



Repair instruction

hAP Lite

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These repair instructions are for NON WARRANTY repairs only!
Please make visual inspection for signs of corrosion
or mechanical damages before starting.

Contents

List of hAP series.....	3
Disassembling information.....	5
Routerboard does not power on.....	6
Routerboard does not boot.....	8
Ethernet port does not work.....	10
WiFi does not work.....	11

List of RouterBoard hAP series

hAP Lite



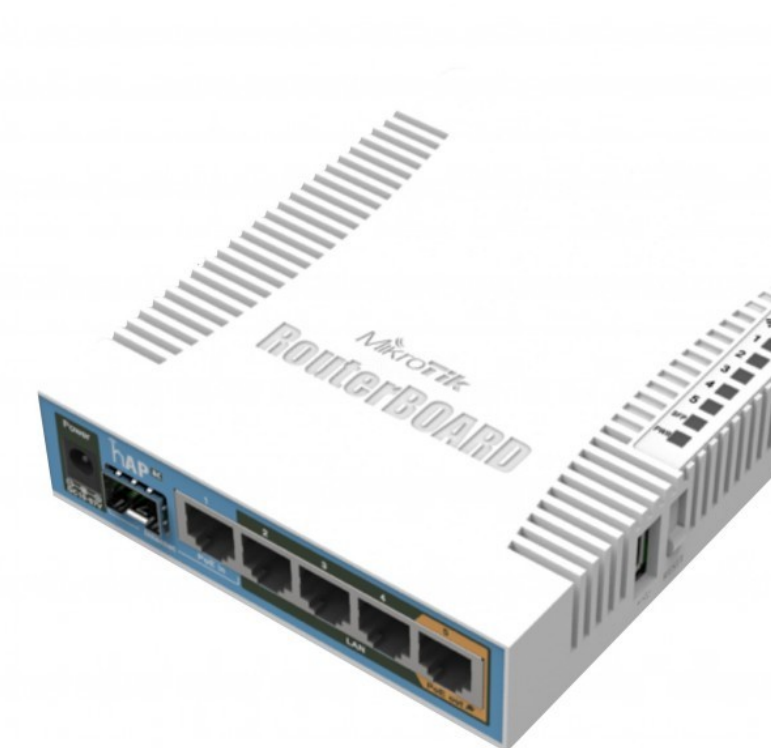
