

PCS → GSM | others



Product



Products and services ▾

5G

LPWA

4G

LTE-A

Smart Modules

Automotive Modules

3G

2G

GNSS

Wi-Fi

Products

Product selector

2G/3G modules

4G modules: LTE

4G modules: LTE-A

5G modules

Automotive modules

GNSS modules (GPS)

LPWA modules

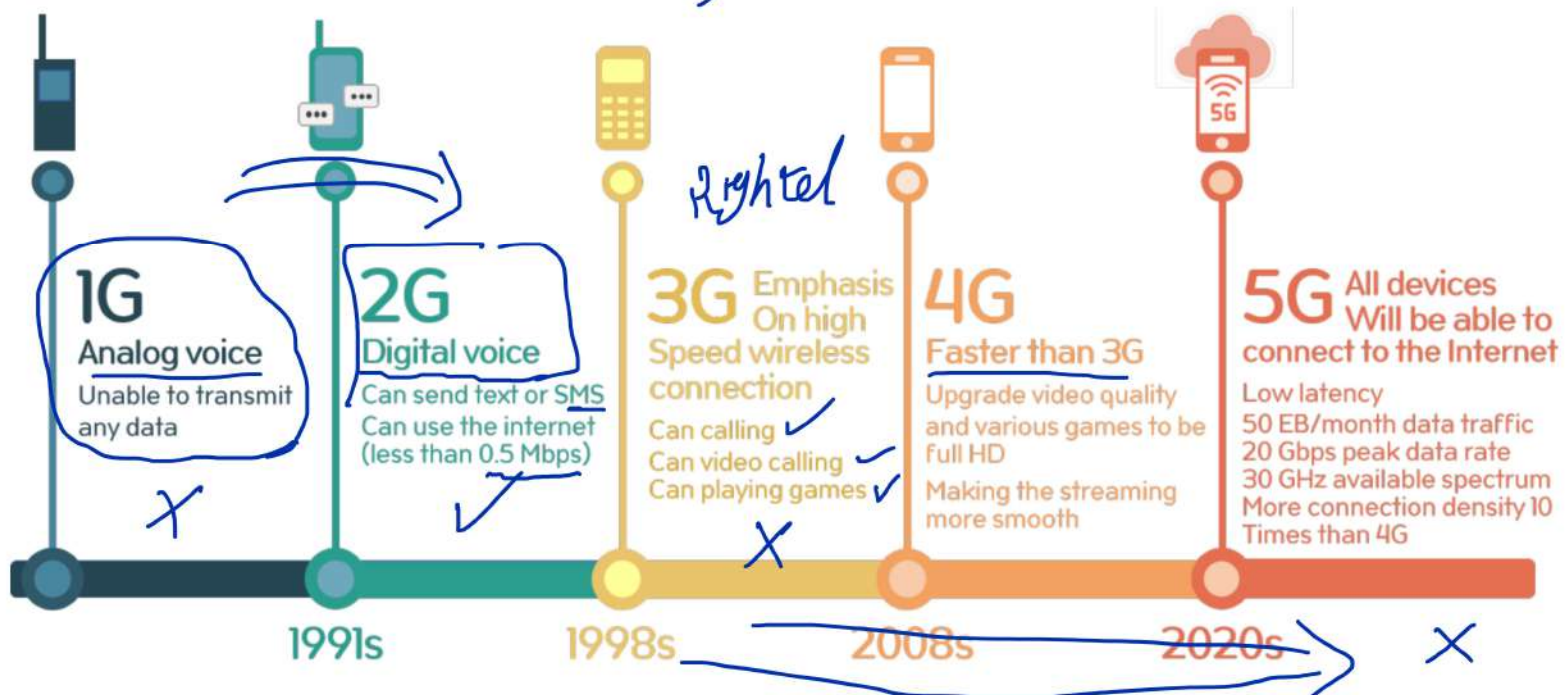
Satellite modules

Smart modules

Wi-Fi/Bluetooth modules






Antennas

EVB kits



Our 2G/3G modules



| Module | Dimensions | Technologies | Form Factor | See more |
|---|--------------------------|------------------------------|-------------|---|
|  | 17.7mm × 15.8mm × 2.4mm | <u>GSM/GPRS</u> | LCC | <div>M65</div> <div></div> |
|  | 17.7mm × 15.8mm × 2.3mm | <u>GSM/GPRS</u> +BT | LCC | <div>M66</div> <div>STD → AT</div> |
|  | 17.7mm × 15.8mm × 2.3mm | <u>GSM/GPRS</u> | LCC | <div>M66 2.0</div> <div>Open CP U</div> |
|  | 19.9mm × 23.6mm × 2.65mm | <u>GSM/GPRS</u> | LCC | <div>M95</div> |
