

KON-TR-01P

In-circuit Upload Adapter

for IQRF TR modules

User's Guide

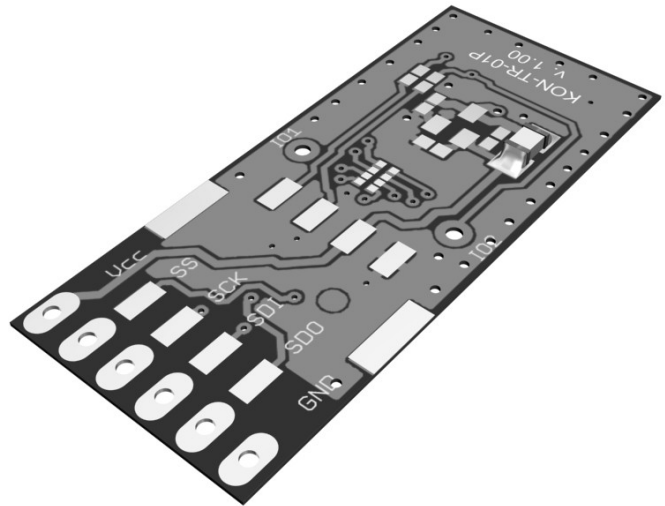


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Description

KON-TR-01P is a programming adapter enabling to upload a user code into IQRF TR modules assembled in user equipment using standard IQRF programmers, e.g. CK-USB-04.

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



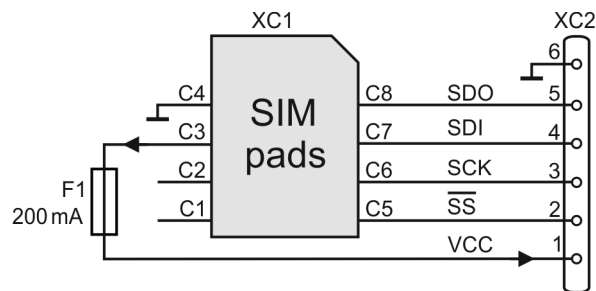
Applications

- In-circuit upload into TR modules
- All TR module types supported

Key features

- Compatible with IQRF programmers, e.g. CK-USB-04
- To be plugged in the programmer via SIM connector
- Upload interface to user equipment

Simplified schematics



Hardware

Fuse

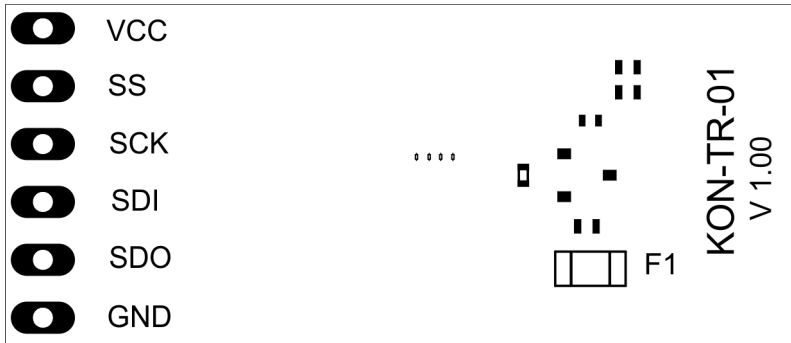
- F1 – Resettable fuse SN020-30 (TME), 200 mA.

Connectors

- XC1: PCB edge connector to be plugged into the SIM socket of a programmer
- XC2: Soldering pad-holes, 6 pins. Compatible with single row connector with square 0.635 mm, 2.54 mm pitch, male.

Pinout

XC2



Top view.

SPI names refer to the Slave (TR module).

Pin connection for individual TR modules:

