GPRS - 3G - GPS - GNSS - RF - ETHERNET

BoB

Break Out Board

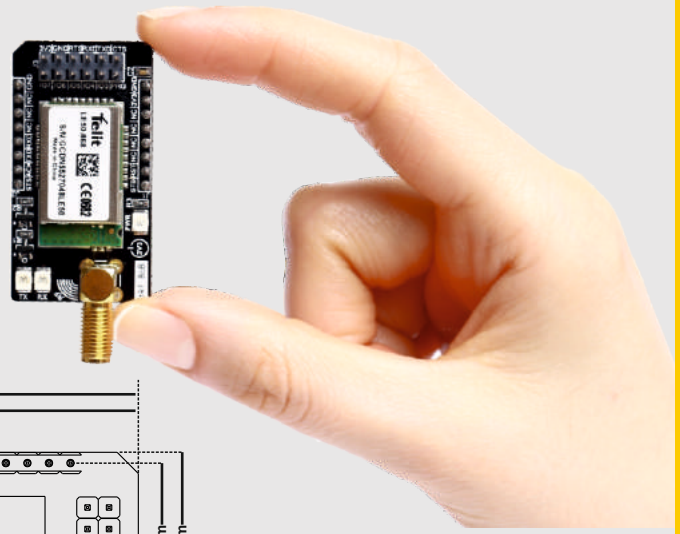
TELIT WIRELESS SOLUTIONS

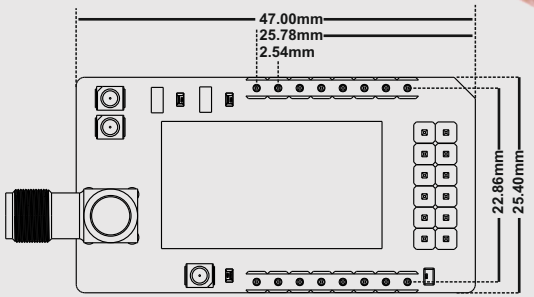
tRF BoB

LE70-868 Inside

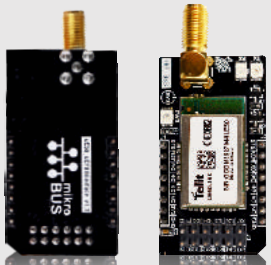
FEATURES

- **Range:** Up to 10000 m
- **Up to 128 kB Flash, 8kB RAM, 2 kB EEPROM**
- **32.768 kHZ RTC, 4 Timers**
- **Configurable output power**
- **5 I/0 Ports Max available**
- **Hayes mode or 'AT' mode for configuration**
- **Cyclic wake up: wakes up periodically and listens to the radio link**
- **For ultra low-power, low-latency applications.**
- **Download Over The Air (DOTA)**
- **Pre-certified RF modules, Header Form Factor**
- **Cyclic wake up: wakes up periodically and listens to the radio link**
- **PCB Dimensions:** 47 x 25.4 mm
- **Radio Data Rate: from** 4.8 kbps to 57.6 kbps
- **Transmit (Yellow) - Receive(Red) - Power(Green) LEDs**





INTRODUCTION



" tRF BoB 70 " is a formative with a microBUS structure. It is an effective and easy solution for adding 868 MHz RF communication to your design.It features the " Telit LE70-868MHz " transceiver module, a SMA connector for an antenna also two radio communication(Tx - Rx) LEDs. tBoB RF 70 communicates with the target board microcontroller via microBUS UART (Rx, Tx), AN, RST, PWM and INT lines. It has a LED diode in order to power indicator.

APPLICATIONS

- **Telemetry**
- **Automated Meter reading**
- **Wireless Sensor Networks**
- **Home and Building Automation**
- **Wireless Alarm and Security Systems**
- **Industrial Monitoring and Control**
- **Long range Irrigation Systems**

