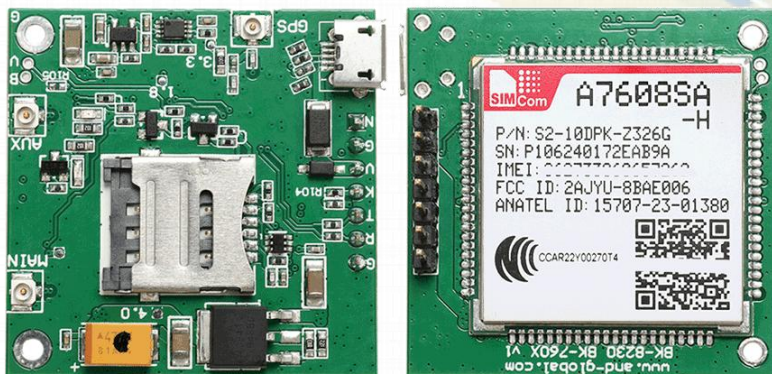


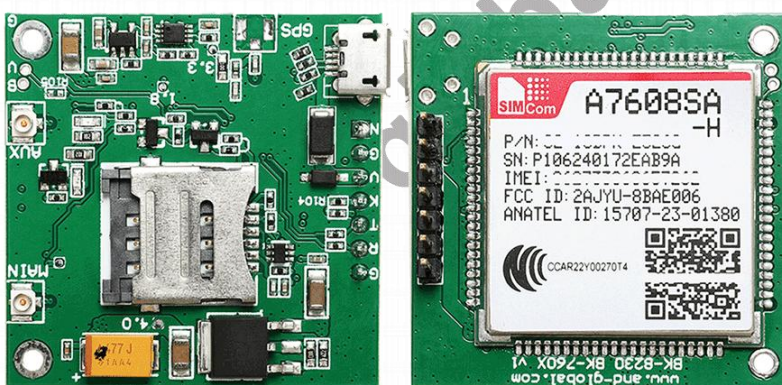


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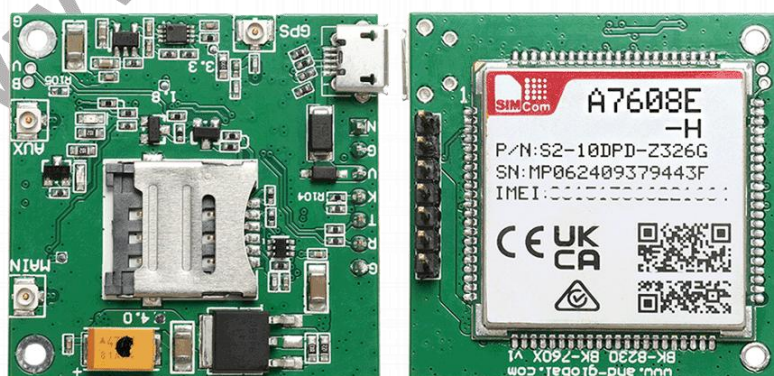
Breakout A7608 User Manual



With LTE and GPS



LTE without GPS



With LTE and GPS

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1. Preparation:

Board	BK-A7608
Serial tool	sscom32E.exe

2. Overview

2.1 Module feature

- > A7608 is the LTE Cat 4 module which supports wireless communication modes of LTE-TDD/ LTE-FDD/HSPA+/GSM/GPRS/EDGE. It supports maximum 150Mbps downlink rate and 50Mbps uplink rate.
- > Suitable for 4G, 3G and 2G networks
- > Supports multiple built-in network protocols, supports drivers for main operation systems (USB driver for Windows, Linux and Android etc.) and software function.
- > Control Via AT Command, Rich interfaces including UART,USB2.0
- > Operation temperature:-40°C to +85 °C

