



Cypress Roadmap: Module Solutions

Q4 2018



Cypress Bluetooth Module Portfolio

Features	Cost	Size	External Antenna	XR ¹	XT ² /XR
	CYBLE-416045-02 Q418 EZ-BLE Creator BT 5.0 PSoC 6 BLE 1MB Flash, 2Mbps BLE, 36 GPIOs 14 x 18.5 x 2.00 mm SMT	CYBT-423028-02 EZ-BT WICED BT 5.0 Dual Mode CYW20719 1MB Flash, 2Mbps BLE 11 x 11 x 1.70 mm SMT Mesh	CYBT-333032-02 Q119 EZ-BT WICED BT 5.0 Dual Mode CYW20706 512KB SFlash, LMA ³ , XR Ext. Antenna via RF Pad 12 x 12 x 1.95 mm SMT Mesh	CYBT-483039-02 EZ-BT WICED BT 5.0 Dual Mode CYW20719 1MB Flash, 2Mbps BLE, PA/LNA ⁴ , XR 12.75 x 18.59 x 1.80 mm SMT Mesh	CYBT-343151-02 Q119 EZ-BT WICED BT 5.0 Dual Mode CYW20706 512KB SFlash, 11 GPIOs, XR 12 x 15.5 x 1.95 mm SMT Mesh
	CYBT-413034-02 EZ-BT WICED BT 5.0 Dual Mode CYW20719 1MB Flash, 2Mbps BLE 12 x 16.3 x 1.70 mm SMT Mesh	CYBT-353027-02 EZ-BT WICED BT 5.0 Dual Mode CYW20707 512KB SFlash ⁵ , XR 9 x 9 x 1.75 mm SMT Mesh EZ-S	CYBT-333047-02 Q119 EZ-BT WICED BT 5.0 Dual Mode CYW20706 512KB SFlash, LMA, XR Ext. Antenna via u.FL 12 x 12 x 1.95 mm SMT Mesh	CYBLE-212006-01 EZ-BLE Creator BT 4.2 PSoC 4 BLE 256 KB Flash, PA/LNA, XR PCB Antenna, 19 GPIOs 15 x 23 x 2.00 mm SMT EZ-S	CYBLE-22411x-0x EZ-BLE Creator BT 4.1/4.2 PSoC4-BLE, 256 KB Flash, PA/LNA, XR Opamp, CMP ⁶ , 4 UDB ⁷ , 25 GPIOs 9.5 x 15.4 x 1.80 mm SMT EZ-S
	CYBT-213043-02 Q119 EZ-BT WICED BT 5.0 Dual Mode CYW20819 256KB Flash, 2Mbps BLE 12 x 16.3 x 1.70 mm SMT Mesh	CYBLE-x140xx-0x EZ-BLE Creator BT 4.1/4.2 PSoC 4 BLE, 128/256KB Flash, Opamp, CMP, 4 UDBs, 25 GPIOs 11 x 11 x 1.70 mm SMT EZ-S	CYBLE-202007-01 EZ-BLE Creator BT 4.2 PSoC 4 BLE, 256 KB Flash, PA/LNA, XR, Ext. Antenna via u.FL, 19 GPIOs 15 x 23 x 2.05 mm SMT EZ-S	CYBT-343052-02 Q219 EZ-BT WICED BT 5.0 Dual Mode CYW20735 512KB SFlash, 11 GPIOs, XR, Analog MIC interface 12 x 15.5 x 1.95 mm SMT Mesh	
	CYBT-343026-01 EZ-BT WICED BT 5.0 Dual Mode CYW20706 512KB SFlash, 11 GPIOs, XR 12 x 15.5 x 1.95 mm SMT Mesh EZ-S	CYBLE-x220xx-0x EZ-BLE Creator BT 4.1/4.2 PSoC 4 BLE 128/256KB Flash, 16 GPIOs 10 x 10 x 1.80 mm SMT EZ-S	CYBLE-202013-11 EZ-BLE Creator BT 4.2 PSoC 4 BLE, 256 KB Flash, PA/LNA, NS ⁸ , NC ⁹ , XR, Ext. Antenna via RF Pad, 19 GPIOs 15 x 23 x 1.55 mm SMT EZ-S		
	CYBLE-x120xx-0x EZ-BLE Creator BT 4.1/4.2 PSoC 4 BLE 128/256KB Flash, 23 GPIOs 14 x 19 x 2.00 mm SMT EZ-S				
	CYBLE-0130xx-00 EZ-BLE WICED BT 4.1 CYW20737 128KB/0KB SFlash, 16/18 GPIOs 14 x 19 x 2.25 mm SMT EZ-S				

EZ-BLE/BT modules are pre-programmed with Cypress' [EZ-Serial Firmware Platform](#)

EZ-BLE Creator Standard Features:
 CapSense, 1MSPS ADC, LCD Driver,
 4 TCPWM¹⁰, DAC, 2SCB¹¹

EZ-BT/BLE WICED Standard Features:
 Simultaneous Master/Slave,
 ADC, PWM, UART

¹ Extended range power

² Extended temperature

³ Limited modular approval

⁴ Power amplifier/Low-noise amplifier

⁵ Serial flash

⁶ Comparator

⁷ Universal digital block

⁸ No shield

⁹ No certifications

¹⁰ Timer/counter/pulse-width modulator

¹¹ Serial communication block

Mesh
EZ-S

Bluetooth SIG Mesh Qualified
 Pre-programmed with EZ-Serial
 Firmware

Status
 Availability

Concept
□

Development
□

Sampling
□
 QQYY

Production
□
 QQYY



EZ-BLE™ Creator Modules CYBLE-x220xx-0x

Space-Optimized Bluetooth Low-Energy (BLE) Modules

Applications

Connectivity, medical, industrial, PC accessories, toys, and smartphone accessories

