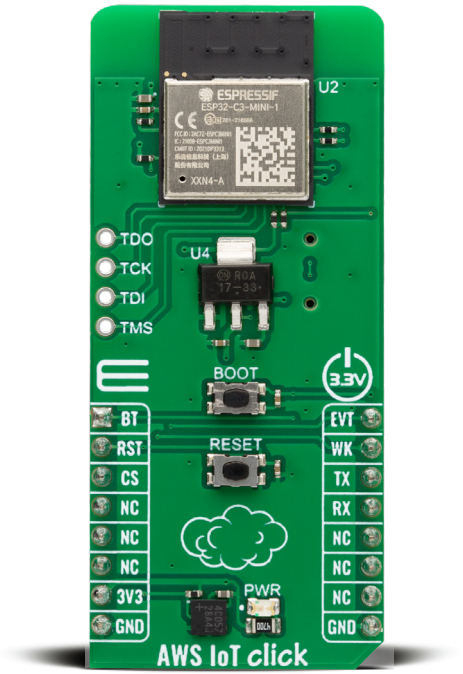
AWS IoT Click board™

USER MANUAL

A compact add-on board that allows users to easily connected to AWS IoT services and securely interact with cloud applications and other devices.



MIKROE
Time-saving embedded tools

To our valued customers

I want to express my thanks to you for being interested in our products and for having confidence in MIKROE.

The primary aim of our company is to design and produce high quality electronic products and to constantly improve the performance thereof in order to better suit your needs.

Nebojsa Matic
CEO

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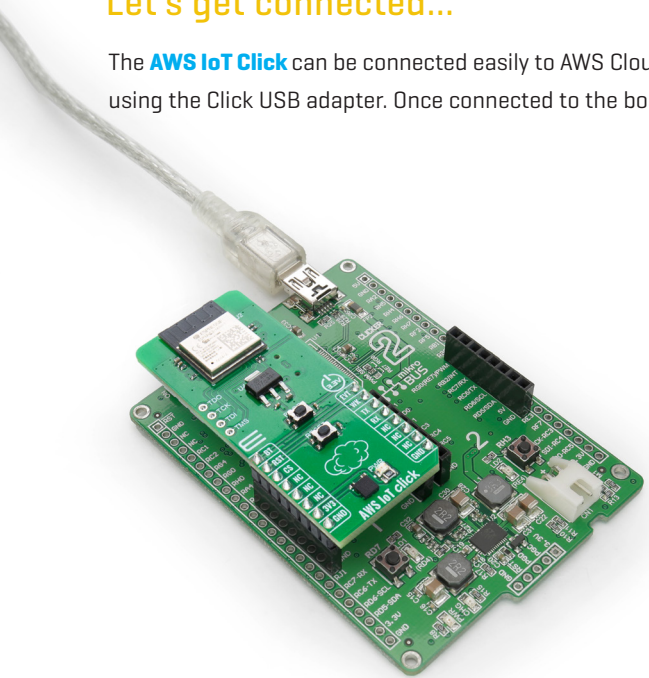
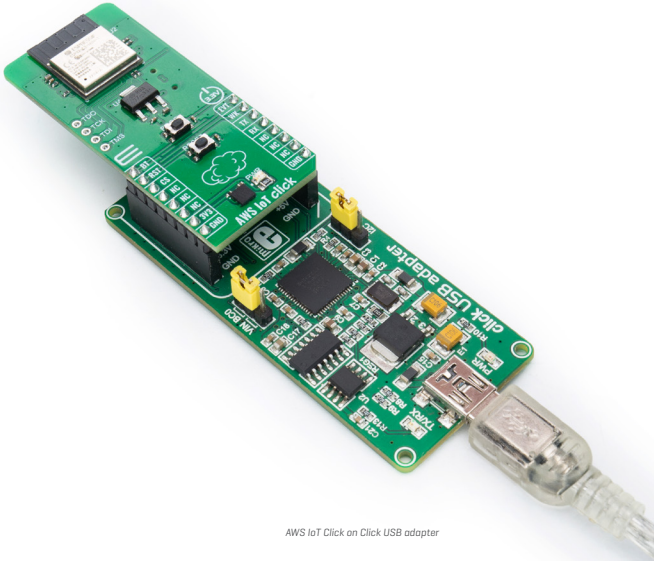
Let's get connected...

The **AWS IoT Click** can be connected easily to AWS Cloud by using any mikroBUS based system board, or by using the Click USB adapter. Once connected to the board the "PWR" LED should be green.



