

RadioSecure™ SLM

Introduction:

RadioSecure SLM is a creative innovation for tracking intermodal containers and conveyances using active RFID, GPRS, GPS and Satellite Communication technologies. The RadioSecure SLM provides security-tampering sensor more than a simplistic inspection system. RadioSecure™ SLM enables shippers, carriers and logistics service providers to actively monitor the security and integrity of shipments as their containers move throughout the global supply chain.



SLM-x

The RadioSecure SLM is one the base member of the RadioSecure range of products with wireless connectivity to the RadioSecure SLA, SLE, SLL or SLS. RadioSecure SLM periodically reports security and environmental status via GSM infrastructure to a hosted web base supply chain security and location visibility system. In the event of unauthorized unsealing or violation of any preset parameters, RadioSecure SLM will switch to Event Reporting to report the event without any delay.

Functions as a stand-alone unit or couple up with RadioSecure SLA, SLE, SLL or SLS made the RadioSecure SLM very versatile. The Patent Pending re-useable cable locking mechanism makes the RadioSecure SLM low cost per sealing and practically seals any assets.

RadioSecure SLM also comes in two other options namely the SLM-x and SLM-i. The former has a battery pack three times the capacity of standard RadioSecure SLM while the SLM-i has a GPRS fail-over to Iridium satellite feature when there is no GSM coverage in addition to the increased battery capacity.



SLM



SLM-i



Sealed with Starseal



Sealed with K-Flex

ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287, Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my

Specification

Model Number	RS-SLM-324C RS-SLM-324B	Radio Frequency Cable Security Seal Radio Frequency Bolt Security Seal
Physical (SLM)	L x W x D Standard Cable Length Standard Bolt Length Weight per set Color	220mm x 110mm x 55mm 50cm 13cm 1026.7g Black
Physical (SLM-x & SLM-i)	L x W x D Weight per set Color	275mm x 171mm x 52mm 1662.2g Black
Environmental	Temperature Humidity Vibration & Shock Weatherproofing	-30°C to 70°C 95% non-condensing MIL-STD-810-F IP65
Wireless	Frequency Active Transmission Power Range Protocol Air Data Rate	ISM 2.4Hz QFSK modulation <18dBm (≈100mW) 200m L.O.S. Proprietary 250kbps
GSM/GPRS	Bands SIM	GSM/GPRS/EDGE Quad Band Dual-SIM slots (Primary & Secondary)
Long Range Radio	Frequency Mode	1616MHz – 1626MHz SBD (GSM Fail Over)
GPS	Channel Antenna	16 Optional Extended Ephemeris A-GPS 3D Accelerometer (optional) Built-In GPS Patch Antenna
Electrical	Battery Active Current Drain Inactive Current Drain	Rechargeable 3.7V, 10.4AH (SLM) 11.1V, 31.2AH (SLM-x & SLM-i) Lithium Ion <240mA <300µA
RF Data	Packet Data	32 bytes per FIFO
Mechanical	Break Load	>1000kgf (cable) >1500kgf (bolt)
Accessories	Bolt header cable 12" Disposable H-bolt 136mm Reusable S/S H-bolt 116mm K-Flex 1.5 Starseal 150	Custom cable length upon request High Security seal configuration To be use with K-flex cable seal or pull tight plastic seal 1.5mm cable seal, 300 pc per carton Pull tight plastic seal, 1000 per carton

ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287 , Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my

RadioSecure™ IVM

Introduction:

The RadioSecure IVM is beyond a standard GPS/GSM Freight Management tracker. It is designed as a “Master” family member of the RadioSecure range of products. It has Wireless communication capabilities with other RadioSecure Slave products such as SLA, SLE, SLL, SLS and SLB. As a “Master” it monitors the “slaves” and periodically reports their status to designated server. It acts as rapid deployment



IVM Mk 2



IVM Mk 1

reader where Slaves data, location and time stamp are transmitted to servers through GSM infrastructures.

