## **Connectivity Solutions**Wi-Fi and Wi-Fi + Bluetooth Line Card



Laird's Connectivity Solutions offers certified wireless modules and accessories that enable secure, reliable wireless connectivity for mission-critical data even in the harshest RF environments. Our Wi-Fi, Bluetooth, BLE, LoRa, and proprietary ISM embedded modules enable robust, business-critical connectivity in medical, industrial, and commercial settings. In addition, our comprehensive IoT product development and EMC testing services improve your speed to market and let you focus on the unique needs of your customers. Laird Wi-Fi product solutions are comprised of two product categories: **Enterprise** and **Professional** modules.

## **ENTERPRISE MODULES**

- Designed for **Mission Critical** applications
- 'Always-On Connectivity' through advanced software
- Performance in harsh RF environments
- - Multi-OS Support (Windows/Android/Linux)
  - Enterprise Security
  - Fast scanning & roaming
  - Industry-leading Support & Extended Warranty





## **PROFESSIONAL MODULES**

- Designed for Fast Time-to-Market
- Broad Certifications
- Innovative Development Tools & Resources
- Industry-leading Design Support







|                         | SSD50NBT   | M2xx50NBT  | MSD50NBT   | WB50NBT   | Sterling LWB  | Sterling LWB5                          | TiWi-C-W   |
|-------------------------|--|--|--|---|---|--|--|
| Chipset                 | QCA6004 and<br>CSR(QCA)8811  | QCA6004 and<br>CSR(QCA)8811  | QCA6004 and<br>CSR(QCA)8811  | QCA6004 and<br>CSR(QCA)8811   | BCM4343W  | BCM43353                               | BCM4390  |
| 802.11<br>Standards     | 802.11 a/b/g/n<br>(2.4 and 5 GHz)   | 802.11 b/g/n (2.4 GHz)  | 802.11 ac (2.4 and 5 GHz)              | 802.11 b/g/n (2.4 GHz)                             |
| Bluetooth<br>Standards  | Dual-Mode BLE v4.0   | Dual-Mode BLE v4.0   | Dual-Mode BLE v4.0   | Dual-Mode BLE v4.0  | Dual-Mode BLE v4.1  | Dual-Mode BLE v4.1                     | None   |
| Туре                    | SiP Package  | M.2 2230-E Module with USB and SDIO variants                           | 60-pin Molex connector<br>with SDIO                                    | Complete System on Module w/ Linux<br>OS and 500MHz ARM A5 processor                | SiP Package or<br>Surface Mount Module                                    | SiP Package or<br>Surface Mount Module | SiP Package  |
| Size                    | 15 mm x 15 mm  | 30 mm x 22 mm  | 32 mm x 22 mm  | 37 mm x 37 mm   | 15.5 mm x 21 mm   | 15.5 mm x 21mm                         | 10.5 mm x 10.5 mm                                  |
| Transmit<br>Power       | Wi-Fi: 12 to 18 dBm<br>BLE: 3 to 6 dBm                                 | Wi-Fi: 12 to 18 dBm<br>BLE: 3 to 6 dBm                                 | Wi-Fi: 12 to 18 dBm<br>BLE: 3 to 6 dBm                                 | Wi-Fi: 12 to 18 dBm<br>BLE: 3 to 6 dBm  | Wi-Fi: 12.5 to 17.5 dBm<br>BLE: 8.5 dBm                                   | Wi-Fi: 9 to 13 dBm<br>BLE: 6dBm        | 11 to 17 dBm                                       |
| Receiver<br>Sensitivity | Wi-Fi: -72 to -93 dBm<br>BLE: -76 to -87 dBm                           | Wi-Fi: -72 to -93 dBm<br>BLE: -76 to -87 dBm                           | Wi-Fi: -72 to -93 dBm<br>BLE: -76 to -87 dBm                           | Wi-Fi: -72 to -93 dBm<br>BLE: -76 to -87 dBm  | Wi-Fi: -72 to -88 dBm<br>BLE: -90 dBm                                     | Wi-Fi: -64 to -88 dBm<br>BLE: -91 dBm  | -70 to -87 dBm                                     |
| Temperature<br>Range    | -30°C to 85°C<br>(-22°F to 185°F)                                      | -30°C to 85°C<br>(-22°F to 185°F                                       | -30°C to 85°C<br>(-22°F to 185°F).                                     | -30°C to 85°C<br>(-22°F to 185°F)   | -40°C to 85°C<br>(-40°F to 185°F)   | -40°C to 85°C<br>(-40°F to 185°F)      | -40°C to 85°C<br>(-40°F to 185°F)                  |
| Operating<br>Systems    | Android, Linux,<br>Windows Mobile and CE                               | Android, Linux,<br>Windows Mobile and CE                               | Android, Linux,<br>Windows Mobile and CE                               | Standalone onboard Linux OS with onboard processor supports any connectable device. | Linux   | Linux                                  | Standalone onboard<br>ARMC CM3 or external<br>host |
| Security                | WEP, WPA, WPA2, TKIP,<br>AES, full EAP type and<br>certificate support | WEP, WPA, WPA2, TKIP,<br>AES, full EAP type and<br>certificate support | WEP, WPA, WPA2, TKIP,<br>AES, full EAP type and<br>certificate support | WEP, WPA, WPA2, TKIP, AES, full EAP<br>type and certificate support                 | WEP, WPA, WPA2, TKIP,<br>AES  | WEP, WPA, WPA2, TKIP,<br>AES           | WEP, WPA Personal,<br>WPA2 Personal                |
| Certifications          | FCC, IC, ETSI  | FCC, IC, ETSI  | FCC, IC, ETSI  | FCC, IC, ETSI   | FCC, iC, ETSI, Giteki, RCM  | FCC, IC, ETSI, Giteki, RCM             | FCC, IC, ETSI                                      |
| Management              | Laird Connection<br>Manager (LCM) and<br>Software Developer's Kit      | Laird Connection<br>Manager (LCM) and<br>Software Developer's Kit      | Laird Connection<br>Manager (LCM) and<br>Software Developer's Kit      | Command Line Interface and/or<br>browser-accessible<br>Laird Connection Manager     | Linux driver support, and<br>Sterling-LWB for WICED<br>reference platform | Linux driver support                   | Pre-integrated<br>TiWiConnect Cloud<br>agent       |

Modules not shown at actual size. Full list of all available modules at www.lairdtech.com/connectivity-solutions