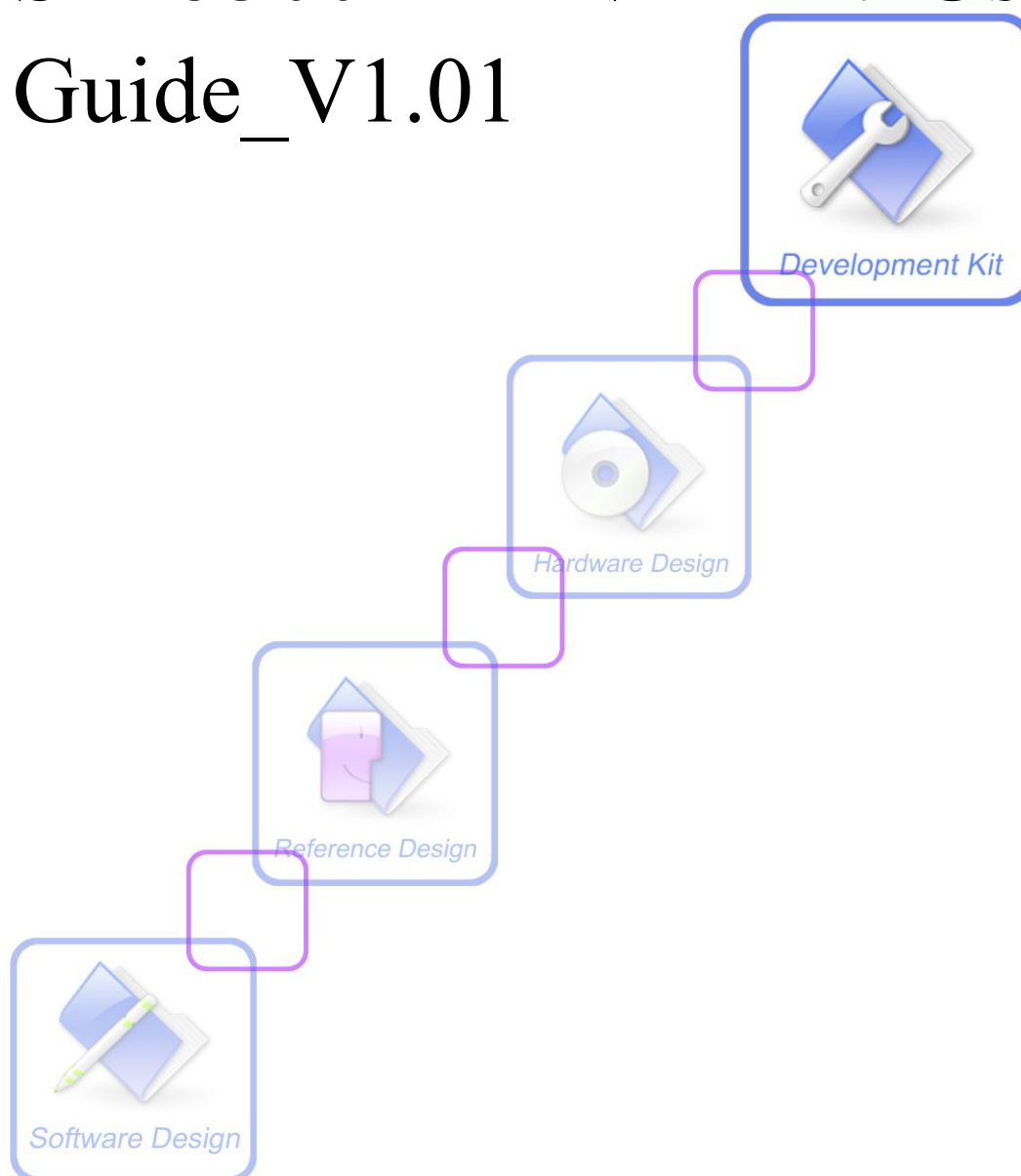


SIM5300EA-EVB Kit User Guide_V1.01



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Version History

Date	Version	Description of change	Author
2016-05-31	1.01	Origin	Zhuming

SCOPE

This document give the usage of SIM5300EA-EVB, user can get useful information about the SIM5300EA-EVB quickly through this document.

