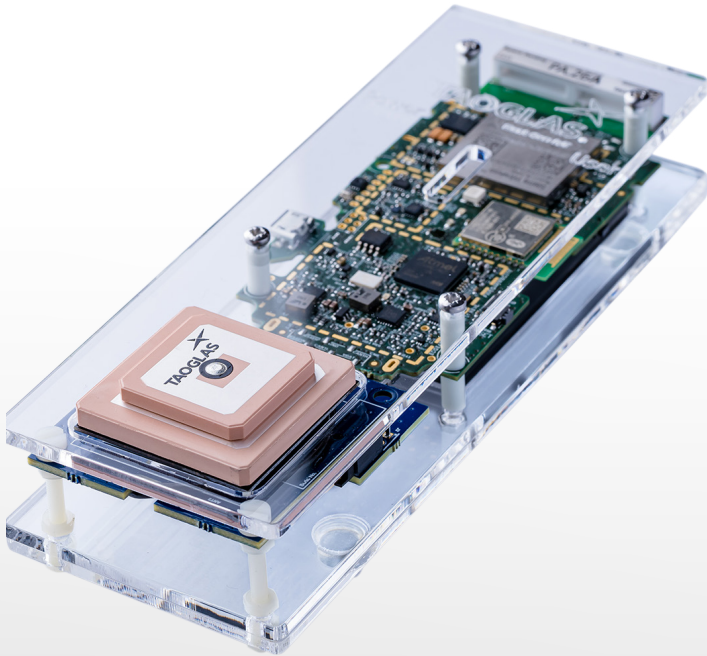


# DATASHEET

## Taoglas EDGE™ ES10 RTK Starter Kit

with High Precision  
GNSS and RTK



Build cloud-powered IoT applications quicker with the **Taoglas EDGE™** pre-certified **RTK Starter Kit**.

The industry's most comprehensive IoT Starter kit including cellular, Bluetooth, on-board sensors, multiband GNSS and RTK, and cloud based management platform. The Taoglas EDGE™ RTK Starter Kit is preconfigured with an active cellular data plan.

### Key Features

- High precision GNSS with RTK capabilities allows for gathering of high precision positioning data
- Integrated onboard sensors such as temperature, humidity, accelerometer, gyroscope, magnetometer, light and air pressure
- Cellular support for LTE, 3G, 2G, CAT-M, NB-IoT to give a global coverage footprint
- Contains rechargeable battery with multi year battery performance
- Predictive insights that drive optimization and new revenue opportunities
- Built with Taoglas Insights™ cloud-based enterprise-level software platform with network, sensor, security and data management
- Completely cloud configurable EDGE hardware (no need to change device firmware)
- Easy 3rd party sensor and machine interfacing and integration through server side Sensor Management System
- Over-The-Air (OTA) updates and device diagnostics
- Supported by a full IoT security stack, power, device management and Data-as-a-Service out of the box
- Includes 1 month of Taoglas Insights and cellular data subscription\*

### Key Benefits

- Can help you build your IoT prototype quicker
- OEM boards inside can be customized and purchased separately for new product introductions
- Reduce the cost and complexity of introducing IoT strategies into enterprises avoiding lengthy design, development, integration, testing, data services and customization spend with fast time-to-value
- Provides real-time sensor and positioning data and can enable real-time intelligence from the EDGE instantly

### Ordering information

**ES10B:** Taoglas EDGE™ ES10 - RTK Starter Kit with US LTE

**ES10L:** Taoglas EDGE™ ES10 - RTK Starter Kit with EMEA LTE

### Typical Applications



Ground Robotics  
Navigation



Lane-level  
Navigation



Vehicle Telematics  
and Asset Tracking



Heavy Machine  
Navigation



Connected  
Vehicles



e-Bike and  
Scooters



Commercial  
UAV



Precision  
Agriculture

PRODUCT SPECIFICATIONS		ES.10B	ES.10L
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	LTE US with 3G fallback	LTE EMEA with 2G fallback
	Cellular Bands	<b>4G</b> (B2, B4, B5, B17) <b>3G</b> (B2, B5)	<b>4G</b> (B3, B8, B20) <b>2G</b> (900, 1800MHz)
	Carrier Acceptance	Vodafone acceptance, other carriers to follow	
	GNSS, RTK	GPS/GLONASS/Galileo/BeiDou (Optional RTK)	
	Bluetooth	BLE 4.2	
On-board sensors	Temperature	Range: -40 to 125 °C Accuracy: ±0.3 °C (Standard), ±0.2 °C (High-End Version)	
	Humidity	Range: 0 to 100%RH Accuracy: ± 3% RH (Standard), ± 1.5% RH (High-End Version)	
	Light	Range: 0.045-188,000 Lux	
	Atmospheric Pressure	Range: 300 ... 1100 hPa Accuracy: typ. ±1 hPa	
	Accelerometer	Range: up to ± 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: ±1300µT (x, y-axis), ±2500µT (z-axis) Accuracy: ~0.3µT	
Expansion	External Connector	RS485, CAN, UART, GPIO, PWM, ADC, I2C, SPI	
Physical	Operating temperature	-20°C (-4F) to +60°C (140F)	
Power		Voltage: 3.2V – 4.5V, Current 2A- 3A	
Battery		2400 mAh rechargeable lithium battery Charging temperature 0°C (32F) to +45°C (113F)	
Taoglas Insights and Data Plan		Includes 1-month Taoglas Insights subscription and cellular data plan*	

