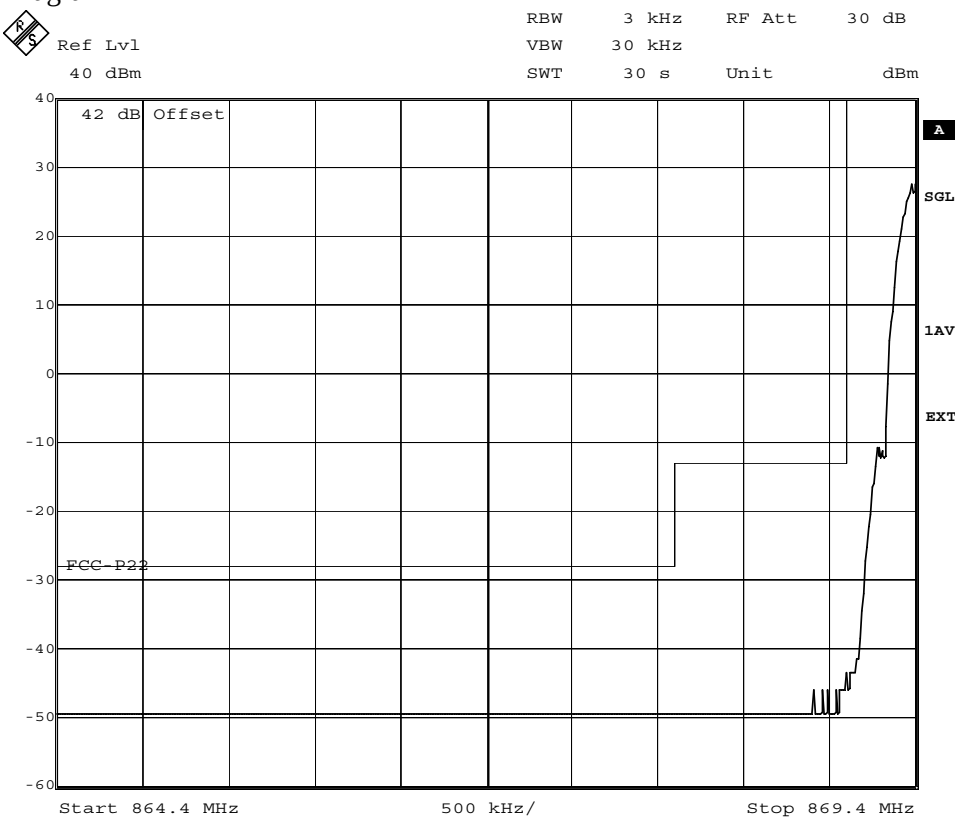
Diagram 2



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FCC ID: B5KAKRC1311010-2 Appendix 5.1

Diagram 3

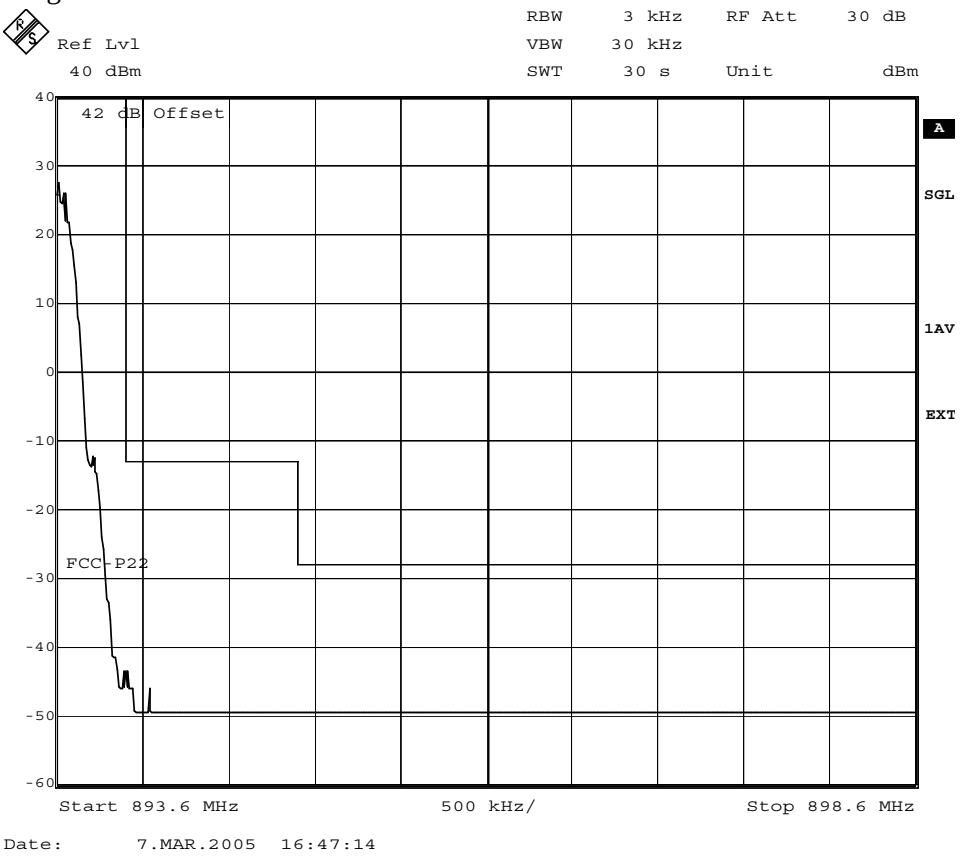
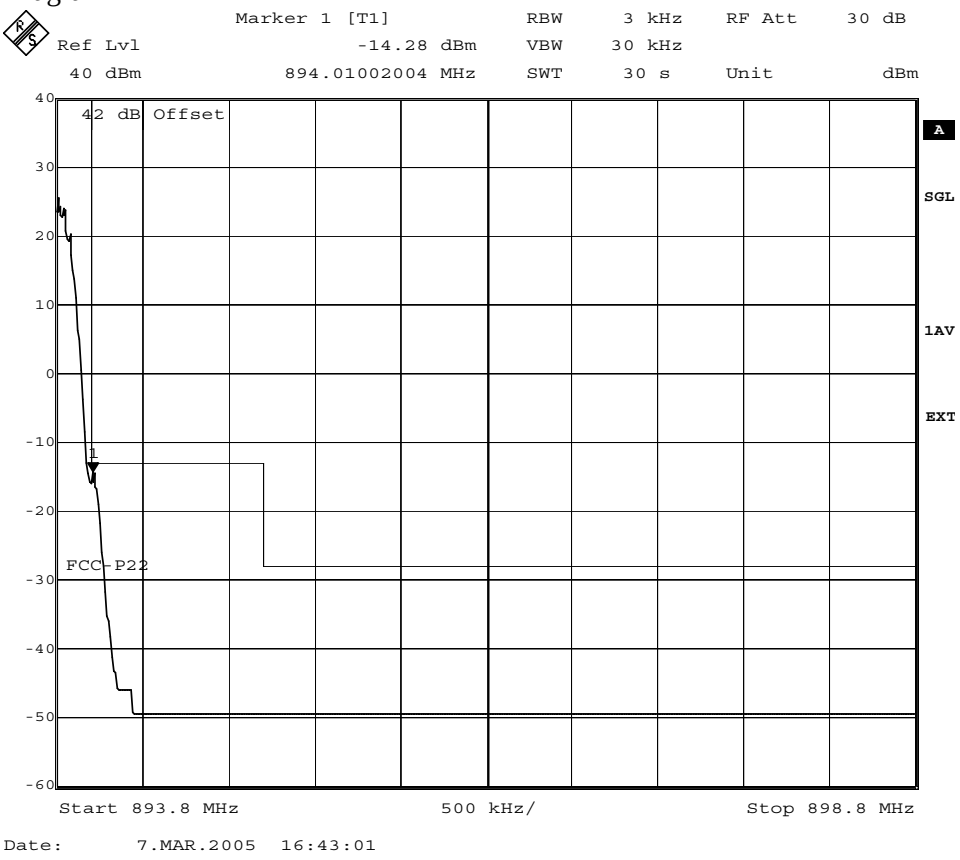
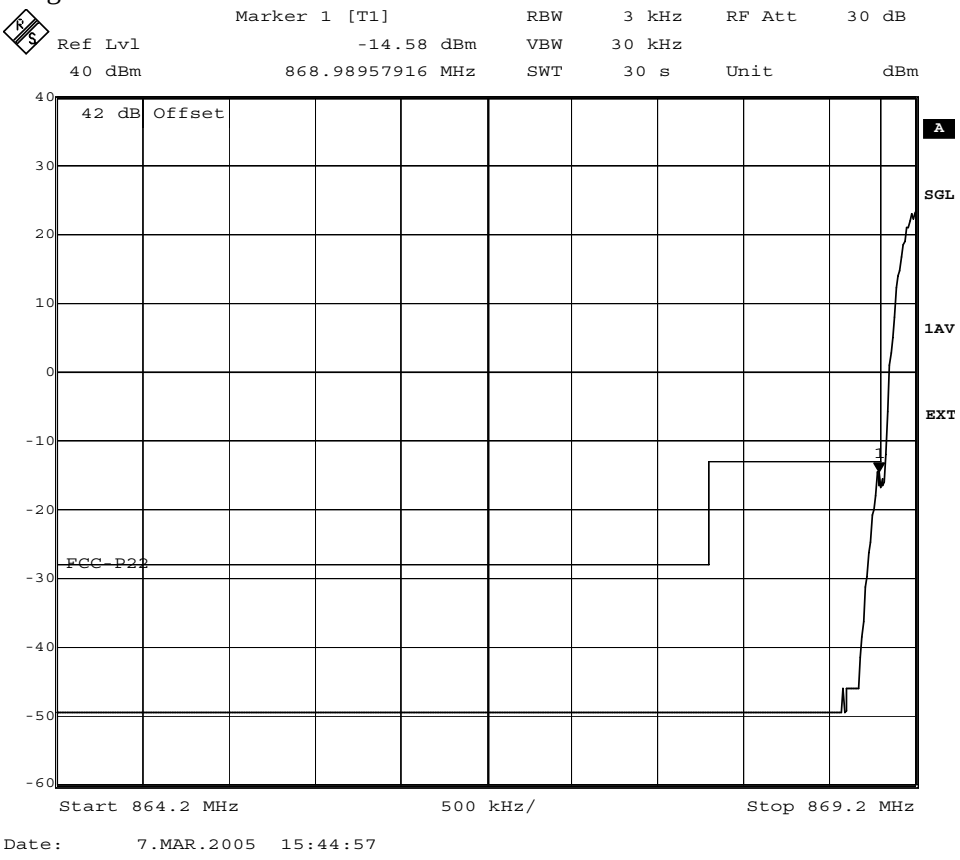


Diagram 4



FCC ID: B5KAKRC1311010-2 Appendix 5.1

Diagram 5



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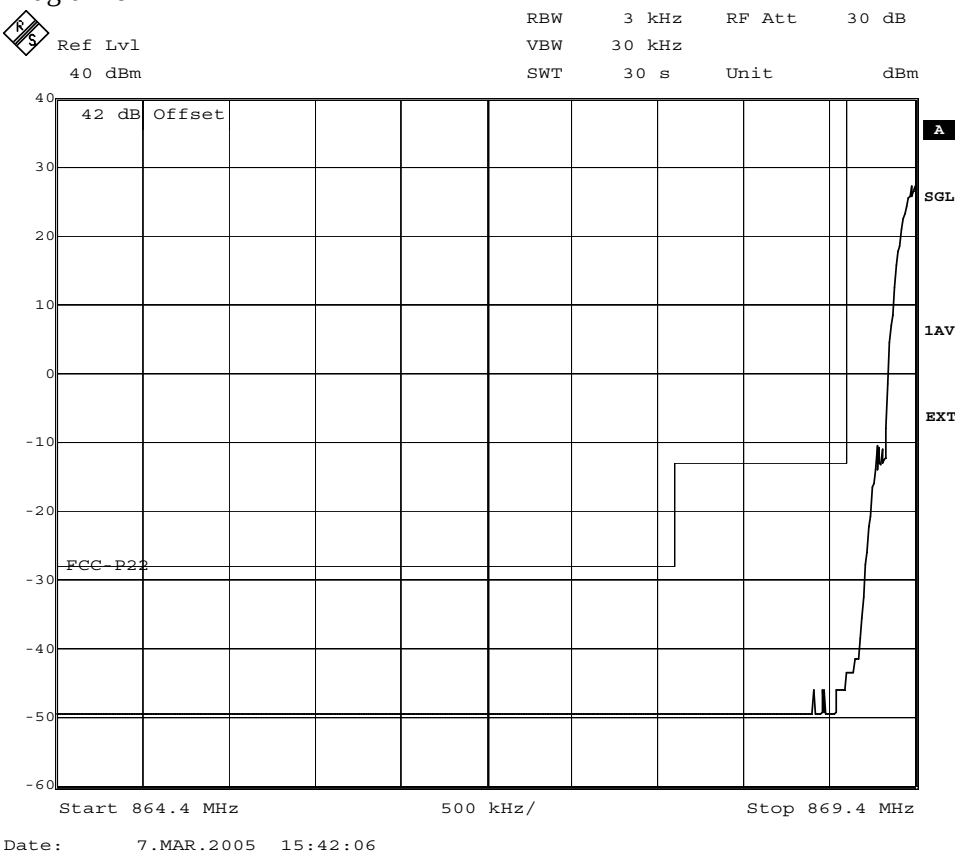

