

# Elmika

DC – 1100 GHz · WAVEGUIDE COMPONENTS · TEST EQUIPMENT · RESEARCH · SUB-MMWAVE

Elmika from Lithuania is an established R&D company for electronic measurement instruments, waveguide components and systems in the microwave, millimeter-wave and sub-millimeter-wave (THz) range. Known for vector and scalar network analyzers, direct reading attenuators for VNA calibration, and one of the broadest waveguide product ranges in the world – straight sections up to 1100 GHz (WR22 to WR1.0).



## Product Portfolio

<p><b>Vector Network Analyzer</b> UP TO 170 GHz</p> <p>Vector network analyzer for precise S-parameter measurements in the millimeter-wave range.</p>	<p><b>Scalar Network Analyzer</b> UP TO 170 GHz</p> <p>Compact SNA for fast VSWR and attenuation measurements, ideal for production testing.</p>	<p><b>Signal Generator</b> UP TO 140 GHz</p> <p>Millimeter-wave signal sources for laboratory applications and measurement chains.</p>	<p><b>Sweep Generator</b> UP TO 140 GHz</p> <p>Sweep generators for frequency response characterisation and automated measurements.</p>
<p><b>Calorimetric Power Meter</b> UP TO 170 GHz</p> <p>Calorimetric power meters for absolute mmWave power measurement with high accuracy.</p>	<p><b>Frequency Converter</b> UP TO 170 GHz</p> <p>Frequency converters for down- and up-conversion in measurement systems and test setups.</p>	<p><b>Straight Waveguides</b> UP TO 1100 GHz</p> <p>Straight waveguide sections WR22 to WR1.0 manufactured to highest precision.</p>	<p><b>E-Plane / H-Plane Bends &amp; Twists</b> UP TO 500 GHz</p> <p>WR22 to WR2.2 — bends and twists for flexible waveguide layouts.</p>
<p><b>Directional Couplers</b> UP TO 500 GHz</p> <p>Directional couplers up to WR2.2 for power monitoring and VNA measurements.</p>	<p><b>Direct Reading Attenuators</b> UP TO 325 GHz</p> <p>Precision polarisation attenuators with direct dB readout — the gold standard for VNA calibration. Also available with remote control.</p>	<p><b>Fixed &amp; Variable Attenuators</b> UP TO 325 GHz</p> <p>Fixed and variable attenuators for measurement chains and level adjustment.</p>	<p><b>Band Pass Filters</b> UP TO 325 GHz</p> <p>Waveguide bandpass filters for spectral filtering and interference suppression.</p>
<p><b>Magic Tees</b> UP TO 325 GHz</p> <p>T-junctions WR22 to WR3 for sum/difference operations in measurement systems.</p>	<p><b>Detector Mounts</b> UP TO 325 GHz</p> <p>Waveguide detector mounts with high sensitivity for power and level measurements.</p>	<p><b>Loads &amp; Shorts</b> UP TO 1100 GHz</p> <p>Reflection-free loads and shorts as reference standards for VNA calibration.</p>	<p><b>Waveguide Cassette</b> MATERIAL MEASUREMENT</p> <p>Special waveguide cassette for measuring material properties (permittivity, loss tangent).</p>

## Strengths at a glance

### European Manufacturer

Based in Lithuania — established specialist for waveguide technology and millimetre-wave measurement systems with decades of experience.

### DC – 1100 GHz Coverage

Frequency range from WR28 to WR1.0 — one of the broadest portfolios worldwide, including Sub-Terahertz bands.

### Research-Grade Quality

Trusted by universities and research institutes globally. Highest precision for scientific and developmental work.

### In-House Instruments

Scalar network analysers up to 170 GHz and signal generators up to 140 GHz designed and manufactured in-house.

### Precision Manufacturing

Tight tolerances, optimised VSWR performance, and rigorous quality control to European standards.

### Bespoke Solutions

Custom-engineered components for specialised THz applications, short iteration cycles, and close engineering collaboration.

## Industries & Use Cases

### Research & Universities

Waveguide systems and measurement technology for higher education institutions, research laboratories, and national institutes.

### THz Spectroscopy

Sub-Terahertz and Terahertz spectroscopy in materials science and analytical chemistry.

### Antenna Measurement

Mixers, frequency multipliers, and probes for near-field and far-field antenna characterisation up to 750 GHz.

### VNA Calibration

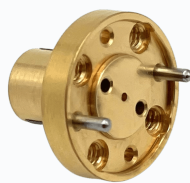
Direct reading attenuators and calibration standards for vector network analyser accuracy verification.

### Defence & Security

mmWave sensor systems, radar components, and reconnaissance platforms for military environments.

### Astronomy & Radio Astronomy

Receiver systems for radio telescopes and satellite-based mmWave observation platforms.



### Available through bq-microwave

bq-microwave is the authorized European distributor for Elmika. Fast procurement, short lead times and personal technical consultation.

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