

SX-SDPAN

802.11a/b/g/n SiP for Mobile Applications



Highly Integrated Dual Band 802.11n plus Advanced Bluetooth 4.0 Solution

The Silex SX-SDPAN (Qualcomm Atheros AR6233) is a third-generation Wireless LAN solution, featuring dual-band 802.11n plus Bluetooth. Based on the game-changing AR6003 Wireless LAN chip, the SX-SDPAN brings 802.11n throughput, range and power efficiency to portable devices including patient monitors, printers, handheld terminals and more.

The SX-SDPAN integrates all WLAN and Bluetooth functionality in a single package to support a low-cost PCB layout implementation. 5 GHz WLAN is supported with an external Front End Module (FEM). Shared and dual antenna configurations can be implemented with a minimum number of external RF components.

Benefits:

- High RBOM integration enables design flexibility and lowest cost
- Smallest foot print for space constrained devices
- Ultra low power consumption for extended battery life
- Supports 40 MHz channels at 5 GHz allowing for highest throughput for bandwidth intensive applications

Solution Highlights:

The SX-SDPAN incorporates all the features and performance of the award winning Qualcomm Atheros ROCm® AR6003 solution, including:

- Single-stream 802.11n for faster downloads, longer range, and lower power consumption
- Bluetooth 3.0+HS and 4.0 Low Energy
- High level of RF integration enables direct antenna connection through separate 2.4 GHz WLAN and Bluetooth antenna ports
- Flexible dual-band solution with 5 GHz front end module (FEM); shared and dual antenna configurations supported
- Highest level of on-chip integration using CMOS technology
 - Radio/MAC/Baseband
 - Patented Qualcomm Atheros Efficient Power Amplifier (EPA™) for high transmitter output power
 - Integrated power management unit
- Qualcomm Atheros Universal Wireless Cooperation for enhanced Wi-Fi/Bluetooth Coexistence

Features:

- IEEE 802.11a/b/g/n 2.4/5 GHz
- Bluetooth 3.0+HS and 4.0 Low Energy
- Integrated CMOS Efficient Power Amplifier (EPA™), LNA
- Adaptive radio biasing for low-power or high-performance modes
- Industry-leading receive sensitivity
- No external EEPROM required for RF calibration
- Integrated RISC processor
- Support for industry standard QoS schemes (802.11e, WMM, WMM-PS)
- Hardware accelerated security, including WAPI (China)

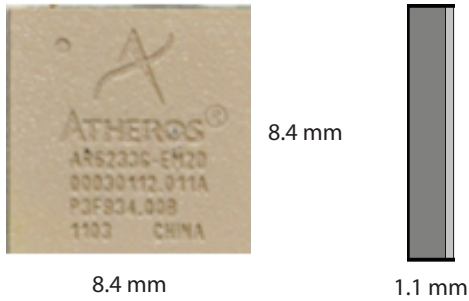
Target Applications:

The SX-SDPAN is ideal for any high volume portable device where there is a requirement to achieve the lowest BOM cost or smallest foot print. Implementation of a System-in-Package solution is recommended for companies that have RF hardware expertise. Software driver and supplicant development is also generally required.

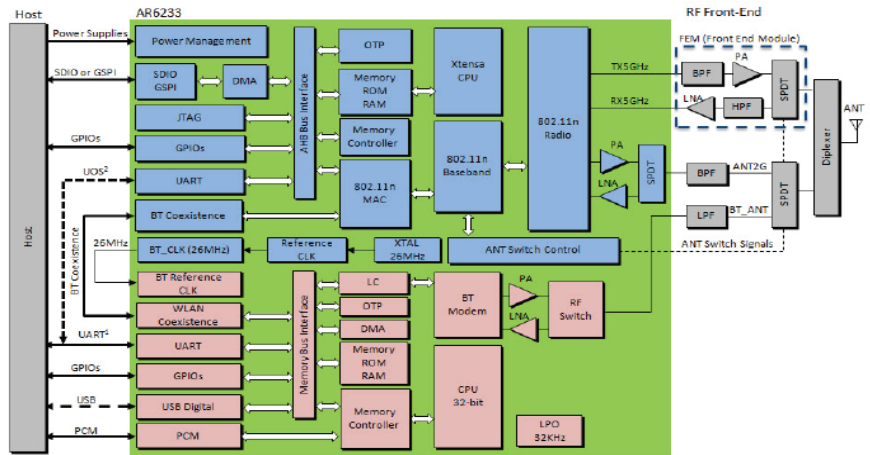
Specifications:

Product Name	SX-SDPAN-2830BT
Chipset	Qualcomm Atheros AR6233
Operating Voltage	VDD 3.3V, AVDD 1.8v
Dimensions	8.4 x 8.4 x 1.1 mm LGA package with 650um pitch pads
Bluetooth Specifications	BT3.0+HS, BT4.0, Class 1.5
Storage Temperature	-45 to +125 degrees C
Operating Temperature	-20 to +85 degrees C

Dimensions and Architecture



Physical Specifications 8.4 x 8.4 x 1.1 mm LGA Package



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
- Modulation Modes: CCK and OFDM with BPSK, QPSK, 16 QAM, 64 QAM
- Hardware Encryption: WEP, WPA/WPA2, (AES and TKIP), WAPI
- Quality of Service (QoS): WMM, WMM-PS, 802.11e

Interfaces

- Communications: SDIO 2.0, GSPI
- Physical Specifications: 8.4 mm x 8.4 mm LGA Package
- 802.11n (PHY Layer) Throughput at different Modulations

Mode	MCS	Modulation	Data Rate (Mbps)			
			20MHz (2.4GHz and 5MHz)		40MHz (5GHz only)	
			FGI	HGI	FGI	HGI
IEEE 802.11n	0	BPSK	6.5	7.2	13.5	15.0
	1	QPSK	13.0	14.4	27.0	30.0
	2	QPSK	19.5	21.7	40.5	45.0
	3	16-QAM	26.0	29.9	54.0	60.0
	4	16-QAM	39.0	43.3	81.0	90.0
	5	64-QAM	52.0	57.8	108.0	120.0
	6	64-QAM	58.5	65.0	121.5	135.0
	7	64-QAM	65.0	72.2	135.0	150.0

Driver Support

- Reference Drivers:**
- Linux
 - Android
 - Windows Embedded Compact 7
 - QNX Neutrino
 - Green Hills Intergrity
 - Mentor Graphics Nucleus

Ordering Information

- SX-SDPAN-2830BT: Bulk Packaged, Tape / Reel
- SX-SDPAN-2830BT-SP: 10 Unit Sample Pack
- SX-6K3-EVK-DB: AR6003 Dual Band Evaluation Kit

silex technology is a registered trademark of silex technology, Inc. Other product or brand names may be registered trademarks or trademarks of their respective owners. Technical information and specifications are subject to change without notice. © 2012 silex technology, Inc. All rights reserved.

silex global sales & support locations

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru