

Order description

We are developing a millimeter-wave antenna measurement setup. We are looking for a company , which can support us in terms of supply and integration of the waveguide parts on a baseplate. I attach the block diagram of our system, which need to be built based on currently possessed measurement instruments:

- FH-PP-110 antenna from Radiometer Physics,
- FS-Z110 mixer from Rohde-Schwarz,
- NRP-Z58 power sensor from Rohde-Schwarz with 27373-WF60-7339 WR10 - 1.0 mm adaptor and K2765 flange from Flann Microwave.

The setup consists of attenuators and waveguide sections, which need to be reconfigurable during the measurements in order to increase the dynamic range.

We are looking for a comprehensive solution, which consist of:

- supply of the required microwave elements such as attenuators, amplifiers, waveguides, etc.,
- assembly all of the elements.

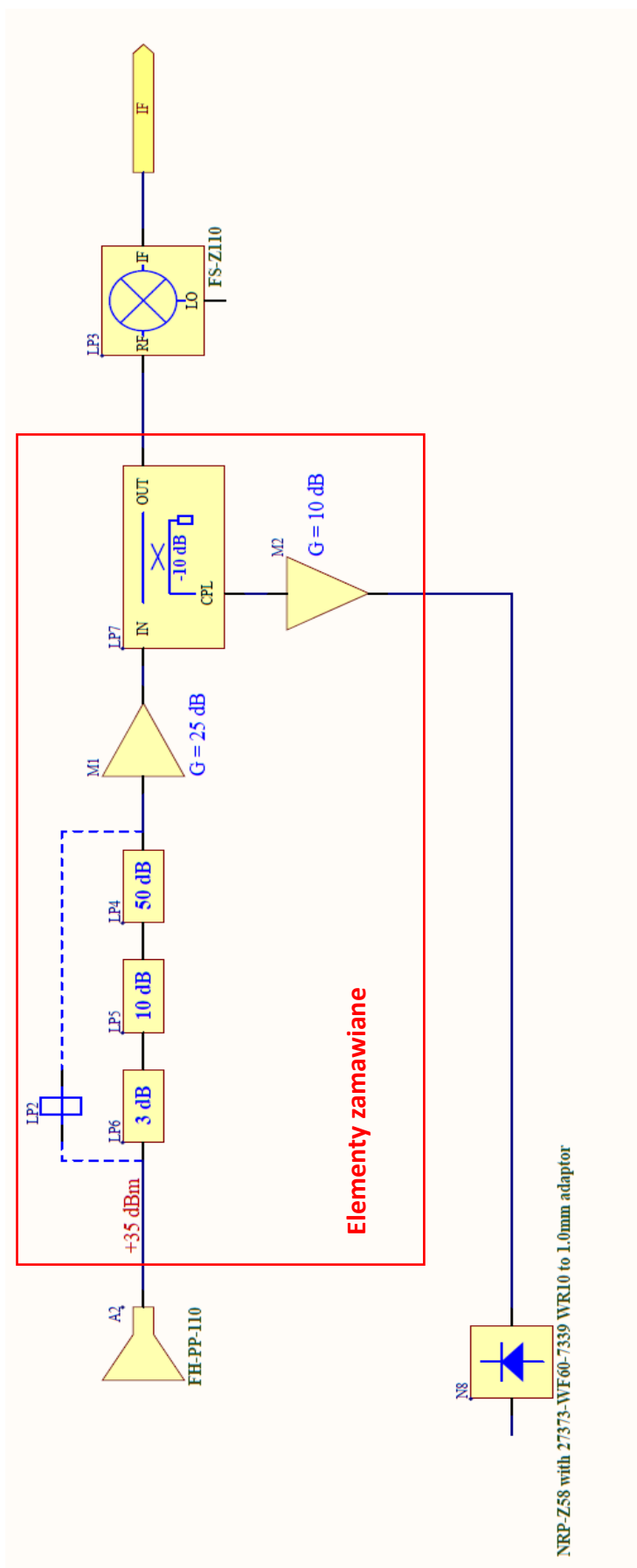


Fig. 1 Block diagram of the measuring system.

The specification of each component is as follows:

Waveguide LP4:

- Frequency: 75 GHz – 110 GHz,
- Total attenuation: 50 dB,
- Return loss >20 dB,
- Max input power: 10 W,
- RF Ports: WR-10 Waveguide with UG-387/U-M flange,

Attenuator LP5:

- Frequency: 75 GHz – 110 GHz,
- Total attenuation: 10 dB,
- Return loss >20 dB,
- Max input power: 10 W,
- RF Ports: WR-10 Waveguide with UG-387/U-M flange,

Attenuator LP6:

- Frequency: 75 GHz – 110 GHz,
- Total attenuation: 3 dB,
- Return loss >20 dB,
- Max input power: 10 W,
- RF Ports: WR-10 Waveguide with UG-387/U-M flange,

Waveguide section LP2:

- Frequency: 75 GHz – 110 GHz,
- Length/form identical to the connection of the attenuators LP4, LP5, LP6,
- RF Ports: WR-10 Waveguide with UG-387/U-M flange,

Directional Coupler LP7:

- Frequency: 75 GHz – 110 GHz,
- Coupling: 10 dB,
- Insertion Loss: <1.4 dB,
- Return Loss > 25 dB,
- Directivity > 30 dB
- RF Ports: WR-10 Waveguide with UG-387/U-M flange,

Amplifier M1:

- Gain: 25 dB,
- P1dB > 10 dB.

Amplifier M2:

- Gain: 10 dB,
- P1dB > 10 dB.

All of the components need to work within full W-band (75 GHz – 110 GHz) and mate with our equipment.