Item No.: SO4204-9V

Course Waveguide components

Includes:

- High-quality R100 waveguide with Easyfix quick fastening system and centering pins for rapid and precise assembly:

  - E- and H-plane bends

  - Waveguide coax transition

  - Rotary coupling

  - Phase-shifter

  - PIN modulator

  - Directional coupler

  - Cross coupler

  - Ferrite circulator

  - Slotted impedance adapter

  - Short-circuit shifter with micrometer screw

- 2 stands with adjustable height and connection cable
- Aluminium case for storage purposes
- Labsoft browser and course software

Course contents:

- List of basic equations describing wave propagation in a waveguide
- Equations used for the characterisation of a waveguide
- Waveguide elements for changing directions: rotary coupling, E-plane and H-plane bends
- Determine the characteristic of a variable attenuator
- Design and operation of a waveguide phase-shifter
- Measurement of the phase-shift in a waveguide
- Measurement of attenuation and isolation of a ferrite isolator
- Design and operation of direction-dependent waveguide components
- Measurements of attenuation and reflection of cross couplers, directional couplers and Ferrite circulators
- Measurement of insertion and coupling attenuation
- Modulation and demodulation of microwaves in the waveguide
- Investigation of a PIN modul ator using measuring instruments
- Line characterisation using the Smith chart
- Use of Smith chart in determining impedance and reflection factor
- Line matching with the aid of a slotted impedance adapter
- Investigation of the microwave signal at open end of line
- Course duration: approx. 8 h