



REPORT

issued by an FCC listed Laboratory Reg. no. 93866
The test site complies with RSS 212, Issue 1, file no:IC 3482.



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Beteckning/Reference F210365-F22
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Equipment Authorization measurements on Transceiver Unit KRC 131 1005/1 with FCC ID: B5KPKRC1311005-1

(4 enclosures)

Test object

Transceiver Unit KRC 131 1005/1 rev. R1D.

Summary

Standard	Compliant	Enclosure	Remarks
FCC CFR 47			
2.1046 RF Power output	--		
2.1047 Modulation characteristics	--		
2.1049 Occupied bandwidth	--		
2.1051 Spurious emission at antenna	--		
2.1053 Field strength of spurious radiation	Yes	2	
2.1055 Frequency stability	--		
Intermodulation test	--		

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Description - Equipment Under Test (EUT)

Equipment: GSM Base station transceiver 800 MHz
Tx Frequency range: 869.2-893.8 MHz
Tested Channels: 128: 869.2 MHz
153: 874.2 MHz
170: 877.4 MHz
190: 881.4 MHz
200: 883.6 MHz
210: 885.4 MHz
220: 887.4 MHz
226: 888.8 MHz
251: 893.8 MHz

Product number: TRU: KRC 131 1005/1
Serial number: See Hardware list in enclosure 4

Manufacturer's
representative: Larry Lindström, Ericsson AB

Purpose of test

The purpose of the tests is to verify compliance to the performance characteristics specified in FCC CFR47 when the EUT is operational in the 2106 cabinet.

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: 2002-06-14

Test engineer

Fredrik Isaksson, Jonas Bremholt, and Peter Grahn

Test witness

Christer Hjorth, Ericsson AB

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Field strength of spurious radiation measurements according to 47CFR 2.1053

Date	Temperature	Humidity
2002-06-14	21 °C ± 3 °C	53 % ± 5 %
2002-06-17	21 °C ± 3 °C	57 % ± 5 %
2002-06-18	21 °C ± 3 °C	69 % ± 5 %

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 and accepted by Industry Canada, file number IC 3482. Measurements were done at 3 m distance in the frequency range 9 kHz-10 GHz. 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	2003-05	503 292
Control computer	-	503 479
Software: R&S ES-K1, ver. 1.60	-	-
Chase Bilog antenna CBL 6111A	2003-12	503 182
Schwarzbeck Precision dipole	2002-12	500 592
Schwarzbeck Precision dipole	2002-12	500 594
EMCO loop antenna 6502	2002-07	502 916
EMCO Horn Antenna 3115	2002-09	502 175
Pre amplifier Miteq AFS4+AFS5	2003-04	392051, 393117
Testo 615, Temperature and humidity meter	2003-08	503 505

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

208 V AC, Cabinet 2106, revision R2B



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Results

EUT in cabinet 2106 rev R2B, two modes: internal combiner and without internal combiner.

Nominal Voltage 208 V AC (3-phases and neutral)

Output power without internal combiner: +46.5 dBm

Output power with internal combiner: +43 dBm

Frequency (MHz)	Spurious emission level (dBm)	
	Vertical	Horizontal
0.009-10 000	All emission > 20 dB below limit	All emission > 20 dB below limit
Measurement uncertainty		4.7 dB

Limits

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

Compliant?	Yes
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Sign:.....

