



Product features

- RF bandwidth: 65-115 GHz
- Noise Temperature: 305 K typical
- Noise Figure: 3.1 dB typical
- Gain: 27 dB
- DC-power: $V_d=1.5$ V, $I_d=40$ mA
- One gate and one drain supply only
- RF-connector: WR10, UG-387/U
- DC-connector: 9-pin female Nano-D

Product description

LNF-LNR65_115WD is an ultra-low noise amplifier operating in the 65-115 GHz frequency range. The LNA is packaged in a waveguide module using industry standard WR10 and Nano-D connectors. The lightweight gold plated aluminum module measures 14.92*23.00*19.20 mm excluding the connectors. MMIC technology ensures reliable and repeatable unit-to-unit results.

Absolute maximum ratings

Parameter	Min	Max
V_{ds}	-0.5 V	2 V
I_{ds}		100 mA
V_{gs}	-20 V	+20 V
RF Input drive level		0 dBm

Typical RF Characteristics

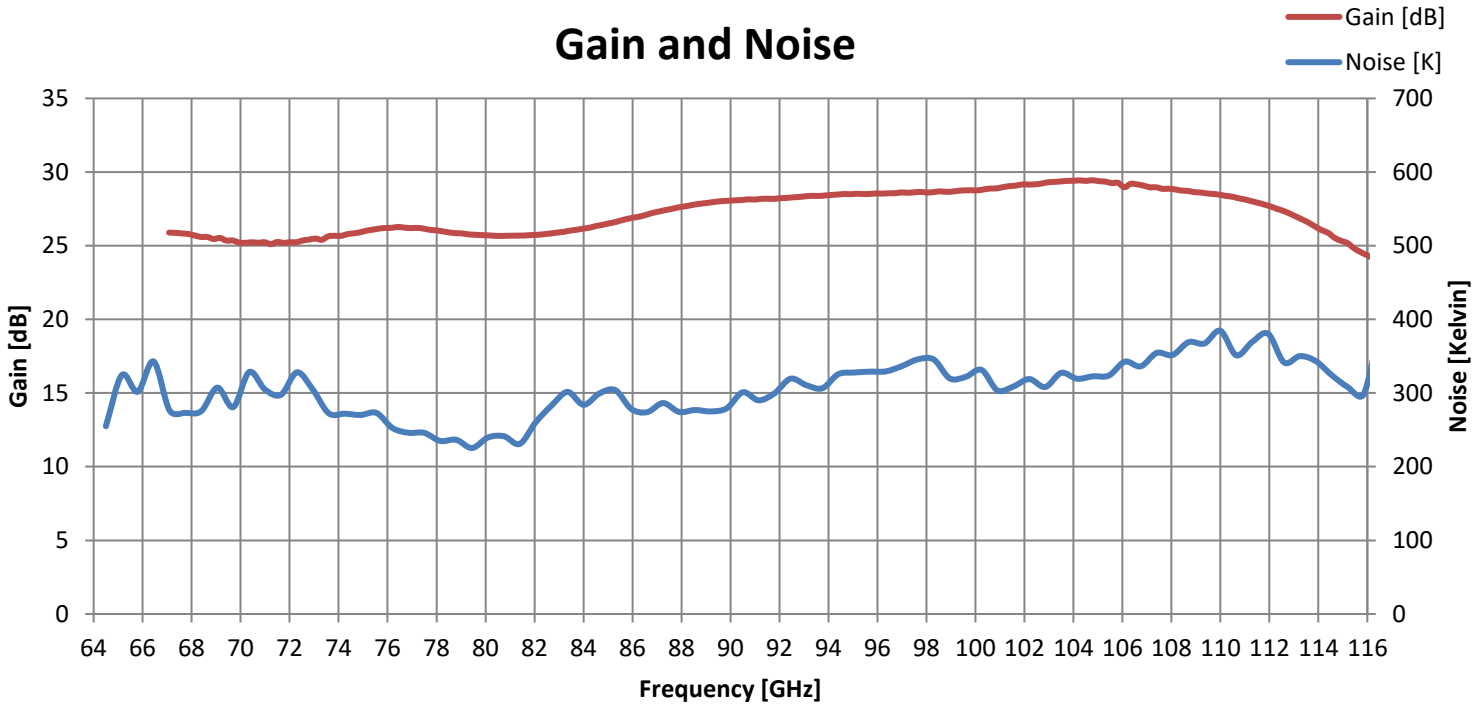
Parameter	Test Condition	Value	Unit
Gain	65-115 GHz	27	dB
Noise	65-115 GHz	305	K
IRL	65-115 GHz	4	dB
ORL	65-115 GHz	13	dB

Typical DC Characteristics

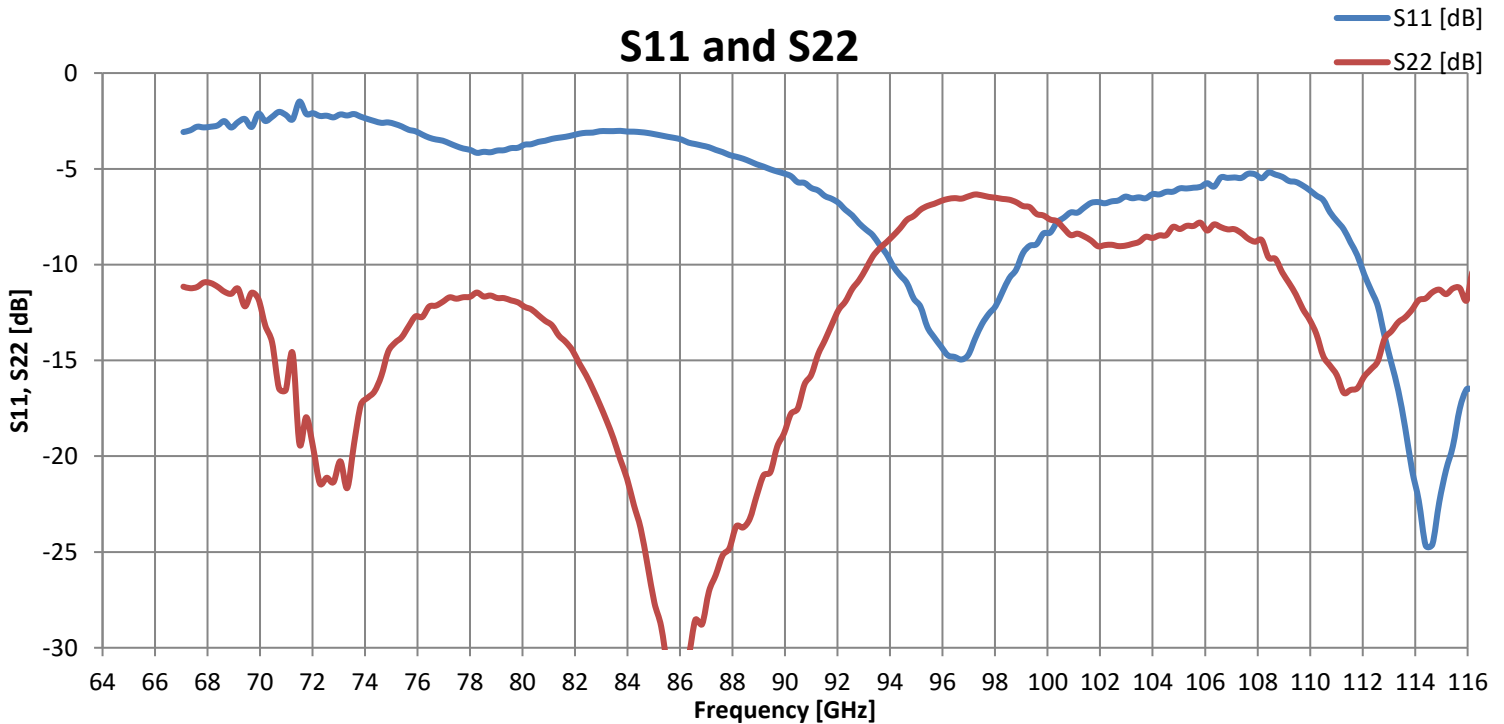
Parameter	Value	Unit
V_{ds}	1.5	V
I_{ds}	40	mA
V_{gs}	+0.39	V
I_{gs}	150	μ A
P_{dc}	60	mW

Measured typical data @ $T_{amb}=296$ K

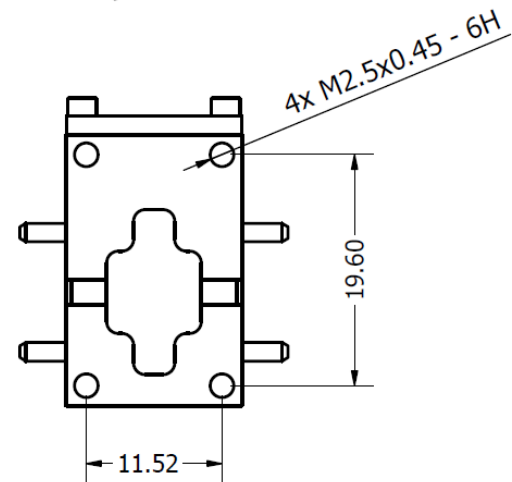
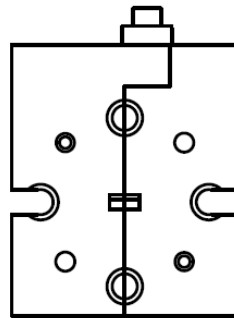
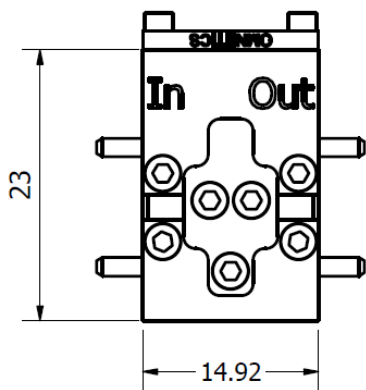
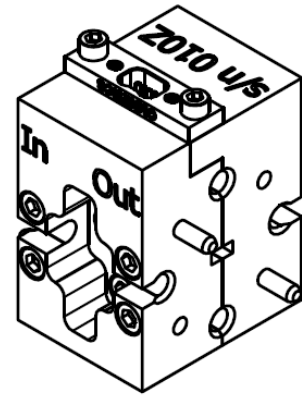
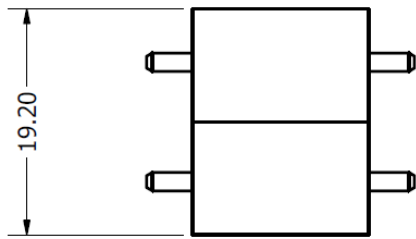
Gain and Noise



S11 and S22



Drawings



Dimensions are in millimeters