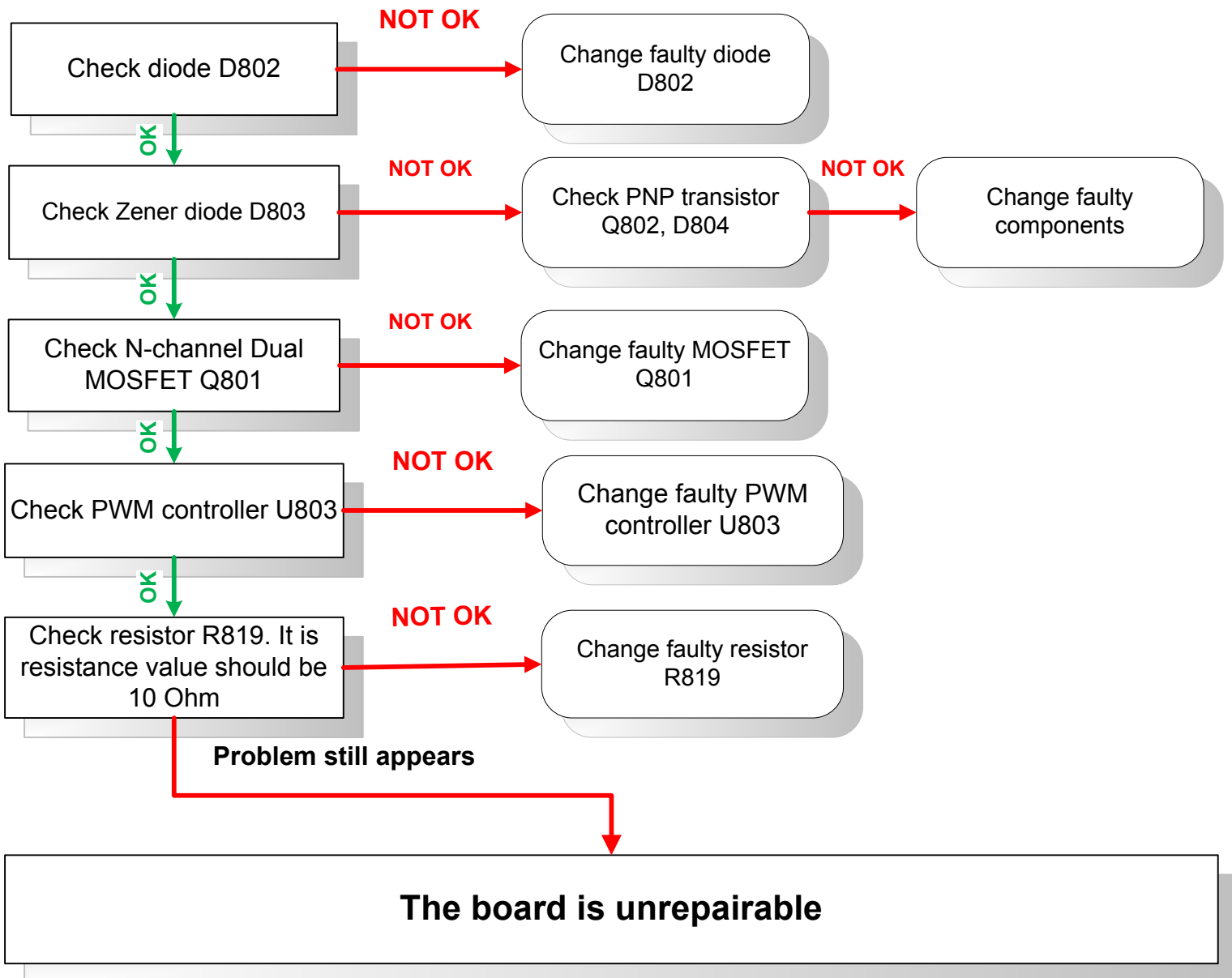
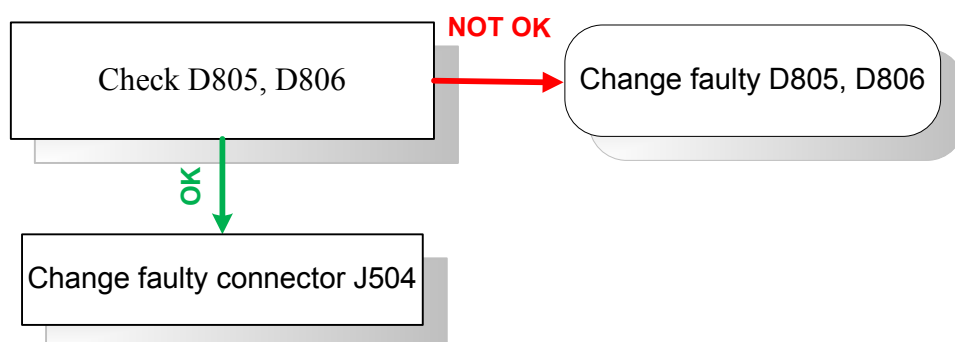