The SIM5300EA-EVB can be used to evaluate following SIMCom modules:

- SIM7100
- SIM5300E/5300EA

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1 SIM5300EA-EVB

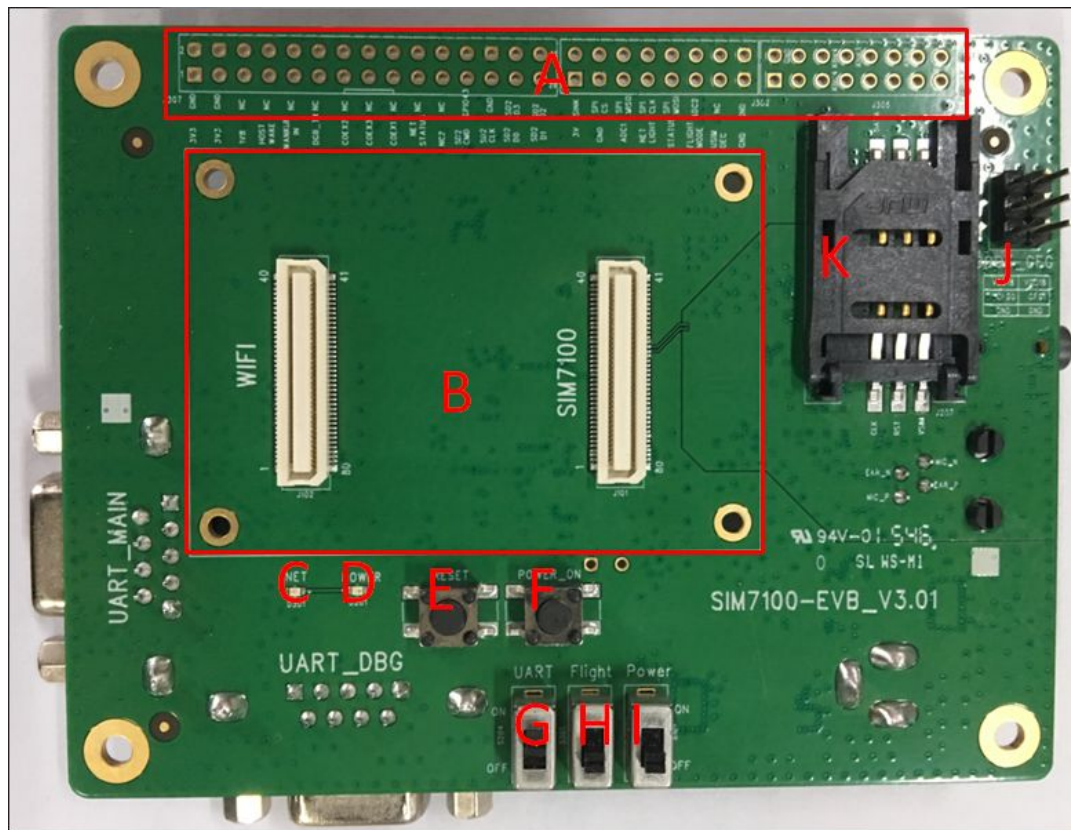


Figure 1:EVB top view

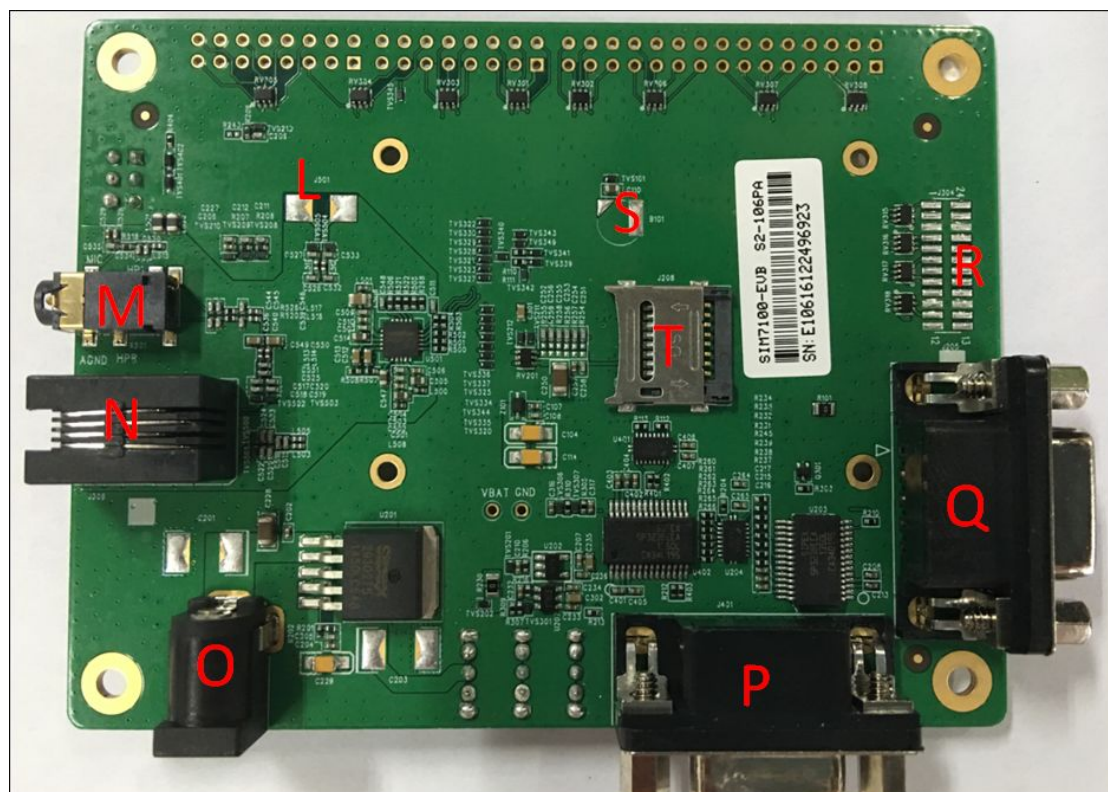


Figure 2:EVB bottom view

Table 1: EVB description

Part	Description
A	Test Points
B	Interface connecting to SIM7100\SIM5300E\SIM5300EA module
C	Net Light
D	Power Light
E	Reset Key
F	POWER_ON key, turn on or turn off module
G	Switch for enabling UART ports
H	RF Switch, turn on or turn off the RF function
I	VBAT switch, switch the voltage source from the adaptor or external battery
J	Boot Configuration
K	SIM Card Interface
L	Speaker(NM)
M	Headset Interface
N	Handset interface
O	DC Adapter Interface
P	Debug serial port
Q	Main serial port for downloading, AT command transmitting, data exchanging
R	Test Points
S	Battery(NM)
T	SD Card Interface

2 EVB Accessory



Figure 3: EVB accessory

Table 2: EVB accessory

Part	Description
A	5V DC adapter
B	Headset
C	Antenna transmit cable
D	Antenna
E	Serial port cable (maybe different from the picture)