Features

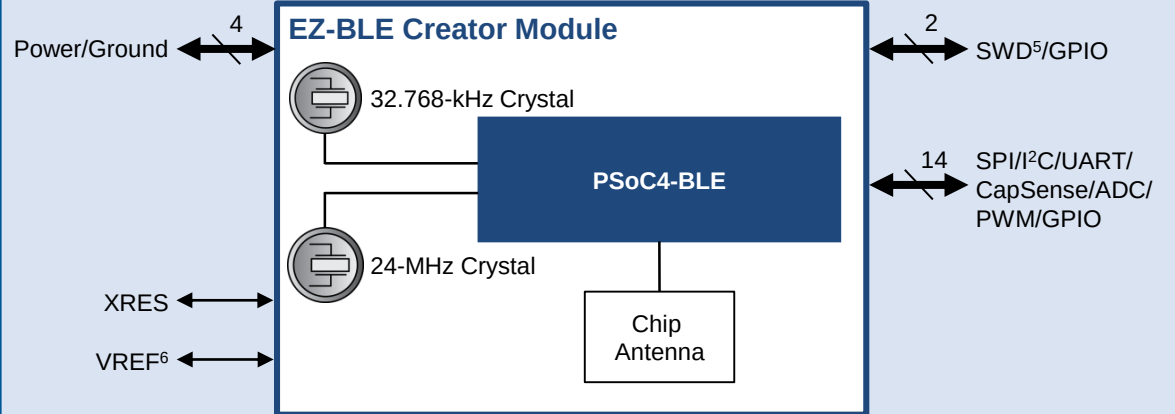
- **Qualification and Certification**
 - Bluetooth SIG QDID¹, FCC, CE, KC², MIC³, and ISED⁴
- **Small Footprint**
 - 10 mm x 10 mm x 1.8 mm, 21/22-pad SMT with 16 GPIOs
- **Bluetooth Smart Connectivity with BLE 4.1 and 4.2**
 - 2.4-GHz BLE radio and baseband
 - -91-dBm Rx sensitivity, +3-dBm Tx output power
- **1.3-µA Deep Sleep, 150-nA Hibernate, 60-nA Stop Power Modes**
- **Highly Integrated Solution**
 - Two crystals, chip antenna, passives, shield
 - 128KB and 256KB flash sizes
 - Preprogrammed with EZ-Serial firmware
- **CYBLE-x220xx-EVAL Evaluation Board Interface**
 - Easy interface to CY8CKIT-042-BLE Pioneer Kit
 - Enables testing of CapSense®, buttons, GPIOs, over-the-air (OTA)

Availability

Sampling (4.1/128KB, 4.1/256KB, 4.2): Now

Production (4.1/128KB, 4.1/256KB, 4.2): Now

EZ-BLE Creator Module Family: CYBLE-x220xx-0x



Collateral

Datasheets

[CYBLE-022001-00 Datasheet](#)

[CYBLE-222005-00 Datasheet](#)

[CYBLE-222014-01 \(BT 4.2\) Datasheet](#)

[BLE Silicon Datasheet](#)

App Notes/Evaluation Kit User Guides

[Getting Started With EZ-BLE™ Module](#) (AN96841)

[PSoC Creator](#)

[PSoC Programmer](#)

[CySmart⁷ Windows Host Emulation Tool](#)

[CySmart iOS and Android Apps](#)



¹ Bluetooth Special Interest Group Qualification Design ID

² Korea certification

³ Ministry of Internal Affairs and Communications (Japan)

⁴ Innovation, Science and Economic Development Canada

⁵ Serial wire debug communication protocol

⁶ VREF only available on 256KB module

⁷ A GUI-based software tool that installs on your PC to test and debug BLE functionality; also available in iOS and Android mobile applications

EZ-BLE Creator Modules CYBLE-x140xx-0x

BLE Modules Designed to Maximize System Integration with Integrated Analog Functionality

Applications

Sports and fitness monitors, medical devices, wearable, electronics, home automation solutions, and game controllers

Features

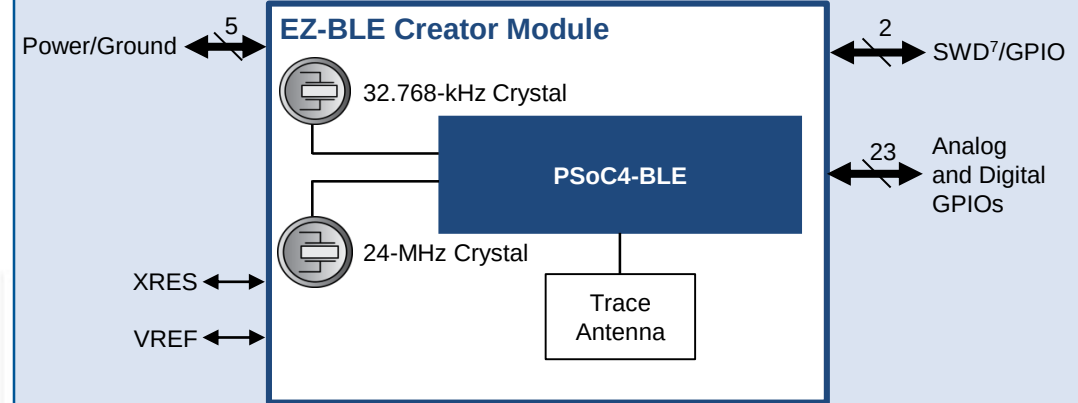
- **Qualification and Certification**
 - Bluetooth SIG QDID¹, FCC, CE, KC², MIC³, and ISED⁴
- **Small Footprint**
 - 11 mm x 11 mm x 1.8 mm, 32-SMT, 25 GPIOs
- **Bluetooth Smart Connectivity with Bluetooth 4.1 and 4.2**
- **Highly Integrated Solution**
 - Two crystals, trace antenna, passives, shield
 - 128KB and 256KB flash sizes, with over-the-air (OTA) firmware upgrades
 - Preprogrammed with EZ-Serial firmware
- **Programmable Analog Blocks**
 - Four opamps and one 12-bit, 1-Msps SAR⁵ ADC
- **Programmable Digital Blocks**
 - Four universal digital blocks (UDBs): custom digital peripherals
 - Four configurable TCPWM⁶ blocks: 16-bit timer, counter, or PWM
 - Two configurable serial communication blocks for I²C/SPI/UART
- **1.3-µA Deep Sleep, 150-nA Hibernate, 60-nA Stop Power Modes**
- **CYBLE-x140xx-EVAL Kit for Fast Evaluation and Development**

Availability

Sampling (4.1/128KB, 4.1/256KB, 4.2): Now

Production (4.1/128KB, 4.1/256KB, 4.2): Now

EZ-BLE Creator Module Family: CYBLE-x140xx-0x



Collateral

Datasheets

[CYBLE-014008-00 Datasheet](#)

[CYBLE-214009-00 Datasheet](#)

[CYBLE-214015-01 \(BT 4.2\) Datasheet](#)

[BLE Silicon Datasheet](#)

App Notes/Evaluation Kit User Guides

[Getting Started With EZ-BLE™ Module](#) (AN96841)

[PSoC Creator](#)

[PSoC Programmer](#)

[CySmart⁸ Windows Host Emulation Tool](#)

[CySmart iOS and Android Apps](#)



¹ Bluetooth Special Interest Group Qualification Design ID

² Korea Certification

³ Ministry of Internal Affairs and Communications (Japan)

⁴ Innovation, Science and Economic Development Canada

⁵ Successive approximation register

⁶ Timer/counter/pulse-width modulator

⁷ Serial wire debug communication protocol

⁸ A GUI-based software tool that installs on your PC to test and debug BLE functionality; also available in iOS and Android mobile applications

EZ-BLE Creator Modules CYBLE-x120xx-xx

Cost-Optimized Bluetooth Low-Energy (BLE) Modules

Applications

Connectivity, medical, industrial, PC accessories, toys, and smartphone accessories

