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

BoB

Break Out Board

TELIT WIRELESS SOLUTIONS

t865 BoB

P/N Versions:

"t865-BoB_2G"
"t865-BoB_3G"

FEATURES

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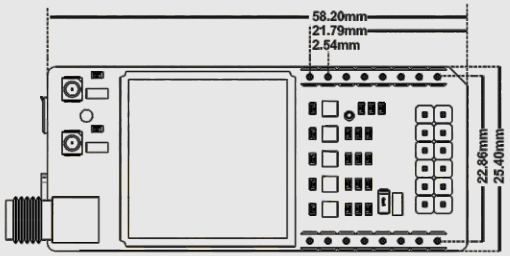
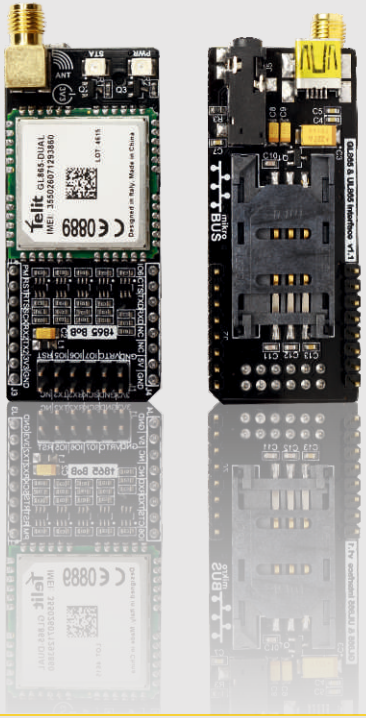
- **Band:**
  900 / 1800 MHz @ BoB_2G
  850 / 900 / 1800/1900 /2100 MHz @ BoB_3G

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

- **Embedded Programming:**
  Python 1.5.2 @ BoB_2G
  Python 2.7 @ BoB_3G

- **Interfaces: SIM, 2 UART, Antenna, Analog & Digital Audio(@ BoB_2G)**
- **3 GPIO Ports available**
- **FOTA (Firmware Over the Air)**
- **Header Form Factor**
- **PCB Dimension:** 58.20 x 25.4 mm
- **Power (Green) - Status(Red) LEDs**





INTRODUCTION

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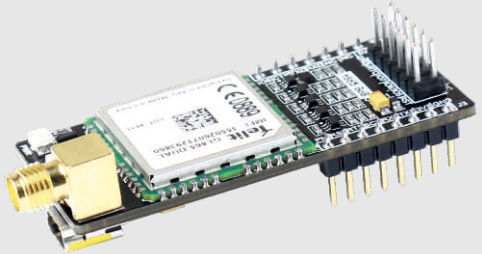

"t865 BoB " is a formative with a microBUS structure. It is an effective and easy solution for adding GSM/GPRS solutions into your design. It features the Telit GL865-DUAL or UL865-EUR module, a SMA connector for an antenna, a SIM CARD socket. tGSM BoB communicates with the target board microcontroller via microBUS (Rx, Tx, Rx2, Tx2, RTS, CTS, Reset, GPIOs). Only for UL865-EUR Module, has USB Port. The Audio Connector is compatible with Iphone, Samsung, HTC headsets. It has two LED diodes for power indicator and status.

APPLICATIONS

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- **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

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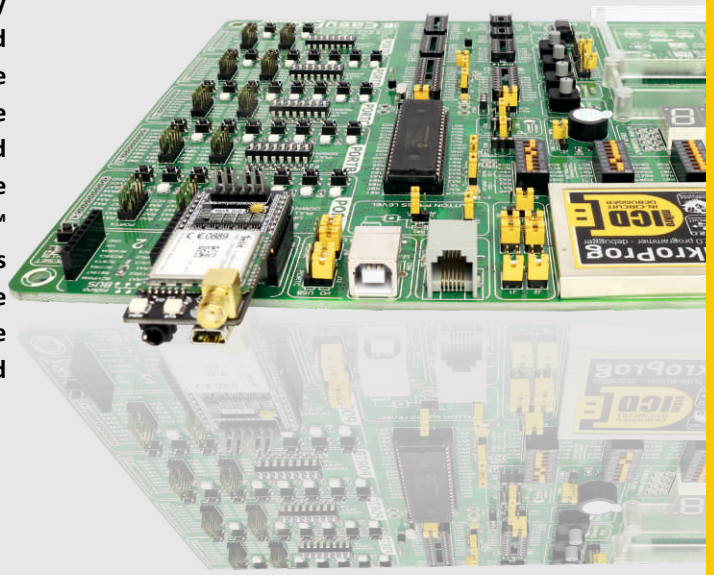
Power Supply Voltage: 3.3 V