3 Accessory Interface

3.1 Power Interface

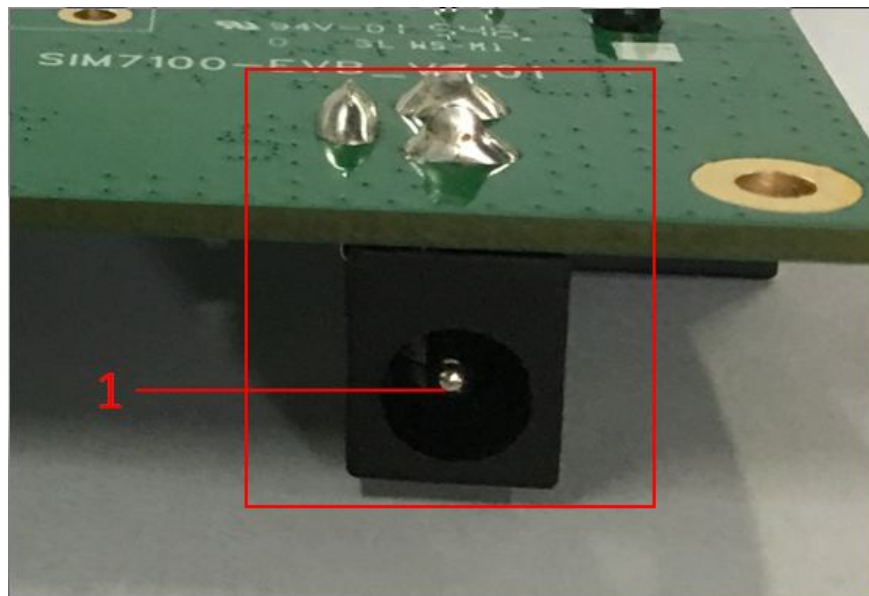


Figure 4: Power interface

Table 3: Power interface

Pin	Signal	I/O	Description
1	Adapter input	I	5V/2.5A DC source input

3.2 Audio Interface

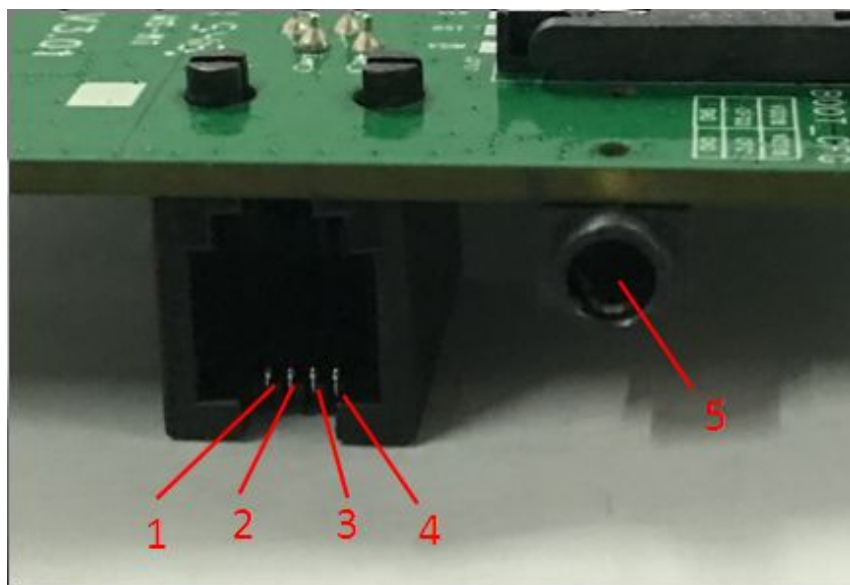


Figure 5: Audio interface

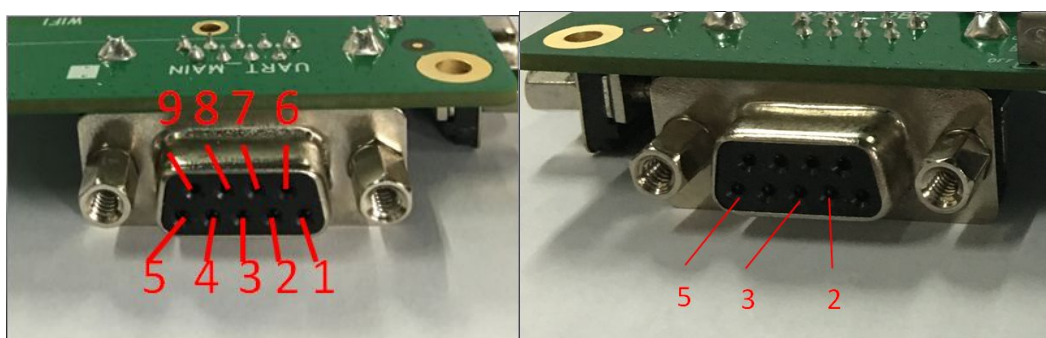
Table 4: Headset interface

Pin	Signal	I/O	Description
5	MIC2P&SPK2P	I/O	Auxiliary positive input and output

Table 5: Handset interface

Pin	Signal	I/O	Description
1	MIC1P	I	Positive microphone input
2	SPK1P	O	Positive speak output
3	SPK1N	O	Negative speak output
4	MIC1N	I	Negative microphone input

3.3 Main Interface and Debug Interface

**Figure 6: Main interface and Debug interface****Table 6: Main interface**

Pin	Signal	I/O	Description
1	DCD	O	Data carrier detection
2	TXD	O	Transmit data
3	RXD	I	Receive data
4	DTR	I	Data Terminal Ready
5	GND		GND
6	NC		
7	RTS	I	Request to Send
8	CTS	O	Clear to Send
9	RI	O	Ring Indicator

Table 7: Debug interface

Pin	Signal	I/O	Description
2	DBG_TXD	O	Transmit data
3	DBG_RXD	I	Receive data
5	GND		GND

3.4 Operating Status LED



Figure 7: NET LIGHT

Table 8: Working state of NET LIGHT

State	Module function
Off	Module is not running
64ms On/ 800ms Off	Module does not find the network
64ms On/ 3000ms Off	Module find the network
64ms On/ 300ms Off	GPRS communication

