

# SLM750

# User Manual

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Company: Shenzhen MEIG SMART TECHNOLOGY Co., LTD

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Our company will not take any responsibility for any damage caused by the customer's abnormal operation. Please refer to specification and designing reference guide. Our company have right to modify the document according to technical requirement with no announcement to the customer.

### **FCC Regulations:**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may

cause undesired operation.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### **RF Exposure Information**

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.

### **IMPORTANT NOTE:**

This module is intended for OEM integrator. The OEM integrator is still responsible for the FCC compliance requirement of the end product, which integrates this module. 20cm minimum distance has to be able to be maintained between the antenna and the users for the host this module is integrated into. Under such configuration, the FCC radiation exposure limits set forth for an uncontrolled environment can be satisfied.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

### **USERS MANUAL OF THE END PRODUCT:**

In the users manual of the end product, the end user has to be informed to keep at least 20cm separation with the antenna while this end product is installed and operated. The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also

be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the users manual: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

**LABEL OF THE END PRODUCT:**

The final end product must be labeled in a visible area with the following " Contains Transmitter Module FCC ID: 2APJ4-SLM750". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of FCC rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Revising records

| No. | Version | Date       | Author      | Comments                                                   |
|-----|---------|------------|-------------|------------------------------------------------------------|
| 1   | V1.0    | 2016/6/28  | Li Yan      | Create                                                     |
| 2   | V1.1    | 2016/11/15 | Song Nan    | Add descriptions of key technologies                       |
| 3   | V1.2    | 2017/03/09 | Song Nan    | Add SLM750 C7C                                             |
| 4   | V1.3    | 2017/04/19 | Song Nan    | Add descriptions of B5                                     |
| 5   | V1.4    | 2017/05/04 | Song Nan    | Revise name of SLM750 C5B                                  |
| 6   | V1.5    | 2017/07/04 | Gao Mingjun | Add sub-models SLM750T and 750G<br>Edit SLM750 Frequencies |
| 7   | V1.6    | 2017/08/18 | Song Nan    | Add sub-models                                             |

SLM750 series of M2M modules are designed to provide customers with wireless communication service. It covers three operators' network in domestic and the main operators's network of the world. It delivers maximum 150Mbps-DL and 50Mbps-UL data rates on LTE networks, and has backward compatibility with 3G and 2G networks to ensure that network communication is working in remote areas.

Rx diversity and MIMO technology is provided to improve communication quality and optimize data transmission rate; high-sensitivity GNSS function is also provided.

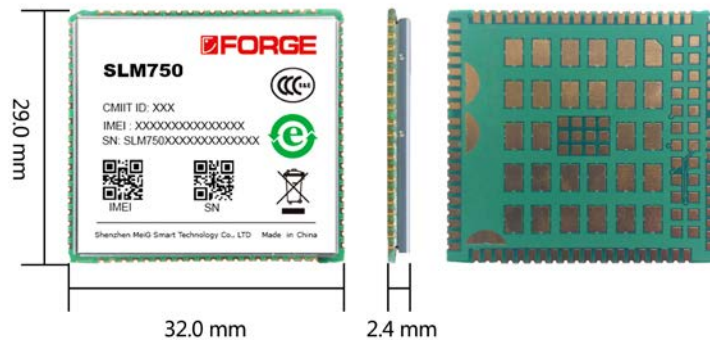
A rich set of protocols (TCP/FTP/HTTP) and multiple OS compatibility extend the applicability of the module to a wide range of M2M applications.



## Key Technologies

- ◆ Cover LTE FDD/TD-LTE/WCDMA /TD-SCDMA/EDGE/GPRS/GSM/ EVDO&CDMA 1x networks
- ◆ Qualcomm® IZat™ Gen 8C engine, Support GPS/GLONASS/BeiDou
- ◆ Support Voice Codec (HR/FR/EFR/AMR/AMR-WB) , Support SRLTE/CSFB/VOLTE (optional )
- ◆ USB2.0 High Speed Interface
- ◆ Rx Diversity and MIMO Technology
- ◆ TCP/IP Embedded Protocol Stacks

