Industrial IP Modem

M240 V4

4G 3G RS232 RS485

Introduction

M240 V4 Series Industrial IP MODEM is an IoT wireless data terminal, using public cellular network to provide users with wireless long distance data transmission. The product supports RS232 and RS485 interfaces, which can be directly connected to serial devices to achieve transparent data transmission function. Low power consumption design, provide 2 ADC, 3 DI/DO, can realize the functions of digital input/output, pulse output, analog input, pulse counting, etc. This product has been widely used in the M2M industry in the IoT industry chain.

Industrial-grade Design

- High-performance industrial-grade CPU
- High-performance industrial-grade wireless communication module
- Low power design
- Metal casing, IP30 protection level, suitable for most industrial control applications.
- Wide range power input (DC 5~36V)

Stability & Reliability

- Watch dog design
- Anti-drop mechanism
- RS232/RS485 with built-in 15KV ESD
- SIM/UIM card slot with built-in 15KV ESD
- Power interface with built-in phase-reversal and over-voltage protection
- Antenna interface with lightning protection (optional)

Standard & Convenience

- 1 x RS232 and 1 x RS485
- Provide 3 x DI/DO + 2 x ADC (DI/DO can be customized to pulse counting)
- Supports customize TTL, ADC
- Industrial terminal interface
- Multiple work mode
- Easy configurations
- Support serial upgrade
- Central Management Software (Optional)

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High Performance

- Embedded standard TCP/IP protocol stack, support transparent data transmission
- Supports TCP server
- Support multi data centers and it can support 5 data centers at the same time
- Support double data centers, one main and another backup
- Support access to the center based on domain name and IP address
- Supports APN
- Multiple offline trigger modes, Including SMS, phone ringing, serial port data trigger online and offline mode

Product Specification

Cellular Specification	
Items	**Contents**
Standard and Band	LTE FDD: B1/B3/B5/B7/B8/B20/B28 B1/B2/B3/B4/B5/B7/B8/B28 (Optional), B2/B4/B5/B12/B13/B17/B66/B71 (Optional) LTE TDD: B38/B39/B40/B41 HSPA+/HSUPA/HSDPA/WCDMA/UMTS 2100/1900/900/850MHz EV-DO: BC0 CDMA 1x: BC0 GPRS/GSM 850/900/1800/1900MHz
Bandwidth	LTE CAT4: 150Mbps(DL), 50Mbps(UL) LTE CAT1：10Mbps(DL)，5Mbps(UL) DC-HSPA+: 42Mpbs(DL), 5.76 Mbps(UL) HSPA+: 21Mbps(DL), 5.76 Mbps(UL) EVDO Rev. A：3.1Mbps(DL), 1.8Mbps(UL) GPRS: 85.6kbps(DL)，85.6kbps(UL)
Transmit Power	< 23dBm (CAT4 Version) LTE FDD/TDD：23±1 dBm, GSM 900：32.5±1 dBm, DCS 1800：29.5±1 dBm (CAT1 version) GSM850/900：<33dBm, GSM1800/1900：<30dBm (GPRS Version)
Sensitivity	< -98dBm (CAT4 Version) FDD/TDD：-98+1 dBm, GSM 900：-109.5 dBm, DCS 1800：-108 dBm (CAT1 Version) <-108dBm (GPRS Version)

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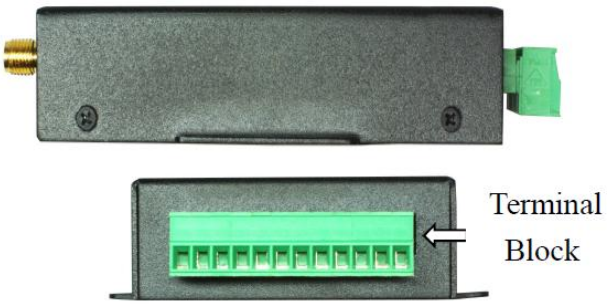
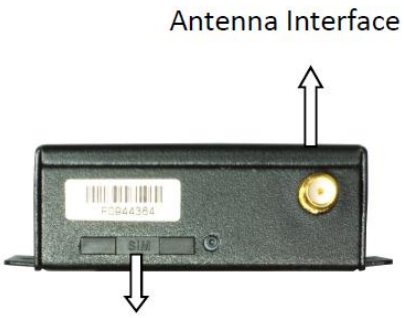
Hardware System	
Items	**Contents**
CPU	Industrial-grade 32-bit communication processor
Flash	512KB (Can customize to 8MB)
DDR2	256KB