|  | 18.7mm × 16.0mm × 2.1mm | <u>GSM/GPRS/GNSS</u> +GPS | LCC | <div>MC60</div> |

Search

Product type

5G

LPWA

4G

LTE-A

Smart Modules

Automotive Modules

3G

2G

GNSS

Wi-Fi

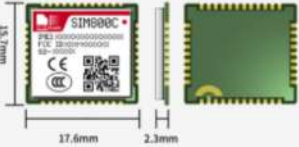
Network Type

GSM/GPRS/EDGE

Form Factor

LCC

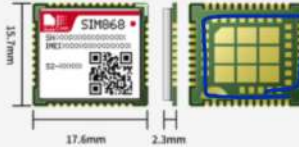
LGA



SIM800C

Quad-Band

BT(Optional)



SIM868E

Quad-Band

BT(Optional)

Dual SIM(Optional)

GNSS




SIM868

Quad-Band

BT(Optional)

Dual SIM(Optional)

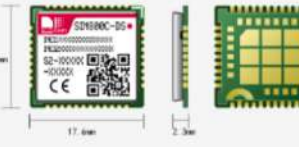
GNSS



SIM800F

Quad-Band

BT(Optional)





SIM800C-DS


Quad-Band


BT(Optional)

Dual SIM(Optional)


 [SIM800 Series_MQTT_Application Note_V1.03.pdf](#)


 [sim800_hardware_design_v1.10.pdf](#)


 [SIM800_Series_AT_Command_Manual_V1.09.pdf](#)

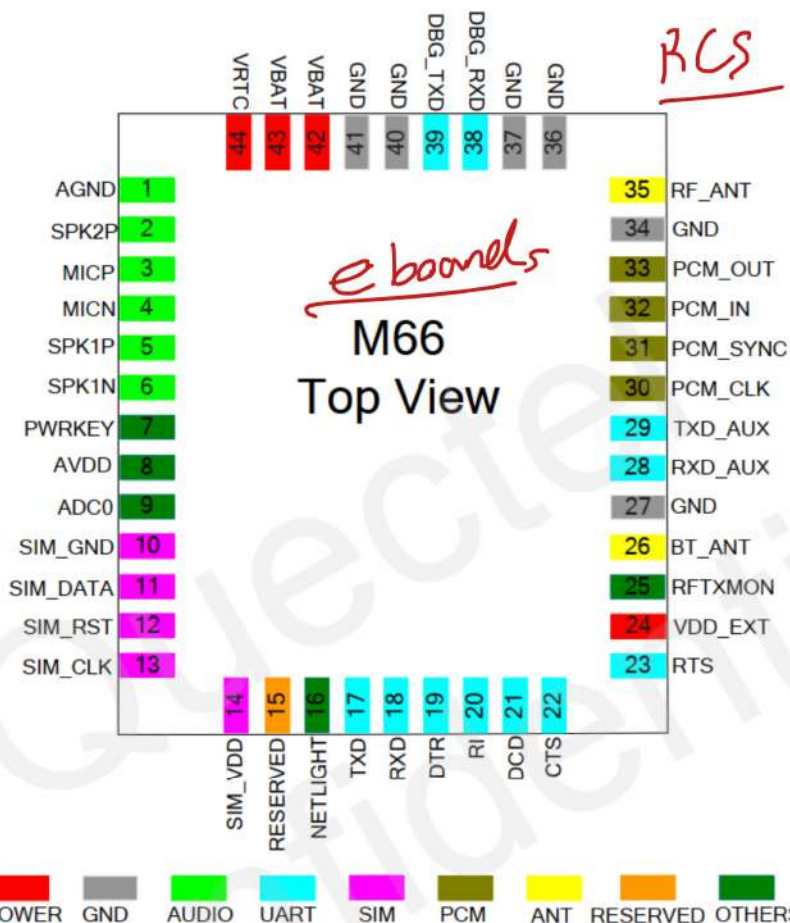
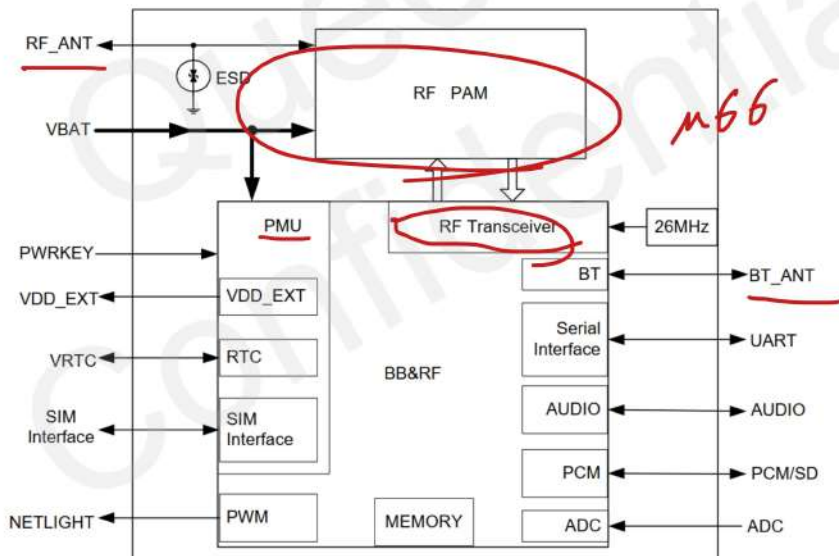
 [SIM800_SIM808_ROHS_2016.pdf](#)

