

eStorm-B1



Automotive Ready BLE Module

eStorm-B1 – Highlights

- ❖ Compact BLE v4.2 compliant wireless module
- ❖ Pre-qualified module, suitable for rapid prototyping
- ❖ Can be used either as add-on module or as stand-alone system
- ❖ I2C, SPI, UART and CAN connectivity
- ❖ Easy to use command sets for master MCU communication
- ❖ Option for both through hole and surface mount
- ❖ Form factor: 12mm X 17mm
- ❖ Antenna options
 - Wire antenna
 - External PCB antenna interface support for extended range applications



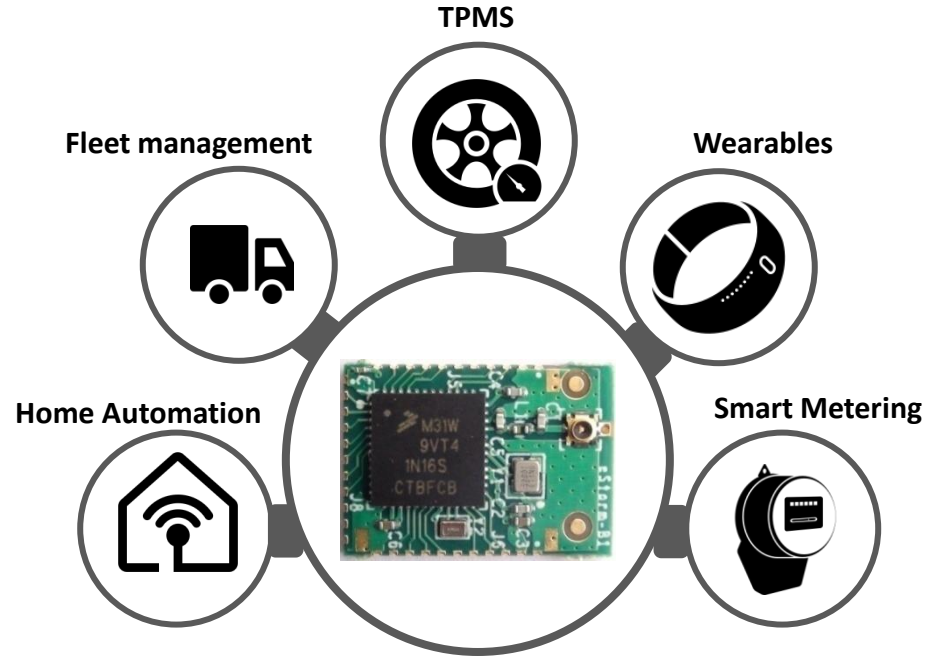
eStorm-B1 – Features

- ❖ Powered by KW31Z BLE SoC from NXP semiconductors
- ❖ SoC includes MCU with ARM Cortex – M0+ Core, 512KB flash memory, 128KB SRAM
- ❖ 2400 to 2483.5 MHz BLE version 4.2 compliant
- ❖ Embedded 32MHz and 32.768KHz crystals
- ❖ Inbuilt RF circuitry with impedance matching components for optimal radio performance
- ❖ 1Mbps air data rate
- ❖ Two simultaneous connections in hardware (master-slave, master-master, slave-slave)
- ❖ AES-128 hardware accelerator
- ❖ 1.71V to 3.6V operating voltage
- ❖ Ultra low power consumption
- ❖ OTA support

