Wireless Module
Bluetooth Smart Module
EYSFCNZXX
Overview

Dec. 25, 2013 Version 1.0
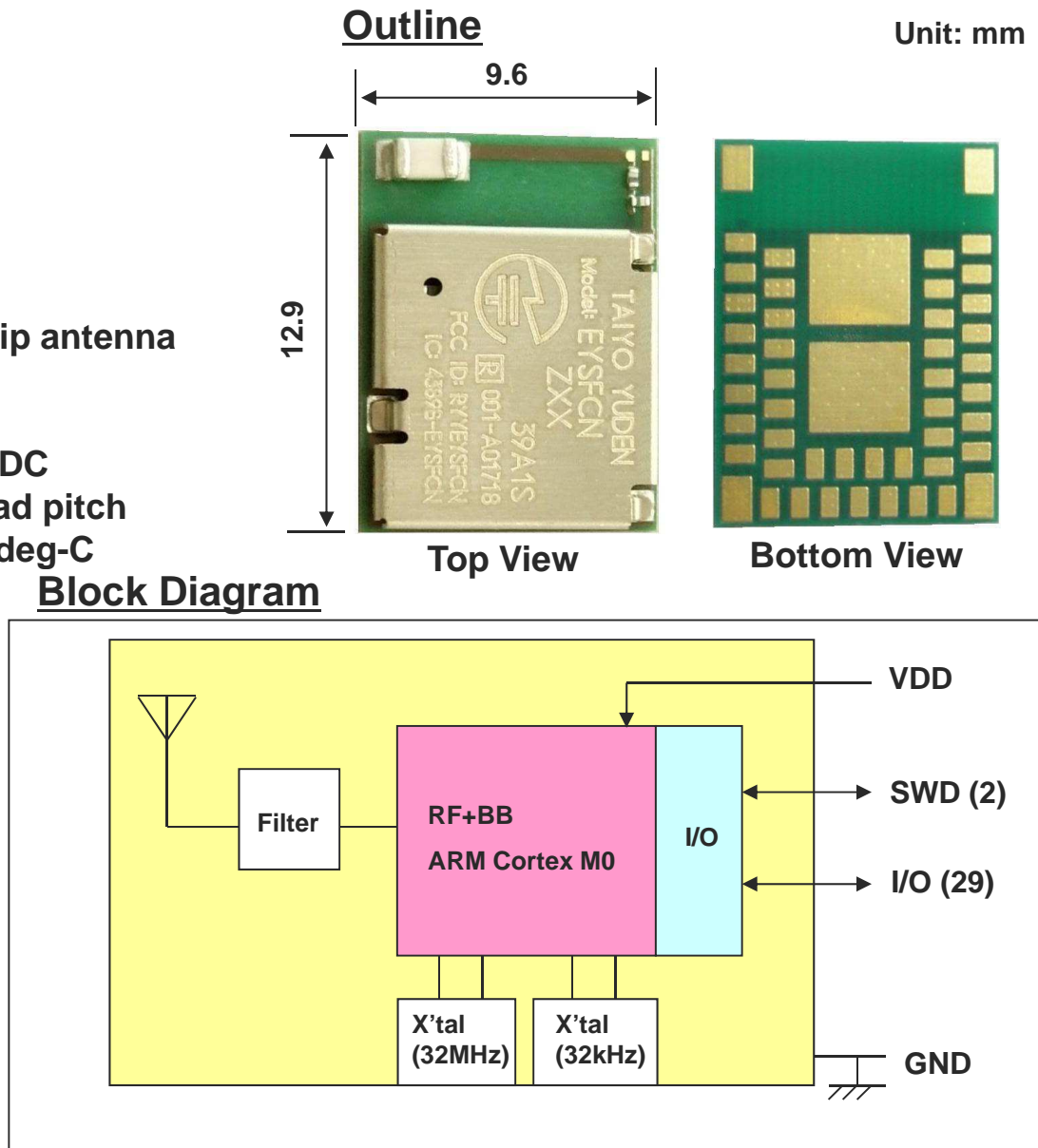
Bluetooth® Smart Module: EYSFCNZXX

Features
- Frequency: 2402 to 2480 MHz
- Output power: +4dBm typ.
- Single power supply: 1.8 – 3.6V
- Single Mode Bluetooth Smart Slave
- Chip: nRF51822 (Nordic)
- Integrated System/Sleep Clock
- Integrated high performance ceramic chip antenna
- **ARM Cortex M0** 32bit processor
- **256KB flash and 16KB RAM**
- Interface: SPI, UART, I2C and 8/9/10bit ADC
- Outline: **9.6** x **12.9** x **2.0** mm with **1mm** pad pitch
- Operating Temperature range: -20 to 75 deg-C
- Bluetooth and Japan, FCC, IC qualified
- RoHS compliant / Complete Lead Free

