# *Procedure for checking over-voltage damage.*

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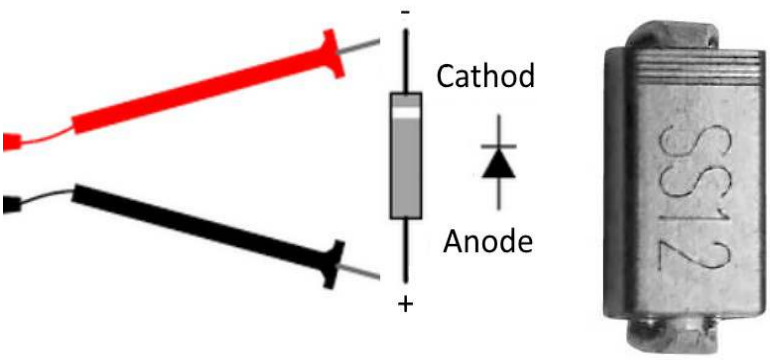
# Checking procedure for over-voltage damage

Over-voltage can be caused by the following reasons: high voltage surge, lightning, electrostatics etc. You can check if routerboard was damaged by over-voltage, by using the following testing methods:

## 1. Check Schottky diode measurement with multimeter;

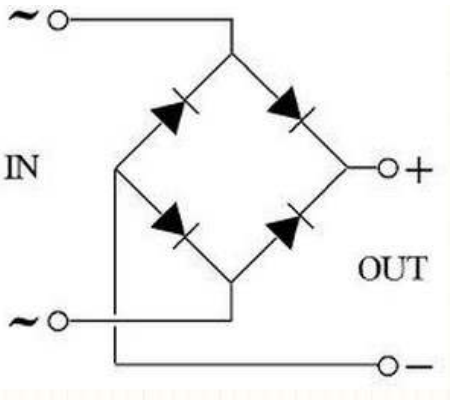
Schottky diode quality can be measured with diode test function, see picture 1, When the test probes are connected as shown in Pictur2: red probe to Cathode and black probe to Anode, Value of measurement should be Open loop, as in picture 1. If Schottky diode will be damaged, measurement will show some other value, from short to small voltage drop.


Picture 1

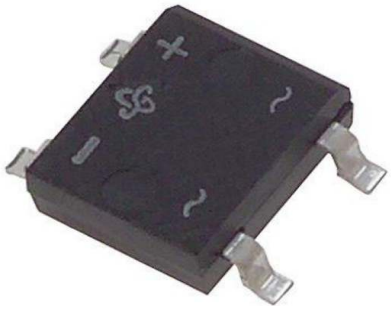



Picture 2

In the same manner we make Diode bridge test, considering schematic of bridge rectifiers, see Picture 3 and Picture 4.



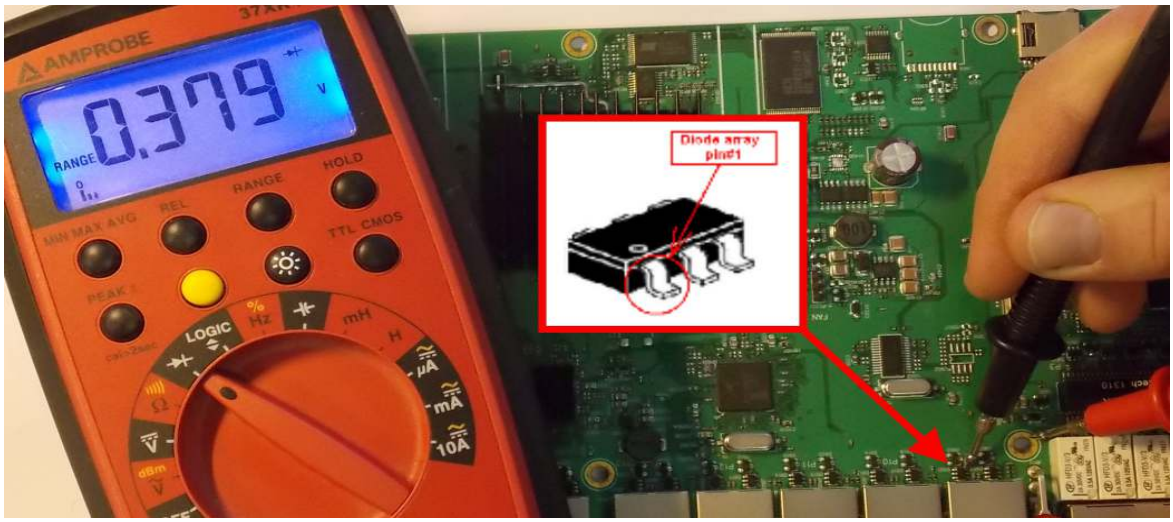

Picture 3



Picture 4

## 2. Check voltage drop between diode array pin#1 and Ground.

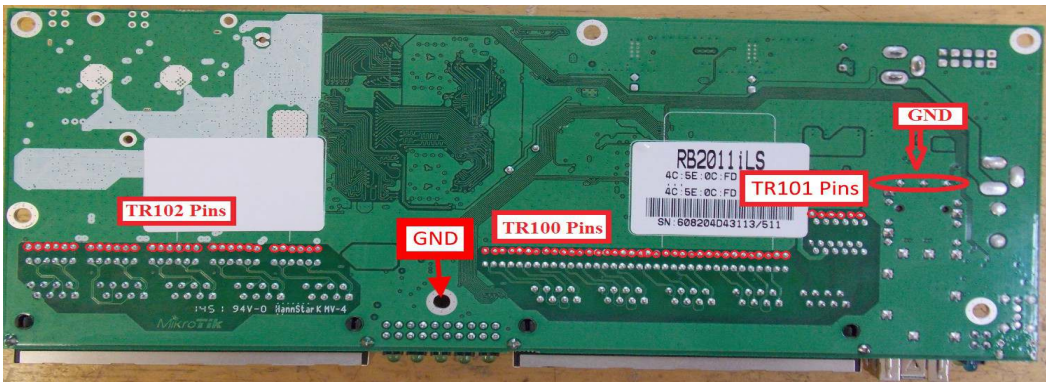
You should measure in diode mode: hold "positive" wire on the Ground and "COM" wire to diode array pin#1). Diode array pin#1 is always marked by dot mark on the diode array case,see picture 5 .




Picture 5

Often easier to measure the voltage drop on diode array pins are on transformer pins, wich also connects to diode array pins. Measurement do similar to diode array: measure in diode mode (hold "positive" wire on the Ground and "COM" wire to marked Transformers pins)

For example Picture 6 are marked Transformers pins and picture 7 are shown how to measure.




Picture 6


Picture 7

## 3. Check termination resistors resistance in RJ-45 connector.


Picture 8

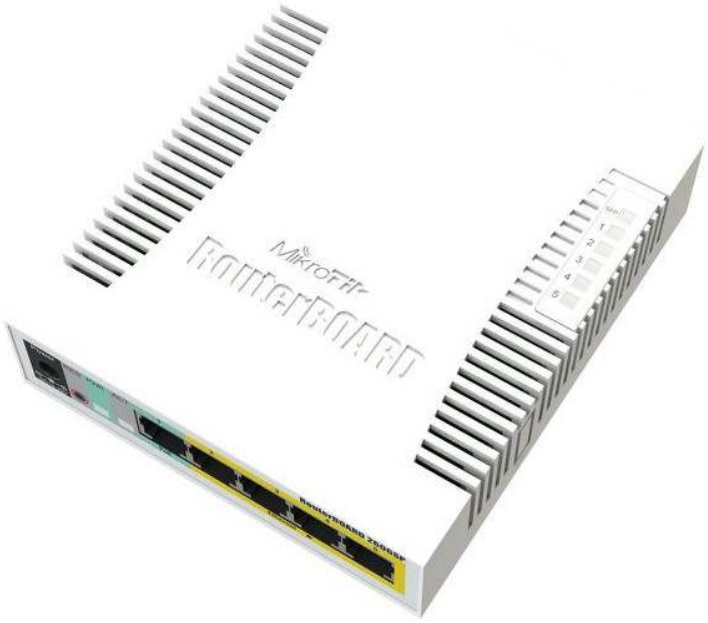
For this measurement you should take patch cord and plug it into the routerboard, see picture 8, and then measure resistance of termination resistors.

Resistance value between Rx and Tx line must be 150 Ohm +/-4%.

If resistance value is smaller or higher then Tx/Rx line was damaged by high voltage surge.

# 260GSP series RouterBoards

## RB260GSP



Picture 9

## RB260GS

Picture 10

## Disassembling information

1. Take off the cover with a screwdriver as shown in the pictures 282

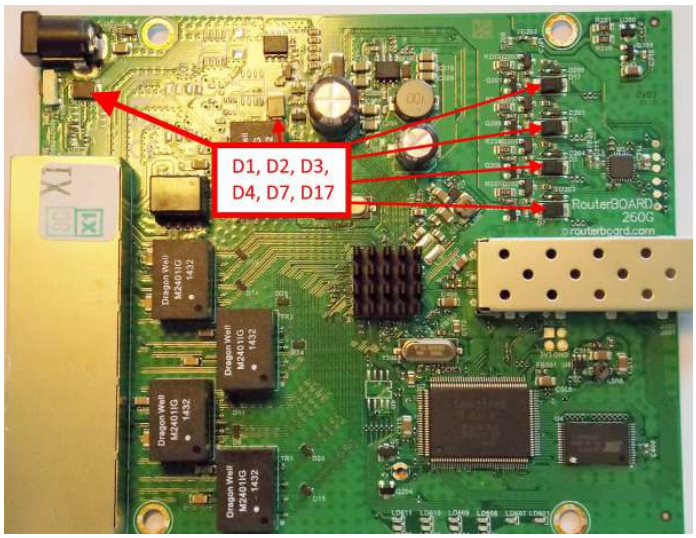
Picture 11

2. Take out the board with a screwdriver as shown in the picture 12

Picture 12

## Schottky diode measuring with multimeter in diode mode

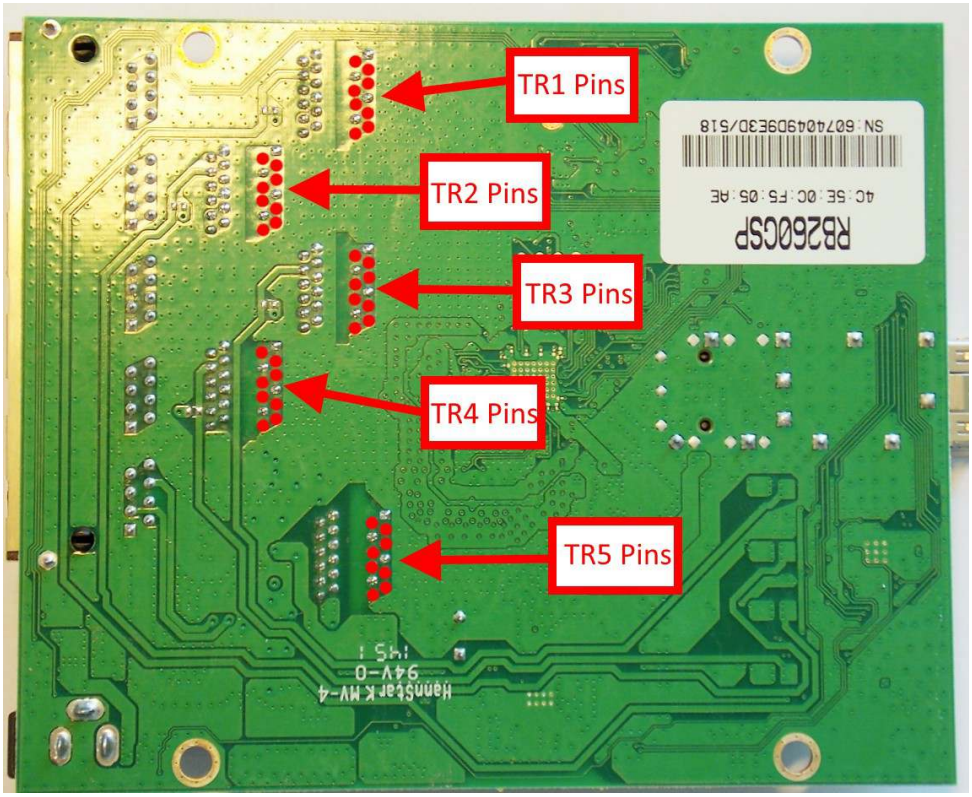
Diode bridge reference numbers are D1, D2, D3, D7, D17. Schottky diode quality measurement method describe on page 7




Picture 13

## Voltage drop between Ethernet transformers and Ground.

Check voltage drop between TR1, TR2, TR3, TR4, TR5 Ethernet Transformers on ports Ether1 – Ether5 pins and Ground. Ether Pins are marked with red. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers pins.




Picture 14

# 750r2 series RouterBoards

## List of RB750r2 series:

### PowerBox

Picture 15

## *h*EX lite


Picture 16

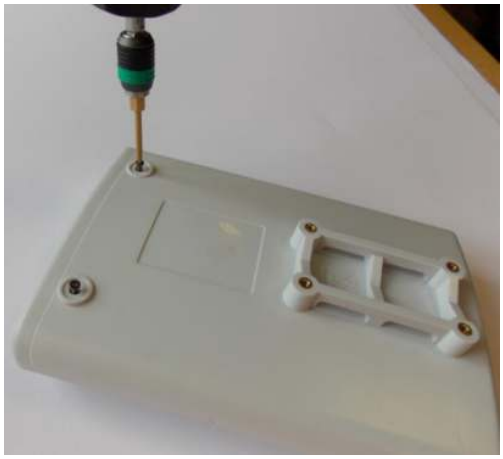
## *h*EX PoE lite


Picture 17

# Disassembling information

## PowerBox disassembling

1. step



Picture 18

Unscrew with Torx T8

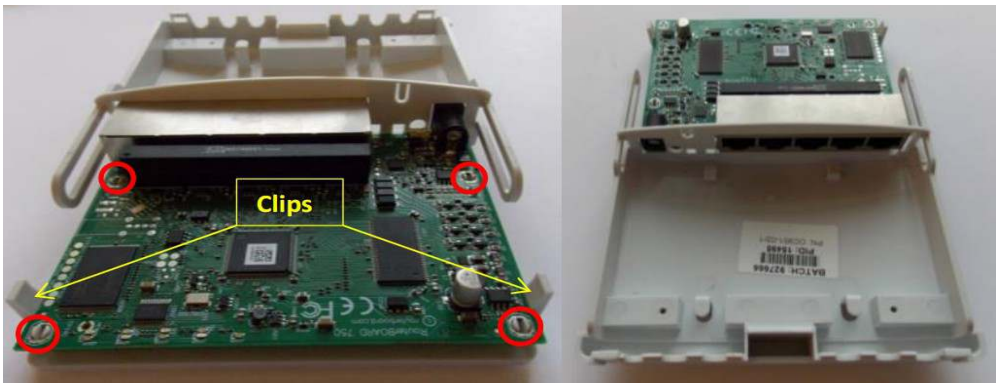
2. step

Remove board from case

Picture 19

3. Step

Incline fixed plastic clips to sever board from case.

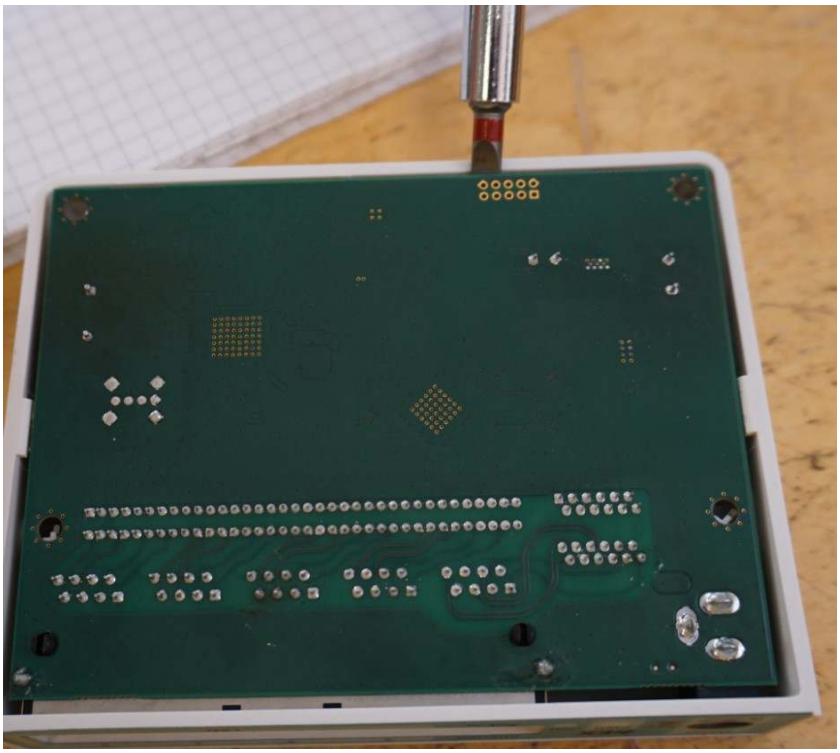



Picture 20

## *h*EX lite and *h*EX PoE lite disassembling

Take off the cover with a screwdriver as shown in the picture 21

Picture 21



picture 22

Take out the board with a screwdriver as shown in the picture 22

## Schottky diode measuring with multimeter in diode mode

Schottky diode reference numbers is D7, D8, D705, D706, D707, D708. Schottky diode quality measurement method describe on page 7


Picture 23

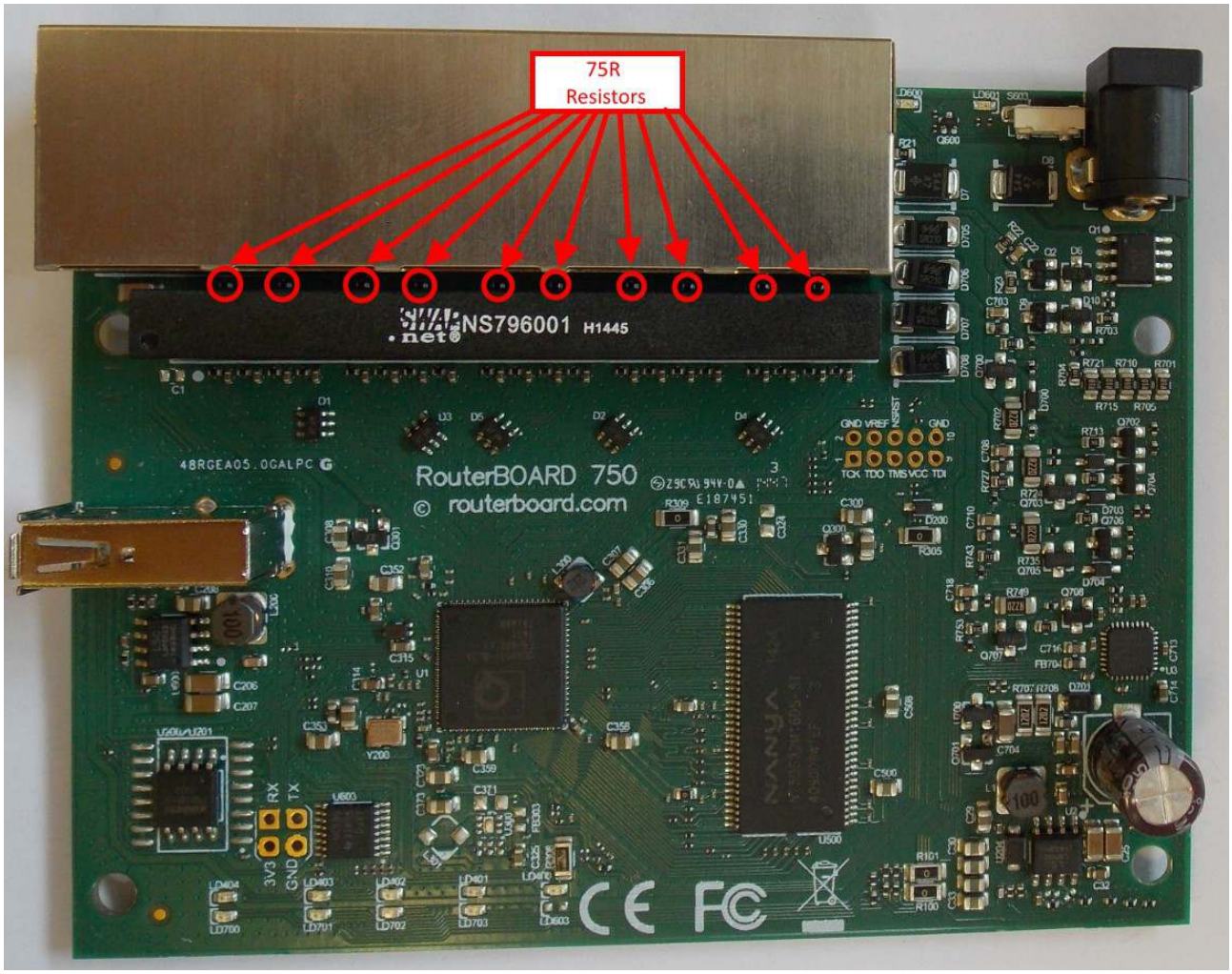
## Voltage drop between TR1 pins and Ground.

Check voltage drop between TR1 Ethernet Transformers on ports Ether1 – Ether5 pins and Ground. Ether Pins are circled red. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold "positive" wire on the Ground and "COM" wire to marked TR1 Transformers pins


Picture 24

## 75R termination resistors resistance

Red circled resistors resistance should be 75Ohm +/- 1%




Picture 25

# 751U-2HnD series RouterBoards

## RB751U-2HnD

Picture 26

## Disassembling information

Take off the cover with a screwdriver as shown in the pictures 27



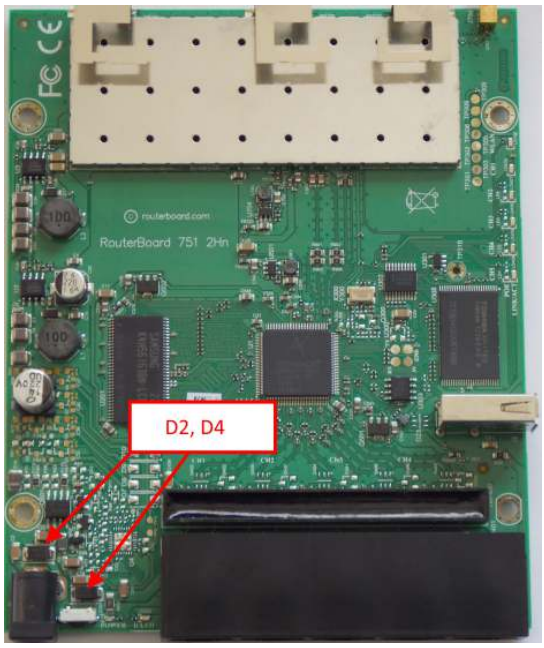

Picture 27

Take out the board with a screwdriver as shown in the picture 28

Picture 28

## Schottky diode measuring with multimeter in diode mode

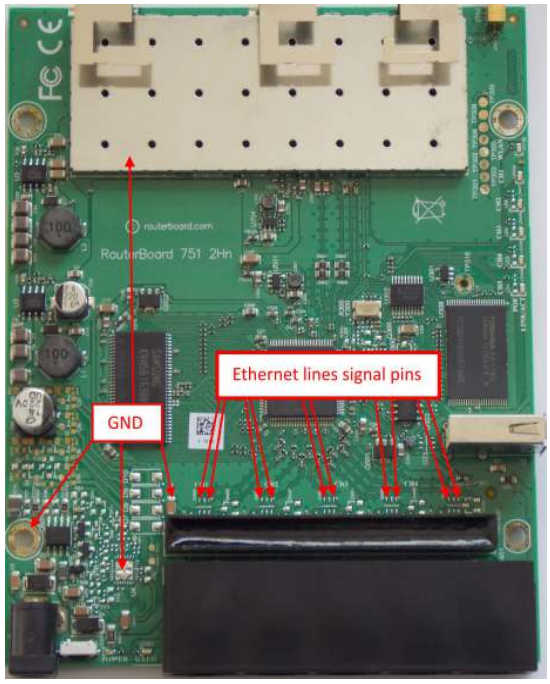
Diode bridge reference numbers are D2 and D4.
Schottky diode quality measurement method describe on page 7




Picture 29

## Voltage drop between TR100 pins and Ground.

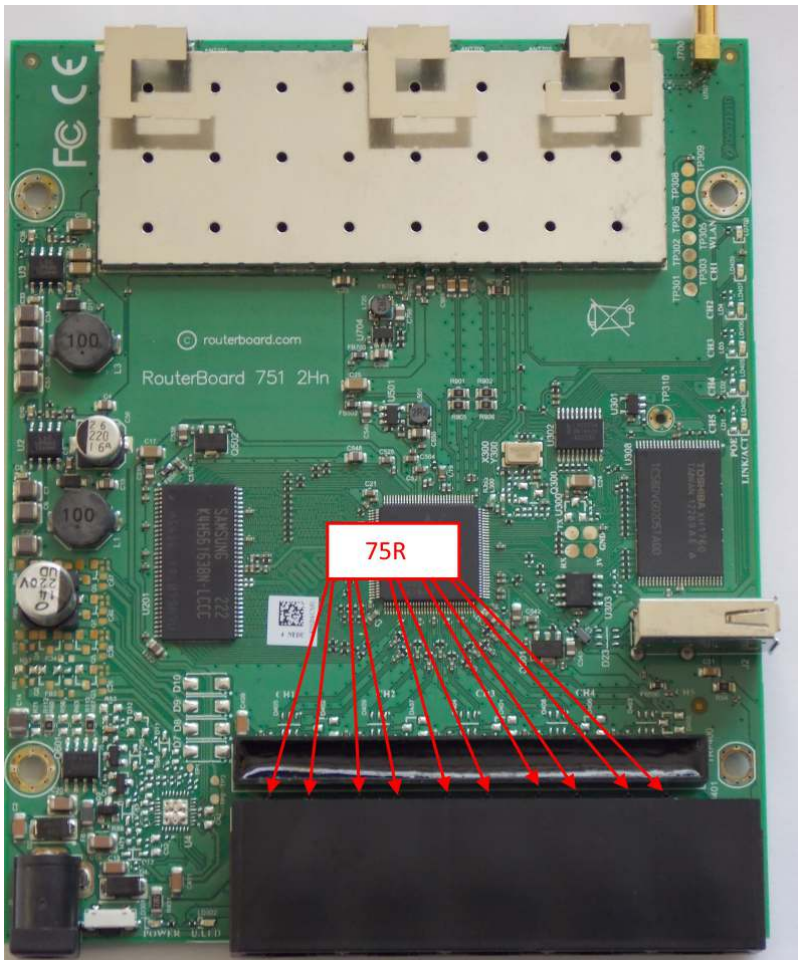
Check voltage drop between Ground and Ethernet signal lines, wich are connected to TR100 Ethernet Transformer on ports Ether1 – Ether5 pins. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers pins.




Picture 30

## 75R termination resistors resistance

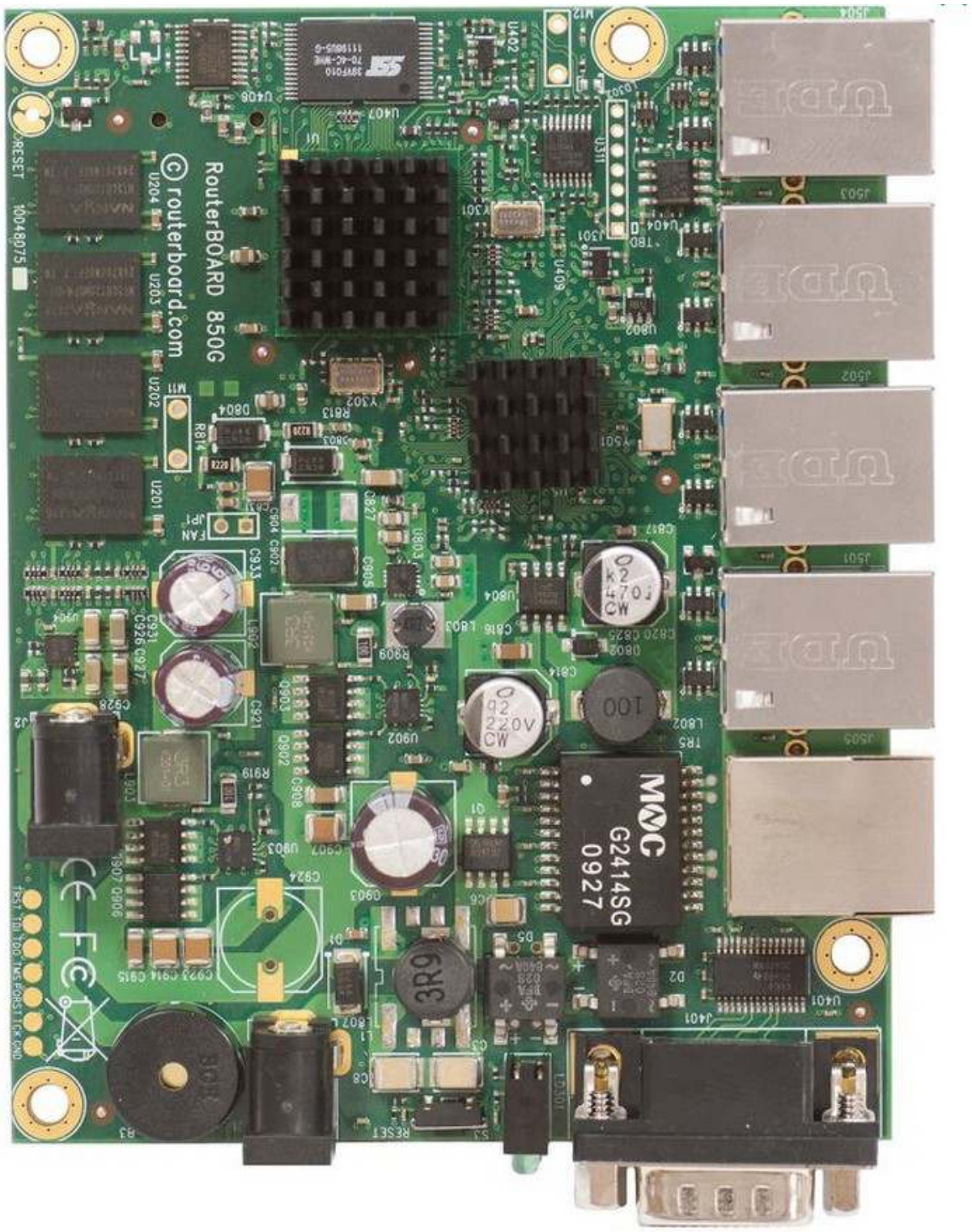
Red circled resistors resistance should be 75R +/- 1%




Picture 31

# 850Gx2 series RouterBoards

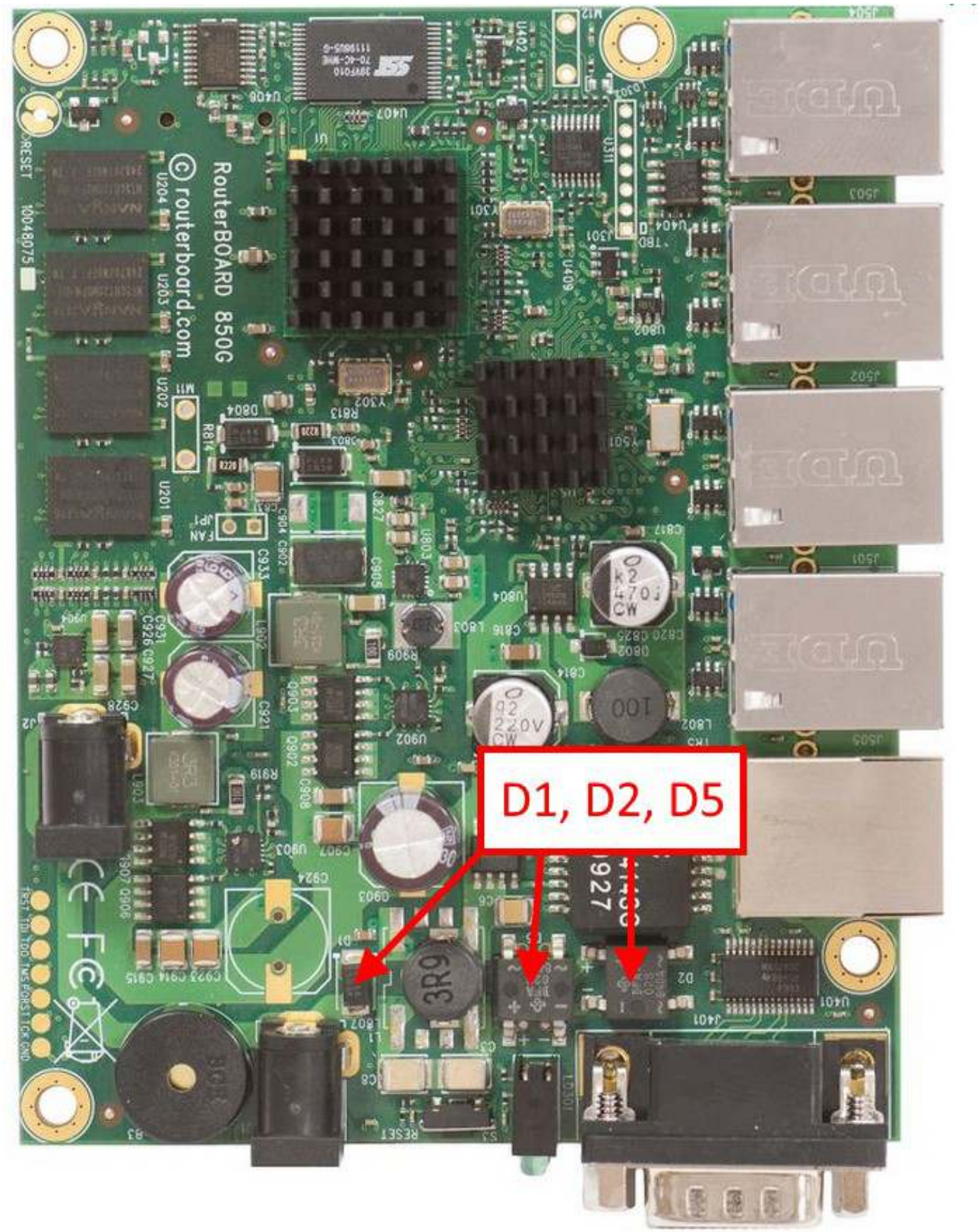
## RB850Gx2




Picture 32

## Schottky diode measuring with multimeter in diode mode

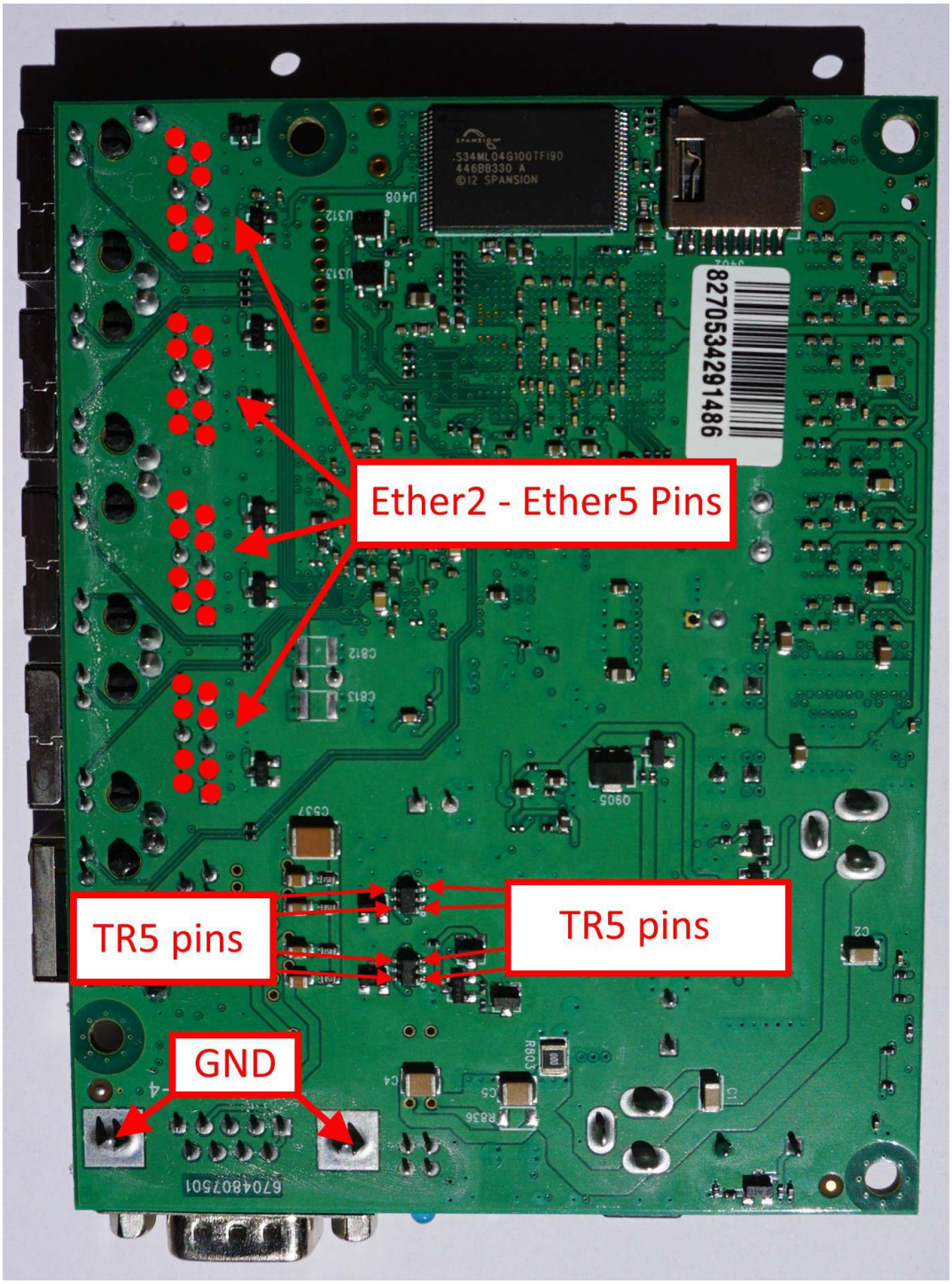
Schottky diode reference number is D1; Diode bridge reference numbers are D2 and D5. Schottky diode quality measurement method describe on page 7




Picture 33

## Voltage drop between TR5, ether2 - ether5 pins and Ground.

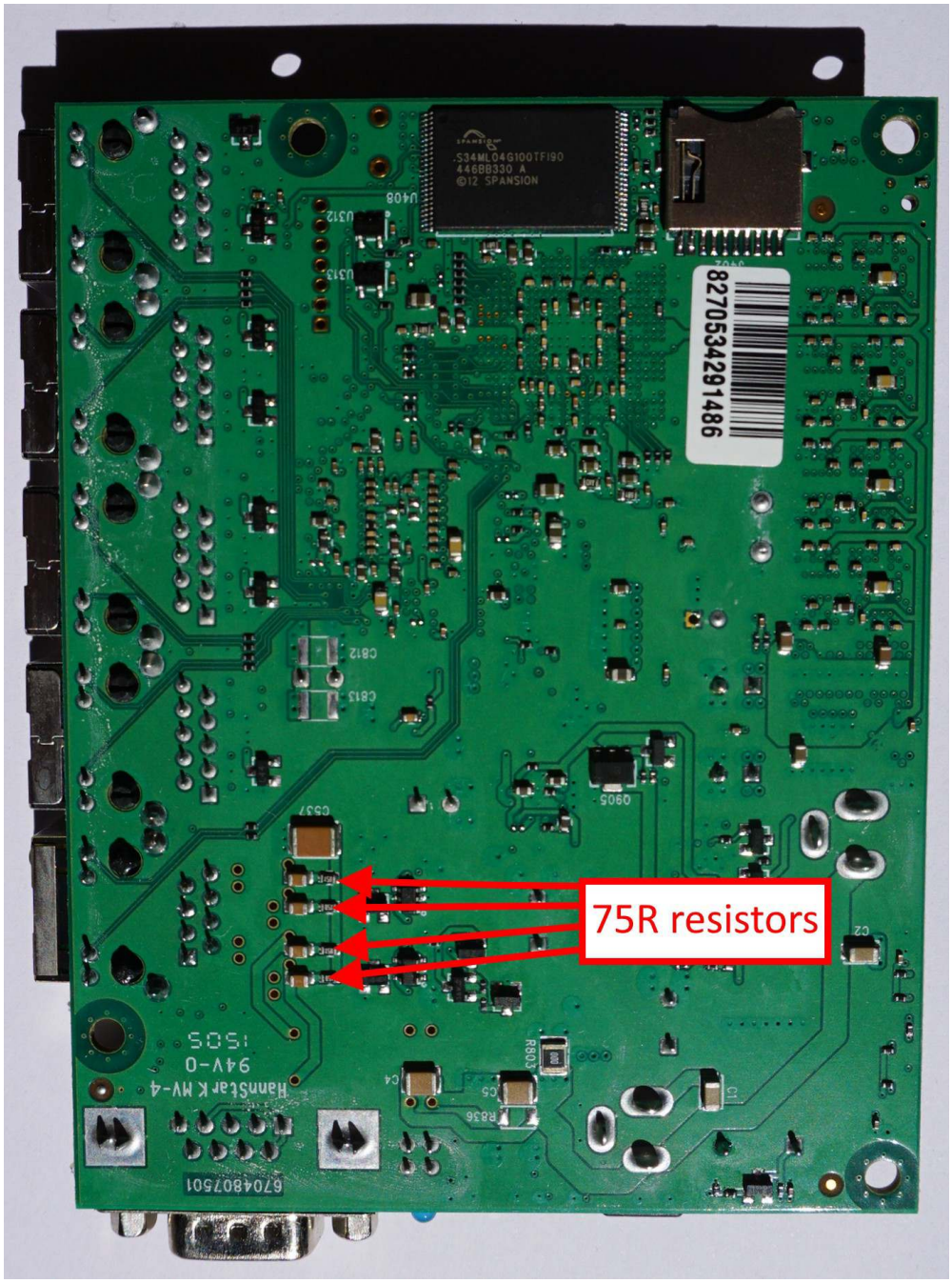
Check voltage drop between TR5, ether2- ether5 Transformers pins and Ground. Ether Pins are marked with red arrows and circles. It should be in the range from 0,32V to 0,589V. Measure in diode mode:hold "positive" wire on the Ground and "COM" wire to marked Ethernet and TR5 pins.




Picture 34

## 75R Termination resistors resistance.

Resistor resistance, marked with red arrow, should be 75 Ohm +/- 1%

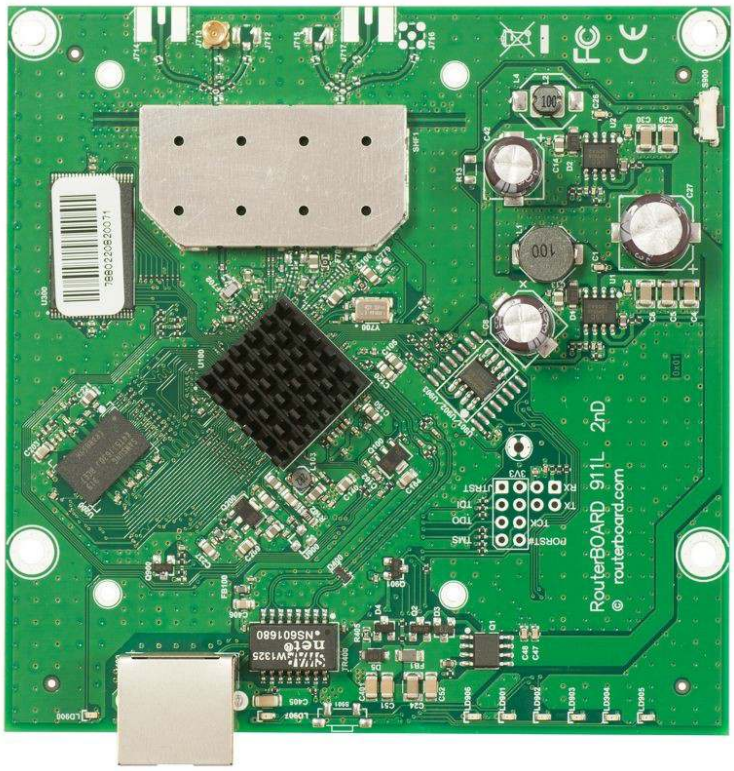



Picture 35

On ports Ether2 – Ether5 You can take patch cord and plug it into the routerboard, and then measure as describe on page 9

# 911-2Hn series RouterBoards

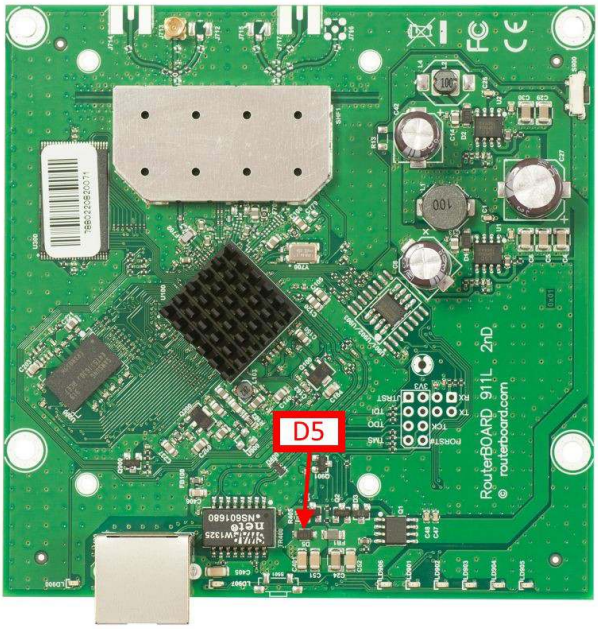
## 911 Lite2




Picture 36

## Schottky diode measuring with multimeter in diode mode

Schottky diode reference numbers D5. Schottky diode quality measurement method describe on page 7

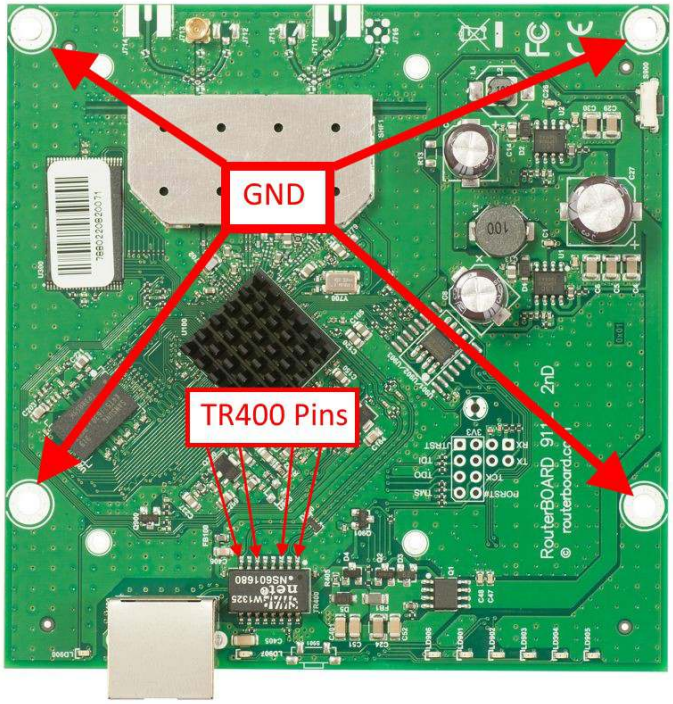



Picture 37

## Voltage drop between TR400 Pins and Ground.

Check voltage drop between TR400 Ethernet Transformers on ports Ether1 pins and Ground. Ether Pins are marked with red arrows.

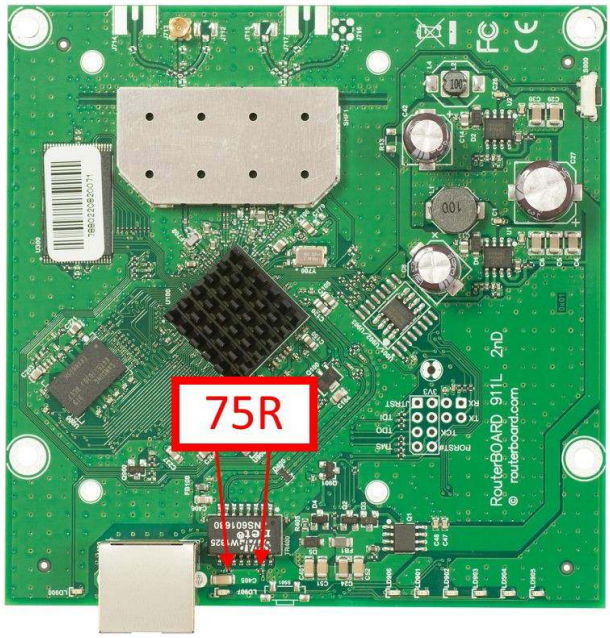
It should be in the range from 0,32V to 0,438V




Picture 38

## 75R termination resistors resistance

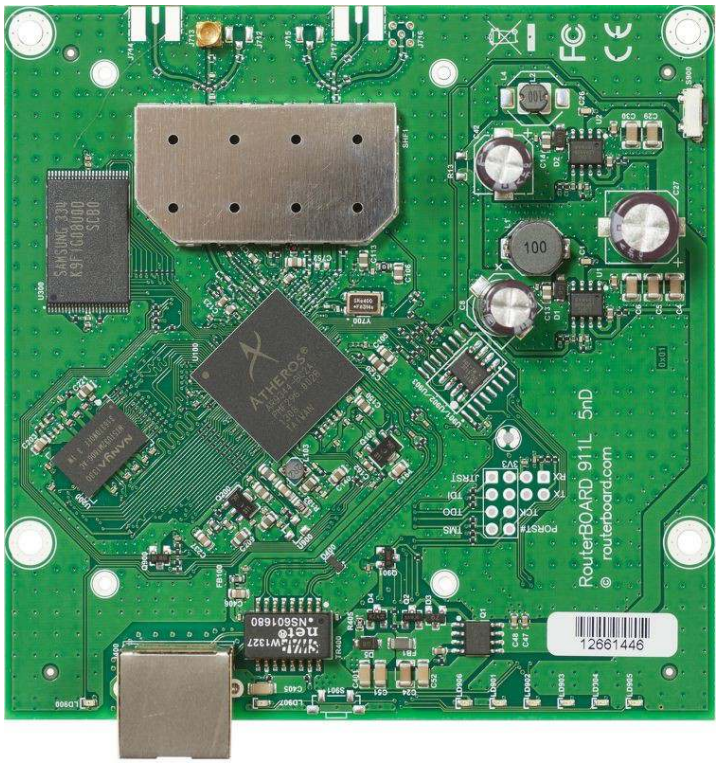
Resistors marked with red arrows should be 75Ohm +/- 1%




Picture 39

# 911-5Hn series RouterBoards

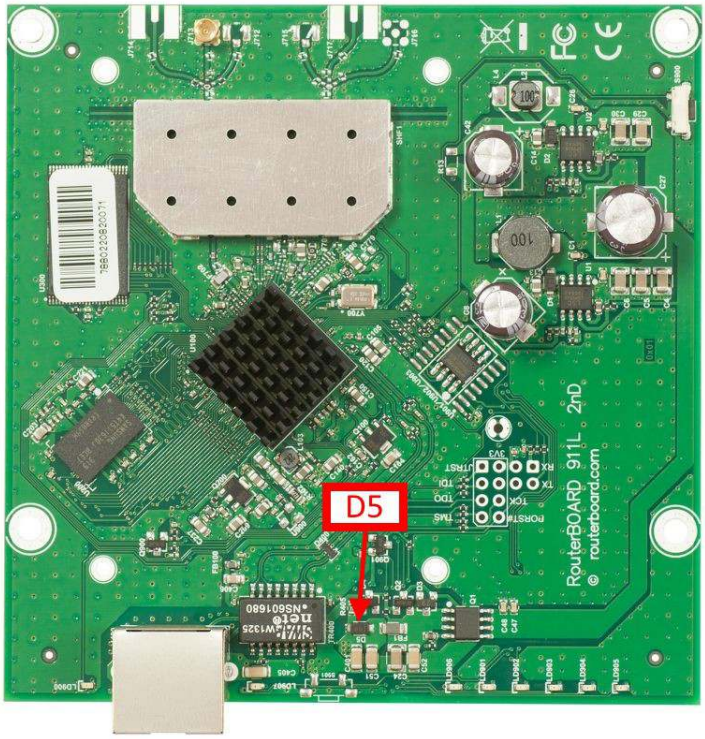
## 911 Lite5




Picture 40

## Schottky diode measuring with multimeter in diode mode

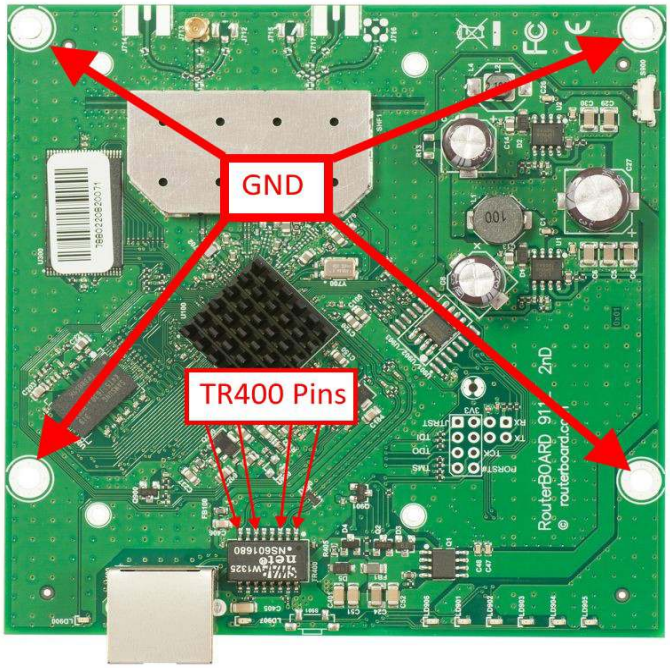
Schottky diode reference numbers D5.  Schottky diode quality measurement method describe on page 7




Picture 41

## Voltage drop between TR400 Pins and Ground.

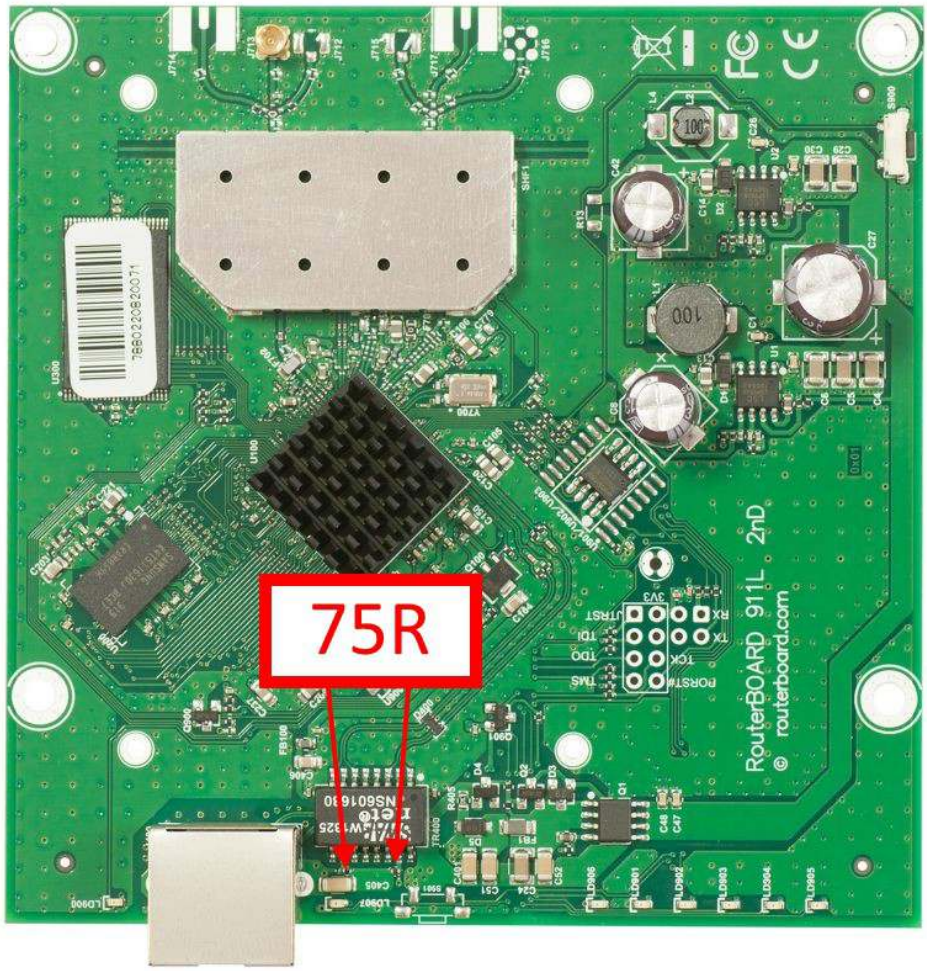
Check voltage drop between TR400 Ethernet Transformers on ports Ether1 pins and Ground. Ether Pins are marked with red arrows.It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR400 Transformer pins.




Picture 42

## 75R termination resistors resistance

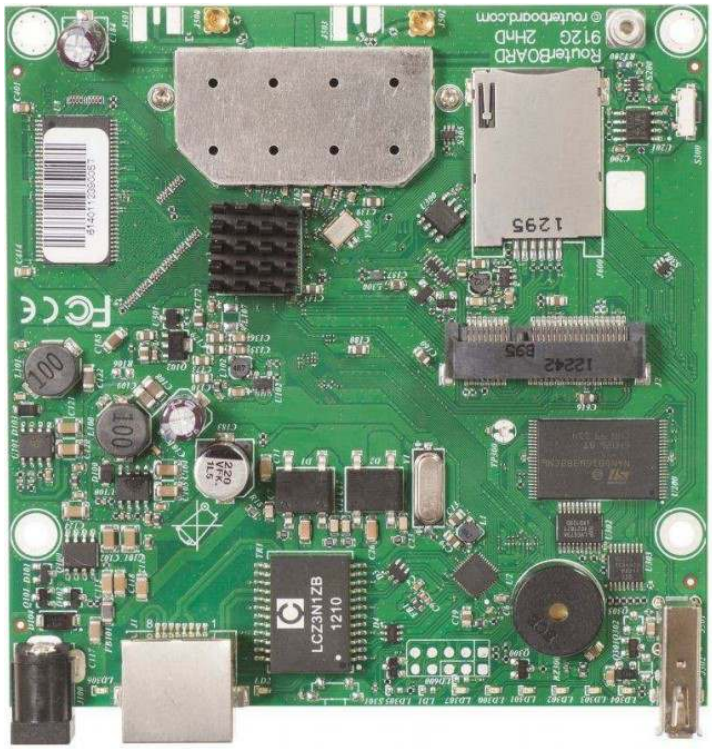
Resistors marked with red arrows should be 75Ohm +/- 1%




Picture 43

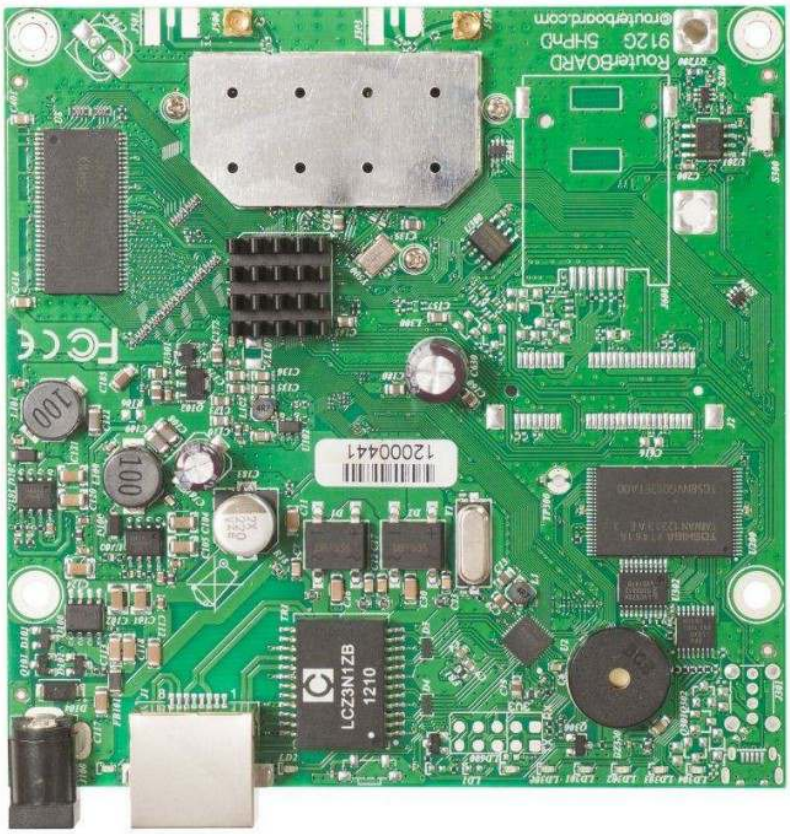
# 912G - 2HnD series RouterBoards

## RB912UAG-2HPnD




Picture 44

## RB911G-2HPnD




Picture 45

## BaseBox 2


Picture 46

## BaseBox 2 disassembling information

1. step

Remove the sticker from connectors

Picture 47

2. step

Remove the screw stickers

Picture 48

3. step

Unscrew the case base from the board holder with torque screwdriver T8

Picture 49

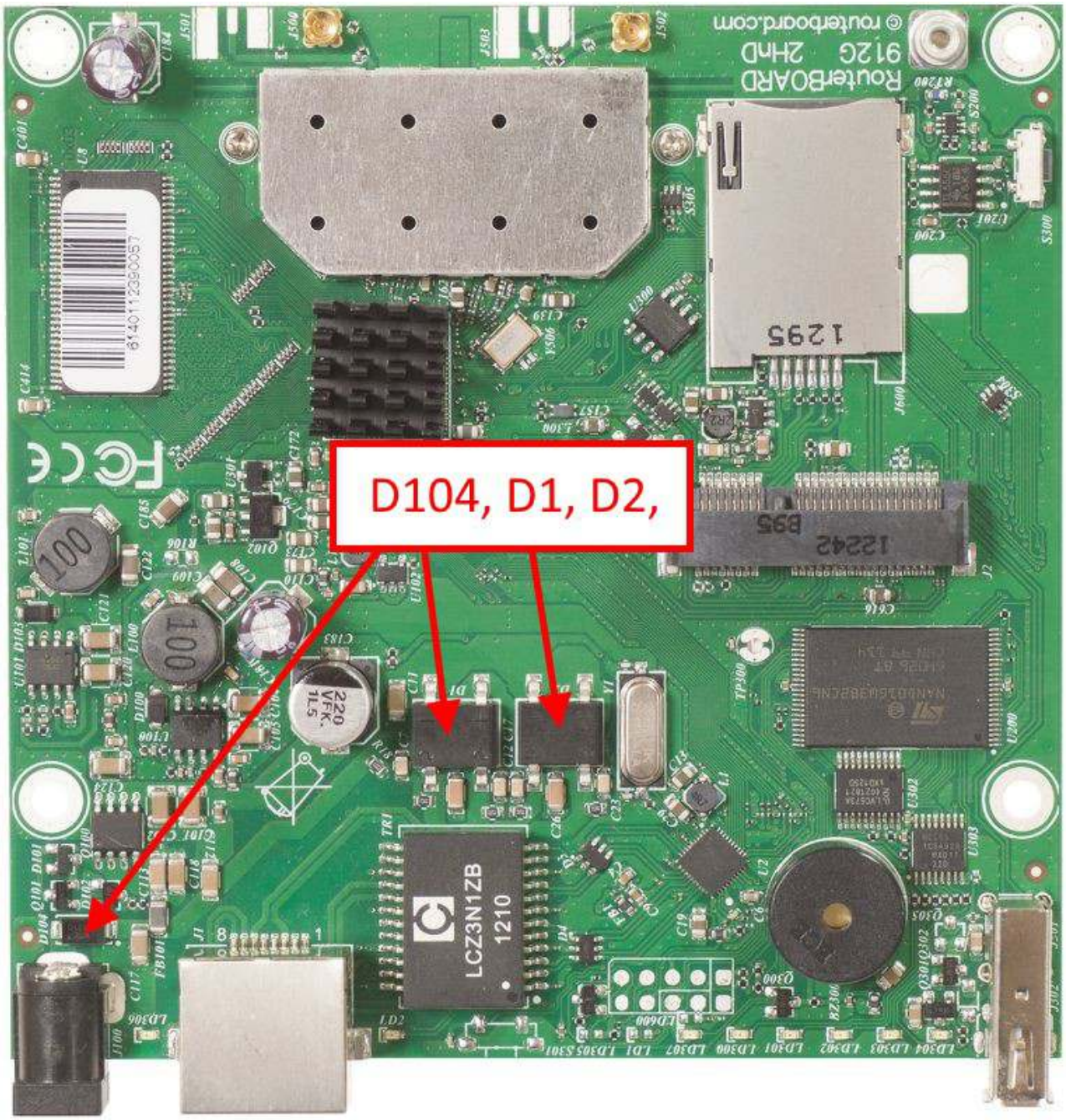
4. step

Remove the case base from the board holder

Picture 50

## Schottky diode measuring with multimeter in diode mode

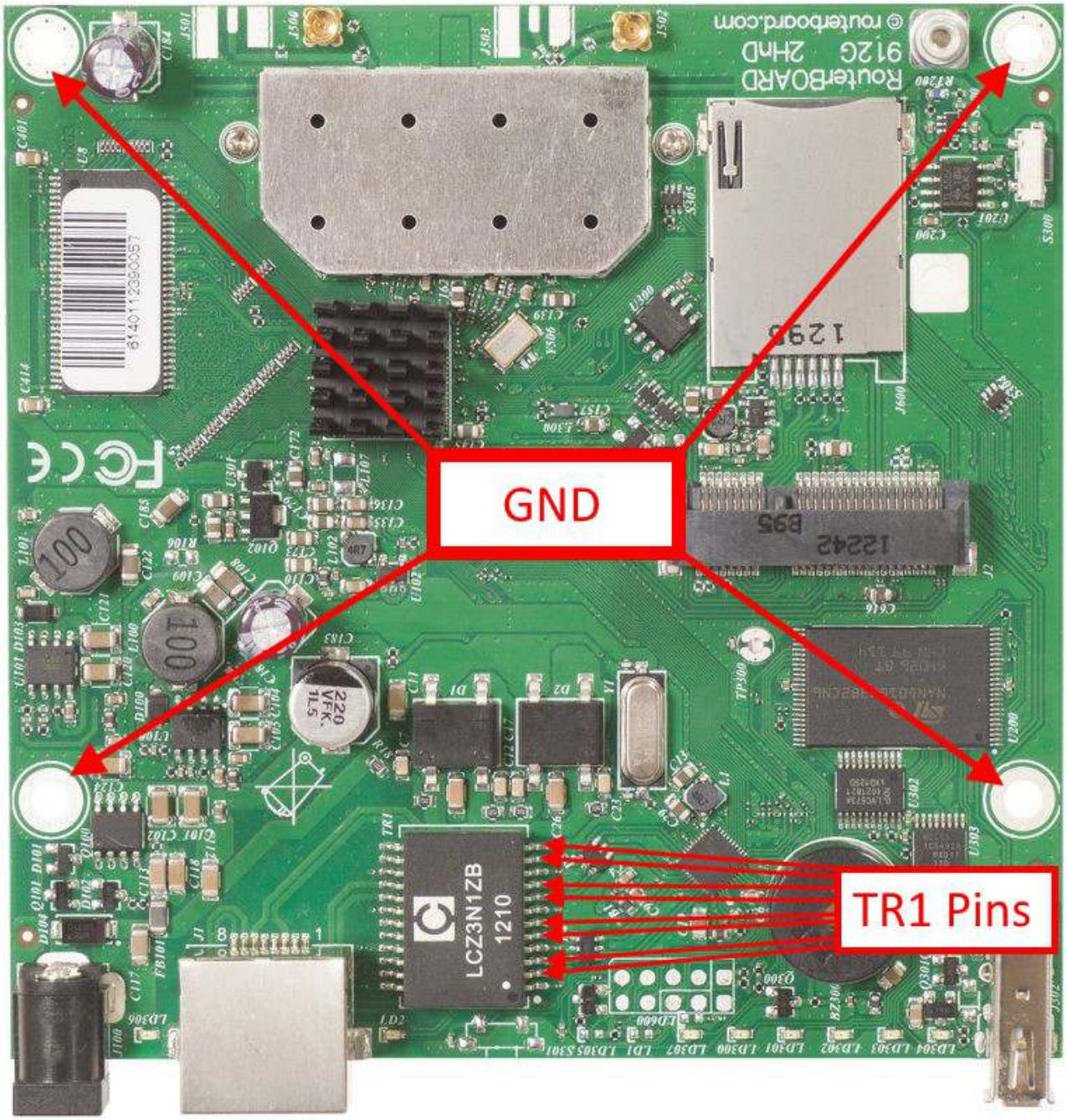
Schottky diode reference number is D104; Diode bridge reference numbers are D1 and D2. Schottky diode quality measurement method describe on page 7




Picture 51

## Voltage drop between TR1 Pins and Ground.

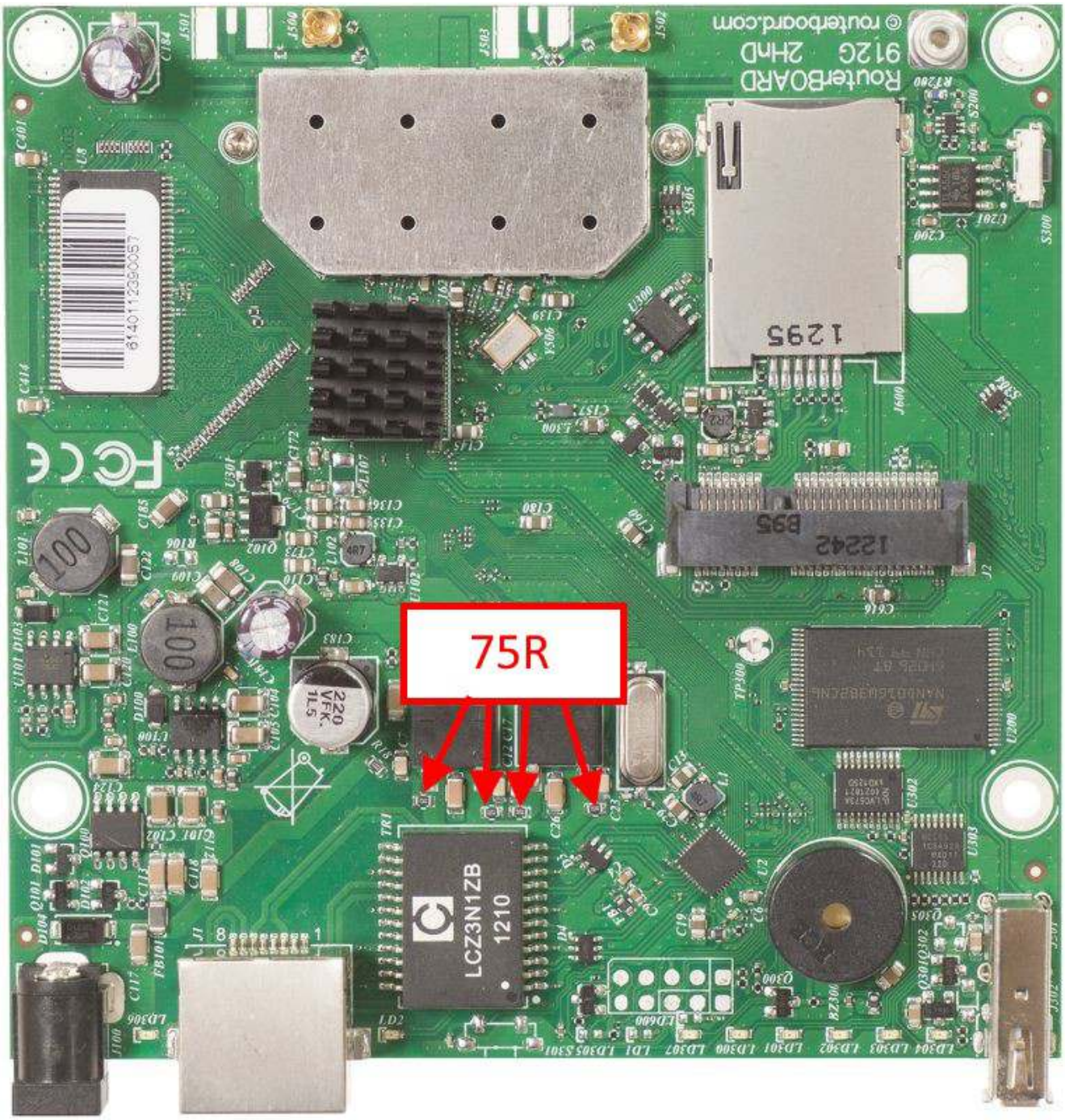
Check voltage drop between TR1, Transformers pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,589V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR1 Transformers pins.




