Product Description

The WE866C3 is a low power, dual-band (2.4 & 5GHz), 1-stream (1x1) 802.11ac and Bluetooth 4.2 module with an extremely small footprint that provides an easy & cost-effective way for manufacturers to add wireless connectivity to their products. With the integrated LTE-WiFi/BT coexistence filter, the product offers a powerful cellular backhaul with our LE910Cx 4G LTE module family. The WE866C3 also offers a high bandwidth Wi-Fi transceiver (Network Inter-face Card), for Linux, Android* & WinCE* powered IoT systems using the advanced 802.11ac MU-MIMO technology.

The module supports a low-power, high-speed SDIO3.0 host interface for Wi-Fi and a UART interface for Bluetooth (BT). It also offers an additional PCM interface for BT-Audio.

The WE866C3 enables faster time to market, with off-the-shelf Cloud connectivity (deviceWise), Firmware upgrade, support of complete suite of WPA/WPA2 Personal and Enterprise security etc. The advanced Wi-Fi/Bluetooth coexistence and concurrent mode (simultaneous operation of Wi-Fi AP & Client) makes WE866C3 a best choice for a wide range of IoT applications.

The product is an ideal solution for organizations with limited RF (Wi-Fi/BT) expertise or for those seeking faster time to market, as it reduces RF design time and removes the burden of testing and certification.

Key Benefits

- xE866 Telit form-factor, Wi-Fi/BT companion device for LE910Cx (4G LTE) module family
- High Bandwidth [1x1 dual band 802.11 ac] Wi-Fi transceiver module for Linux, Android*, WinCE* based IoT system
- Bluetooth 4.2* + HS and Bluetooth low energy (BLE*)
- Integrated LTE-WiFi/BT coexistence filter
- Pre-Certified for FCC, IC, CE, Wi-Fi, BT*
- Single antenna for Wi-Fi and BT
- Industrial grade temperature range

Target Applications

- **Commercial/Enterprise**
  - Commercial Building Automation
  - Patient Monitoring
  - Inventory Management
  - Home Security & Automation
  - Kiosks, Vending, POS

- **Transportation/Mobility**
  - Aftermarket/OEM Telematics
  - Asset Tracking
  - Fleet Management
  - Intelligent Transportation
  - People Pet Tracking

- **Industrial/Infrastructure**
  - Condition-based Monitoring
  - Agriculture
  - Video Surveillance
  - Healthcare Equipment Monitoring
  - Smart City

**AVAILABLE FOR**

- **EMEA**
- **North America**
- **Japan**
- **Korea**

Complete, Ready to Use Access to the Internet of Things

- IoT Modules
- IoT Connectivity
- IoT Platforms
## WE866C3

### Models
- WE866C3-P: External antenna [RF pad]
- WE866C3-I: Integrated antenna

### RF Operating Frequency
- Wi-Fi: 802.11 a/b/g/n (2.4GHz, 5GHz) - 20/40/80MHz, BT-v4.2/BLE (2.4GHz)

### Coexistence
- Integrated LTE-WiFi/BT coexistence filter
- Inbuilt Wi-Fi/BT coexistence

### Host Interface
- Wi-Fi: SDIO 3.0
- Bluetooth: UART
- Bluetooth Audio: PCM

### Modes
- Wi-Fi AP [Access Point - Support upto 10 STA’s], STA [Client], Wi-Fi + STA Concurrent Mode, Wi-Fi Direct [P2P]*, BT*, BLE*

### Application Throughput (TCP/UDP)
- 200+Mbps (over SDIO)

### Security Features
- WPA/WPA2 - Personal, WPA/WPA2 - Enterprise, WEP

### Support for Firmware Upgrade
- Yes

### Cloud Connectivity
- Pre-integrated with Telit Cloud [deviceWise]

### Driver Support
- Linux(x86 & i.MX platform), Android*

### Radio Characteristics
- **Tx Power**
  - Wi-Fi: 19dBm [2.4GHz - 802.11b 1Mbps]
  - 16dBm [2.4GHz - 802.11n/ac MCS7 20MHz]
  - 12dBm [5GHz - 802.11n/ac MCS7 40MHz]
  - BT: 11dBm BT (GFSK)
  - 4dBm BLE

- **Rx Sensitivity**
  - Wi-Fi: -96dBm [2.4GHz - 802.11b 1Mbps]
  - -75dBm [2.4GHz - 802.11n MC57 20MHz]
  - -74dBm [5GHz - 802.11n MC57 20MHz]
  - BT: -97dBm

### Radio Regulatory Certification
- Wi-Fi: FCC, IC, RED, TELEC*, KC*, BT*

### Compliance
- Wi-Fi: Wi-Fi Alliance, BT-SIG*

### Environmental Compliance
- RoHS, REACH

### Antenna Option
- External Antenna [RF Pads], Integrated Antenna

### Outline Dimension
- WE866C3-P: 15 x 13mm
- WE866C3-I: 15 x 19mm

### Operating Voltage
- 3.3V

### Operating Temperature
- -40°C to +85°C (Industrial Grade)

*Not available in first release

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**QUESTIONS? VISIT WWW.TELIT.COM/CONTACT-US**