

*Activator for RFID Active DOT tags*

**TAG ACTIVATOR**  
Ref. ACIOM75B



- 👁️ **Activates tags** in the DOT product line
- 👁️ Covers zones with 0.5 to 20-meter radius
- 👁️ **High precision** stability and reliability (+/- 7% of activation radius)
- 👁️ **Very resistant to influence** from **surrounding environment** and **metal**
- 👁️ Compatible with TAG DOT and PUCK DOT series

TAG ACTIVATOR activates RFID emission on DOT series tags using its low-frequency magnetic field (125 KHz), and transmits its ID number along with a command code.



**Principle**

Architecture for the **DOT identification system** is comprised of the TAG ACTIVATOR module, emitting a stable and precise magnetic field periodically at low-frequency (LF), and the DOT TAG, whose long-range UHF RFID emission is activated in response to the magnetic field. All RFID receivers in the standard ELA Innovation product line can collect emissions from activated DOT TAGS.

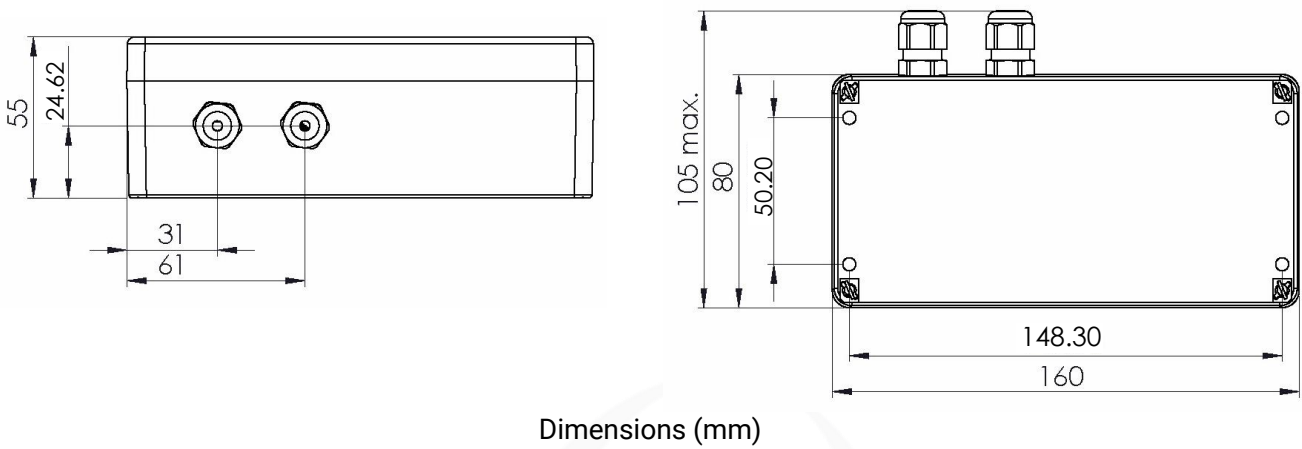
**Two omnidirectional, 360°, LF antenna models** are available for **TAG ACTIVATOR**: the medium range ACTIVATOR ANT reaching up to about 7 meters, and the long-range ACTIVATOR PANEL ANT for range up to 20 meters.

## 1 TECHNICAL SPECIFICATIONS

### TECHNICAL SPECIFICATIONS

Power	12 or 24 VDC
Current draw	@12V – 25°C: 35mA continuous without emission @12V – 60°C: 1A continuous MAX @12V – 25°C: 4A in App (40 ms)
Frequency	125 KHz
Wireless range	4 settings levels: Proximity – Minimum – Medium - Maximum
Operating temperature	-20°C to +60°C
Configuration	EDOT software with SETUP CABLE accessory (ref. ACIOM89)
Antenna connectors	Screw-terminal on internal board, 2 x 2 points (plug-in terminal block, 3.81 thread)
Power connector	Screw-terminal on internal board, 1 x 4 points, 2 cable glands
Casing	White ABS: 160 x 80 x 55 mm
Weight	230 g
Protection index	IP65 - Protected against water jets
Standards	EN 301 489 – 3: 2002 V1.4.1, EN 300 220 – 2007: V2.1.2, CE, RoHS
Interfaces	RS-232 TTL port for configuration Logical input for triggered emissions
Accessories	2 x 2-point plugs for terminal block - Included 1 x 4-point plug for terminal block - Included Internal antenna – included for ACIOM123 12V external DC POWER2 (12V - 2.2A) - not included ACTIVATOR ANT external antenna (ref. ACIOM76) – not included ACTIVATOR PANEL ANT long-range external antenna Ref. ACIOM113) – not included