# TroubleShooting for RB450Gr2v3

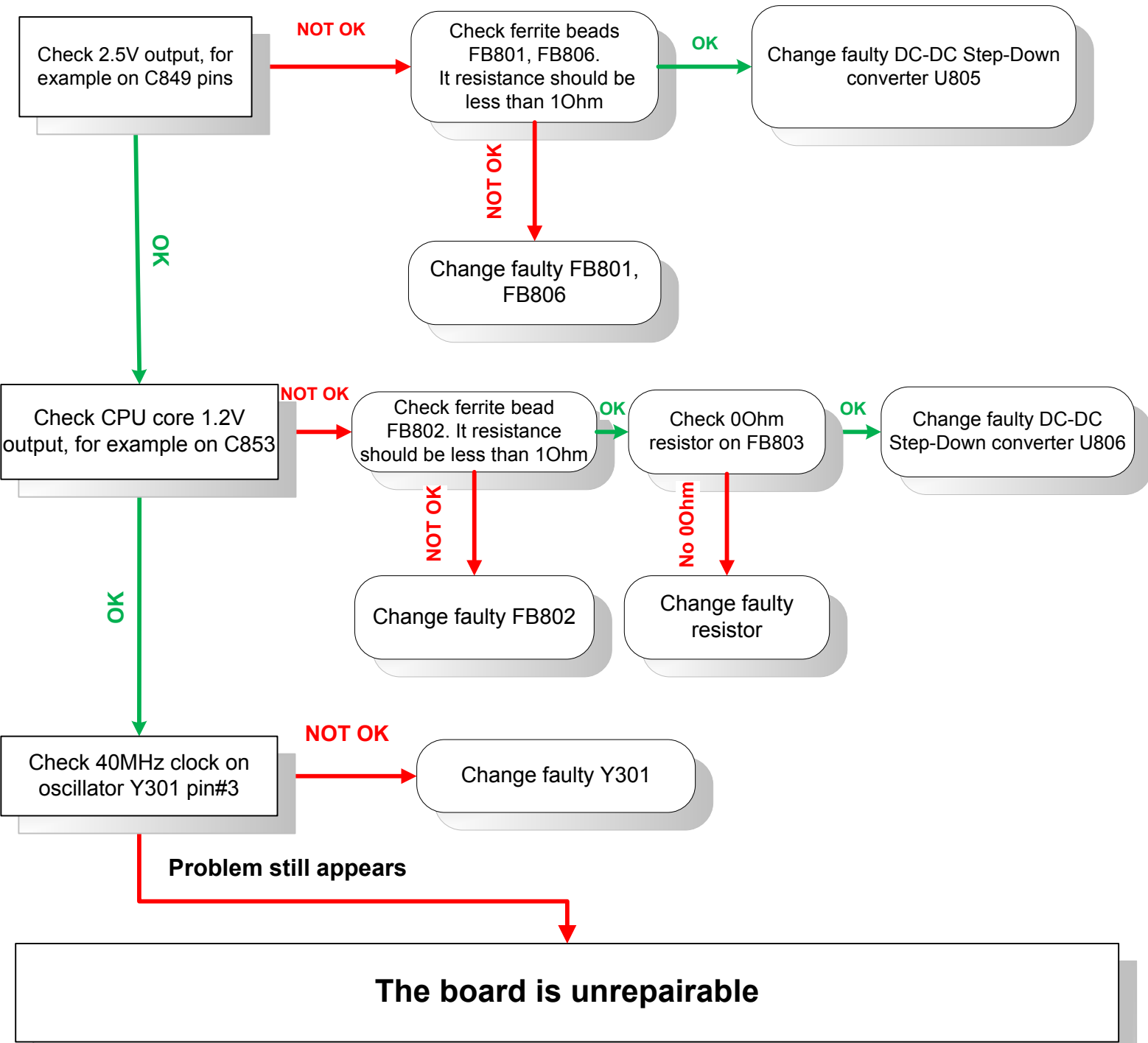
## No power, blue LED doesn't shine



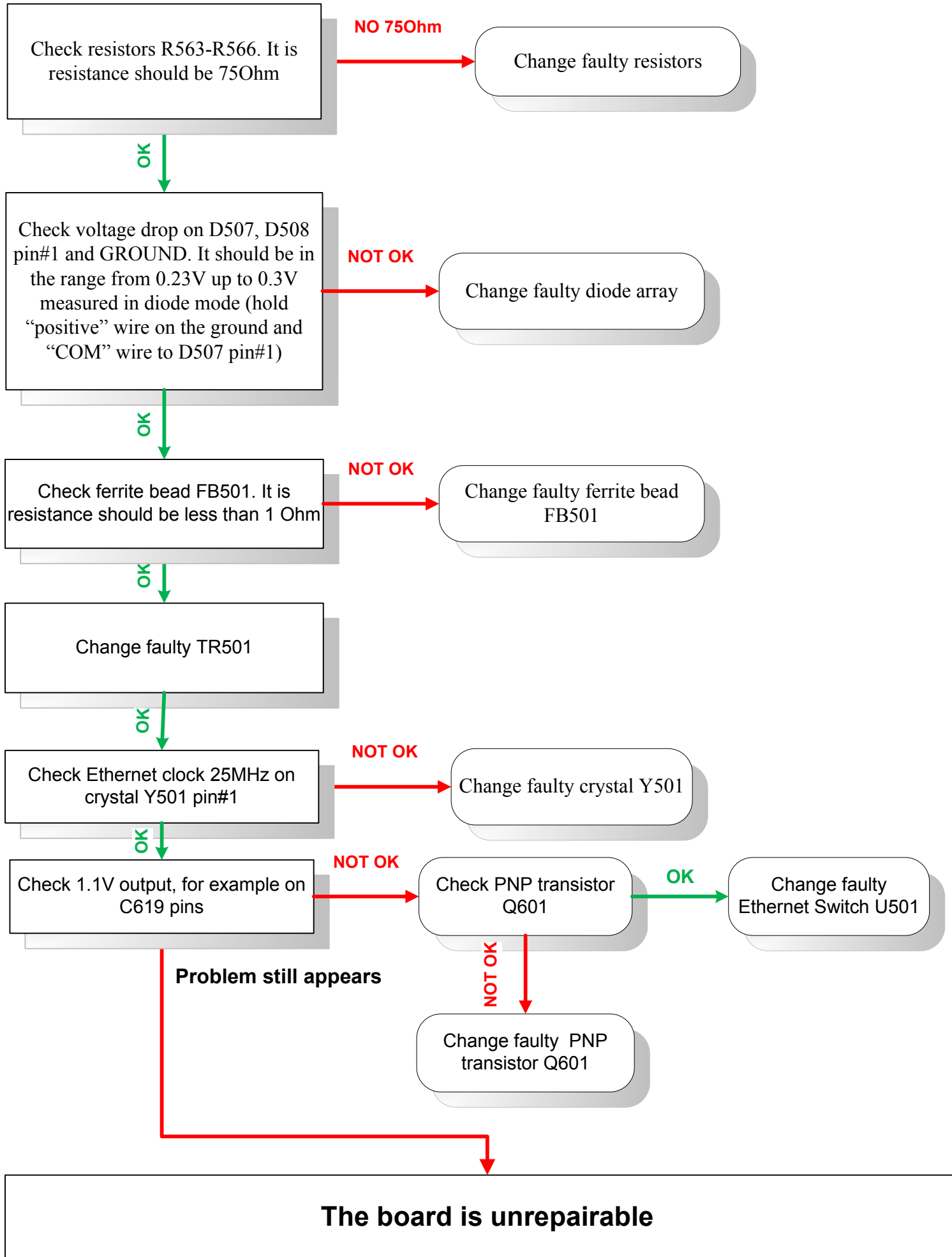
## PoE doesn't work



# Doesn't boot, green and blue LED's is shine



# Ethernet1 doesn't work



# Ethernet2-5 doesn't work

Check termination resistance between Tx and Rx lines in the each Ethernet connector (J501, J502, J503, J505). The resistance should be 150 Ohm +/- 2%

NOT OK

Change faulty connector

OK

Check voltage drop on D501, D502 (for J501), D503, D504 (for J502), D505, D506 (for J503), D509, D510 (for J505) pin#1 and GROUND. It should be in the range from 0.23V up to 0.3V measured in diode mode

NOT OK

Change faulty diode array

OK

Check ferrite beads FB502, FB503, FB504, FB505. It resistance should be less than 1 Ohm

