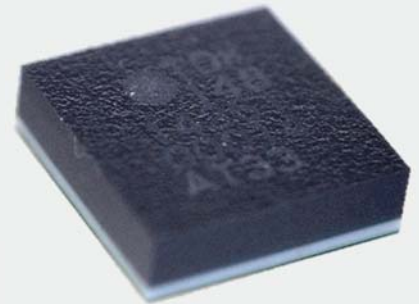


Bluetooth® V4.1 Smart (Low Energy) Single Mode module — SESUB-PAN-D14580 —

Under
Development

The small package suitable for wearable device

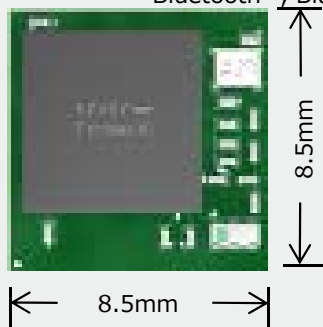
- **Space saving Ultra small package** 3.5x3.5x1.0mm (TYP)
- 0.5mm pitch Solder Bumped BGA, 36pins
- Able to communicate & compatible with Bluetooth® Smart Ready application products
- ARM Cortex-M0 32bit high performance microcontroller
- 32kB OTP program memory, 84kB ROM for BT stack
- 42kB System SRAM, 8kB Retention SRAM
- More freedom for design with antenna separate-layout



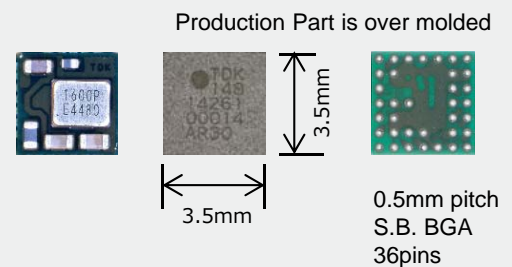
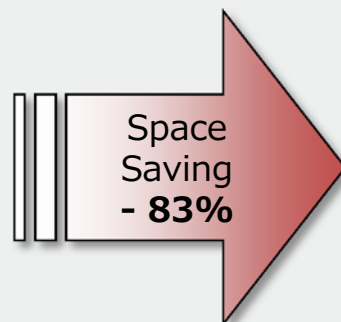
Electrical specifications

- Communication standard : 2.4GHz Bluetooth® V4.1 Low Energy
- Transmitter output power level : 0dBm (typ) [Class-2]
- Receiver sensitivity level : -93dBm
- Host Interface : UART (2ch)/ SPI+ / I2C (100k/400kHz)
- Peripheral Interface : 10bits ADC (4ch) / Pin-configurable GPIO
- Current consumption : 5mA (Tx), 5mA (Rx), 0.9µA (sleep mode)

Bluetooth® , Bluetooth® low energy : Trade mark registered by Bluetooth Special Interest Group (SIG).



Discrete Solution
72.3mm²



SESUB-PAN-D14580
12.3mm²

New application with <App-cessories>

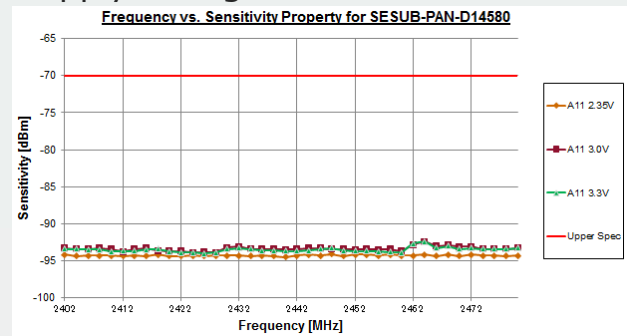
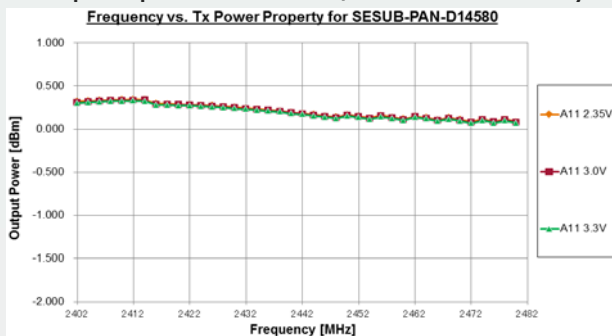
- Healthcare / Sports & Fitness Equipment
(Example : Activity mass meter, Thermometer, Sphygmomanometer, Blood oximeter, Blood glucose meter, Heart rate meter, Bio)
- Wearable goods
(Example : Wristband, Watch, Ring, Glasses, Shoes, Hat , Shirt)
- Home entertainment equipment
(Example : Remote control, Sensor tag, Toys, Lighting products)
- PC peripheral application
(Example : Mouse, Key Board, Stylus pen, Presentation pointer)



Bluetooth® V4.1 Smart (Low Energy) Single Mode module — SESUB-PAN-D14580 —

RF Characteristics

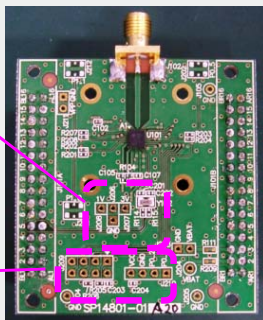
Tx output power level / Rx sensitivity level in supply voltage variation



Evaluation Board for SESUB-PAN-D14580 [SP14801]

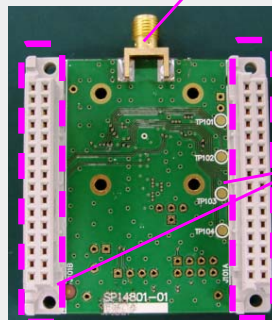
- Daughter board is capable to connect with Dialog-Semi's evaluation mother board
- Dialog-Semi's software development tools and various useful tools can be used.
- Possible fast design for SESUB completion with Dialog-Semi's development materials.

Land pattern for Crystal for sleep clock



Program writer pin

SMA connector for RF ANT



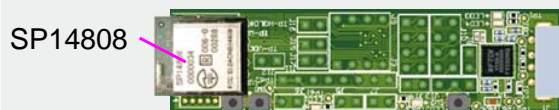
Pin compatible with DA14580DEVKIT

SP14801 on Dialog's DA14580 DEVKIT mother board



SESUB-PAN-D14580 Evaluation Kit [SESUB-PAN-D14580EVK]

- Radio Certified evaluation module [SP14808] enable to begin software development quickly.
- SP14808 integrates 128kB Serial Flash ROM and capable re-programming during development



SP14808

SESUB-PAN-D14580EVK



128kB Serial ROM

SP14808 ANT integrated evaluation module [ARIB-STD T66 / FCC certified]

Ordering Information

Ordering Code	Contents	MOQ	Remark
SESUB-PAN-D14580		1000pcs	
SP14801		1pc	Evaluation board for RF characteristics.
SESUB-PAN-D14580 EVK	SP14808	1pc	SESUB-PAN-D14580 Evaluation Module <i>Certified Japanese & FCC Radio Certification (planned in Nov, 2014)</i>
	SP14809	1pc	Adapter Board for SP14808.
	CD-ROM	1pc	All technical documentation for SESUB-PAN-D14580 and SESUB-PAN-T2541 EK is installed in this CD-ROM.
SP14808		1pc	For the customer who wants to have spare units.
SP14808 ST		5pcs	SP14808ST contains 5 pcs of SP14808 in a set. <i>Volume discounting is applicable.</i>