hAP



hAP ac Lite

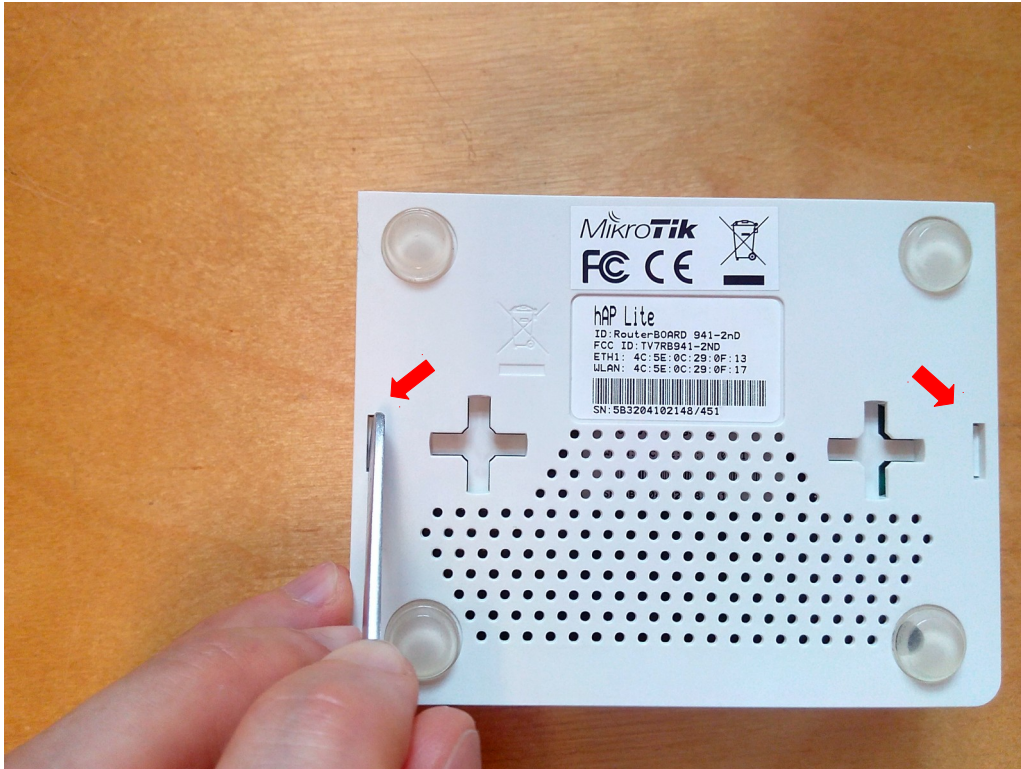


hAP ac



Disassembling information

1. Use two “+” screwdrivers. Push screwdrivers in case cavities.



2. Remove case cover and take out board.

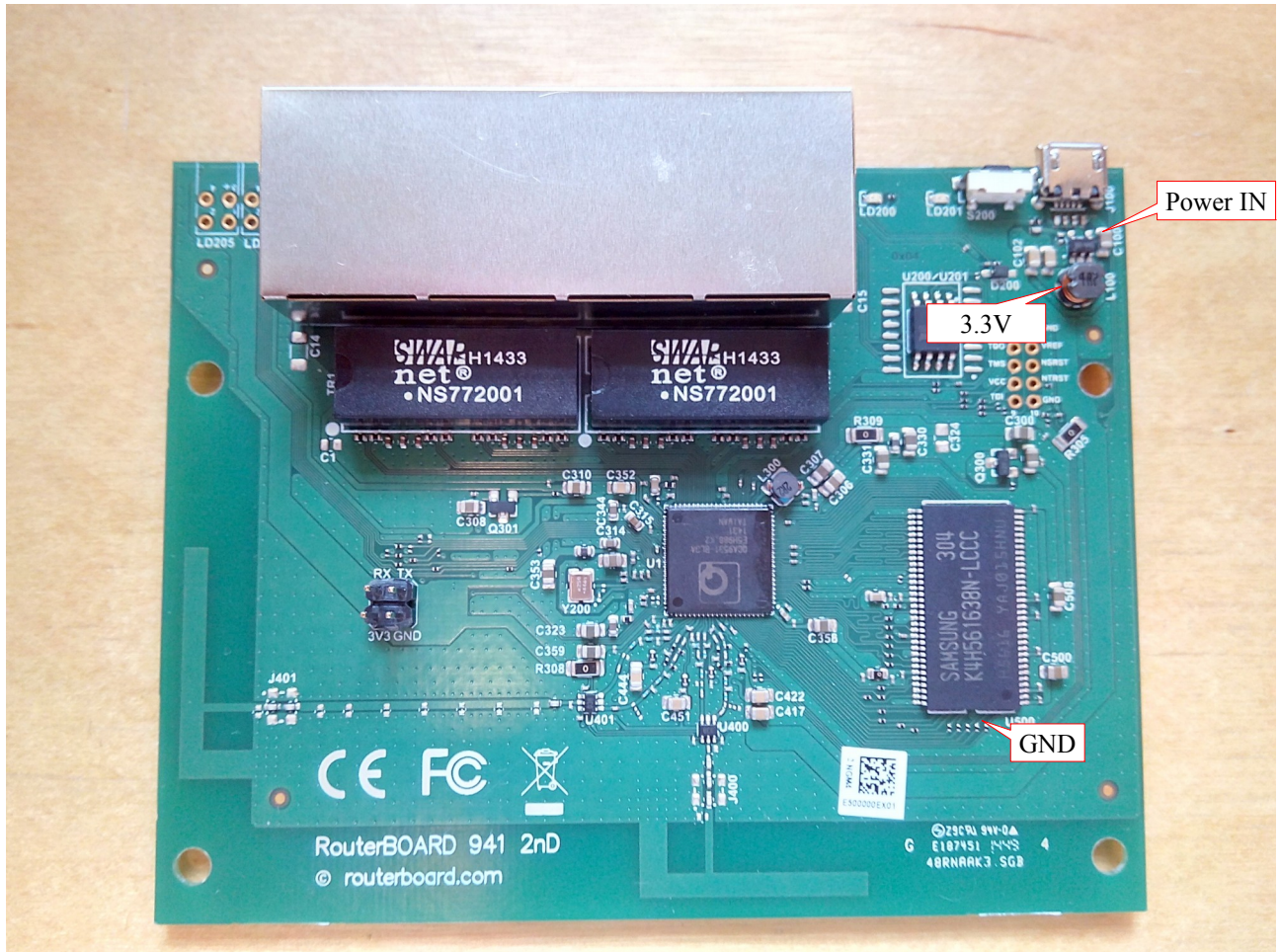


Routerboard does not power on

There no signs of any LED, LCD or buzzer activity

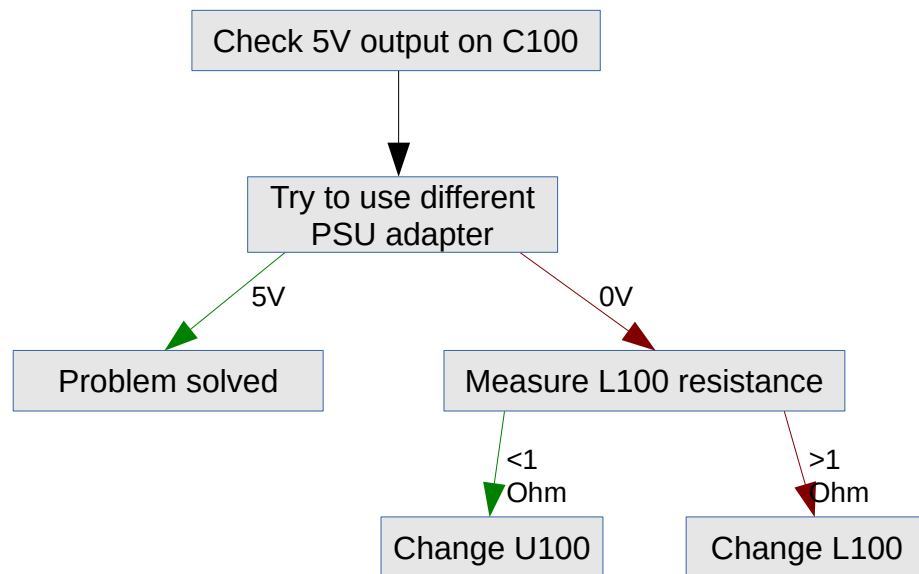
Find potential problem area

RouterBOARD does not turn on when one of the power is disconnected. Check Which voltage is switched off, Power IN (5V), 3.3V.

