



## Taoglas EDGE Connect

Cost-effective wireless  
hardware and  
firmware  
platform  
for IoT

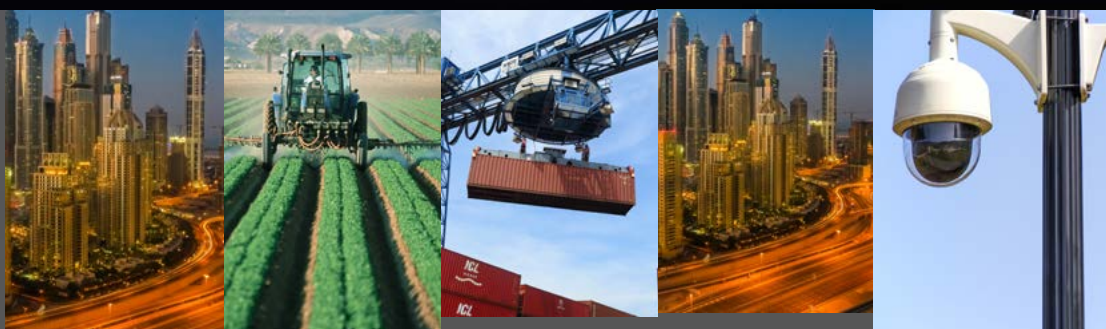


DATASHEET

[www.taoglas.com](http://www.taoglas.com)



SPE-19-08-135-A



# EDGE Connect Multi-Cellular Gateway

**The Taoglas® EDGE Multi-Family is an industrial-grade end to end IoT solution, which can be tailored for different customer applications.**

It provides a cost-effective short and long-range wireless IoT hardware and firmware platform for IoT. Combined with Taoglas® Edge Insights, this provides a scalable end-to-end solution for easy control, maintenance and secure management of many different connected machines, systems, instruments and appliances, regardless of sensor or machine Interface.

## KEY FEATURES

- Completely Cloud Driven
- Secure Provisioning and Certificate Management
- Cloud Device & Sensor Management
- Over The Air (OTA) Firmware Updates and Device Diagnostics
- Deployment Lifecycle Control
- SIM Price Plan and Data Usage Management
- Easy 3rd Party Machine Interfacing and Integration
- Easy 3rd Party Sensor/Actuator Expansion interface