Diagram 7

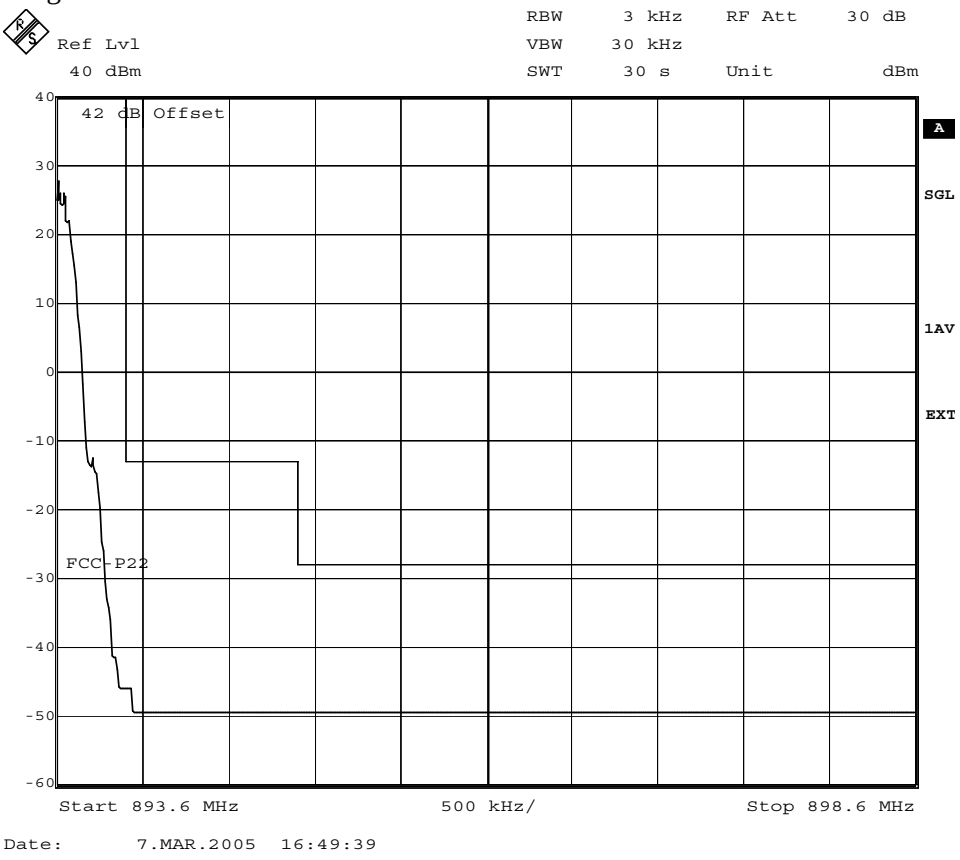

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Diagram 8

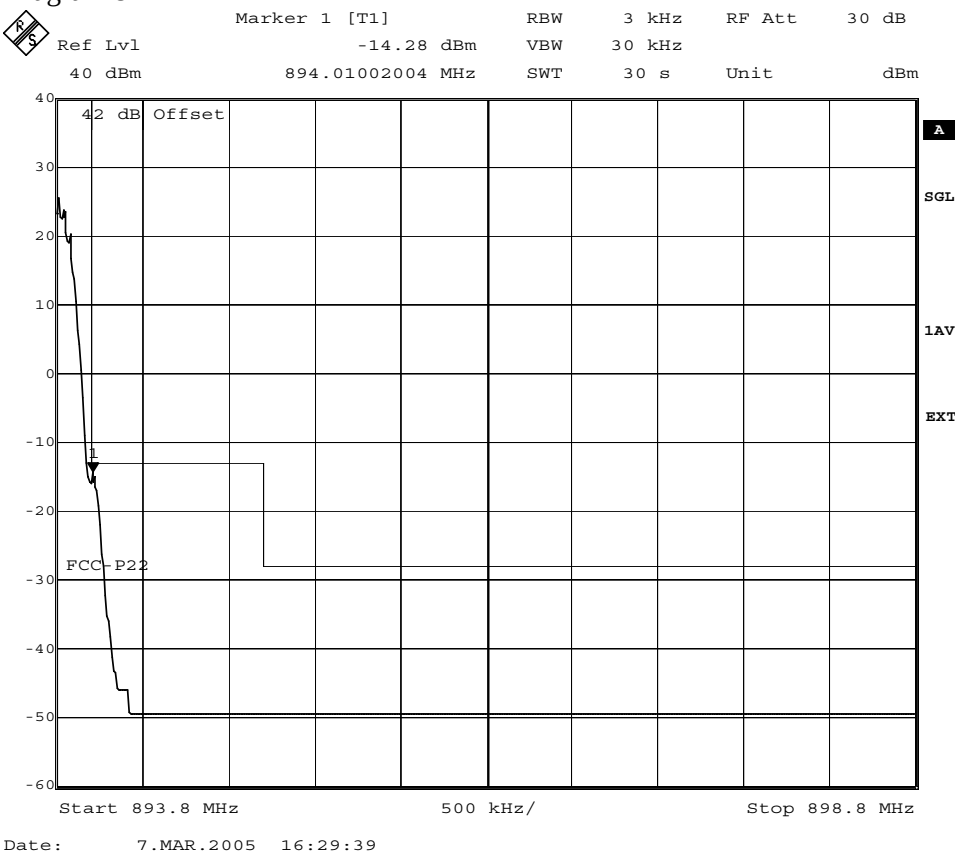

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Diagram 9

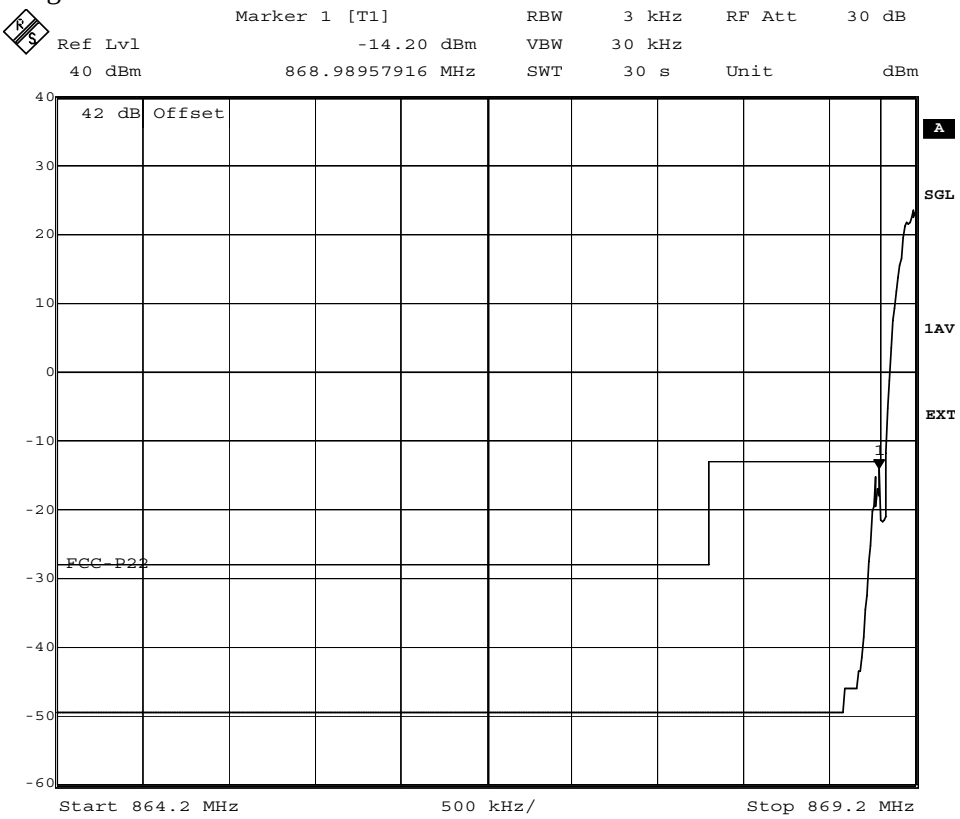

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Diagram 10

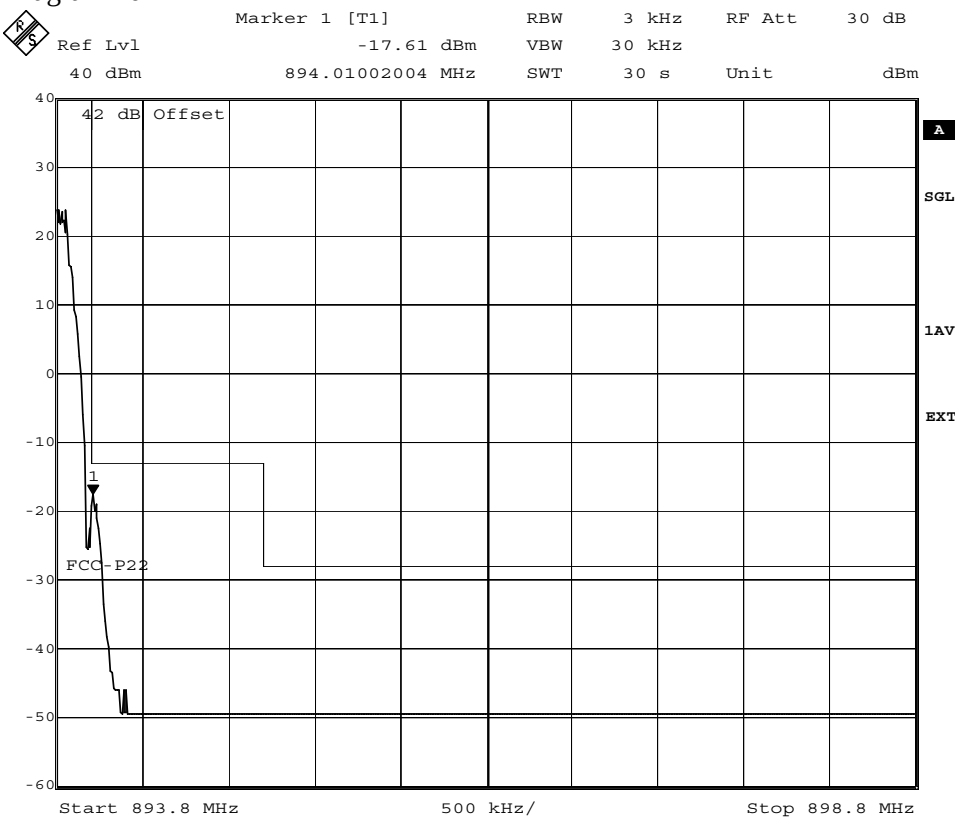

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Diagram 11

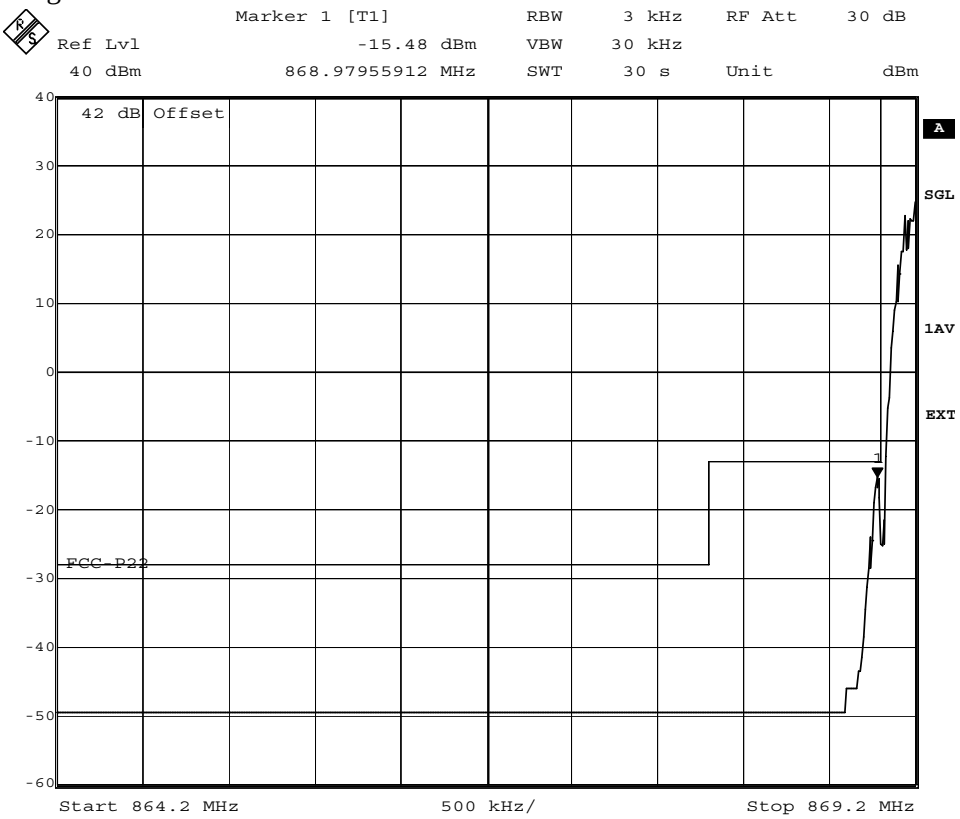

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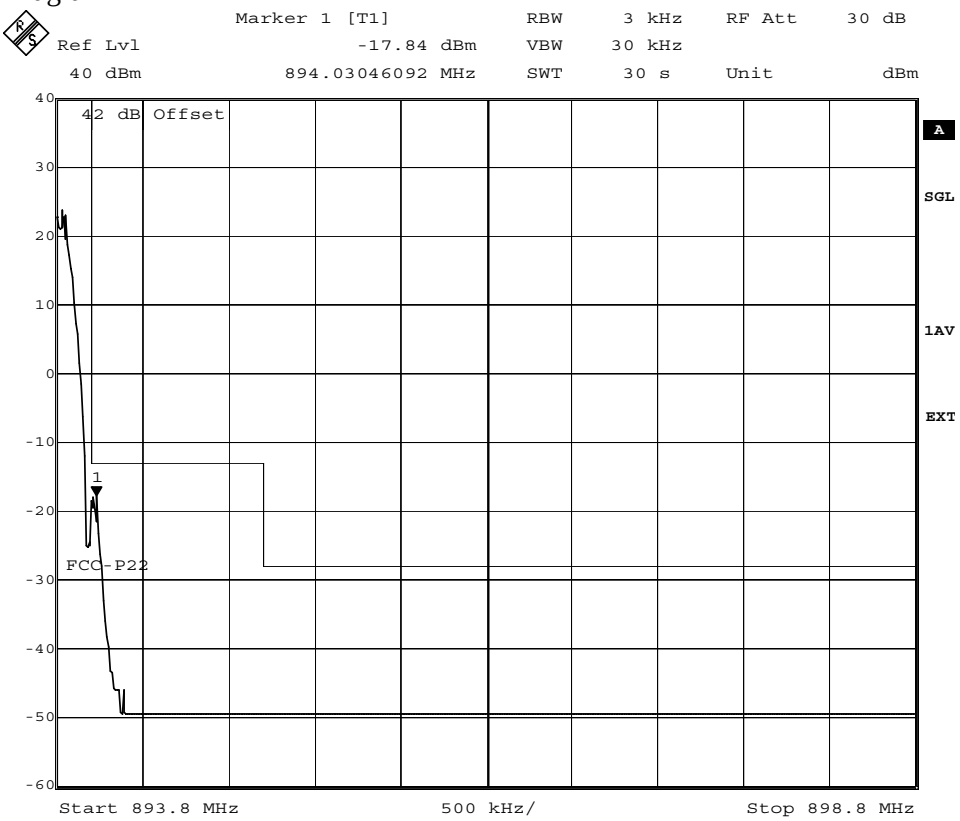
Diagram 12



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Conducted spurious emission measurements according to 47CFR 2.1051

Date	Temperature	Humidity
2005-03-08	22 °C ± 3 °C	18 % ± 5 %

Test set-up and procedure

The measurements were made per definition in 22.917. Measurements were made at CDU-L8 output connector. The output was connected to a spectrum analyser. The spectrum analyser was connected to an external 10 MHz reference standard during the measurements. The transmitter was activated at maximum output power and modulated with pseudorandom data during the measurements.

