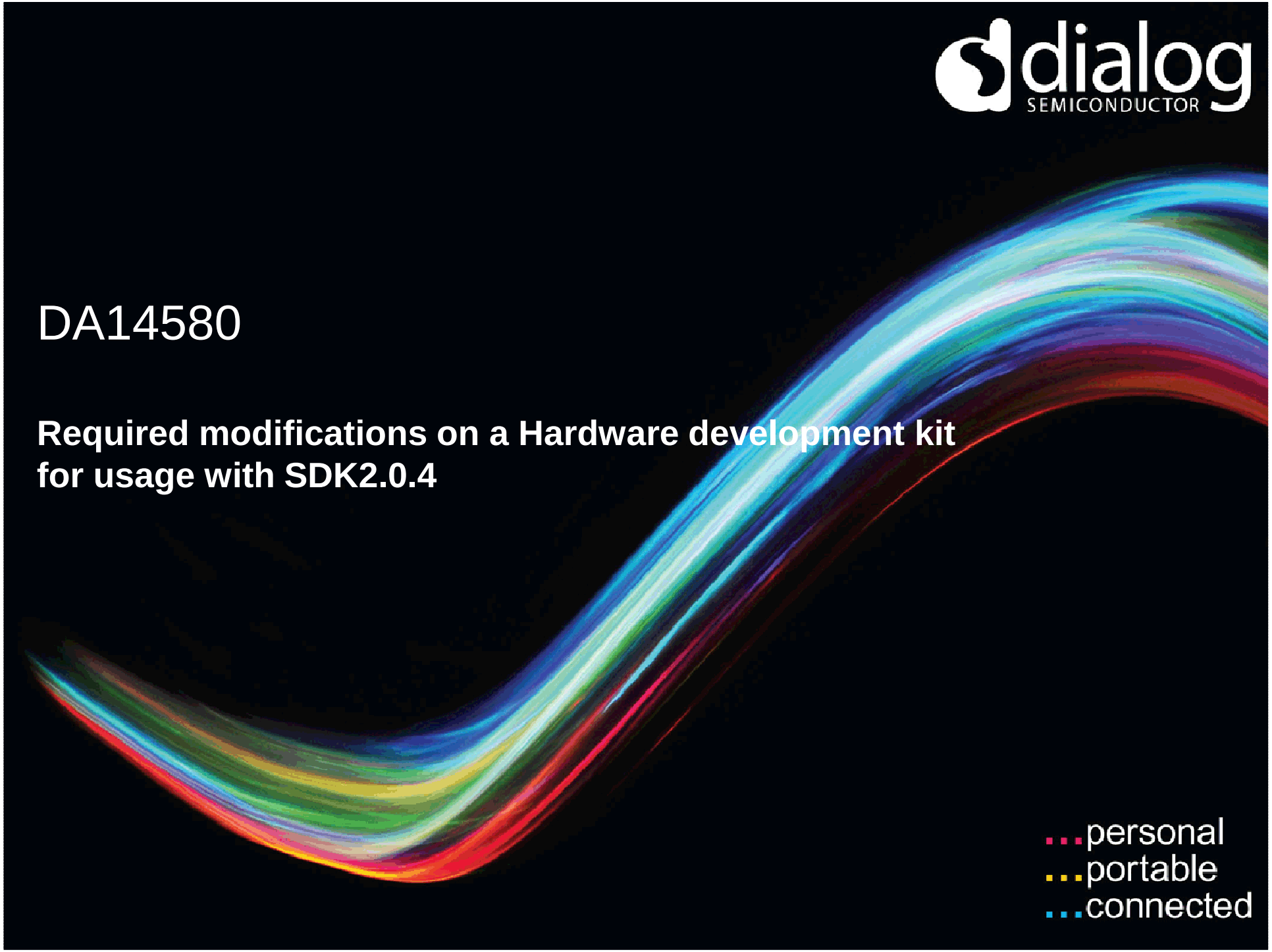
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SEMICONDUCTOR
DA14580
Required modifications on a Hardware development kit
for usage with SDK2.0.4
...personal
...portable
...connected