Features

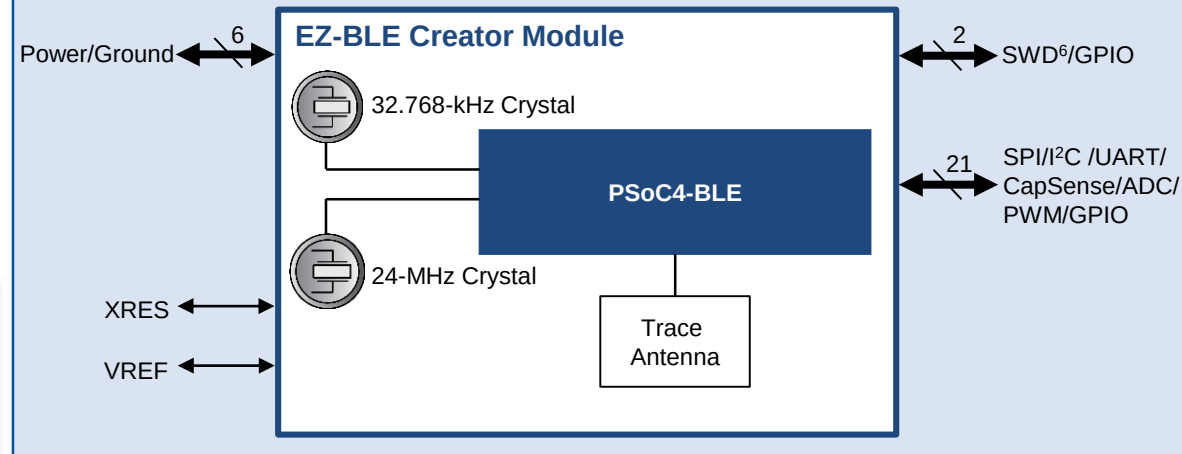
- **Qualification and Certification**
 - Bluetooth SIG QDID¹ (CYBLE-012011-00/CYBLE-212019-00), FCC, CE, KC², MIC³, and ISD⁴
- **Small Footprint**
 - 14.5 mm x 19.2 mm x 2.0 mm, 31-pad SMT with 23 GPIO
- **Bluetooth Smart Connectivity with Bluetooth 4.1 and 4.2**
 - 2.4-GHz BLE radio and baseband
 - -91-dBm Rx sensitivity, +3-dBm Tx output power
- **Power Modes**
 - 1.3-µA Deep Sleep, 150-nA Hibernate, and 60-nA Stop
- **Highly Integrated Solution**
 - Two crystals, trace antenna, passives, shield⁵
 - Preprogrammed with EZ-Serial firmware
- **CYBLE-x120xx-EVAL Adapter Board Interface**
 - Easy interface to CY8CKIT-042-BLE Pioneer Kit
 - Enables testing of CapSense, buttons, GPIOs, over-the-air (OTA)

Availability

Sampling (4.1/128KB, 4.1/256KB, 4.2): Now

Production (4.1/128KB, 4.1/256KB, 4.2): Now

EZ-BLE Creator Module Family: CYBLE-x120xx-xx



Collateral

Datasheets

[CYBLE-012011-00 Datasheet](#)

[CYBLE-212019-00 Datasheet](#)

[CYBLE-212020-01 \(BT 4.2\) Datasheet](#)

[BLE Silicon Datasheet](#)

App Notes/Evaluation Kit User Guides

[Getting Started With EZ-BLE™ Module](#) (AN96841)

[PSoC Creator](#)

[PSoC Programmer](#)

[CySmart⁷ Windows Host Emulation Tool](#)

[CySmart iOS and Android Apps](#)



¹ Bluetooth Special Interest Group Qualification Design ID

² Korea Certification

³ Ministry of Internal Affairs and Communications (Japan)

⁴ Innovation, Science and Economic Development Canada

⁵ CYBLE-0120012-10 does not include metal shield

⁶ Serial wire debug communication protocol

⁷ A GUI-based software tool that installs on your PC to test and debug BLE functionality; also available in iOS and Android mobile applications

EZ-BLE Creator XR¹ Modules CYBLE-2x20xx-x1

Cost-Optimized Bluetooth Smart Ready WICED Modules Supporting External Antenna

Applications

BLE connectivity, lighting, industrial, and medical

Features

- **Qualification and Certification**
 - Bluetooth SIG QDID², FCC, CE, MIC³, KC⁴, and ISED⁵
- **Small Footprint**
 - 15.0 mm x 23.0 mm x 2.0 mm, 30-pad SMT with 19 GPIOs
- **Bluetooth Smart Connectivity with Bluetooth 4.2**
 - 2.4-GHz BLE radio and baseband
- **Industrial Temperature Range**
 - Operating temperature range from -40°C to +85°C
- **Long Range**
 - +7.5-dBm Tx output power, 400 meters line-of-sight range
 - -93-dBm Rx sensitivity
- **Highly Integrated Solution**
 - Two crystals, trace antenna (optional), power amplifier, passives
 - Preprogrammed with EZ-Serial firmware
- **CYBLE-2x20xx-EVAL Adapter Board Interface**
 - Easy interface to CY8CKIT-042-BLE Pioneer Kit
 - Enables testing of CapSense, buttons, GPIOs, over-the-air (OTA)

Availability

Sampling: Now

Production: Now

¹ Extended range

² Bluetooth Special Interest Group Qualification Design ID

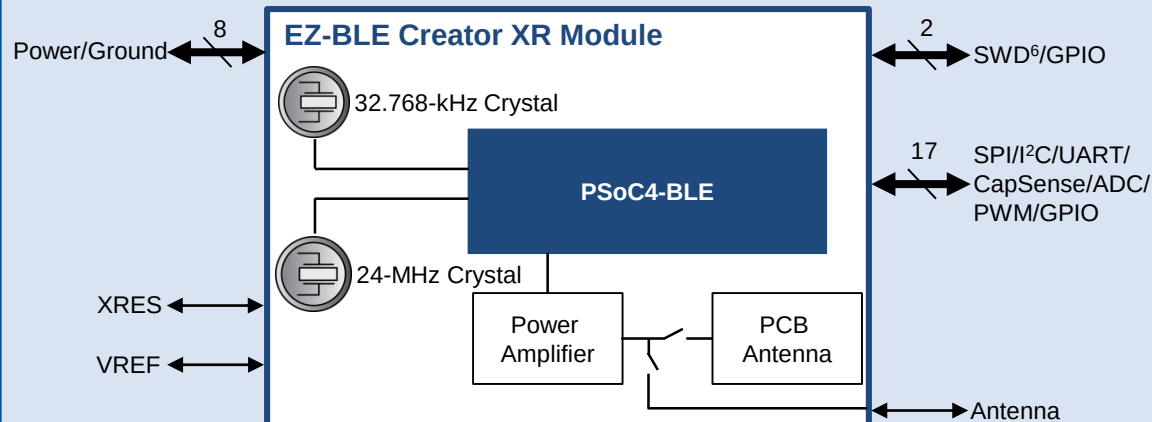
³ Ministry of Internal Affairs and Communications (Japan)

