TRDB-54DA

SIM Emulation TR Module

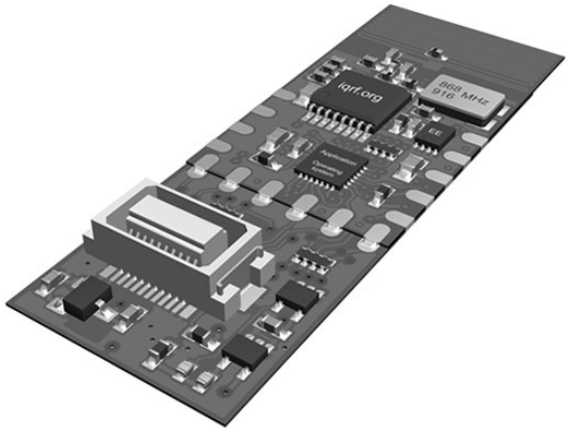
for TR-54D

User's Guide

Smarter wireless. Simply.

Description

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



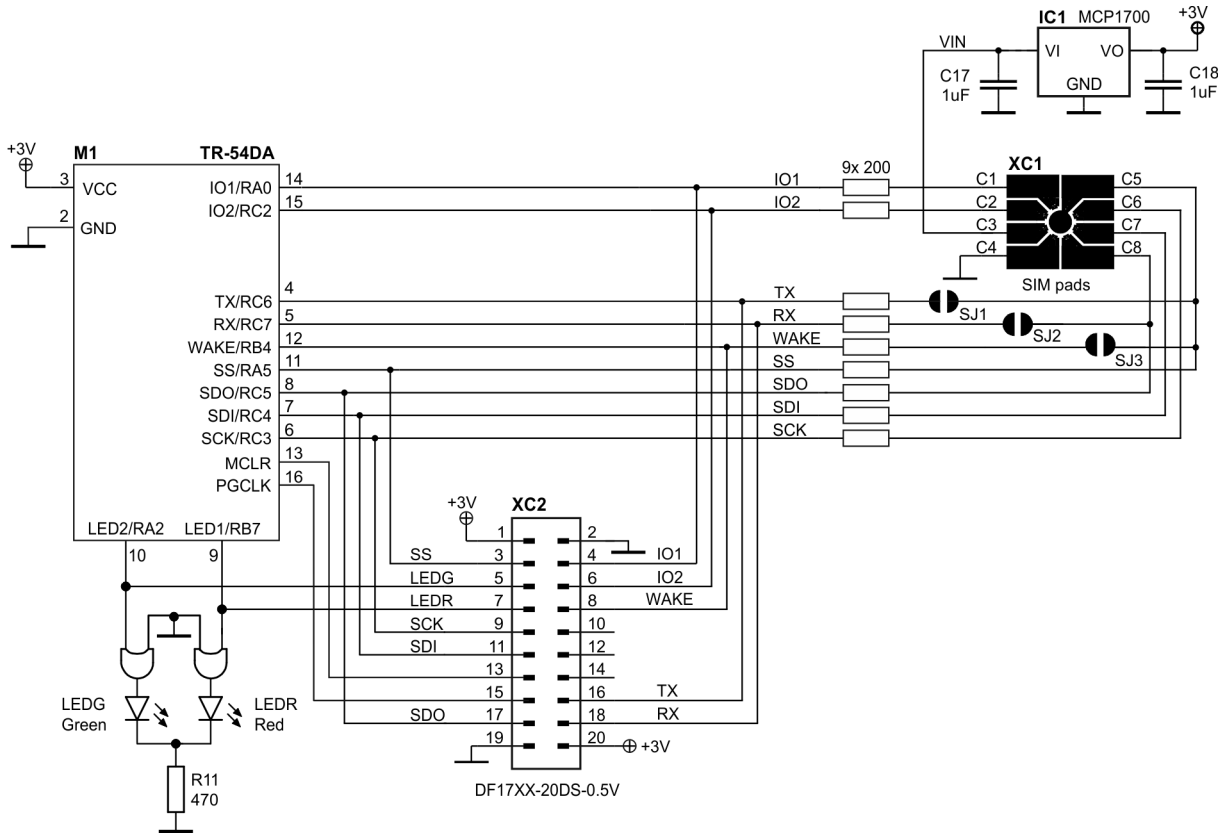
Applications

- 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
- Configurable pins 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 ± 60 mV, 100 mA max. to target application

