

TC35

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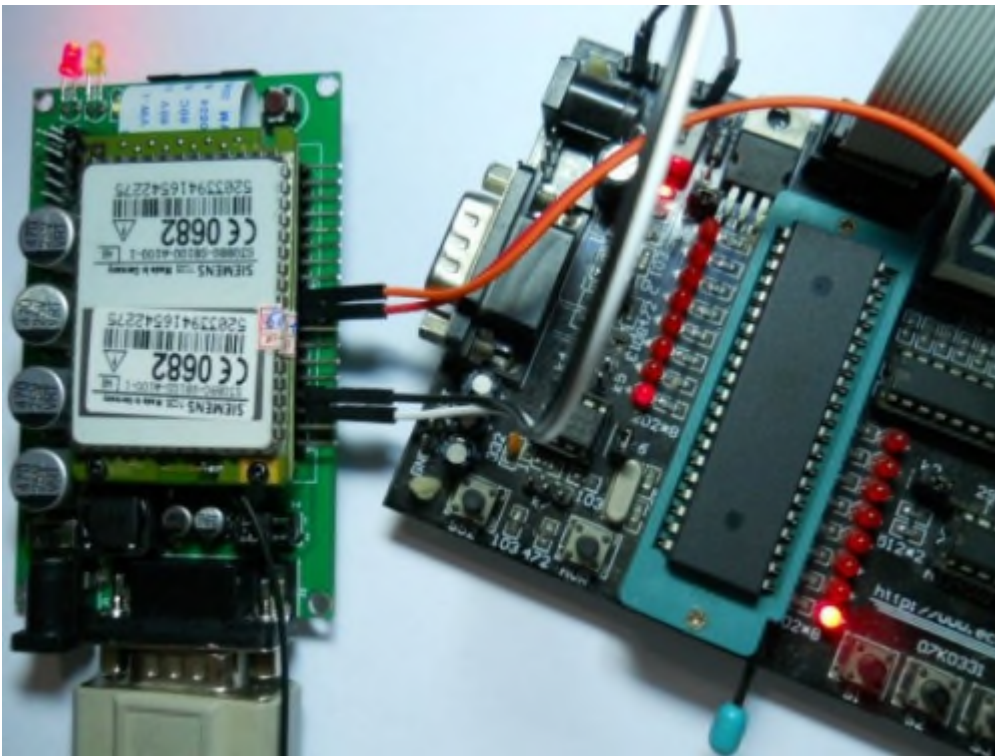
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Usage

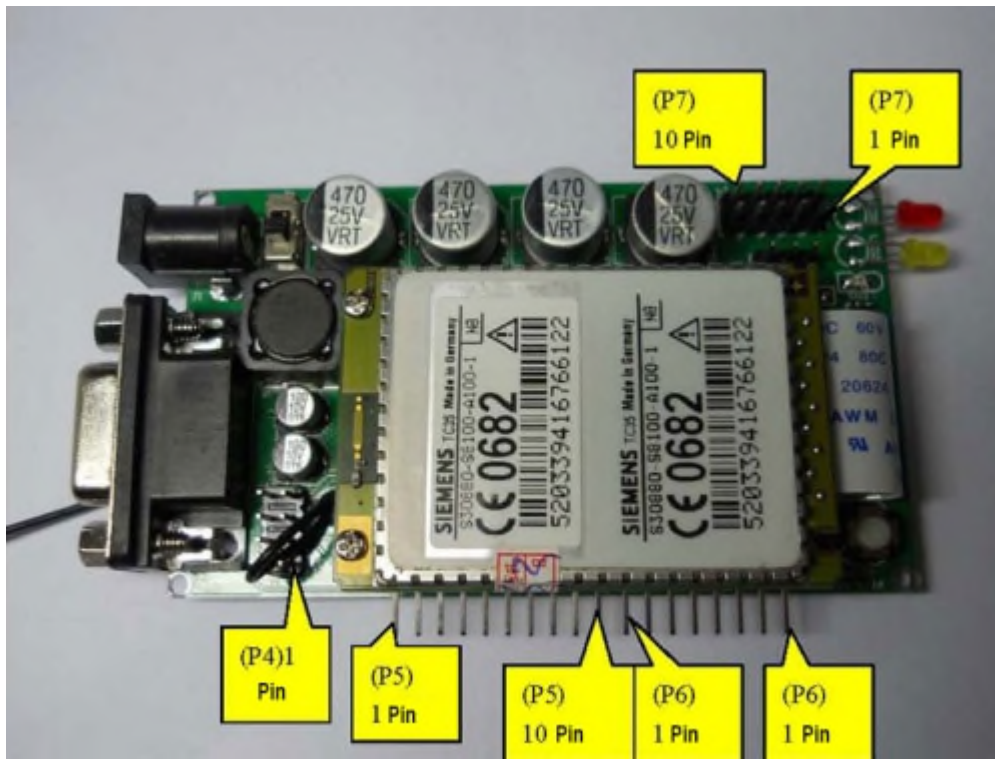
See at-commands for how to make phone call and send message.