Hardware list

Unit	Product Number	Serial Number	Revision
Cabinett	SEB 112 1135/04	S77TOR1798	R2B
CDU shelf	--	--	--
CDU-G8	BFL 119 155/1	A40003KNOG	R2C
CDU-G8	BFL 119 155/1	A40003KL8J	R2C
CDU-G8	BFL 119 155/1	A40003KNOE	R2C
Dummy	SXK 107 5031/2	--	R1B
CXU-10	KRY 101 1856/1	A40003KP93	R3C
Dummy	SXK 107 5031/1	--	R1B
TRU shelf	BFL 119 407/1	--	R3B
dTRU-8	KRC 131 1005/1	AE5000EU0R	R1D
dTRU-8	KRC 131 1005/1	AE5000BVHF	R1C
dTRU-8	KRC 131 1005/1	AE5000BVLS	R1C
dTRU-8	KRC 131 1005/1	AE5000BLAY	R1C
dTRU-8	KRC 131 1005/1	AE5000BTRY	R1C
dTRU-8	KRC 131 1005/1	AE5000BVHW	R1C
IDM 01	BMG 980 06/1	T671037529	R2B
PSU-AC	BML 231 202/1	A082847276	R2F
PSU-AC	BML 231 202/1	A082629738	R2F
PSU-AC	BML 231 202/1	A082934116	R2F
PSU-AC	BML 231 202/1	A082920641	R2F
DXU-21	BOE 602 14/1	X510006846	R5B
Dummy	SXK 107 5029/1	--	R1B
Dummy	SXK 107 5029/1	--	R1B
Dummy	SXK 107 5030/1	--	R1B
Dummy	SXK 107 5030/1	--	R1B
ACCU-02-DU	BMG 980 11/1	A441211120	R2C
FCU-01	BGM 136 1001/2	A083003139	R2D
BFU-21	BMG 980 13/1	A082997629	R1A
ACCU-02-CU	2/BMG 815 073/1	A441211119	R1A
CCU	BPD 104 36/1	S78117703	R6A

Software	Revision
LZY 213 11912/1	P3AA

Description of EUT

The EUT is a dTRU that can be installed in a 800 MHz GSM Base station configured with up to 6 double transceiver units that are designed to provide mobile telephone users with a connection to a mobile network or the PSTN.

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Photos

RBS 2106 Cabinet R2B

Front view



Rear view



Open door view



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RBS 2106; CDU shelf with CDU-G 8



RBS 2106; TRU-shelf with: CXU-10 and dTRU-8



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RBS 2106; PSU-shelf with: IDM-01, PSU-AC, DXU-21, and ACCU-02-DU



RBS 2106; Shelf for ancillary equipments



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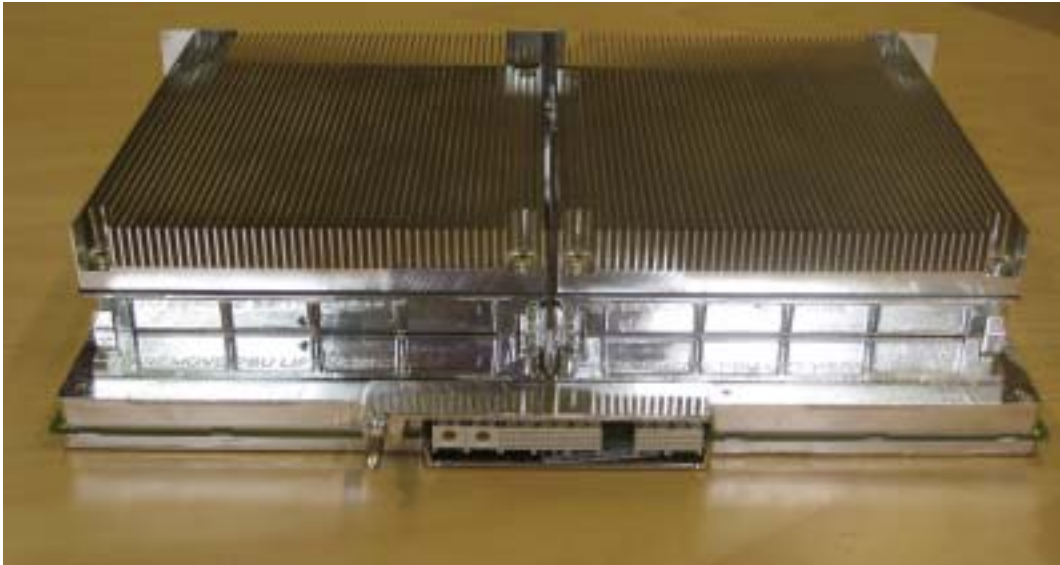
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Transceiver unit KRC 131 1005/1

