ioLogik W5340-HSDPA

HSDPA micro controller with 4 AIs, 8 DIOs, and 2 relay outputs

- Universal tri-band UMTS/HSDPA 850/1900/2100 MHz with IPSec/VPN support
- Definable cellular connection strategy to optimize data transmission
- Intuitive menu driven front-end intelligence
- Flexible, Unicode alarm system supporting SMS, email, SNMP Trap, TCP, UDP
- One RS-232/422/485 serial port built in to connect with field serial devices
- Backup and sustainable data logging function
- Seamless SCADA connectivity by Active OPC technology
- Configure, update firmware, and program over the air
- Windows/WinCE VB/ VC.NET and Linux C APIs

Introduction

The ioLogik W5340-HSDPA micro controller is a rugged, compact solution for remote monitoring and alarm systems. With the ioLogik W5340-HSDPA, you can define a cellular connection strategy, including Always-On and Wake-On-Demand, to optimize data transmission rates for different applications. In addition, the operational cost of cellular communication depends on the data transmission rate. With Moxa's active technology, you can expect to cut transmission costs in half and offer different cellular connection strategies to achieve better data transmission fees.

This rugged, compact solution is suitable for the following applications.

- Water and wastewater industries
- Broadcast and telecom radio tower monitoring
- Infrastructure management
- Oil & gas, power, and transportation
- Lighting control monitoring

Specifications

Cellular

Standards: GSM/GPRS/EDGE/UMTS/HSDPA
Band Options:
• Tri-band UMTS/HSDPA 850/1900/2100 MHz
• Quad-band GSM/GPRS/EDGE 850/900/1800/1900 MHz
EDGE Multi-slot Class: Class 10
EDGE Terminal Device Class: Class B
GPRS Multi-slot Class: Class 10
GPRS Terminal Device Class: Class B
GPRS Coding Schemes: CS1 to CS4
Tx Power:
• GSM900: 2 W
• UMTS/HSDPA: 0.25 W
• EDGE900: 0.5 W
• EDGE1800: 0.4 W
• GSM1800: 1 W

LAN

Ethernet: 1 x 10/100 Mbps, RJ45
Protection: 1.5 KV magnetic isolation
Protocols: Modbus/TCP, TCP/IP, UDP, DHCP, Bootp, SNMP, SNTP

Serial Communication

Interface: 1 x RS-232/422/485, software selectable
(9-pin D-Sub male, or 5-contact terminal block)
Baudrate: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bps

Analog Input

Channels: 4 analog inputs with differential input
Resolution: 16 bits
I/O Mode: Voltage / Current
Input Range: 0 to 10 V, ±10 V, ±5 V, 0 to 20 mA, 4 to 20 mA
Accuracy:
• ±0.1% FSR @ 25°C
• ±0.3% FSR @ -10 and 55°C
Sampling Rate (all channels): 100 samples/sec
Input Impedance: 200K ohms (min.)
Built-in Resistor for Current Input: 102 ohms

DI/DO Configurable Channels

Channels: 8
I/O Mode:
• DI or Event Counter (up to 900 Hz)
• DO or Pulse Output (up to 100 Hz)

Digital Input

Channels: Up to 8, source/sink selectable
Sensor Type: NPN/PNP type
I/O Mode: DI or Event Counter (up to 900 Hz)
Dry Contact:
• Logic 0: short to GND
• Logic 1: open

Wet Contact:

DI Type / Status	Source	Sink
ON	0 to 3 VDC	10 to 30 VDC
OFF	10 to 30 VDC	0 to 3 VDC

Isolation: 3K VDC or 2K Vrms
Counter/Frequency: 900 Hz, power off storage
Digital Filtering Time Interval: Software selectable
Over-voltage Protection: 36 VDC
Poweroff Counter: Supports poweroff counter storage function

Digital Output

Channels: Up to 8, sink type, 36 VDC, 200 mA
I/O Mode: DO or Pulse Output (up to 100 Hz)
Pulse Wave Width/Frequency: 10 ms/100 Hz
Over-voltage Protection: 45 VDC
Over-current Limit: 600 mA
Over-temperature Shutdown: 160°C
Output Current Rating: Max. 200 mA per channel
Isolation: 3K VDC or 2K Vrms