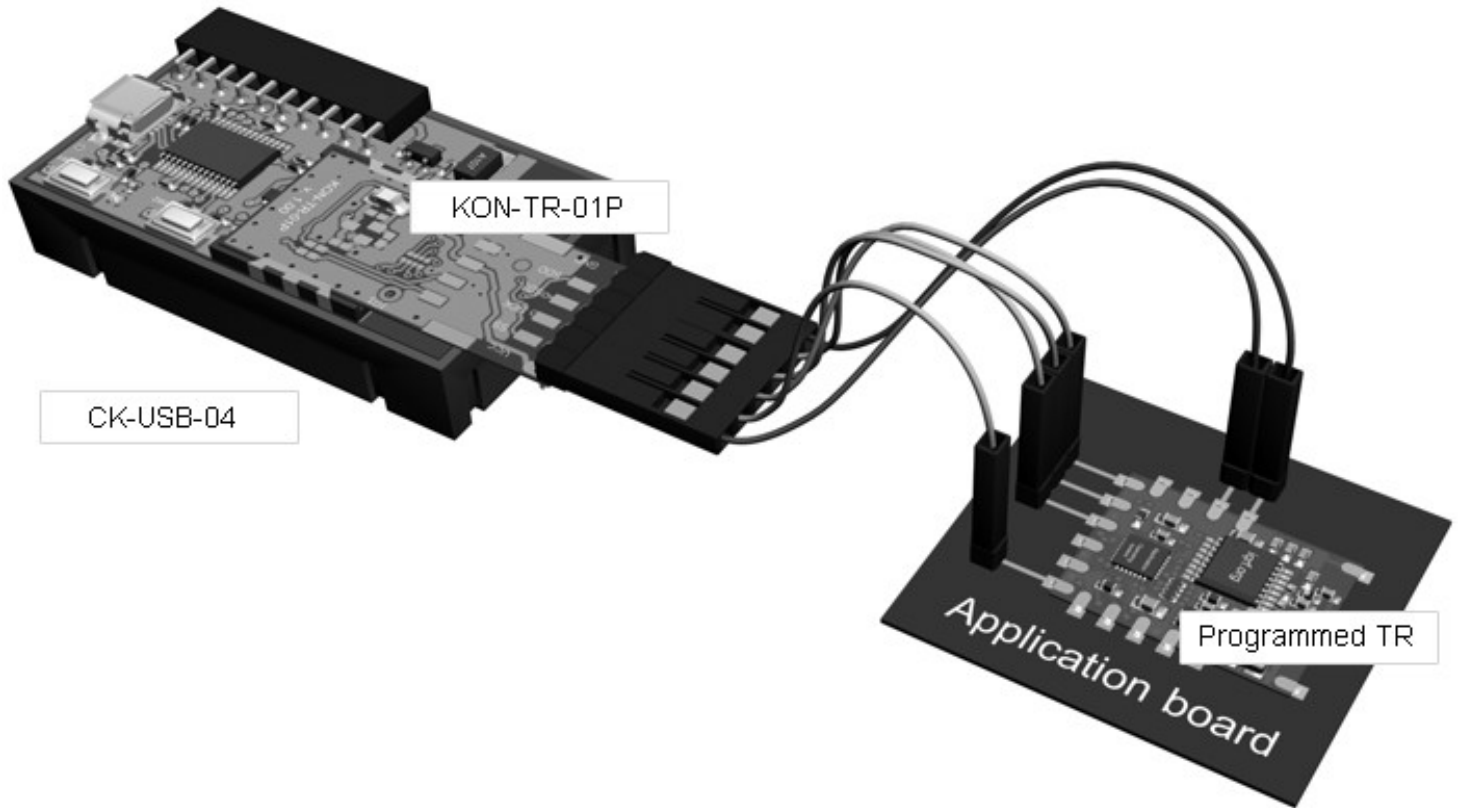
KON-TR-01P	C5	C6	C7	C8
	-SS	SCK	SDI	SDO
TR-52D	C5	C6	C7	C8
TR-54D	Q11	Q6	Q7	Q8
TR-55D	Q3	Q6	Q5	Q4
TR-56D	Q9	Q6	Q7	Q8

Cable

No interconnection cable between the adapter (via connector XC2) and user application is provided. The user should create a connection according to specific application. **Max. 10 cm cable length is allowed.**

Application

To upload a user application to a TR module soldered in user equipment, programming pins and ground must be interconnected between the programmer and the TR.

