

Datasheet

EDGE Industrial Gateway

Part No:
IG20

Description:

Industrial Monitoring Cellular and Telematics gateway with GNSS location.

Ordering Information:

IG20L – EDGE Industrial Gateway [LTE CAT 1 Global module] with EDGE Insights cloud platform

IG20B – EDGE Industrial Gateway [LTE CAT M Global module] with EDGE Insights cloud platform

Features:

- Communicates with asset control modules via RS485/Modbus, Can bus, or RS232
- Cellular connectivity with multiple modem options available
- Integration with TxWireless Insight cloud platform
- GNSS receiver and TxWireless antenna to enable accurate positing and maximize RF effectiveness
- Integrated rechargeable battery for mobile applications
- Bluetooth and Wi-Fi connectivity to peripheral devices and sensors
- Integrated digital and analogy I/Os
- Industrial grade connectors for quick and secure integration
- Secure provisioning and certificate management

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Introduction

The TxWireless™ EDGE Industrial Gateway (IG20) is an industrial multi-sensor gateway with cellular, Wi-Fi, Bluetooth, and GNSS connectivity. The IG20 handles multiple serial communication protocols including RS485, CAN bus, and RS232. Six GPIOs are available to give customers the ultimate degree of flexibility and scalability with their IoT ambitions.

Maximize uptime and minimize downtime.

Monitor equipment across multiple plants and remote sites on just one screen. Access the insights you need to make informed decisions and act before problems arise. Whether you're overseeing a large manufacturing plant or managing equipment at multiple remote locations, our solution is designed to simplify your monitoring process and help you minimize downtime and maximize productivity.

Key Benefits

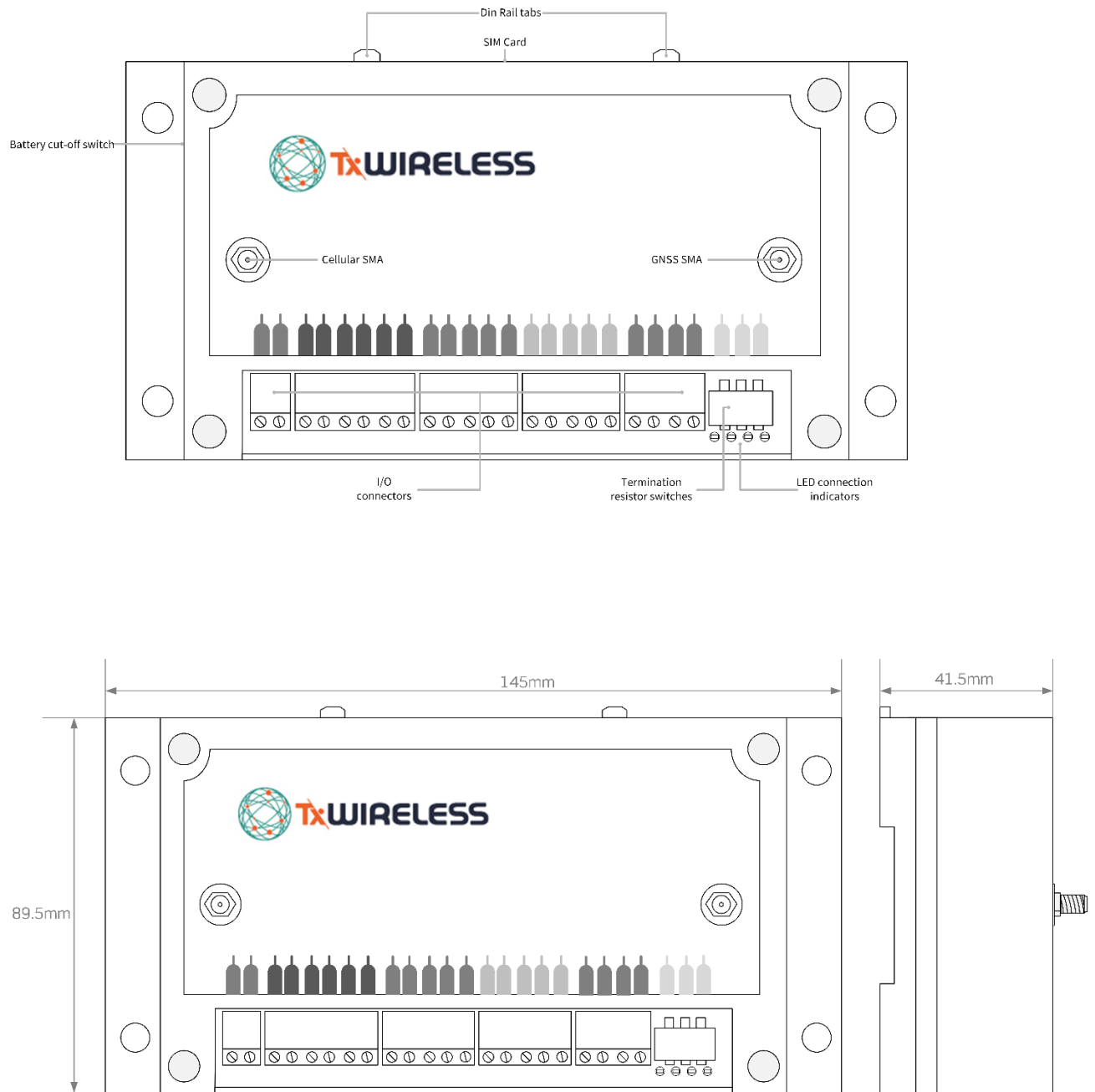
 <p>Maximize Your Asset Utilization Ensure assets are always deployed efficiently.</p>	 <p>Leverage Best-of-Breed Solutions from Multiple Vendors The vendor-agnostic solution frees you from vendor lock-in.</p>	 <p>Real-Time System and Location Information Know how the system is performing and where it is situated at all times.</p>
 <p>Reduce Costs Real-time insights from machine learning tools will identify issues before they become critical problems.</p>	 <p>Plug and Play Easy to install and quick access to a variety of industrial IoT applications.</p>	 <p>Security Connected products demand proactive security and continuous monitoring, backed up with skills engineering teams and testing tools.</p>