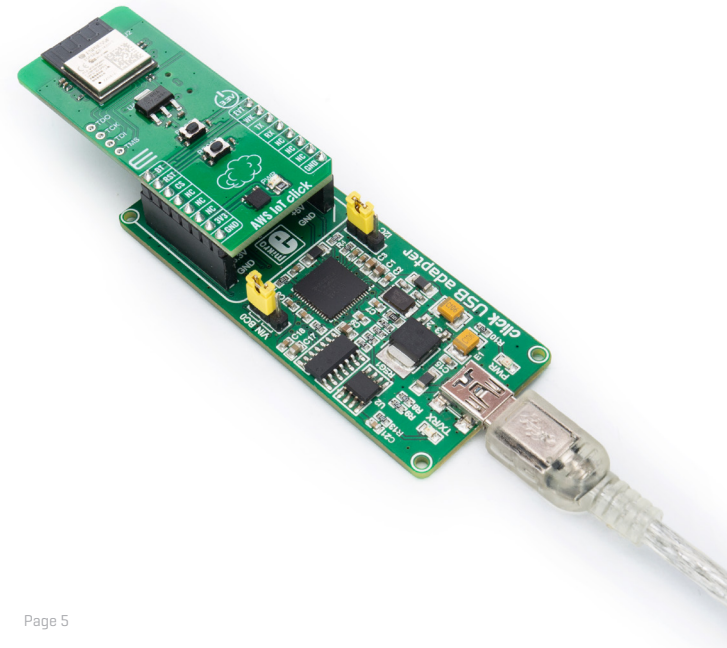
AWS IoT Click on Clicker 2 starter board



AWS IoT Click on Click USB adapter

Connecting via RX/TX pins

AWS IoT Click can be controlled by using the RX/TX pins in the mikroBUS™ connector and sending desired AT commands via UART communication at baud rate of 115200, or by using the **UART Terminal** or Start Quick Connect Demo application.



Issuing AT commands

AT commands can be issued from your emulator of choice (e.g. Zoc, Putty).

Specify the com port that your device is connected to and specify a baud rate of 115200. It will be helpful to ensure that the session you create has local echo turned on in order to validate your commands prior to sending them. In Zoc this comes under Terminal-Parameters in the session profile and in Putty under Line discipline options in Terminal configuration.

Run the Start Quick Connect demo application

The Start Quick Connect demo application allows you to establish a connection with AWS IoT, all in the space of a few minutes; no dependencies to install, no source code to download and build, and no AWS account required.

NOTE *The demo will connect to AWS IoT and give you a URL that you can use to visualize data flowing from the device to the cloud using AT+SEND commands. The demo will run for up to two minutes, and afterwards, you will be able to type AT+SEND commands yourself and see the data coming in on the visualizer. This demo is designed for AWS IoT Click boards running ExpressLink firmware v1.X.X and up.*

To run the demo, follow the below steps:

STEP 1 If you opened a terminal application previously, be sure to disconnect that application from the serial port.

STEP 2 Download the Quick Connect executable:

a. Download for MAC
b. Download for Windows
c. Download for Linux

STEP 3 Open the config.txt and enter the details to the corresponding fields:

a. Serial_port: <Add the serial port here. Depending on the OS the serial port naming can be different. *for example: Windows: COM14, MacOS, linux: /dev/tty.usbXX*>

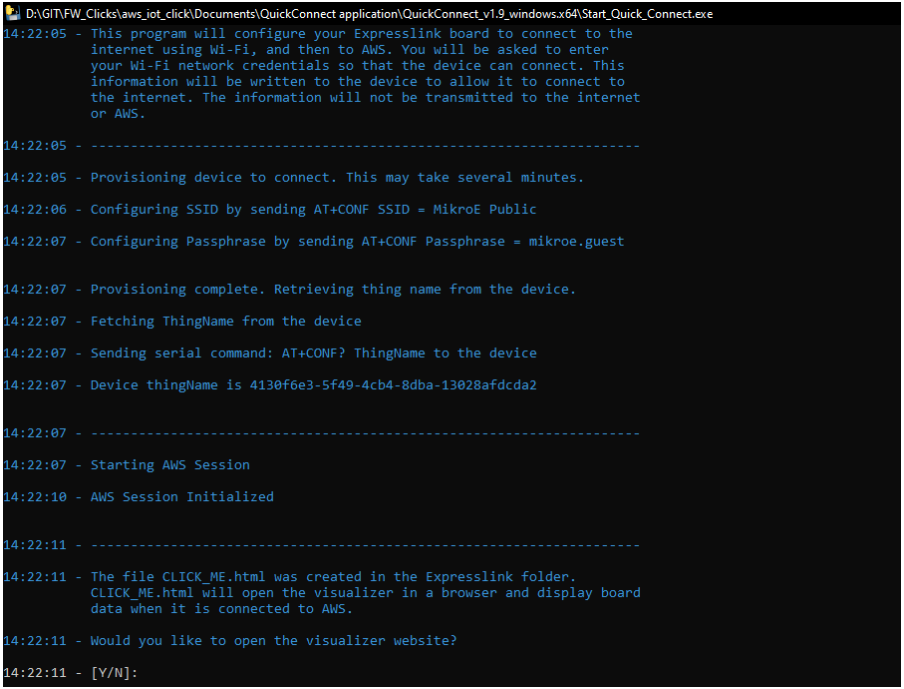
b. SSID, Passphrase: <Optional. If your expresslink device is WiFi compatible then enter your SSID and Passphrase respectively, otherwise leave it blank.>

STEP 4 Run the script either by double clicking on the executable file "Start_Quick"Connect.exe" or by entering "./Start_Quick_Connect" command in the command terminal.

