LSR
a Laird Business

Features **802.11ac** for high-speed 5 GHz applications

Industrial Temperature Rating
-40° to +85° C

Broad Certifications with Multiple Antennas
FCC (USA), IC (Canada), ETSI (Europe)

On-Module Chip Antenna Option Available

- Offers greater resistance to de-tuning vs. trace or standard chip antennas
- Larger pin-outs simplify manufacturing assembly
- Footprint and pin compatible with Sterling-LWB for most applications

Actual Size (15.5mm x 21mm)

COMING SOON!

Sterling-LWB5™

Dual-Band 802.11ac Wi-Fi® and Bluetooth® Smart Ready Module

FEATURES AND BENEFITS

- Delivers a/b/g/n/ac, BT 2.1+EDR, and BLE 4.2 wireless connectivity
- Provides 802.11ac for high-speed data applications in the 5 GHz band
- 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 port (15.5 mm x 21 mm x 2 mm)
- Chip and U.FL versions are footprint and pin compatible with Sterling-LWB for most applications
- Enhanced collaborative co-existence algorithms
- Industrial Temperature Rating (-40° to +85° C)
- FCC (USA), IC (Canada), ETSI (Europe) Module Certification
- Multiple certified 2.4 & 5 GHz antenna options
  - Chip, Dipole, FlexPIFA™, & mFlexPIFA™
  - LSR offers in-house certification of additional antennas at little to no cost
  - LSR provides complimentary 3D antenna scans of products utilizing Sterling-LWB5

Practical Applications:

Security & Building Automation,
Internet of Things / M2M Connectivity,
High-Traffic Wi-Fi Applications
(Hospitals, e.g.)

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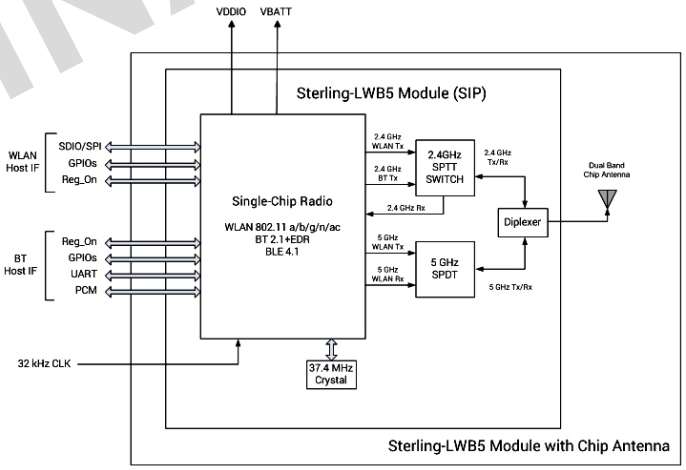
STERLING-LWB5 MODULE PERFORMANCE

SPECIFICATION	VALUE
Operating Temp	-40° to +85° C
Operating Voltage	3.2 V to 4.3 V
2.4 GHz WLAN Transmit Power	802.11b, 11 Mbps: 14 dBm (20 MHz) 802.11g, 54 Mbps: 14 dBm (20 MHz) 802.11n, 65 Mbps MCS7: 13 dBm (20 MHz) 802.11n, 65 Mbps, MCS7: 13 dBm (40 MHz)
2.4 GHz WLAN Rx Sensitivity	802.11b, 11 Mbps: -88 dBm @8% PER (20 MHz) 802.11g, 54 Mbps: -74 dBm (20 MHz) 802.11n, 65 Mbps, MCS7: -72 dBm @10% PER (20 MHz) 802.11n, 65 Mbps, MCS7: -66 dBm @10% PER (40 MHz)
5 GHz WLAN Transmit Power	802.11g, 54 Mbps: 13 dBm (20 MHz) 802.11n, 65 Mbps, MCS7: 12 dBm (20 MHz) 802.11n, 65 Mbps, MCS7: 13 dBm (40 MHz) 802.11ac, 200 Mbps, MCS9, 9 dBm (40 MHz) 802.11ac, 433 Mbps, MCS9, 9 dBm (80 MHz)
5 GHz WLAN Rx Sensitivity	802.11g, 54 Mbps: -74 dBm @10% PER (20 MHz) 802.11n, 65 Mbps, MCS7: -73 dBm @10% PER (20 MHz) 802.11n, 65 Mbps, MCS7: -68 dBm @10% PER (40 MHz) 802.11ac, 200Mbps, MCS9, -64 dBm (40 MHz) 802.11ac, 433 Mbps, MCS9, -58 dBm (80 MHz)
Bluetooth Tx Power	BLE, 1 Mbps: 6 dBm
Bluetooth Rx Sensitivity	BLE, 1 Mbps: -91 dBm @30.8% PER

All specifications are preliminary and subject to change.

ORDER INFORMATION

PART NUMBER	DESCRIPTION
450-0162	Sterling-LWB5 Base Module (SiP)
450-0169	Sterling-LWB5 Chip Antenna Module
450-0168	Sterling-LWB5 U.FL Module
450-0171	Sterling-LWB5 Development Board with U.FL
450-0172	Sterling-LWB5 Development Board with Chip Antenna



LSR is the leader in Wireless Product Development, offering true end-to-end solutions through its array of services and technical expertise.

Design Services

LSR delivers complete system solutions from concept to manufacturing. We are your wireless M2M solutions partner, providing complete turnkey services and solutions.

- RF Design/Engineering
- Software/Firmware Design
- Antenna Design
- Industrial Design
- Mechanical Engineering

EMC Testing & Certification

At LSR, we understand it is critical for your company to have a compliant product supported by the appropriate documentation, ready for deployment into the market. LSR provides the experience and knowledge to provide quality test services that meet your timeline and budget.

- On-Site FCC / IC /CE EMC Certification
- Wireless & Antenna Testing
- EMC Testing
- International Testing Services

Wireless Products

LSR offers the fastest, lowest cost way to add wireless capabilities to your product concept. LSR's fully-certified modules and antennas accelerate your time-to-market and support the full breadth of communication technologies, including:

- Wi-Fi®
- Bluetooth®
- Bluetooth® Smart
- ZigBee®
- 802.15.4 & proprietary protocols