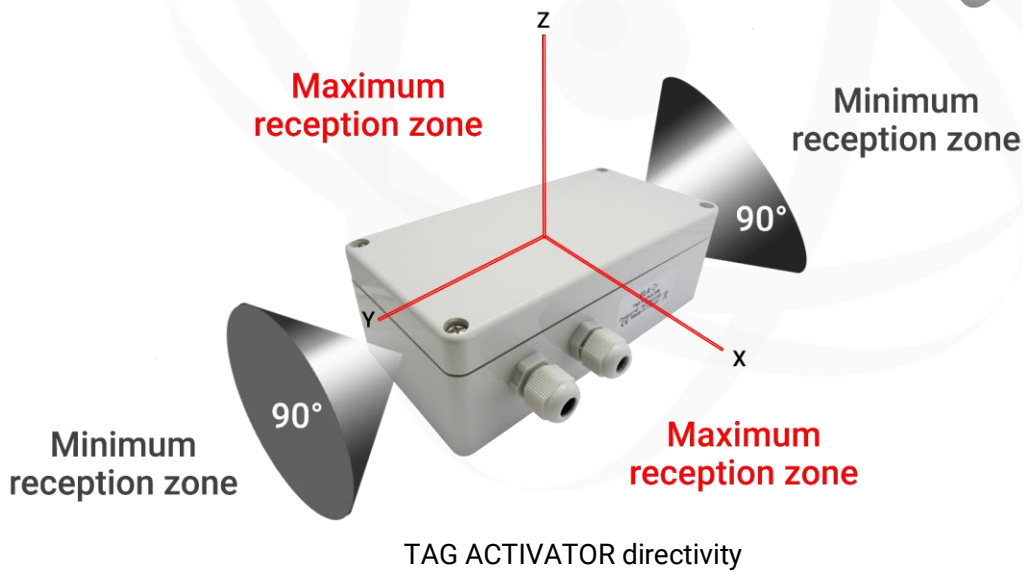
## 2 MECHANICAL SPECIFICATIONS



## 3 AVAILABLE VERSIONS

### 3.1 TAG ACTIVATOR STANDALONE / ACIOM123

- ⑥ 1 integrated LF antenna, model ACTIVATOR ANT / ACIOM76
- ⑥ For controlling a 2<sup>nd</sup> external LF antenna
- ⑥ Directivity

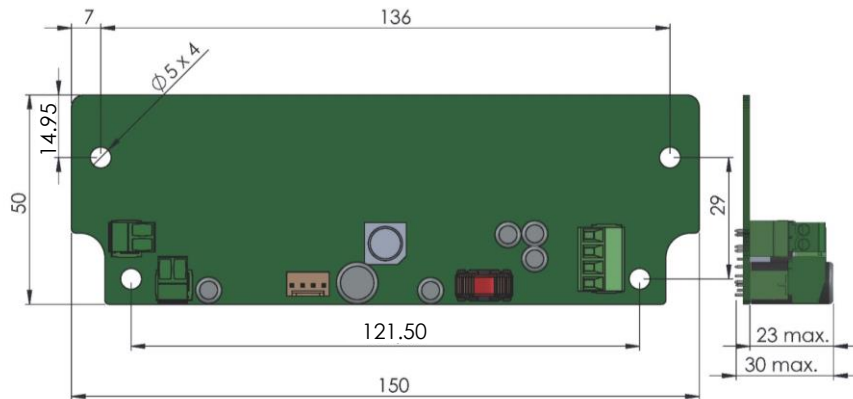


### 3.2 TAG ACTIVATOR OEM / ACIOM43

- ⑥ Electronic board without casing
- ⑥ 1 integrated LF antenna
- ⑥ For controlling a 2<sup>nd</sup> LF antenna
- ⑥ Weight: 40 g



