

## Breakout SIM7500 User Manual



### 1. Preparation:

<b>Board</b>	<b>BK-SIM7500</b>
<b>Serial tool</b>	<b>sscom32E.exe</b>

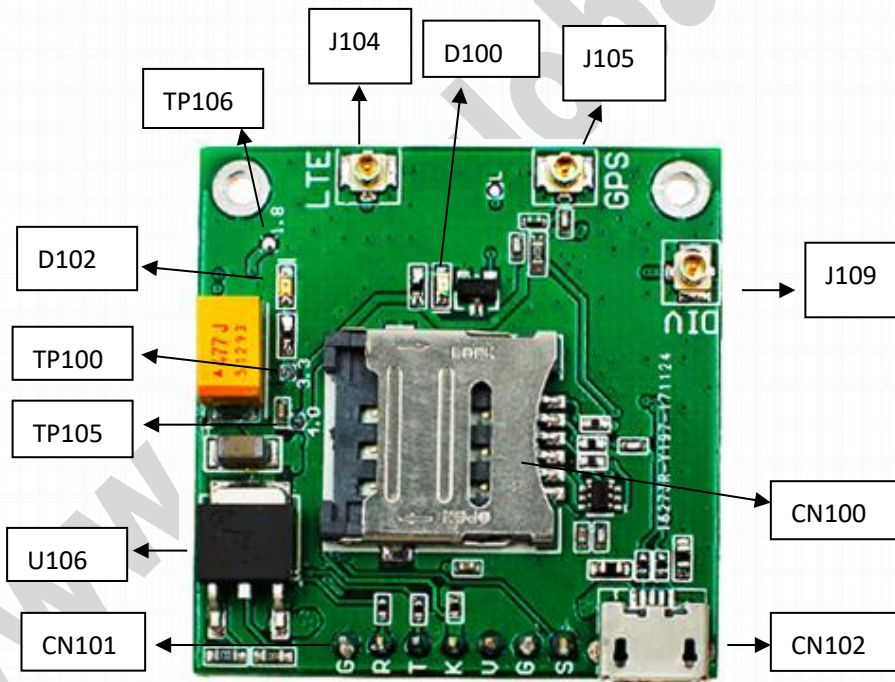
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 AND Wireless : <http://www.and-global.com>  
 OEM PCBA : <http://www.buypcb.com>  
 Retail Store : <http://www.aliexpress.com/store/605000>  
 Golden supplier on Alibaba : <http://and-global.en.alibaba.com>  
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## 2. Overview

### 2.1 Module feature

- Multi-Band LTE-FDD module solution in a SMT type which supports LTE **CAT1** up to 10Mbps for downlink data transfer.
- Control Via AT Command, Rich interfaces including UART,USB2.
- Supply voltage range:3.4v~4.2v, Typ:3.8V
- Dimension: 24x27x2.75mm
- Operation temperature:-40℃ to +85 ℃

### 2.2 BOARD overview



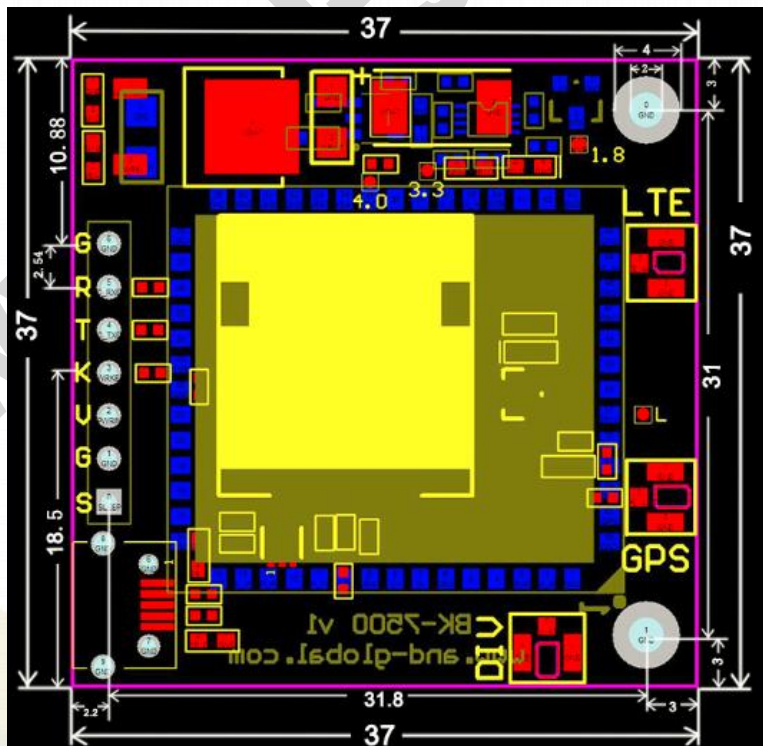
CN100	Micro SIM card socket
CN101	7pin 2.54mm header interface
CN102	USB interface

