

MGate W5108/W5208 系列

1 和 2 埠 IEEE 802.11a/b/g/n 無線 Modbus/DNP3 閘道



特色與優點

- 透過 802.11 網路進行 Modbus 串列隧道通訊
- 透過 802.11 網路進行 DNP3 串列隧道通訊
- 可支援最多 16 個 Modbus/DNP3 TCP masters/clients 存取
- 連接最多 31 或 62 個 Modbus/DNP 3 串列 slaves
- 嵌入式流量監控/診斷資訊，便於故障排除
- microSD 卡可用於備份/複製配置與事件日誌
- 串列埠具 2kV 隔離保護
- 提供 -40 至 75°C 寬操作溫度型號可供選用
- 支援 2 個 Dis 和 2 個 DOs
- 支援備援直流電源輸入與 1 個 relay 輸出
- 符合 IEC 62443 的資安防護功能

認證



簡介

MGate W5108/W5208 系列閘道器是將 Modbus 串列設備連接到無線 LAN，或透過無線 LAN 將 DNP3 串列轉換至 DNP3 IP 的理想選擇。透過 IEEE 802.11a/b/g/n 的支援，您可以在不便佈線的環境中省去實體線路佈線困擾，且 MGate W5108/W5208 系列閘道器支援 WEP/WPA/WPA2，提供更安全的資料傳輸。此系列閘道器的堅固設計使其更適用於各種工業級應用，如石油和天然氣、電力、程序自動化及工廠自動化。

Modbus 流量監控

MGate W5108/5208 系列閘道器支援 Modbus 協定流量監控，更利於故障排除，特別是在安裝階段。通訊問題一般可能是由軟體參數錯誤所引起，例如 Slave ID 和暫存器位址，或硬體參數錯誤（如傳輸速率和介面參數）。有了 Modbus 協定流量監控，您可以檢查所擷取的數據，並輕鬆判斷問題根本原因。

支援多種維護功能

MGate W5108/W5208 系列閘道器支援 Web console 和 Telnet console，更利於遠端維護。所有閘道器都支援加密通訊功能，例如 HTTPS 和 SSH，提高安全防護性。此外，韌體中的事件紀錄功能可以記錄連接事件並支援 Modbus 協定，便於事件維護。使用者可以透過 web console 遠端查看日誌資料。

規格

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	1
Magnetic Isolation Protection	1.5 kV (built-in)

Ethernet Software Features

Industrial Protocols	DNP3 TCP Master, DNP3 TCP Outstation (Slave), Modbus TCP Client (Master), Modbus TCP Server (Slave)
Configuration Options	Web Console (HTTP/HTTPS), Device Search Utility (DSU), Telnet Console
Management	ARP, DHCP Client, DNS, HTTP, HTTPS, SMTP, SNMP Trap, SNMPv1/v2c/v3, TCP/IP, Telnet, SSH, UDP, NTP Client

MIB	RFC1213, RFC1317
Time Management	NTP Client

Serial Interface

No. of Ports	MGate W5108 Series: 1 MGate W5208 Series: 2
Connector	DB9 male
Serial Standards	RS-232/422/485 (software selectable)
Baudrate	50 bps to 921.6 kbps
Data Bits	7, 8
Parity	None, Even, Odd, Space, Mark
Stop Bits	1, 2
Flow Control	RTS Toggle (RS-232 only), RTS/CTS, XON/XOFF
Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
Terminator for RS-485	120 ohms
Isolation	2 kV

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

Serial Software Features

Industrial Protocols	Modbus RTU/ASCII Master, Modbus RTU/ASCII Slave, DNP3 Serial Master, DNP3 Serial Outstation (Slave)
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WLAN Interface

Frequency Band for EU (20 MHz operating channels)	2.412 to 2.472 GHz (13 channels) 5.180 to 5.240 GHz (4 channels) 5.260 to 5.320 GHz (4 channels) 5.500 to 5.700 GHz (11 channels)
Frequency Band for JP (20 MHz operating channels)	2.412 to 2.484 GHz (14 channels) 5.180 to 5.240 GHz (4 channels) 5.260 to 5.320 GHz (4 channels) 5.500 to 5.700 GHz (11 channels)
Frequency Band for US (20 MHz operating channels)	2.412 to 2.462 GHz (11 channels) 5.810 to 5.240 GHz (4 channels) 5.260 to 5.320 GHz (4 channels) 5.500 to 5.700 GHz (8 channels) 5.745 to 5.825 GHz (5 channels)
Receiver Sensitivity for 802.11a	-91 dBm @ 6 Mbps -90 dBm @ 9 Mbps -88 dBm @ 12 Mbps -86 dBm @ 18 Mbps -82 dBm @ 24 Mbps -81 dBm @ 36 Mbps -75 dBm @ 48 Mbps -74 dBm @ 54 Mbps