🔍 Mechanical dimensions:

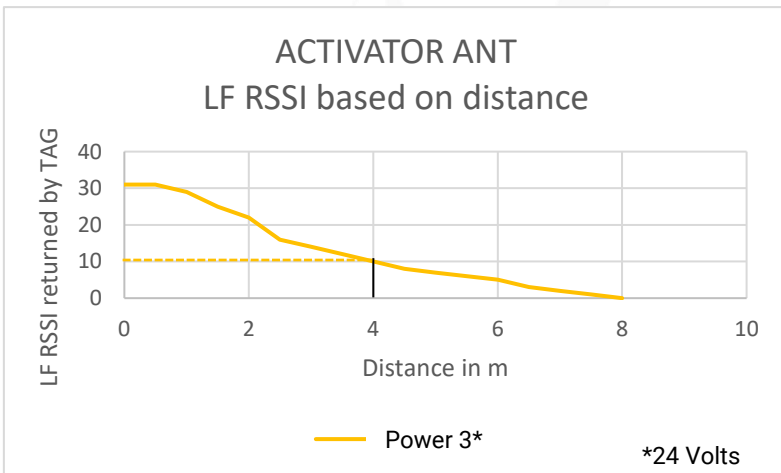


**4 ACCESSORIES**

4.1 ACTIVATOR ANT / ACIOM76



4.1.1 Low-frequency activation distance



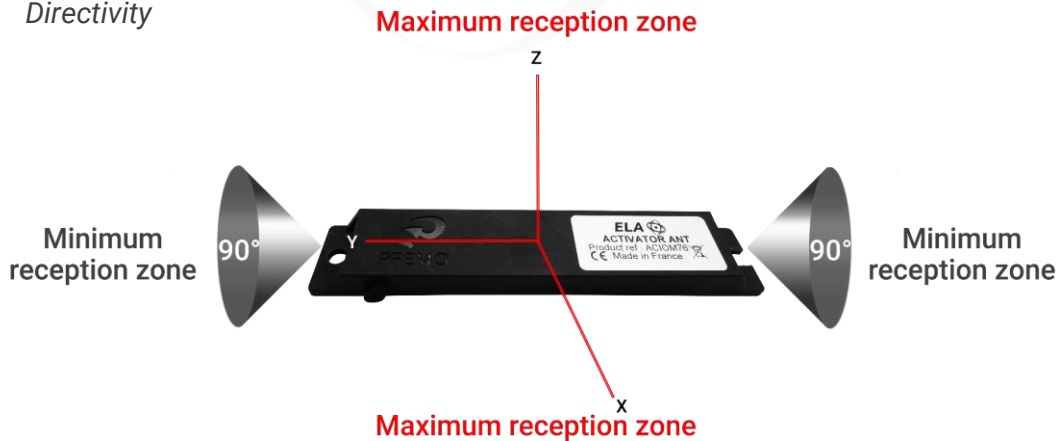
**Sample calculation of LF RSSI level for ACTIVATOR ANT**