Connect to MCU



Schematic

Pin Definition



Group	Pin Number	Description	Remark
P4	1	RXD_PC_TTL	PC/MCU/TC35 TTL Connector
P4	2	TXD_PC_TTL	
P4	3	RXD_MCU_TTL	
P4	4	RXD_35_TTL	
P4	5	TXD_35_TTL	
P4	6	TXD_MCU_TTL	
P4	7	RXD_PC_TTL	
P4	8	TXD_PC_TTL	
Group	Pin Number	Description	Remark

P5	1	VCC12V	External Battery
P5	2	GND	GND
P5	3	VCC	Module Power Supply
P5	4	GND	GND
P5	5	RXD_PC_232	PC 232 Receive/Send Connector
P5	6	TXD_PC_232	PC 232 Receive/Send Connector
P5	7	RXD_35_TTL	TC35 232 Receive/Send Connector
P5	8	TXD_35_TTL	TC35 232 Receive/Send Connector
P5	9	TXD_MCU_TTL	External MCU 232 Receive/Send Connector
P5	10	RXD_MCU_TTL	External MCU 232 Receive/Send Connector

Group	Pin Number	Description	Remark
P6	1	VCC	Module Power Supply
P6	2	PD	Close Module
P6	3	RING	Incoming Call Indicator
P6	4	SYNC	Signal Indicator
P6	5	LOW_BAT	Back up battery
P6	6	VDD	

P6	7	AKKU_TEMP	Battery temperature check
P6	8	POWER	

Group	Pin Number	Description	Remark
P7	1	EPP1	Ear phone 1 Positive
P7	2	EPN1	Ear phone 1 Negative
P7	3	GND	GND
P7	4	MICP1	Microphone 1 Positive
P7	5	MICN1	Microphone 1 Negative
P7	6	EPP2	Ear phone 2 Positive
P7	7	EPN2	Ear phone 2 Negative
P7	8	GND	GND
P7	9	MICP2	Microphone 2 Positive
P7	10	MICN2	Microphone 2 Negative

Protocol

[UART](#), use software SSCOM.

Bluetooth Module Basic Command List

Send	Parameter	e.g	Return	Description	Availability
AT	No	AT	OK	Test Communication	EDPA, BC04-A, BC04-B
AT+BAUD?	1~9, A, B,C	AT+BAUD1	OK1200	Change Baud Rate	EDPA, BC04-A, BC04-B
AT+NAME?	-	AT+NnameElectrodragon	OKElectrodragon	Change Name	EDPA, BC04-A, BC04-B
AT+PIN?	-	AT+PIN3456	OKsetpin	Set pin password, 4 bytes	EDPA, BC04-A, BC04-B

Baud rate Parameter

- 1-----1200
- 2-----2400
- 3-----4800
- 4-----9600
- 5-----19200
- 6-----38400
- 7-----57600
- 8-----115200
- 9-----230400
- A-----460800
- B-----921600
- C-----1382400

P.S: when the baud rate changed, if it's not default 9600, you need to set correct baud rate for further settings or data communication. It's not recommended to use over 115200 Baud rate, system will be not stable due to the interference. If you fail to use when the baud rate set to over 115200, please use MCU which has frequency over 115200 to re-programme it and reset AT commands, etc.

