



robustOS

M1200

Smart Industrial IoT Gateway

2 SIM + 2 DI + 1 DO + 1 RS232 + 1 RS485 + 1 Mini USB



INTRODUCTION

The Robustel Smart Industrial IoT Gateway M1200 is a compact cellular gateway based on GSM/GPRS/EDGE/ UMTS/WCDMA/ HSDPA/ HSUPA/HSPA+/FDD LTE/TDD LTE/Cat. M1/Cat.NB1 networks.

This dual-SIM gateway enables remote data transmission of local serial ports and I/O, and supports such interfaces as RS232, RS485 and mini-USB. M1200 provides users with stable network connectivity and data transmission. It is available to meet industrial application demands for its standards-compliant industrial designs. As a universal gateway, it can be applied in many scenarios such as Energy, Transportation and Agriculture, etc.

RCMS is Robustel's free router monitoring service that is fully compatible with the M1200. It allows customer to see a location overview of their routers quickly and simply on a map. Features such as data usage, signal strength, current network and much more can then be viewed on a per router basis. Over-the-air updates are supported for Firmware, router configuration and Apps serving as essential 'insurance' if anything was not quite right during deployment.

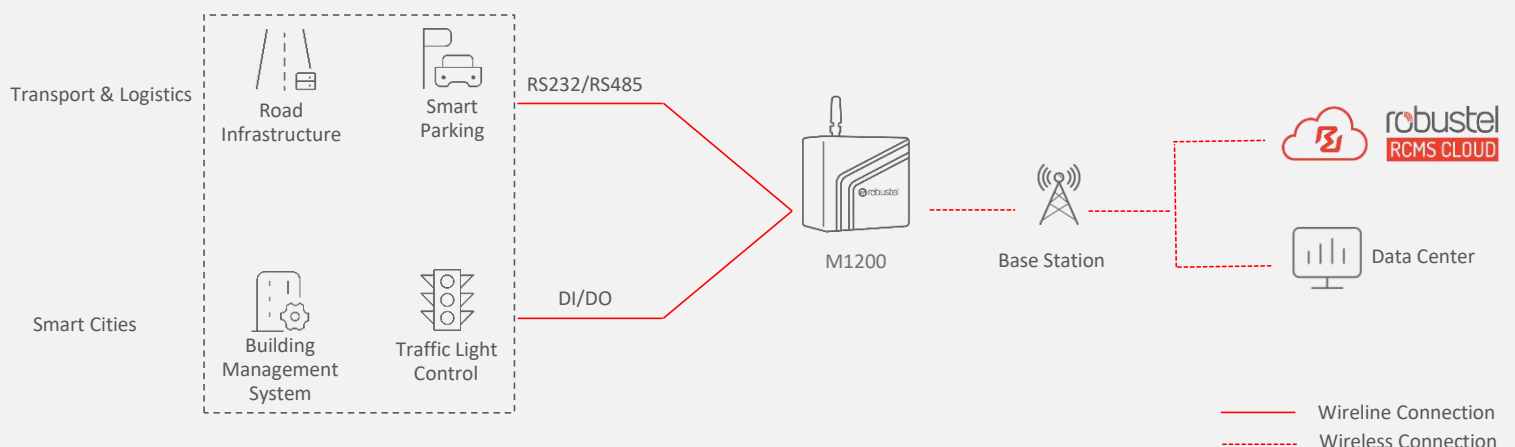
You can try Robustel's free router management platform by signing up here: <https://rcms-cloud.robustel.net>



KEY FEATURES

- Auto GSM/GPRS/EDGE/UMTS/WCDMA/HSDPA/HSUPA/HSPA+/FDD LTE/TDD LTE/Cat.M1/Cat.NB1 connections (No AT command required)
- Dual-SIM backup (push-push or MFF type optional)
- IPsec/OpenVPN/GRE/L2TP/PPTP
- Transparent TCP and UDP protocol connections
- ICMP, DDNS, SNTP and Telnet
- Modbus RTU to TCP
- Auto rebooting via SMS and Timer
- Configuration and firmware upgrading via USB and RCMS
- Sending SMS if DI is triggered
- Robust industrial design (9 ~ 36 VDC, -40 ~ +75 °C extended operating temperature, desktop or wall mounting or DIN rail mounting)
- Support bridge (modem only) mode, via serial port or USB port

