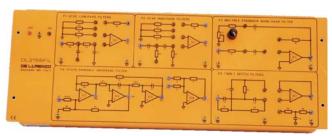


ELECTRONICS FOR TELECOMMUNICATIONS



Active filters



DL 2155FIL

Examples of performable exercises

Analysis and characterization of:

- low-pass and high-pass filters of the first and second order with Butterworth, Bessel and Chebyschev approximation
- multiple feedback band-pass filter
- high-pass, low-pass, band-pass and throw-band filters of variable state type
- dual T narrow-band notch filter

The board allows the study and the functional check on active filters made with operational amplifiers.

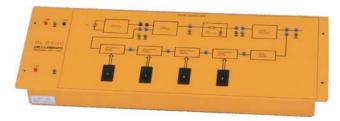
Technical features

The board is divided in five sections, each one provided with several filters of the same kind:

- low-pass VCVS filters of the first and second order
- high-pass VCVS filters of the first and second order
- multiple feedback band-pass filters
- universal filter of variable-state type
- dual T band-stop filters

Power supply: ± 15Vdc, 750mA

PLL circuits



DL 2530

The board contains all the circuits necessary to make phase locked loop systems (PLL) suitable for several applications in the telecommunications field.

Technical features

- High stability reference frequency (quartz): 1 kHz
- Frequency of the voltage controlled oscillator: 10MHz

Power supply:

+15 Vdc, 100 mA, -15 Vcc, 50 mA, +5 Vdc, 200mA

Examples of performable exercises

- functions and performances of the PLL blocks
- practical applications of the PLL circuits: frequency demodulation and frequency synthesis