**Adjustment level of magnetic LF field range**  
**Power 3\***: Max from 0 to 7 m

**Sample RSSI LF value returned by badge at 4 meters**  
**Power 3\***: 10

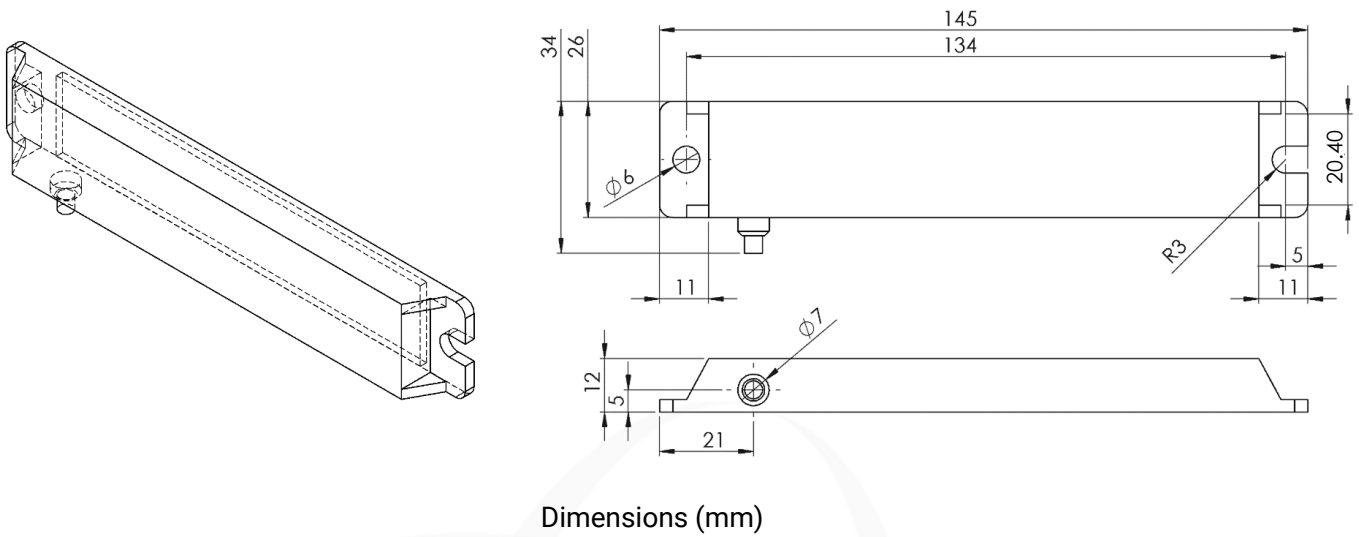
\* Power curve 3 available only for ACTIVATOR powered by 24 VDC  
 RSSI: LF signal strength received by badge  
 Maximum values measured in unconstrained laboratory conditions