Relay Output

Channels: 2 Form A (Normal Open) relay outputs, 5 A
Contact Rating: 5 A @ 30 VDC, 5 A @ 240 VAC, 5 A @ 110 VAC
Inductance Load: 2 A
Resistance Load: 5 A
Breakdown Voltage: 500 VAC
Relay On/Off Time: 10 ms, 5 ms (max.)
Initial Insulation Resistance: 1G min. @ 500 VDC
Expected Life: 100,000 times (Typical)
Initial Contact Resistance: 30 milli-ohms (max.)
Pulse Output: 20 operation times per minutes at rated load
Isolation: 3K VDC or 2K Vrms

Power Requirements

Power Input: 24 VDC nominal, 12 to 36 VDC
Power Consumption:
• GPRS Always On (Communication): 4.2 W
• GPRS On Demand: 2.8 W

Physical Characteristics

Dimensions: 46.8 x 135 x 105 mm (1.84 x 5.31 x 4.13 in)
Weight: 495 g

Environmental Limits

Operating Temperature:
Standard Models: -10 to 55°C (14 to 131°F)
Wide Temp. Models: -40 to 70°C (-40 to 158°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

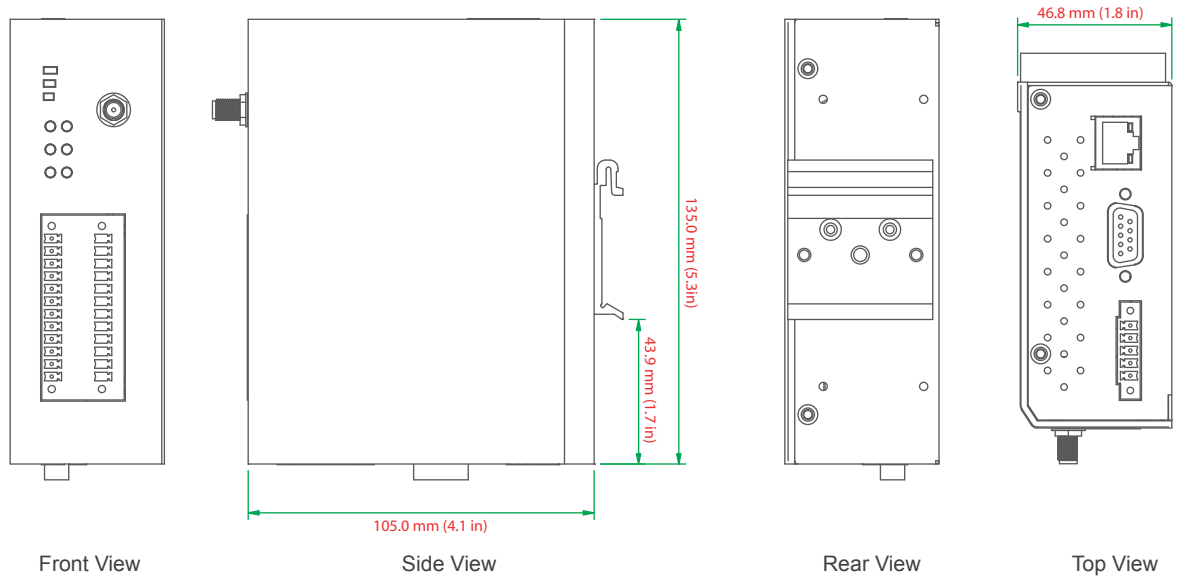
Regulatory Approvals

EMI: FCC part 15, CISPR (EN55022) Class A
EMS:
IEC 61000-4-2 (ESD), levels 2, 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
IEC 61000-4-8 (PM), level 1
IEC 61000-4-11 (DIP)
IEC 61000-6-2 (ESD), levels 2, 3
IEC 61000-6-4 (EFT), level 2
Safety: UL508 (Pending)
Shock: IEC 60068-2-27
Freefall: IEC 60068-2-32
Vibration: IEC 60068-2-6
Note: Please check Moxa's website for the most up-to-date certification status.

Warranty

Warranty Period: 2 years
Details: See www.moxa.com/warranty

Dimensions



Ordering Information

Available Models

ioLogik W5340-HSDPA: HSDPA micro controller with 4 AIs, 8 DIOs, and 2 relay outputs