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

Hardware

Power supply

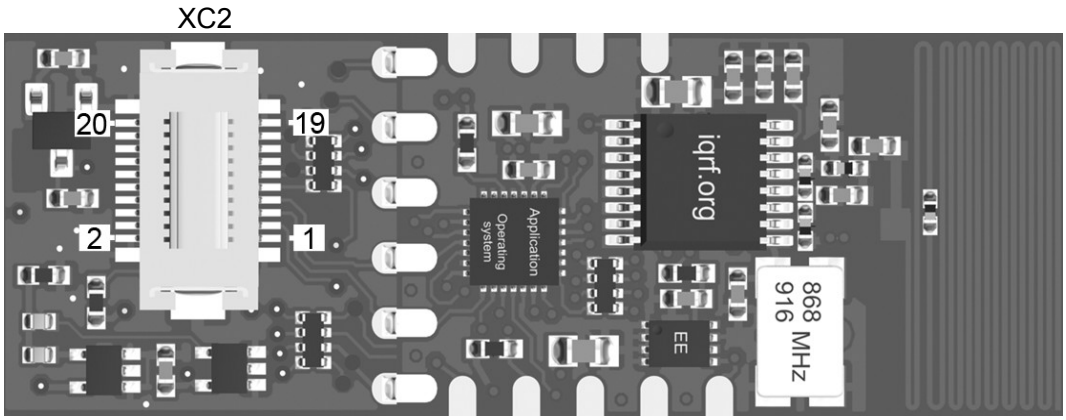
TRDB-54DA is supplied from target application via SIM connector. Input voltage is converted by the LDO regulator (IC1) to 3 V to supply the TR module. Output voltage 3 V can also be used to supply user application circuitry up to 100 mA via connector XC2.

TR module

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

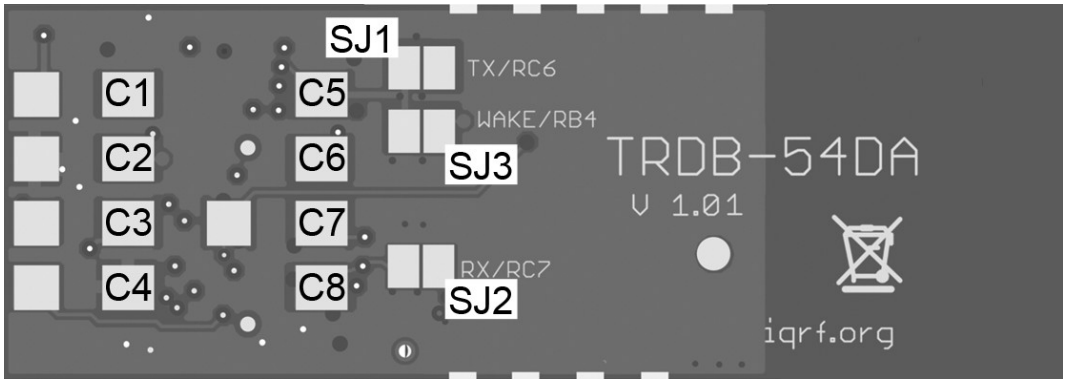
Connectors

- 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.