Applications
- Cycle computer
- Heart rate monitor
- Blood pressure monitor
- Blood glucose meter
- Weighing machine
- Thermometer
- Mobile accessories
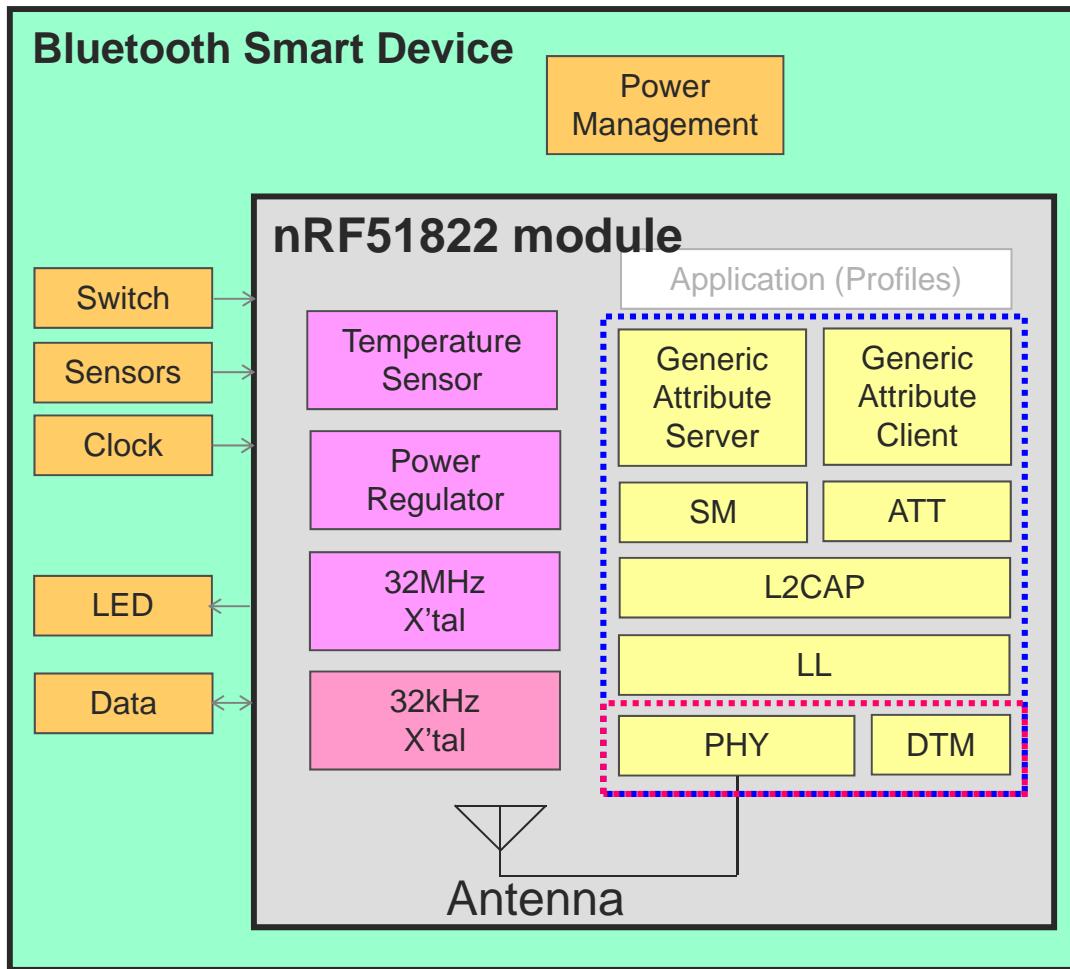- Sports and fitness sensors
- Remote controllers
- Toys

Outline

Unit: mm

9.6

12.9

Top View

Bottom View

Block Diagram

Filter

RF+BB
ARM Cortex M0

I/O

X'tal (32MHz)

X'tal (32kHz)

VDD

SWD (2)

I/O (29)

GND

All specifications are subject to change without notice.
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Application Layer image for **Basic Module**

Bluetooth Smart Device

Power Management

nRF51822 module

Switch

Sensors

Clock

LED

Data

Temperature Sensor

Power Regulator

32MHz X'tal

32kHz X'tal

Application (Profiles)

Generic Attribute Server

Generic Attribute Client

SM

ATT

L2CAP

LL

PHY

DTM

Antenna

EYSFCNZXX Basic Module

Nordic SDK

- Alert Notification
- Blood Pressure
- Cycling Speed and Cadence
- Glucose
- HID Mouse
- Heart Rate
- Phone Alert Status
- Proximity
- Running Speed and Cadence
- Time

Basic module will be written under GATT.