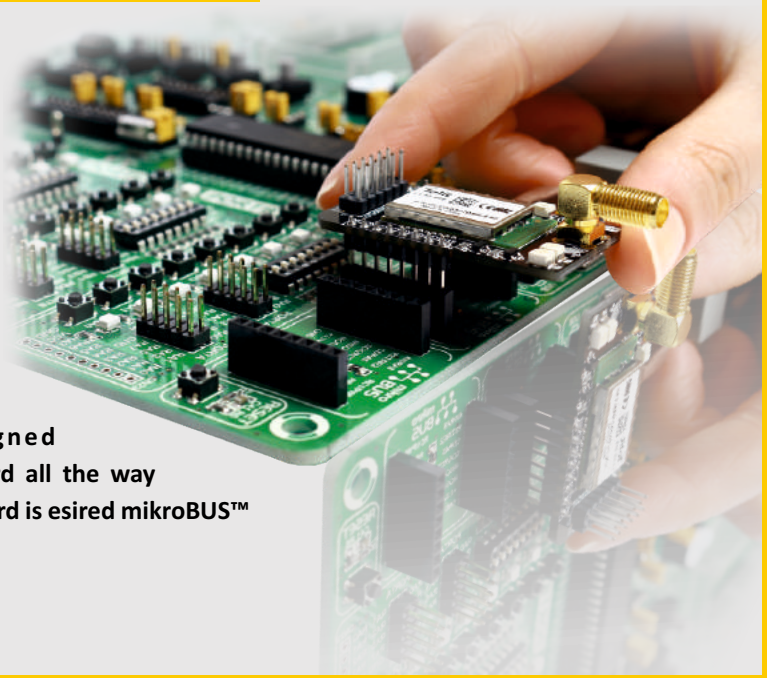
POWER SUPPLY

Power Supply Voltage: 3.3 V

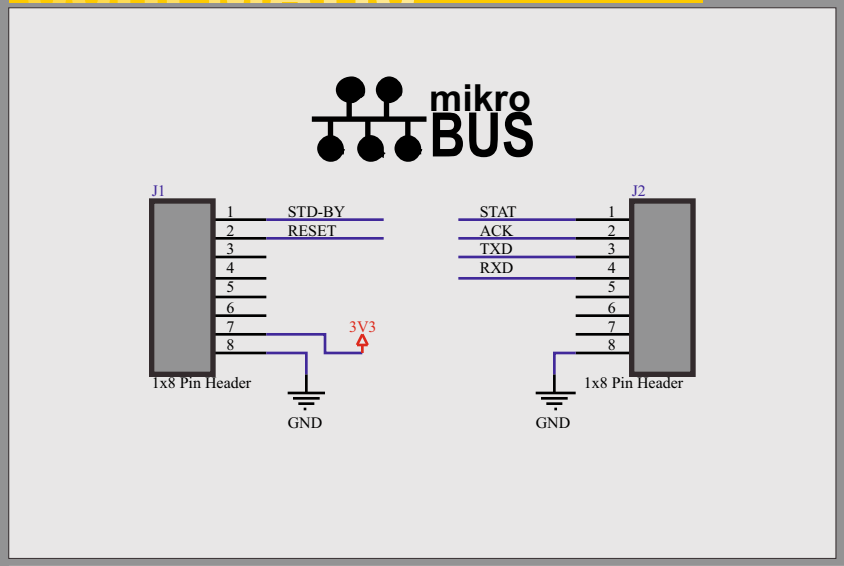
Power Supply Current(Min) : 500 mA

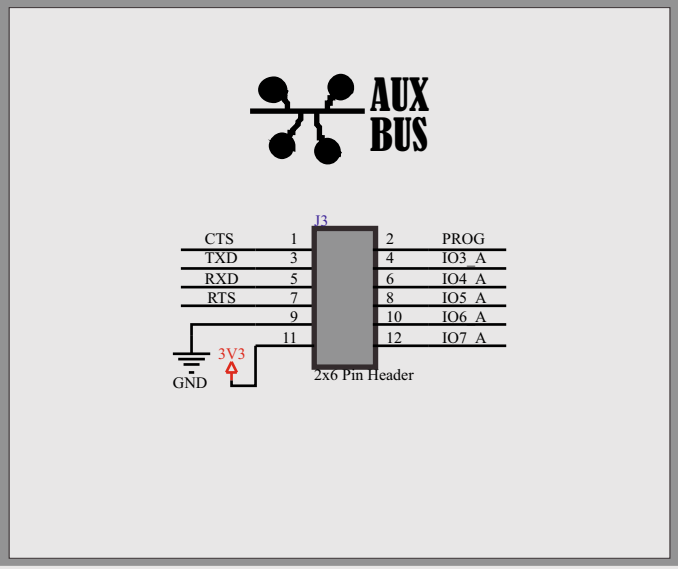
PLUGGING THE BOARD

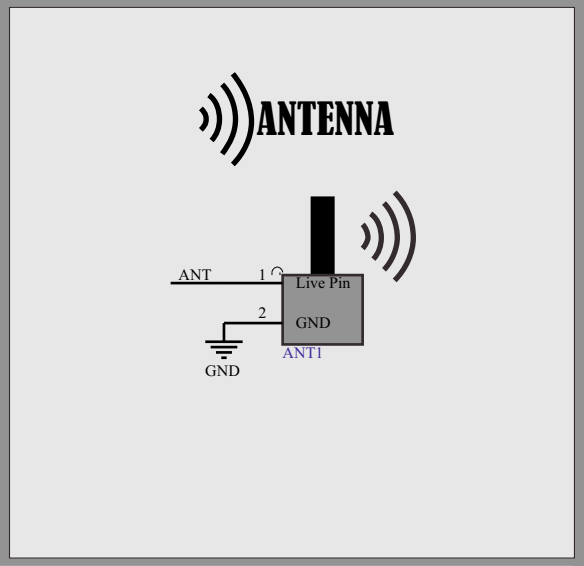
Once you have soldered the headers your board is ready to be placed into desired mikroBUS™ socket. Make sure to align the cut in the lower-right part of the board with the markings on the silkscreen at the mikroBUS™ socket. If all of the pins arealigned correctly, push the board all the way into the socket. your board is esired mikroBUS™ socket.

