

C-BACK NB-IoT(SIM7020G)

SKU:A113



Description

CBack NB-IoT is a highly integrated NB-IoT communication module adapted to the M5StickC/C Plus series, built-in SIM7020G module and SIM-CARD card holder (nano card holder), covering most of the world's Cat-NB band, the antenna is led out by SMA mount, equipped with glue stick antenna. This module supports a variety of common IoT communication protocols (MQTT, HTTP, CoAP, etc.), which is suitable for application in various low-latency and low-throughput application scenarios.

Features

- Compatible with M5StickC/C Plus series
- AT command control, UART transmission rate: 115200bps
- SIM card type: Nano
- External antenna: SMA antenna
- SIM7020G national telecommunications certification

Includes

- 1x CBack NB-IoT CN
- 1x SMA antenna
- 2x M2x4 screws

Applications

- Smart meter
- Remote monitoring
- bike-sharing

Specification

Resources	Parameters
Communication module	SIM7020G
The Cat-NB band is supported	B1/B2/B3/B4/B5/B8/B12/B13/B17/B18/B19/B20/B25/B26/B28/B66/B70/B71/B85
Data transfer speed	126(DL)/150(UL)
Network protocols	TCP/UDP/LWM2M/COAP/ MQTT/HTTP/HTTPS/ TLS/DTLS/DNS/NTP/ PING/OneNET/Telecom Cloud/Aila Cloud*
Communication method	UART 115200bps
authentication	CE*/FCC*/GCF*/PTCRB*/RoHS/REACH/ATEX/TIM*/Deuts Telecom*/Vodafone*/T-Mobile*
Product Size	68mm × 24mm × 21mm
Package Size	90mm × 35mm × 21mm
Product Weight	12.2g
Package Weight	25g

