



AND Technologies Co., Ltd

Breakout SIM7670 User Manual



AND Wireless : <http://www.and-global.com>

OEM PCBA : <http://www.buypcba.com>

Retail Store : <http://www.aliexpress.com/store/605000>

Golden supplier on Alibaba : <http://and-global.en.alibaba.com>

Email : info@and-global.com

Tel : +86-755-28099797

1. Preparation:

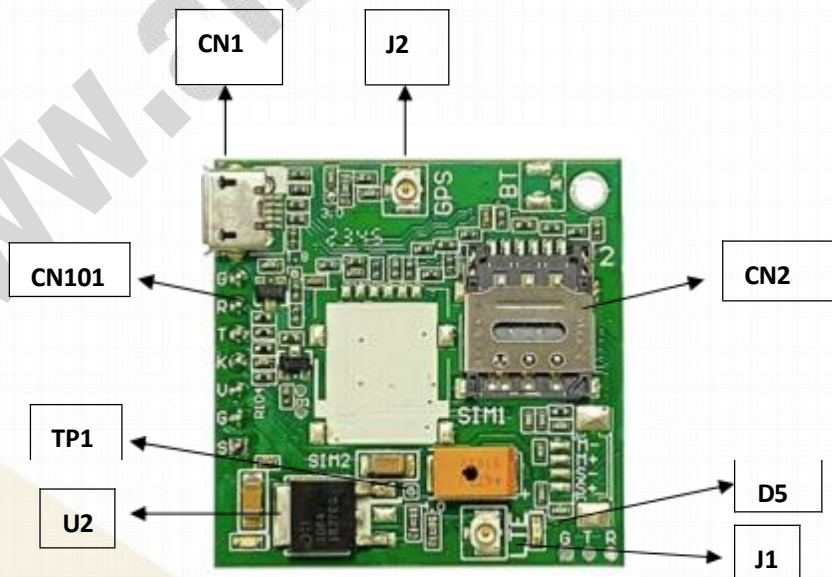
Board	BK-SIM7670
Serial tool	sscom32E.exe

2. Overview

2.1 Module feature

- > The SIM7670 Series is the LTE Cat 1bis module based on the latest QCX216 chipset that supports wireless communication modes of LTE-FDD/LTE-TDD. It supports maximum 10Mbps downlink rate and 5Mbps uplink rate
- > Control Via AT Command, Rich interfaces including UART,USB2.0
- > Operation temperature:-40°C to +85 °C
- > GNSS optional

2.2 BOARD overview



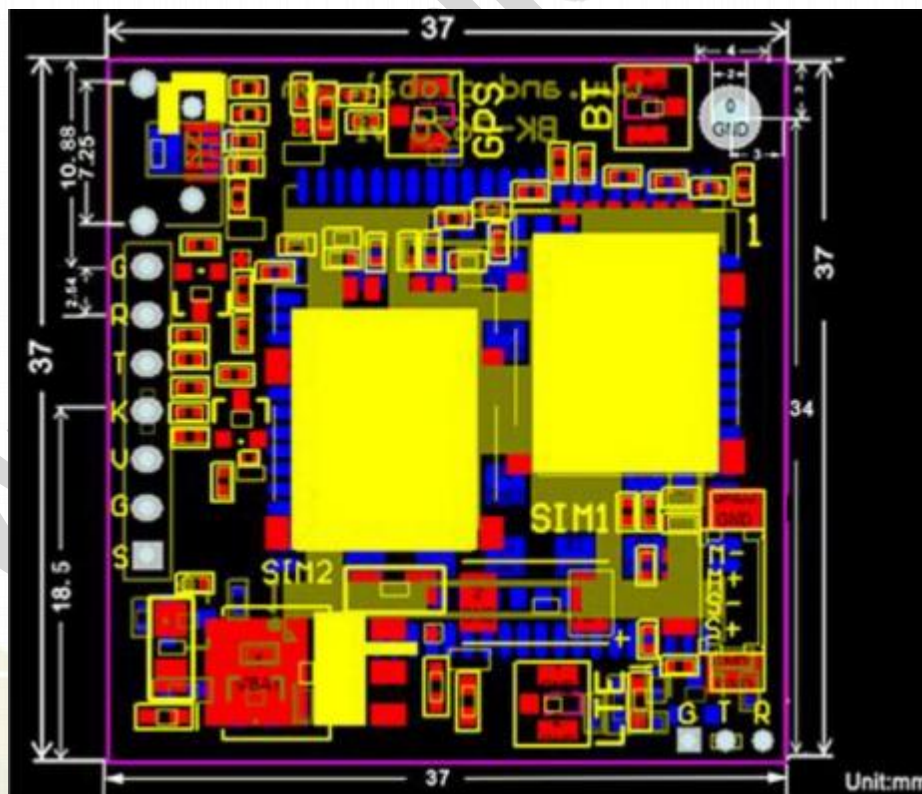
AND Wireless : <http://www.and-global.com>
 OEM PCBA : <http://www.buypcba.com>
 Retail Store : <http://www.aliexpress.com/store/605000>
 Golden supplier on Alibaba : <http://and-global.en.alibaba.com>
 Email : info@and-global.com
 Tel : +86-755-28099797



