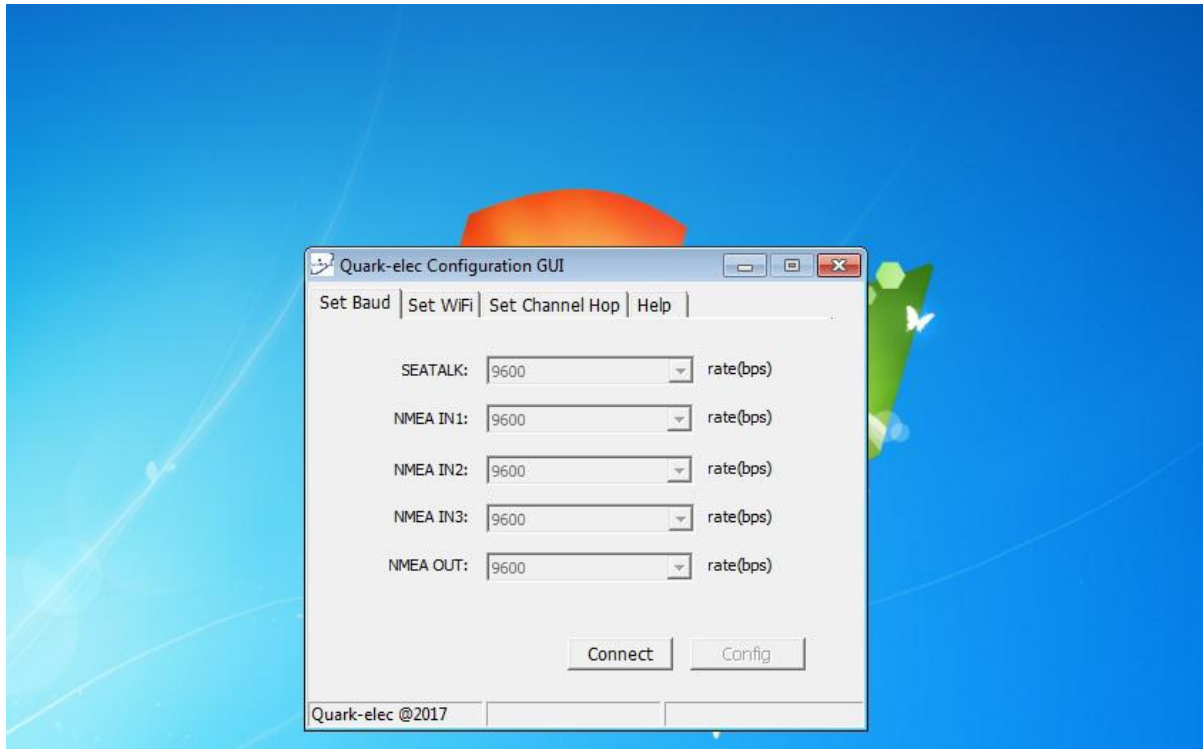


Generic Marine Configuration tool (**Windows only**)



Features:-

- Generic software application for configuring your marine devices
- Configure Baud rate input and output settings (if applicable)
- Configurable WIFI settings
- Set up and control access point settings
- Adjust channel hopping interval
- Check connection to device via USB
- **Configuration on Windows only through USB**



Contents

Contents.....	2
1. Does my device need configuring.....	3
2. Configuration tool from disk.....	4
3. Downloading configuration tool.....	5
4. Extracting configuration tool.....	6
5. Operating Configuration Tool.....	8
6. Baud rate setting.....	9
7. WiFi Setup.....	10
7.1 Ad-hoc Mode.....	10
7.2 Station Mode.....	11
8. Channel hopping.....	12
9. Limited Warranty and Notices.....	13

1. Does my device need configuring

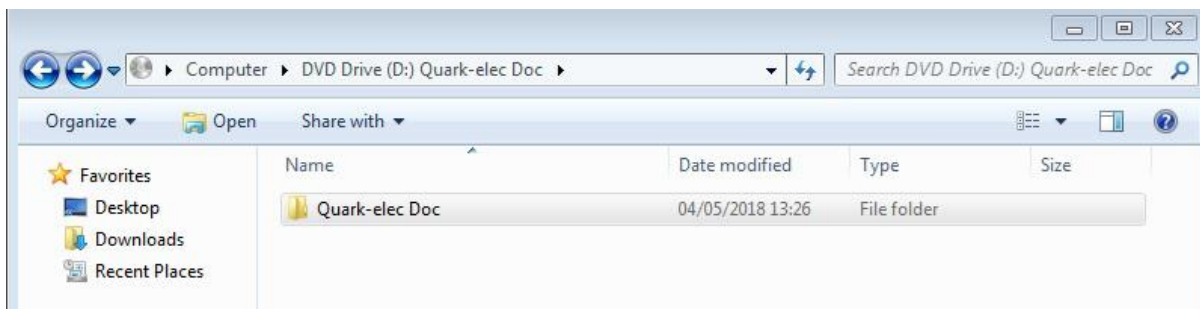
Not all marine products require configuration. Please check the table below for more information about your device.

CONFIGURATION	A021	A022	A023	A024	A026	A027	A031	A032	A042T
	Entry level AIS receiver single channel hopping USB dongle USB output.	Compact dual channel AIS Receiver USB output.	Compact AIS channel hopping AIS receiver WiFi and USB output.	Dual channel AIS receiver, multiplexer Combines AIS, and NMEA 0183 WiFi, USB and MNEA 0183 output	Dual channel AIS receiver, multiplexer Combines AIS, GPS and NMEA 0183 WiFi, USB and NMEA 0183 output	Dual channel AIS receiver, multiplexer, Seatalk™ to NMEA converter Combines AIS, GPS and Seatalk™ . WiFi, USB and MNEA 0183 output	NMEA 0183 and Seatalk multiplexer. Combines up to 3 NMEA 0183 inputs with Seatalk. WiFi, USB and NMEA 0183 output.	NMEA 0183/2000 Bi-directional converter Converts NM0183 to NMEA 2000 Wi-Fi, USB, NMEA 0183 to NMEA 2000	Easy to use Class B AIS transponder Send and receives class B messages Output NMEA 0183
First time configuration needed							✓		
Optional Channel hopping adjustment	✓		✓						
Optional adjustable Baud rate settings				✓	✓	✓	✓	✓	
Optional WiFi settings for access point			✓	✓	✓	✓	✓	✓	
USB connection	✓	✓	✓	✓	✓	✓	✓	✓	✓

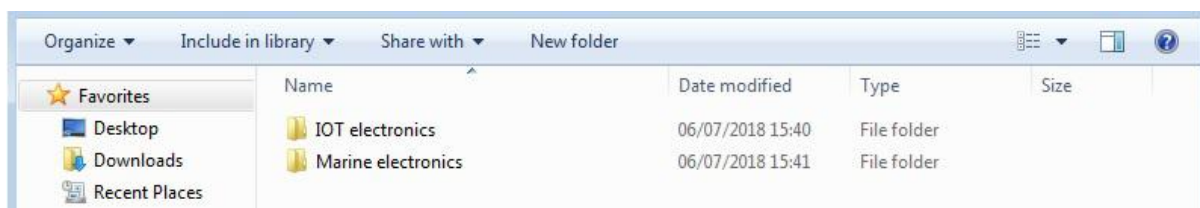
- Please bear in mind that if you require drivers and configuration tool that you may need to do this before installation of your device to the vessel. Once configured the device is ready to go and won't need a computer.
- **Configuration through Windows only whilst plugged in via USB**