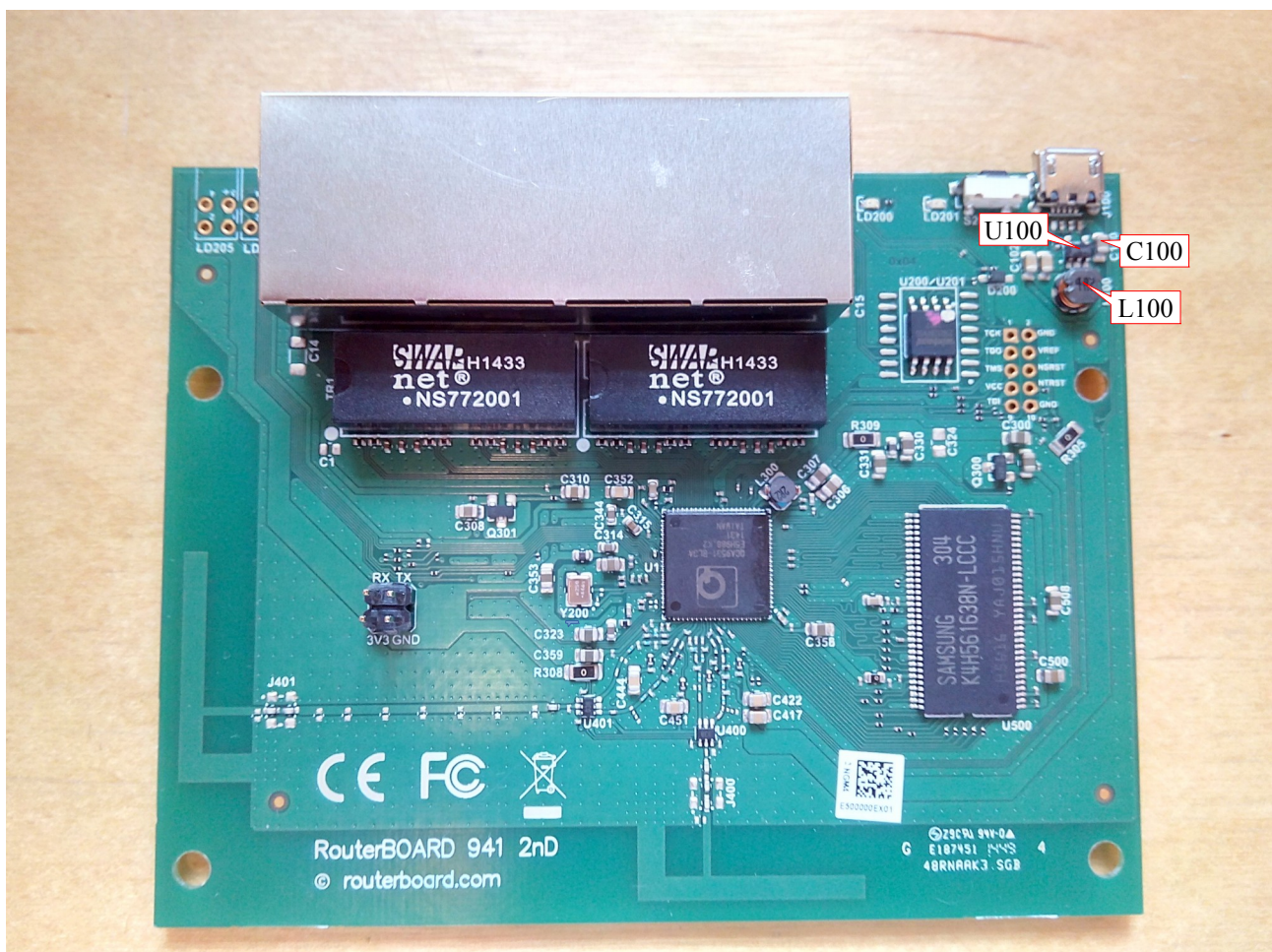


If Power_IN Failed

1. No power on 3.3V output



2. Supply voltage components location on RouterBOARD



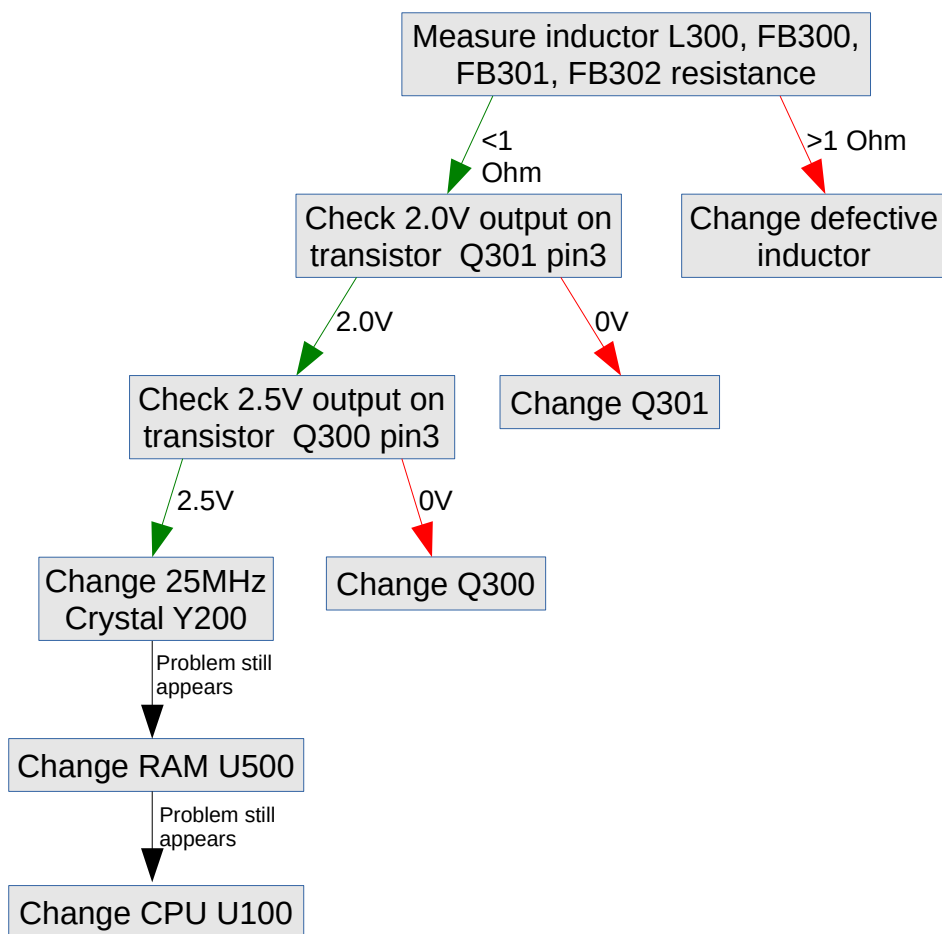
3. Supply voltage Components table

