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Equipment Authorization measurements on GSM Base station 1900 MHz with FCC ID: B5KPKRC13111004-1

(10 enclosures)

Test object


RBS 2206, GSM equipped with Transceiver Unit KRC 131 1004/1, R1C/B

Summary

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

Note 1: This unit must use reduced transmit power for the channels adjacent to each frequency block edge in order to comply.

SP Swedish National Testing and Research Institute
Electronics - EMC


 Jan Carlsson
 Deputy Technical Manager


 Peter Grahn
 Technical Officer

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FCC ID: B5KPKRC13111004-1

Description - Equipment Under Test (EUT)

Equipment: GSM Base station transceiver 1900MHz
Tx Frequency range: 1930.2-1989.8 MHz
Tested Channels: 512: 1930.2 MHz
513: 1930.4 MHz
537: 1935.2 MHz
661: 1960.0 MHz
785: 1984.8 MHz
809: 1989.6 MHz
810: 1989.8 MHz
Product number: TRU: KRC 131 1004/1
Serial number: See Hardware list in enclosure 9

RF conducted measurements were done on
TRU: KRC 131 1004/1, R1C/B s/n: AE50004NSC
CDU-G19 BFL 119 153/1, R3A s/n: A40003DNSP
All RF conducted measurements were done at the output connectors of CDU-G.

Manufacturer's
representative: Larry Lindström, Ericsson Radio Systems AB

Purpose of test

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

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: 2001-09-26

Test engineers

Peter Grahn
Jonas Bremholt

Test witnesses

Lars Hagbjörk, Ericsson Radio Systems AB
Larry Lindström, Ericsson Radio Systems AB (partly)



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RF Power output measurements according to 47CFR 2.1046

Date 2001-09-28	Temperature 22 °C ± 3 °C	Humidity 41 % ± 5 %
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Test set-up and Procedure

The measurements were made per J-STD-007A Vol 1. Measurements were made at CDU-G output connectors. The output was connected to a Peak power analyzer via a 50 ohm attenuator. The RF power was measured with variation in supply voltage at the highest power level. Test was performed on 24 V DC supply voltage system. The transmitter was modulated with 270.8 kbs pseudorandom data during the measurements.

Measurement equipment	Calibration Due	SP number
Boonton RF Peak power meter/analyzer	2001-10	503 144
Testo 610, Temperature and humidity meter	2001-11	502 658

Results

TRU, output 1:
Nominal power 24 V DC
Rated output power level (maximum): 45 dBm

Test conditions		Transmitter power (dBm)		
		Channel 512	Channel 661	Channel 810
T_{nom} 22°C	V_{nom} 24 V AC	43.5	43.8	43.5
T_{nom} 22°C	V_{min} 20.4 V AC	43.5	43.8	43.5
	V_{max} 27.6 V AC	43.5	43.8	43.5
Variation in output power under normal test conditions (dB)		0.0	0.0	0.0
Measurement uncertainty		0.5 dB		



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TRU, output 2:
Nominal power 24 V DC
Rated output power level (maximum): 45 dBm

Test conditions		Transmitter power (dBm)		
		Channel 512	Channel 661	Channel 810
T_{nom} 22°C	V_{nom} 24 V AC	43.5	43.9	43.5
T_{nom} 22°C	V_{min} 20.4 V AC	43.5	43.9	43.5
	V_{max} 27.6 V AC	43.5	43.9	43.5
Variation in output power under normal test conditions (dB)		-0.0	-0.0	-0.0
Measurement uncertainty		0.5 dB		

Limits

The tolerance of the maximum rated output power shall not be greater than ± 2 dB.

Complies?	Yes
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Modulation characteristics measurements according to 47CFR 2.1047

Date 2001-10-01	Temperature 20 °C ± 3 °C	Humidity 34 % ± 5 %
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Results

Nominal Voltage 24 V DC
45 dBm output power at Channel 661 (1960.0 MHz)

	Phase error (°)	
	TRU Output 1	TRU Output 2
	1	1
Maximum phase error (°)	1	

Limits

The tolerance of the maximum output phase error shall not be greater than 5 degrees.

Complies?	Yes
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Occupied bandwidth measurements according to 47CFR 2.1049

Date 2001-09-28	Temperature 22 °C ± 3 °C	Humidity 41 % ± 5 %
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Test set-up and Procedure

The measurements were made per J-STD-007A Vol 1. Measurements were made at CDU-G output connectors. The output was connected to a spectrum analyzer. The spectrum analyser was hooked up to an external 10 MHz reference standard during the measurements. The transmitter was modulated with 270.8 kbs pseudorandom data during the measurements.

Measurement equipment	Calibration Due	SP number
R&S ESI 40 with option FSE-B7	2002-09	503 125
Testo 610, Temperature and humidity meter	2001-11	502 658

Measurement uncertainty: 3.7 dB

Results

TRU Output 1:

Diagram 1 Ch 512 OBW Reference level - 35 dBm output power
Diagram 2 Ch 512 OBW 26 dB points - 35 dBm output power
Diagram 3 Ch 512 OBW Band edge - 35 dBm output power

Diagram 4 Ch 513 OBW Reference level - 45 dBm output power
Diagram 5 Ch 513 OBW 26 dB points - 45 dBm output power
Diagram 6 Ch 513 OBW Band edge - 45 dBm output power

Diagram 7 Ch 810 OBW Reference level - 35 dBm output power
Diagram 8 Ch 810 OBW 26 dB points - 35 dBm output power
Diagram 9 Ch 810 OBW Band edge - 35 dBm output power

Diagram 10 Ch 809 OBW Reference level - 45 dBm output power
Diagram 11 Ch 809 OBW 26 dB points - 45 dBm output power
Diagram 12 Ch 809 OBW Band edge - 45 dBm output power

TRU Output 2:

Diagram 13 Ch 512 OBW Reference level - 35 dBm output power
Diagram 14 Ch 512 OBW 26 dB points - 35 dBm output power
Diagram 15 Ch 512 OBW Band edge - 35 dBm output power

Diagram 16 Ch 513 OBW Reference level - 45 dBm output power
Diagram 17 Ch 513 OBW 26 dB points - 45 dBm output power
Diagram 18 Ch 513 OBW Band edge - 45 dBm output power

Diagram 19 Ch 810 OBW Reference level - 35 dBm output power
Diagram 20 Ch 810 OBW 26 dB points - 35 dBm output power



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Diagram 21 Ch 810 OBW Band edge - 35 dBm output power

Diagram 22 Ch 809 OBW Reference level - 45 dBm output power

Diagram 23 Ch 809 OBW 26 dB points - 45 dBm output power

Diagram 24 Ch 809 OBW Band edge - 45 dBm output power

Remarks

This unit must use reduced transmit power for the channels adjacent to each frequency block edge.

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
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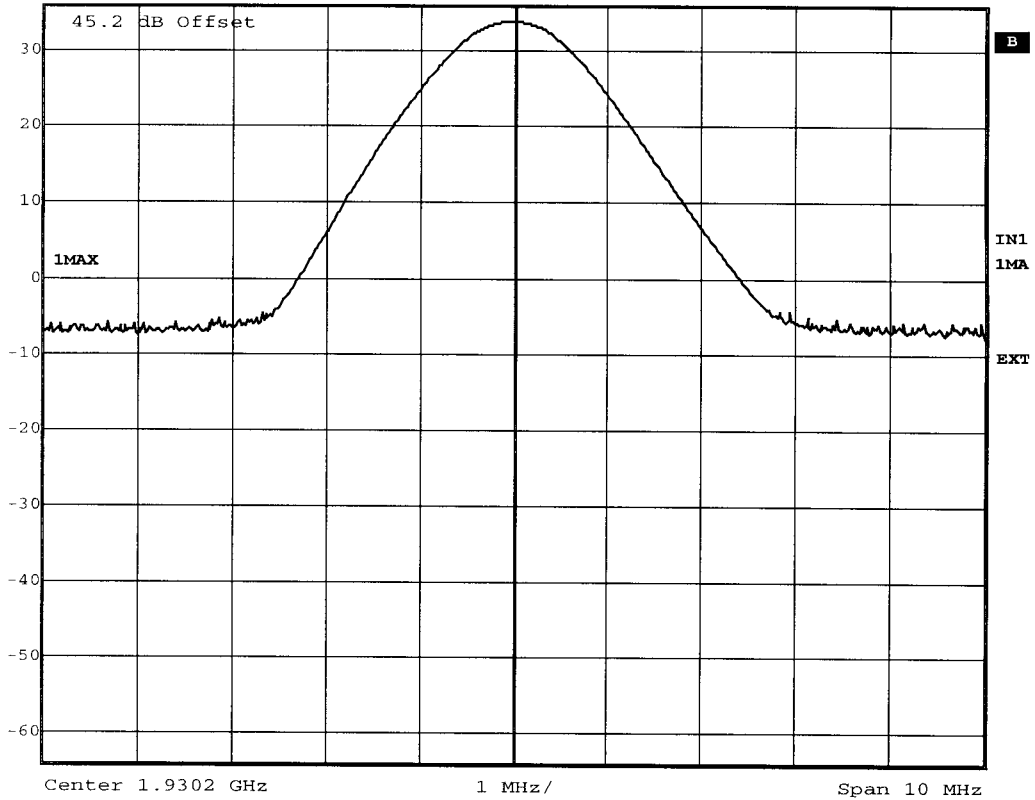
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Encl. 4
Diagram 1

Reference level



Ref Lvl
36.1 dBm

RBW	1 MHz	RF Att	30 dB
VBW	1 MHz		
SWT	5 ms	Unit	dBm



Date: 28.SEP.2001 14:55:34

Ch 512 - 35 dBm



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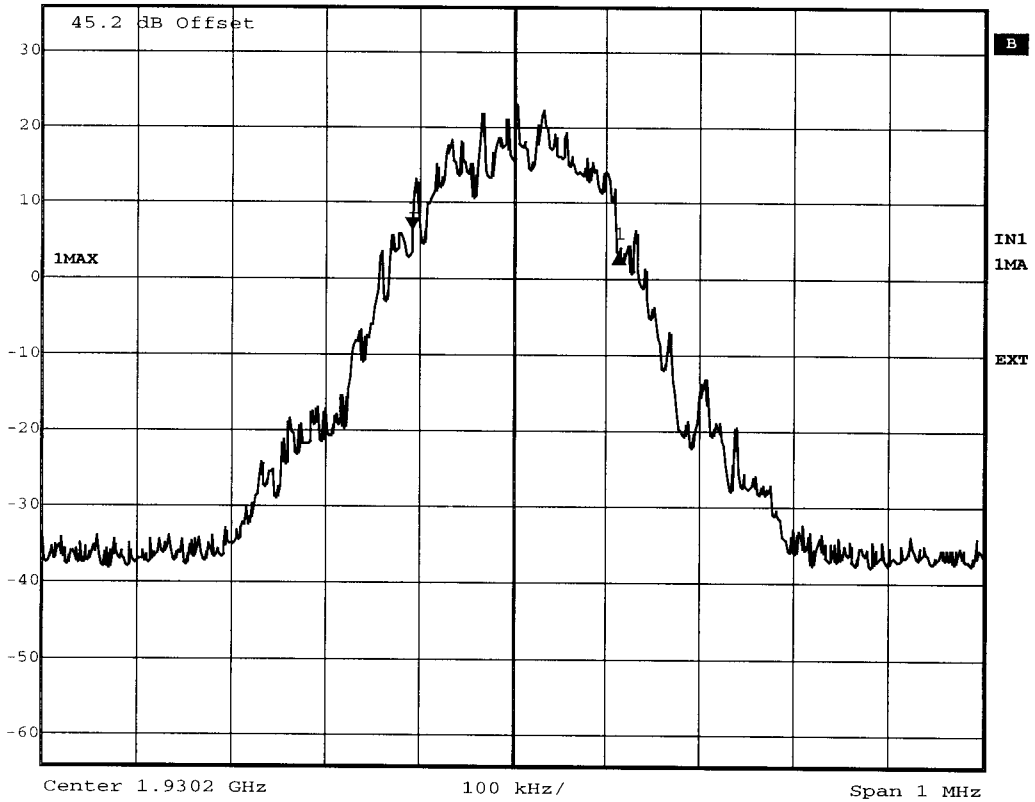
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Diagram 2

26 dB point



Delta 1 [T1]	RBW	2 kHz	RF Att	30 dB
Ref Lvl	-3.34 dB	VBW	2 kHz	
36.1 dBm	220.44088176 kHz	SWT	640 ms	Unit dBm



Date: 28.SEP.2001 14:50:37

Ch 512 - 35 dBm



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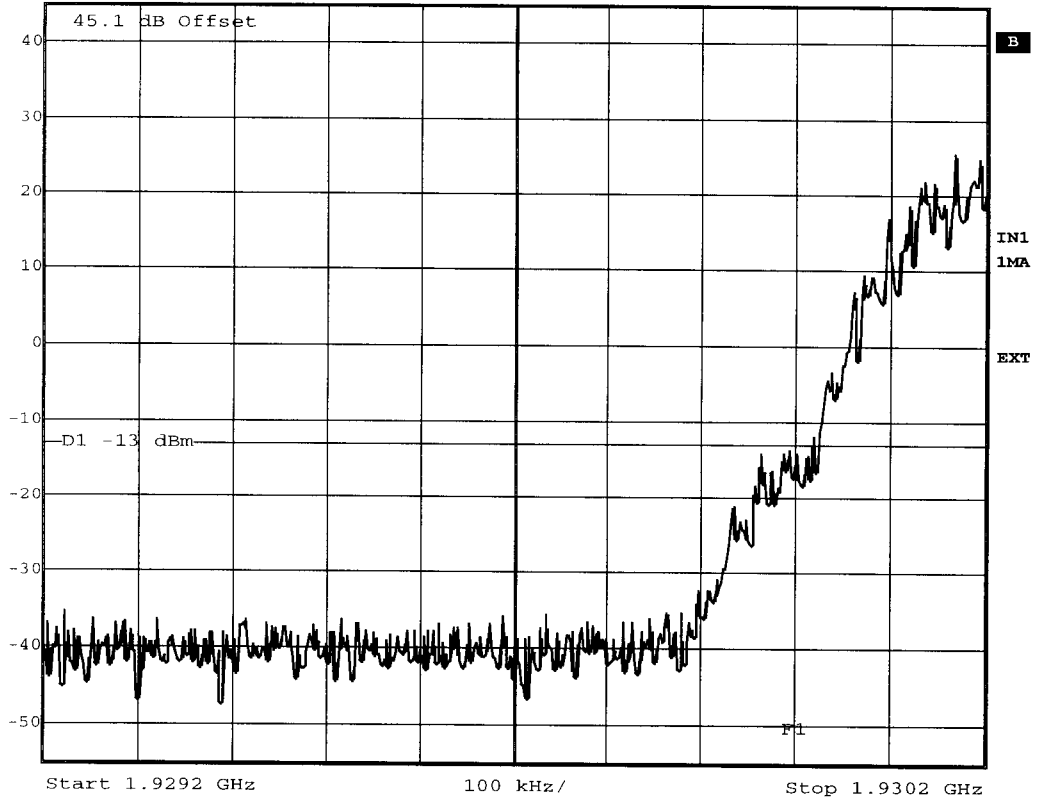
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Encl. 4
Diagram 3

Band edge level



Ref Lvl
45 dBm

RBW	2 kHz	RF Att	30 dB
VBW	2 kHz		
SWT	640 ms	Unit	dBm



Date: 28.SEP.2001 13:17:30

Ch 512 - 35 dBm



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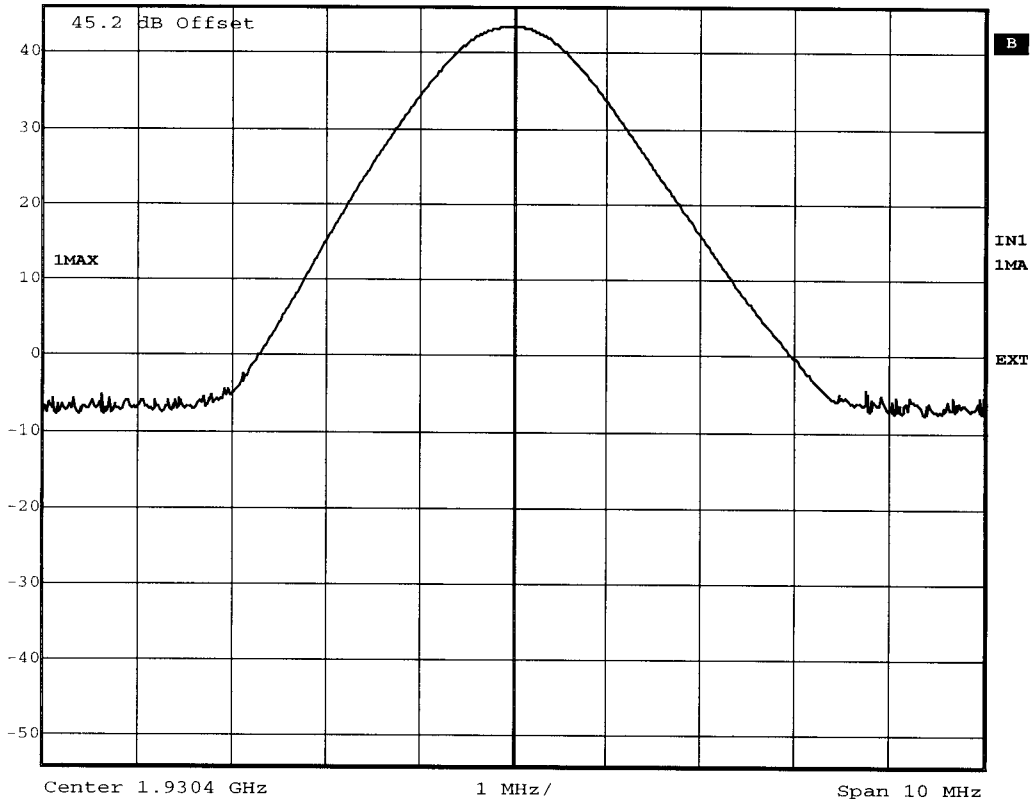
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Diagram 4

Reference level



Ref Lvl
46.1 dBm

RBW	1 MHz	RF Att	30 dB
VBW	1 MHz		
SWT	5 ms	Unit	dBm



Date: 28.SEP.2001 15:07:00

Ch 513 - 45 dBm



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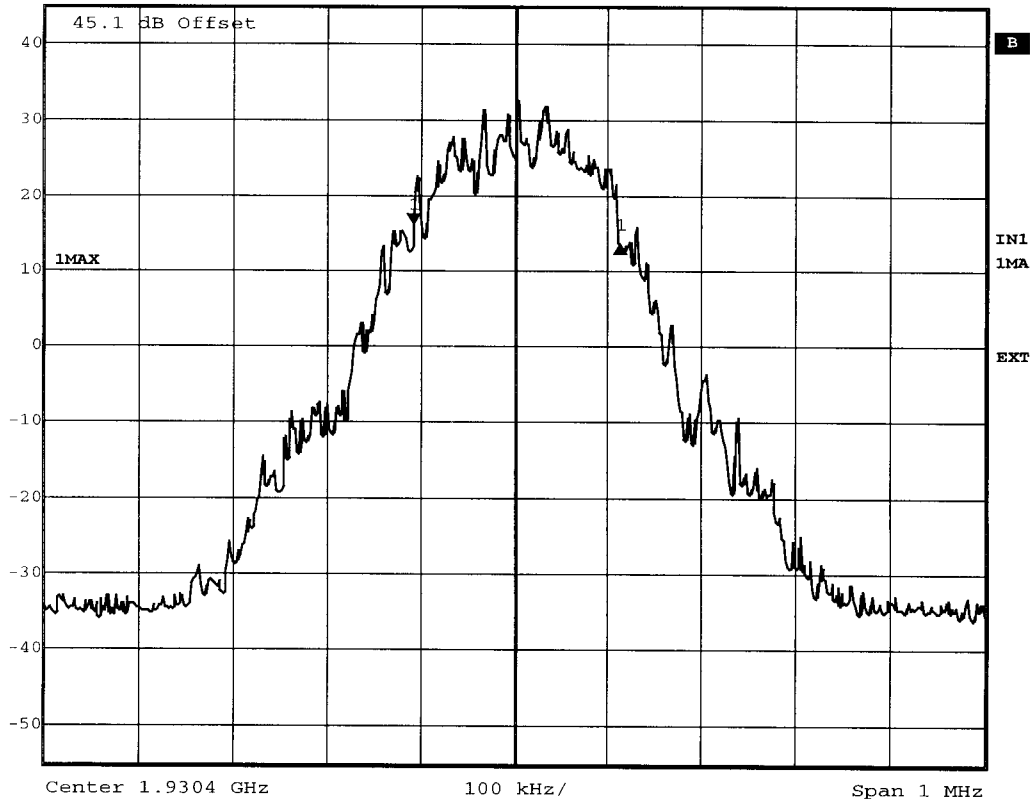
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Encl. 4
Diagram 5

26 dB point



Delta 1 [T1]	RBW	2 kHz	RF Att	30 dB
Ref Lvl	-2.78 dB	VBW	2 kHz	
45 dBm	220.44088176 kHz	SWT	640 ms	Unit dBm



Date: 28.SEP.2001 13:53:58

Ch 513 - 45 dBm



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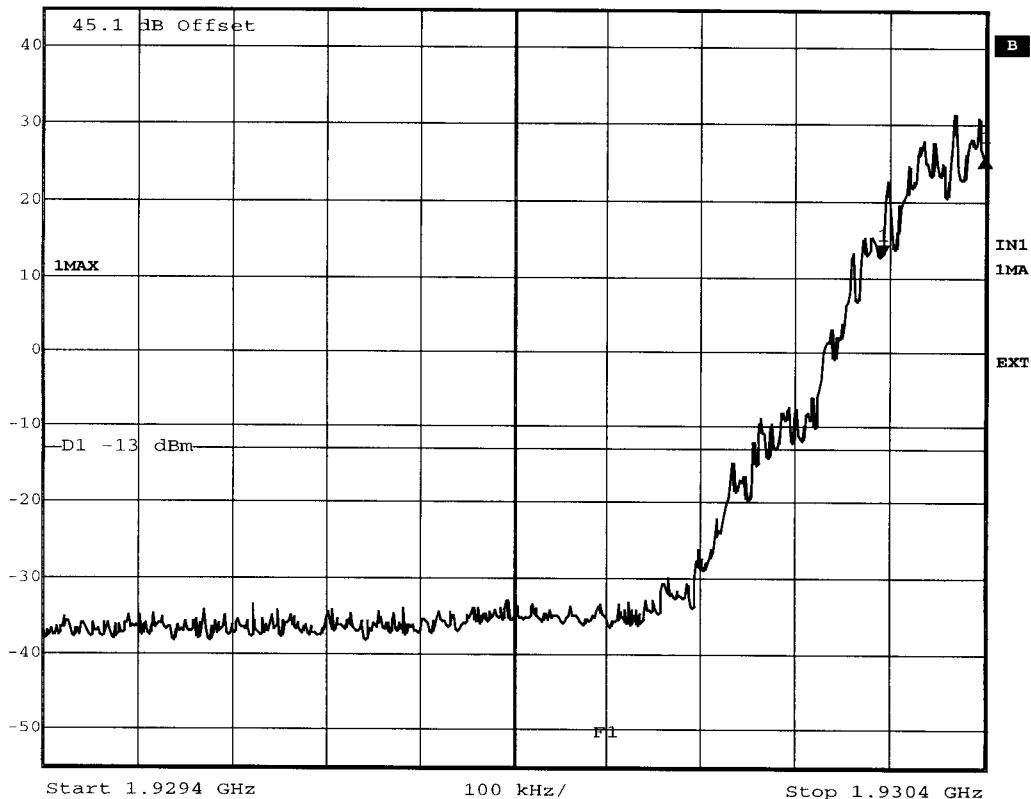
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Encl. 4
Diagram 6

Band edge level



Delta 1 [T1]	RBW	2 kHz	RF Att	30 dB
Ref Lvl	12.67 dB	VBW	2 kHz	
45 dBm	107.21442886 kHz	SWT	640 ms	Unit dBm



Date: 28.SEP.2001 13:55:17

Ch 513 - 45 dBm



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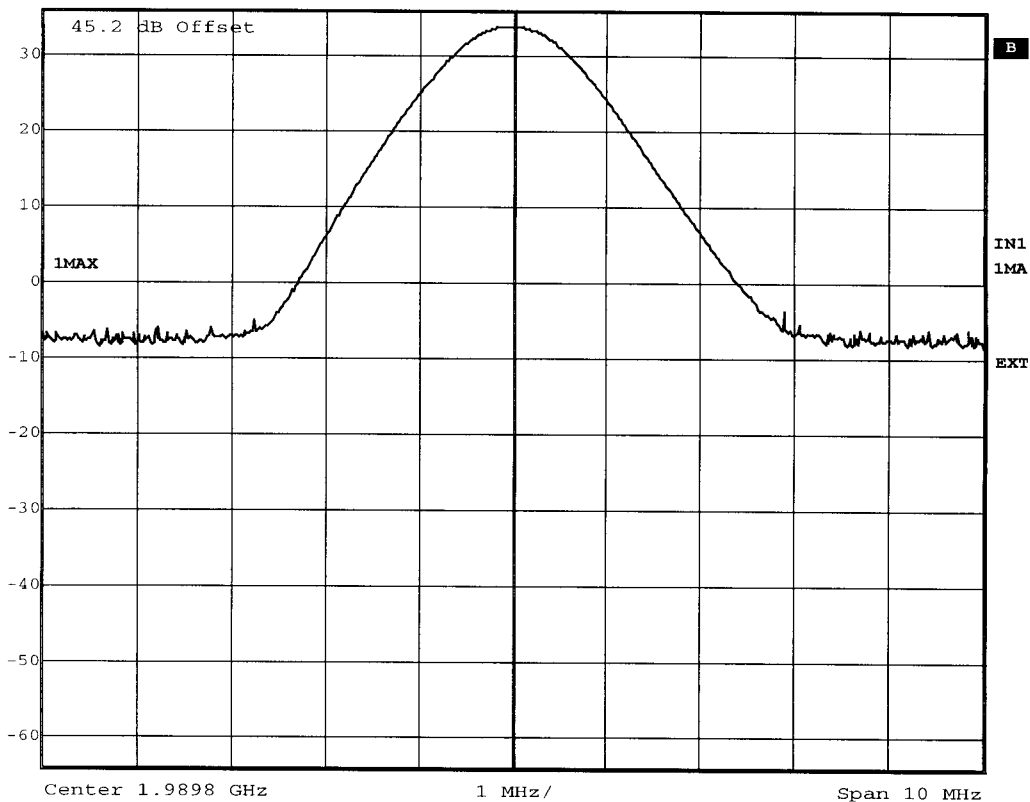
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Encl. 4
Diagram 7

Reference level



Ref Lvl
36.1 dBm

RBW	1 MHz	RF Att	30 dB
VBW	1 MHz		
SWT	5 ms	Unit	dBm



Date: 28.SEP.2001 14:46:01

Ch 810 - 35 dBm



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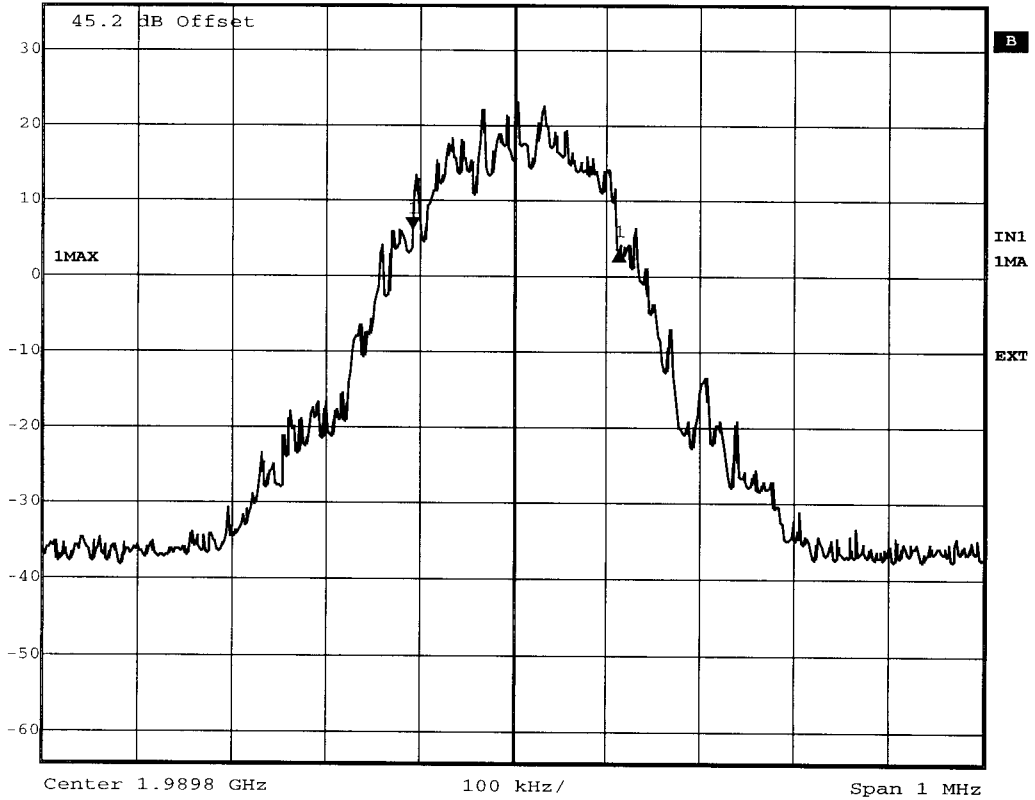
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10 (26)
Encl. 4
Diagram 8

26 dB point



Delta 1 [T1]	RBW	2 kHz	RF Att	30 dB
Ref Lvl	-2.95 dB	VBW	2 kHz	
36.1 dBm	220.44088176 kHz	SWT	640 ms	Unit dBm



Date: 28.SEP.2001 14:47:33

Ch 810 - 35 dBm



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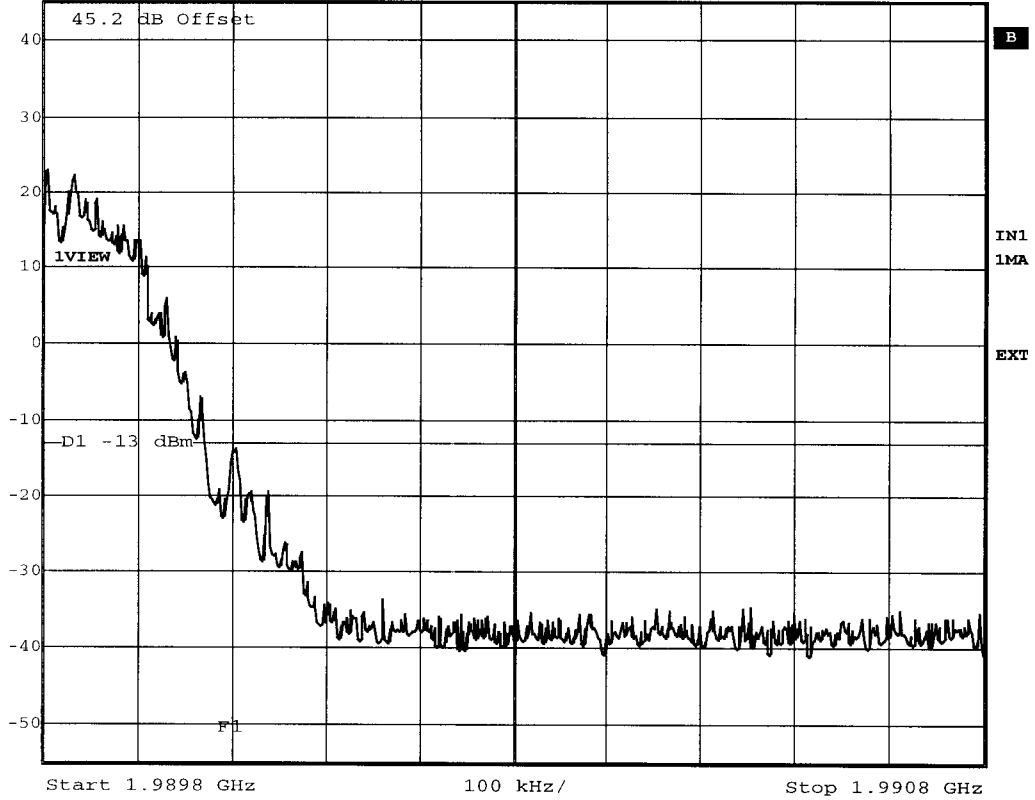
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Encl. 4
Diagram 9

Band edge level



Ref Lvl
45.1 dBm

RBW 2 kHz RF Att 30 dB
VBW 2 kHz
SWT 640 ms Unit dBm



Date: 28.SEP.2001 14:43:15

Ch 810 - 35 dBm



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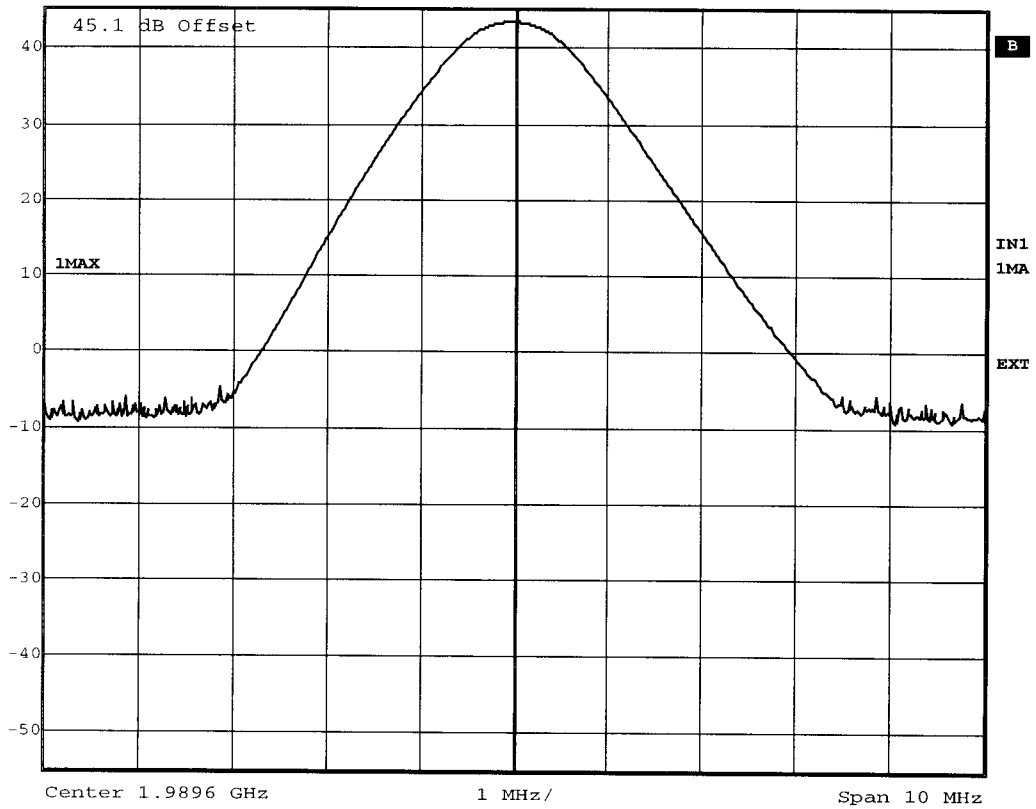
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Encl. 4
Diagram 10

Reference level



Ref Lvl
45 dBm

RBW	1 MHz	RF Att	30 dB
VBW	1 MHz		
SWT	5 ms	Unit	dBm



Date: 28.SEP.2001 14:00:56

Ch 809 - 45 dBm



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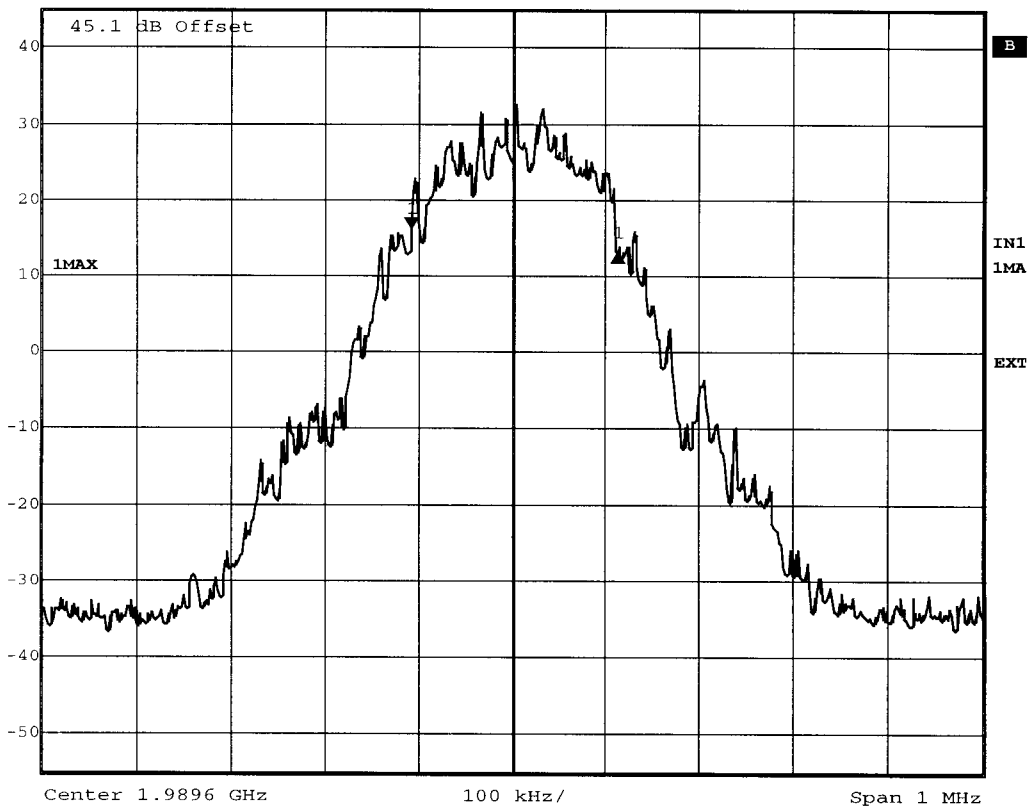
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Diagram 11

26 dB point



Delta 1 [T1]	RBW	2 kHz	RF Att	30 dB
Ref Lvl	-3.08 dB	VBW	2 kHz	
45 dBm	220.44088176 kHz	SWT	640 ms	Unit dBm



Date: 28.SEP.2001 14:03:47

Ch 809 - 45 dBm



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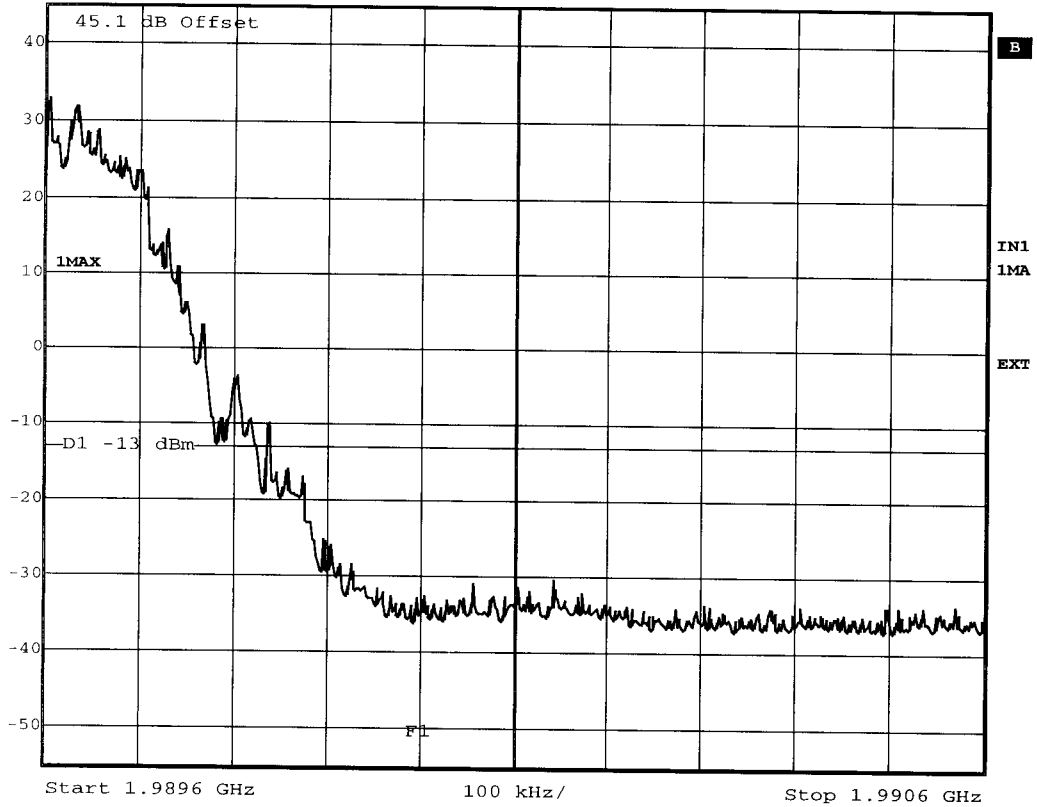
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Diagram 12

