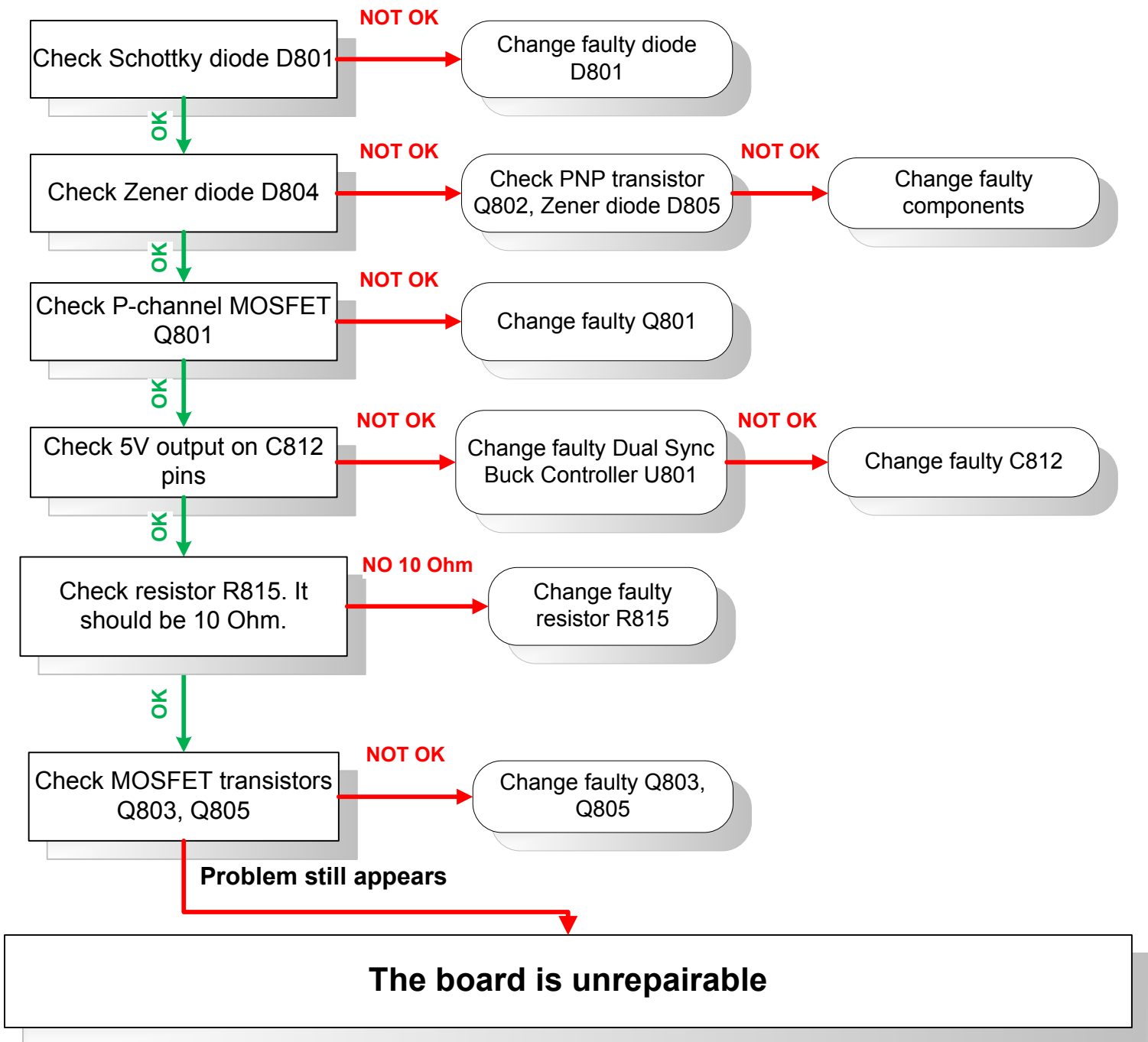
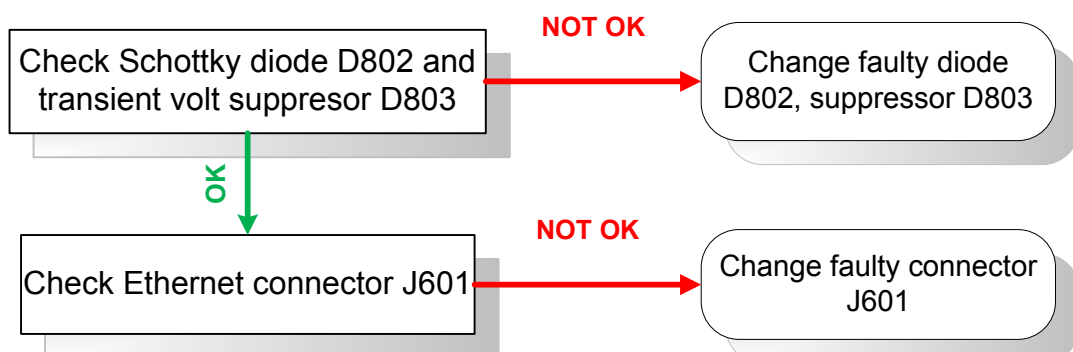


