

MDIM-485-WL

Single-Port RS485 to Ethernet / 802.11 b/g/n WLAN Bridge



Technical Features

- Dual-network support with 10/100 Mbps Ethernet or 2.4 GHz Wi-Fi (150 Mbps).
- Configurable switchover between Ethernet and Wi-Fi operation.
- Seamless Modbus RTU to Modbus TCP/IP bridging.
- Supports up to 5 TCP clients to access the MDIM-485-WL device server.
- Low-latency performance optimized for critical industrial communication.
- Dedicated Configuration Application for easy setup and management.
- Enhanced electrical protection against surge, ESD, and voltage fluctuations.
- Compact industrial-grade design.

Introduction

The RS485 to Ethernet/Wi-Fi Gateway provides a reliable bridge between legacy serial devices and modern IP networks. Designed for industrial environments, it supports both wired Ethernet and 2.4 GHz Wi-Fi connectivity, giving users the flexibility to choose the most suitable communication method for their application. A dedicated configuration application simplifies setup, while wide voltage support and a rugged, compact design ensure dependable operation even in demanding environments.

Product specifications

Ethernet communication	
Protocol Support	Modbus TCP
Data Rate	10 Mbps
Network Interface	1 x Ethernet (RJ45)
Compatibility	IEEE 802.3

Wireless LAN communication	
Compatibility	IEEE 802.11 a/b/g/n
Network range/Speed	2.4 GHz, 150Mbps
Free space range	Open space 100m
Serial communications	
Port type	RS485
Port connector	Plug-in screw terminal block
No of ports	1
Baud rate	50bps – 921.6kbps
Data bits	5, 6, 7, 8
Parity	None, Even, ODD
Stop bits	1, 1.5, 2
Data signals	RS-485: Data+, Data-, GND
Protection	Surge protection, ESD protection
Terminator	120 ohms
LED Indicators	Serial: Tx, Rx
Modbus RTU	
Mode	Modbus RTU - Master
Functions supported	1, 2, 3, 4, 5, 6, 15, 16, 23
Max.no.of.commands	128
Modbus TCP	
Mode	Modbus TCP - Server
Functions supported	1, 2, 3, 4, 5, 6, 15, 16, 23
Max.no.of.commands	128
Reliability	
Automatic reboot trigger	Built in WDT
Electrical specifications	
Input supply - Screw terminal	6VDC – 36VDC
Input supply – Power jack	6VDC – 36VDC
Operating current	600mA
Power consumption	3W @ 300mA
Physical dimensions	
Housing	Metal
Dimensions (with ears)	82 x 72.98 x 23 mm (3.23 × 2.87 × 0.91 in)
Dimensions (without ears)	82 x 51.5 X 23mm (3.23 × 2.03 × 0.91 in)
Weight	160.4g
Environment limits	
Operating temperature	-40 to 75 °C
Storage temperature	-40 to 85 °C
Ambient relative humidity	5 to 95% RH
Ordering information	
MDIM-485-WL	Single-Port RS485 to Ethernet & 802.11 b/g/n WLAN Bridge
Package contents	
Device	1 x MDIM-485-WL

Product Dimensions