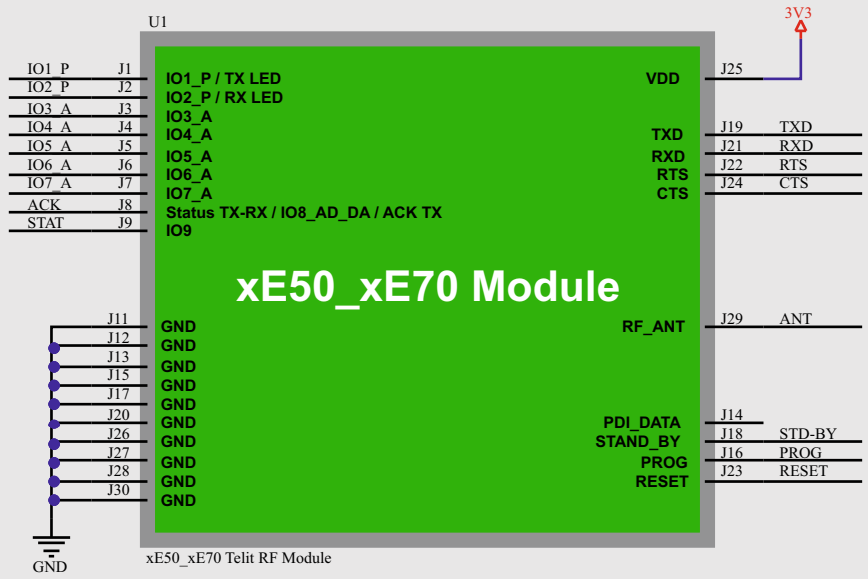


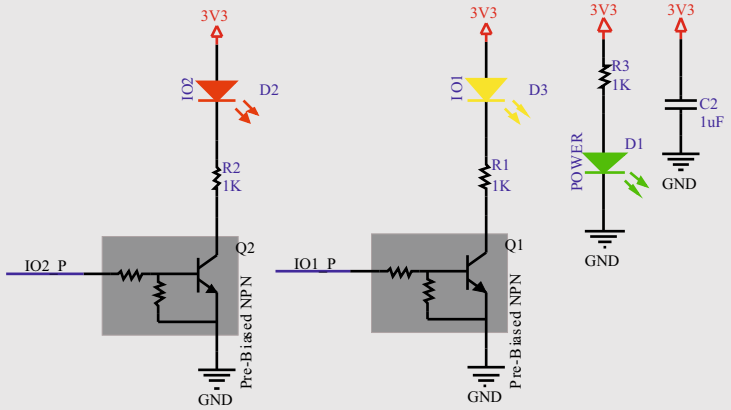
SCHEMATIC


mikro BUS
J1
1 STD-BY
2 RESET
3
4
5
6
7
8
3V3
1x8 Pin Header
GND
J2
STAT 1
ACK 2
TXD 3
RXD 4
5
6
7
8
1x8 Pin Header
GND


AUX BUS
J3
CTS 1
TXD 3
RXD 5
RTS 7
9
11
2 PROG
4 IO3_A
6 IO4_A
8 IO5_A
10 IO6_A
12 IO7_A
GND
3V3
2x6 Pin Header


ANTENNA
ANT 1
Live Pin
2
GND
ANT1
GND


U1
IO1_P J1
IO2_P J2
IO3_A J3
IO4_A J4
IO5_A J5
IO6_A J6
IO7_A J7
ACK J8
STAT J9
IO1_P / TX LED
IO2_P / RX LED
IO3_A
IO4_A
IO5_A
IO6_A
IO7_A
Status TX-RX / IO8_AD_DA / ACK TX
IO9
xE50_xE70 Module
VDD
TXD
RXD
RTS
CTS
RF_ANT
PDI_DATA
STAND_BY
PROG
RESET
3V3
J25
J19 TXD
J21 RXD
J22 RTS
J24 CTS
J29 ANT
J14
J18 STD-BY
J16 PROG
J23 RESET
J11
J12
J13
J15
J17
J20
J26
J27
J28
J30
GND
xE50_xE70 Telit RF Module


3V3
IO2
D2
R2
1K
IO2_P
Q2
Pre-Biased NPN
GND
3V3
IO1
D3
R1
1K
IO1_P
Q1
Pre-Biased NPN
GND
3V3
3V3
R3
1K
C2
1uF
POWER
D1
GND
GND