Measurement equipment	Calibration Due	SP number
R&S FSIQ	2005-04	503 738
HP filter	2005-04	502 758
Testo 610, Temperature and humidity meter	2006-12	502 658

Measurement uncertainty: 3.7 dB

Results

The results are shown in appendix 6.1

GMSK

TRX 1:
Diagram 1: Ch 128
Diagram 2: Ch 251

TRX 2:
Diagram 3: Ch 128
Diagram 4: Ch 251

TRX 1+2:
Diagram 5: TRX 1 Ch 128 and TRX 2 ch 153
Diagram 6: TRX 1 Ch 251 and TRX 2 ch 226

8-PSK

TRX 1:
Diagram 7: Ch 128
Diagram 8: Ch 251

TRX 2:
Diagram 9: Ch 128
Diagram 10: Ch 251

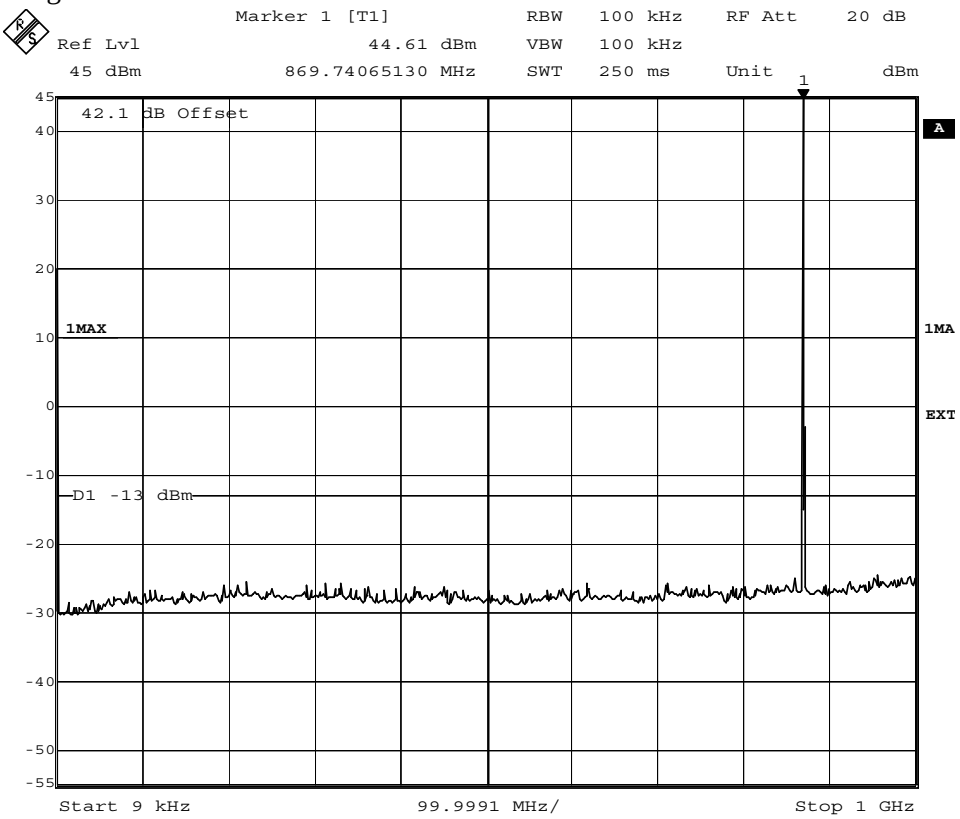
TRX 1+2:
Diagram 11: TRX 1 Ch 128 and TRX 2 ch 153
Diagram 12: TRX 1 Ch 251 and TRX 2 ch 226

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

Diagram 1



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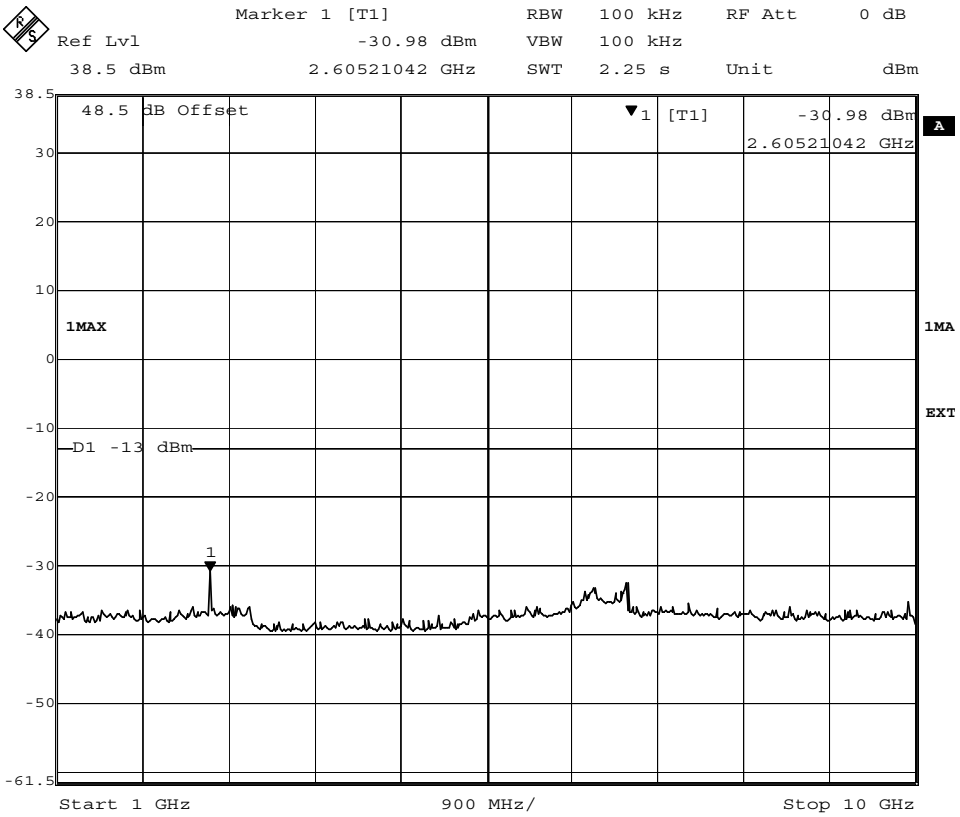

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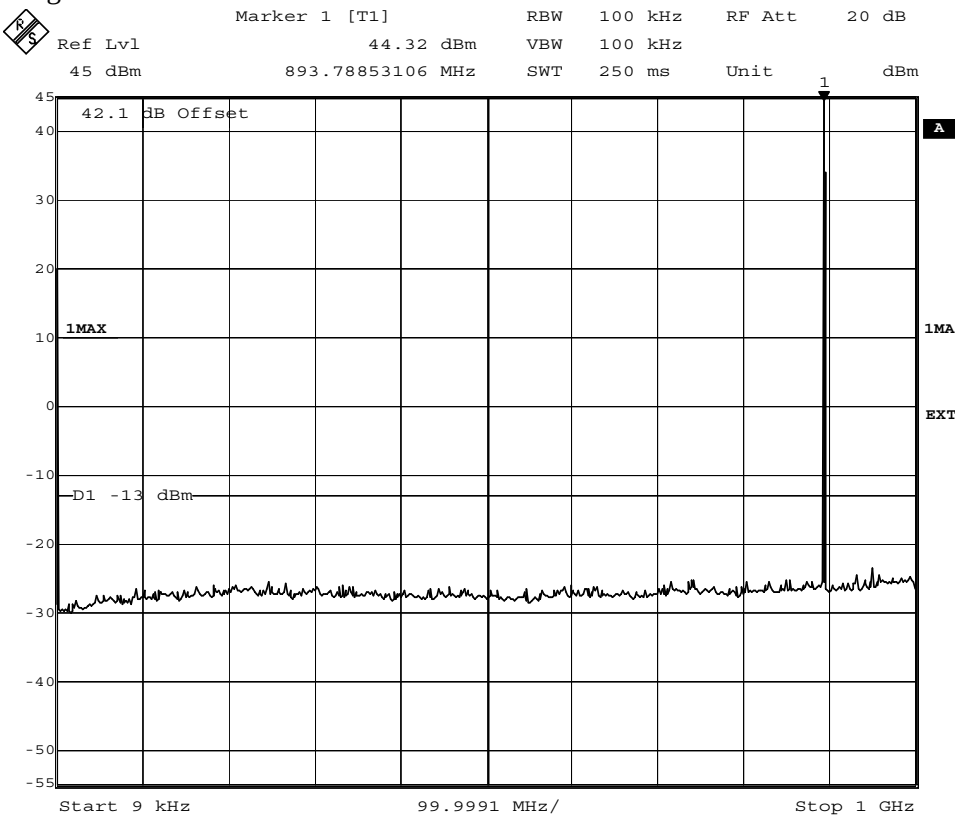
Diagram 2



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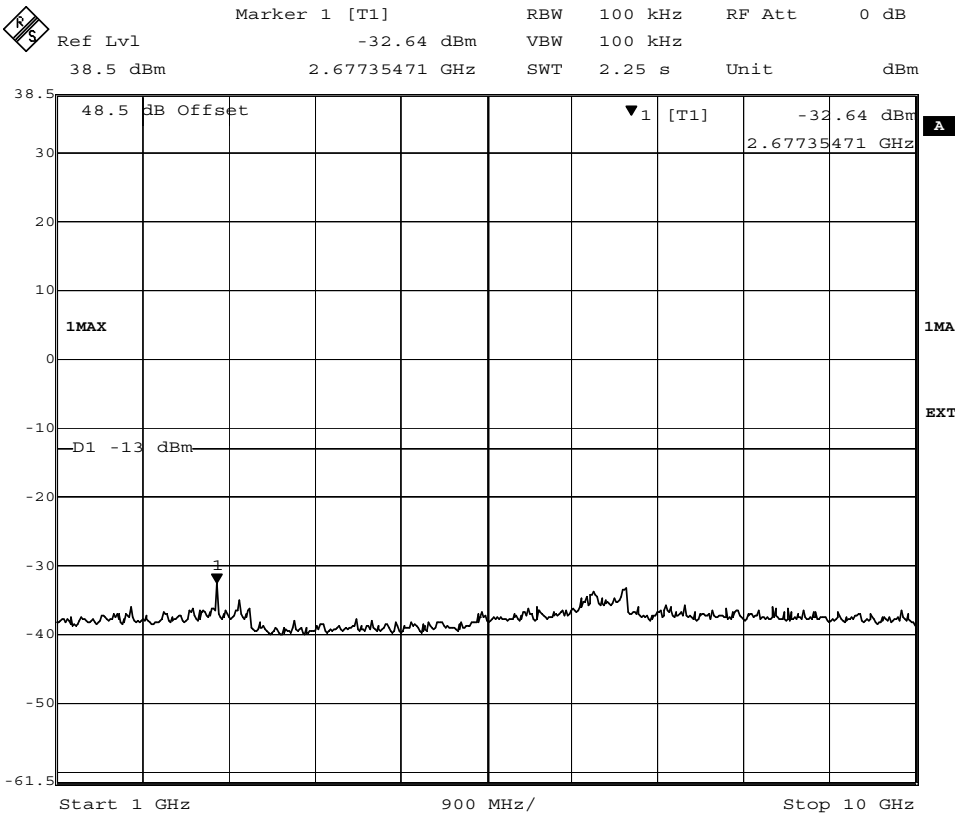
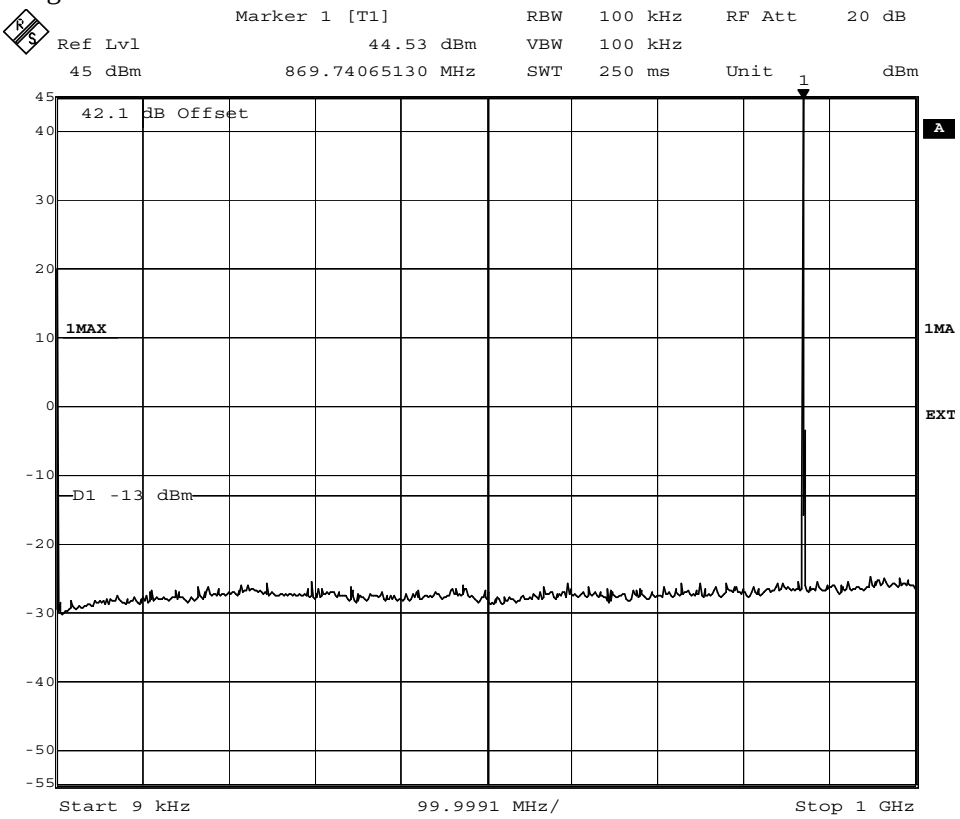
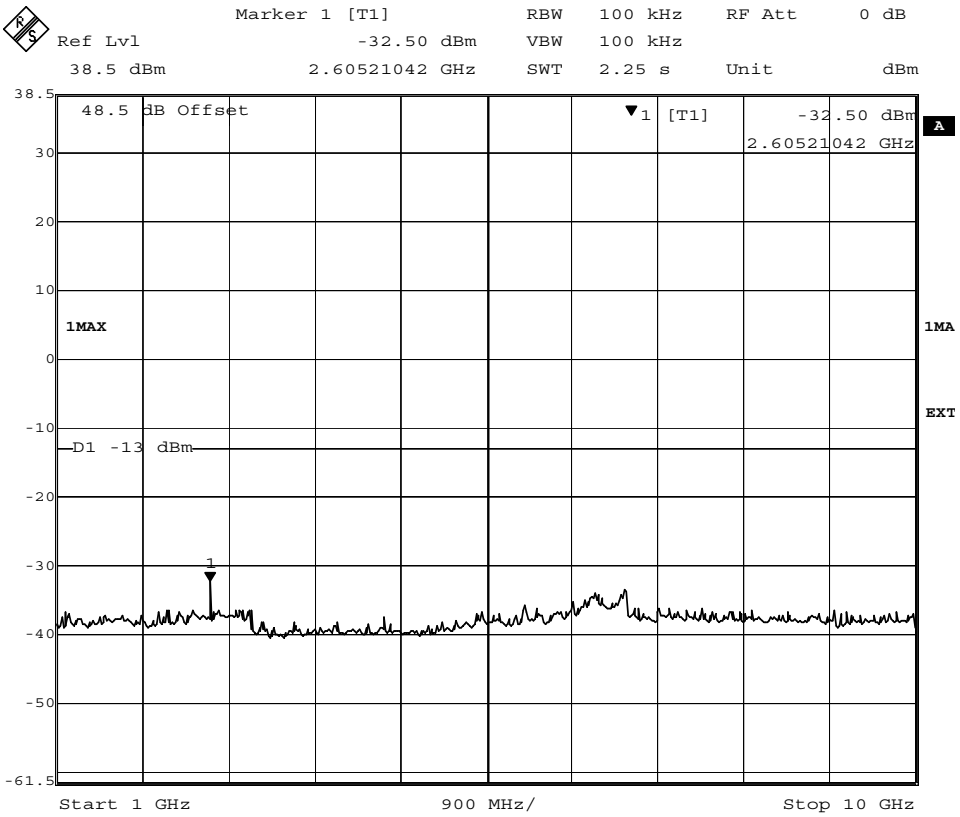