BC04-B Advanced Command List

Downlink Command

Command Name	Command	Response	Parameter
Check version	AT+VERSION	+VERSION=<Para1>	<Para1>: Firmware version number, the Bluetooth version number, the local HCI version, HCI amendments, LMP version number, LMP sub-

			version number
check help	AT+HELP	...	
Reset to default	AT+DEFAULT	OK	null
reset	AT+ RESET	OK	null
check/set device type	AT+COD AT+COD< Para1>,<Para2>	OK or error	<Para1>: Local device type (length must be 6 bytes) from the mode is in effect, the end retrieval <Para2>: Filtration equipment type effect in the main mode for filtering search to equipment (if you set 000,000 returns all search equipment) default: 001f00, 000000
check/set module SPP master/slave mode	AT+ROLE AT+ROLE< Para1>	OK or error	<Para1>: 0 --- from the device; 1 --- master; Default: 0 from equipment
check/set GIAC	AT+IAC< Para1>	OK or Error	<Para1>: The query access code, default value: 9e8b33 specific settings, see Appendix 2: query access code Description
check/set remote bluetooth device name	AT+RNAME< Para1>	OK or Error	<Para1>: remote Bluetooth device address
check/set inquiry	AT+INQM<Para1>,<Para2>,<Para3>	OK or Error	<Para1>: Query mode: 0: inquiry_mode_standard,1: inquiry_mode_rssi,

mode			2: inquiry_mode_eir, Length: 1 byte, <Para2>: Up Bluetooth Device response, Length: 2 bytes, <Para3>: Query timeout, Timeout range :1-30(Converted into time :1.28-61.44 seconds), Length: 2 bytes, Default: 1,9,30 (16 hex)
check/set connection mode	AT+CMODE< Para1>	OK or Error	<Para1>: 0: specified Bluetooth address connected mode (specified Bluetooth address set by the BIND command) 1: Any Bluetooth address connection mode (not the BIND command set address the constraints), the default value:
check/set bluetooth address	AT+BIND<Para1>	OK or Error	<Para1>: Set binding Bluetooth address format: 11,22,33,44,55,66 Reply the Bluetooth address format: 11:22:33:44:55:66 Default: 00:00:00:00:00:00
clear memory address	AT+CLEAR	OK	Null
check/set UART MODE	AT+ UARTMODE<Para1>,<Para2>	OK or Error	<Para1>: Stop bit: 0:1 stop bit, 1:2 stop bit <Para2>: Parity: 0: no parity, 1: Odd, 2: Even parity, default value: 0,0
check local BT address	AT+LADDR	+LADDR=<Para1>	<Para1>: Local Bluetooth address, for example: 11:22:33:44:55:66
checkt BT module working status	AT+STATE	+STATE=<Para1>	Example

check/set Remote Bluetooth device automatically search	AT+ AUTOINQ<Para1>	Ok or Error	0=no, 1=yes
check remote bluetooth device	AT+INQ	Ok	null
cancel check remote bluetooth device	AT+INQC	Ok	null
check/set Whether to automatically connect to a remote Bluetooth device	AT+ AUTOCONN<Para1>	OK or Error	0=Not Auto, 1= Auto
Connect to remote bluetooth device	AT+CONNECT<Para1>	OK or Error	<Para1>: Set the remote bluetooth address format: 11,22,33,44,55,66 Reply Bluetooth address format: 11:22:33:44:55:66
check/set Page scan and inquiry scan parameters	AT+IPSCAN<Para1>,<Para2>,<Para3>,<Para4>	OK or Error	<Para1>: Query interval <Para2>: Query duration <Para3>: Paging time intervals <Para4>: Paging duration The above parameters are hexadecimal numbers. Default: 800,12,800,12
check/set Encrypt mode	AT+SENM<Para1>,<Para2>	OK or Error	<Para1>: Safe mode, the following values (1 byte): 0 - sec_mode0_off 1 - sec_mode1_non_secure 2 - sec_mode2_service 3 - sec_mode3_link 4 - sec_mode4_ssp

			<Para2>: Encryption mode, the following values (1 byte): 0 - hci_enc_mode_off 1 - hci_enc_mode_pt_to_pt 2 - hci_enc_mode_pt_to_pt_and_broadcast Default: 0,0
Check/set low power Mode	AT+ LOWPOWER<Para1>	ok or error	0=not support, 1=support, default =1
check/set sniff energy save mode	AT+SNIFF<Para1>,<Para2>,<Para3>,<Para4>	ok or error	<Para1> - max time, <Para2> - min time, <Para3> - trial time, <Para4> - timeout time
check/set indication upward command	AT+ENABLEIND<Para1>	ok or error	0= close, 1= open, default 1
check Bluetooth pairing list	AT+LSP	LSP=<Para1>,<Para2>,<Para3> LSP=E	<Para1> : number (0-7) <Para2> : bluetooth address code <Para3> : name default feedback : LSP=E
Clear all bluetooth pairing list	AT+RESETPDL	Ok	-
clear selected bluetooth pairing record	AT+REMOVEPDL<Para1>	OK	<Para1> : number (0-7)
check/set linkloss checking time	AT+SUPERVISION<Para1>	Ok or error	<Para1> response time, unit in second (Hex), default 5

