

Simplify the Integration of Sensors and Bluetooth Low Energy (BLE) Connectivity Using the BlueNRG-Tile Eval Kit

IoT Systems Development - Connectivity



WiFi Network:
Password:

JWMARRIOTT_MEETING
STM2019TT



Technology Tour 2019

Minneapolis, MN | October 24



Agenda

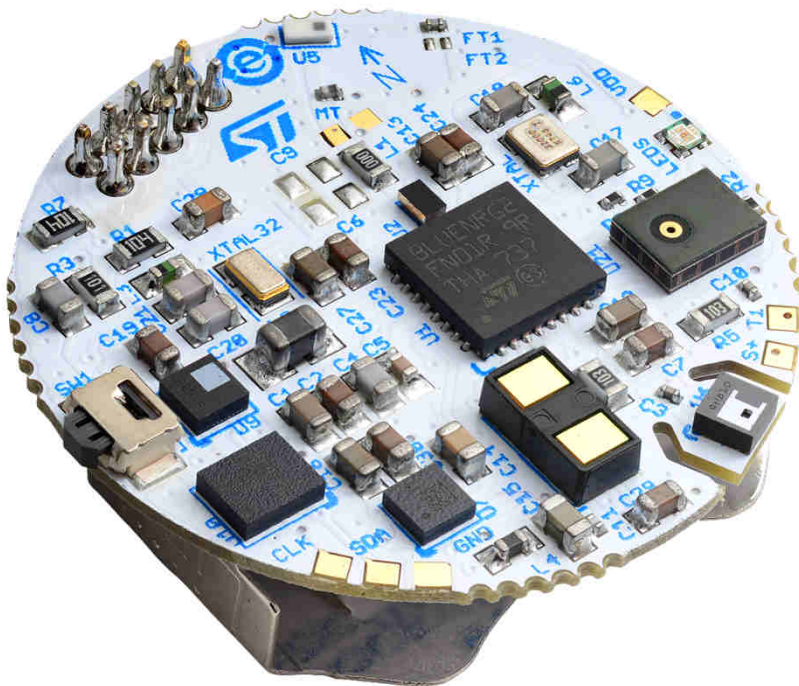
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BlueTile (STEVAL-BCN002V1)

- Training Material Check/Installation Help
- ARM® Keil MDK Installation
- Introduction to Bluetooth® Low Energy
- BlueTile Development Kit
- ARM® Keil MDK License Installation
- Lab 1: Getting Started with BlueTile “Serial Terminal Test”
- Lab 2: Connecting to the ST BLE Sensor app
- Lab 3: LED characteristic
- Lab 4: Accelerometer embedded events detection
- Lab 5: 9-axis Acc+Gyro+Mag Sensor Data Fusion
- Lab 6: Cloud data logging on IBM Watson
- Lab 7: Bonus – Voice over BLE

WiFi Network: **STMicro**
Password: **STMTT19**

BlueTile (STEVAL-BCN002V1 B)



<http://www.st.com/bluetile>

The screenshot displays the product page for the STEVAL-BCN002V1B. At the top, there is a navigation bar with the ST logo and 'life.augmented' tagline. A search bar and a 'Products' dropdown menu are visible. The main navigation menu includes 'Products', 'Applications', 'Tools & Software', 'About ST', 'Sample & Buy', 'Support & Community', and 'Login'. The breadcrumb trail reads: 'Evaluation Tools > Solution Evaluation Tools > Sensor Solution Eval Boards > STEVAL-BCN002V1B >'. The product title 'STEVAL-BCN002V1B' is followed by an 'ACTIVE' status indicator. Action icons for 'Print', 'Save to MyST', and 'Share via Email' are present. A 'Download databrief' button is located below the product description. A 'Sample and buy' button is highlighted in a box on the right side of the page. The product description text is: 'The STEVAL-BCN002V1B Bluetooth LE enabled sensor node development kit features the STEVAL-BCN002V1 multi-sensor board based on BlueNRG-2 SoC Bluetooth Low Energy application processor. This sensor board has accelerometer, gyroscope, magnetometer, pressure, humidity, Time-of-Flight and microphone sensors, and is powered by a common CR2032 coin battery.'



