

300 GHz Mixer Type 310A

Product Description

Frequency Mixer based on ACST varistor diodes technology.

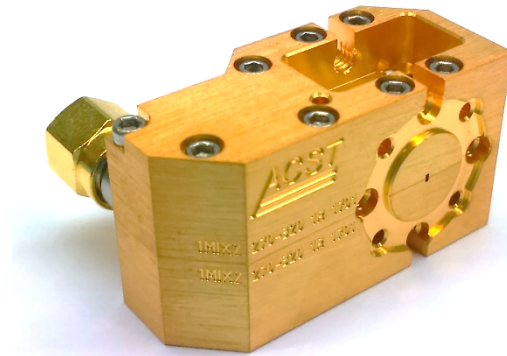


Fig. 1: Optical view of the product

Application Areas

- MM-wave FMCW-Radar
- Up and down converter
- Heterodyne reception
- Active imaging
- Array Receiver Systems
- High-bit rate data reception systems

Product Features

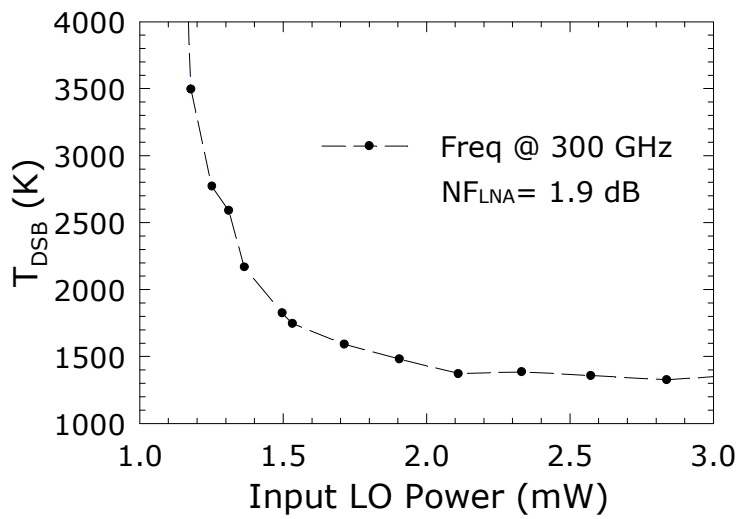
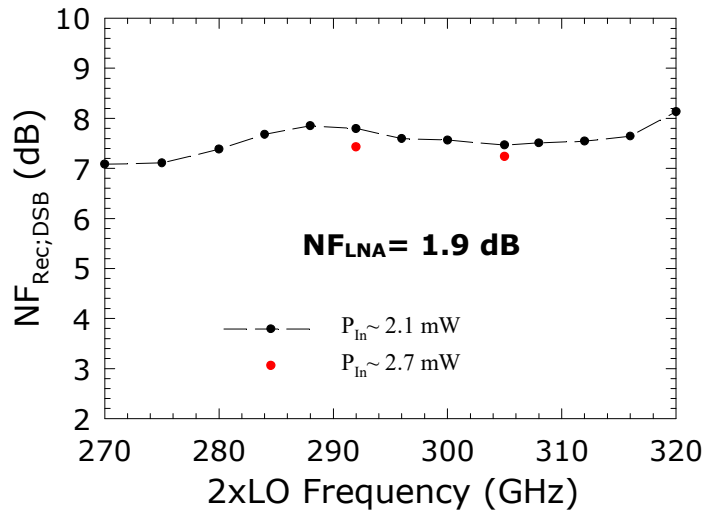
- Low noise
- Large bandwidth
- Flat response

Tab. 1: Technical Specifications

Technical Specifications	Minimum	Typ.	Maximum
Input LO port		WR-6.5	
Input LO Power (dBm)	3	4	5
Input LO Freq. (GHz)	135		160
Input RF Port		WR3.4	
Input RF Power (dBm)			-10
Input RF Freq. (GHz)	270		320
Output IF Port		SMA (F) connector	
Output IF Freq. (GHz)*	0		18
DSB Noise Figure (dB)*	4.5	5	6
DSB Noise Temp. (K)*	550	650	850

* All technical specifications are referred to mixer performance.

Typical Performance



Product Overview

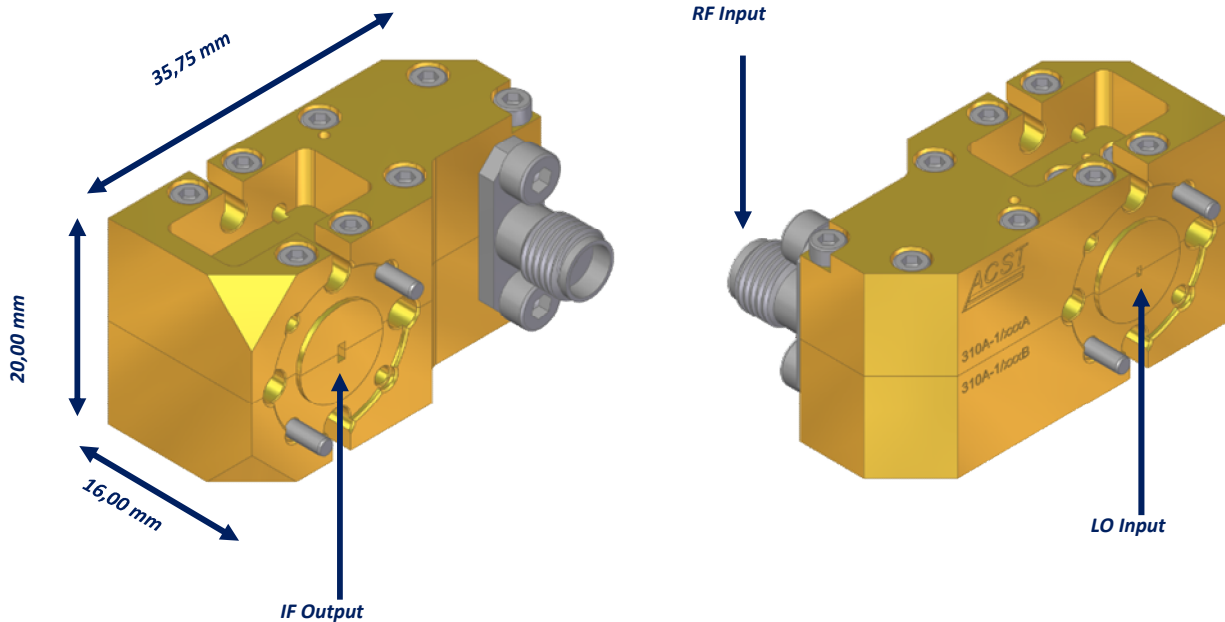


Fig. 2: Overall dimensions

Notes

- The experimental data have been obtained using a 1.9 dB noise figure low noise amplifier that increases the total noise of the receiver.
- All plotted data represent typical values. The actual data may vary from unit to unit.
- All tests are carried out at a room temperature of 24 °C.

Caution

- Absolute maximum ratings should not be used under normal operating conditions. Exceeding maximum ratings may lead to permanent failure.
- Any foreign body inserted into the waveguide will cause a loss of performance and may damage the device.

ACST GmbH reserves the right to make changes to the product or information contained herein without notice. Visit www.acst.de for additional data sheets and product information.