4 Test Interface

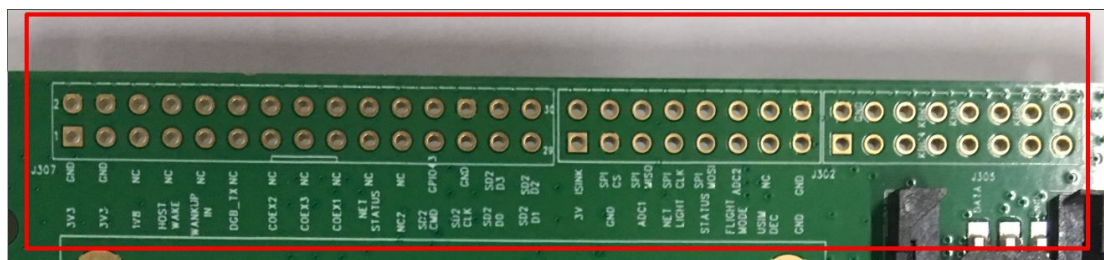


Figure 8: Test interface overview

4.1 J307

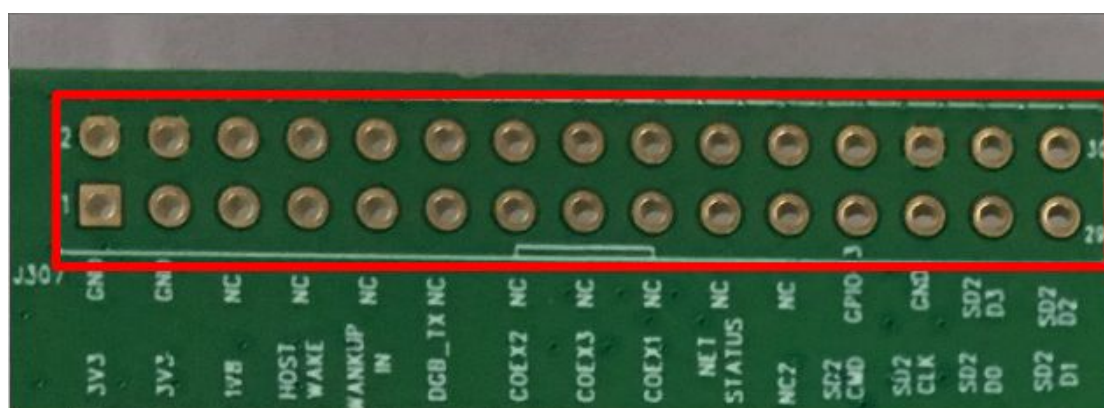


Figure 9: J307 interface

Table 9: J307 Test Points list

Pin	Signal	Pin	Signal
1	WLAN_3V3	2	GND
3	WLAN_3V3	4	GND
5	VIO_1V8	6	NC
7	HOST_WAKE	8	NC
9	WAKEUP_IN	10	NC
11	DBG_TXD	12	NC
13	COEX2	14	NC
15	COEX3	16	NC
17	COEX1	18	NC
19	NET_STATUS	20	NC
21	NC2	22	NC
23	SD2_CMD	24	GPIO43
25	SD2_CLK	26	GND
27	SD2_D0	28	SD2_D3

29	SD2_D1	30	SD2_D2
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4.2 J302 and J305

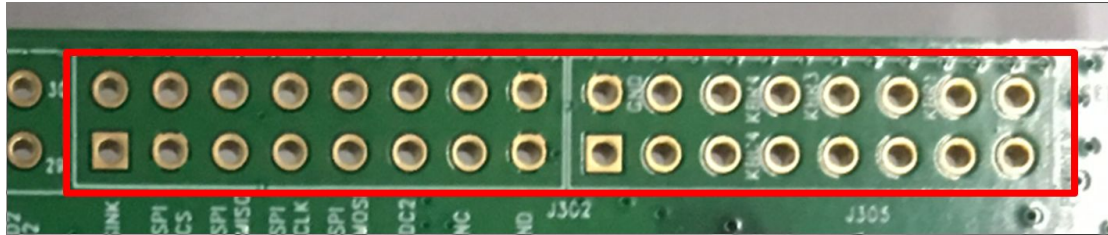


Figure 10: J302 interface

Table 10: J302 and J305 Test Points list

Pin	Signal	Pin	Signal
J302			
1	VDD_3.0V	2	ISINK
3	GND	4	SPI_CS
5	ADC1	6	SPI_MISO
7	NETLIGHT	8	SPI_CLK
9	STATUS	10	SPI_MOSI
11	FIGHTMODE	12	ADC2
13	SIM_DET	14	NC
15	GND	16	GND
J305			
Pin	Signal	Pin	Signal
1	NC	2	NC
3	NC	4	NC
5	KBC4	6	KBR4
7	NC	8	KBR3
9	NC	10	NC
11	NC	12	KBR1
13	NC	14	NC
15	PWRKEY	16	RESET

4.3 J305



Figure 11: J305 interface

Table 11: J305 Test Points list

Pin	Signal	Pin	Signal
1	PCM_CLK	24	PCM_SYNC
2	PCM_IN	23	PCM_OUT
3	GND	22	GND
4	DTR	21	TXD
5	DCD	20	RI
6	RXD	19	CTS
7	RTS	18	SDA
8	SCL	17	GPIO41
9	NC	16	SD1_DET
10	GND	15	GND
11	VDD_1.8V	14	SD_VDD
12	GND	13	WLAN_3V3

5 EVB and Accessory Equipment

At normal circumstance, the EVB and its accessory are equipped as shown in the following figure.