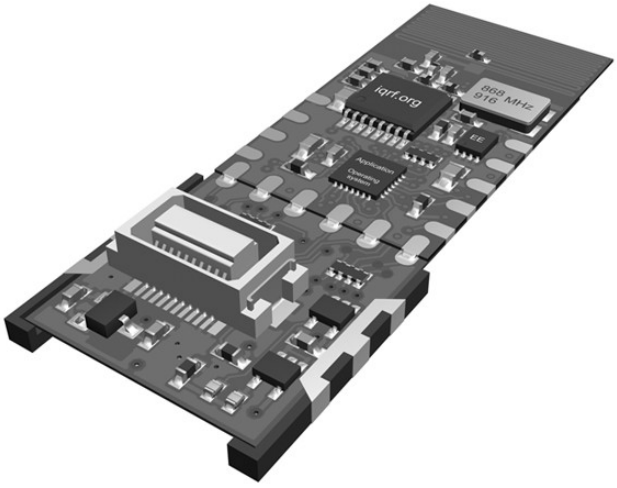


XC1

Application

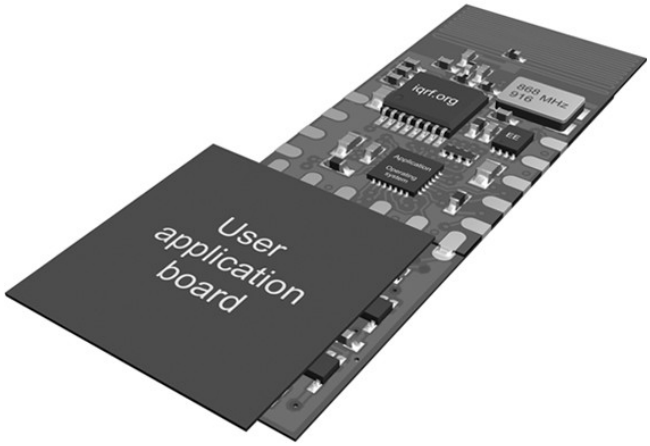
Connected via SIM connector

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



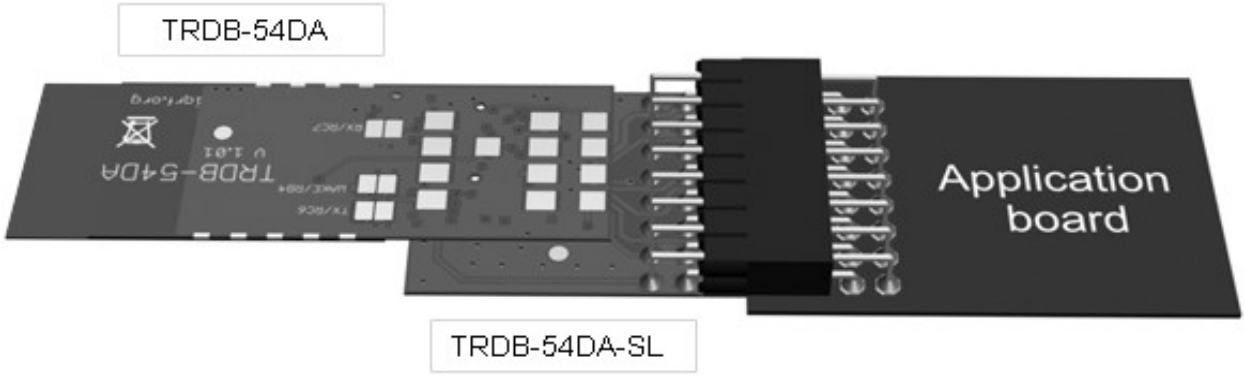
Connected via board-to-board connector

For operation with user application.



Connected via the TRDB-54DA-SL kit

For wired connection to user application. See the TRDB-54DA-SL User's guide.



Product information

Pack list

- TRDB-54DA — SIM emulation TR module
- TRDB-54DA-SL — Adapter for wired connection of TRDB-54DA to user application

Ordering code

- TRDB-54DA — SIM emulation TR module

Recommended option

- DF17(2.0)-20DP-0.5V — Mating connector (Hirose) for user application

Document history

- 130307 — First release

Sales and Service

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