

# ELECTROMAGNETIC LENS



## PRESENTATION

The electromagnetic loupe can display magnetic radiation. This model has 16 sensors. Each sensor is composed of a loop and a detector whose bandwidth is between 1 and 440 MHz. The detected signals are then sampled from synchronously triggered by an internal trigger. The visualization is performed with leds positioned above each sensor. Two potentiometers are used to adjust the low threshold and the high threshold to always get the maximum visible dynamics.



## APPLICATIONS

- Direct mapping of the field
- Location of point radiation
- Screening comparison
- Antenna emission comparison
- Follow-up of a disturbance
- Realization of practical work (teaching)
- ...

## EDUCATION

### -Practical work

- Magnetic field in a coil
- Checking shield, ground plane
- Radiation of an electronic card (CM PC)
- Coupling between two coils
- Communicating objects (433MHz)
- Remote controls, module 433, ...

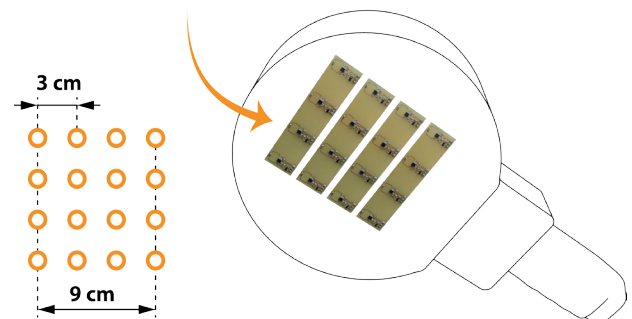
## FEATURES

- Technology: Digital
- Case size: 20 x 25 x 6 cm
- Size of a sensor: 1 x 1 cm
- Number of sensors: 16
- Sensitivity: -91 dBV to +4 dBV
- Dynamic min: 3 dB
- Bandwidth: 1 MHz to 440 MHz
- Sensitivity adjustment: min threshold and max
- Threshold technologie : numérique

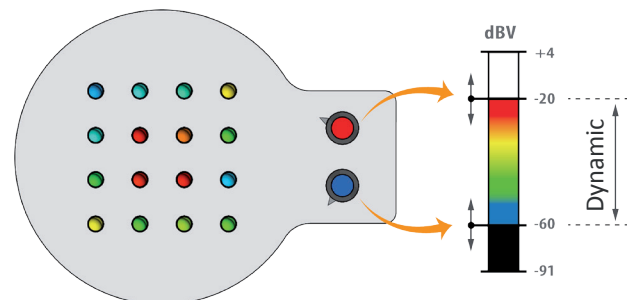
## SETTINGS

- Min threshold and Max threshold

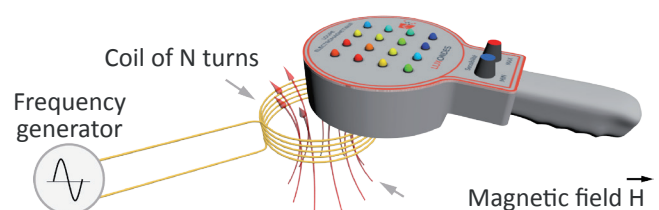
16 magnetic sensors



Setting the dynamic range in dBV.  
(Sensitivity of sensors)



Exemple TP



Visualization of the magnetic field radiated by a coil in function:

- Number of turns
- Diameter of the coil
- Frequency, Amplitude, ...