Picture 52

## 75R Termination resistors resistance.

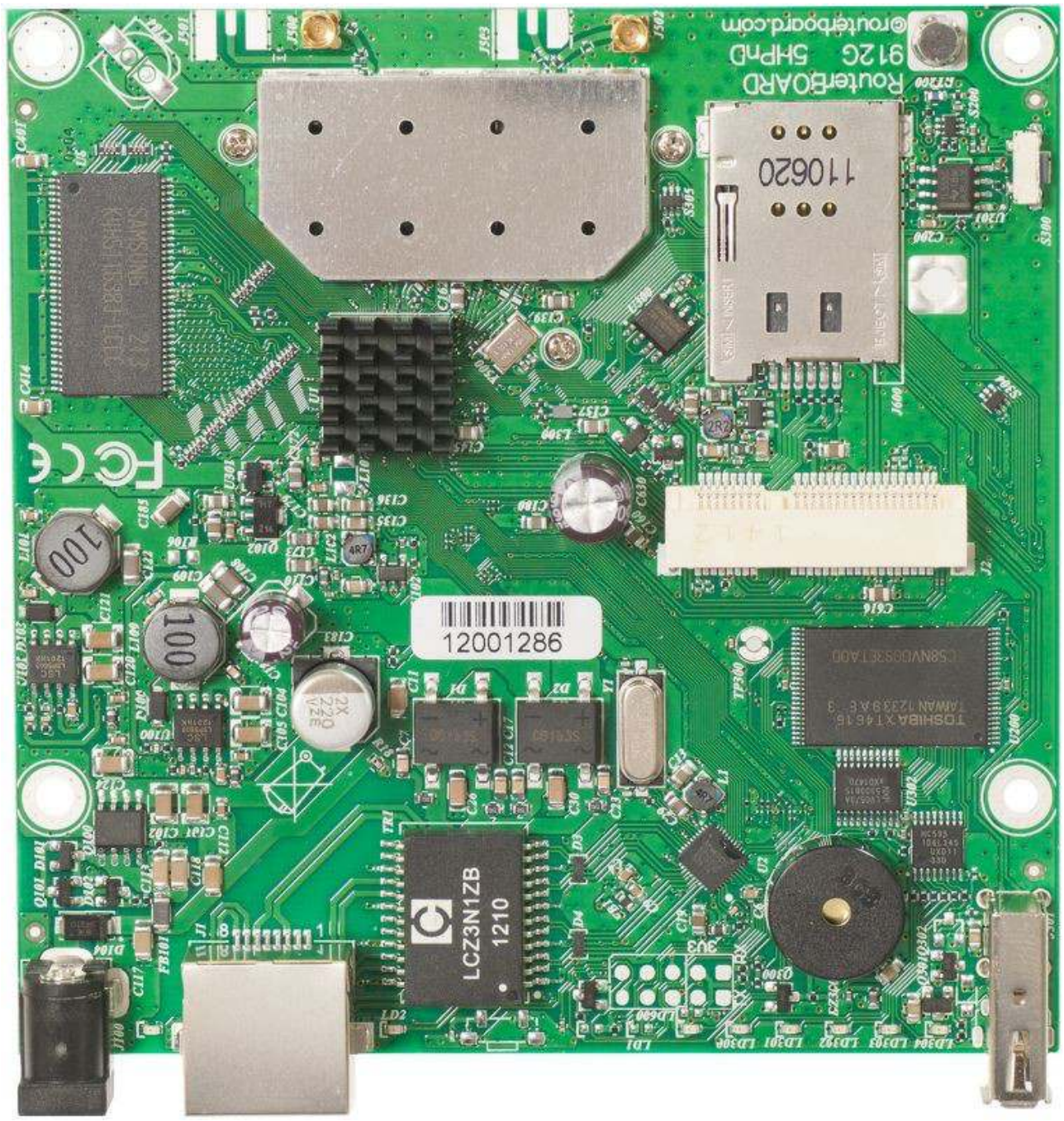
Resistor resistance, marked with red arrow, should be 75 Ohm +/- 1%




Picture 53

# 912G - 5HPnD series RouterBoards

## RB912UAG-5HPnD




Picture 54

## SEXTANT G 5HPnD

Picture 55

## BaseBox 5


Picture 56

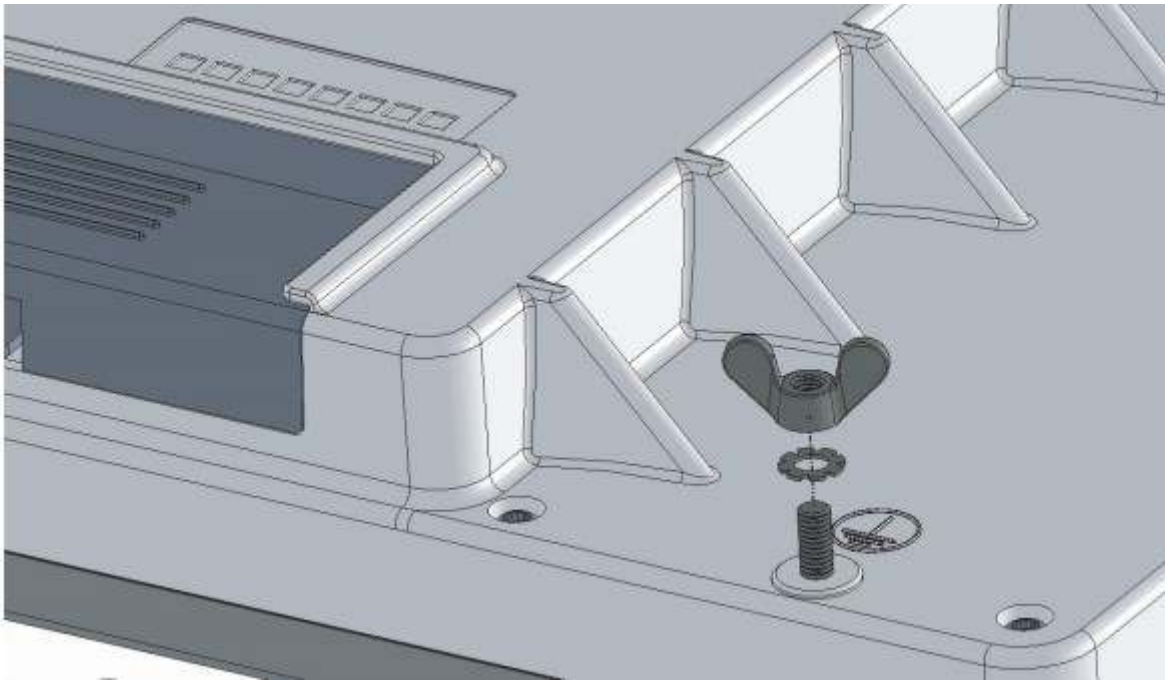
## QRT 5

Picture 57

## QRT 5 disassembling information

1. step

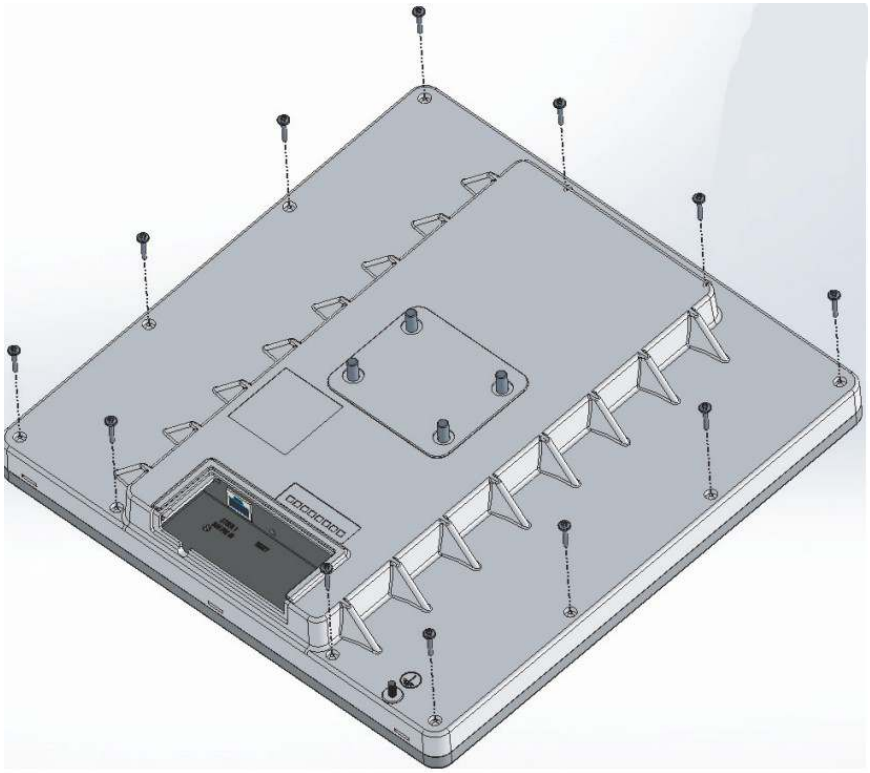
Remove the wing nut from Ground M4 screw



Picture 58

2. step

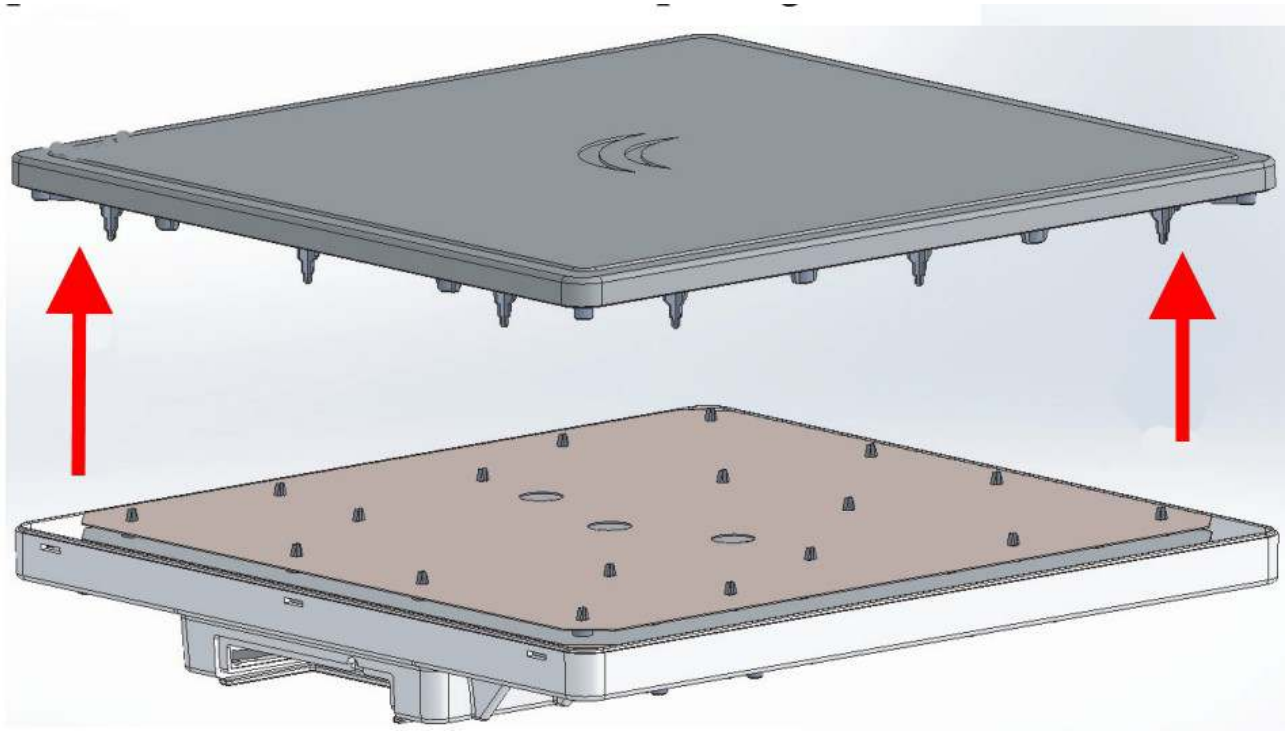
Remove the 12 pcs screws with torque screwdriverT8



Picture 59

3. step

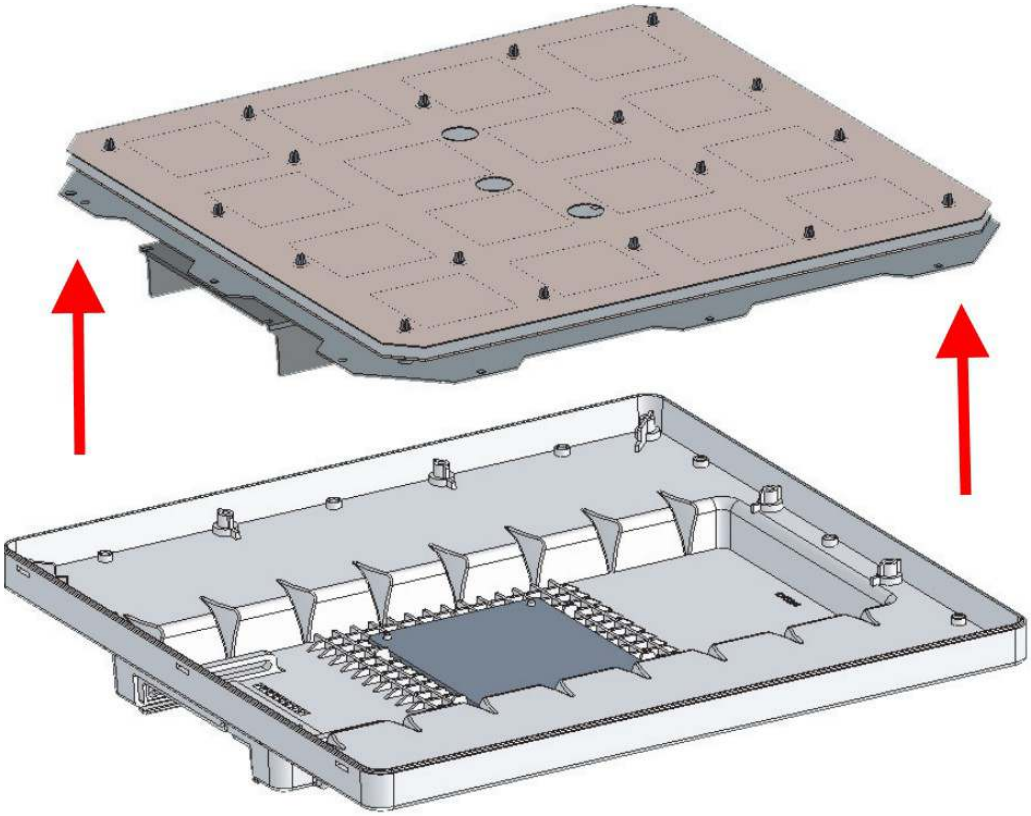
Remove the cover



Picture 60

4. step

Remove the M4 screw from bottom plate and than separate bottom plate from antenna with board.



Picture 61

## BaseBox 5 disassembling information

1. step

Remove the sticker from connectors

Picture 62

2. step

Remove the screw stickers

Picture 63

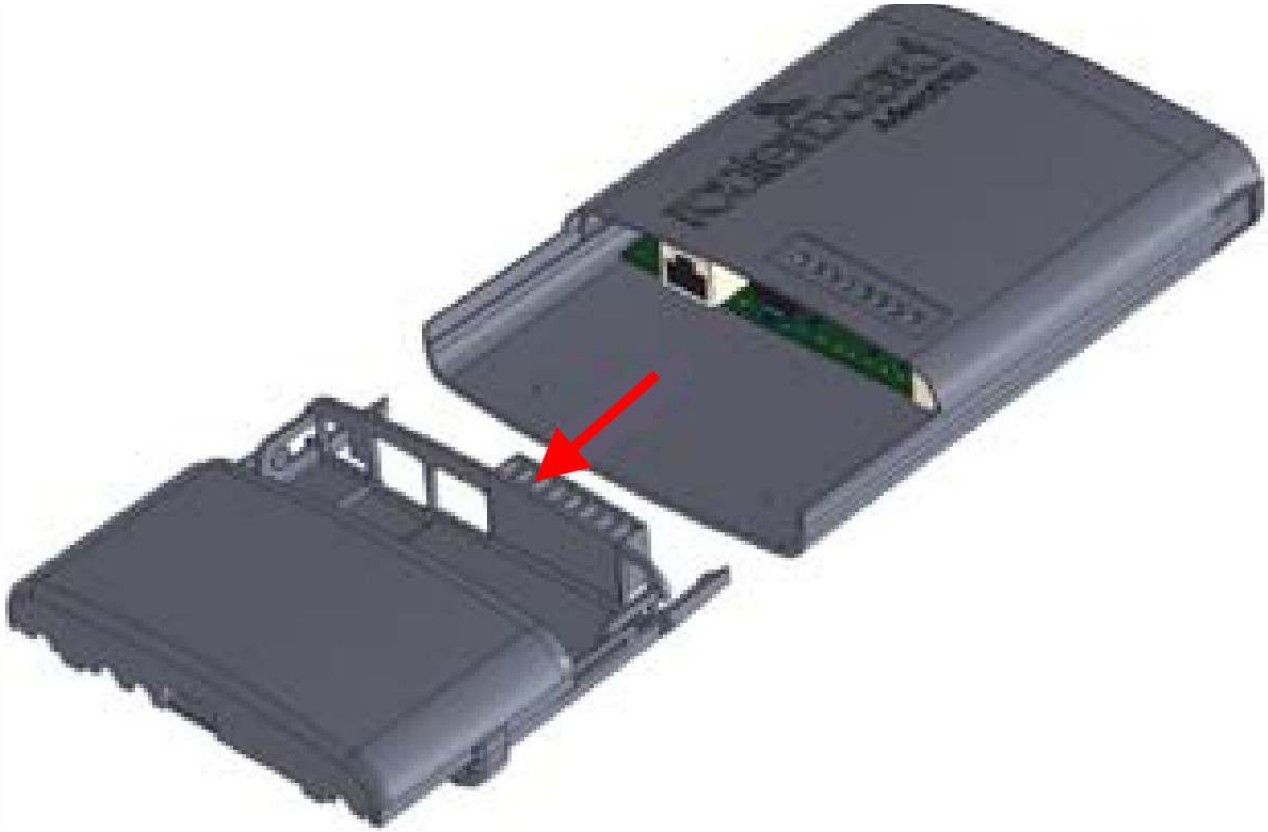
3. step

Unscrew  the case base from the  board holder with torque screwdriver T8

Picture 64

4. step

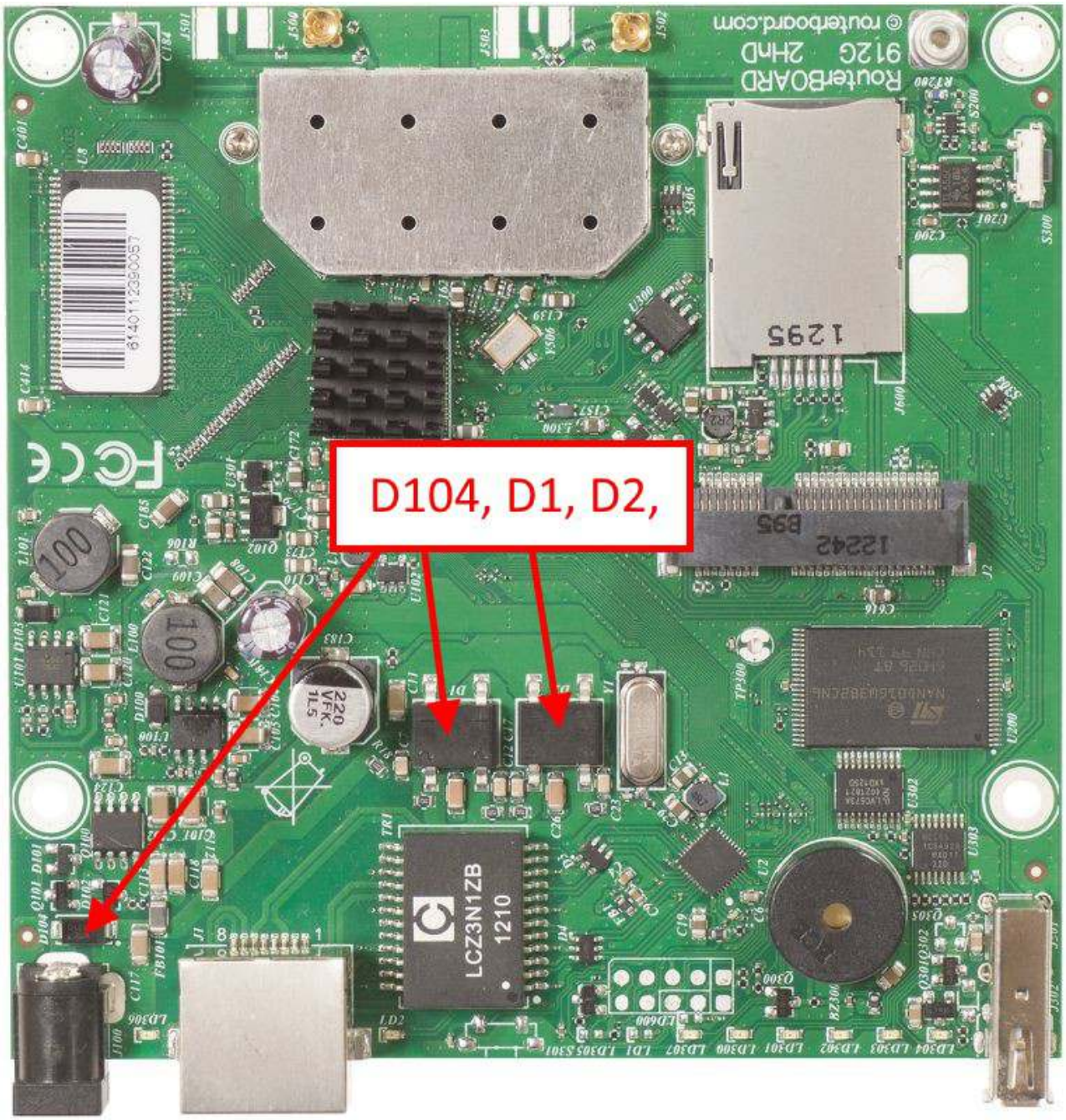
Remove the case base from the board holder



Picture 65

## Schottky diode measuring with multimeter in diode mode

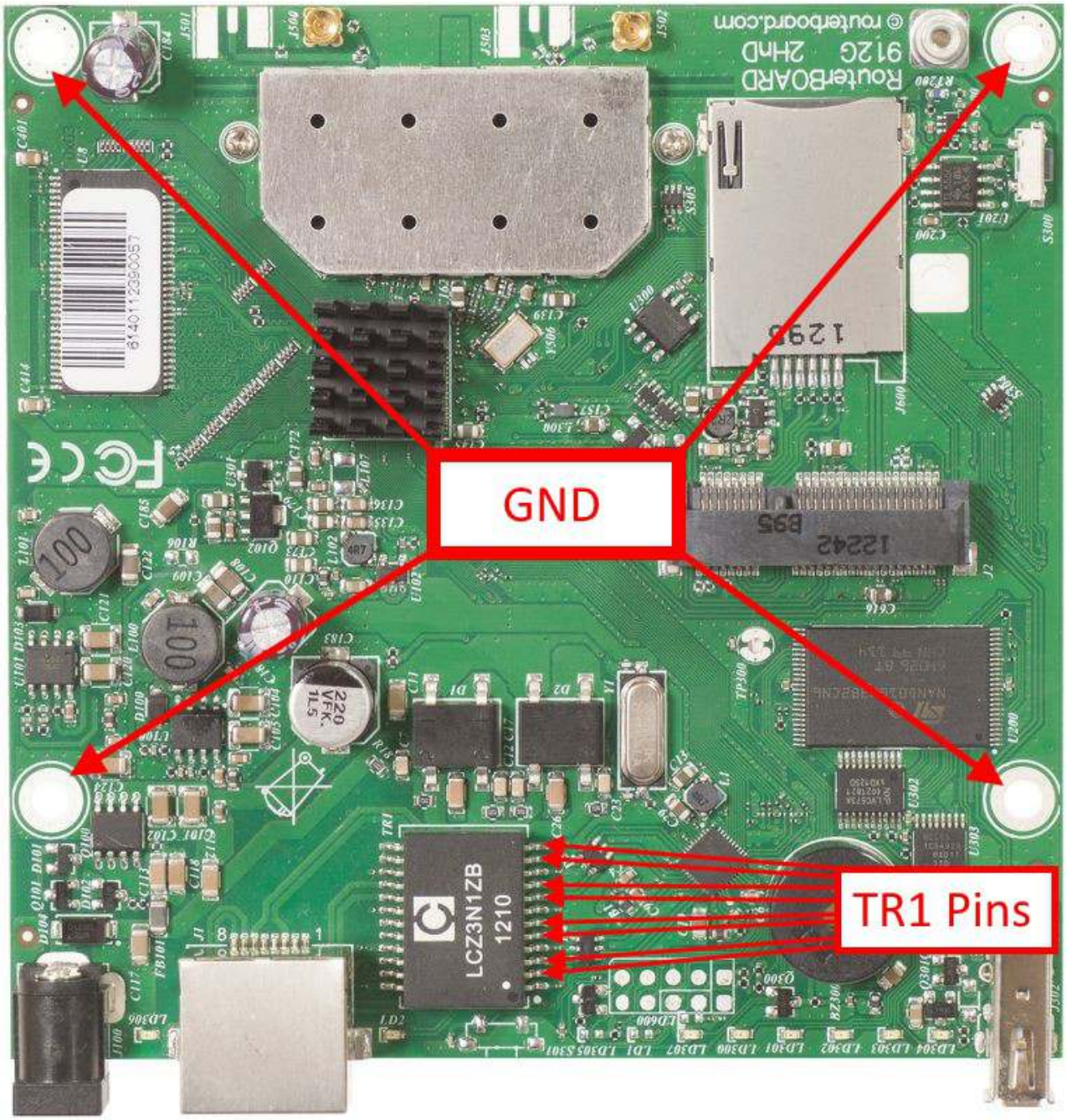
Schottky diode reference number is D104; Diode bridge reference numbers are D1 and D2. Schottky diode quality measurement method describe on page 7




Picture 66

## Voltage drop between TR1 pins and Ground.

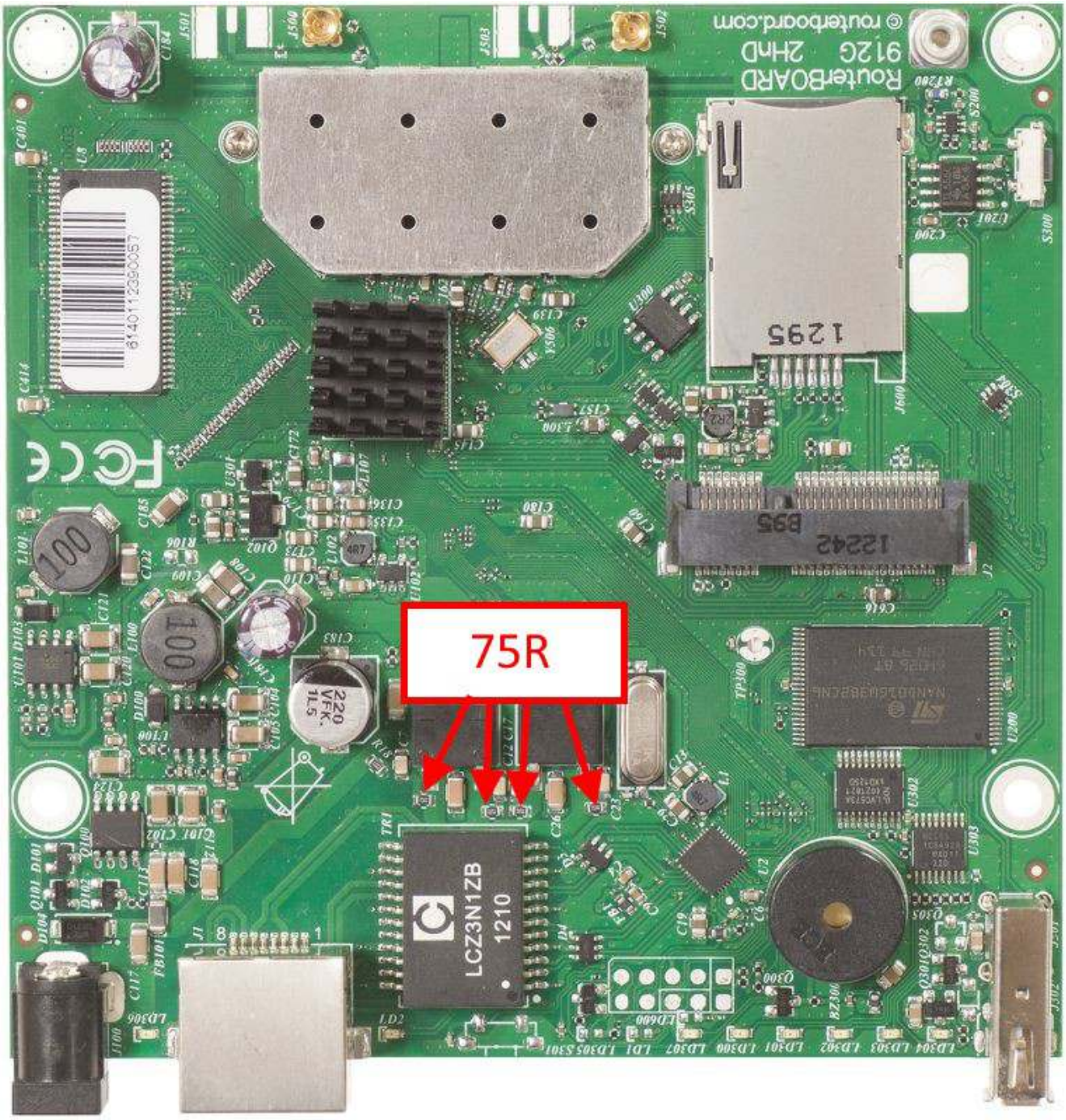
Check voltage drop between TR1, Transformers pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,589V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR1 Transformer pins.




Picture 67

## 75R Termination resistors resistance.

Resistor resistance, marked with red arrow, should be 75 Ohm +/- 1%




Picture 68

# 921UAGS-5SHPac series RouterBoards

## RB921GS-5HPac series:

## NetMetal 5

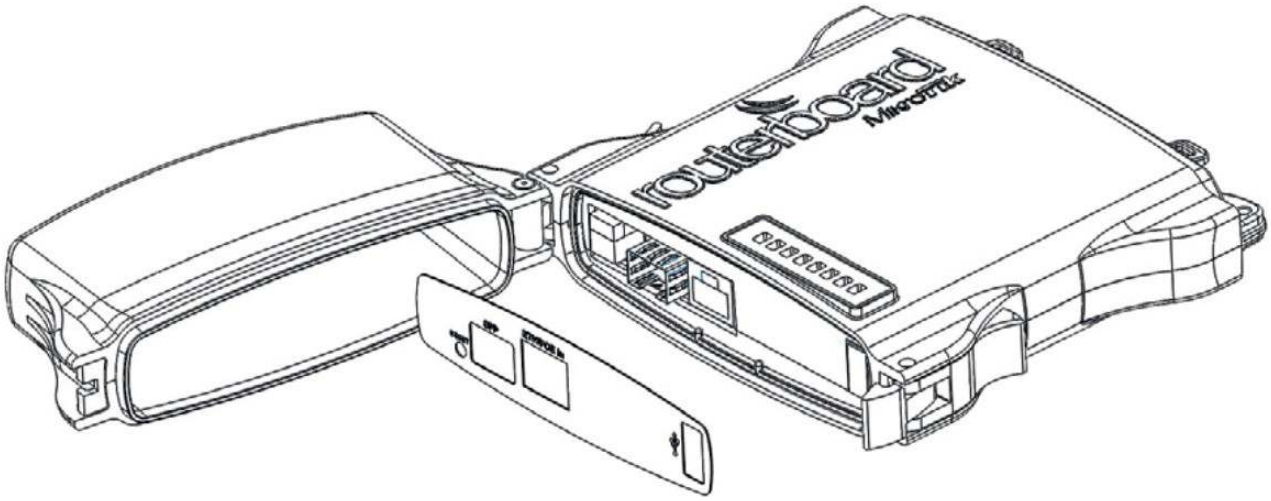

Picture 69

# Disassembling information

## NetMetal 5 disassembling

1. step

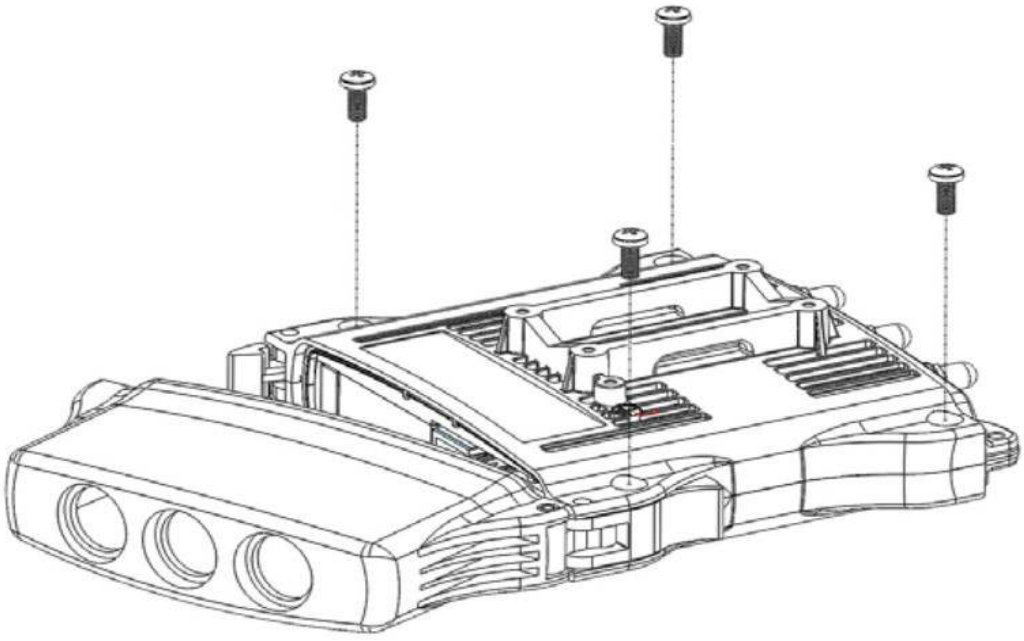
Open case and remove label from connectors




Picture 70

2. step

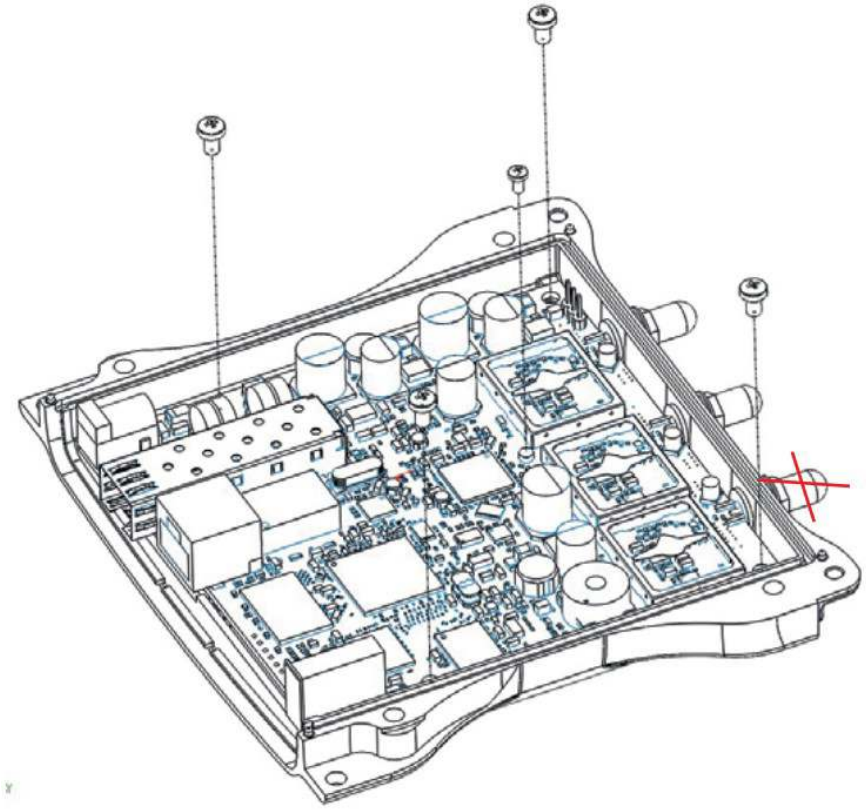
Remove 4 screws with hexagon key 3 mm screwdriver



Picture 71

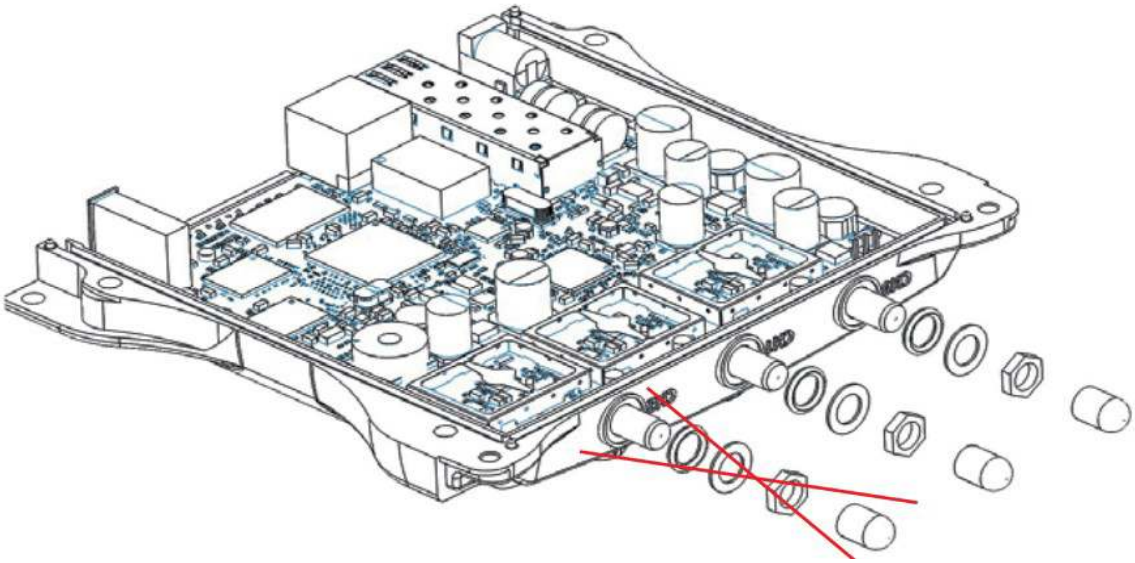
3. Step

Unscrew the PCB from case back with 4 pcs., M3 and 1 pcs., M2 screws



Picture 72

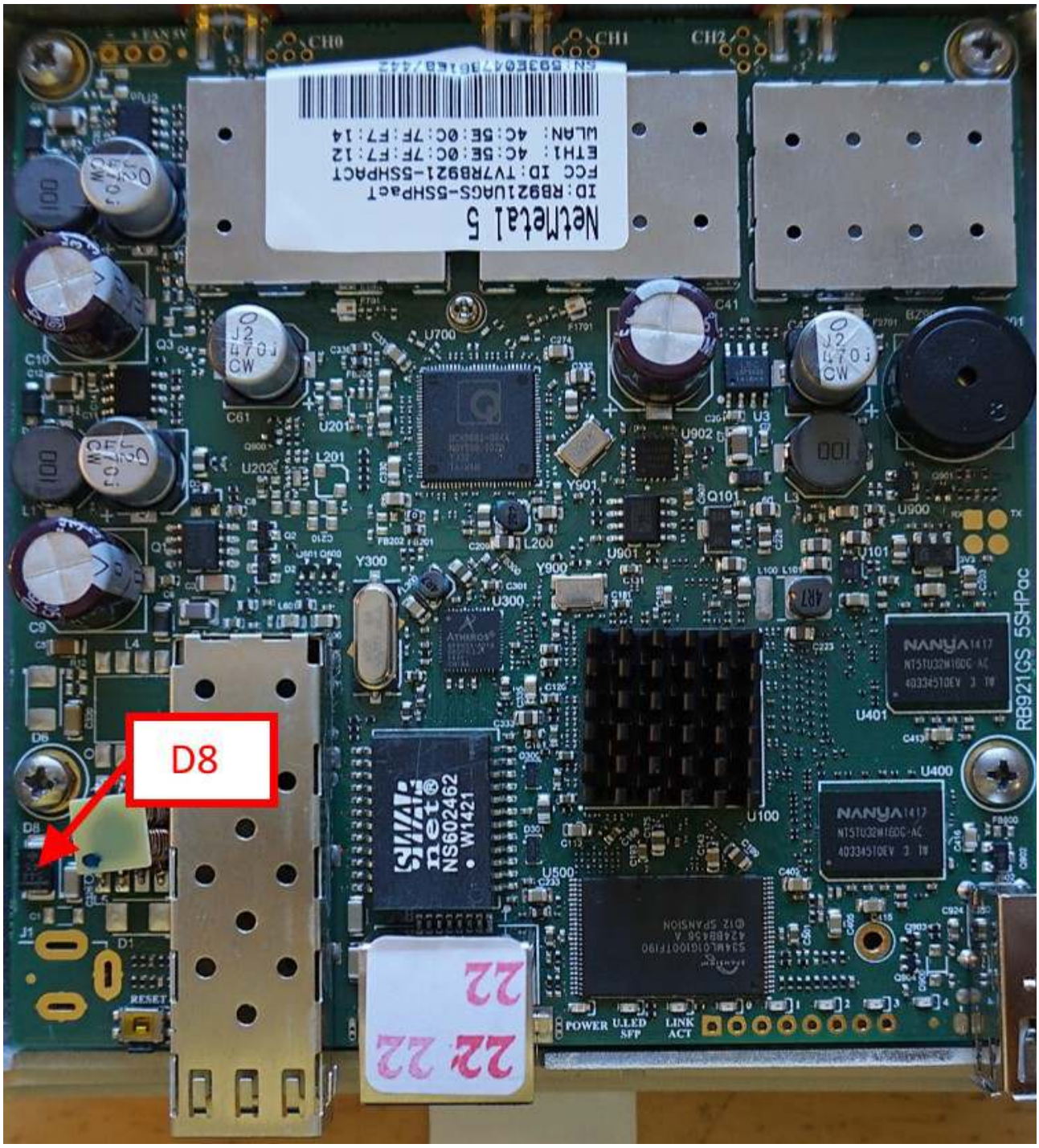
Unscrew the SMA connector nuts with 8 mm wrench.



Picture 73

## Schottky diode measuring with multimeter in diode mode

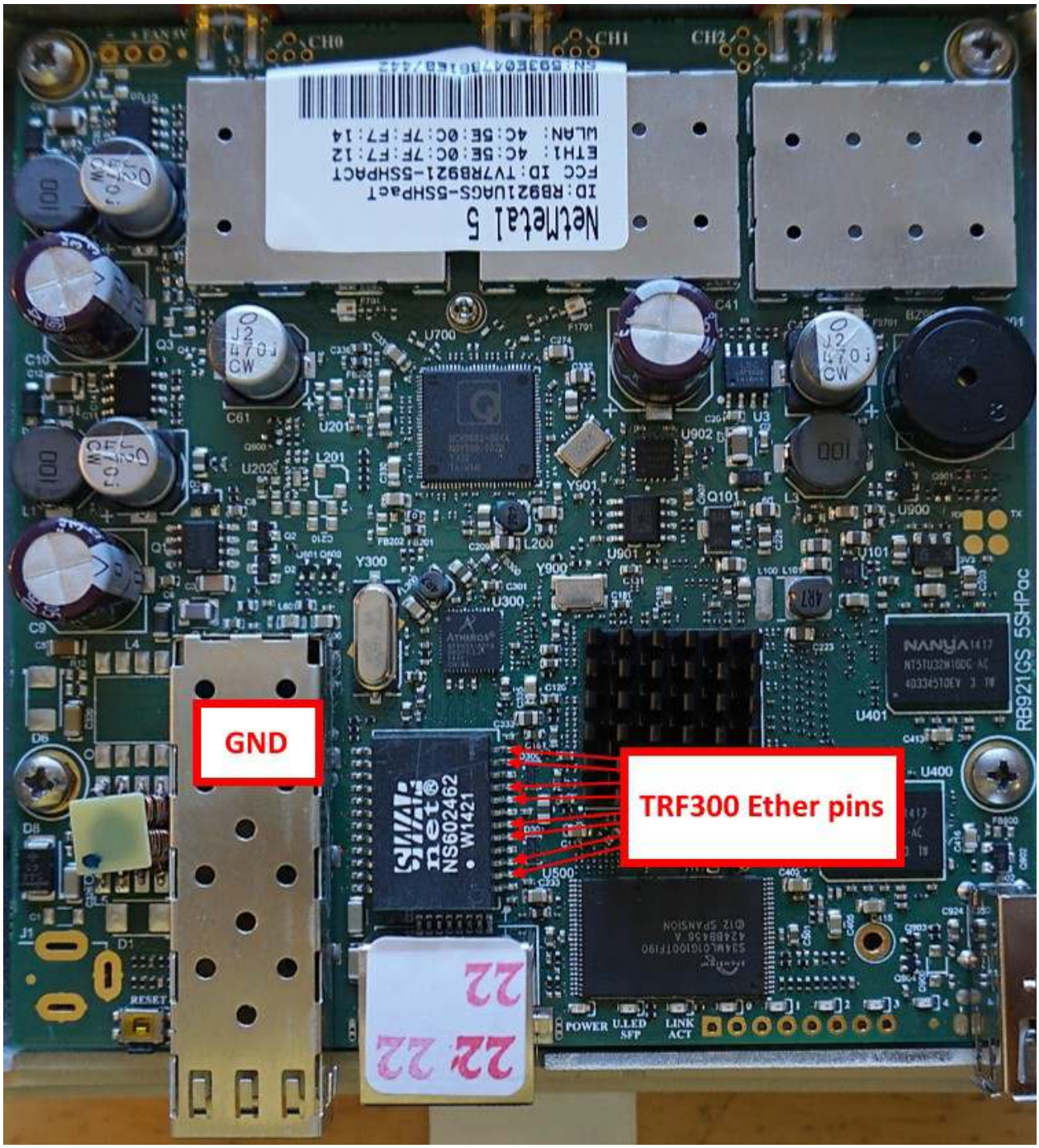
Schottky diode reference numbers are D8. Schottky diode quality measurement method describe on page 7




Picture 74

## Voltage drop between TR300 pins and Ground.

Check voltage drop between TRF300 Ethernet Transformers on port Ether1 pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode:hold “positive” wire on the Ground and “COM” wire to marked TRF300 Transformers pins.




Picture 75

# 922GS-5HPac series RouterBoards

## RB922GS-5HPac series:

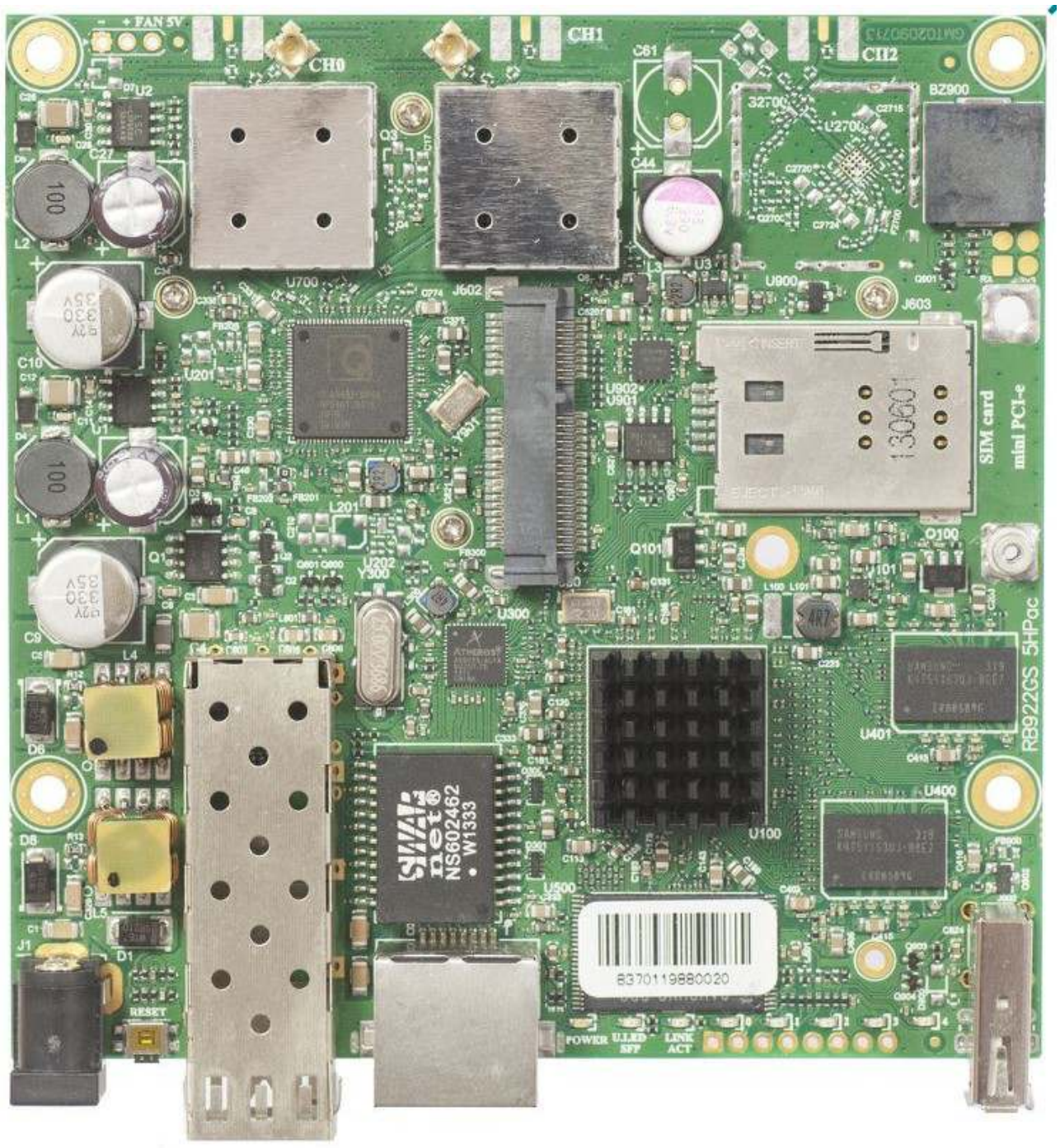
## NetMetal 5


Picture 76

## QRT 5 ac

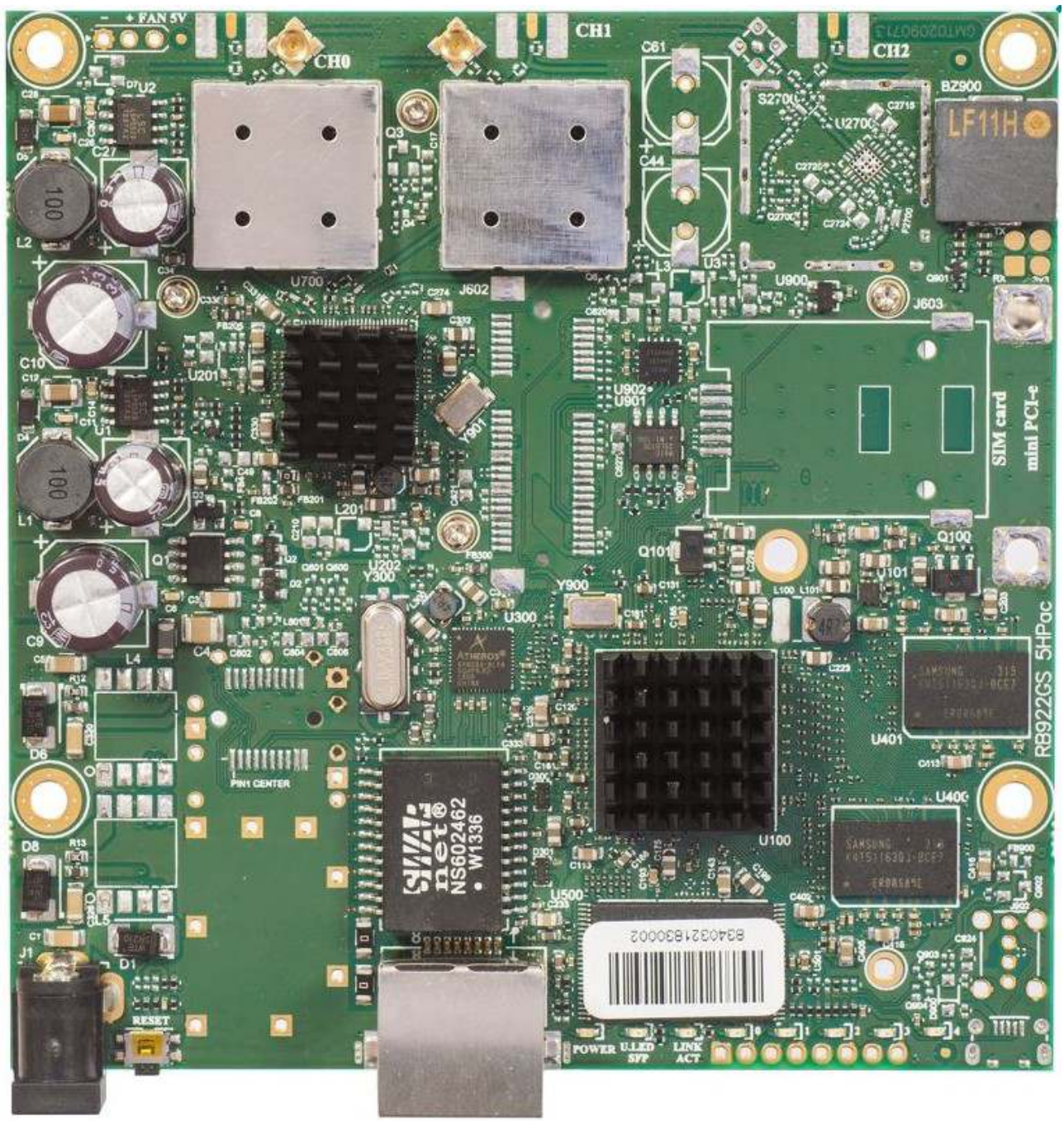
Picture 77

## RB922UAGS-5HPacD




Picture 78

## RB911G-5HPacD




Picture 79

## mANTBox 15s

Picture 80

## mANTBox 19s

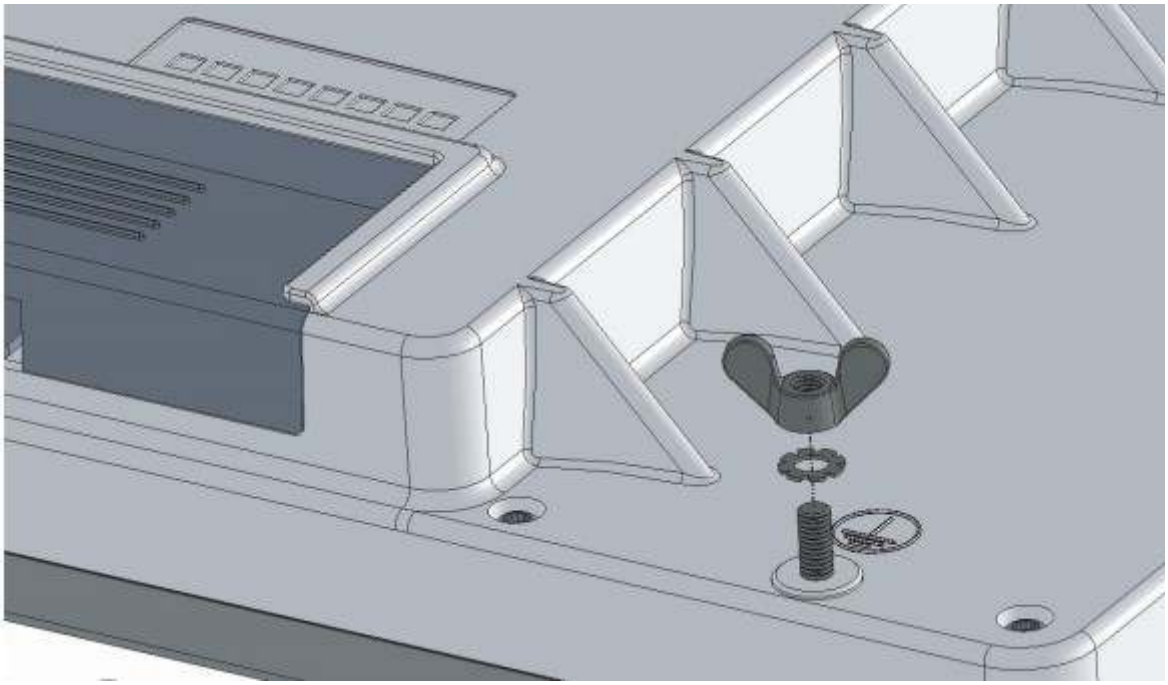
Picture 81

# Disassembling information

## QRT 5 ac disassembling.

1. step

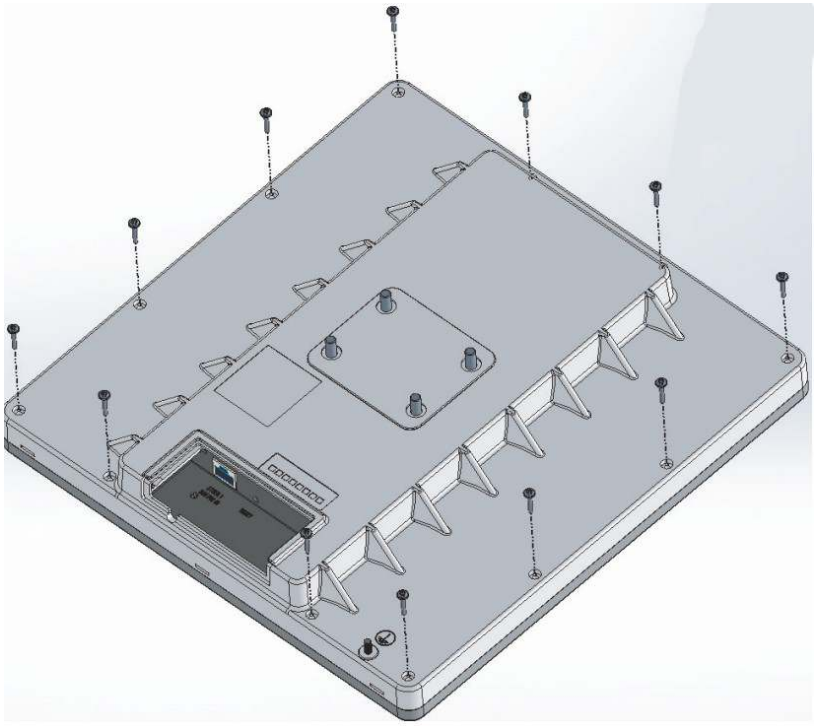
Remove the wing nut from Ground M4 screw



Picture 82

2. step

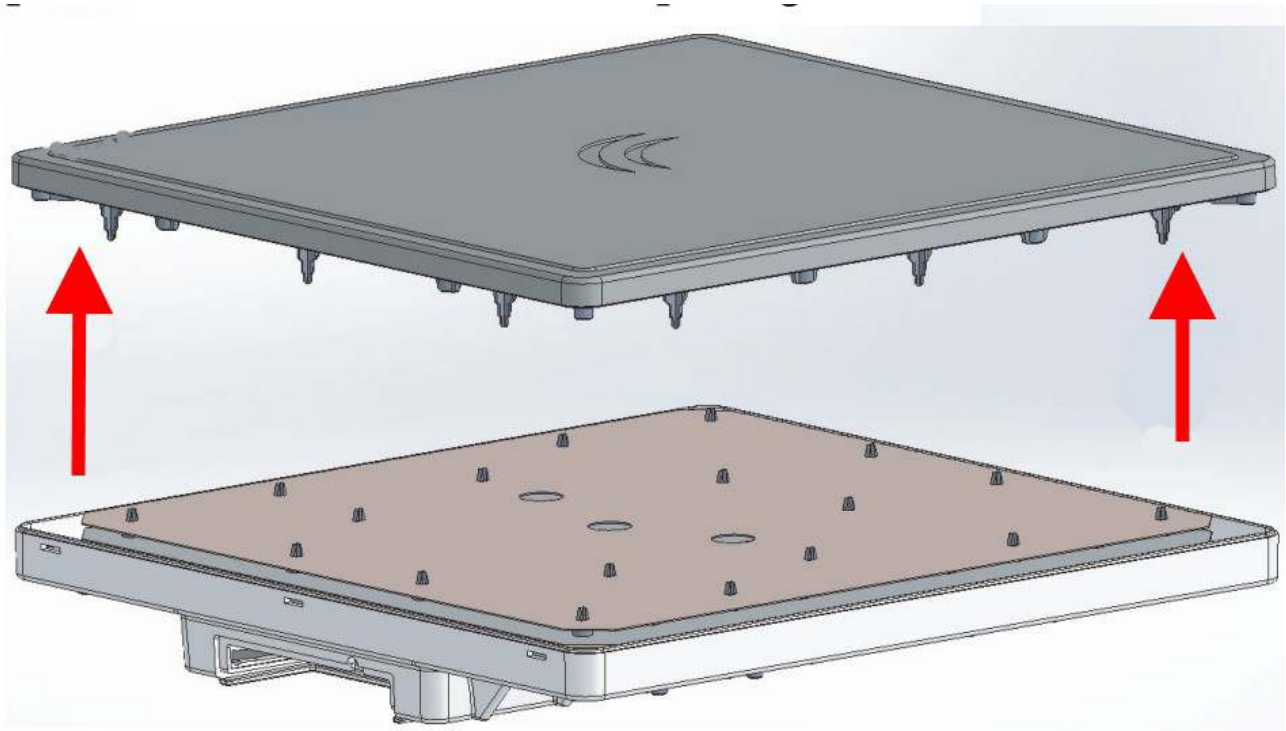
Remove the 12 pcs screws with torque screwdriverT8



Picture 83

3. step

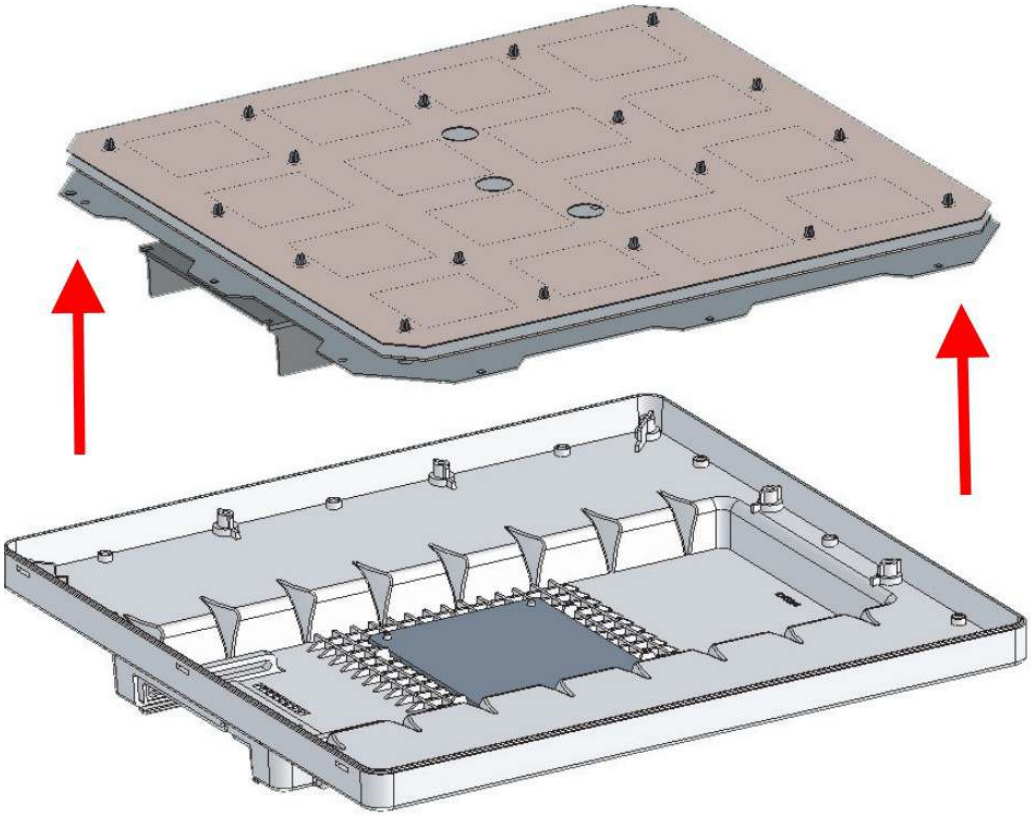
Remove the cover



Picture 84

4. step

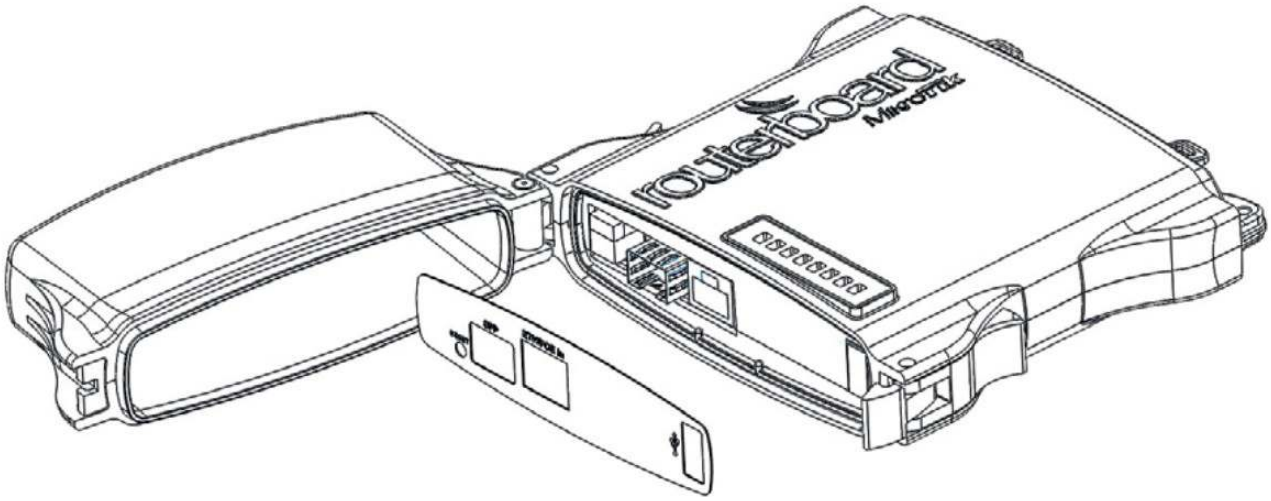
Remove the M4 screw from bottom plate and than separate bottom plate from antenna with board.



Picture 85

## NetMetal 5 disassembling

1. step

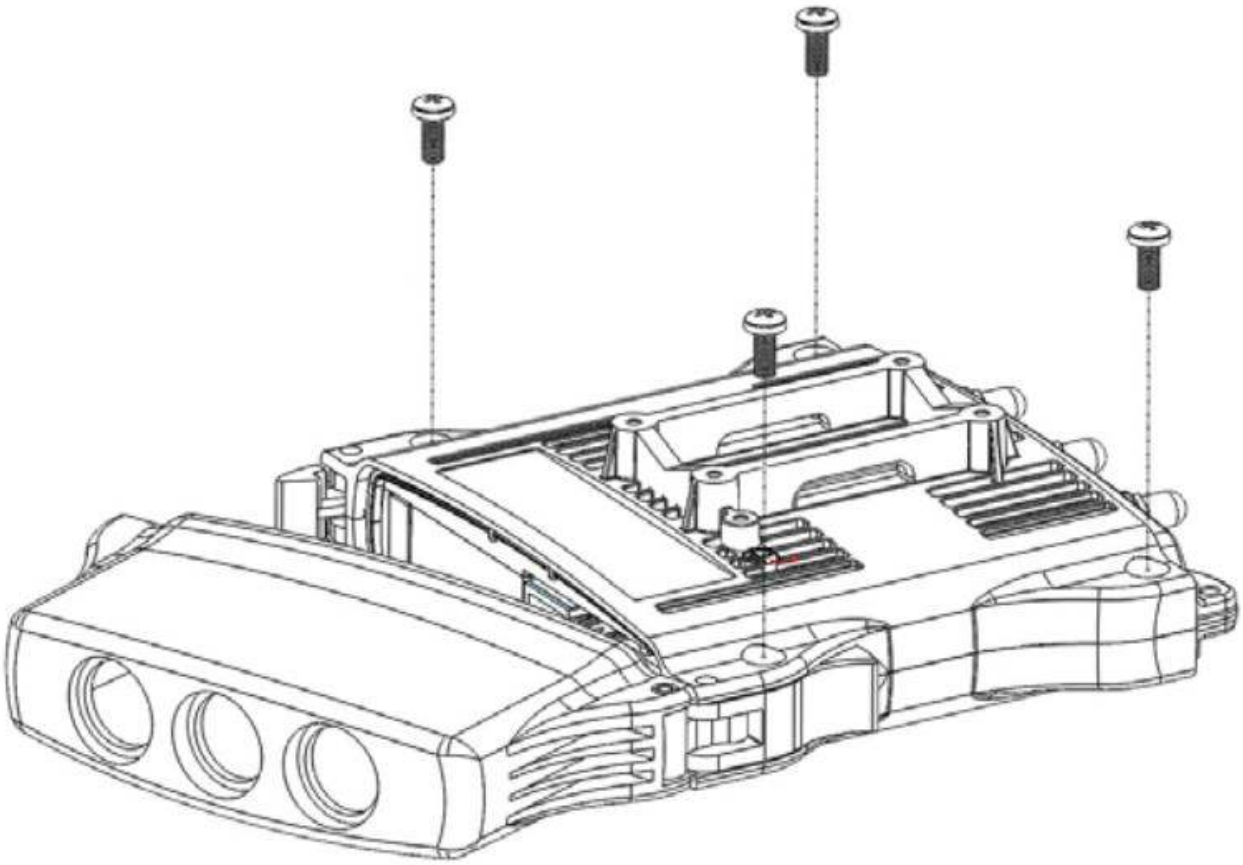



Picture 86

Open case and remove label from connectors

2. step

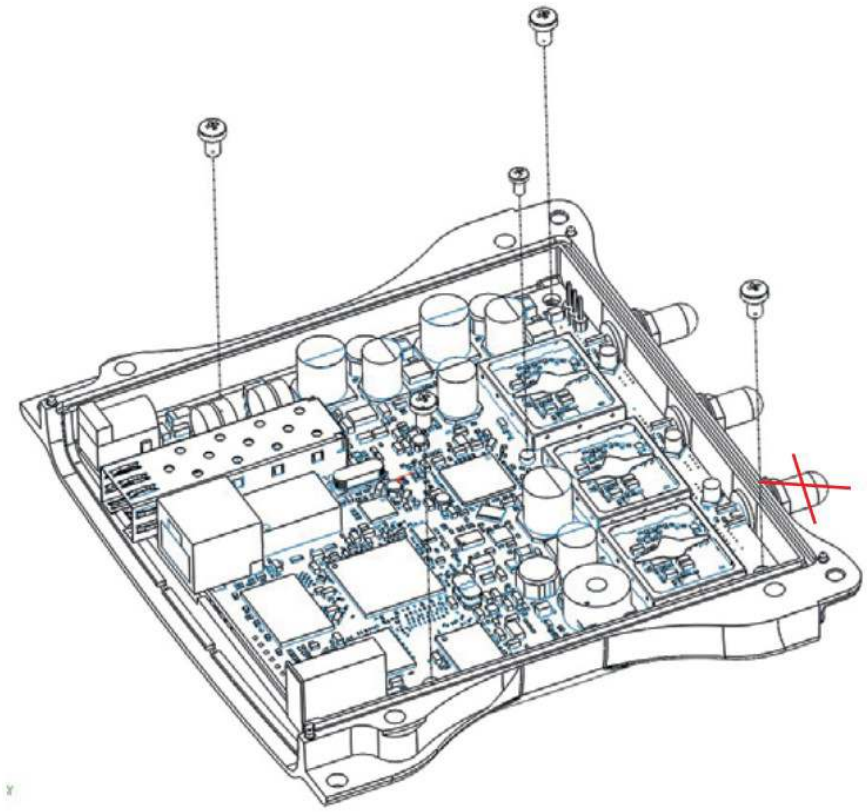
Remove 4 screws with hexagon key 3 mm screwdriver



Picture 87

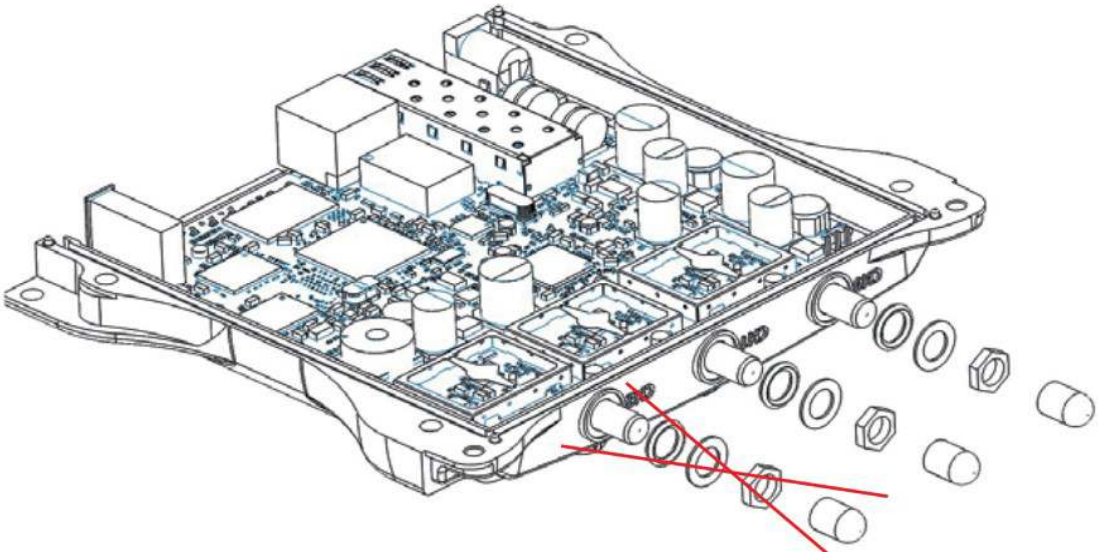
3. Step

Unscrew the PCB from case back with 4 pcs., M3 and 1 pcs., M2 screws



Picture 88

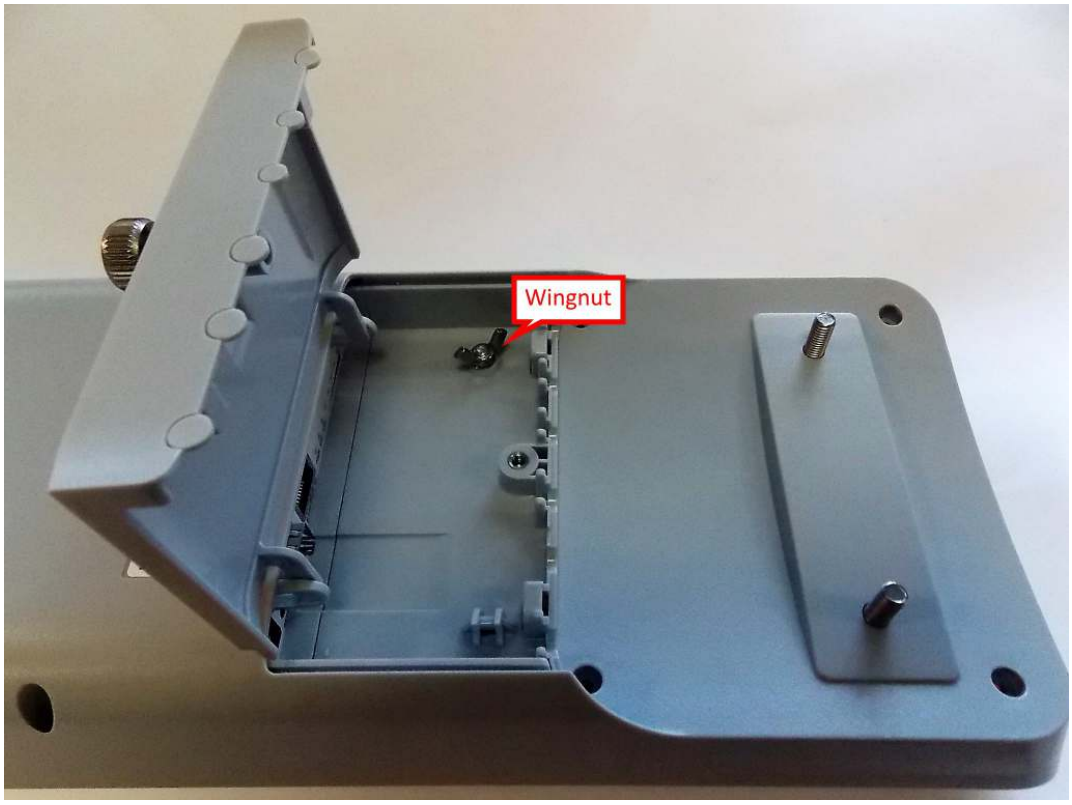
Unscrew the SMA connector nuts with 8 mm wrench.



Picture 89

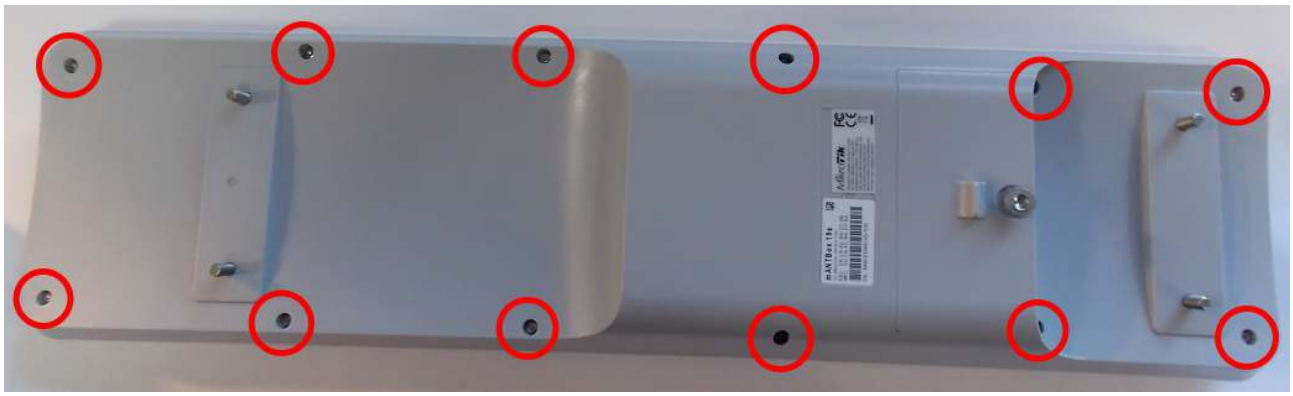
## mANTBox disassembling.

1. Open antenna enclosure and unscrew wingnut.

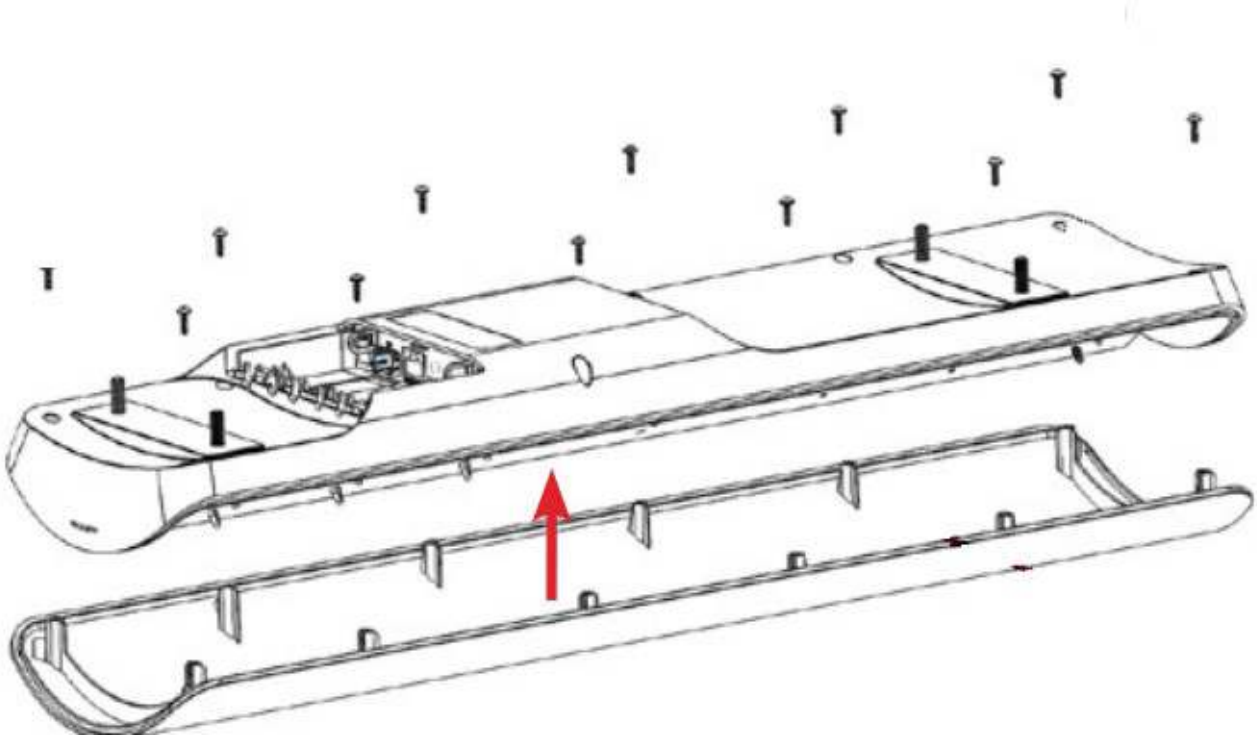



Picture 90

2. Unscrew case T10 hex screws and remove case

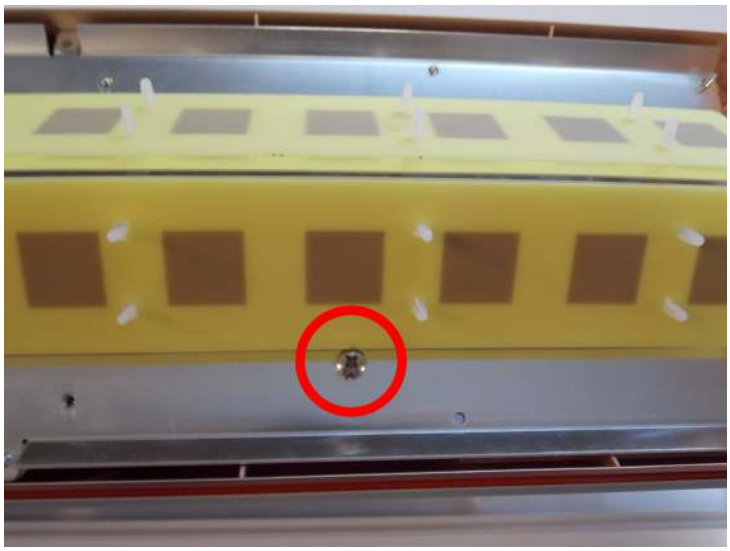


Picture 91



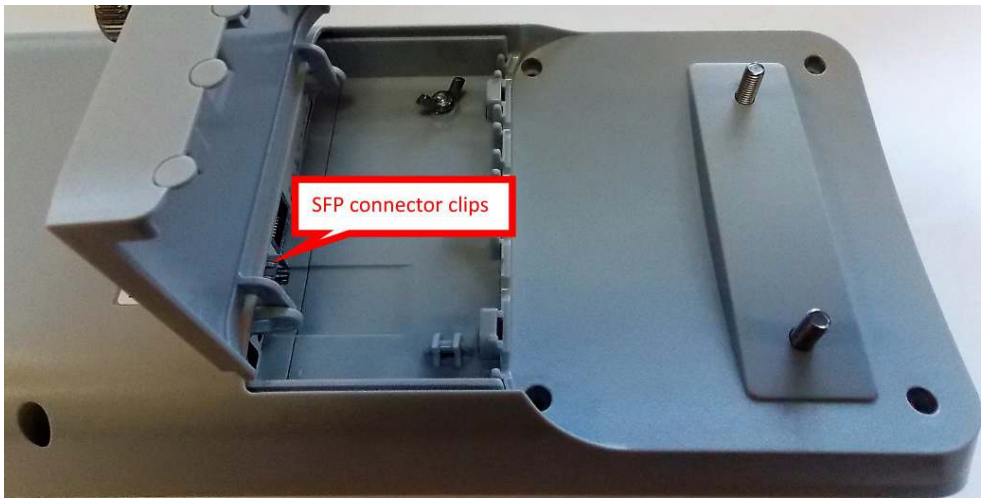
Picture 92

4. Unscrew M4x16 A2 screw and remove antenna assembly from case.



Picture 93

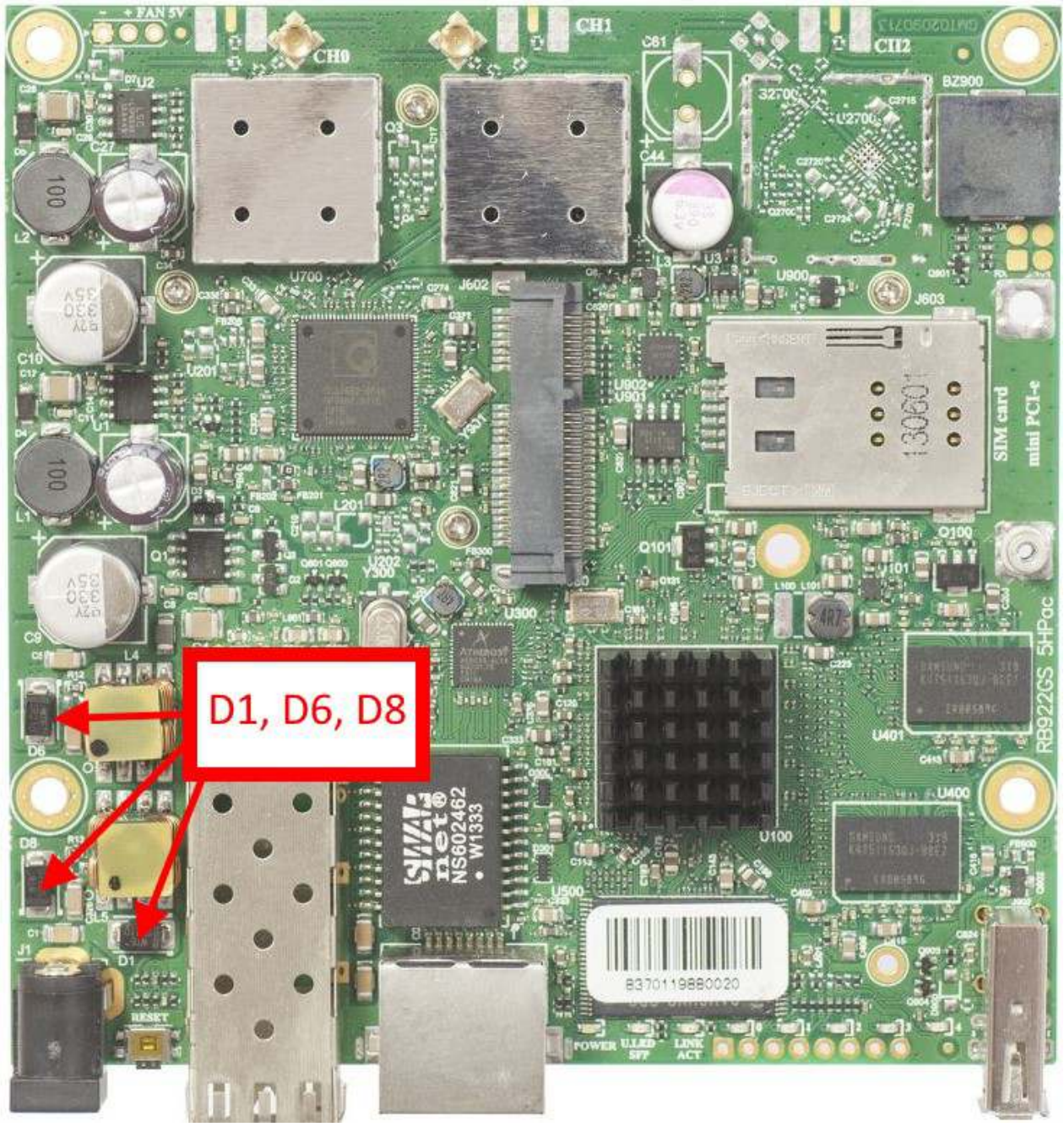
Make sure that SFP connector clips are not disturbing to remove antenna assembly




Picture 94

## Schottky diode measuring with multimeter in diode mode

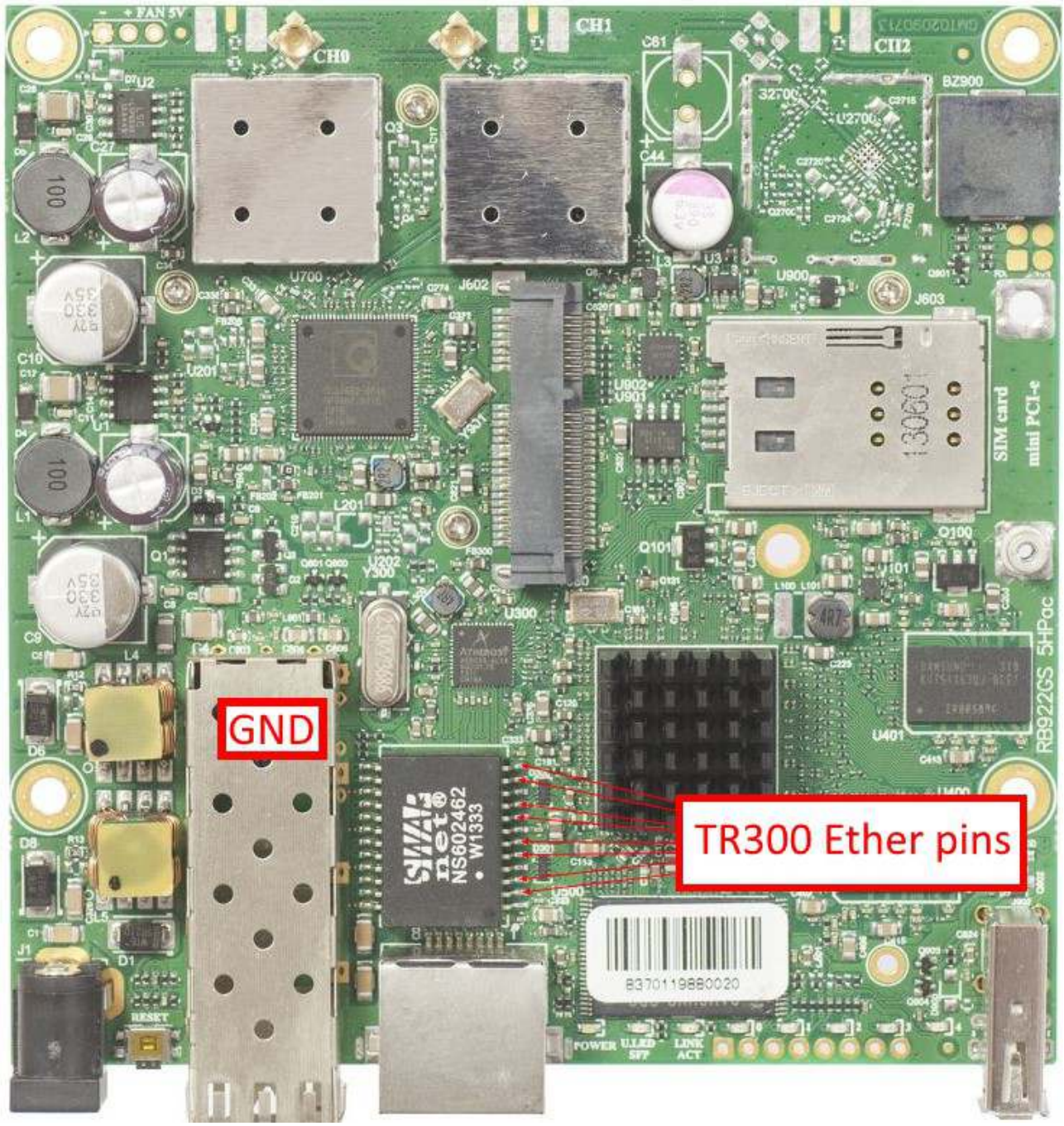
Schottky diode reference numbers are D1, D6, D8. Schottky diode quality measurement method describe on page 7




Picture 95

## Voltage drop between TR300 and Ground.

Check voltage drop between Ethernet Transformers TR300 on port Ether1 pins and Ground. TR300 pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers pins




Picture 96

# 951-2n series RouterBoards

## RB951-2n

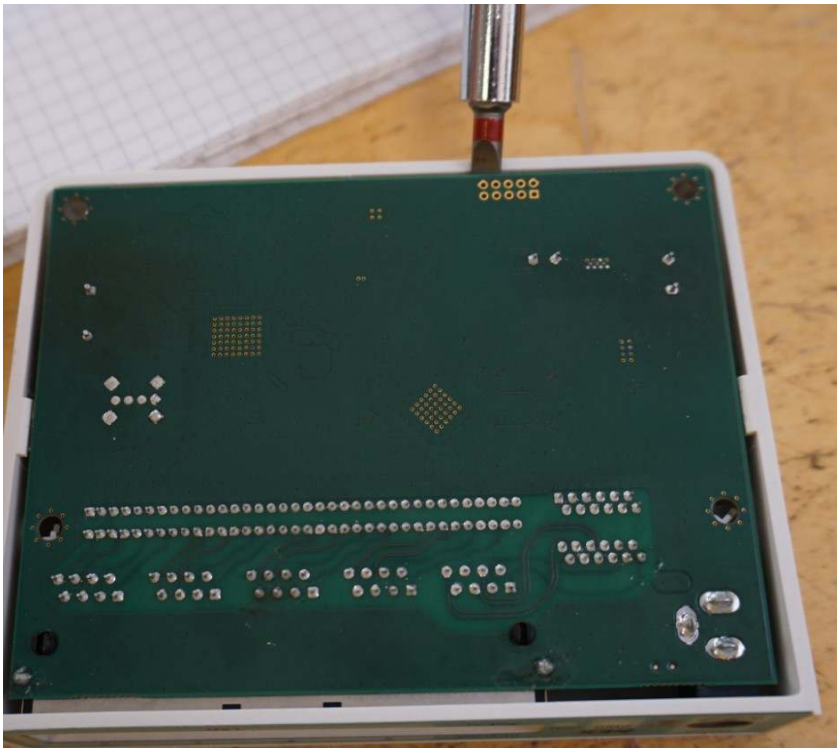

Picture 97

## Disassembling information

Take off the cover with a screwdriver as shown in the picture 208

Picture 98

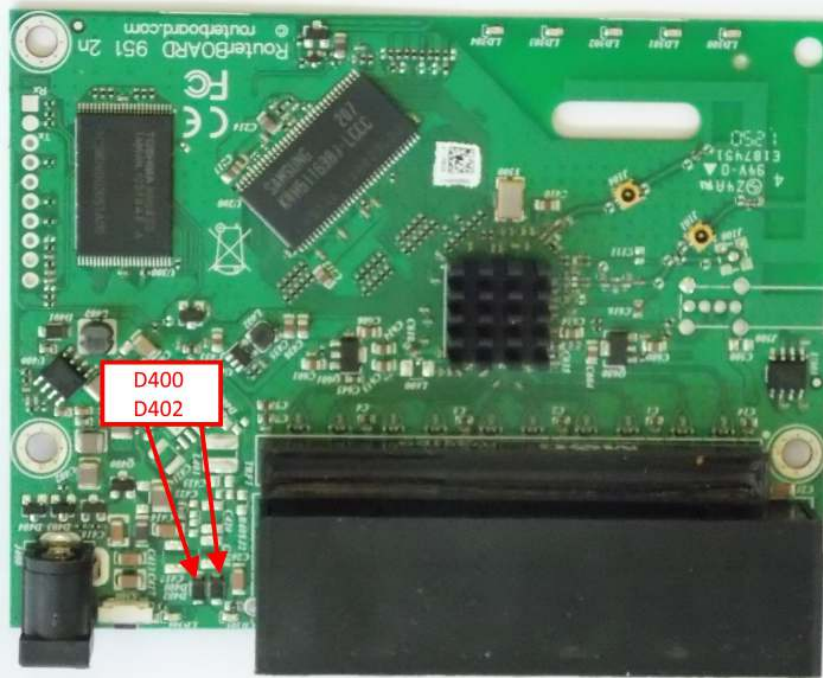
Take out the board with a screwdriver as shown in the picture 209



Picture 209

## Schottky diode measuring with multimeter in diode mode

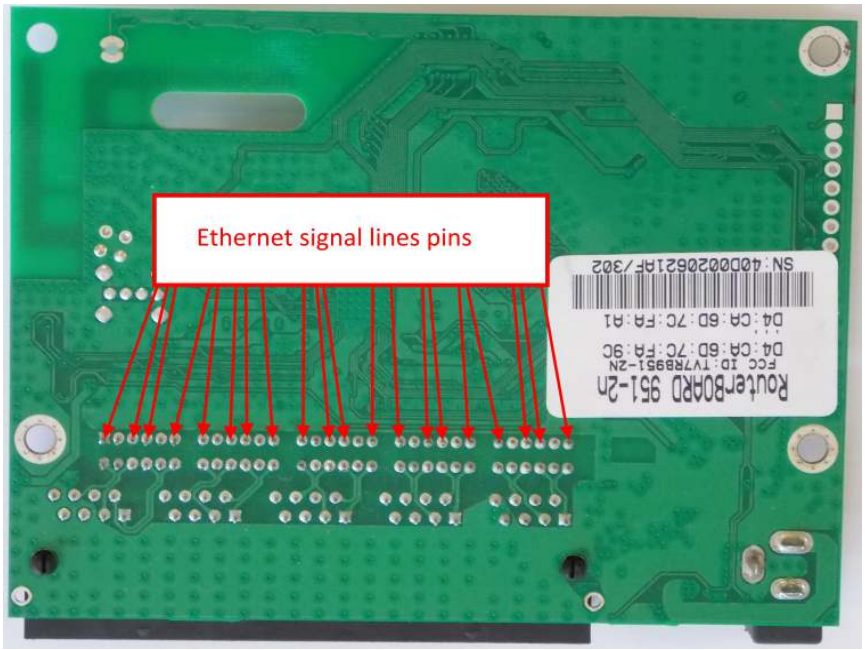
Schottky diode reference numbers are D400, D402. Schottky diode quality measurement method describe on page 7




Picture 99

## Voltage drop between TR1 pins and Ground.

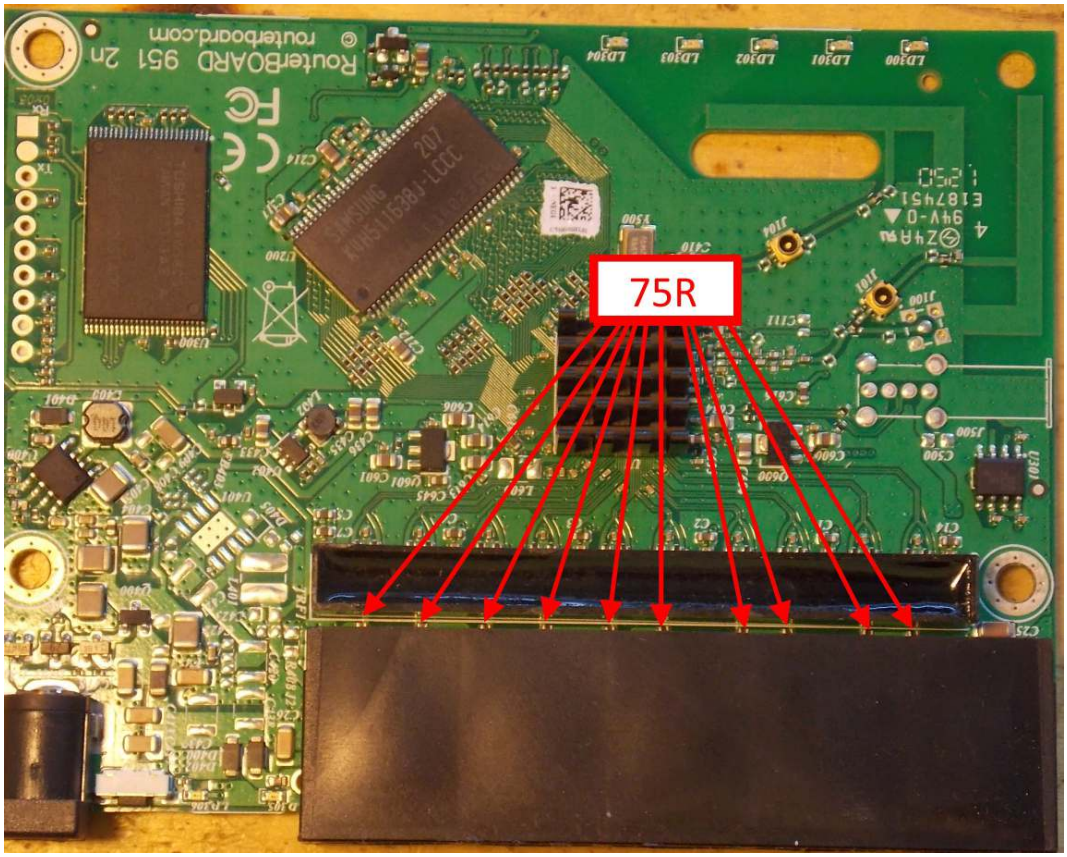
Check voltage drop between TR1 Ethernet Transformers on ports Ether1 – Ether5 pins and Ground. Ether Pins are circled red. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers pins.




Picture 100

## 75R termination resistors resistance

Red circled resistors resistance should be 75Ohm +/- 1%




Picture 101

# 951G-2HnD series RouterBoards

## RB951G-2HnD

Picture 102

# Disassembling information

## 951G-2HnD disassembling

Take off the cover with a screwdriver as shown in the picture 102

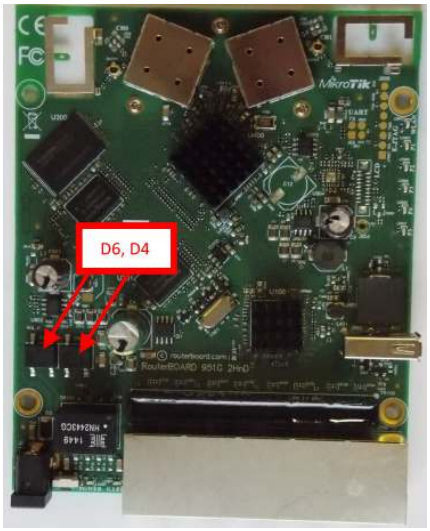
Picture 102

Take out the board with a screwdriver as shown in the picture 103

Picture 103

## Schottky diode measuring with multimeter in diode mode

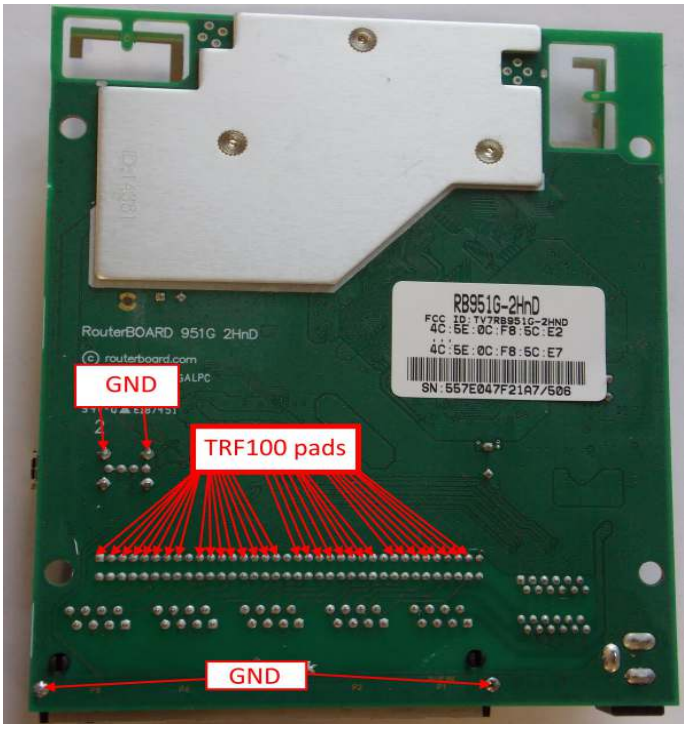
Diode bridge reference numbers are D4 and D6. Schottky diode quality measurement method describe on page 7




Picture 104

## Voltage drop between TR100 pins and Ground.

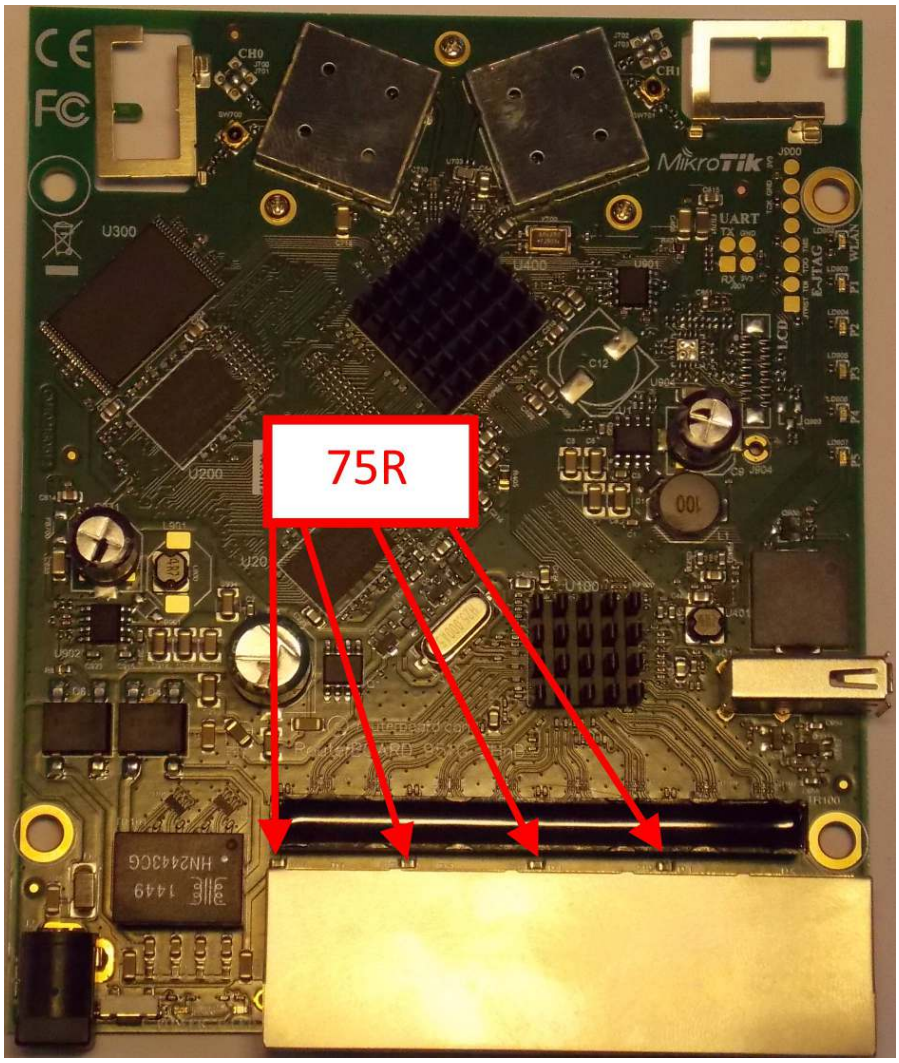
Check voltage drop between TR100 Ethernet Transformers on ports Ether1 – Ether5 pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TRF100 Transformer pins.




Picture 105

## 75R termination resistors resistance

Red circled resistors resistance should be 75R +/- 1%




Picture 106

# 951Ui-2HnD series RouterBoards

## RB951Ui-2HnD

Picture 107

## Disassembling information

Take off the cover with a screwdriver as shown in the pictures 108

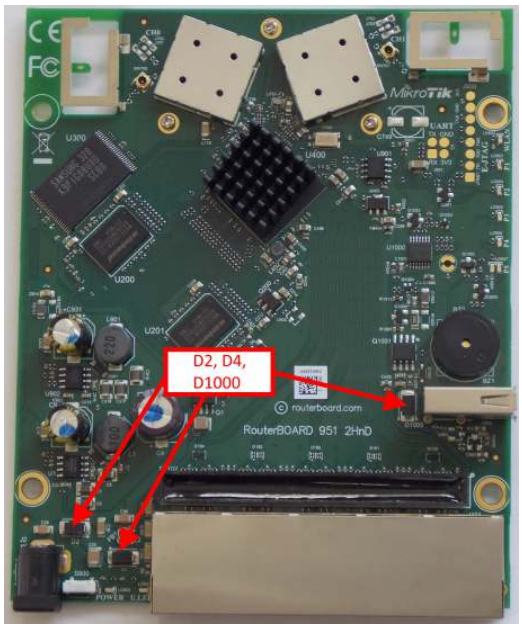
Picture 108

Take out the board with a screwdriver as shown in the picture109

Picture 109

## Schottky diode measuring with multimeter in diode mode

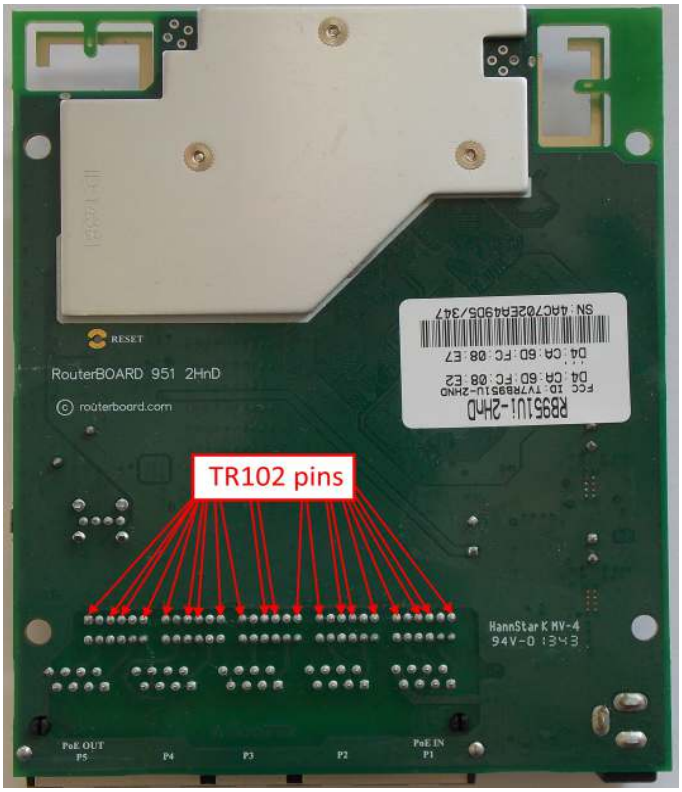
Diode bridge reference numbers are D2, D4 and D1000. Schottky diode quality measurement method describe on page 7




Picture 110

## Voltage drop between TR102 pins and Ground.

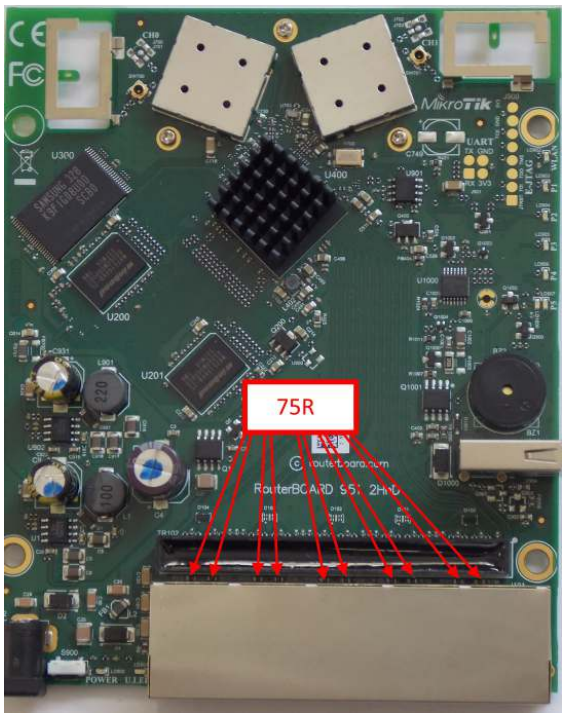
Check voltage drop between TR102 Ethernet Transformers on ports Ether1 – Ether5 pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR102 Transformer pins.




Picture 112

## 75R termination resistors resistance

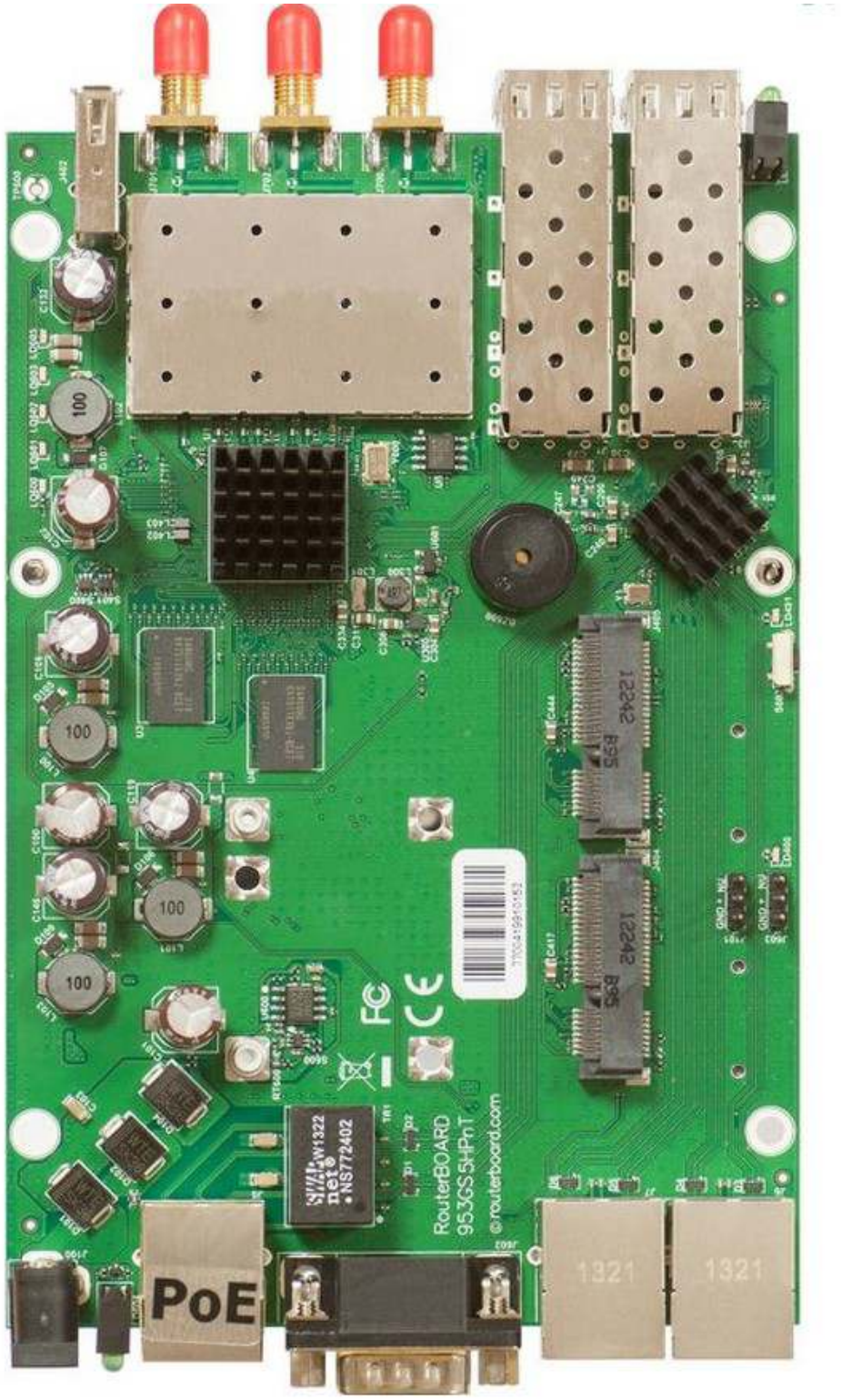
Red circled resistors resistance should be 75R +/- 1%




Picture 113

# 953GS-5HnT series RouterBoards

## RB953GS-5HnT-RP




Picture 114

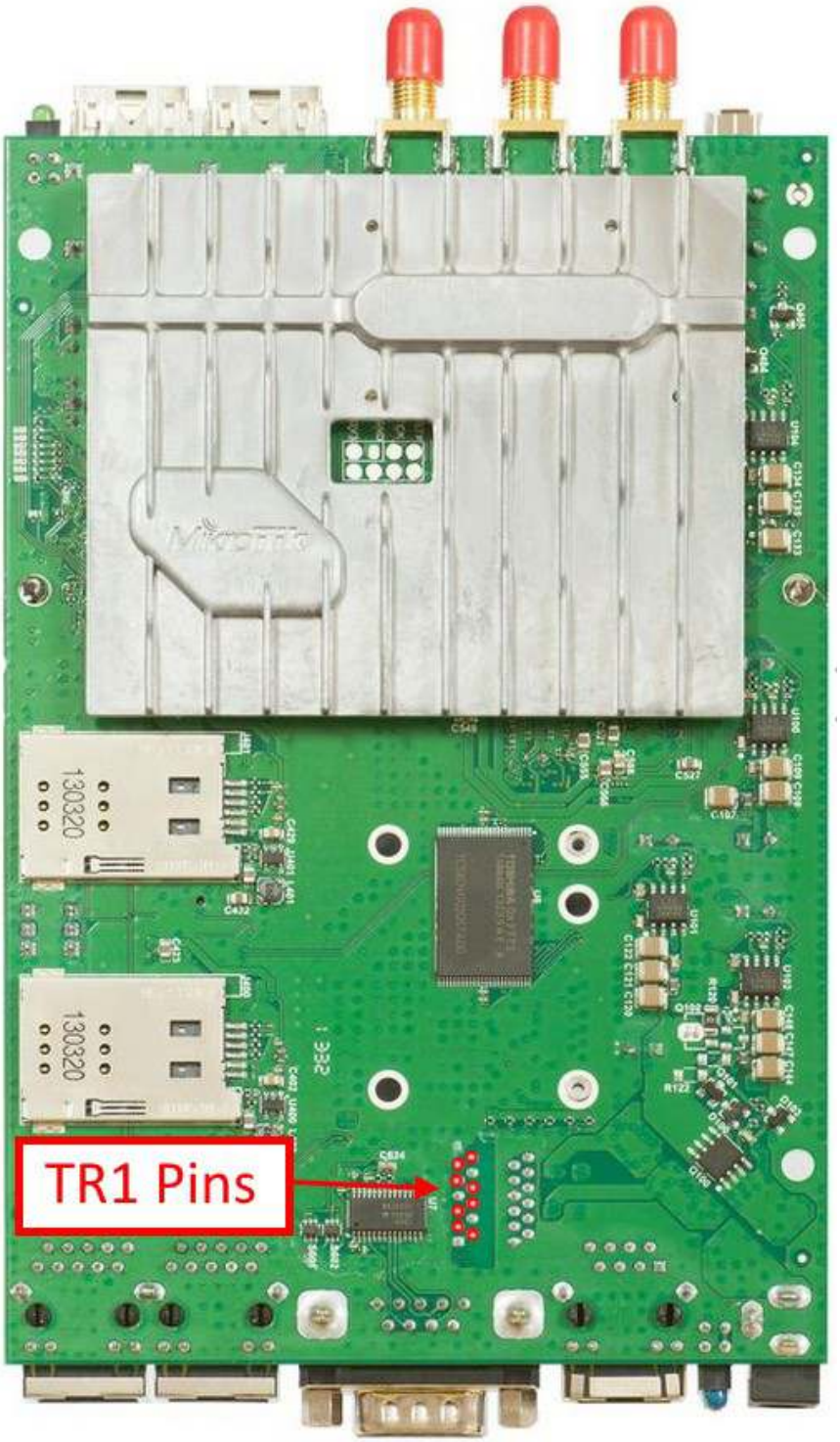
## Schottky diode measuring with multimeter in diode mode

Schottky diode reference numbers are D101, D102, D104; Schottky diode quality measurement method describe on page 7


Picture 115

## Voltage drop between TR1 pins and Ground.

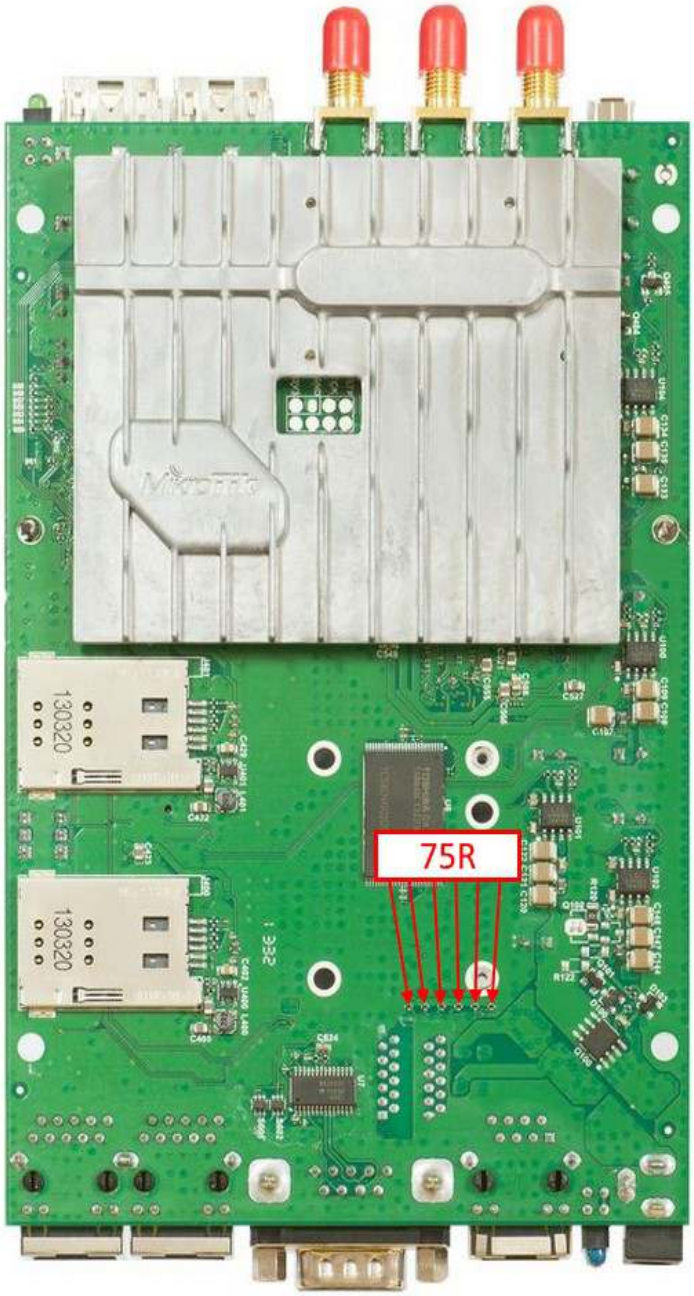
Check voltage drop between TR1 Ethernet Transformers pins and Ground. Ether Pins are marked with red circles. It should be in the range from 0,32V to 0,589V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR1 Transformers pins.




Picture 116

## 75R Termination resistors resistance.

Resistor resistance, marked with red arrow, should be 75 Ohm +/- 1%




Picture 117

On ports Ether2 – Ether3 You can take patch cord and plug it into the routerboard, and then measure as describe on page 9

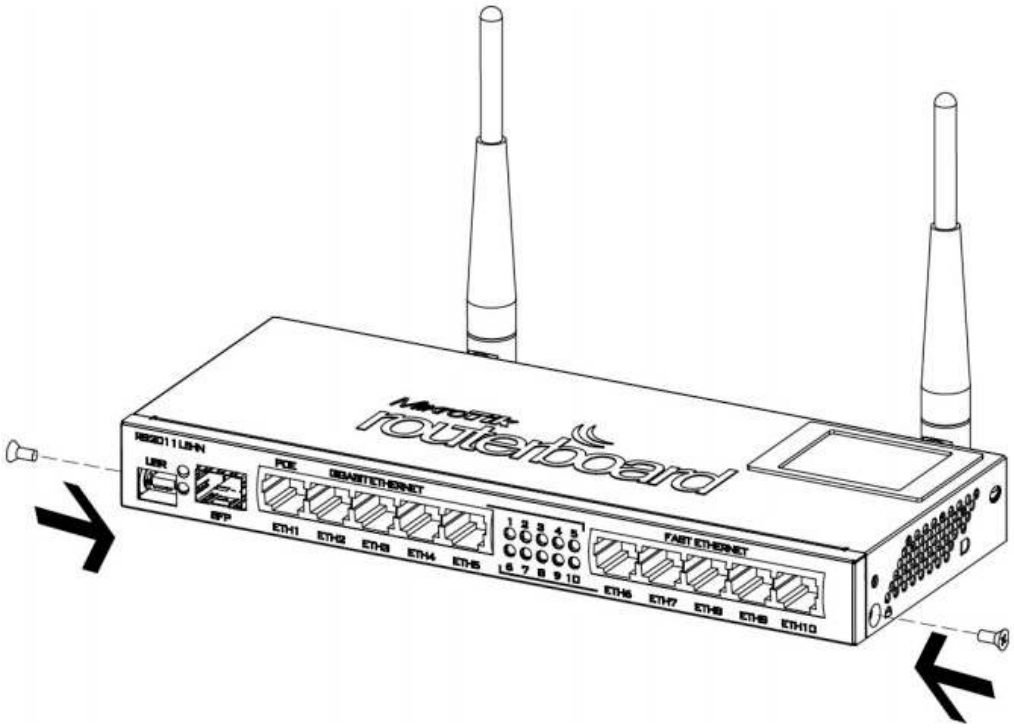
# 2011 series RouterBoards

## List of RB2011 series RouterBoards:

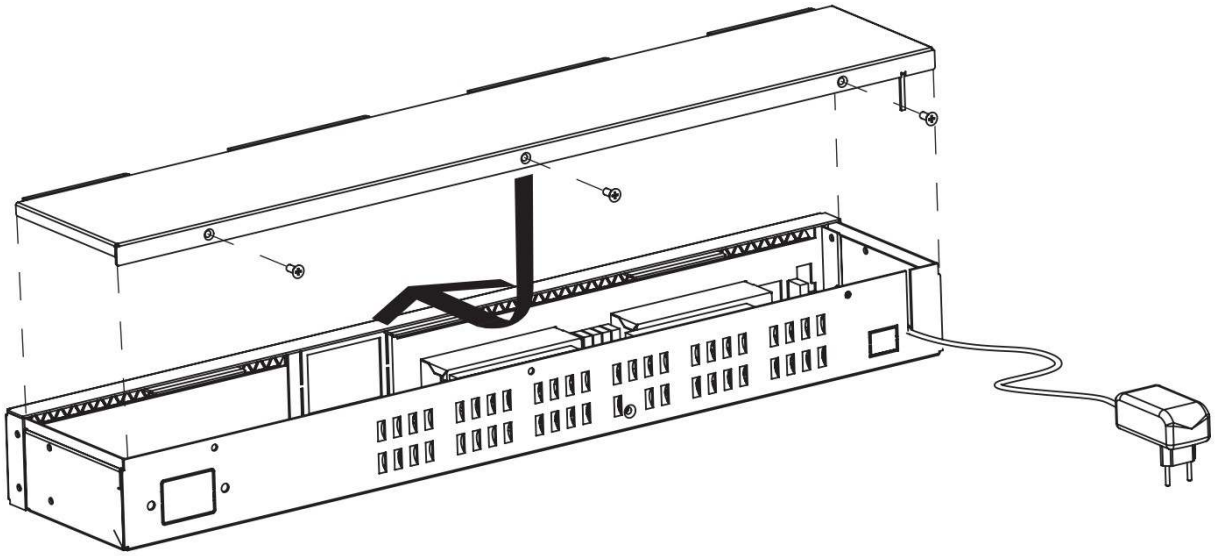

Picture 118

## Disassembling information

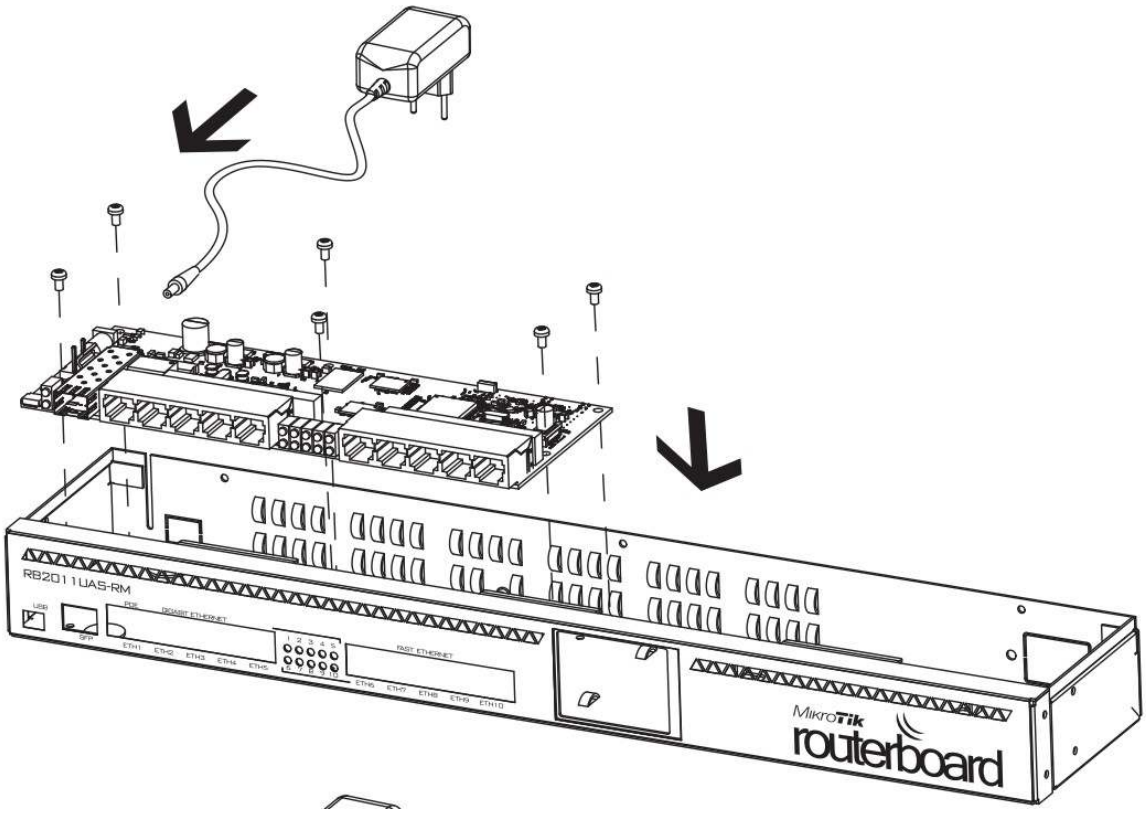
### Indoor 2011 series RouterBoards




Picture 119



Picture 120




Picture 121

## Schottky diode measuring with multimeter in diode mode

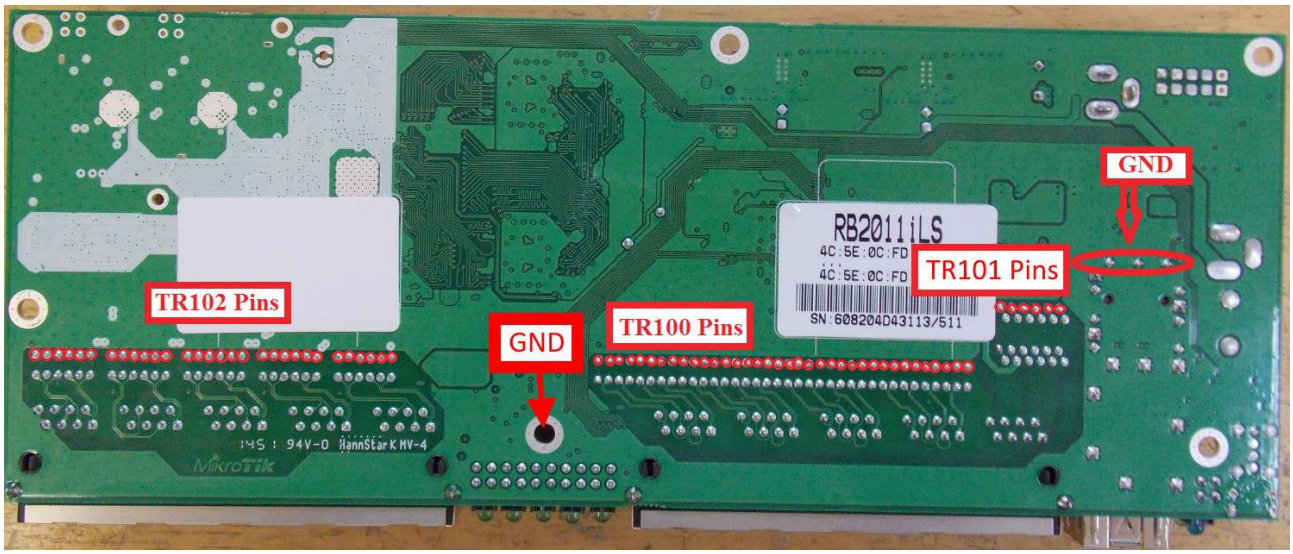
Schottky diode reference numbers is D2;  Diode bridges reference numbers are D6, D4. Schottky diode quality measurement method describe on page 7


Picture 122

## Voltage drop between Ethernet transformers pins and Ground.

Check voltage drop between Transformer TR100, TR101 and TR102 pins and Ground.

