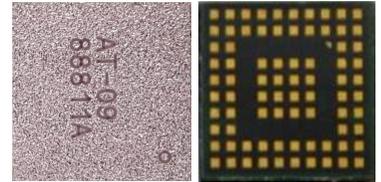


# SX-SDPAC

## 802.11a/b/g/n/ac plus Bluetooth

### SDIO System-in-Package (SiP) Module



#### Dual-Band 1x1 802.11ac SiP Module for Wi-Fi & Bluetooth

Silex SX-SDPAC is a dual-band 1x1 802.11a/b/g/n/ac plus Bluetooth 5.0+HS “Smart Ready” SDIO SiP module based on the Qualcomm Atheros QCA9377 System-on-Chip (SoC). It integrates a QCA9377 SoC and a single-ended integrated RF front end including diplexer and coupler. These allow a single external antenna to be used for both 5GHz and 2.4GHz bands internally.

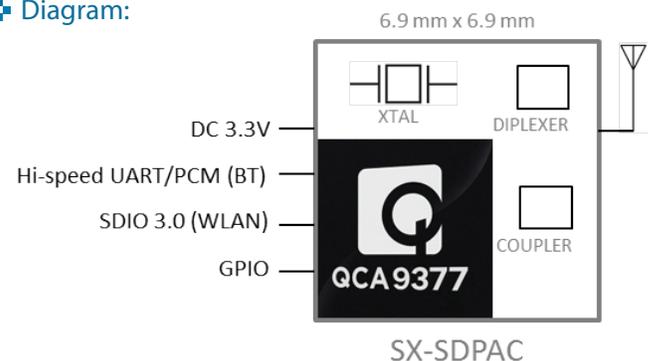
SX-SDPAC supports 802.11ac Wave 2 multi-user MIMO (MU-MIMO) feature for high performance and increased capacity. SX-SDPAC provides an SDIO3.0 interface for WLAN and a hi-speed UART interface for BT. The compact SiP module measures 6.9 mm x 6.9 mm thus reducing cost and area. 1.5KBytes of on-chip one-time-programmable (OTP) memory eliminates the need for an external flash and further reduces BOM cost.

The SX-SDPAC is a System-in-Package (SiP) designed to be mounted directly on the device PCBA. This design approach minimizes cost by eliminating extra materials and labor associated with a radio module or card. In order to expedite your product development process, Silex can provide both hardware and software engineering services including custom driver development.

#### Key Features:

- Low Power Dual-Band 1x1 SiP Module for Wi-Fi & BT
- Based on the QCA9377 Chipset
- 802.11 a/b/g/n/ac Wave 2 MU-MIMO
- SDIO 3.0 WLAN Host Interface
- UART/PCM BT Interface
- On-chip Power Management Unit (PMU)
- Single 3.3V Supply (I/O Supply 1.8V or 3.3V)
- Internal 48 MHz XTAL
- Antenna Diversity Support controlled by signal pins
- Single-ended Integrated RF Front-end Design
- Minimal host utilization (11ac speeds) via offloading

#### Diagram:



#### Specifications:

Product Name	SX-SDPAC-2830
Chipset	Qualcomm Atheros QCA9377
Host Interface	SDIO3.0: WLAN Hi-speed UART: Bluetooth
Radio Specifications	802.11b/g/n: 2.412 - 2.484 GHz 802.11a/n/ac: 4.9 - 5.925 GHz Bluetooth: 2.402 - 2.480 GHz
Operating Voltage	3.30 VDC +/- 5%
Baseband Specifications	CSMA/CA media access; DSSS, OFDM
Bluetooth Specifications	BT4.1 + HS “Smart Ready” BLE Compatible with BT1.x, 2.x, & EDR
Temperature Range	-20°C to +80°C [Case Temperature]
Dimensions	6.9mm (L) x 6.9mm (W) x 1.082mm (H)
Antenna Configuration	1x1 mode (1T1R)
Reference Driver	Linux, Windows, Android

Contact [sales@silexamerica.com](mailto:sales@silexamerica.com) to learn how you can start evaluations on the SX-SDPAC-2830 SiP.

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