eStorm-B1 – Applications

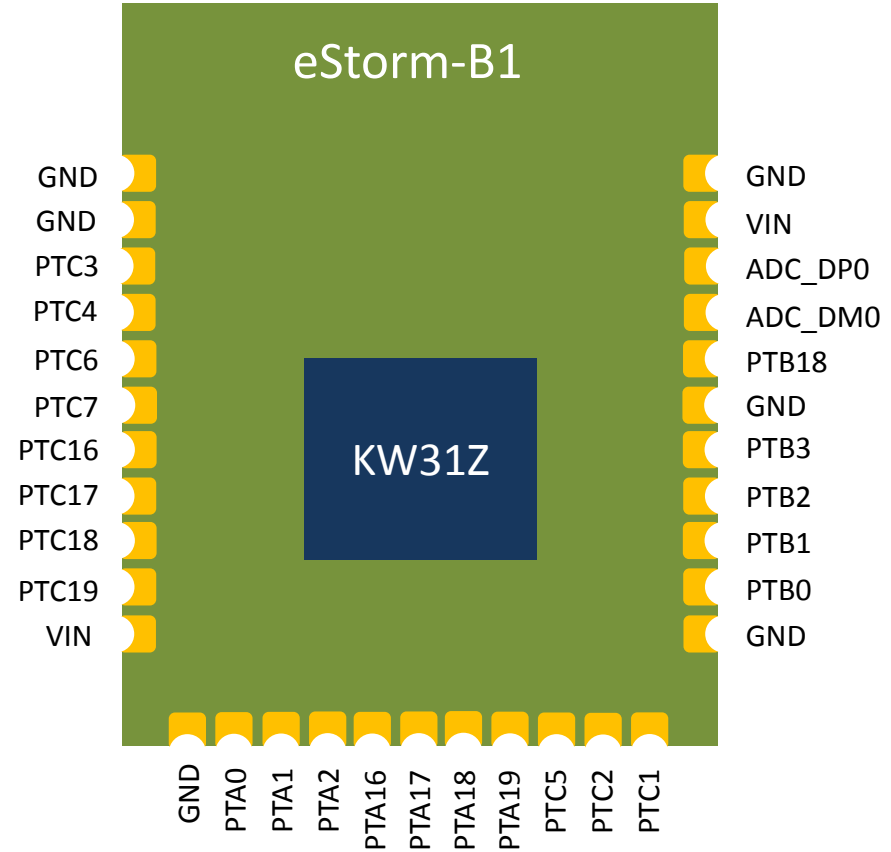
❖ Some of the possible use cases for the module includes,

- Automotives
- Industrial automation
- Smart Metering
- Sports and fitness wearables
- Remote control
- Healthcare and wellness devices
- Home automation
- Wireless sensor networks