Introduction

- The SDK2.0.4 release is targeted for use with DA14580-ES4 silicon.
- For users who have already been working with previous version of the silicon there is a hardware modification required
- The SDK2.0.4 is making use of different UART pins for communication to the PC compared to SDK2.0.3 and SDK2.0.2
- The supply voltage of the motherboard is reduced to typical 3.0V iso 3.3V by modifying a resistor on the voltage regulator.
- Existing hardware can easily be modified for usage with the latest SDK and silicon.
- The next slides explain the modification to be done on the Motherboard RevC.1 and on the USB dongle

DA14580 Dev.Kit motherboard modifications

Following modification are needed on the Motherboard Rev C.1 to make it a MB Rev C.2 and on the Bluetooth USB dongle

Name	Function	MB Rev C.1	MB Rev C.2
UTx	UART Transmit	P0.0	P0.4
URx	UART Receive	P0.1	P0.5
UCTS	UART Clear To Send	P0.2	P0.2
URTS	UART Request To Send	P0.3	P0.3

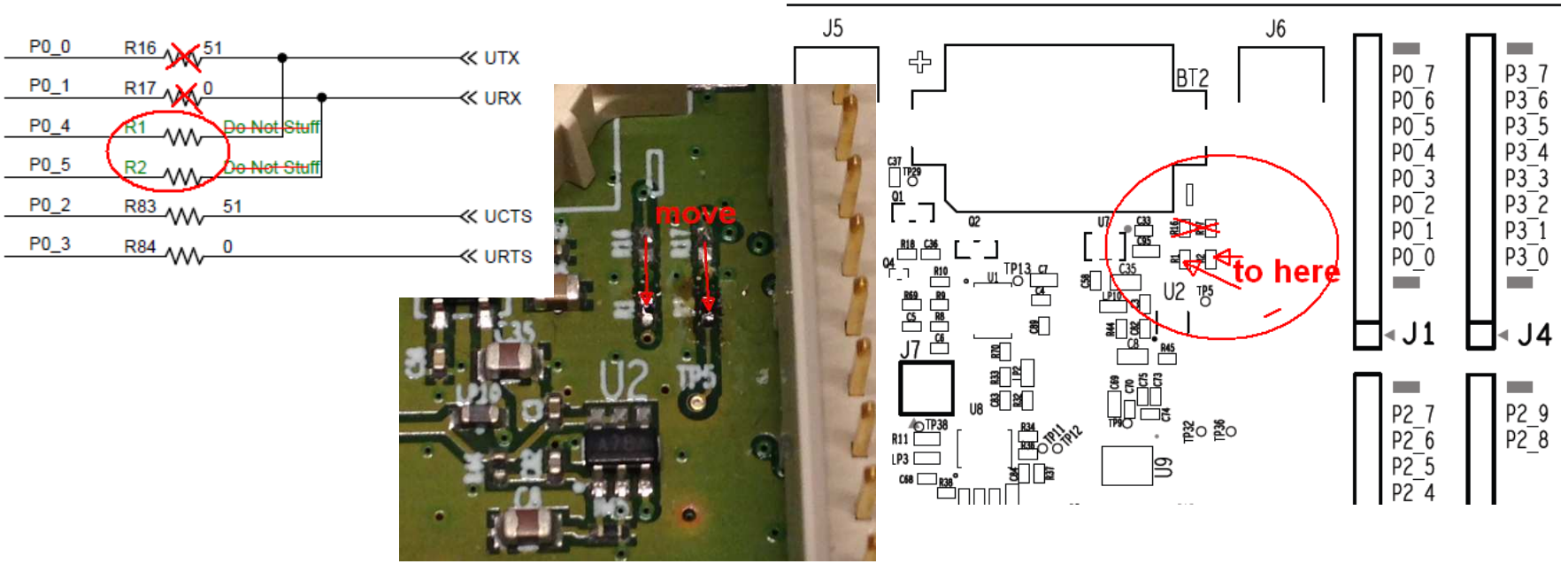
The next slides provides details of the changes