Front side



Rear side



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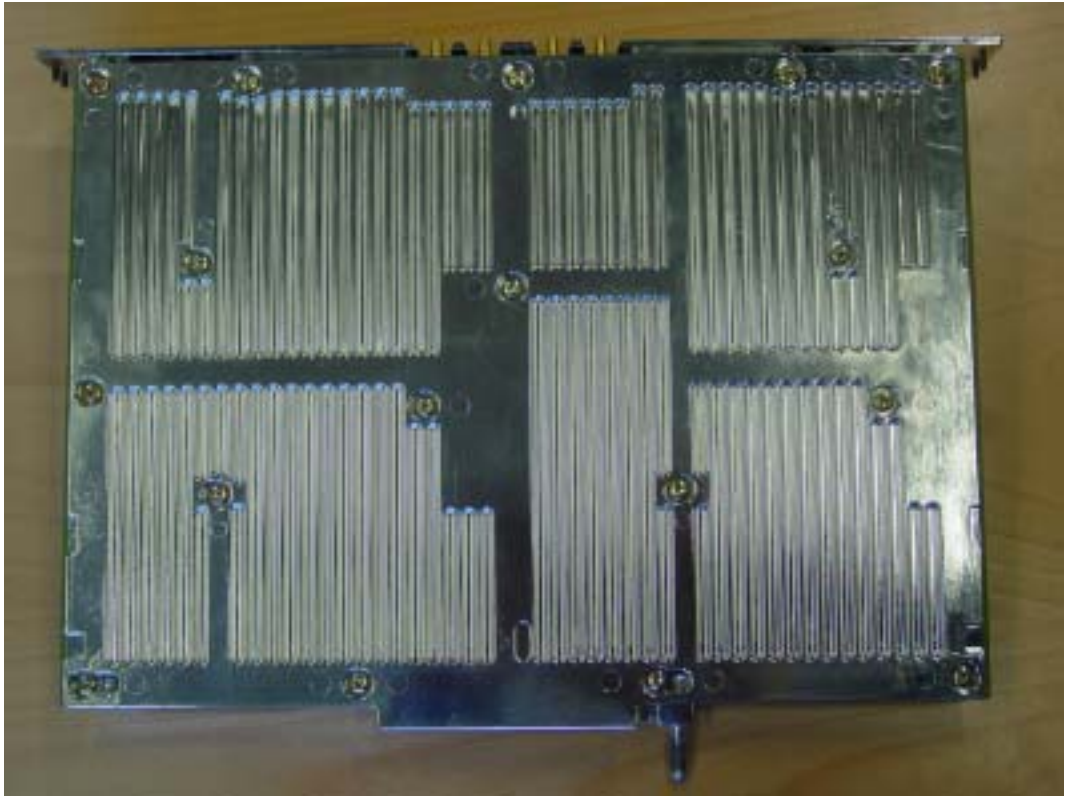
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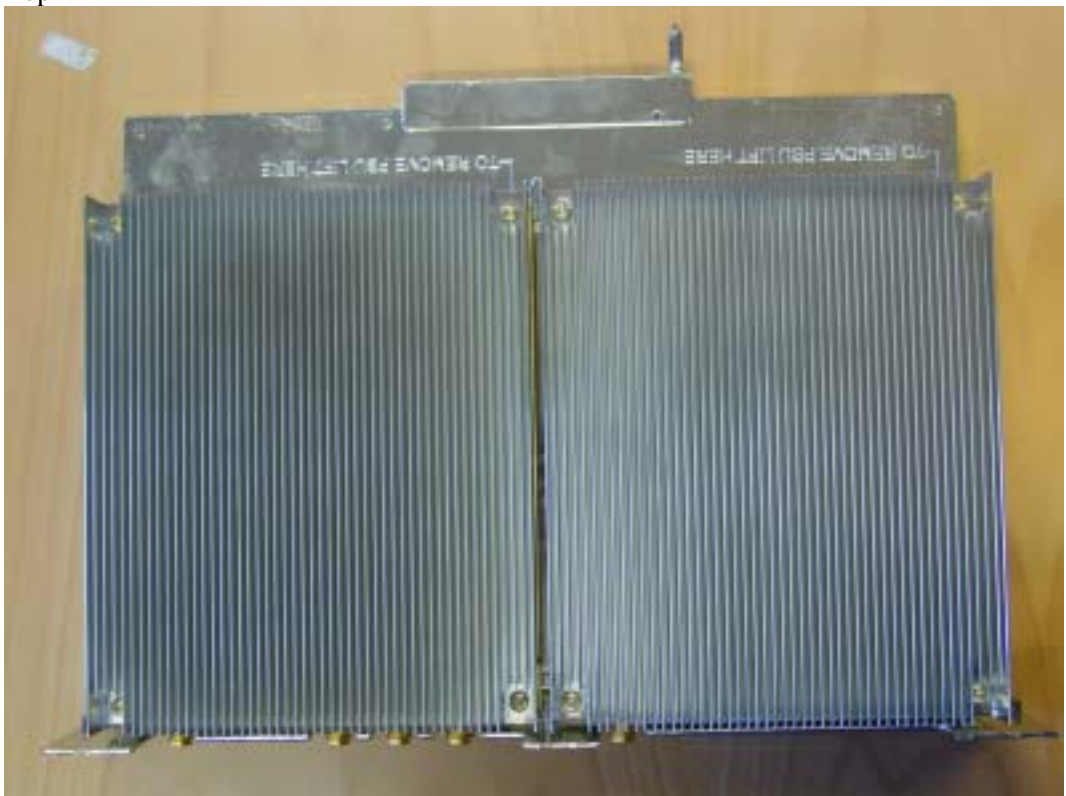
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Bottom side