Date: 8.MAR.2005 11:16:06

Diagram 3

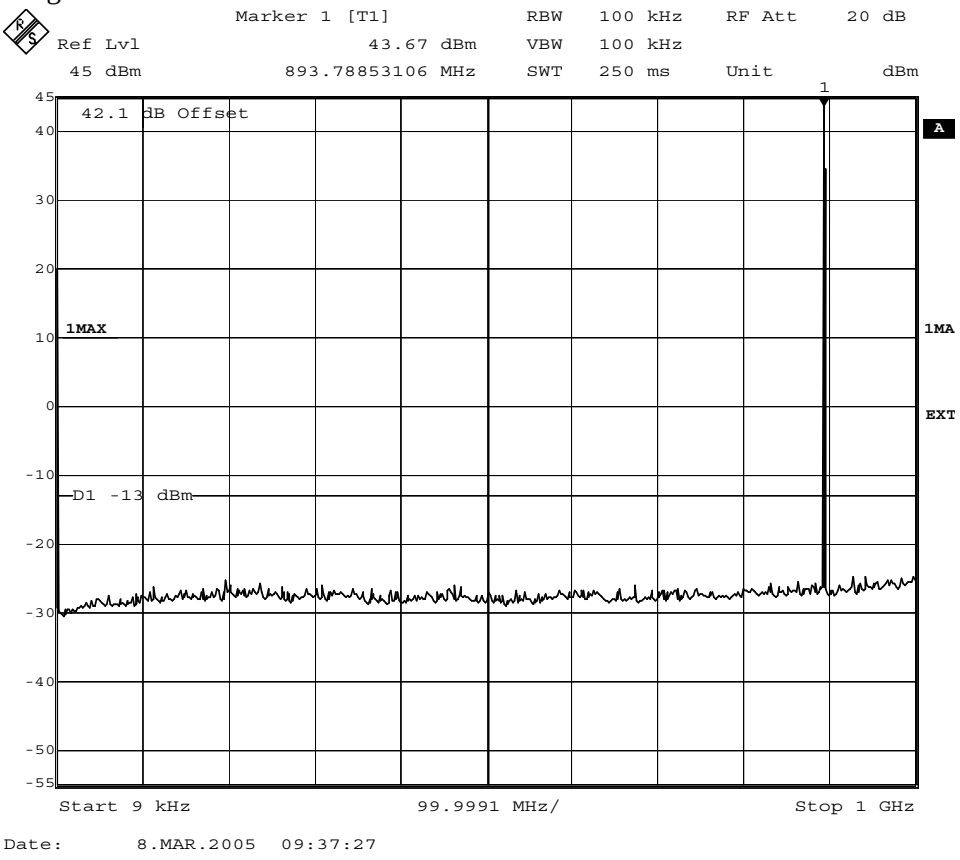


Date: 8.MAR.2005 09:42:44



Date: 8.MAR.2005 11:17:42

Diagram 4


Marker 1 [T1]
43.67 dBm
893.78853106 MHz
RBW 100 kHz
VBW 100 kHz
SWT 250 ms
RF Att 20 dB
Unit dBm
Ref Lvl
45 dBm
42.1 dB Offset
1MAX
D1 -13 dBm
A
1MA
EXT
Start 9 kHz
99.9991 MHz/
Stop 1 GHz
Date: 8.MAR.2005 09:37:27

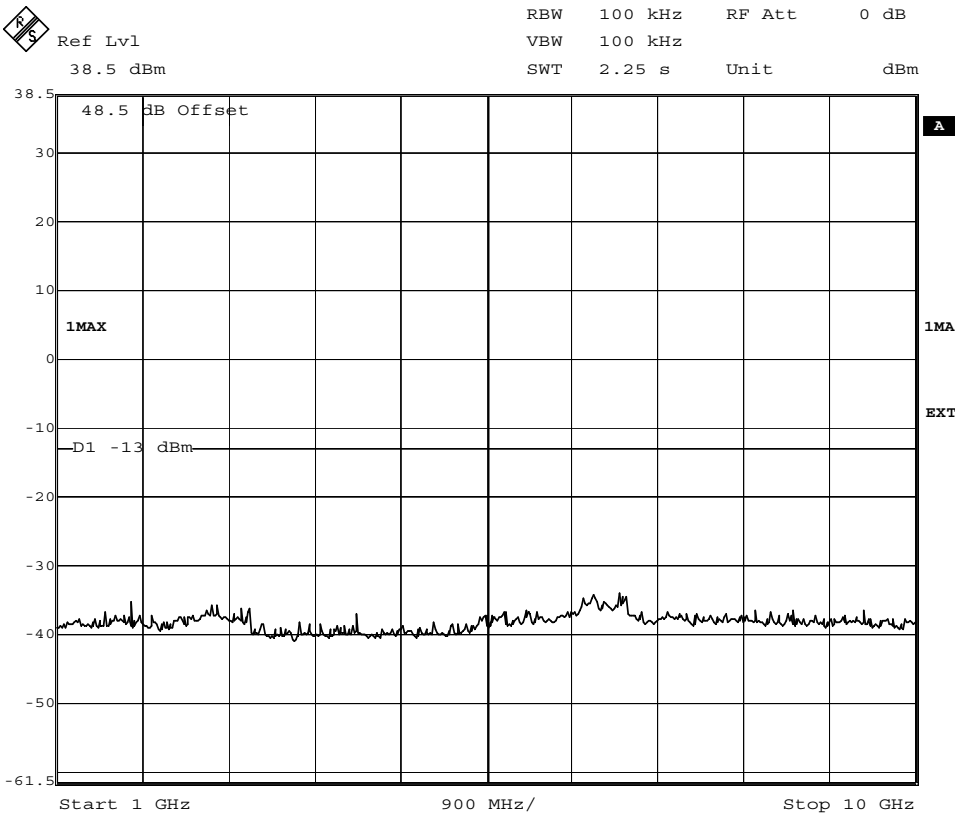
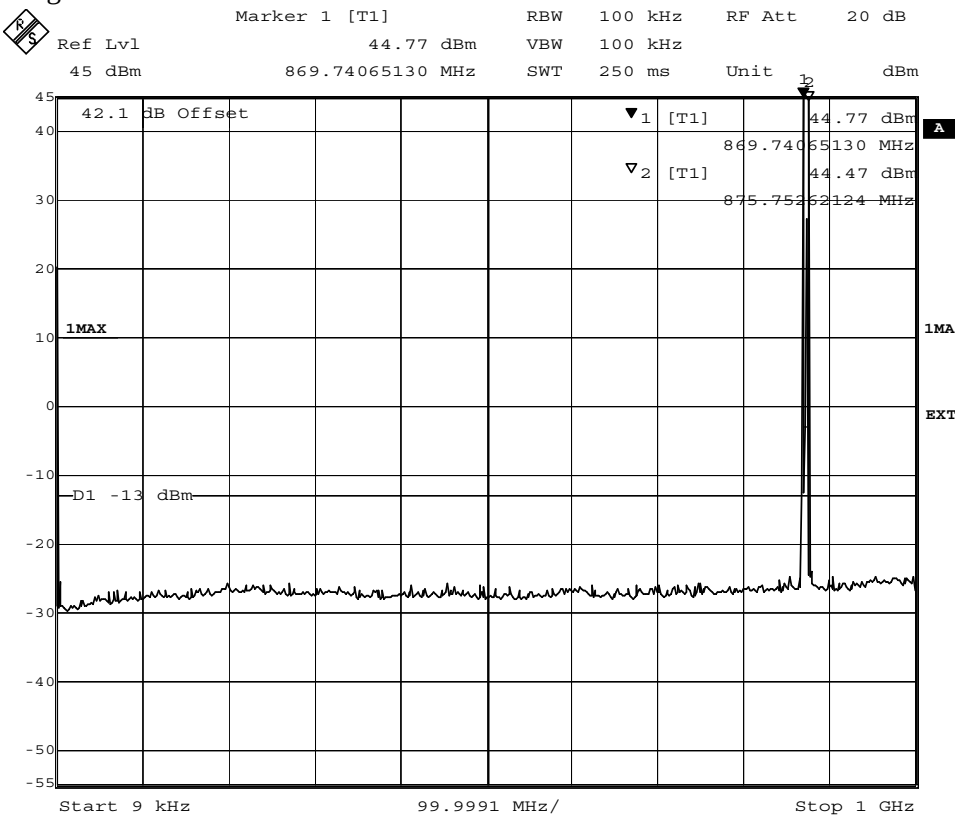

RBW 100 kHz
VBW 100 kHz
SWT 2.25 s
RF Att 0 dB
Unit dBm
Ref Lvl
38.5 dBm
48.5 dB Offset
1MAX
D1 -13 dBm
A
1MA
EXT
Start 1 GHz
900 MHz/
Stop 10 GHz
Date: 8.MAR.2005 11:21:33

Diagram 5


Marker 1 [T1]
RBW 100 kHz
RF Att 20 dB
Ref Lvl
44.77 dBm
VBW 100 kHz
45 dBm
869.74065130 MHz
SWT 250 ms
Unit dBm
42.1 dB Offset
1 [T1] 44.77 dBm
869.74065130 MHz
2 [T1] 44.47 dBm
875.75262124 MHz
1MAX
D1 -13 dBm
A
1MA
EXT
Start 9 kHz
99.9991 MHz/
Stop 1 GHz
Date: 8.MAR.2005 10:27:12

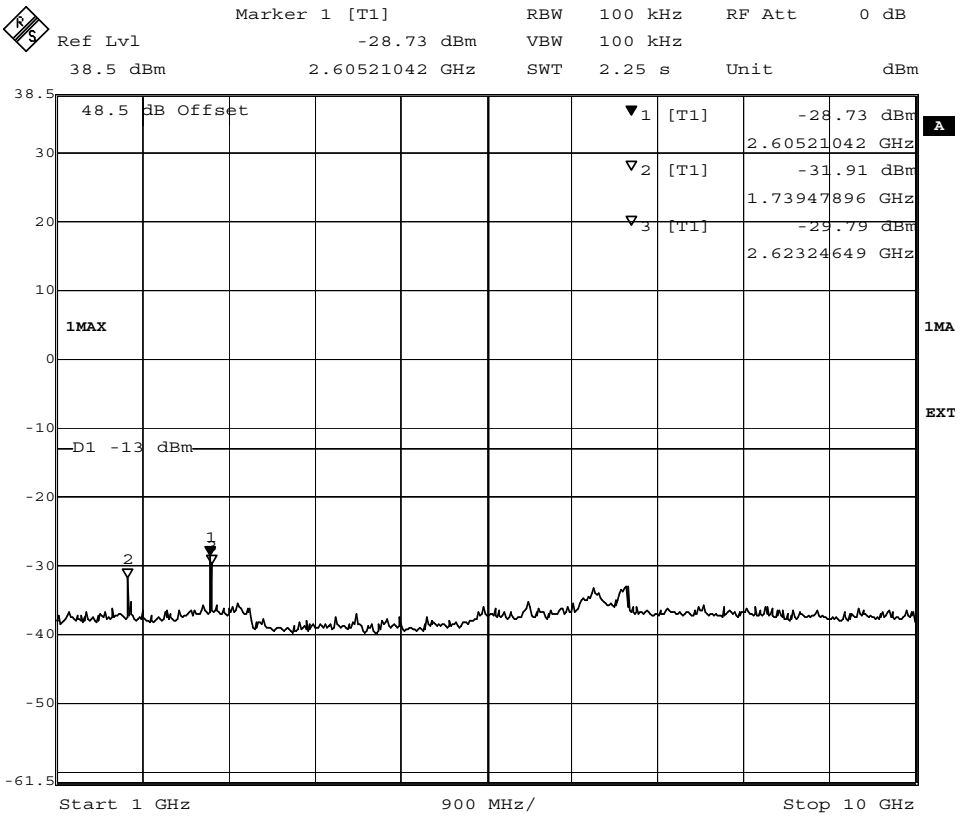

Marker 1 [T1]
RBW 100 kHz
RF Att 0 dB
Ref Lvl
-28.73 dBm
VBW 100 kHz
38.5 dBm
2.60521042 GHz
SWT 2.25 s
Unit dBm
48.5 dB Offset
1 [T1] -28.73 dBm
2.60521042 GHz
2 [T1] -31.91 dBm
1.73947896 GHz
3 [T1] -29.79 dBm
2.62324649 GHz
1MAX
D1 -13 dBm
A
1MA
EXT
Start 1 GHz
900 MHz/
Stop 10 GHz
Date: 8.MAR.2005 11:25:12

Diagram 5 (zoom)