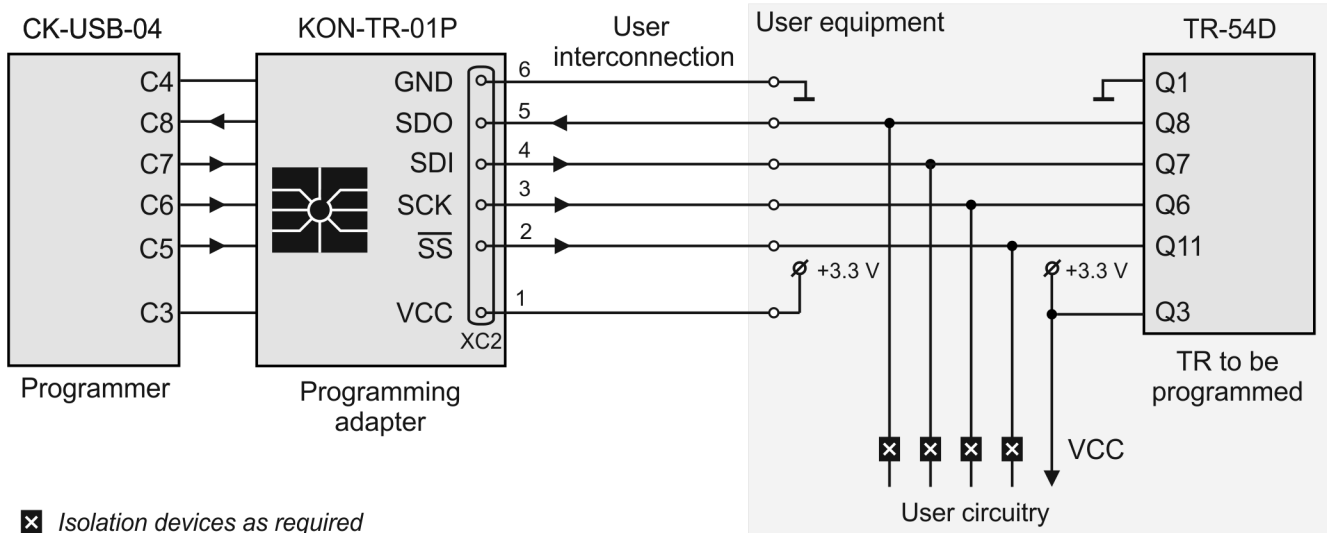


SPI lines must be isolated from other circuitry to avoid influencing on levels by the user equipment. Isolation devices are highly dependent on the specific application and may include devices such as resistors, diodes, or even jumpers. High impedance output can also be considered as a suitable isolation.

There are two ways of connection regarding power supply. The following diagrams show examples for TR-54D. For other TR types refer to the table *Pin compatibility*.

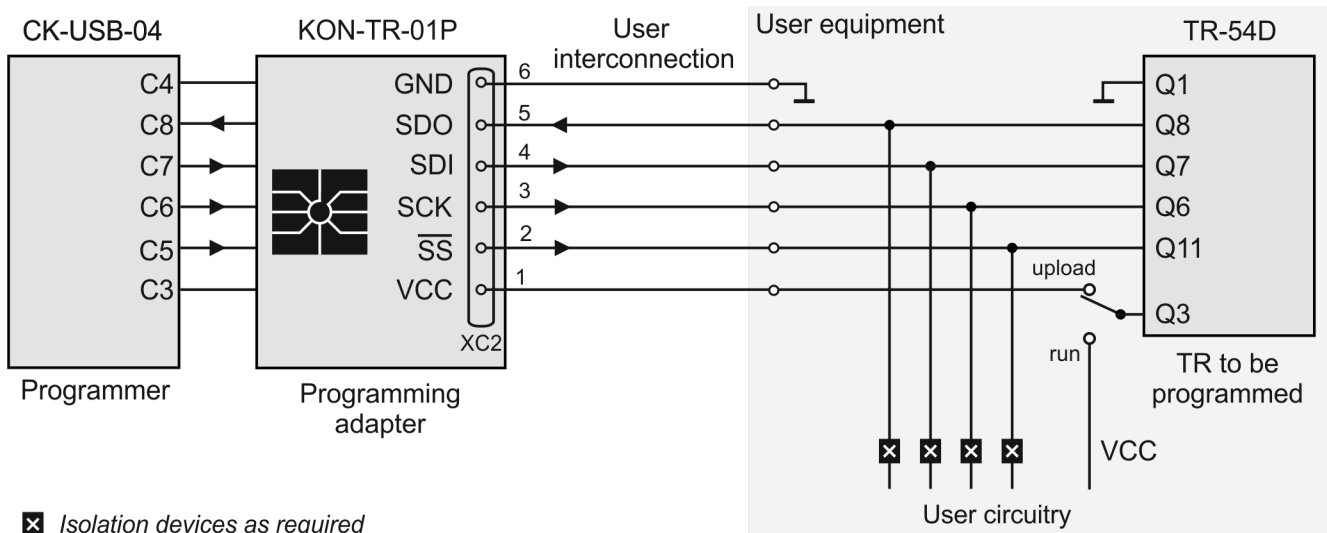
1. Application supplied from the programmer during upload

User applications with **3.3 V** supply voltage, consuming **100 mA max.** can be supplied from the programmer. Target equipment must have its own power source turned off during upload.



2. Application supplied from its own power source during upload

For user equipment consuming more than 100 mA just the TR module must be supplied from the programmer. Thus, independent power source supplying the rest of the equipment must be separated during upload.



Product information

Pack list

- KON-TR-01P IQRF in-circuit upload adapter, without a cable

Recommended options

- CK-USB-04 IQRF programmer

Ordering code

- KON-TR-01P IQRF in-circuit upload adapter

Document history

- 130114 Product redesigned from KON-PGM-01 to KON-TR-01P. Extended for TR-56D.
- 120925 Table *Pin compatibility* added.
- 120703 First release (KON-PGM-01)

Sales and Service

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Partners and distribution

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Quality management

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ETSI EN 300220-1:00, ETSI EN 300390-2V.1.1.1:00*

Complies with FCC directives FCC CFR, Title 47, Part 15, Section 15.209, FCC CFR, Title 47, Part 15, Section 15.249

Complies with Directive 2002/95/EC (RoHS)



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