 [Quectel_M66\(R1.0\)_Firmware_Release_Notes_V0209.pdf](#)

 [Quectel_M66_GSM_Specification_V1.4.pdf](#)

 [Quectel_M66_Hardware_Design_V1.2.pdf](#)

 [Quectel_M66_Series_AT_Commands_Manual_V2.1.pdf](#)



3.9. PCM Interface

M66 supports PCM interface. It is used for digital audio transmission between the module and the device. This interface is composed of PCM_CLK, PCM_SYNC, PCM_IN and PCM_OUT signal lines.

Pulse-code modulation (PCM) is a converter that changes the consecutive analog audio signal to discrete digital signal. The whole procedure of Pulse-code modulation contains sampling, quantizing and encoding.

>_AT
OK

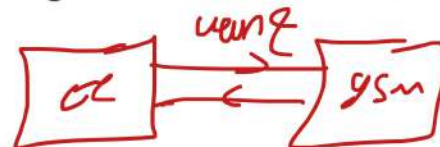
AT Commands

For Cellular Modules

The "AT" or "at" or "aT" or "At" prefix must be set at the beginning of each Command line. To terminate a Command line enter <CR>.

Commands are usually followed by a response that includes.

"<CR><LF><response><CR><LF>"



All these AT commands can be split into three categories syntactically: "basic", "S parameter", and "extended". These are as follows:

AT

1.4.1 Basic syntax

These AT commands have the format of "AT<x><n>", or "AT&<x><n>", where "<x>" is the Command, and "<n>" is/are the argument(s) for that Command. An example of this is "ATE<n>", which tells the DCE whether received characters should be echoed back to the DTE according to the value of "<n>". "<n>" is optional and a default will be used if missing.

1.4.2 S Parameter syntax

These AT commands have the format of "ATS<n>=<m>", where "<n>" is the index of the S register to set, and "<m>" is the value to assign to it. "<m>" is optional; if it is missing, then a default value is assigned.