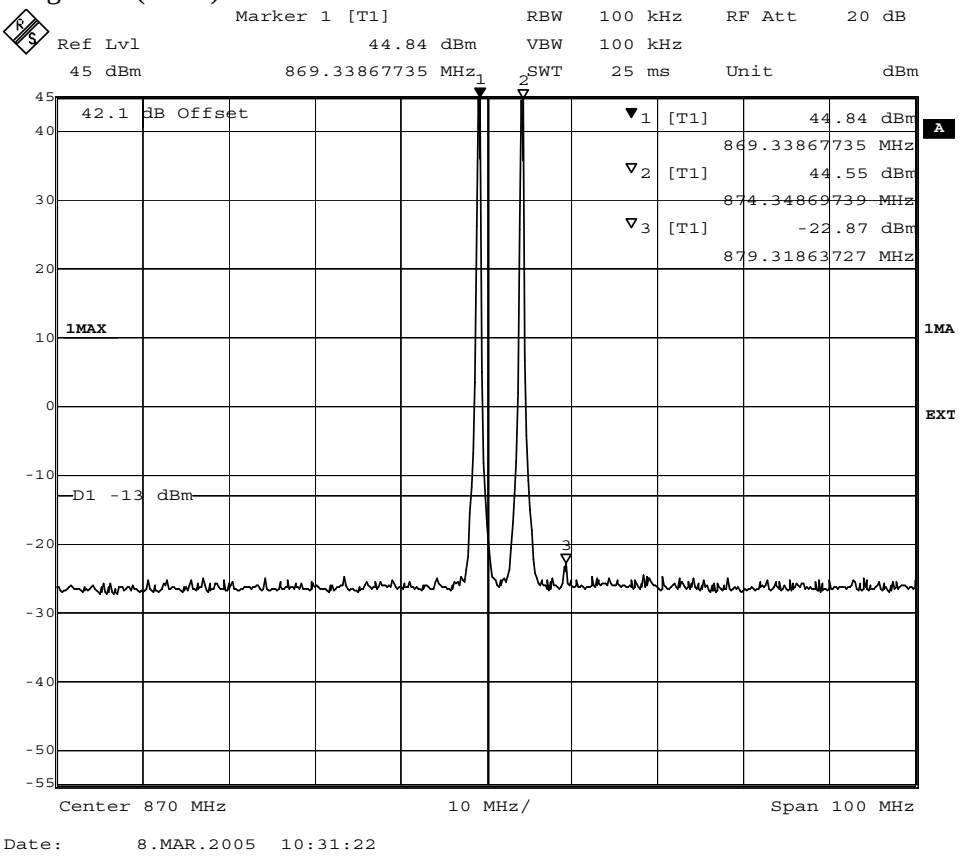
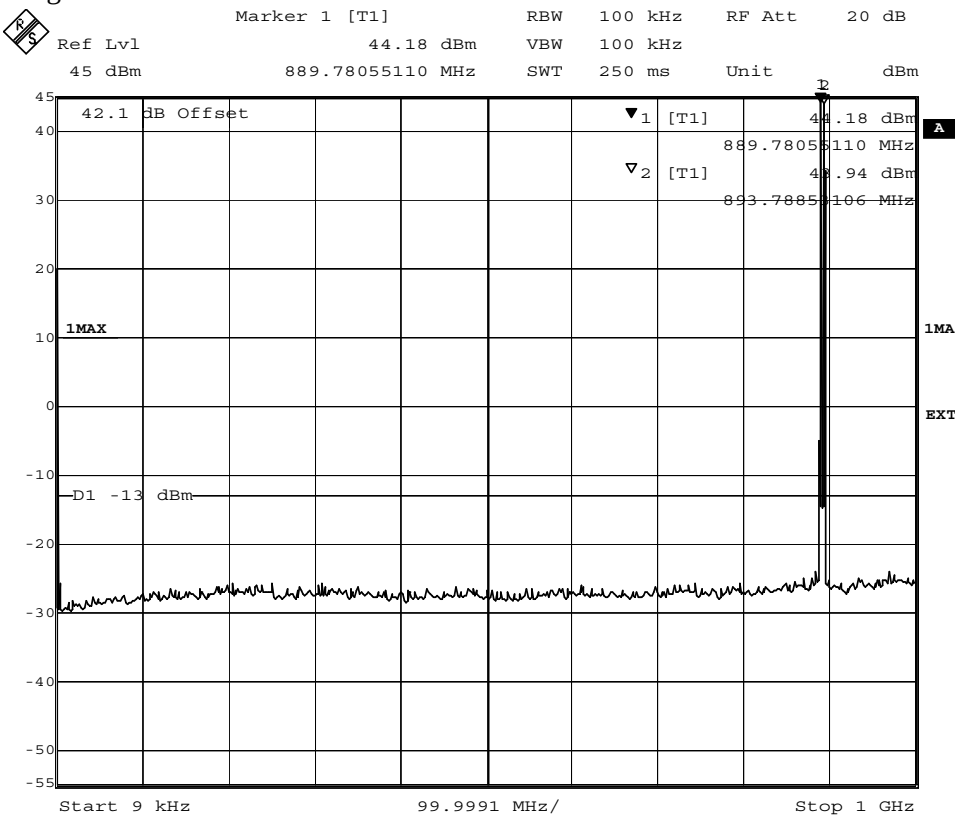
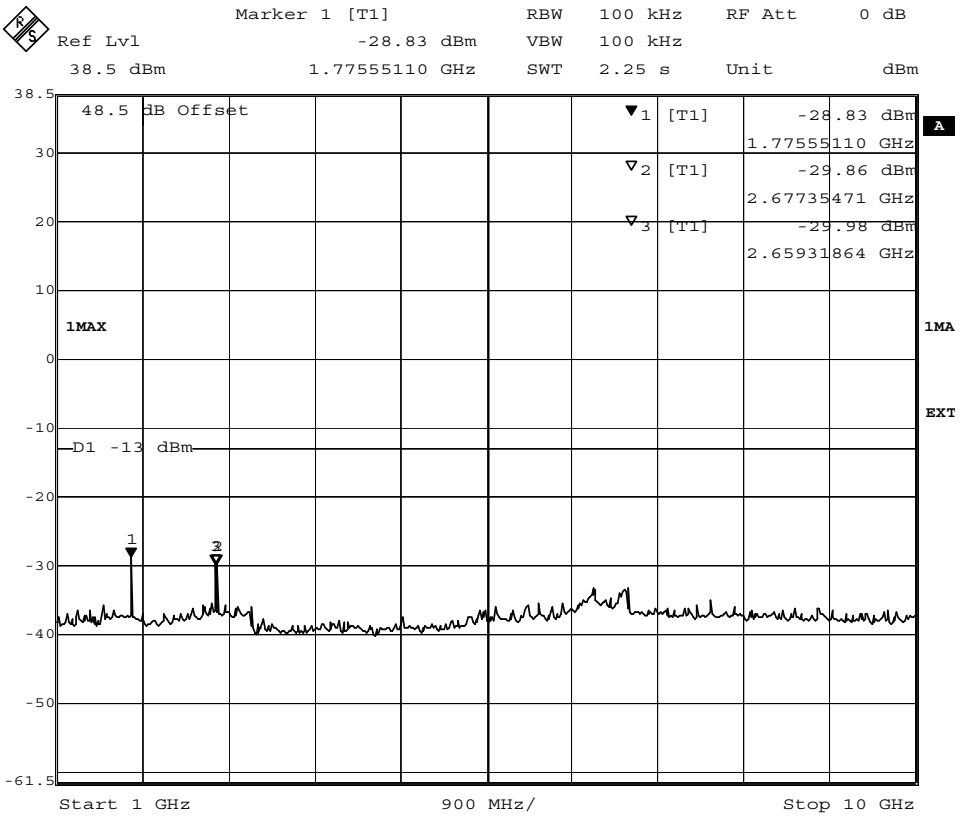


Diagram 6



Date: 8.MAR.2005 10:35:15



Date: 8.MAR.2005 11:28:11

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Diagram 6 (zoom)

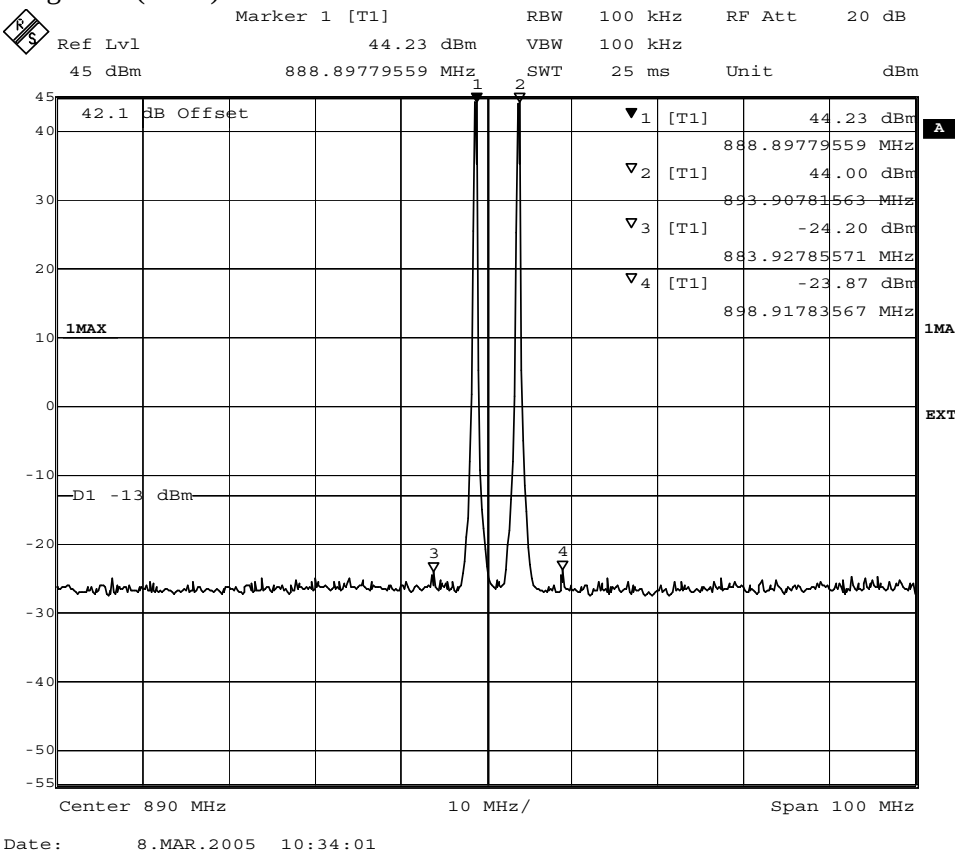
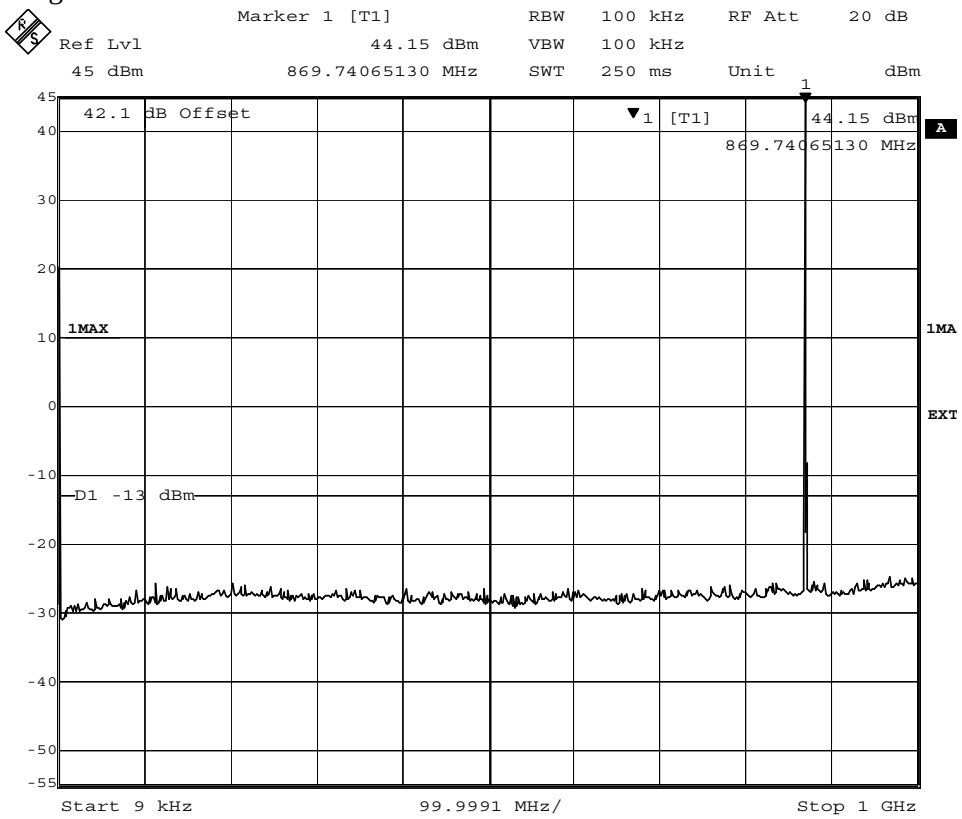
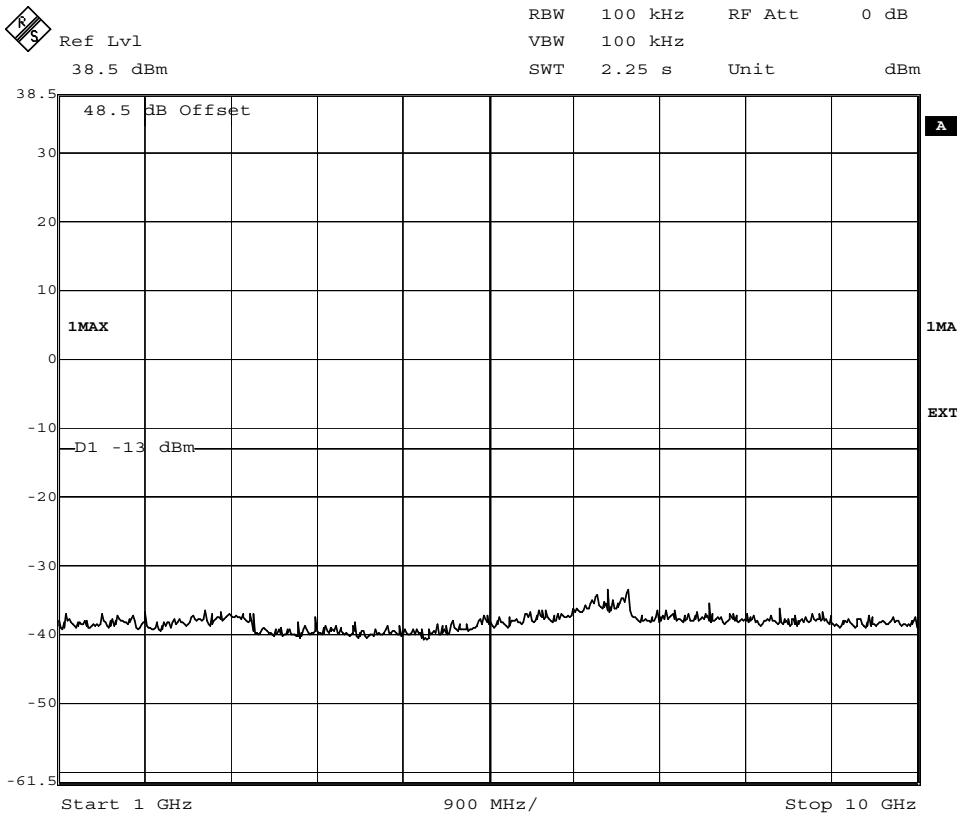


