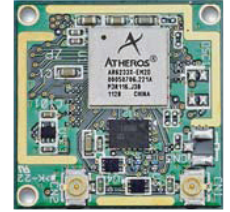


# SX-SDMAN2

## 802.11a/b/g/n Plus Bluetooth SDIO Module



### Next Generation SDIO Wireless LAN Module for Mobile Devices

The Silex SX-SDMAN2 is a dual-band 802.11a/b/g/n plus Bluetooth SDIO module that is based on the SX-SDPAN2 (Qualcomm Atheros QCA6234). It supports both 1x1 and 2x2 antenna configurations. The SX-SDMAN2 in 2x2 MIMO mode offers improved WLAN throughput, range and robustness to portable devices including patient monitors, printers, handheld terminals and more.

The SX-SDMAN2 is pre-tuned for the most optimized dual-band WLAN performance. The radio module design approach also saves cost as the SX-SDMAN2 provides FCC/IC/ETSI/TELEC modular certification.

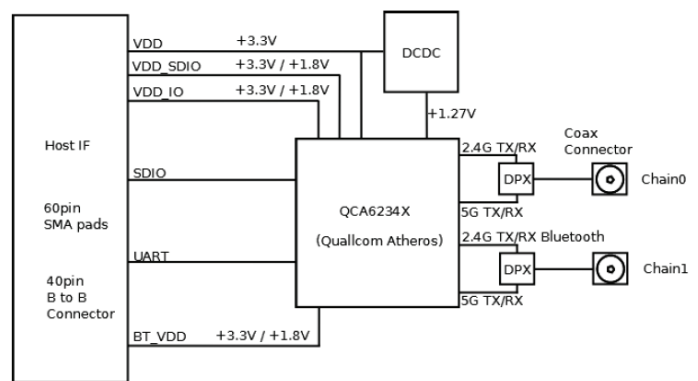
The SX-SDMAN2 provides superior product quality. Silex has validated that our design meets IEEE standards and each module is individually tested during the production process. This ensures that each of our products will perform to our published specification.

In order to expedite your product development process, Silex can provide both hardware and software engineering services including custom driver development, as well as turnkey product design and manufacturing.

#### Key Features:

- IEEE 802.11a/b/g/n conformity (2.4 GHz & 5 GHz)
- Improved performance and range when configured in 2x2 MIMO mode
- Data rates upto 150Mbps in 1x1, and upto 300Mbps in 2x2 mode
- Supports IEEE 802.11e, IEEE 802.11h and IEEE 802.11i
- Supports SDIO 2.0 as host IF of wireless LAN
- Option to support antenna diversity in 2x2 configuration
- Supports Bluetooth 4.0 + LE dual mode
- Supports TDMA Wi-Fi/Bluetooth coexistence
- Supports UART as the host IF of Bluetooth
- Calibrated Tx Power per module
- FCC/IC/ETSI/TELEC modular certification
- Connector mount and surface mount versions