NOT OK

Change faulty ferrite beads

OK

Check Ethernet clock 25MHz on crystal Y501 pin#1

NOT OK

Change faulty crystal Y501

OK

Check 1.1V output, for example on C619 pins

NOT OK

Check PNP transistor Q601

OK

Change faulty Ethernet Switch U501

Problem still appears

NOT OK

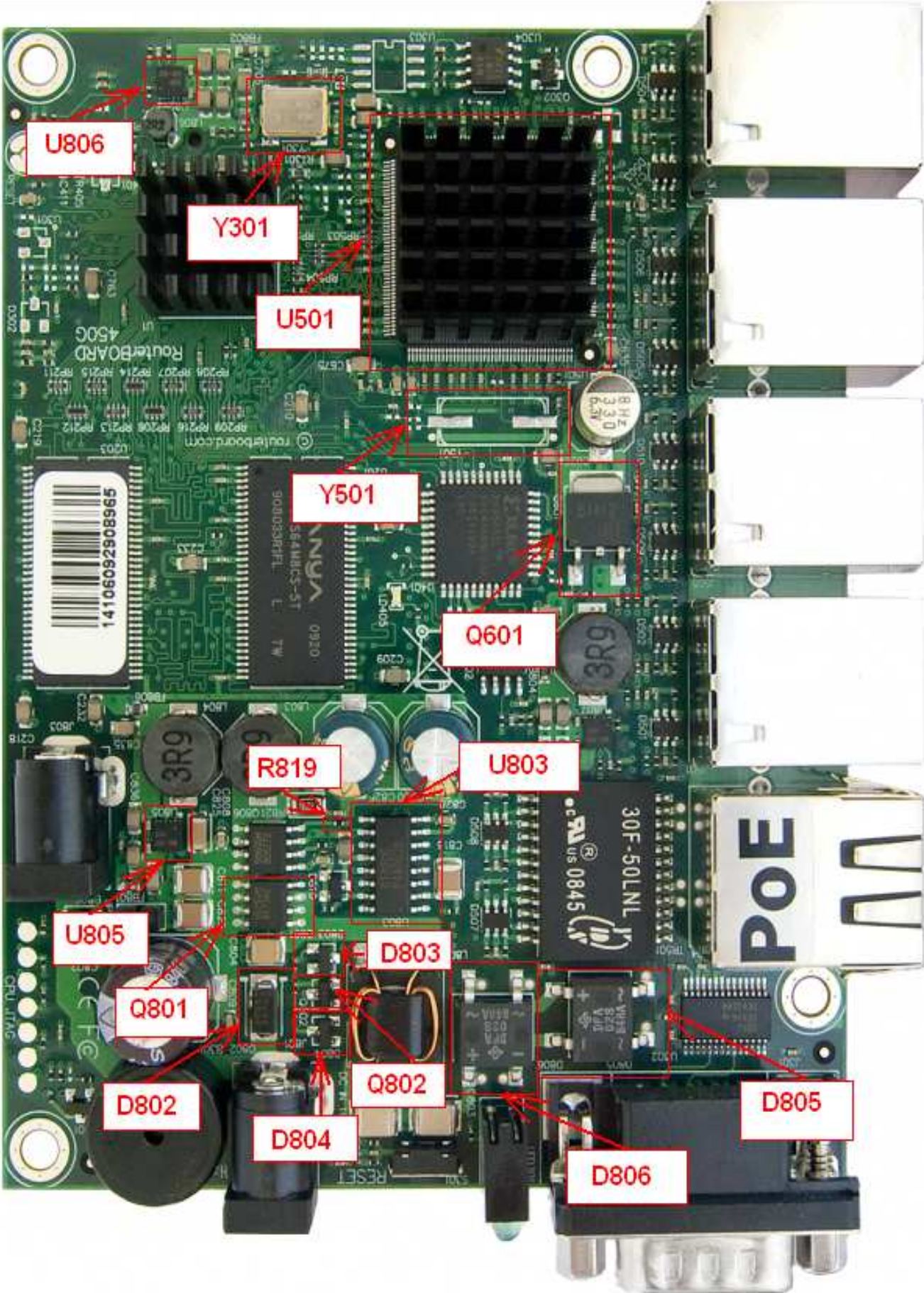
Change faulty PNP transistor Q601

The board is unrepairable

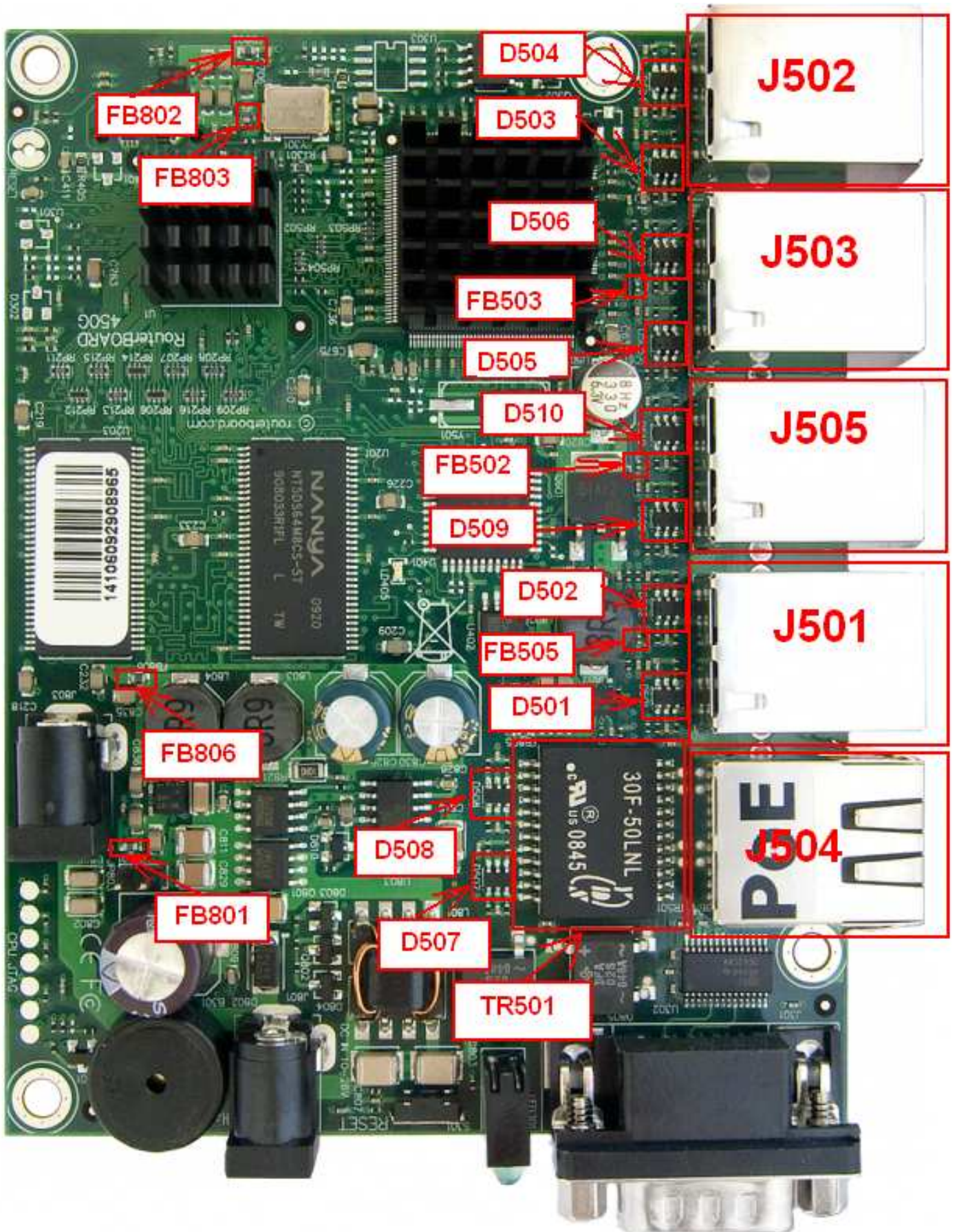
Reference number	Part Number	Manufacturer	Description
D501-D505	AOZ8000CIL	Alpha & Omega	IC TVS ARRAY LOW-CAP SOT23-6
D802	SR26-GP	SINYORK CO., LTD.	Diode (Rohs compliant)
D803	BZX84C10/SOT23-GP	SINYORK CO., LTD.	Zener Diode BZX84C10 SOT23
D804	BZX84-B27,215	NXP Semiconductors	BZX84-B27, SOT23-A, 27V+/-2%, 0.35W
D805, D806	DF02SA-E3/77	Vishay Intertechnology, Inc.	Bridge Rectifier, 1A 200V, DFS
