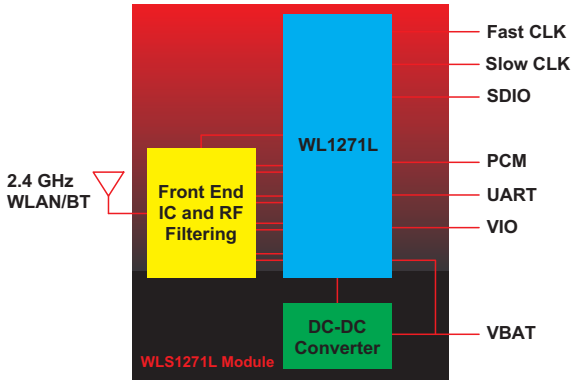
WLS1271L Wireless Module
Product Brief



The WLS1271L provides 2.4 GHz WLAN plus Bluetooth functionality in an ultra-small module. The WLS1271L is based on TI's WL1271L SOC. The module features optimized RF performance including a high-efficiency RF front end circuit. An integrated DC-DC converter allows the module to operate from a single input voltage. The module is designed to fit into small spaces, and requires a minimum of external components to operate. Software drivers are available for Linux, Android and WinCE operating systems.



Features

- IEEE 802.11b/g + IEEE 802.11n WLAN MAC baseband processor
- IEEE 802.11n single stream data rates (MCSO-7) and SGI support
- Single-ended digital radio processor (DRP) RF implementation with internal LNA
- SDIO WLAN host interface
- Cisco Client eXtension (CCX) support
- Bluetooth Version 4.0 including 2 and 3 Mbps enhanced data rates
- High Rate 4-wire UART HCI (H4) and 3-wire UART HCI (H5)
- Lower Bluetooth layers up to HCI included
- Optimized for low current consumption in all operating modes
- Extremely low current sleep mode
- Flexible reference clock input - 19.2, 26, 38.4 or 52 MHz reference clock
- Integrated DC-to-DC converter provides single supply operation
- Package dimensions: 9 x 11 x 1.4 mm maximum

WLAN Specifications

- IEEE 802.11a/b/g/n compliant
- Operating Frequency Range: 2.412 to 2.472 GHz
- Data Rates
  - 802.11b: 11, 5.5, 2, 1 Mbps
  - 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps
  - 802.11n: 65, 58.5, 52, 39, 26, 19.5, 13, 6.5 Mbps
- Transmit Power: +18 dBm
- Receive Sensitivity
  - 802.11b, 11 Mbps: -87 dBm
  - 802.11g, 54 Mbps: -74 dBm
  - 802.11n, 65 Mbps: -70 dBm
- Supply Current
  - Transmit: 250 mA
  - Receive: 100 mA

Bluetooth Specifications

- V4.0 + RDR, Power Class 1.5 + BLE
- Operating Frequency Range: 2.4000 to 2.4835 GHz
- Data Rates: 1, 2, 3 Mbps
- Transmit Power: +8 dBm
- Receive Sensitivity, 1 Mbps: -90 dBm
- Transmit/Receive Supply Current: 35 mA (DH1)

Security

- Hardware-based encryption/decryption for 64-, 128- and 256-bit WEP, TKIP and AES keys
- IEEE 802.11 d/e/h/i/k/r/s PICS compliant
- WEP, TKIP, WPA & WPA2, AES/CCMP per 802.11i

Standard Host Processors/Operating Systems with Driver Support

- OMAP 3, OMAP 4, AM 18x, AM 37x
- Linux 2.6
- Android
- WinCE

Environmental

- Supply Voltage: 3.0 to 4.2 Vdc
- Operating Temperature Range: -40 to +85 °C
- RH: 5 to 95% non-condensing
- RoHS Compliant

Interfaces

- WLAN: SDIO
- BT: UART

RF Monolithics, Inc., 4441 Sigma Road, Dallas, TX 75244
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Ordering Information

- Evaluation Kit: DR-WLS1271L-EV
- Module: WLS1271L



Evaluation Kit

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