

# Wireless Router/ Gateway

Model: MG800 Series



The MG800 Series is a high performance wireless router/gateway for M2M applications. It is 3G/4G/WiFi gateway which supports three serial ports or LAN ports and functions to expand a user's M2M application. A user can easily configure settings from the WEB GUI via Browser and record data in a micro SD card or USB cloud storage device. MG800 Series supports the remote management like firmware over the air (FOTA) and Captive Portal free WiFi function.

**Features:**

- Embedded 2G/3G/4G LTE in option
- Dual-band WiFi 802.11 b/g/n/ac
- WiFi WDS/ WISP support
- Configurable I/O of Serial Ports or LAN Ports
- WAN Port available
- Embedded GNSS Receiver Module in option
- Firmware Over The Air (FOTA) for remote management
- Captive Portal for free WiFi support
- Dual SIM and fail-over support
- Ejected Micro SD Card Slot (up to 64GB)
- Ejected SIM Card Slot
- USB Cloud Storage support
- Mini-PCIe Expansion
- Dual Relay for 300Watt power cut off EACH (GPIO control)
- GNSS(GPS/BeiDou/GLNOASS) in option
- User-friendly Web GUI
- Wider Power Input from 7VDC to 36VDC (Optional)
- Fine-tuned Cellular and WiFi Antennas
- Cellular MIMO Antenna in option

# 1 Hardware Specifications

Hardware Specifications				
<b>Main Chip</b>				
Core	MIPS24KEc,580MHz			
RAM	1G bit DDR2 RAM			
Flash Memory	128M Bit Flash			
WiFi	802.11 b/g/n/ac			
Antenna	2T2R or MIMO			
Linux OS	Linux 2.6.3			
<b>Cellular System</b>				
Cellular Module (Option)	WCDMA/CDMA-U SA Combo, (Option)	CDMA 1xRTT - USA (Option)	WCDMA/UMTS (Option)	4G LTE (Default)
Frequency (*See Appendix I)	WCDMA: 800/850/900/1900 /2100MHz) CDMA : 850/900/1800/ 1900MHz	Band 2/Band5 (800/1900 MHz)	Band 2/Band1 (850/2100 MHz)	Band 1/3/7/8/20 (800/900/1800/ 2100/2600 MHz)
Uplink/Downlink	WCDMA: 5.76M/14.4 Mbps CDMA 1xRTT: 307.2/307.2 Kbps	153/153 Kbps	5.76/7.2 Mbps	50/100 Mbps
<b>Interface</b>				
LAN Port	3 Max.			
Serial Port	3 Max.			
WAN Port	1			
Micro SD Card	1			
USB Port	1 (power: 5VDC)			
SIM Card	1 or 2 (Dual SIM)			
WiFi Antenna	2 (2.4G only) or 4 (dual band)			
Cellular Antenna	1 or 2 (MIMO)			
GPIO/Relay	2			
Reset Button	1			
GNSS(Optional)	GPS + BeiDou or GPS + GLONASS			
Switch	2(1 for Power on/off, 1 for GNSS Select)			
<b>Mechanical</b>				
Operating Temperature	-20°C ~ 65°C			
Dimension	200 (W) x 143 (D) x 21 (H) mm			
<b>Power</b>				
Power In	12V (Standard) or 36V (Optional)			
Current	Max. 2A			

## 2 Software Application

Item	Description		
1	Wireless Interface	Standard Compliance	IEEE 802.11 b/g/n/ac
		Transceiver Type	2T2R or MIMO
		Mode	Activity (AP / Client mode)
		Antenna	PIFA Antenna x 2
		Range	Up to 50 meters
		Speed	Up to 300 Mbps
		Wireless Security	<ol style="list-style-type: none"> <li>1. WEP 64 bit, WEP 128 bit, WPA, WPA2</li> <li>2. Password protected access</li> </ol>
2	Network	WAN	DDNS DHCP Static IP PPPOE 3G/4G Router WISP(Client WiFi)
		LAN	Ethernet LAN ports DHCP server on LAN Static routing rules
		VPN	IPSEC NAT-T and PPTP VPN pass-through. IPSEC Server supports 5-VPN client connection. VPN pass through Site-to-Site VPN
		Events Reporting	<ul style="list-style-type: none"> <li>• Event Types: Power</li> <li>• Report/Action Types: SMS, Email, SNMP Trap, Relay Output</li> </ul>
3	SSID x 2		
4	WDS support 4 points		
5	Serial to WiFi/ LAN or LAN to LAN ( TCP server/TCP Client/UDP mode)		
6	Relay for GPIO control		
7	Show Cellular Signal strength on Web		
8	Firmware Over The Air (FOTA)		
9	Captive Portal		
10	SD Data Storage Selection		
11	Heartbeat information		
12	System log		

### 3 Hardware Instruction



1. WiFi Antenna
2. WiFi Antenna
3. WiFi Antenna
4. Serial Port# 1 or LAN Port# 1
5. Serial Port# 2 or LAN Port# 2
6. Serial Port# 3 or LAN Port# 3 (\*Occupied if use GNSS Receiver Module)
7. Relay Port or Power lock Port
8. WiFi Antenna



9. GNSS Antenna (Optional)
10. Power On/Off Switch
11. DC 12V IN
12. WAN Port
13. USB Port (for Optional USB Storage)
14. SIM Card Socket
15. Cellular Antenna