4.1.2 Directivity

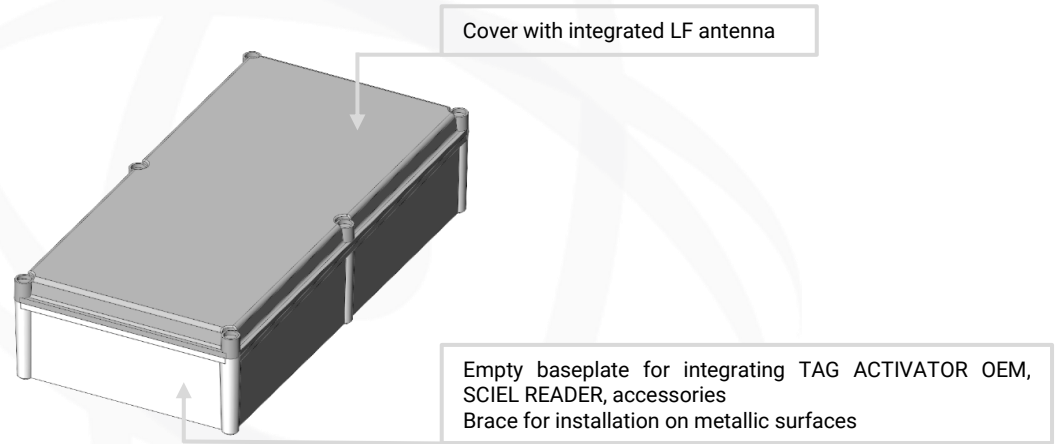


ACTIVATOR ANT directivity

### 4.1.3 Mechanical dimensions

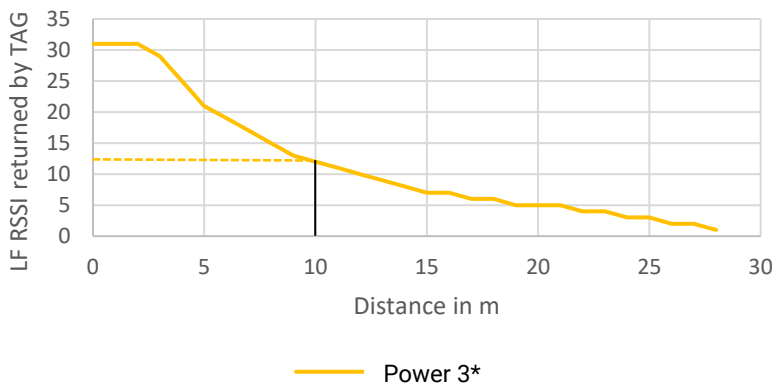


### 4.2 ACTIVATOR PANEL ANT



#### 4.2.1 Low-frequency activation distance

ACTIVATOR PANEL ANT  
LF RSSI based on distance



\*24 Volts

#### Sample calculation of LF RSSI level for ACTIVATOR PANEL ANT

##### Adjustment level of magnetic LF field range

Power 3\*: Max from 0 to 28 m

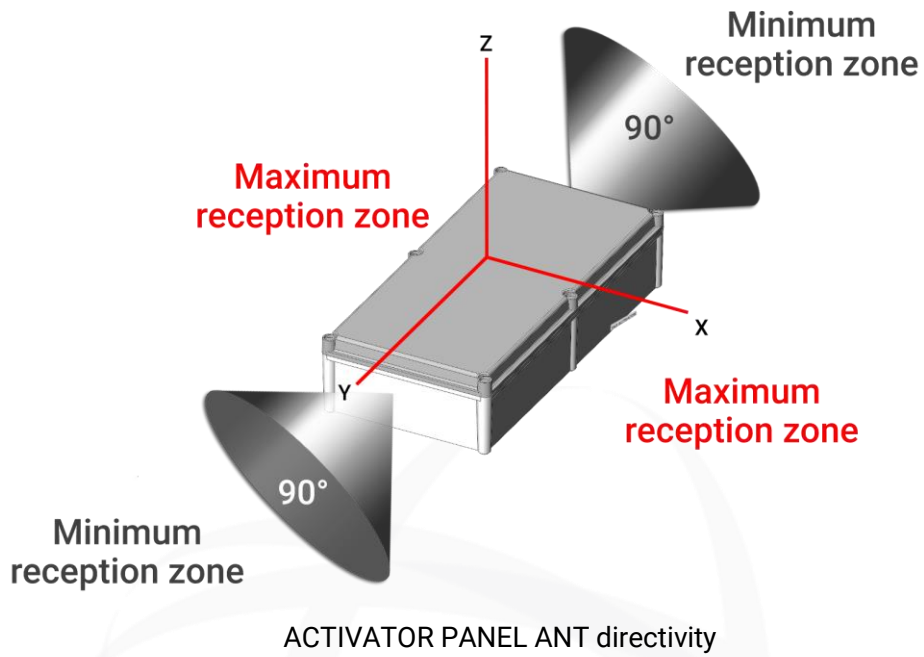
##### Sample RSSI LF value returned by badge at 10 m

