silex technology

When it **Absolutely Must** Connect

SX-590
Enterprise 802.11ac System on Module for Embedded Applications

5th Generation Serial/USB/Ethernet to Wi-Fi Intelligent Module

The SX-590 is Silex's latest fifth generation high-performance Serial/Ethernet to Wi-Fi module that provides connectivity for low-power portable devices to 802.11 wireless local area networks (WLANS). Eliminating the need for the development of a wireless LAN driver and security supplicant, it is ideal for minimizing upfront engineering investment and reducing time to market. The module has modular certifications for North America, Europe and Japan, thus reducing certification costs.

The SX-590 features NXP's power efficient and cost optimized applications processor, the i.MX 6ULL, featuring a single ARM Cortex-A7 core, with an 802.11ac radio, a complete TCP/IP network protocol stack, and an optimized QCA9377 wireless radio driver and security supplicant in a self-contained hardware package. It also supports enterprise security, including WPA2 with 802.1x authentication, which ensures data integrity and privacy for highly sensitive requirements such as medical or financial applications.

The SX-590 is designed to connect to a wide range of OEM devices without the need for special software drivers or interface hardware.

Key Features:

- **Reduced Power Consumption**
  SX-590 uses a low power CPU, i.MX 6ULL, which reduces the over all system power consumption. It also supports additional power management features which help reduce power usage during periods of inactivity.

- **Industry-Leading Enterprise Security**
  The SX-590 supports WPA and WPA2 including 802.1x Extensible Authentication Protocol (EAP) types. Other security features like SSH, HTTPS/TLS (e-Cable) are also planned.

- **Fast Boot**
  Hardware boot times between 10 - 15 seconds.

- **AMC Manager Support**
  SX-590 supports SIlex propriety protocol SXSMP that allows our AMC manager software to bulk configure, manage and monitor Silex products from a Desktop application.

- **Multi-Profile Support**
  Provides for multiple network configurations to be defined. Items such as SSID, encryption type, authentication type, certificates and local private key, PSK value, etc can be set for multiple profiles.

Hardware Specifications:

Product Name	SX-590-2700
CPU	NXP i.Mx6ULL ARM Cortex-A7, 528MHz
Memory	32MB ROM / 128MB DDR3 RAM
Radio Module	SX-SDMAC (QCA9377-3)
Radio Specifications	802.11a/b/g/n/ac (1x1)
Operating System	Linux
Security	WPA/WPA2 802.11x (LEAP, PEAP, TLS, TTLS, FAST)
WPS 2.0	WPS - Push Button Configuration WPS- PIN Code Method
Interfaces	UART/Ethernet/USB/I2C/GPIO/SPI/CAN
Operating Voltage	5V +/-5%
Operating Temperature	-40 to +85 degrees C
Dimensions	55.0 x 30.0 x 9.25 mm* (W x H x D)
Modular Certifications	FCC / IC / CE / MIC

* Minimum height using lowest profile mating connector.

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