TroubleShooting for RB333

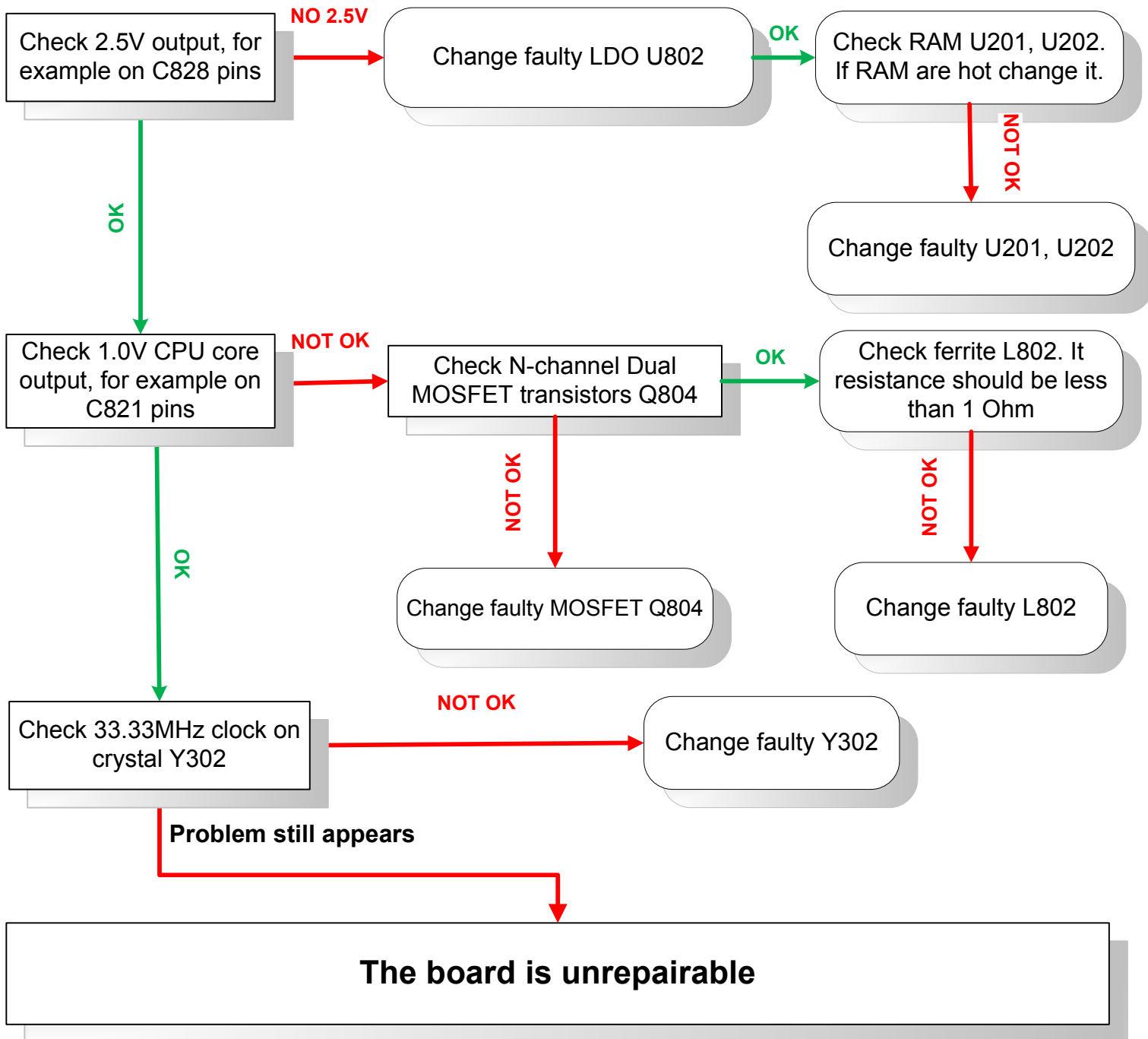
No power, blue LED doesn't shine



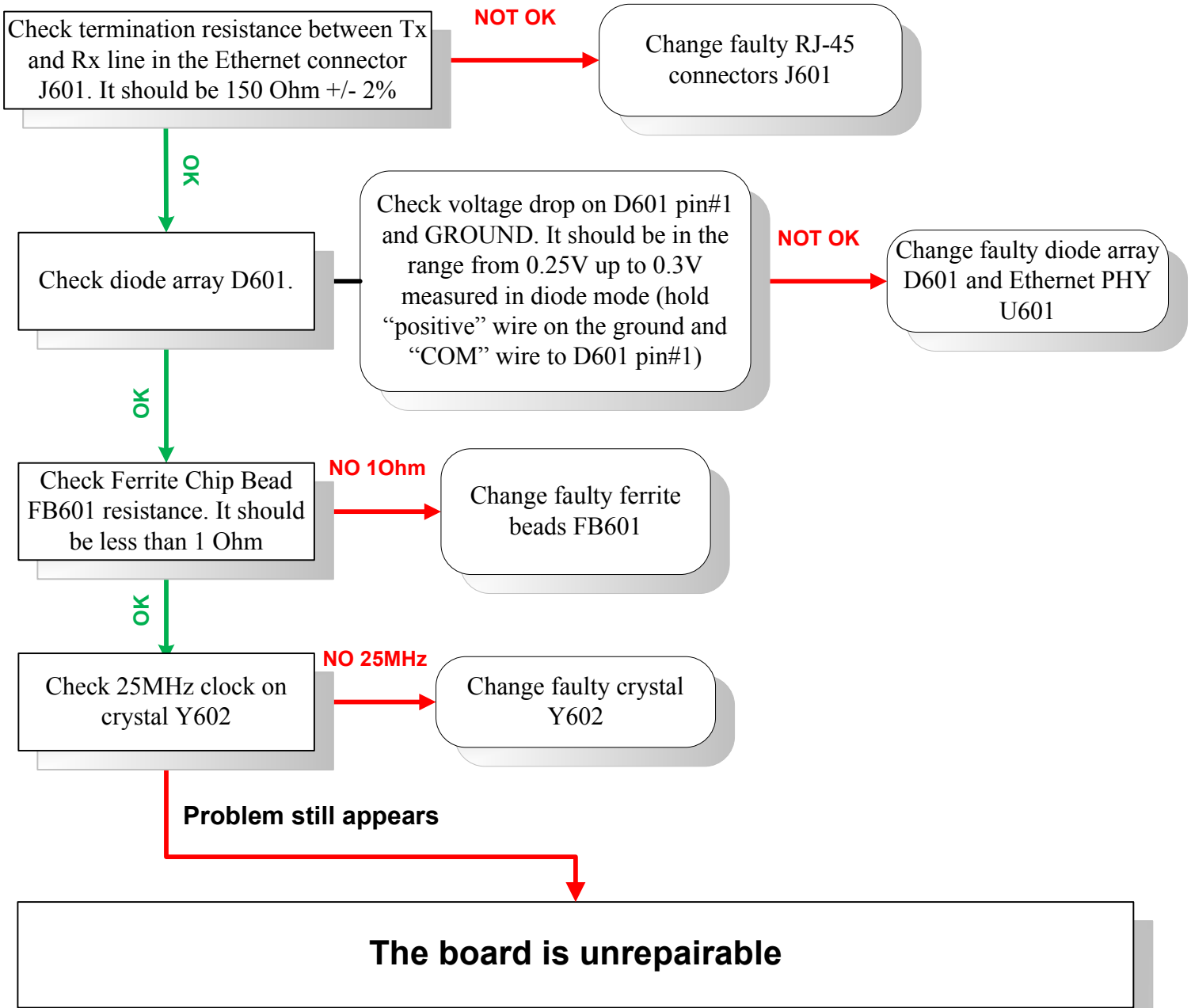
PoE does not work



Doesn't boot, green and blue LEDs are shining



Ethernet1 doesn't work



Ethernet2,3 doesn't work

Check termination resistance between Tx and Rx lines in the Ethernet connectors J602, J603. It should be 150 Ohm +/- 2%

NOT 150Ohm

Change faulty connectors J602 or J603

OK

Check diode array D63(for J603), D602 (for J602)

Check voltage drop on D63, D602 pin#1 and GROUND. It should be in the range from 0.25V up to 0.3V measured in diode mode (hold "positive" wire on the ground and "COM" wire to D602 pin#1)

