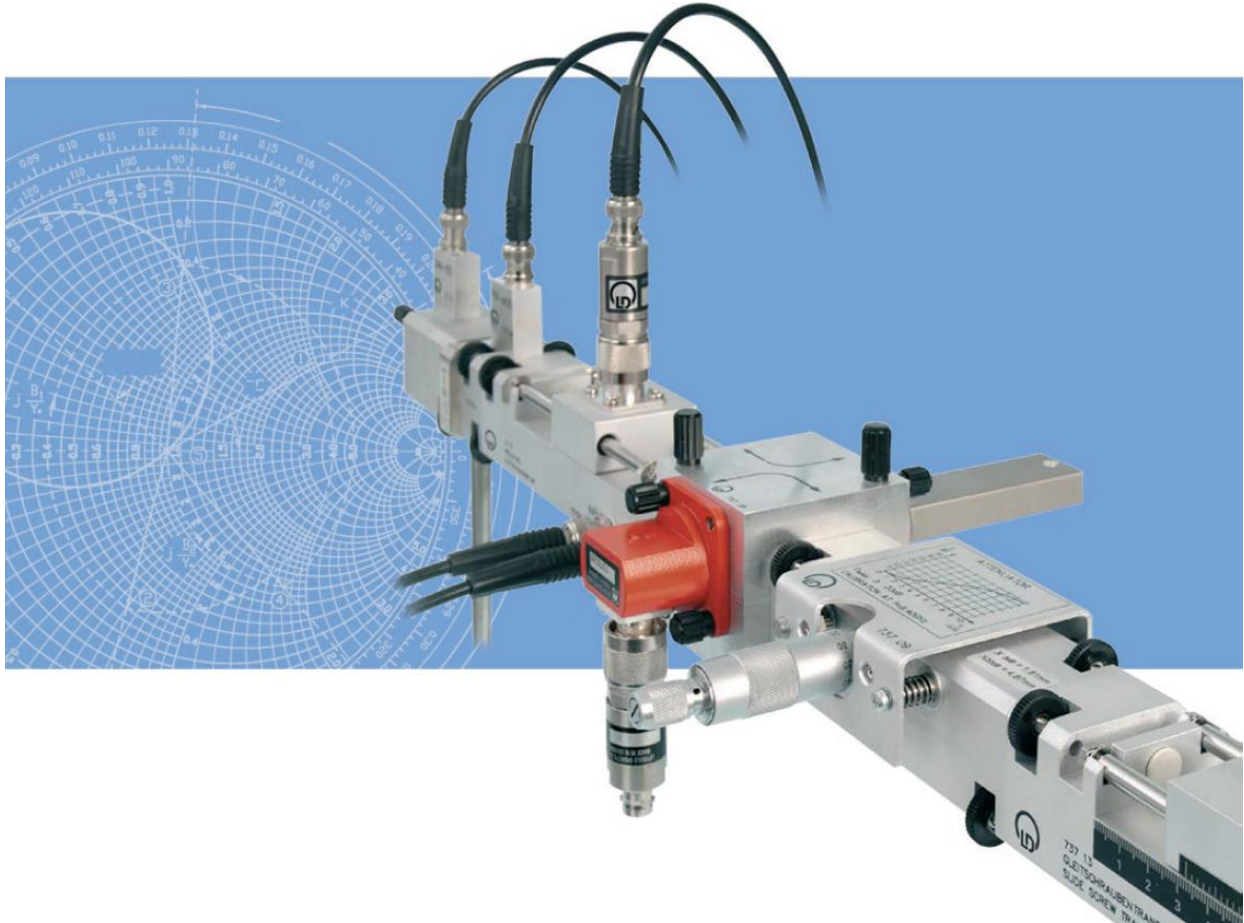


## T 7.4.3 Waveguide Technology



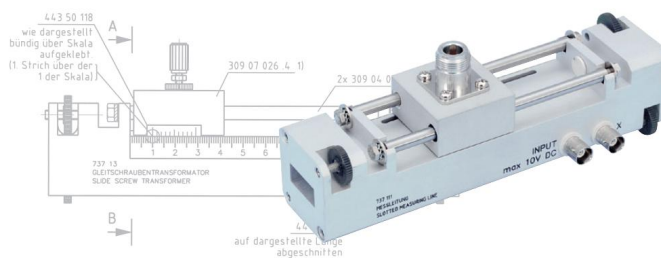
The units presented here provide a basis for well founded utilization of microwave components. The experiments convey an understanding for the function of active and passive components. They also create a point of reference for real applications. Even demanding themes, such as determination of reflection factors or investigating waveguide resonators, are treated.

### Topics

- Gunn oscillator
- Power measurement
- Attenuators
- Frequency and wavelength
- Directional coupler
- Reflectometer
- Complex reflection factor
- Matching
- Reflection of single slots
- Cavity resonator

## T 7.4.3 Waveguide Technology

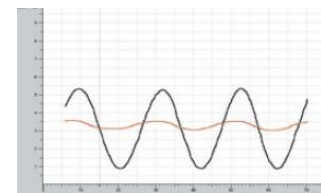
The slotted measuring line contains an integrated displacement sensor that permits direct graphic presentation of standing waves, reflections, field trends, etc. when used together with a Sensor-CASSY.



### EQUIPMENT LIST T 7.4.3

#### Waveguide Technology

Quantity	Cat. No.	Description
1	737 01	Gunn Oscillator
1	737 021	Gunn Power Supply with SWR Meter
1	737 03	Coax Detector
1	737 035	Transition Waveguide / Coax
1	737 05	PIN Modulator
1	737 06	Isolator
1	737 09	Variable Attenuator
1	737 10	Moveable Short
1	737 111	Slotted Measuring Line
1	737 12	Waveguide 200 mm
(1)	737 13	Slide Screw Transformer
1	737 135	3-Screw Transformer
2	737 14	Waveguide Termination
1	737 18	Cross Directional Coupler
1	737 29	Waveguide Propagation Accessories
(1)	737 35	E-Field Probe
1	737 399	Set of 10 Thumb Screws M4
1	524 013S	Sensor-CASSY 2 Starter
1	568 732	Book: Waveguide Technology
( )		recommended



#### Matching

Attenuator and movable short form a complex load whose reflection factor can be adjusted in terms of magnitude and phase. A slotted measuring line is used to directly produce a graphic evaluation of the field distribution in the waveguide as a standing wave (black curve). Mismatching can then be significantly reduced (red curve) by adjusting the slide screw transformer.

An actual material list including accessories is available on request.

