

SX-ULPAN-SHIELD

Arduino Shield Evaluation Kit



Provides the Flexibility to Evaluate Silex Wi-Fi on any MCU Platform with Arduino Connectors

The SX-ULPAN-SHIELD is a Wi-Fi module-based adapter board derived from and compatible with Arduino form factor. It is designed to plug into Arduino-compatible boards that contain a microcontroller (MCU), such as the Freedom development kits from NXP (FRDM-K22F) or boards from other MCU vendors that are derived from Arduino.

Built on world-class expertise from Silex Technology, and powered by the Qualcomm Atheros 4004 intelligent networking platform, the Shield provides the means to evaluate the capabilities of Silex Technology's ultra-low-power Wi-Fi module, the SX-ULPAN. The Wi-Fi module interfaces to the host MCU using UART or SPI interfaces.

Arduino boards easily allow to interface sensors, monitors, control actuators to create useful demos. It makes it easier to add components or circuits to the board.

The SX-ULPAN-SHIELD ships with the application program installed for the Freedom Kinetis FRDM-K22F which helps you evaluate the basic wireless functions below:

- Basic wireless connectivity
- AP Scan, WEP/WPA configuration
- Basic TCP/IP function with HTTP, DNS and SNTP
- Soft Access Point (AP), WPA client
- Wireless Configuration (DTIM, Bitrate etc.)

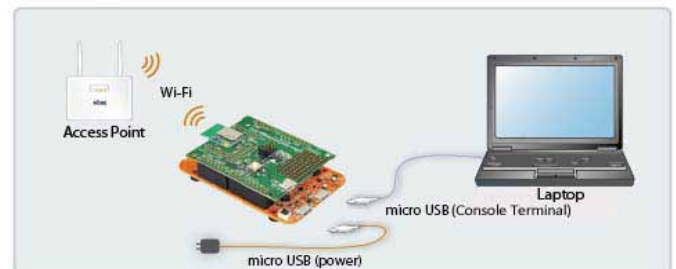
Software Features:

- **Modes:** Supports Client and Access Point mode
- **Plug-in board** that adds 802.11a/b/g/n Wi-Fi connectivity to MCU boards that are derived from Arduino
- **WPS:** Supports Wi-Fi Protected Setup (WPS)
- **UART Host Interface** support eliminates the need for the radio driver and uses AT command to configure/control the wireless radio
- **IPv4, TCP, and UDP Protocols Supported on Chip:** Helps offload the host microcontroller. Functions supported include ARP, IPv4, UDP, TCP socket support, DHCPv4, Neighbor discovery, broadcast, MTU discovery, address auto config, and TCP zero copy

Specifications:

Product Name	SX-ULPAN-2401-SHIELD	SX-ULPAN-2402-SHIELD
Wi-Fi Module	SX-ULPAN-2401	SX-ULPAN-2402
Interfaces	SPI	UART
Radio Specifications	802.11a/b/g/n	
Security	Open System, WPA2/WPA-PSK.	
Operating Voltage	3.3 V	
Operating Temperature	Continuous Tx/Rx: -40 to +75 degrees C Periodic Tx/Rx: -40 to +85 degrees C	
Size	53.34 x 69.23 x 8 mm	

SHIELD Connection to NXP Freedom Board



Ordering Information

SX-ULPAN-2401-SHIELD(US): Wi-Fi Tower Module for SX-ULPAN-2401

SX-ULPAN-2402-SHIELD(US): Wi-Fi Tower Module for SX-ULPAN-2402

Requires:

NXP Freedom Board for Kinetis K22 (FRDM-K22F)

What is Included:

- Silex Shield Module (SX-ULPAN-SHIELD – 802.11a/b/g/n)
- Web Downloads:
 - MQX 4.1 OS image for FRDM-K22F
 - EVK Quick Start Guide

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