NOT OK

Change faulty diode arrays and Ethernet PHY U602, U603

OK

Check Ferrite Chip Beads FB602, FB603 resistance. It should be less than 1 Ohm

NOT OK

Change faulty ferrite beads FB602, FB603

OK

Check 25MHz clock on crystals Y603, Y604

No 25MHz

Change faulty crystals Y603, Y604

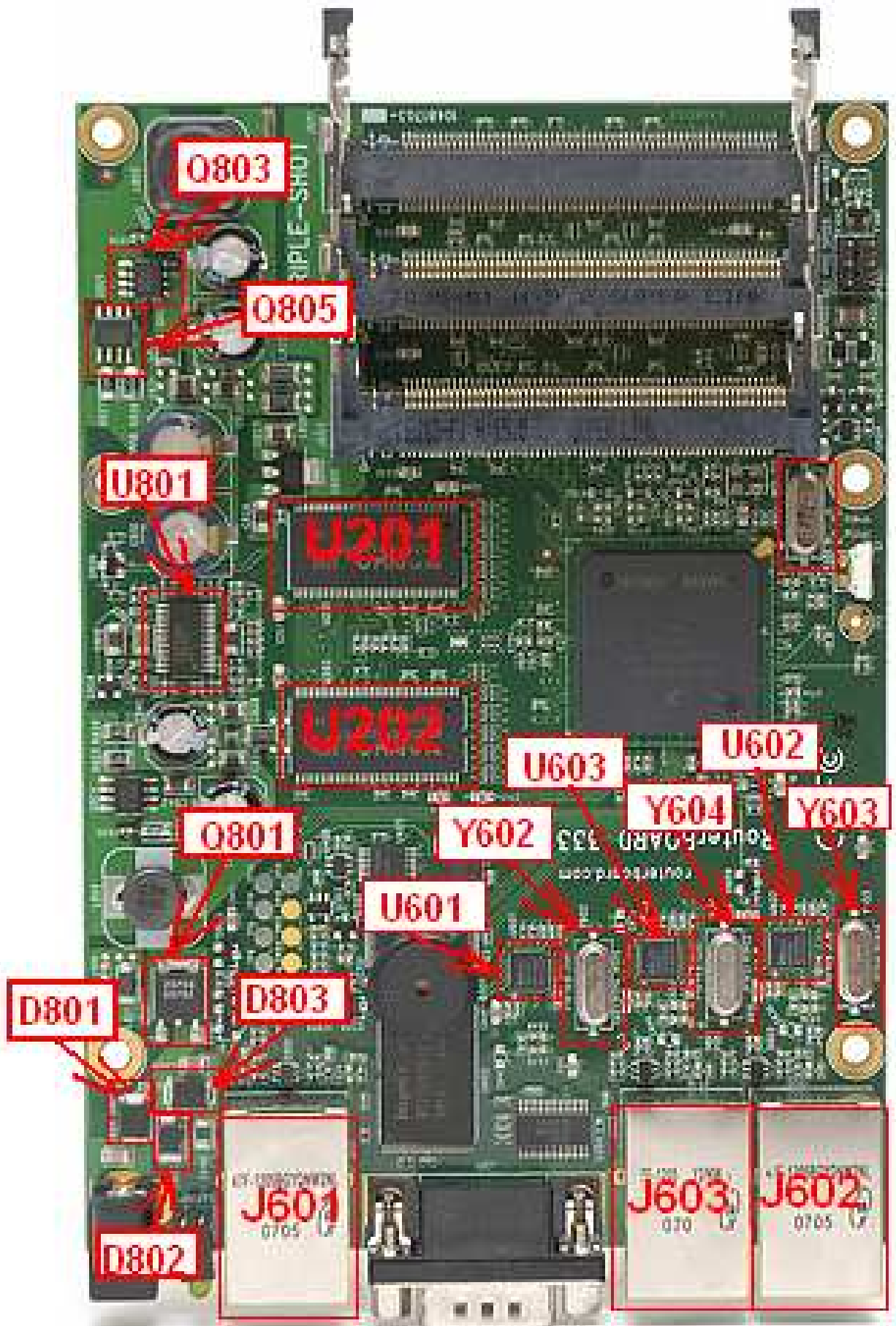
Problem still appears

The board is unrepairable

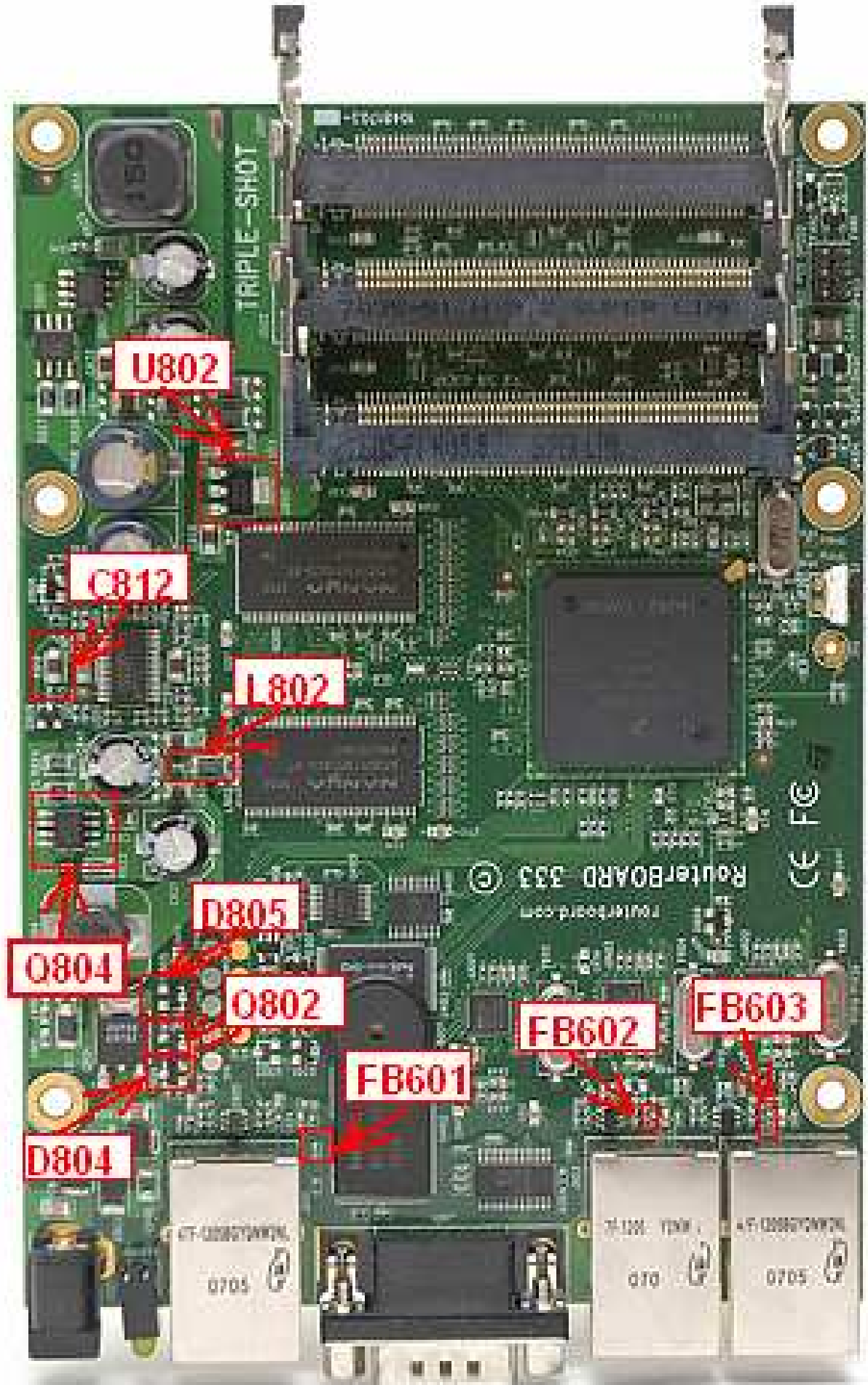
Reference number	Part Number	Manufacturer	Description
D63, D601, D602	L054BT26	Etronic Team Co LTD.	Diode Array 5V SOT23-6 8kV Low Capacitance with Zener Diode
D801	SR26-GP	SINYORK CO., LTD.	Diode Schottky 60V 2A SMA
D802	FM2100/SMA-GP	SINYORK CO., LTD.	Diode Schottky FM2100 Vf=0.85V Vr=100V If=2A SMA
D803	SMBJ58A-TR	STMICROELECTRONICS A. P .	600W Transient Volt Suppr 58V
D804	BZX84C10/SOT23-GP	SINYORK CO., LTD.	Diode Zener BZX84C 10V 6% 410mW SOT23