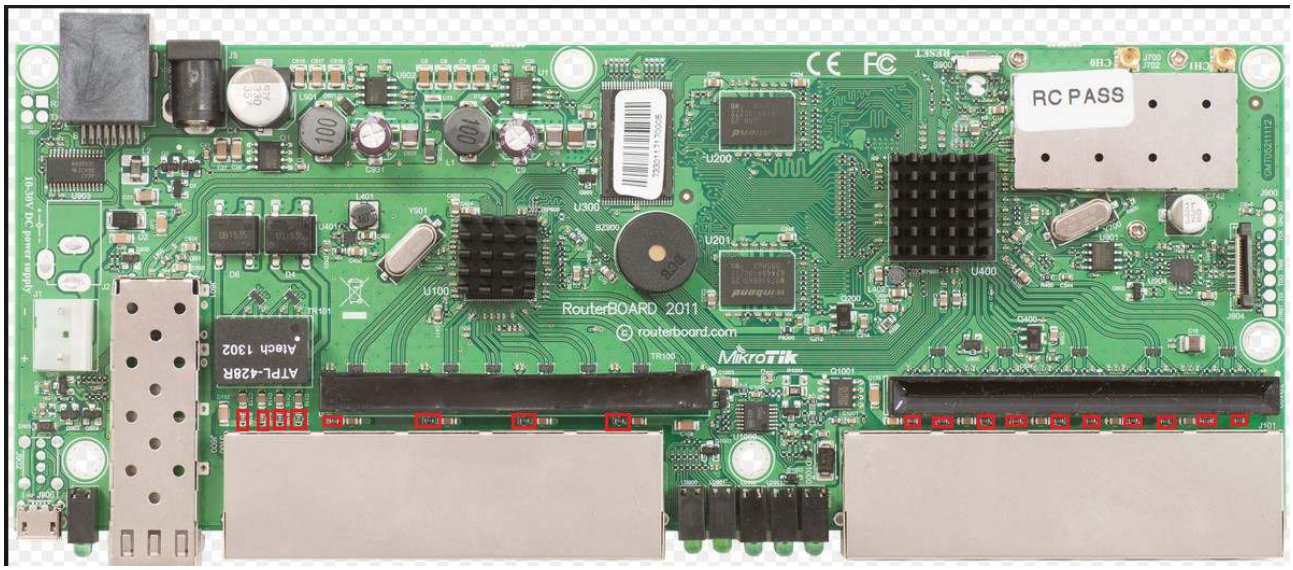
It should be in the range from 0,32V to 0,438V.  Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers pins




Picture 123

## Termination resistors resistance in RJ-45 connector

Red circled resistors resistance should be 75Ohm +/- 1%




Picture 124

On ports Ether2 – Ether10 You can take patch cord and plug it into the routerboard, and then measure as describe on page 9

# 3011 series RouterBoards

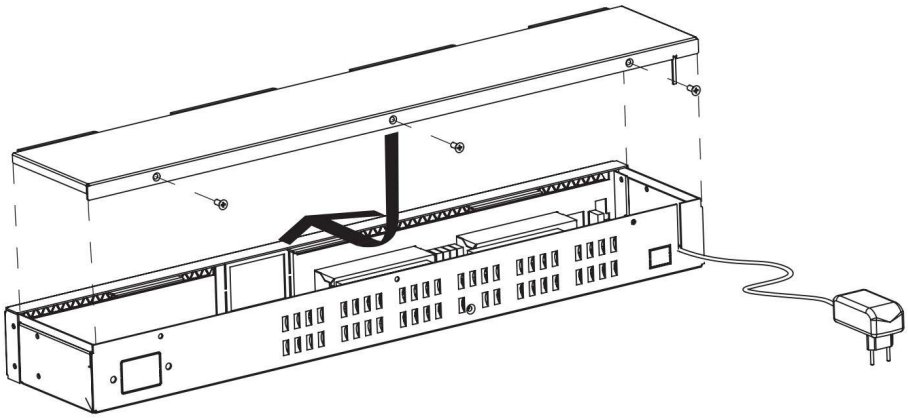
## List of RB3011 series RouterBoards:

### RB3011UiAS-RM

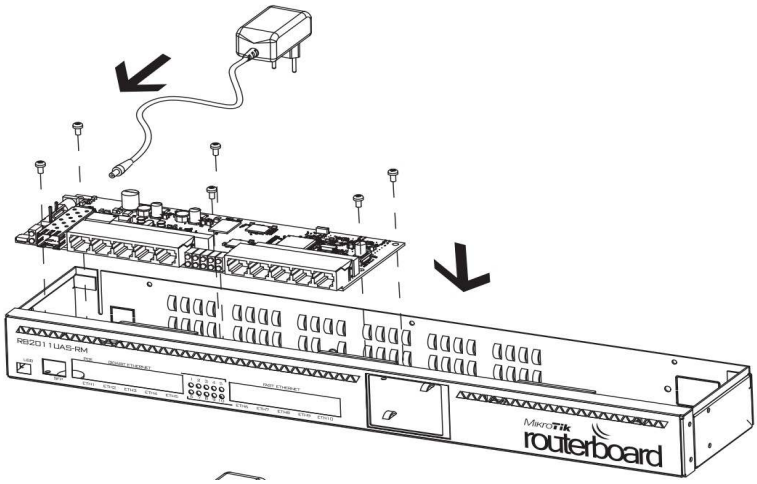

Picture 125

## Disassembling information

### Rackmount 3011 series RouterBoard



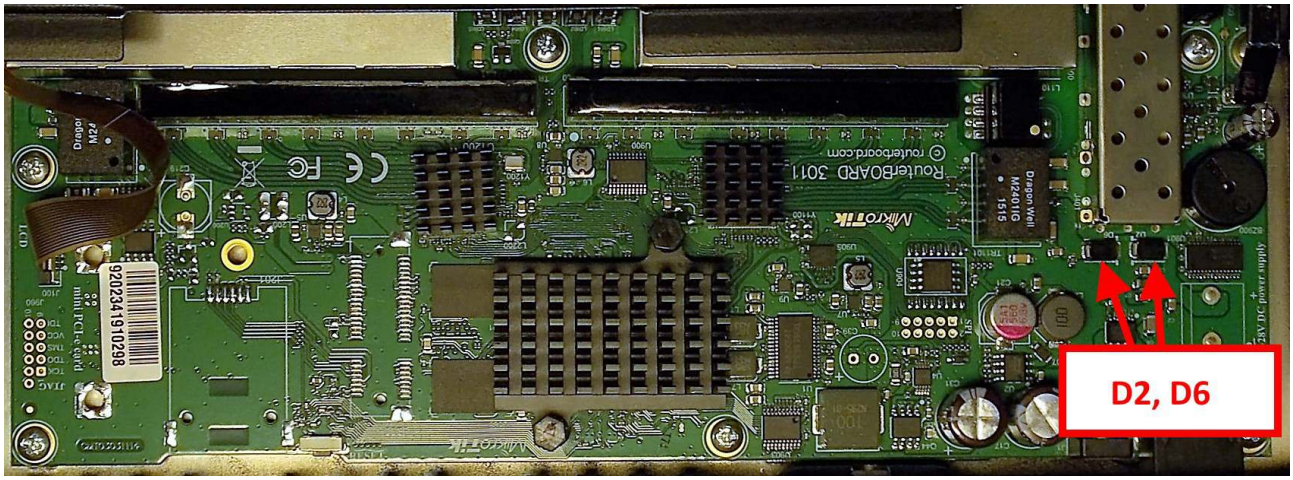
Picture 126




Picture 127

## Schottky diode measuring with multimeter in diode mode

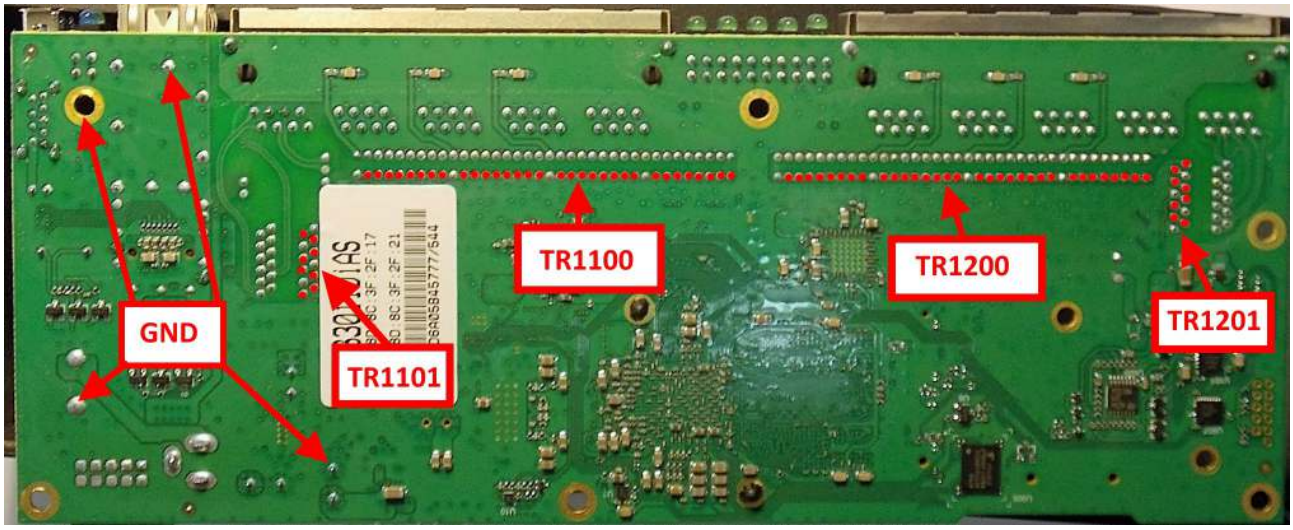
Schottky diode reference numbers are D2, D6;
Schottky diode quality measurement method describe on page 7




Picture 128

## Voltage drop between Ethernet transformers and Ground.

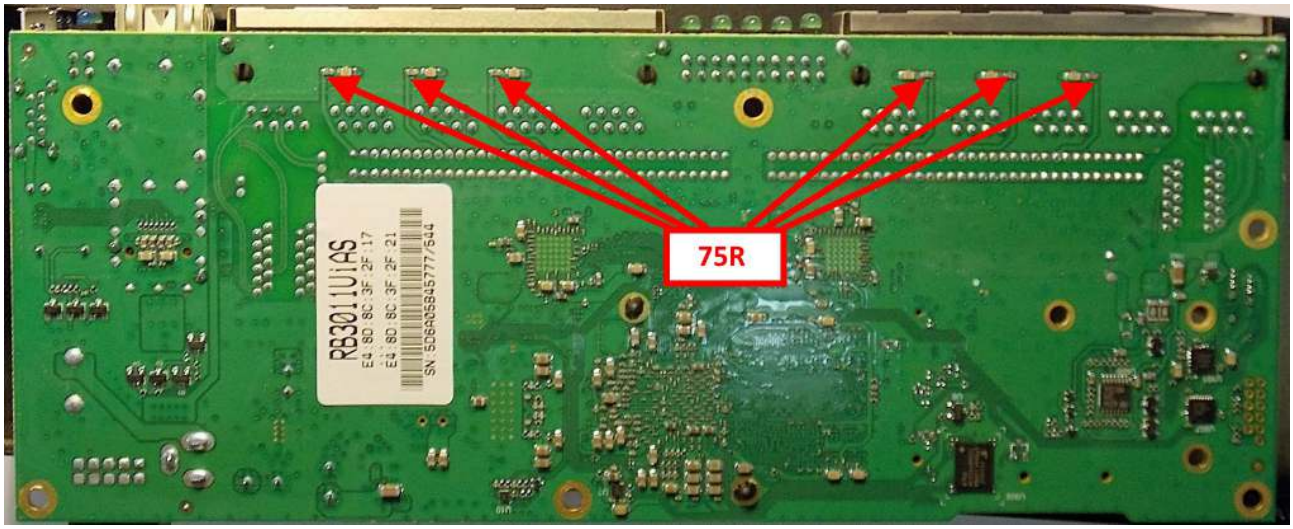
Check voltage drop between Transformers TR1100, TR1101, TR1200 and TR1202 pins and Ground. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers pins.




Picture 129

## Termination resistors resistance

Resistors marked with red arrows resistance should be 75Ohm +/- 1%



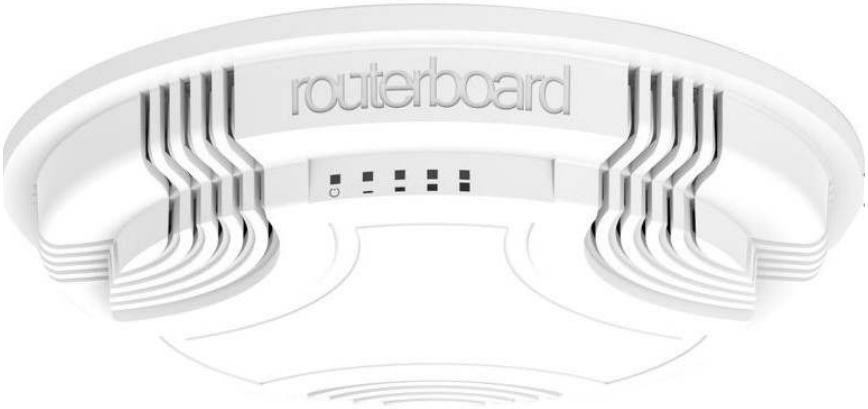

Picture 130

On ports Ether2 – Ether9 You can take patch cord and plug it into the routerboard,  and then measure as describe on page 9

# cAP series RouterBoards

## RBcAP series:

## cAP 2n




Picture 131

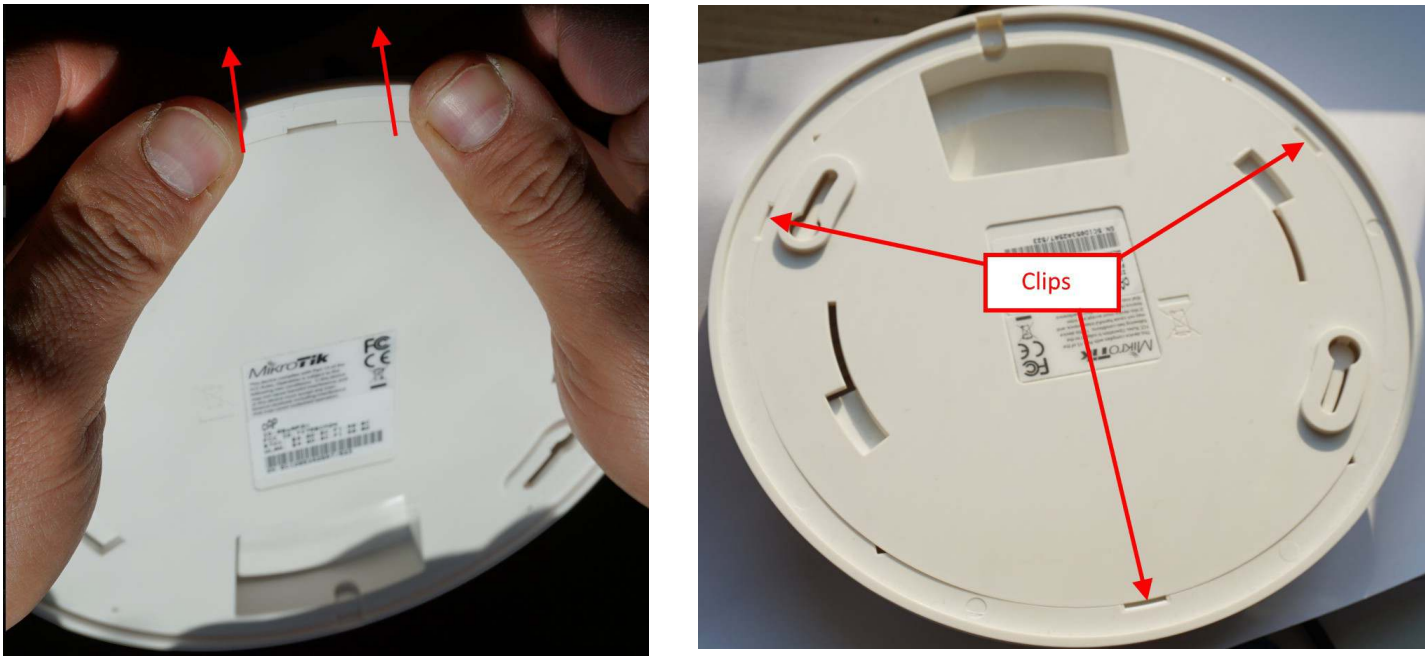
Picture 132

# Disassembling information

## cAP 2n disassembling

1. step

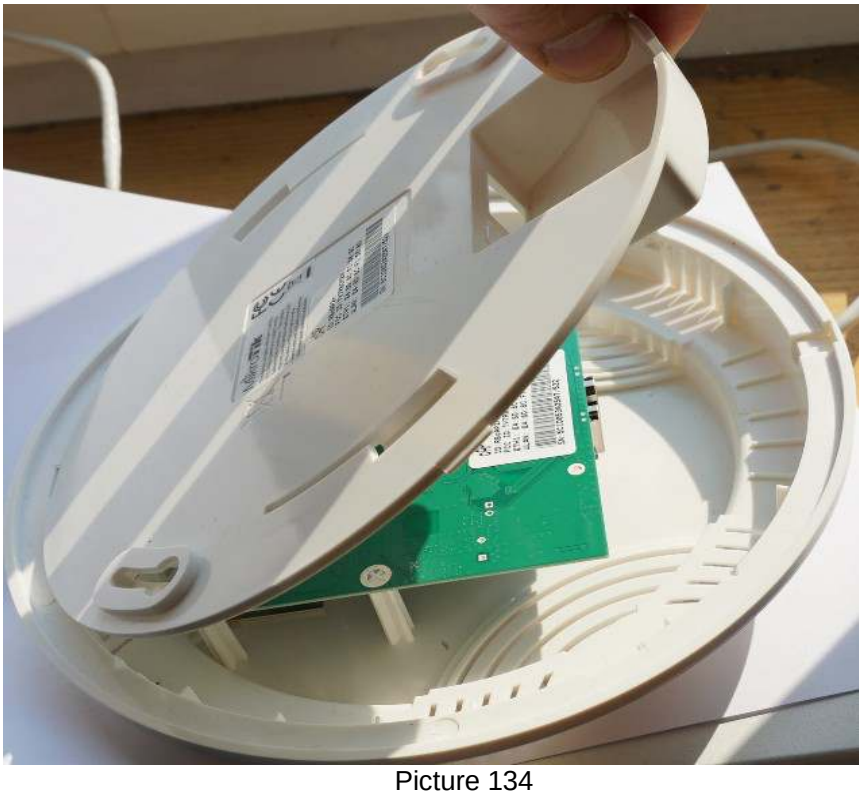
Push the outer edge around clips to open the case




Picture 133

2. step

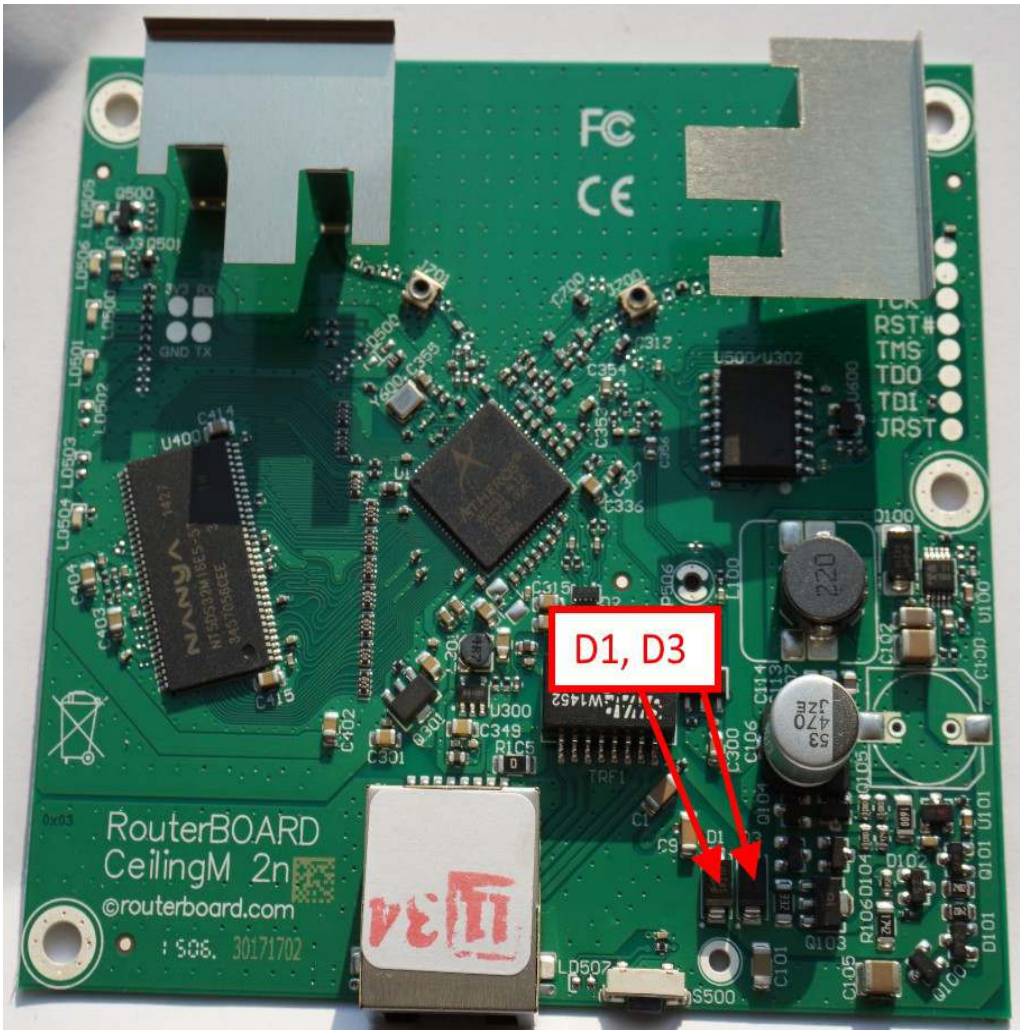
Remove cover and take out the board from case



Picture 134

## Schottky diode measuring with multimeter in diode mode

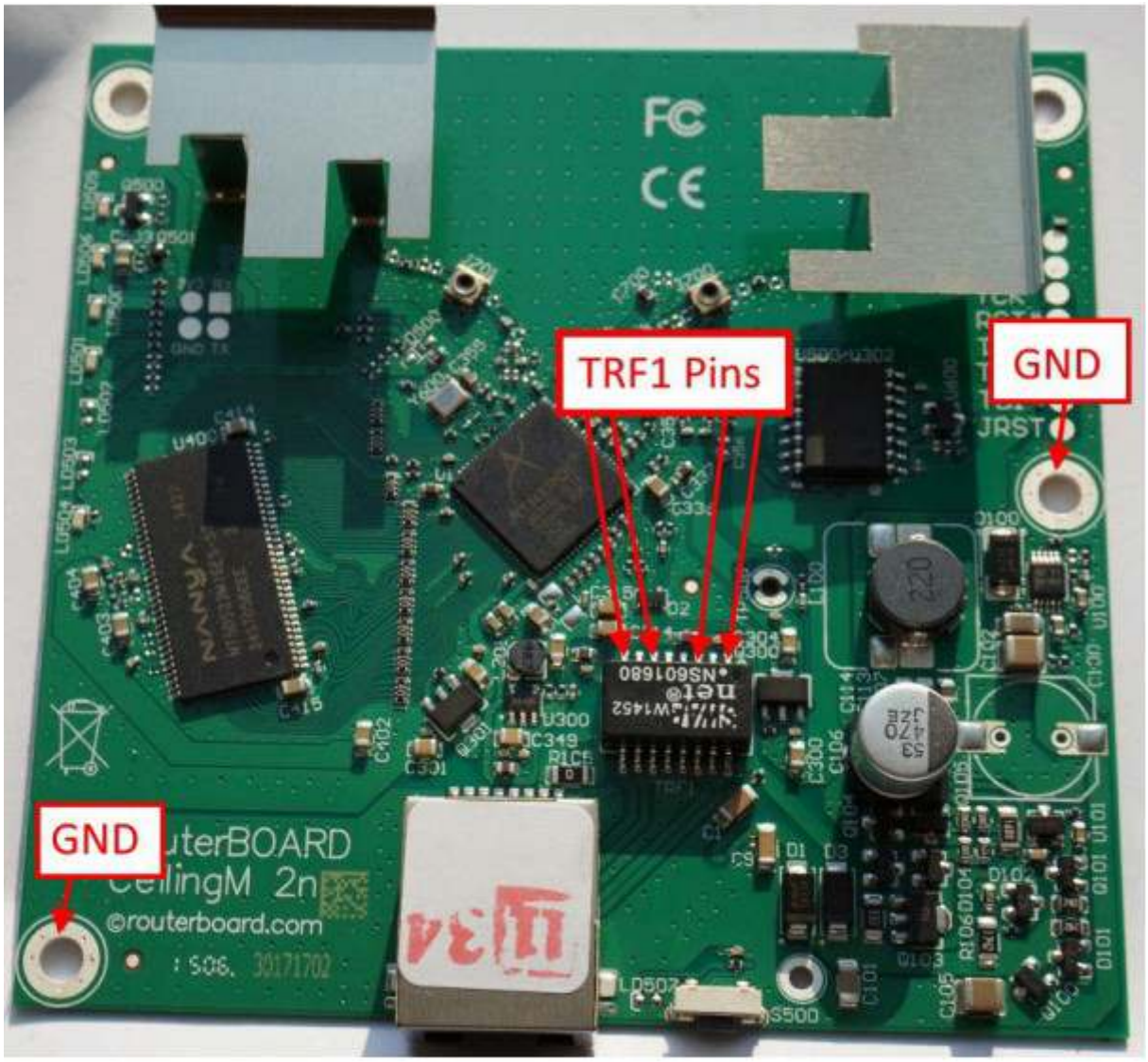
Schottky diode reference numbers are D1, D3. Schottky diode quality measurement method describe on page 7




Picture 135

## Voltage drop between TRF1 pins and Ground.

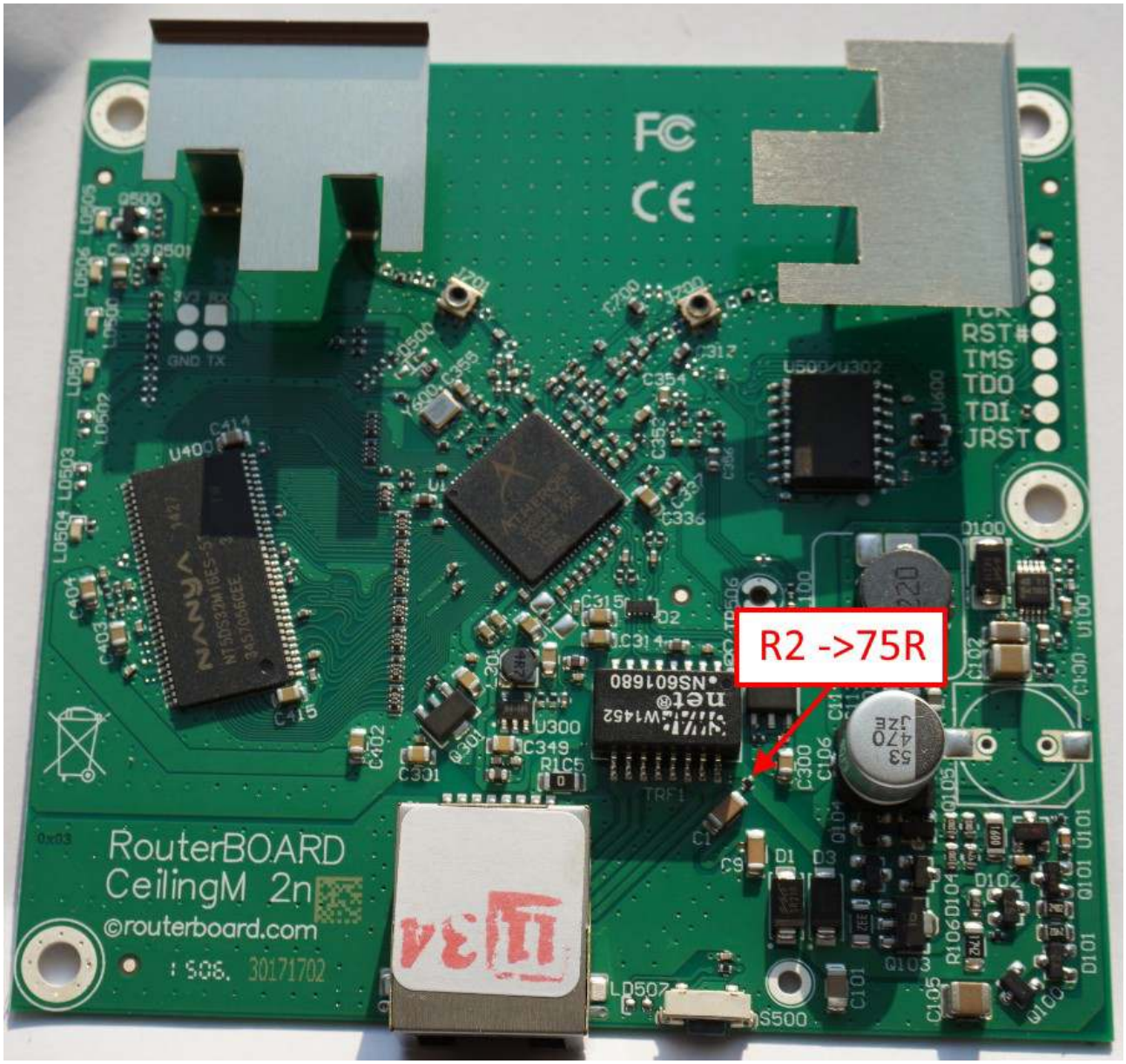
Check voltage drop between TRF1 Ethernet Transformers pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,478V. Measure in diode mode:hold “positive” wire on the Ground and “COM” wire to marked TRF1 Transformer pins.




Picture 136

## 75R Termination resistors resistance.

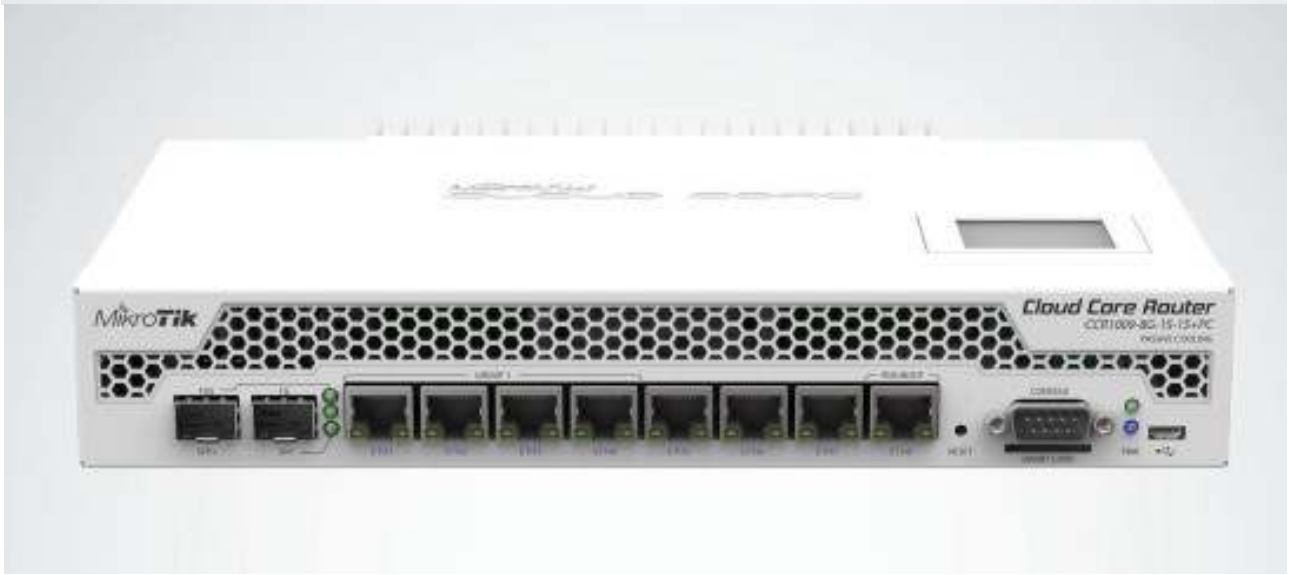
Resistor resistance, marked with red arrow, should be 75 Ohm +/- 1%




Picture 137

# CCR1009 series RouterBoards

## List of CCR1009 series RouterBoards:


**CCR1009-8G-1S-1S+PC**

Picture 138

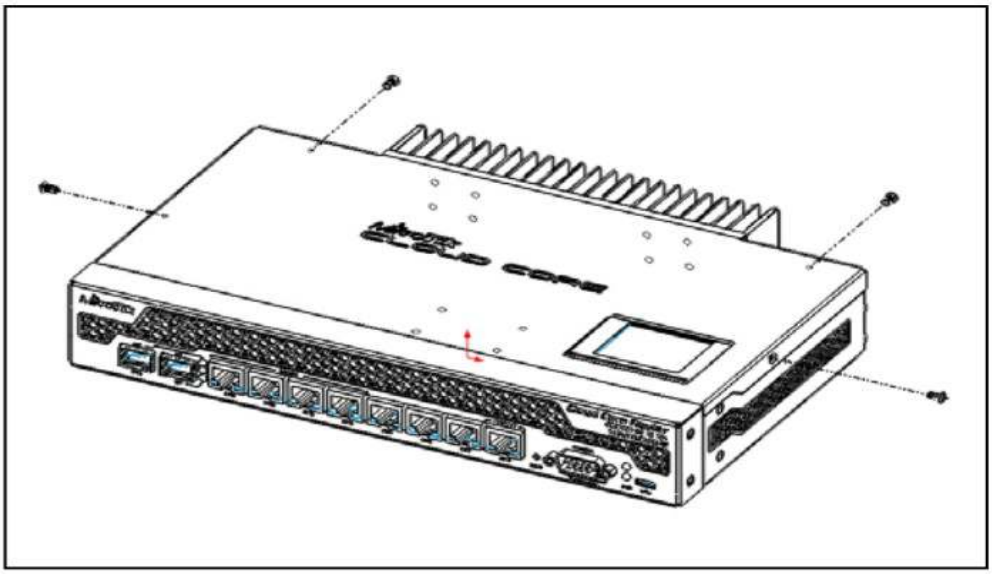
## Disassembling information

**CCR1009-8G-1S-1S+**

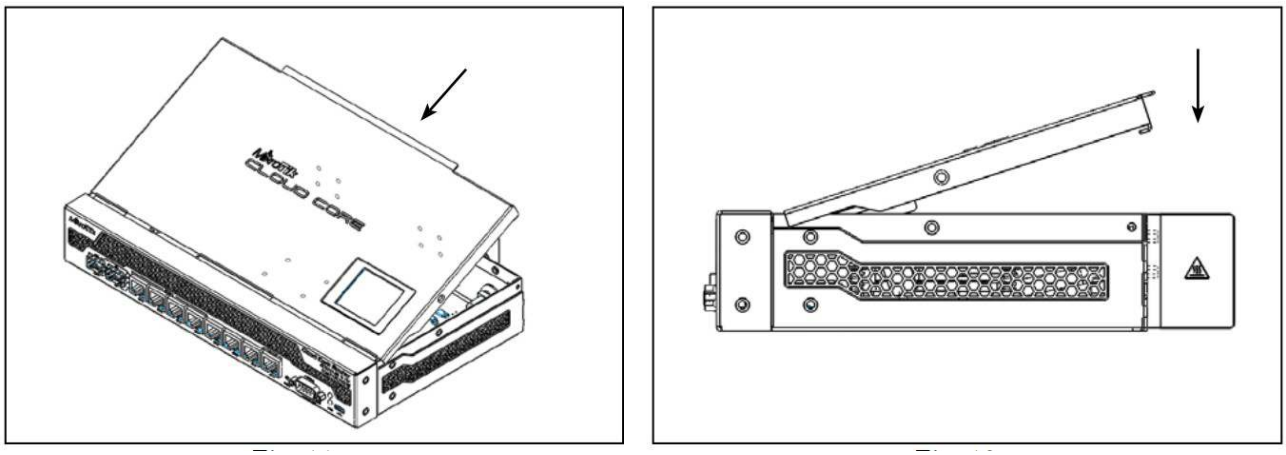
1. Use PH2 screw driver to loose backside screws then side screws, take off cover. Detach DSUB-9 connector fasteners.


Picture 139

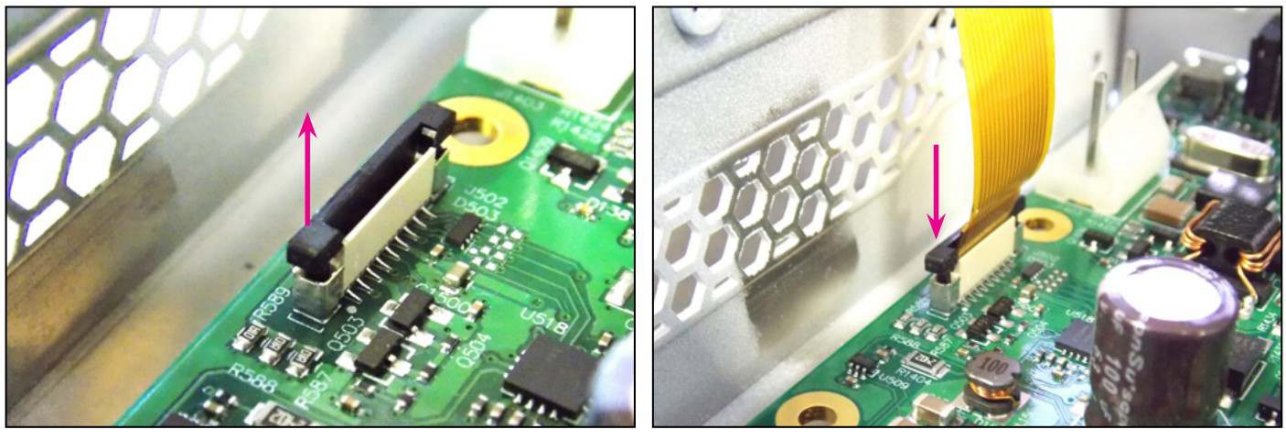
**CCR1009-8G-1S-1S+PC**



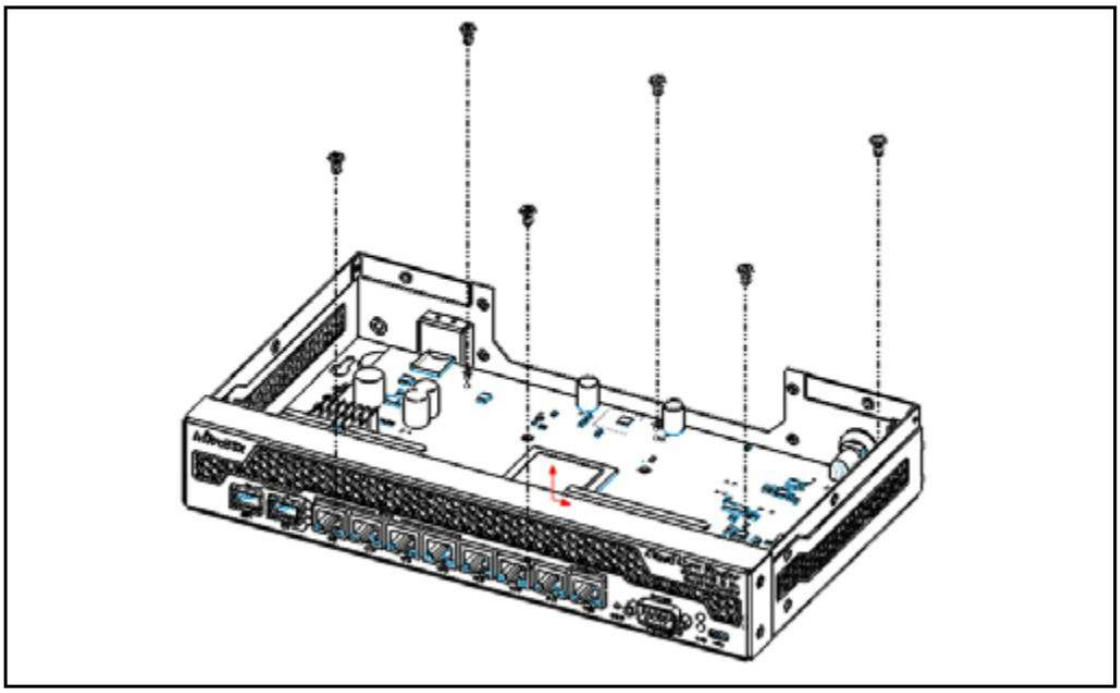
Picture 140



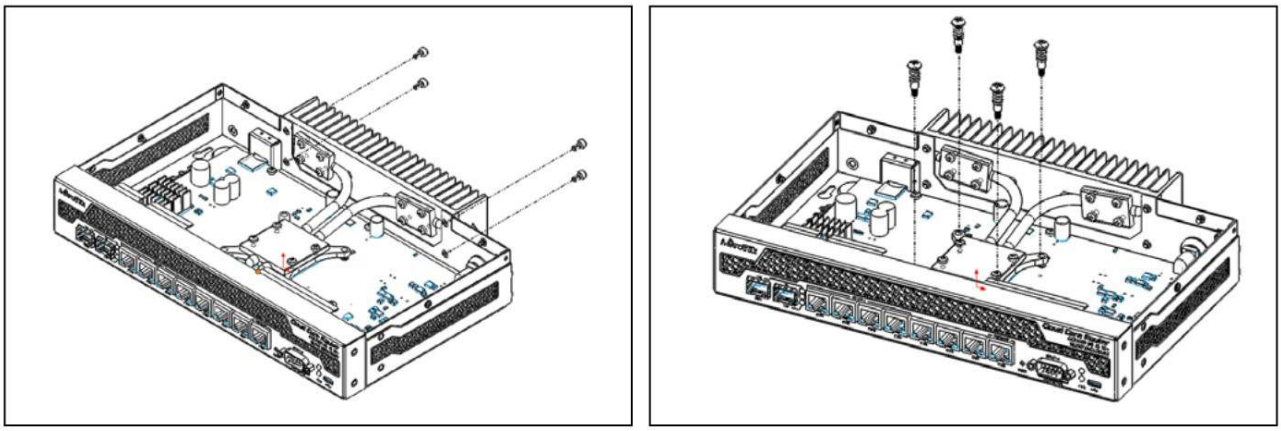
Picture 141



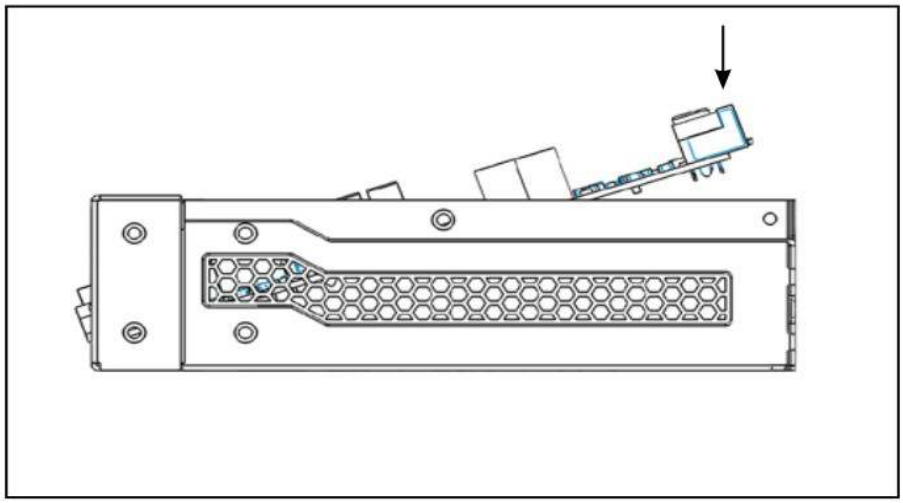
Picture 142



Picture 143



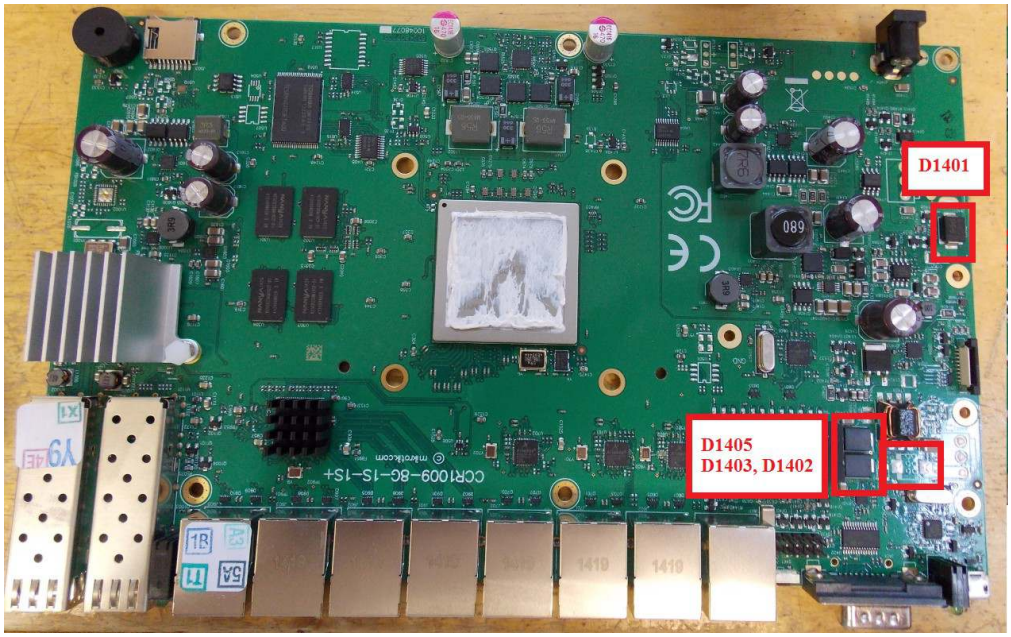
Picture 144



Picture 145

## Schottky diode measuring with multimeter in diode mode

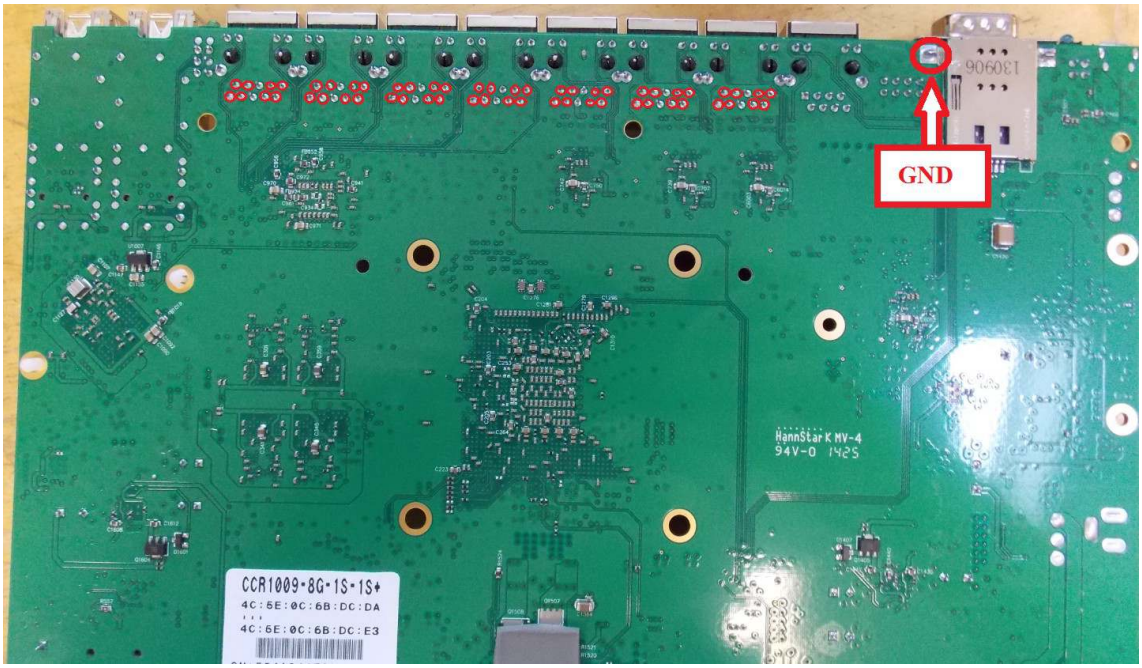
Schottky diode reference numbers is D1401, D1402, D1403, D1405. Schottky diode quality measurement method describe on page 7




Picture 146

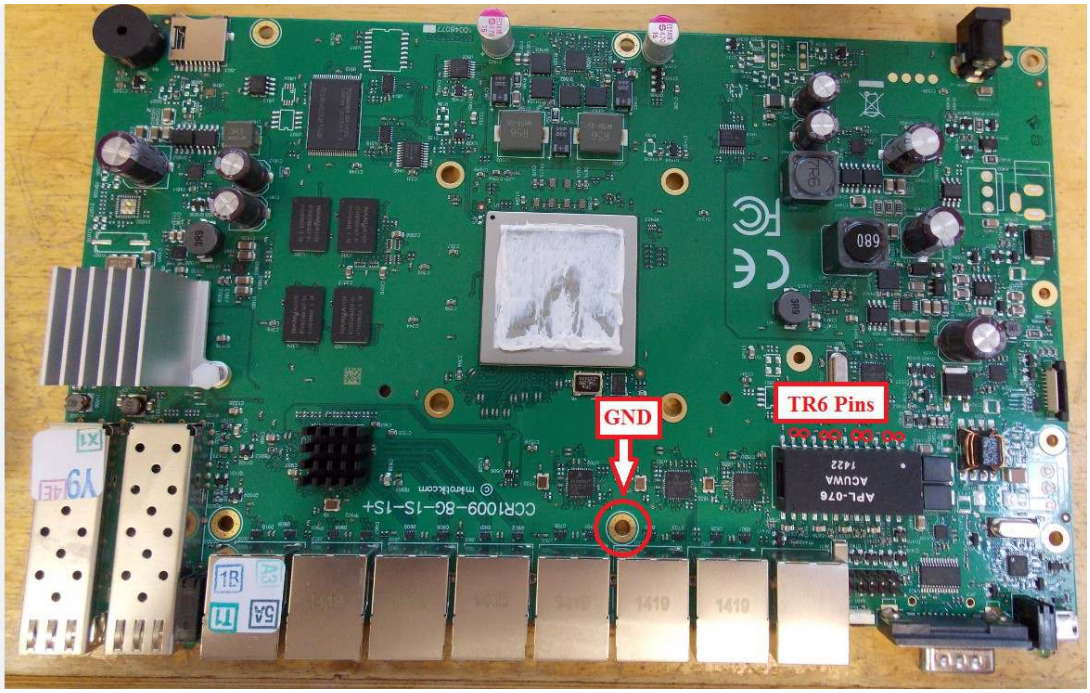
## Voltage drop between Ethernet pins and Ground.

Check voltage drop between internal Ethernet Transformers on ports Ether2 – Ether8 pins and Ground. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Ethernet pins.




Picture 147

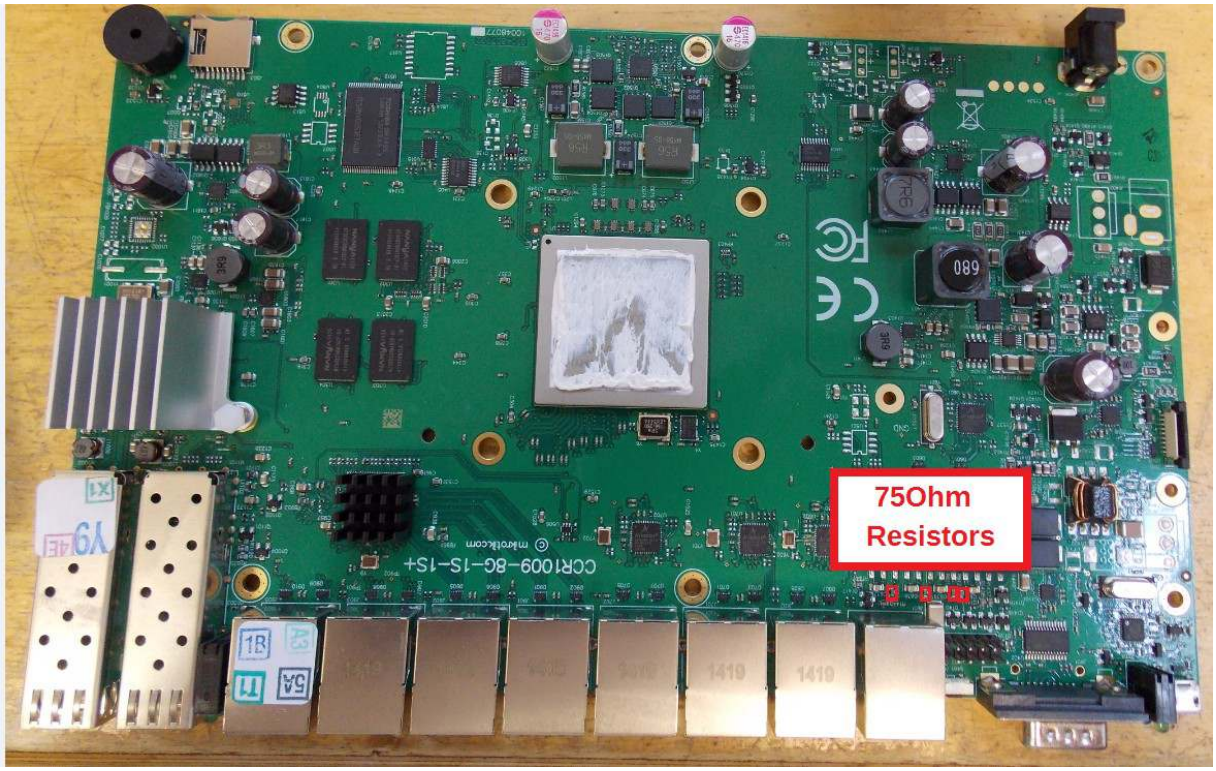
For Ether1 measure voltage drop on TR6 Pins and Ground. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers TR6 pins.




Picture 148

## Termination resistors resistance in RJ-45 connector

Red circled resistors resistance should be 75Ohm +/- 1%



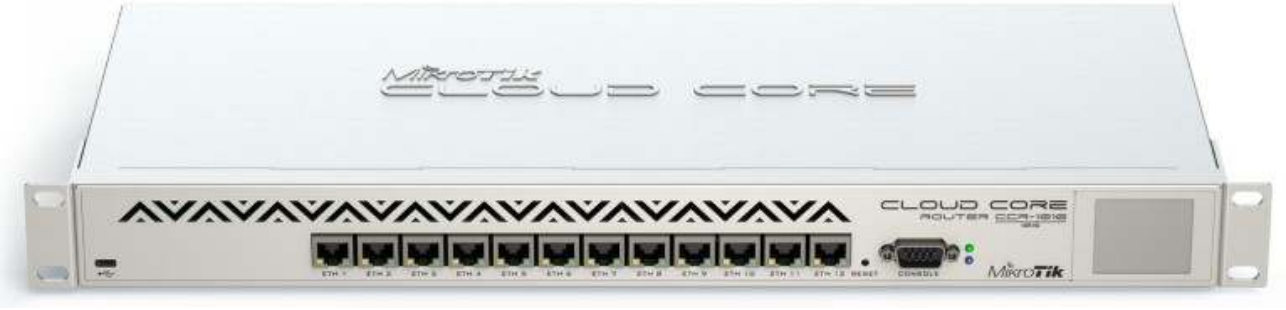

Picture 149

On ports Ether1 – Ether7 You can take patch cord and plug it into the routerboard, and then measure as describe on page 9

## CCR1016-12G, CCR1036-12G series

### List of Cloud Core Router CCR1016-12G, CCR1036-12G series:

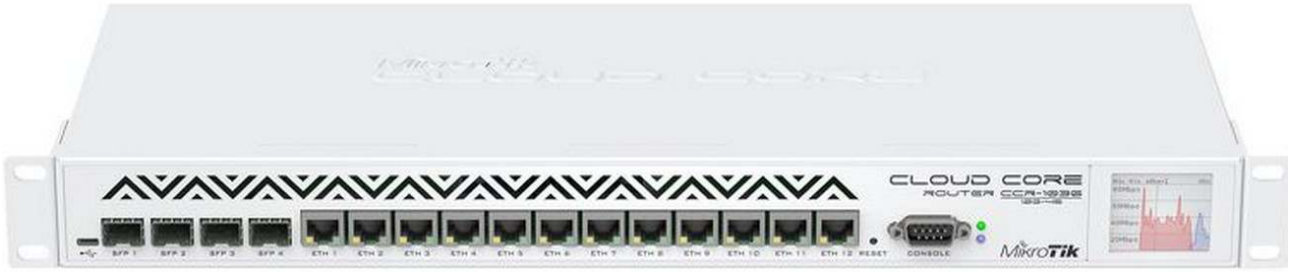
CCR1016-12G




Picture 150

CCR1036-12G-4S

CCR1036-12G-4S-EM




Picture 151

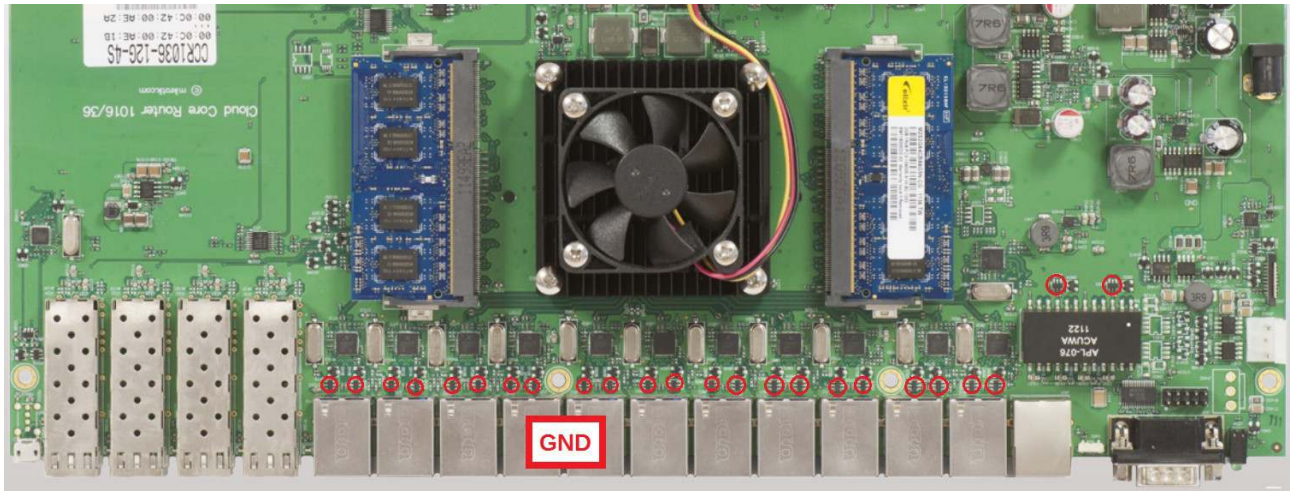
## Disassembling information

Picture 152

Picture 153

## Voltage drop between diode array pin#1 and Ground.

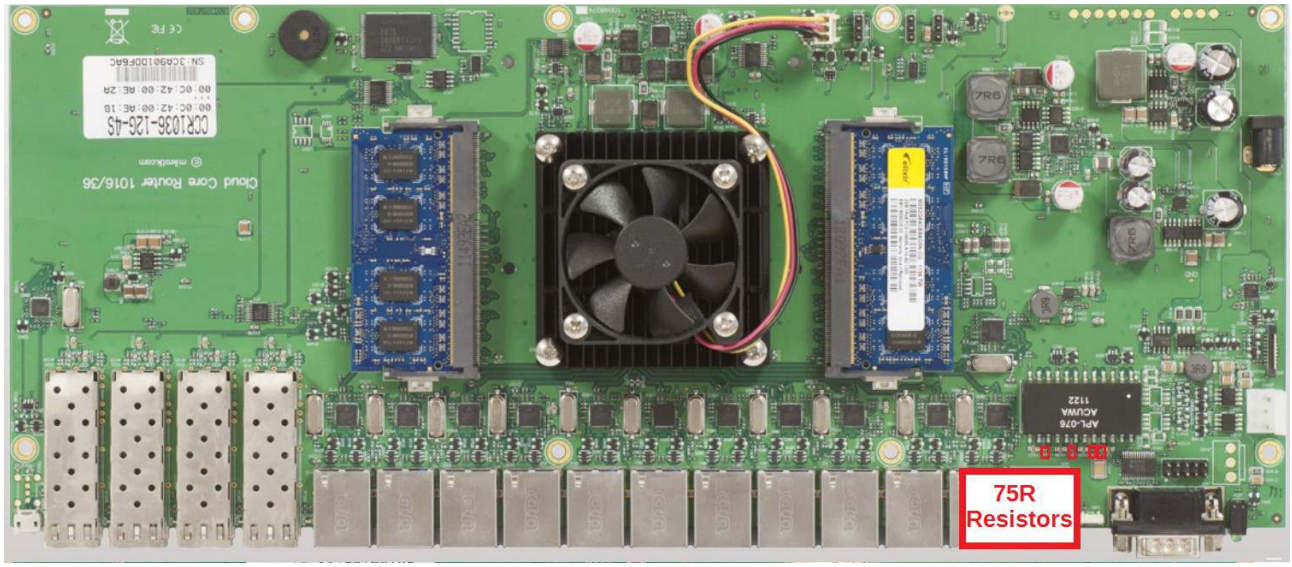
Check voltage drop between diode arrays pin#1 and Ground. Diode arrays are circled red. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked diode arrays pin#1.




Picture 154

## Termination resistors resistance in RJ-45 connector

Red circled resistors resistance should be 75Ohm +/- 1%




Picture 155

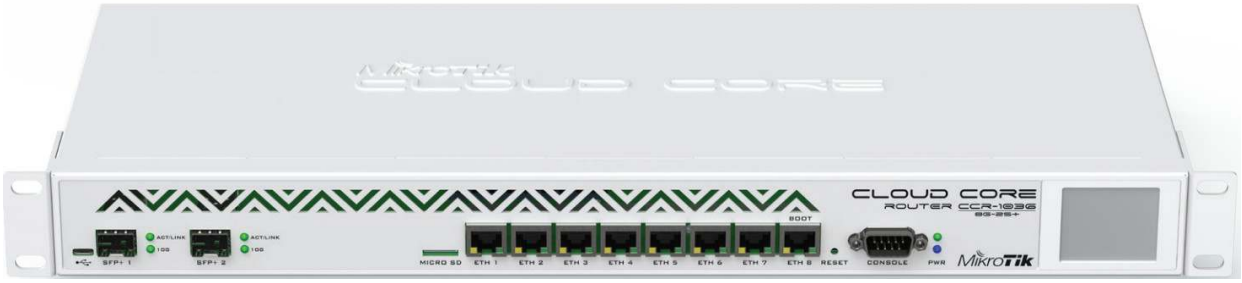
On ports Ether1 – Ether11 You can take patch cord and plug it into the routerboard, and then measure as describe on page 9

## CCR1036-8G-2S+ series

### List of Cloud Core Router CCR1036-8G-2S+ series:

**CCR1036-8G-2S+**

**CCR1036-8G-2S+EM**

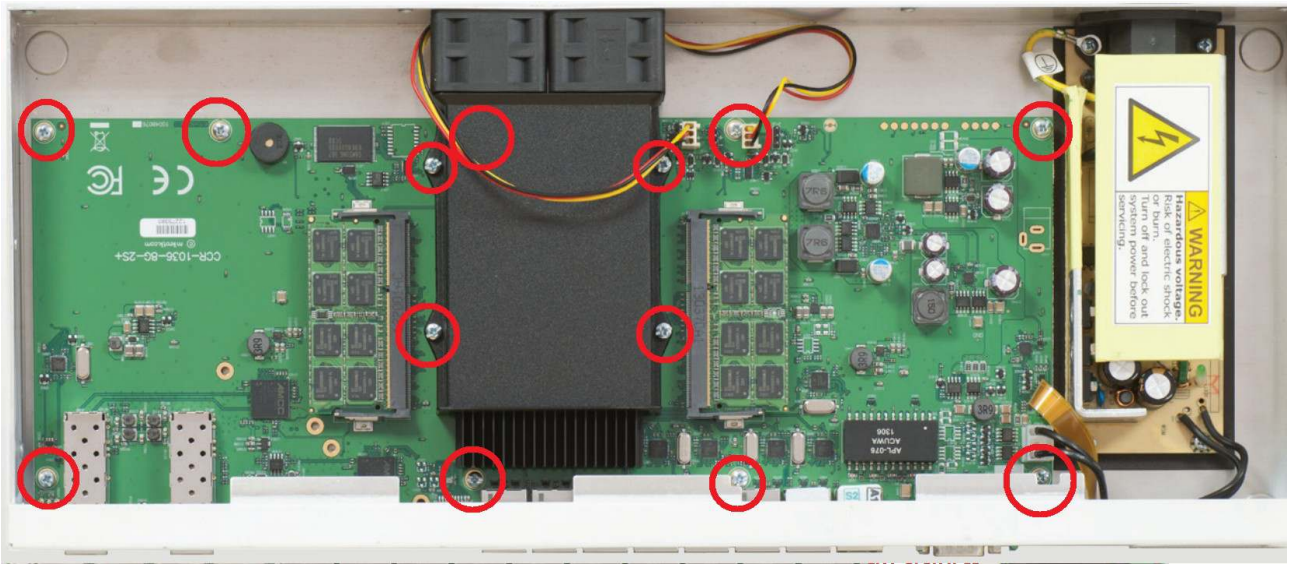



Picture 156

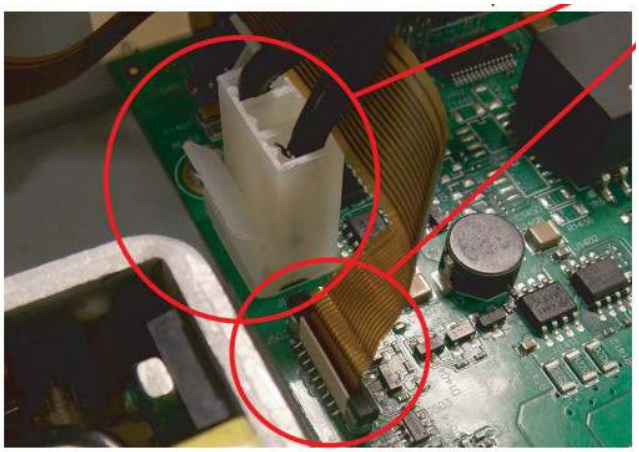
## Disassembling information

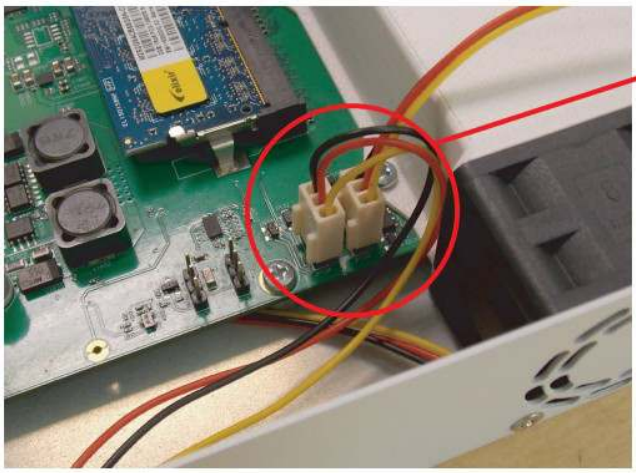
Picture 157

Picture 158




Picture 159





Picture 160

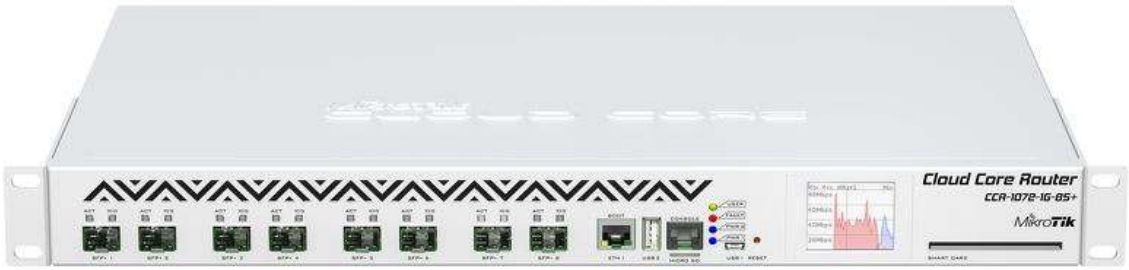
## Voltage drop between Ethernet Transformers on ports and Ground.