Uplink Command list

Command Name	Command	Response	Parameter
ready	+READY	-	-
inquiry status	+INQUIRING	-	-

inquiry pairing status	+PAIRABLE	-	-
connecting	+CONNECTING<Para1>	-	-
connected	+CONNECTED	-	-
connection fail	+CONNECTION FAILED	-	-
report remote bluetooth device name	+RNAME=<Para1>	-	<Para1> : report remote bluetooth name
report inquiry result	+INQS start inquiry +INQ=<Para1>,<Para2>,<Para3> device information +INQE inquiry completed	-	<Para1> : bluetooth address format : 11:22:33:44:55:66 <Para2> : device type <Para3> : RSSI signal strength (normal is decimal) signal strengthness (default in decimal return 7fff when is not available)

SIM Commands List

Commands Groups definition

Test command (Test Command)

Behind the AT command with "=" Constitutes the test command. "AT + CSCS =" Will list all supported character set.

read command (Read Command)

Plus behind the AT command "?" Constitutes a read command. For example, "AT + CSCS?" Will list the current settings.

Execute commands (Execute Command)

Generally speaking, after the AT command with "=" and the command parameters can be. Some commands such as AT + CMGR command has no parameters, you can directly execute.

Commands list

Basic	Comm and Group	Enquiry	Write Command	Parameters	Remark and example
AT+CMEE	profile	AT+CME E?	AT+CMEE=2	1: use only error number code; 2:	For #2, you can see for example: +CME ERROR: SIM not inserted (Command: ATD13725585994;)

Basic	Comm and Group	Enquiry	Write Command	Parameters	Remark and example
				More verbose details of errors;	
AT	profile	AT	-	-	give responds on AT communication
AT+IPR	profile	AT+IPR?	AT+IPR = 9600	9600, 115200, etc	serial port baud rate
AT+CFUN	profile	AT+FCUN?	AT+IPR = 1	0=minimum Phone Functionality, 1= Full Phone Functionality, 4=disable RF circuits	Set Phone Functionality
AT+GMM	-	-	AT+GMM	module name	Check module name
AT+CSQ	-	AT+CSQ?	AT+CSQ	Signal strength; Channel bit error rates	-
ATD	Call	-	ATD13725585994; (phone number, with ";" at end)	OK, no Carries, no ring tone, error, etc	-
ATD	Call	-	ATDL	OK, no Carries, no ring tone,	Make a call to the last call number

Basic	Comm and Group	Enquiry	Write Command	Parameters	Remark and example
				error, etc	
AT+CLCC	Call	AT+CLCC?	-	-	display calling information after ATD command.
ATH	Call	-	ATH	-	Hang off the call
ATA	Call	-	ATA	-	answer the call
AT+COPS	General	AT+COPS?	-	+COPS: 0,0,"CHINA MOBILE"	See if the network registered
AT+CMGS	SMS	-	* AT+CMGS = "13725585994"(Enter); > This is a test (Send message after ">") ; and end up with ctrl+Z or send "1A" in hex if using uart	OK	-
AT+CSCS	SMS	AT+CSCS=?	AT+CSCS=GS M (general); AT+CSCS=UCS2 (Chinese Format)	GSM, UCS2, etc	Change SMS format
AT+CMGF	SMS	AT+CMGF=?	AT+CMGF=0	(0)=PDU (1)=TEXT	PDU can transfer text; TEXT can only transfer number and words
AT+CMGR	SMS	-	AT+CMGR=X	(X)= data area	read message from X data area; Result: +CMGR: "READ", "06014", "06/12/12,10:11:21+32"; 5C0A656C76845BA26237002C60A8768498845B588BDD8D39

Basic	Command Group	Enquiry	Write Command	Parameters	Remark and example
					5DF27ECF4E0D8DB30032
AT+CMGD	SMS	-	AT+CMGD=X	(X)= data area	Delete message from X data area