IQRFBB10 Data Sheet

1. Description

IQRFBB10 is development board for prototyping of end devices (nodes) of IQRF network. Board includes socket for IQRF transciever module plugin and enables connection of any sensors, acttuators via DI, DIO, or I2C interfaces. Software operation of sensors and data transfer is performed in MCU of IQRF radio transciever module.

2. Specification

Power supply	
- Accumulator	LIP552240, 400 mAh, nominal voltage 3.7 V
- Via micro USB connector (with charging)	4.4 V to 6.0 V DC
- External power supply	5-12 V
- External accumulator	pres X6, nominal voltage 3.7 V
Supply current	
- ???	
Temperature operating	
- Accumulator not charged	-20°C to +60°C
- Accumulator charged	0 °C to +45 °C
Storage Temperature	-20°C to +20°C (1 year), +10°C to +25°C recommended
Supported TR modules	TR-76DA and similar
Dimensions	60 mm x 85 mm x 23 mm
Weight	30g

3. Simple scheme

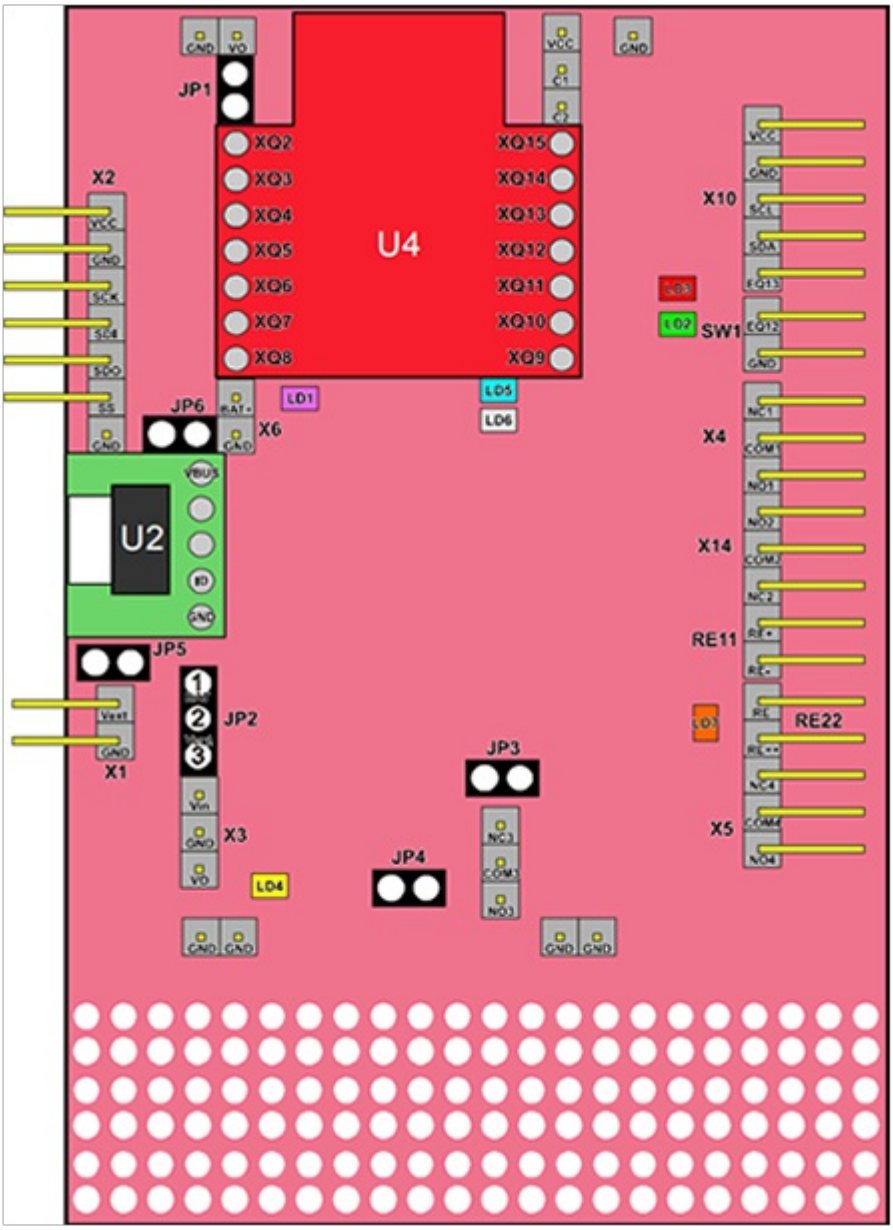

Fig1. Simple schema of IQRF BB-10 board

4. Features

Name	Type	Description
U4		IQRF TR module socket
Bat1	LIR2032	Chargeable battery
USB	uUSD_to_DIP	PCB adapter
Bist-rel	ME-6C-L1-03-1a1b	Bi-stable relay 3V
RE-STD	IM-HICPD	Standard releay