Check voltage drop between internal Ethernet Transformers on ports Ether1 – Ether7 pins and Ground. Ether Pins are circled red. It should be in the range from 0,32V to 0,438V. Measure in diode mode (hold "positive" wire on the Ground and "COM" wire to marked Ethernet pins.


Picture 161

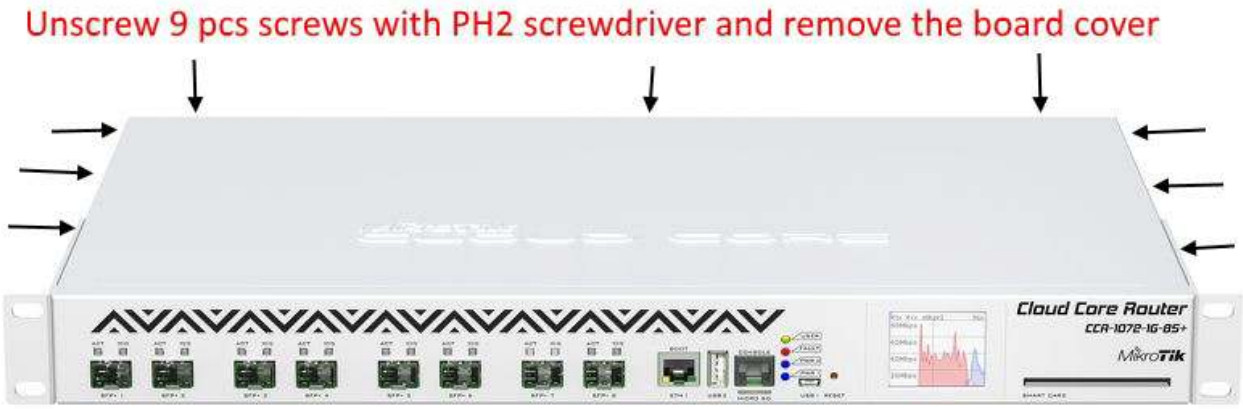
## CCR1072-1G-8S+ series

### Cloud Core Router CCR1072-1G-8S+:




Picture 162

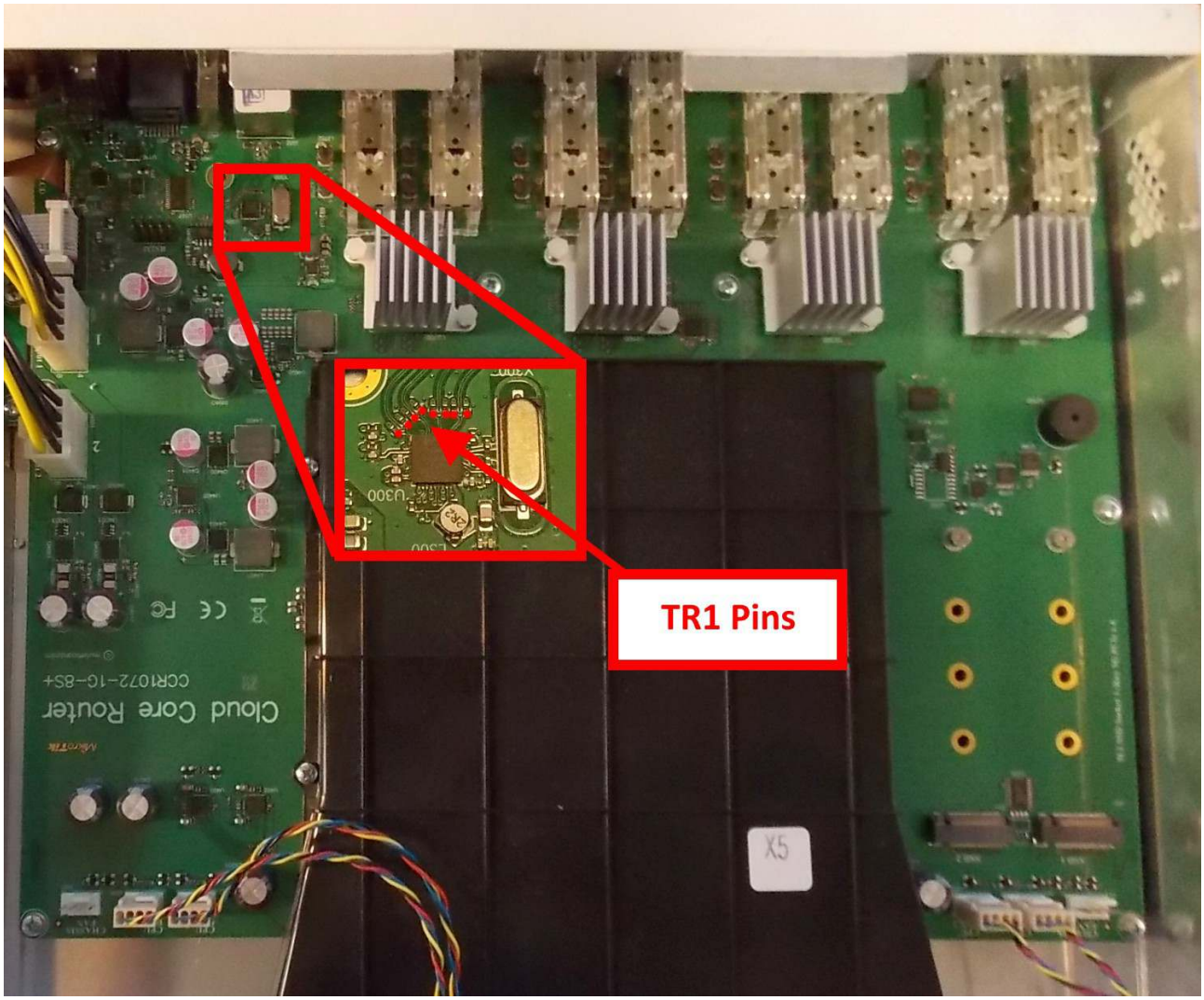
### Disassembling information




Picture 163

## Voltage drop between capacitors and Ground.

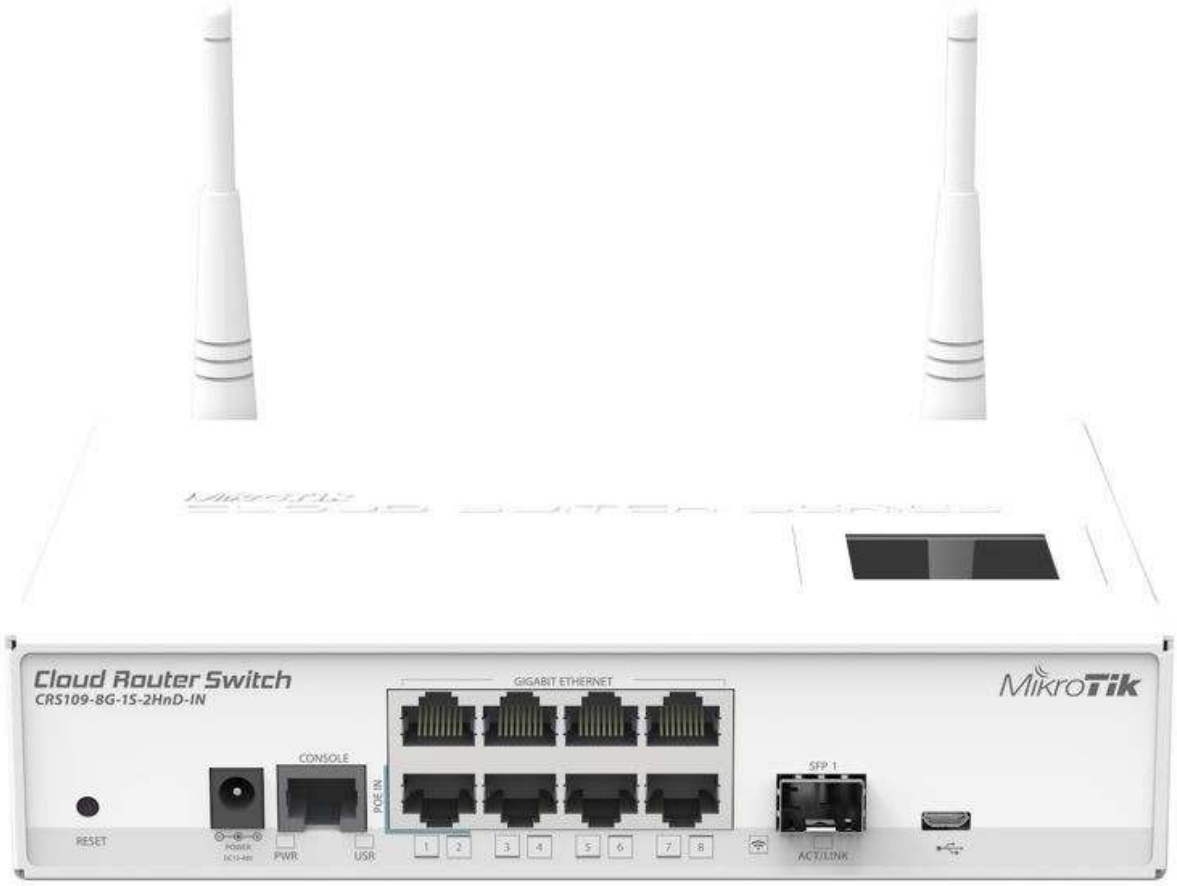
Check voltage drop between capacitors and Ground. Capacitor pins are circled red. It should be in the range from 0,31V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Capacitors pins.




Picture 164

# CRS109-8G-4S series RouterBoards

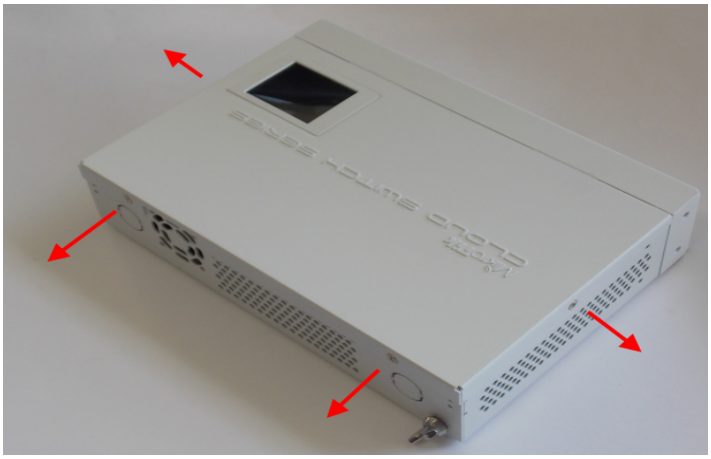
## CRS109-8G-1S-2HnD-IN




Picture 165

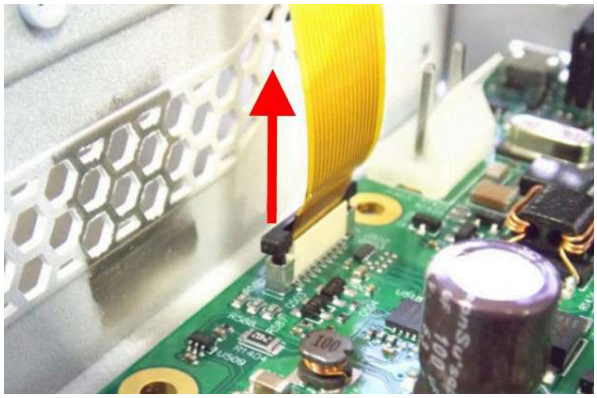
## Disassembling information

1. Step: use PH2 screw driver to loose backside screws, take off cover.



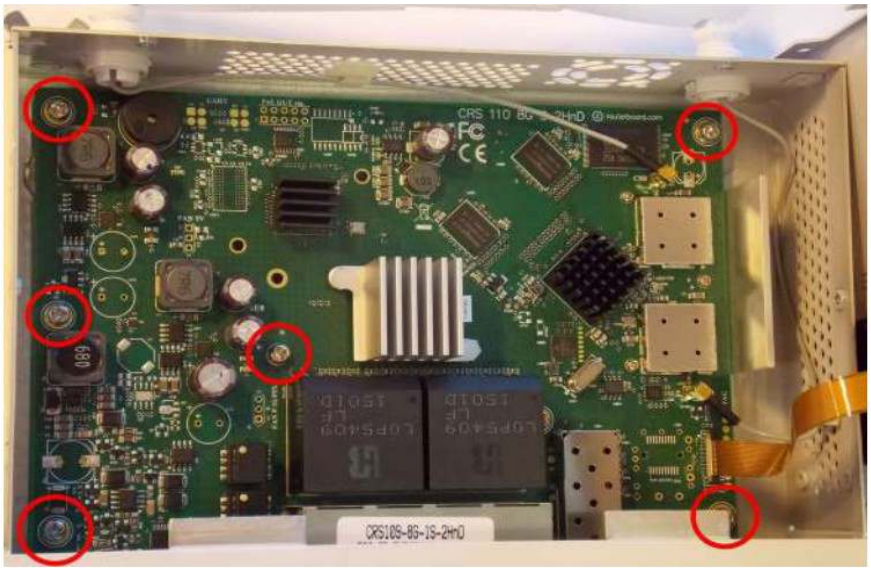
Picture 166

2. step: take off cover carefully, pay a tension to LCD connector. Push up both side of LCD connector from slot with “-” screwdriver as shown in next pictures



Picture 167

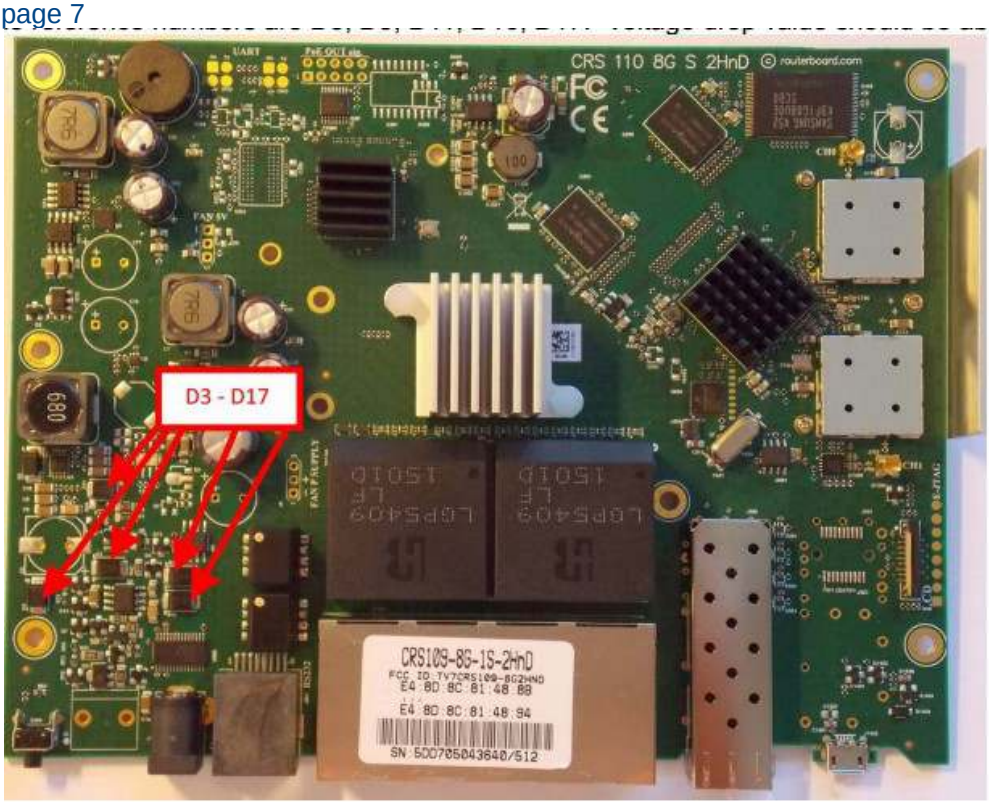
3. Step: use “+” screw driver to loose 7 pcs PCB screws, than take off PCB from case.



Picture 168

## Schottky diode measuring with multimeter in diode mode

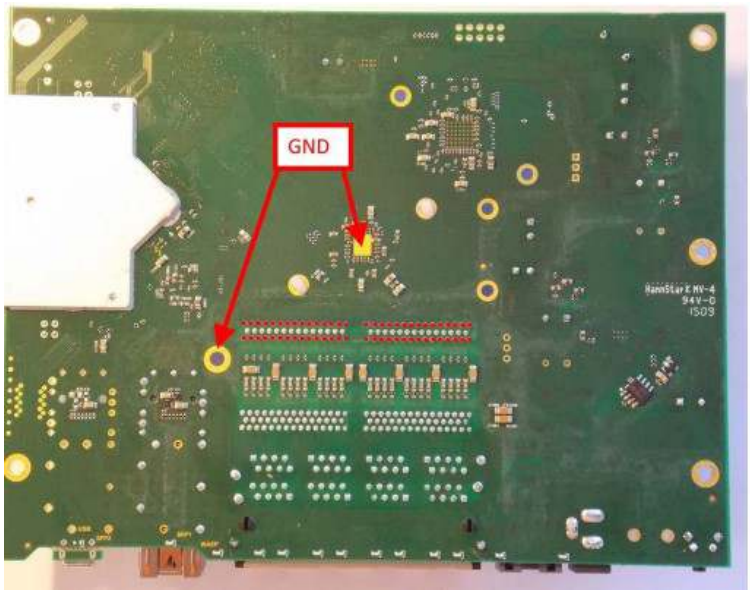
Schottky diode reference numbers are D3, D5, D11, D16, D17. Schottky diode quality measurement method describe on page 7




Picture 169

## Voltage drop between TR1200, TR1201 and Ground.

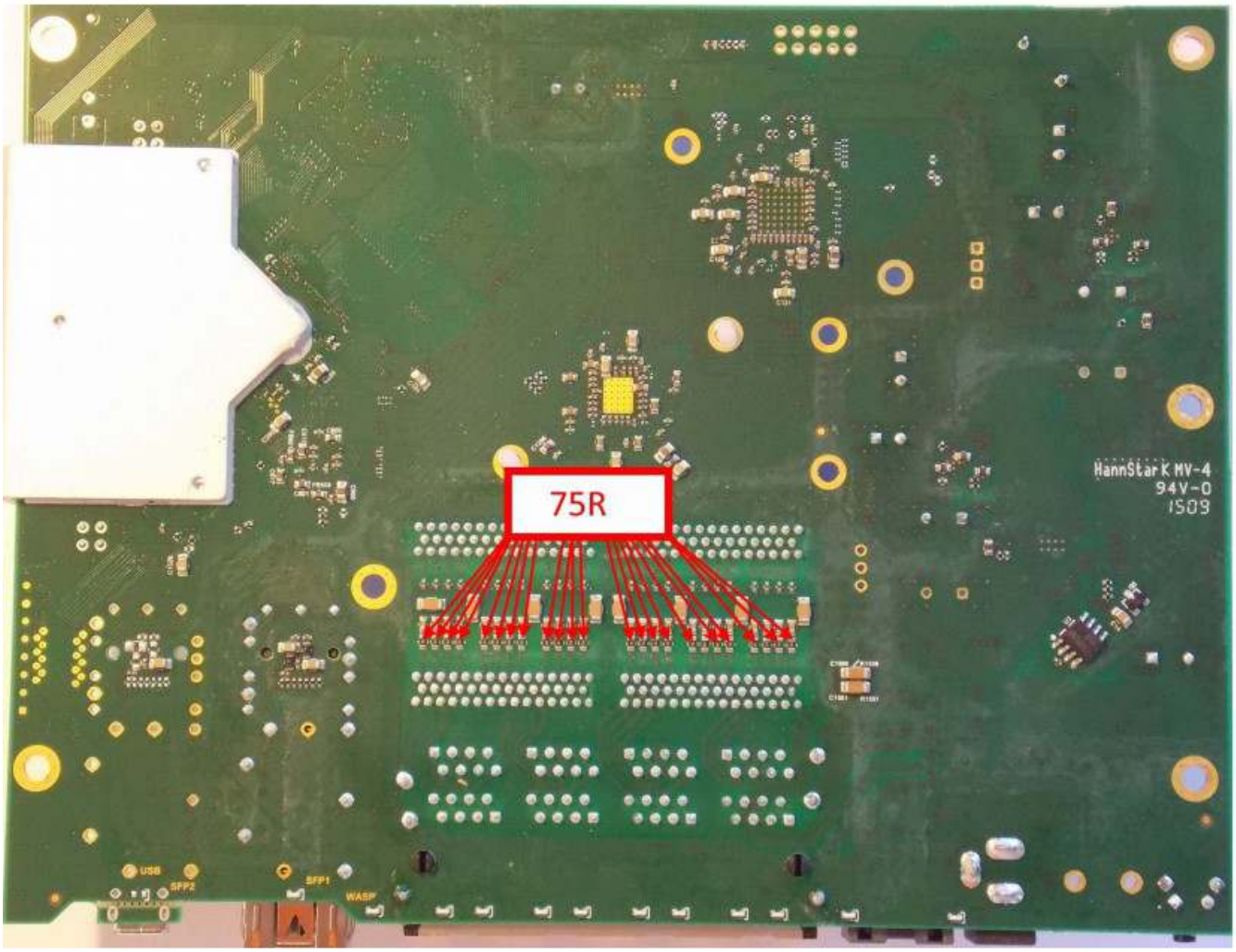
Check voltage drop between TR1200 and TR1201 Ethernet Transformers on ports Ether1 – Ether8 pins and Ground. Ether Pins are circled red. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers pins.




Picture 170

## 75R termination resistors resistance

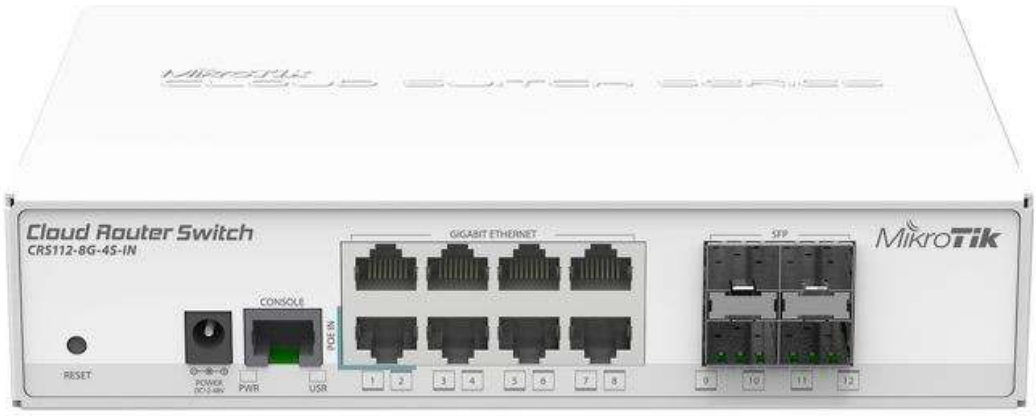
Resistors marked with red arrows should be 75Ohm +/- 1%




Picture 171

# CRS112-8G-4S series RouterBoards

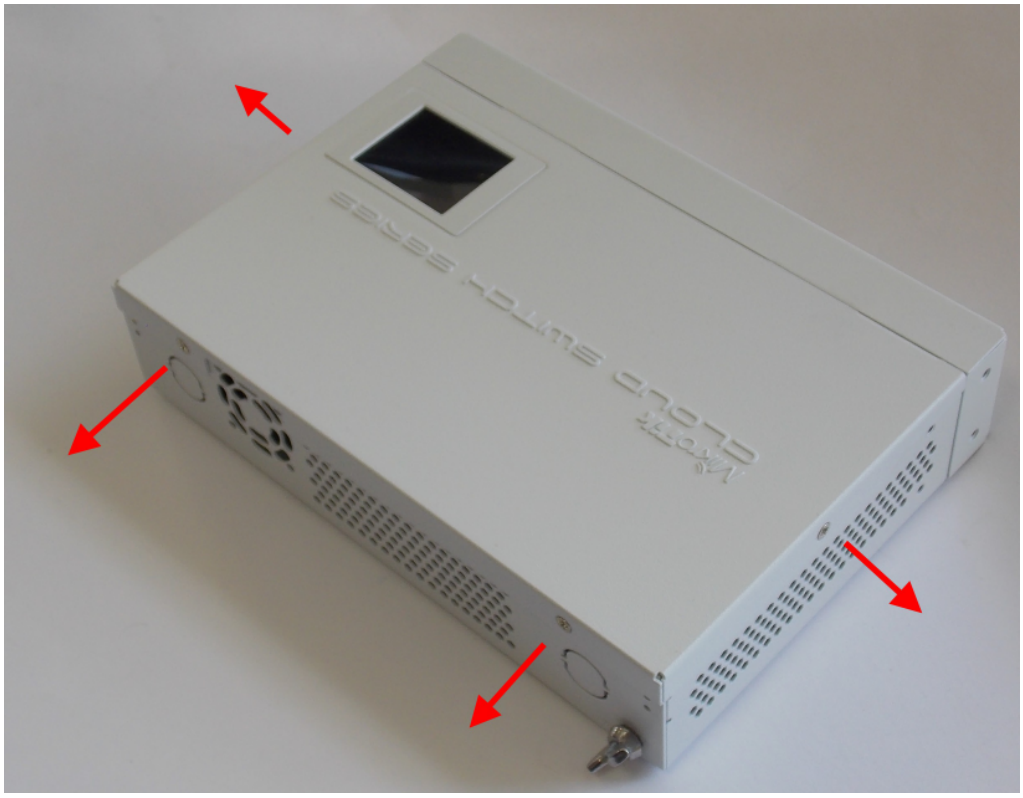
## CRS112-8G-4S-IN




Picture 172

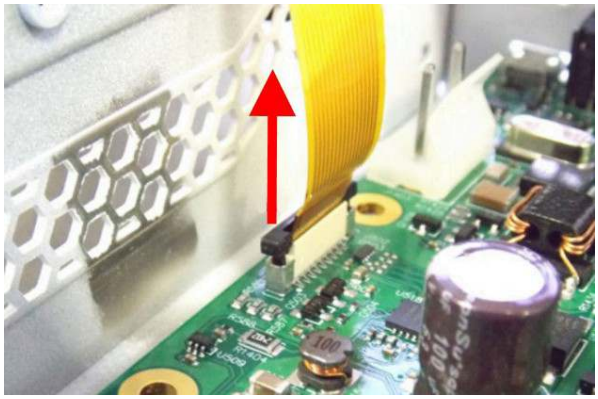
### Disassembling information

1. Step: use PH2 screw driver to loose backside screws, take off cover.



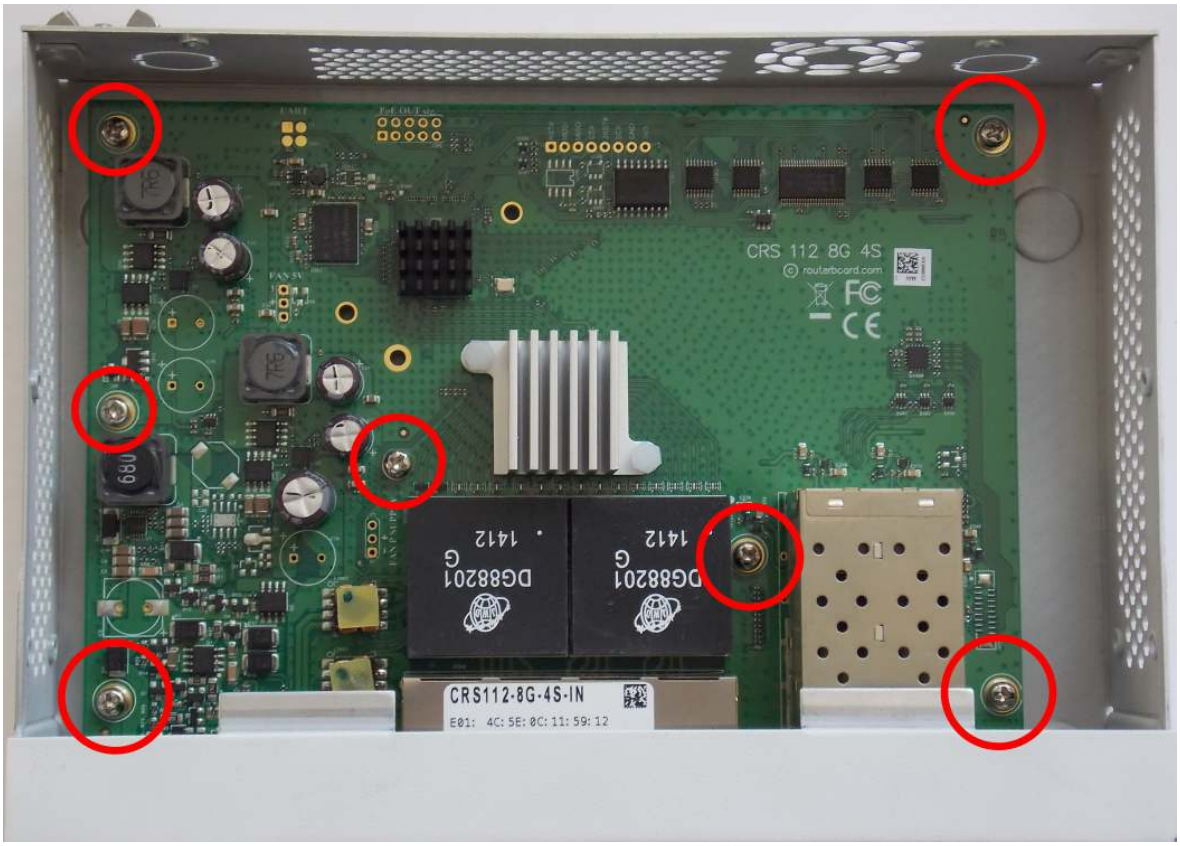
Picture 173

2. step: take off cover carefully, pay a tension to LCD connector. Push up both side of  LCD connector from slot with “-” screwdriver as shown in next pictures 215



Picture 174

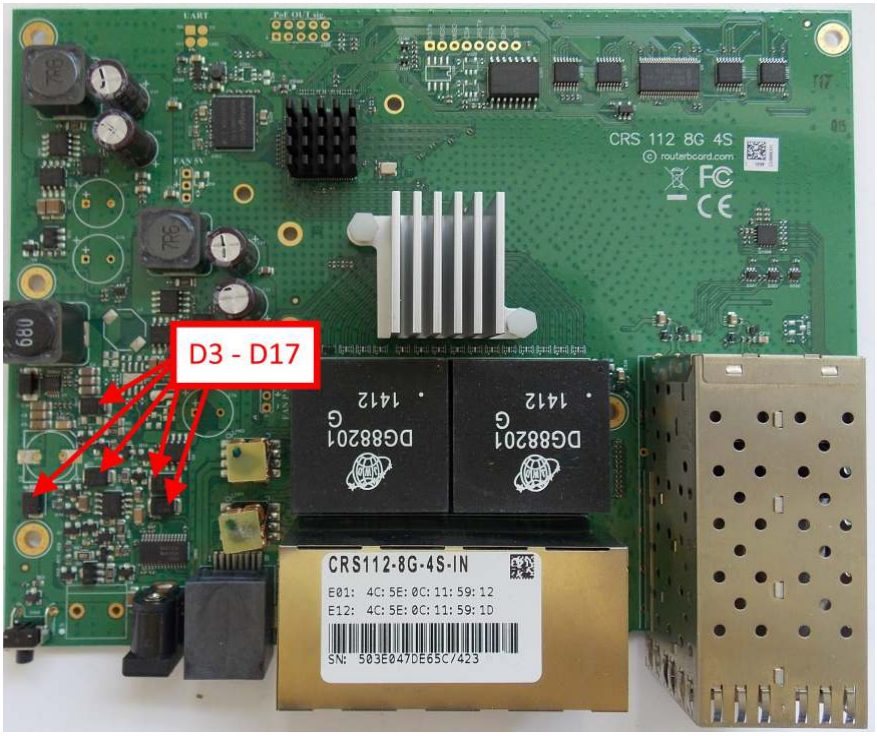
3. Step: use “+” screw driver to loose 7 pcs PCB screws, than take off PCB from case.




Picture 175

## Schottky diode measuring with multimeter in diode mode

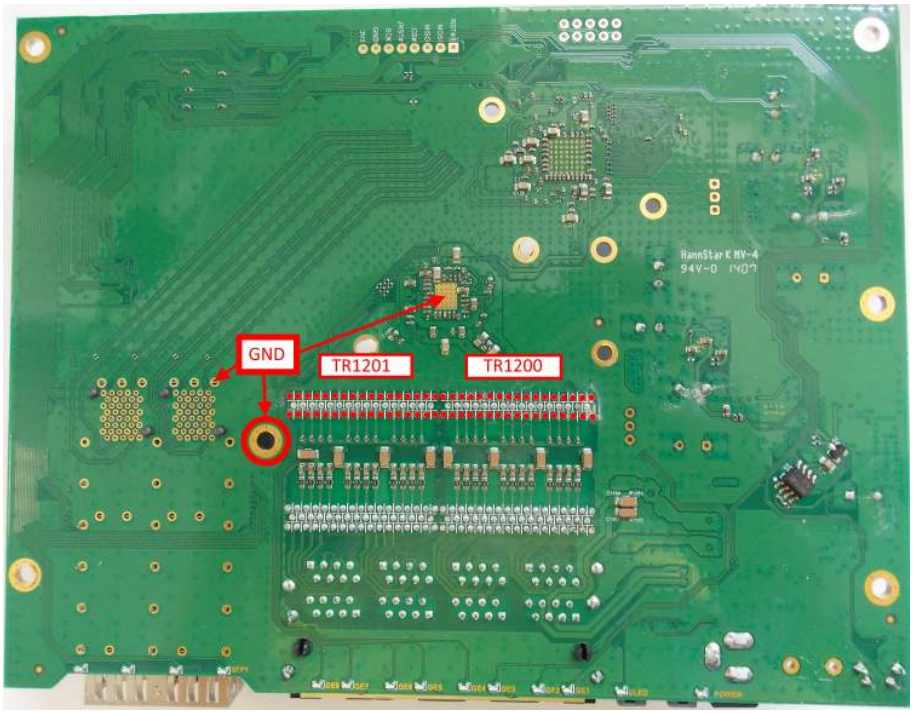
Schottky diode reference numbers are D3, D5, D11, D16, D17. Schottky diode quality measurement method describe on page 7




Picture 176

## Voltage drop between diode TR1200, TR1201 and Ground.

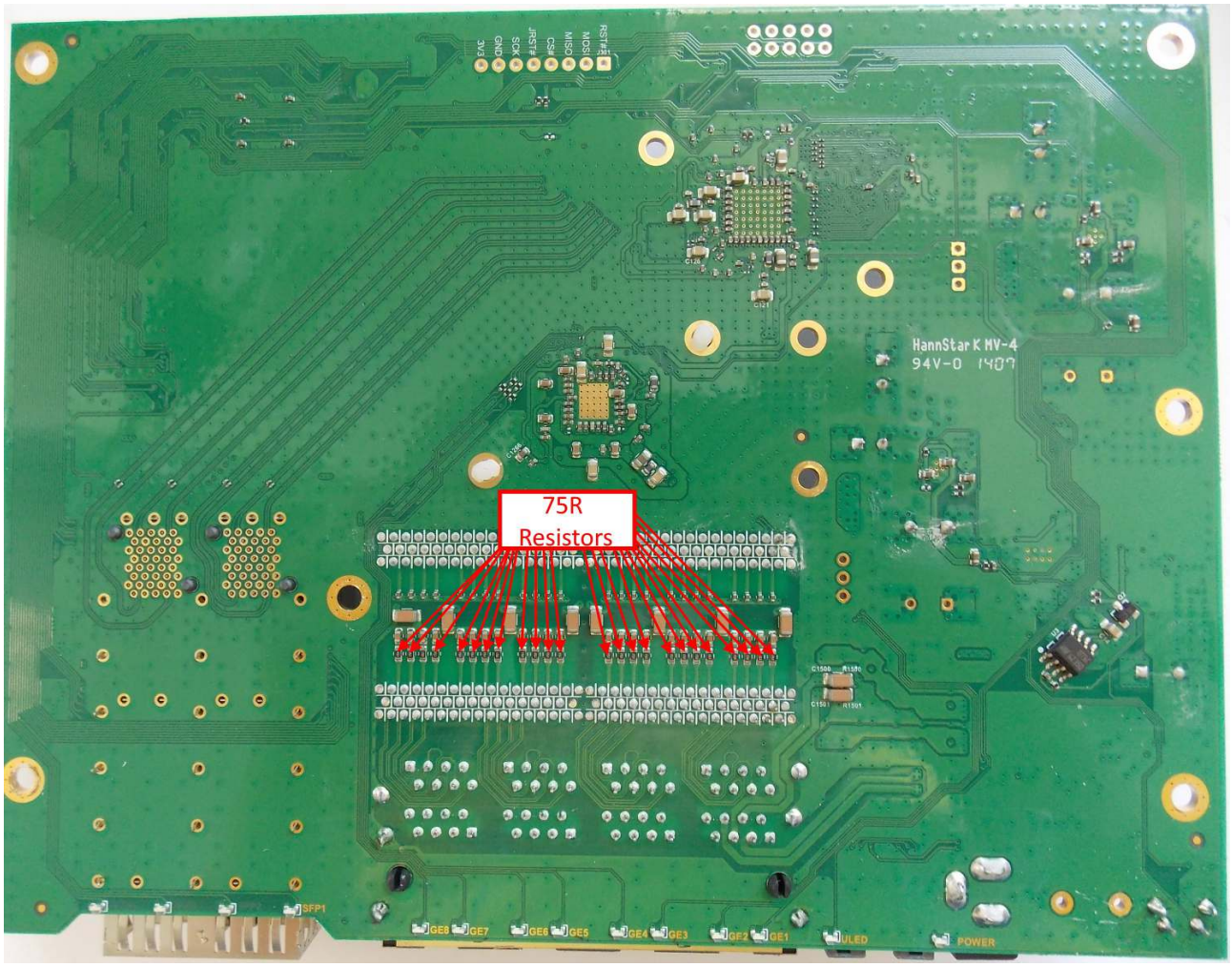
Check voltage drop between TR1200 and TR1201 Ethernet Transformers on ports Ether1 – Ether8 pins and Ground. Ether Pins are circled red. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold "positive" wire on the Ground and "COM" wire to marked Transformers pins.




Picture 177

## 75R termination resistors resistance

Resistors marked with red arrows should be 75Ohm +/- 1%




Picture 178

## CRS125-24G-1S series

List of Cloud Router Switch CRS125-24G-1S series:

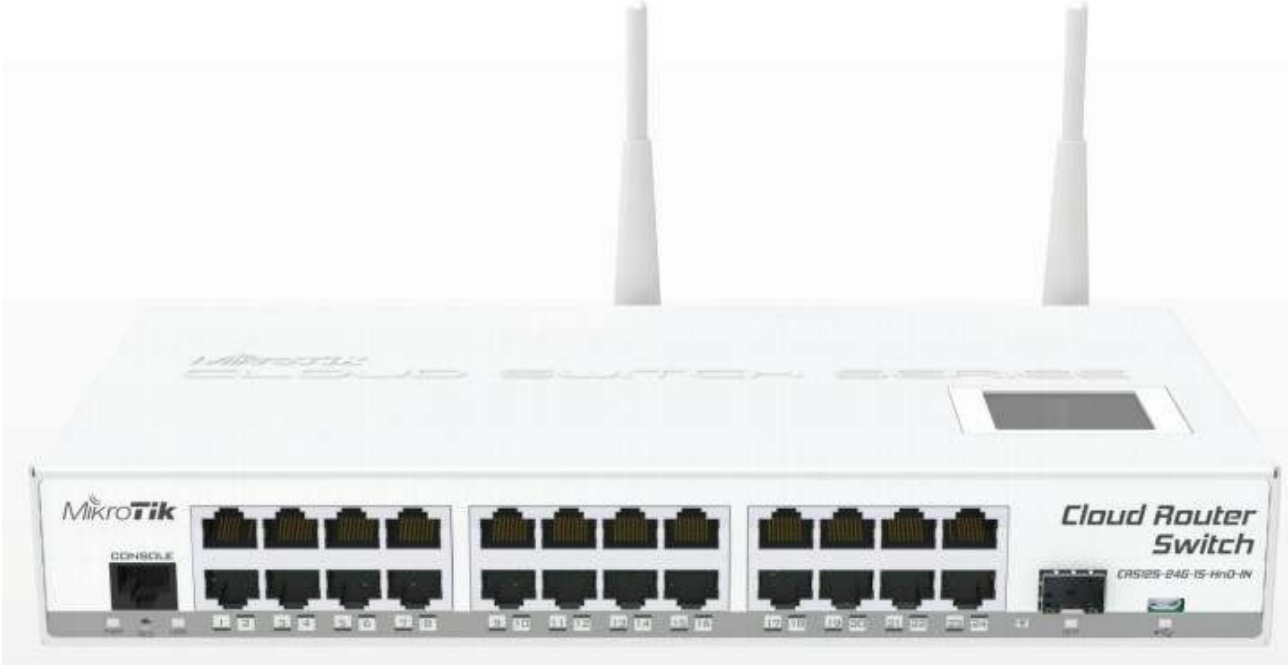
### CRS125-24G-1S-IN


Picture 179

### CRS125-24G-1S-RM


Picture 180

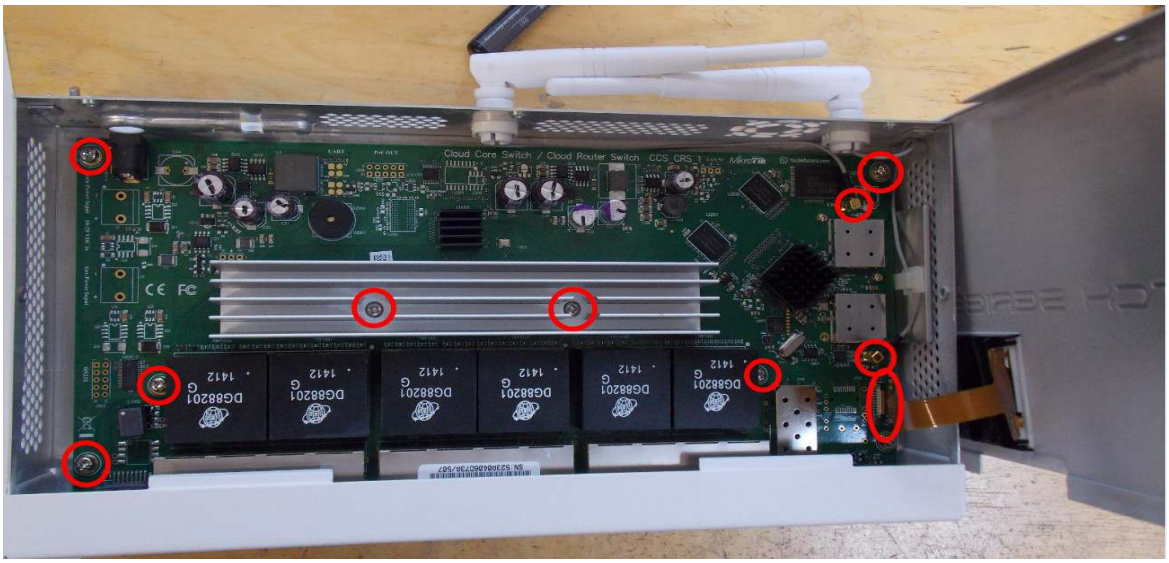
### CRS125-24G-1S-2HnD-IN




Picture 181

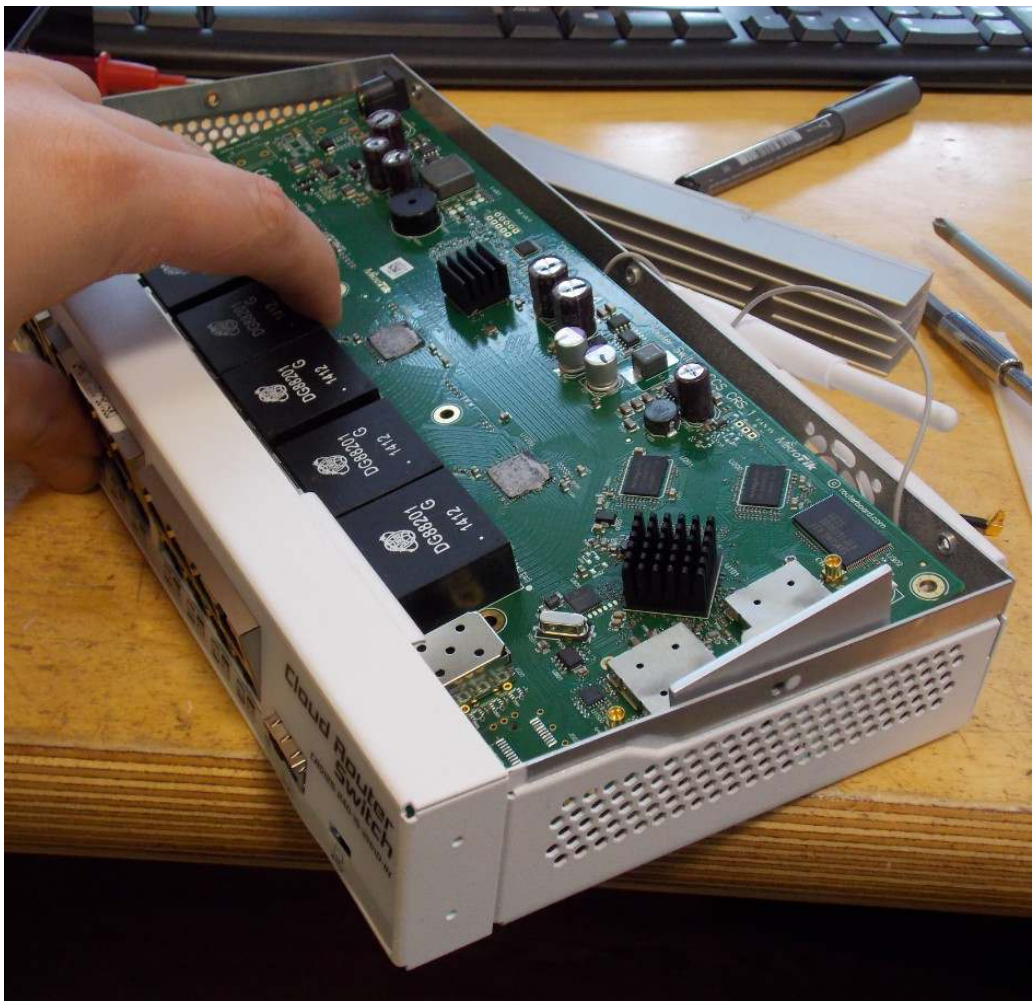
## Disassembling information

Picture 182



Picture 183

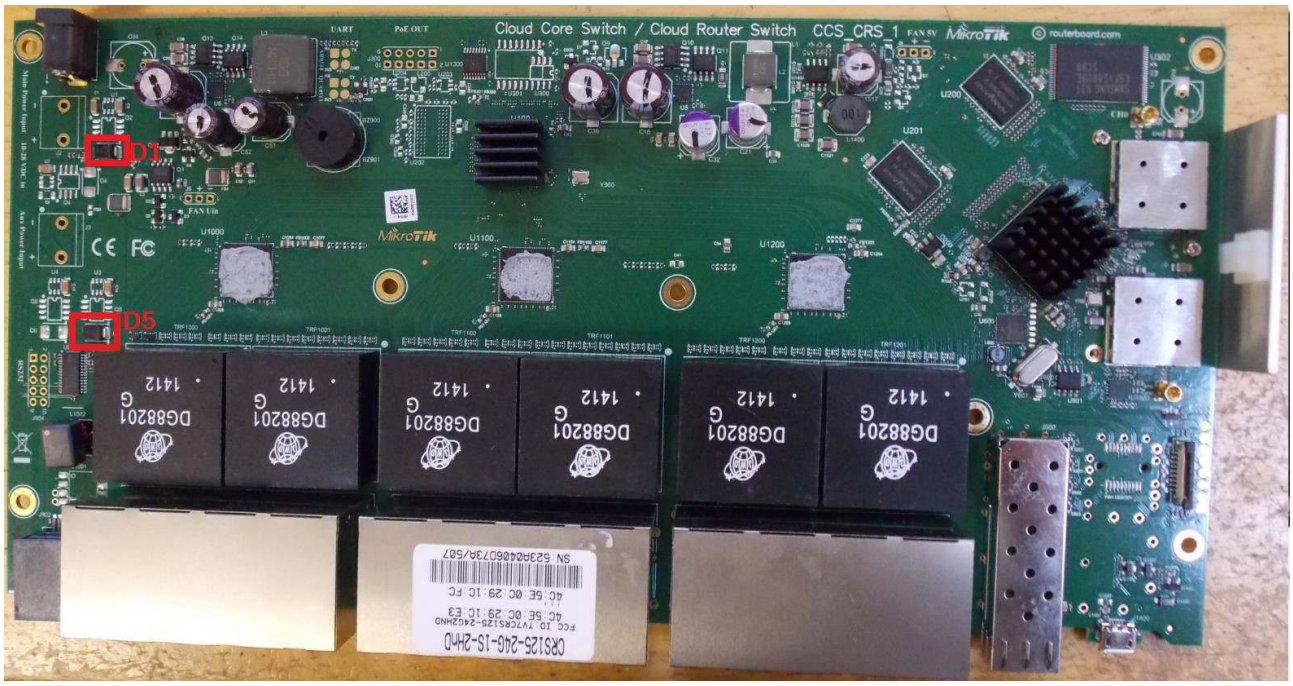
Picture 184



Picture 185

## Schottky diode measuring with multimeter in diode mode

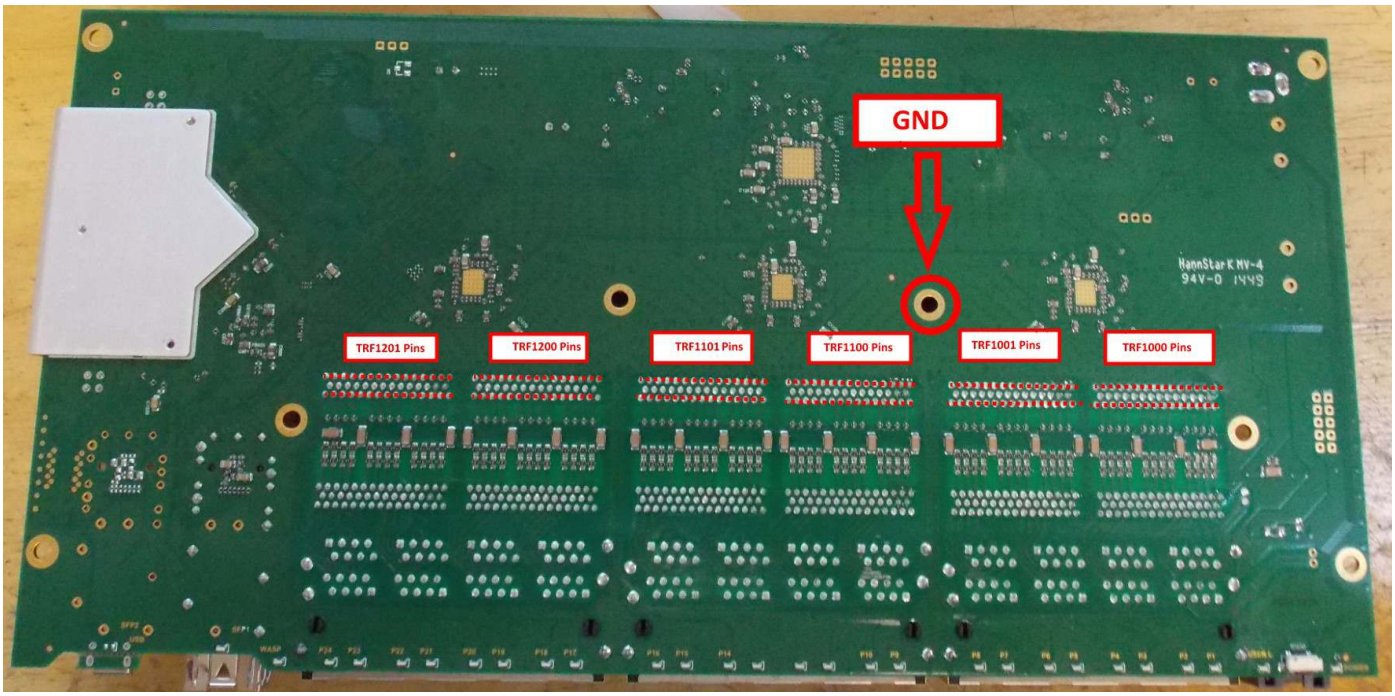
Schottky diode reference numbers is D1 and D5; Schottky diode quality measurement method describe on page 7




Picture 186

## Voltage drop between Ethernet Transformers and Ground.

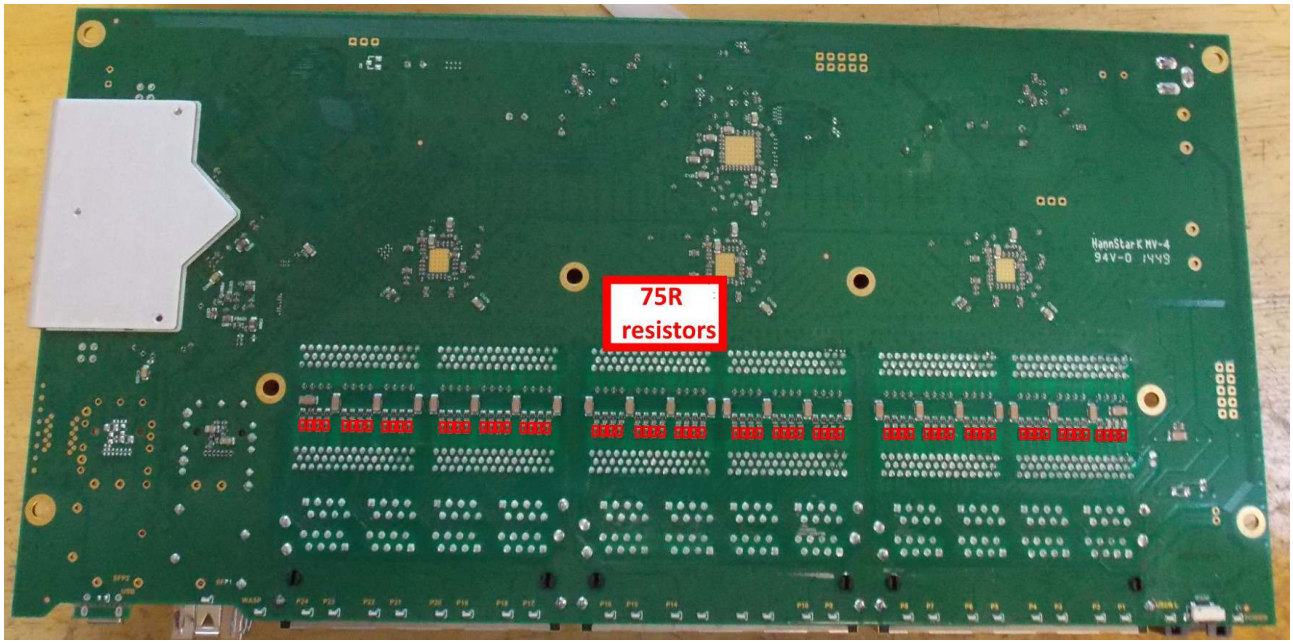
Check voltage drop between Transformers TRF1000, TRF1001, TRF1100, TRF1101, TRF1200 and TR1201 pins and Ground. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers pins.




Picture 187

## Termination resistors resistance in RJ-45 connector

Red circled resistors resistance should be 75Ohm +/- 1%

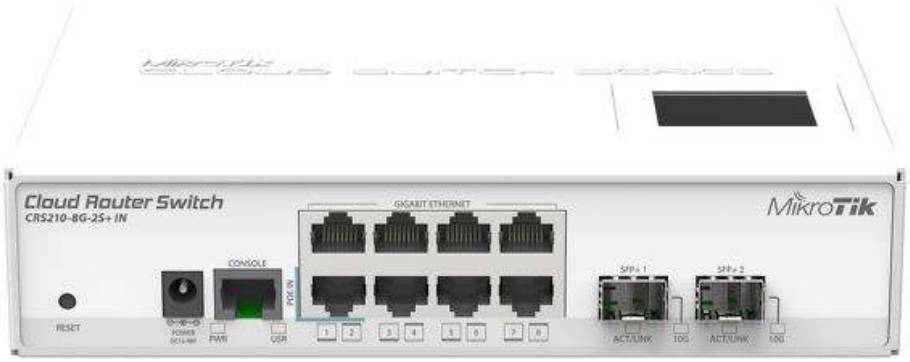



Picture 188

On ports Ether2 – Ether24 You can take patch cord and plug it into the routerboard, and then measure as describe on page 9

# CRS210-8G-2S+ series RouterBoards

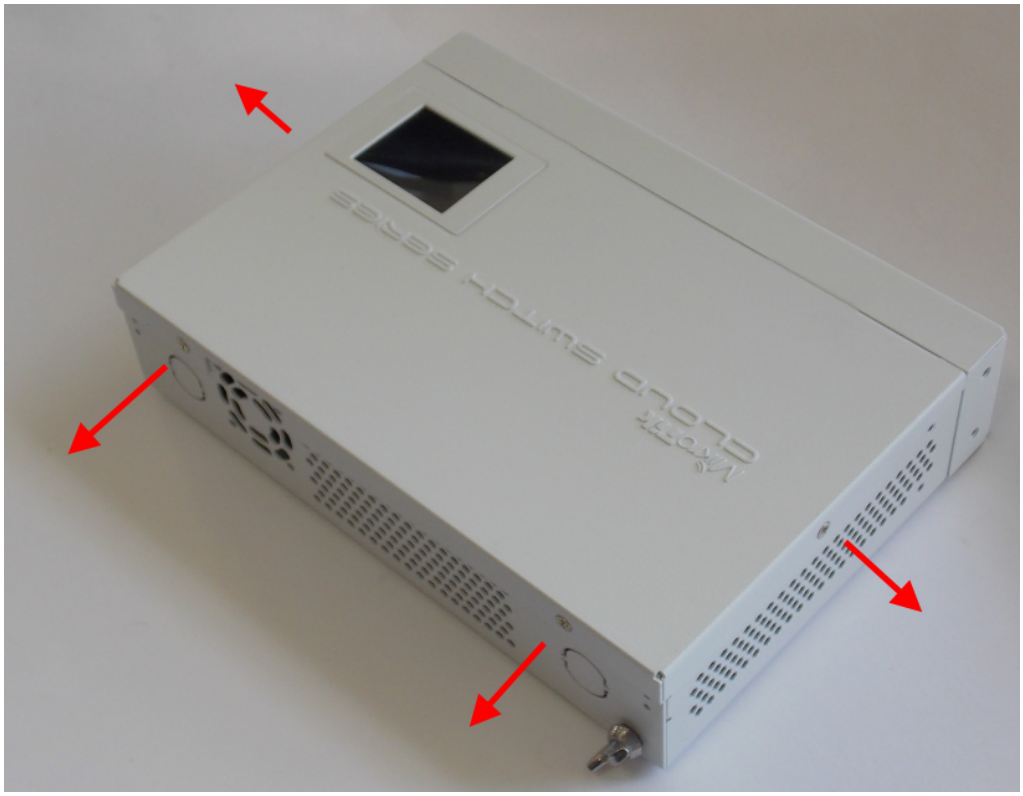
## CRS210-8G-2S+IN




Picture 189

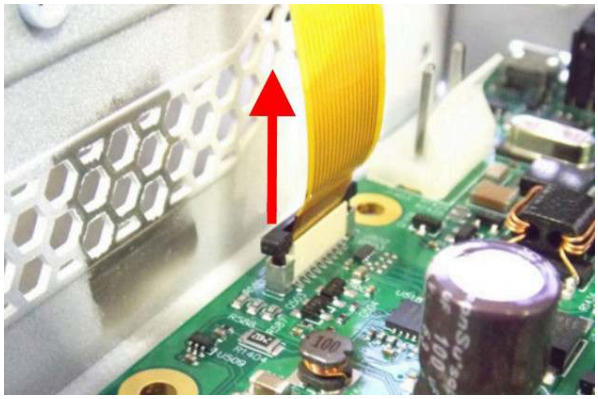
### Disassembling information

1. Step: use PH2 screw driver to loose backside screws, take off cover.



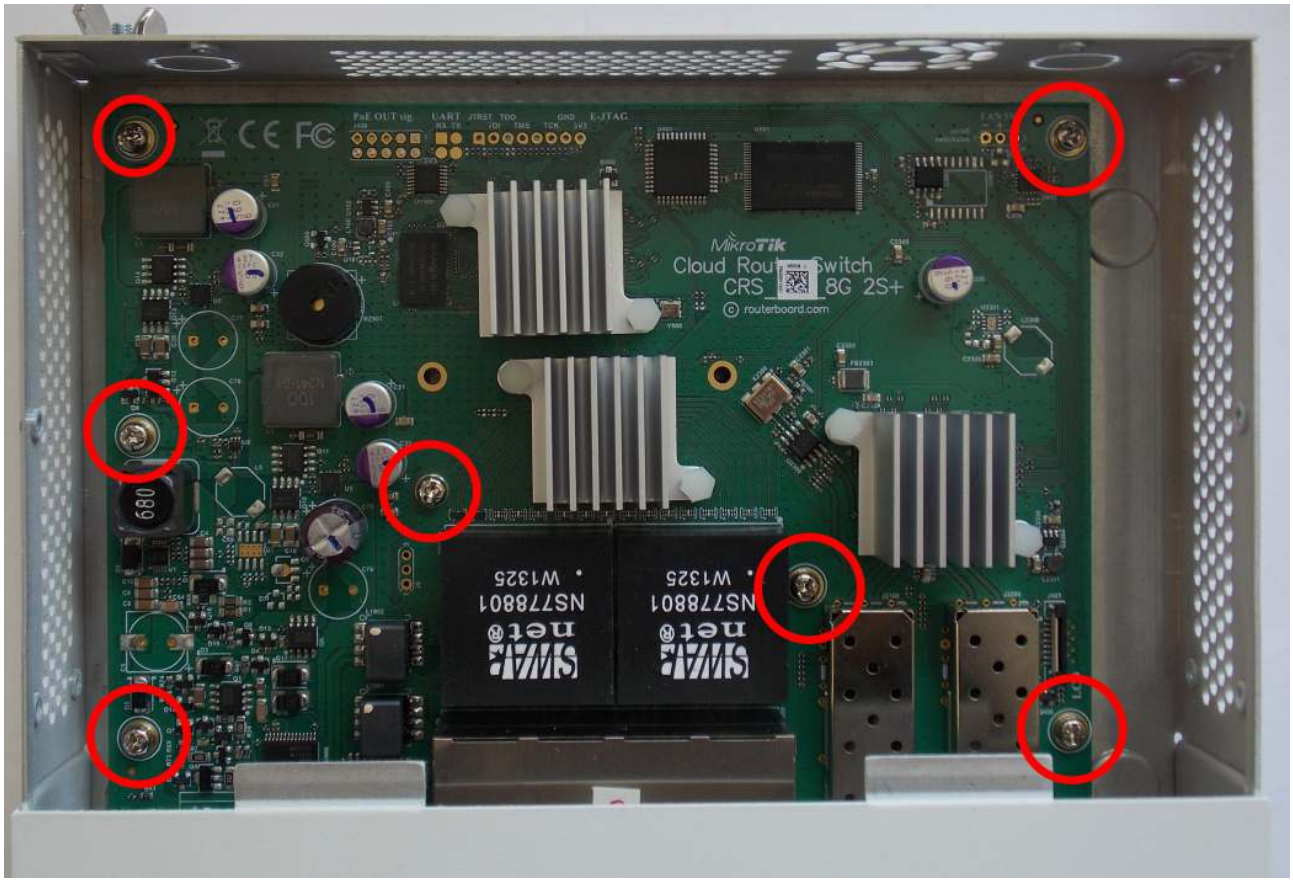
Picture 190

2. step: take off cover carefully, pay a tension to LCD connector. Push up both side of  LCD connector from slot with “-” screwdriver as shown in next pictures 191



Picture 191

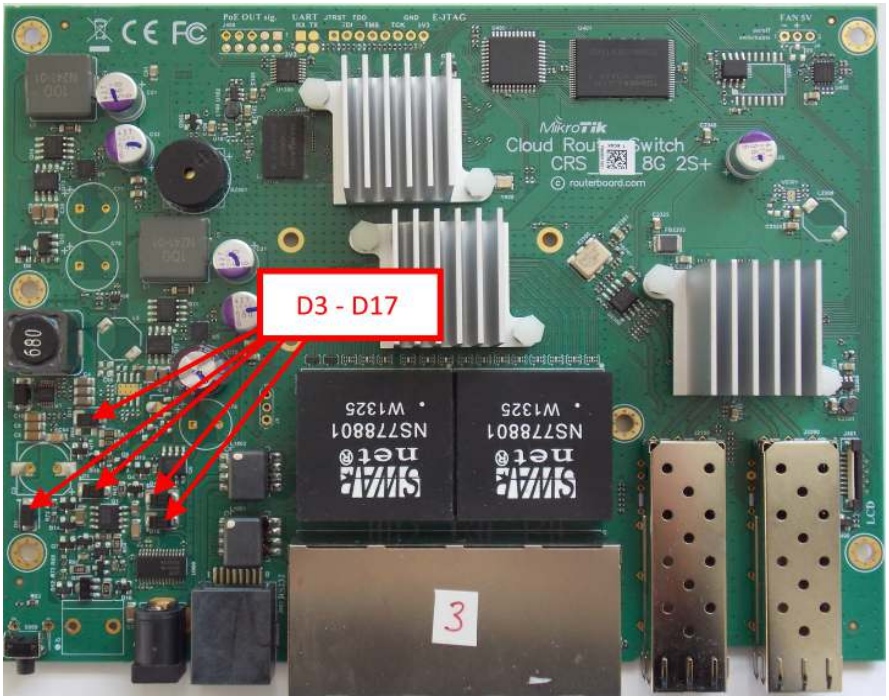
3. Step: use “+” screw driver to loose 7 pcs PCB screws, than take off PCB from case.