2. Configuration tool from disk

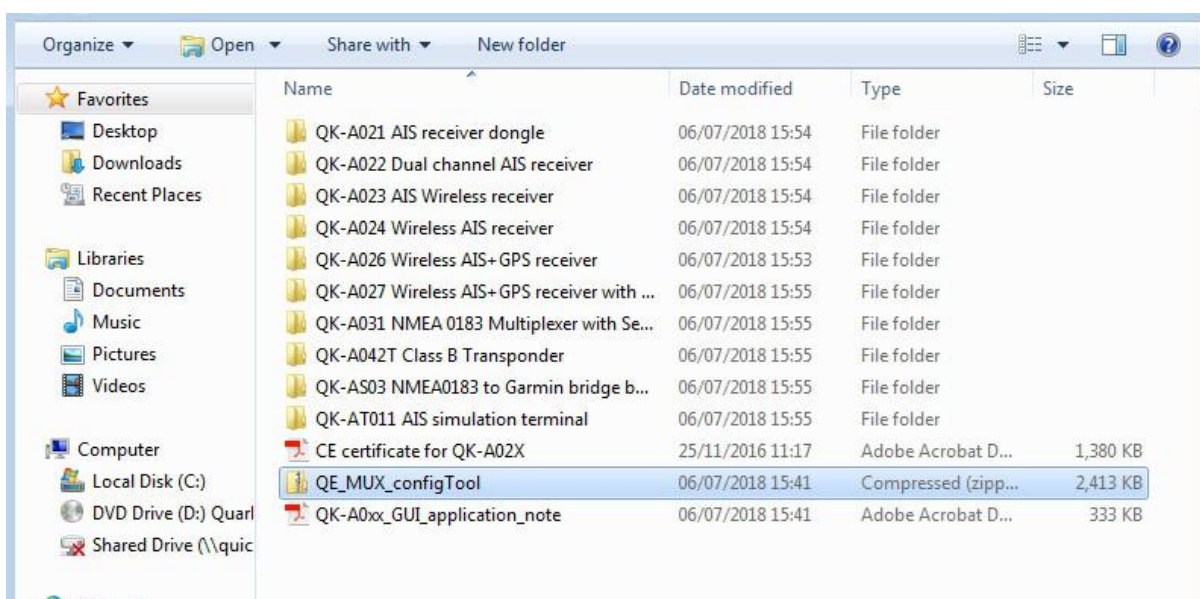
- Place the mini disk (inside your devices box) inside your pc's disk tray. Shortly after inserting the disk you should receive a pop up asking to view the contents of the disk. If you open this you should see a folder called Quark-elec Doc. **Double left** click this to open.



- You will then see a series of folders as seen below. **Double left** click the Marine technology folder. You will then see two more folders open up. One is called **IOT electronics** and the other is **marine electronics**. Double Click to open **marine electronics**



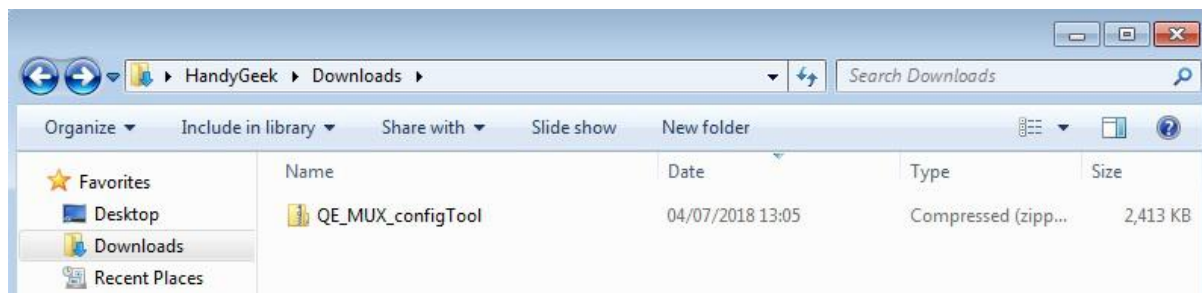
- Once in **Marine electronics** you will see a series of folders. The folder is called **QE_MUX_configTool**. As seen below; highlighted. Once you have found this folder move it to your PC's **my documents** folder [skip to chapter 4 extracting](#).



3. Downloading configuration tool

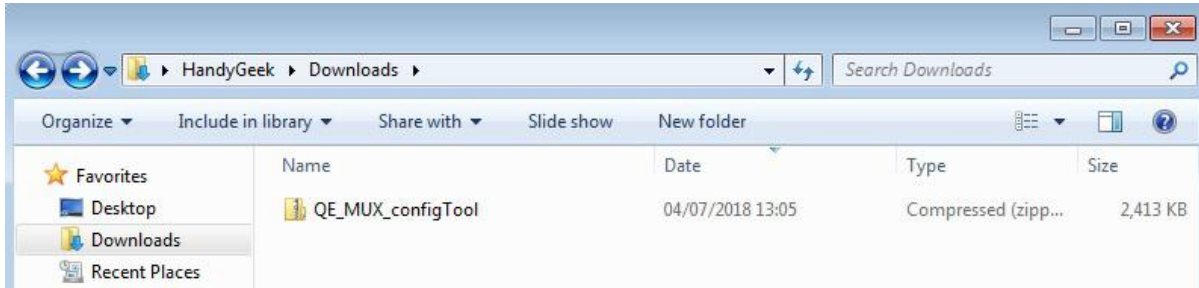
Download the Quark-elec configuration tool from our website (<https://www.quark-elec.com/downloads/configuration-tools/>) (File should be called **QE_MUX_configTool**).