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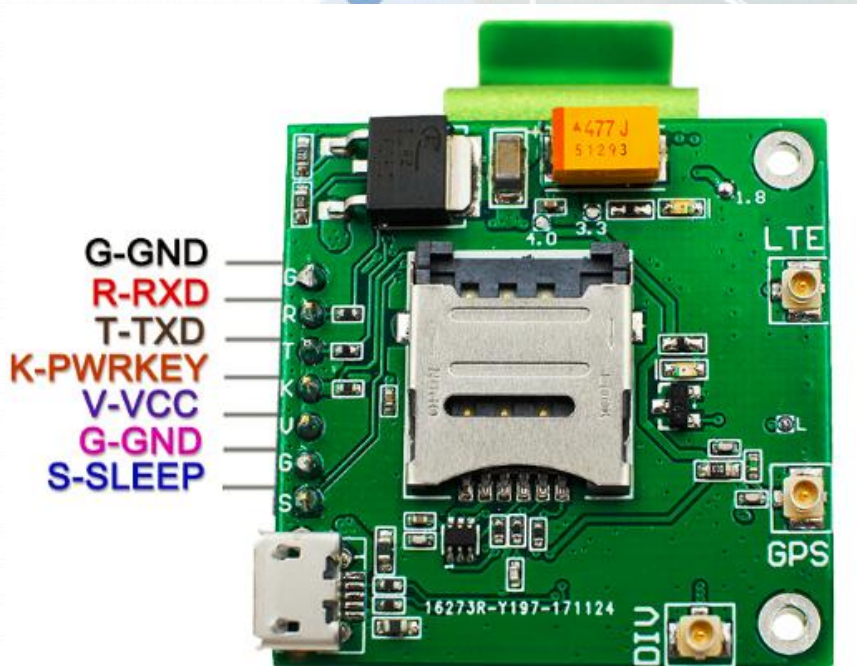
D102	Power indicator(RED)
D100	NET LIGHT indicator(Green)
U106	The power conversion chip
J104	LTE ANT
J105	GPS ANT
J109	Auxiliary antenna
TP105	4.0V
TP100	3.3V
TP106	1.8V

**2.3 PCBA dimension: 37\*37mm**



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### 3. Pin definition



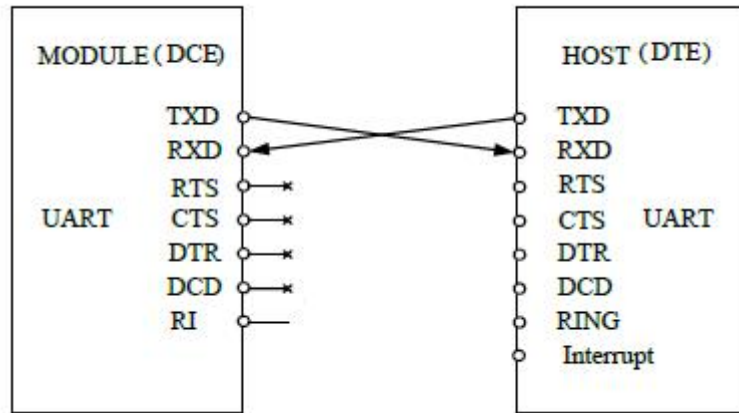
**Note: VCC range is from 5.0V to 10V, 5.0V is recommended. VCC cannot be present with USB POWER simultaneously. 即 USB 电源不能与 VCC 同时供电. TXD /RXD are 3.3V TTL level which can be directly connected with 3.3V MCU.**

#### 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 Q102
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

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



**4. How to test the BK-SIM7500 by AT command via UART**

4.1 Installing LTE antenna, and LTE CAT1 SIM card for BK-SIM7500 Board. **(Note: Please use CAT1 card, not normal Mobile phone card.)**