1.4.3 Extended Syntax

These commands can operate in several modes, as in the following table:

| | | |
|---------------------|---------------------------------|---|
| <u>Test Command</u> | <u>AT+<x>=?</u> | This command returns the <u>list of parameters</u> and value ranges set by the corresponding Write Command or internal processes. |
| Read Command | <u>AT+<x>?</u> | This command returns the currently set value of the parameter or parameters. |
| Write Command | <u>AT+<x>=<...></u> | This command sets the user-definable parameter values. |
| Execution Command | <u>AT+<x></u> | This command reads non-variable parameters affected by internal processes in the GSM engine. |

| |
|---|
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Note: A HEX string such as "00 49 49 49 49 FF FF FF FF" will be sent out through serial port at the baud rate of 115200 immediately after SIM800 Series is powered on.

RDY *m66*

+CFUN: 1

+CPIN: READY

Call Ready

SMS Ready

AT

AT

~in ✓
~out ✓

| Description | Test if the module is connected and responsive. |
|-------------------|---|
| Syntax | AT |
| Parameters | None |
| Expected Response | OK if the module is working properly. |
| Error Response | No response or ERROR if communication fails. |

Explanation: This is the most fundamental AT command. It is used to verify if the GSM module is powered on, initialized correctly, and can communicate with the microcontroller or terminal. If everything is okay, the module replies with OK. If you get no response or garbage values, check:

- Baud rate mismatch
- Wrong UART pins
- Power supply instability

ATE0

ATE0



| Description | Disable command echo. |
|-------------------|-------------------------------|
| Syntax | ATE0 |
| Parameters | 0 = Disable echo |
| Expected Response | OK |
| Error Response | ERROR if the syntax is wrong. |

Explanation: By default, the module echoes back any command you send. For example, if you send AT, it may respond with:

AT
OK

This is not ideal for parsing responses in software. Sending ATE0 disables the echo, so you only get:

OK

This simplifies serial communication between the module and a microcontroller or script.

✓ AT+CPIN?

| Description | Check SIM card status. |
|---------------------------------------|---------------------------------------|
| Syntax | AT+CPIN? |
| Parameters | None |
| Expected Response | |
| +CPIN: READY → SIM is ready | |
| +CPIN: SIM PIN → SIM requires PIN | |
| +CPIN: SIM PUK → SIM is locked | |
| +CPIN: NOT INSERTED → No SIM detected | |
| Followed by OK | |
| Error Response | ERROR if the command is not accepted. |

Explanation: This command tells you the current status of the SIM card. It's one of the first checks after powering up the module. If +CPIN: READY, the SIM is present and usable.

✓ AT+CPIN="PIN"

AT+CPIN="123456"

| Description | Enter SIM PIN code if required. |
|-------------------|--------------------------------------|
| Syntax | AT+CPIN="<PIN>" |
| Parameters | <PIN> – The 8-digit SIM PIN code |
| Expected Response | OK if PIN accepted |
| Error Response | ERROR if incorrect PIN or locked SIM |

Explanation: This command is used when the SIM is locked and requires a PIN to proceed. If AT+CPIN? returns SIM PIN, use this command to unlock the SIM card.

✓ AT+CSQ

| Description | Check signal quality (RSSI and BER). |
|-------------------|--------------------------------------|
| Syntax | AT+CSQ |
| Parameters | None |
| Expected Response | +CSQ: <rss>,<ber> |
| OK | |
| Where: | |

- <rss> = Received signal strength (0–31, 99=unknown)
- <ber> = Bit error rate (0–7, 99=unknown) || **Error Response** | ERROR if unsupported. |

Explanation: This is useful to monitor how good the cellular signal is. For RSSI:

- 10–14 is acceptable
- 15–19 is good
- 20–30 is excellent A poor signal might prevent network registration or stable GPRS connection.

✓ AT+CREG?

| Description | Check network registration status (home or roaming). |
|-------------------|--|
| Syntax | AT+CREG? |
| Parameters | None |
| Expected Response | |
| +CREG: <n>,<stat> | |
| OK | |
| Where: | |

- <stat> = 0 = Not registered 1 = Registered (home) 2 = Searching 3 = Registration denied 4 = Unknown 5 = Registered (roaming)
- || **Error Response** | ERROR if unsupported. |

Explanation: Use this to check if the module is successfully registered on the GSM network. You need 1 or 5 to start any communication (call/SMS/data).