The RF, GSM and GPS antennas are integrated and RF tuned to the specific casing to mitigate tampering. Any attempt to remove the front or back cover of the RadioSecure IVM will trigger an instantaneous alert. Easy installation and IP57 compliant.

ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287 , Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my

Specification

Model Number	RS-IVM-024A	Radio Frequency In Vehicle Master
Physical	L x W x D Weight	131mm x 70mm x 25mm 250gm
Environmental	Temperature Humidity Weatherproofing	-30°C to +70°C 95% non-condensing IP54
Wireless	Frequency Active Transmission Power Range Protocol Air Data Rate	ISM 2.4GHz QFSK modulation <18dBm (~100mW) 200m L.O.S Proprietary 250kbps
GSM/GPRS	Bands SIM	GSM/GPRS/EDGE Quad Band Dual-SIM slots (Primary & Secondary)
GPS	Channel Antenna	SiRF Star III 20 CH Active antenna with 2.5m cable
Electrical	Input Voltage Backup Battery Active Current Drain Inactive Current Drain	8V to 30V Rechargeable 3.6V, 1.5 AH Lithium Polymer 240mA 10mA
RD Data	Packet Data	32 bytes per FIFO
Interface	Audio/Voice Digital Input/Output Analog Input/Output Serial	Optional 8 2 1

ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287 , Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my

RadioSecure™ SLA

Introduction:

RadioSecure SLA is a creative innovation for tracking conveyances and assets using active RFID, GPRS and GPS technology. The RadioSecure SLA provides security tampering sensor more than a simplistic inspection system, the RadioSecure SLA enables shippers, manufacturers, and logistics service providers as well as asset owners to actively monitor the security and integrity of shipments or asset as their goods move through the supply chain.

The RadioSecure SLA is a Slave member of the RadioSecure range of products. It periodically broadcast security status wirelessly to the RadioSecure Master member which will report via GSM or satellite infrastructure to a hosted web base supply chain security and visibility system. In the event of unauthorized unsealing or tampering of the RadioSecure SLA, it will cause the Master to trigger an Event report without any time delay.



RadioSecure SLA can be configured to ISO17712 High Security, Security or Tamper evident categories. The patent pending aircraft cable locking mechanism is activated by closing a flip cover; the flip cover can be secured by one or two conventional pull tight seal. Low cost per sealing, small footprint and the re-useable cable locking mechanism makes the RadioSecure SLA very versatile that it can practically seal most assets.



ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287 , Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my

Specification

Model Number	RS-SLE-724C RS-SLE-724B	Radio Frequency Cable Security Seal Radio Frequency Bolt Security Seal
Physical	L x W x D Standard Cable Length Standard Bolt Length Weight	95mm x68mm x 40mm 50cm 10cm 220gm
Environmental	Temperature Humidity Vibration & Shock Weatherproofing	-20°C to +70°C 95% non condensing MIL-STD-810-F IP65
Wireless	Frequency Active Transmit Power Rx Sensitivity Range Protocol Air Data Rate Frequency Hopping	ISM 2.4GHz QFSK modulation <18dBm(~100mW) -100dBm 200m L.O.S Proprietary 250kbps FHSS
Electrical	Battery Active Current Drain Inactive Current Drain	Rechargeable 3.0v,1.2AH Lithium-Polymer 50mA 0.02mA
RF Data	Packet Data	32 bytes per FIFO
Mechanical	Breakload	>1000kgf (cable) >800kgf (Bolt)
Accessories	K-Flex 1.5 Starseal 150	1.5mm cable seal, 300 pc per carton Pull tight plastic seal, 1000 per carton

ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287 , Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my

RadioSecure™ SLE

Introduction:

RadioSecure SLE is a creative innovation for tracking conveyances and assets using active RFID, GPRS and GPS technology. The RadioSecure SLE couples with RadioSecure SLM or RadioSecure IVM to provide real-time security, temperature and humidity and ambient light sensing more than a simplistic inspection at the end of a journey. RadioSecure SLE is ideal for security and environmental tracking of sensitive and perishable goods such as medical supplies, food and chemical. It enables shippers, manufacturers, and logistics service providers and asset owners to actively monitor the security and quality integrity of shipments or asset as their goods move through the supply chain and to take appropriate corrective measures should violation occurs. Ambient light sensing is to detect compromising container by opening an aperture while maintaining integrity of its door seal.