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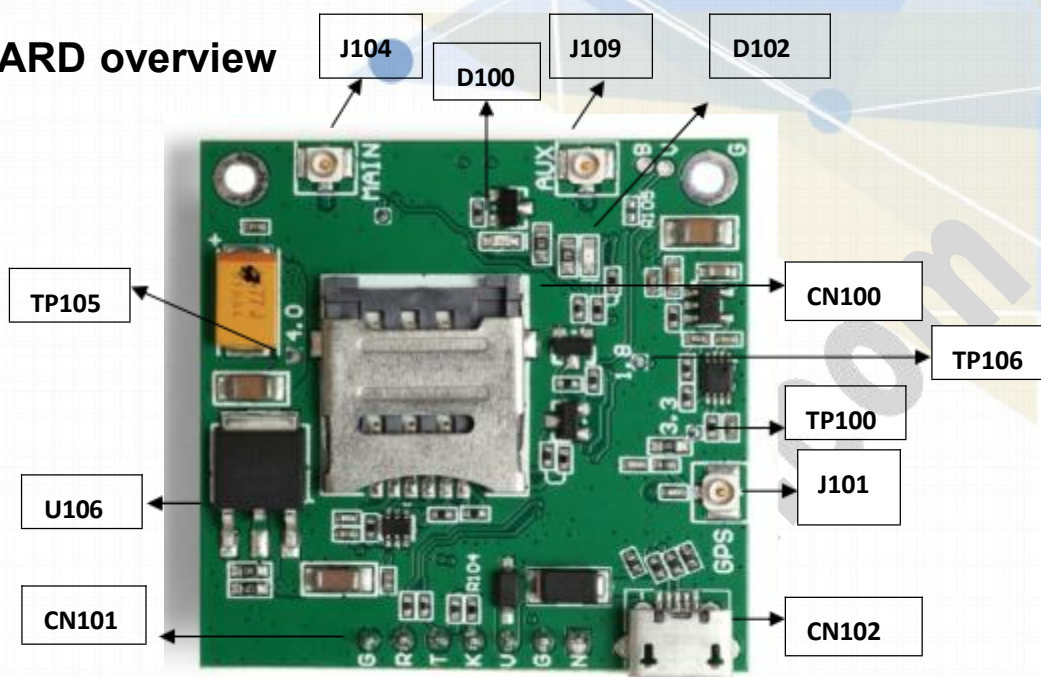
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2.2 BOARD overview



CN100	Micro SIM card socket
CN101	7pin 2.54mm header interface
CN102	Micro USB interface
D102	Power indicator(RED)
D100	NET LIGHT indicator(Green)
U106	The power conversion chip
J109	Auxiliary antenna
J101	GNSS antenna(optional)
J104	LTE antenna
TP105	4.0V
TP100	3.3V
TP106	1.8V

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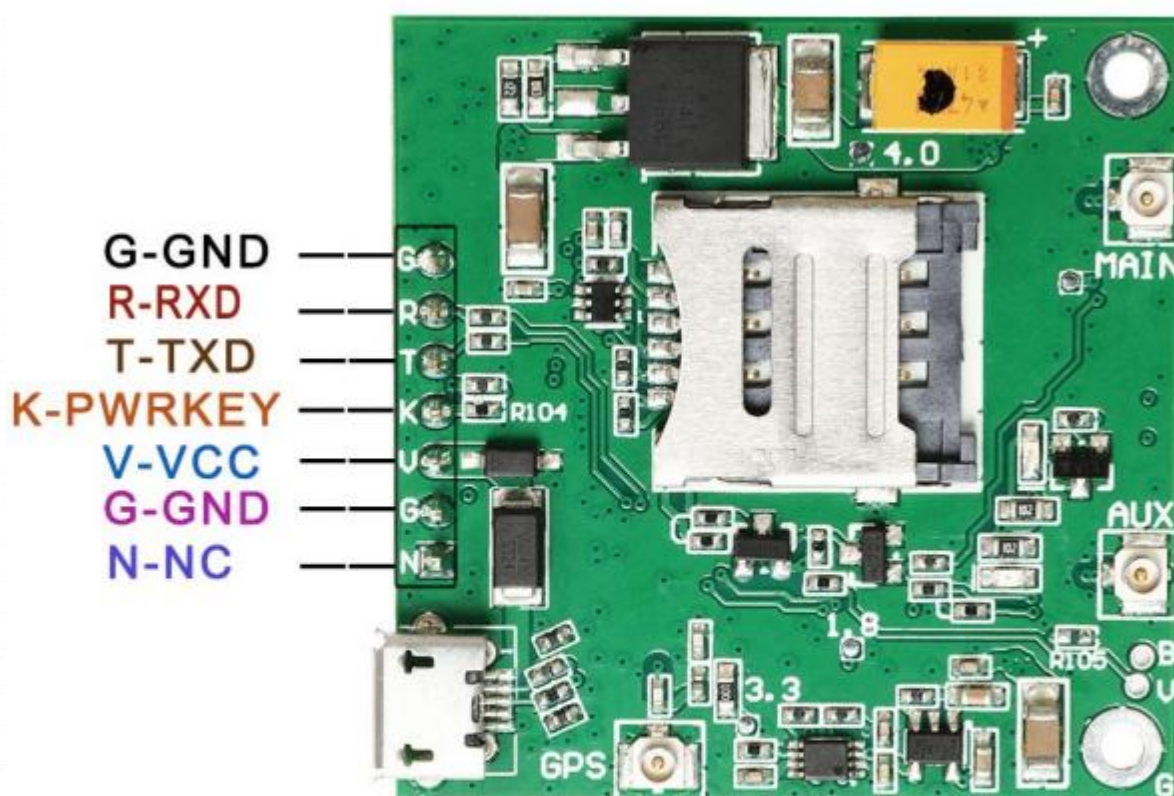
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3. Pin definition