Receiver Sensitivity for 802.11b	-92 dBm @ 1 Mbps -88 dBm @ 2 Mbps -87 dBm @ 5.5 Mbps -84 dBm @ 11 Mbps
Receiver Sensitivity for 802.11g	-91 dBm @ 6 Mbps -90 dBm @ 9 Mbps -88 dBm @ 12 Mbps -86 dBm @ 18 Mbps -80 dBm @ 24 Mbps -80 dBm @ 36 Mbps -74 dBm @ 48 Mbps -73 dBm @ 54 Mbps
Receiver Sensitivity for 802.11n (2.4 GHz)	-89 dBm @ MCS0 20 MHz -87 dBm @ MCS1 20 MHz -85 dBm @ MCS2 20 MHz -81 dBm @ MCS3 20 MHz -78 dBm @ MCS4 20 MHz -74 dBm @ MCS5 20 MHz -73 dBm @ MCS6 20 MHz -71 dBm @ MCS7 20 MHz
Receiver Sensitivity for 802.11n (5 GHz)	-89 dBm @ MCS0 20 MHz -87 dBm @ MCS1 20 MHz -85 dBm @ MCS2 20 MHz -81 dBm @ MCS3 20 MHz -78 dBm @ MCS4 20 MHz -74 dBm @ MCS5 20 MHz -73 dBm @ MCS6 20 MHz -71 dBm @ MCS7 20 MHz -85 dBm @ MCS0 40 MHz -84 dBm @ MCS1 40 MHz -81 dBm @ MCS2 40 MHz -77 dBm @ MCS3 40 MHz -75 dBm @ MCS4 40 MHz -70 dBm @ MCS5 40 MHz -69 dBm @ MCS6 40 MHz -67 dBm @ MCS7 40 MHz
Spread Spectrum	OFDM
Transmission Distance	Up to 100 meters
Transmission Rate	802.11a/g: 65, 54, 48, 36, 24, 16, 12, 9, 6 Mbps 802.11b: 1,2,5.5,11 Mbps 802.11n HT20: 7.2 to 72.2 Mbps (MCS0 to MCS7) 802.11n HT40: 15 to 150 Mbps (MCS0 to MCS7)
Transmitter Power for 802.11b	16±1.5 dBm @ 11 Mbps
Transmitter Power for 802.11g	16±1.5 dBm @ 6 to 36 Mbps 15±1.5 dBm @ 48 Mbps 14±1.5 dBm @ 54 Mbps
Transmitter Power for 802.11a	15±1.5 dBm @ 6 to 36 Mbps 15±1.5 dBm @ 48 Mbps 14±1.5 dBm @ 54 Mbps
Transmitter Power for 802.11n (2.4 GHz)	16±1.5 dBm @ MCS0-3 20 MHz 14±1.5 dBm @ MCS4-5 20 MHz 12±1.5 dBm @ MCS6-7 20 MHz
Transmitter Power for 802.11n (5 GHz)	15±1.5 dBm @ MCS0-3 20/40 MHz 14±1.5 dBm @ MCS4-5 20/40 MHz 12±1.5 dBm @ MCS6-7 20/40 MHz
Wireless Security	WEP encryption (64-bit and 128-bit) WPA/WPA2-Enterprise (IEEE 802.1X/RADIUS, TKIP, AES) WPA/WPA2-Personal

WLAN Antenna Connector	1 RP-SMA female
WLAN Modes	Ad-hoc Mode, Infrastructure mode
WLAN Standards	802.11a/b/g/n

Memory

microSD Slot	Up to 32 GB (SD 2.0 compatible)
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Input/Output Interface

Digital Input Channels	2
Digital Output Channels	2

Digital Inputs

Connector	Screw-fastened Euroblock terminal
Dry Contact	Logic 0: Short to GND Logic "1": Open
Wet Contact (DI to COM)	Logic "0": 0.0 to 3 VDC Logic "1": 10 to 30 VDC

Digital Outputs

Connector	Screw-fastened Euroblock terminal
Current Rating	200 mA per channel
Over-Voltage Protection	30 VDC
I/O Type	Sink

