

# SX-680

## 2x2 High Performance 802.11 Embedded Wireless Bridge Module



### High-performance Wireless LAN Connectivity for Ethernet Devices

SX-680 is a high performance embedded wireless bridge module that enables devices with an existing wired LAN interface to communicate over Wi-Fi.

Silex has integrated its own wireless LAN module and an optimized LAN driver to achieve high performance and stable wireless LAN communications. Maintenance of the radio performance and compatibility is part of the advantage the Silex engineering expertise brings to the SX-680 and is one less thing you have to worry about.

The SX-680 supports industry leading enterprise level security including WEP, WPA and WPA2, plus 802.1x authentication with the most commonly used EAP types. Silex can also provide customization of the SX-680 based on the customer's requirements optimizing their system's performance in their industrial, commercial, healthcare and other logistics based markets and applications.

#### Features:

- IEEE 802.11a/b/g/n compliant Dual Band Wi-Fi Radio (2.4/5GHz)
- Dual antenna (U.FL) and full 2x2, MIMO support for connection rates up to 300Mbps
- Integrated SX-PCEAN Silex developed PCIe Modules
- IEEE 802.3 Gigabit Ethernet interface (auto select)
- Supports two (2) operating modes (software selective)
  - Single Client Mode: Connecting one wired-LAN device to wireless LAN
  - Multi-Client Mode: Connecting up to 16 units of wired LAN devices to wireless LAN via HUB from the wired LAN port
- Enterprise-level wireless security (WPA/WPA2-Enterprise, 802.1x)
- EU Directive RoHS compliant (2011/65/EC-Lead Free)
- FCC/IC/TELEC certified, R&TTE Directive compliant

#### Applications:

Industrial printers, medical monitoring devices, commercial vehicles, conveyance trucks, programmable controllers, and industrial device control consoles.

#### Specifications:

Product Name	SX-680-2700 (Bulk Package) SX-680-2700-SP (Single Unit Sample Pack)
CPU	Marvell 88F6180 ARM9 SoC (800MHz)
Memory	8MB ROM / 64MB RAM
Radio Module	SX-PCEAN
Radio Specifications	IEEE 802.11a/b/g/n 2.4GHz band 5GHz band
Antenna Terminal	U.FL compatible connector x 2 2x2 MIMO
Interface	Ethernet 10BASE-T, 100BASE-TX, 1000BASE-T (Auto-recognition)
Operating System	Linux
Security	Open WEP (64bit/128bit), WPA-PSK (TKIP/AES), WPA2-PSK (AES), WPA/WPA2-Enterprise IEEE 802.1X (EAP-PEAP, EAP-TLS, EAP-TTLS, EAP-FAST, EAP-LEAP)
Operating Voltage	1000mA @ 3.3V±5% VDC
Dimensions	W:70 x D:60 x H:21 mm
Environmental Conditions	Operating temperature: 0 to +60 degree C, Operating humidity: 20 to 80%RH Storage temperature: -20 to +70 degree C, Storage humidity: 20 to 90%RH

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