- 4 -



Note: VCC range is from 5.0V to 10V, 5.0V is recommended.

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
NC	0	N	Not connected	
GND	1,6	G	GND	
VCC	2	V	The power supply	5V-10V
PWRKEY	3	K	Power on/off the module	Shorted with GND via R104 by default
TXD	4	T	Output, Transmit Data	TTL Series data Output,3.3V logic level
RXD	5	R	Input, Receive Data	TTL Series data Input,3.3V logic level

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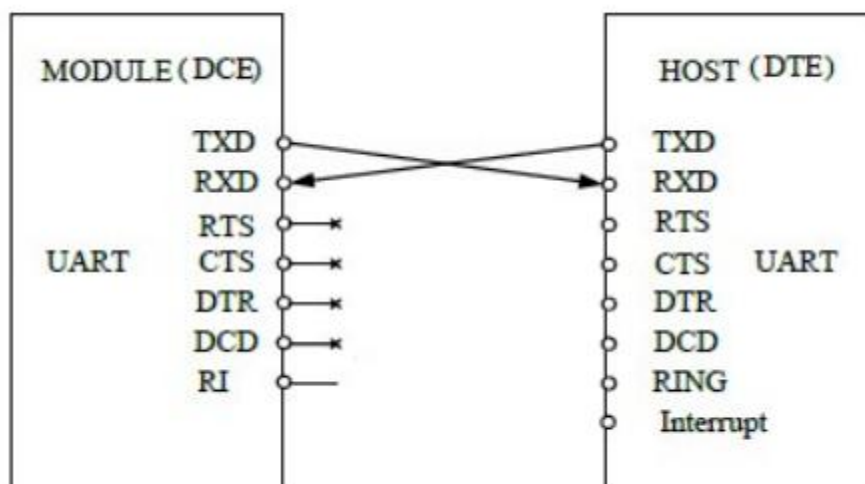
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3.2 How to use TXD and RXD (Default baud rate is 115200bps)



4. How to test the BK-A7608 by AT command via UART

4.1 Installing MAIN antenna , GPS antenna, and sim card for BK-A7608 Board.

4.2 Feed power supply to VCC pin, RED LED indicator will be lighted. **(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; Call Connect (include VOLTE,SRLTE)
200 ms ON, 200 ms OFF	Data Transmit; 4G registered;
800 ms ON, 800 ms OFF	2G/3G registered network
OFF	Power off; Sleep

