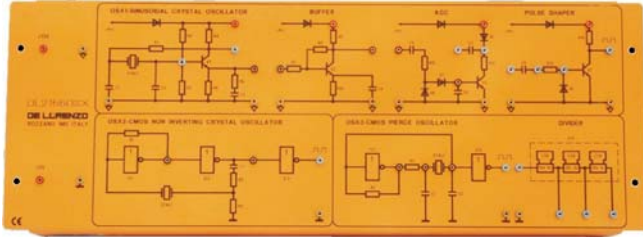




## Quartz oscillators



**DL 2155OSX**

### Examples of performable exercises

- square wave and transistor-based sinusoidal quartz oscillator
- CMOS quartz oscillators with non-inverting amplifier
- CMOS quartz PIERCE type oscillator
- measurement on quartz time base

The need for accurate in value, time stable and temperature stable oscillators can be seen in a wide range of applications: instrumentation, military, industrial and consumer equipment.

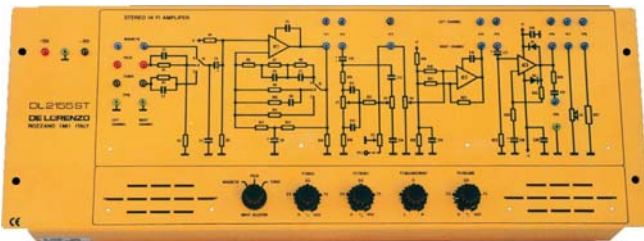
To satisfy these requirements, quartz oscillators are normally used.

### Technical features

Realisation of both sinusoidal oscillators and square-wave oscillators.

Power supply: + 15 Vdc and + 5 Vdc, 100 mA.

## HI-FI amplifier



**DL 2155ST**

### Examples of performable exercises

- stereo amplifier
- measurement of the frequency response of the various stages
- measurement of the input and output impedances of the power amplifier
- measurement of the equalization characteristics for the different inputs
- measurement of the harmonic distortion
- troubleshooting techniques

This board consists of a high fidelity amplifier of up-to-date design that allows the study of the circuit operation, besides performing measurements of the typical quality parameters for audio systems.

### Technical features

The system structure includes the input preamplifier-equalizer stage, the tone control stage, the amplifier-driver stage and the power stage. The board includes two small size loudspeakers that can be switched off in order to use the board with external acoustic boxes to allow the operation of the equipment at full power. The board includes a fault simulation system by means of 8 micro switches placed at back of the board and protected by a door provided with key lock.

Inputs: from piezoelectric, magnetic transducers, FM tuners.

Frequency response: from 10 Hz to 25 kHz approx.

Output power: 10 W at 4  $\Omega$  load.

Power supply:  $\pm 15$  Vdc, 1 A

Protection against thermal overloads and short circuits at the output of the power stages.