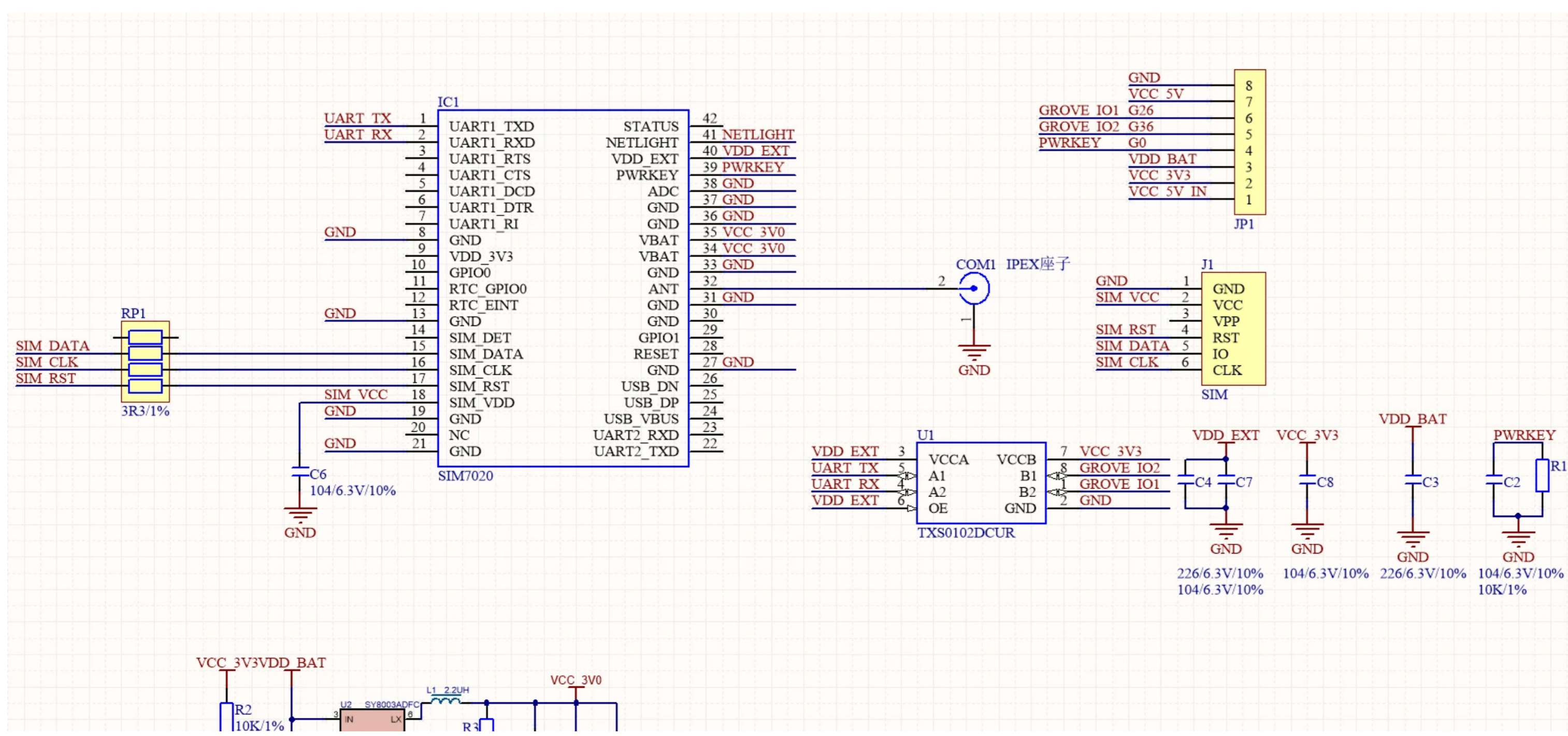


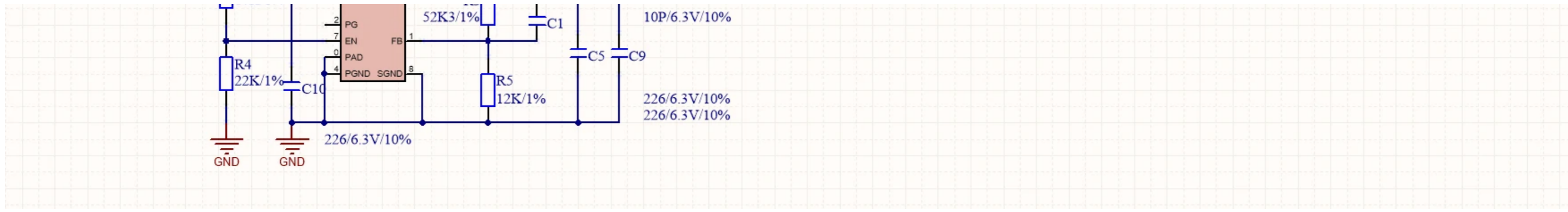


Related Link

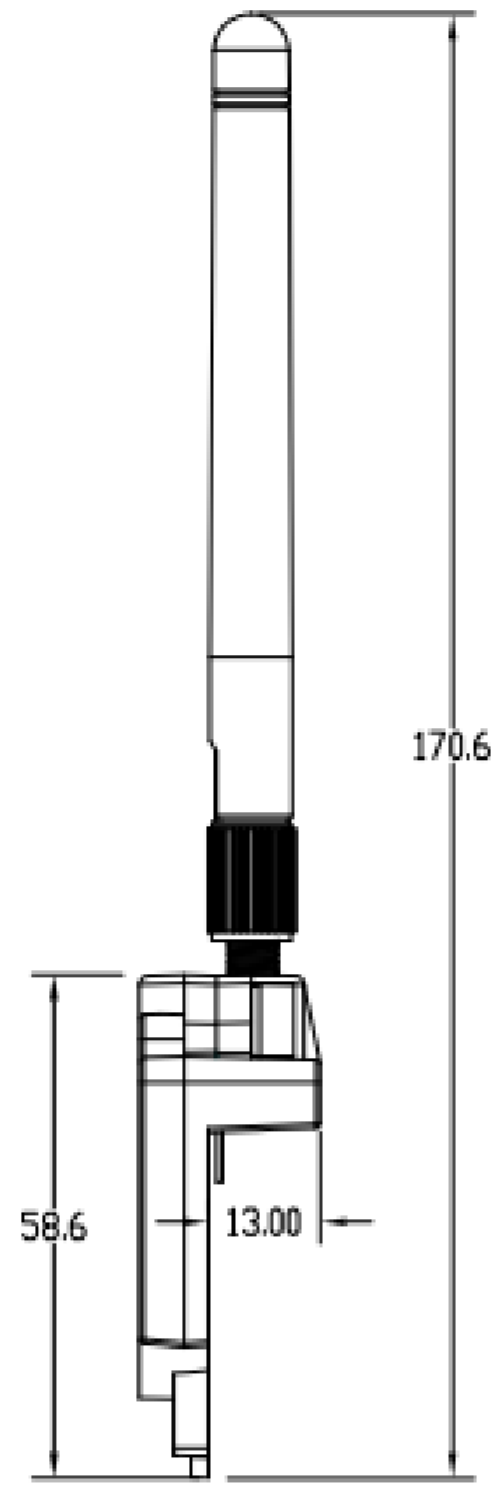
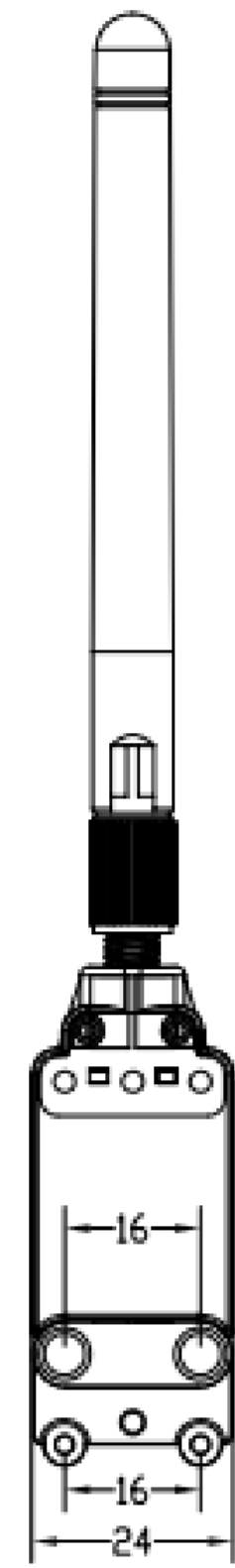
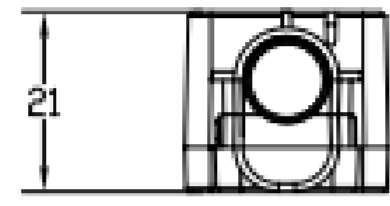
- [SIM7020 Series datasheet](#)
- [SIM7020 Series_Ayla_Application Note_V1.03](#)
- [SIM7020 Series_CTBURST_Application Note_V1.01](#)
- [SIM7020 Series_CoAP_Application Note_V1.03](#)
- [SIM7020 Series_EAT_Environment & Compilation & Burning Guide_V1.02.](#)
- [SIM7020 Series_FOTA_Application_Note_V1.02](#)
- [SIM7020 Series_HTTP\(S\)_Application Note_V1.04](#)
- [SIM7020 Series_LWM2M_Application Note_V1.03](#)
- [SIM7020 Series_Low Power Mode_Application Note_V1.05](#)
- [SIM7020 Series_MQTT\(S\)_Application Note_V1.05](#)
- [SIM7020 Series_NVRAM_Application Note_V1.02](#)
- [SIM7020 Series_SAT_Application Note_V1.01](#)
- [SIM7020 Series_SNTP_Application Note_V1.03](#)
- [SIM7020 Series_TCPIP_Application Note_V1.04](#)
- [SIM7020 Series_AT Command Manual_V1.05](#)

Schematic





Module Size



Examples

Arduino

- [CBACK_NBIoT - MQTT](#)
- [CBACK_NBIoT - HTTP](#)

