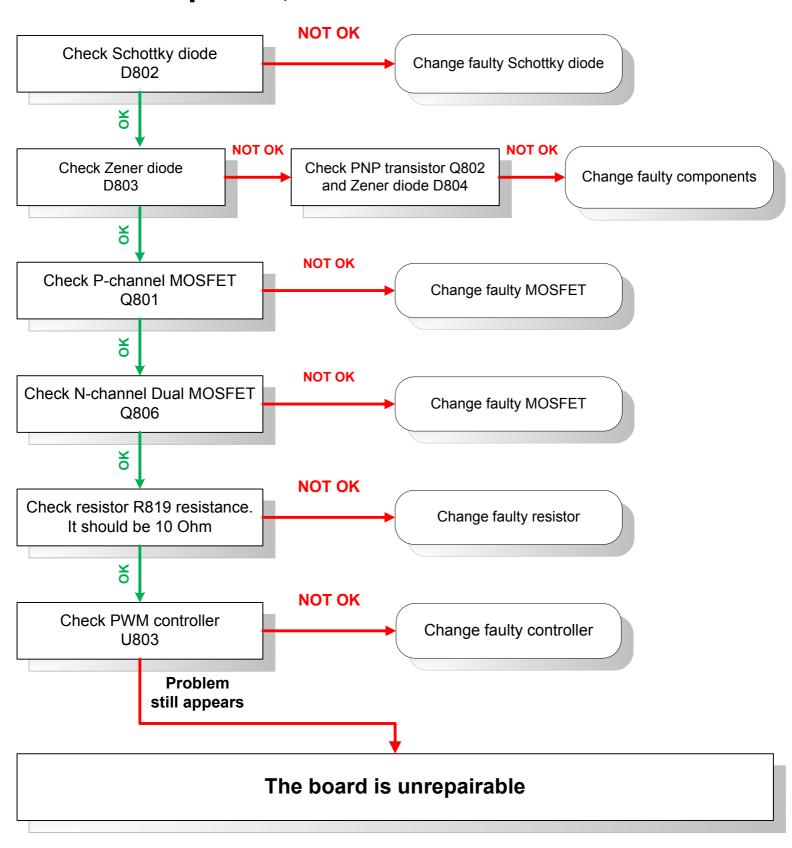
### **TroubleShooting for RB450G**

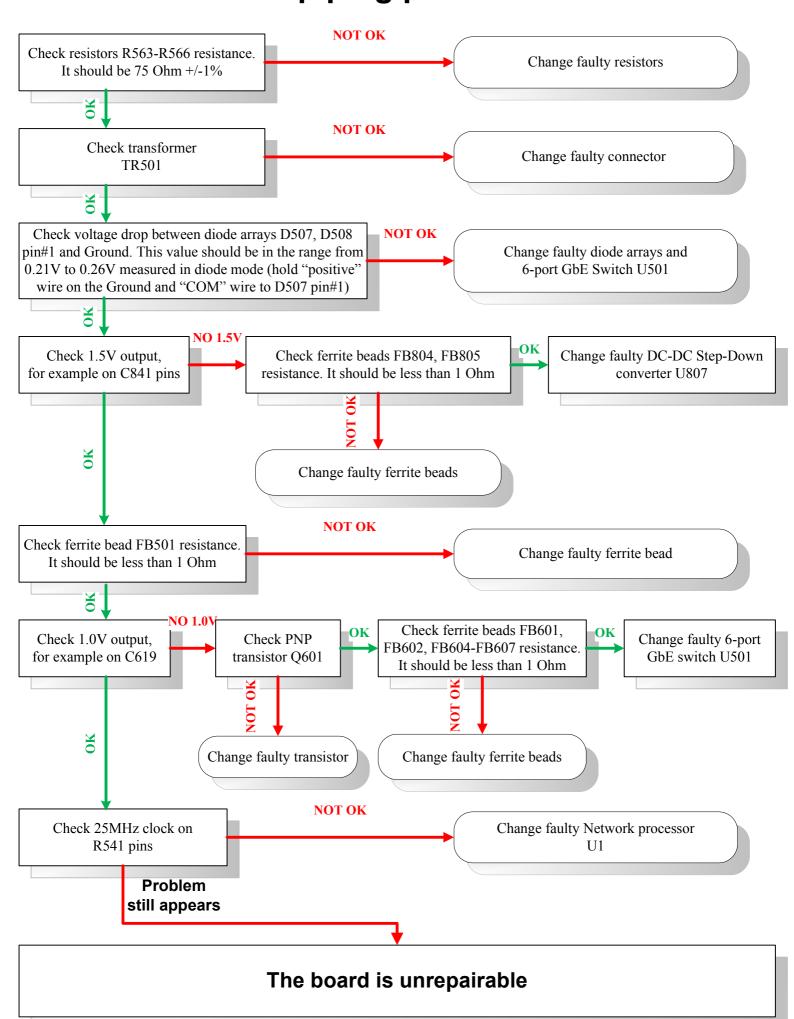
These repair instructions are for NON WARRANTY repairs only!
Please make visual inspection for signs of corrosion
or mechanical damages before starting.