Power Supply Current(Min) : 2 A

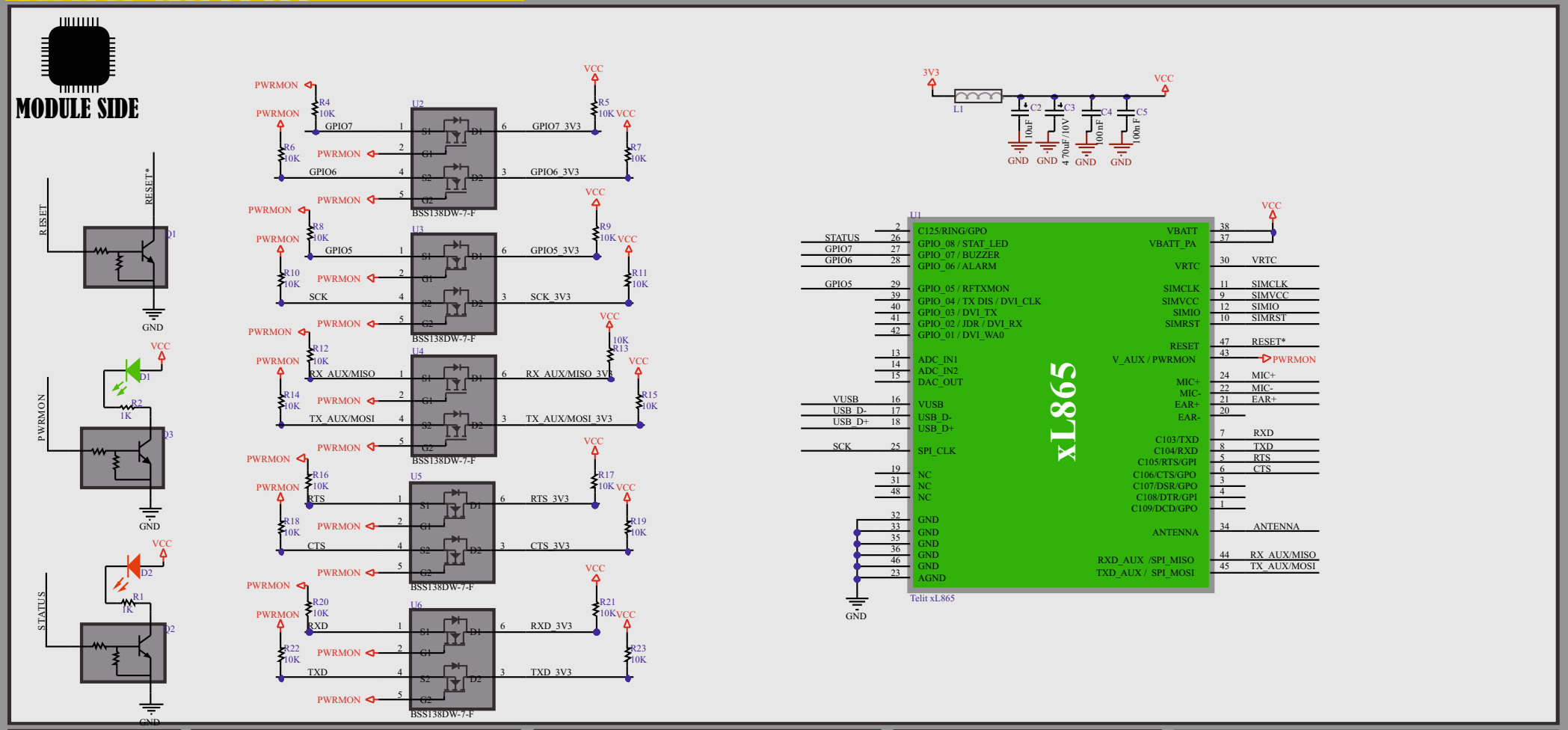
PLUGGING THE BOARD

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.



SCHEMATIC


MODULE SIDE
RESET
RESET*
Q1
GND
PWRMON
D1
R2
1K
Q3
D2
R1
STATUS
Q2
U2
U3
U4
U5
U6
BSS138DW-7-F
GPIO7
GPIO6
SCK
RX_AUX/MISO
TX_AUX/MOSI
RTS
CTS
RXD
TXD
GPIO7_3V3
GPIO6_3V3
GPIO5_3V3
SCK_3V3
RX_AUX/MISO_3V3
TX_AUX/MOSI_3V3
RTS_3V3
CTS_3V3
RXD_3V3
TXD_3V3
VCC
3V3
L1
C2
C3
C4
C5
U1
xL865
Telit xL865
C125/RING/GPO
GPIO_08 / STAT_LED
GPIO_07 / BUZZER
GPIO_06 / ALARM
GPIO_05 / RFTXMON
GPIO_04 / TX DIS / DVI_CLK
GPIO_03 / DVI_TX
GPIO_02 / JDR / DVI_RX
GPIO_01 / DVI_WA0
ADC_IN1
ADC_IN2
DAC_OUT
VUSB
USB_D-
USB_D+
SPI_CLK
NC
GND
AGND
VBATT
VBATT_PA
VRTC
SIMCLK
SIMVCC
SIMIO
SIMRST
RESET
V_AUX / PWRMON
MIC+
MIC-
EAR+
EAR-
C103/TXD
C104/RXD
C105/RTS/GPI
C106/CTS/GPO
C107/DSR/GPO
C108/DTR/GPI
C109/DCD/GPO
ANTENNA
RXD_AUX /SPI_MISO
TXD_AUX / SPI_MOSI
ANTENNA
Live Pin
ANT1
AUX BUS
J1
2x6 Pin Header
AUDIO
Ø 3.5mm Jack
J7
MIC-
MIC+
EAR+
USB
OPT
J5
V_BUS(5V)
USBDM
USBDP
SHIELD
mikro BUS
J3
J4
1x8 Pin Header
SIM
J2
Hinge Type SIM Holder
SIMIO
SIMVPP
SIMGND
DRILL
SIMCLK
SIMRST
SIMVCC