Adding Bluetooth to the EmStat module for OEM purposes

This document refers to sections of the document "*EmStat3 for OEM*" that came with the EmStat OEM Starter Kit.

PalmSens
Compact Electrochemical Interfaces

Last revision: January 20, 2016

© 2016 PalmSens BV

www.palmsens.com

Important before you start unpacking

Please read this quick start guide carefully before unpacking the boards from their antistatic bags or using the kit, as it contains important information on how to avoid damage to the PCB's.

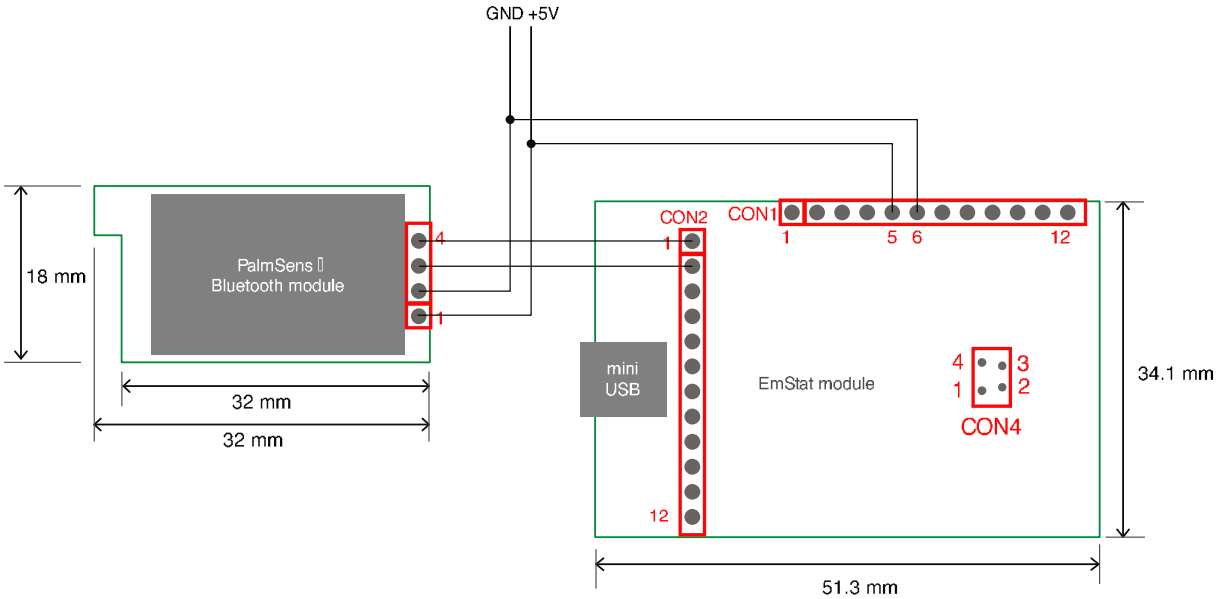
The EmStat and Bluetooth boards can be damaged by static electricity (electrostatic discharge or ESD). Please take adequate precautions against static discharge during handling.

1 Before you start

This document refers to sections of the document "EmStat3 for OEM" that came with the EmStat OEM Starter Kit. Please read this document first.

2 Connecting the Bluetooth module

Make sure the PalmSens Bluetooth module is wired to the EmStat3 module as following:



1.1 Bluetooth module pin description

Pin	Function
1	+5V
2	GND
3	to Rx of EmStat
4	to Tx of EmStat

3 Powering

EmStat can either be powered via the USB port or alternatively with a 5V power supply on CON1 pin 6 and pin 7.
Be sure not to use the ac adapter if the USB cable is connected to the EmStat. If you are connecting via Bluetooth, it is advised to use the low noise ac adapter that came with the EmStat OEM Starter Kit or to use another low noise 5V power supply.

Do not connect the EmStat via its USB connection to a PC
while using the alternative 5V power supply!

4 Bluetooth module specifications

Bluetooth Class 2 Module

Power Classification	Class 2
Bluetooth Specification	Bluetooth v2.0 + EDR SPP firmware
Frequency	2402 – 2480 MHz
Temperature Range	-10 to +70 C
Range	25 m in open space
Antenna	On board chip antenna
Average Current Consumption (Idle Mode)	19 mA
Power Output	+4 dBm

The Bluetooth Class 2 Module is a surface mount module that has an RF Shield and holds FCC and RTT&E CE Certification with full compliance of RoHs standards.