⁴ Korea Certification

⁵ Innovation, Science and Economic Development Canada

⁶ Serial wire debug communication protocol

EZ-BLE Creator Module Family: CYBLE-2x20xx-x1



Collateral

Datasheets

[CYBLE-2x20xx-x1 \(BT 4.2\) Datasheet](#)

[BLE Silicon Datasheet](#)

App Notes/Evaluation Kit User Guides

[Getting Started With EZ-BLE™ Module](#) (AN96841)

[PSoC Creator](#)

[PSoC Programmer](#)

[CySmart⁷ Windows Host Emulation Tool](#)

[CySmart iOS and Android Apps](#)



⁷ A GUI-based software tool that installs on your PC to test and debug BLE functionality; also available in iOS and Android mobile applications

EZ-BLE Creator XT/XR¹ Modules CYBLE-22411x-0x

Long-Range Bluetooth Low-Energy (BLE) Modules Supporting Extended Temperatures

Applications

Connectivity, lighting, industrial, and medical

Features

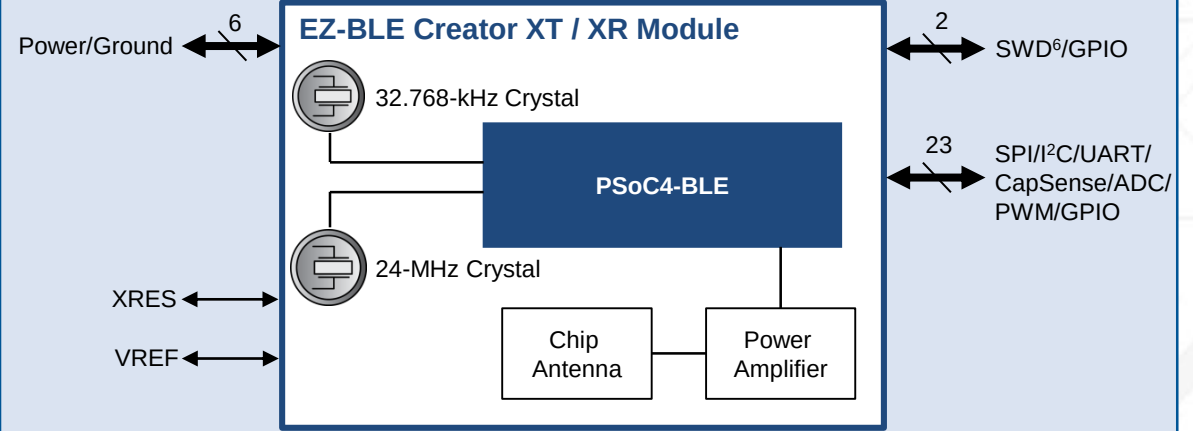
- **Qualification and Certification**
 - Bluetooth SIG QDID², FCC, CE, MIC³, KC⁴, and ISED⁵
- **Small Footprint**
 - 9.5 mm x 15.4 mm x 1.8 mm, 32-pad SMT with 25 GPIOs
- **Bluetooth Smart Connectivity with Bluetooth 4.1 and 4.2**
 - 2.4-GHz BLE radio and baseband
- **Extended Industrial Temperature Range**
 - Operating temperature range from -40°C to +105°C
- **Long Range**
 - +9.5-dBm Tx output power, 400 meters line-of-sight range
 - -95-dBm Rx sensitivity
- **Highly Integrated Solution**
 - Two crystals, trace antenna, power amplifier, passives, shield
 - Preprogrammed with EZ-Serial firmware
- **CYBLE-22411x-EVAL Adapter Board Interface**
 - Easy interface to CY8CKIT-042-BLE Pioneer Kit
 - Enables testing of CapSense, buttons, GPIOs, over-the-air (OTA)

Availability

Sampling (4.1/128KB, 4.2/256KB): Now

Production (4.1/128KB, 4.2/256KB): Now

EZ-BLE Creator Module Family: CYBLE-22411x-0x



Collateral

Datasheet

[CYBLE-224110-00 Datasheet](#)

[BLE Silicon Datasheet](#)

[CYBLE-224116-01 \(BT 4.2\) Datasheet](#)

App Notes/Evaluation Kit User Guides

[Getting Started With EZ-BLE™ Module](#) (AN96841)

[PSoC Creator](#)

[PSoC Programmer](#)

[CySmart⁷ Windows Host Emulation Tool](#)

[CySmart iOS and Android Apps](#)



¹ Extended temperature/extended range

² Bluetooth Special Interest Group Qualification Design ID

³ Ministry of Internal Affairs and Communications (Japan)

⁴ Korea Certification

⁵ Innovation, Science and Economic Development Canada

⁶ Serial wire debug communication protocol

⁷ A GUI-based software tool that installs on your PC to test and debug BLE functionality; also available in iOS and Android mobile applications

EZ-BLE Creator Modules CYBLE-416045-02

Ultra-Low-Power Bluetooth Low-Energy (BLE) Module

Applications

BLE connectivity, lighting, industrial, and medical

Features

- **Qualification and Certification**
 - Bluetooth SIG QDID¹, FCC, CE, MIC², and ISCED³
- **Small Footprint**
 - 14.0 mm x 18.5 mm x 2.0 mm, 43-pad SMT with 36 GPIOs
- **Bluetooth Smart Connectivity with Bluetooth 5.0**
 - 2.4-GHz BLE radio and baseband
 - +4.0-dBm Tx output power, -95-dBm Rx sensitivity
- **Industrial Temperature Range**
 - Operating temperature range from -40°C to +85°C
- **Power Modes**
 - 5.7-mA TX (0 dBm) and 6.7-mA RX (2 Mbps) current with 3.3-V battery and internal SIMO Buck converter
 - Deep Sleep mode current with 64K SRAM retention is 7 µA with 3.3-V external supply and internal buck
 - On-chip Single-In Multiple Out (SIMO) DC-DC Buck converter, <1 µA quiescent current
- **Highly Integrated Solution**
 - One crystal, trace antenna, passives

Availability

Sampling: Now

Production: Q4 2018

¹ Bluetooth Special Interest Group Qualification Design ID

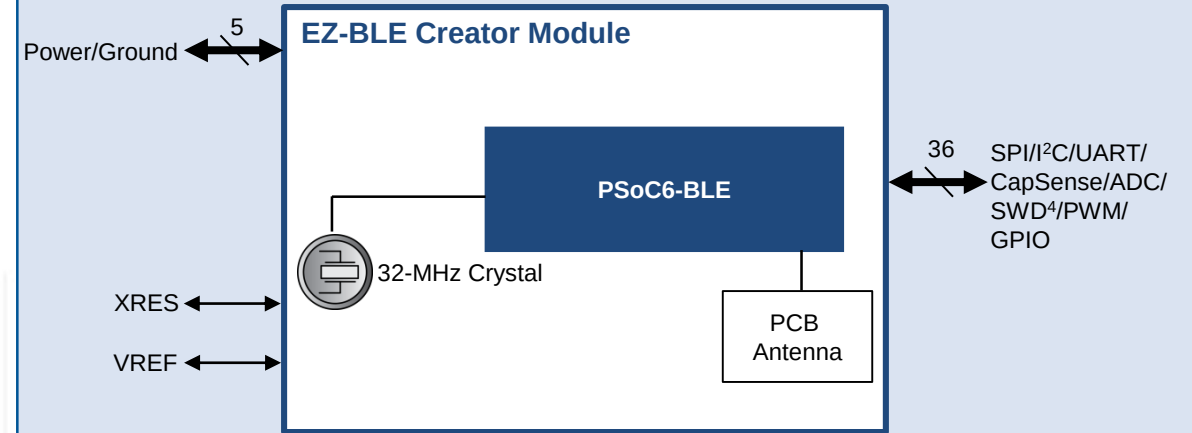
² Ministry of Internal Affairs and Communications (Japan)