Band edge level



Ref Lvl
45 dBm

RBW 2 kHz RF Att 30 dB
VBW 2 kHz
SWT 640 ms Unit dBm



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Ch 809 - 45 dBm



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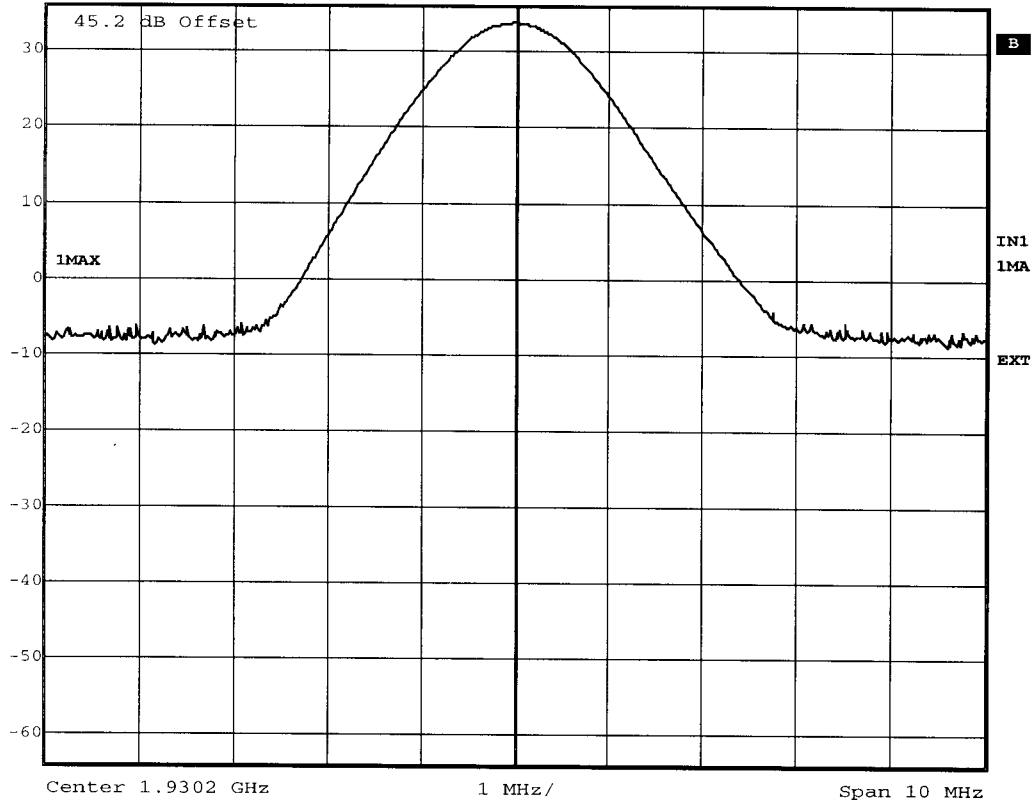
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Diagram 13

Reference level



Ref Lvl
36.1 dBm

RBW	1 MHz	RF Att	30 dB
VBW	1 MHz		
SWT	5 ms	Unit	dBm



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Ch 512 - 35 dBm



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Diagram 14

26 dB point



Delta 1 [T1]	RBW	2 kHz	RF Att	30 dB
Ref Lvl	-3.28 dB	VBW	2 kHz	
36.1 dBm	220.44088176 kHz	SWT	640 ms	Unit dBm



Date: 28.SEP.2001 15:02:02

Ch 512 - 35 dBm



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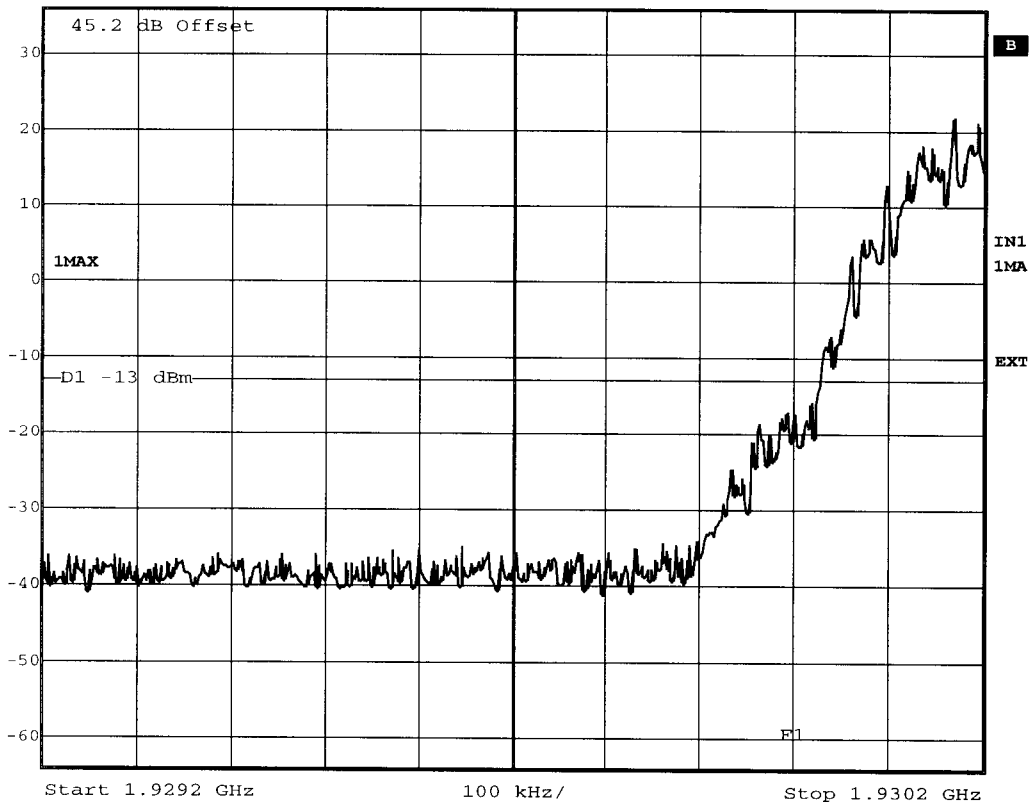
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Encl. 4
Diagram 15

Band edge level



Ref Lvl
36.1 dBm

RBW	2 kHz	RF Att	30 dB
VBW	2 kHz		
SWT	640 ms	Unit	dBm



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Ch 512 - 35 dBm



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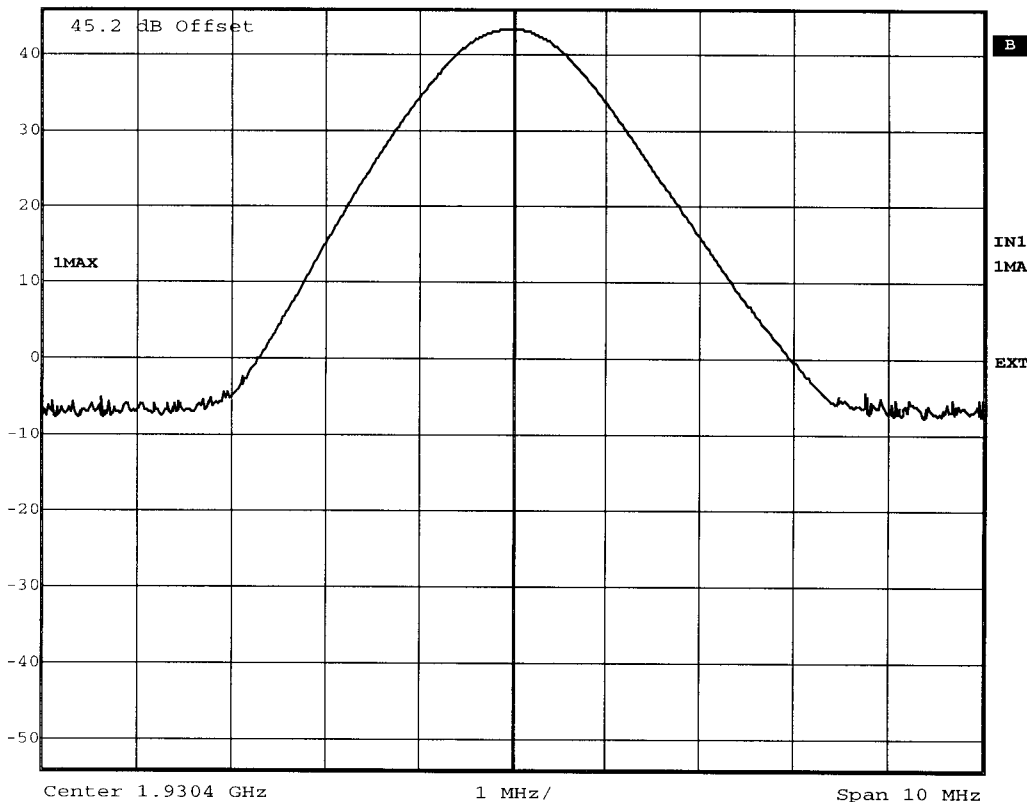
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Diagram 16

Reference level



Ref Lvl
46.1 dBm

RBW	1 MHz	RF Att	30 dB
VBW	1 MHz		
SWT	5 ms	Unit	dBm



Date: 28.SEP.2001 15:07:00

Ch 513 - 39 dBm



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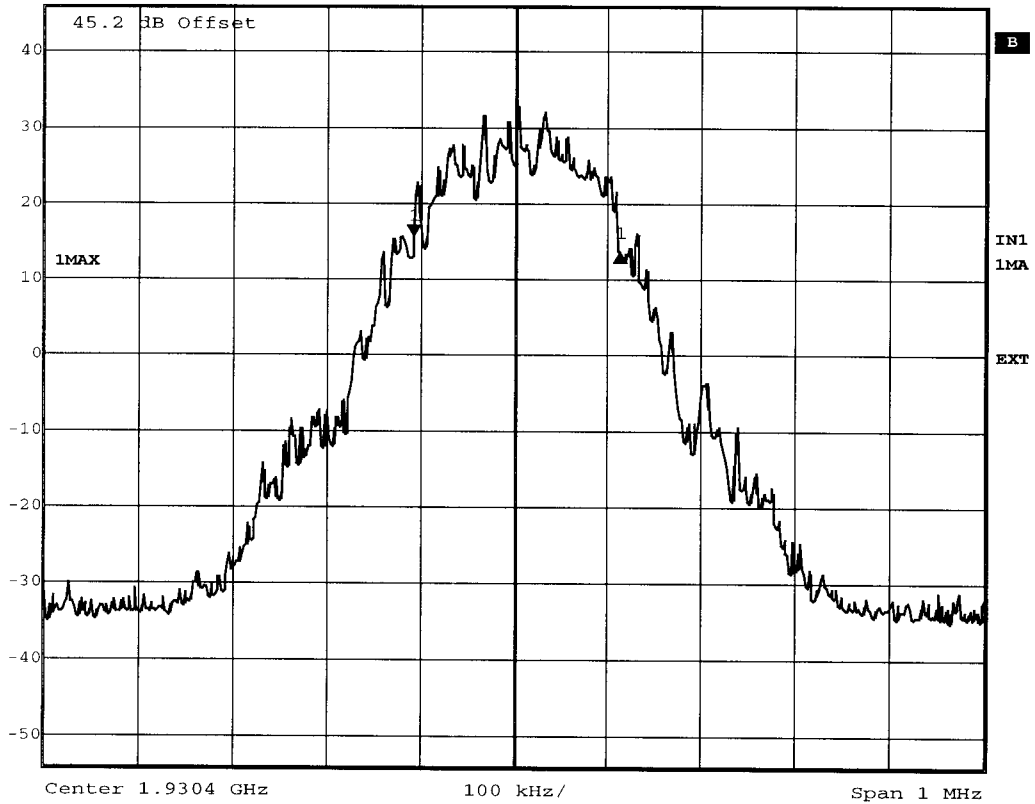
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Diagram 17

26 dB point



Delta 1 [T1]	RBW	2 kHz	RF Att	30 dB
Ref Lvl	-2.31 dB	VBW	2 kHz	
46.1 dBm	220.44088176 kHz	SWT	640 ms	Unit dBm



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Ch 513 - 39 dBm



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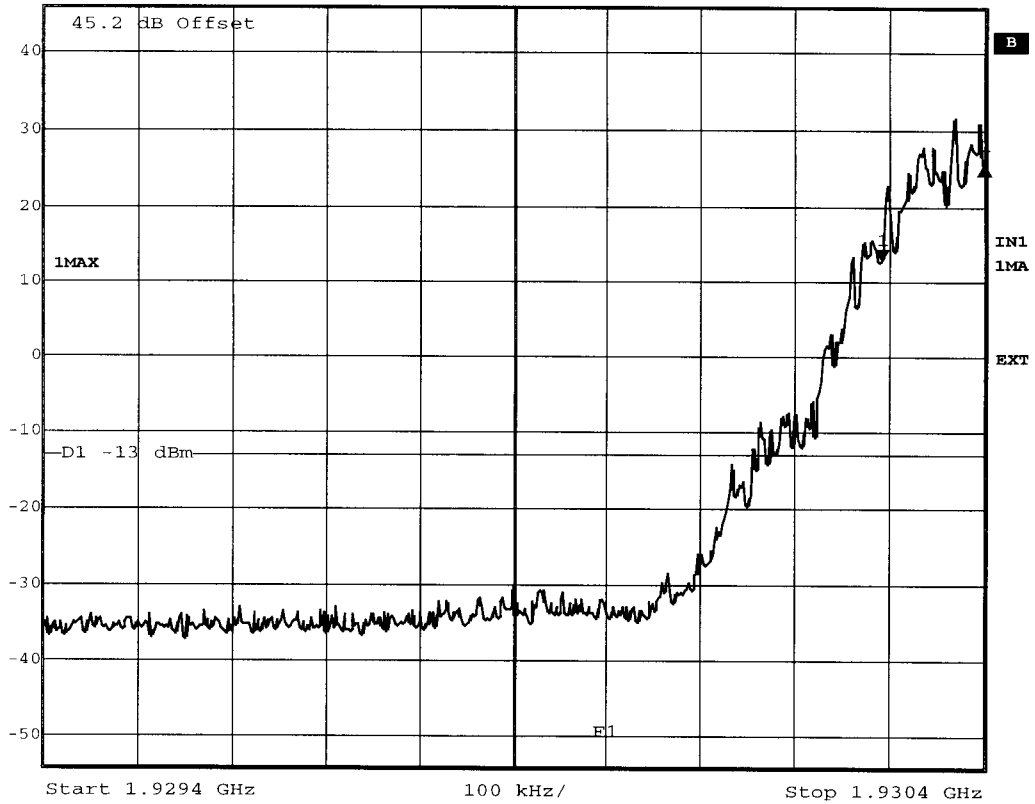
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Diagram 18

Band edge level



Delta 1 [T1]	RBW	2 kHz	RF Att	30 dB
Ref Lvl	12.66 dB	VBW	2 kHz	
46.1 dBm	107.21442886 kHz	SWT	640 ms	Unit dBm



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Ch 513 - 39 dBm



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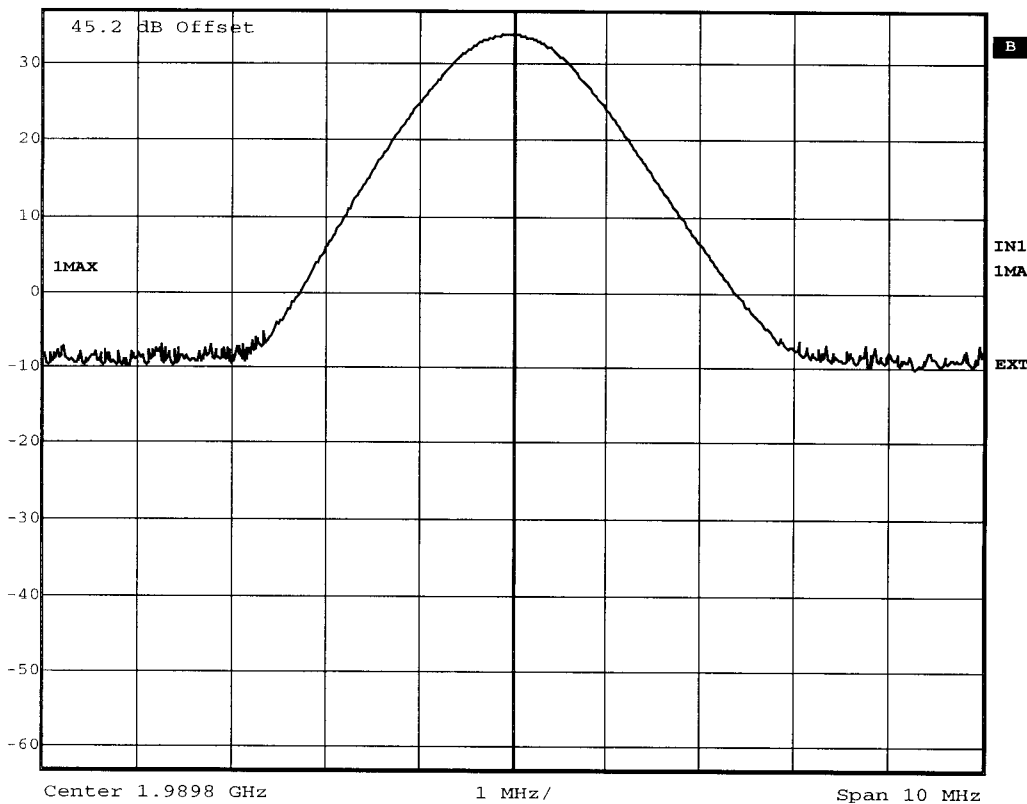
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Diagram 19

Reference level



Ref Lvl
37.1 dBm

RBW	1 MHz	RF Att	30 dB
VBW	1 MHz		
SWT	5 ms	Unit	dBm



Date: 28.SEP.2001 15:19:56

Ch 810 - 35 dBm



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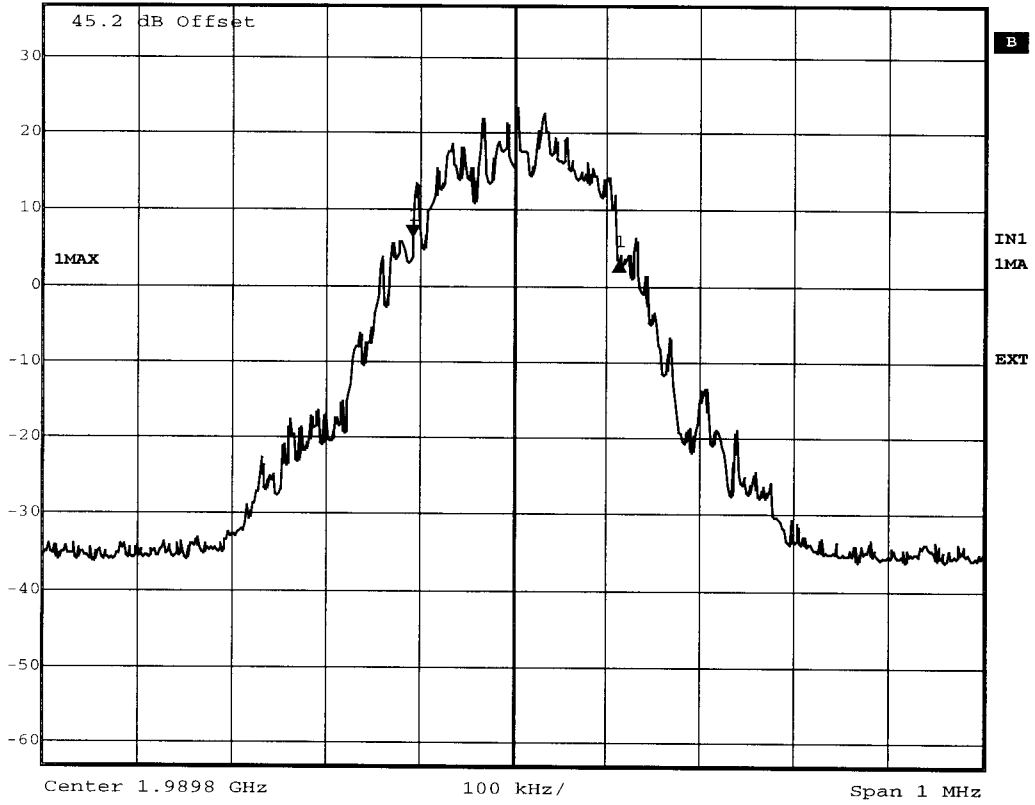
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Diagram 20