Specifications


Model Name	IG20
System Firmware/OS	RTOS + applications libraries (Real time performance)
System Security	Cloud mutual authentication hardware root of trust secure key storage

Cellular modems	LTE Cat. 1 Global module (PLS63). LTE Cat. M Global module (EXS82)
GNSS	Integrated with Cellular modem. GPS/Galileo/BeiDou/GLONASS
Wi-Fi	ESP32-S3-WROOM-1. Wi-Fi (802.11 b/g/n)
Bluetooth	ESP32-S3-WROOM-1. Standard BLE 4.2
Interface	RS485. CAN bus. RS232
Input/output controllers	Digital Inputs x2. Digital Outputs x2. Analog Inputs x2
Connectors	Wurth Elektronik 3631 pluggable terminal block
IP Rating	IP 20
Weight	295g
LED connection indicators	Main power/Battery/Cellular/Device
Operation Temperature	-20°C (-4°F) to +60°C (140°F)
Input Power Voltage	24V DC (min: 12V – max: 36 V)
Current	1A (2A peak)
Battery	Internal rechargeable 4000mAHr Li-ion Poly

Mechanical Specifications



Pinout Table for the EDGE Industrial Gateway

Pin	Name		Description
1	PWR IN +		12-36V DC @2A in peak
2	PWR IN - (GND)		Ground
3	OUT1		Digital Output 1
4	OUT2		Digital Output 2
5	OUT PWR IN +		Power Input for Isolated Digital Outputs
6	OUT GND		Ground
7	IN1		Digital Input 1
8	IN2		Digital Input 2
9	ADC 1		Analog Input 1 (0V – 36V)
10	ADC 2		Analog Input 2 (0V – 36V)
11	ADC GND		Analog Input Ground
12	RS232 RX		Serial RS232 Receive Data
13	RS232 TX		Serial RS232 Transmit data
14	GND		Ground
15	RS485+(P)		Serial RS485 positive / Modbus
16	RS485-(N)		Serial RS485 negative / Modbus
17	CANL		CAN bus Low
18	CANH		CAN bus High
19	GND		Ground
20	3V3 PWR OUT		3.3V DC Output (Max 1A)
21	RELAY OUT		Relay power out Positive (12 – 36V DC)
22	RELAY GND		Relay power out Ground
23	TER RS485		RS485 Termination resistor switch
24	TER CAN H		CAN High Termination resistor switch
25	TER CAN L		CAN Low Termination resistor switch

Regional Support and International Engineering

Let's make something great together

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Join them by using our services and grow your business.

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