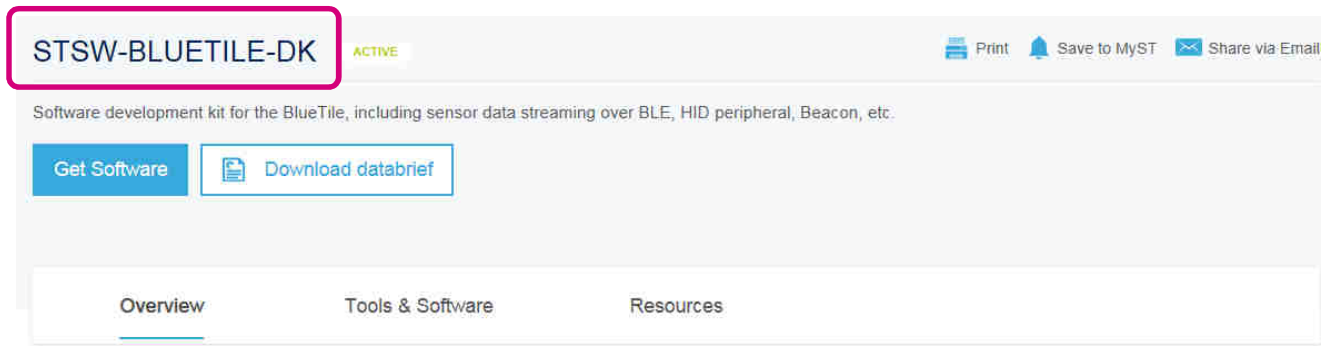
<http://www.st.com/bluetile>

Software Development Kit

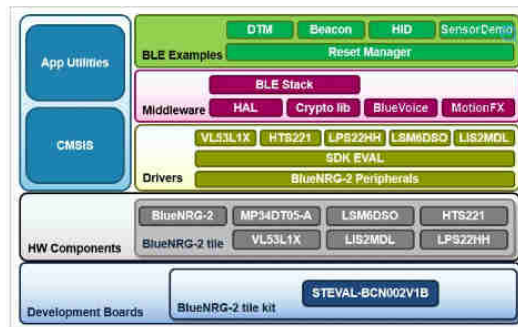
The screenshot shows the STMicroelectronics website interface for the STEVAL-BCN002V1B product. The page includes a navigation bar with 'Products', 'Applications', 'Tools & Software', and 'About ST'. A search bar is located at the top right. The main content area displays the product name 'STEVAL-BCN002V1B' with an 'ACTIVE' status and a 'Download databrief' button. A blue arrow points from the 'Software Development Kit' text to the 'Tools & Software' tab in the navigation menu. Below the navigation menu, there are quick links for 'Evaluation Tool Software' and 'Wireless Connectivity Software'. The page also features a 'Sample and buy' button and a notification that the product is in stock.



- <https://www.st.com/en/embedded-software/stsw-bluetile-dk.html>



The STSW-BLUETILE-DK is based on STSW-BLUENRG1-DK evaluation SW package.



The STSW-BLUENRG1-DK package supports the BlueNRG-1 and BlueNRG-2 Bluetooth Low-Energy system-on-chip. This package includes a Wizard PC application to automatically generate the configuration header file needed for the BLE radio initialization. This package also includes BlueNRG-1 and BlueNRG-2 peripheral drivers and related examples, the BLE firmware stack together with the HAL (Hardware Abstraction Layer) and CryptoLib (Cryptographic Library).

The STSW-BLUETILE-DK supports the BlueTile platform. This package extends STSW-BLUENRG1-DK

On St.com

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<http://www.st.com/bluetile>

Schematic
Gerbers
BOM

The screenshot displays the ST.com website interface for the product STEVAL-BCN002V1B. At the top, there is a navigation bar with the ST logo and 'life.augmented' tagline, a search bar, and a 'Products' dropdown menu. Below this is a secondary navigation bar with links for 'Products', 'Applications', 'Tools & Software', 'About ST', 'Sample & Buy', 'Support & Community', and 'Login'. The breadcrumb trail indicates the path: 'Evaluation Tools > Solution Evaluation Tools > Sensor Solution Eval Boards > STEVAL-BCN002V1B >'. The product name 'STEVAL-BCN002V1B' is prominently displayed with an 'ACTIVE' status. To the right of the product name are icons for 'Print', 'Save to MyST', and 'Share via Email'. A 'Download databrief' button is located below the product name. On the right side, a notification states 'This product is in stock in our e-store' with a 'Sample and buy' button. The 'Resources' tab is selected in the navigation menu, showing a 'Quick links' section with three columns of links: 'Product Specifications', 'Bill of Materials', and 'License Agreement' in the first column; 'Presentations' and 'Schematics' in the second column; and 'Board Manufacturing Specifications' and 'Brochures' in the third column. A large blue arrow points from the 'Schematic Gerbers BOM' text on the left to the 'Schematics' link in the 'Resources' section.