Power Parameters

Input Voltage	9 to 60 VDC
Input Current	202 mA @ 24 VDC
Power Connector	Spring-type Euroblock terminal

Reliability

Automatic Reboot Trigger	Built-in WDT
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Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	MGate W5108 Series: 45.8 x 105 x 134 mm (1.8 x 4.13 x 5.28 in) MGate W5208 Series: 59.6 x 101.7 x 134 x mm (2.35 x 4 x 5.28 in)
Weight	MGate W5108 Series: 589 g (1.30 lb) MGate W5208 Series: 738 g (1.63 lb)

Environmental Limits

Operating Temperature	Standard Models: 0 to 60°C (32 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

Safety	EN 60950-1, UL 508
EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class B
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 10 V/m; Signal: 10 V/m IEC 61000-4-8 PFMF
Hazardous Locations	ATEX, Class I Division 2, IECEx
Radio Frequency	EN 300 328, EN 301 489-1/17, EN 301 893
Freefall	IEC 60068-2-32
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6, IEC 60068-2-64

MTBF

Time	MGate W5108 Series: 668,518 hrs MGate W5208 Series: 556,271 hrs
Standards	Telcordia SR332

Warranty

Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

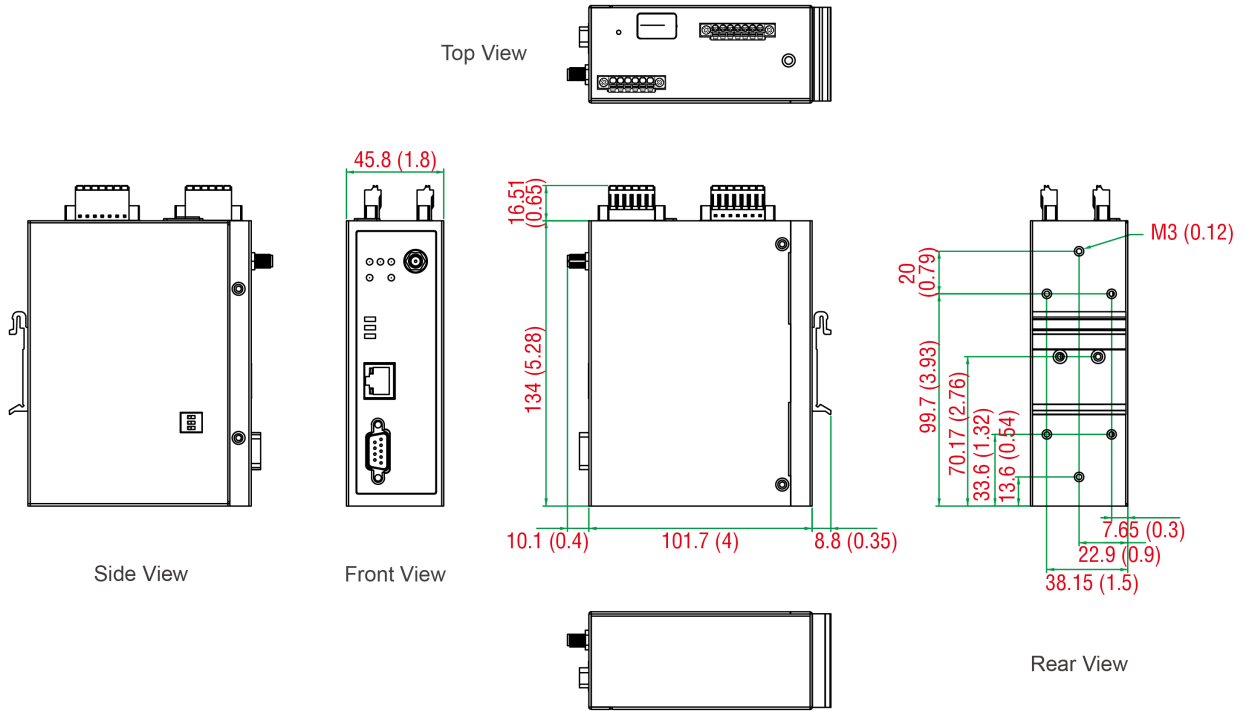
Package Contents

Device	1 x MGate W5108/W5208 Series gateway
Antenna	1 x Wi-Fi
Documentation	1 x document and software CD 1 x quick installation guide 1 x warranty card