Top



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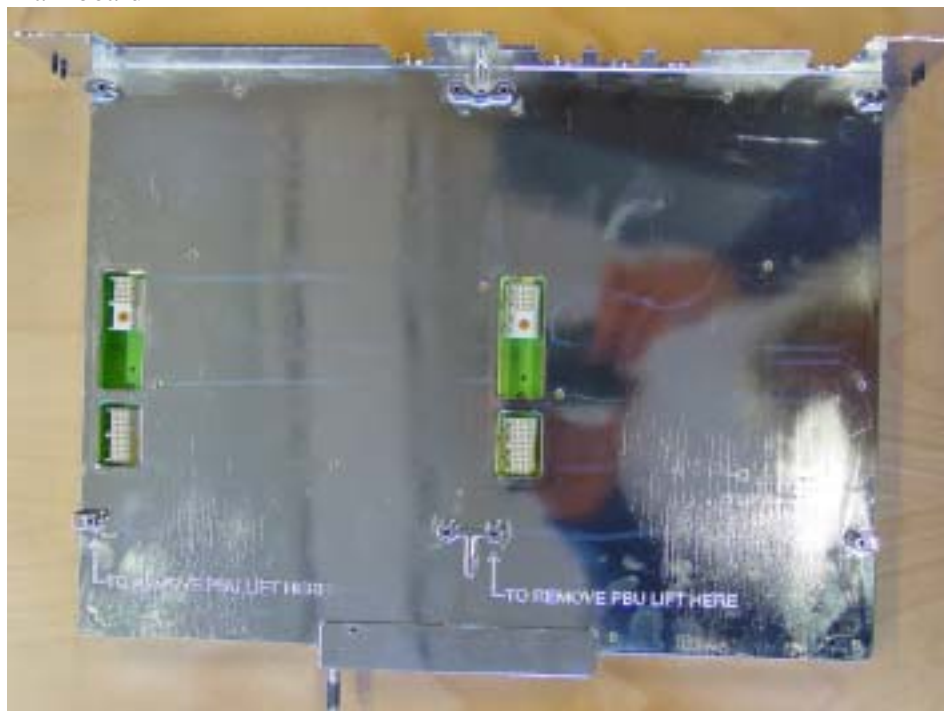
ID label



