

Bluetooth® module HY0021

Low-end Bluetooth® low energy module with slot antenna on shielded package technology

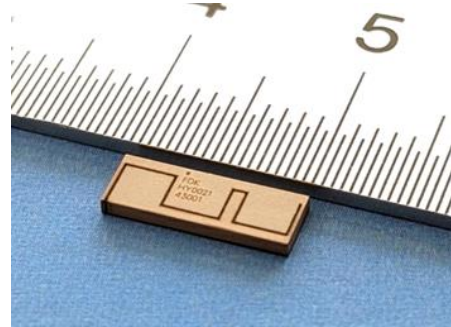
Ultra-small
3.5x10x1.0 mm

All in one
All wireless function included.
Wireless certified.

Original antenna
Wiring design flexibility

Features

- Slot antenna on shielded package
 - Ultra-small module with slot antenna built into shielded package
 - Large area restrictions are not required. World's smallest occupied area on mounting board. (*1)
- Bluetooth v5.4
 - Low energy 2Mbps
 - Maximum output power : +4dBm
 - Sensitivity : -94dBm (1Mbps)
- Chip : Nordic nRF52805
 - Arm® Cortex®-M4 32-bit processor, 64MHz
 - 192KB Flash / 24KB RAM
- Digital interface : SPI, I2C, UART, QDEC
- 12-bit 200ksps ADC
- Integrated 32MHz, 32.768kHz clock
- Supply voltage : 1.7 to 3.6 V
- Integrated LDO, DC/DC circuit
- Operating temperature range : -40°C to +85°C
- Dimensions : 3.5 x 10 x 1.0 mm
- RoHS compliant / Lead free
- Certification/Qualification
 - Bluetooth
 - MIC Japan
 - FCC
 - ISED
 - (ETSI EN300 328 V2.2.2)



Benefits

- Best match for small products with restricted PCB-area.
- Just fit for highly creative or unique products based on the wiring design flexibility.
- No need for specific wireless know-how as all-in-one design & wireless certified.

Applications

- Wearables
- Health Care
- Remote Control
- IoT
- Beacons
- Computer Peripherals

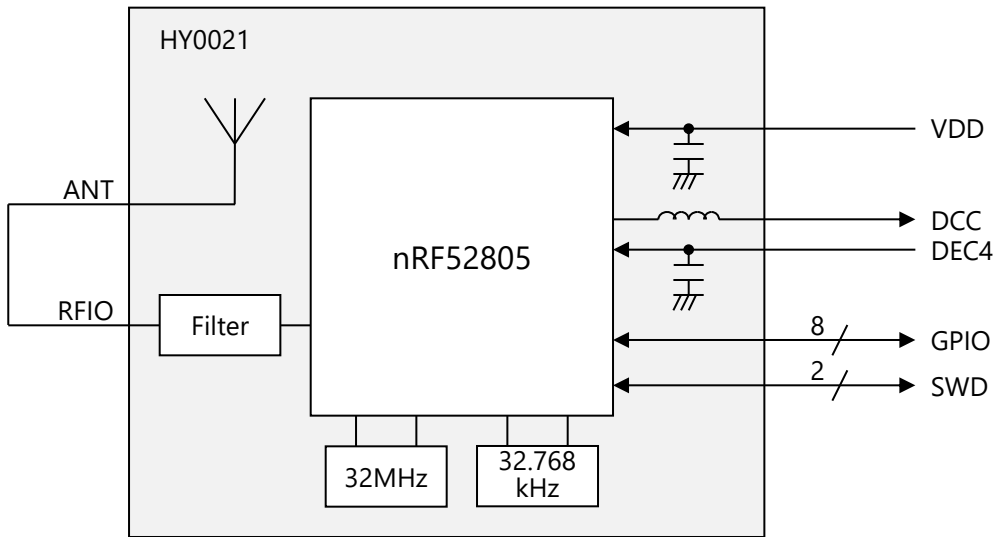
*1 As of Mar. 13, 2025 According to our research.

*2 FDK Corporation designs, manufactures and sells these modules under license of Slot Antenna on Shielded Package technology patented by Toshiba Corporation.

*3 The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc.

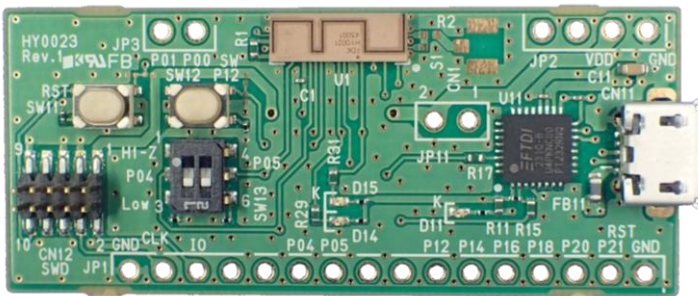
*4 Arm and Cortex are registered trademarks of Arm Limited (or its subsidiaries) in the US and/or elsewhere.

Block Diagram



Evaluation Board

An evaluation board with HY0021 is also available. Please use it for checking the characteristics of this module and for your software development.



Inquiry

If you have any questions or inquiries, please contact us without reservation!

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All specifications are subject to change without notice.

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