Reference	Manufacturer code	Description	Manufacturer
C100	CL21A475KAQNNNE(G)	Capacitor 4.7uF 10% 25V X5R 0805	Samsung Semiconductor Europe GmbH
L100	BC43-4R7M	Inductor 4.7uH 20% 1.7A 4.8x4.3x3.5 RoHS T&R	Bao Cheng Electronics Co.,Ltd.,
U100	LSP5015AAAD	1.5MHz, 1.5A, High Efficiency PWM Step-Down DC/DC Converter SOT-23-5	Lite-On Semiconductor corporation

Routerboard does not boot

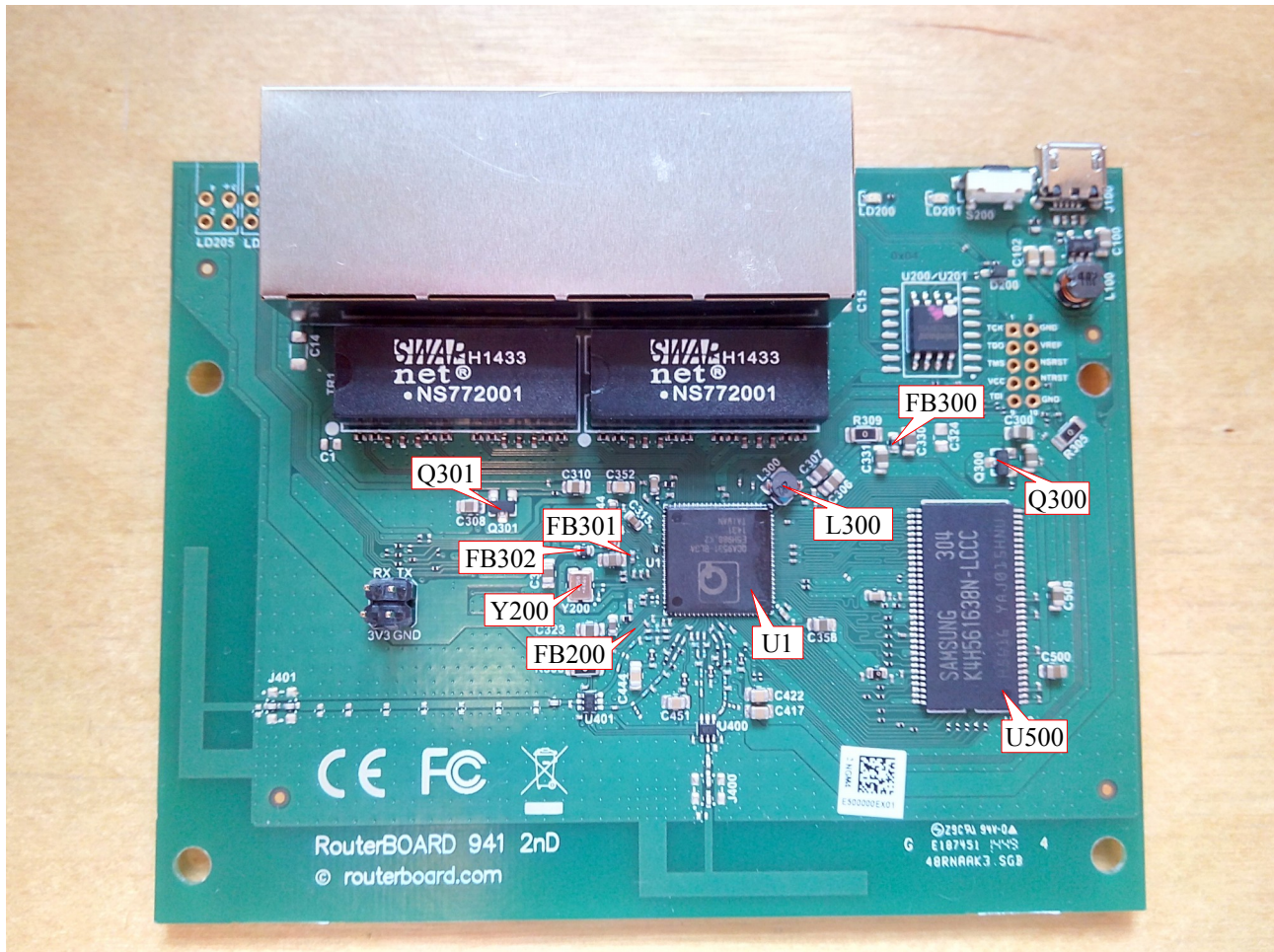
If Netinstall can see the board, but can not install it