³ Innovation, Science and Economic Development Canada

⁴ Serial wire debug communication protocol

⁵ A GUI-based software tool that installs on your PC to test and debug BLE functionality; also available in iOS and Android mobile applications

EZ-BLE Creator Module Family: CYBLE-416045-02



Collateral

Datasheets

[CYBLE-416045-02 Datasheet](#)

[BLE Silicon, PSoC 6 MCU: PSoC 63 with BLE Datasheet](#)

App Notes/Evaluation Kit User Guides

[Getting Started With EZ-BLE™ Module](#) (AN96841)

[PSoC Creator](#)

[PSoC Programmer](#)

[CySmart⁶ Windows Host Emulation Tool](#)

[CySmart iOS and Android Apps](#)



EZ-BLE WICED Modules CYBLE-0130xx-00

Cost-Optimized Bluetooth Low-Energy (BLE) WICED Modules

Applications

Connectivity, medical, industrial, PC accessories, toys, and smartphone accessories

Features

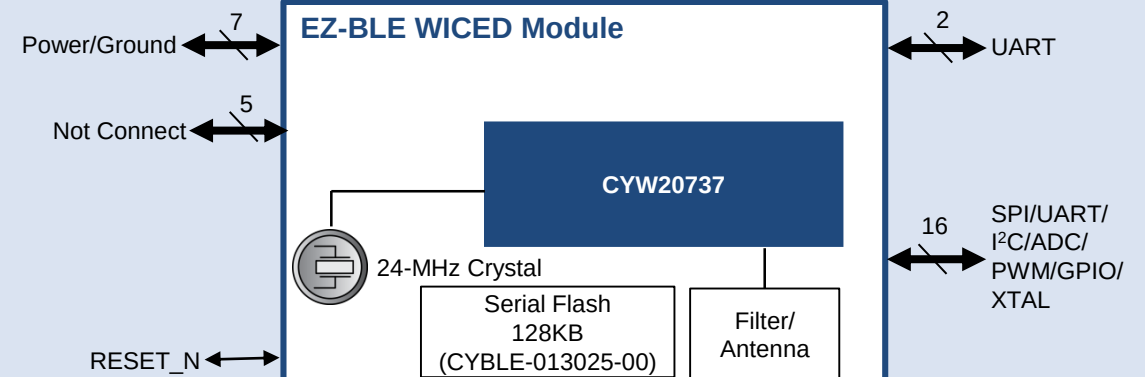
- **Qualification and Certification**
 - Bluetooth SIG QDID¹, FCC, CE, MIC², and ISCED³
- **Small Footprint**
 - 14.5 mm x 19.2 mm x 2.0 mm, 31-pad SMT with 16/18 GPIO
- **Bluetooth Smart Connectivity with Bluetooth 4.1**
 - 2.4-GHz BLE radio and baseband
 - -93-dBm Rx sensitivity, +4-dBm Tx output power
- **Highly Integrated Solution**
 - One crystal, 128KB flash (CYBLE-013025-00), PCB antenna, shield
 - Simultaneous multiple Master and Slave (1M, 3S)
 - Security engine
 - Secure over-the-air (OTA) firmware upgrade (CYBLE-013025-00)
 - Preprogrammed with EZ-Serial firmware
- **CYBLE-013025-EVAL Arduino Evaluation Board**

Availability

Sampling: Now

Production: Now

EZ-BLE WICED Module Family: CYBLE-0130xx-00



Collateral

Datasheets

[CYBLE-0130xx-00 Datasheet](#)

Evaluation Kit User Guide

[CYBLE-013025-EVAL Evaluation Board](#)

[WICED SMART SDK \(Software\)](#)

[WICED SMART SDK 2.x \(Quick Start Guide\)](#)



¹ Bluetooth Special Interest Group Qualification Design ID

² Ministry of Internal Affairs and Communications (Japan)

³ Innovation, Science and Economic Development Canada

EZ-BT WICED Module CYBT-343026-01

Cost-Optimized Bluetooth Smart Ready WICED Modules

Applications

Bluetooth audio, POS, medical, industrial, PC accessories, toys, and smartphone accessories

Features

- **Qualification and Certification**
 - Bluetooth SIG QDID¹, FCC, CE, MIC², and ISED³
- **Small Footprint**
 - 12.0 mm x 15.5 mm x 1.95 mm, 24-pad SMT with 11 GPIOs
- **Bluetooth Smart Ready with Bluetooth 5.0**
 - BR/EDR: -93.5-dBm Rx sensitivity, +12-dBm Tx output power
 - BLE: -96.5-dBm Rx Sensitivity, +9-dBm Tx output power
- **Bluetooth SIG Mesh Supported**
- **Highly Integrated Solution**
 - One crystal, 512KB flash, PCB antenna
 - Two-wire Global Coexistence Interface (GCI)
 - PCM/I²S audio interface with wideband speech support
 - Simultaneous multiple Master and Slave
 - Secure over-the-air (OTA) firmware upgrade
 - Preprogrammed with EZ-Serial firmware

Availability

Sampling: Now

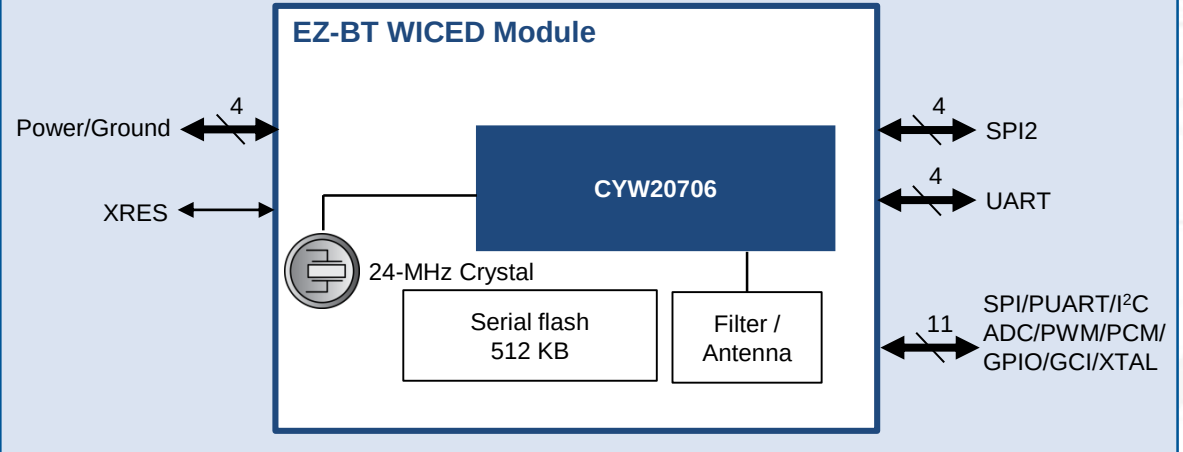
Production: Now

¹ Bluetooth Special Interest Group Qualification Design ID

² Ministry of Internal Affairs and Communications (Japan)