Diagram 7

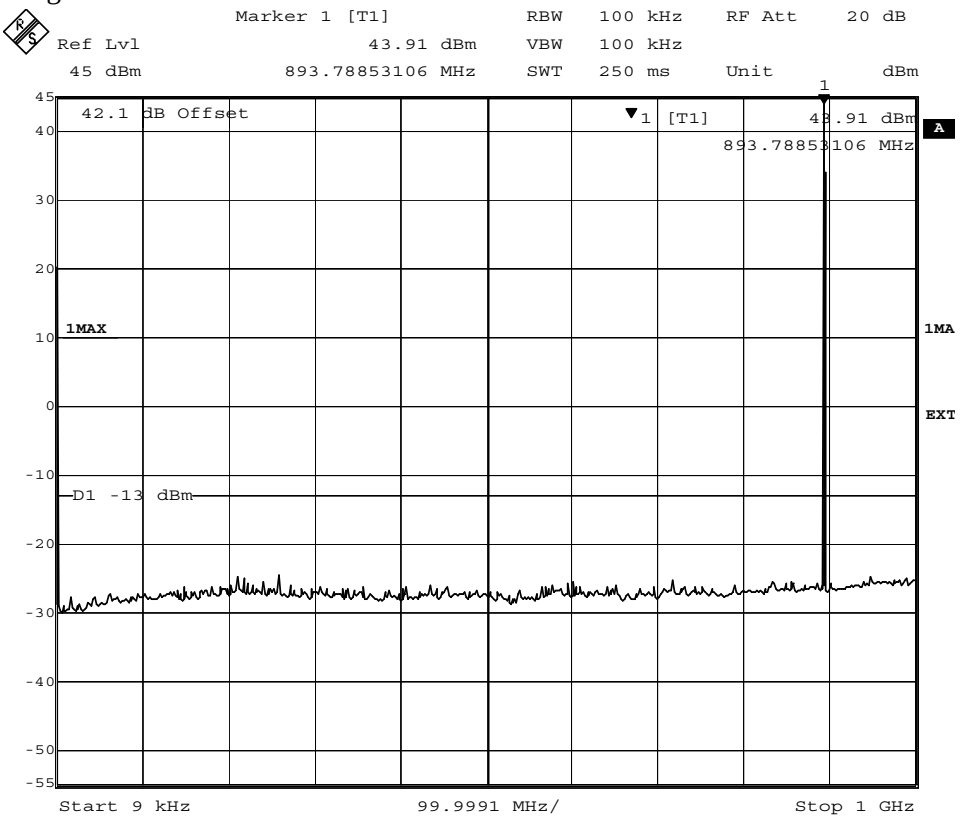


Date: 8.MAR.2005 10:49:11

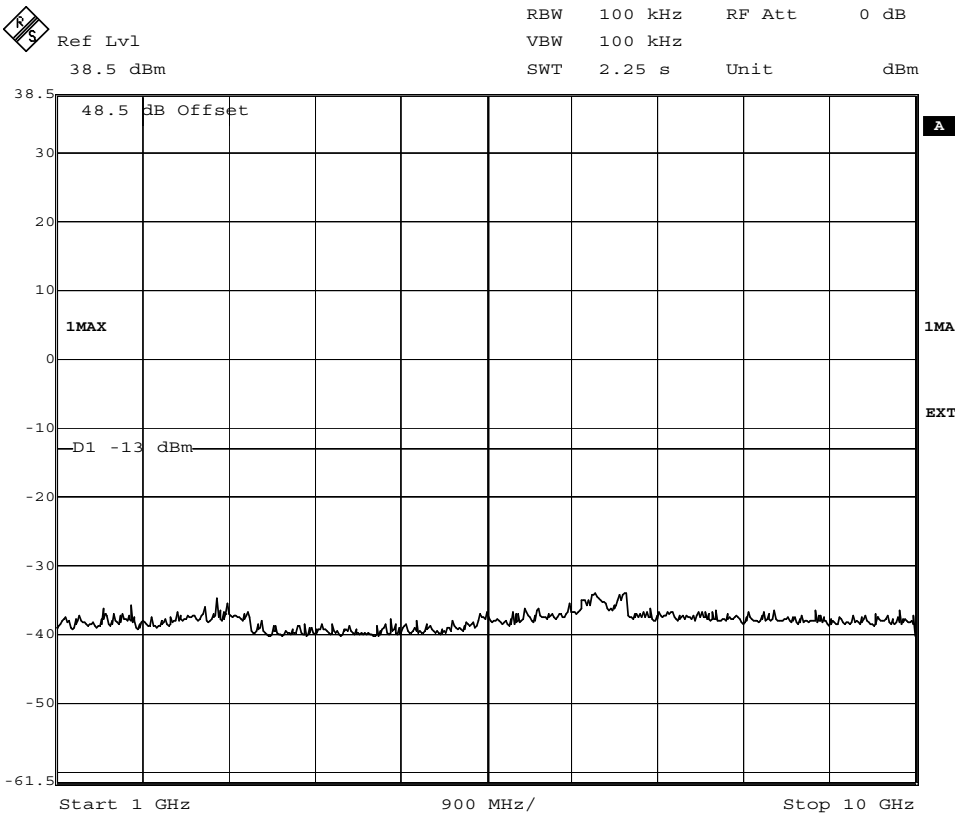


Date: 8.MAR.2005 11:31:01

Diagram 8

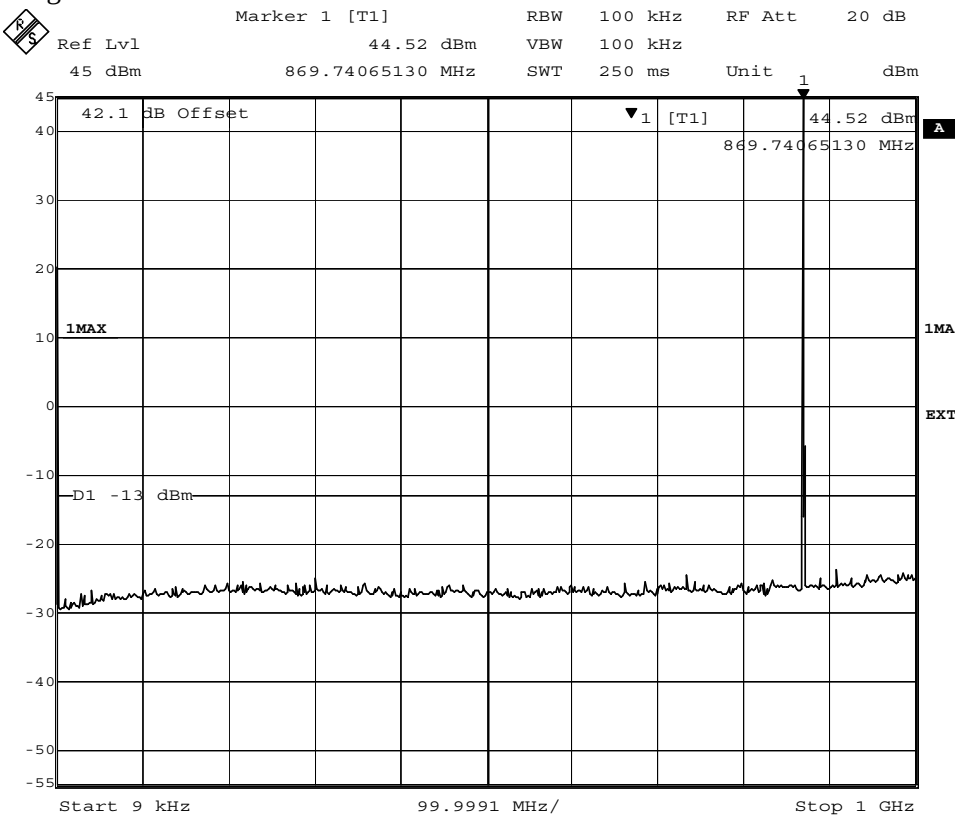


Date: 8.MAR.2005 10:51:08

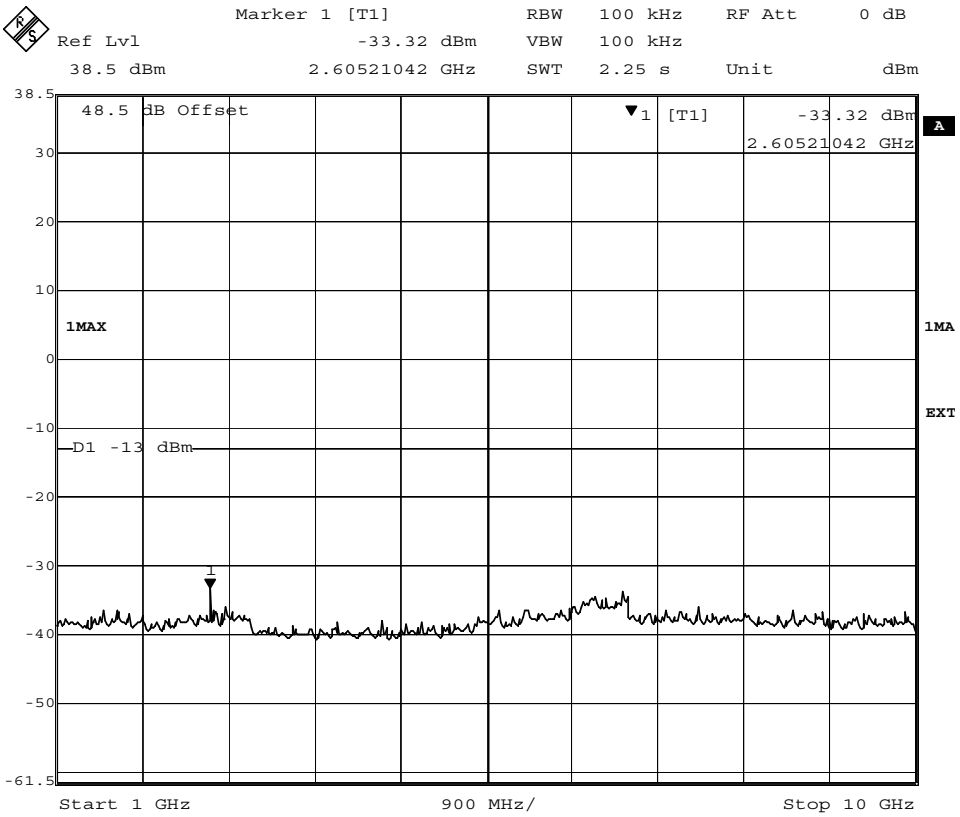


Date: 8.MAR.2005 11:29:55

Diagram 9

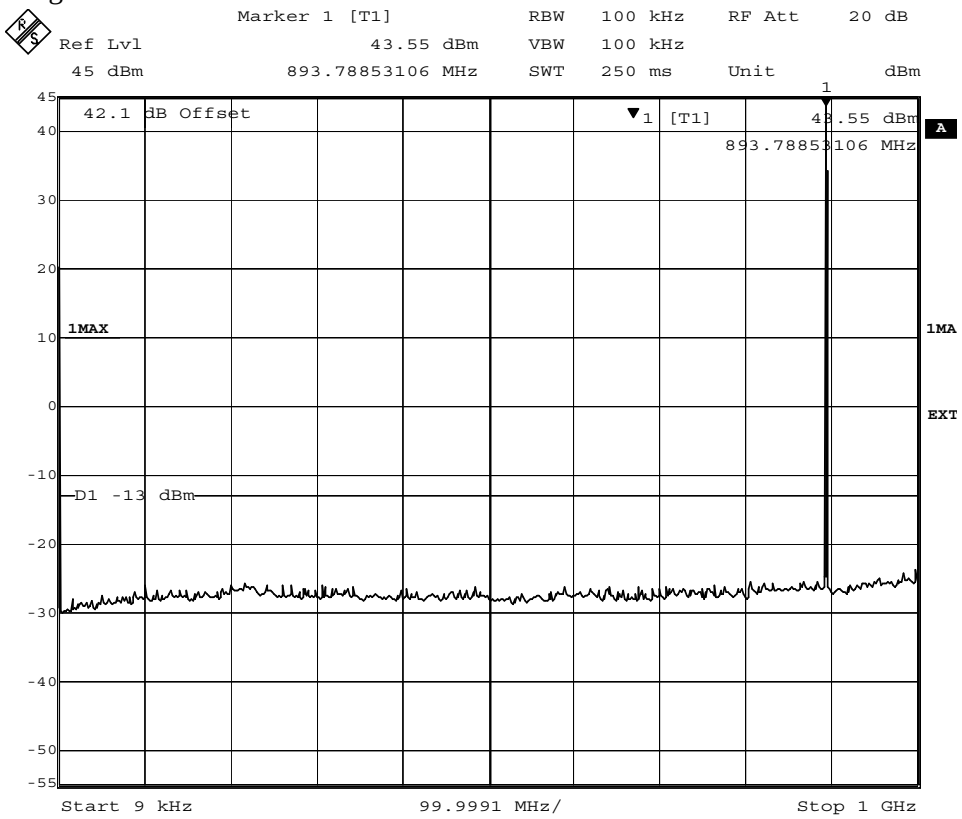


Date: 8.MAR.2005 10:54:48

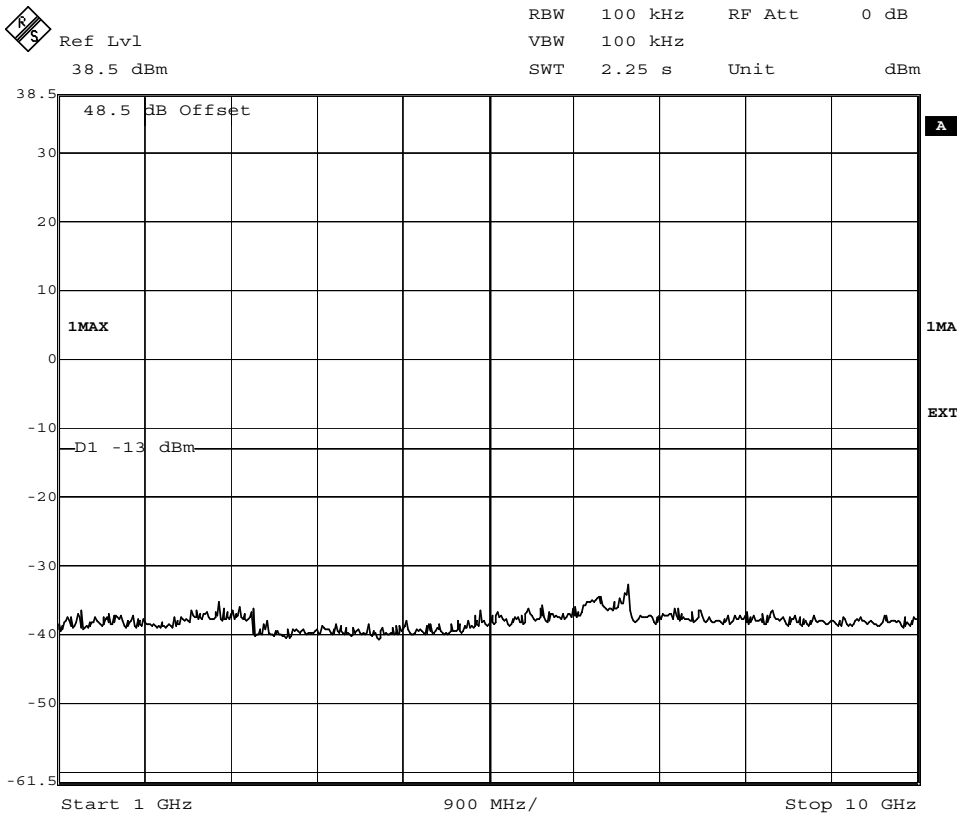


Date: 8.MAR.2005 11:32:27

Diagram 10

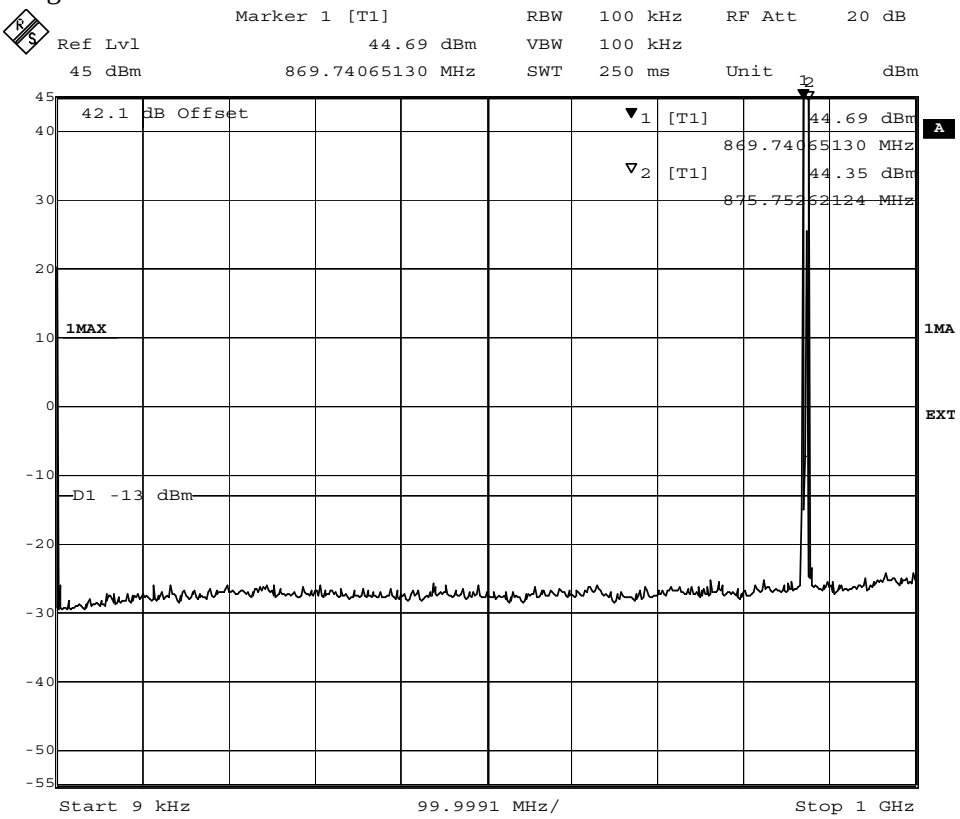


Date: 8.MAR.2005 10:56:33

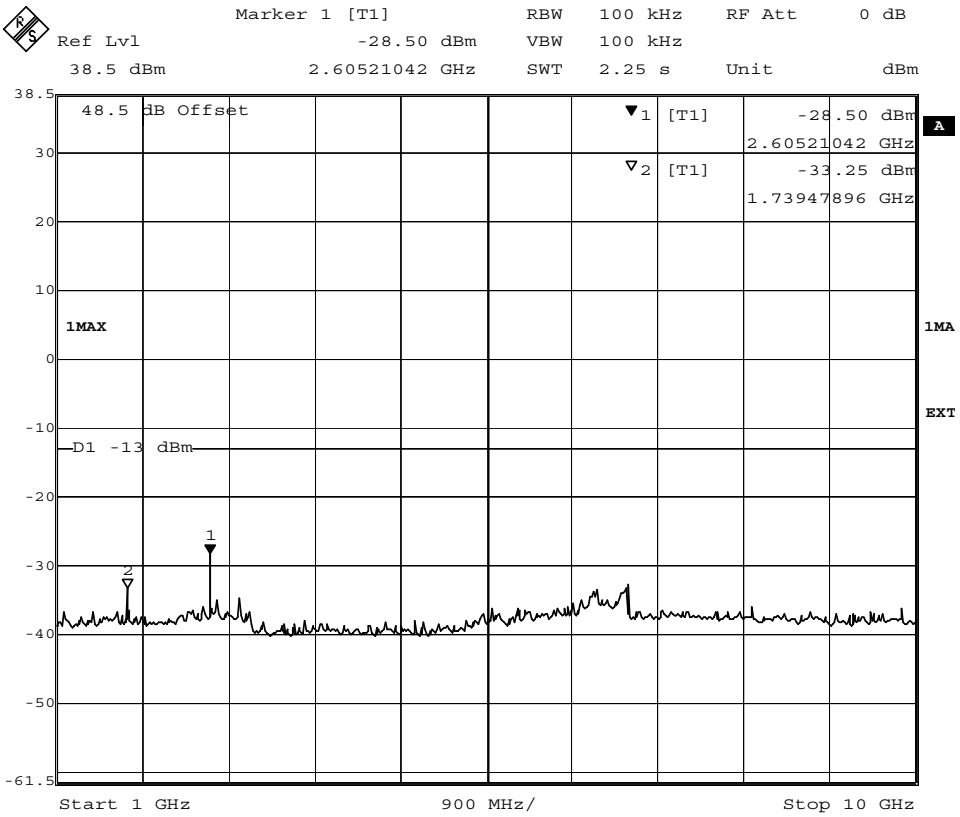


Date: 8.MAR.2005 11:33:37

Diagram 11



Date: 8.MAR.2005 10:46:52



Date: 8.MAR.2005 11:35:48

Diagram 11 (zoom)