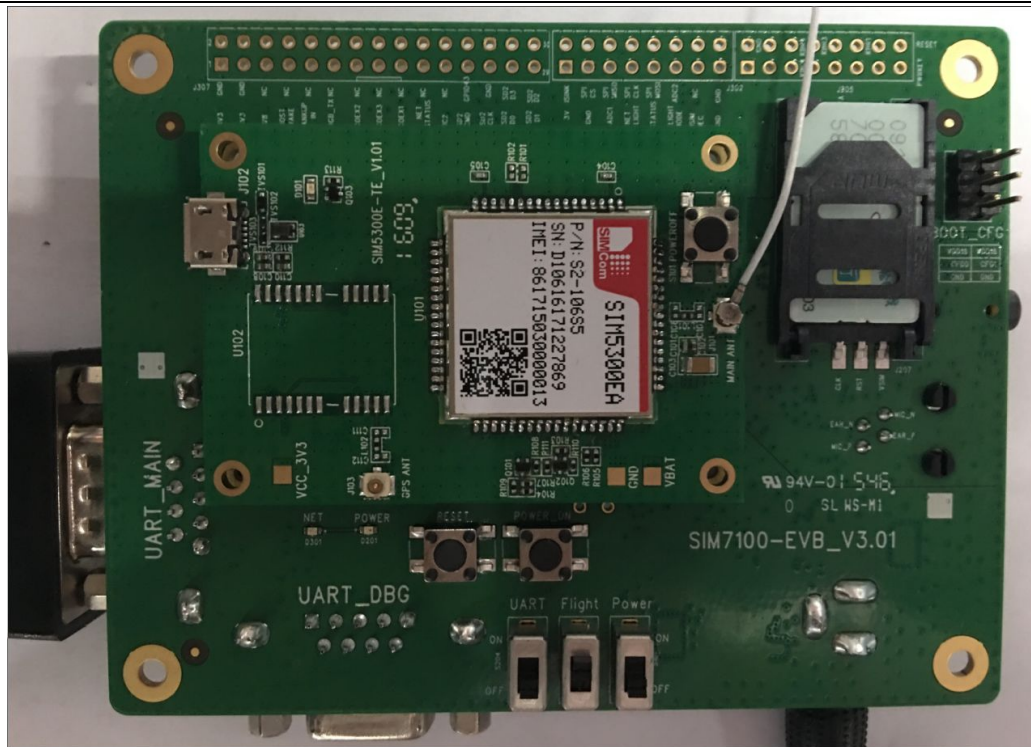


Figure 12: EVB and accessory equipment

6 Illustration

6.1 Running:

- 1) Connect the module to SIM5300EA-EVB via connectors, inserting 5V DC adapter, switch I(S101) to **ON** state and G(S204) to **ON** state.
- 2) Press the PWRKEY for about 1 second, and then the module begins running.

The light on the EVB will flash at a certain frequency to indicate different working status, and please refer to the module's Hardware Document for details. Function test can not be executed without the necessary accessories.

6.2 Connecting Net and Calling

- 1) Connect the serial port cable to UART_MAIN serial port; open the HyperTerminal (AT command windows), the location of the HyperTerminal in Microsoft Windows2000\WindowsXP is Start→Accessory→Communication→HyperTerminal.
- 2) Set correct Baud Rate and COM number. The default setting of module's serial port is autobauding, and autobauding supports baud rates as following:1200, 2400, 4800, 9600, 19200, 38400, and 57600bps. Please set HyperTerminal band rate as one of the above to make sure communicating successfully at the first time.
- 3) Connect the antenna and module via an antenna transmit line, insert SIM card into the SIM card interface, and then insert handset into N(J306) connector or headset into M(X501) connector.
- 4) Follow the step of running as mentioned above to power on the system, send the AT commands to the module through the HyperTerminal, and then the module will perform corresponding functions.

6.3 Downloading

After running the download program, switch I(S101) to **ON** state and G(S204) to **ON** state, then the downloading procedure will be executed.

6.4 Turns off

Press the PWRKEY for about 1 second, the module will be turned off.

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