

LF BUS Exciter

Description

The Elpas LF BUS Exciter is a supervised 125KHz field emitter. The device is used for adding real-time location visibility to Elpas RTLS Security and Safety applications or 3rd party healthcare management systems.

The LF BUS Exciter is easily attached to either solid or hollow walls and is designed to generate a continuous, user-adjustable, electromagnetic, spherical shaped field up to 1.5m/5ft in radius that can be used to cover a single interior doorway. Optionally, up to four LF BUS Exciters can be deployed in 'Primary-Secondary' star or daisy-chain topologies to cover large double-doors or architectural complex indoor entrance/exit areas.

Should an individual or asset bearing an Elpas Active RFID Tag enter the exciter's electromagnetic field; the tag is prompted to transmit a message indicating its presence at this location. The messages are received by nearby Elpas RF IP/BUS Readers or by Elpas Local Controllers and can either be locally processed or relayed over wired or wireless Ethernet/Wi-Fi networks to a RTLS host application such as Eiris Enterprise Software for triggering location alerts or for identifying the tag's precise location and status.

The LF BUS Exciter also contains an I/O port that enables the monitoring of one alarm sensor and control of either one digital open-collector output or one 26-bit Wiegand device.



Elpas LF BUS Exciter

Product Features

- Adjustable field up to 1.5m/5ft radius
- Optional field expansion topologies
- No EMF interference with medical equipment
- Remote Ethernet configuration & monitoring
- One supervised input/One digital output
- Optional 26-bit Wiegand output
- RS-485 connectivity
- Fully supervised/tamper protection
- Transmission suppression via input
- Unique location ID
- CE, FCC, IC compliant

Applications & Uses

- Mobile asset management
- Personnel and visitor safety
- Infant abduction protection
- Wandering patient tracking
- Hands free access control
- Wireless nurse call
- Assisted living facilities
- Intrusion protection
- Entrance/Exit based alarming
- Duress alerting

Elpas LF BUS Exciter - Confidential Technical & Product Specifications

LF Specifications	
Technology	Low frequency electromagnetic spherical shaped field (125 KHz)
*Output Ranges	Primary: Four user selectable ranges: From 10cm/4.0 inches to 1.5m/5ft radius Secondary: Two user selectable ranges: From 1.0m/3.3ft to 1.5m/5ft radius
Transmission Rate	Continuous bursts of LF transmissions (each about 12 ms in duration)
Output and Format	3-byte messages (preamble, exciter ID and CRC)
Output Power	Less than 60 dbµv at 1.5m/5ft
Output Bit Rate	2,000 bit per second
Electrical Specifications	
Message Length	4-31 byte messages (encapsulated for messages > 4 bytes)
RS-485 BUS	230Kbit/sec
Device Supervision	Lost Away, Low Voltage, Communication Problems, Enclosure Tamper
Buzzer	Invalid ID Code: Beeps continuously
Orange LED	Primary (only) - Output Settings: <ul style="list-style-type: none"> 1 Flash: Shortest Range 2 Flashes: Medium 1 Range 3 Flashes: Medium 2 Range 4 Flashes: Maximum Range Primary/Secondary: Lights continuously when powered
Green LED	Unregistered in Eiris/ELC Programmer: Flashes once/second Power up/Communication Loss: Flashes once/second
RED LED	Invalid ID Code: Flashes once/second Device Tamper: Flashes once/second
Tamper Switch	Generates device supervision messages / adjusts output power of LF Field
ID Code	Set by an onboard, 8 -position DIP switch
Input/Outputs	Two analog inputs Optional: Transmission suppression via input One open collector digital output (up to 100mA).....Optional Output: One 26-bit Wiegand device
Input Supervision	4 Levels (Open, Closed, Line Short, Line Cut) using optional Elpas End-of-Line Terminator
Power Requirements	12–28Vdc, 55mA @ 24VDC
Output Power	12Vdc, 100mA
General Specifications	
Construction	White polycarbonate plastic
Dimensions (H x W x D)	12.0 x 7.0 x 8.0 cm (4.73 x 2.8 x 1.1 inches)
Weight	100 grams/3.5 ounces
Tamper Protection	Open 'State' spring-loaded switch button for both front and wall covers
Device Interfaces	RS-485 Bus & Power: One Female RJ-11 (4P4C) connector Supervised Input: Two–Position terminal block..... Digital Output: Two–Position terminal block Primary/Secondary Output Field Synch: Two–Position terminal block Optional 26 bit Wiegand Output: Two–Position terminal block
Operating Environment	Temp: -10°C to 70°C (14°F to 159°F); Humidity: 20% to 80% non-condensing
Remote Configuration	ELC Programmer Software (V2.0 or higher)....Eiris 4.7 (or higher) Enterprise Software
Compliance Standards	FCC: O4X5-ALA00125..... IC: 1467G-ALA00125
Warranty	1 year limited warranty

*The output range (for each range mode) may vary +/- 20% by specific Active RFID Tag as well as the tag's physical orientation in relation to the LF field.
Specifications are subject to change without notice.

Ordering Information

Part Number	Description
5-ALA00125-11	LF Exciter, Bus, Primary, Wiegand, 1.5m, 125KHz
5-ALA00125-12	LF Exciter, Bus, Primary, I/O (1/1), 1.5m, 125KHz
5-ALA00125-2	LF Exciter, Bus, Secondary, I/O (1/1), 1.5m, 125KHz
*5-IOX00001	End-of-Line Terminator for Elpas & AXS Inputs (5 units)
5-JBA00485	RS-485 Junction Box, 4 RJ11 Ports
5-LFM00125	LF Field Meter
5-ERS02800	P60 Power Supply, 24VDC/2.2A

For a complete list of compatible accessories, please contact your local VT Sales Representatives.

Office Locations

VT World Headquarters
Tel Aviv, Israel
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VT United Kingdom
Beckenham Kent BR3 9BF U.K.
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Cabling Options

Part Number	Description
5-ERS02721	Network Drop Cable, 2.5 Meters/8.0 Feet
5-ERS02721-1	Network Drop Cable, 5.0 Meters/16.0 Feet
*5-ERS01905-10	Reader Certified Cable w/2RJ11 connectors, 10Ft
*5-ERS01905-15	Reader Certified Cable w/2RJ11 connectors, 15Ft
*5-ERS01905-15P	Reader Certified Cable w/2RJ11 connectors, 15Ft, Plenum Rated

* Available only in the Americas

About Visonic Technologies

Visonic Technologies (VT) is a global leader in Active RFID/RTLS Safety and Security solutions for healthcare.

VT delivers out-of-the-box as well as custom-tailored risk mitigation tools that enhance patient and personnel safety; reduces asset shrinkage and labor costs; lessens negligence litigation and facilitates industry guideline compliance.