## TYPICAL APPLICATIONS



**Industrial Appliances**



**Environmental/  
Air Quality Monitoring**



**Asset Tracking**



**Pharma/Test Instruments**



**Smart Farming  
(Utilities, Animal Health)**



**Smart Buildings**



**Energy/Water Metering**



**Smart Cities / Smart Grid**



**Predictive Maintenance**



4G Cat 1  
3G  
2G  
NB-IoT  
LTE CatM

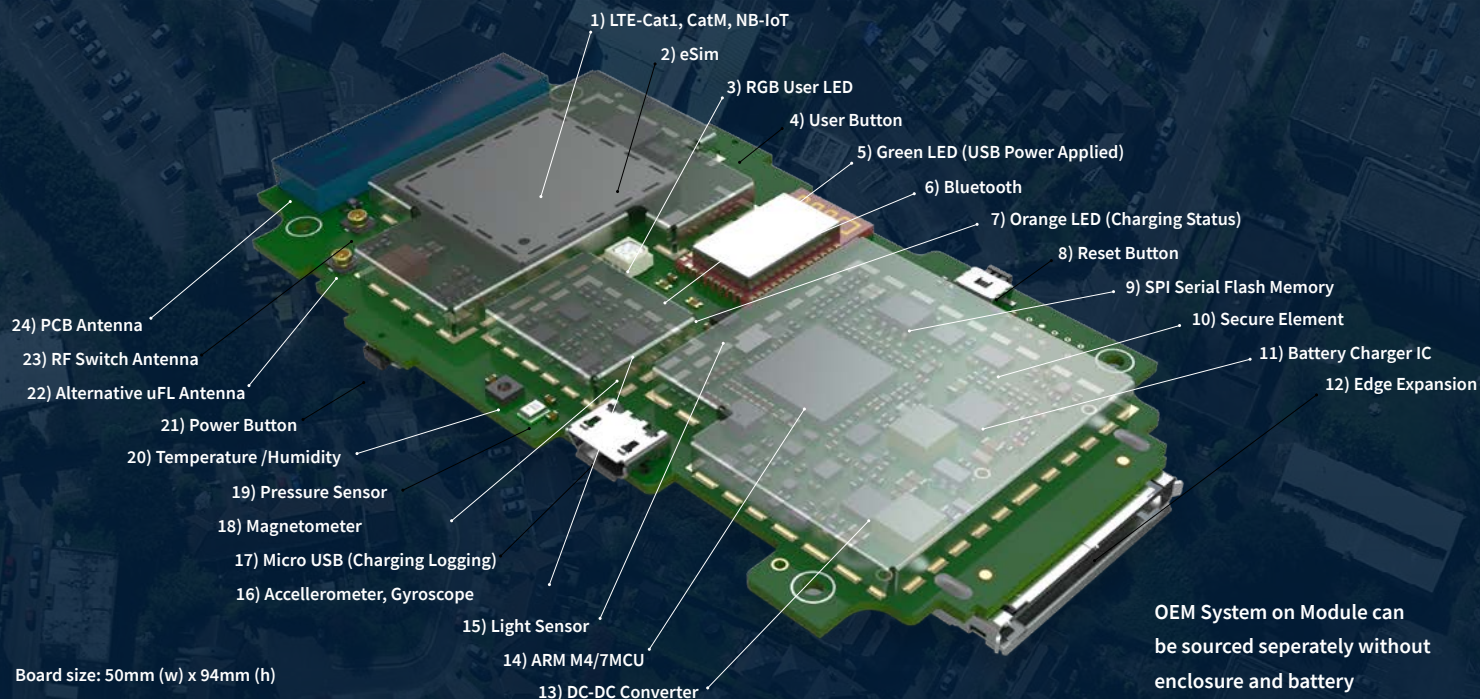


GPS  
GLONASS  
Galileo  
BeiDou



BLE4.2  
BEACONS  
ANDROID  
IOS





## SOFTWARE COMPONENTS



## Android and iOS Apps



Enter Serial Numbers									
Add New Devices			Add Bulk Devices			Edit Bulk Devices			
No.	Device	Active	Last Connection	Device Type	Actions	Diagnostics	Data	Site	
1	35546479326433	No	2018-04-03 12:03:43	edge					
2	35546477441402	Yes	2018-04-03 22:10:04	edge					
3	35546479326433	Yes	2018-04-03 22:02:48	edge					

## Cloud Web Management Portal (Edge Insights)

Device Management – Secure firmware updates, device diagnostics

Data Management – dashboard with analytics, triggers and alarms

Network Management – SIM management to Jasper and GDSP, network diagnostics

Security Management – Secure factory provisioning, key management, mutual authentication



## HARDWARE SPECIFICATIONS

System	Processor	ARM Cortex M7 (300MHz)
	RAM	384 KB
	Flash	2048 KB
	Firmware/OS	RTOS + Applications Libraries (Real Time Performance)
	Security	- Cloud Mutual authentication
		- Hardware root of trust
		- Secure key storage
Radios	Cellular Modems	Optional SKU's (2G, 3G, 4G, NB-IOT, CAT-M)
	Cellular Antenna	- Integrated PCB Antenna Options - External Antenna Options
	GNSS	GPS/GLONASS/GALILEO/BEIDOU (use external antenna)
	Bluetooth	BLE 4.2
	Expansion Options	LoRa / SubGhz
Sensors	Temperature Sensor	Range: -40 to 125 °C Accuracy: $\pm 0.3$ °C (Standard), $\pm 0.2$ °C (High-End Version)
	Humidity Sensor	Range: 0 to 100 %RH Accuracy: $\pm 3\%$ RH (Standard), $\pm 1.5\%$ RH (High-End Version)
	Light Sensor	Range: 0.045-188,000 Lux
	Atmospheric Pressure Sensor	Range: 300 ... 1100 hPa Accuracy: typ. $\pm 1$ hPa
	Accelerometer	Range: up to $\pm 16g$ Accuracy: up to 16384 LSB/g with 16 bit resolution
	Gyroscope	Range: up to 2000°/s Accuracy: up to 262.4 LSB/°/s with 16 bit resolution
	Magnetometer	Range: $\pm 1300\mu T$ (x, y-axis), $\pm 2500\mu T$ (z-axis) Accuracy: $\sim 0.3\mu T$
Expansion	External Connector	RS485, CAN, UART, GPIO, PWM, ADC, I2C, SPI
	USB	USB 2.0 micro connector
Physical	Operating Temperature	-20°C to +80°C
	Enclosure	DIN Rail enclosure
Power	Voltage	3.2V - 4.5V
	Current	2A - 3A
	Battery	Battery Options Available



# Edge Connect Industrial Cellular Gateway

The Taoglas® EDGE Multi is an industrial IoT gateway, which can be tailored for different applications. It provides a cost effective short and long range wireless IoT hardware and software gateway. Combined with cloud management software, it provides a scalable end-to-end solution for easy control and management of connected machines or appliances, regardless of the interface. The gateway is easily configured, monitored and managed by ready to go mobile and cloud applications.