#### No power, blue LED doesn't shine

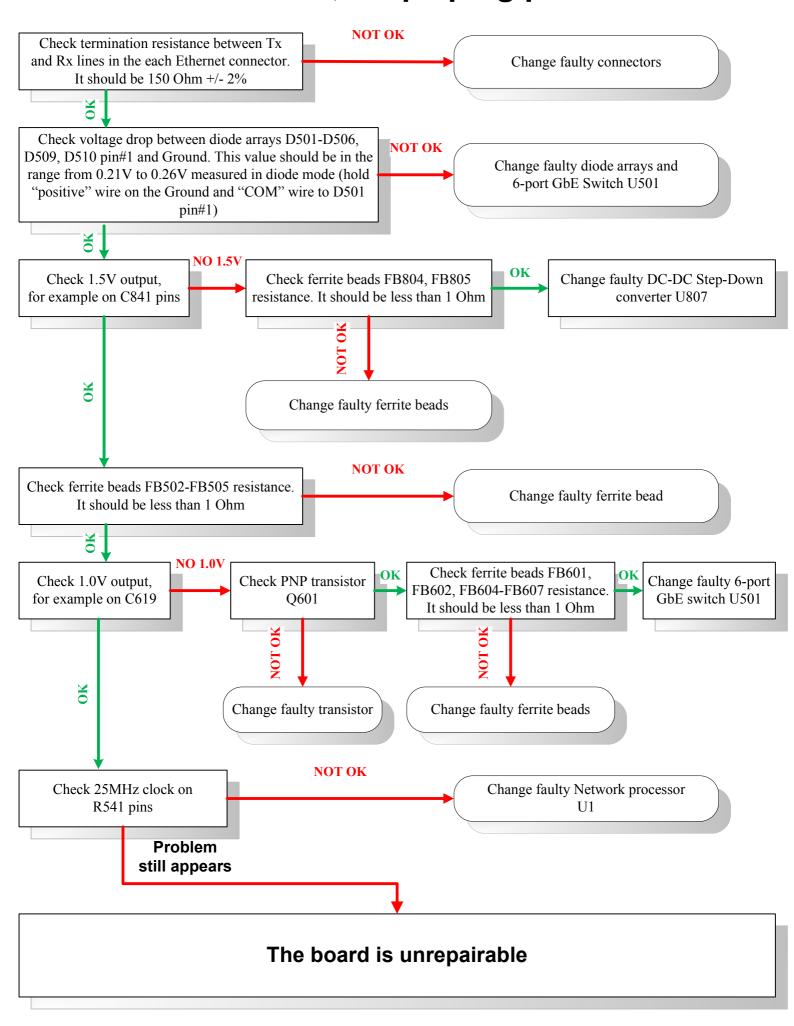


#### PoE does not work Check diode bridges Change faulty diode bridges D805, D806 **NOT OK** Check connector Change faulty connector J504 **Problem** still appears The board is unrepairable RB doesn't boot, green and blue LED's is shine NO 2.5V Check 2.5V output, Check ferrite beads FB801, FB806 Change faulty ferrite beads for example on C849 pins resistance. It should be less than 1 Ohm NOT OK Change faulty DC-DC Step-Down Change faulty ferrite beads converter U805 Try to change RAM memory U201-U204 **NO 1.2V** Check CPU core 1.2V output, Change faulty DC-DC Step-Down Check ferrite beads FB802, FB803 for example on C853 resistance. It should be less than 1 Ohm converter U806 Change faulty ferrite beads NOT OK Check ferrite beads FB701, FB702 resistance. Change faulty ferrite beads It should be less than 1 Ohm NO 40MHz Check 40MHz clock on crystal Change faulty crystal oscillator oscillator Y301 pin#3 Try to change processor U1 **Problem** still appears The board is unrepairable

# Ethernet port1 (J504) does not work, drop ping packets



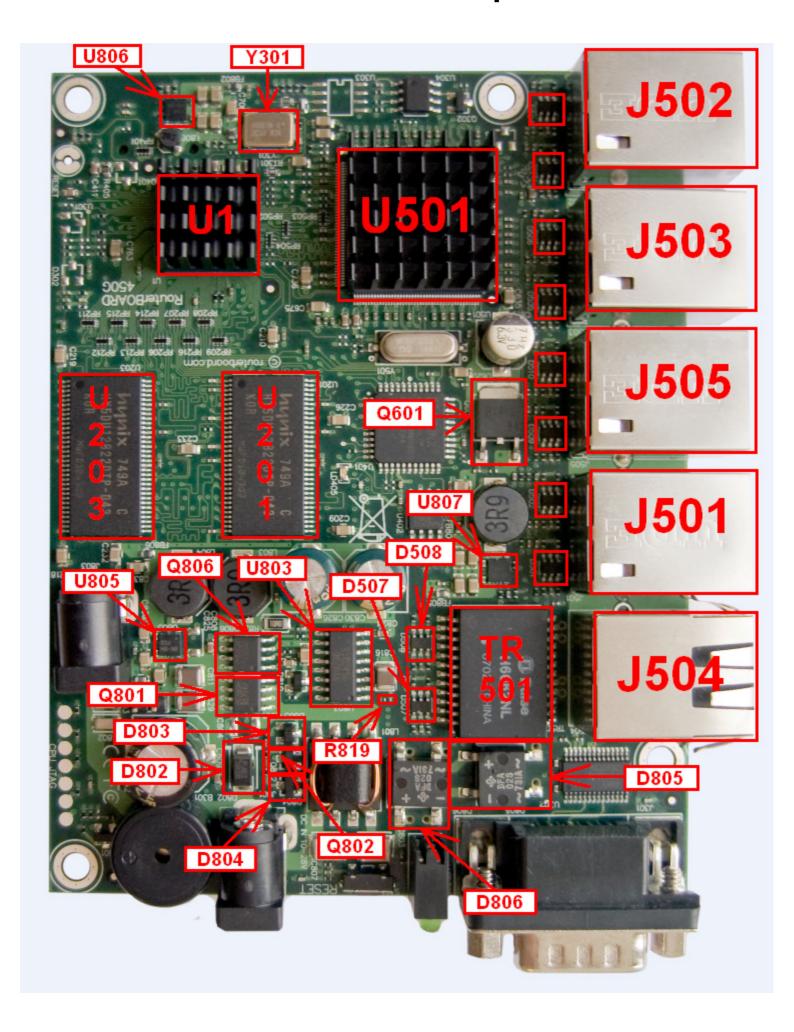
# Ethernet ports 2(J501), 3(J505), 4(J503), 5(J502) do not work, drops ping packets