## Specification of SLM750



## General Features

- Package : LCC ( 80pin+LGA 64pin )
- Size: 32.0×29.0×2.4mm
- Weight: About 5g

## Data Features

LTE FDD (CAT 4): Max 150Mbps(DL)/50Mbps(UL)

TD-LTE (CAT 4): Max 130Mbps(DL)/35Mbps(UL)

LTE (CAT 1): Max 10Mbps(DL)/5Mbps(UL)

DC-HSPA+: Max 42Mbps(DL)/5.76Mbps(UL)

TD-SCDMA: Max 4.2Mbps(DL)/2.2Mbps(UL)

WCDMA: Max 384kbps(DL)/384kbps(UL)

EDGE: Max 236.8kbps(DL)/236.8kbps(UL)

GPRS: Max 85.6kbps(DL)/85.6kbps(UL)

EVDO RevA: Max 3.1Mbps(DL)/1.8Mbps(UL)

CDMA1x: Max 153.6kbps(DL)/153.6kbps(UL)

## SLM750 series

| PID        | Frequencies                                                                                                             | RX Diversity | GNSS | Voice/Analog voice |
|------------|-------------------------------------------------------------------------------------------------------------------------|--------------|------|--------------------|
| SLM750-C7A | LTE FDD: B1/B3/B5/B8<br>TD-LTE: B38/B39/B40/B41<br>WCDMA: B1/B8<br>TD-SCDMA: B34/B39<br>CDMA&EVDO: BC0<br>GSM: 900/1800 | Yes          | Yes  | Yes / Optional     |
| SLM750-C7B | LTE FDD: B1/B3/B5/B8<br>TD-LTE: B38/B39/B40/B41<br>WCDMA: B1/B8<br>TD-SCDMA: B34/B39<br>CDMA&EVDO: BC0<br>GSM: 900/1800 | Yes          | No   | Yes / Optional     |
| SLM750-C5A | LTE FDD: B1/B3/B8<br>TD-LTE: B38/B39/B40/B41<br>WCDMA: B1/B8<br>TD-SCDMA: B34/B39<br>GSM: 900/1800                      | Yes          | Yes  | Yes /Optional      |
| SLM750-C5B | LTE FDD: B1/B3/B8<br>TD-LTE: B38/B39/B40/B41<br>WCDMA: B1/B8<br>TD-SCDMA: B34/B39<br>GSM: 900/1800                      | Yes          | No   | Yes /Optional      |
| SLM750-C5C | LTE FDD: B1/B3/B8<br>TD-LTE: B38/B39/B40/B41<br>WCDMA: B1/B8<br>TD-SCDMA: B34/B39<br>GSM: 900/1800                      | No           | No   | Yes /Optional      |
| SLM750-C7C | LTE FDD: B1/B3/B5/B8<br>TD-LTE: B38/B39/B40/B41<br>WCDMA: B1/B8<br>TD-SCDMA: B34/B39<br>CDMA&EVDO: BC0<br>GSM: 900/1800 | No           | No   | Yes /Optional      |

|                   |                                                                                                                                     |          |          |                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------|----------|-------------------|
| SLM750-G2E        | LTE FDD: B1/B3/B5/B7/B8/B20<br>WCDMA: B1/B8                                                                                         | Yes      | Optional | Optional/Optional |
| SLM750-G2C        | LTE FDD: B2/B4/B5/B7/B28<br>WCDMA: B2/B4/B5                                                                                         | Yes      | Yes      | Optional/Optional |
| SLM750-G2D        | LTE FDD: B1/B3/B5/B8<br>TD-LTE: B40<br>WCDMA: B2/B4/B5                                                                              | Yes      | Optional | Optional/Optional |
| SLM750-G2J        | LTE FDD: B2/B4/B5/B12/B17                                                                                                           | Yes      | Optional | Optional/Optional |
| SLM750-G2M        | LTE B2/B25<br>WCDMA: B1                                                                                                             | Yes      | Optional | Optional/Optional |
| SLM750-C1A<br>(1) | LTE FDD: B1/B3/B5/B8<br>TD-LTE: B41                                                                                                 | Optional | Optional | No/No             |
| SLM750-TC         | LTE FDD: B1/B3/B5/B8/B28<br>TD-LTE: B38/B39/B40/B41<br>WCDMA: B1/B8<br>TDSCDMA: B34/B39<br>CDMA&EVDO: BC0<br>GSM: 850/900/1800/1900 | Yes      | Optional | Yes /Optional     |
| SLM750-TE         | LTE FDD: B1/B3/B5/B7/B8/B20<br>TD-LTE: B40<br>WCDMA: B1/B5/B8<br>GSM: 850/900/1800/1900                                             | Yes      | Optional | Yes /Optional     |
| SLM750-TAU        | LTE FDD: B1/B3/B5/B7/B8/B28<br>TD-LTE: B40<br>WCDMA: B1/B5/B8<br>GSM: 850/900/1800/1900                                             | Yes      | Optional | Yes /Optional     |
| SLM750-TA         | FDD: B2/B4/B5/B12/B13/B17/B25/B26<br>TDD: B41<br>WCDMA: B2/B4/B5<br>CDMA&EVDO: BC0/BC1<br>GSM: 850/1900                             | Yes      | Optional | Yes/Optional      |