26 dB point



Delta 1 [T1]	RBW	2 kHz	RF Att	30 dB
Ref Lvl	-3.28 dB	VBW	2 kHz	
37.1 dBm	220.44088176 kHz	SWT	640 ms	Unit dBm



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Ch 810 - 35 dBm



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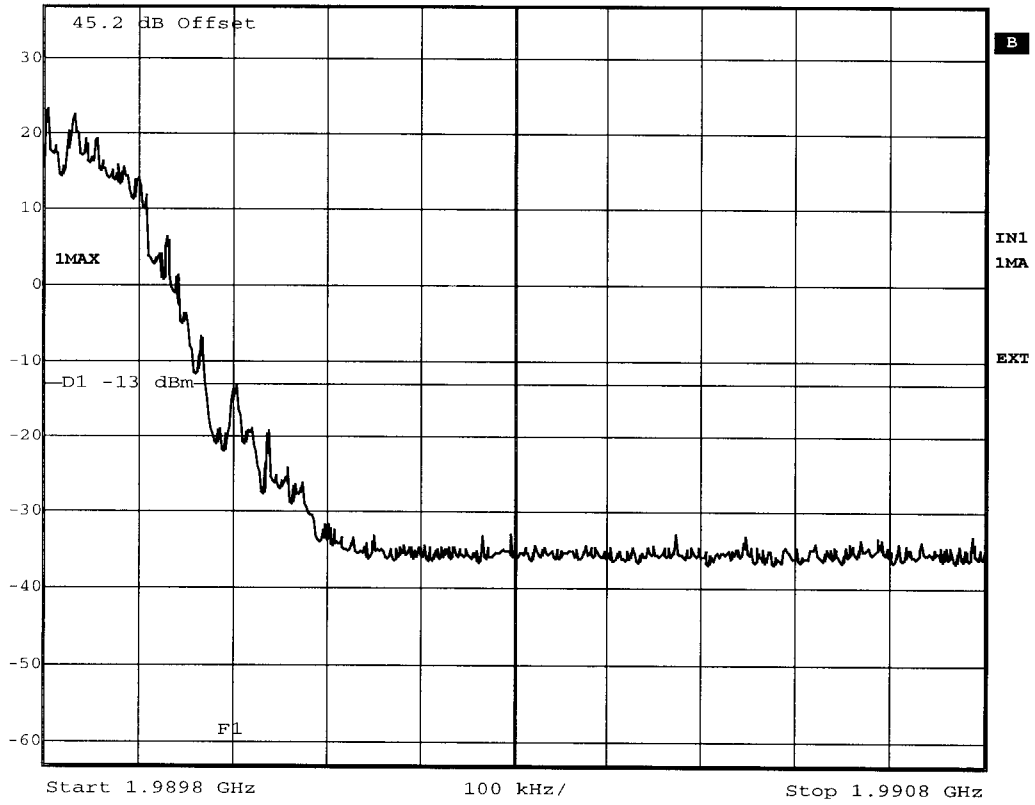
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Diagram 21

Band edge level



Ref Lvl
37.1 dBm

RBW 2 kHz RF Att 30 dB
VBW 2 kHz
SWT 640 ms Unit dBm



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Ch 810 - 35 dBm



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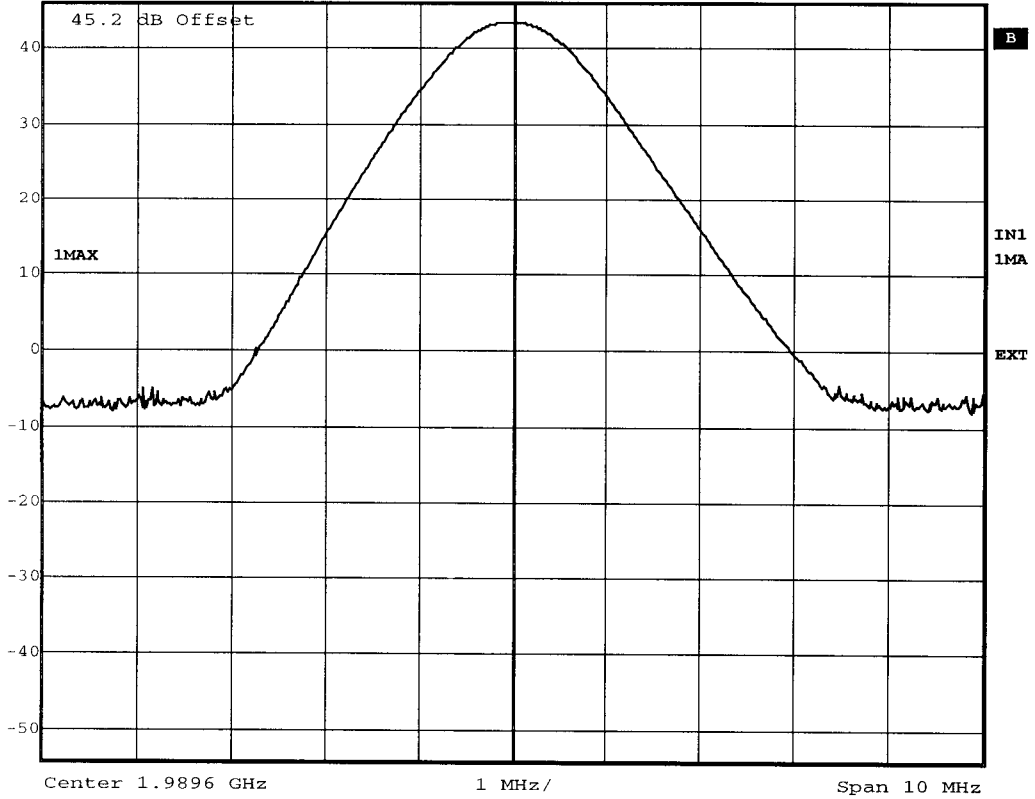
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Diagram 22

Reference level



Ref Lvl
46.1 dBm

RBW	1 MHz	RF Att	30 dB
VBW	1 MHz		
SWT	5 ms	Unit	dBm



Date: 28.SEP.2001 15:12:36

Ch 809 - 39 dBm



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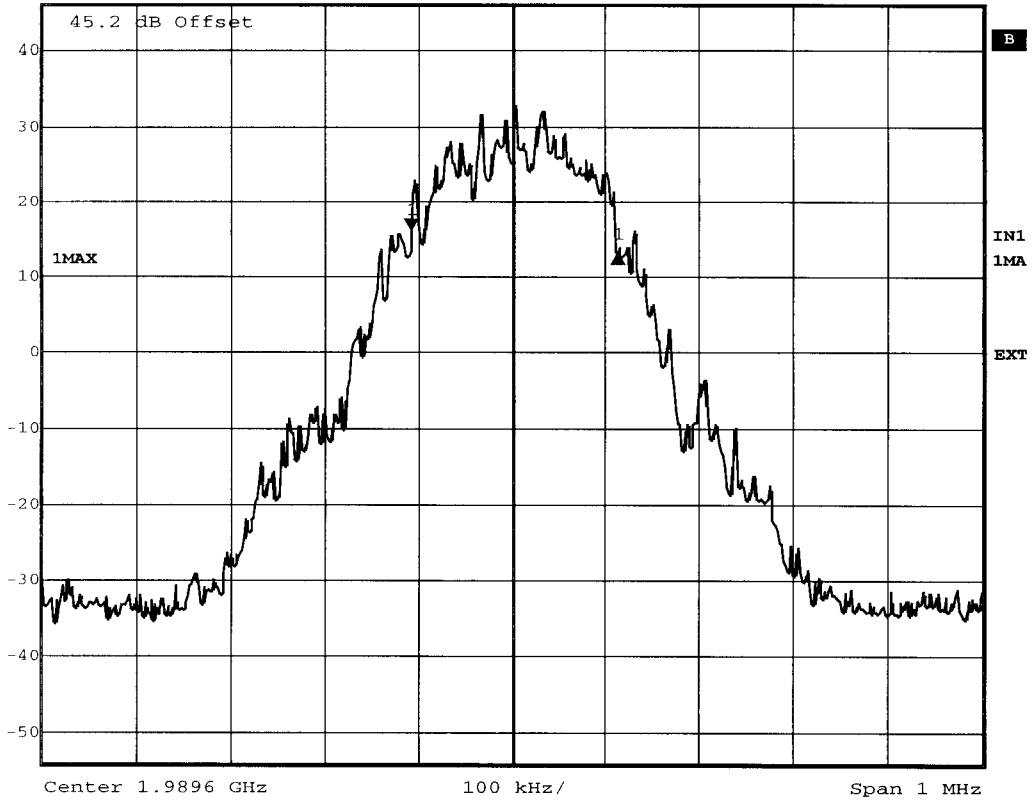
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Diagram 23

26 dB point



Delta 1 [T1]	RBW	2 kHz	RF Att	30 dB
Ref Lvl	-3.14 dB	VBW	2 kHz	
46.1 dBm	220.44088176 kHz	SWT	640 ms	Unit dBm



Date: 28.SEP.2001 15:14:01

Ch 809 - 39 dBm



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FCC ID: B5KPKRC13111004-1

Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

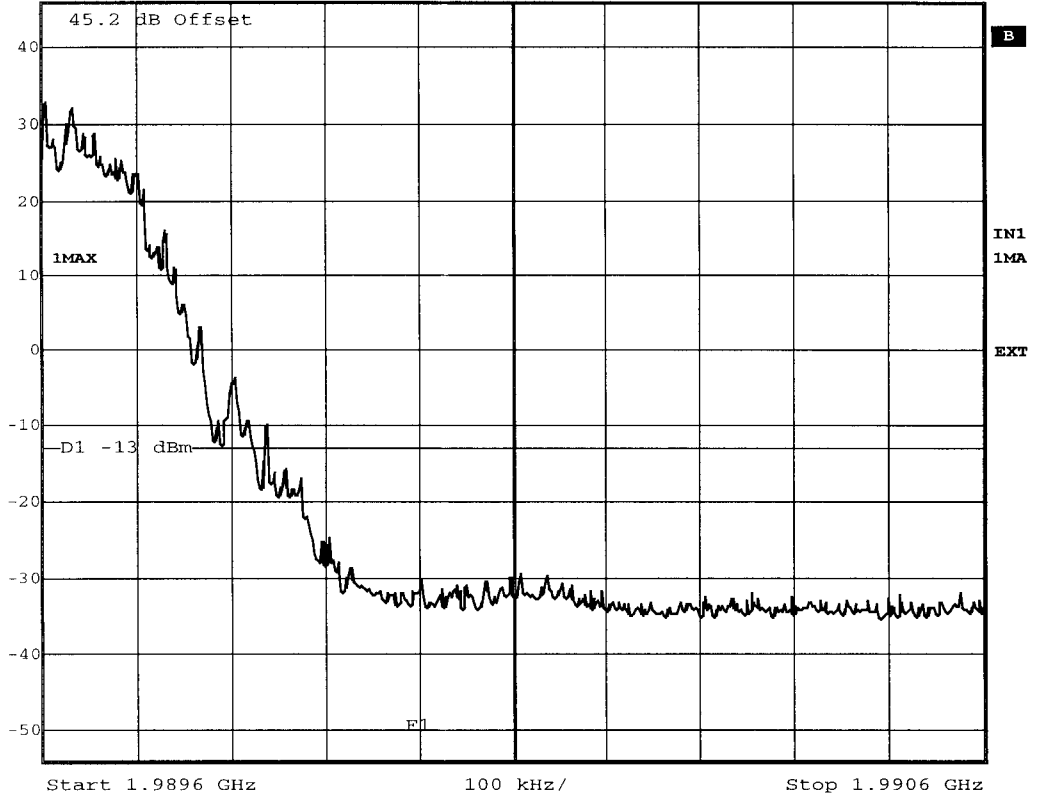
Sida/Page
26 (26)
Encl. 4
Diagram 24

Band edge level



Ref Lvl
46.1 dBm

RBW	2 kHz	RF Att	30 dB
VBW	2 kHz	Unit	dBm
SWT	640 ms		



Date: 28.SEP.2001 15:16:50

Ch 809 - 39 dBm

Sign:



REPORT

Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

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1 (7)
Encl. 5

FCC ID: B5KPKRC13111004-1

Conducted spurious emission measurements according to 47CFR 2.1051

Date 2001-09-26	Temperature 20 °C ± 3 °C	Humidity 32 % ± 5 %
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Test set-up and Procedure

The measurement was made per J-STD-007A Vol 1. Measurements were made at CDU-G output connectors. The output was connected to a spectrum analyser. The spectrum analyser was hooked up to a external 10 MHz reference standard during the measurements. The transmitter was modulated with 270.8 kbs pseudorandom data during the measurements.

Measurement equipment	Calibration Due	SP number
R&S ESI 40 with option FSE-B7	2002-09	503 125
Testo 610, Temperature and humidity meter	2001-11	502 658

Measurement uncertainty: 3.7 dB

Results

Without dTRU internal combiner:

- Diagram 1 TRX output 1, Ch 512
- Diagram 2 TRX output 1, Ch 810
- Diagram 3 TRX output 2, Ch 512
- Diagram 4 TRX output 2, Ch 810

With dTRU internal combiner:

- Diagram 5 TRU, Ch 512 and ch 537
- Diagram 6 TRU, Ch 785 and ch 810

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
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REPORT

FCC ID: B5KPKRC13111004-1

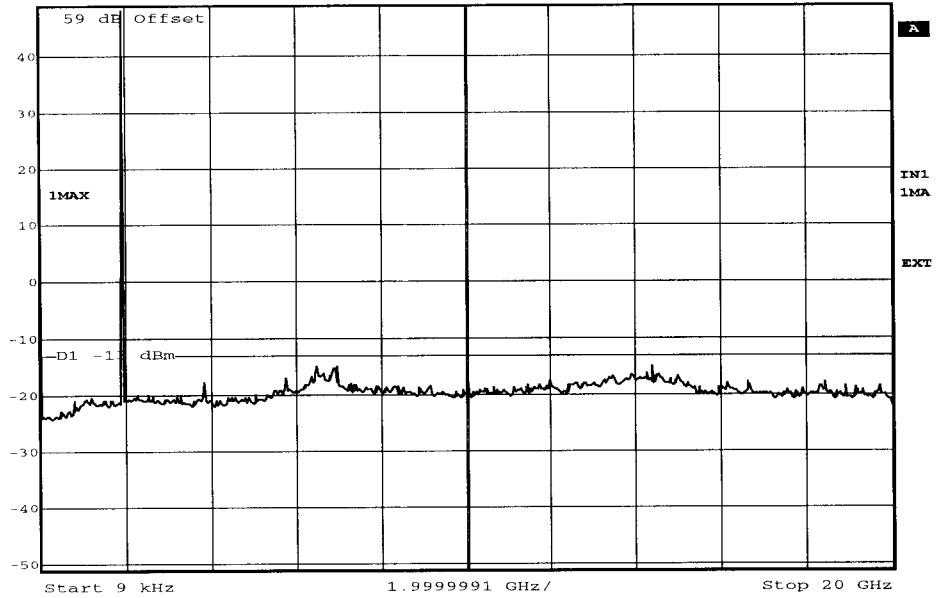
Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

Sida/Page
2 (7)
Encl. 5
Diagram 1


Ch 512 - 45 dBm

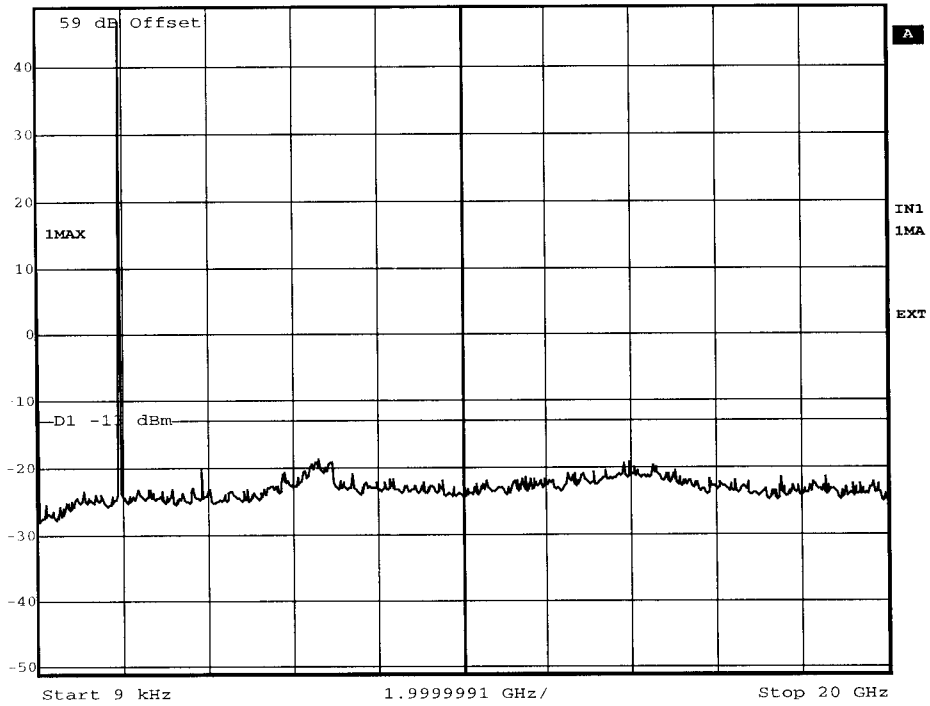
	Ref Lvl	RBW	1 MHz	RF Att	0 dB
	49 dBm	VBW	1 MHz	Unit	dBm
		SWT	200 ms		