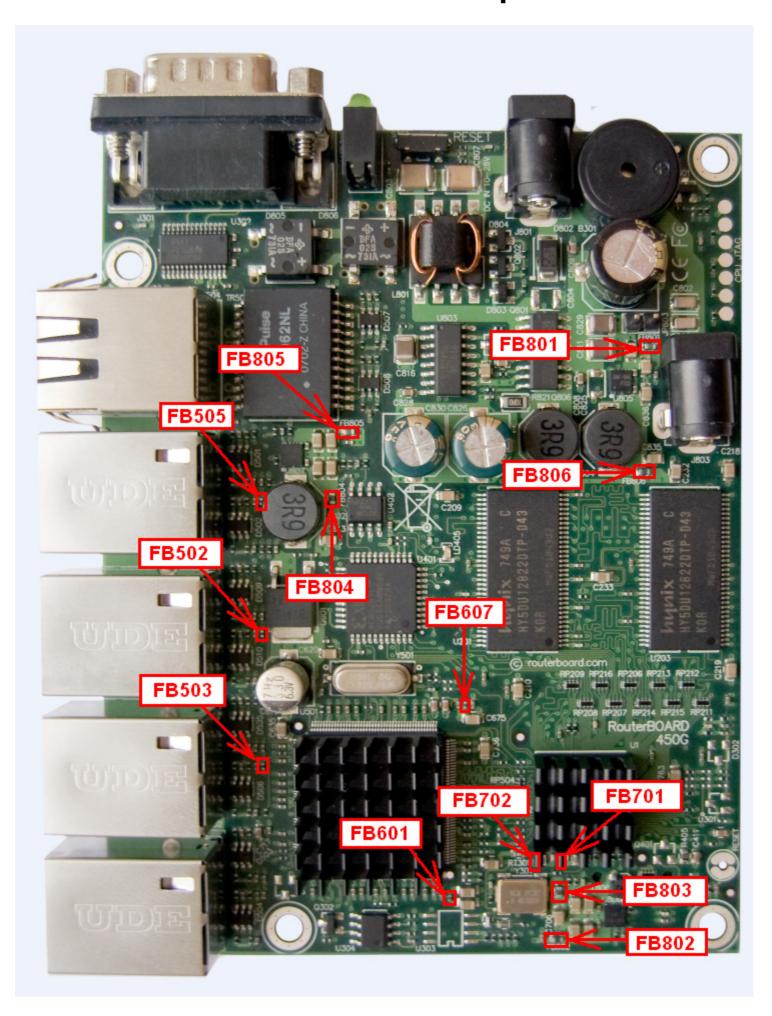
Reference number	Part Number	Manufacturer	Description
D501-D510	AOZ8000CIL	Alpha & Omega	IC TVS ARRAY LOW-CAP SOT23-6
D802	SX36-T3-LF	Won-Top Electronics Co., Ltd.	Diode Schottky 60V 3A SMA
D803	BZX84C10-T1-LF	Won-Top Electronics Co., Ltd.	Diode Zener BZX84C 10V 5% 225mW SOT23
D804	BZX84B27-AU T/R 7"	PanJit International Inc.	Z-DIODE 0.41W 27V 2% SOT23
D805, D806	DB153S	SINYORK CO., LTD.	Diode bridge 200V 1.5A DBS
FB501-FB505, FB601, FB602, FB604-FB607, FB701, FB702	BLM15AG121SN1D	Murata manufacturing Co.	Ferrite Bead 120Ohm 500mA 0402
FB801, FB802, FB805	BLM18PG331SN1D	Murata manufacturing Co.	Ferrite Bead 330Ohm 1.2A 0603
FB803	WR06X000 PTL	Walsin Technology	Resistor 0R 0603
FB804, FB806	BLM18SG121TN1D	Murata manufacturing Co.	Ferrite Bead 120Ohm 3A 0603
J501-J503, J505	RB1-216BAK1A	U.D. Electronic Corp.	RJ45 10/100/1000 w/LED w/Shield TD TH
J504	8108-B114	Powerway Electronics Co., LTD	RJ45 w/LED w/Shield TD TH w/oEMI TinPlated
Q601	STD888T4	STMICROELECTRONICS A. P	Transistor PNP -30V -5A 15W Hfe=300 D-PAK
Q801	AO4441	Alpha & Omega	Transistor MOSFET P-Ch -60V - 4A 100mOhm 3W SO-8
Q802	BC856B,215	NXP Semiconductors	Transistor PNP -65V -100mA 250mW Hfe=220-470 SOT-23
Q806	AP9960GM	Advanced Power Electronics Corp.	Transistor MOSFET N-Ch Dual 40V 7.8A 20mOhm SO-8
R563 - R566	CRCW060375R0FKTAB C	Vishay Intertechnology, Inc.	Resistor 75R 1% 0603
R819	CRCW040210R0FKTDB C	Vishay Intertechnology, Inc.	Resistor 10R 1% 0402
TR501	LCZ3N1ZB	Cetus International Ltd.	10/100/1000 Single Ethernet transformer SMD
U1	AR7161-BC1A	Atheros Technology Ltd.	600MHz Network Processor (LF-AR7100X chipset)
U201 – U204	NT5DS64M8CS-5T	Nanya Technology Europe GmbH	DDR SDRAM 512Mbit DDR400 64Mx8bit TSOPII-66
U501	AR8316-AK1E	Atheros Technology Ltd.	6-port GbE Switch
U803	RT9206PS	Richtek Technology Corporation	Power Controller SOP-16
U805 - U807	RT8011APQW	Richtek Technology Corporation	DC-DC Step down converter, WDFN-8E
Y301	NAOD40.000-C3C-CI4	NSK Jenjaan Quartek Corporation	Crystal Oscillator 40MHz 30ppm 3.3V 15pF 0+70 7x5