1. Troubleshooting flow chart



If you still can't install Board, please send it to RMA.

2. Components location on RouterBOARD



3. Components table

Reference	Manufacturer code	Description	Manufacturer
FB300-FB302	CB03YTYH331	Ferrite Bead 330 Ohm 1.5A 0603	Viking Tech Corporation
FB301	BK1005HS121-T	Ferrite Bead 120 Ohm 500mA 0402	Taiyo Yuden Co. Ltd.
L300	BCRH2D18B/HP-2R2N-NL	Inductor 2.2uH 30% 1.48A 3.2x3.2x2 RoHS	Bao Cheng Electronics Co.,Ltd.,
Q300, Q301	MMBT2907A	Transistor PNP -60V -600mA 250mW Hfe=100-300 SOT-23	Lite-On Semiconductor corporation
Y200	FL2500121	Crystal 25MHz 20ppm 10pF -20+70 3.2x2.5	PSE Technology Corporation
U1	QCA9531-BL3A-R	2x2 2.4GHz SoC with MIPS24K 550 MHz CPU USB2.0 12x12mm DRQFN-156 T&R	Qualcomm Atheros Technology Ltd.
U500	W9425G6KH-5	DDR SDRAM 256Mbit DDR400 16Mx16bit TSOP-66 0+70C Tray	Winbond Electronics Corp.

