

## Product utilizing with SESUB Technology

*[SESUB : Semiconductor Embedded in SUBstrate]*

### **Bluetooth V4.1 Smart (Low Energy) Module**

Type : SESUB-PAN-D14580

## Module Pin-Out

The module Pin-Out and names are shown in Figure 4 and Table 1.

Top (SMD Side) View

	1	2	3	4	5	6	7
A	NC	P1_3	GND	RF	GND	VPP	NC
B	GND	GND				GND	P0_2
C	P1_1	P1_2					P0_3
D	P1_0	SW_CLK			P0_0	P0_1	P0_4
E	VBAT1V	SWDIO				GND	P0_5
F	LX	VD0DC		GND	P0_7	GND	P0_6
G	NC	RST	GND	VBAT	X32Kp	X32Km	NC

Figure 4 Module Pin-Out

**Table 1 PIN Descriptions**

Pin Nr	Pin Name	Pin Type	Description
A1	NC	NC	No Connection
A2	P1_3	Digital I/O	Port1.3
A3	GND	Ground	Tied to ground
A4	RF	Analog	RF Input / Output to antenna (impedance 50 ohm)
A5	GND	Ground	Tied to ground
A6	VPP	Power	This pin have to be used while OTP programming & testing. For OTP programming: VPP=6.7V +/- 0.1V For OTP normal operation: Leave VPP floating
A7	NC	NC	No Connection
B1	GND	Ground	Tied to ground

B2	GND	Ground	Tied to ground
B6	GND	Ground	Tied to ground
B7	P0_2	Digital I/O	Port0.2
C1	P1_1	Digital I/O	Port1.1
C2	P1_2	Digital I/O	Port1.2
C7	P0_3	Digital I/O	Port0.3
D1	P1_0	Digital I/O	Port1.0
D2	SW_CLK / P1_4	Digital I/O	JTAG Clock signal. Can also be used as Port1.4.
D5	P0_0	Digital I/O	Port0.0
D6	P0_1	Digital I/O	Port0.1
D7	P0_4	Digital I/O	Port0.4
E1	VBAT1V	Power	<b>See remark below (Figure 5 in detail)</b>
E2	SW_DIO / P1_5	Digital I/O	JTAG Data input/output. Bidirectional data and control communication. Can also be used as Port1.5.
E6	GND	Ground	Tied to ground
E7	P0_5	Digital I/O	Port0.5
F1	LX	Power	<b>See remark below (Figure 5 in detail)</b>
F2	VDCDC	Power	<b>See remark below (Figure 5 in detail)</b>
F4	GND	Ground	Tied to ground
F5	P0_7	Digital I/O	Port0.7
F6	GND	Ground	Tied to ground
F7	P0_6	Digital I/O	Port0.6
G1	NC	NC	No Connection
G2	RST	Digital I/O	Reset Input (active high) Must be connected to the ground if not used
G3	GND	Ground	Tied to ground
G4	VBAT	Power	Connect to power source (a battery cell) <b>See remark below (Figure 5 in detail)</b>
G5	X32Kp	Analog Clock	32.768kHz crystal 1 (Input)
G6	X32Km	Analog Clock	32.768kHz crystal 2 (Output)
G7	NC	NC	No Connection