Software Device

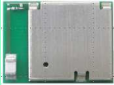|	
GAP:	Generic Access Profile
SM:	Security Manager
ATT:	Attribute Protocol
L2CAP:	Logical Link Control and Adaptation Protocol
LL:	Link Layer
PHY:	Physical Layer
DTM:	Direct Test Mode

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Bluetooth Smart® standard module

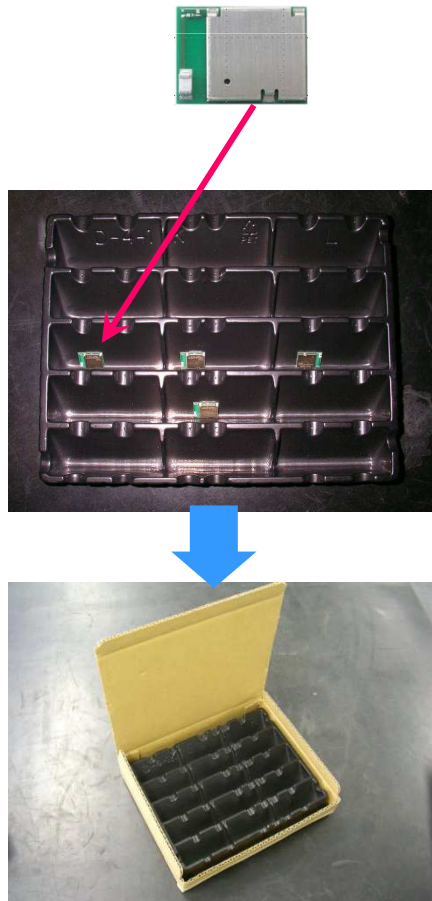| Name	Part No.	Software Support	TELEC	FCC, IC	BT Logo	Sample	EV-Board EV-kit	MP
Basic (Soft device) W/ Antenna	EYSFCNZXX	Nordic (Product key for Website)	Yes	Yes	Yes	Now	Now	Now

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Evaluation Board and sample image

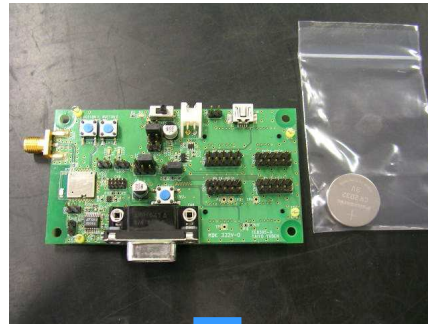| Item	Part #	Image	Attachment
Basic Module	EYSFCNZXX		• Doc (Data Report, EVB Manual) • Product key for Nordic site
Basic Module Evaluation Kit	EKSFCNZXX		• Doc (Data Report, EVB Manual) • Product key for Nordic site • TY EVB (EVB and Coin Battery) • Nordic DK (2 Boards, USB, Cables, Software)
Basic Module Evaluation Board	EBSFCNZXX		• Doc (Data Report, EVB Manual) • Product key for Nordic site • TY EVB (EVB and Coin Battery) • Distributor information for Nordic DK

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EYSFCNZXX, EBSFCNZXX, EKSFCNZXX

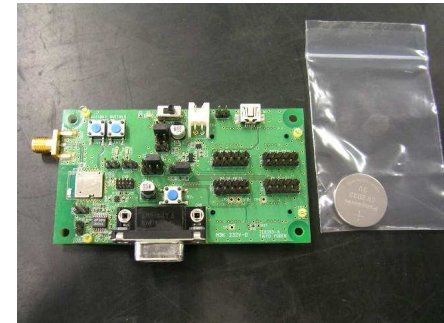| EYSFCNZXX (Module)	EBSFCNZXX (EV-Board)	EKSFCNZXX (EV-Kit)
■ Taiyo Yuden Module	■ Taiyo Yuden Evaluation board	■ Taiyo Yuden Evaluation board

■ Nordic nRF51822-DK

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