Picture 192

## Schottky diode measuring with multimeter in diode mode

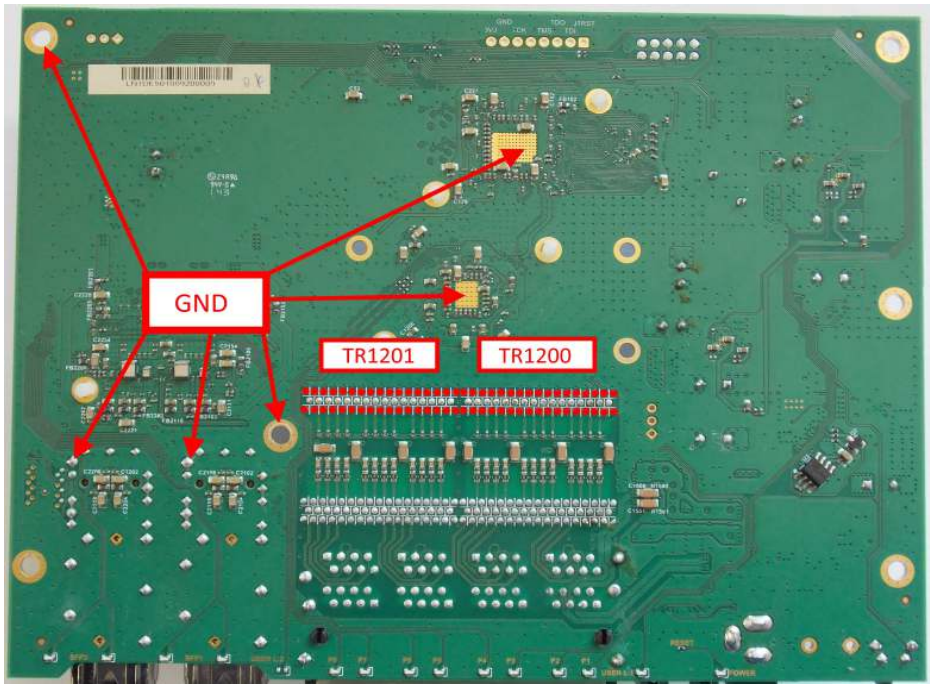
Schottky diode reference numbers are D3, D5, D11, D16, D17. Schottky diode quality measurement method describe on page 7




Picture 193

## Voltage drop between TR1200, TR1201 and Ground.

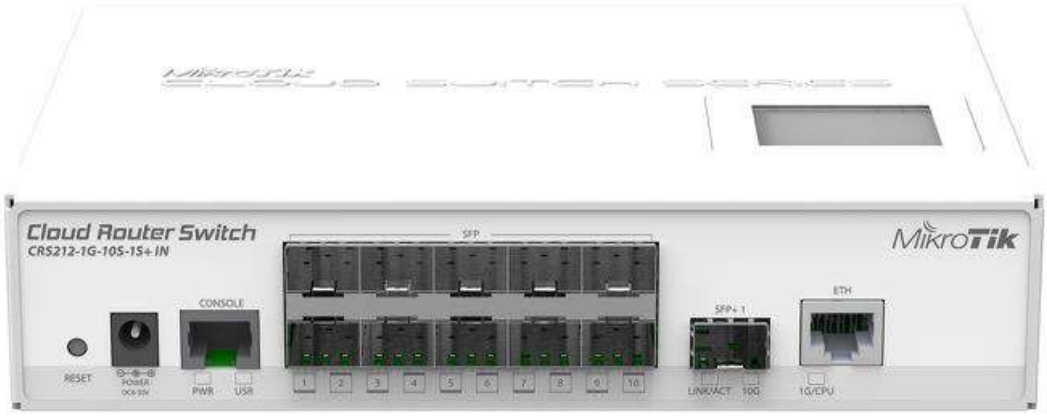
Check voltage drop between TR1200 and TR1201 Ethernet Transformers on ports Ether1 – Ether8 pins and Ground. Ether Pins are circled red.It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers pins.




Picture 194

# CRS212-1G-10S-1S+ series RouterBoards

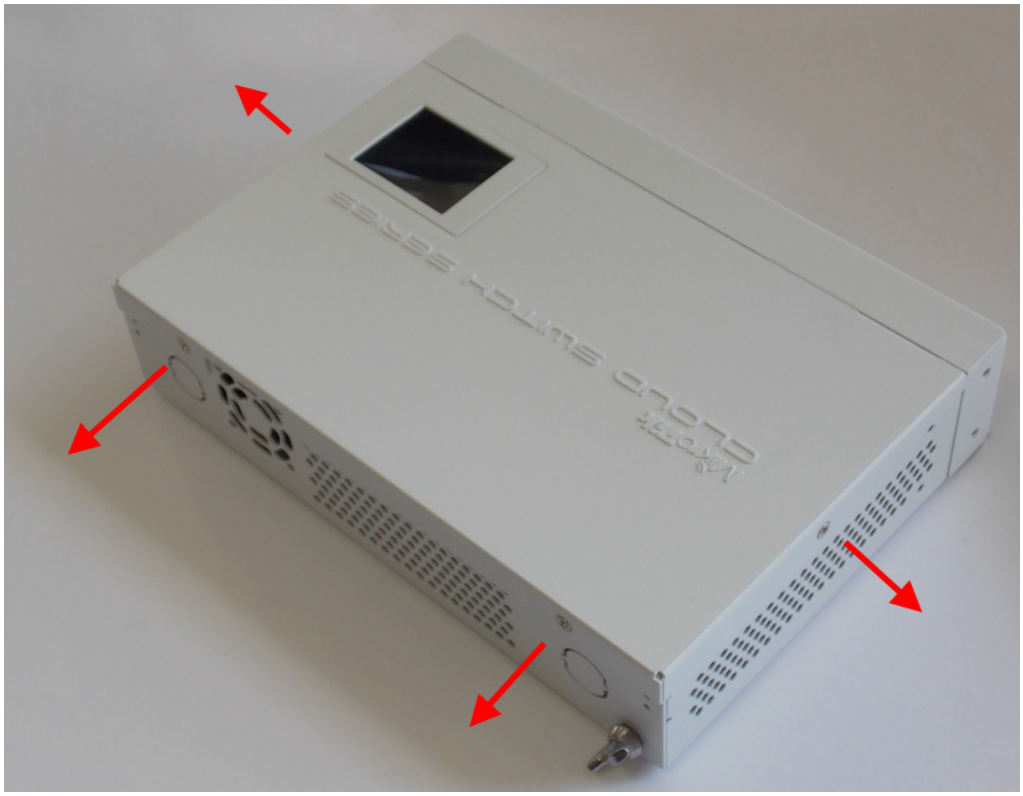
## CRS212-1G-10S-1S+IN




Picture 195

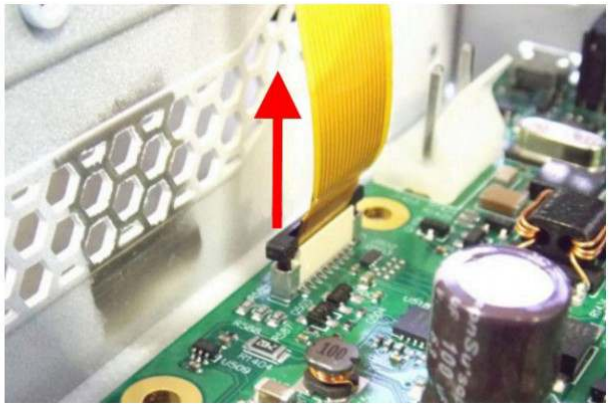
### Disassembling information

1. Step: use PH2 screw driver to loose backside screws, take off cover.



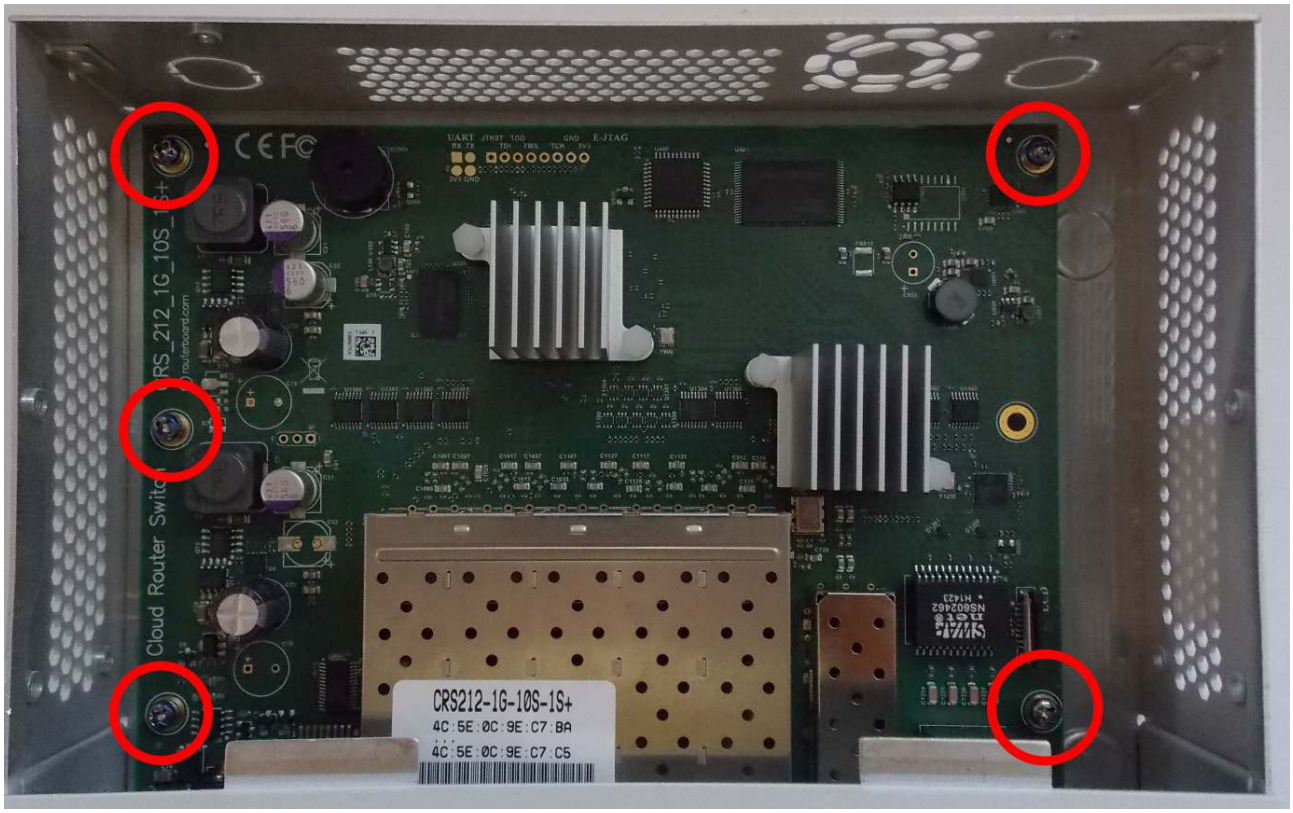
Picture 196

2. step: take off cover carefully, pay a tension to LCD connector. Push up both side of  LCD connector from slot with “-” screwdriver as shown in next pictures 228

Picture 197

3. Step: use “+” screw driver to loose 7 pcs PCB screws, than take off PCB from case.




Picture 198

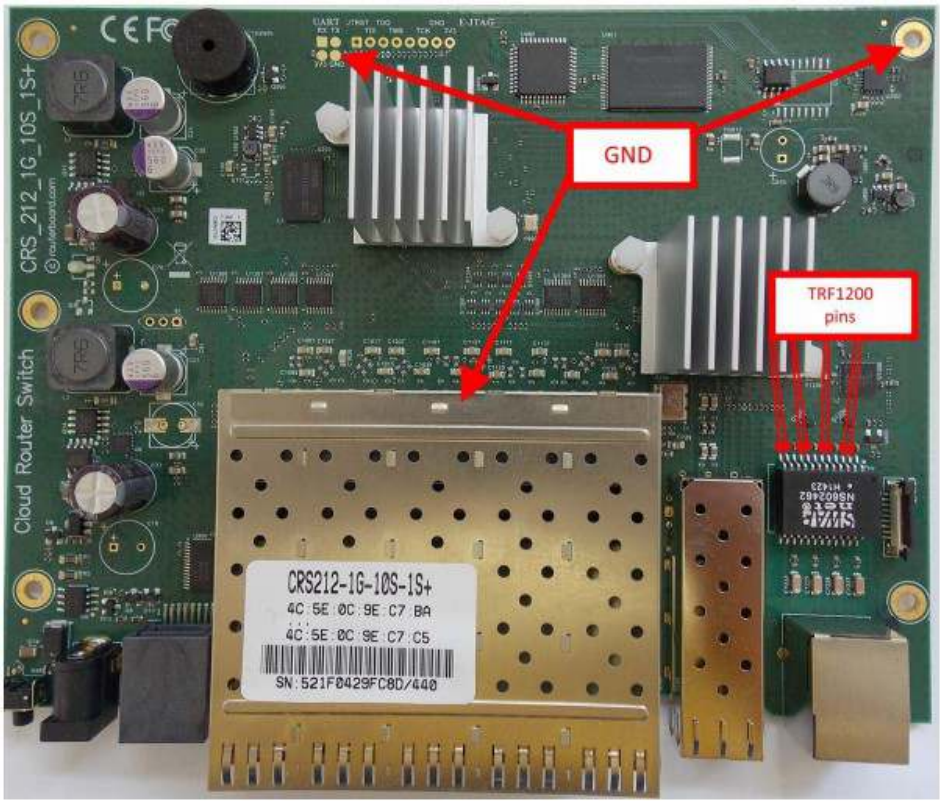
## Schottky diode measuring with multimeter in diode mode

Schottky diode reference numbers are D5. Schottky diode quality measurement method describe on page 7


Picture 199

## Voltage drop between TRF1200 and Ground.

Check voltage drop between TRF1200 Ethernet Transformers on ports Ether1 pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TRF1200 Transformer pins.




Picture 200

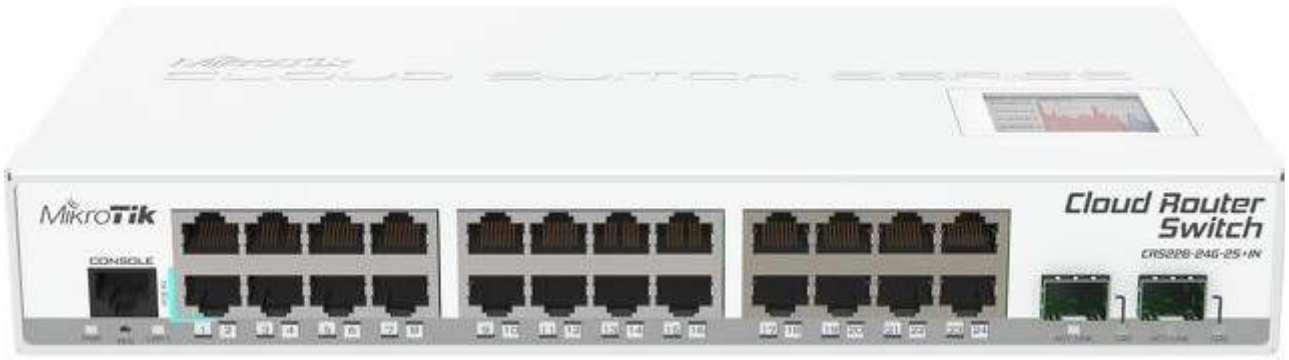
## 75R termination resistors resistance

Resistors marked with red arrows should be 75Ohm +/- 1%


Picture 201

# CRS226-24G-2S+ series RouterBoards

## CRS226-24G-2S+IN



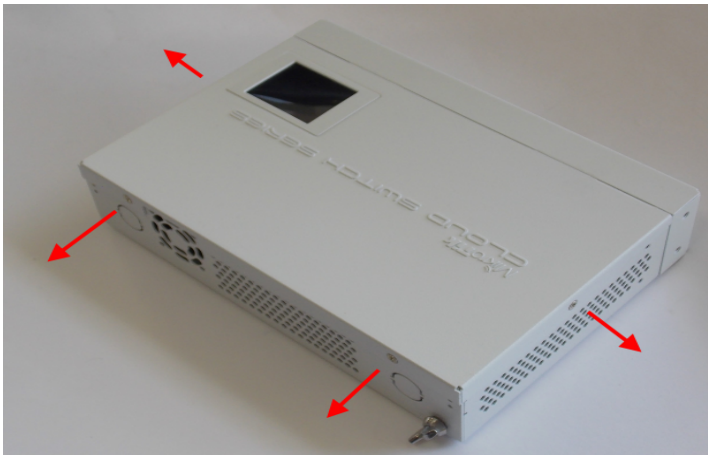

Picture 202

## CRS226-24G-2S+RM


Picture 203

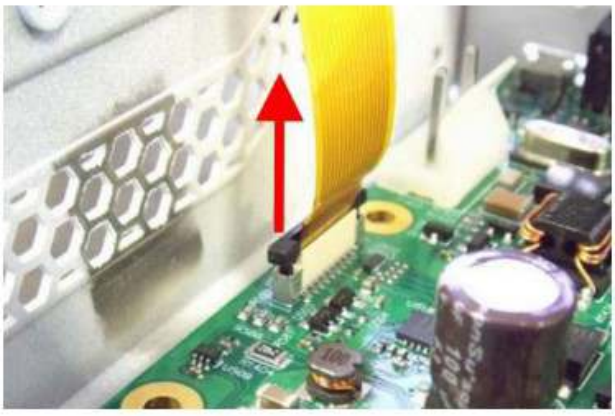
## Disassembling information

1. Step: use PH2 screw driver to loose backside screws, take off cover.



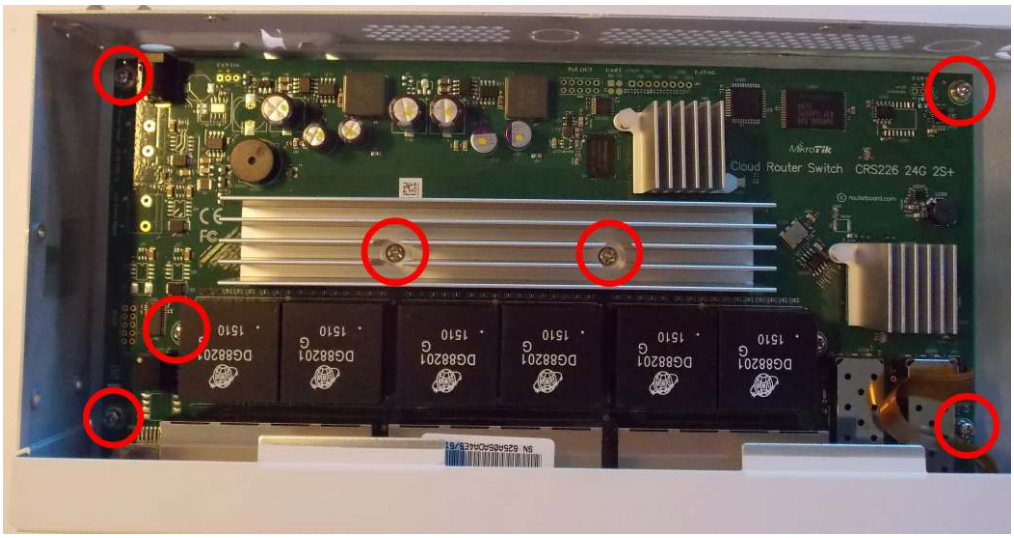
Picture 204

2. step: take off cover carefully, pay a tension to LCD connector. Push up both side of LCD connector from slot with “-” screwdriver as shown in next pictures



Picture 205

3. Step: use “+” screw driver to loose 7 pcs PCB screws, than take off PCB from case.




Picture 206

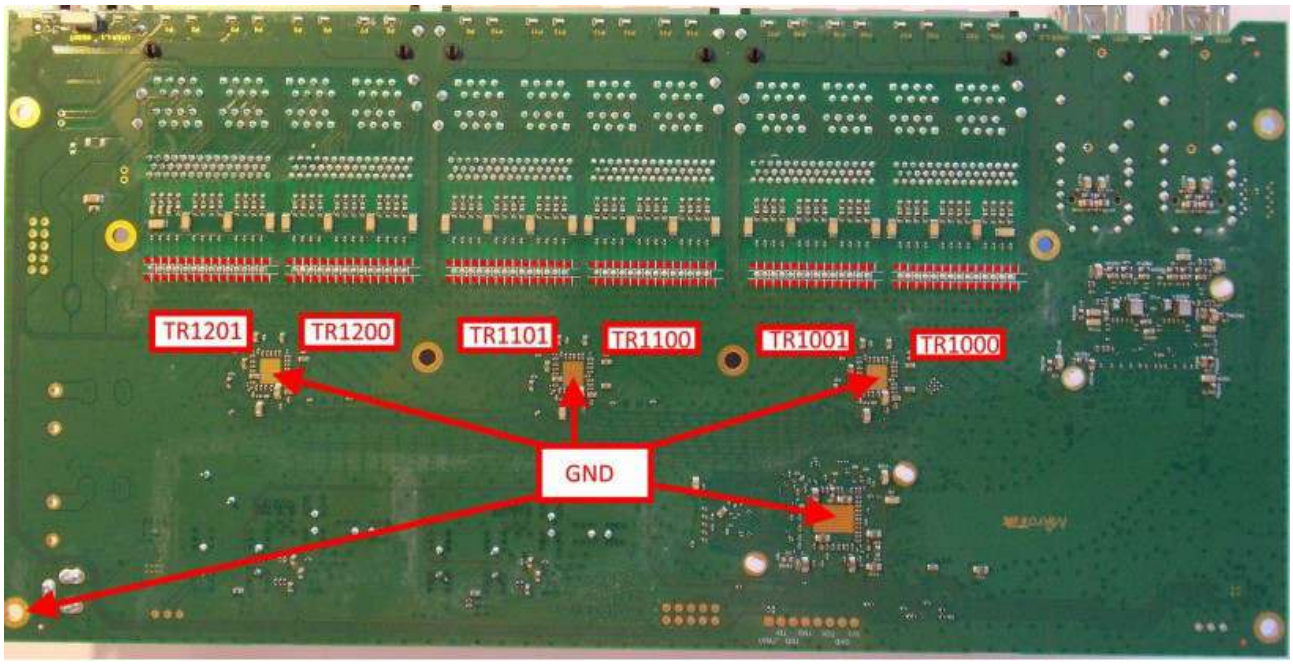
## Schottky diode measuring with multimeter in diode mode

Schottky diode reference numbers are D1, D4, D5.  Schottky diode quality measurement method describe on page 7


Picture 207

## Voltage drop between Ethernet Transformers and Ground.

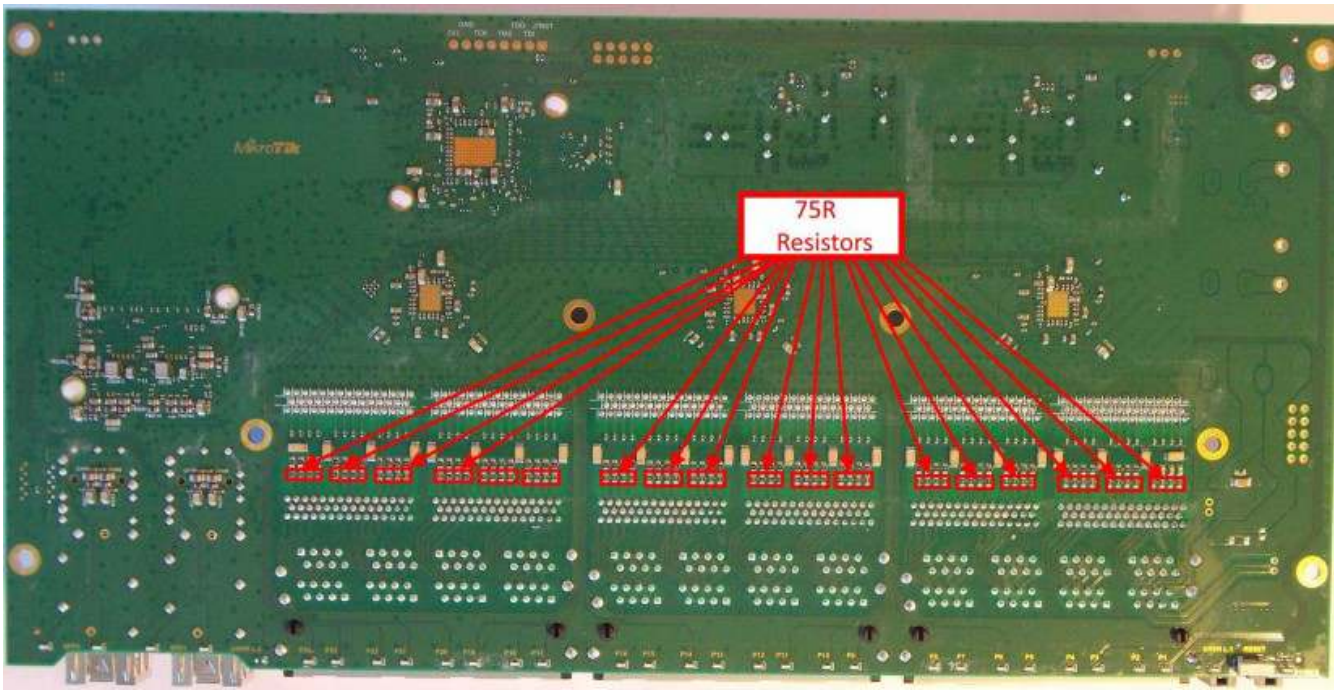
Check voltage drop between TR1200 and TR1201 Ethernet Transformers on ports Ether1 – Ether8 pins  and Ground. Ether Pins are circled red. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers pins.




Picture 208

## 75R termination resistors resistance

Resistors marked with red arrows should be 75Ohm +/- 1%




Picture 209

# DynaDish  series RouterBoards

## RBDynaDish series:

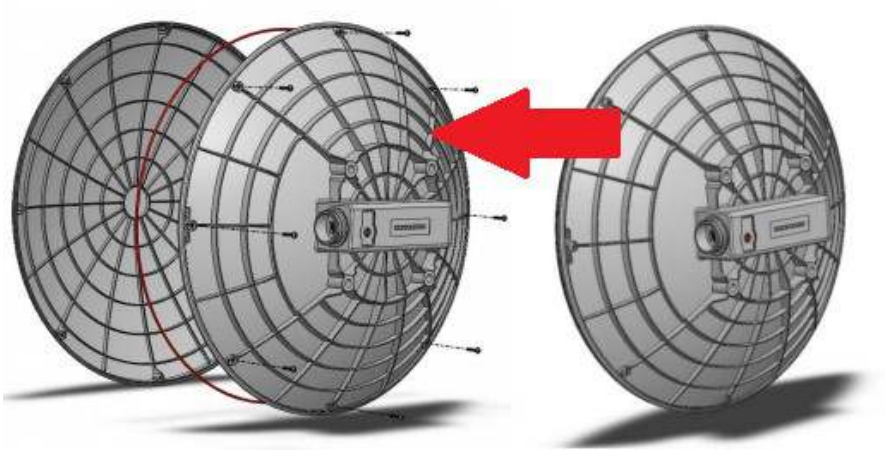
## DynaDish 5

Picture 210

# Disassembling information

## DynaDish 5 disassembling

1. step

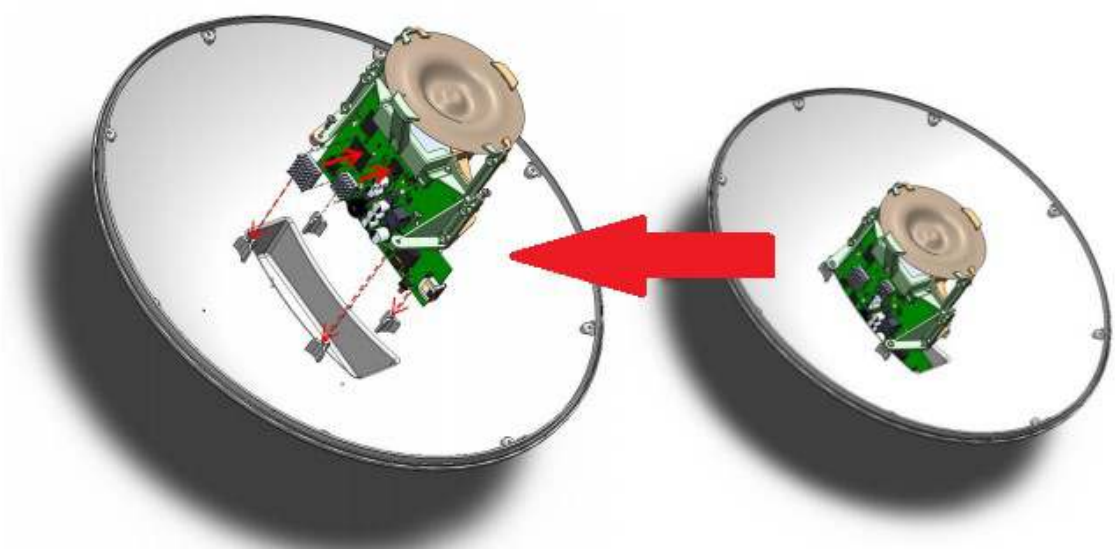


Picture 211

Unscrew 8 pcs screws with TX10 screwdriver and remove the antenna cover as shown in picture

2. step

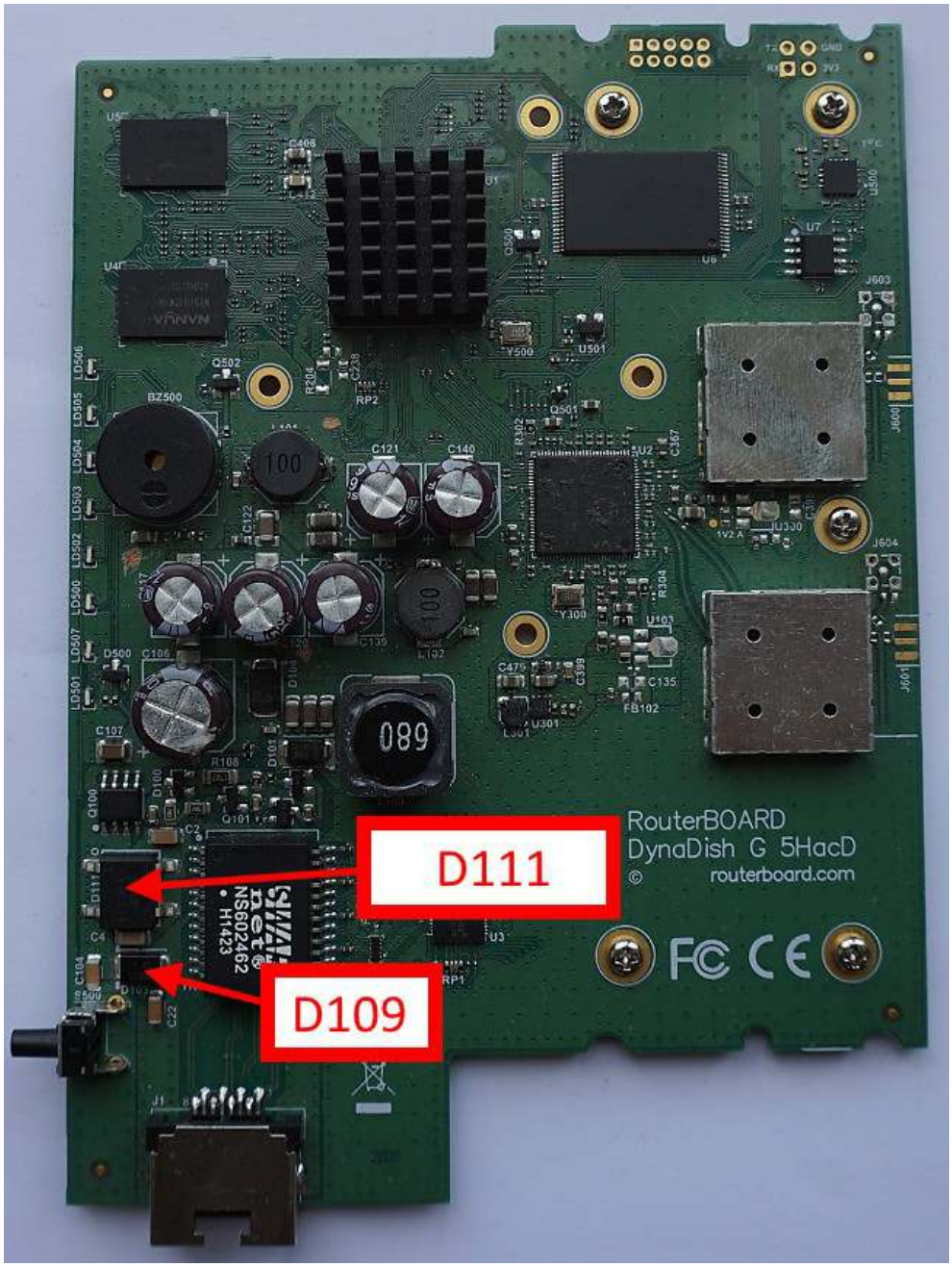
Unscrew 4 pcs screws with TX10 screwdriver and remove the board from the antenna construction as shown in picture.



Picture 212

## Schottky diode measuring with multimeter in diode mode

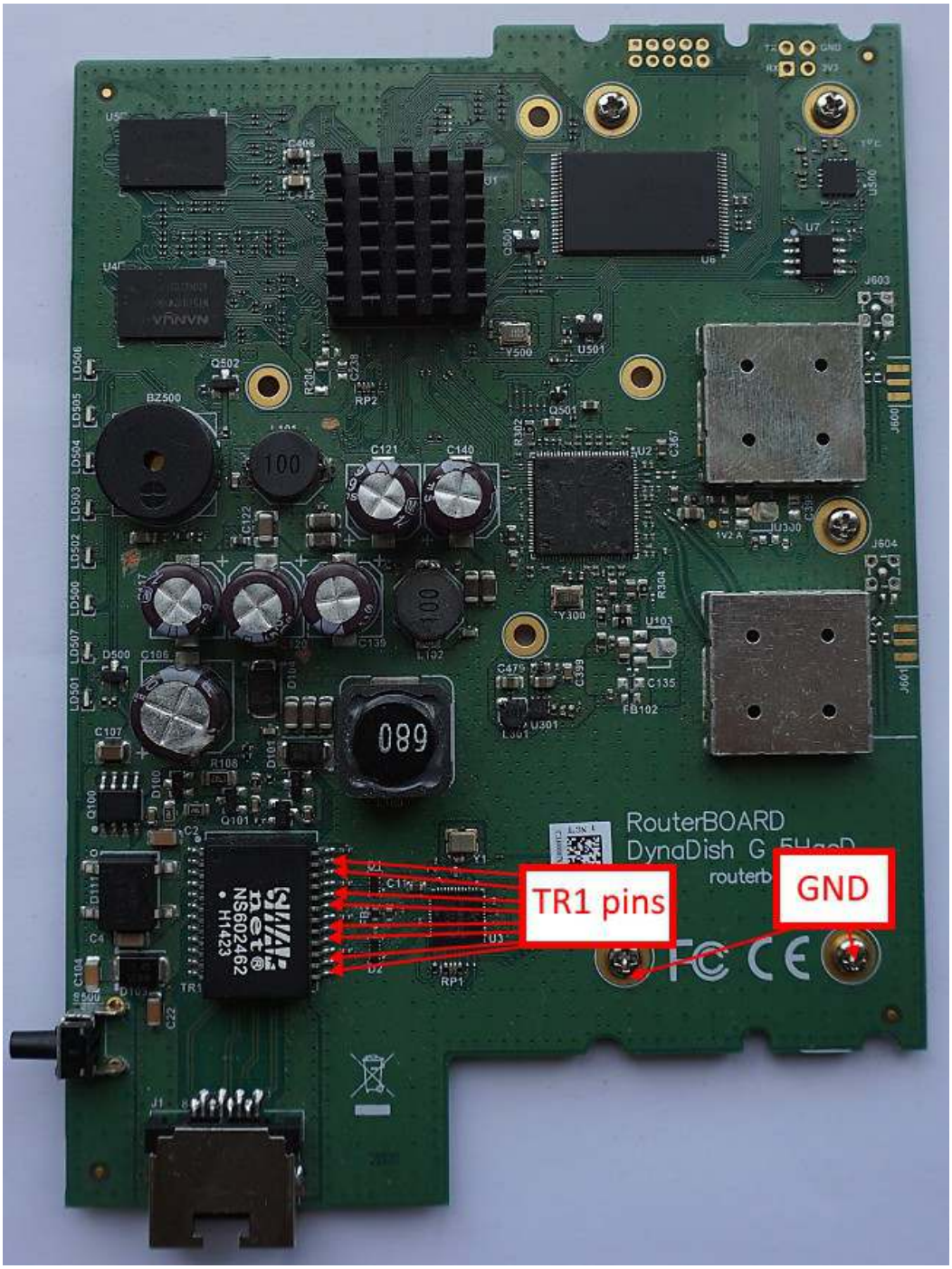
Schottky diode reference number is D109; Diode bridge reference number is D111. Schottky diode quality measurement method describe on page 7




Picture 213

## Voltage drop between TR1 pins and Ground.

Check voltage drop between TR1 Ethernet Transformers pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,487V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR1 Transformer pins.




Picture 214

# FTC11 series RouterBoards

## FTC

Picture 215

## Disassembling information

1. step: use screw driver to loose 1 pcs cover screw, then take off cover.

Picture 216

2. step: use PH2 and TX8 screw driver to loose screws.

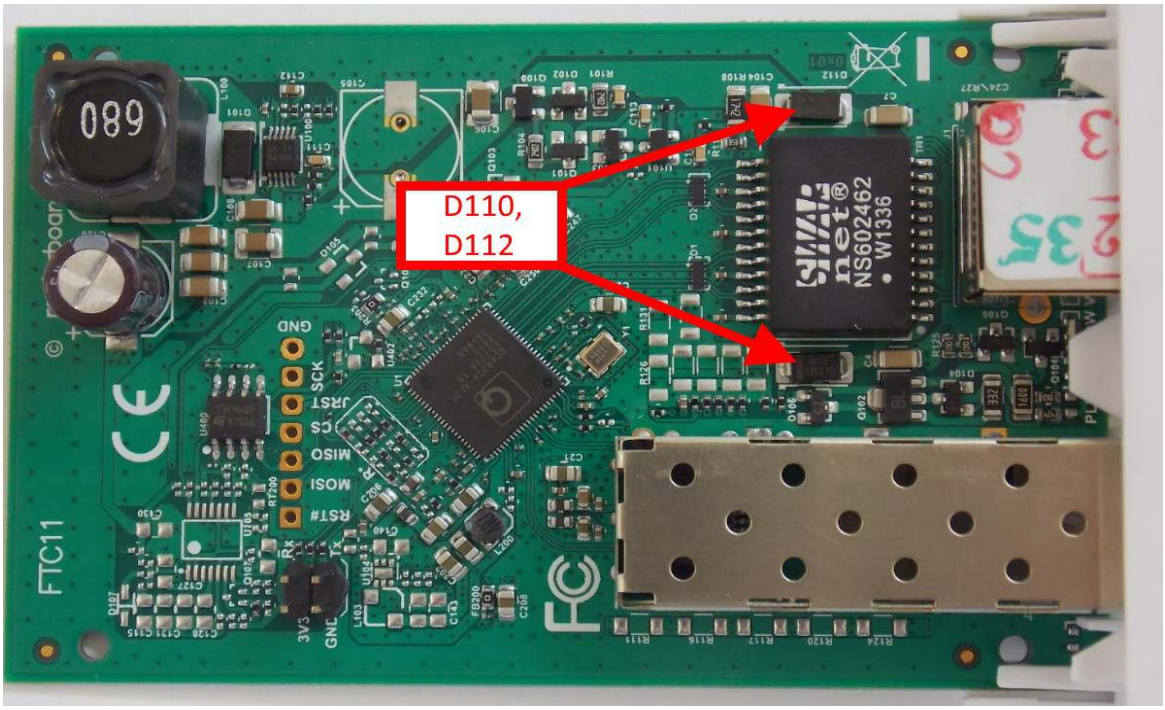
Picture 217

3. Step:  take off cover with board.

Picture 218

## Schottky diode measuring with multimeter in diode mode

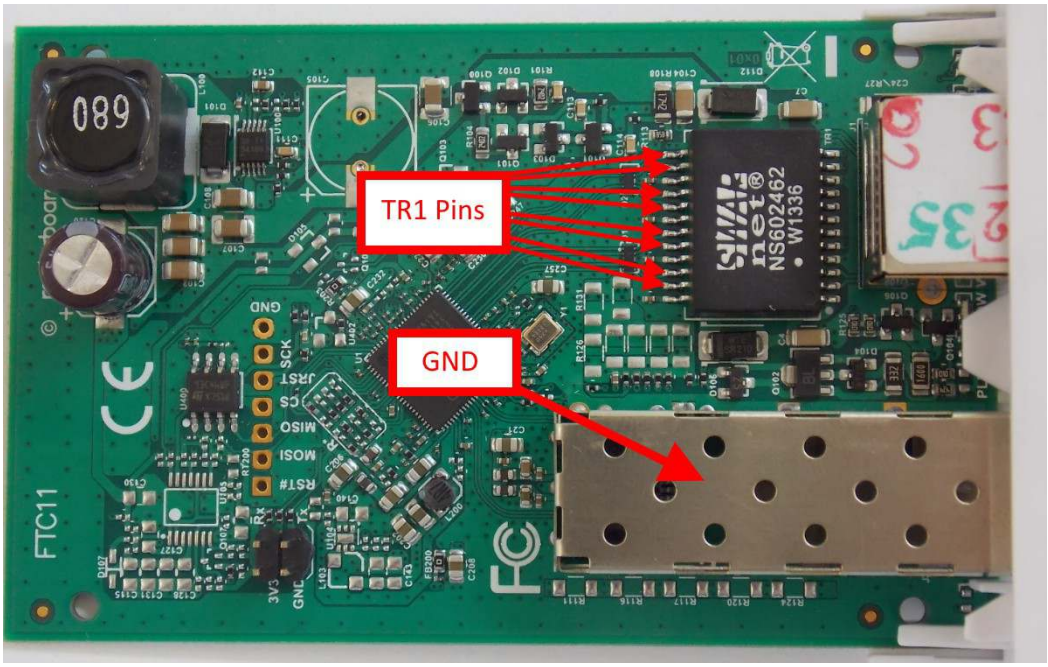
Schottky diode reference numbers D110, D112.
Schottky diode quality measurement method describe on page 7




Picture 219

## Voltage drop between TR1 pins and Ground.

Check voltage drop between TR400 Ethernet Transformers on ports Ether1 pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR1 Transformer pins.




Picture 220

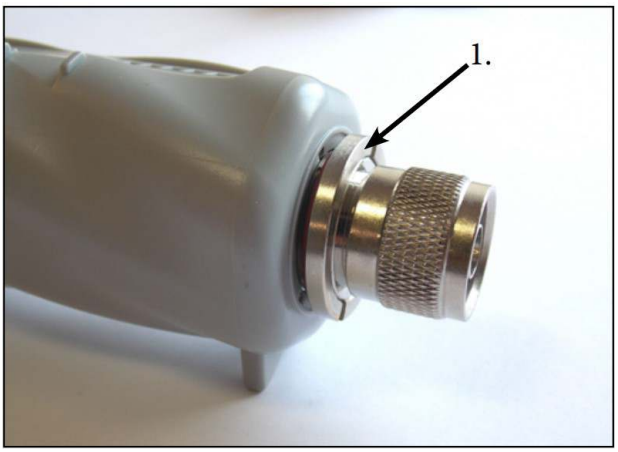
# Groove 52HPn series RouterBoards

## Groove 52HPn


Picture 221

## Disassembling information

1. step: use screw driver to loose N-Male nut



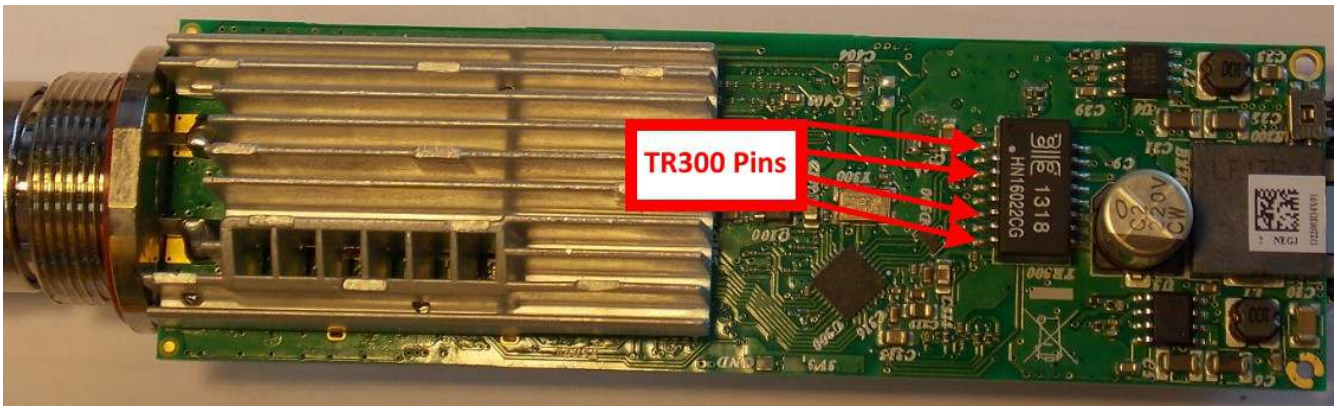

Picture 222

4. Step: take off the board.

Picture 223

## Voltage drop between TR300 pins and Ground.

Check voltage drop between TR1000 Ethernet Transformers on ports Ether1 pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR300 Transformer pins.




Picture 224

## 75R termination resistors resistance

Resistors marked with red arrows should be 75Ohm +/- 1%


Picture 225

# hAP lite series RouterBoards

## hAP lite


Picture 226

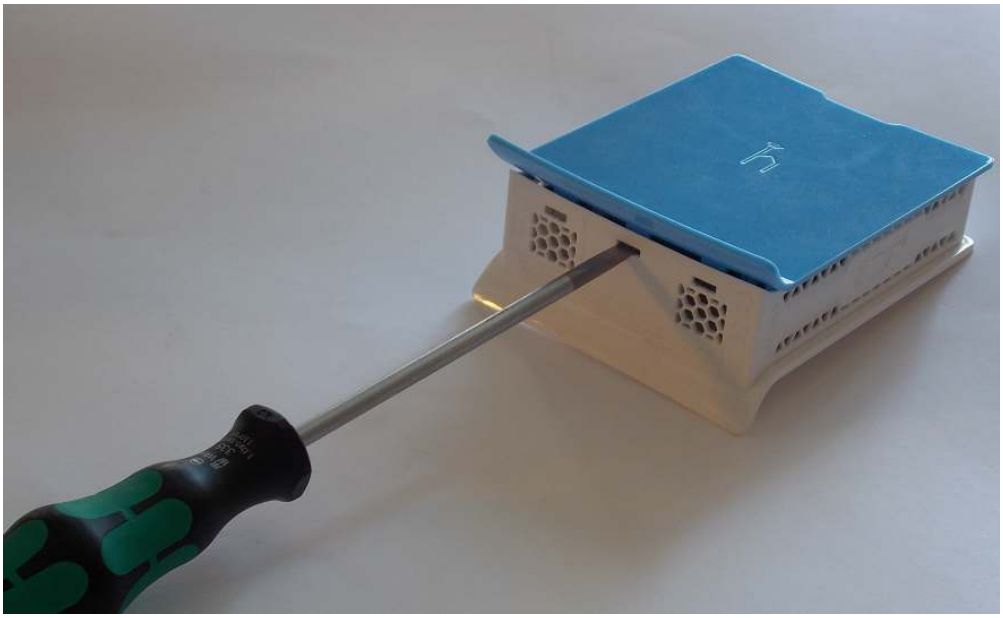

Picture 227

# 1. Disassembling information

## hAP lite horizontal case disassembling

1. step

Push “-” screwdrivers in case cavities.



Picture 228

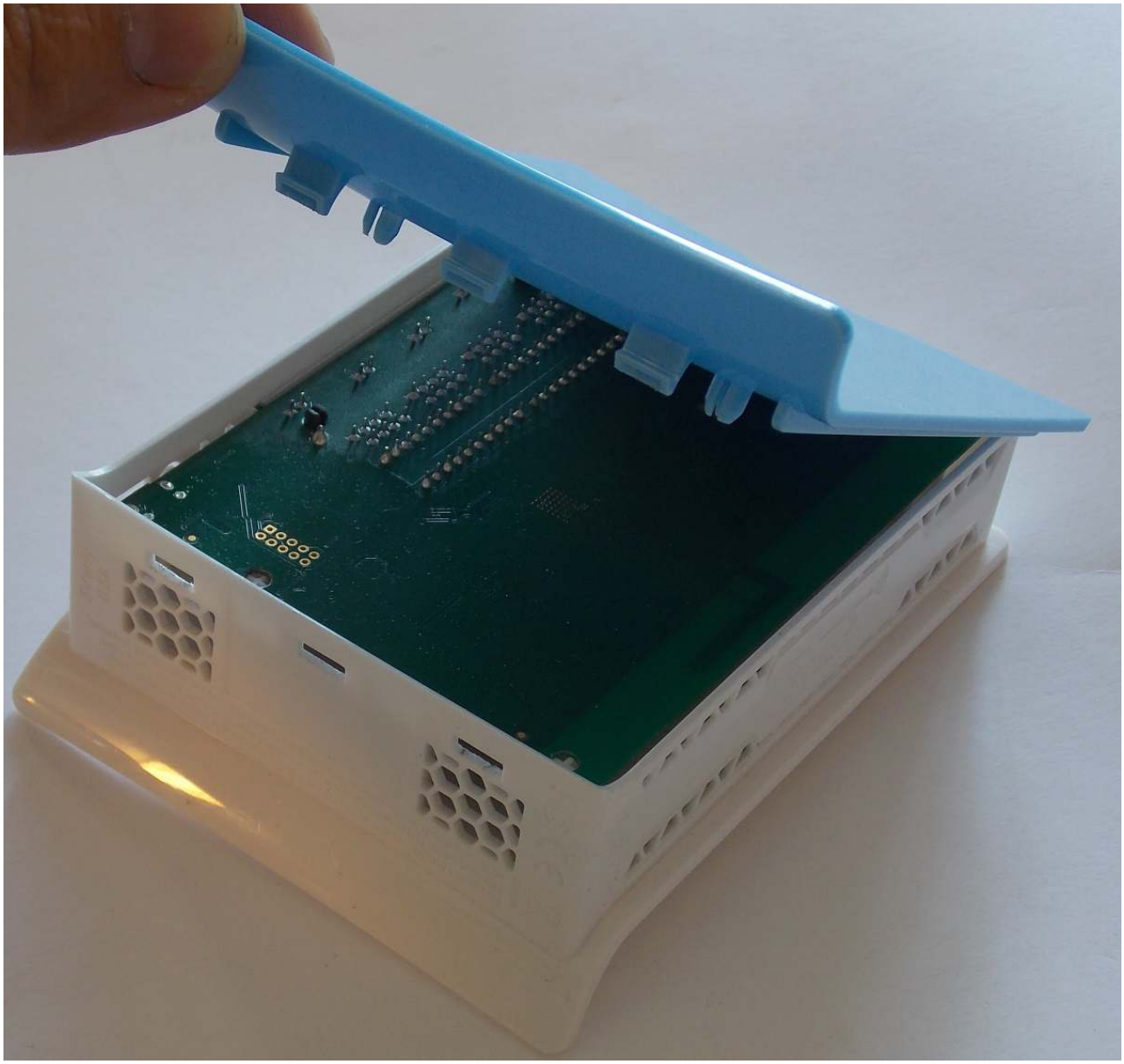
2. step

Rotate screwdriver and pull both case parts.

Picture 229

3. step

Open front case and take out the board.



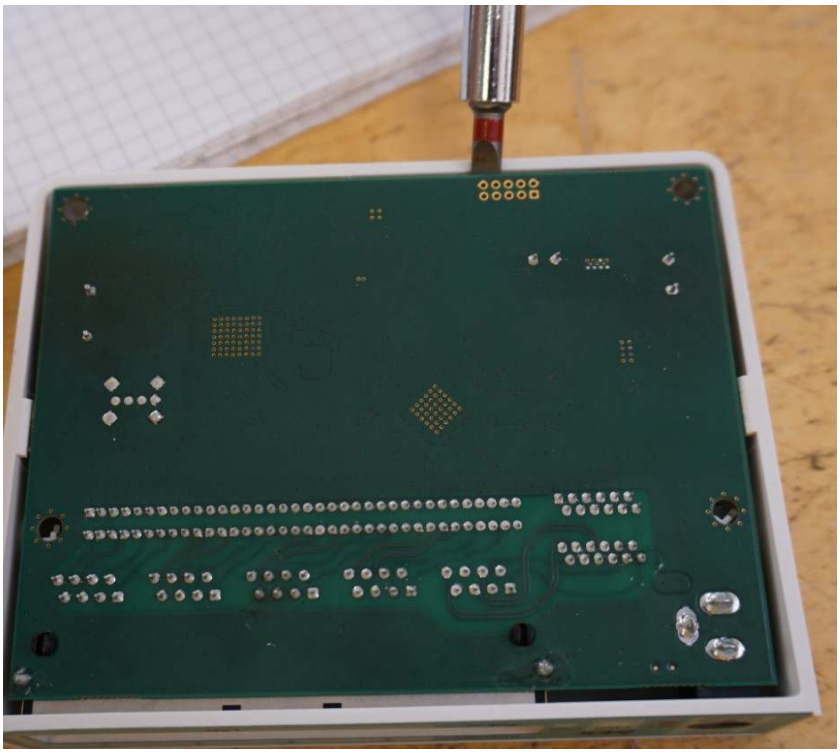
Picture 230

Horizontal case disassembling

Take off the cover with a screwdriver as shown in the picture186

Picture 231

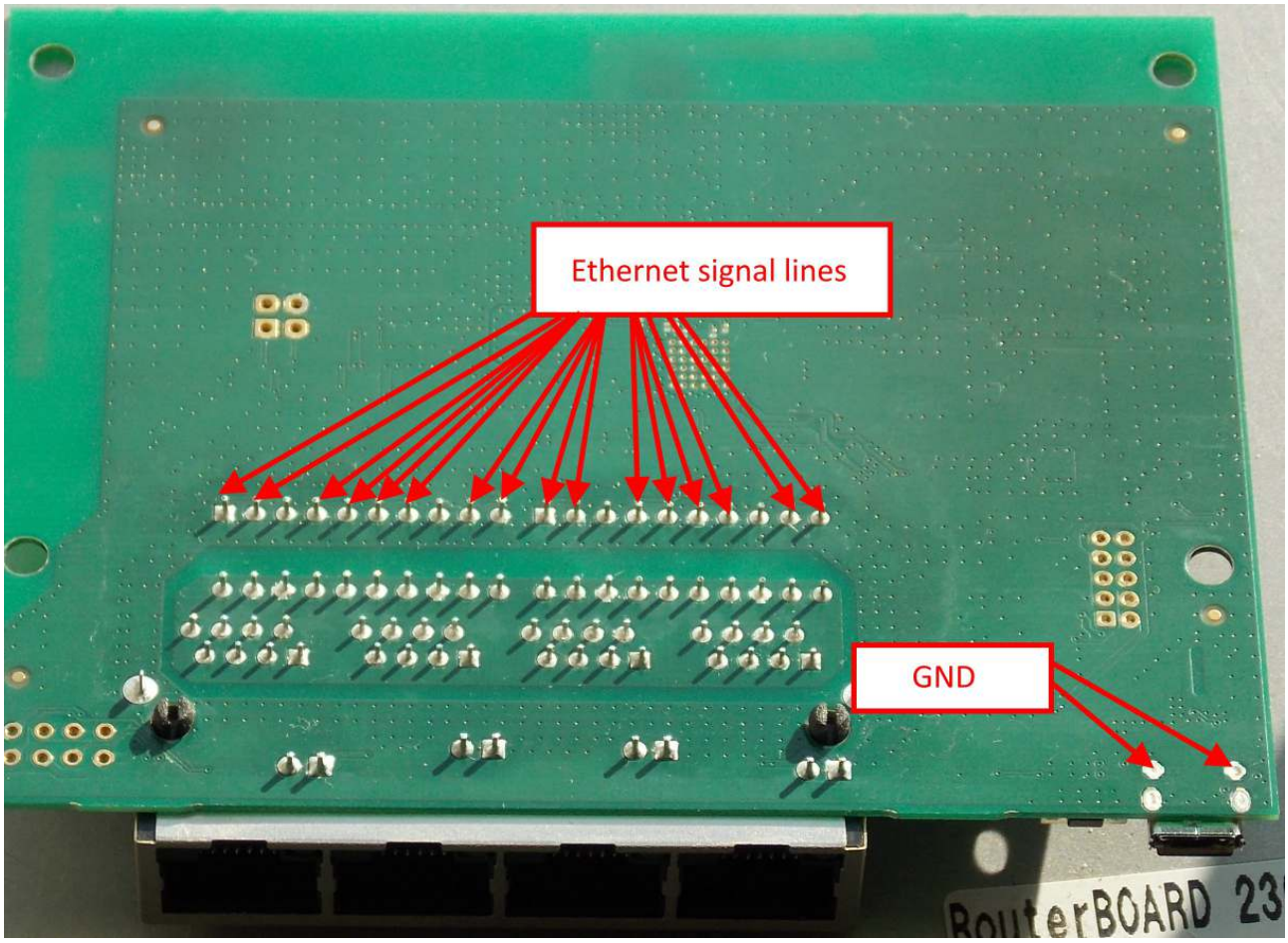
Take out the board with a screwdriver as shown in the picture187



Picture 232

## Voltage drop between TR1 pins and Ground.

Check voltage drop between TR1 Ethernet Transformers pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,48V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked Transformers pins.




Picture 233

# mAP series RouterBoards

## RBmAP series:

## mAP 2n


Picture 234

# Disassembling information

## mAP 2n disassembling

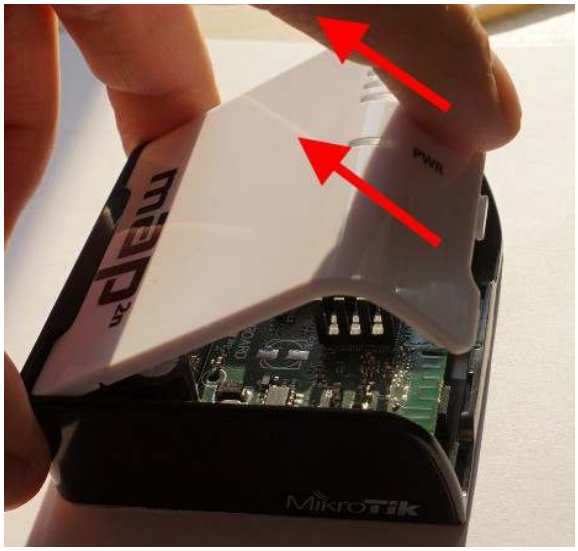
1. step

Push the white clip to open the case


Picture 235

2. step

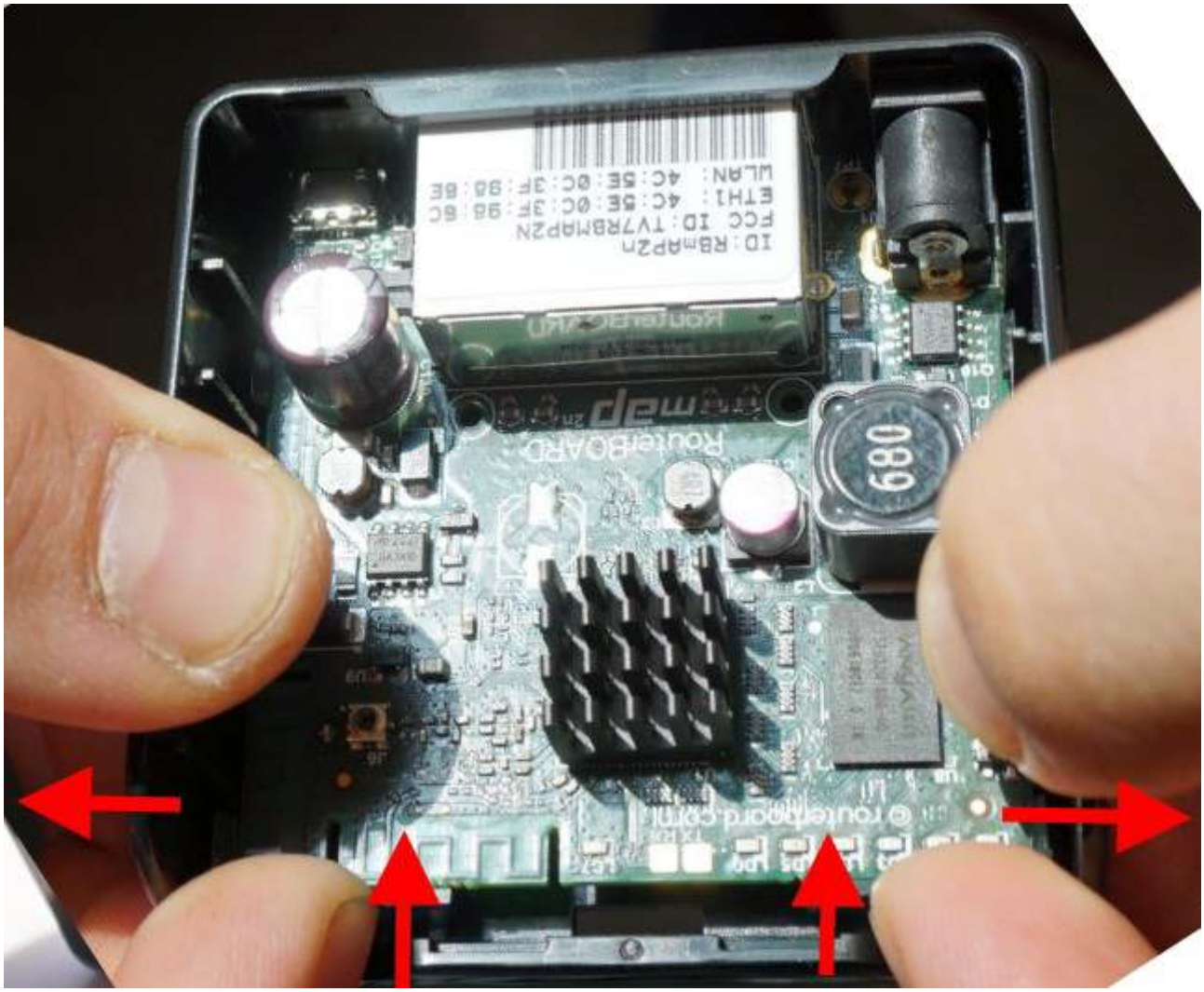
Remove front case



Picture 236

3. Step

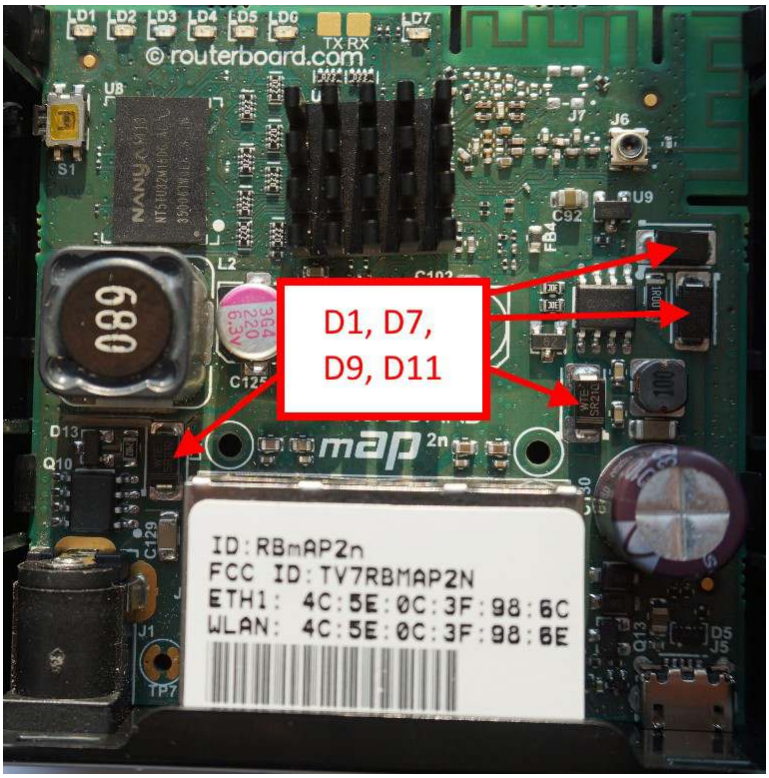
Remove board from case




Picture 237

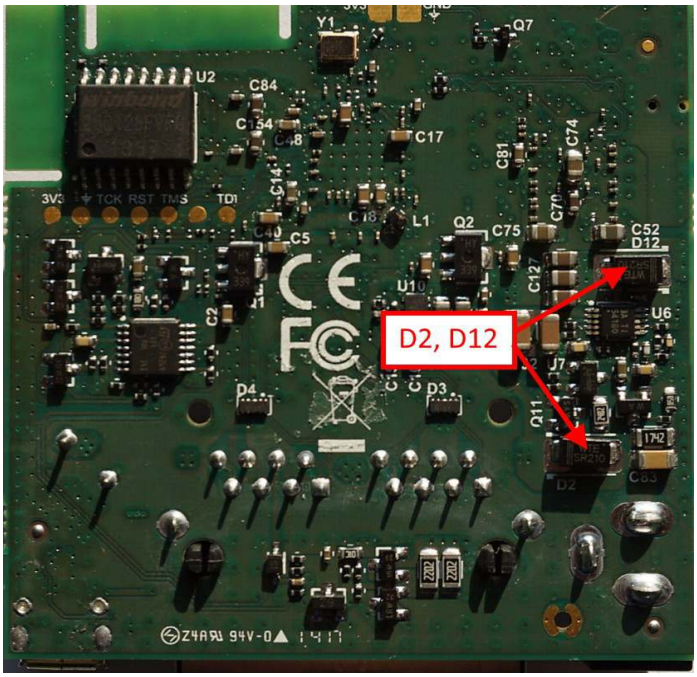
## Schottky diode measuring with multimeter in diode mode

Schottky diode reference numbers are D1, D7, D9, D11 on top layer. Schottky diode quality measurement method describe on page 7




Picture 238

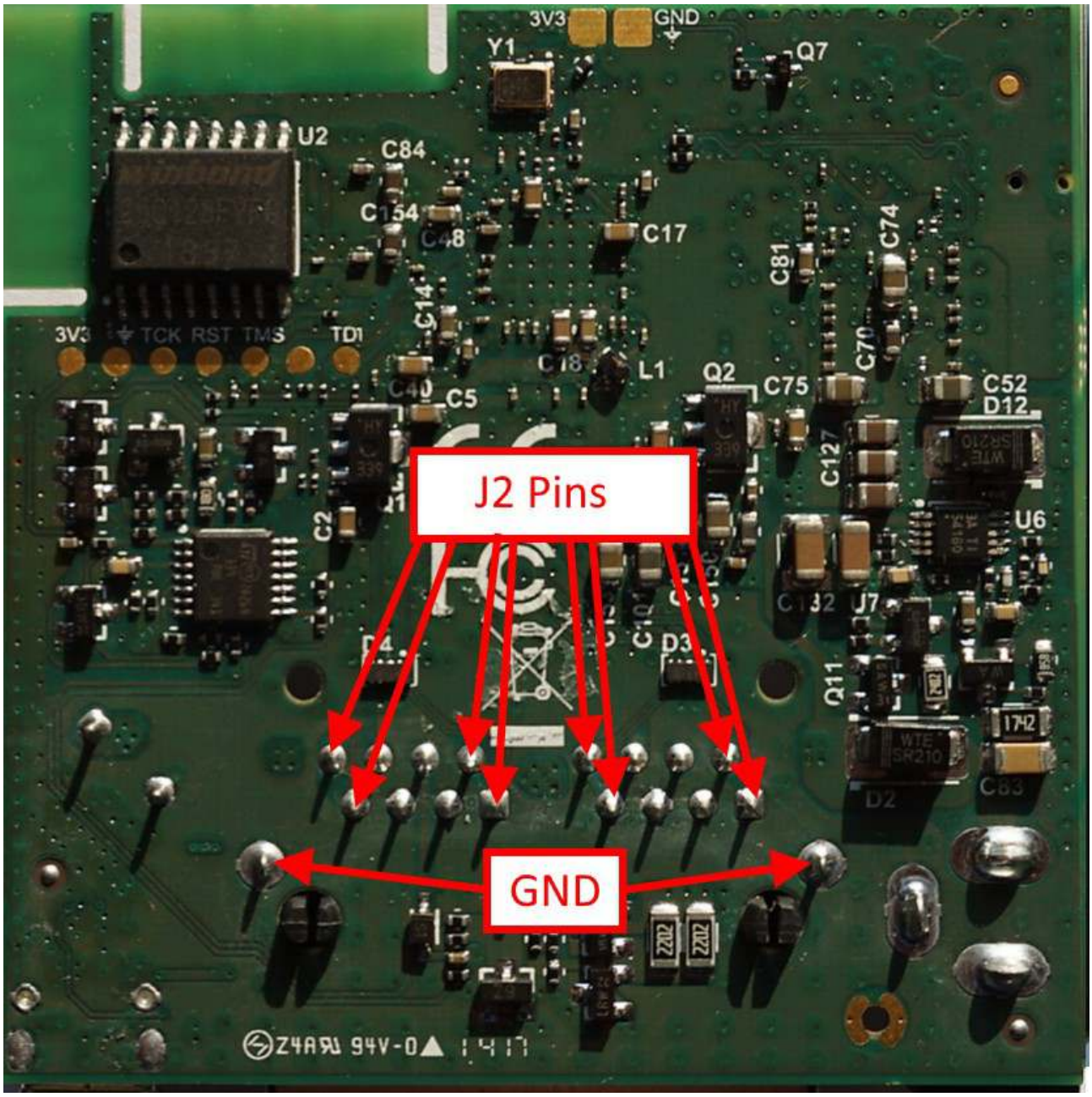
Schottky diode reference numbers are D2, D12 on bottom layer. Voltage drop value should be about 0,35V




Picture 239

## Voltage drop between J2 Pins and Ground.

Check voltage drop between J2 Ethernet Transformers on port Ether1, Ether2 pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode:hold “positive” wire on the Ground and “COM” wire to marked J2 pins




Picture 240

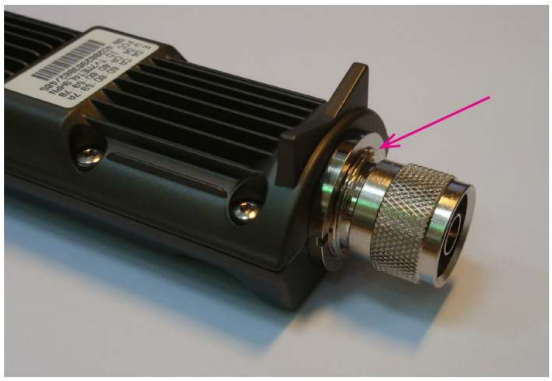
# Metal 5SHPn series RouterBoards

## Metal 5SHPn


Picture 241

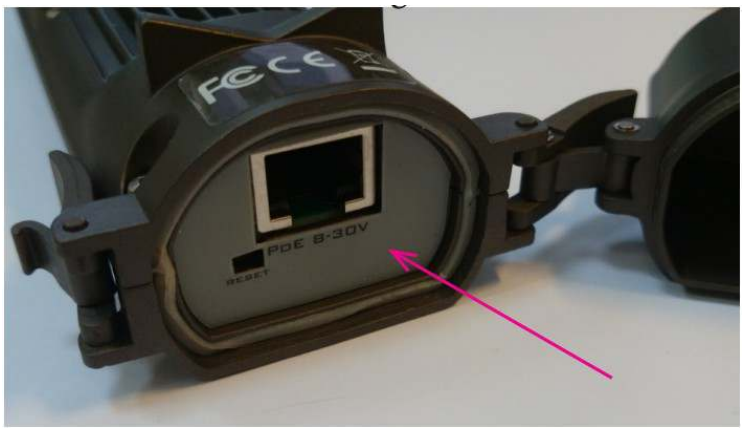
## Disassembling information

1. step: use screw driver to loose N-Male nut



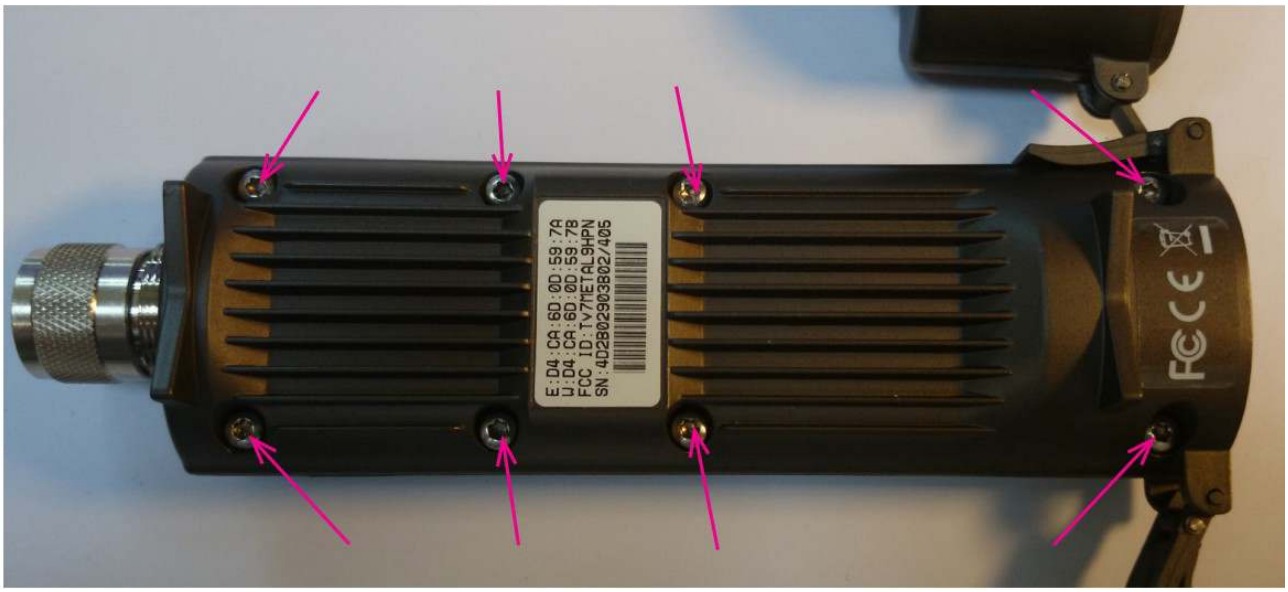
Picture 242

2. step: Removes the internal label




Picture 243

3. step: use TX8 screw driver to loose screws.