APPLICATION EXAMPLE



SPECIFICATIONS

Cellular Interface

Number of antennas	1
Connector	SMA-K
SIM	2 Mini SIM (2 FF)
Standards	GSM/GPRS/EDGE/UMTS/WCDMA/HSDPA/HSUPA/HSPA+/FDD LTE/TDD LTE/Cat M1/Cat NB1

Serial Interface

Number of ports	1 x RS232 + 1 x RS485
Connector	10-pin 3.5 mm RP female socket with lock
Baud rate	300 bps ~ 115200 bps
Signal definition	RS232: TxD, RxD, GND RS485: A (Data+), B (Data-)

DI/DO

Number of ports	2 x DI (wet contact) + 1 x DO (wet contact)
Connector	10-pin 3.5 mm RP female socket with lock
ESD withstand level	contact: ±6 K, air: ±8 K
Absolute maximum V DC	"V+" +5 VDC (DI), 30 VDC (DO)

USB Interface

Number of ports	1 x Mini USB for configuration
Connector	Mini female
Speed	2.0 high speed, up to 480 Mbit/s

Others

LED indicators	1 x RUN, 1 x RSSI (red/green bi-color light)
Built-in	RTC, Watchdog, Timer

Software (Basic features of RobustOS)

Network protocols	PPP, TCP, UDP, ICMP, HTTP, HTTPS, DNS, NTP, SMTP, Telnet, SSH2, DDNS, etc.
VPN tunnel	IPsec, OpenVPN, GRE
Remote management	Web, CLI, SMS
Serial port	Transparent, TCP Client/Server, UDP, Modbus RTU Gateway

App Center (Available Apps for RobustOS)

Apps* Language, RCMS

*Request on demand. For more Apps please visit www.robustel.com.

SDK

Supported programming language C, C++

Flash available for SDK 3 MB

RAM available for SDK 16 MB

Power Supply and Consumption

Connector 10-pin 3.5 mm RP female socket with lock

Input voltage 9 ~ 36 VDC

Power consumption Idle: 50 ~ 70 mA @12 V

Data link: 300 mA (peak) @12 V

Physical Characteristics

Ingress protection IP30

Housing & Weight Plastic, 106 g

Dimensions 85 x 75 x 28.5 mm

Installations Desktop, wall mounting and 35 mm DIN rail mounting

Operating temperature -40 ~ +75°C

Storage temperature -40 ~ +85°C

Relative humidity 0 ~ 95%RH

Regulatory and Type Approvals

Environmental RoHS2.0, WEEE

EMI EN 55032: 2015 (CE) Class B

EN 55032: 2015 (RE) Class B

EMS IEC 61000-4-2 (ESD) Contact Level 2; Air Level 3

IEC 61000-4-3 (RS) Level 2

IEC 61000-4-4 (EFT) Level 2

IEC 61000-4-5 (Surge) Level 3

IEC 61000-4-6 (CS) Level 2

ORDERING INFORMATION

Model	PN	Category	Frequency Bands*	Country/Region	Certifications (*In progress)
M1200-4M	B033706	Cat M1	4G: LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/ B19/B20/B26/B28 LTE TDD: B39 (For Cat M1 Only) 2G: EGPRS: 850/900/1800/1900 MHz	Global	CE, RCM, FCC, PTCRB, AT&T, IC, ICASA, Anatel
M1200-4L	B033701	Cat 4	4G: LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28 LTE TDD: B40 3G: WCDMA: B1/B2/B5/B8 2G: GSM: B2/B3/B5/B8	South America, Oceania	CRC, SUBTEL, Enacom, RCM
	B033702		4G: LTE FDD: B1/B3/B5/B7/B8/B20 LTE TDD: B38/B40/B41 3G: WCDMA: B1/B5/B8 2G: GSM: B3/B8	EMEA	ICASA, CE

* For more information about frequency bands in different countries, please contact your Robustel sales representative.