AND Technologies Co., Ltd

CN2	Nano SIM card socket
CN101	7pin 2.54mm header interface
CN1	USB interface
D5	NET LIGHT indicator(Green)
U2	The power conversion chip
J1	LTE ANT
J2	GPS ANT(Optional)
TP1	4.0V

2.3 PCBA dimension: 37*37mm.



AND Wireless : <http://www.and-global.com>

OEM PCBA : <http://www.buypcba.com>

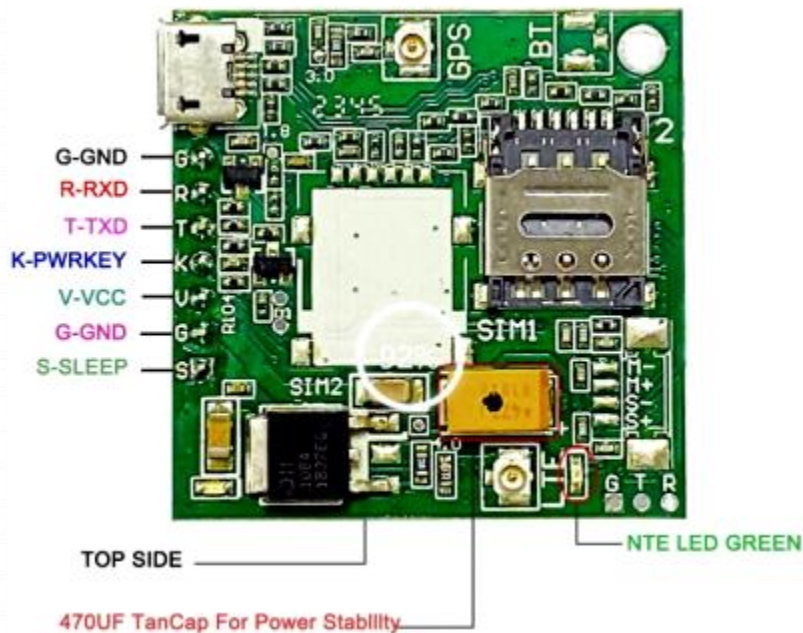
Retail Store : <http://www.aliexpress.com/store/605000>

Golden supplier on Alibaba : <http://and-global.en.alibaba.com>

Email : info@and-global.com

Tel : +86-755-28099797

3. Pin definition



Note: VCC range is from 5.0V to 10V, 5.0V is recommended. Please ensure 0.8A current for the VCC pin. TXD /RXD are 3.3V TTL level which can be directly connected with 3.3V MCU.

3.1 Pin definition of 6pin connector

Pin name	Pin number	Mark on PCB	Description	Comment
SLEEP	0	S	control module into sleep mode	Connect with DTR via Q4
GND	1,6	G	GND	
VCC	2	V	The power supply	5V-10V
PWRKEY	3	K	Power down	Shorted with GND via R104 by default
TXD	4	T	Transmit Data	TTL Series data Output
RXD	5	R	Receives Data	TTL Series data Input

AND Wireless : <http://www.and-global.com>

OEM PCBA : <http://www.buypcba.com>

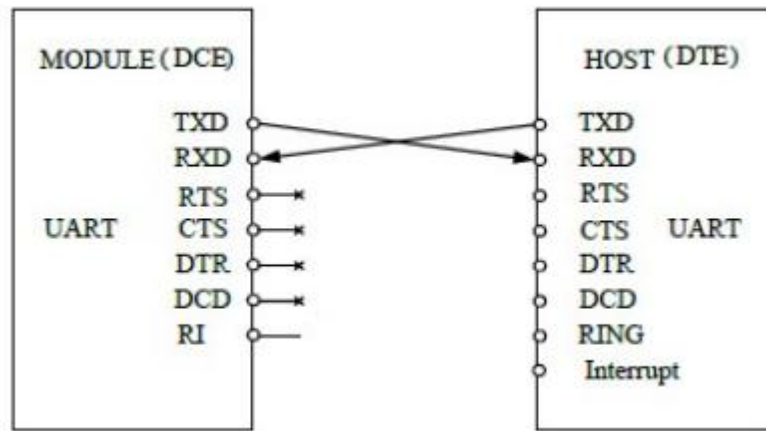
Retail Store : <http://www.aliexpress.com/store/605000>

