



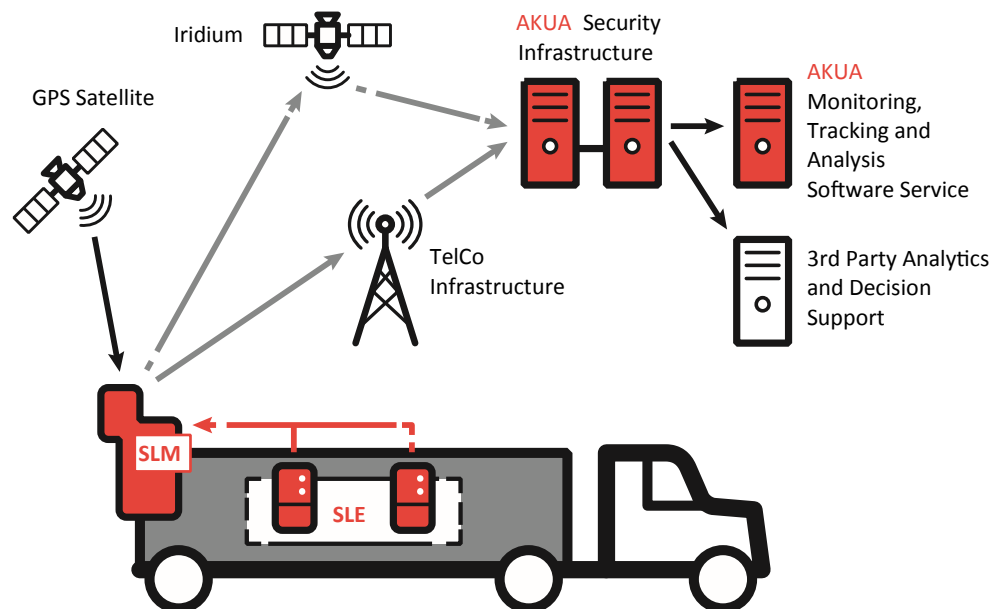
Securing the Internet-of-Your-Things

The next generation of tamper-proof cargo shipment is here in the AKUA SLE. The SLE is a cost effective, secure locking/monitoring slave device that, when paired with an SLM, uses GPS and GSM/GPRS cellular or Iridium to continuously monitor and safeguard shipments. Any authorized remote user has access to long-distance data on a shipment's whereabouts and condition at all times during transit. They also have information on cargo accesses and the integrity of the shipment itself and/or the condition of the shipping container's doors.

The SLE and SLM together provide real-time security, shock, motion, temperature, humidity and ambient light sensing **(to detect compromise caused by opening an aperture while maintaining the integrity of the door seal)**. SLE is ideal for security and environmental tracking of such sensitive and perishable goods as medical supplies, pharmaceuticals, food, and chemicals. It enables shippers, manufacturers, and logistics service providers to actively monitor the security, quality, and integrity of shipments as goods move through the supply chain and to take appropriate corrective measures should violations occurs.

The SLE immediately reports any opening, closing or tampering with the locking mechanism to the SLM and in turn to the end user via a backend server. Environmental data are also tracked by the backend server and alerts generated at user-defined thresholds allowing corrective actions and creation of a record of the cargo state throughout the journey. The SLE employs an aircraft-grade locking mechanism that is activated by a closing flip cover secured by conventional pull tight seals. This creates a low price per seal and allows the re-use of the SLE to seal assets on multiple trips.

How the SLE Works to Secure Your Shipments



The AKUA SLE devices are attached to the cargo inside the container. They send data to the master device (SLM). The location of the container is monitored via GPS. Cargo data from the SLEs are transmitted via the master through the GPRS cellular data network or Iridium to the AKUA security infrastructure and then to the AKUA Monitoring, Tracking and Alerting Software Service or the user's proprietary application.

Key Features

- Easy to use
- Re-useable wire locking mechanism
- Efficient — low cost per seal
- Reliable security
- Communicates shipment status immediately to the end user
- Simple design
- Flexible enough to secure any size cargo or door lock
- Red/green LED indicators
- Environment sensing versions available the end user

The AKUA SLE is available in two configurations

Product	Description
SLE	The base, rechargeable version of the device.
SLE-nr	The non-rechargeable version of the device. It has a shelf life of 5 years; the battery lasts for 2 years in active service.

AKUA SLE Specifications

Model Numbers	RS-SLE-724C	Radio Frequency Cable Security Seal
Physical	L x W x D	95mm x 68mm x 40mm
	Standard Cable Length	50 cm
	Standard Bolt Length	10cm
	Weight per set	220g
Environmental	Temperature	-30C to 70C
	Humidity	95% noncondensing
	Vibrations and Shock	MIL-STD-810
	Weatherproofing	IP65
Wireless	Frequency	ISM 2.4GHz QFSK modulation
	Active Transmission Power	<18dBm (~100mW)
	Range	400m L.O.S
	Protocol	Proprietary
	Air Data Rate	250kbps
	Frequency Hopping	FGHSS
Electrical	Battery	Rechargeable, 3V, 1.2AH Lithium Polymer
	Active Current Drain	<50mA
	Inactive Current Drain	<20uA
RF Data	Packet Data	32 bytes per FIFO
Mechanical	Break Load	>1000kgf (cable) >800kgf (bolt)
	Accessories	Ten Gang SLE Charger
Cable Seals for SLE		K-FLEX 1.5



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Learn more at akua.us.