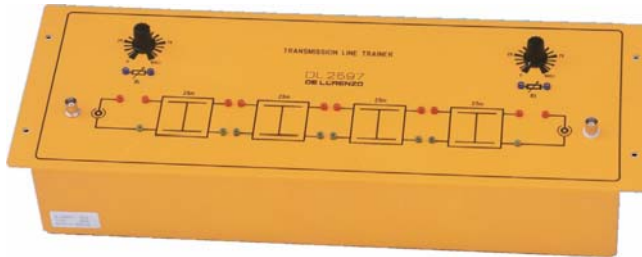




Transmission systems

Transmission lines



DL 2597

The trainer has been designed to guide the student to the comprehension and testing of the physical principles of the propagation of electrical signals on transmission lines and as an introduction to the use of the lines as a main element in communications systems.

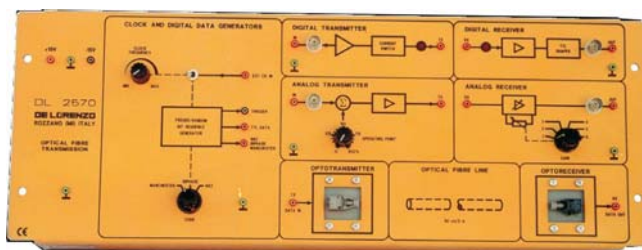
Technical features

The trainer is composed of a module with 100 meters of coaxial cable with intermediate plugs, every 25 meters, and with termination variable resistors.

Examples of performable exercises

- measurement of the characteristic parameters of the line
- attenuation measurement
- line frequency characteristics
- line input impedance
- stationary waves
- signal phase shift along the line
- fault finding along the line
- line in pulsed state

Fiber optics trainer



DL 2570

The board consists of a fibre optics transmission system that can be configured to experiment both digital and analogue signal transmission.

Technical features

The board includes: a TTL input digital transmitter, a digital receiver with data regenerator, an analogue transmitter with continuous variation of the working point of the emitting diode, a variable gain analogue receiver, auxiliary devices (continuously variable frequency clock generator, bit pseudo-random sequence generator, with single pole / NRZ / Biphasic / Manchester TTL line coding), internal test signal frequency: $100 \div 800$ kHz, multi mode plastic fibre with fast connection terminals (two fibres are provided: 50 cm and 5 m long respectively), optical transmitter and receiver: 880 nm, 50 MHz.

Power supply: ± 15 Vdc, 300 mA.

Examples of performable exercises

- architecture of fibre optics systems
- NRZ, BIPHASE, MANCHESTER coding
- optical transmitter and receiver
- transmission speed