This file should then be in your downloads folder or similar. We recommend storing the folder in **my document**). If you are unable to find the file after download then please download it again and save it to your **my documents** folder.

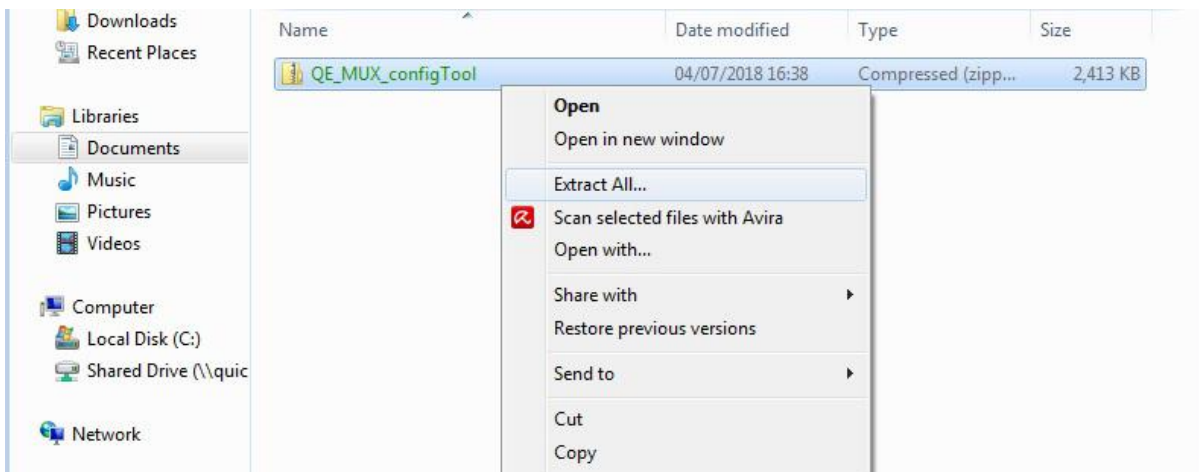


4. Extracting configuration tool

The configuration tool comes in a zipped folder. Once you have the file on your pc; you need to extract it. We recommend you extract the folder into you're **my documents** folder (we recommend you don't store the folder on the **desktop**).



Right click the file and you will then see a few options from the menu. You need to extract the folder to a suitable location (we recommend **my documents**) to open it up. Windows will extract it for you but there are also other software's out there that can help with the extraction if you're having difficulty. For example 7zip software will do this task.

