

TRDB-54DA

SIM Emulation TR Module

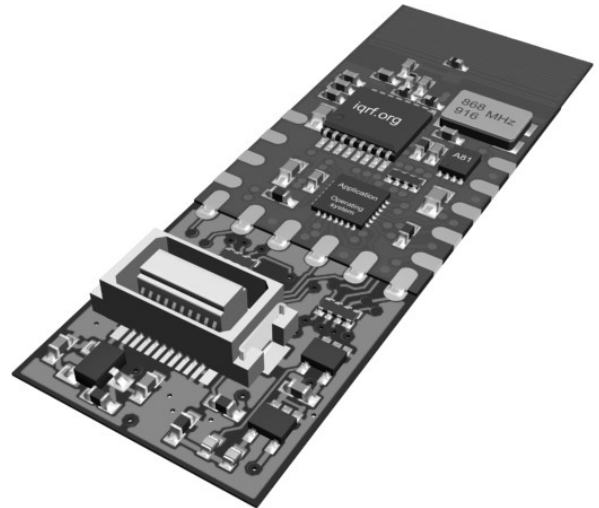
for TR-54D

User's Guide



Description

TRDB-54DA is a development adapter enabling to use the TR-54DA module with SIM connector.



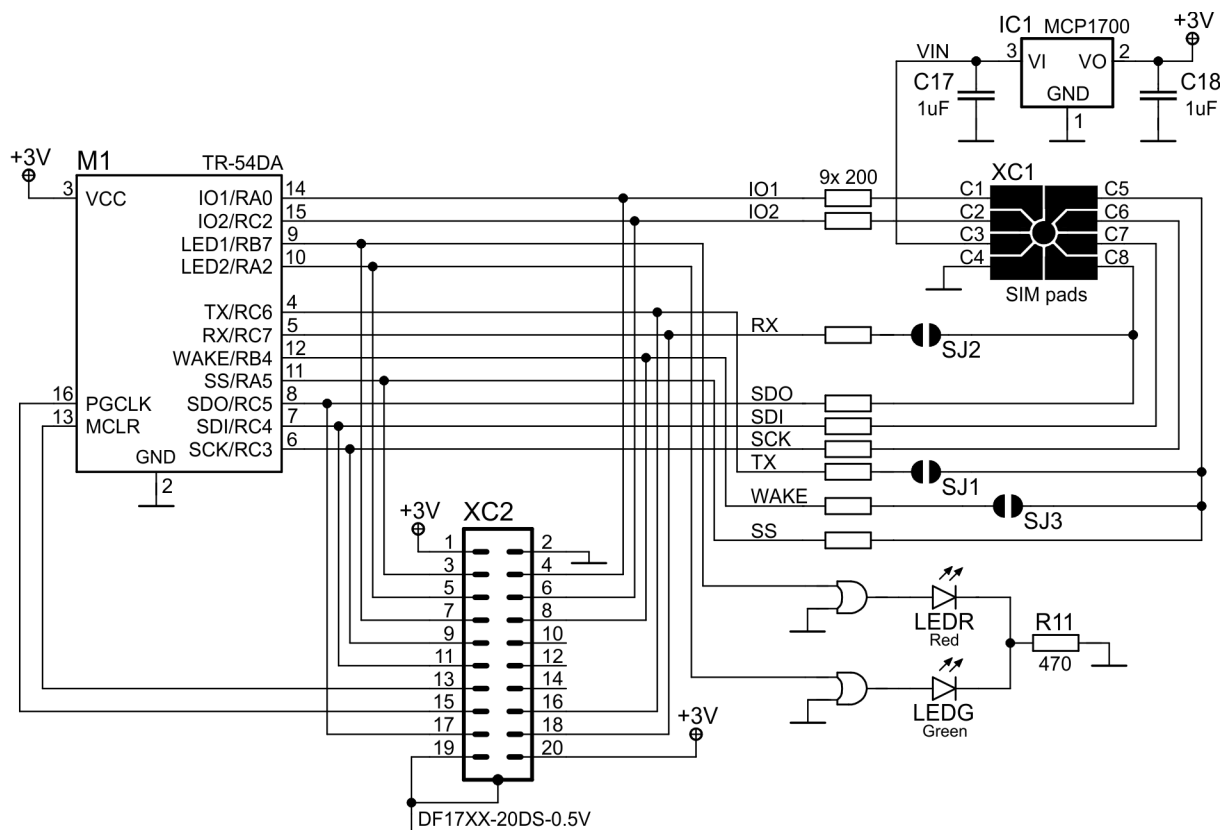
Applications

- For solderless development and debugging of SMT TR-54D(A) applications with an advantage of removable TR module in SIM format.

Key features

- To be plugged in target application via SIM connector
- All individual pins accessible via board-to-board connector
- 2 LEDs
- Power supply 3.1 V to 5.3 V via SIM connector
- Stabilized 3 V, 100 mA supply voltage for target application
- Compatible with TR-52DA
- Protection resistors on all TR pins

