

# **KON-TR-01**

**IQRF range check adapter**

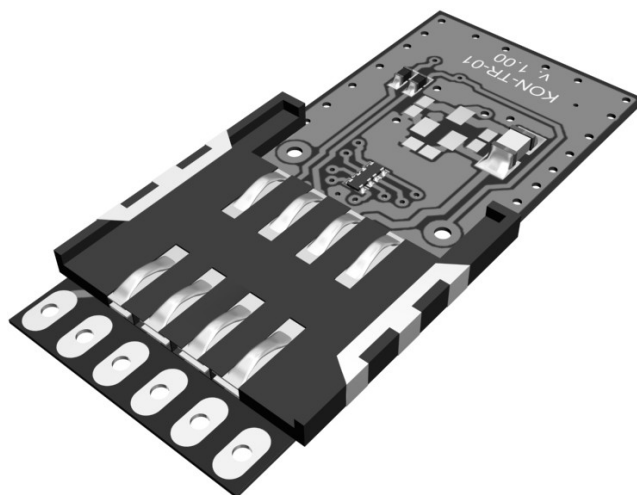
**for DK-EVAL-04**

**User's Guide**



KON-TR-01 is an adapter to check RF range of TR modules in SIM format with built-in LDO voltage regulator using the DK-EVAL-04 development kit.

This kit is redesigned and renamed from the former adapter KON-EXT-01.



- For range check using DK-EVAL-04
- For TR modules compatible with the SIM connector, with built-in LDO voltage regulator (e.g. TR-52B, TR-53B or TR-52D)

- To be plugged in DK-EVAL-04 via SIM connector
- Series protection resistors on I/O pins
- Resettable fuse for power supply

The diagram illustrates the internal wiring of the KON-SIM-01 module. It features two main components: a 'SIM pads' block (XC1) and a 'SIM connector' block (XC2). The 'SIM pads' block has pins C1 through C8. The 'SIM connector' block has pins C1 through C8, with C1 and C2 labeled '2x100' and C5 through C8 labeled '4x100'. A 200 mA fuse (F1) is connected in series with the C1 and C2 lines. The wiring shows that the C1 and C2 lines from the SIM pads are connected to the C1 and C2 pins of the SIM connector, respectively. The C3 and C4 lines from the SIM pads are connected to the C3 and C4 pins of the SIM connector, respectively. The C5 and C6 lines from the SIM pads are connected to the C5 and C6 pins of the SIM connector, respectively. The C7 and C8 lines from the SIM pads are connected to the C7 and C8 pins of the SIM connector, respectively.

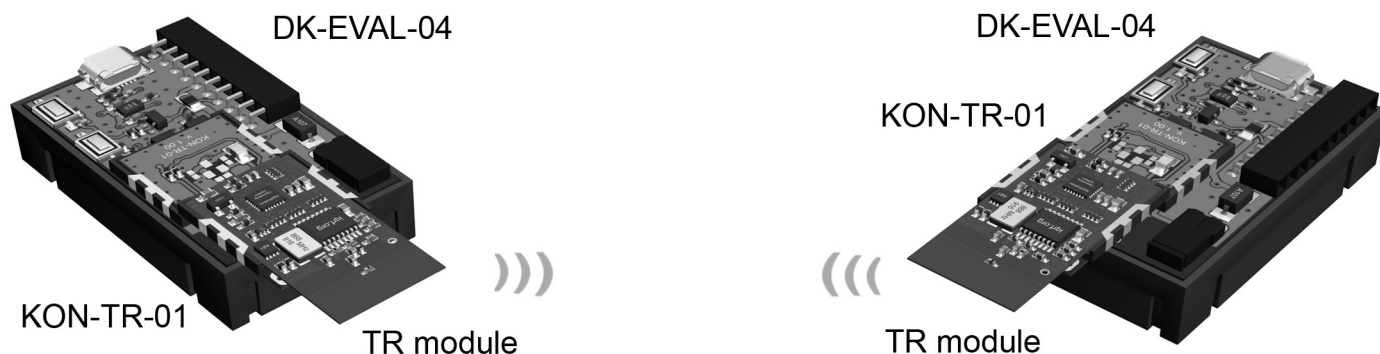
## Hardware

### Connectors

- XC1: PCB edge connector to be plugged in the DK-EVAL-04 SIM socket
- XC2: SIM connector for TR module

## Application

### Typical usage



**Tip:** Use basic example E09-LINK from IQRF Startup package for range check.

**Tip:** Use DK-EVAL-04 with and without adapter KON-TR-01 to observe the difference in range due to PCB layout.

**Caution:** The TR module can be plugged / unplugged into / from the SIM connector while powered off only.

**Caution:** It is not allowed to use this adapter for SMT TR modules like TR-54D to avoid short circuit due to metallic holder of the SIM connector.

**Caution:** It is not allowed to use the above mentioned configuration for TR modules without LDO voltage regulator (e.g. TR-55D).

**Tip:** For TR modules without LDO voltage regulator (e.g. TR-55D) use KON-TR-01L adapter instead to this.

## Product information

### Pack list

- KON-TR-01 IQRF range check adapter

### Recommended options

- DK-EVAL-04 IQRF development kit
- KON-TR-01L Adapter for TR modules without LDO voltage regulator

### Ordering code

- KON-TR-01 IQRF range check adapter

### Document history

- 130114 Redesigned from KON-EXT-01
- 120725 First release (KON-EXT-01)

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# Sales and Service

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## Corporate office

MICRORISC s.r.o., Delnicka 222, 506 01 Jicin, Czech Republic, EU  
Tel: +420 493 538 125, Fax: +420 493 538 126, [www.microrisc.com](http://www.microrisc.com)

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