The RadioSecure SLE is a family member of the RadioSecure range of products with wireless connectivity to the IVM or SLM. RadioSecure SLE periodically reports security and environmental status wirelessly to RadioSecure SLM or RadioSecure IVM which will report via GSM infrastructure to a hosted web based supply chain solution. In the event of unauthorized unsealing or temperature/humidity goes beyond threshold, SLE will cause the RadioSecure SLM or RadioSecure IVM to trigger event heartbeat without any time lag.



RadioSecure SLE can be configured to ISO17712 High Security, Security or Tamper evident categories. The patent pending aircraft cable locking mechanism is activated by closing a flip cover; the flip cover can be secured by one or two conventional pull tight seal. Low cost per sealing, small footprint and the re-useable cable locking mechanism makes the RadioSecure SLE very versatile that it can practically seal most assets.

ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287 , Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my

Specification

Model Number	RS-SLE-724C RS-SLE-724B	Radio Frequency Cable Security Seal Radio Frequency Bolt Security Seal
Physical	L x W x D Standard Cable Length Standard Bolt Length Weight	95mm x68mm x 40mm 50cm 10cm 220gm
Environmental	Temperature Humidity Vibration & Shock Weatherproofing	-20°C to +70°C 95% non condensing MIL-STD-810-F IP65
Wireless	Frequency Active Transmit Power Rx Sensitivity Range Protocol Air Data Rate Frequency Hopping	ISM 2.4GHz QFSK modulation <18dBm(~100mW) -100dBm 200m L.O.S Proprietary 250kbps FHSS
Electrical	Battery Active Current Drain Inactive Current Drain	Rechargeable 3.0v, 1.2AH Lithium-Polymer 50mA 0.02mA
RF Data	Packet Data	32 bytes per FIFO
Mechanical	Breakload	>1000kgf
Environmental Sensing	Temperature Accuracy Humidity Accuracy Luminosity	-20°C to +70°C +/-0.4C 0% - 100% +/-3% <7 Lux = Dark
Accessories	K-Flex 1.5 Starseal 150	1.5mm cable seal, 300 pc per carton Pull tight plastic seal, 1000 per carton

ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287 , Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my

RadioSecure™ SLL

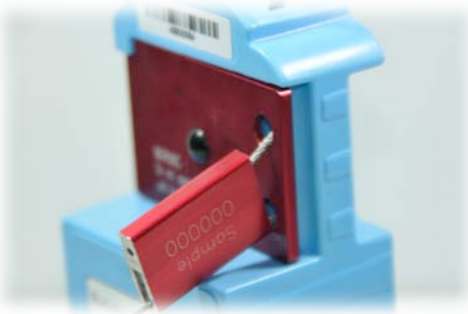
Introduction:

RadioSecure SLL is a creative innovation for tracking conveyances and assets using active RFID, GPRS and GPS technology. The RadioSecure SLL provides security-tampering sensor and ambient light sensing which enables shippers, manufacturers, and logistics service providers as well as asset owners to actively monitor the security and integrity of shipments or asset as their goods move through the supply chain. It can be secured onto pallet, tote boxes or simply seal it to the internal corners of a container. Any attempt to compromise the container by opening an aperture on the container will be detected by SLL.



The RadioSecure SLL is a family member of the RadioSecure range of products with wireless connectivity to the IVM or SLM. RadioSecure SLL periodically reports security and ambient light status wirelessly to the RadioSecure SLM or RadioSecure IVM which will report via GSM infrastructure to a hosted web base supply chain security and visibility system. In the event of unauthorized unsealing or tampering of the RadioSecure SLL, it will cause the Master to event heartbeat without any time lag.