Date: 27.SEP.2001 15:47:25

RBW: 1 MHz

	Ref Lvl	RBW	500 kHz	RF Att	0 dB
	49 dBm	VBW	500 kHz	Unit	dBm
		SWT	200 ms		



Date: 27.SEP.2001 15:51:29

RBW: 500 kHz



REPORT

FCC ID: B5KPKRC13111004-1

Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

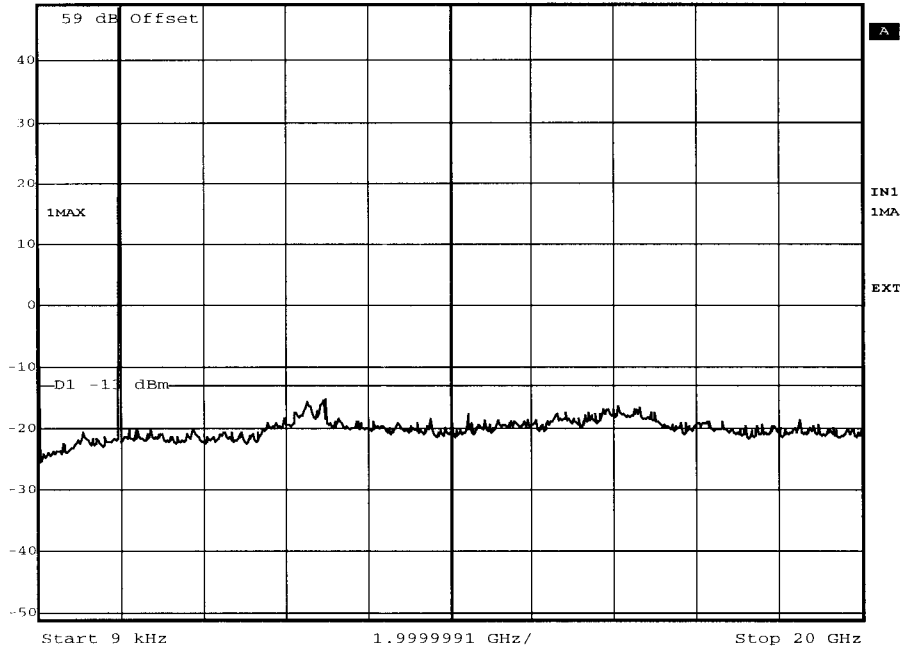
Sida/Page
3 (7)
Encl. 5
Diagram 2

Ch 810 - 45 dBm



Ref Lvl
49 dBm

RBW 1 MHz RF Att 0 dB
VBW 1 MHz
SWT 200 ms Unit dBm



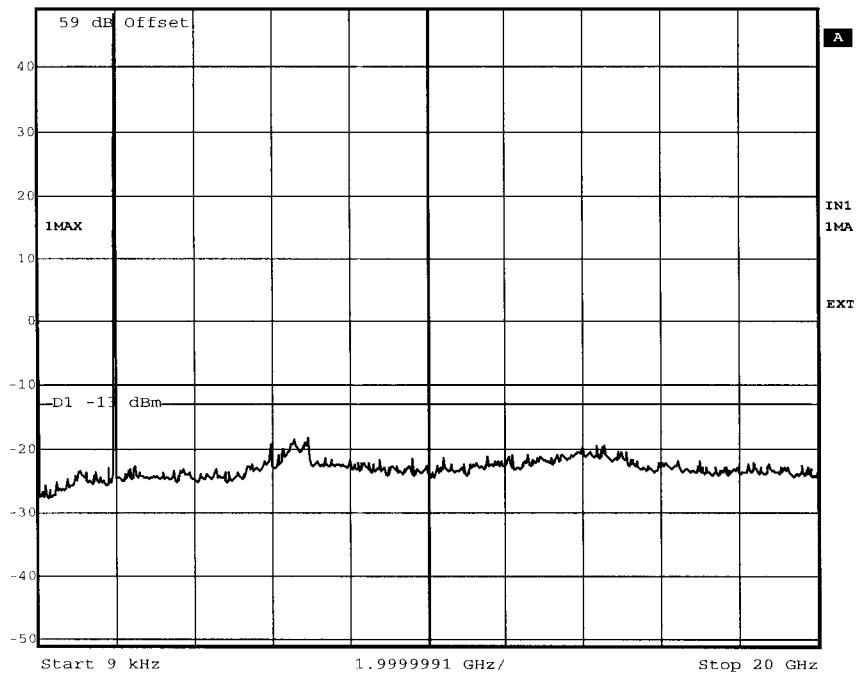
Date: 27.SEP.2001 15:53:46

RBW: 1 MHz



Ref Lvl
49 dBm

RBW 500 kHz RF Att 0 dB
VBW 500 kHz
SWT 200 ms Unit dBm



Date: 27.SEP.2001 15:53:07

RBW: 500 kHz



REPORT

FCC ID: B5KPKRC13111004-1

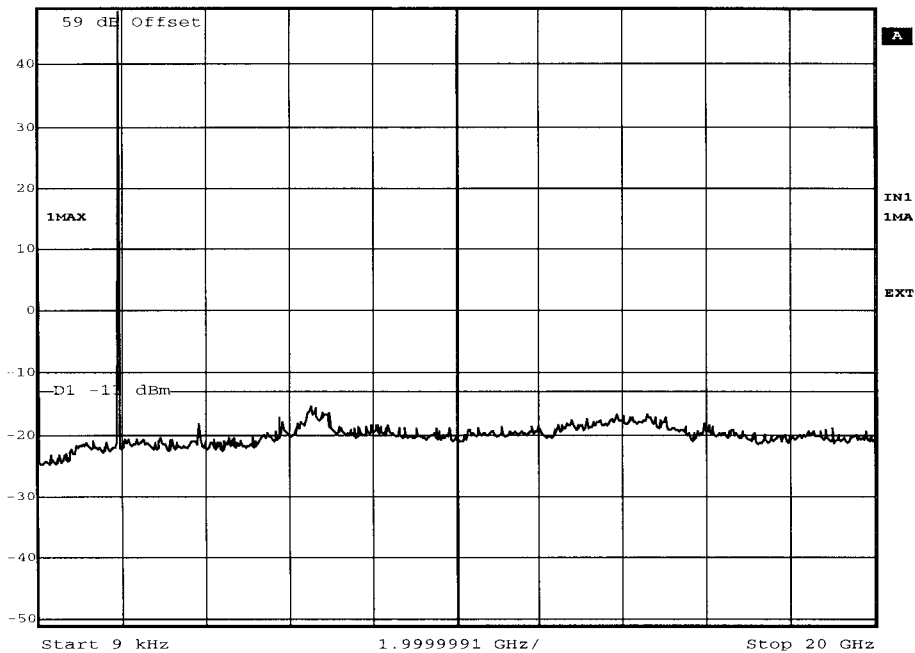
Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

Sida/Page
4 (7)
Encl. 5
Diagram 3

Ch 512 - 45 dBm

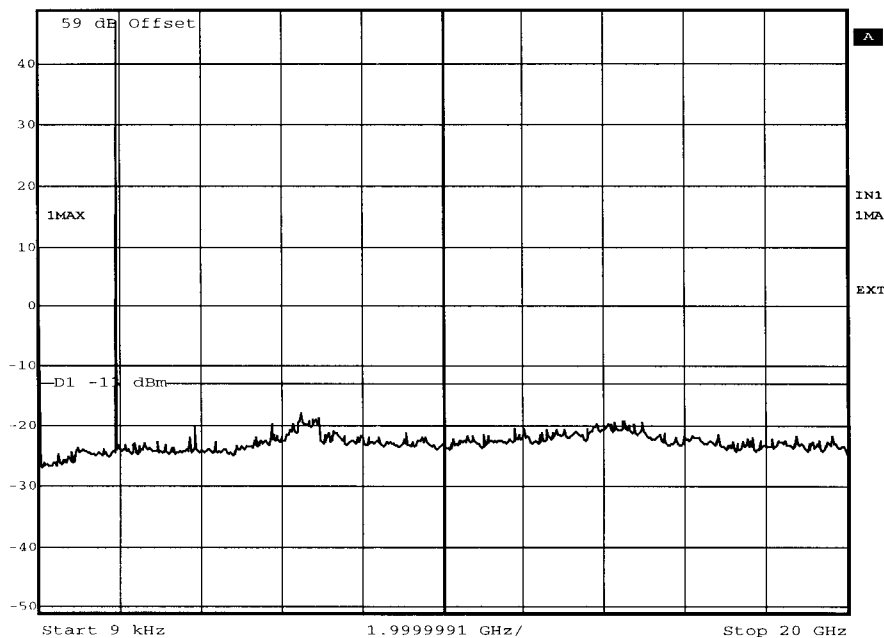
Ref Lvl 49 dBm
RBW 1 MHz RF Att 0 dB
VBW 1 MHz
SWT 200 ms Unit dBm



Date: 27.SEP.2001 16:03:43

RBW: 1 MHz

Ref Lvl 49 dBm
RBW 500 kHz RF Att 0 dB
VBW 500 kHz
SWT 200 ms Unit dBm



Date: 27.SEP.2001 16:02:54

RBW: 500 kHz



REPORT

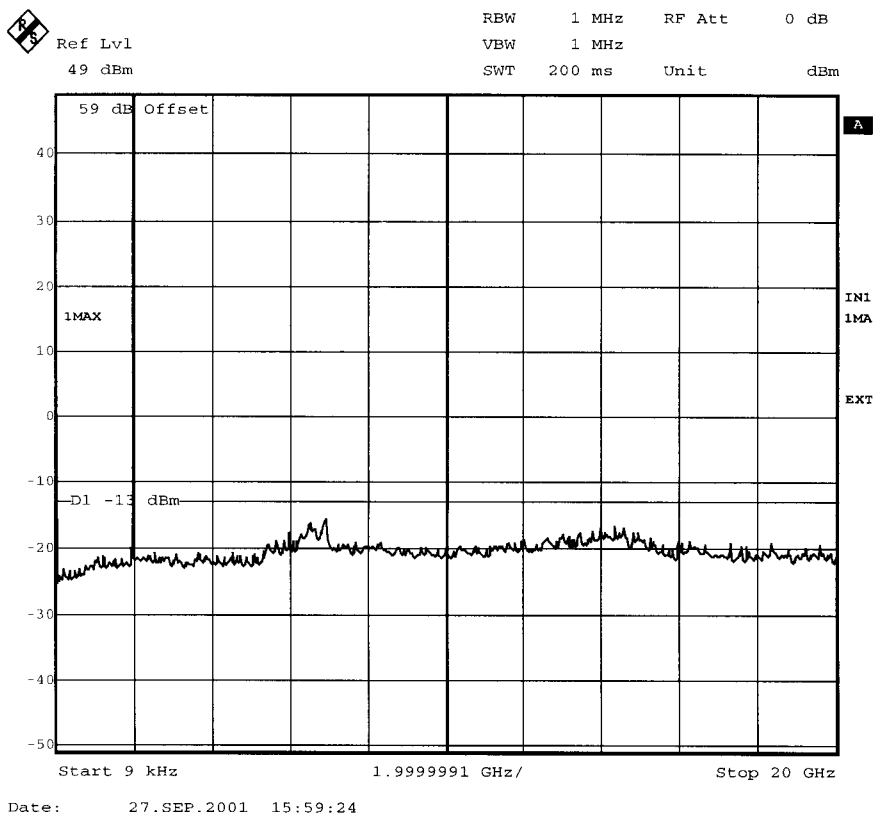
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Datum/Date
2001-10-09

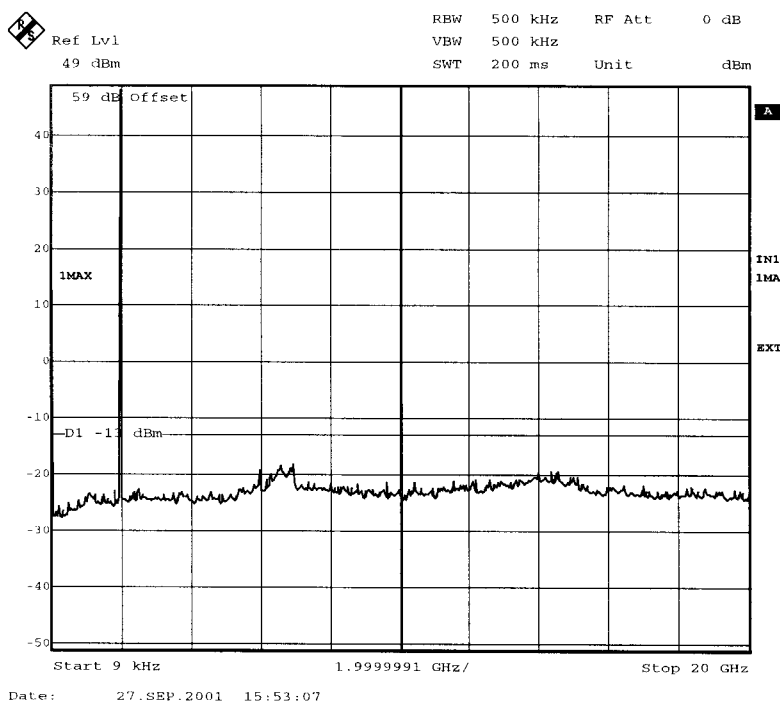
Beteckning/Reference
F115942-24

Sida/Page
5 (7)
Encl. 5
Diagram 4

Ch 810 - 45 dBm



RBW: 1 MHz



RBW: 500 kHz



REPORT

FCC ID: B5KPKRC13111004-1

Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

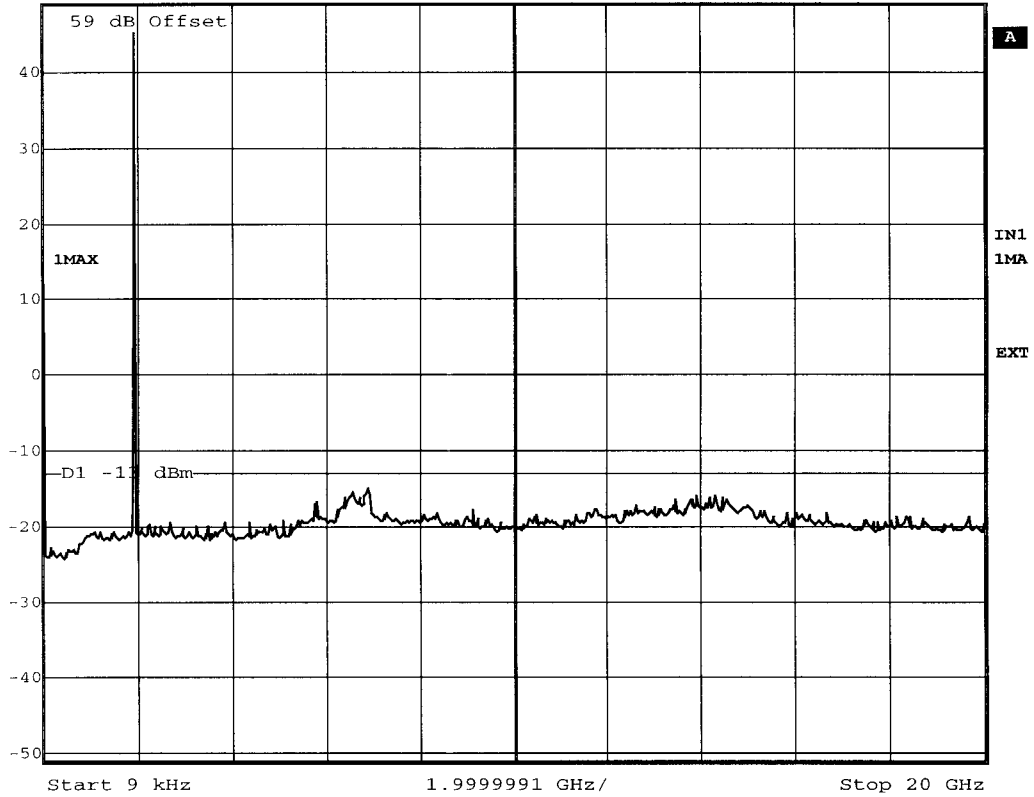
Sida/Page
6 (7)
Encl. 5
Diagram 5

Ch 512 and 537



Ref Lvl
49 dBm

RBW 1 MHz RF Att 0 dB
VBW 1 MHz
SWT 200 ms Unit dBm



Date: 4.OCT.2001 14:11:16

RBW: 1 MHz



REPORT

FCC ID: B5KPKRC13111004-1

Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

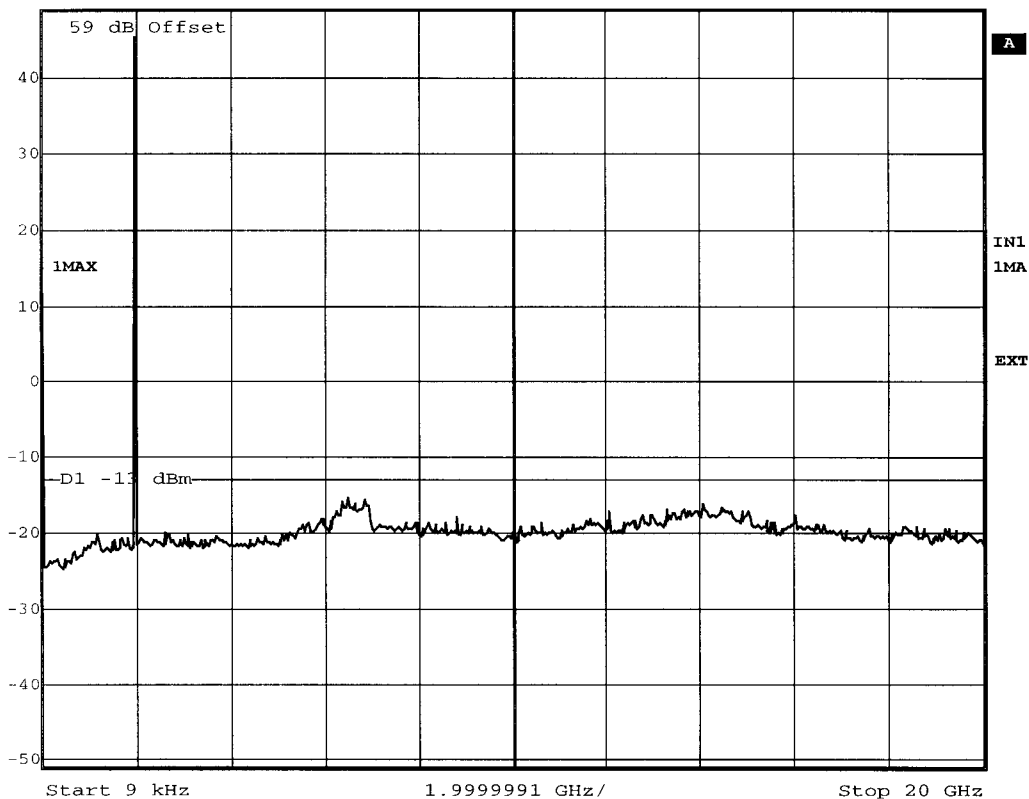
Sida/Page
7 (7)
Encl. 5
Diagram 6

Ch 785 and 810



Ref Lvl
49 dBm

RBW	1 MHz	RF Att	0 dB
VBW	1 MHz		
SWT	200 ms	Unit	dBm



Date: 4.OCT.2001 14:50:07

RBW: 1 MHz

Field strength of spurious radiation measurements according to 47CFR 2.1053

Date 2001-09-27	Temperature 20 °C ± 3 °C	Humidity 45 % ± 5 %
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Test set-up and Procedure

The measurement procedure is per ANSI/TIA/EIA-603-1992. The substitution measurements were performed in an anechoic chamber. The chamber is listed at FCC, Columbia with registration number: 93866. Measurements were done at 3 m distance in the frequency range 9kHz-18GHz and at 1 m in the range 18-20GHz. Test was performed on 24 V DC supply voltage system. The transmitter was modulated with 270.8 kbs pseudorandom data during the measurements.

Measurement equipment	Calibration Due	SP number
Anechoic chamber	-	15:115
R&S ESI 26	2001-10	503 292
Control computer	-	503 479
Software: R&S ES-K1, ver. 1.60	-	-
Chase Bilog antenna CBL 6111A	2002-02	503 182
Schwarzbeck Precision dipole	2001-12	500 592
Schwarzbeck Precision dipole	2001-12	500 594
EMCO loop antenna 6502	2002-07	502 916
EMCO Horn Antenna 3115	2002-09	502 175
EMCO Horn Antenna 3115	2002-09	501 548
EMCO Horn Antenna 3116	2002-04	503 279
MITEQ Low Noise Amplifier	2002-02	503 277
Testo 610, Temperature and humidity meter	2001-10	502 658

The test set-up during the substitution measurement can be seen in the pictures below.

24 V DC





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2001-10-09

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F115942-24

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2 (2)
Encl. 6

FCC ID: B5KPKRC13111004-1

Results

Without dTRU internal combiner
Nominal Voltage 24 V DC
45 dBm output power

Frequency (MHz)	Spurious emission level (dBm)			
	Ch 512		Ch 810	
	Vertical	Horizontal	Vertical	Horizontal
0.023	-27.6	-	-27.6	-
0.031	-29.2	-	-29.2	-
0.255	-20.1	-	-20.1	-
0.009-1000	All other emission > 20 dB below limit		All other emission > 20 dB below limit	
1000-20000	All emission > 20 dB below limit		All emission > 20 dB below limit	
Measurement uncertainty			4.7 dB	

With dTRU internal combiner
Nominal Voltage 24 V DC
45 dBm output power

Frequency (MHz)	Spurious emission level (dBm)			
	Ch 512		Ch 810	
	Vertical	Horizontal	Vertical	Horizontal
0.009-1000	All emission > 20 dB below limit		All emission > 20 dB below limit	
1000-20000	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
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REPORT

FCC ID: B5KPKRC13111004-1

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F115942-24

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1 (1)
Encl. 7

Frequency stability measurements according to 47CFR 2.1055

Date 2001-10-01	Temperature 20 °C ± 3 °C	Humidity 34 % ± 5 %
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Results

Nominal Voltage 24 V DC

45 dBm output power at Channel 661 (1960.0 MHz)

Test conditions T (°C)	Frequency error (Hz)	
	TRU Output 1	TRU Output 2
+20	-4	-2
+30	-7	-6
+40	-8	-4
+50	-8	13
+10	-1	1
0	1	-3
-10	-1	-3
-20	4	2
-30	6	3
Maximum freq. error (kHz)	0.013	
Measurement uncertainty	$< \pm 1 \times 10^{-7}$	

Limits

The maximum frequency error shall not be greater than 0.05 ppm (98 Hz).