(1) Support LTE CAT 1 ;

## Transmit Power

GSM900  $33\pm 2\text{dBm}$  , GSM1800  $30\pm 2\text{dBm}$  , GSM850  $33\pm 2\text{dBm}$ , GSM1900  $30\pm 2\text{dBm}$

CDMA/EVDO 23~30dBm,

WCDMA/HSPA  $23+1/-3\text{dBm}$  , TD-SCDMA  $23+1/-3\text{dBm}$  , TD-LTE  $23\pm 2.7\text{dBm}$  ,

LTE FDD  $23\pm 2.7\text{dBm}$

## Protocols

TCP/UDP/HTTP/FTP/PPP/PING/DTMF/QMI

### Working Environment

- Restrict Working Temperature :  
-40°C to 85°C
- Storage Temperature: -45°C to  
90°C
- Humidity: 5%~95%

### Drivers & Tools

- Drivers : Windows XP, Windows Vista,  
Windows 7, Windows 8, Windows 8.1,  
Windows 10, Linux, Android
- Tools : One Click update tool, Gobinet  
Dial Tool
- \*FOTA Update ( Developing )

## Interfaces

- High speed USB 2.0
- UART
- SIM card Interface (1.8 / 3.0V)
- Antenna Interface :  
Main/Diversity/GNSS ( Optional )
- I2C
- WAKEUP-IN & WAKEUP-OUT
- Power On/Off, Reset
- ADC
- Fly Mode
- LED
- PCM

## Antenna type

Dipole Antenna

## Antenna gain

| Device                     | Band          | Standalone<br>Maximum<br>Antenna<br>Gain (dBi) | Collocated<br>Maximum<br>Antenna<br>Gain (dBi) |
|----------------------------|---------------|------------------------------------------------|------------------------------------------------|
| SLM750-TA                  | GSM850        | 4                                              | 3.5                                            |
|                            | GSM1900       | 1.5                                            | 1.5                                            |
|                            | CDMA2000 BC0  | 4                                              | 3.5                                            |
|                            | CDMA2000 BC1  | 1.5                                            | 1.5                                            |
|                            | WCDMA Band II | 1.5                                            | 1.5                                            |
|                            | WCDMA Band IV | 5.5                                            | 5.5                                            |
|                            | WCDMA Band V  | 4                                              | 3.5                                            |
|                            | LTE Band 2    | 1.5                                            | 1.5                                            |
|                            | LTE Band 4    | 5.5                                            | 5.5                                            |
|                            | LTE Band 5    | 4                                              | 3.5                                            |
|                            | LTE Band 12   | 7                                              | 6.5                                            |
|                            | LTE Band 13   | 7                                              | 6.5                                            |
|                            | LTE Band 17   | 7                                              | 6.5                                            |
|                            | LTE Band 25   | 1.5                                            | 1.5                                            |
|                            | LTE Band 26   | 4                                              | 3.5                                            |
|                            | LTE Band 41   | 8.5                                            | 8.5                                            |
| Collocated<br>Transmitters | WLAN2.4GHz    |                                                | 4                                              |
|                            | WLAN5GHz      |                                                | 4                                              |
|                            | Bluetooth     |                                                | 4                                              |