

Advantech AE Technical Share Document

Date	2023 / 09 / 05	Release Note	<input type="checkbox"/> Internal <input checked="" type="checkbox"/> External
Category	<input checked="" type="checkbox"/> FAQ <input type="checkbox"/> SOP	Related OS	
Abstract	How can I check which type of SIM card is suitable for our module?		
Keyword	LTE, LTE-M, SIM, APN name		
Related Product	WISE-6610		

● **Problem Description:**

How can I check which type of SIM card is suitable for our module?

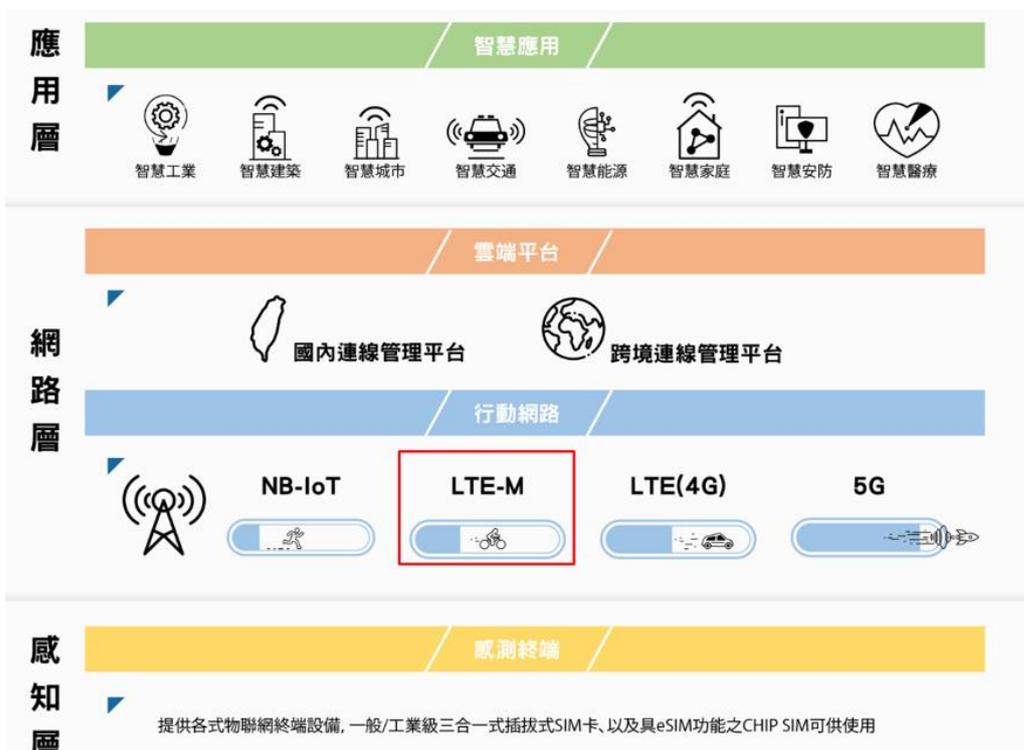
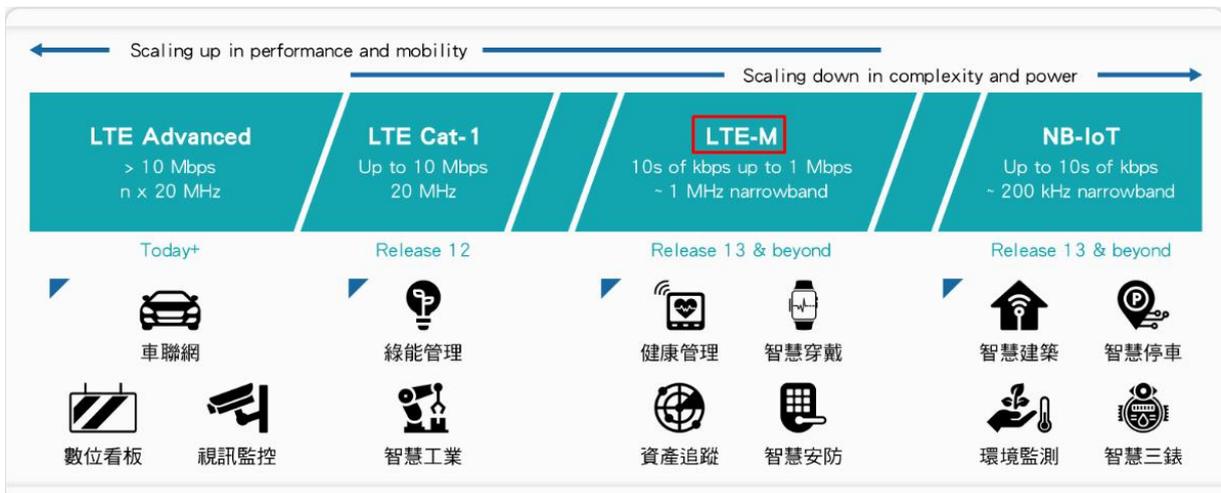
Why can't we use LTE-M sim card to connect network with WISE-6610-A100-C

There is a little difference between LTE and LTE-M.