Motherboard modification step 1

UTx @ P0_0 => change to P0_4
URx @ P0_1 => change to P0_5

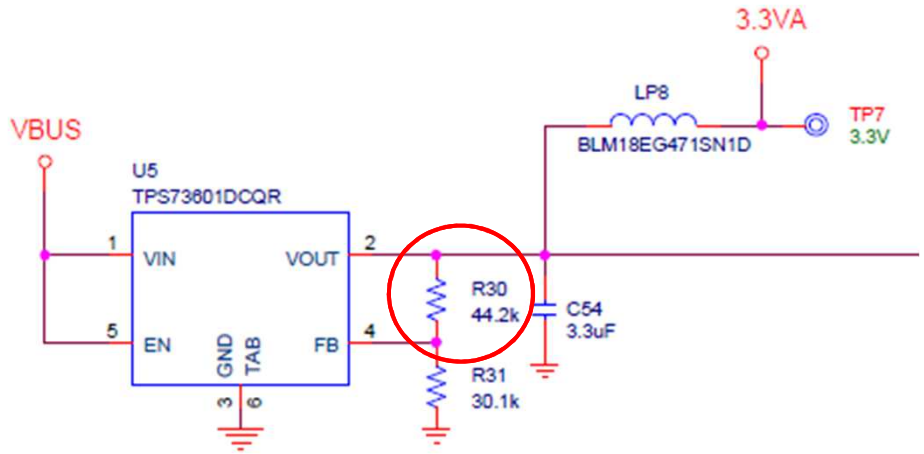
The change is done by moving R16 (51R) to position R1(0R) and moving R17 (0R) to position R2 as indicated below. The 51Ohm resistor R16 on P0.0 can be changed into a 0Ohm on P0.4.

The components are placed between the daughterboard connectors close to the coin cell battery holder.



Motherboard modification step 2

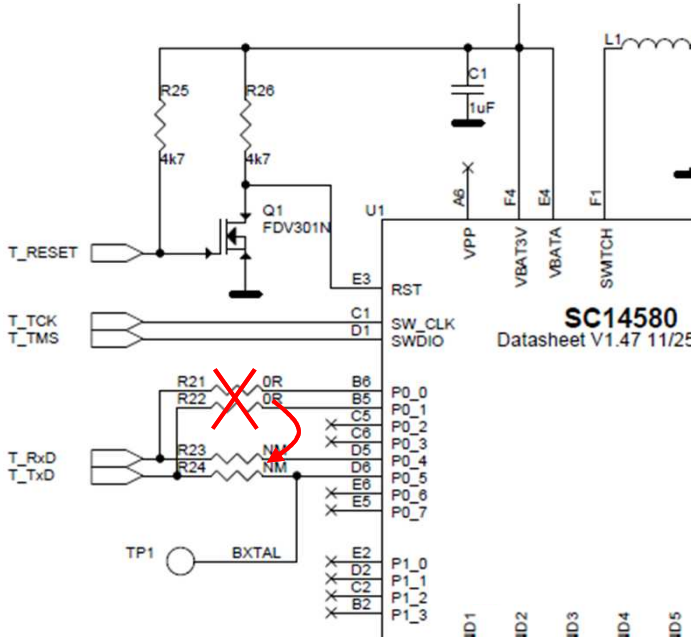
To reduce the supply voltage on the motherboard to typical 3.0V the resistor R30 is modified from 52.3kOhm to 44.2kOhm

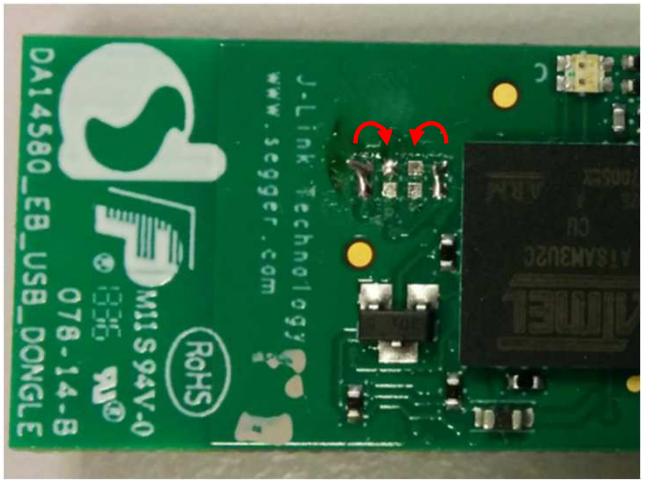


USB dongle modification

UART RxD @ P0_0 => change to P0_4
UART TxD @ P0_1 => change to P0_5

The modification is done by moving the zero ohm solder joints R21&R22 to position R23&R24.





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