5. PINs specification

Pin	Name	Description
VCC		Power supply voltage
GND		Ground
SCL		I2C clock
SDA		I2C data
EQ13	TA	General input only pin
EQ12	SW1	
GND	SW1	Ground
NC1		Bi-stable relay TH
COM1		Bi-stable relay TH
NO1		Bi-stable relay TH
NO2		
COM2		Bi-stable relay SMD
NC2		Bi-stable relay SMD
RE+		Output for power supply of Bi-stable relay (+/- 3V)
RE-		Output for power supply of Bi-stable relay (+/- 3V)
RE		Output for power supply of Bi-stable relay
RE+++		Output for power supply of Bi-stable relay
NC4		Standard relay
COM4		Standard relay
NO4		Standard relay
MB1	C1	
MB2	C2	
MB3	VO	
MB4		

MB5	VCC	
MB6		
MB7		
MB8		
X13		Contact of Standard relay (paket_2)
PGM 1	VCC	
PGM 2	GND	
PGM 3	SCK	
PGM 4	SDI	
PGM 5	SDO	
PGM 6	SS	

IQRF module PIN mapping

PIN	IQRF PIN	
XQ2	GND	
XQ3	VCC	
XQ4	Q4	
XQ5	Q5	
XQ6	Q6	
XQ7	Q7	
XQ8	Q8	
XQ9	Q9	
XQ10	Q10	
XQ11	Q11	
XQ12	Q12	
XQ13	Q13	
XQ14	Q14	

XQ15	Q15	

6. Jumpers

Jumper	Description	Description
JP1	VCC_SW	Enable connection of local source 3V. Note: connect local source after un-plug of programmer!
JP2		Power cupply choise 1-2: LiPol/USB adapter 5V (board works withouth battery) 2-3: external power supply 5-16V z X1
JP3		
JP4	VCC_SW	Connects indication of powwer supplyLD4-Y (3V)
JP5		Host_mode at Android devices if possible
JP6	VCC_SW	Connects battery to power supply
X6		Connects external Lipol battery

7. Diods

Diod	Name	Description
LD1	LED-P	
LD2	LED-G	
LD3	LED-R	
LD4	LED-Y	Indication of power supply (3V)
LD5	LED-B	
LD6	LED-W	
LD7	LED-O	

