

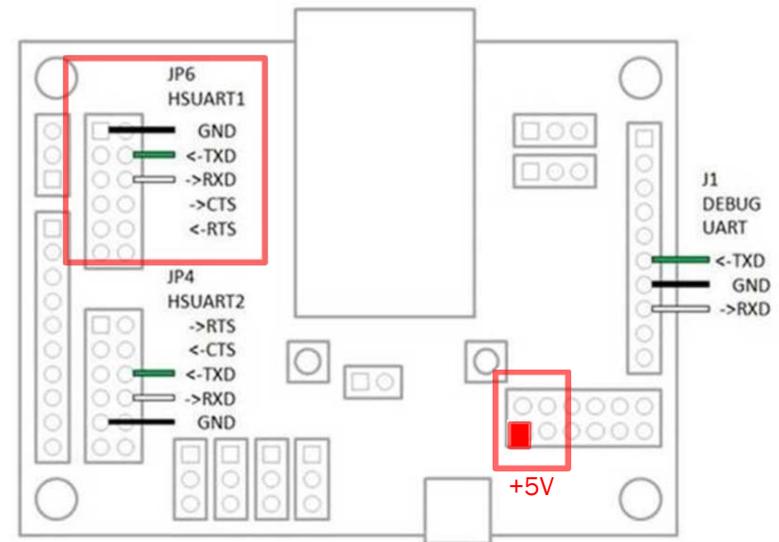
## SX-ULPGN-EVK-AT

The following items should be present in the Evaluation Kit Box:

- SX-ULPGN-EVK-AT radio card.
- USB-A to UART adapter cable (Communications & Power)
- This Quick Start Guide

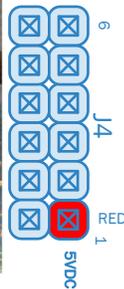
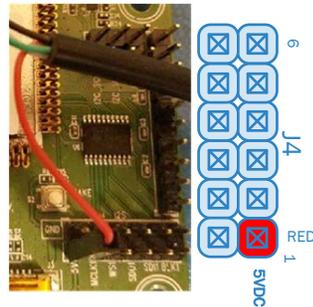
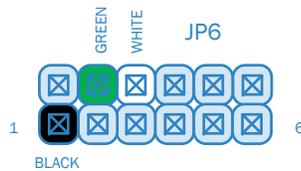
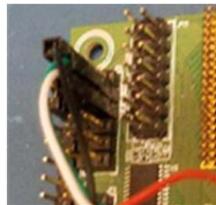
If any of the above items are missing please contact Silex Technology America technical support immediately:

Tel (US): 866.765.8761  
 Tel (International): +1.801.748.1199  
 e.mail: support@silexamerica.com



1

Connect USB-A to UART adapter cable to headers (JP6 and J4) on the EVK board:



2

Connect the USB to UART cable to your computer. This will power up the EVK board.

3

Open a terminal emulation application e.g. teraterm, PuTTY, etc. (Serial settings: 115200N81)

4

Open a session associated with the COM port assigned to the EVK.

5

Alternatively you can also use the High Speed UART

Full documentation on the SX-ULPGN can be found on the Silex and Arrow Websites.

The SX-ULPGN is based upon the Qualcomm QCA4010 chipset. Hardware and software SDK's can be found on the Qualcomm Developer Network (QDN.com)

# Configure WPA2-PSK USING AT COMMANDS ... SX-ULPGN-EVK-AT

Prior to configuring the interface you will need to either set-up a test wireless network or know which available wireless network you want to connect the EVK to. In either case you will need to know the following information prior to attempting to connect:

- Network SSID.
- Security configuration and appropriate credentials. The following uses WPA2-PSK, you will need to know the PSK.

1

Use the following command to open the network:  
**atwa=ssid**

2

Use the below command to connect to a network using CCMP method:  
**atwawpa=ssid,2,ccmp,ccmp,passphrase**

3

After the SSID is set and step #1 and 2 is completed the following prompt is displayed:

```

COM22 - Tera Term VT
File Edit Setup Control Window Help
Hostless UART-SXAT
Firmware version : 2.12.2
Target version : 5.1.0.70 <Mar 10 2017 17:11:36>
OK
atwawpa=WPA2PSK_U_BCSC02500,2,ccmp,ccmp,12345678
OK
atnset?
IP:10.254.2.112, Mask:255.255.255.0, Gateway:10.254.2.1
OK
atnping=10.254.2.1
OK
    
```

4

How to enable/maintain the webserver connection:

```

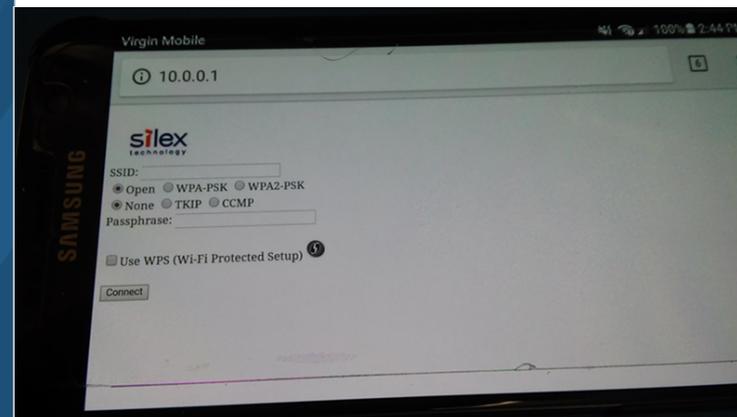
ats111=1
ats109=1
at&w
atz
    
```

5

An AP named SilexAABBCC (AABBCC=the last 6 octets of the SX-ULPGN's MAC addr) turns ON. Enter 10.0.0.1 as a URL from a browser in any phone/tablet/pc and the webserver appears and you can connect it to a network.

6

The browser connection page looks like the image:



The SX-ULPGN-EVK-AT supports the use of a JTAG interface for programming of device firmware. A compatible JTAG adapter is available directly from Arrow Electronics.

The compatible JTAG devices part number is **FTDI C232HM-DDHSL-0**.

**Links:**

**Qualcomm QDN:**  
**SX-ULPGN-EVK-AT:**

<https://developer.qualcomm.com/hardware/qca4010-12>  
<http://silexamerica.com/products/connectivity-solutions/embedded-wireless/IoT-Modules/sx-ulpgn-evk-at>

**Arrow Purchase Link:** <https://www.arrow.com/en/products/sx-ulpgn-evk-at/silex-technology-america>