

# Product Brief WIB Module

September 2019, v1.3

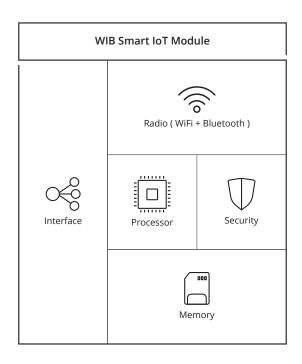
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### **General Information**

WIB is a Smart IoT Module that enables out-of-the-box Cloud services and data analytics to silo IoT application developers and smart product manufacturers. module synergizes enterprise-grade, secure WiFi and Bluetooth connectivity, high performance dual core processor, rich set of analog/digital/communication peripherals in robust and compact design. WIB is optimized for cost, low power consumption and fast integration into manufacturer's prod-It comes with a simple SDK that incorporates all of the common IoT functions such as management, security, computation, diagnostics and Cloud communication.



WIB Module Architecture

### **Key Benefits**

- Low Cost
- Zero Touch Setup
- Fully Certified
- Day One Cloud Connectivity

### **Applications**

WIB can be integrated into original equipment manufacturer products in areas such as;

- Industrial Equipment
- Consumer Electronics
- Small/Major Home Appliances
- HVAC Monitoring and Remote Control
- Smart Home



WIB Module

## **Features**

|                   | Hardware Features  |  |
|-------------------|--|--|
| Processor         |  |  |
| Microcontroller   | 240 MHz, Dual Core   |  |
| Security Features | Secure Boot, Flash Encryption, Crypto-Acceleration                                     |  |
| Radio             |  |  |
| Bluetooth         | Classic and Bluetooth Smart  |  |
| WiFi              | Certified 2.4<br>GHz 802.11 b/g/n/e/i (802.11n up to 150 Mbps)                         |  |
| RF Certification  | FCC/CE/IC  |  |
| Supply            |  |  |
| Supply            | 3.3V recommended   |  |
| Current Specs     | 500 mA max, 200 mA avg   |  |
| Interfaces        |  |  |
| Analog Input      | 4 Channels (SAR 3.3V) / Cloud configurable   |  |
| Digital Input     | 3 Channels (3.3V CMOS) / Cloud configurable  |  |
| Digital Output    | 4 Channels (3.3V CMOS) / Cloud configurable  |  |
| Communication     | UART (3.3V CMOS) / Cloud configurable  |  |
| Auxiliary         | RGB LED, Reset Button  |  |
| Mechanical        |  |  |
| Dimensions (mm)   | $34 \text{mm L} \times 30 \text{mm W} \times 4.1 \text{mm H} \text{ (w/o connectors)}$ |  |
| Antenna           | Trace (internal) or External WiFi/BT antenna   |  |

| Software Features |   |  |
|-------------------|---|--|
|                   | SDK   |  |
| Communication     | UART  |  |
| Implementation    | ANSI C, C++ Python                          |  |
|                   | Security                                    |  |
| WiFi              | ${\rm WPA/WPA2/WPA2\text{-}Enterprise/WPS}$ |  |
| Encryption        | AES 128/192/256, RSA/ECC/HASH (SHA-2)       |  |
| Connectivity      |   |  |
| WiFi Mode         | Station/SoftAP/SoftAP+Station               |  |
| Bluetooth Stack   | Bluetooth v4.2 and Classic                  |  |
| Local Network     | P2P and Wireless Mesh                       |  |
|                   | Out-of-the-Box Features                     |  |
| Provisioning      | using $WiFi/BT$                             |  |
| Module OTA Update | Automatic, WiFi                             |  |
| Client OTA Update | On demand                                   |  |
| Cloud             | Inovatink Device Cloud / C2C API            |  |
| Management        | Cloud based                                 |  |

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