FCC label



Main board



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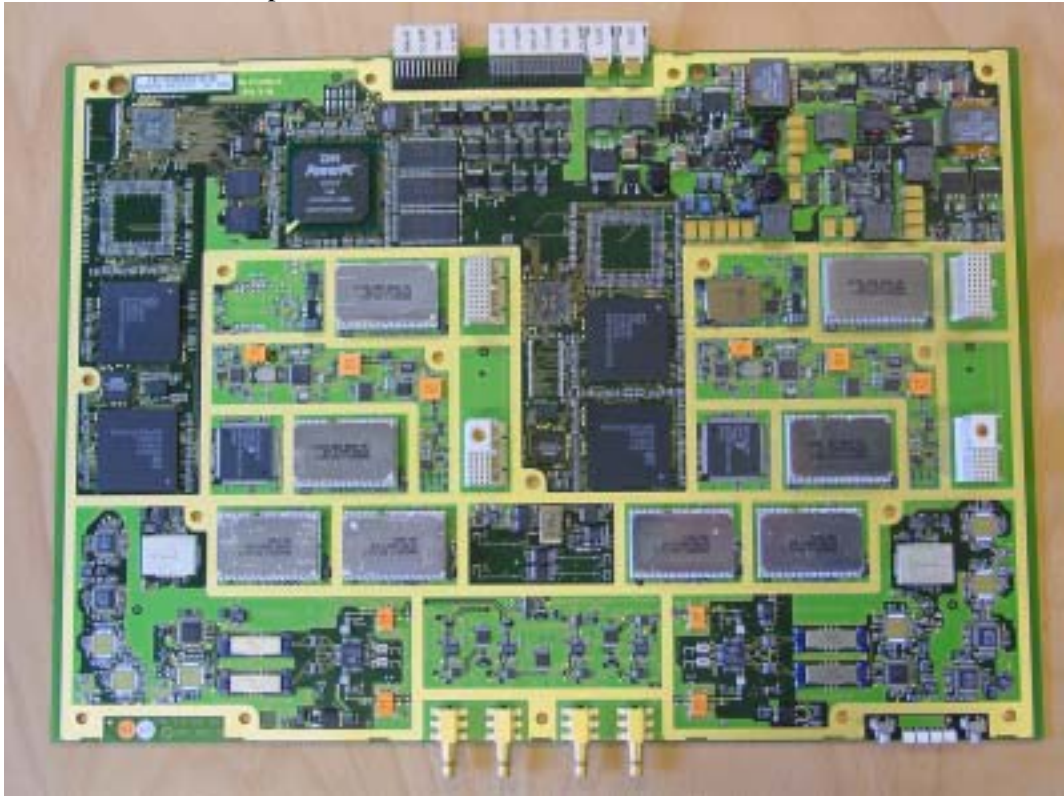
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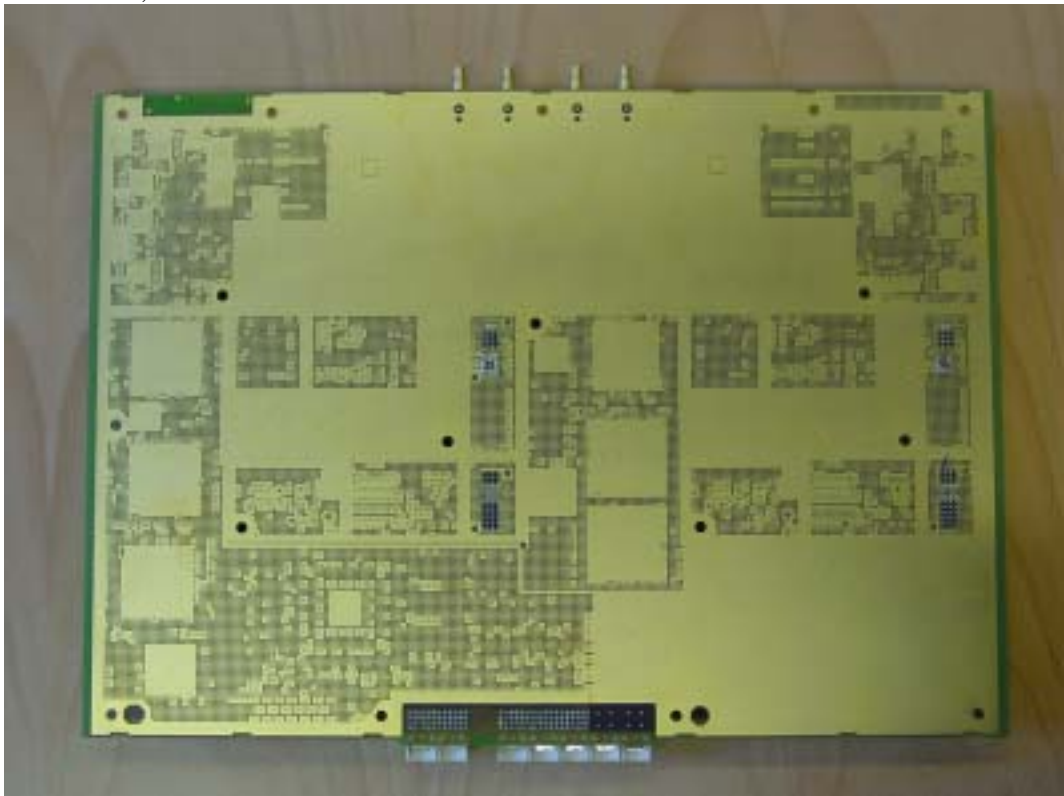
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Main board, PCB component side