Power 3\*: 12

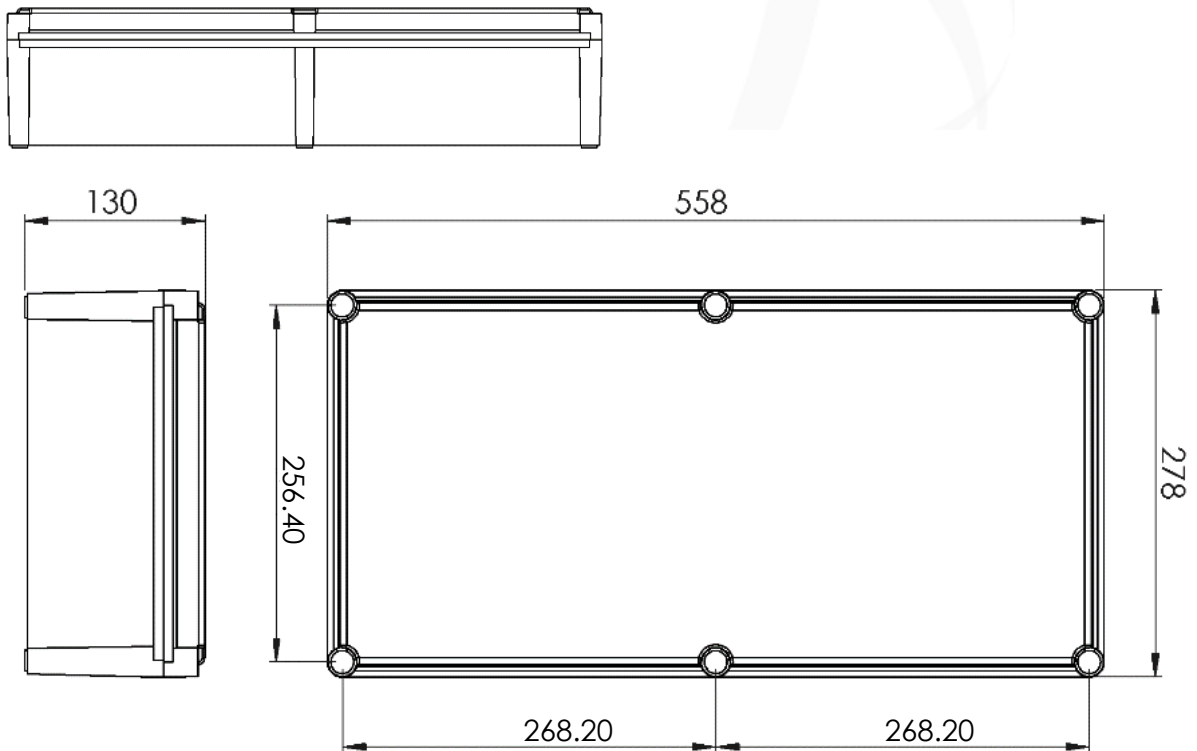
\* Power curve 3 available only for ACTIVATOR powered by 24 VDC

RSSI: LF signal strength received by badge  
Maximum values measured in unconstrained laboratory conditions

4.2.2 Directivity



4.2.3 Mechanical dimensions



Dimensions (mm)

## 5 REFERENCES AND VERSIONS

<b>MODEL</b>	<b>P/N REFERENCE</b>	<b>SPECIFICATIONS</b>
<a href="#"><u>TAG ACTIVATOR STANDALONE</u></a>	<b>ACIOM123B</b>	Electronic DOT badge activation module; 1 integrated antenna; 2 antenna outputs with cable glands; 12 or 24 VDC power supply; IP65 waterproof polycarbonate casing, 160 x 100 x 60 mm; configuration with USB setup cable and EDOT software
<a href="#"><u>TAG ACTIVATOR</u></a>	<b>ACIOM75B</b>	Version in casing, without antenna
<a href="#"><u>TAG ACTIVATOR OEM</u></a>	<b>ACIOM43B</b>	Electronic board version without casing, with mounted antenna
<a href="#"><u>TAG DOT</u></a>	<b>IDF2470</b>	LF and UHF 433 MHz dual-band activatable badge; ABS casing, 60 x 40 x 18 mm; user-replaceable battery; key ring or neck strap loop; LED activation indicator; configuration using SCIEL PROG IR tool and EDOT software
<a href="#"><u>PUCK DOT</u></a>	<b>IDF2570</b>	LF and UHF 433 MHz dual-band activatable tag; long-range UHF emission up to 150 meters; long battery life; LF detection range from 7 to 15 meters, depending on the antenna; white DELRIN casing; IP68 waterproof; diameter 56 mm; thickness: 19 mm; 2 mounting holes; configuration with SCIEL PROG IR tool and EDOT software
<a href="#"><u>ACTIVATOR ANT</u></a>	<b>ACIOM76</b>	Activation antenna with 5-meter cable; 2-point terminal connector; dimensions 145 x 26 x 12 mm; 2 mounting holes; black ABS casing, potted, waterproof
<a href="#"><u>ACTIVATOR PANEL ANT</u></a>	<b>ACIOM113</b>	DOT Activator Antenna; long-range; ABS casing; dimensions 130 x 278 x 558 mm; 4-switch for antenna connection; IP67 waterproof; 2 cable glands; 1 SMA connector for RFID antenna
<a href="#"><u>SETUP CABLE</u></a>	<b>ACIOM89</b>	USB configuration cable for Tag ACTIVATOR