UIFlow

- [UIFlow Example](#)

```

Setup
  set counter to 0
  set previous to 0
  Init connect server "mqtt.m5stack.com"
    port 1883
    client id "m5_mqtt999"
    username ""
    password ""
    keepalive 120
  if MQTT check connection
  do Label label0 show "Connected"

repeat while not MQTT subscribe topic "SubTopic" QoS 0
do MQTT unsubscribe topic "SubTopic"

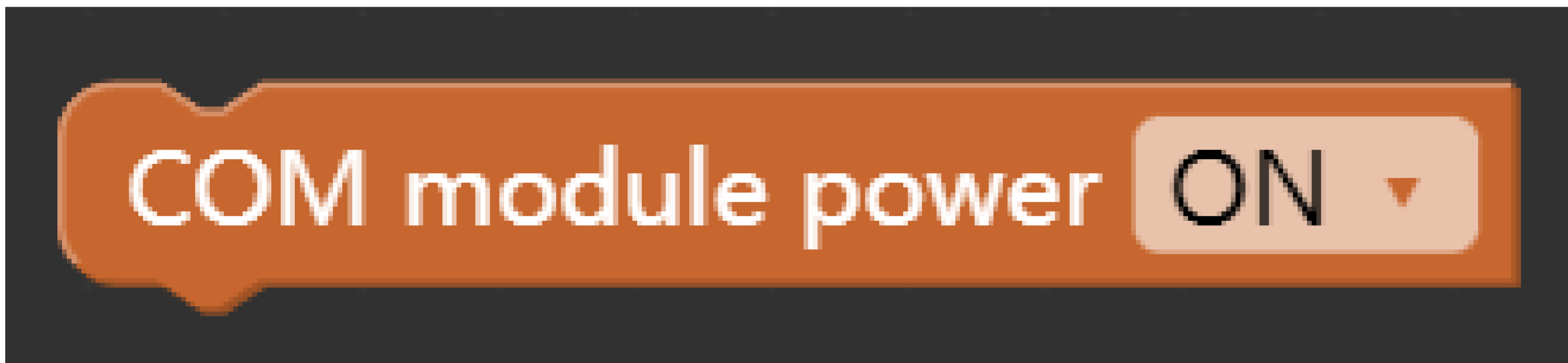
MQTT subscribe callback topic nb_topic msg nb_msg
  Label label3 show nb_topic
  Label label4 show nb_msg

Button A wasPressed
  set counter to random integer from 100000 to 999999
  Label label2 show counter
  
```

```
Label label1 show "Subscribed"
Loop
MQTT poll downlink message
if counter ≠ previous
do
MQTT publish topic "PubTopic"
payload Convert to str counter
QoS 0
set previous to counter
```