Main board, PCB bottom side



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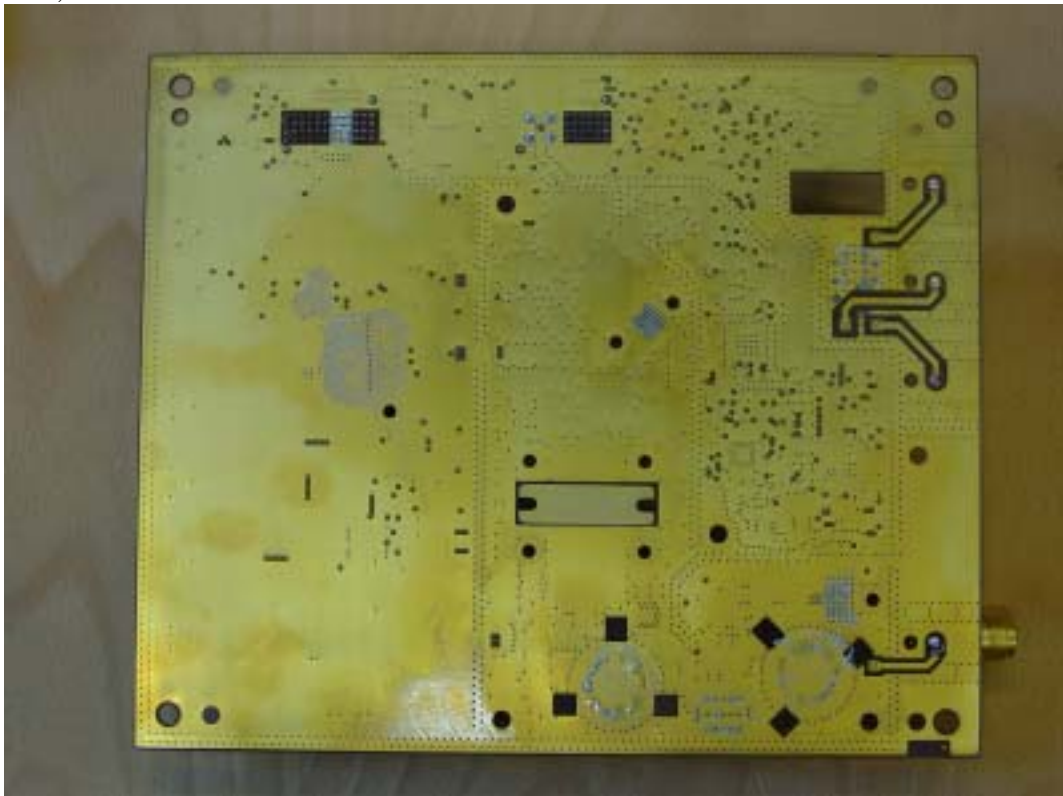
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PA1, PCB component side



PA1, PCB rear side



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PA2, PCB component side



PA2, PCB rear side