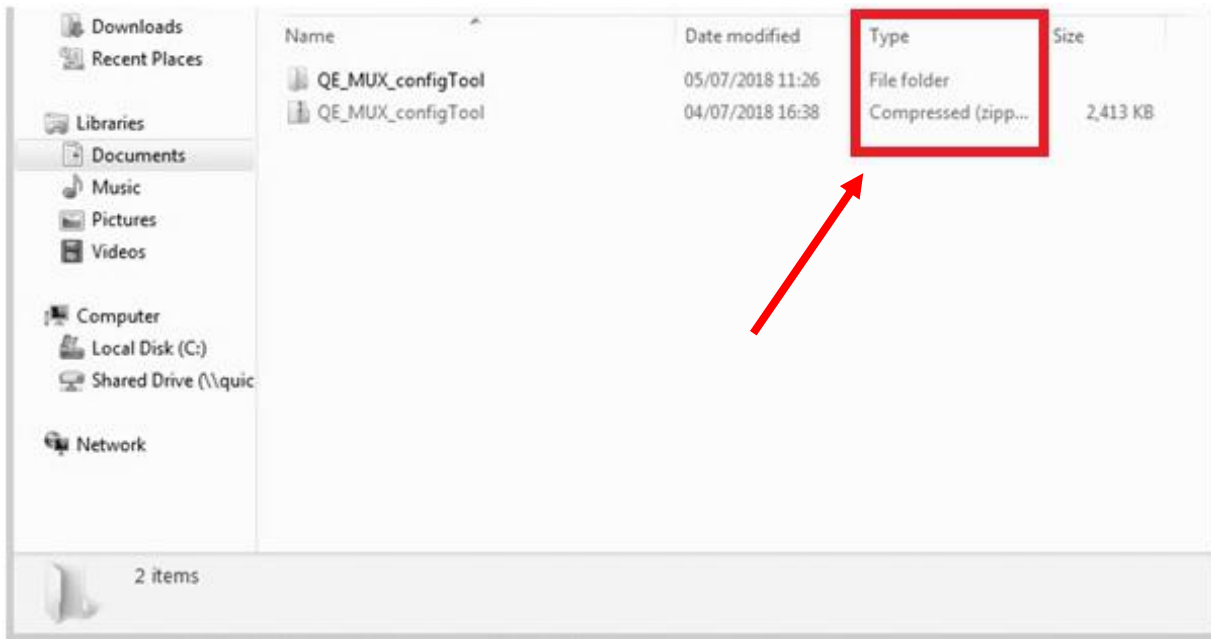


- Example shown may not represent how your PC will function. Due to the difference in software

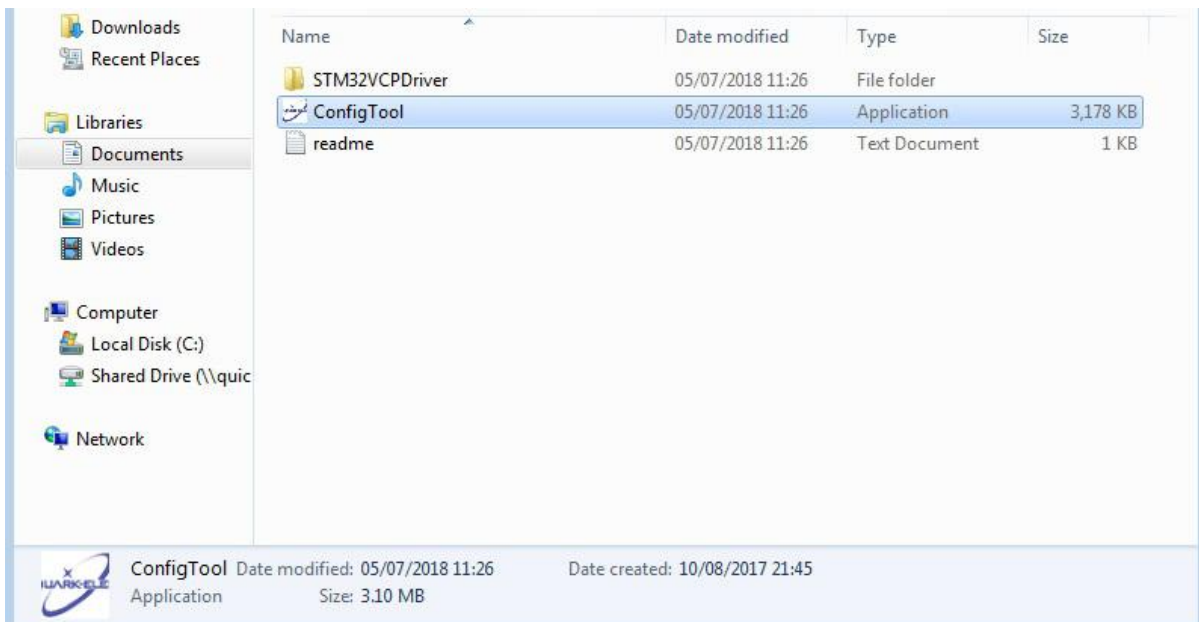
You will then be asked to choose a location to extract the folder to. You ideally want to extract the folder to your my documents folder in your pc. Moving to another location like desktop or trying to 7zip the folder where it is on the disk could cause problems down the line.