³ Innovation, Science and Economic Development Canada

EZ-BT WICED Module Family: CYBLE-343026-01



Collateral

Datasheets

[CYBT-343026-01 Datasheet](#)

Evaluation Kit User Guide

[CYBT-343026-EVAL Evaluation Board](#)

[WICED Studio](#)



EZ-BT WICED Module CYBT-3330xx-02

Cost-Optimized Bluetooth Smart Ready WICED Modules Supporting External Antenna

Applications

Bluetooth audio, POS, medical, industrial, PC accessories, toys, and smartphone accessories

Features

- **Qualification and Certification**
 - Bluetooth SIG QDID¹, FCC, CE, MIC², and ISED³
- **Small Footprint**
 - 12.0 mm x 15.5 mm x 1.95 mm, 24-pad SMT with 11 GPIOs
- **Bluetooth Smart Ready with Bluetooth 5.0**
 - BR/EDR: -93.5-dBm Rx sensitivity, +12-dBm Tx output power
 - BLE: -96.5-dBm Rx Sensitivity, +9-dBm Tx output power
- **Bluetooth SIG Mesh Supported**
- **Highly Integrated Solution**
 - One crystal, 512KB flash, PCB antenna
 - Two-wire Global Coexistence Interface (GCI)
 - PCM/I²S audio interface with wideband speech support
 - Simultaneous multiple Master and Slave
 - Secure over-the-air (OTA) firmware upgrade
 - Preprogrammed with EZ-Serial firmware

Availability

Sampling: Now

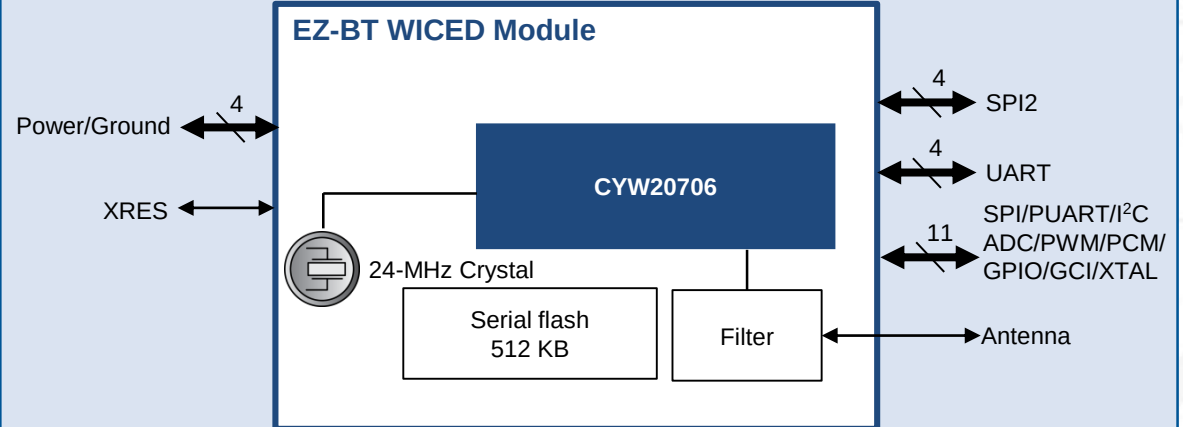
Production: Q1 2019

¹ Bluetooth Special Interest Group Qualification Design ID

² Ministry of Internal Affairs and Communications (Japan)

³ Innovation, Science and Economic Development Canada

EZ-BT WICED Module Family: CYBT-3330xx-02



Collateral

Datasheets

[CYBT-333032-01 Datasheet](#)

[CYBT-333047-01 Datasheet](#)

Evaluation Kit User Guide

[CYBT-343047-EVAL Evaluation Board](#)

[WICED Studio](#)



EZ-BT WICED Module CYBT-343151-02

Cost-Optimized Bluetooth Smart Ready WICED Modules Supporting Extended Temperatures

Applications

Connectivity, lighting, industrial, and medical

Features

■ Qualification and Certification

- Bluetooth SIG QDID¹, FCC, CE, MIC², and ISCED³

■ Small Footprint

- 12.0 mm x 15.5 mm x 1.95 mm, 24-pad SMT with 11 GPIOs
- Drop-in compatible with CYBT-343026-01

■ Bluetooth Smart Ready with Bluetooth 5.0

- BR/EDR: -93.5-dBm Rx sensitivity, +12-dBm Tx output power
- BLE: -96.5-dBm Rx Sensitivity, +9-dBm Tx output power

■ Extended Industrial Temperature Range

- Operating temperature range from -40°C to +105°C

■ Bluetooth SIG Mesh Supported

■ Highly Integrated Solution

- One crystal, 512KB flash, PCB antenna
- Two-wire Global Coexistence Interface (GCI)
- PCM/I²S audio interface with wideband speech support
- Simultaneous multiple Master and Slave
- Secure over-the-air (OTA) firmware upgrade
- Preprogrammed with EZ-Serial firmware

Availability

Sampling: Now

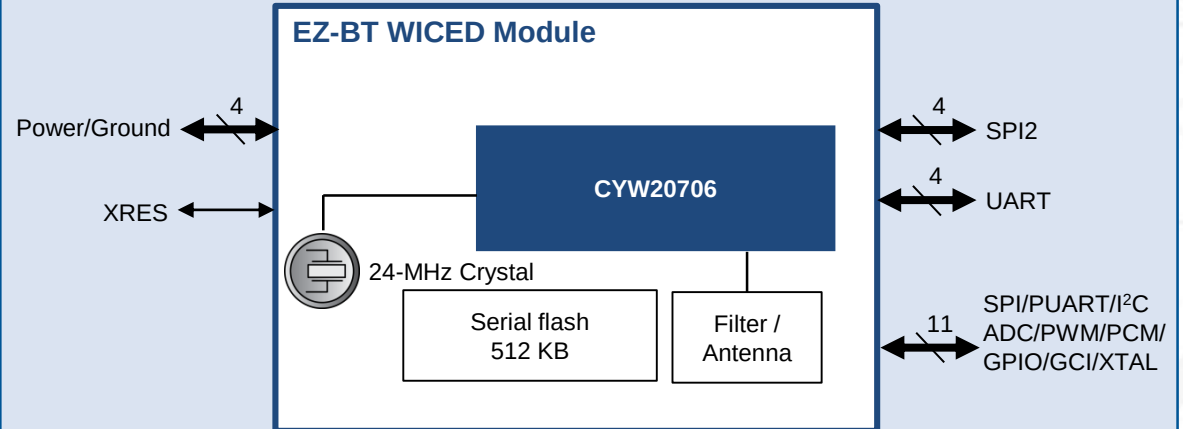
Production: Q1 2019

¹ Bluetooth Special Interest Group Qualification Design ID

² Ministry of Internal Affairs and Communications (Japan)

