

### Industrial Grade 5G M2M Gateway, Model GSF M2M 100 5G



GSF M2M 100 5G is a 5G IoT wireless intelligent gateway that provides users with wireless long-distance big data transmission using a public 4G / 5G network. The product uses a high-performance industrial-grade 32-bit communication processor and industrial-grade wireless modules, with an embedded real-time operating system as a software platform, and provides 1 x RS232, 5 x RS485, 4 x Giga Ethernet LANs, and 1 x Giga WAN.

### Features

- ✓ Industrial-grade 32-bit communication processor and industrial-grade wireless module
- ✓ Metal casing, protection level is IP30
- ✓ Wide power input DC 9 to 36V
- ✓ WDT Watchdog design to ensure system stability
- ✓ Adopt a complete anti-drop mechanism to ensure that the data terminal is always online
- ✓ Built-in 1.5KV electromagnetic isolation protection for Ethernet interface
- ✓ RS232 / RS485 interface power and data isolation
- ✓ SIM/UIM card interface built-in 15KV ESD protection
- ✓ Built-in reverse polarity protection and over voltage protection for power interface
- ✓ Antenna interface lightning protection (Optional)
- ✓ Reserve e SIM
- ✓ Provide standard RS232, RS485, Ethernet and WIFI interfaces
- ✓ Provide standard WAN port (Support standard PPPOE protocol)
- ✓ Intelligent data terminal, can enter data transmission state after power on
- ✓ Convenient system configuration and maintenance interface (local, WEB or CLI)
- ✓ Supports DIN rail and wall mounted installation
- ✓ Support multiple WAN connection methods (static IP, DHCP, PPPOE, etc.)
- ✓ Support 4G / 5G and wired WAN dual link intelligent switch backup function (optional)
- ✓ Support VPN Server / Client (PPTP, L2TP, IPSEC)
- ✓ Support remote management, SYSLOG, SNMP, TELNET, SSHD, HTTPS
- ✓ Support local and remote online upgrade, import and export configuration files
- ✓ Support NTP, built-in RTC
- ✓ Support various of DDNS
- ✓ Support VLAN, MAC address clone
- ✓ Support WIFI AP mode, Client mode, Bridge mode (Optional)
- ✓ WIFI supports 802.11b / g / n / ac, and other working modes (Optional)
- ✓ WIFI supports multiple encryption methods (WEP, WPA, WPA2, MAC address filtering)
- ✓ Support APN / VPDN
- ✓ Support multiple DHCP server and DHCP client
- ✓ Support DHCP binding MAC address / DDNS / NAT / DMZ / QOS, traffic statistics, etc.
- ✓ Support TCP / IP / UDP / FTP / HTTP and other network protocols
- ✓ Built-in various communication protocols (Modbus RTU / Modbus TCP / IEC60870\_5\_104, etc.)
- ✓ Supports encryption modes such as DES and 3DES, and supports VRRP hot backup
- ✓ Local storage supports flash memory, TF card (or built-in e MMC)
- ✓ Use MQTT+SSL / TLS Https Web Socket to connect to the IoT platform

## Specifications

<b>Cellular Specification</b>	
Module	Industrial wireless module
Standard and Frequency	5G NR : n1 / n2 / n3 / n5 / n7 / n8 / n20 / n28 / n41 / n66 / n71 / n77 / n78 / n79 LTE : B1 / B2 / B3 / B4(66) / B5(18 / 19 / 26) / B7 / B8 / B12(17) / B13 / B14 / B20 / B25 / B26 / B28 / B29 / B30 / B38 / B39 / B40 / B41 / B42 / B43 / B46 / B48 / B71
Theoretical Bandwidth	5G NR : downlink 3.4Gbps, uplink 350Mbps LTE Cat20 : downlink 2.0Gbps, uplink 150Mbps HSPA+ : downlink 42Mbps, uplink 5.76 Mbps
Transmit Power	<23dBm
Receiving Sensitivity	<-97dBm
<b>WIFI Specification</b>	
Frequency	Support IEEE802.11b / g / n, 2.4G, 2*2 MIMO, AP mode, Station mode (Optional)
	Support IEEE802.11ac, 5.8G, 2*2 MIMO, AP mode, Station mode (Optional)
Bandwidth	IEEE802.11b / g: 108Mbps, IEEE802.11n: 300Mbps, IEEE802.11ac: 780Mbps
Security	Support WEP, WPA, WPA2, WPS (Optional)
Power	26dBm (11b), 21.5dBm (11g), 20dBm (11n), 16dBm (11ac)
Sensitive	<-72dBm@54Mbps
<b>Hardware System</b>	
CPU	Industrial grade 32-bit communication processor
FLASH	32MB
DDR3	512MB
TF	8GB / 32GB (Optional) or embedded with 8G eMMC

<b>Interfaces</b>	
WAN	1 x 10 / 100 / 1000M Ethernet (RJ45), Adaptive MDI / MDIX, Built-in 1.5KV ESD Protection
LAN	4 x 10 / 100 / 1000M Ethernet (RJ45), Adaptive MDI / MDIX, Built-in 1.5KV ESD Protection 1 x RS232, 5 x RS485 (One shared with RS232 interface) Built-in 1.5KV ESD Protection
Serial	The serial port parameters are as follows: Data bits : 5, 6, 7, 8 Stop bits : 1, 1.5 (Optional), 2 bits Check: no check, even check, odd check, SPACE (Optional) and MARK check (Optional) Serial port speed : 2400 to 115200bits / s
Indicators	PWR, "SYS", "WIFI", "SIM", "Online", "Signal Strength"

I / O Interface	6-pin 3.5mm terminal block
	2xDI, 1xDO, 1xRelay
	Input high level : 5 to 30 VDC
	Input low level : 0 to 3 VDC
	Load current : <50mA @ 30VDC
	Relay load : 1A 250VAC / 30VDC
Antenna	Cellular: 2 standard SMA female antenna interfaces, characteristic impedance 50 ohms (4G version)
	4 standard SMA female antenna interfaces, characteristic impedance 50 ohms (5G version)
	WIFI: 2 standard SMA male antenna interfaces, characteristic impedance 50 ohms
SIM / UIM	Standard drawer-type user card interface (2 SIM card), support 1.8V / 3V SIM / UIM card, built-in 15KV ESD protection
USB	Standard USB 3.0 interface, support various USB storage
TF card	Standard bullet TF card interface, support various TF cards (TF card or eMMC)
Power Interface	2-core terminal power socket, built-in power reverse phase protection
Reset Button	Use this button to reset the parameter to the factory setting
<b>Power Supply</b>	
Standard	DC 12V / 1.5A
Range	DC 9 to 36V
Consumption	<1.2A (12V)
Standby Current	<800mA (12V)
<b>Physical Properties</b>	
Shell	Metal shell, Ingress Protection level IP30
	172 x 122 x 38 mm (Excluding antennas and mounts)
Weight	700g

<b>Others</b>	
Operating Temperature	-35 to +75°C
Storage Temperature	-40 to +85°C
Relative Humidity	95% (No condensation)

### Order Information

Models	Description
<b>GSF M2M 100 5G</b>	Cellular (5G-NR), 4*10/100/1000 LAN, 1*10/100/1000 WAN, WIFI, 1 x RS232, 5 x RS485 ports, SIM*2, 2xDI, 1xDO, 1xRelay
<b>GSF M2M-100 4G</b>	Cellular (4G), 4*10/100/1000 LAN, 1*10/100/1000 WAN, WIFI, 1 x RS232, 5 x RS485 ports, SIM*2, 2xDI, 1xDO, 1xRelay