Quark-Elec Manual

The picture below shows that we moved the file to my documents and then extracted the file using the Windows PC. Once extracted you will have two files that look very similar. **Double left** click on the folder that you have extracted (the extracted file will have **file folder** properties as seen in the picture below. The folder will also have its zip removed from the icon/thumbnaill.

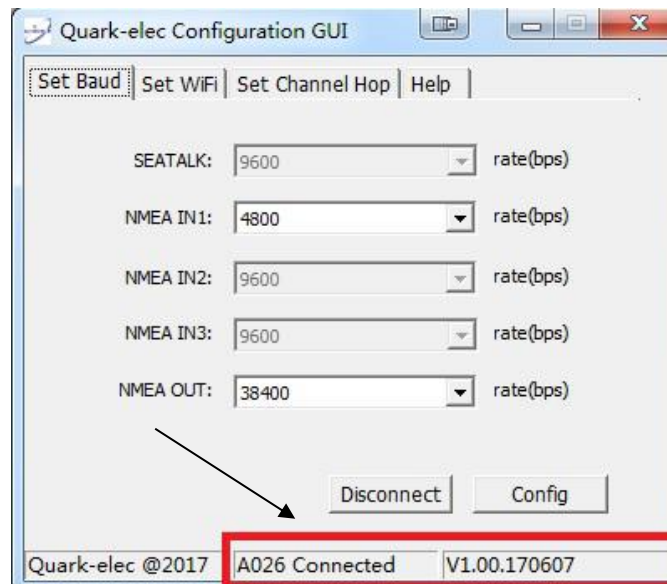


- Once you open that folder you will see a file called ConfigTool. This is your configuration tool for your device. Double left click and continue.



5. Operating Configuration Tool

The Configuration tool has at least three tabs: Set Baud, Set WiFi and Set Channel Hop. When connected and powered up it will say 'connected' in the bottom centre tab, and will indicate which software version is in use and which device is active.



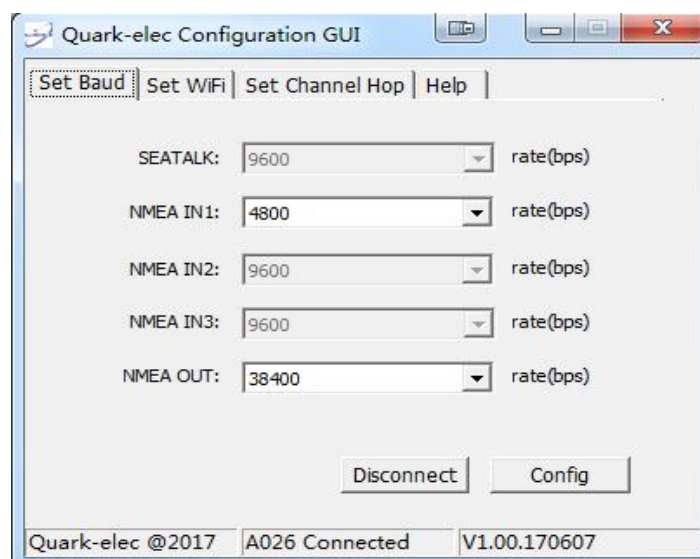
- Make sure you press the **Config** button once you have your correct settings. The **Config** button will save all the changes to the device (can be saved as many times as you like). After that you press the **Disconnect** button next to it; this allows you to disconnect the device safely (no data loss when transferring data). Disconnect the device to make sure all the settings are saved into the device (should only need to be turned off for 30 seconds)
- This is important because it saves and logs all the devices data. You can use this tool to also check what speed your device is working at. Very useful for examining baud rate speeds of your devices.

6. Baud rate setting

The baud rate settings tab is for devices that have one or more input/output of NMEA or Seataalk. This allows them to configure each input and the output of devices.

NMEA 0183 Input settings should be automatic for most applications. once the device is powered and working in the configuration tool you should see it show you the recognized baud rates it is receiving. This can be a good way to check what speed is being input.

Choose the Baud Rate from the dropdown menu by clicking on the arrow at the right side. This will drop down to show all the Baud rate settings.