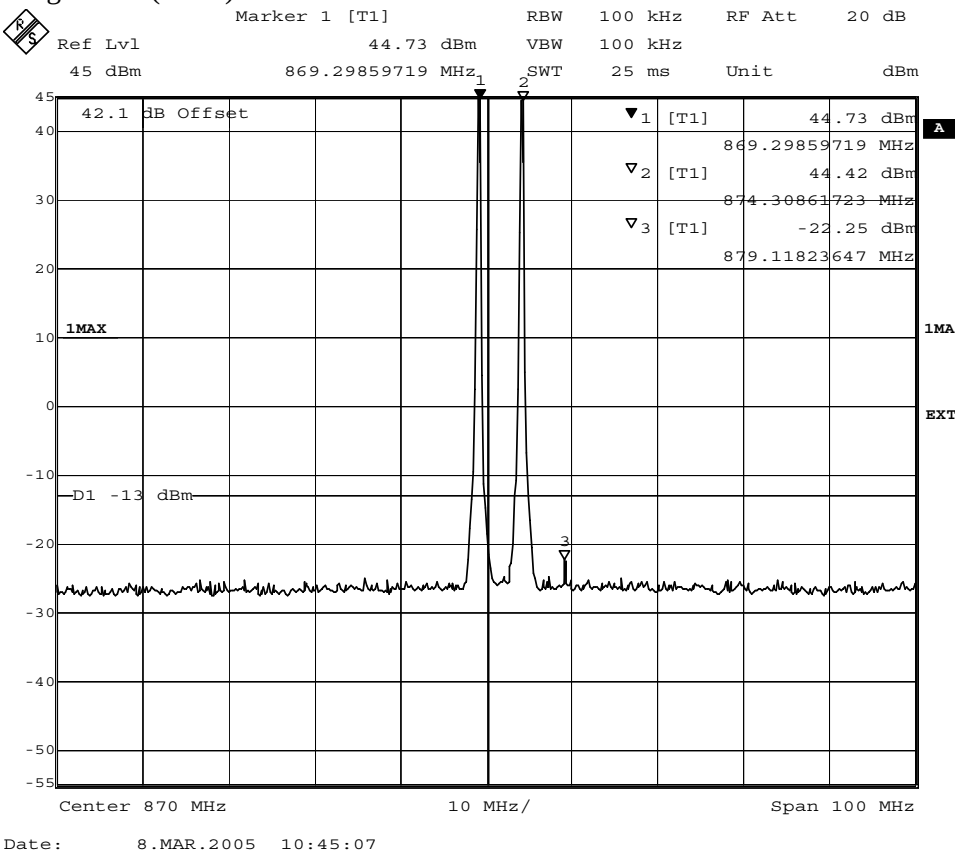
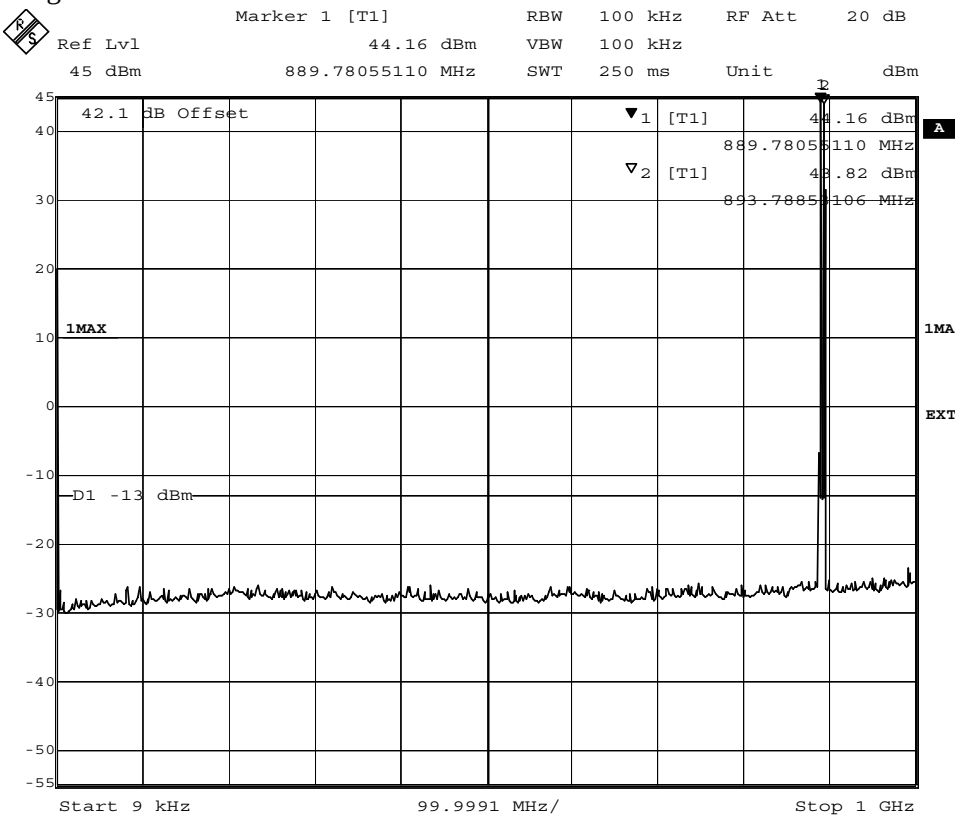
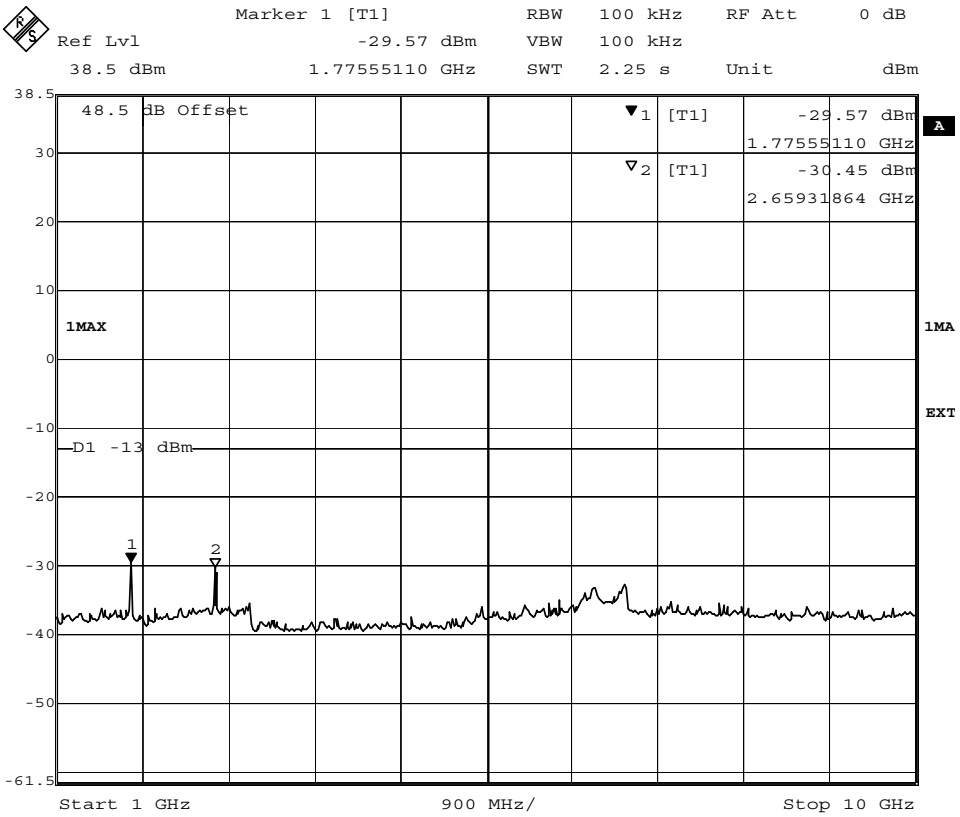


Diagram 12



Date: 8.MAR.2005 10:36:55



Date: 8.MAR.2005 11:41:09

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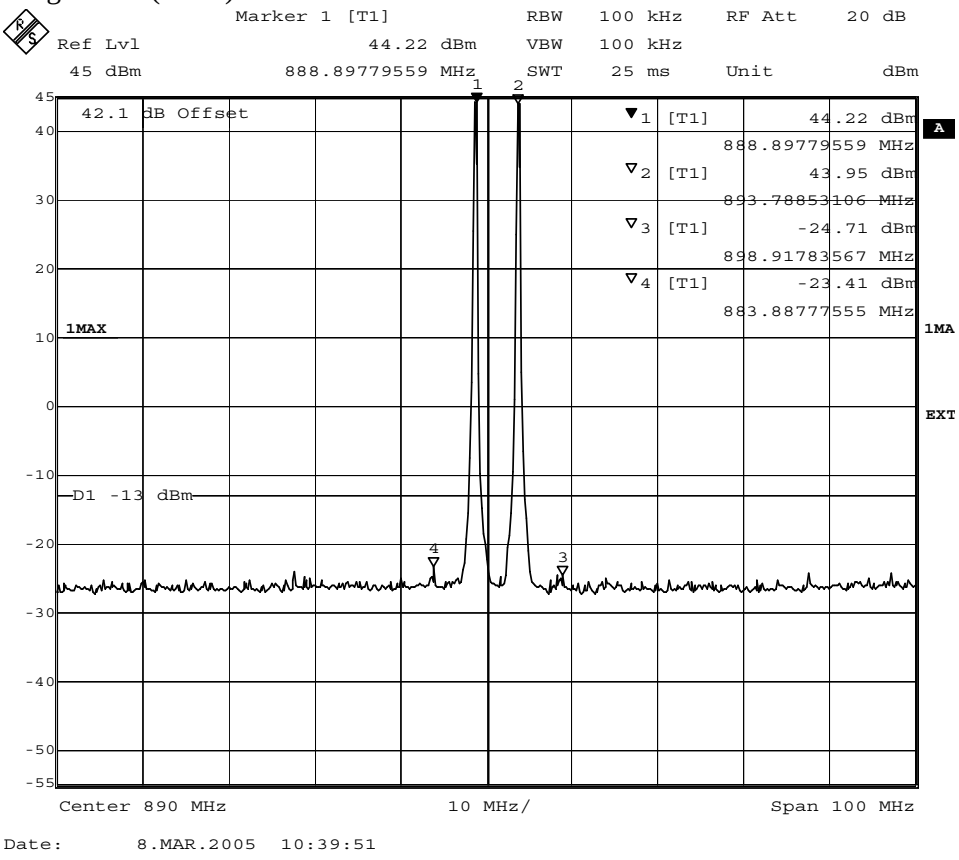
Diagram 12 (zoom)



Field strength of spurious radiation measurements according to 47CFR 2.1053

Date	Temperature	Humidity
2005-03-16	21 °C ± 3 °C	22 % ± 5 %

Test set-up and procedure

The chamber is listed at FCC, Columbia with registration number: 93866. The test site also complies with RSS 212, Issue 1, 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 polarisation of the antenna. The antenna distance was 3 m.