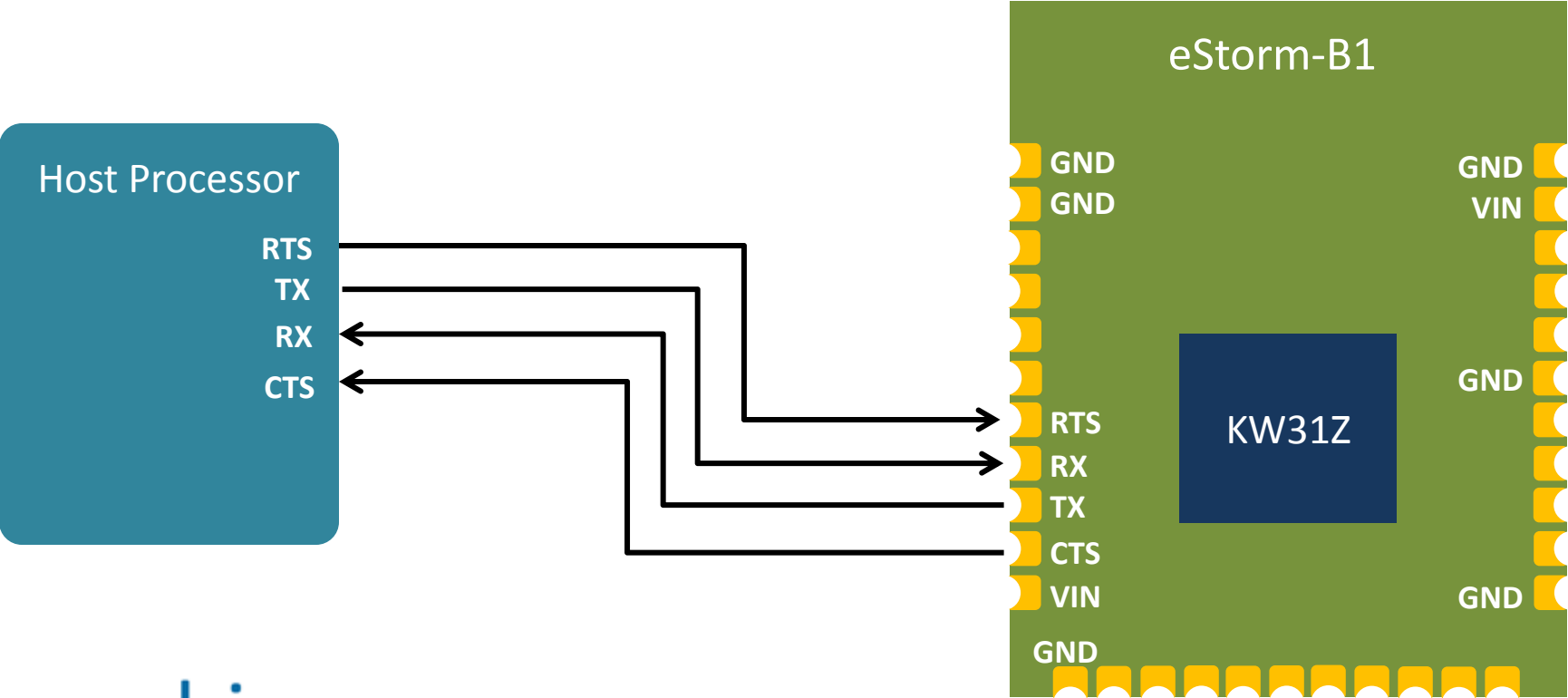
eStorm-B1 – Pin outs

- ❖ 33 pin interface
- ❖ I2C interface
- ❖ UART interface with flow control
- ❖ SPI interface
- ❖ CAN interface*
- ❖ LIN interface*
- ❖ Timers / PWM
- ❖ Single ended analog inputs
- ❖ One Differential analog input
- ❖ GPIO's
- ❖ SWD debug interface
- ❖ DC input Supply