How to set APN name for fixed public IP.

● **What is the LTE-C ?:**

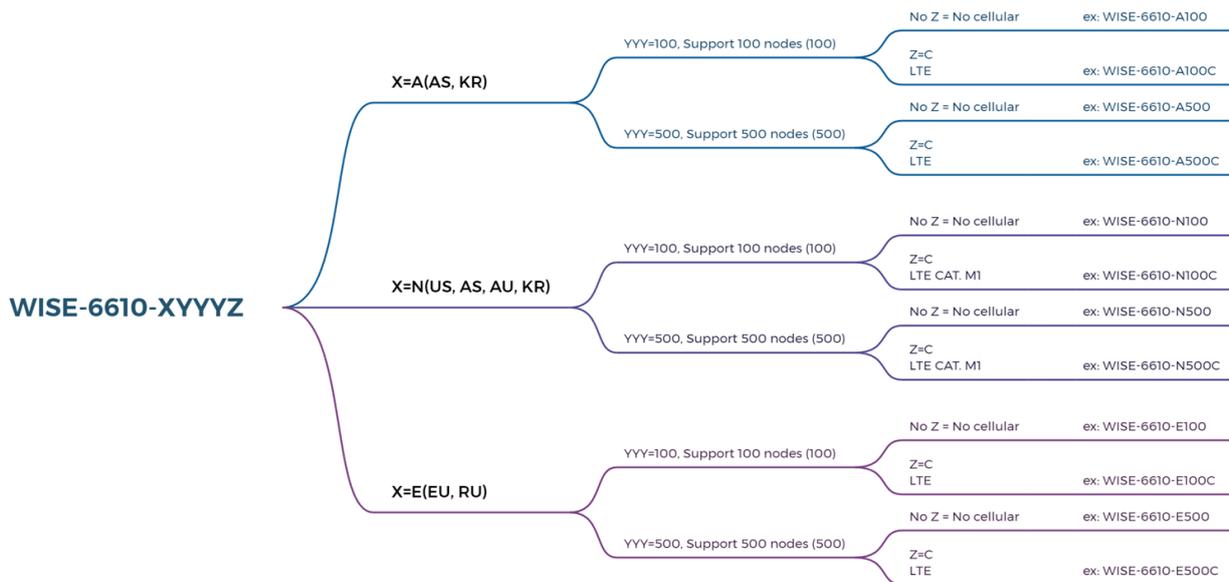
<https://www.cht.com.tw/home/campaign/M-IoT/index.html>



This is a guide to help you understand what WISE-6610 naming rule and the guide to each WISE-6610 model name,

WISE-6610 for three main regions, which is A = Asia Pacific, E = Europe, N = National

So, there are WISE-6610-A, WISE-6610-E, WISE-6610-N, follow with regional name, there are a 3 digits numbers, 100 means support 100 nodes, 500 means support 500 nodes, so there are WISE-A100, WISE-A500, The last letter in the model name is after the number does it include C, if there is a C at the end of model name, it means cellular connectivity and SD card included, for Europe and Asia version, it carries LTE, for National version, it carries LTE CAT. M1 as cellular connectivity.



In the module WISE-6610-A100C-A, we should choose the LTE sim card not LTE-M, and we can also check it with datasheet

LTE & LTE-M → **Cellular Interface (WISE-6610-N100C-A/N500C-A Only)**

- **LTE** Cat M1
- **LTE Bit rate** 375 Kbps (DL), 375 Kbps (UL)
- **LTE FDD** B12, B13, B28 (700 MHz), B20 (800 MHz), B5, B18, B19, B26 (850 MHz), B8 (900 MHz), B4 (1700 MHz), B3 (1800 MHz), B2 (1900 MHz), B1 (2100MHz)
- **LTE TDD** B39 (1900 MHz)

LTE → **Cellular Interface (WISE-6610-EXXXC/WISE-6610-AXXXC Only)**

- **LTE Bit rate** 150 Mbps (DL), 50 Mbps (UL)
- **LTE Bands** B20 (800 MHz), B8 (900 MHz), B3 (1800 MHz), B1 (2100 MHz), B7 (2600 MHz)
- **3G Bit rate** 42.0 Mbps (DL), 5.76 Mbps (UL)
- **3G Bands** 900, 2100 MHz
- **No. of SIM Slots** 2 x Mini SIMs (2FF)
- **ANT Connector** 2 x RP-SMA female connectors

WISE-6610-A100C-A

In this case, we also need a fixed IP for the customer’s project. They want to control and monitor the WISE-6610-A100C-A remotely. There are different plans from Chunghwa Telecom available for selection here.

