AKUA 4G SLM

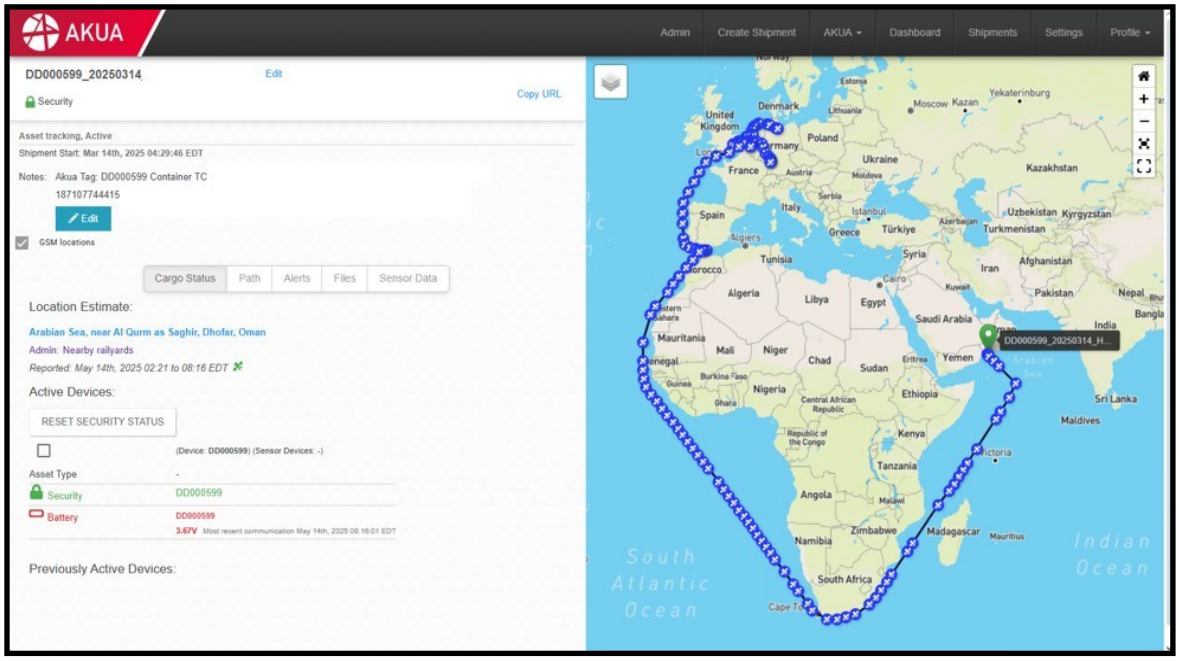
Global Supply Chain Security and Visibility

The next generation of supply chain cargo security, visibility, and data is here with the AKUA 4G SLM. The 4G SLM is an innovative, cost effective, and secure locking e-seal and monitoring device that uses GPS and 4G cellular networks to monitor and safeguard shipments. Combined with AKUA's AKUATrack SaaS web platforms, users can know the location and security of their cargo any place, any time.

The 4G SLM utilizes the 4G cellular data networks to provide regular information updates on the shipment's time-stamped GPS position and security status to the AKUATrack Platform Service for monitoring, tracking, and alerting or to the user's proprietary application. Open, close, tamper, and breach events are reported immediately enabling the end user to respond to unauthorized accesses while shipments are in progress. Analysis of the position data can alert the user to route deviations and delivery delays. Paired with an environmental monitoring sensor device (SLE), the shipment's temperature and humidity data can also be tracked and alerts generated at user-defined thresholds enabling in-transit corrective actions. In addition, a record of all cargo sensor and location data throughout the journey is available on the AKUATrack Platform.

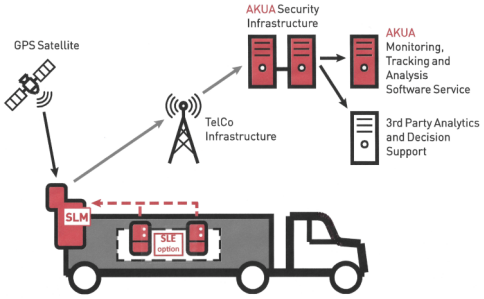
The 4G SLM locks onto any container or cargo by employing ISO17712-compliant aircraft-grade bolt and steel wire locking mechanism. The e-seal lock can be any length, so it can fit through a shipping container door latch or around an entire shipment pallet.

AKUATrack Platform



The AKUA 4G SLM device is attached to the container door latch on the exterior of the container or directly to any cargo. The location of the SLM sealed onto the container or cargo is monitored via GPS. Cargo data from the SLM is transmitted through the 4G cellular data networks to the AKUA security infrastructure and then to the AKUATrack Platform for user's monitoring, tracking, and alerting.

When paired with an environmental sensor device (SLE), the SLM receives and transmits environmental data through the AKUA security infrastructure to the AKUATrack Platform Service.



Key Features

- Easy to configure, maintain, and use – no tools required
- Reusable flexible cable locking mechanism (1000kgf break load)
- Rugged construction for intermodal shipping environment
- Efficient, time saving operation
- Reliable security
- Simple operational design—minimum training required
- Flexible enough to secure any size cargo or door lock
- Red/green LED indicators
- Rechargeable and reusable
- Use up to 100 days between device charges
- FCC and CE certified
- FAC & EAC DoC Russian certified
- IP67 rated
- MIL-STD-810 Vibration & Shock rated
- Hero Safe Separation distance criteria of 3 meters
- Air Cargo Certification: RTCA/DO-160G (approval pending)
- Meets C-TPAT High Security Standard
- Serves as a communication gateway device for optional sensors (SLEs)
- Secure shipment status communications via AKUATrack Platform

AKUA SLM Specifications

Model Numbers	RS-SLM 3.61	Radio Frequency Cable Security Seal
Physical	L x W x D	240mm x 120mm x 57mm
	Weight per set	1215g
	Color	Blue
Environmental	Operating Temperature	-30°C to 70°C
	Storage Temperature	-40°C to 80°C
	Humidity	95% non-condensing
	Vibrations and Shock	MIL-STD-810 — vibration (recertified 2025)
	Weatherproofing	IP67
Wireless	Frequency	ISM 2.4GHz QFSK modulation
	Active Transmission Power	<18dBm (~100mW)
	Range	500m L.O.S
	Protocol	Proprietary
CERTIFICATIONS	Regulatory & Telco	CE and FCC certified
	Regulatory & Telco	FAC & EAC DoC Russian certified
	HERO Ordinance	HERO Safe Separation distance criteria of 3 meters
	C-TPAT Standard	Meets C-TPAT High Security Standard
	Air Cargo Certification	RTCA/DO-160G (certification for active SLM only, no accessories)
GPRS	Bands	LTE Cat M1/Cat NB1/EGPRS & 2G Fallback
	Cat M1/Cat NB1 (NB-IoT)	LTE FDD: LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28
	EGPRS	850/900/1800/1900MHz
	SIM	Dual-SIMs maximizing global coverage
GPS	GPS Sensitivity	-162dBm to –165dBm
	Position Accuracy	Autonomous 3m
	Acquisition Time (Hot Start)	1s
	Maximum Velocity	<515 m/s
	Speed Accuracy	0.1 m/s
	Antenna	Built-in active antenna
Electrical	Battery	Rechargeable, Built-in 17,250 mAH Lithium Ion (installed in equipment)
Mechanical	Break Load	>1000kgf (cable) >1500kgf (bolt)

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