When you order components for repairing boards from our sales, please, write components reference number not a part number

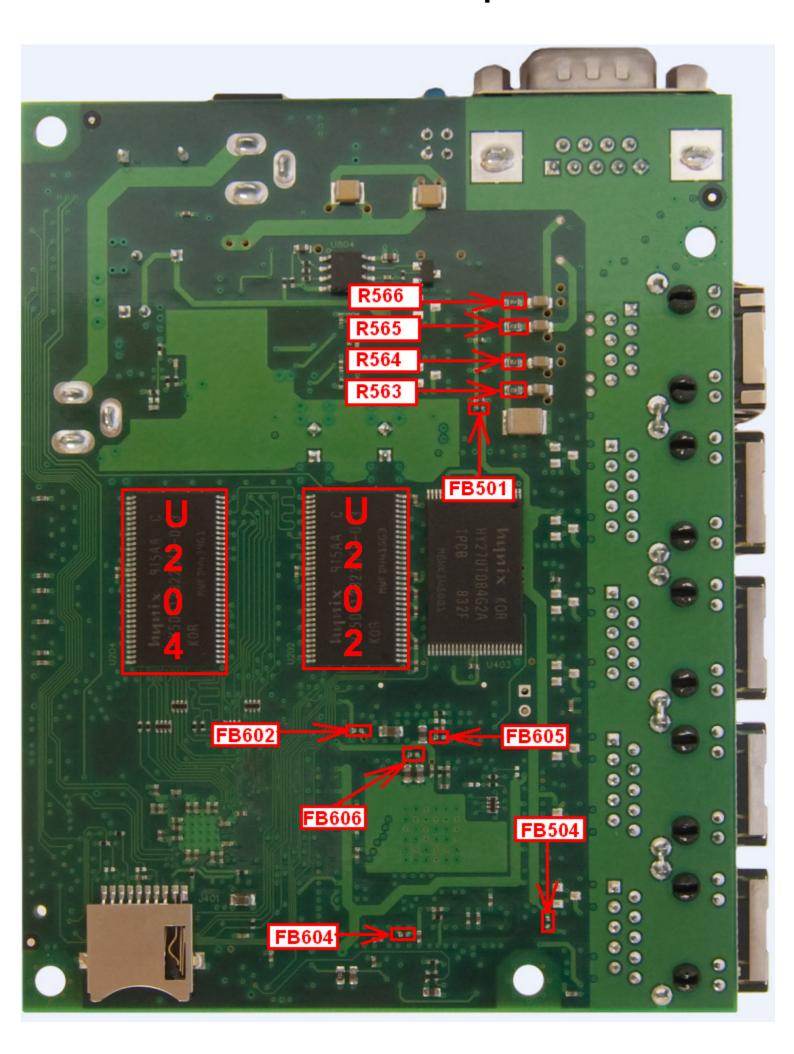
## **RB450G Reference picture**



### **RB450G** Reference picture



### **RB450G Reference picture**



### **RB450G Output Voltage picture**