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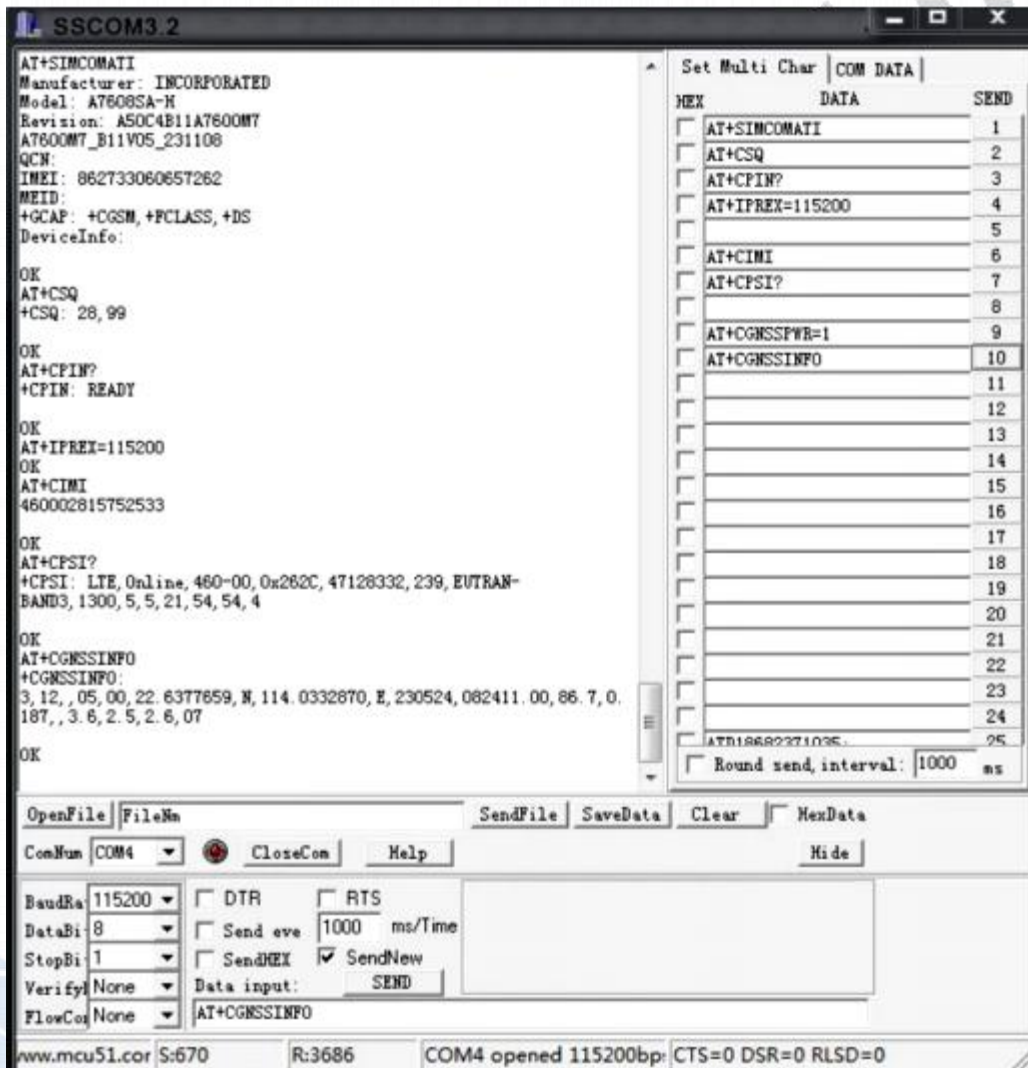
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4.4 Open serial software  and choose right serial number, Baud rate as below, please keep "SendNew" selected:



Configuration dialog box for SSCOM3.2. The 'BaudRate' dropdown is set to 115200. The 'SendNew' checkbox is checked. Other settings include DataBits: 8, StopBits: 1, Verify: None, FlowControl: None, DTR: unchecked, RTS: unchecked, Send event: 1000 ms/Time, SendHEX: unchecked, Data input: SEND, and AT+GSV.



SSCOM3.2 main window showing AT commands and responses. The 'Set Multi Char' tab is active, displaying a list of commands and their corresponding data and send values. The 'Data input' field is set to 'SEND'.

