Sterling™-LWB

2.4 GHz Wi-Fi and Bluetooth Multi-Standard Module

The Sterling™-LWB 2.4 GHz Wi-Fi® and Bluetooth® LE Multi-Standard Module provides your customers with more options, more certifications, and a greater variety of antenna options, which altogether provides greater flexibility to meet the challenging requirements of many wireless designs. This certified module is based upon the Infineon CYW4343W chipset, and supports IEEE 802.11 b/g/n, BT 2.1+ EDR, and Bluetooth Low Energy (LE) 5.1 wireless connectivity. The module comes in three configurations to best address specific applications and features an industrial temperature rating (-40° to +85° C) and an industry-leading breadth of certifications and antenna options.

Features and Benefits

- Delivers IEEE 802.11 b/g/n, BT v5.1 BR/EDR/LE wireless connectivity
- Based on next-generation silicon from Infineon (CYW4343W)
- Three versions of the module available:
  - SiP without antenna (10 mm x 10 mm x 1.2 mm)
  - With chip antenna (15.5 mm x 21 mm x 2 mm)
  - With external U.FL antenna port (15.5 mm x 21 mm x 2 mm)
- Enhanced collaborative co-existence algorithms
- Nearly 60% lower Active Rx Power Consumption (vs TiWi-BLE)
- Latest Linux and Android drivers supported directly by Laird Connectivity
- Sterling-LWB for WICED™ reference platform available for embedded MCU applications
- SIG certified Bluetooth driver (QDID: 64781)
- Multiple certified 2.4 GHz antenna options Chip, Dipole, FlexPIFA™, mFlexPIFA™ and FlexNotch™ Laird Connectivity offers in-house certification of additional antennas at little to no cost

Practical Applications:

- Security and building automation
- Internet of Things (IoT)/M2M Connectivity
- Smart Gateways

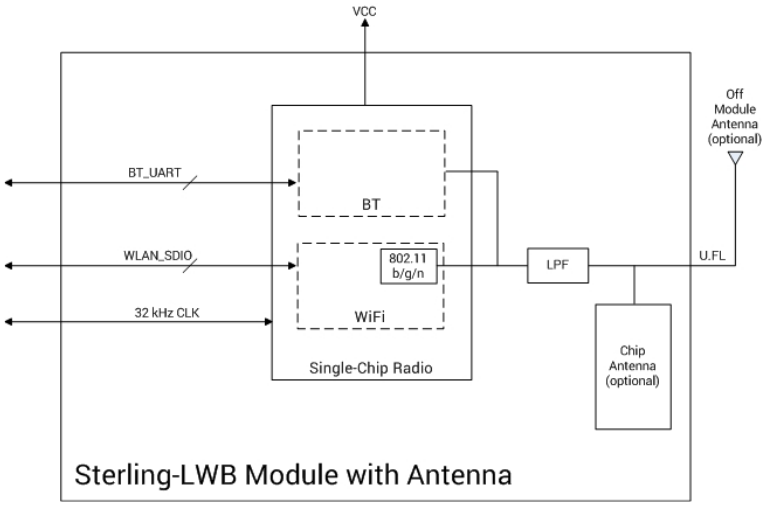
SPECIFICATIONS

Specification	Value
Operating Temperature	-40° to +85°C (-40° to +185°F)
Operating Voltage	3.0 V to 3.6 V
WLAN Transmit Power	802.11b, 11 Mbps CCK: 17.5 dBm 802.11g, 54 Mbps rate: 14.0 dBm 802.11n, 65 Mbps MCS7: 12.5 dBm
WLAN Rx Sensitivity	802.11b, 11 Mbps CCK: -88 dBm 802.11g, 54 Mbps rate: -75 dBm 802.11n, 65 Mbps MCS7: -72 dBm
Bluetooth Transmit Power	8.5 dBm (GFSK)
Bluetooth Rx Sensitivity	-90 dBm (GFSK)

All specifications are preliminary and subject to change.

ORDERING INFORMATION

Part	Description
450-0152	Sterling-LWB chip antenna module
450-0148	Sterling-LWB U.FL module
450-0159	Sterling-LWB base module (SiP)
450-0155	Sterling-LWB development board w/ U.FL
450-0156	Sterling-LWB development board w/ chip antenna
450-0173	Sterling-LWB for WICED™ carrier board



Sterling-LWB Module with Antenna

Dev board with SD card form factor (part # 450-0155 and 450-0156) for simple connectivity w/ NXP i.MX 6 and other platforms

HARNESS THE STERLING™-LWB FOR EMBEDDED WI-FI AND BLUETOOTH LOW ENERGY APPLICATIONS

Introducing the STERLING-LWB for WICED™ Reference Platform

You can now leverage the high-performance Sterling™-LWB module for embedded MCU applications as well! The Sterling-LWB for WICEDTM reference platform provides a very simple and fast way to add both Wi-Fi and BLE 5.1 connectivity to your microcontroller-based design utilizing the power of Infineon's robust WICED™ software development kit. The low cost, pre-certified Sterling-LWB is now validated with the STM32F411 MCU and can be migrated to other popular MCU's, giving you unmatched speed in adding Wi-Fi and BLE to your application. This comprehensive reference platform features a carrier board for easy connectivity with the STM32F411 Discovery Kit, extensive documentation, and software examples, TiWiConnect™ cloud connectivity and ModuleLink™ mobile app for easy development and integration.

Sterling-LWB for WICED carrier board (450-0173)

Utilize the Popular WICED™ SDK by Infineon

Accelerate your WICED application development with extensive software examples and source code including Bluetooth LE profiles, Bluetooth LE for Wi-Fi commissioning, power management, and more.

ModuleLink™ Mobile App for Easy Evaluation

ModuleLink™ Mobile App for Android lets you connect immediately to the Sterling-LWB from your mobile for easy evaluation and testing.

Utilize the Popular WICED™ SDK by Infineon

With a free TiWiConnect™ developer account and web portal, you can quickly demonstrate full Wi-Fi-to-Cloud functionality.

Take advantage of the platform's many Wi-Fi-to-Cloud sample applications including:

3-AXIS GYROSCOPE AND ACCELEROMETER

LED CONTROL AND STATUS