Companion ST BLE Sensor App



ON YOUR PHONE

- Look for “**ST BLE Sensor**” on the App Store or Google Play



Where to Get It

Sample & Buy

Part Number	Marketing Status	Budgetary Price (US\$)	Quantity	Core Product	ECCN (US)	Country of Origin	Order from Distributors	Order from ST
STEVAL-BCN002V1B	ACTIVE	50.0	1	BlueNRG-2, BALF-NRG-02D3, LSM6DSO, LIS2MDL, VL53L1X, MP34DT05TR-A, LPS22HH, HTS221	5A992C	ITALY	Check Availability	Buy direct

Where to Get It

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Contact Mouser (USA) (800) 346-6873 | Feedback Change Location English US


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Order in the next **58:18** to ship today. [Learn More](#)

STEVAL-BCN002V1B



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Images are for reference only
See Product Specifications
[Share](#)

Mouser #:	511-STEVAL-BCN002V1B
Mfr. #:	STEVAL-BCN002V1B
Mfr.:	STMicroelectronics
Customer #:	<input type="text" value="Customer #"/>
Description:	Multiple Function Sensor Development Tools BlueNRG-Tile - Bluetooth LE enabled sensor node development kit
Lifecycle:	New Product: New from this manufacturer.
Datasheet:	STEVAL-BCN002V1B Datasheet
More Information:	Learn more about STMicroelectronics STEVAL-BCN002V1B
Shipping Alert:	This product may require additional documentation to export from the United States.


In Stock: 49

Stock:	49 Can Ship Immediately
On Order:	30 View Delivery Dates
Factory Lead-Time:	11 Weeks
Enter Quantity:	Minimum: 1 Multiples: 1 <input type="text"/> <input type="button" value="Buy"/>

Pricing (USD)

Qty.	Unit Price	Ext. Price
1	\$50.00	\$50.00

NEWEST PRODUCTS
STMICROELECTRONICS



STEVAL-BCN002V1B BlueTile Development Kit



<https://my.st.com/ols>

The screenshot shows the ST myST website interface. At the top left is the ST logo with the tagline "life.augmented". To its right is a navigation bar with "Products" (dropdown), a search bar, and a "Search" button. Further right are "Contact Us" and "English" (dropdown). Below this is a dark blue navigation bar with links for "Products", "Applications", "Tools & Software", "About ST", "Sample & Buy", "Support & Community", and "Login".

The main content area is split into two columns. The left column is titled "Welcome back!" and contains a login form. The right column is titled "New user?" and contains a registration form. A "Support" button is located on the right side of the page.

Welcome back!

Enter your e-mail address and password to login your myST user.

E-mail address

Password

Remember me on this computer. ⓘ

[Login](#)

[Forgot password?](#)

New user?

myST brings you a set of personalized features:

- Participate to ST Events
- Stay informed with ST eNewsletters
- Get help with ST Online Support
- Discuss on the ST Community
- Benefit from our Online Design Tools
- Download Software
- Order free samples
- Manage your weekly product updates
- Buy ST Products & Tools

[Create Account](#)

[Support](#)

Online Support



Service Portal **New Request** RAF RIVA Logout

Case Id	Subject	Status	Creation Date	Last Update On
---------	---------	--------	---------------	----------------

No Cases found. Click on 'New Request' to create one.



Insert the Part Number

STEVAL-BCN002V1B



Service Portal New Request RAF RIVA Logout

Case Details

Urgency* Medium	Project Name Project Name
Category*	Production Forecast (Qty)
Notify To Please specify email addresses in the 'Description' or 'Comments' boxes to add people in copy of this request. This will be added by the Support Agent.	

Case Description

Product Category or ST Part Number Enter atleast 3 characters.
Subject* Subject
Description Type something





Introduction to Bluetooth Low Energy