³ Innovation, Science and Economic Development Canada

EZ-BT WICED Module Family: CYBLE-343151-02



Collateral

Datasheets

[CYBT-343151-02 Datasheet](#)

Evaluation Kit User Guide

[CYBT-343026-EVAL Evaluation Board](#)

[WICED Studio](#)



EZ-BT WICED Module CYBT-353027-02

Size-Optimized Bluetooth 5.0 WICED Module

Applications

Bluetooth speaker, POS, medical, industrial, PC accessories, toys, and smartphone accessories

Features

- **Qualification and Certification**
 - Bluetooth SIG QDID¹, FCC, CE, MIC², and ISCED³
- **Small Footprint**
 - 9 mm x 9 mm x 1.75 mm, 19-pad SMT with 8 GPIOs
- **Bluetooth Smart Ready with Bluetooth 5.0**
 - BR/EDR: -93.5-dBm Rx sensitivity, +12-dBm Tx output power
 - BLE: -96.5-dBm Rx sensitivity, +9-dBm Tx output power
- **Bluetooth SIG Mesh Supported**
- **Highly Integrated Solution**
 - One crystal, 512KB flash, chip antenna
 - Two-wire Global Coexistence Interface (GCI)
 - PCM/I²S audio interface with wideband speech support
 - Simultaneous multiple Master and Slave
 - Secure over-the-air (OTA) firmware upgrade
 - Preprogrammed with EZ-Serial firmware (Q3 2018)

Availability

Sampling: Now

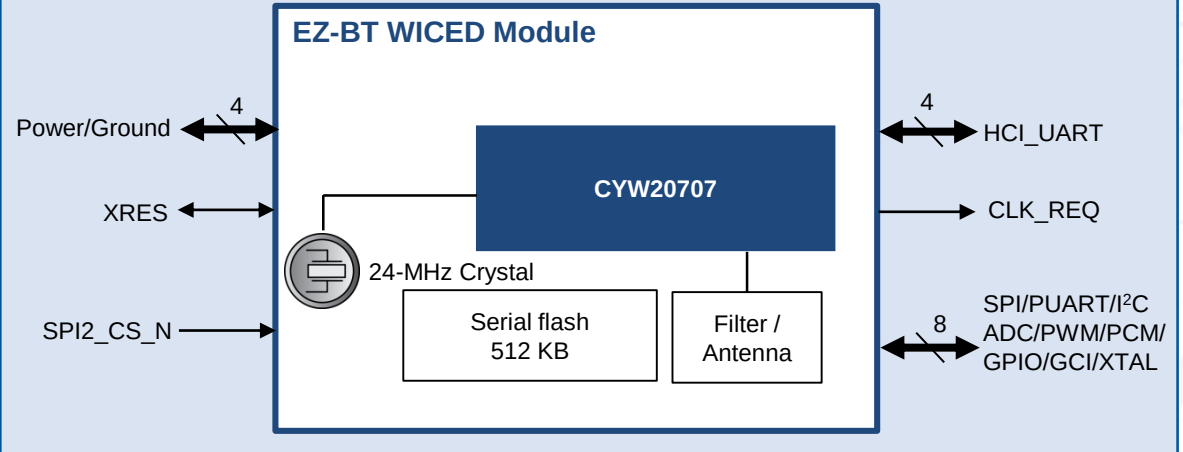
Production: Now

¹ Bluetooth Special Interest Group Qualification Design ID

² Ministry of Internal Affairs and Communications (Japan)

³ Innovation, Science and Economic Development Canada

EZ-BT WICED Module Family: CYBLE-353027-02



Collateral

Datasheets

[CYBT-353027-02 Datasheet](#)

Evaluation Kit User Guide

[CYBT-353027-EVAL Board](#)

[WICED Studio](#)



EZ-BT WICED Module CYBT-423028-02

Ultra-Low-Power Size-Optimized Bluetooth 5.0 WICED Module

Applications

Bluetooth audio, mesh, sensor hubs, POS, medical, industrial, toys, and PC/smartphone accessories

Features

- **Qualification and Certification**
 - Bluetooth SIG QDID¹, FCC, CE, MIC², and ISCED³
- **Small Footprint**
 - 11 mm x 11 mm x 1.70 mm, 28-pad SMT with 17 GPIOs
- **Bluetooth Smart Ready with Bluetooth 5.0**
 - BR/EDR: -92.0-dBm Rx sensitivity, 0-dBm Tx output power
 - BLE: -95.5-dBm Rx sensitivity, 4-dBm Tx output power
- **Bluetooth SIG Mesh Supported**
- **Highly Integrated Solution**
 - One crystal, 1MB flash, chip antenna
 - Two-wire Global Coexistence Interface (GCI)
 - Simultaneous multiple Master and Slave
 - PCM/I²S audio interface with wideband speech support
 - Secure over-the-air (OTA) firmware upgrade
 - Preprogrammed with EZ-Serial firmware (Q3 2018)

Availability

Sampling: Now

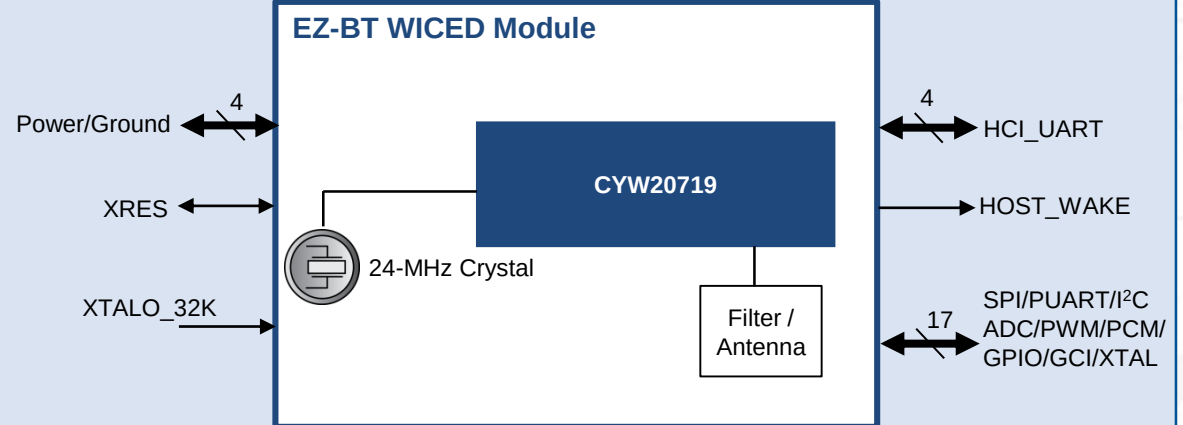
Production: Now

¹ Bluetooth Special Interest Group Qualification Design ID

² Ministry of Internal Affairs and Communications (Japan)

