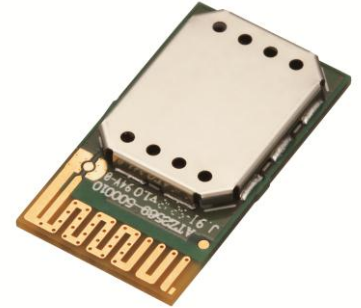# Bluetooth Low Energy Module HRM1017

PRODUCT OVERVIEW

HRM1017 is Bluetooth Low Energy Module that supplied by Hosiden Corporation. It is based on Nordic nRF51822 and achieves high performance radio and low power operation. HRM1017 product features are as follows:

■ Integral antenna

A fine-tuned PCB antenna is on the module. It relieves you of difficult RF consideration.

### ■ Supports DC/DC convertor enable mode

HRM1017 has internal circuit to drive nRF51822 internal DC/DC convertor. You can operate this module in DC/DC convertor enable mode without external components in your circuit.

■ All GPIO ports are available

All programmable ports are assigned to module I/O. You can design the products as in the case of chip-on-board design.

■ Quick evaluation and development

Hosiden has prepared the evaluation board that is pin-compatible with Nordic PCA10004. So you can start HRM1017 evaluation immediately if you already have Nordic nRFGo Motherboard (refer overleaf for detail).
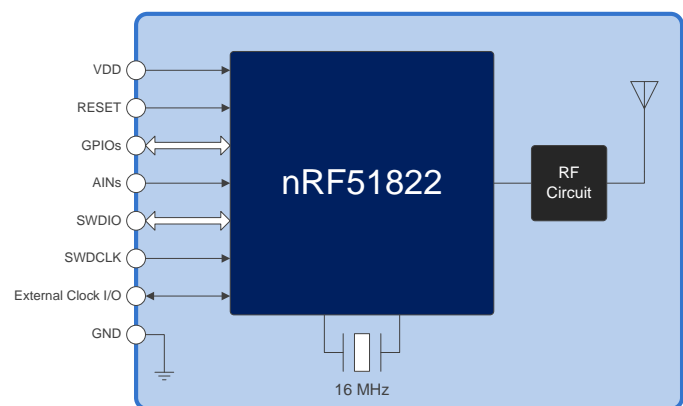

SPECIFICATION

Item	Specification
Bluetooth Version	Bluetooth 4.0 LE (Single Mode)*
Output Power	+4 dBm typical
Interface	UART, SPI, I2C and GPIOs
Dimensions	12.7 x 23.0 x 2.6 mm
Supply Voltage	1.8 to 3.6V (3.0V typ.)
Mounting Type	Solder bumps (1.2 mm pitch, 44 bumps)

*Hosiden is applying for Bluetooth qualification.

■ EVALUATION BOARD

HRM1023 is the evaluation board of Hosiden Bluetooth Low Energy Module. It has pin sockets for connecting to Nordic nRFGo Motherboard. You can quickly start module evaluation and software development before completing your hardware design. Also, there are soldering pads for 9 GPIOs. You can use them if you do not have nRFGo Motherboard.

Hosiden Module (HRM1017)

Hosiden Evaluation Board (HRM1023)

Nordic nRFGo Motherboard (nRF6310)
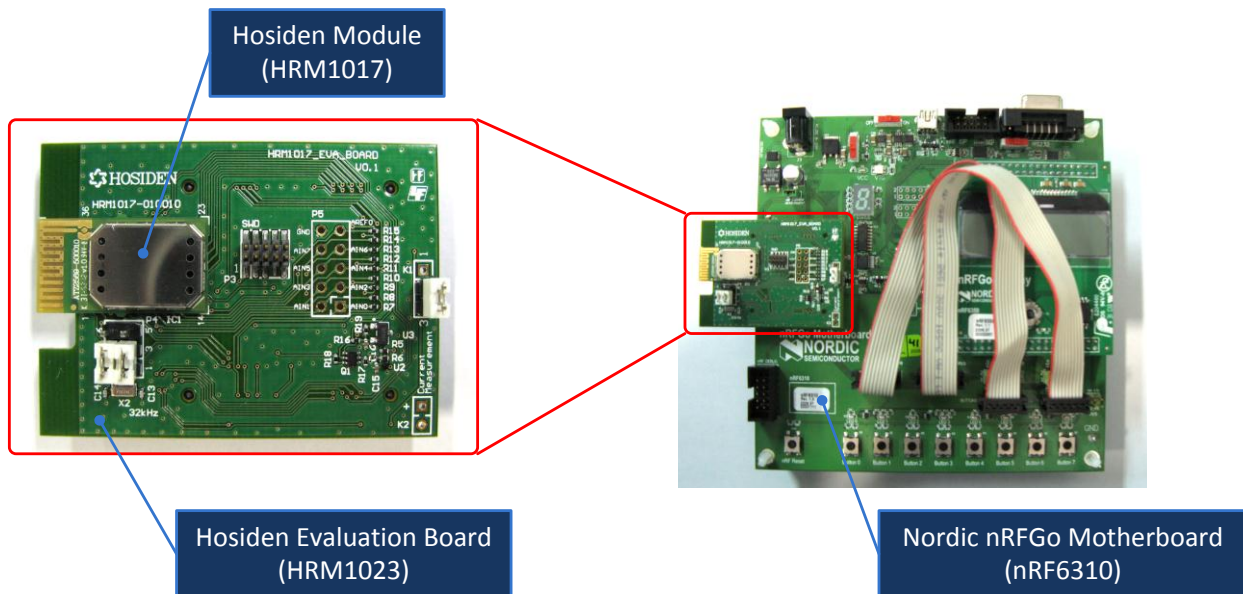
Parts No.	Description	Purpose
HRM1017	BLE module only.	For evaluation and mass production.
HRM1023	BLE module mounted on daughter board (nRF6310 not included). You can flash your application software using J-Link 9-pin Cortex-M pin header.	For early evaluation and software development.

■ TARGET APPLICATIONS AND MARKETS

- Keyboards, mice and remote controllers for PC peripheral
- Key-fobs, accessories for smartphone and other mobile devices
- Heart rate monitors, blood glucose monitors for healthcare, sports, and fitness
- Remote control toys, wearable sensors and simple data transceivers for consumer