Interfaces	
Items	**Contents**
Serial	1 x RS232 + 1 x RS485，with 15KV ESD protection Data bit：5, 6, 7, 8 Stop bit：1, 1.5, 2 Check ：None, Even, Odd Baud rate：1200~230400 bits/s
LED Indicators	“PWR”, “Online”, “System”
Antenna Interface	Cellular: Standard SMA female antenna interface, characteristic impedance: 50 Ω
SIM/UIM Slot	Standard SIM card slot, support 1.8V/3V SIM/UIM card, built-in 15KV ESD
Power Interface	Terminal





Note: There may be differences between models of accessories and interfaces, actual products shall prevail.

Power	
Items	**Contents**
Input Voltage	DC 12V/0.5A
Accepted Range	DC 5~36V

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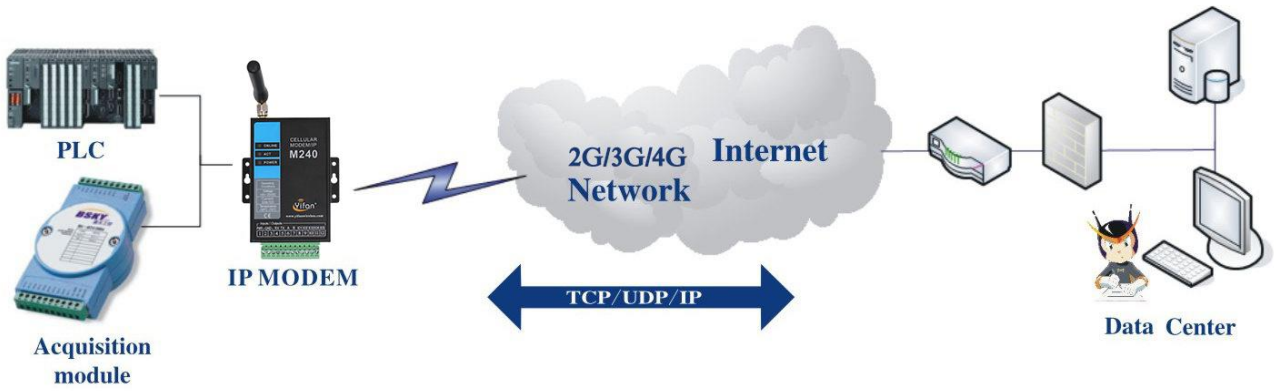
Power Consumption	
Work Mode	**Consumption**
Communicating	20~65mA @12VDC (2G:20~40 mA 4G:20~65mA) 20~95mA @9VDC (2G:30~45 mA 4G:20~95mA)
Standby	15~30 mA @12VDC 20~40 mA @9VDC
Sleep	5~17mA @12VDC 6~22mA @9VDC

Physical Properties	
Items	**Contents**
Casing	Metal casing, IP30 protection level, suitable for most industrial control applications.
Dimensions	91x58.5x22mm (excluding antennas and mountings)
Weight	205g

Others	
Items	**Contents**
Operating Temperature	-35~+75℃
Storage Temperature	-40~+85℃
Relative Humidity	95% (non-condensing)

Topology



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Dimension

Order Information

Models	Description	RS232	RS485	Cellular Antenna	SIM/UIM
M240-L V4	LTE CAT4 IP Modem	1	1	1	1
M240-L1 V4	LTE CAT1 IP Modem	1	1	1	1
M240-G V4	GPRS IP modem	1	1	1	1

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