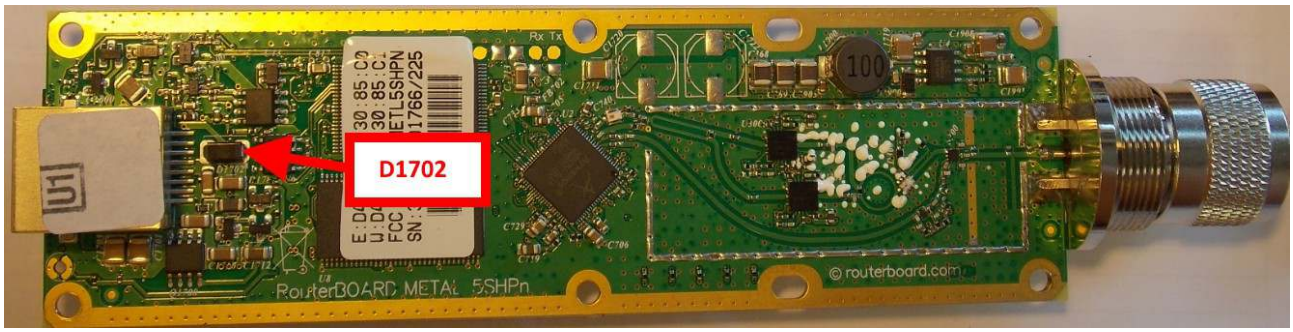
Picture 244

4. Step:  take off cover.

Picture 245

## Schottky diode measuring with multimeter in diode mode

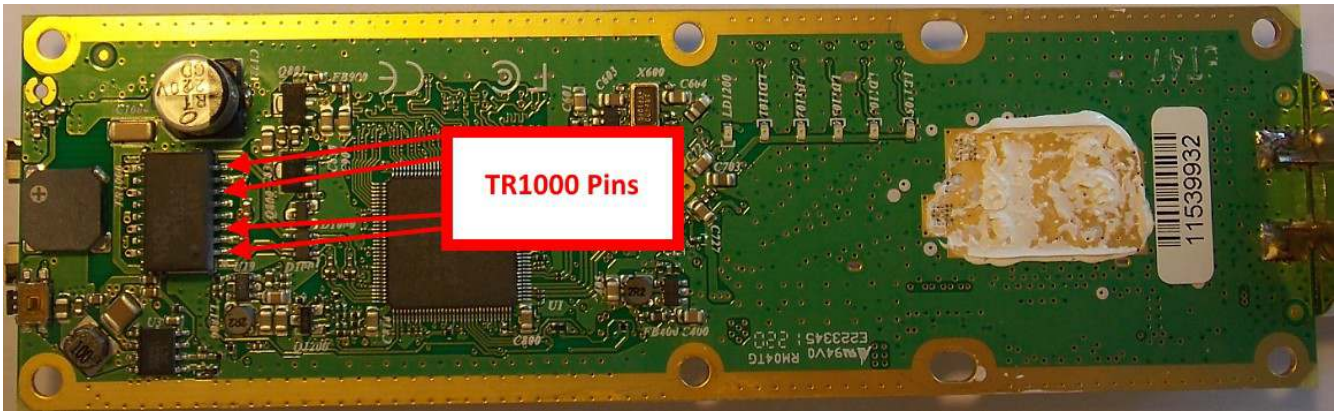
Schottky diode reference numbers are D1702;
Schottky diode quality measurement method describe on page 7




Picture 246

## Voltage drop between TR1000 pins and Ground.

Check voltage drop between TR1000 Ethernet Transformers on ports Ether1 pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR1000 Transformers pins.




Picture 247

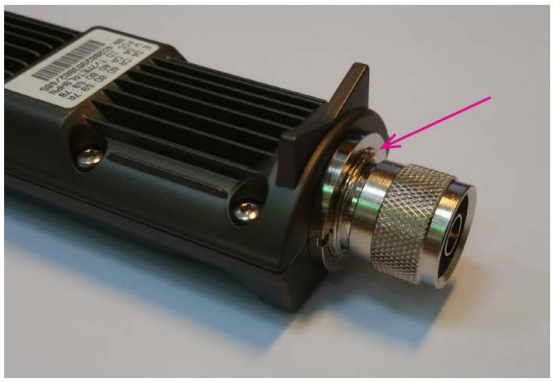
# Metal 2SHPn series RouterBoards

## Metal 2SHPn


Picture 248

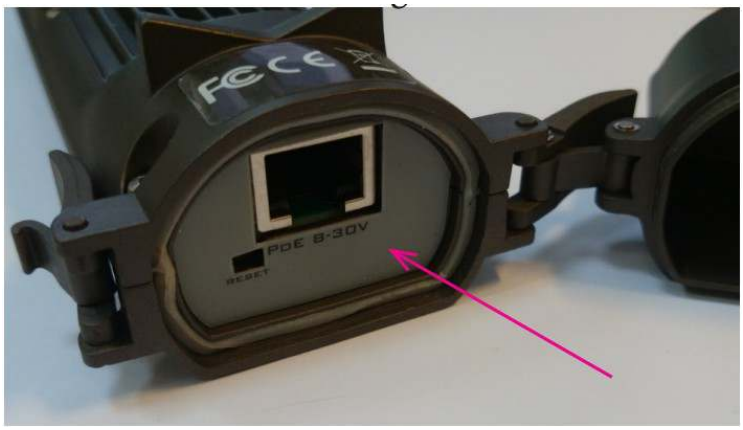
## Disassembling information

1. step: use screw driver to loose N-Male nut



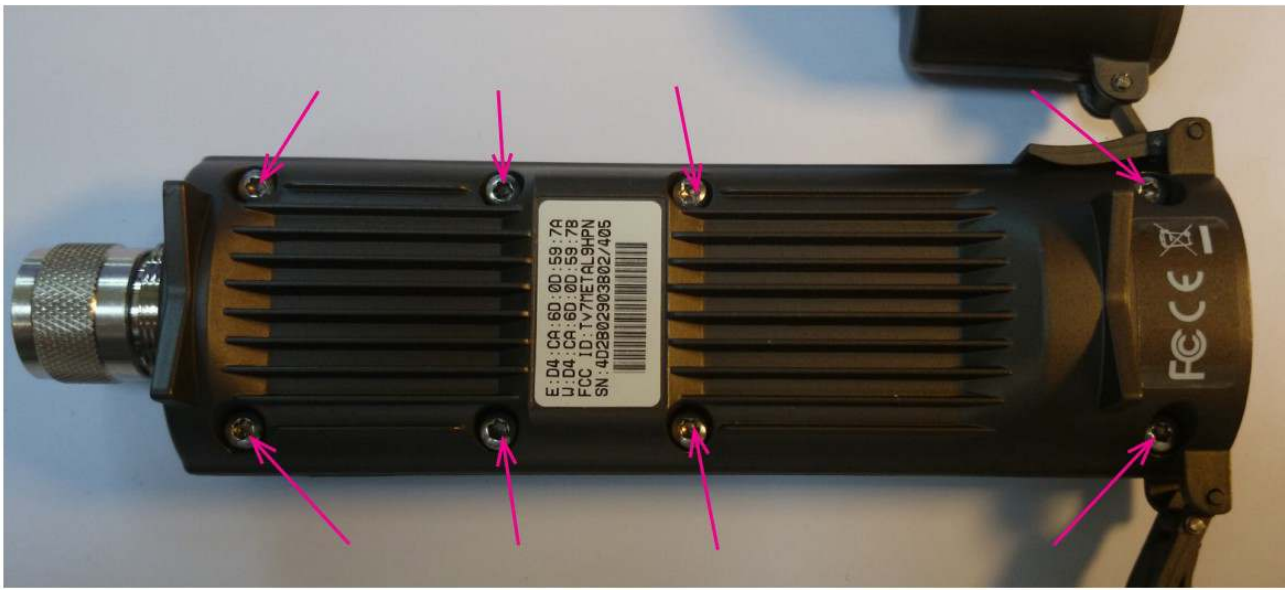
Picture 249

2. step: Removes the internal label




Picture 250

3. step: use TX8 screw driver to loose screws.



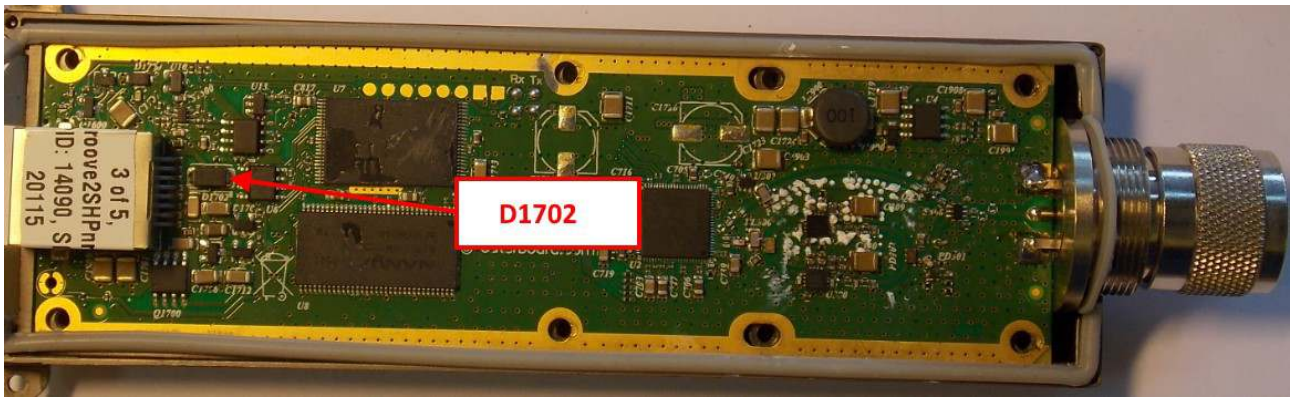

Picture 251

4. Step:  take off cover.

Picture 252

## Schottky diode measuring with multimeter in diode mode

Schottky diode reference numbers are D1702;
Schottky diode quality measurement method describe on page 7




Picture 253

## Voltage drop between TR1000 pins and Ground.

Check voltage drop between TR1000 Ethernet Transformers on ports Ether1 pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR1000 Transformers pins.


Picture 254

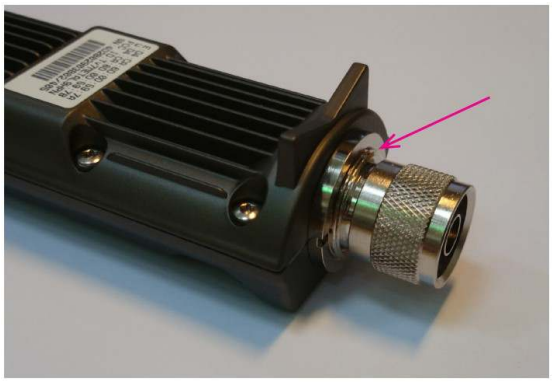
# Metal 9HPn series RouterBoards

## Metal 9HPn


Picture 256

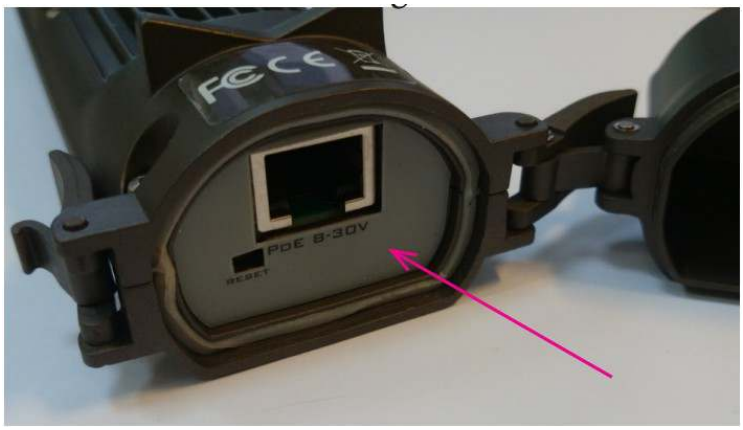
## Disassembling information

1. step: use screw driver to loose N-Male nut



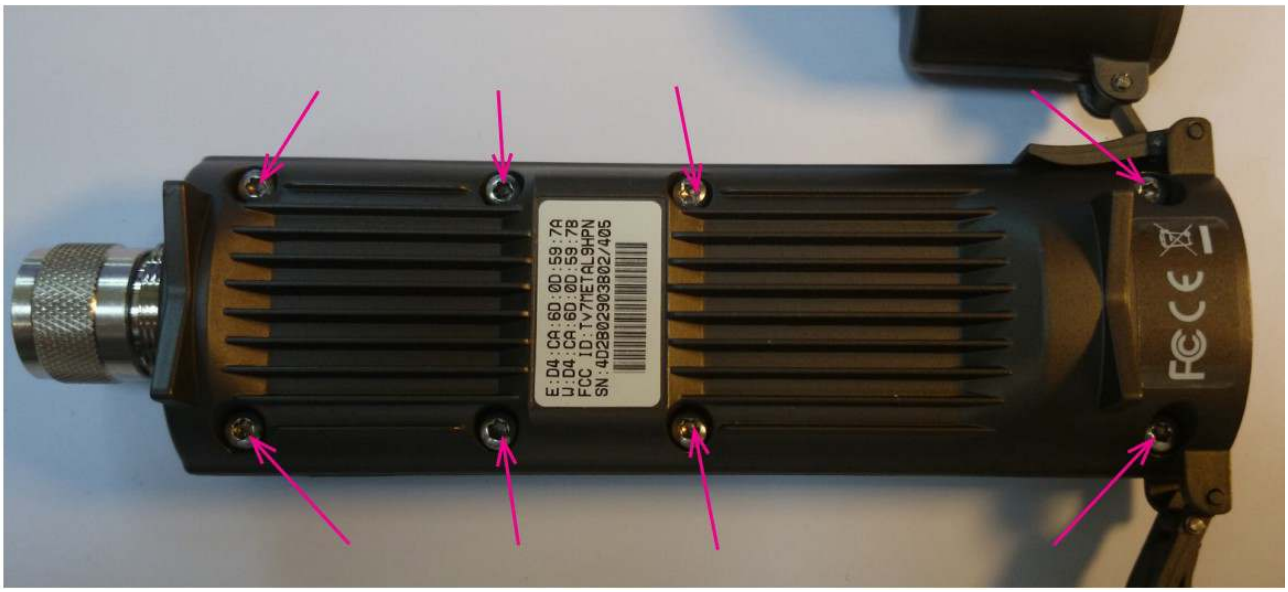
Picture 257

2. step: Removes the internal label




Picture 258

3. step: use TX8 screw driver to loose screws.




Picture 259

4. Step:  take off cover.

Picture 260

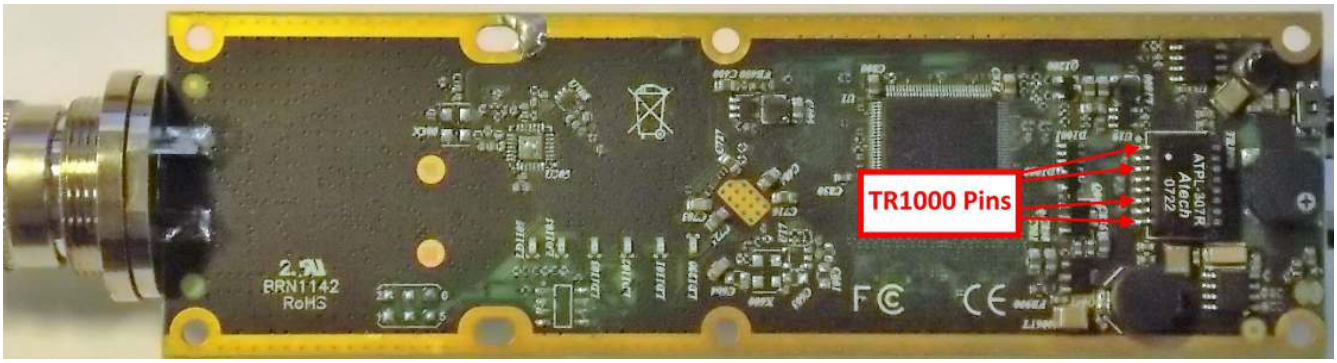
## Schottky diode measuring with multimeter in diode mode

Schottky diode reference numbers are D1702;
Schottky diode quality measurement method describe on page 7


Picture 261

## Voltage drop between TR1000 pins and Ground.

Check voltage drop between TR1000 Ethernet Transformers on ports Ether1 pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR1000 Transformer pins.




Picture 262

# OmniTIK UPA-5HnD series RouterBoards

## OmniTIK U-5HnD

## OmniTIK UPA-5HnD

Picture 263

# OmniTIK UPA-5HnD  disassembling information

1. step

Remove the screw stickers and unscrew the case base from the board holder with torque screwdriver T8

Picture 264

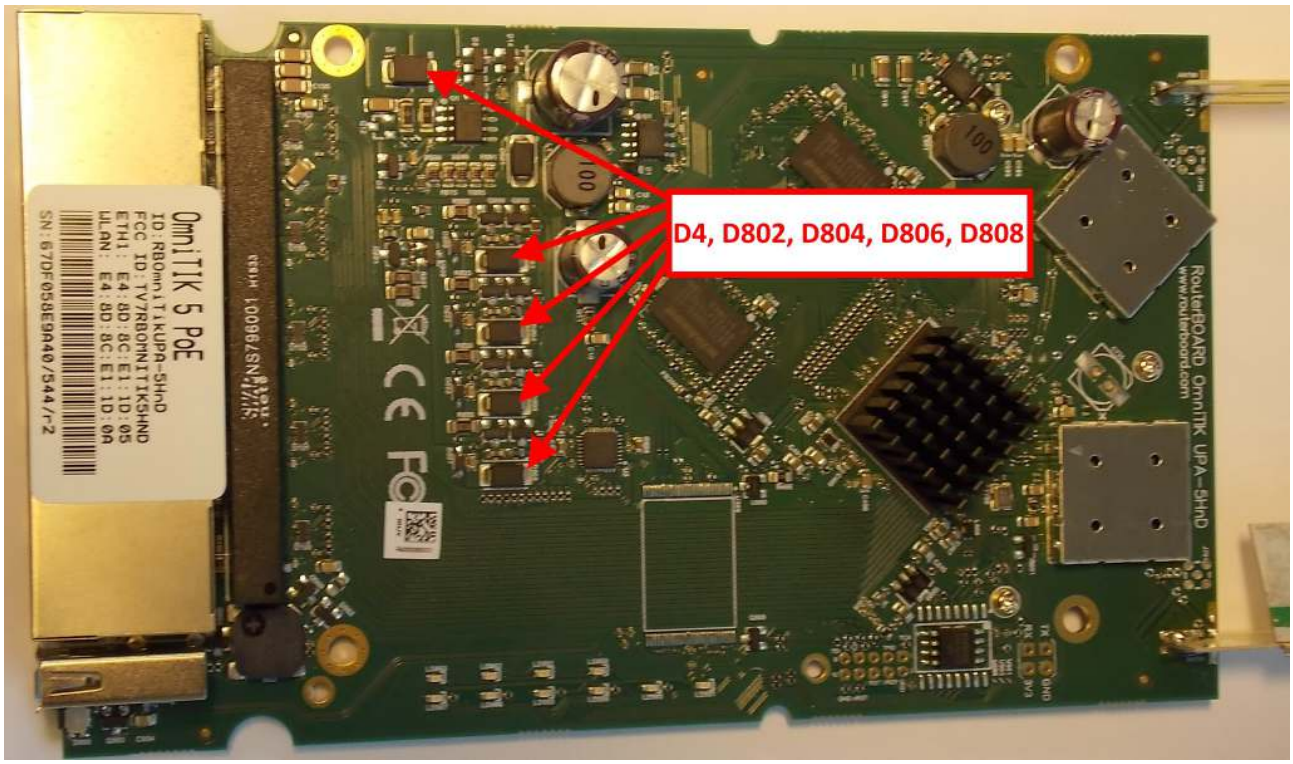
2. step

Remove the case base from the board holder

Picture 265

## Schottky diode measuring with multimeter in diode mode

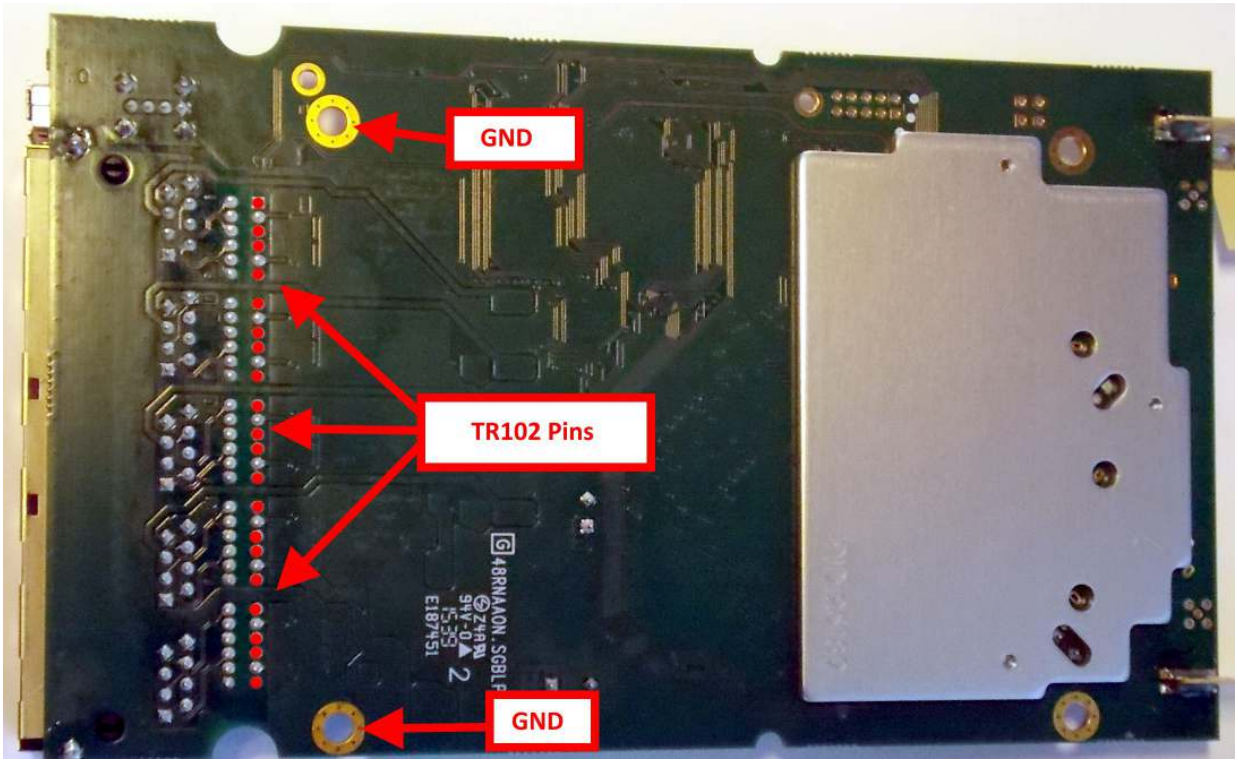
Schottky diode reference numbers are  D4, D802, D804, D806, D808.  Schottky diode quality measurement method describe on page 7




Picture 266

## Voltage drop between TR102 pins and Ground.

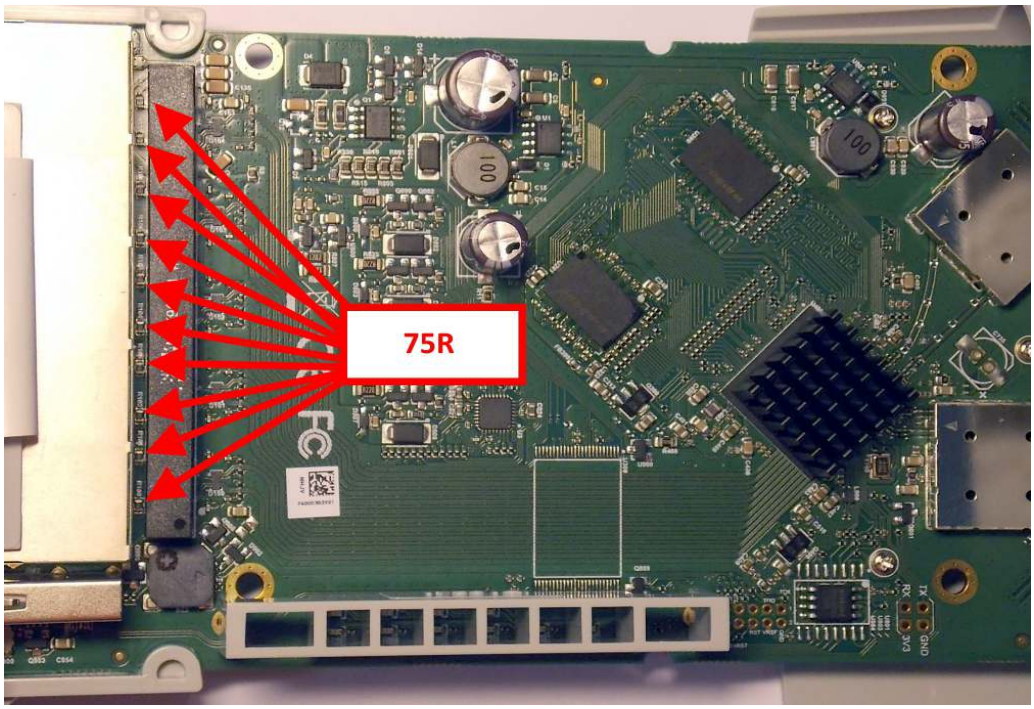
Check voltage drop between TR102 Transformers pins and Ground. Ether Pins are marked with red. It should be in the range from 0,32V to 0,589V. Measure in diode mode: hold "positive" wire on the Ground and "COM" wire to marked TR102 Transformer pins.




Picture 267

## 75R Termination resistors resistance.

Resistor resistance, marked with red arrow, should be 75 Ohm +/- 1%




Picture 268

# SXTG-2HnD series RouterBoards

## SXT 2 series:

## SXT 2

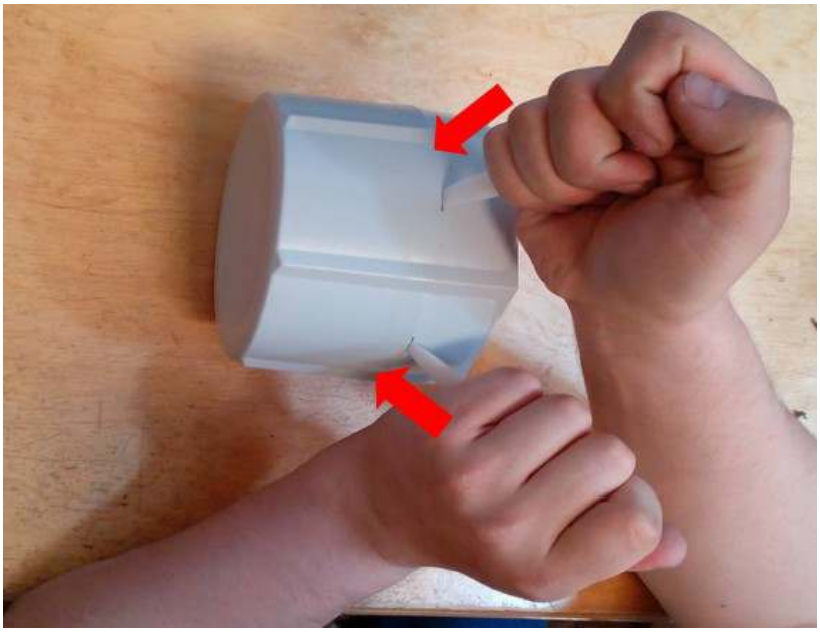
Picture 269

# Disassembling information

## SXT series disassembling

1. step

Use two “-” screwdrivers. Push screwdrivers in case cavities.



Picture 270

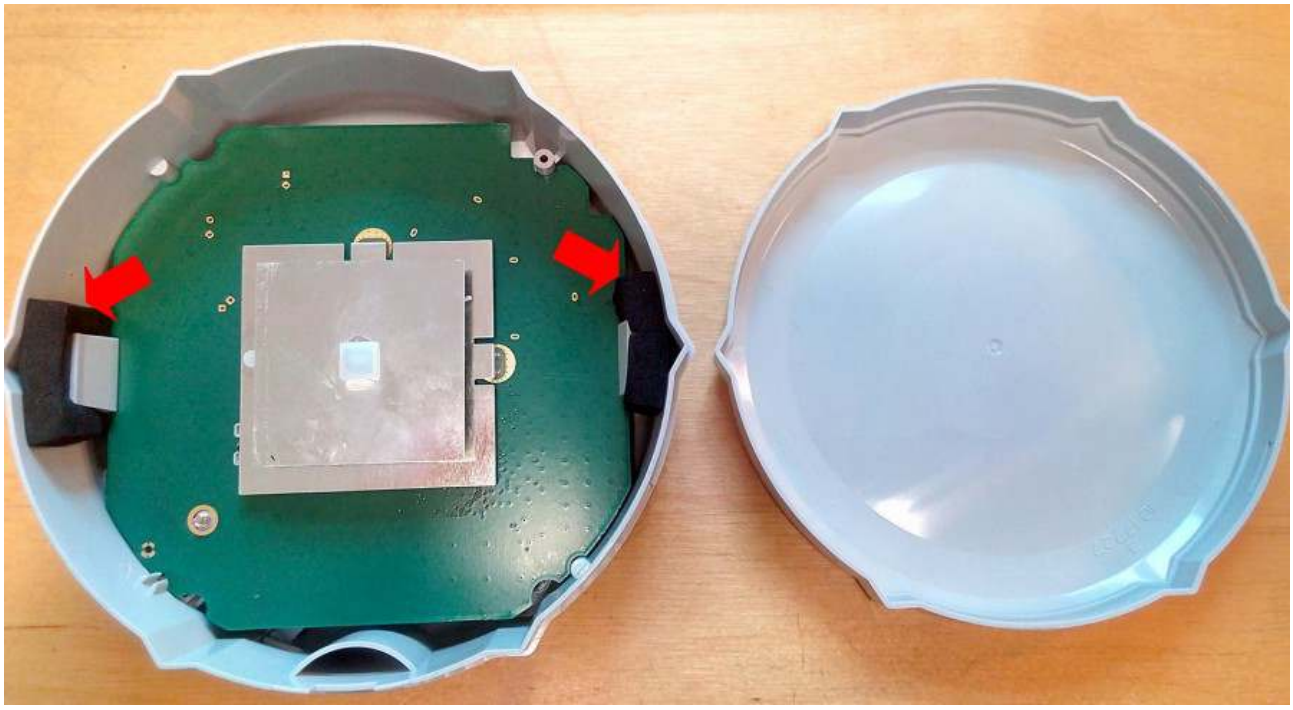
2. step

Rotate screwdriver and pull both case parts.

Picture 271

3. step

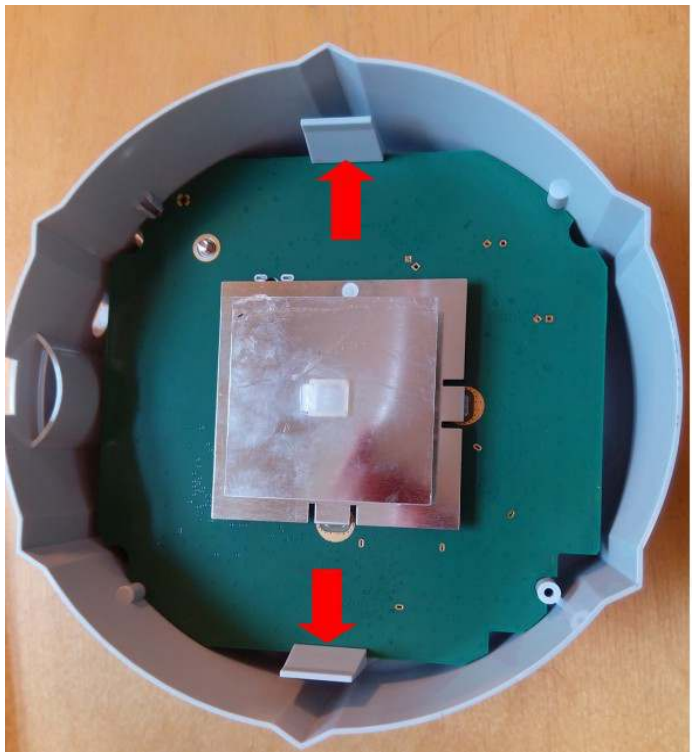
Remove rubber bushing



Picture 272

4. step

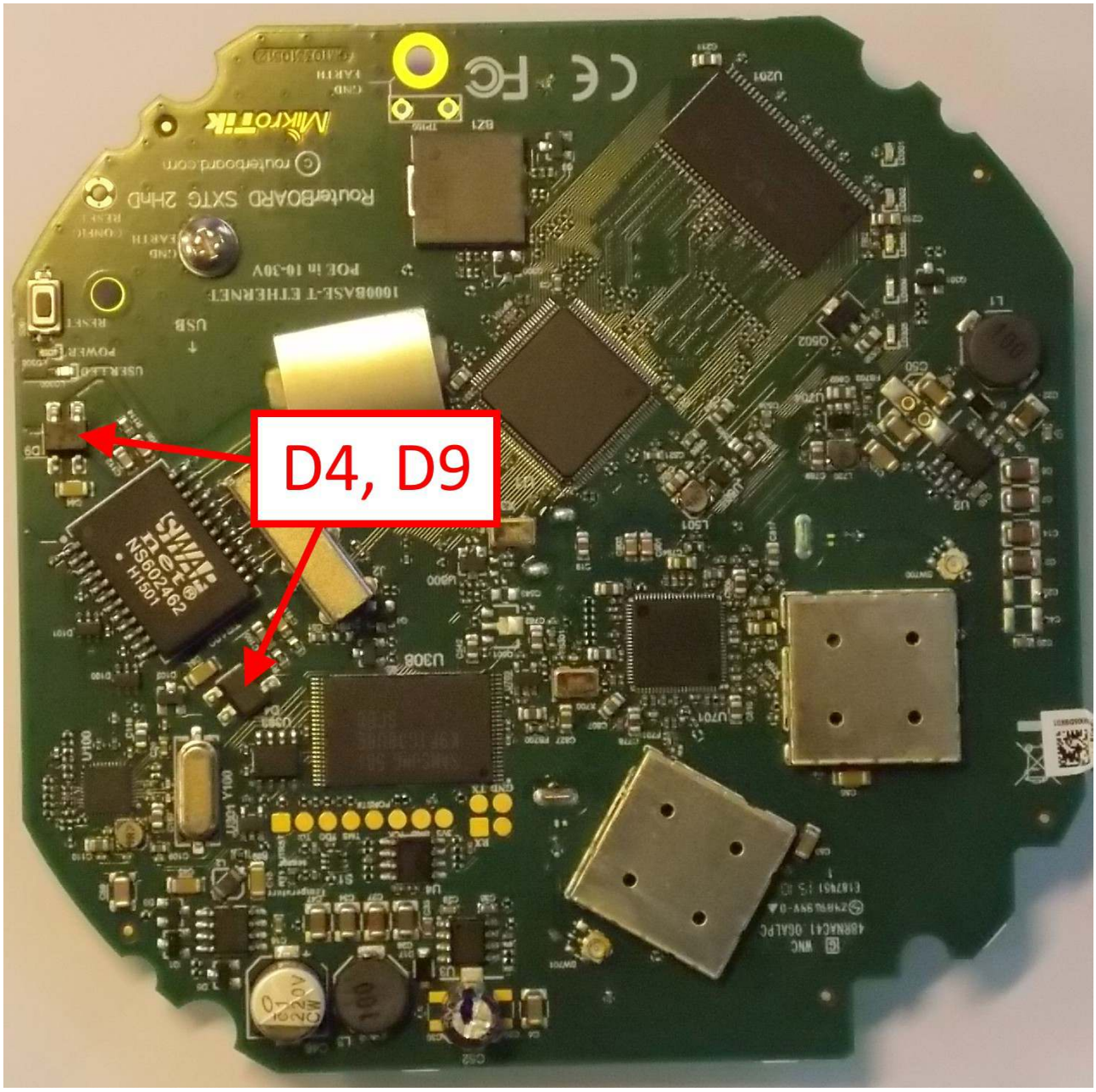
Push back Plastic PCB holders and take out the board.



Picture 273

## Schottky diode measuring with multimeter in diode mode

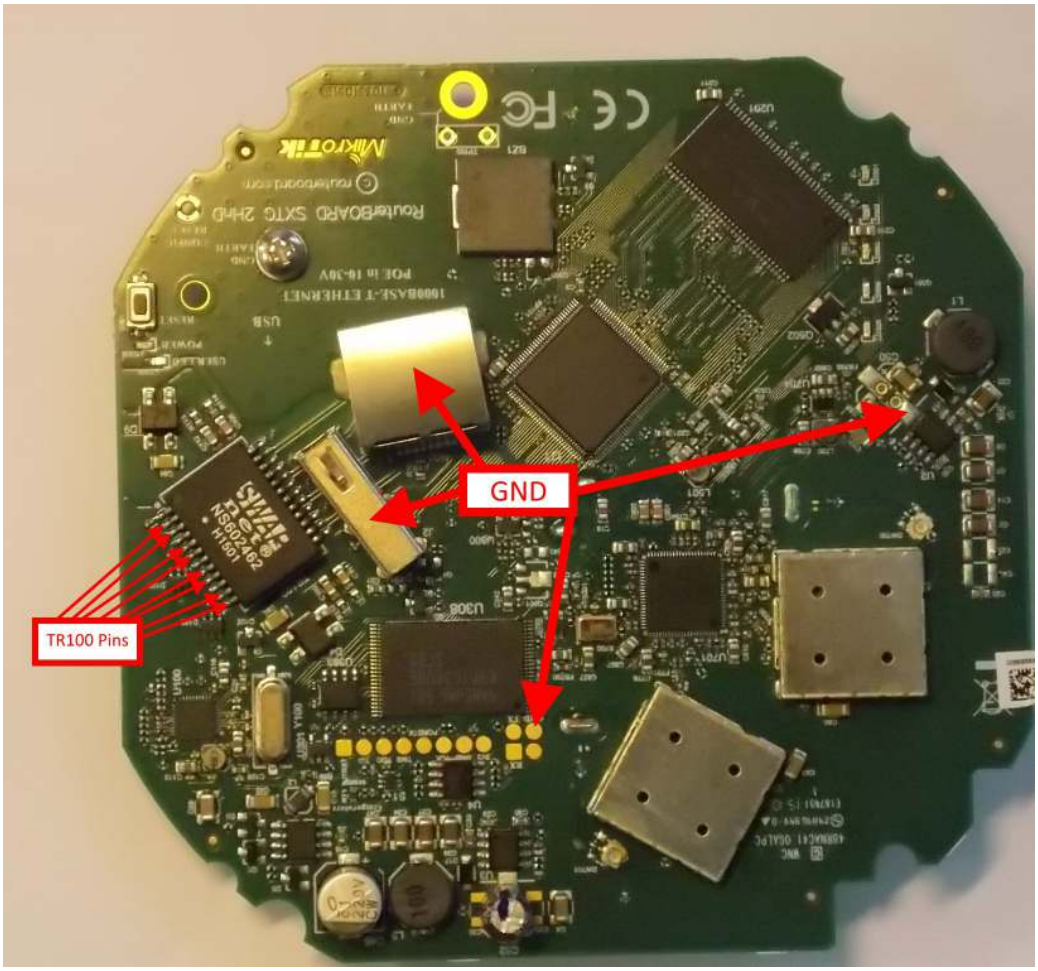
Diode bridges reference numbers are D4, D6.
Schottky diode quality measurement method describe on page 7




Picture 274

## Voltage drop between TR100 pins and Ground.

Check voltage drop between TR100 Ethernet Transformers pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,48V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR100 Transformer pins.




Picture 275

# SXTG-5HPnD series RouterBoards

## RBSXTG-5HPnD series:

## SXT HG5

Picture 276

## SXT SA5

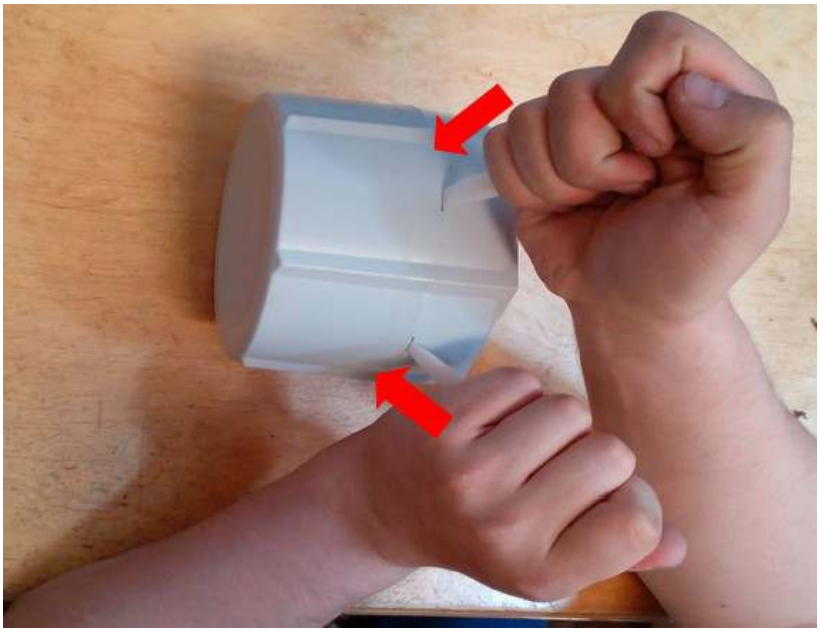
Picture 277

# Disassembling information

## SXT series disassembling

1. step

Use two “-” screwdrivers. Push screwdrivers in case cavities.



Picture 278

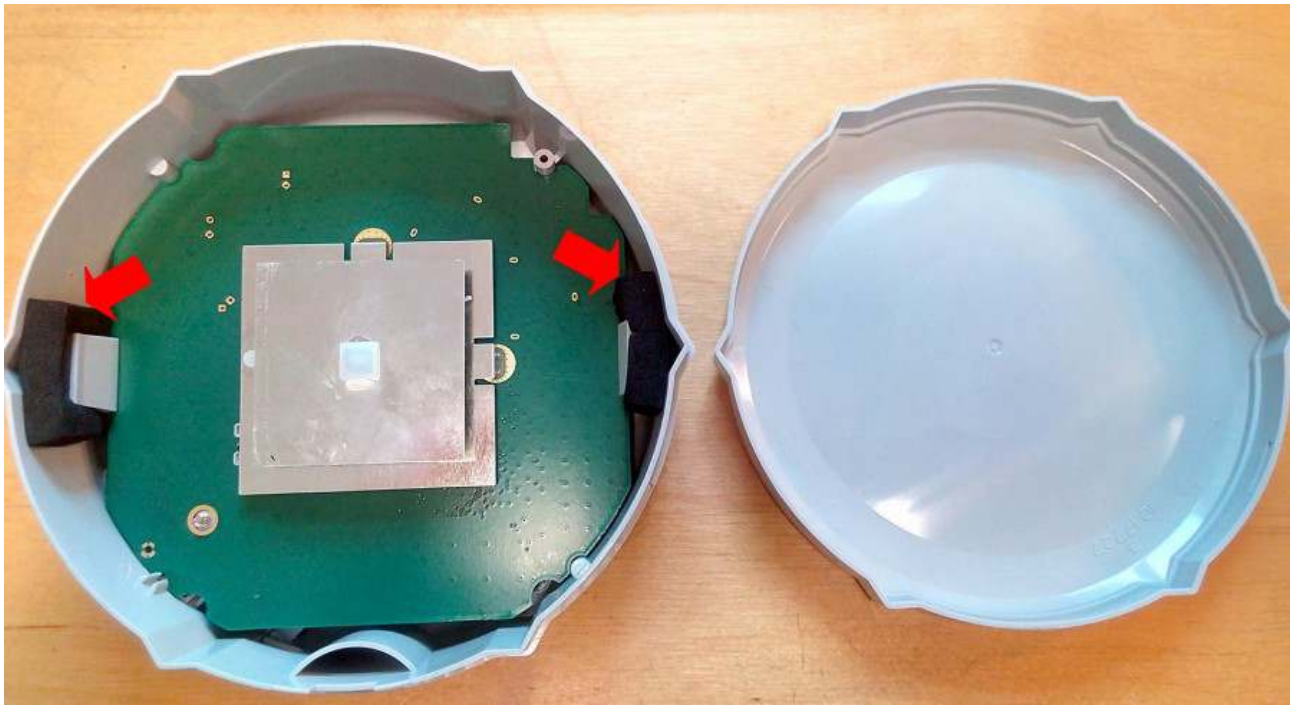
2. step

Rotate screwdriver and pull both case parts.

Picture 279

3. step

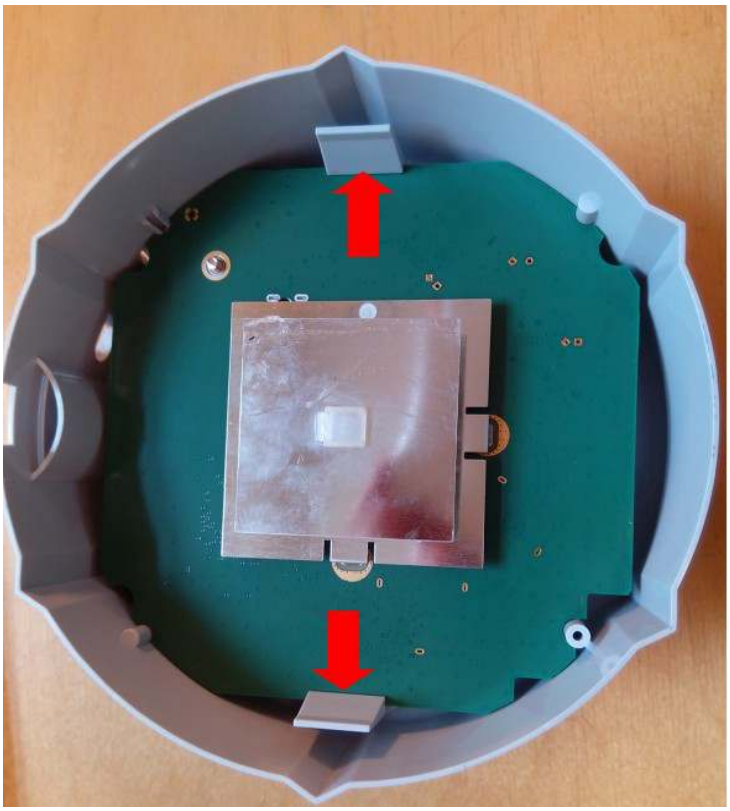
Remove rubber bushing



Picture 280

4. step

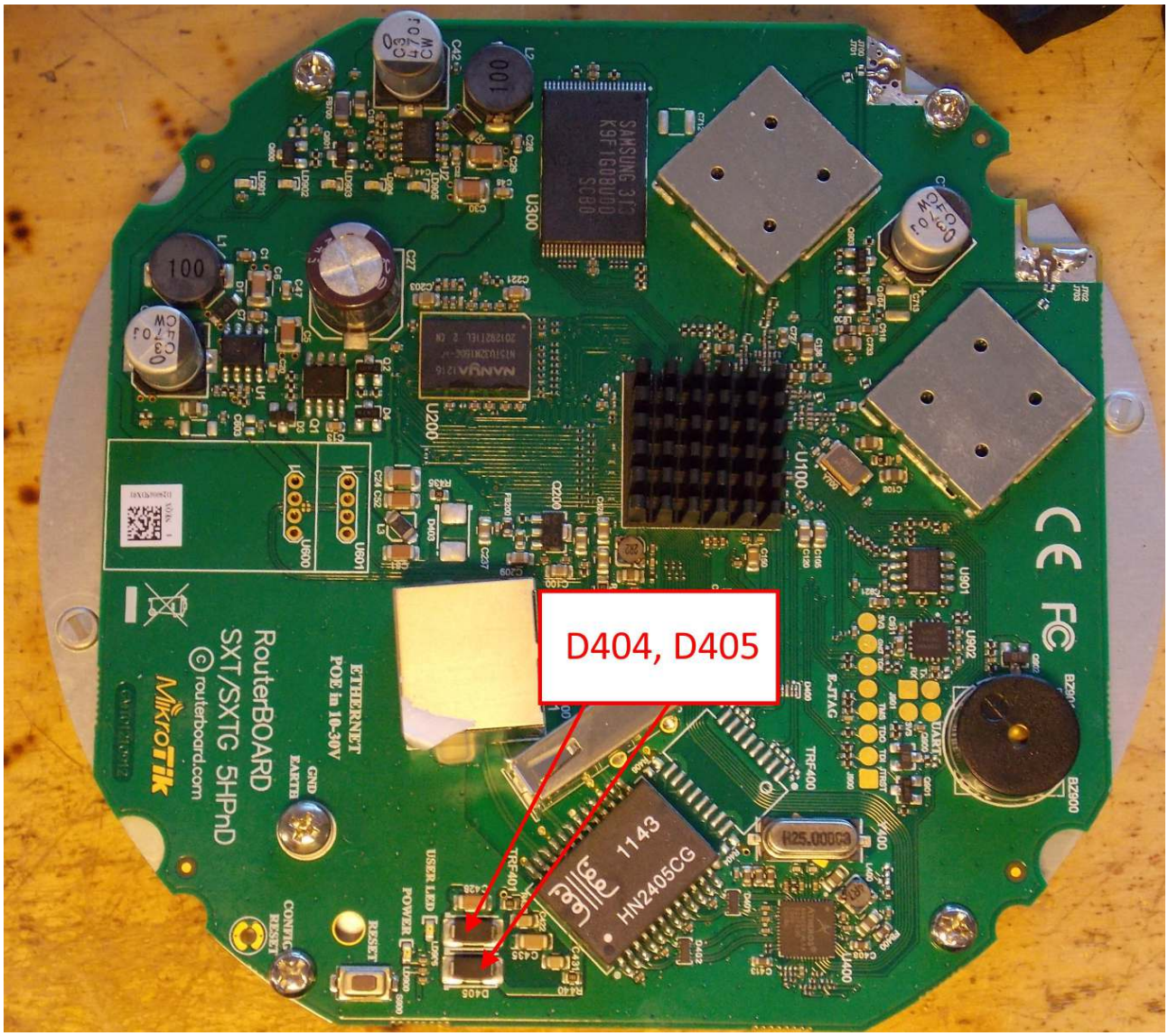
Push back Plastic PCB holders and take out the board.



Picture 281

## Schottky diode measuring with multimeter in diode mode

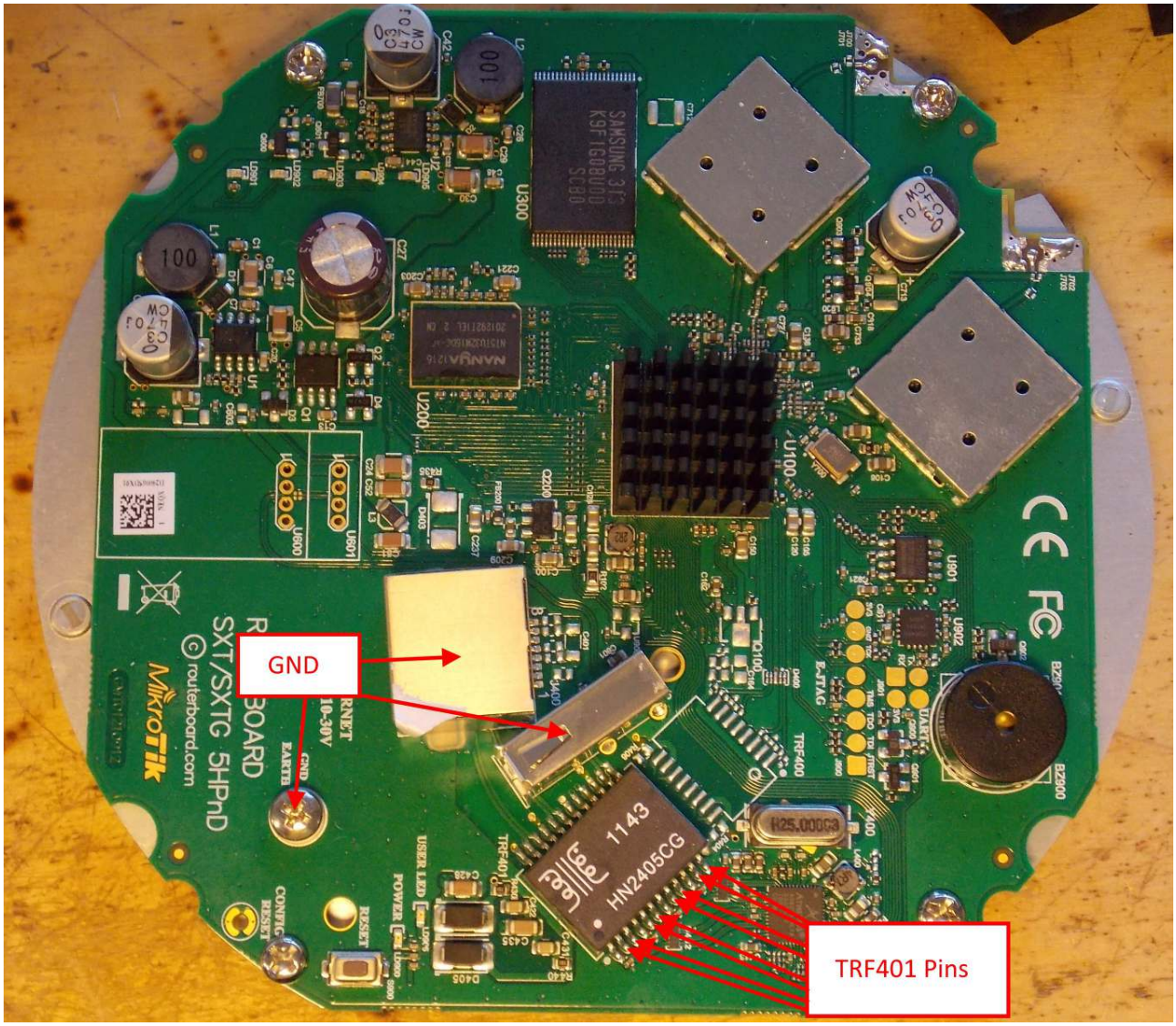
Schottky diode reference numbers are D404, D405 . Schottky diode quality measurement method describe on page 7




Picture 282

## Voltage drop between TRF401 pins and Ground.

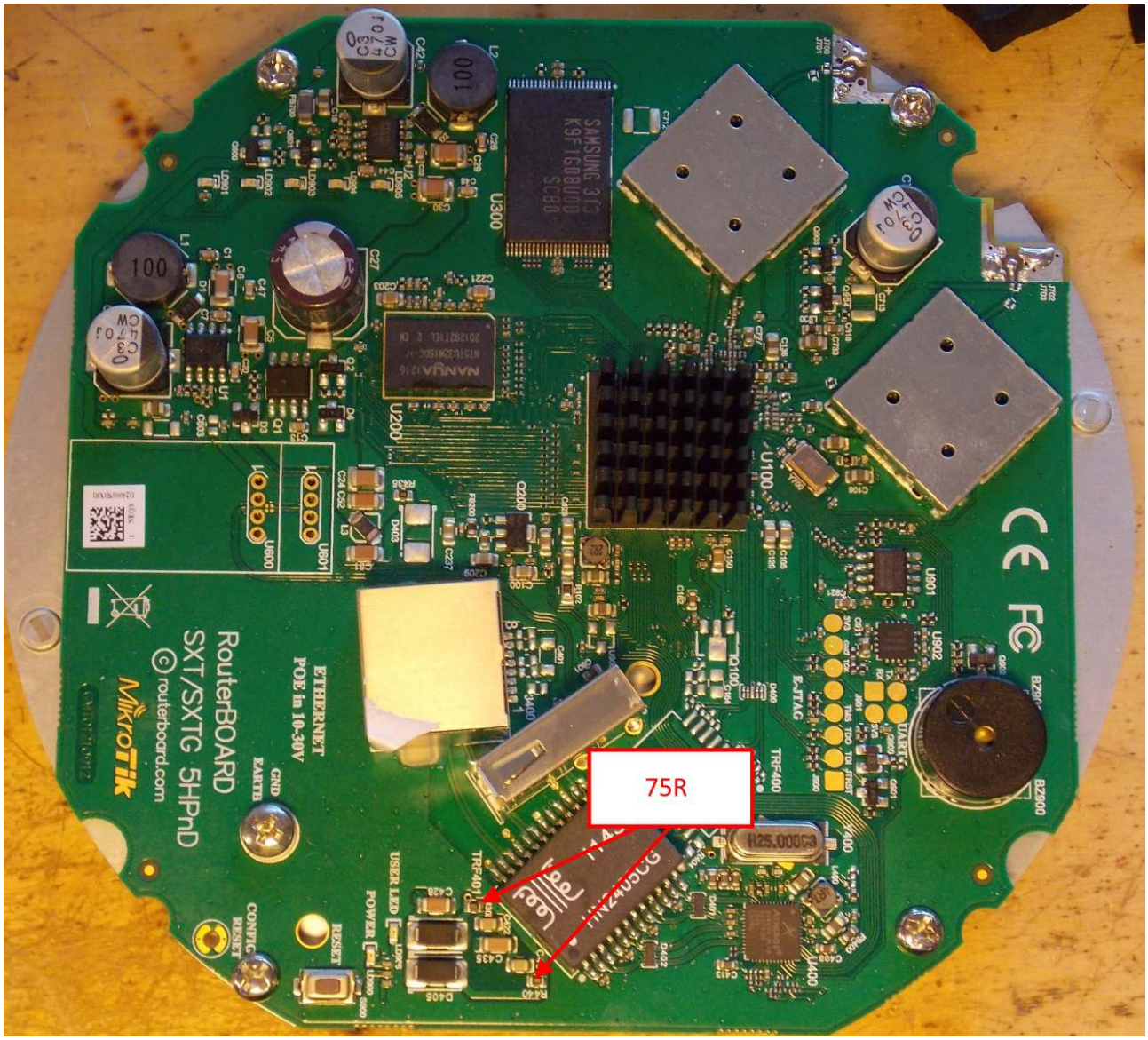
Check voltage drop between TRF401 Ethernet Transformers pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,48V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TRF401 Transformer pins.




Picture 283

## 75R Termination resistors resistance.

Resistor resistance, marked with red arrow, should be 75 Ohm +/- 1%




Picture 284

# SXTG-5HPacD series RouterBoards

## RBSXTG-5HPacD series:

## SXT 5 ac

## SXT SA5 ac

Picture 285

## SXT HG5 ac

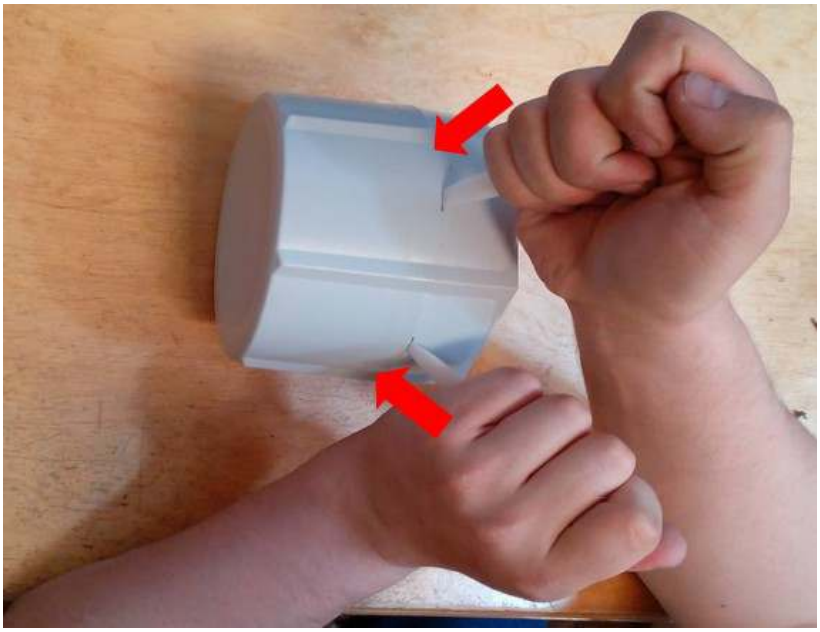
Picture 286

# Disassembling information

## SXT series disassembling

1. step

Use two “-” screwdrivers. Push screwdrivers in case cavities.



Picture 287

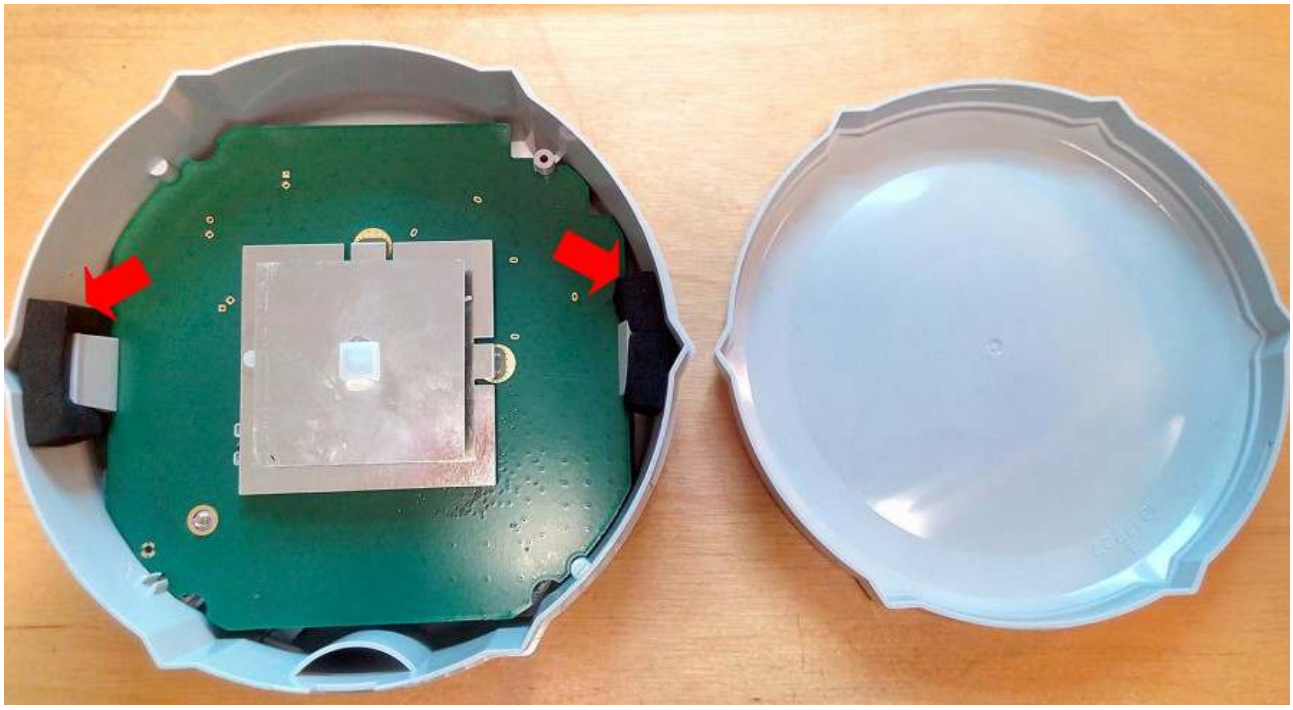
2. step

Rotate screwdriver and pull both case parts.