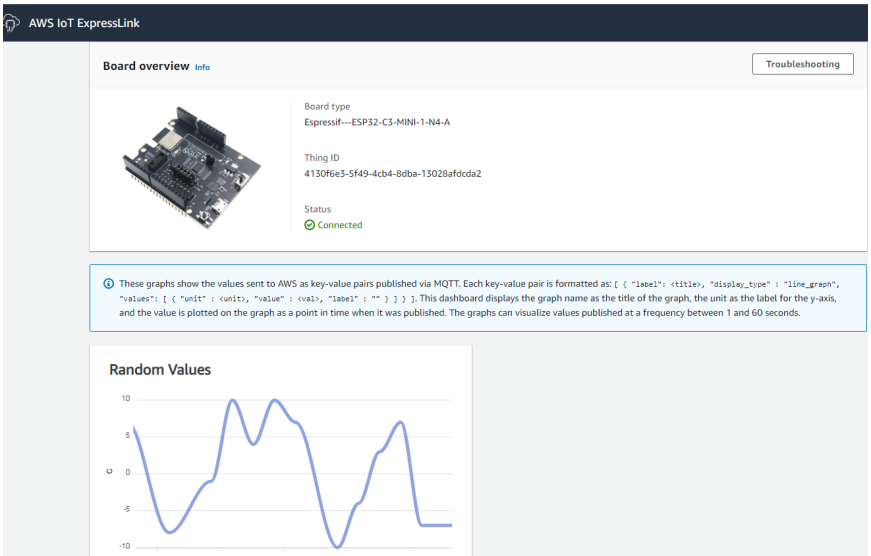
STEP 5 Wait for the script to run the necessary steps before opening the visualizer. The visualizer can be accessed in two ways:

a. At the end of the prerequisites the Quick Connect executable will provide the option to launch the visualizer from the terminal.

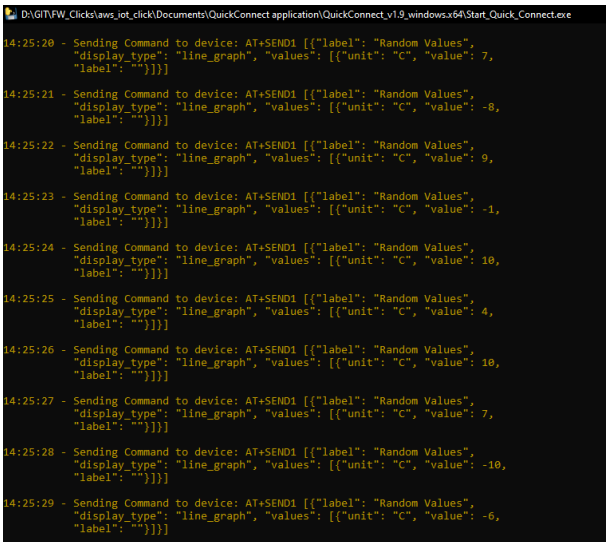
b. A file named Click-me.html will be created in the Quick connect directory which opens the visualizer.


D:\GIT\FW_Clicks\aws_iot_click\Documents\QuickConnect application\QuickConnect_v1.9_windows.x64\Start_Quick_Connect.exe
14:22:05 - This program will configure your Expresslink board to connect to the
internet using Wi-Fi, and then to AWS. You will be asked to enter
your Wi-Fi network credentials so that the device can connect. This
information will be written to the device to allow it to connect to
the internet. The information will not be transmitted to the internet
or AWS.
14:22:05 - ----------
14:22:05 - Provisioning device to connect. This may take several minutes.
14:22:06 - Configuring SSID by sending AT+CONF SSID = MikroE Public
14:22:07 - Configuring Passphrase by sending AT+CONF Passphrase = mikroe.guest
14:22:07 - Provisioning complete. Retrieving thing name from the device.
14:22:07 - Fetching ThingName from the device
14:22:07 - Sending serial command: AT+CONF? ThingName to the device
14:22:07 - Device thingName is 4130f6e3-5f49-4cb4-8dba-13028afdcda2
14:22:07 - ----------
14:22:07 - Starting AWS Session
14:22:10 - AWS Session Initialized
14:22:11 - ----------
14:22:11 - The file CLICK_ME.html was created in the Expresslink folder.
CLICK_ME.html will open the visualizer in a browser and display board
data when it is connected to AWS.
14:22:11 - Would you like to open the visualizer website?
14:22:11 - [Y/N]:

STEP 6 By selecting "Y+ENTER" the executable will publish MQTT messages to the cloud which can be observed on the visualizer.



STEP 7 After the demo messages are sent to the visualizer the executable opens an interactive serial terminal which can be used to send commands directly to the device



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