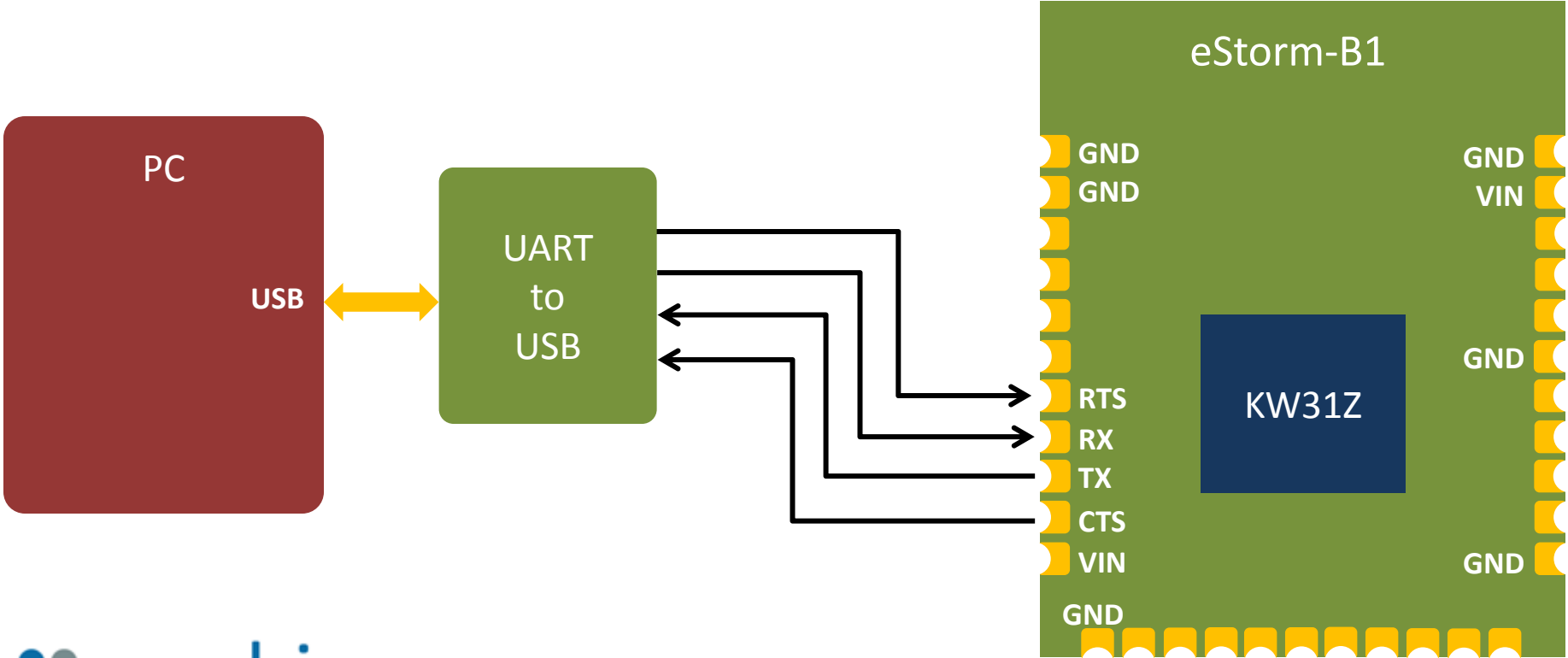


* Available only in automotive grade module

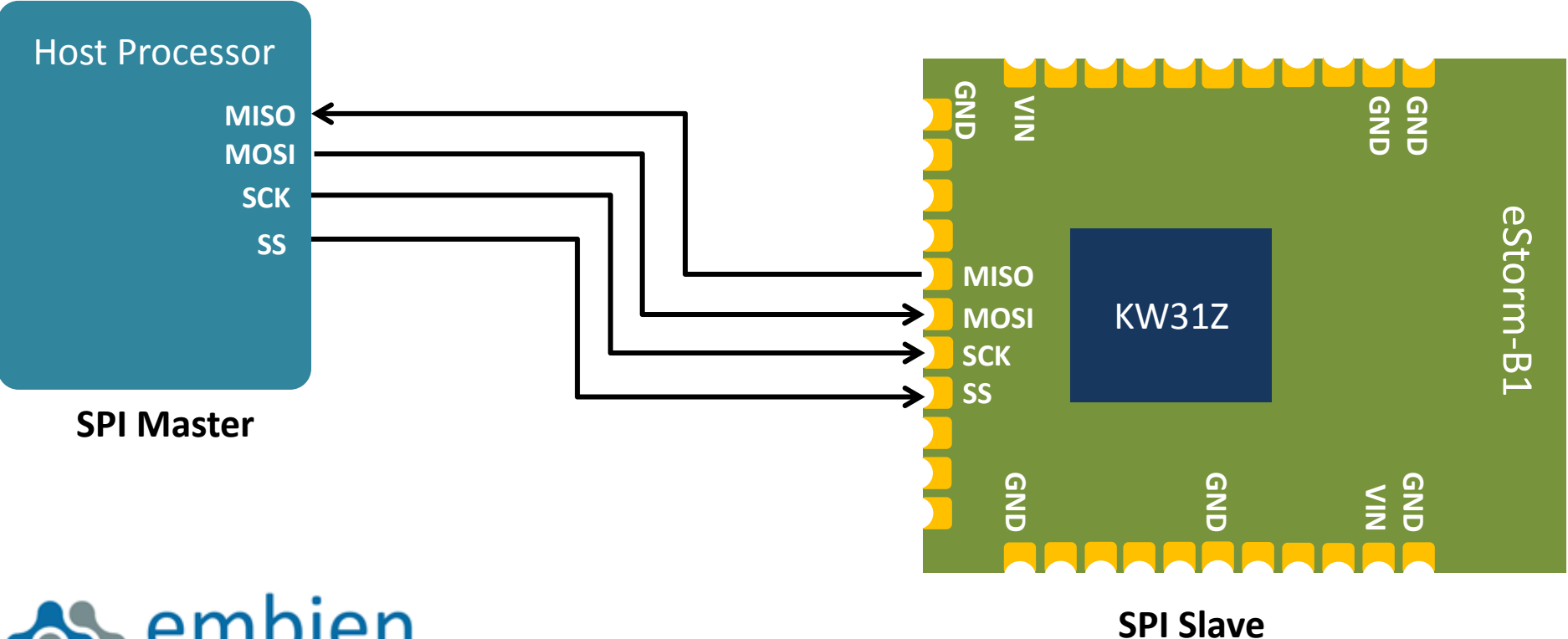
eStorm-B1 – Interfaces – UART



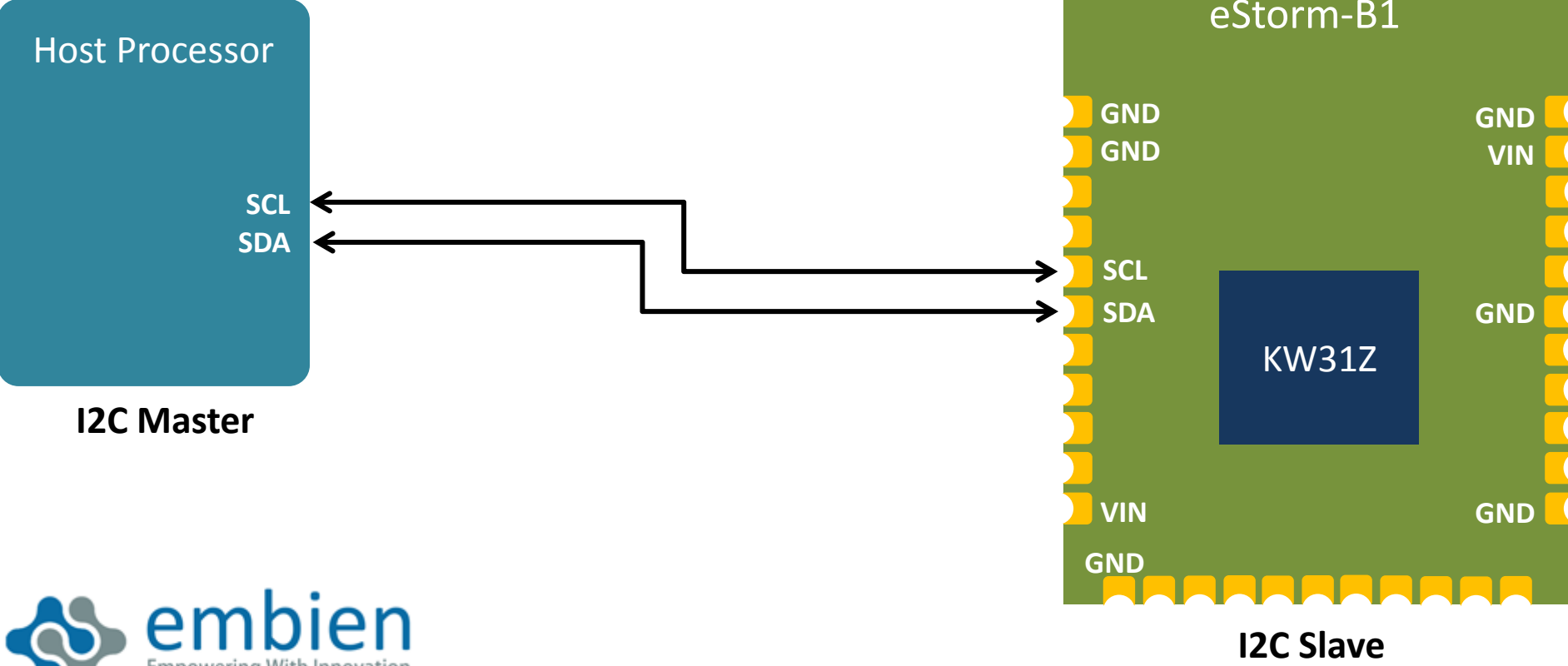
eStorm-B1 – Interfaces – UART



eStorm-B1 – Interfaces – SPI



eStorm-B1 – Interfaces – I2C



eStorm-B1 – Ordering Info

S. No	Order Code	Description	Operating Grade	Production status
1	eStorm-B1-II	I2C to Bluetooth Low Energy gateway	Industrial	Active
2	eStorm-B1-IU	UART to Bluetooth Low Energy gateway	Industrial	Active
3	eStorm-B1-IS	SPI to Bluetooth Low Energy gateway	Industrial	Active
4	eStorm-B1-IG	Generic Connectivity Module	Industrial	Active
5	eStorm-B1-AI	I2C to Bluetooth Low Energy gateway	Automotive*	Under Development
6	eStorm-B1-AU	UART to Bluetooth Low Energy gateway	Automotive*	Under Development
7	eStorm-B1-AS	SPI to Bluetooth Low Energy gateway	Automotive*	Under Development
8	eStorm-B1-AC	CAN to Bluetooth Low Energy gateway	Automotive*	Under Development



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