UIFlow Blocks

- Set COM module power



- Get IMEI



- Get CCID



- Power down module



- Reset module

Reset module

- Set command echo mode

Set command echo mode **OFF** ▾

- Check module status

Check module status

- Check signal quality

Check signal quality

- Check network registration

Check network registration

- Check GPRS network registration

Check GPRS network registration

- MQTT Init connect

Init connect server

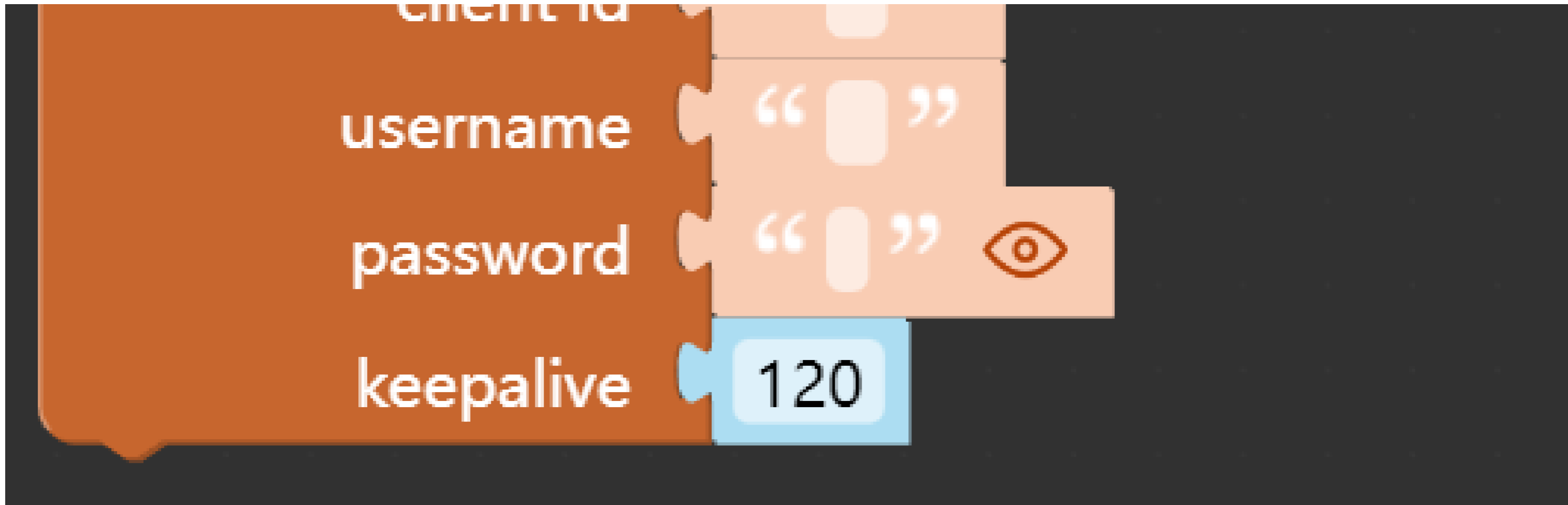
“ mqtt.m5stack.com ”

port

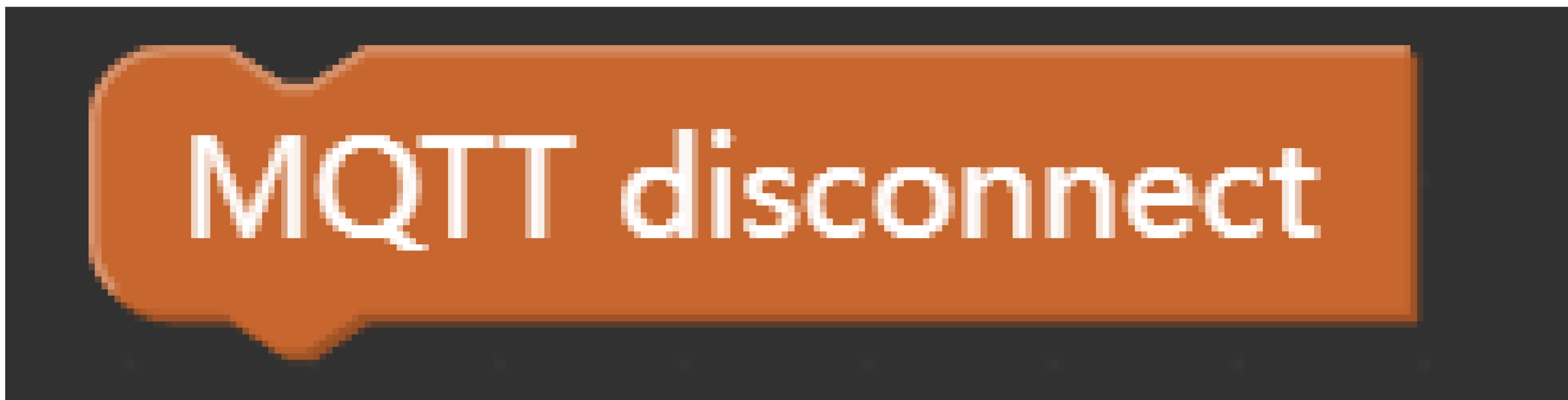
1883

client id

“ ”



