

AT commands

*****Give the AT commands in given order**

// Reboot

AT+NRB

// Basic settings

AT+NCONFIG="CR_0354_0338_SCRAMBLING","TRUE"

AT+NCONFIG="CR_0859_SI_AVOID","FALSE"

// Set the APN for authentication

AT+CGDCONT=1,"IP","company.iot.dk1.tdc"

AT+CGDCONT=1,"IP","nbiot.tdc.dk"

// Switch on the radio

AT+CFUN=1

// Select the band

AT+NBAND=20

// Check settings

AT+NCONFIG?

// Forces an attempt to select and register with the network operator

AT+COPS=1,2,"23801"

// Check signal quality

AT+CSQ

// Check if attached to the network

AT+CGATT? *****After giving this command if you get 0 wait for few minutes and then try again**

// Check own IP address

AT+CGPADDR

// Display network statistics

AT+NUESTATS

// Ping

AT+NPING="8.8.8.8"

//Open socket

AT+NSOCR="DGRAM",17,42000,1

```
remote_port = "5683"
remote_ip = "52.17.209.228"
```

Wia Port and IP

Example for publishing an event

For this, we are going to show the packet structure of a device publishing an Event to Wia. The packet itself, along with the payload, should be transmitted in hex format [1].

4 V T	0 TKL	02 Code	0000 Message ID
b66576656e7473 Options: Uri-Path="events"			
ff Payload Marker	7b22616363657373546f6b656e223a22645f 736b5f616263313233222c226e616d65223a 2274656d7065726174757265222c22646174 61223a223231227d Payload: {"accessToken":"d_sk_abc123","name":"temperature","data":"21"}		

Fig.1 This shows the path "events" with the payload structure {"accessToken":"d_sk_abc123","name":"hello-wia","data":"12345"}

1. AT+NSOST=0,"52.17.209.228",5683,90,"40020000b66576656e7473ff{"accessToken":"d_sk_YGaps1oWDd5gGmdeOps8ddt","name":"NB-IoT","data":"12345"}

JSON format for Wia

```
AT+NSOST=0,"52.17.209.228",5683,90,"40020000b66576656e7473ff7b22616363657373546f6b656e223a22645f736b5f5947617073316f5744643567476d64654f70737338646474222c226e616d65223a224e422d496f54222c2264617461223a223132333435227d"
```

2. AT+NSOST=0,"52.17.209.228",5683,84,"40020000b66576656e7473ff{"accessToken":"d_sk_YGaps1oWDd5gGmdeOps8ddt","name":"TeM","data":"23"}

JSON format for Wia

```
AT+NSOST=0,"52.17.209.228",5683,84,"40020000b66576656e7473ff7b22616363657373546f6b656e223a22645f736b5f5947617073316f5744643567476d64654f70737338646474222c226e616d65223a2254654d222c2264617461223a223233227d"
```

***Run this AT command to send an event to Wia. We can change the name and data. For example
{"accessToken":"d_sk_YGaps1oWDd5gGmdeOps8ddt","name":"Temperature","data":"23"}