HEX	DATA	SEND
☐	AT+SIMCOMATI	1
☐	AT+CSQ	2
☐	AT+CPIN?	3
☐	AT+IPREX=115200	4
☐		5
☐	AT+CIMI	6
☐	AT+CPSI?	7
☐		8
☐	AT+CGSSSPWR=1	9
☐	AT+CGSSSINFO	10
☐		11
☐		12
☐		13
☐		14
☐		15
☐		16
☐		17
☐		18
☐		19
☐		20
☐		21
☐		22
☐		23
☐		24
☐	AT+18682271035	25

Round send, interval: 1000 ms

OpenFile: FileNm SendFile SaveData Clear HexData
ComNum: COM4 CloseCom Help Hide

BaudRate: 115200 DTR: unchecked RTS: unchecked
DataBits: 8 Send event: 1000 ms/Time
StopBits: 1 SendHEX: unchecked SendNew: checked
Verify: None Data input: SEND
FlowControl: None AT+CGSSSINFO

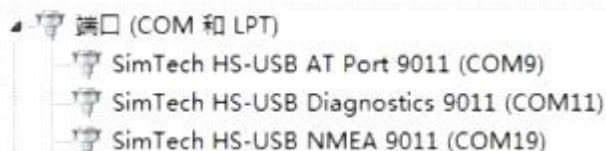
www.mcu51.com S:670 R:3686 COM4 opened 115200bp CTS=0 DSR=0 RLSD=0

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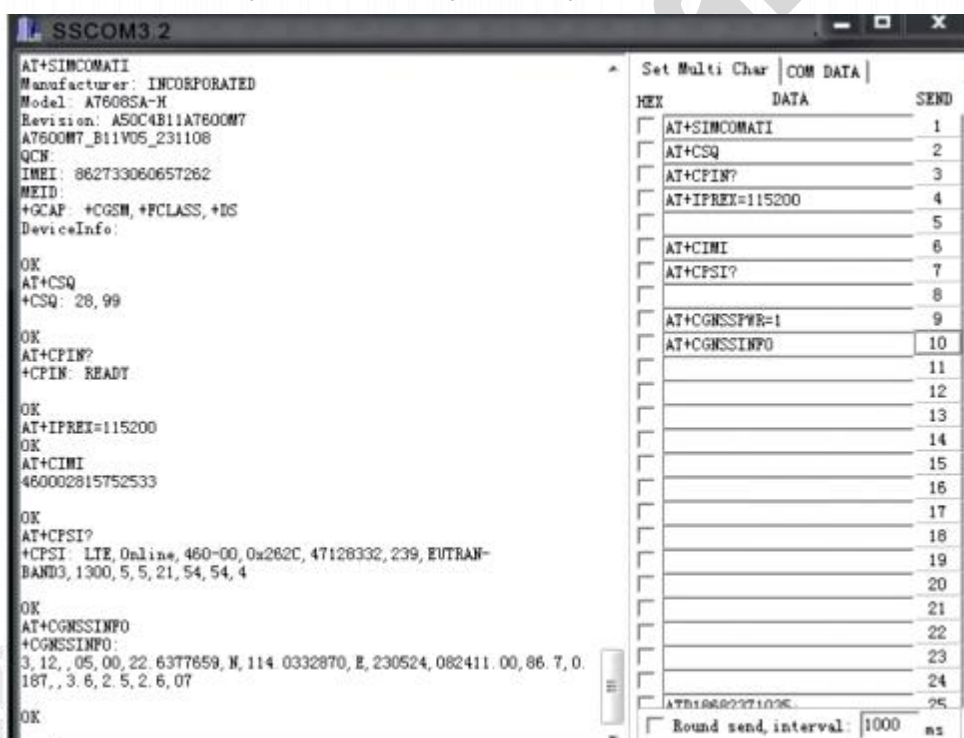


5. How to test the BK-A7608 by AT command via USB

5.1 Remove all connection on CN101 7pin connector, Power up the A7608 Breakout board only via USB, Install "SIMCom_Windows 1803 USB Virtual COM port driver.zip" driver following the computer indication. The computer will show as belows, it means that the driver is installed correctly.



5.2 Select AT Port 9001, 115200bps and SendNew, you can repeat all command in Item4.4.



6.Package list:

Name	Qty	Unit
BK-A7608	1	Pcs

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