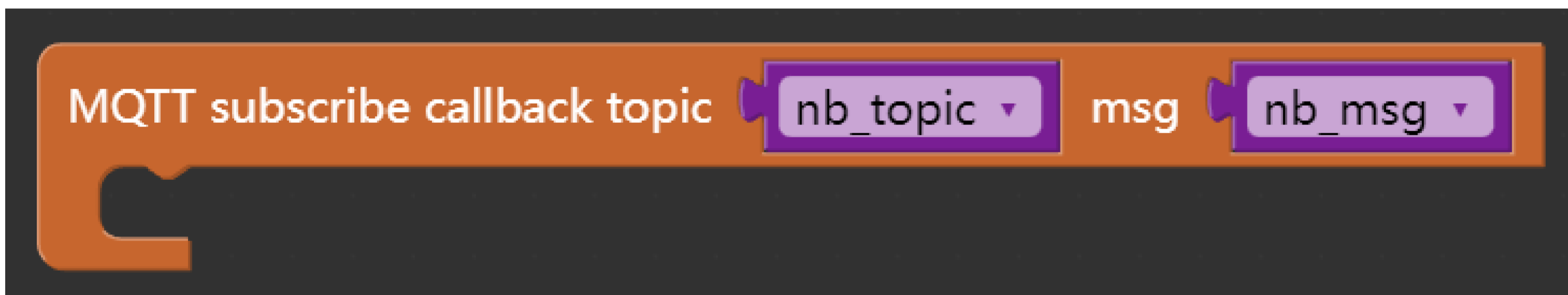
- MQTT disconnect



- MQTT subscribe



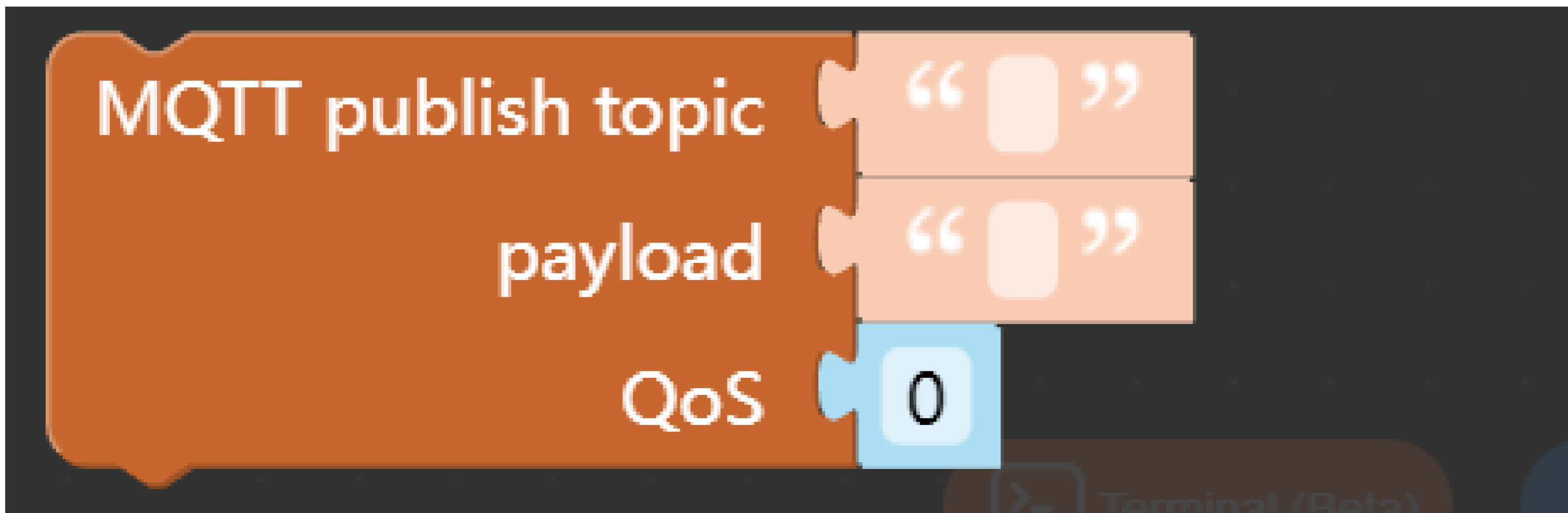
- MQTT subscribe callback



- MQTT unsubscribe



- MQTT publish



- MQTT check connection



- MQTT poll downlink message

MQTT poll downlink message

- CoAP Init connect

Init connect IP "120.77.157.90" port 5683

- CoAP GET

CoAP GET url "/m5stack-get" security None

- CoAP POST