Complies?	Yes
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REPORT

FCC ID: B5KPKRC13111004-1

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F115942-24

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1 (7)
Encl. 8

Intermodulation test

Date 2001-10-04	Temperature 20 °C ± 3 °C	Humidity 49 % ± 5 %
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Test set-up and Procedure

The output was connected to a spectrum analyzer. The spectrum analyzer was hooked up to a external 10 MHz reference standard during measurement.

The transmitter was modulated with 270.8 kbs pseudorandom data during the measurements.

The measurements were first done on each output of the EUT without the internal combiner connected. Measurements were repeated with both outputs connected to the internal combiner.

Measurement equipment	Calibration Due	SP number
R&S ESI 40 with option FSE-B7	2002-09	503 125
Testo 610, Temperature and humidity meter	2001-11	502 658

Results

Without dTRU internal combiner:

Diagram 1 TRU Output 1: Ch 512
(TRU Output 2: Ch 514 terminated with 50 Ω)

Diagram 2 TRU Output 1: Ch 810
(TRU Output 2: Ch 808 terminated with 50 Ω)

Diagram 3 TRU Output 2: Ch 512
(TRU Output 1: Ch 514 terminated with 50 Ω)

Diagram 4 TRU Output 2: Ch 810
(TRU Output 1: Ch 808 terminated with 50 Ω)

With dTRU internal combiner:

Diagram 5 TRU Output 1: Ch 512
TRU Output 2: Ch 537

Diagram 6 TRU Output 1: Ch 785
TRU Output 2: Ch 810

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
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REPORT

FCC ID: B5KPKRC13111004-1

Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

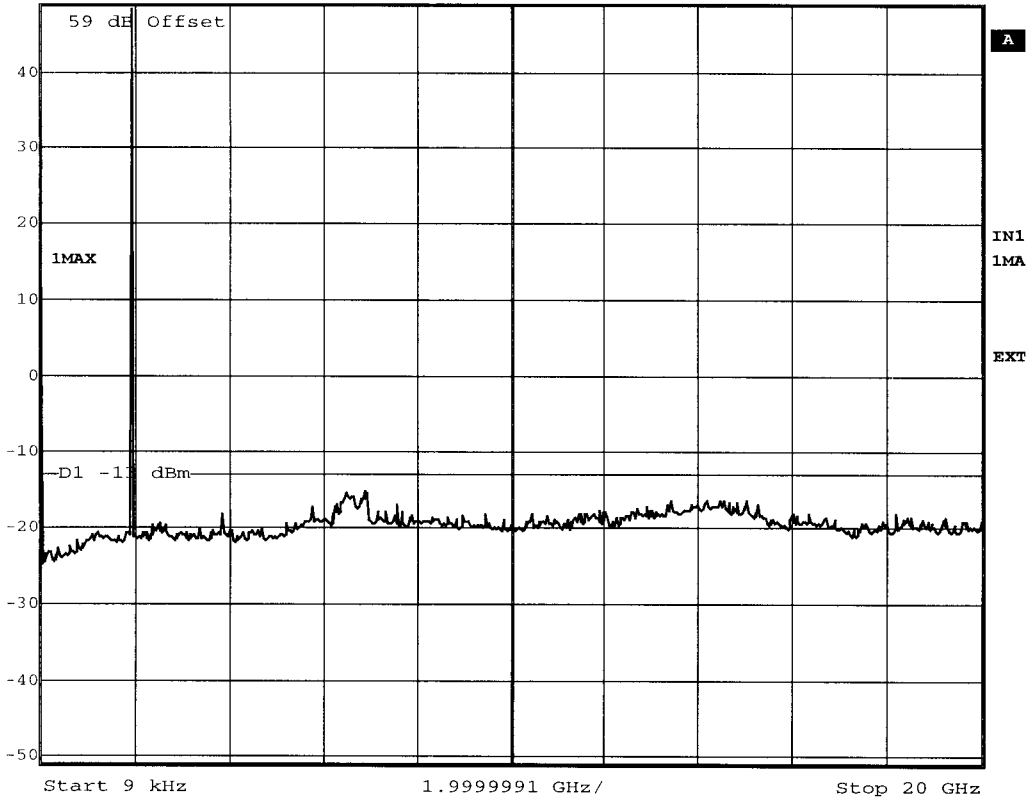
Sida/Page
2 (7)
Encl. 8
Diagram 1

Ch 512 – 45 dBm



Ref Lvl
49 dBm

RBW 1 MHz RF Att 0 dB
VBW 1 MHz
SWT 200 ms Unit dBm



Date: 4.OCT.2001 12:08:13



REPORT

FCC ID: B5KPKRC13111004-1

Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

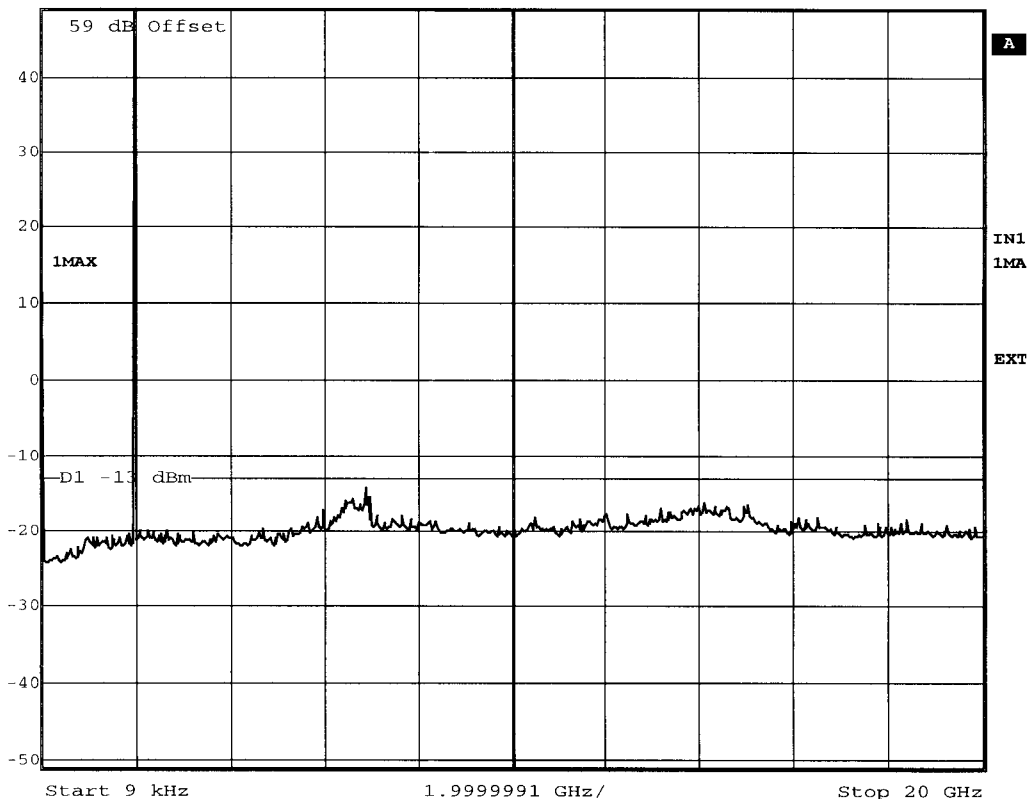
Sida/Page
3 (7)
Encl. 8
Diagram 2

Ch 810 – 45 dBm



Ref Lvl
49 dBm

RBW 1 MHz RF Att 0 dB
VBW 1 MHz
SWT 200 ms Unit dBm



Date: 4.OCT.2001 12:10:23



REPORT

FCC ID: B5KPKRC13111004-1

Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

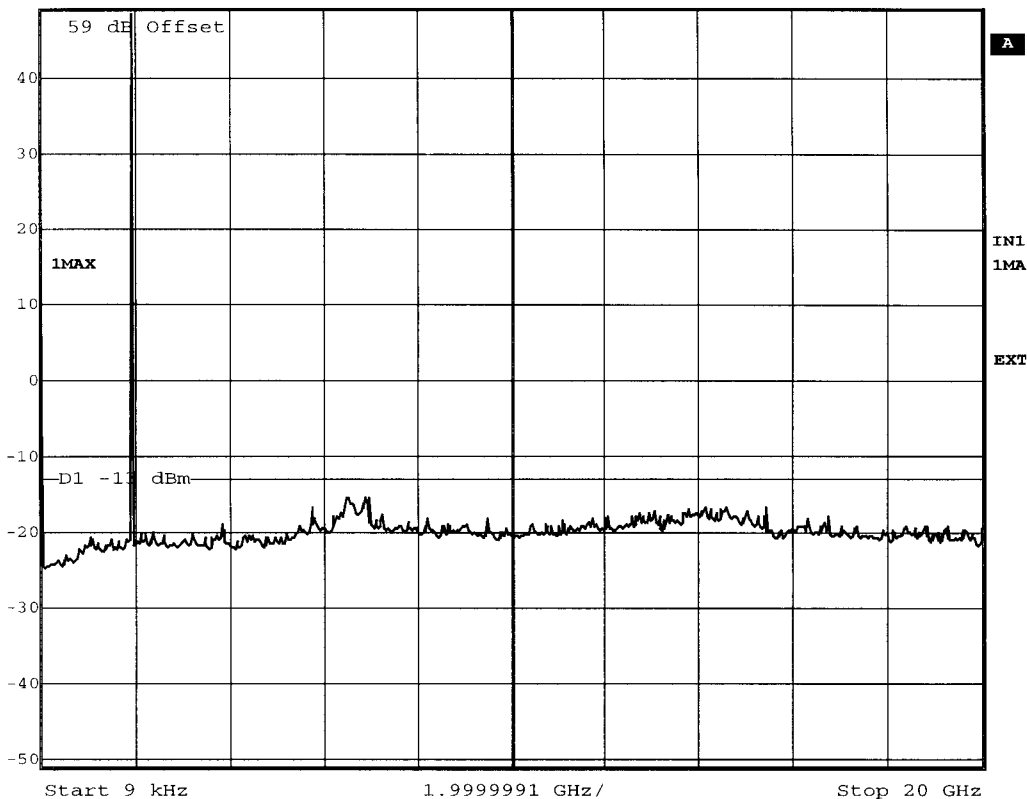
Sida/Page
4 (7)
Encl. 8
Diagram 3

Ch 512 - 45 dBm



Ref Lvl
49 dBm

RBW 1 MHz RF Att 0 dB
VBW 1 MHz
SWT 200 ms Unit dBm



Date: 4.OCT.2001 12:21:11



REPORT

FCC ID: B5KPKRC13111004-1

Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

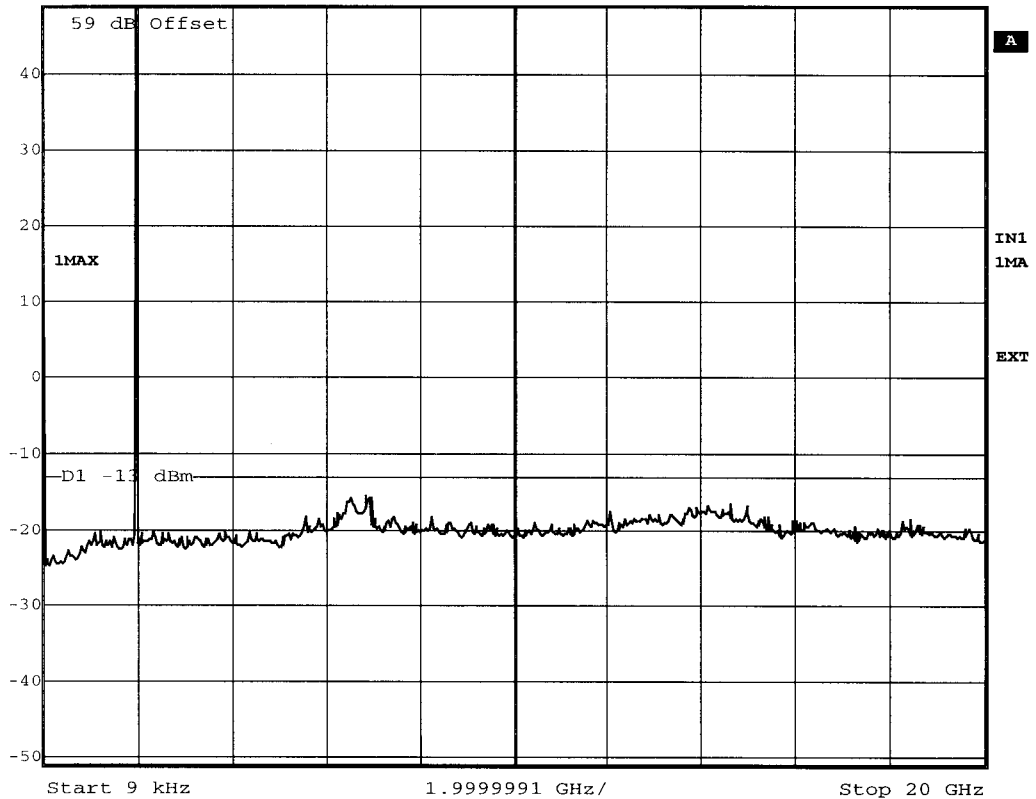
Sida/Page
5 (7)
Encl. 8
Diagram 4

Ch 810 – 45 dBm



Ref Lvl
49 dBm

RBW 1 MHz RF Att 0 dB
VBW 1 MHz
SWT 200 ms Unit dBm



Date: 4.OCT.2001 12:18:51



REPORT

FCC ID: B5KPKRC13111004-1

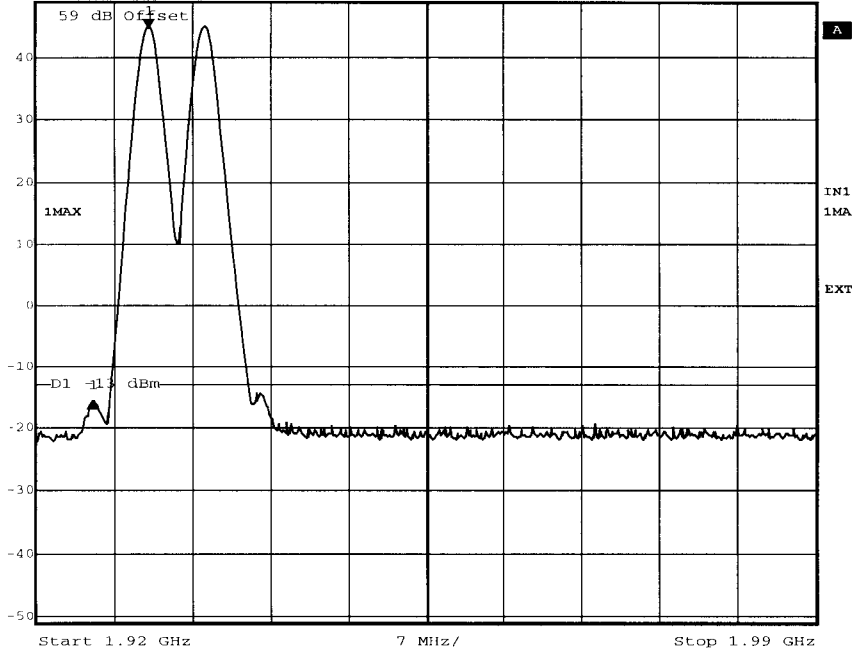
Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

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6 (7)
Encl. 8
Diagram 5

Ch 512 and 537

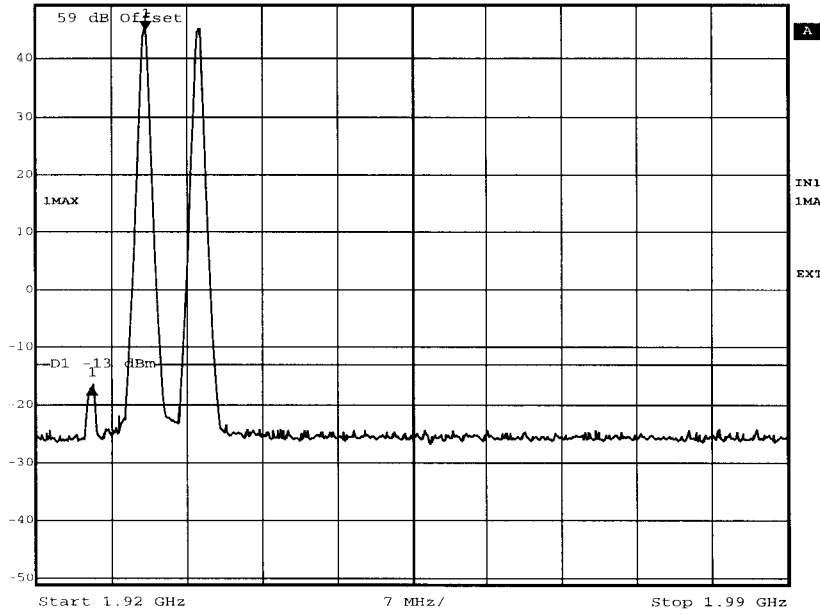
RS	Delta 1 [T1]	RBW	1 MHz	RF Att	0 dB
	Ref Lvl	-60.62 dB	VBW	1 MHz	
	49 dBm	-5.05010020 MHz	SWT	5 ms	Unit dBm



Date: 4.OCT.2001 14:09:38

RBW 1 MHz

RS	Delta 1 [T1]	RBW	300 kHz	RF Att	0 dB
	Ref Lvl	-61.68 dB	VBW	300 kHz	
	49 dBm	-5.00000000 MHz	SWT	5 ms	Unit dBm



Date: 4.OCT.2001 13:53:31

RBW 300 kHz



REPORT


FCC ID: B5KPKRC13111004-1

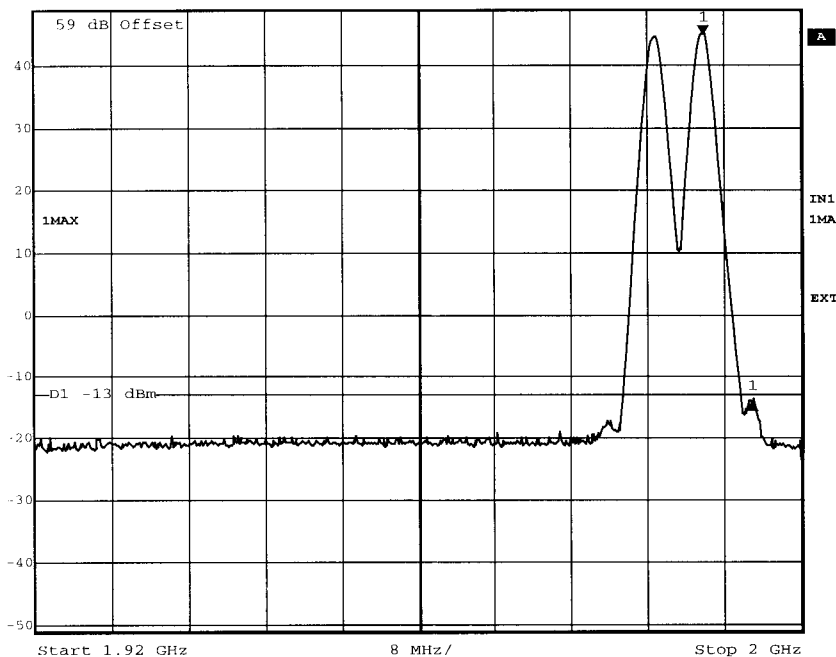
Datum/Date
2001-10-09

Beteckning/Reference
F115942-24

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7 (7)
Encl. 8
Diagram 6


Ch 785 and 810

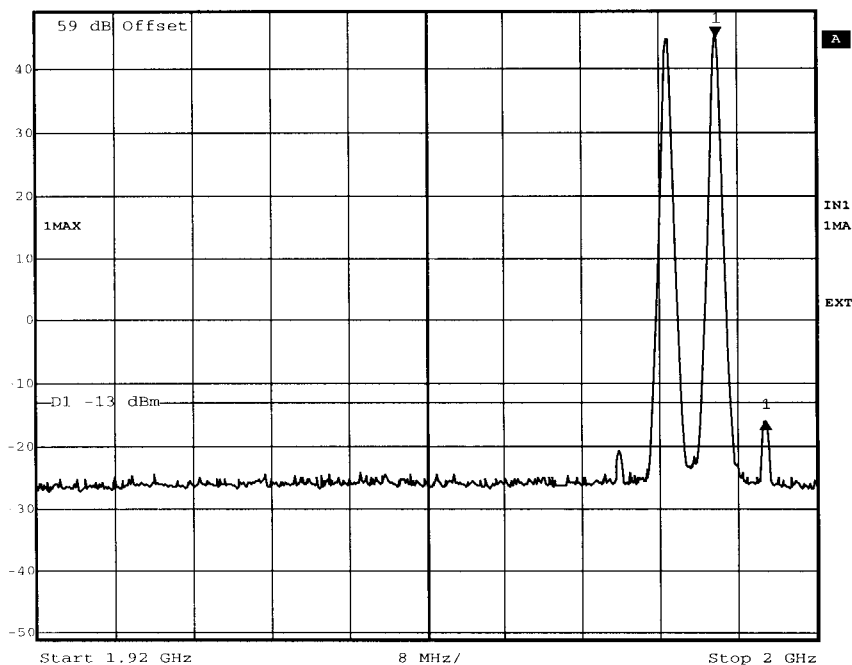
 Delta 1 [T1] RBW 1 MHz RF Att 0 dB
Ref Lvl -59.24 dB VBW 1 MHz
49 dBm 5.03967936 MHz SWT 5 ms Unit dBm