FB501-FB505	BLM15AG121SN1D	Murata manufacturing Co.	Ferr Chip Beads 120 Om 500mA, 0402, FB120
FB801, FB802	BLM18PG331SN1D	Murata manufacturing Co.	Ferr Chip Beads 330 Om 1200mA, 0603
FB803	RC0603JR-070RL	Yageo Corporation	Resistor 5%, 0OHM 1/10W, 200ppm, 0603
FB806	BLM18SG121TN1D	Murata manufacturing Co.	Ferr Chip Beads 120Ohm, 3.0A, 0603
J501, J502, J503, J505	RB1-216BAK1A	U.D. Electronic Corp.	RJ45 Ethernet connector 10/100/1000 , LEDs(G/Y), without springs
J504	8108-B114	Powerway Electronics Co., LTD.	RJ45 with LEDs (G/Y) Tab down,pre-soldered shielding pins
R819	ERJ-2RKF10R0X	Panasonic	Resistor R10, 1%, 1/16W, 50V, 0402
R563-R566	RC0603FR-0775RL	Yageo Corporation	Resistor 0603 75,0R 1% 0,1W
Q601	STD888T4	STMICROELECTRONICS A. P .	Medium Current, High Performance, Low Voltage PNP Transistor
Q801	AO4441	Alpha & Omega	P-Ch MOSFET -60V -4A 100mOhm SO-8
Q802	BC856B,215	Philips AG	Small Sign PNP 250mW SOT-23 Transistor (RoHS Compliant)
TR501	G2414SG	Mentech Electronics Co.,Ltd.	10/100/1000 Ethernet transformer, SMD
U501	AR8316-AK1E	Atheros Technology Ltd.	6-port GbE Switch
U803	RT9206PS	Richtek Technology Corporation	Power Controller SOP-16
U805, U806	RT8011APQW	Richtek Technology Corporation	DC-DC Step down converter, WDFN-8E
Y301	NAOD40.000-C3C	NSK Jenjaan Quartek Corporation	40MHz 3.3V Oscillator 30ppm
Y501	NXE25.000AC20F-AHF	NSK Jenjaan Quartek Corporation	25Mhz Crystal, RoHS

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

# RB450Gr2v3 Reference picture



# RB450Gr2v3 Reference picture



# RB450Gr2v3 Reference picture