The Output rate can be set from 4800 to 38400 as needed. Some quark-elec products can receive more than one NMEA input (QK-A031). in this case each input should be connected to one sensor's output only. The data will be combined by the multiplexer before Output. (Usually at 38400). **Do not put multiple outputs together into one input; NMEA sentences will be corrupted.**



7. WiFi Setup

The WIFI is pre configured to run in Ad-hoc mode. This means that you connect to it via your WIFI settings on your WIFI enabled device. The WiFi can be set up in Station (AP) as well this is using an access point and will need configuring.

7.1 Ad-hoc Mode

Soon after powering up it should be possible to scan and locate a WiFi network (SSID) similar to 'QK-A031xxxx' using WiFi enabled devices such as computers, mobile phones or tablets.

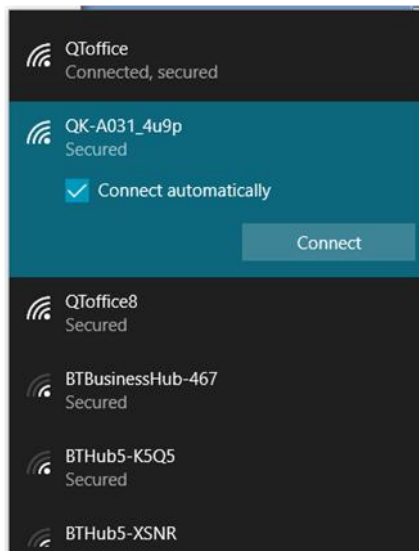


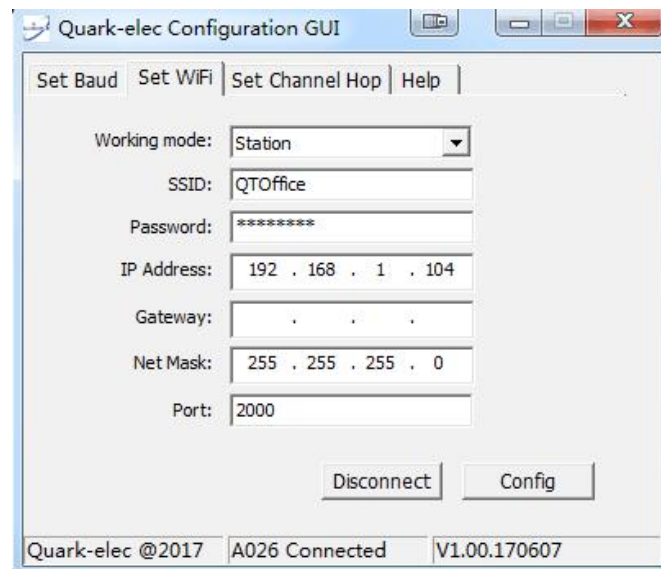
Figure 1:SSID for QK-A031

Connect the device/s to 'QK-A0xxxxxx' with '88888888' as the default password. Set the protocol as 'TCP', IP address as '192.168.1.100' and the port number as '2000' in the chart software. The SSID and password can be changed if desired. The password must be 8 to 12 characters long. If changing the SSID and password, the device/s should be reset to activate the settings.

Item	Setting
SSID	Similar to 'QK-A0xxxxxx'
Password	88888888
Protocol	TCP
IP address	192.168.1.100
Port	2000