Picture 288

3. step

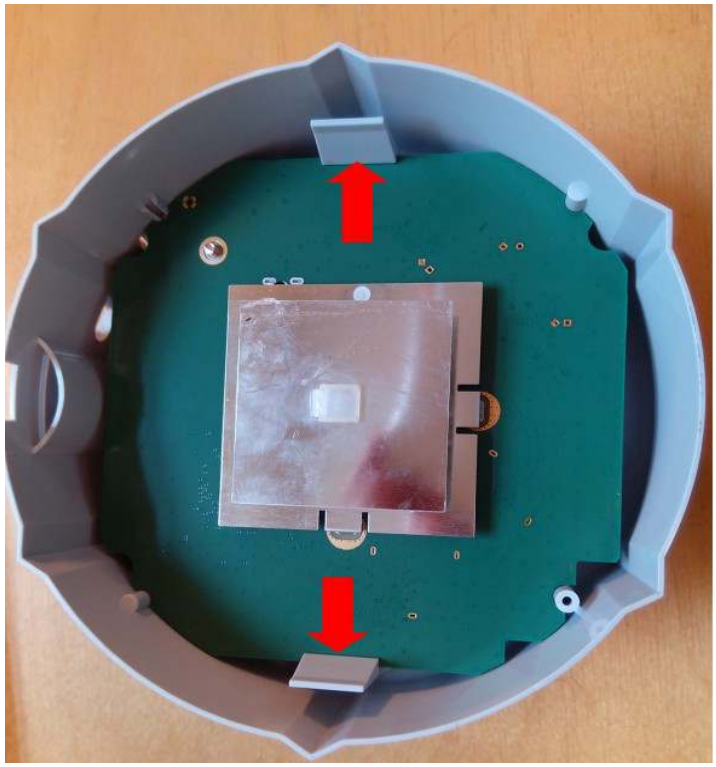
Remove rubber bushing



Picture 289

4. step

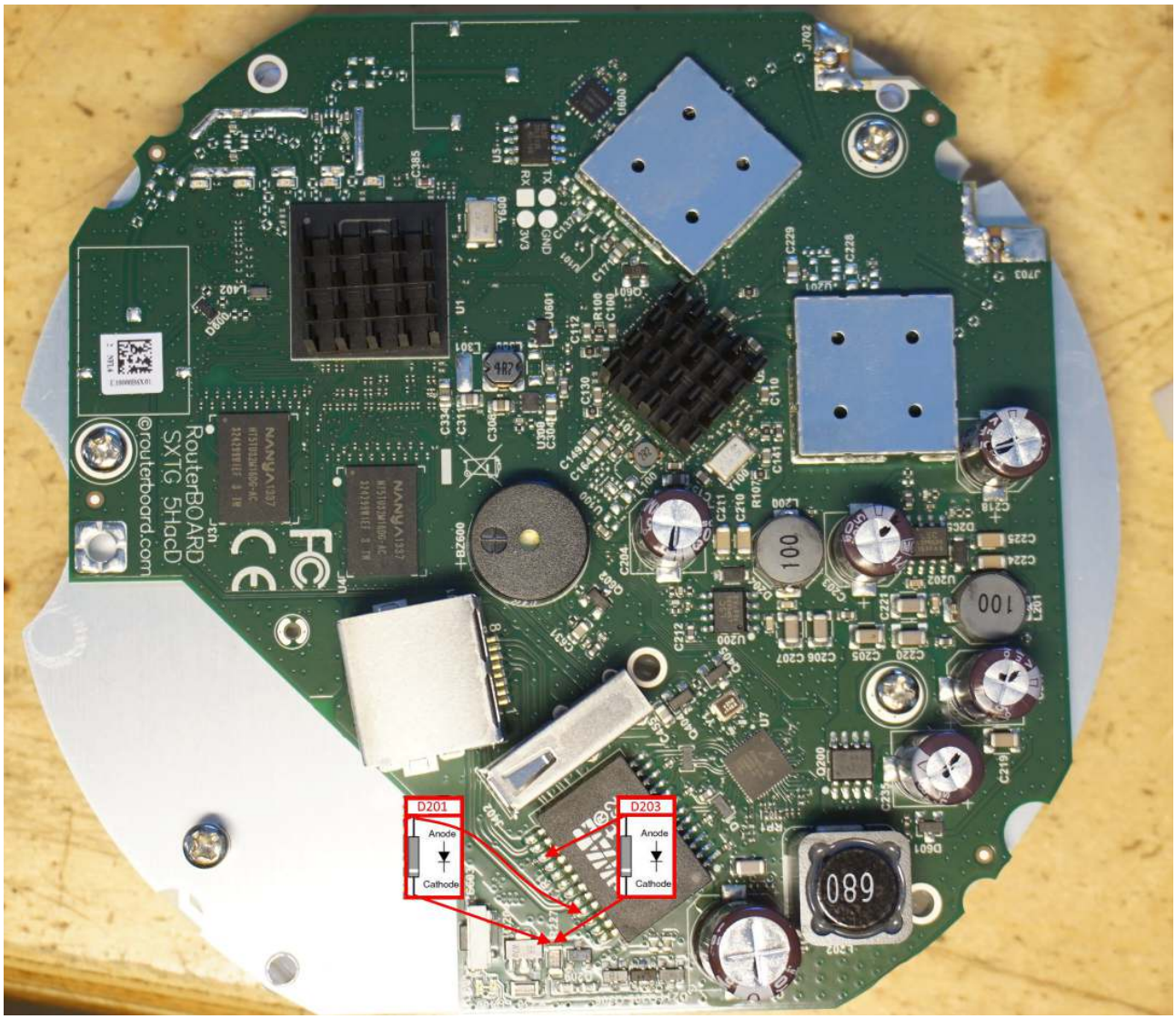
Push back Plastic PCB holders and take out the board.



Picture 290

## Schottky diode measuring with multimeter in diode mode

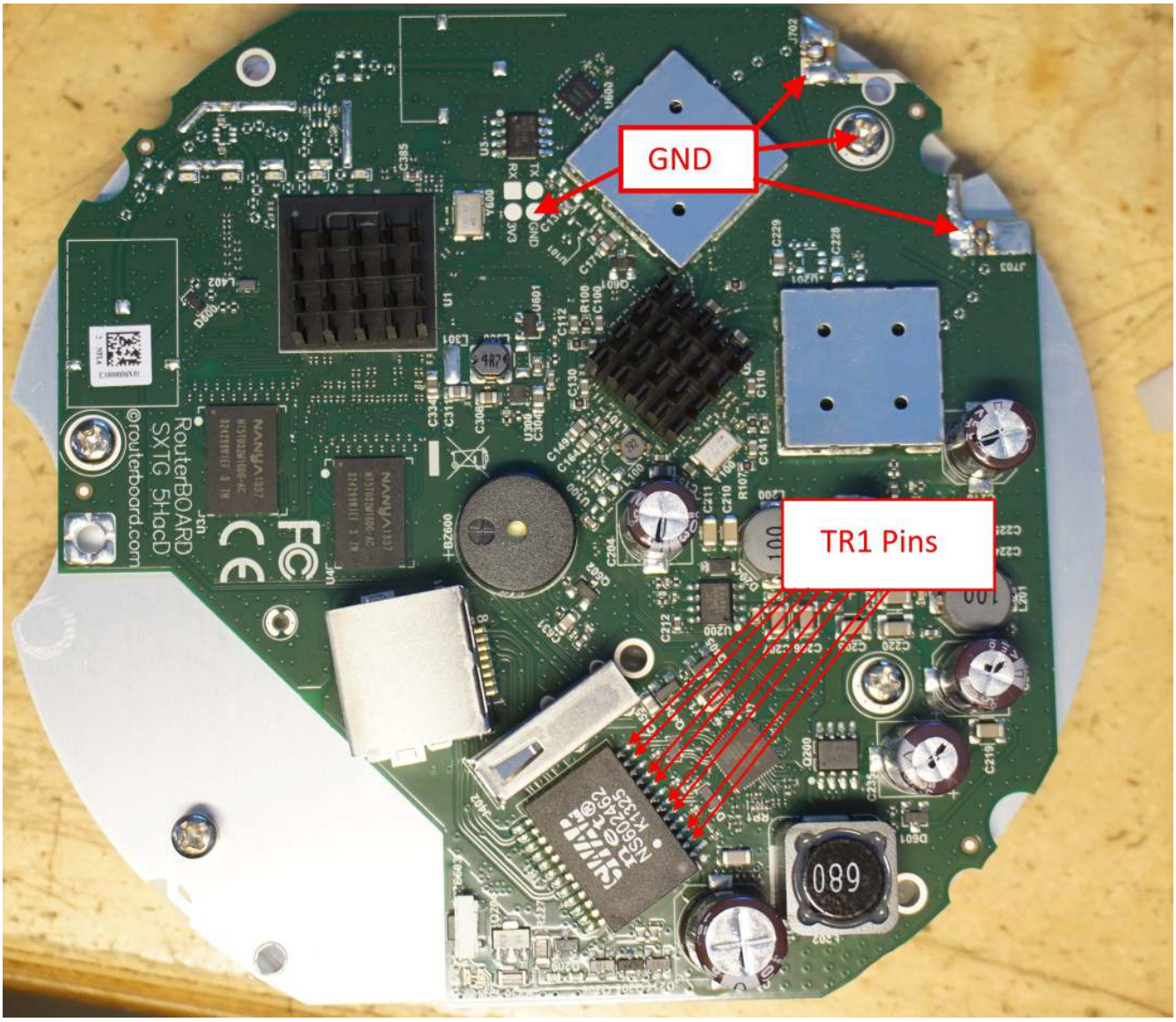
Schottky diode reference numbers are D201, D203 . Schottky diode quality measurement method describe on page 7




Picture 291

## Voltage drop between TR1 pins and Ground.

Check voltage drop between TR1 Ethernet Transformers pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,48V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR1 Transformers pins.




Picture 292

# SXTLite2 series RouterBoards

## RBSXTLite2 series:

## SXT Lite2

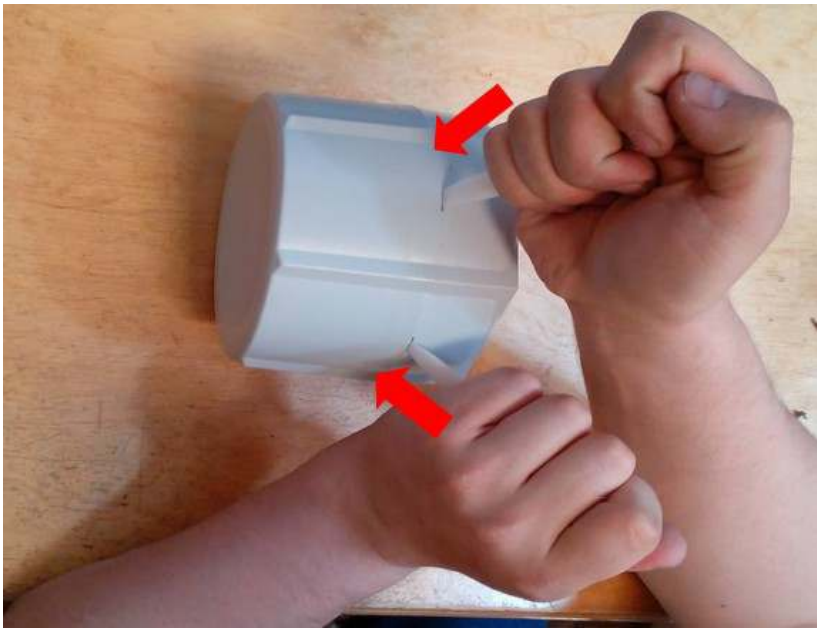
Picture 293

# Disassembling information

## SXT series disassembling

1. step

Use two “-” screwdrivers. Push screwdrivers in case cavities.



Picture 294

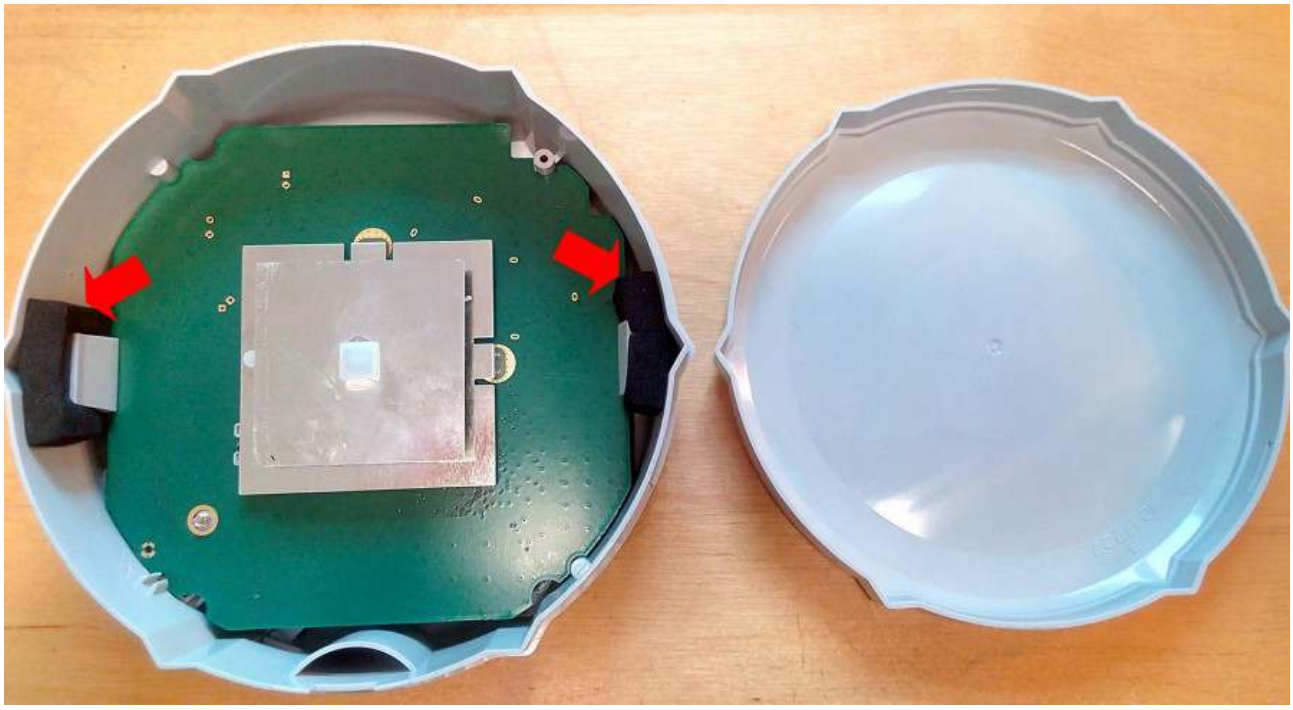
2. step

Rotate screwdriver and pull both case parts.

Picture 295

3. step

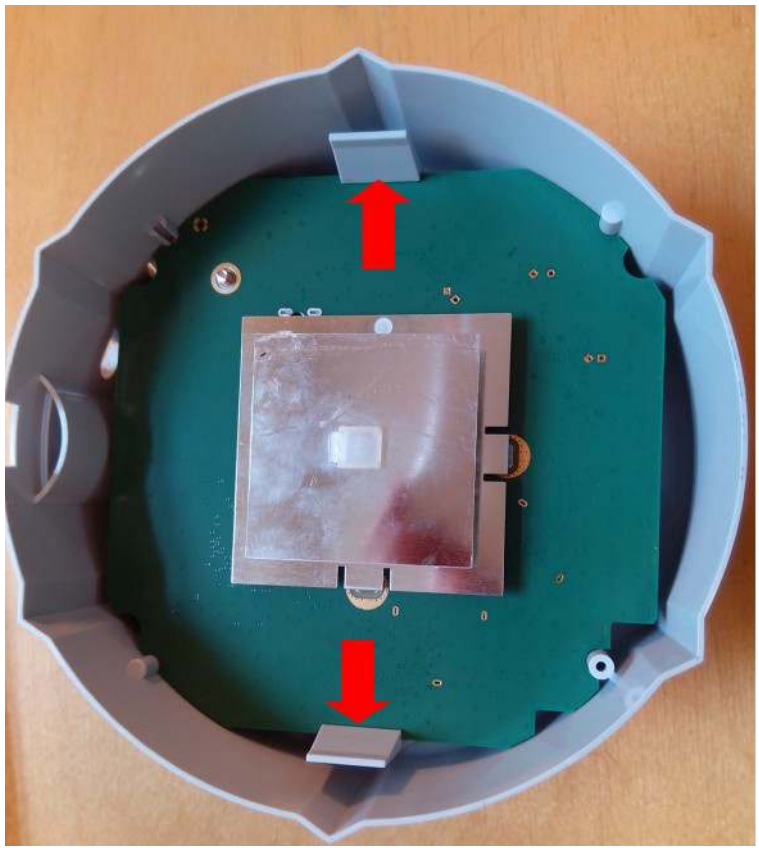
Remove rubber bushing



Picture 296

4. step

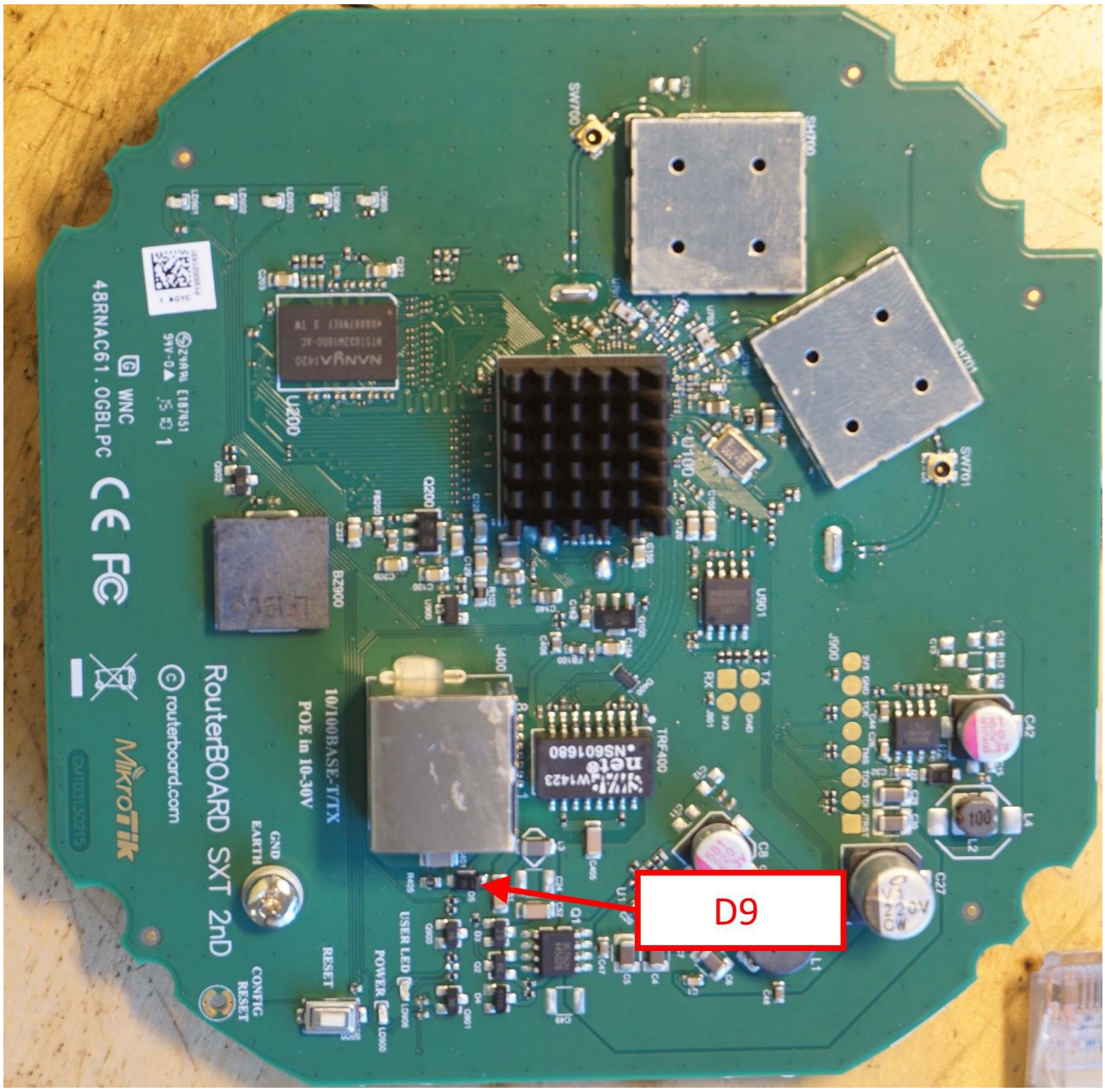
Push back Plastic PCB holders and take out the board.



Picture 297

## Schottky diode measuring with multimeter in diode mode

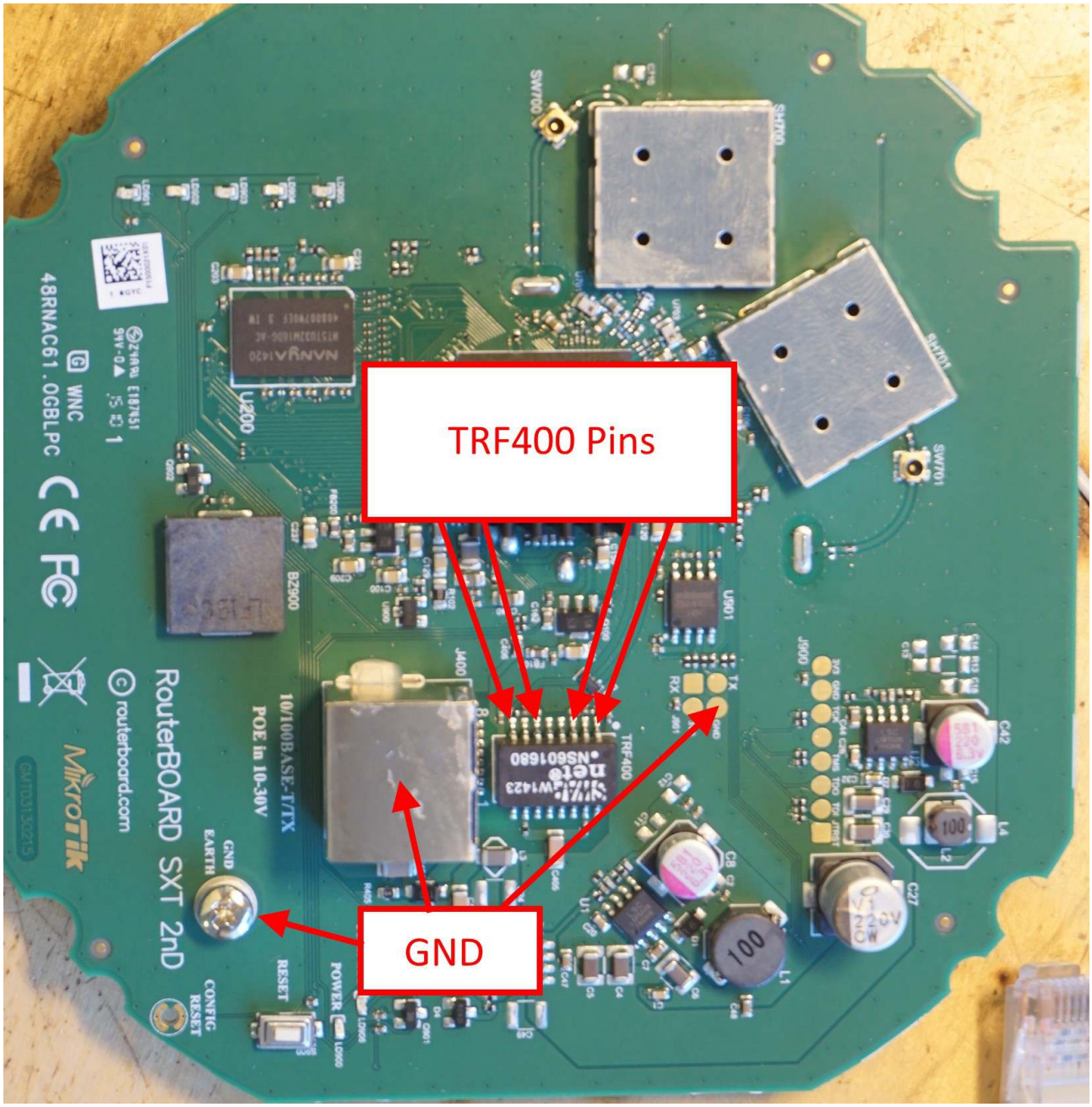
Schottky diode reference numbers are D5 . Schottky diode quality measurement method describe on page 7




Picture 298

## Voltage drop between TRF400 pins and Ground.

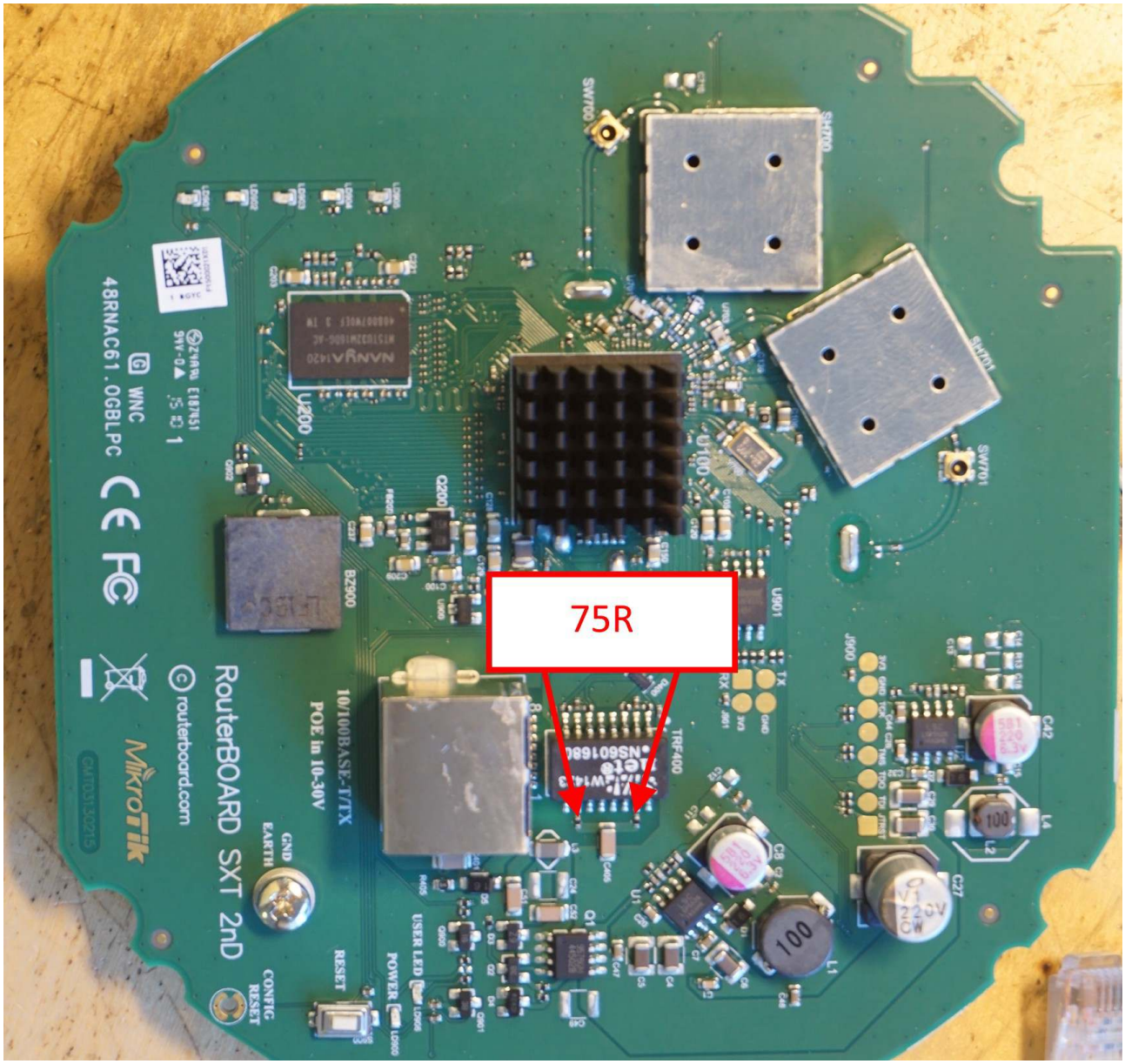
Check voltage drop between TRF400 Ethernet Transformers pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,48V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TRF400 Transformer pins.




Picture 299

## 75R Termination resistors resistance.

Resistor resistance, marked with red arrow, should be 75 Ohm +/- 1%




Picture 300

# SXTLite5 series RouterBoards

## RBSXTLite5 series:

## SXT Lite5

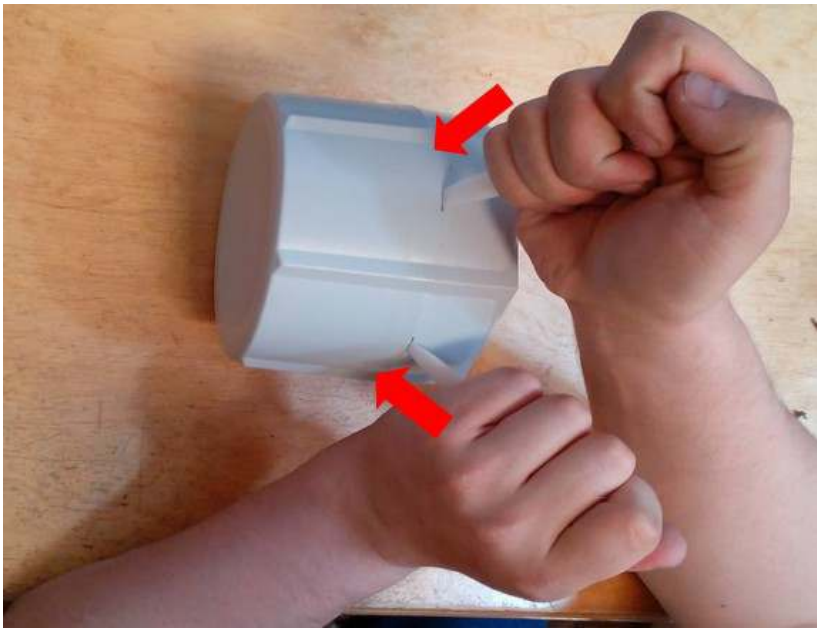
Picture 301

# Disassembling information

## SXT series disassembling

1. step

Use two “-” screwdrivers. Push screwdrivers in case cavities.



Picture 302

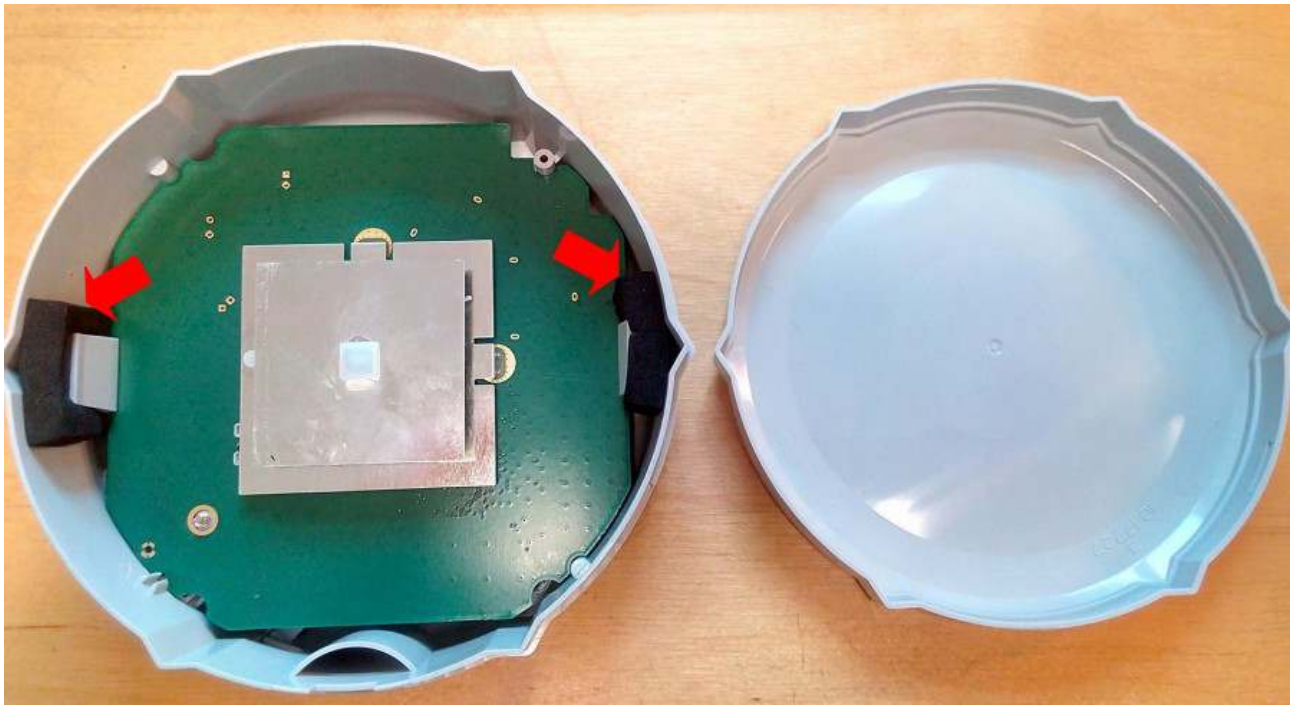
2. step

Rotate screwdriver and pull both case parts.

Picture 303

3. step

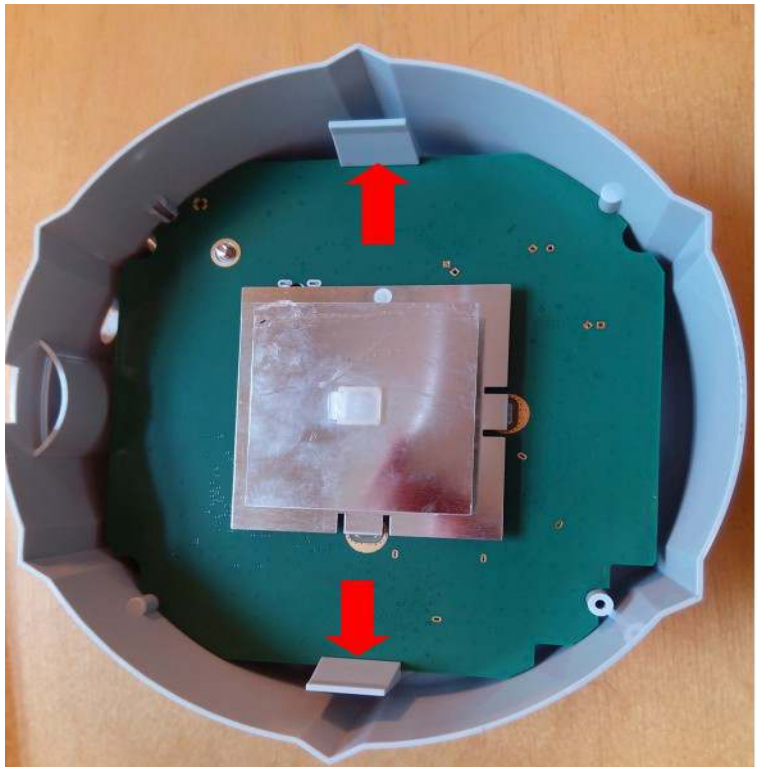
Remove rubber bushing



Picture 304

4. step

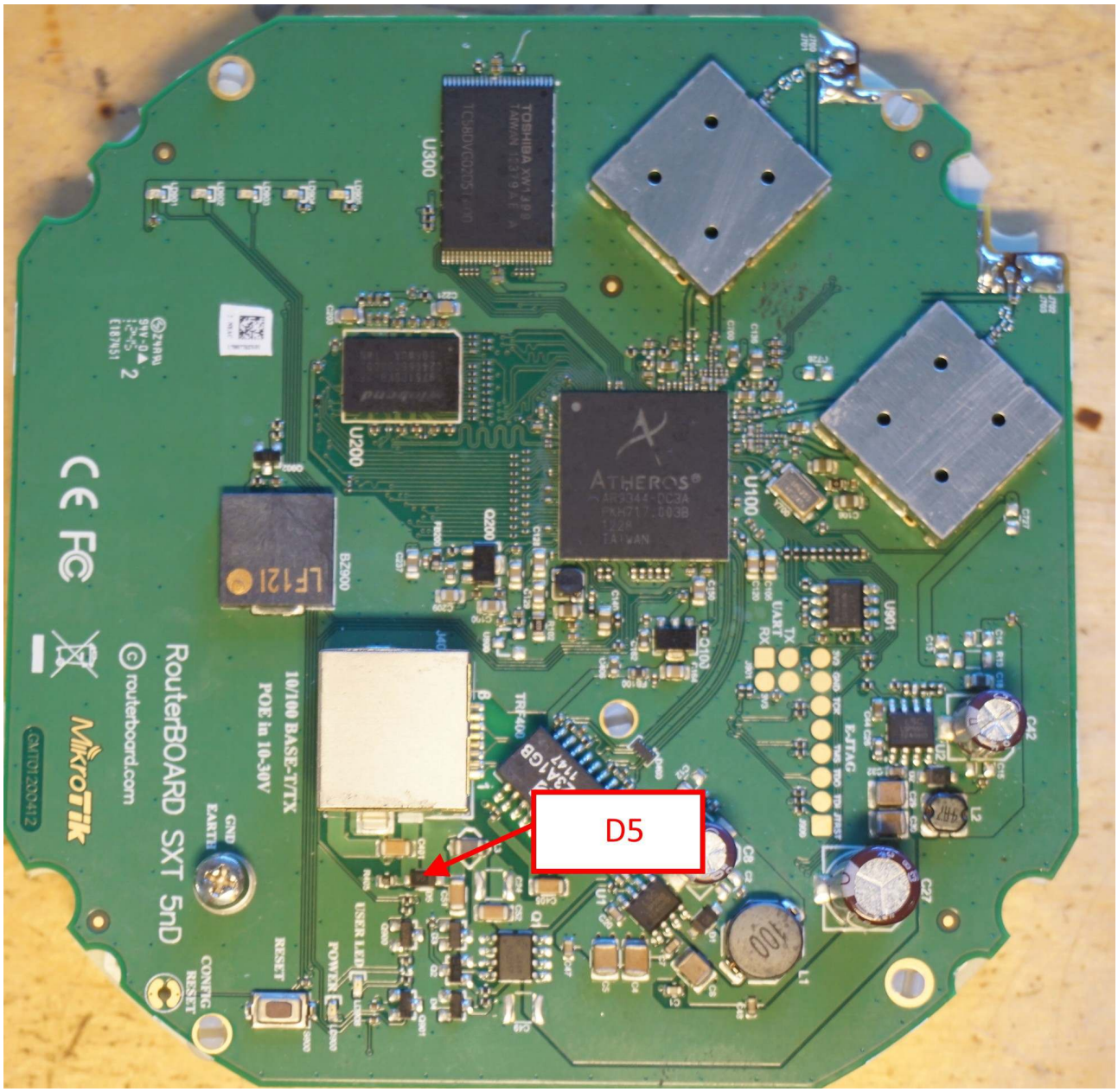
Push back Plastic PCB holders and take out the board.



Picture 305

## Schottky diode measuring with multimeter in diode mode

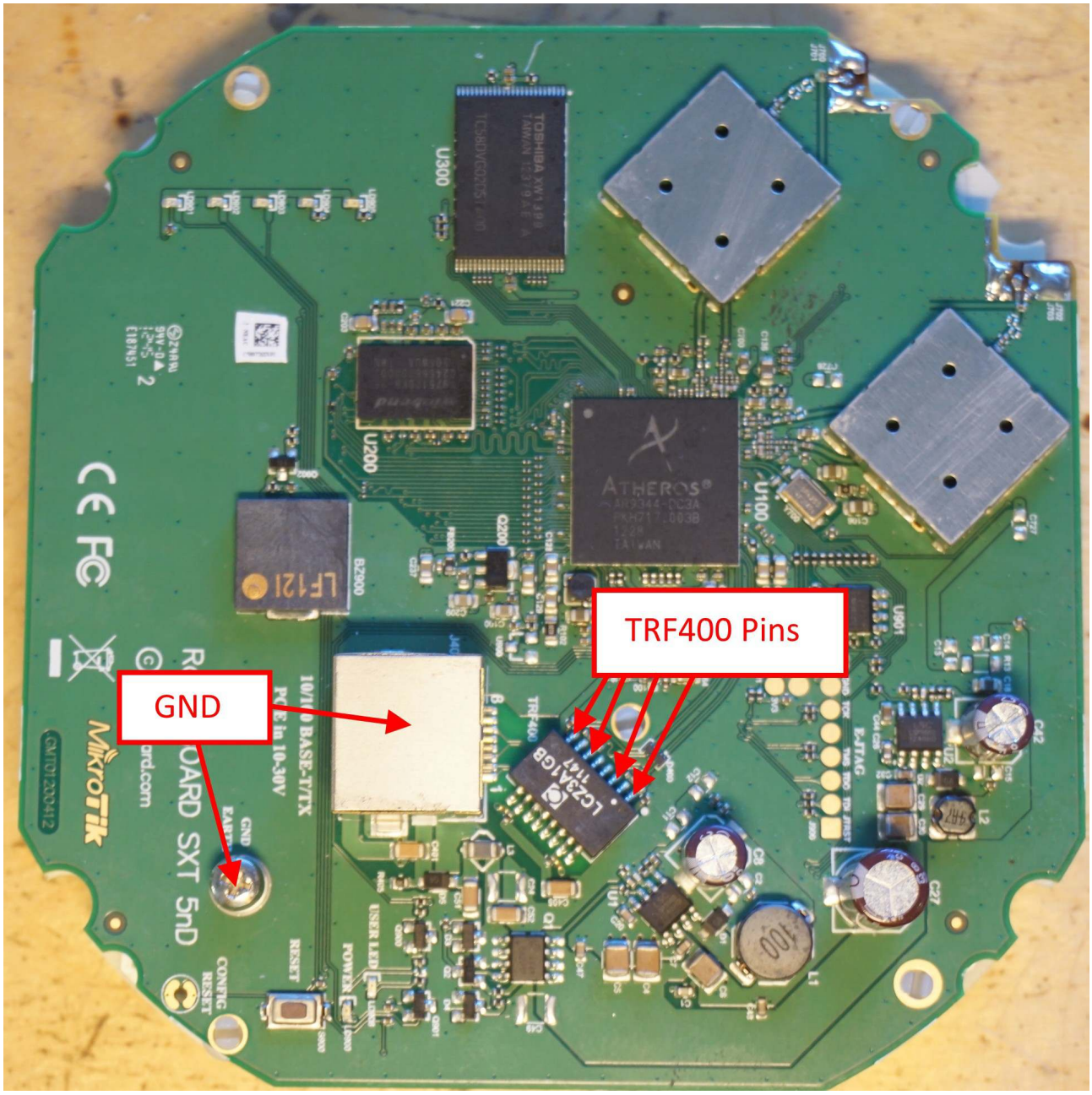
Schottky diode reference numbers are D5 . Schottky diode quality measurement method describe on page 7




Picture 306

## Voltage drop between TRF400 pins and Ground.

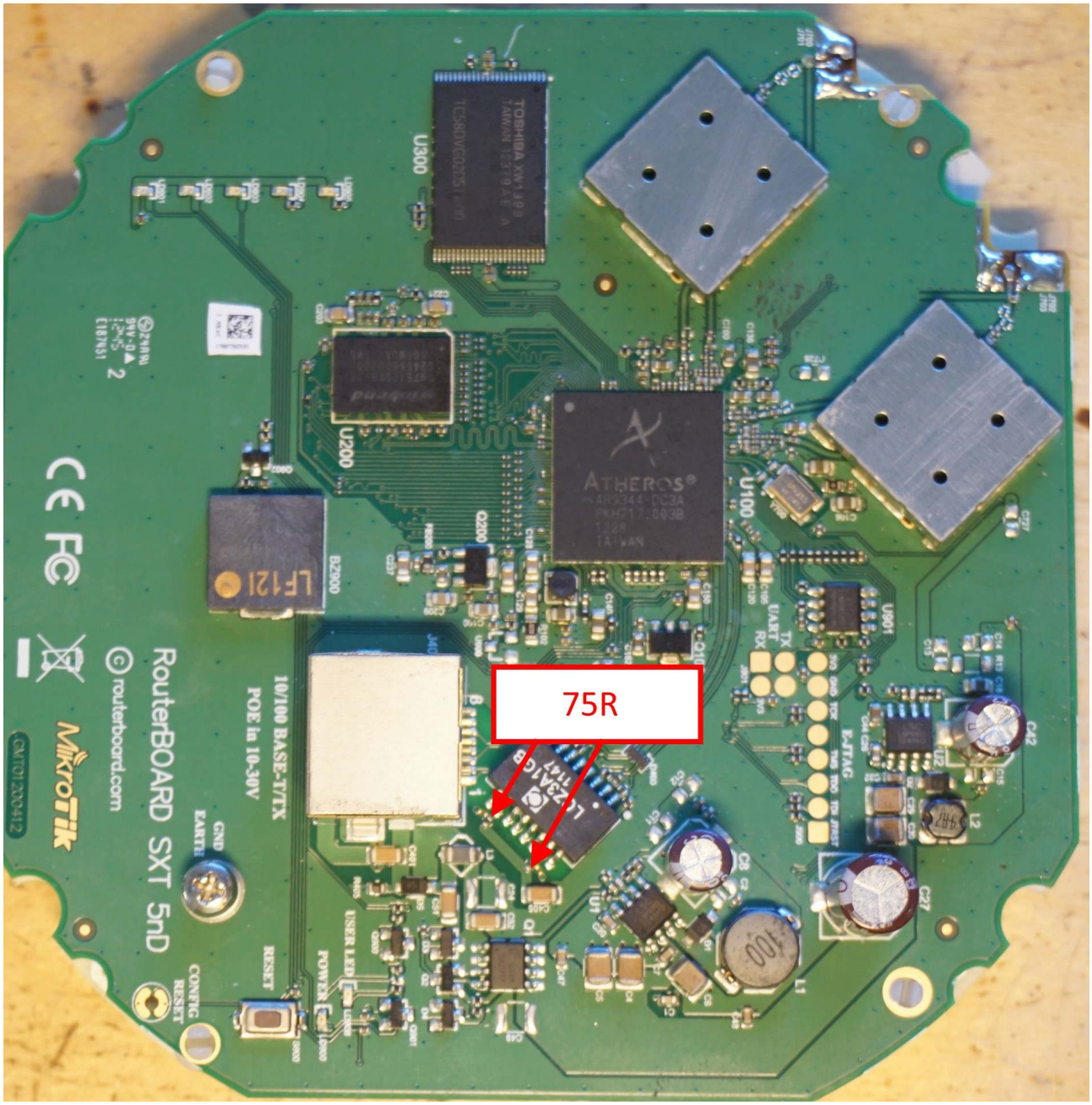
Check voltage drop between TRF400 Ethernet Transformers pins and Ground. TRF400 Pins are marked with red arrows. It should be in the range from 0,32V to 0,48V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TRF400 Transformer pins.




Picture 307

## 75R Termination resistors resistance.

Resistor resistance, marked with red arrow, should be 75 Ohm +/- 1%




Picture 308

# SXT LTE series RouterBoards

## RBSXT LTE series:

## SXT LTE

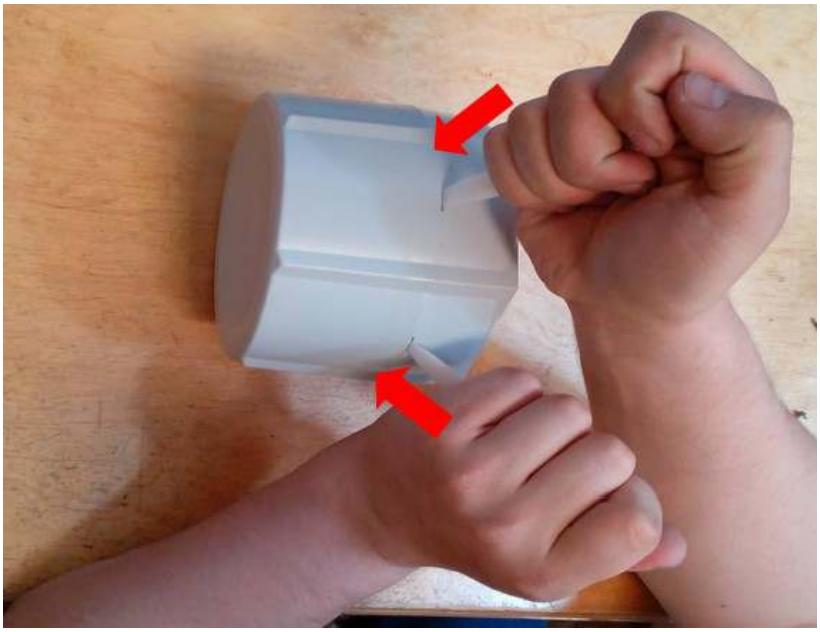
Picture 309

# Disassembling information

## SXT series disassembling

1. step

Use two “-” screwdrivers. Push screwdrivers in case cavities.



Picture 310

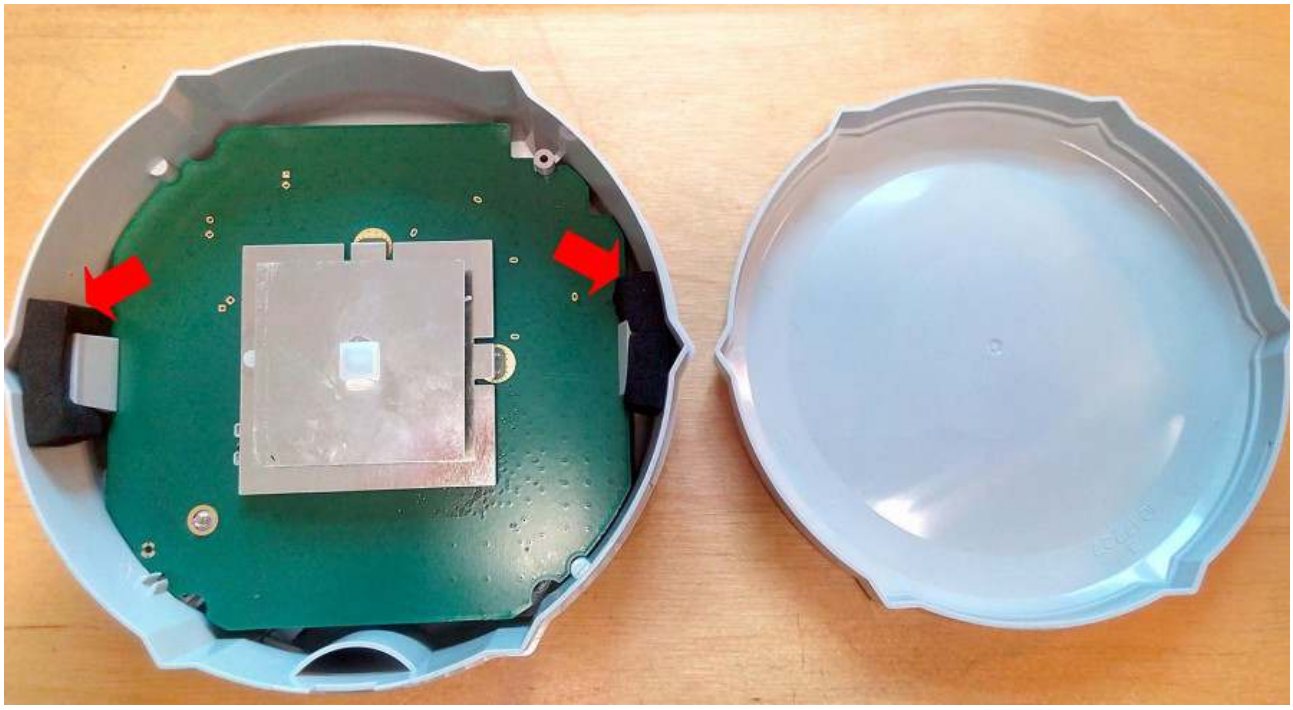
2. step

Rotate screwdriver and pull both case parts.

Picture 311

3. step

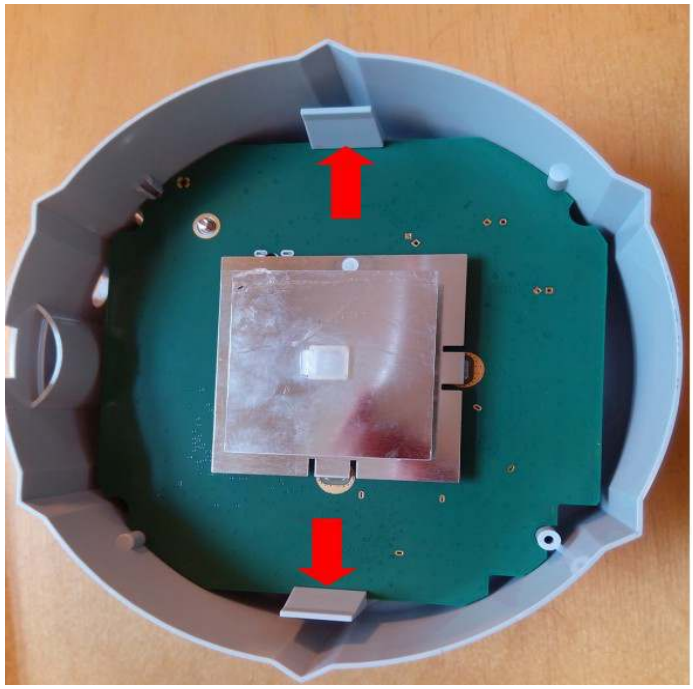
Remove rubber bushing



Picture 312

4. step

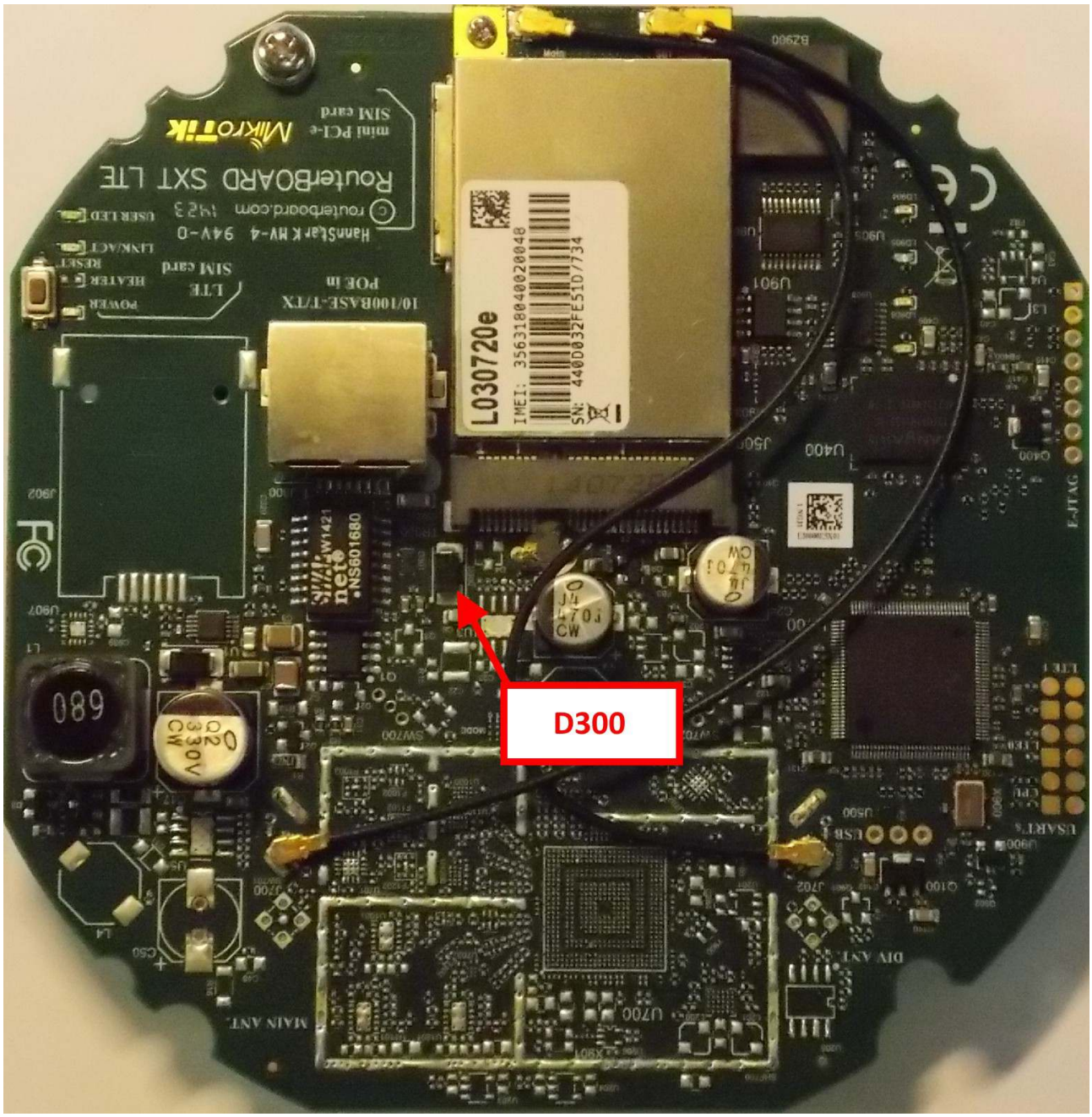
Push back Plastic PCB holders and take out the board.



Picture 313

## Schottky diode measuring with multimeter in diode mode

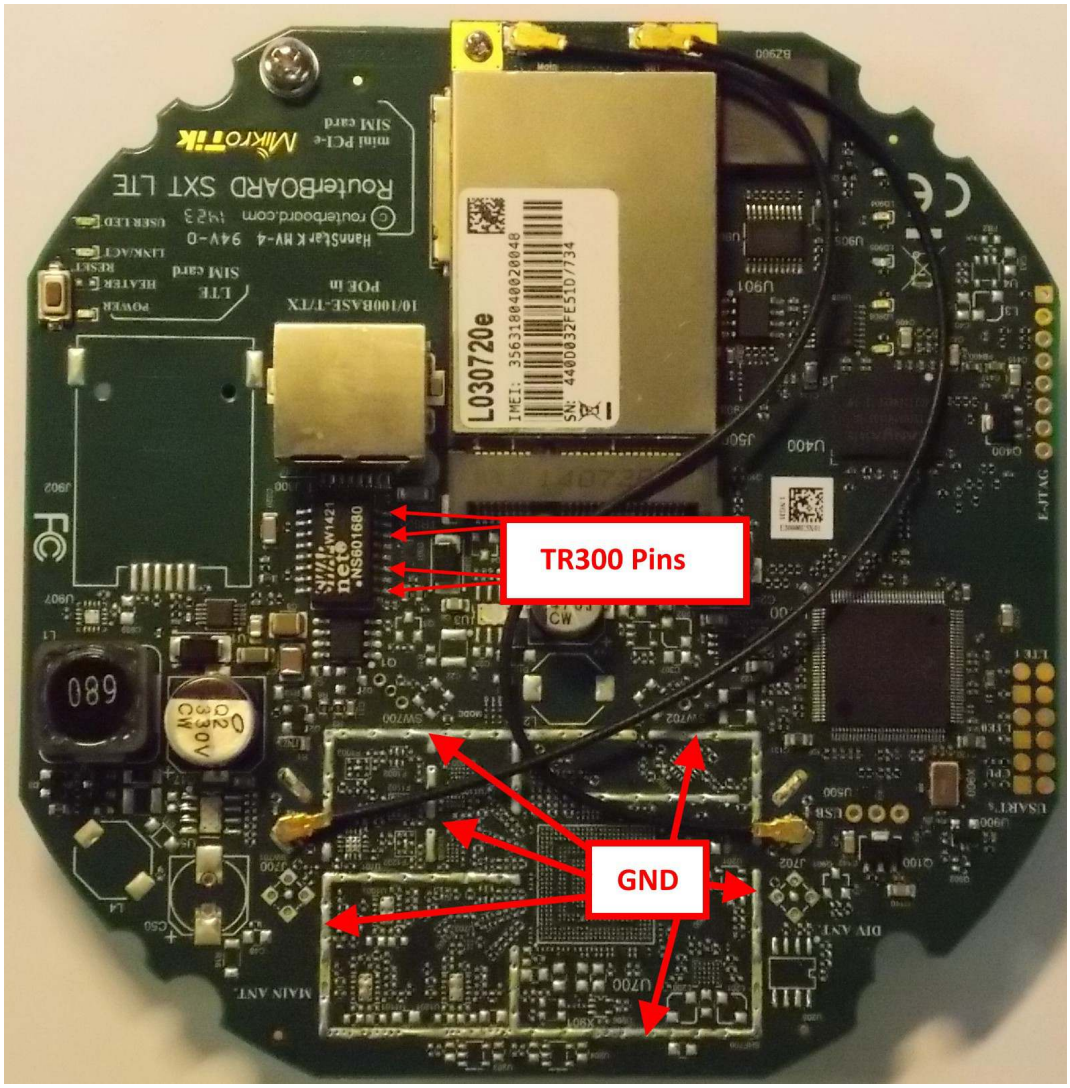
Schottky diode reference number is D300 . Schottky diode quality measurement method describe on page 7




Picture 314

## Voltage drop between TR300 pins and Ground.

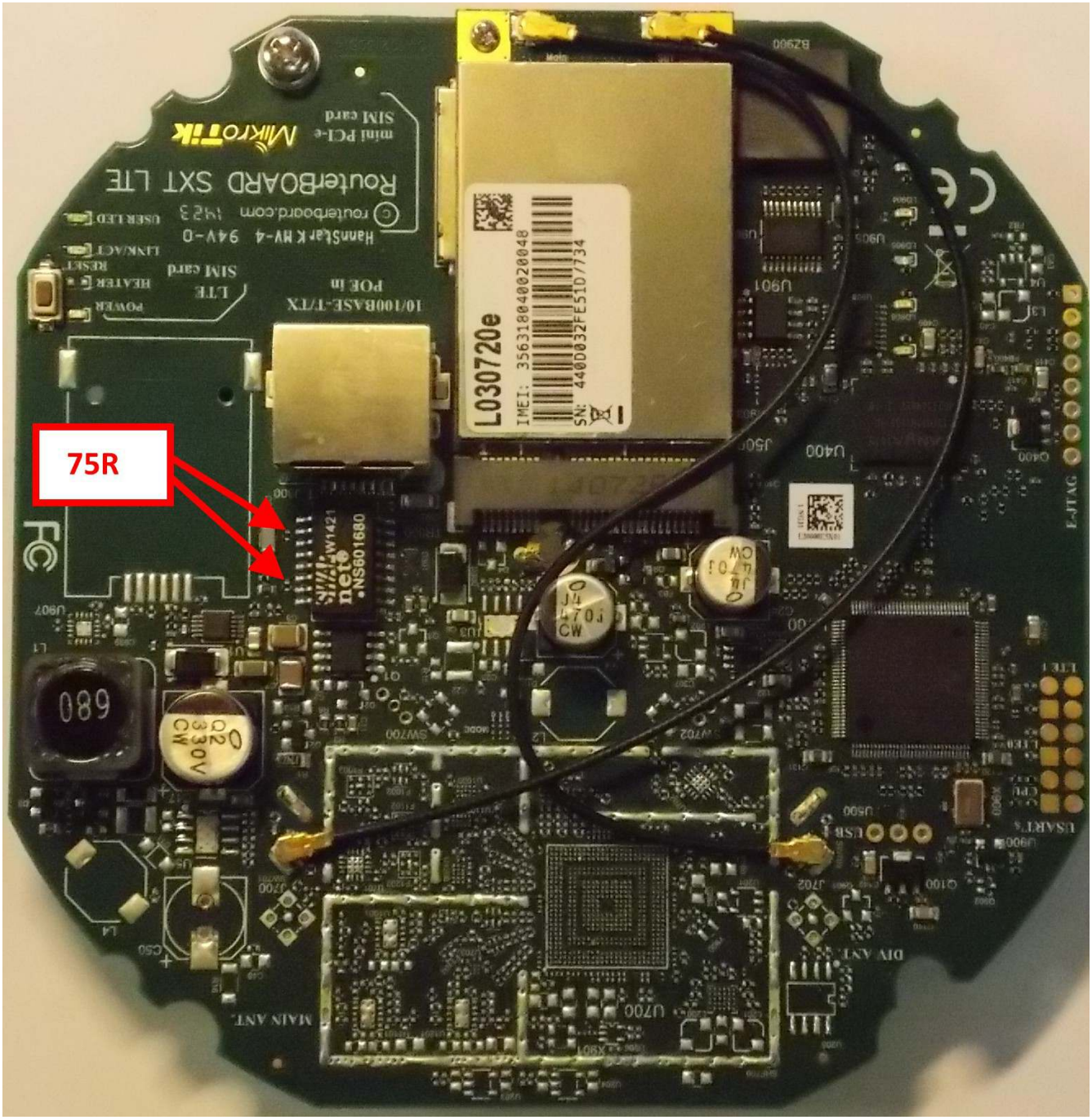
Check voltage drop between TR300 Ethernet Transformers pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,48V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR300Transformer pins.




Picture 315

## 75R Termination resistors resistance.

Resistor resistance, marked with red arrow, should be 75 Ohm +/- 1%




Picture 316

# wAP series RouterBoards

## wAP

Picture 317

## Disassembling information

1. step: use screw driver to loose 1 pcs cover screw, then take off cover.

Picture 318

2. step: use PH2 and TX8 screw driver to loose screws.

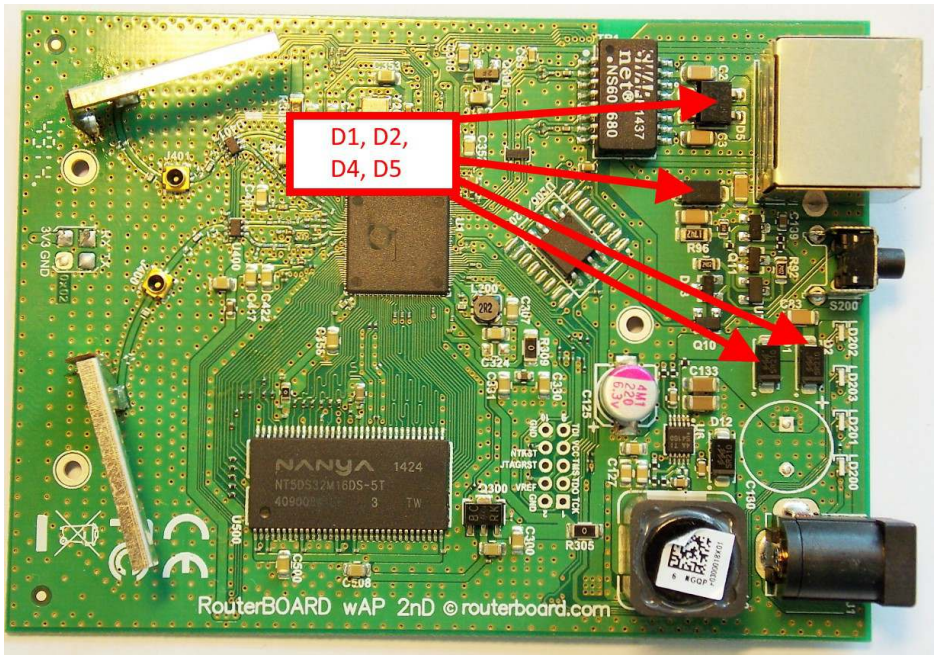
Picture 319

3. Step:  take off cover with board.

Picture 320

## Schottky diode measuring with multimeter in diode mode

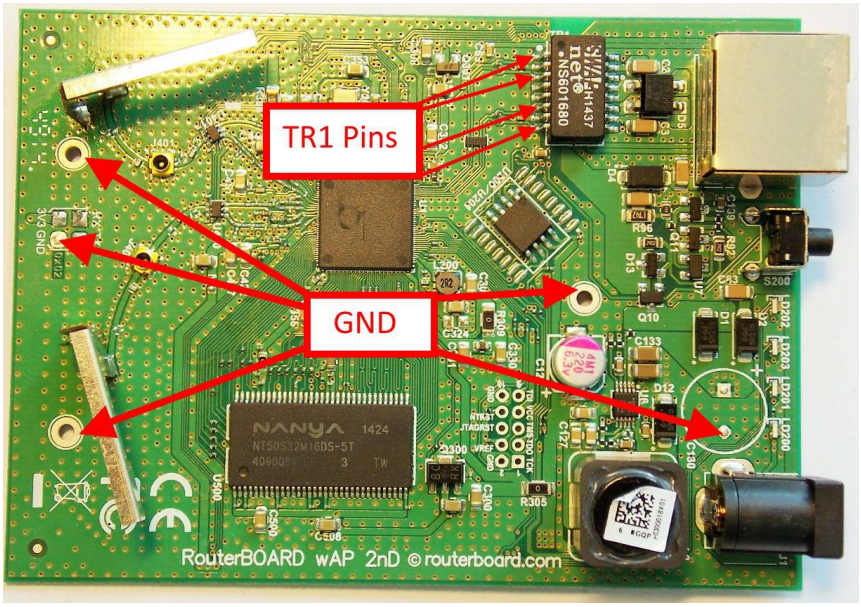
Schottky diode reference numbers are D1, D2, D4; Diode bridges reference numbers is D5. Schottky diode quality measurement method describe on page 7




Picture 321

## Voltage drop between TR1 pins and Ground.

Check voltage drop between TR400 Ethernet Transformers on ports Ether1 pins and Ground. Ether Pins are marked with red arrows. It should be in the range from 0,32V to 0,438V. Measure in diode mode: hold “positive” wire on the Ground and “COM” wire to marked TR1 Transformer pins.




Picture 322