Golden supplier on Alibaba : <http://and-global.en.alibaba.com>

Email : info@and-global.com

Tel : +86-755-28099797

3.2 How to use TXD and RXD (Default baud rate is 115200bps)



4. How to test the BK-SIM7670 by AT command via UART

4.1 Installing LTE antenna, GPS antenna and NanoSIM card for BK-SIM7670 Board.

4.2 Feed power supply to VCC pin. (Note: VCC range is from 5.0V to 10V. 5.0V is recommended.)

4.3 GREEN LED indicator, Blinking shows registration successful.

NETLIGHT pin status	Module status
Always On	Searching Network
200ms ON, 200ms OFF	Data Transmit/Registered
OFF	Power off / Sleep

AND Wireless : <http://www.and-global.com>
 OEM PCBA : <http://www.buypcba.com>
 Retail Store : <http://www.aliexpress.com/store/605000>
 Golden supplier on Alibaba : <http://and-global.en.alibaba.com>
 Email : info@and-global.com
 Tel : +86-755-28099797



4.4 Open serial software **sscom32E** and choose right serial number, Baud rate as below, please keep “SendNew” selected:

BaudRa: 115200	☐ DTR	☐ RTS
DataBi: 8	☐ Send eve	1000 ms/Time
StopBi: 1	☐ SendHEX	☒ SendNew
Verify: None	Data input:	SEND
FlowCo: None	AT+GSV	

SSCOM3.2 (Author: NieXiaoMeng . http://www.mcu51.com, Ea...

```

AT+SIMCOMATI
Manufacturer: SIMCOM INCORPORATED
Model: SIM7670G-MNSV
Revision: 2360B01SIM767XMSA_M
SIM767XMSA_B01V01_231017
IMEI: 865031060010302

OK
AT+IPREX=115200
OK
AT+CPIN?
+CPIN: READY

OK
AT+CSQ
+CSQ: 27,0

OK
AT+CPSI?
+CPSI: LTE, Online, 460-00, 0x262C, 46717970, 102, EUTRAN-
BAND41, 40936, 5, 5, -11, -89, -78, 1

OK
AT+CGNSSPWR=1
OK
AT+CGNSSINFO
+CGNSSINFO:
3, 10, 03, 01, 04, 22. 637638, N, 114. 033063, E, 161123, 031211. 000
, 74. 7, 0. 04, 188. 84, 2. 11, 1. 60, 1. 37, 13
    
```

HEX	DATA	SEND
☐	AT+SIMCOMATI	1
☐	AT+IPREX=115200	2
☐	AT+CPIN?	3
☐	AT+CSQ	4
☐	AT+CPSI?	5
☐		6
☐	AT+CGNSSPWR=1	7
☐	AT+CGNSSINFO	8
☐		9
☐		10
☐		11
☐		12
☐		13
☐		14
☐		15
☐		16
☐		17
☐		18
☐		19

☐ Round send, interval: 1000 ms

OpenFile | FileNm | SendFile | SaveData | Clear | ☐ HexData

AND Wireless : <http://www.and-global.com>
 OEM PCBA : <http://www.buypcba.com>
 Retail Store : <http://www.aliexpress.com/store/605000>
 Golden supplier on Alibaba : <http://and-global.en.alibaba.com>
 Email : info@and-global.com
 Tel : +86-755-28099797



5. How to test the BK-SIM7670 by AT command via USB

5.1 Remove all connection on CN101 7pin connector, Power up the SIM7670 Breakout board only via USB, SIM7670G is driver free under win10



5.2 Select the 1st one, COM44, 115200bps and SendNew, you can repeat all command in Item4.4.

6.Package list:

Name	Qty	Unit
BK-SIM7670	1	Pcs

AND Wireless : <http://www.and-global.com>
OEM PCBA : <http://www.buypcba.com>
Retail Store : <http://www.aliexpress.com/store/605000>
Golden supplier on Alibaba : <http://and-global.en.alibaba.com>
Email : info@and-global.com
Tel : +86-755-28099797