t910 BoB

P/N Versions:

"t910-BoB_2G"
"t910-BoB_3G"

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

BoB
Break Out Board

TELIT WIRELESS SOLUTIONS
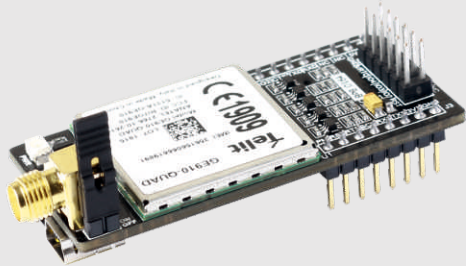
FEATURES

- **Band:**
  900 / 1800/1900 MHz @ BoB_2G
  850 / 900 / 1800/ 1900 /2100 MHz @ BoB_3G

- **Control via AT commands:**
  GSM 27.005 ,27.007 and Telit custom AT Commands

- **Embedded Programming:** Python 2.7
- **Interfaces: SIM, 2 UART, Antenna, Analog & Digital Audio**
- **3 GPIO Ports available**
- **FOTA (Firmware Over the Air)**
- **Header Form Factor**
- **PCB Dimension:** 62.00 x 28.4 mm
- **Power (Green) - Status(Red) LEDs**

62.00mm
21.79mm
2.54mm
22.86mm
28.40mm
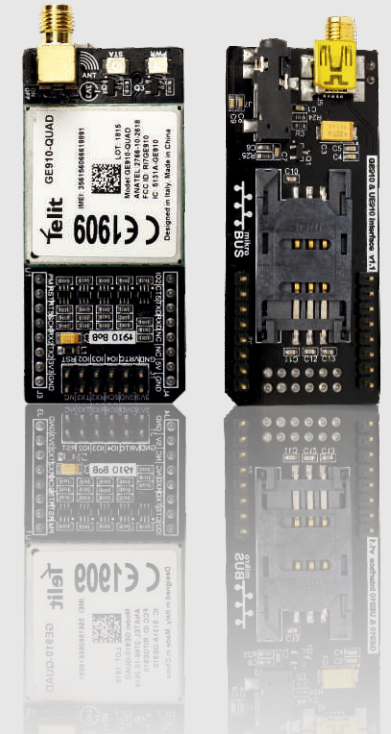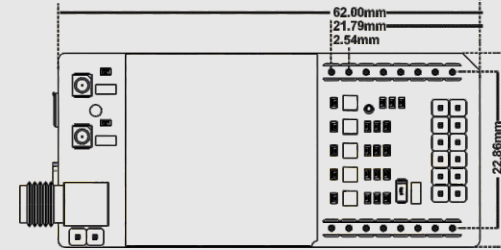
INTRODUCTION

"t910 BoB " is a formative with a microBUS structure. It is an effective and easy solution for adding GSM/GPRS/3G solutions into your design. It features the Telit GE910-QUAD or UE910-EUR module, a SMA connector for an antenna, a SIM CARD socket. t910 BoB communicates with the target board microcontroller via microBUS (Rx, Tx, Rx2, Tx2, RTS, CTS, Reset, GPIOs). The Audio Connector is compatible with Iphone, Samsung, HTC headsets. It has two LED diodes for power indicator and status.

APPLICATIONS

- **Telemetry**
- **M2M (Machine to Machine) Systems**
- **Wireless Sensor Networks**
- **Home and Building Automation**
- **Wireless Alarm and Security Systems**
- **Industrial Monitoring and Control**
- **Irrigation Systems**
- **Temperature and Humidity Tracking Systems.**

POWER SUPPLY

Power Supply Voltage: 3.3 V

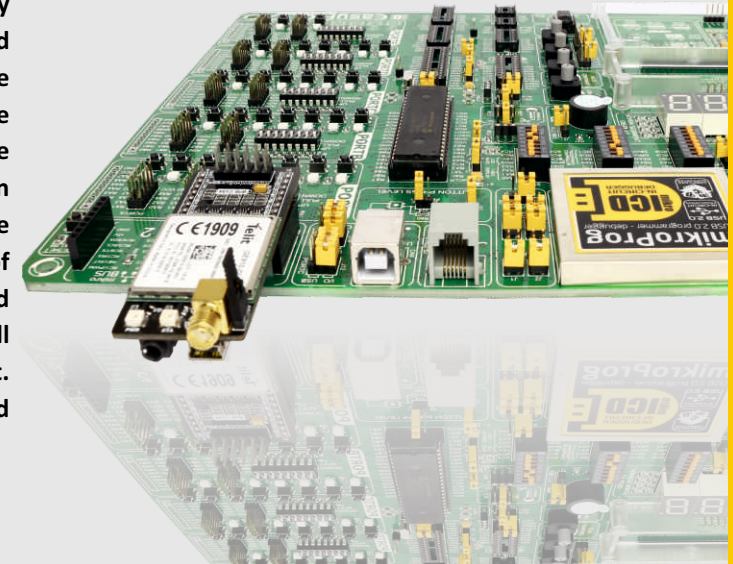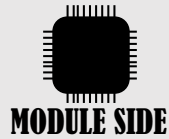Power Supply Current(Min) : 2 A

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 desired mikroBUS™ socket.