830 NT/ per month

行動固定IP上網服務(含設備)費率						
購機綁約方案：網速提供低、中、高三類型速率支援設備自備或綁約						
申裝類別最高速率(下行/上行)	ip1(2M/2M)	ip2(21M/21M)	ip3(不限速)			
不限流量						
綁約期限	1年	2年	1年	2年	1年	2年
出帳金額	830元	700元	1,429元	1,250元	1,980元	1,800元

This is example for set the cellular APN name with WISE-6610-A100C-A.

WISE-6610-A100C-A

1st Mobile WAN Configuration

Create connection to mobile network

	1st SIM card	2nd SIM card
APN *	ip1	
Username *	更改為ip1	
Password *		
Authentication	PAP or CHAP	PAP or CHAP
IP Mode	IPv4	IPv4
IP Address *		
Dial Number *		
Operator *	IP位址 維持空白即可	
Network Type	automatic selection	automatic selection
PIN *	0000	
MRU	1500	1500 bytes
MTU	1500	1500 bytes
DNS Settings	get from operator	get from operator
DNS IP Address		
DNS IPv6 Address		

(The feature of check connection to mobile network is necessary for uninterrupted operation)

Check Connection: enabled / disabled

If you wish to modify the APN parameters, you can do so by navigating to Cellular >> SIM Config. For the APN field, you must enter the information provided by your telecommunications provider. For example, 'internet' is the basic service for most telecommunications providers, 'ip1' represents Chunghwa Telecom's enterprise fixed IP 1, and 'ip3' represents Chunghwa Telecom's enterprise fixed IP 3, among many others that correspond to various functions. After configuring the settings, please click 'Apply' and wait for the device to reboot.

For the fixed IP setting, you should enable remote HTTPs access on port 443 as follow.

The screenshot shows the configuration interface for NAT. On the left sidebar, the 'NAT' menu item is highlighted with a red box. The main content area features a table with the following columns: Public Port(s), Private Port(s), Type, Server IP Address, and Description *. The table contains 12 rows, all with 'TCP' as the type. Below the table, there are several checkboxes for enabling remote access on specific ports:

- Enable remote HTTP access on port 80
- Enable remote HTTPS access on port 443 (highlighted with a red box)
- Enable remote FTP access on port 21
- Enable remote SSH access on port 22
- Enable remote Telnet access on port 23
- Enable remote SNMP access on port 161

 Below these are options for sending remaining incoming packets to a default server and a checked option for 'Masquerade outgoing packets'. At the bottom, the 'Apply' button is highlighted with a red box.

The description is about the HTTPs.

Item	Description
Enable remote HTTP access on port	This option sets the redirect from HTTP to HTTPS only (disabled in default configuration).
Enable remote HTTPS access on port	If field and port number are filled in, configuration of the router over web interface is allowed (disabled in default configuration).
Enable remote SSH access on port	Select this option to allow access to the router using SSH (disabled in default configuration).
Enable remote SNMP access on port	Select this option to allow access to the router using SNMP (disabled in default configuration).
Masquerade outgoing packets	Activates/deactivates the network address translation function.

Use the following parameters to set the routing of incoming data from the WAN (Mobile WAN) to a connected computer.

You can PING the IP address of the WISE-6610 from any notebook or PC computer anywhere.

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命令提示字元
媒體狀態 . . . . . : 媒體已中斷連線
連線特定 DNS 尾碼 . . . . . :

C:\Users\morris.shih>ping 111.70.38.197

Ping 111.70.38.197 (使用 32 位元組的資料):
回覆自 111.70.38.197: 位元組=32 時間=113ms TTL=52
回覆自 111.70.38.197: 位元組=32 時間=29ms TTL=52
回覆自 111.70.38.197: 位元組=32 時間=28ms TTL=52
回覆自 111.70.38.197: 位元組=32 時間=30ms TTL=52

111.70.38.197 的 Ping 統計資料:
    封包: 已傳送 = 4, 已收到 = 4, 已遺失 = 0 (0% 遺失),
    大約的來回時間 (毫秒):
        最小值 = 28ms, 最大值 = 113ms, 平均 = 50ms

C:\Users\morris.shih>ping 111.70.38.197

Ping 111.70.38.197 (使用 32 位元組的資料):
回覆自 111.70.38.197: 位元組=32 時間=30ms TTL=58
回覆自 111.70.38.197: 位元組=32 時間=24ms TTL=52
回覆自 111.70.38.197: 位元組=32 時間=27ms TTL=52
回覆自 111.70.38.197: 位元組=32 時間=29ms TTL=52

111.70.38.197 的 Ping 統計資料:
    封包: 已傳送 = 4, 已收到 = 4, 已遺失 = 0 (0% 遺失),
    大約的來回時間 (毫秒):
        最小值 = 24ms, 最大值 = 30ms, 平均 = 27ms

C:\Users\morris.shih>
    
```