Simplified schematics



Electrical specifications

(typical values unless otherwise stated, for brief guidance only)

Supply voltage (V_{IN})	3.1 V to 5.3 V
Output supply voltage	+3 V \pm 60 mV, 100 mA max. to target application

For other parameters refer to the TR-54D and TR-52D datasheets.

Hardware

Power supply

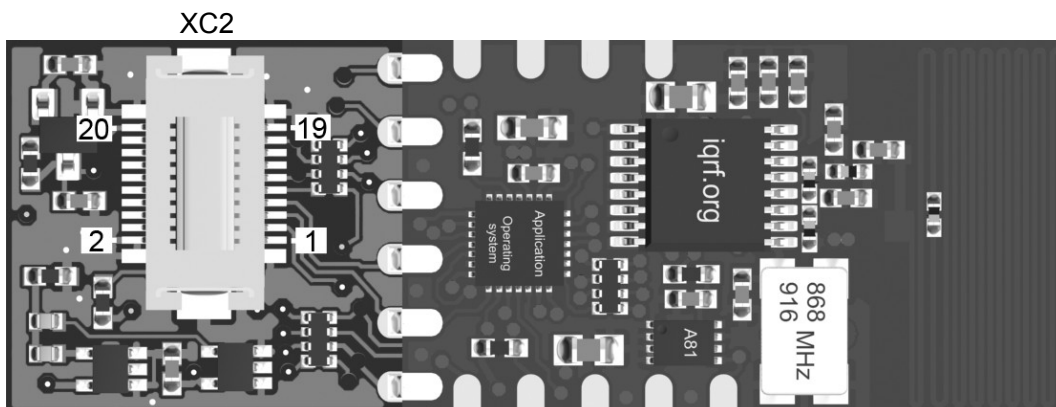
TRDB-54DA is supplied from target application via SIM connector. Input voltage is converted by the LDO regulator (IC1) to 3 V to supply the TR module. Output voltage 3 V can also be used to supply user application circuitry up to 100 mA via connector XC2.

TR module

- TR-54DA transceiver module (M1) with on-board antenna, soldered.