#### Diagram:

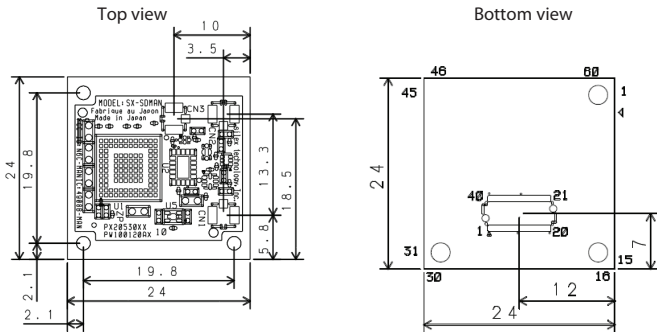


#### Specifications:

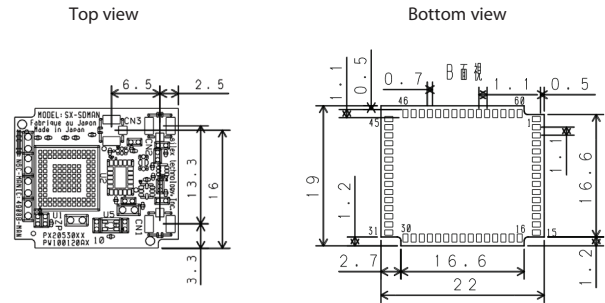
Product Name	SX-SDMAN2-2830C / SX-SDMAN2-2830S
Chipset	QCA6234 for Wi-Fi QCA3002 for Bluetooth
Host Interface	SDIO V 2.0 (4-bit, 1-bit) UART: Bluetooth
Operating Voltage	3.30 VDC +/- 5%
Radio Specifications	802.11b/g/n 2.412 - 2.484 GHz 802.11a/n 5.18 - 5.825 GHz Bluetooth
Baseband Specifications	CSMA/CA media access; DSSS, OFDM
Bluetooth Specifications	BT3.0+HS, BT4.0 + LE Dual Mode
Connector Mount Dimensions	24.0 x 24.0 x 4.45 mm (W x H x D)
Surface Mount Dimensions	19.0 x 22.0 x 2.25 mm (W x H x D)
Connector Type	SMT: Direct solder pad 60 pins B2B: 40 pins
Antenna Connectors	U.FL Alternative connector x 2
Antenna Configuration	2x2 MIMO (2T2R) 1x1 mode (1T1R)

**Dimensions and Architecture**

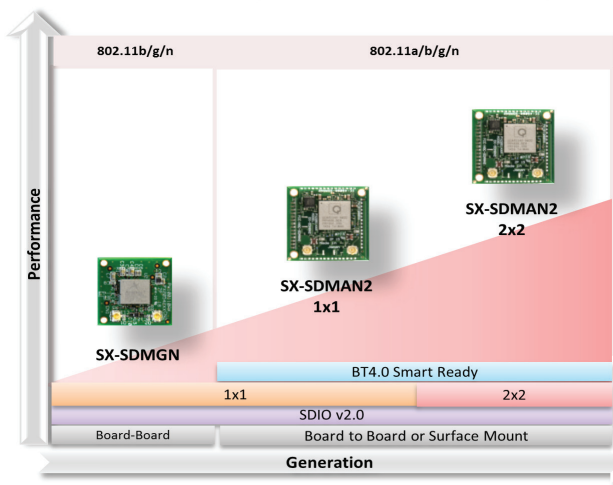
**Connector Mount**



**Surface Mount**



**Low Power (SDIO Board Solution)**



**Ordering Information**

- SX-SDMAN2-2830C: Connector Mount, Bulk Package
- SX-SDMAN2-2830C-SP: Connector Mount, Sample Pack
- SX-SDMAN2-2830S: Surface Mount, Bulk Package
- SX-SDMAN2-2830S-SP: Surface Mount, 10 Unit Sample Pack
- SX-SDCAN2-2830-SP: AR6004 Dual Band Evaluation Module (Includes antennas and cables)

**General Specifications**

- On-Chip Functionality: MAC/BB/PHY Processing
- Hardware Encryption: WEP, WPA/WPA2 (TKIP/AES-CCMP), WAPI
- Quality of Service (QoS): WMM, WMM-PS, 802.11e
- Supported Data Rates:
  - IEEE 802.11b: 1-11 Mbps
  - IEEE 802.11g: 6-54 Mbps
  - IEEE 802.11a: 6-54 Mbps
  - IEEE 802.11n HT20: 13 - 144.4 Mbps (2x2)
  - IEEE 802.11n HT40: 27 - 300.0 Mbps (2x2)
- Bluetooth: BDR/EDR/LE

**Driver Support**

**Reference Drivers:**

- Linux
- AP Mode and STA Mode.
- WEP, TKIP, AES Encryption, IEEE 802.1X, EAP
- IEEE 802.11e (QoS)
- WPS2.0
- Wi-Fi Direct

Contact Silex for driver support for other OS's.

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