## KEY FEATURES

- Completely Mobile App and Web Portal Managed
- Device, Data, SIM & Sensor Management Provided
- Secure Provisioning and Certificate Management
- Over The Air (OTA) Firmware Updates and Device Diagnostics
- Deployment Lifecycle Control
- Easy 3rd Party Machine/Sensor Interfacing and Integration

## TYPICAL APPLICATIONS

- Industrial Appliance Monitoring & Control
- Pharma/Test Instruments
- Energy/Water Metering
- Environmental/Air Quality Monitoring
- Smart Farming (Utilities, Animal Health)
- Predictive Maintenance



## SOFTWARE COMPONENTS



- EDGE Insights**
- Device Management
  - Security Management
  - Data Management
  - Sensor Management



**Dashboard**



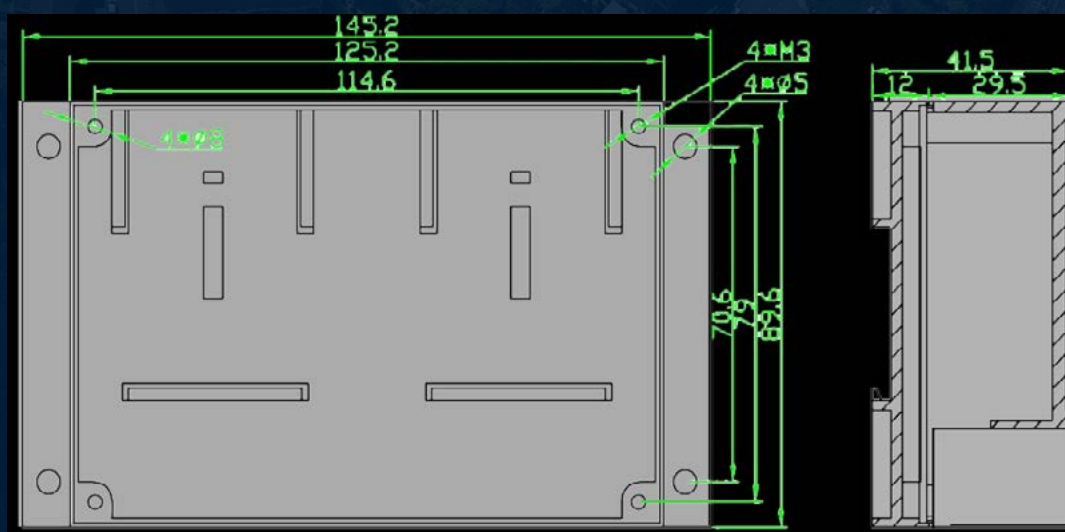
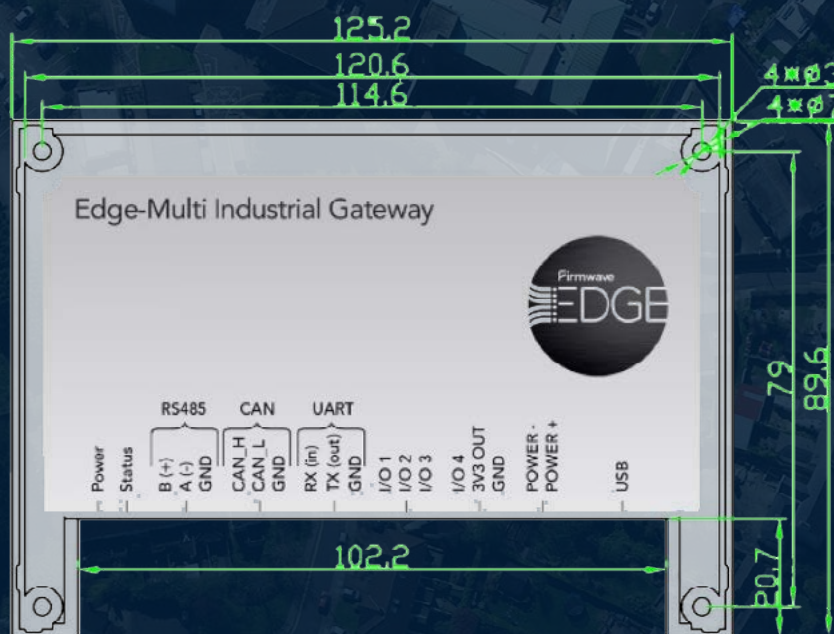
**Analytics**



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	Bluetooth	BLE 4.2
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SKU	Part Number	Cellular Frequency Bands
Global 4G LPWAN (CatM/NB)	FWC-MUL-G-LPWA-CM-NB	B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B14, B17, B18, B19, B20, B25, B26, B27, B28, B66
US 4G Cat1 + 3G	FWC-MUL-US-4G-3G	4G (B2, B4, B5, B17) 3G (B2, B5)
EMEA 4G Cat1 + 2G	FWC-MUL-EMEA-4G-2G	4G (B3, B8, B20) 2G (900, 1800)
Global 3G + 2G + GNSS	FWC-MUL-G-3G-2G-GNSS	4G (B1, B2, B5, B6, B8, B19) 2G (850, 900, 1800, 1900)





**TAOGLAS®**

Next-Gen IoT