³ Innovation, Science and Economic Development Canada

EZ-BT WICED Module Family: CYBLE-423028-02



Collateral

Datasheets

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EZ-BT WICED Module CYBT-413034-02

Ultra-Low-Power Cost-Optimized Bluetooth 5.0 WICED Module

Applications

Bluetooth audio, mesh, sensor hubs, POS, medical, industrial, toys, and PC/smartphone accessories

Features

- **Qualification and Certification**
 - Bluetooth SIG QDID¹, FCC, CE, MIC², and ISCED³
- **Small Footprint**
 - 12 mm x 16.3 mm x 1.70 mm, 30-pad SMT with 17 GPIOs
- **Bluetooth Smart Ready with Bluetooth 5.0**
 - BR/EDR: -92.0-dBm Rx sensitivity, 0-dBm Tx output power
 - BLE: -95.5-dBm Rx sensitivity, 4-dBm Tx output power
- **Bluetooth SIG Mesh Supported**
- **Highly Integrated Solution**
 - One crystal, 1MB flash, PCB antenna
 - Two-wire Global Coexistence Interface (GCI)
 - Simultaneous multiple Master and Slave
 - PCM/I²S audio interface with wideband speech support
 - Secure over-the-air (OTA) firmware upgrade
 - Preprogrammed with EZ-Serial firmware (Q4 2018)

Availability

Sampling: Now

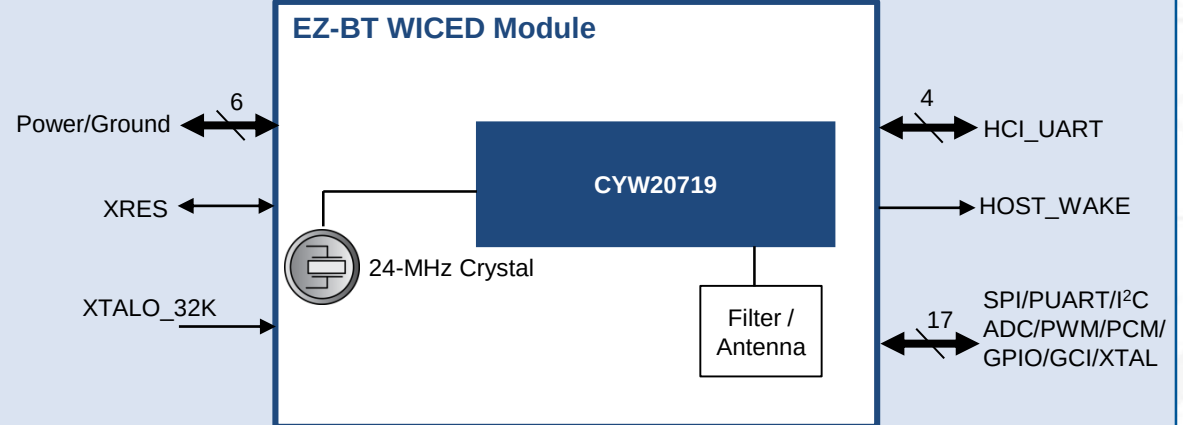
Production: Now

¹ Bluetooth Special Interest Group Qualification Design ID

² Ministry of Internal Affairs and Communications (Japan)

³ Innovation, Science and Economic Development Canada

EZ-BT WICED Module Family: CYBLE-413034-02



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EZ-BT WICED Module CYBT-483039-02

Ultra-Long Range Bluetooth 5.0 WICED Module

Applications

Bluetooth audio, mesh, sensor hubs, and industrial

Features

- **Qualification and Certification**
 - Bluetooth SIG QDID¹, FCC, CE, MIC², and ISCED³
- **Small Footprint**
 - 12.75 mm x 18.59 mm x 1.8 mm, 34-pad SMT with 15 GPIOs
- **Bluetooth Smart Ready with Bluetooth 5.0**
 - BLE Tx output power up to 20 dBm for U.S. (FCC)
- **Bluetooth SIG Mesh Supported**
- **Highly Integrated Solution**
 - One crystal, 1MB flash, chip antenna
 - Two-wire Global Coexistence Interface (GCI)
 - Simultaneous multiple Master and Slave
 - PCM/I²S audio interface with wideband speech support
 - Secure over-the-air (OTA) firmware upgrade
 - Preprogrammed with EZ-Serial firmware (Q4 2018)

Availability

Sampling: Now

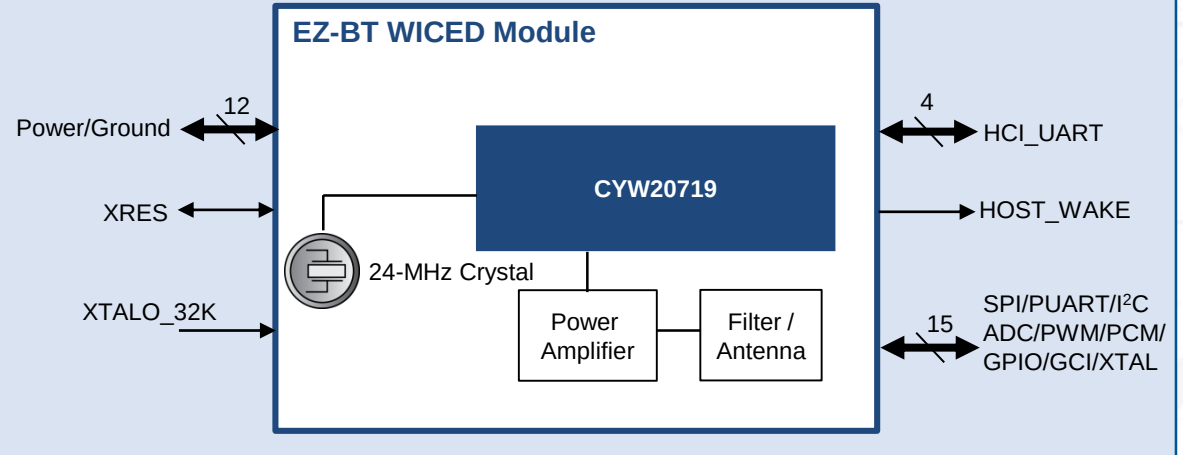
Production: Now

¹ Bluetooth Special Interest Group Qualification Design ID

² Ministry of Internal Affairs and Communications (Japan)

³ Innovation, Science and Economic Development Canada

EZ-BT WICED Module Family: CYBLE-483039-02



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EZ-BLE/EZ-BT Module Product Selector Guide

EZ-BLE Module Part Numbering Decoder