Ethernet port does not work

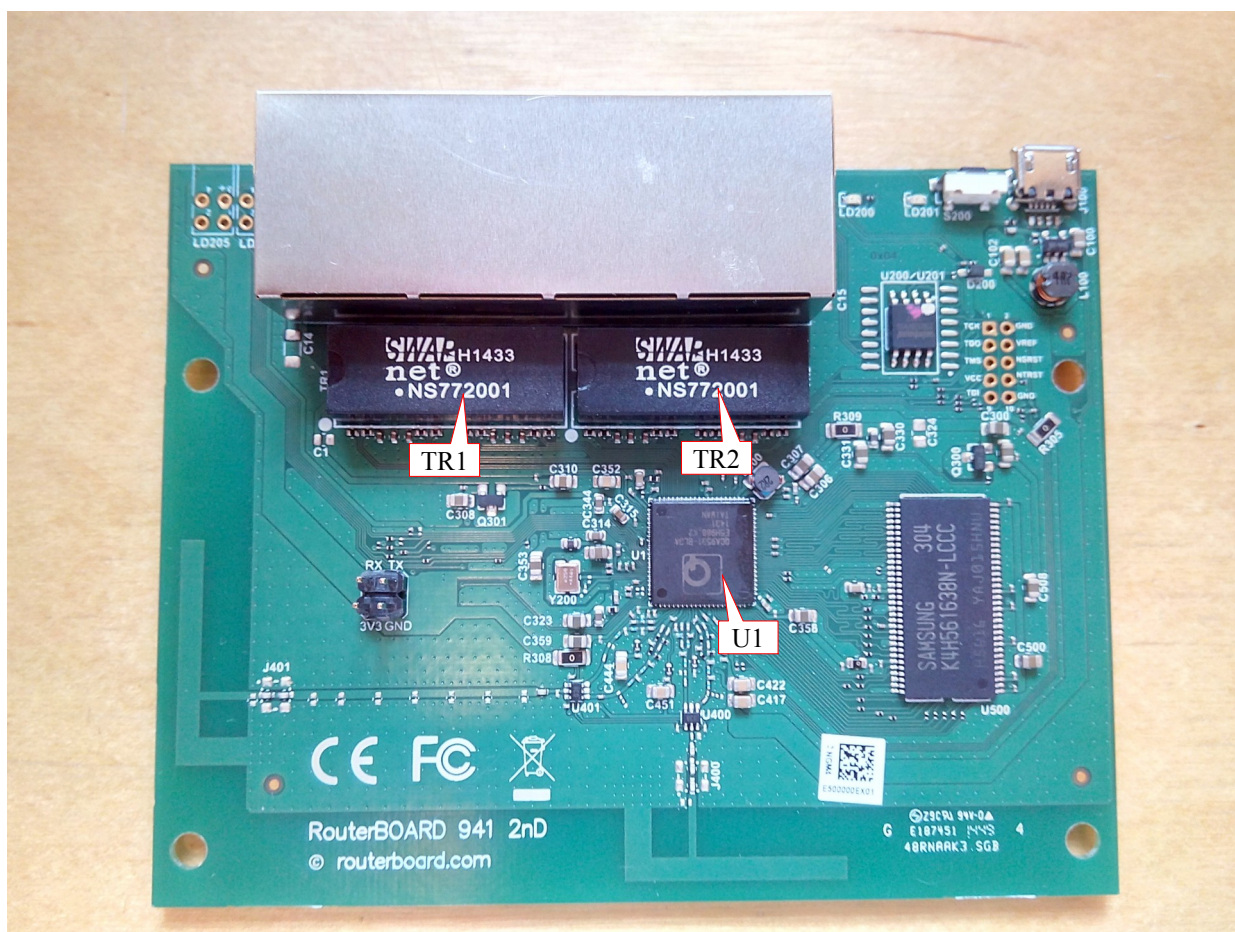
No link on Ethernet port

1. If there is no link on any of Ethernet ports, change:

- TR1
- TR2
- U1

If there is still no link on ethernet port, please send board to RMA.

2. Ethernet port components location on RouterBOARD



3. Ethernet port components table

Reference	Manufacturer code	Description	Manufacturer
TR1, TR2	NS772001	10/100 Dual Ethernet transformer TH 20pin Tube	Feei Cherng Enterprise CO., LTD.
U1	QCA9531-BL3A-R	2x2 2.4GHz SoC with MIPS24K 550 MHz CPU USB2.0 12x12mm DRQFN-156 T&R	Qualcomm Atheros Technology Ltd.

WiFi does not work

1. If wireless doesn't work, change:
- U400
 - U401
 - U1

If wireless still does not work, please send board to RMA.

2. RF components table

Reference	Manufacturer code	Description	Manufacturer
U400, U401	RTC6603	RF SPDT Switch 0.1-3GHz SC-70 Tape&Reel	Richwave
U1	QCA9531-BL3A-R	2x2 2.4GHz SoC with MIPS24K 550 MHz CPU USB2.0 12x12mm DRQFN-156 T&R	Qualcomm Atheros Technology Ltd.

3. RF components location on RouterBoard

