ROBUST, SECURE, & FUTURE-READY FOR YOUR APPLICATIONS

Powered by the powerful Marvell 88W8997 chipset, Laird’s 60 Series Wi-Fi + Bluetooth modules achieve the best possible connectivity and performance in any RF environment. With industry-leading software, broad OS support*, and multiple form factors, Laird’s 60 Series offers flexibility to meet your needs. The 60 Series introduces 802.11ac, 2x2 MU-MIMO, Bluetooth 4.2 and Bluetooth 5 ready hardware on one low-power module, delivering future-ready cutting edge technology for your product. Building on the security and robustness inherited from Laird’s expertise in its 40, 45, and 50 Series modules means ultra-high data rates, improved performance, and the most reliable wireless in crucial applications such as medical and industrial.

Features at a Glance

**BRING WI-FI + BLUETOOTH TO EVEN MORE DEVICES**
60 Series modules are supported on Linux® and Android™.

**REDUCED POWER CONSUMPTION**
28nm process technology results in significant power savings over competitive radios

**CONNECT AT ULTRA-HIGH DATA RATES**
With 802.11ac and 2x2 MU-MIMO, 60 Series can achieve data rates up to 866 Mbps

**ALWAYS CONNECTED, EVEN IN THE HARSHEST CONDITIONS**
802.11r + CCKM* support for rapid roaming and 2x2 MU-MIMO for improved performance and reliability

**MULTIPLE FORM FACTORS TO SUIT DIVERSE NEEDS**
Available as a SiP or M.2 (USB or SDIO) form factors

**ROBUST SECURITY FOR ENTERPRISE DEMANDS**
Full list of security standards and EAP types*

**BROAD CERTIFICATION AND INTERNATIONAL APPROVALS**
Certifications and approvals for FCC (USA), IC (Canada), ETSI (Europe), KCC (Korea), Giteki (Japan), RCM (AUS/NZ)

**PERSONAL SUPPORT FROM DESIGN TO MANUFACTURE**
Industry-recognized integration and support organization dedicated to reducing your time to market

- **New Wireless Capabilities:** Advanced 802.11ac Wave 2, 2x2 MU-MIMO, Advanced Power Save, Optimized Internal BT/Wi-Fi Coexistence, Fast Roam

- **New Form Factors:** Extremely small 14mm x 13mm SiP module, and M.2 2230-E module

- **Bluetooth 4.2:** Enables Classic Bluetooth and Low Energy mode with latest security and throughput enhancements, all on Bluetooth 5 ready hardware

- **Pre-calibrated for performance:** Tuned in manufacturing

### 60 Series Product Family

Laird’s 60 Series will be comprised of two classes of modules to give you flexibility in your wireless design:

- **Sterling 60**
  Professional grade connectivity with leading edge wireless technology

- **Summit 60**
  Most secure and robust wireless connectivity option for demanding Enterprise applications
  *Summit 60 only

### Application Areas

- Connected Hospital/ Medical Devices
- IoT Bridging/
- Cable Replacement
- Industrial/AIDC

Interested in Laird’s 60 Series modules? Contact us at [www.lairdtech.com/contact-us-60-series](http://www.lairdtech.com/contact-us-60-series)
Laird 60 Series Dual-Band 802.11ac Wave 2 Wi-Fi + Bluetooth 4.2

Product Brief

Configuration Options

**60-SIPT**
SiP Module

- Featured on each 60 Series variant
- SDIO, USB, & PCIE options
- 14mm x 13mm x 1.7mm

**60-2230C**
USB or SDIO Module

- Popular low-profile M.2 form factor (2230 E-key)
- Choose from USB or SDIO interface options
- 22mm x 30mm x 3.3mm

Small and customizable

Widely adopted form factor, easier integration

Key Specifications

<table>
<thead>
<tr>
<th>Category</th>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chipset</strong></td>
<td>Silicon Technology</td>
<td>Marvell 88W8997 Chipset – Wi-Fi + Bluetooth combination module with optimized internal Wi-Fi/BT coexistence and latest-gen process technology for ultra-low power</td>
</tr>
<tr>
<td><strong>Interfaces</strong></td>
<td>Logical Interfaces</td>
<td>USB, SDIO, or PCIE (Wi-Fi), UART, SDIO, or USB (Bluetooth)</td>
</tr>
<tr>
<td><strong>RF Performance</strong></td>
<td>Antenna Options</td>
<td>Pin access (60-SIPT), 2x U. FL (60-2230C)</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td>Operating Temp/Humidity</td>
<td>-30°C to 85°C (-22°F to 185°F), 10 to 90% humidity (non-condensing)</td>
</tr>
<tr>
<td><strong>Wi-Fi</strong></td>
<td>Operating Frequency</td>
<td>2.4 GHz to 2.495, 5.15 GHz to 5.825 GHz (including DFS)</td>
</tr>
<tr>
<td></td>
<td>Regulatory Domains</td>
<td>FCC, ETSI, KCC, Giteki, RCM</td>
</tr>
<tr>
<td></td>
<td>Wi-Fi Media</td>
<td>DSSS, CCK, OFDM</td>
</tr>
<tr>
<td></td>
<td>Wi-Fi Media Access Protocol</td>
<td>Carrier sense multiple access with collision avoidance (CSMA/CA)</td>
</tr>
<tr>
<td></td>
<td>Wi-Fi Standards</td>
<td>IEEE 802.11ac Wave 2, 802.11ad, 802.11e, 802.11n, 802.11l, 802.11tr</td>
</tr>
<tr>
<td><strong>Bluetooth</strong></td>
<td>Standards</td>
<td>Bluetooth v2.1 with EDR, Bluetooth 4.2 (Bluetooth Low Energy) **Includes features anticipated in the Bluetooth 5.0 specification</td>
</tr>
<tr>
<td><strong>Software</strong></td>
<td>Operating Systems Supported</td>
<td>Linux 3.x.x kernel and newer, Android 4.1.2 (Jellybean) and newer*</td>
</tr>
<tr>
<td><strong>Security</strong></td>
<td>Standards</td>
<td>WEP, WPA, WPA2</td>
</tr>
<tr>
<td></td>
<td>Encryption</td>
<td>WEP, TKIP, AES</td>
</tr>
<tr>
<td></td>
<td>Supported EAP Types</td>
<td>EAP-FAST, EAP-TLS, EAP-TTLS, PEAP-GTC, PEAP-MSCHAPv2, PEAP-TLS, LEAP</td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
<td>Applicable Certifications</td>
<td>Wi-Fi Alliance (pending)* 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac Wave 2 WPA Enterprise, WPA2 Enterprise Cisco Compatible Extensions (Version 4) (pending)* Bluetooth SIG Qualification (pending)</td>
</tr>
</tbody>
</table>

For full specifications on 60 Series modules, please see the appropriate Datasheet.

Did You Know?

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

Design Services
- RF Hardware and Antenna Design
- Software/Firmware Development
- Mobile App/Cloud Development
- Industrial Design
- Mechanical Engineering

EMC Testing & Certification
- On-Site FCC/IC/CE/Giteki/RCM EMC Certification
- Wireless and Antenna Testing
- EMC Emissions Testing
- International Testing Services

To learn more about LSR visit: www.lsr.com

Contact Sales - Americas: +1 262 375 4400 Europe: +44 1628 940 ext. 958 Korea: +82 10 2622 3935 Hong Kong: +852 2923 0610 Interested in Laird’s 60 Series modules? Contact us at www.lairdtech.com/contact-us-60-series