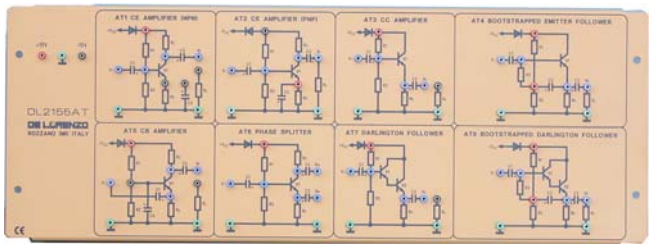
ELECTRONICS

DISCRETE COMPONENTS LINEAR ELECTRONICS

BJT voltage amplifiers



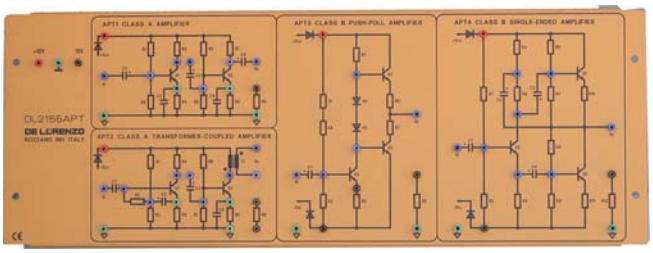
DL 2155AT

Experiments

- Bias and dc load line in CE, CC and CB configurations
- Measurement of typical parameters in the three configurations
- Dual load amplifier with phase inverter function
- Emitter follower and bootstrap effect bias
- Analysis and checking of Darlington connection

The board allows a first approach to the theoretical-practical study of the static and dynamic operation of the BJT (Base-emitter Junction Transistor), used as a voltage amplifier.
The board affords the problems associated to the use of the transistors in the three basic configurations: CE (Common Emitter), CC (Common Collector) and CB (Common Base).
Firstly, the bias and the working point stabilization problems are considered.
Then, the typical features of the three configurations are analyzed: input resistance, output resistance, voltage gain and current gain.
In the second section of the board typical applications are studied, such as the bootstrap effect bias and the Darlington connection.
The board is supplied complete with a set of stackable, plug-in cables of suitable lengths and colours and with a training manual.
Power supply: ± 15 Vdc, 250 mA

BJT power amplifiers



DL 2155APT

Experiments

- Checking the conversion efficiency and the figure of merit in a A-class amplifier with dc current flowing through the load
- Determination of the typical parameters of a A-class amplifier with an output transformer
- Checking the characteristics of a complementary symmetry push-pull amplifier
- Checking the characteristics of the single-ended amplifier

The board represents an extremely useful tool for studying the power amplifier of A class and B class.
In fact, it provides 4 amplification architectures among the most common in preamplifiers (A class) and final amplifiers (B class), with the possibility of analyzing the power stage and/or the drivers.
The board is supplied complete with a set of stackable, plug-in cables of suitable lengths and colours and with a training manual.
Power supply: ± 15 Vdc, 1 A