MODULE SIDE

RESET*
RESET*
GND
RESET

PWRMON
PWRMON
R4 10K
GPIO4
R6 10K
GPIO3
U2
BSS138DW-7-F
VCC
R5 10K
VCC
R7 10K
GPIO4_3V3
GPIO3_3V3

PWRMON
PWRMON
R8 10K
GPIO2
R10 10K
SCK
U3
BSS138DW-7-F
VCC
R9 10K
VCC
R11 10K
GPIO2_3V3
SCK_3V3

PWRMON
PWRMON
R12 10K
RX_AUX/MISO
R14 10K
TX_AUX/MOSI
U4
BSS138DW-7-F
VCC
R13 10K
VCC
R15 10K
RX_AUX/MISO_3V3
TX_AUX/MOSI_3V3

PWRMON
PWRMON
R16 10K
RTS
R18 10K
CTS
U5
BSS138DW-7-F
VCC
R17 10K
VCC
R19 10K
RTS_3V3
CTS_3V3

PWRMON
PWRMON
R20 10K
RXD
R22 10K
TXD
U6
BSS138DW-7-F
VCC
R21 10K
VCC
R23 10K
RXD_3V3
TXD_3V3

D1
VCC
D1
R2 1K
Q3
GND
PWRMON

VCC
D2
R1 1K
Q2
GND
STATUS

ON_OFF* 1
2
J6
1x2 Pin Header
GND

3V3
L1
C2 10uF
C3 470uF/10V
C4 100nF
C5 100nF
VCC
GND GND GND GND

U1
Telit xE910
xE910

P2 VBATT_PA
P1 VBATT_PA
N2 VBATT_PA
N1 VBATT_PA
M2 VBATT
M1 VBATT

VCC

PWRMON R11 VAUX/PWRMON
VRTC C14 VRTC
ON_OFF* R12 ON_OFF*
RESET* R13 RESET*

E13 VIO1_1V8
D13 VDD_IO1

A2 GND
B13 GND
D4 GND
E1 GND
E2 GND
E14 GND
F2 GND
G1 GND
G2 GND
H1 GND
H2 GND
J1 GND
J2 GND
K2 GND
L1 GND
L2 GND
M3 GND
M4 GND
M12 GND
N3 GND
N4 GND
N5 GND
N6 GND
P3 GND
P4 GND
P5 GND
P6 GND
P8 GND
P9 GND
P10 GND
P13 GND
R2 GND
R3 GND
R4 GND
R5 GND
R6 GND
R8 GND
R10 GND

GND

USB_D+ B15 USB_D+
USB_D- C15 USB_D-
VUSB A13 VUSB

C103/TXD N15 RXD
C104/RXD M15 TXD
C108/DTR M14
C105/RTS L14 RTS
C106/CTS P15 CTS
C109/DCD N14
C107/DSR P14
C125/RING R14

SPI_MOSI/TX_AUX D15 TX_AUX/MOSI
SPI_MISO/RX_AUX E15 RX_AUX/MISO
SPI_MRDY H15
SPI_SRDY J15
SCK F15 SCK

EAR+ B2 EAR+
EAR- B3 MIC+
MIC+ B4 MIC+
MIC- B5 MIC-

SIMCLK A6 SIMCLK
SIMRST A7 SIMRST
SIMIO A5 SIMIO
SIMIN A4
SIMVCC A3 SIMVCC

DVI_WA0 B9
DVI_RX B6
DVI_TX B7
DVI_CLK B8
GPIO_01 / STAT_LED C8 STATUS
GPIO_02 C9 GPIO2
GPIO_03 C10 GPIO3
GPIO_04 C11 GPIO4
GPIO_05 B14
GPIO_06 C12
GPIO_07 C13
GPIO_08 K15
GPIO_09 L15
GPIO_10 G15
ADC_IN1 B1

ANTENNA K1 ANTENNA

ANTENNA
ANTENNA 1
2 GND
GND
Live Pin
GND
ANT1

AUX BUS
NC 1 J1 2 RESET
TX_AUX/MOSI_3V3 3 4 GPIO2_3V3
RX_AUX/MISO_3V3 5 6 GPIO3_3V3
SCK_3V3 7 8 GPIO4_3V3
9 10 VRTC
3V3 11 12
GND GND
2x6 Pin Header

AUDIO
Ø 3.5mm Jack
MIC- C7 100nF R25 100R C6 100pF
GND
R24 100R C1 100nF MIC+ GND
EAR+ C8 100nF R3 13K VCC
C9 100nF
J7

USB
V_BUS(5V) 1 VUSB
USBDM 2 USB_D-
USBDP 3 USB_D+
NC 4 NC
GND 5
SHIELD 0
J5
GND

mikroBUS
J3
1 PWRMON
2 RESET
3 RTS_3V3
4*OPT SCK_3V3
5 RX_AUX/MISO_3V3
6 TX_AUX/MOSI_3V3
7 3V3
8
1x8 Pin Header
GND

J4
GPIO2_3V3 1
CTS_3V3 2
TXD_3V3 3
RXD_3V3 4
NC 5
NC 6
5V 7
8
1x8 Pin Header
GND

SIM
J2
SIMIO 7 SIMIO SIMCLK 3 SIMCLK
6 SIMVPP SIMRST 2 SIMRST
C10 33pF 5 SIMGND SIMVCC 1 SIMVCC
DRILL
GND GND
Hinge Type SIM Holder
C13 1uF C12 33pF C11 33pF
GND GND GND