Date: 4.OCT.2001 14:01:56

RBW 1 MHz

 Delta 1 [T1] RBW 300 kHz RF Att 0 dB
Ref Lvl -61.16 dB VBW 300 kHz
49 dBm 5.03967936 MHz SWT 5 ms Unit dBm



Date: 4.OCT.2001 13:57:37

RBW 300 kHz



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1 (1)
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FCC ID: B5KPKRC13111004-1

EUT Hardware configuration list RBS 2206

Unit	Product Number	Serial Number	Revision
Cabinet	SEB 112 1095/1	S763376949	R2C
ACCU-01	BMG 980 07/1	S792035457	R1A
FCU-01	BGM 136 1001/2	A082276419	R2A
DC-filter 01	KFE 101 11 45/1	TR20000202	R1A/A
6 x Bias Injector	KRY 101 1587/1	--	--
CDU shelf	BFL 119 406/1	--	R3A
CDU-G 19	BFL 119 153/1	A40003DTR5	R3A
CDU-G 19	BFL 119 153/1	A40003DN5P	R3A
CDU-G 19	BFL 119 153/1	A40003E0D6	R3A
CXU-10	KRY 101 1856/1	A40003DBDR	R3A
TRU shelf	BFL 119 407/1	--	--
dTRU-19	KRC 131 1004/1	AE50004ZHN	R1C/B
dTRU-19	KRC 131 1004/1	AE50004NSC	R1C/B
dTRU-19	KRC 131 1004/1	AE50004ZHT	R1C/B
dTRU-19	KRC 131 1004/1	AE50004ZHM	R1C/B
dTRU-19	KRC 131 1004/1	AE50004ZHF	R1C/B
dTRU-19	KRC 131 1004/1	AE50004PMF	R1C/B
IDM 01	BMG 980 06/1	T6710291109	R2A
PSU/ DXU shelf	BFL 119 408/1	--	R2A
PSU-AC	BML 231 202/1	A081648600	R2D/A
PSU-AC	BML 231 202/1	A081778925	R2D/A
PSU-AC	BML 231 202/1	A081761623	R2D/A
PSU-AC	BML 231 202/1	A081711761	R2D/A
DXU-21	BOE 602 14/1	A101486956	R4D
TMA-CM-01	SDK 107 881/1	SA22250862	R1B
Dummy	SXK1075029/1	--	R1B
Dummy	SXK1075029/1	--	R1B

Software	Revision
LZY2131162/1	B3UL

Description of EUT

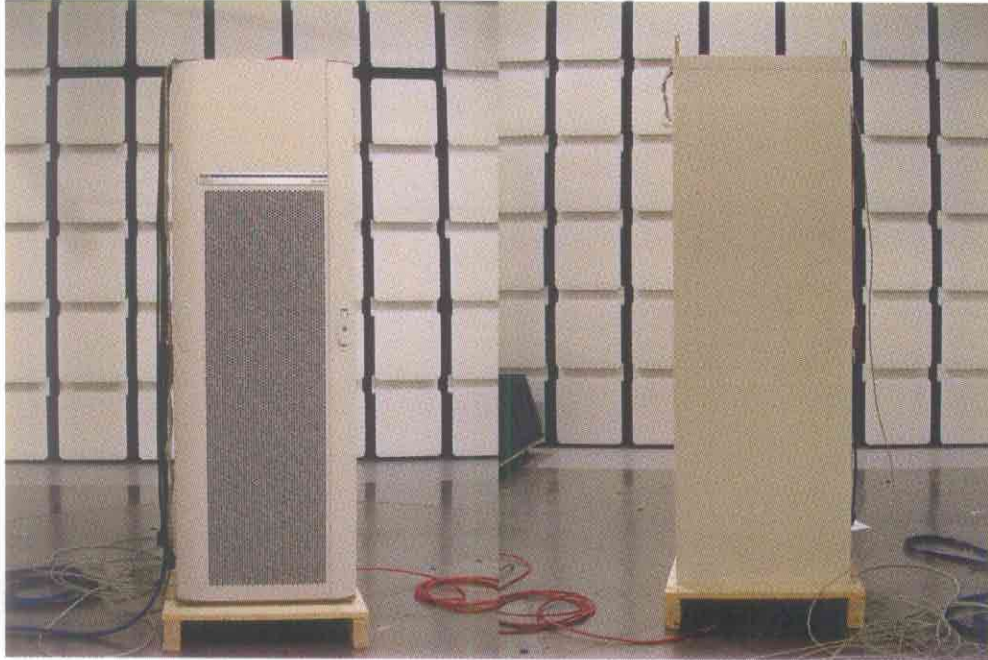
The EUT is a 1900 MHz GSM Base station configured with 6 double transceiver units that are designed to provide mobile telephone users with a connection to a mobile network or the PSTN.

