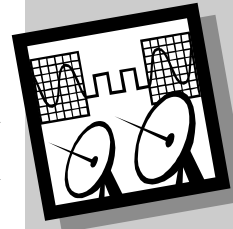
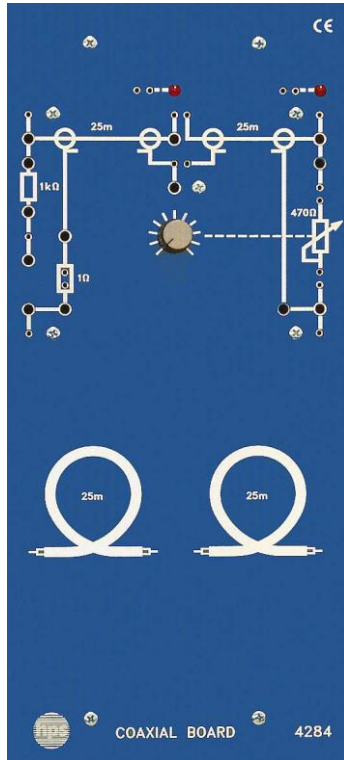


Communications – Transmission Technology



COAXIAL BOARD

Type 4284



COAXIAL BOARD (Type 4284)

- Training Board for experiments with a screened line
- Line length 50 m, divided in 2 x 25 m
- With incorporated LEDs for demonstration of standing waves in a line
- Incorporated terminating resistor, adjustable
- Several COAXIAL BOARDS can be connected one after the other to simulate longer Lines

Technical Data

- Length of the coaxial line: 50 m, divided in 2 x 25 m
- Inductance: 0.4 $\mu\text{H/m}$
- Capacity: 100 pF/m
- Resistance: 300 Ω/km +/- 60
- Characteristic impedance: 50 Ω +/- 2
- Terminating resistor: 0 ... 470 Ω , continuously adjustable
- Shunt: 1 Ω , for current measuring
- 2 LEDs to verify standing waves
- 1 k Ω dropping resistor for simulation of mismatches

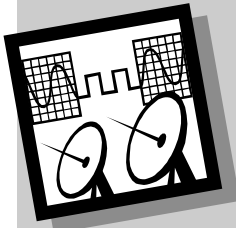
With the COAXIAL BOARD hps SystemTechnik offers a screened line which allows to impressively prove all regularities of electric lines in experiments in the following fields:

- **Communications technology**
- **Transmission technology**
- **Electric energy transmission**
- **Data transmission**

The following experiments can be performed with the COAXIAL BOARD:

- Evaluation of the electric data of a line
- Attenuation characteristic of a line
- Frequency dependence of a line
- Input resistance of a line (no-load, short-circuit, matched)
- Transit times and phase displacements on a line

- Standing waves on a line
- Transmission behaviour of a line
- Error detection
- Pulse behaviour (transit time, reflection)



COAXIAL BOARD

Type 4284

Communications – Transmission Technology

Mechanical Data

The front panel of the COAXIAL BOARD is made of 5 mm thick laminate, matt blue in colour with white engraving.

The rear of the Board is protected with a grey plastic cover. Its shape allows the Board to be placed at an ergonomically favourable angle for example on a table.

To conduct the experiments, the COAXIAL BOARD is placed on a table or suspended in an hps rack for demonstration purposes.

Dimensions and weight:

- 133 x 297 x 110 mm
(w x h x d)
- Weight: 1.25 kg

Accessories Recommended

- Experiment manual: „Experiments with Screened Lines“ (Type V 0135)
- Oscilloscope
- Function generator
- Multimeter
- Connecting plugs and leads

Subject to technical modifications.