



**SIA "Mikrotikls"**

**Reģ. N# LV40003286799**

Jur. adrese: Aizkraukles iela 23, LV-1006, Rīga

Biroja adrese: Pērnavas iela 46, LV1009, Rīga

Tālr.: +371 7317700

Fakss: +3717 317701

Bankas rekvizīti:

A/S "Hansabanka",

Kods HABALV22,

LVL konts 01408049678

USD konts 19408049678

## Testing methods of RB Ethernet ports which are damaged by over voltage

Over voltage can be caused by following reasons: high voltage surge, lightning, electrostatics etc.  
Testing procedures for over voltage damage (for all RB types):

**1.** Testing for over voltage damage our electronic engineers measure the resistance between Tx/Rx and ground and if the resistance smaller than 200 Ohm consequently line was damage by high voltage surge.

Example, in the RB411 the resistance between TX/RX and ground you can measure resistance between D601 pin#1 and ground (see attachment file).

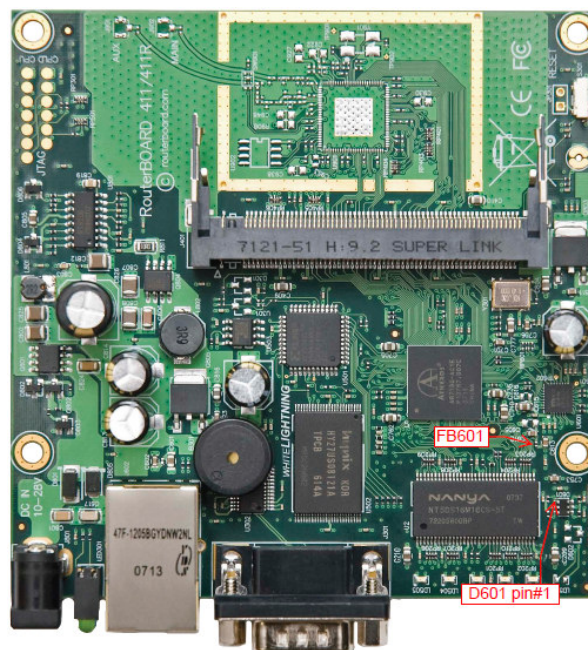
For RB433 check resistance between D601 (for Ether1), D602 (for Ether2), D603 (for Ether3) pin#1 and Ground.

**2.** Additionally engineers verify termination resistors in the RJ-45 connector. Resistance value between Rx and Tx must be 150 Ohms  $\pm$  2%. For measurement takes patch cord and plug it into the RB, and after that you measure termination resistors in the RJ-45 connector (which must be 150 Ohms  $\pm$  2%). If resistance value smaller, consequently line was damage by high voltage surge (example, by lightning).

**3.** Also engineers verify Schottky diodes. Example, in the RB411 it is D801, D805.

In the RB532r5 - D23, D24; RB133 - D6, D7; RB433 - D801, D802, D803; RB433 - D802, D801.

All these measurements you can make to boards which does not have power.



MikroTik RMA dept.