D805	BZX84C30/SOT23-GP	SINYORK CO., LTD.	Diode Zener BZX84C 30V 6.6% 410mW SOT23
R815	ERJ-2RKF1102X	Panasonic	Resistor 11k 1% 0402
C812	225020113776	Faithful Link Industrial Corp.	Capacitor 10uF 20% 6.3V X5R 1206
L802	BLM41PG181SN1L	Murata manufacturing Co.	Ferrite FB31, 180Ohm/100MHz, 1806
FB601, FB602, FB603	BLM15AG121SN1D	Murata manufacturing Co.	Ferr Chip Beads 120 Om 500mA, 0402, FB120
Q801	AP9576GH	Advanced Power Electronics Corp.	P-channel MOSFET, Vds = -60V, Id = -14A, Rds(on) = 100mOhm, DPAK
Q802	BC856BE6327	Infineon	BC856B Trans PNP, 65V SOT23
Q803, Q805	AP9985GM	Advanced Power Electronics Corp.	N-channel MOSFET, Vds = 40V, Id = 10A, Rds(on) = 15mOhm, SO-8
Q804	AP9960GM	Advanced Power Electronics Corp.	N-channel Dual MOSFETs, Vds = 40V, Id = 7.8A, Rds(on) = 20mOhm, SO-8
J601, J602, J603	47F-1205BGYDNW2NL	Yuan Dean Scientific Co., Ltd	RJ45 10/100MHz magn LEDs and direct POE output
Y302	NXE33.333AC20F-AHF-BA	NSK Jenjaan Quartek Corporation	33.333MHz Crystal
Y602, Y603, Y604	NXE25.000AC20F-AHF	NSK Jenjaan Quartek Corporation	25Mhz Crystal
U801	LM5642MTCX/NOPB	National Semiconductor INTL BV C/O	Dual Sync buck controller 028 TTSOP 4.4mm wide 0.65 mm
U802	APU1206K-25	Advanced Power Electronics Corp.	LDO with fixed 2.5V Vout Vin max = 12V Dropout = 0,5V Iout = 1A SOT-223
U201, U202	NT5DS16M16CS-5T	NANYA TECHNOLOGY CORPORATION	DDR SDRAM 256Mbit DDR400 16M x 16bit TSOP-66
U601, U602, U603	KSZ8041NLTR	Micrel Semiconductors (UK) Ltd	5MMx5MM gfn package Ethernet PHY low power

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

RB333 Reference picture



RB333 Reference picture



RB333 Output voltage picture

