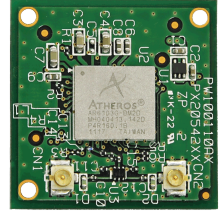


# SX-SDMGN 802.11b/g/n SDIO Module



## Wireless LAN Module for Mobile Devices with Enterprise Reliability

The Silex SX-SDMGN is a single-band 802.11b/g/n SDIO module that is based on the SX-SDPGN (Qualcomm Atheros AR6103). The SX-SDMGN brings 802.11n throughput, range and power efficiency to portable devices including patient monitors, printers, handheld terminals and more.

The SX-SDMGN optimizes RF output performance from the SIP out through the antenna which significantly decreases any downstream RF related design integration. The radio module design approach also saves cost as the SX-SDMGN provides FCC/IC/TELEC modular certification.

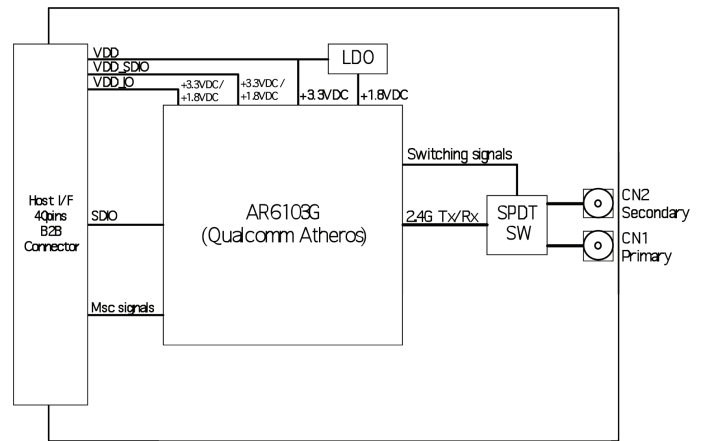
The SX-SDMGN provides superior product quality. Silex has validated that our design meets IEEE standards and each module is individually tested during the production process. This ensures that each of our products will perform to our published specification.

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 802.11b/g/n conformity (2.4 GHz)
- Single stream 1 x 1 SISO technology and 20 MHz bandwidth mode (throughput up to 72.2 Mbps)
- Data rates of 1 - 54 Mbps for 802.11b/g and MCS0-7 for 802.11n
- Supports IEEE802.11e and IEEE802.11i
- Supports SDIO 2.0 as host IF of wireless LAN
- Optionally supports Tx/Rx software selection diversity for wireless LAN mode
- Supports TDMA/FDMA Bluetooth coexistence
- Calibrated Tx Power per module
- FCC/IC/TELEC modular certification
- Connector mount

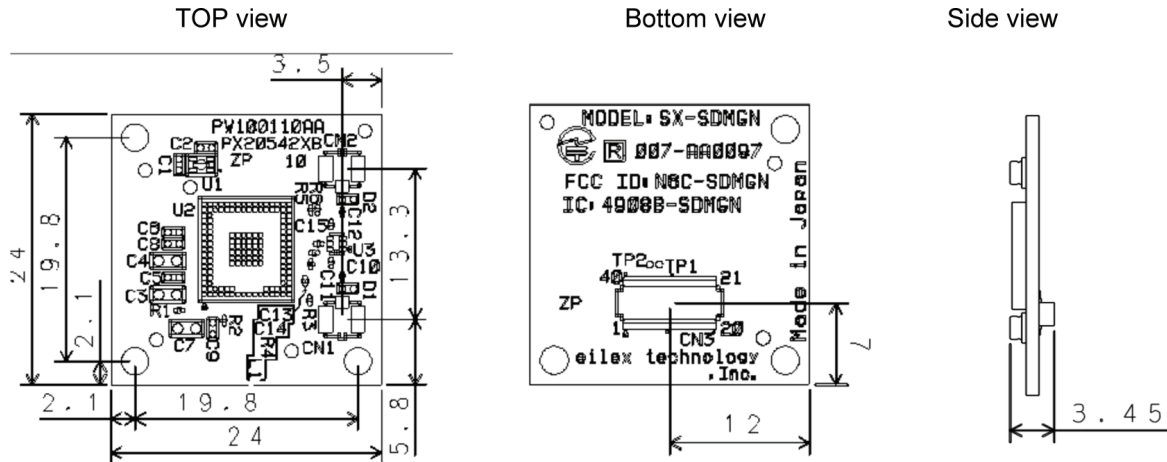
### Diagram:



LDO: Low DropOut regulator  
SPDT SW: Single Pole Double Throw Switch

### Specifications:

Product Name	SX-SDMGN-2830C
Chipset	Qualcomm Atheros AR6103
Host Interface	SDIO V 2.0 (4-bit, 1-bit)
Operating Voltage	3.30 VDC +/- 5%
Radio Specifications	802.11b/g/n 2.412 - 2.484 GHz
Baseband Specifications	CSMA/CA media access; DSSS, OFDM
Operating Temperature	-20 to +85 degrees C
Connector Mount Dimensions	24.0 x 24.0 x 3.45 mm (W x H x D)

**Dimensions and Architecture**


All dimension tolerances are  $\pm 0.15$  mm, unless otherwise specified.

**General Specifications**

On-Chip Functionality:	Single-chip MAC/BB/RF/PA/LNA
Frequency Band:	2.4 GHz
Network Standard:	802.11b, 802.11g, 802.11n (1-stream)
Modulation Modes:	DSSS (CCK, DQPSK, DBPSK), DSSS-OFDM (64QAM, 16QAM, QPSK, BPSK)
Hardware Encryption:	WEP, WPA/WPA2 (TKIP/AES-CCMP), WAPI
Quality of Service (QoS):	WMM, WMM-PS, 802.11e

**Interfaces**

Communications:	SDIO 2.0
Supported Data Rates:	
IEEE 802.11b	1-11 Mbps
IEEE 802.11g	6-54 Mbps
IEEE 802.11n	7.2 - 72.2 Mbps
Bluetooth:	Supports 2-, 3-, and 4-wire handshaking
Physical Specifications:	
Connector Mount:	24.0 x 24.0 x 3.45 mm (W x H x D)

**Driver Support**
**Reference Drivers:**

- Linux
- Android
- Windows Embedded Compact 7
- QNX Neutrino
- Green Hills Intergrity
- Mentor Graphics Nucleus

**Ordering Information**

SX-SDMGN-2830C:	Connector Mount, Bulk Package
SX-SDMGN-2830C-SP:	Connector Mount, Sample Pack
SX-6K3-EVK-SB:	AR6003 WLAN Radio Evaluation Kit (Includes SX-SDMGN-2830C)

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