RadioSecure SLA can be configured to ISO17712 High Security, Security or Tamper evident categories. The patent pending aircraft cable locking mechanism is activated by closing a flip cover. The flip cover can be secured by one or two conventional pull tight seal. Low cost per sealing, small footprint and the re-useable cable locking mechanism makes the RadioSecure SLA very versatile that it can practically seal most assets.



ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287 , Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my

Specification

Model Number	RS-SLE-724C RS-SLE-724B	Radio Frequency Cable Security Seal Radio Frequency Bolt Security Seal
Physical	L x W x D Standard Cable Length Standard Bolt Length Weight	95mm x68mm x 40mm 50cm 10cm 220gm
Environmental	Temperature Humidity Vibration & Shock Weatherproofing	-20°c to +70°c 95% non condensing MIL-STD-810-F IP65
Wireless	Frequency Active Transmit Power Rx Sensitivity Range Protocol Air Data Rate Frequency Hopping	ISM 2.4GHz QFSK modulation <18dBm(~100mW) -100dBm 200m L.O.S Proprietary 250kbps FHSS
Electrical	Battery Active Current Drain Inactive Current Drain	Rechargeable 3.0v,1.2AH Lithium- Polymer 50mA 0.02mA
RF Data	Packet Data	32 bytes per FIFO
Mechanical	Breakload	>1000kgf
Luminosity	7 Lux	<7 Lux = Dark
Accessories	K-Flex 1.5 Starseal 150	1.5mm cable seal, 300 pc per carton Pull tight plastic seal, 1000 per carton

ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287 , Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my

RadioSecure™ SLS

Introduction:

RadioSecure SLS is the creative innovation for tracking intermodal containers and conveyances using active RFID, GPRS and GPS technology. The RadioSecure SLS provides security tampering sensor more than a simplistic inspection system, the RadioSecure SLS enables shippers, carriers and logistics service providers to actively monitor the security and integrity of shipments as their containers move throughout the supply chain.

The RadioSecure SLS is a family member of the RadioSecure range of products with wireless connectivity to the IVM or SLM. RadioSecure SLS periodically reports security status wirelessly to RadioSecure SLM or RadioSecure IVM which will report via GSM infrastructure to a hosted web base supply chain security and visibility system. In the event of unauthorized unsealing or tampering of the RadioSecure SLS, it will cause the RadioSecure SLM or RadioSecure IVM to event heartbeat without any time lag.

Low cost per sealing, the Patent Pending re-useable cable locking mechanism makes the RadioSecure SLS very versatile that it can practically seal most assets.



ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287 , Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my

Specification

Model Number	RS-SLS-724C RS-SLS-724B	Radio Frequency Cable Security Seal Radio Frequency Bolt Security Seal
Physical	L x W x D Standard Cable Length Standard Bolt Length Weight	210mm x 105mm x 55mm 50cm 13cm 740gm
Environmental	Temperature Humidity Vibration & Shock Weatherproofing	-20°C to +70 °C 95% non-condensing MIL-STD-810-F IP65
Wireless	Frequency Active Transmission Power Range Protocol Air Data Rate	ISM 2.4GHz QFSK modulation <18dBm (~100mW) 200m L.O.S Proprietary 250kbps
Electrical	Battery Active Current Drain Inactive Current Drain	Rechargeable 3.6V, 4.8AH Lithium Ion <50mA <20uA
RF Data	Packet Data	32 bytes per FIFO
Mechanical	Breakload	>1000kgf (cable) >1500kgf (bolt)
Accessories	Bolt header cable 12" Disposable H-bolt 136mm Reusable S/S H-bolt 116mm K-Flex 1.5 Starseal 150	Custom cable length upon request High Security seal configuration To be use with K-flex cable seal or pull tight plastic seal 1.5mm cable seal, 300 pc per carton Pull tight plastic seal, 1000 per carton

ENVOTECH NETWORK SDN BHD (657306-W)

25, Jalan Kilang 2, Kawasan Perindustrian Jelapang (Taman Pertama),
30100 Jelapang, Ipoh, Perak, Malaysia
Tel: +605 5278287 / 9287 , Fax: +605 526 1287
www.envotech.com.my
Email: info@envotech.com.my