尺寸

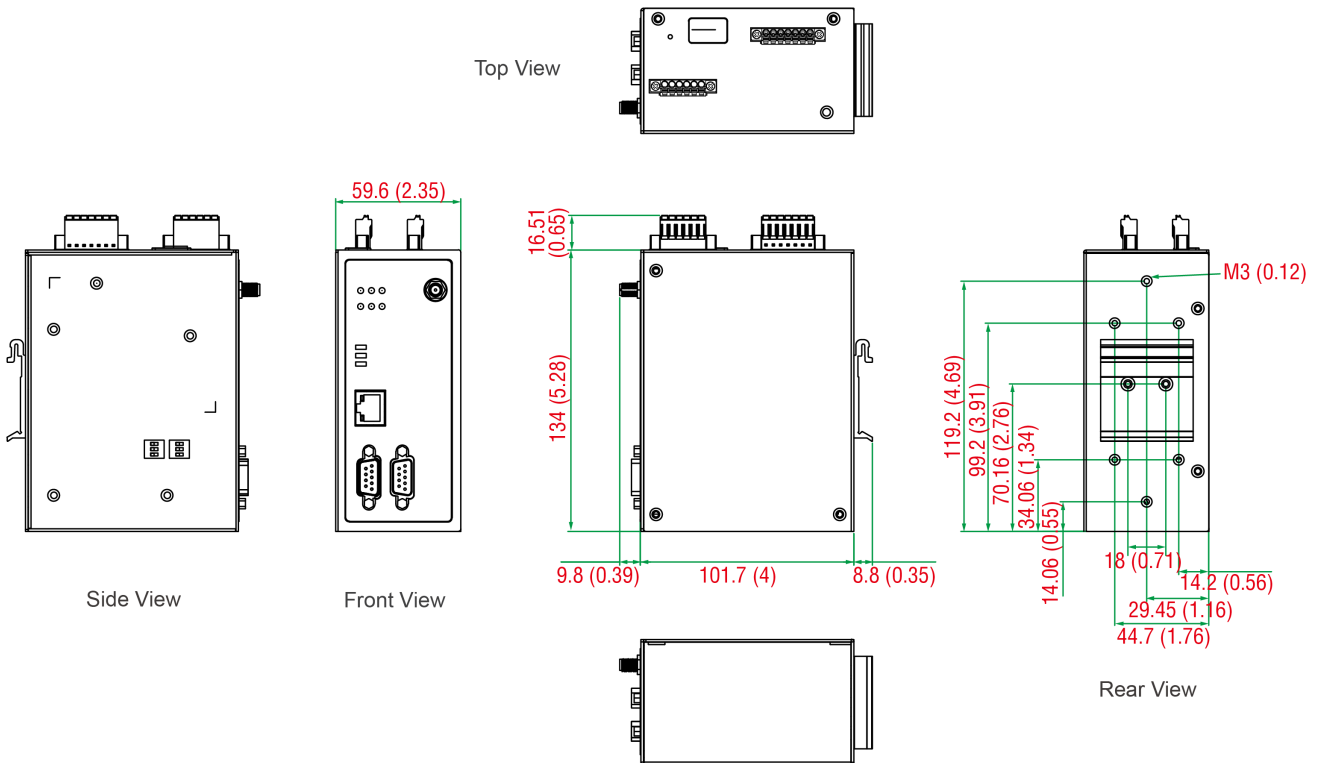
MGate W5108

Unit: mm (inch)



MGate W5208

Unit: mm (inch)



訂購資訊

Model Name	No. of Serial Ports	Operating Temp.
MGate W5108	1	0 to 60°C
MGate W5208	2	0 to 60°C
MGate W5108-T	1	-40 to 75°C
MGate W5208-T	2	-40 to 75°C

配件 (選購)

Cables

CBL-F9M9-150	DB9 female to DB9 male serial cable, 1.5 m
CBL-F9M9-20	DB9 female to DB9 male serial cable, 20 cm

Connectors

Mini DB9F-to-TB	DB9 female to terminal block connector
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Wall-Mounting Kits

WK-51-01	Wall-mounting kit, 2 plates, 6 screws, 51.6 x 67 x 2 mm
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Power Cords

CBL-PJTB-10	Non-locking barrel plug to bare-wire cable
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Antennas

ANT-WDB-ARM-02	2.4/5 GHz, omni-directional rubber duck antenna, 2 dBi, RP-SMA (male)
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