7.2 Station Mode

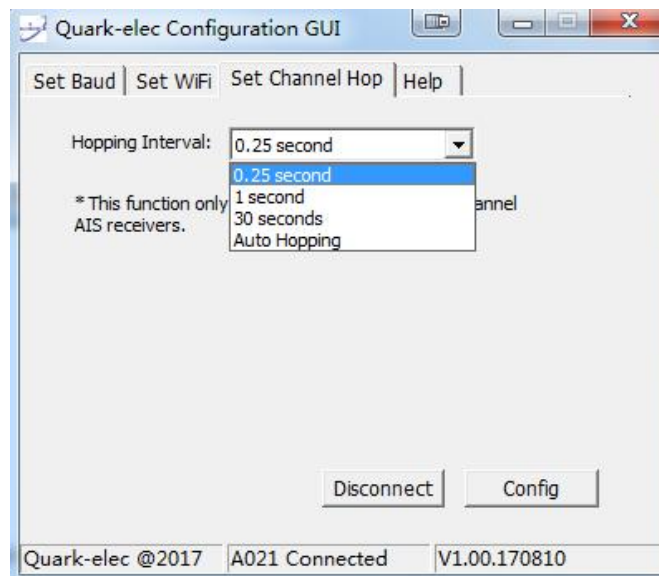
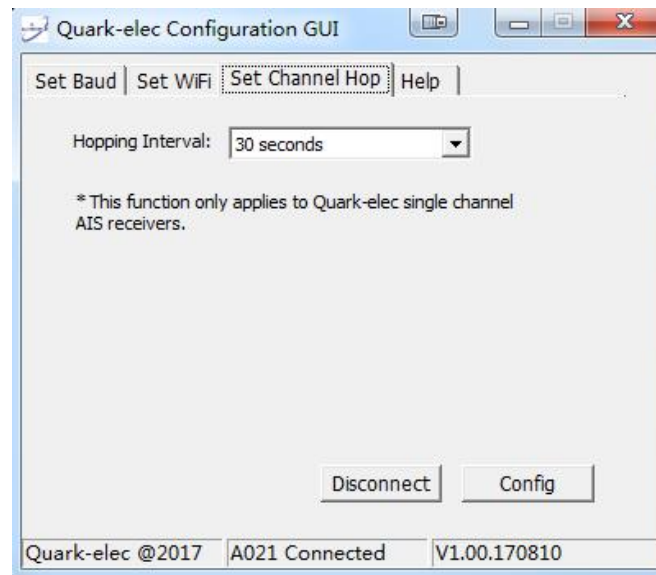
If you want to connect to your device using station mode then you will need to use the configuration tool. The procedure is the same for Station mode except the connection is made to a router (Access Point) rather than directly with the module.



- Select Station from the dropdown menu
- Add the router's designation (Router name) into the SSID box
- Then enter the network password. The password must be 8 to 12 characters long.
- The IP address refers to the module and can be user specified but if left blank will be automatically assigned by the router. Make sure the first three numbers of the IP address should be the same as the routers (in the same sub-net usually 192.168.1.xxx).
- Gateway refers to the router IP address and can also be user specified if access across the internet is required but will also be automatically assigned if left blank. The Net Mask and Port settings should always remain the same.
- Click 'Config' to set to Station Mode and then reset the module again.
- The wireless connection can be checked with TCP/IP port monitoring software such as HyperTerminal, Putty or similar.

8. Channel hopping

This is for use with channel hopping models (QK-A021 and QK-A023) only. The products have been set-up on Auto hopping as the default, but the operator can change it to an interval of 30seconds, 0.25seconds or 1second, as appropriate.



For additional technical information and other enquiries, please go to the Quark-elec forum at:

<https://quark-elec.com/forum/>

For sales and purchasing information, please email us: info@quark-elec.com

9. Limited Warranty and Notices

Quark-Elec warrants this product to be free from defects in materials and manufacture for one year from the date of purchase. Quark-Elec will, at its sole option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts and labour. The customer is, however, responsible for any transportation costs incurred in returning the unit to Quark-Elec. This warranty does not cover failures due to abuse, misuse, accident or unauthorized alteration or repairs. A returns number must be given before any unit is sent back for repair.

The above does not affect the statutory rights of the consumer.

Disclaimer

This product is designed to aid navigation and should be used to augment normal navigational procedures and practices. It is the user's responsibility to use this product prudently. Neither Quark-Elec, nor their distributors or dealers accept responsibility or liability either to the products user or their estate for any accident, loss, injury or damage whatsoever arising out of the use or of liability to use this product.

Accuracy of this manual

Quark-Elec products may be upgraded from time to time and future versions may therefore not correspond exactly with this manual. The manufacturer of this product disclaims any liability for consequences arising from omissions or inaccuracies in this manual and any other documentation provided with this product.

Document history

Issue	Date	Changes / Comments
1.0	06-11-2017	Initial release
1.1	03-03-2020	Add WiFi password length information (should be 8 to 12 characters)

Quark-Elec (UK)
Unit 7, The
Quadrant
Newark Close
Royston, UK
SG8 5HL