Photos

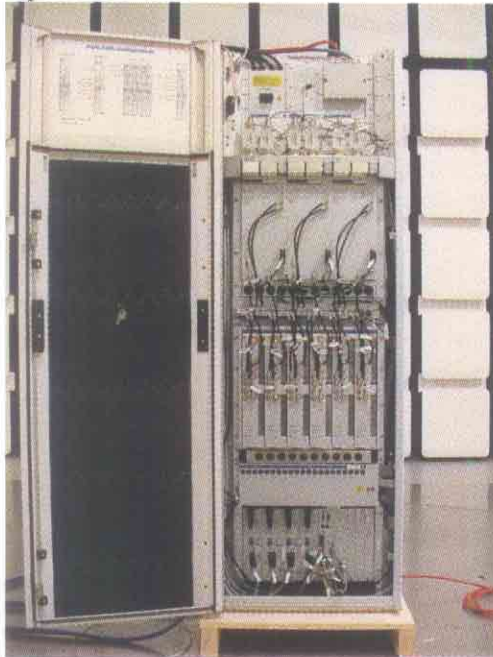
RBS 2206 24 Volt DC system

Front view

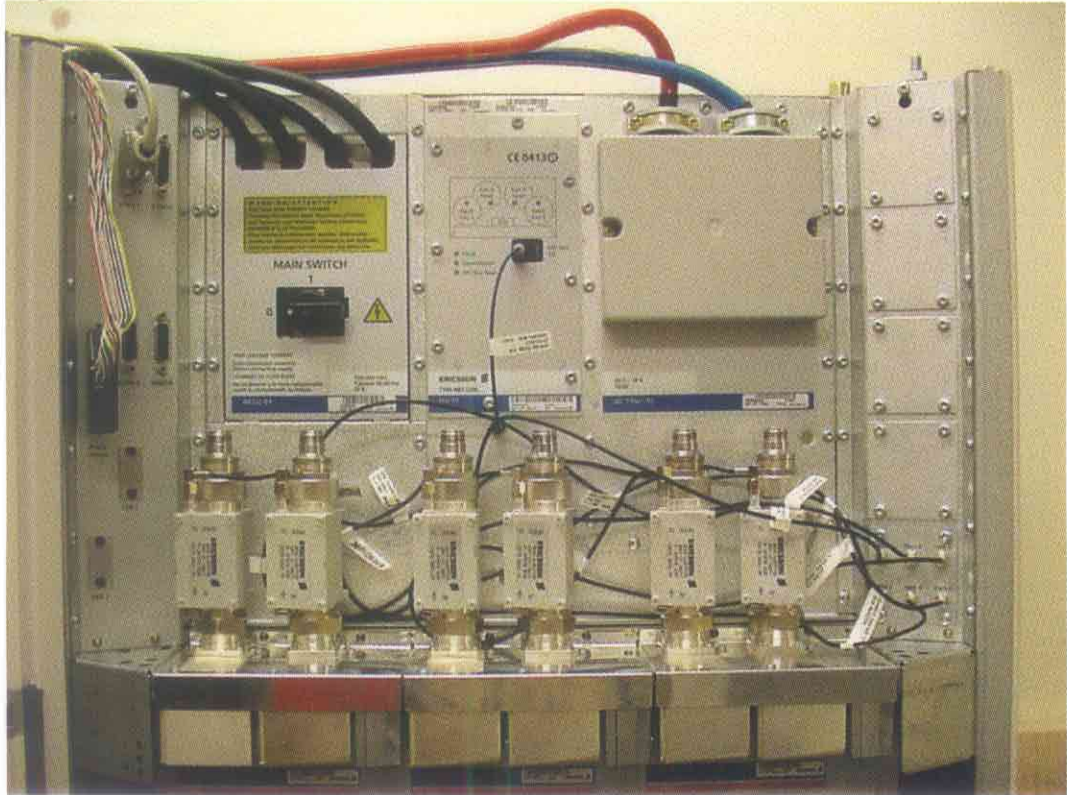
Rear view



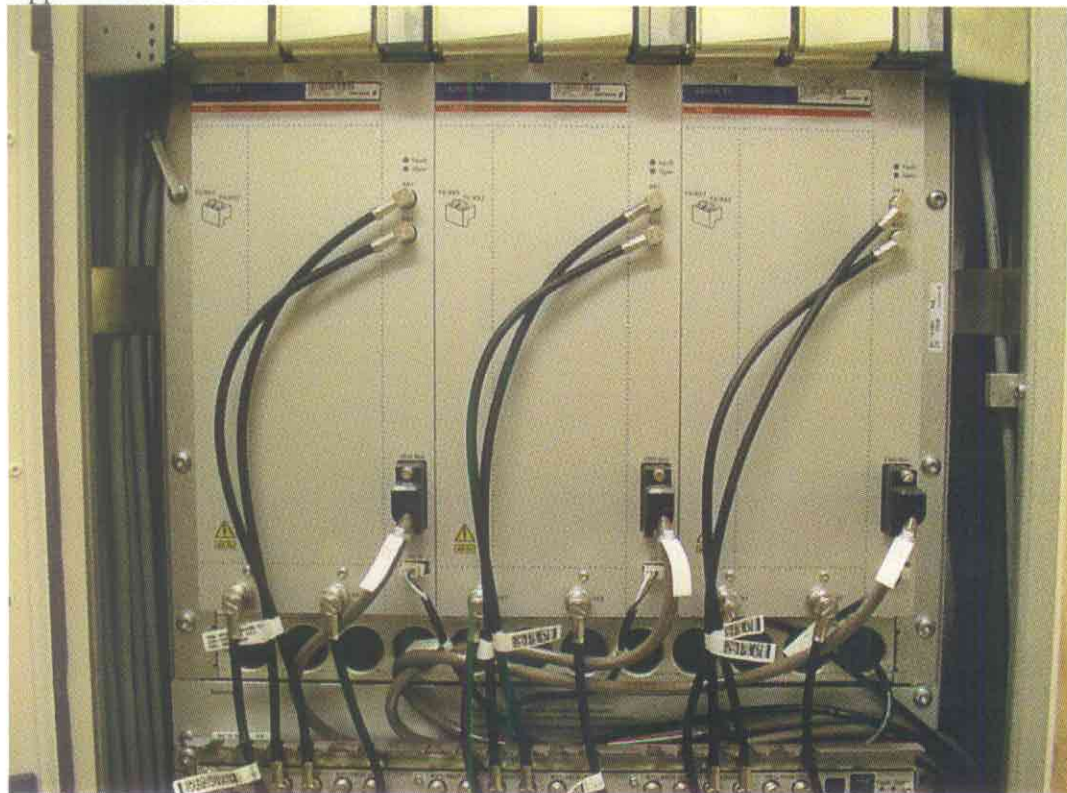
Open door view



Top shelf view

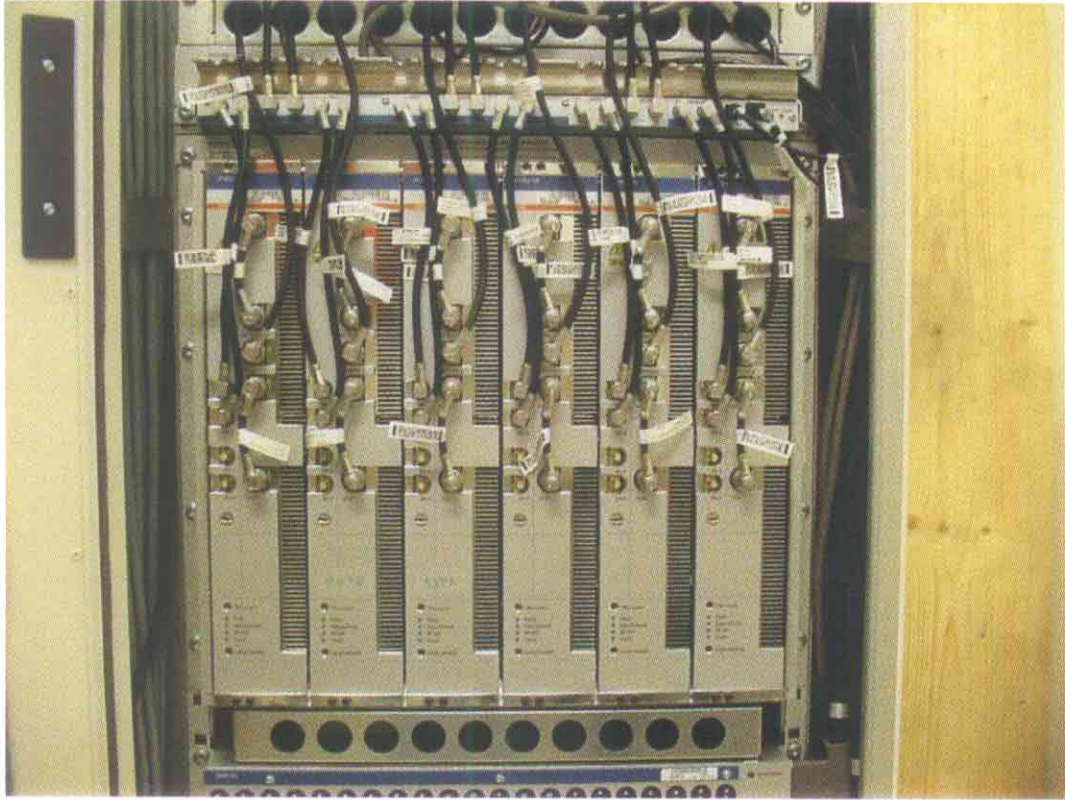


Upper middle shelf view

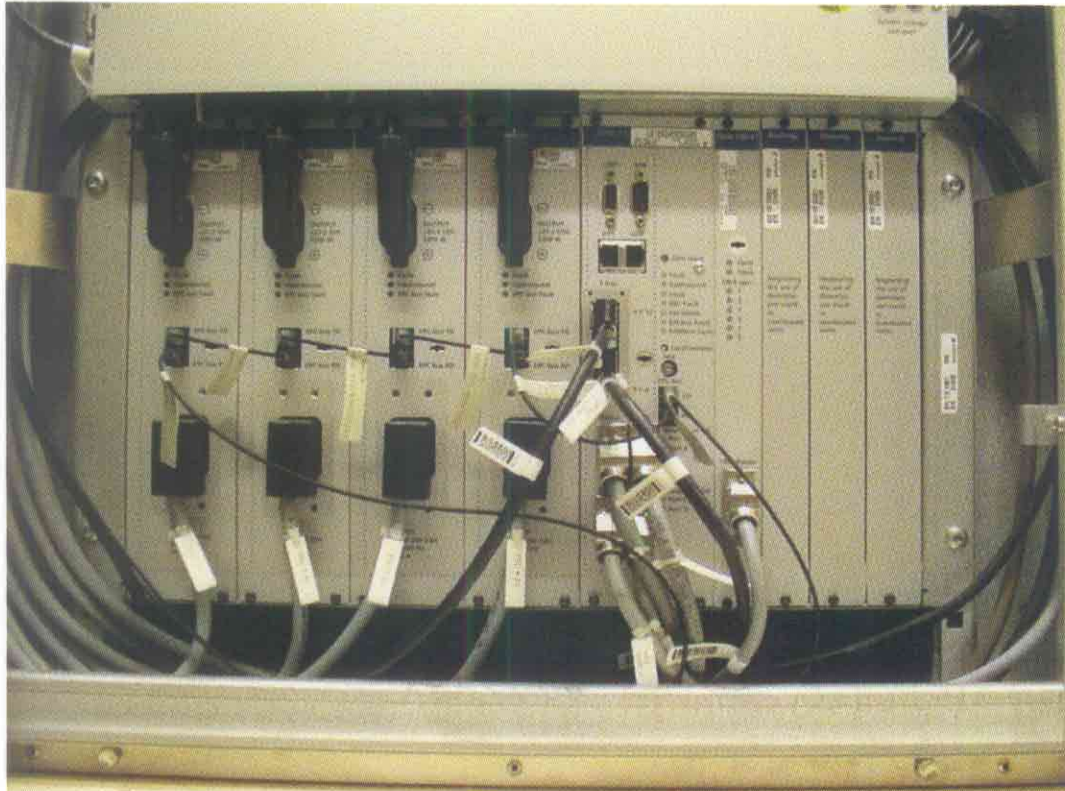


FCC ID: B5KPKRC13111004-1

Lower middle shelf view



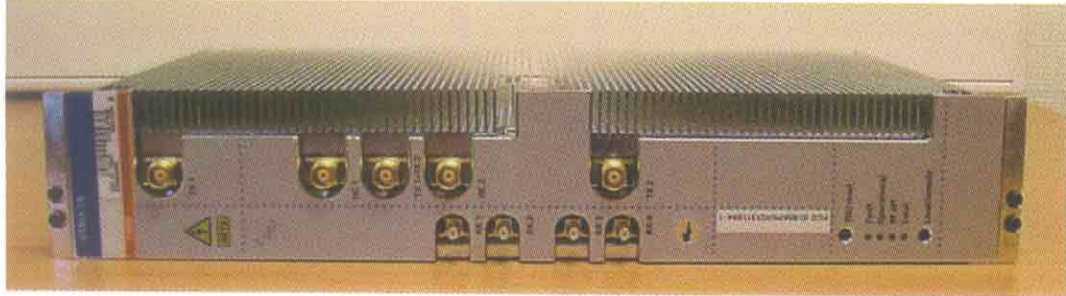
Bottom shelf view



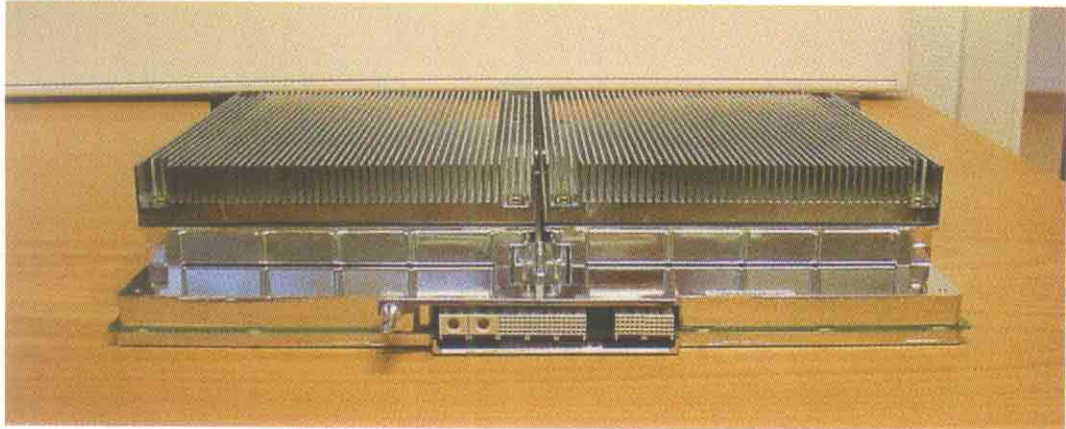
FCC ID: B5KPKRC13111004-1

Transceiver Unit KRC 131 1004/1, R1C

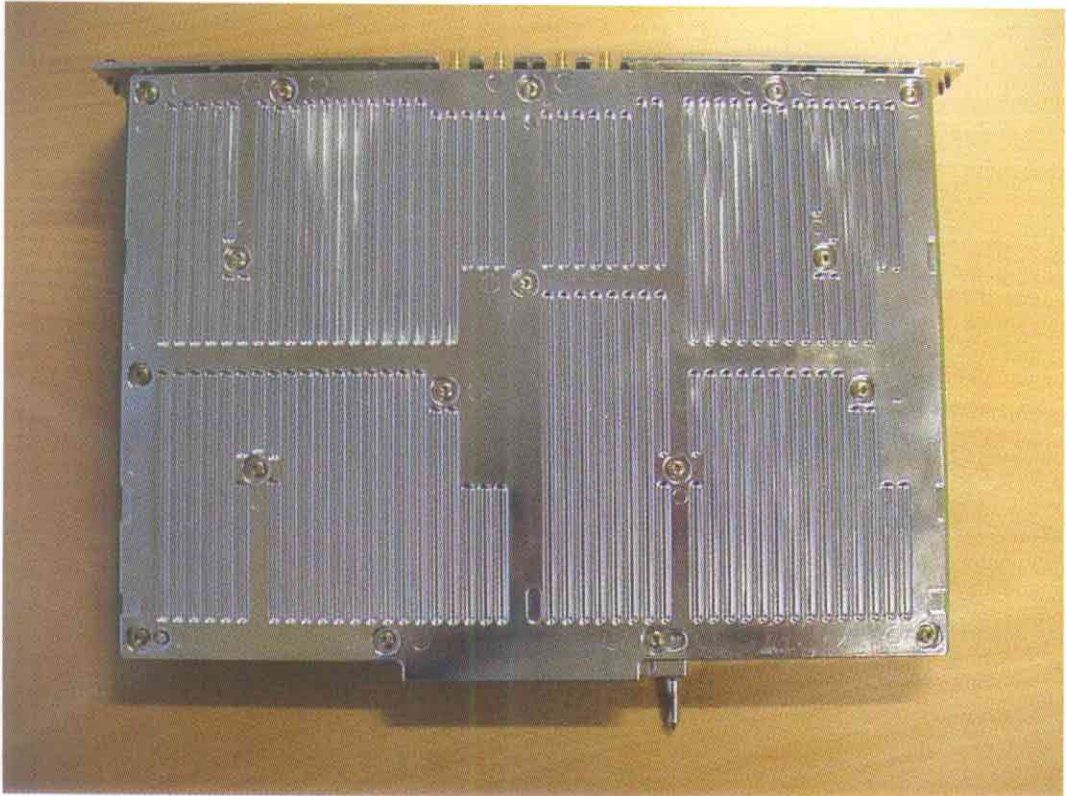
Front side



Rear side



Bottom side

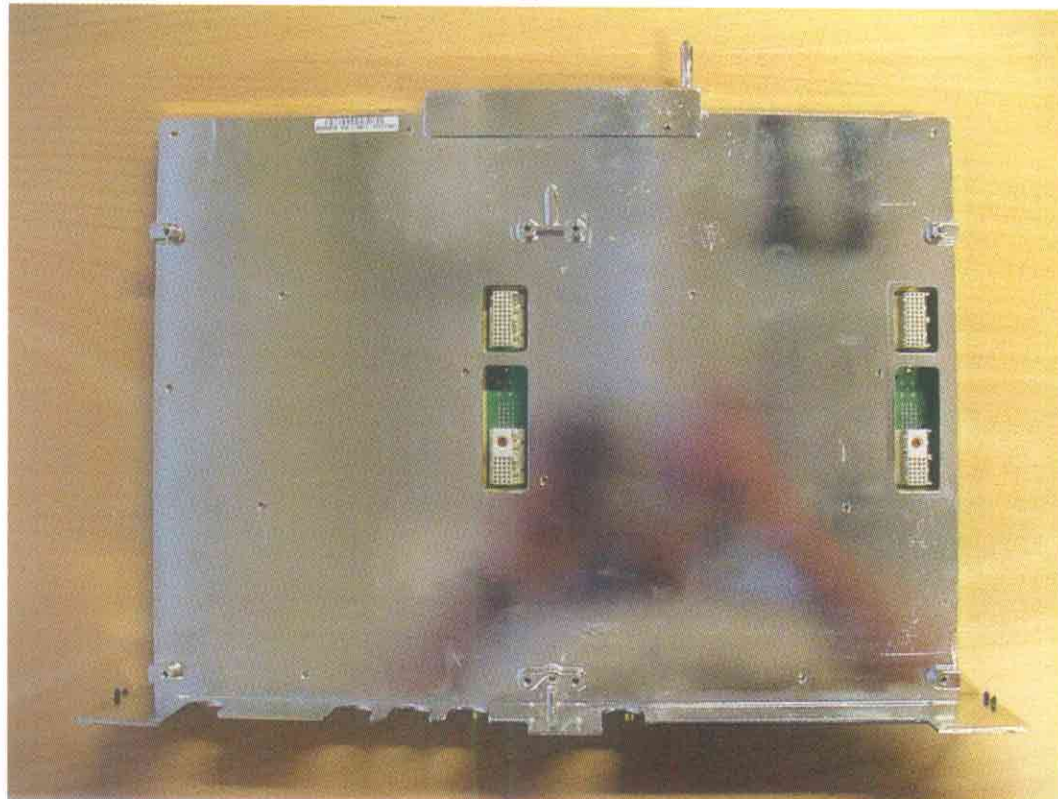


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ID Label

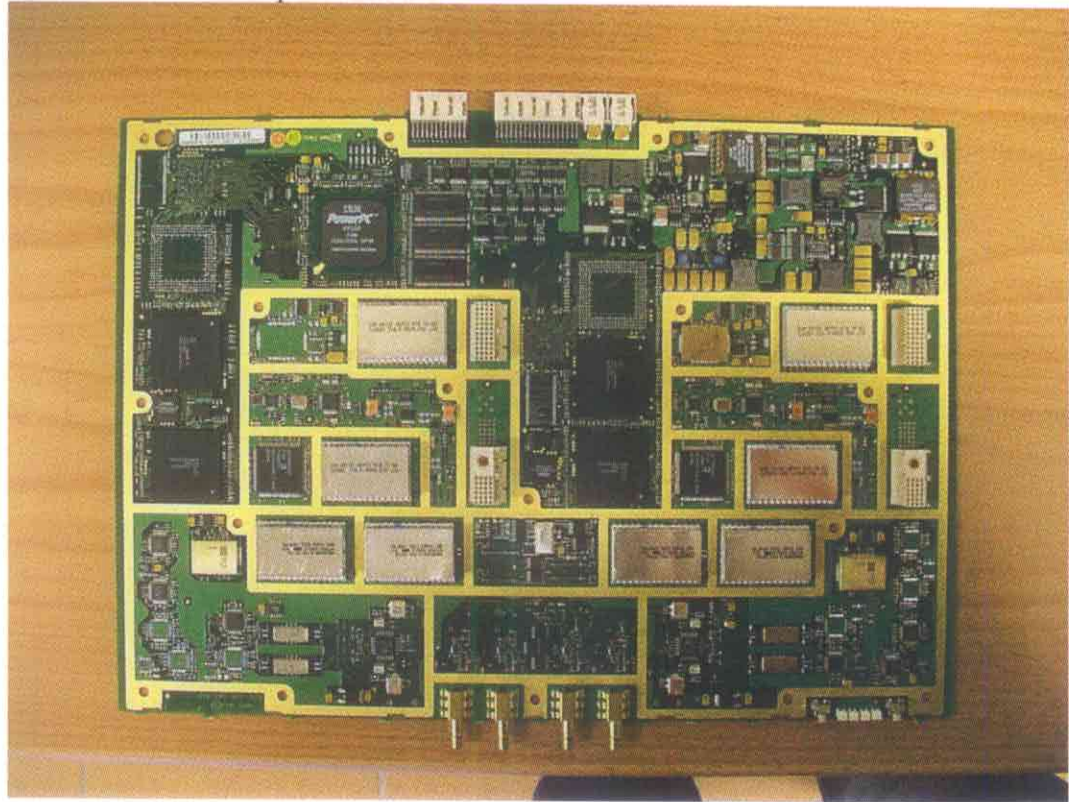


Main board

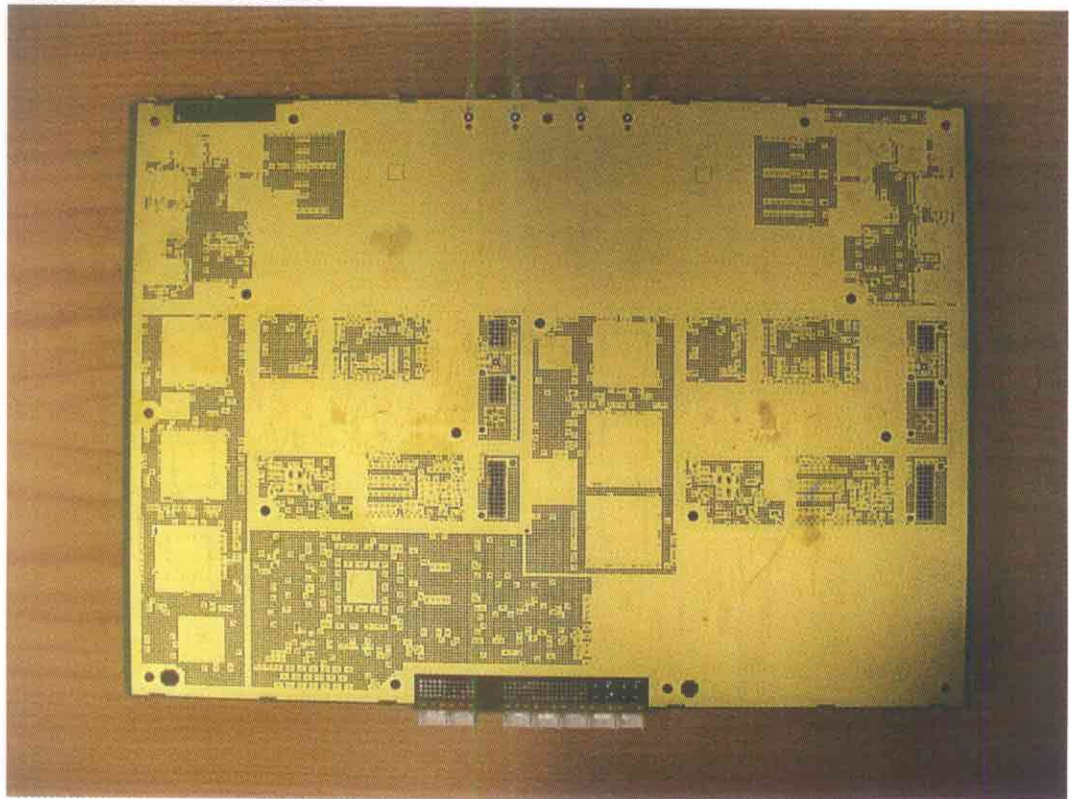


FCC ID: B5KPKRC13111004-1

Main board- PCB component side

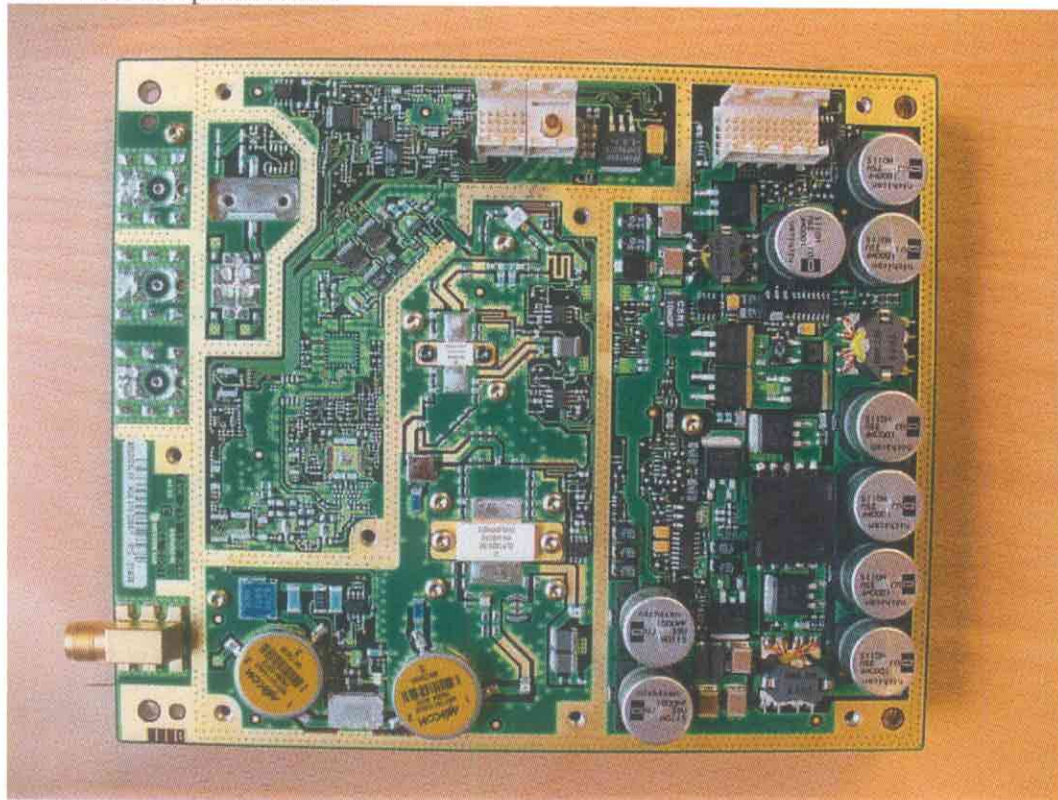


Main board- PCB rear side

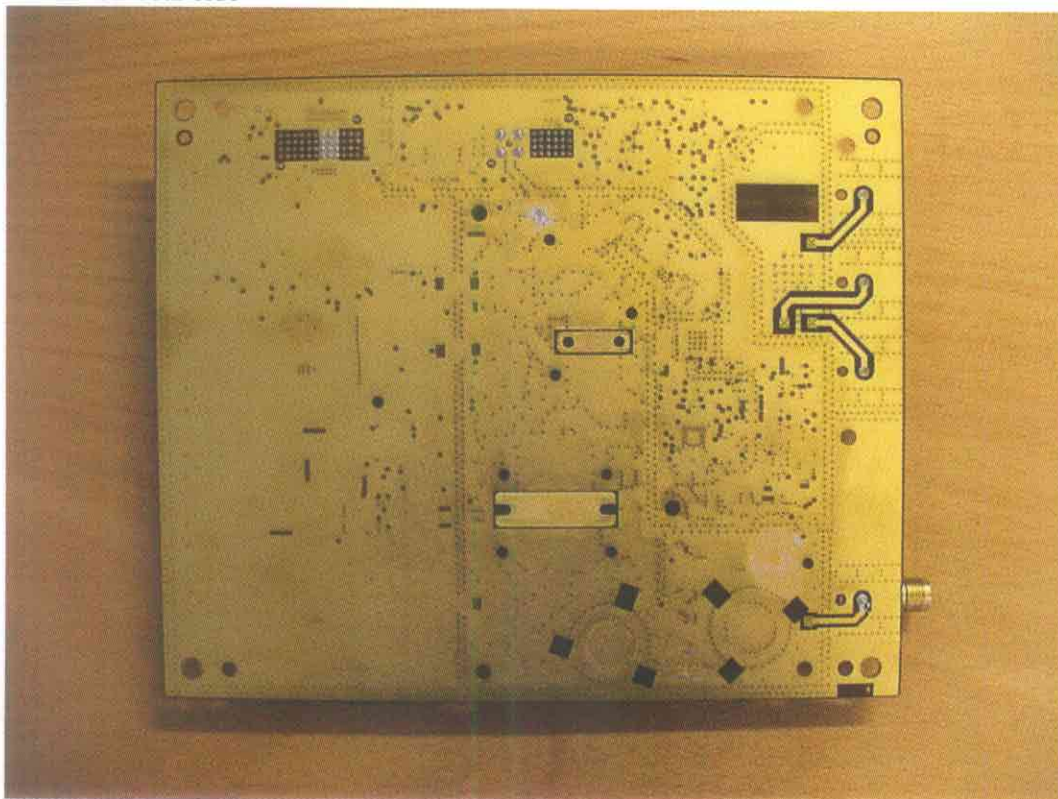


FCC ID: B5KPKRC13111004-1

PA1- PCB components side

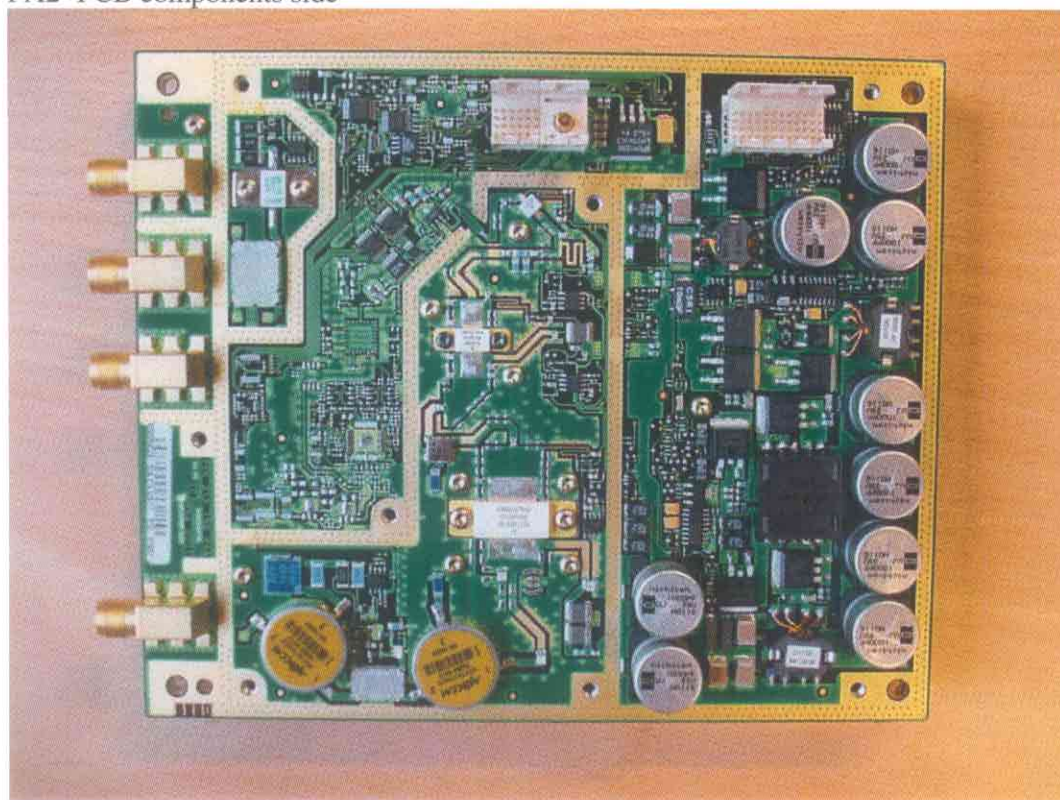


PA1- PCB rear side



FCC ID: B5KPKRC13111004-1

PA2- PCB components side



PA2- PCB rear side

