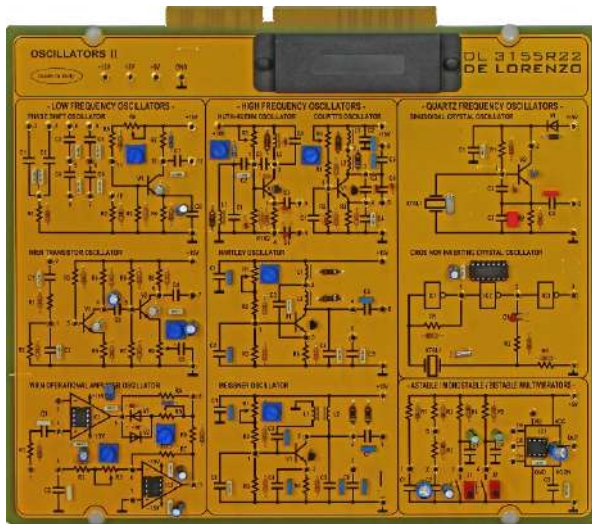




## OSCILLATORS



**DL 3155R22**

The design and construction of electronic circuits to solve practical problems is an essential technique in the fields of electronic engineering and computer engineering.

With this board the students can study the characteristics of an oscillator in low frequency, in high frequency, of quartz and astable, monostable and bistable multivibrator.

### THEORETICAL TOPICS

- Characteristics of RC-phase shift oscillator
- Characteristics of Wien bridge oscillator with BJT transistor
- Characteristics of Wien bridge oscillator with Operational amplifier
- Characteristics of Huth-Kuehn oscillator
- Characteristics of Colpitts oscillator
- Characteristics of Hartley oscillator
- Characteristics of Meissner oscillator
- Characteristics of Crystal oscillator
- Characteristics of non-inverting crystal oscillator
- Characteristics of astable, monostable and bistable multivibrators with IC 555
- Fault simulation

### CIRCUIT BLOCKS

- Low frequency oscillators:
  - Phase shift oscillator
  - Wien transistor oscillator
  - Wien OA oscillator
- High frequency oscillators:
  - Huth-Kuehn oscillator
  - Colpitts oscillator
  - Hartley oscillator
  - Meissner oscillator
- Quartz frequency oscillators:
  - Sinusoidal crystal oscillator
  - CMOS non inverting crystal oscillator
- Astable – Monostable – Bistable multivibrators

Complete with theoretical and practical manual.  
Dimensions of the board: 297x260mm

### CAI SOFTWARE:

Each board of the TIME system can be supplied complete with a Student Navigator software that allows students to perform their learning activities through a Personal Computer, without the need for any other documentation.

**Ordering code:** please add SW after the code of the board (i.e. DL 3155R22SW)

### Required:

#### POWER SUPPLY NOT INCLUDED

Base frame with power supply (completed with connecting cables):

- **DL 3155AL3** - Base frame with power supply and interface to pc and virtual instrumentation
- **DL 3155AL2** - Base frame with power supply and interface to pc

Basic power supply (connecting cables not included):

- **DL 2555ALG** - DC power supply  $\pm 5 \pm 15$  Vdc, 1A
- **TL 3155AL2** - Connecting cables

Choosing this power supply, for the execution of the experiments, it is normally required the use of an oscilloscope and two multimeters.

