The Silex SX-SDMAC is a dual-band IEEE802.11a/b/g/n/ac WLAN plus Bluetooth 5.0 BR/EDR/BLE “Smart Ready” SDIO module based on the latest Qualcomm Atheros Technology. It integrates a QCA9377 SoC with MAC, Baseband, RF, RF front end, and peripheral circuitry. SX-SDMAC operates on a +3.3V main power supply and selectable +1.8V/+3.3V IO power supply.

The SX-SDMAC comes in surface mount (SMT) and board to board connector (B2B) form factors. The SX-SDMAC has a 50 ohm U.FL connector as a connection interface for an external antenna. There is also an option to use an onboard chip antenna for the surface mount (SMT) version.

SX-SDMAC supports 802.11ac Wave 2 multi-user MIMO (MU-MIMO) client which can increase the overall WLAN system performance. SX-SDMAC provides an SDIO 3.0 interface for WLAN and a hi-speed UART interface for BT.

The SX-SDMAC is a FCC/IC/CE/MIC certified module. 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:
- Low Power Dual-Band 1x1 module for Wi-Fi & BT
- Based on the QCA9377-3 chipset
- 802.11 a/b/g/n/ac Wave 2 MU-MIMO
- Bluetooth 5.0 BR/EDR/LE Smart Ready
- SDIO 3.0 WLAN host interface
- On-chip Power Management Unit (PMU)
- Link Rate upto 433 Mbps
- On-board and u.fl antenna options
- Supports enterprise security, seamless roaming and CCX
- Fine tuned calibration per module
- FCC/IC/CE/MIC modular certification
- Connector mount, surface mount, and SDIO card form factor
On-Chip Functionality: MAC/BB/PHY Processing

Hardware Encryption: WAPI, WEP, AES-GCMP 128/256

Supported Data Rates:
- IEEE 802.11b 1 – 11 Mbps
- IEEE 802.11a and g 6 – 54 Mbps
- IEEE 802.11n MCS0-7 (1x1)
- IEEE 802.11ac MCS0-9 (1x1)

Bluetooth: Bluetooth 5.0 BR/EDR/BLE Smart Ready

General Specifications
- On-Chip Functionality: MAC/BB/PHY Processing
- Hardware Encryption: WAPI, WEP, AES-GCMP 128/256 AES-CCMP 128/256, TKIP, WAPI Full Rate
- Supported Data Rates:
  - IEEE 802.11b 1 – 11 Mbps
  - IEEE 802.11a and g 6 – 54 Mbps
  - IEEE 802.11n MCS0-7 (1x1)
  - IEEE 802.11ac MCS0-9 (1x1)

Driver Support
- Wi-Fi Reference Drivers:
  - Linux
  - AP Mode and STA Mode.
  - WPA2/WPA, TKIP, AES Encryption, IEEE 802.1X, EAP
  - IEEE 802.11e (QoS)
  - WPS2.0
  - Wi-Fi Direct
  - Android
  - Windows
  - WEC 7 Driver, WEC2013, Win10/10 IoT
  - FreeRTOS

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