CoAP POST url "/m5stack-post" payload "" content format TEXT_PLAIN security None

- CoAP PUT

CoAP PUT url "/m5stack-put" payload "" content format TEXT_PLAIN security None

- CoAP destroy

CoAP destroy

- HTTP(S) services

HTTP(S) services

method GET

url

" "

" "



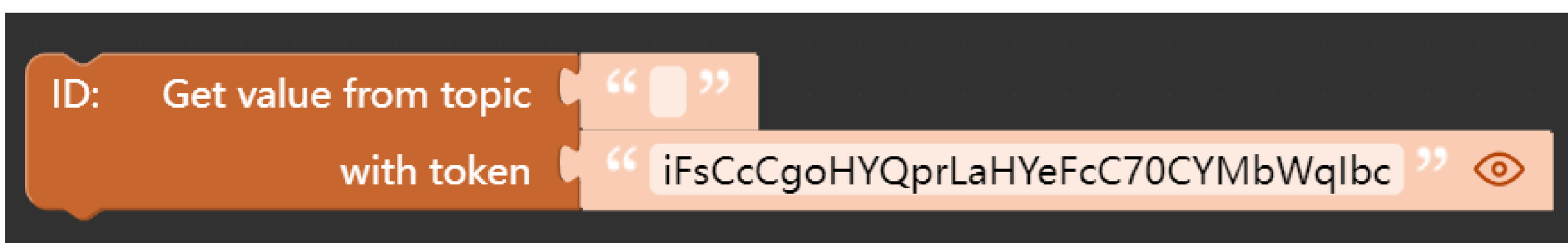
- HTTP(S) disconnect server



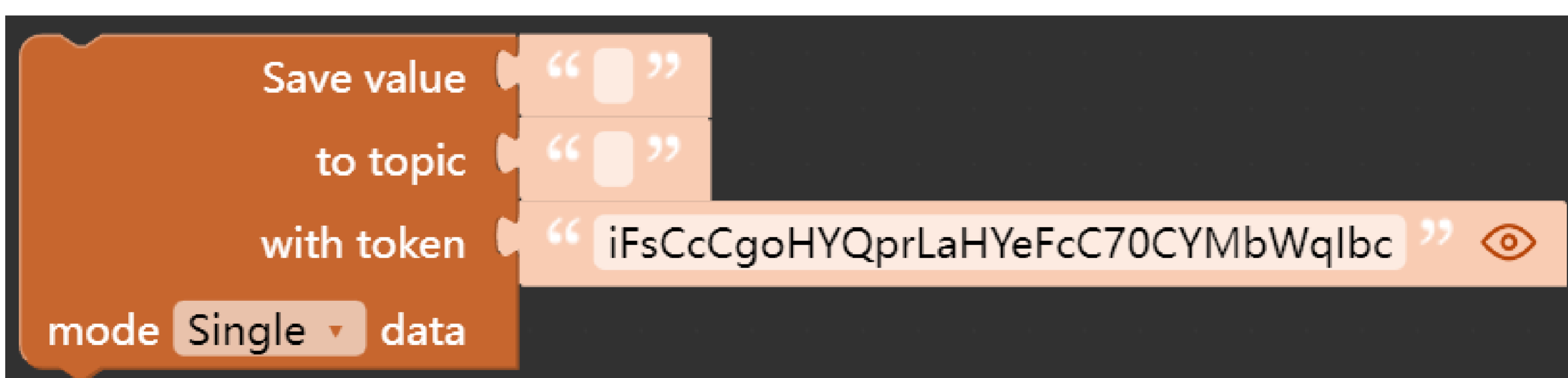
- Delete HTTP(S) service



- EzData get value



- EzData save value



- EzData remove topic