8. Operation conditions

TODO

9. Programmer connection

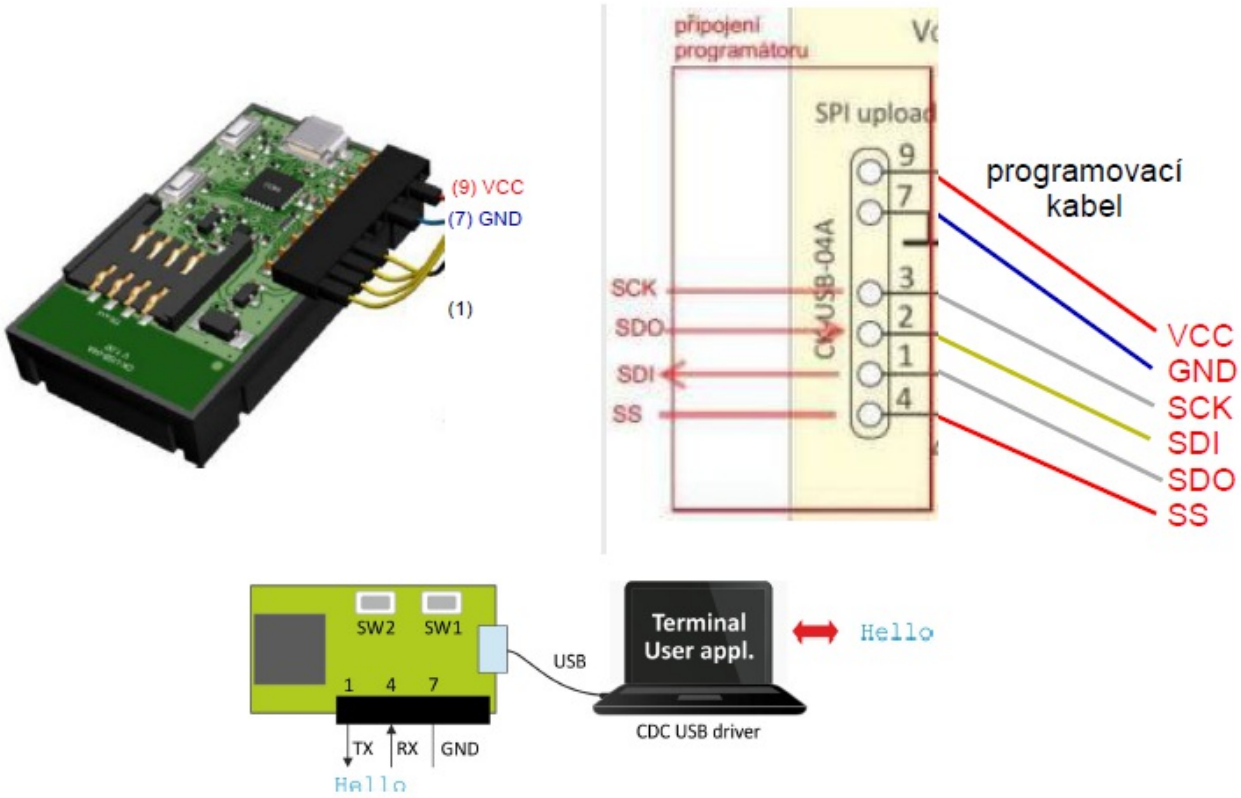

Fig2. programmer connection with IQRF BB-10 board

- Connect with **CK-USB-04A** programmer.
- No TR module in programmer.

10. Detail scheme

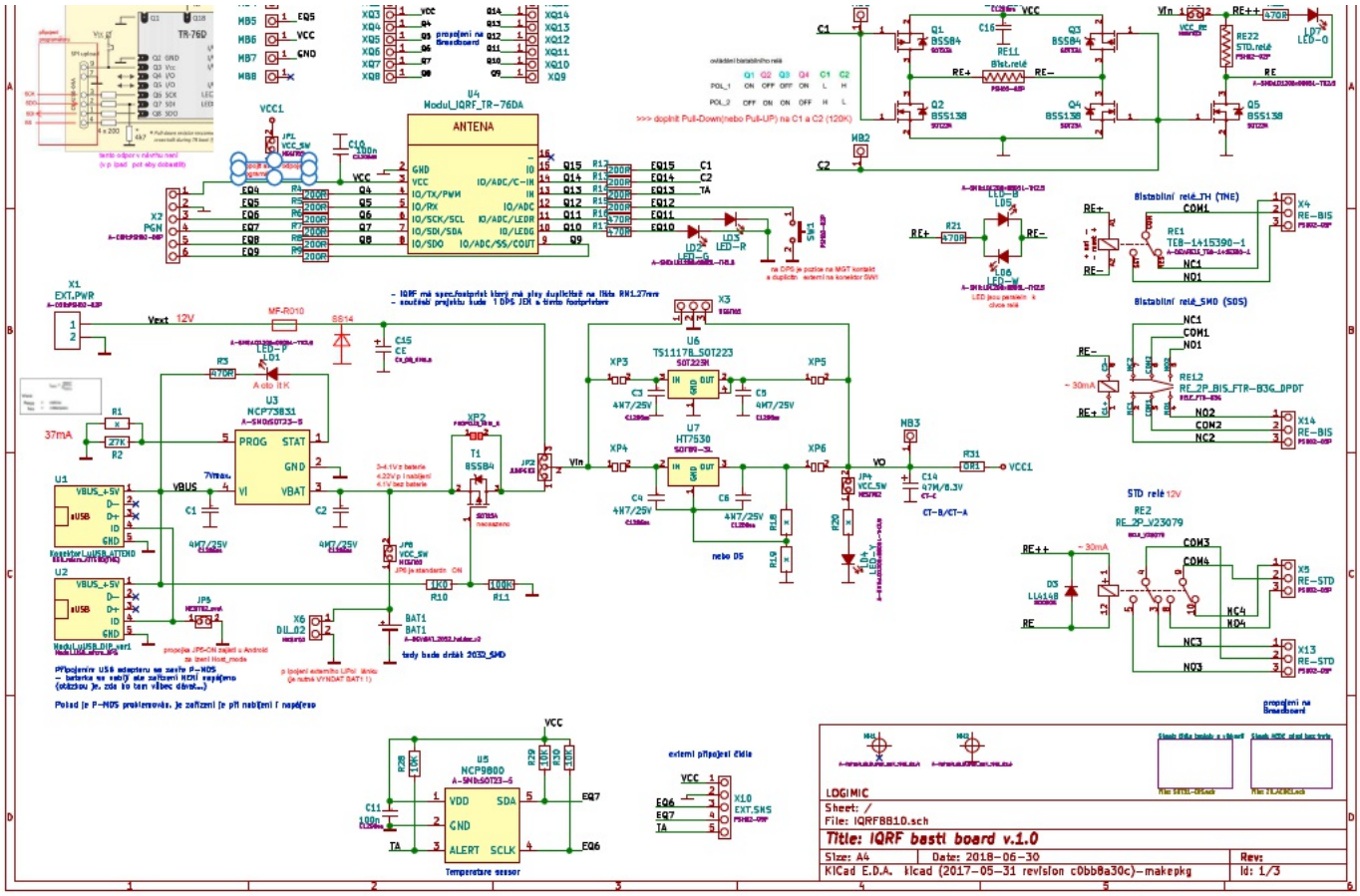

Fig3. Detail scheme of IQRF BB-10 board

11. Contacts

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