A pre-measurement was first performed:
In the frequency range 30 MHz-10 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,

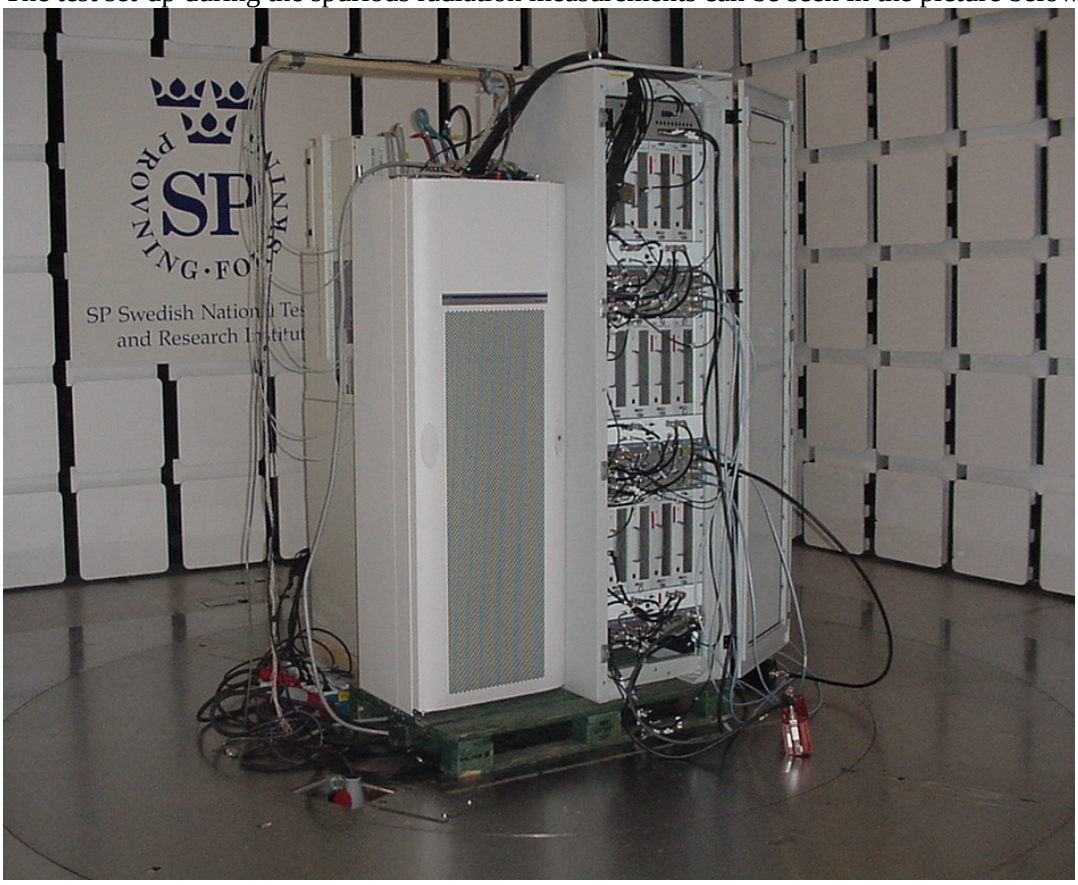
$\gamma = 20\log\left(\frac{4\pi D}{\lambda}\right)$, γ is the propagation loss and D is the antenna distance.

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 average detector and the average value is reported, frequencies closer than 10 dB to the limit measured with the average detector was measured with the substitution method according to the standard.

Measurement equipment	Calibration Due	SP number
Anechoic chamber	-	15:115
R&S ESI 26	2005-08	503 292
Control computer	-	503 479
Software: R&S ES-K1, ver. 1.60	-	-
Chase Bilog antenna CBL 6111A	2006-08	503 182
EMCO Horn Antenna 3115	2006-11	502 548
MITEQ Low Noise Amplifier	2005-04	503 285
Testo 615, Temperature and humidity meter	2005-09	503 505

The test set-up during the spurious radiation measurements can be seen in the picture below



Results

GMSK and 8-PSK

Frequency (MHz)	Spurious emission level (dBm)	
	Vertical	Horizontal
4350.7	-31	- -
4444.6	-24	- -
5221.4	-25.2 (Peak)	- -
30-10 000	All other 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

Frequency stability measurements according to 47CFR 2.1055

Date	Temperature	Humidity
2005-03-02 to 2005-03-04	21 °C ± 3 °C	23 % ± 5 %

Test set-up and procedure

The measurements were made per J-STD-007A Vol 1 (GMSK) and TIA/EIA-136-280-B (8-PSK).

The test was made with the dTRU mounted in the RBS 2250 cabinet.
Measurements were made at CDU-L8 output connector. The output was connected to a spectrum analyser. The spectrum analyser was connected to an external 10 MHz reference standard during measurement.
The transmitter was activated at maximum output power and modulated with pseudorandom data during the measurements.

Measurement equipment	Calibration Due	SP number
Climate chamber	2006-02	503 546
R&S FSIQ	2005-04	503 738
Multimeter Fluke 87	2005-09	502 190
Testo 610, Temperature and humidity meter	2006-12	502 658

Results

Nominal Voltage 24 V DC
Channel 190 (881.6 MHz)

Test conditions		Frequency error (Hz)			
Supply voltage DC (V)	Temperature (°C)	**GMSK**		**8-PSK**	
		TRX 1	TRX 2	TRX 1	TRX 2
24.0	+20	+18	+16	-16	+18
27.6	+20	+14	+19	-16	-17
20.4	+20	+13	+16	-13	-18
24.0	+30	+13	+14	-18	+16
24.0	+40	+13	+13	-17	+20
24.0	+50	+14	-21	+16	-22
24.0	+10	+16	+16	+19	+20
24.0	0	+15	+18	+17	+16
24.0	-10	-22	-21	-22	-22
24.0	-20	-18	-18	-15	-17
24.0	-30	-10	-13	-18	-27
Maximum freq. error (Hz)		22		27	
Measurement uncertainty		$< \pm 1 \times 10^{-7}$			

Note1: At 0 and -10 °C the following was reported in the RBS Fault log:
"CF Fault 2A No. 16: Indoor Temp Out Of Normal Conditional Range".

Note2: At -20 and -30 °C the following was reported in the RBS Fault log:
"CF Fault 1A No. 10: Indoor Temp Out of Safe Range".

Limits

The maximum frequency error shall not be greater than 0.05 ppm (44 Hz).

Complies?	Yes

RBS 2250 - TRX cabinet

Unit	Product number	Serial Number	Revision
Cabinet	SEB 112 1147/1	- -	- -
IDM-04	BMG 980 31/1	B351000827	R1B
FCU-01	BGM 136 1001/2	B991768720	R3A
DC Filter-05	KFE 101 1145/6	X181091415	R1A
Subrack 3			
HCU 10	KRF 201 463/1	A400143219	R1A
DXU-22	BOE 602 17/1	TU85503378	R1B
DXU-22	BOE 602 17/1	TU85503384	R1B
dTRU 10-19 Edge	KRC 131 1013/2	AE51648003	R2A
dTRU 10-19 Edge	KRC 131 1013/2	AE51646997	R2A
dTRU 10-19 Edge	KRC 131 1013/2	AE51646979	R2A
dTRU 10-19 Edge	KRC 131 1013/2	AE51647029	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645876	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645852	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645884	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645875	R2A
RX splitter 02	KRF 201 464/1	A400145122	R1A
Subrack 2			
HCU 10	KRF 201 463/1	A400143334	R1A
DXU-22	BOE 602 17/1	TU85503342	R1B
DXU-22	BOE 602 17/1	TU85503325	R1B
dTRU 10-19 Edge	KRC 131 1013/2	AE51648009	R2A
dTRU 10-19 Edge	KRC 131 1013/2	AE51646999	R2A
dTRU 10-19 Edge	KRC 131 1013/2	AE51647000	R2A
dTRU 10-19 Edge	KRC 131 1013/2	AE51646998	R2A
dTRU 10-19 Edge	KRC 131 1013/2	AE51646996	R2A
dTRU 10-19 Edge	KRC 131 1013/2	AE51646994	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645885	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645874	R2A
RX splitter 02	KRF 201 464/1	A400145125	R1A
Subrack 1			
HCU 10	KRF 201 463/1	A400133525	R1A
DXU-22	BOE 602 17/1	TU85503410	R1B
DXU-22	BOE 602 17/1	TU85503351	R1B
dTRU 10-19 Edge	KRC 131 1013/2	AE51646995	R2A
dTRU 10-19 Edge	KRC 131 1013/2	AE51646988	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645887	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645878	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645873	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645883	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645871	R2A
dTRU 10-8 Edge	KRC 131 1010/2	AE51645888	R2A
RX splitter 02	KRF 201 464/1	A400145124	R1A

RBS 2250 - MCPA cabinet

Unit	Product number	Serial Number	Revision
Cabinet	1/SEB 112 1146	829530	R1A
IDM-05	BMG 980 36/1	T580000015	R1B/A
Subrack 1			
MCPA 19	KRB 111 103/1	VS000118NL	R1B
MCPA 19	KRB 111 103/1	VS000118N9	R1B
MCPA 8	KRB 111 102/1	PD00000CRU	R1B
MCPA 8	KRB 111 102/1	PD00000CRM	R1B
Subrack	BFL 119 440/1	C000012XJ3	R1B
CDU-L19	BFL 119 438/1	A400157595	R1B
CDU-L8	BFL 119 437/1	A400157578	R1B
Subrack 2			
MCPA 19	KRB 111 103/1	VS00011C4V	R1B
MCPA 19	KRB 111 103/1	VS00011C5F	R1B
MCPA 8	KRB 111 102/1	PD00000CRY	R1B
MCPA 8	KRB 111 102/1	PD00000CUM	R1B
Subrack	BFL 119 440/1	C000012XJ5	R1B
CDU-L19	BFL 119 438/1	A400157593	R1B
CDU-L8	BFL 119 437/1	A400154972	R1B
Subrack 3			
MCPA 19	KRB 111 103/1	VS000118K3	R1B
MCPA 19	KRB 111 103/1	VS000118ND	R1B
MCPA 8	KRB 111 102/1	PD00000CUP	R1B
MCPA 8	KRB 111 102/1	PD00000CRT	R1B
Subrack	BFL 119 440/1	C000012XJF	R1B
CDU-L19	BFL 119 438/1	A400157591	R1B
CDU-L8	BFL 119 437/1	A400154973	R1B

Software	Revision
R11B	R07E

Description of EUT

The EUT is a dTRU that can be installed in a GSM Base station that are designed to provide mobile telephone users with a connection to a mobile network or the PSTN.

FCC ID: B5KAKRC1311010-2 Appendix 10

Photos
Transceiver Unit KRC 131 1010/2, R2A

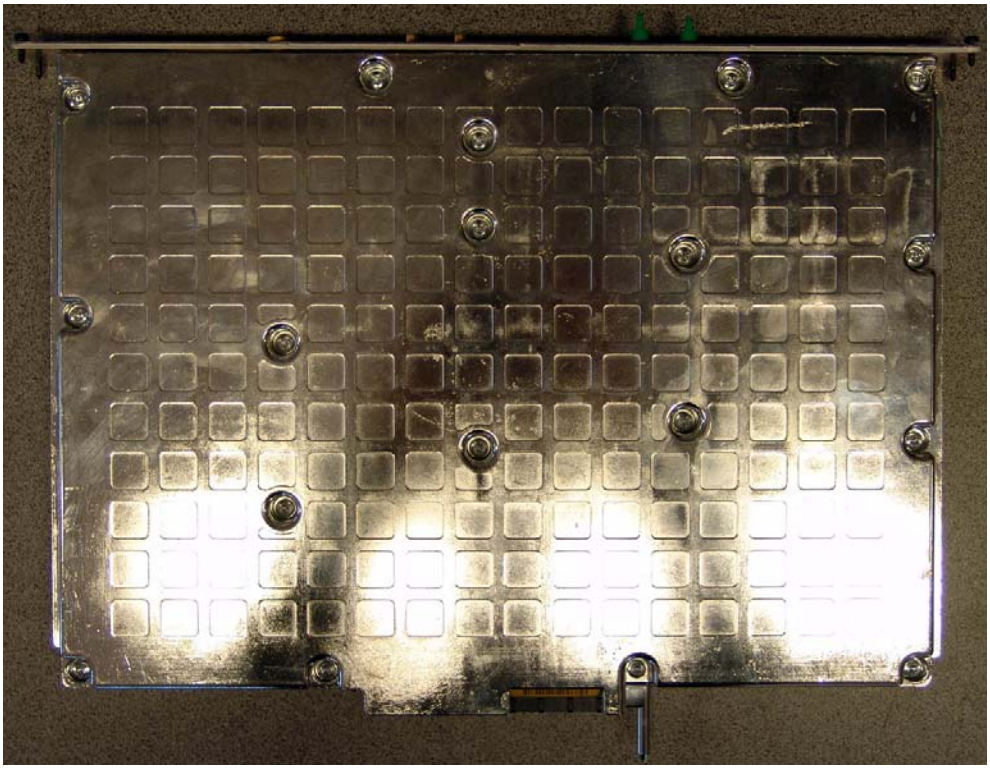
Front side

Rear side

FCC ID label

FCC ID: B5KAKRC1311010-2 Appendix 10

Left side



Right side