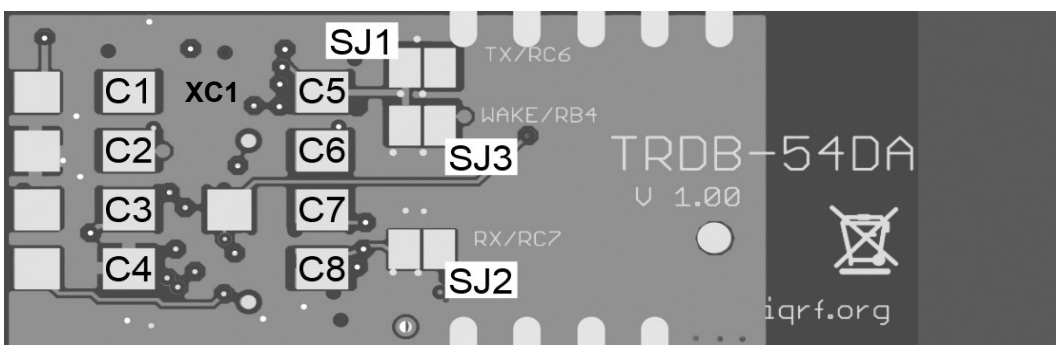
Connectors

- XC1: PCB edge connector with pads C1 to C8 to be plugged into the SIM socket on target board.
- XC2: Board-to-board 20-pin Hirose connector DF17(3.0)-20DS-0.5V(57) for possible connection of TR non-SIM pins to target board. Mating connector: Hirose DF17(2.0)-20DP-0.5V(57).



Configuration of TR pins

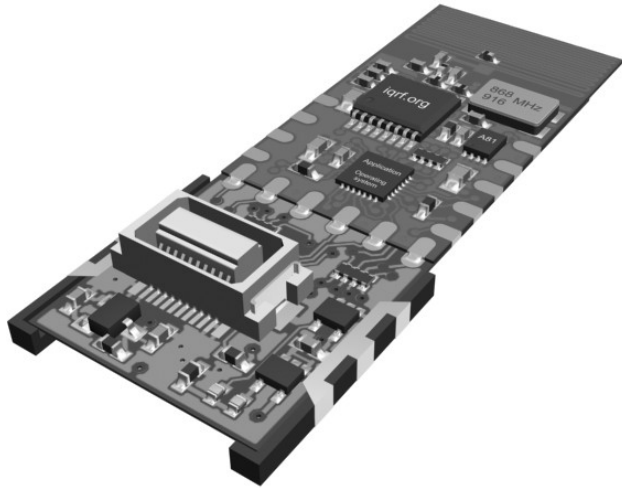
- Every TR I/O pin is protected by series resistor 200 Ω (similarly as for TR-52D).
- TR pins C5 and C8 can be connected TR-52D-like by soldering interconnection pads SJ1, SJ2 and SJ3. Refer to the schematic above and TR-52D datasheet.



Application

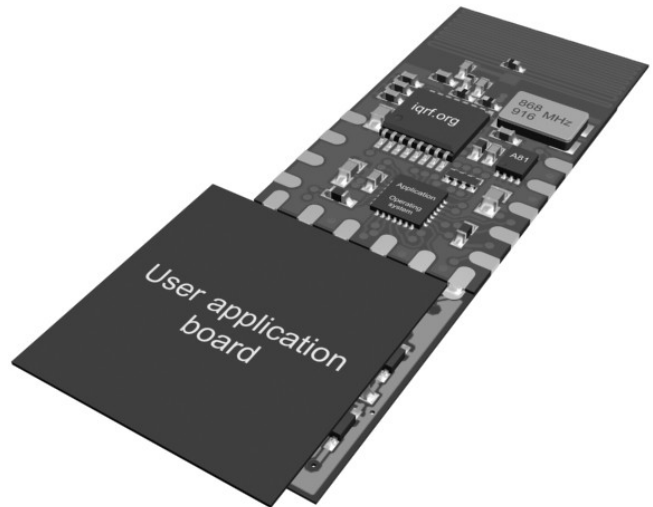
Connected via SIM connector

For upload by IQRF programmer (e.g. CK-USB-04)
or operation with IQRF kits (e.g. DK-EVAL-04).



Connected via board-to-board connector

For operation with user application.



Product information

Pack list

- TRDB-54DA IQRF programming adapter for TR-54D

Ordering code

- TRDB-54DA IQRF programming adapter

Recommended option

- DF17(2.0)-20DP-0.5V(57) Mating connector (Hirose)

Document history

- 120725 First release

Sales and Service

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

Partners and distribution

Please visit www.iqrf.org/partners

Quality management

ISO 9001 : 2009 certified

*Complies with ETSI directives EN 30279 V.1.2.1:99, ETS 30683:97, ETSI EN 301489-1:00,
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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