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.)**

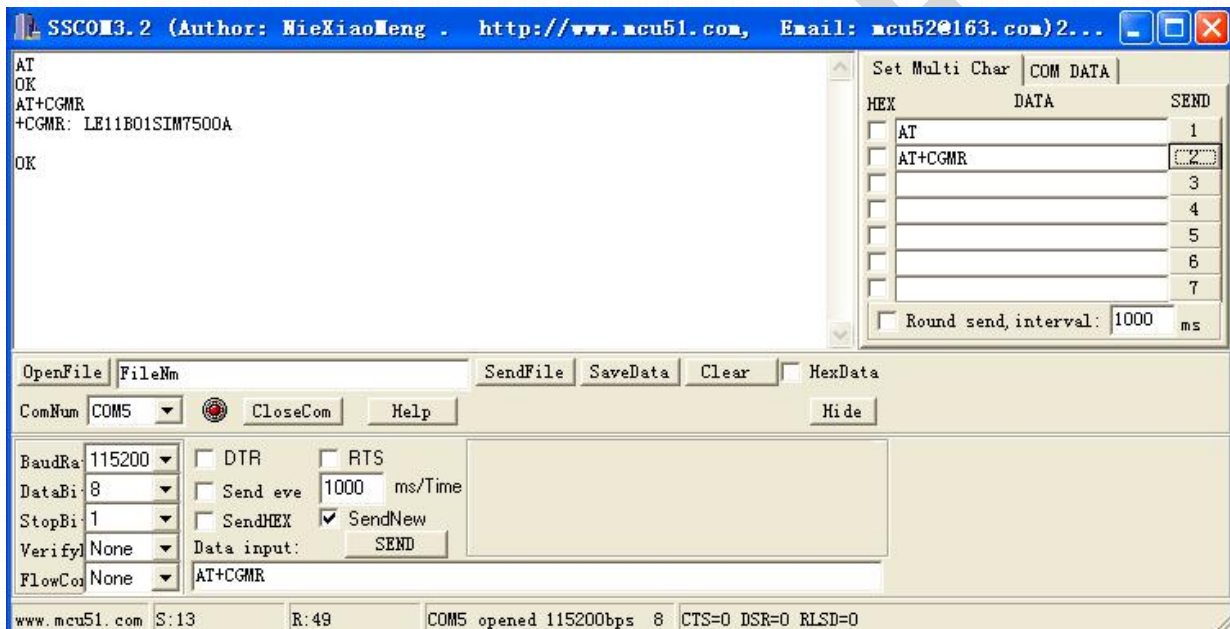
4.3 GREEN LED indicator, Blinking shows registration successful. **(Note: Should confirm whether correct CAT1 card is inserted)**

NETLIGHT pin status	Module status
Always On	Searching Network/Call Connect
200ms ON, 200ms OFF	Data Transmit
800ms ON, 800ms OFF	Registered network
OFF	Power off / Sleep

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4.4 Open serial software **SSCOM32E** and choose right serial number, Baud rate as below, please keep "SendNew" selected:



## 5. How to test the BK-SIM7500 by AT command via USB

**(NOTE: USB Power cannot be present with VCC POWER simultaneously)**

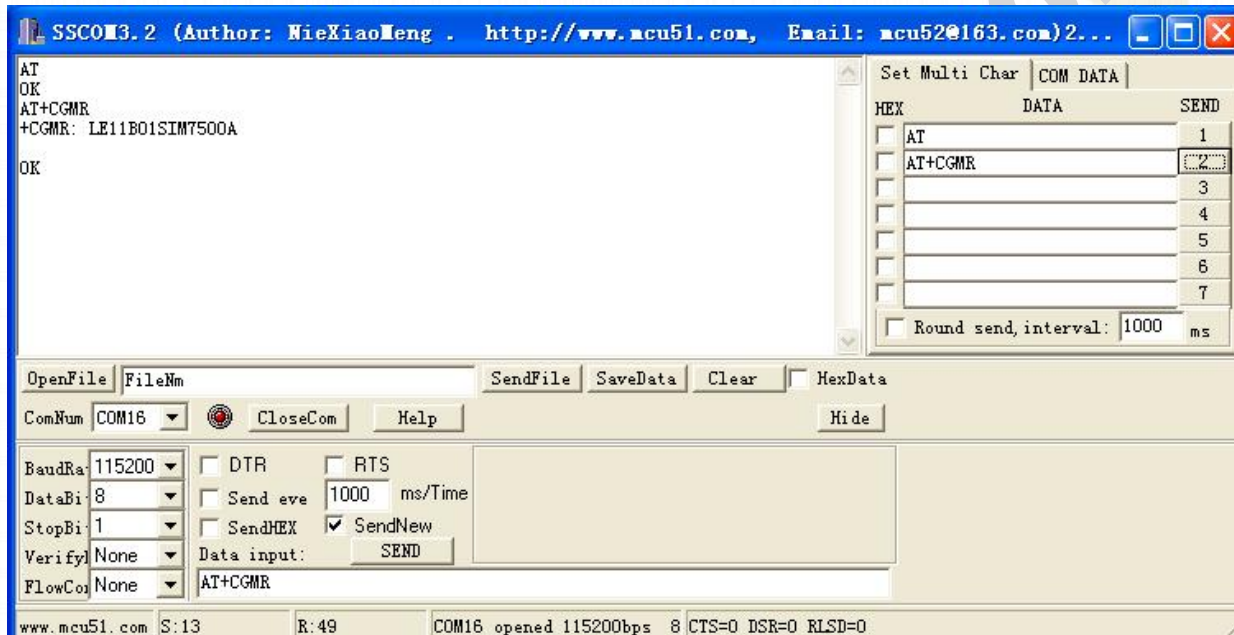
5.1 Remove all connection on CN101 7pin connector, Power up the SIM7500 Breakout board only via USB, Install SIM7100\_SIM7500\_SIM7600 Series Windows USB driver\_V1.00.rar

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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-SIM7500	1	Pcs

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