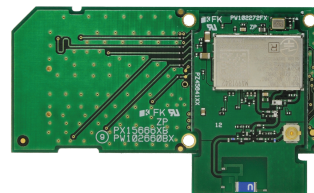# SX-SDCAC
802.11ac Plus Bluetooth SDIO Card

Next Generation Dual-Band 802.11ac Wireless Radio Card

The Silex SX-SDCAC is a next generation 802.11a/b/g/n/ac plus Bluetooth SDIO card based on the QCA9377 System-on-Chip (SoC). The SX-SDCAC is mechanically designed in a SD card form factor to provide customers with a vendor independent form factor. It enables customers to evaluate wireless connectivity for the SX-SDMAC with the NXP i.MX 6SoloX evaluation platform which includes integrated radio software support (driver and security supplicant).

The SX-SDCAC is individually tuned to optimize WLAN performance. The radio module design approach also saves cost as the SX-SDCAC provides FCC/IC/CE/MIC modular certification.
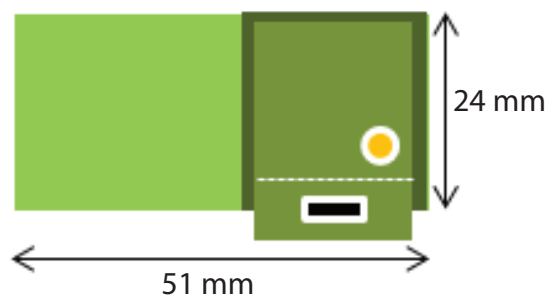
The SX-SDCAC provides superior product quality. Silex has validated that our design meets IEEE standards and each module is individually tested during the production process. This ensures that each of our products will perform to our published specification.

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/ac conformity (2.4 GHz & 5 GHz)
- Based on the QCA9377-3 chipset
- SDIO 3.0 WLAN host interface
- Supports IEEE 802.11e, IEEE 802.11h and IEEE 802.11i
- Link rate upto 433 Mbps (1x1)
- Supports enterprise security, seamless roaming and is CCX ready
- Wave 2 MU-MIMO client support
- Bluetooth 5.0 BR/EDR/LE "Smart Ready"
- Fine tuned calibration per module
- FCC/IC/CE/MIC modular certification
- SD card form factor enables easy evaluation
- Tested and evaluated with NXP's i.MX 6SoloX
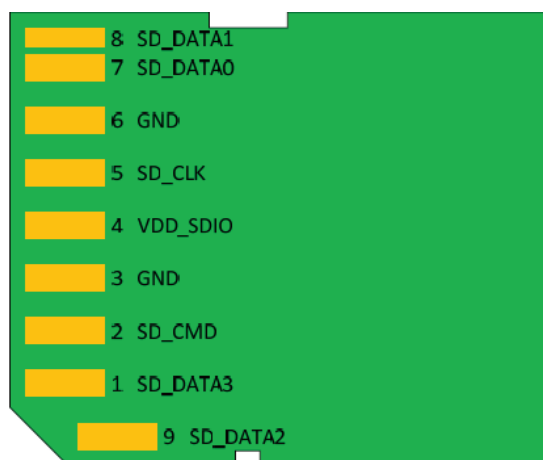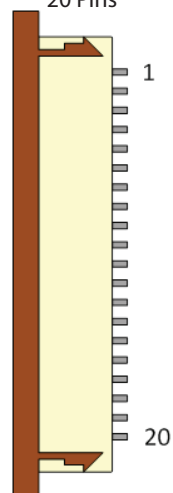
Dimensions:

24 mm

51 mm

Specifications:

Product Name	SX-SDCAC-2830 R2
Chipset	QCA9377-3
Host Interface	SDIO V 3.0
Operating Voltage	3.30 VDC +/- 5%
Radio Specifications	802.11b/g/n: 2.412 - 2.472GHz 802.11a/n/ac: 5.180 - 5.825 GHz Bluetooth: 2.402 – 2.480 GHz
Baseband Specifications	CSMA/CA media access; DSSS, OFDM
Bluetooth Specifications	BT3.0, BT4.1, BT5.0
Operating Temperature	-40 to +85 degrees C
Dimensions	24.0 x 51.0 x 5.8 mm (W x H x D)
Connector Type	SD Card Edge 9 Pins FFC Connector 20 Pins
Antenna Configuration	1x1 mode (1T1R)
Antenna Ports	MHF connector x1 Chip antenna x1

Pin Information

SD Card Edge (Bottom View)
9 Pins

FFC Connectors (Bottom View)
20 Pins

Pin	Signal
8	SD_DATA1
7	SD_DATA0
6	GND
5	SD_CLK
4	VDD_SDIO
3	GND
2	SD_CMD
1	SD_DATA3
9	SD_DATA2

1
20

General Specifications

On-Chip Functionality:	Single-chip MAC/BB/RF/PA/LNA
Frequency Band:	2.4 GHz / 5 GHz
Network Standard:	802.11a, 802.11b, 802.11g, 802.11n, 802.11ac (1-stream)
Modulation Modes:	OFDM (64QAM, 16QAM, QPSK, BPSK), DSSS (CCK, DQPSK, DBPSK), DSSS-OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Hardware Encryption:	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 802.11a	6-54 Mbps
	IEEE 802.11n	MCS0-7 (1x1)
	IEEE 802.11ac	MCS0-9 (1x1)
Bluetooth:	Bluetooth 5.0 BR/EDR/LE Smart Ready	
Physical Specifications:	24.0 x 51.0 x 5.8 mm (W x H x D)	

Driver Support

Wi-Fi Reference Drivers:

- Linux
- Android*
- Windows*

*Alpha version
Contact Silex for driver support for other OS's.

Ordering Information

SX-SDCAC-2830 R2:	Bulk Package
SX-SDCAC-2830 R2 SP:	Sample Pack (includes cable and antenna)

silex global sales & support locations

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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