

Product features

- RF bandwidth: 65-115 GHz
- Noise temperature: 28 K typical
- Noise Figure: 0.40 dB typical
- Gain: 23 dB
- DC-power: $V_d=1.00$ V, $I_d=7$ mA
- One gate and one drain supply only
- RF-connectors: WR10, UG387/U
- DC-connector: 9-pin female Nano-D

Product description

LNF-LNC65_115WB is an ultra-low noise cryogenic 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 result.

Absolute maximum ratings

Parameter	Min	Max
V_{ds}	-0.5 V	2.5 V
I_{ds}		100 mA
V_{gs}	-20 V	+20 V
RF Input drive level		-10 dBm

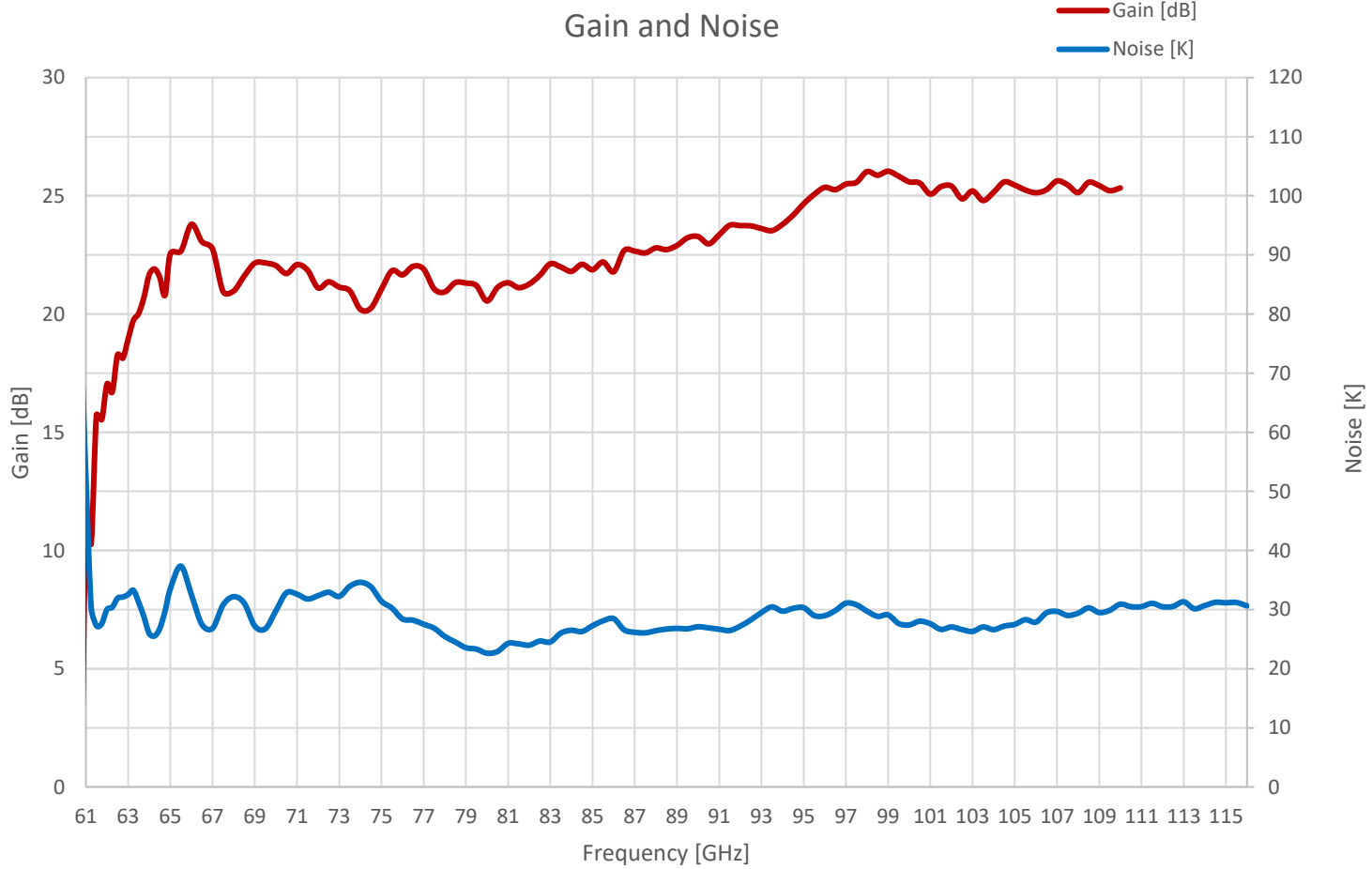
Typical RF Characteristics

Parameter	Test Condition	Value	Unit
Gain	65-115 GHz	23	dB
Noise	65-115 GHz	28	K
IRL	65-115 GHz	7	dB
ORL	65-115 GHz	12	dB

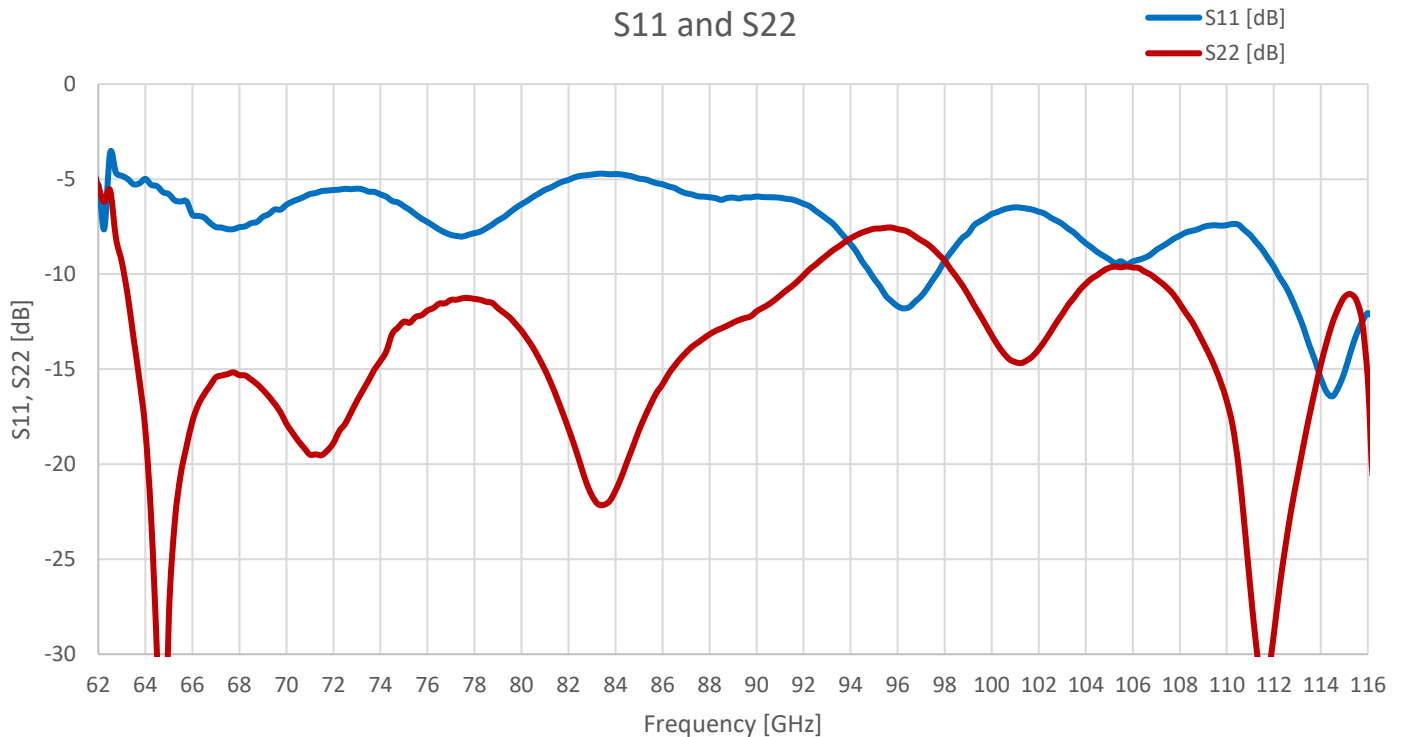
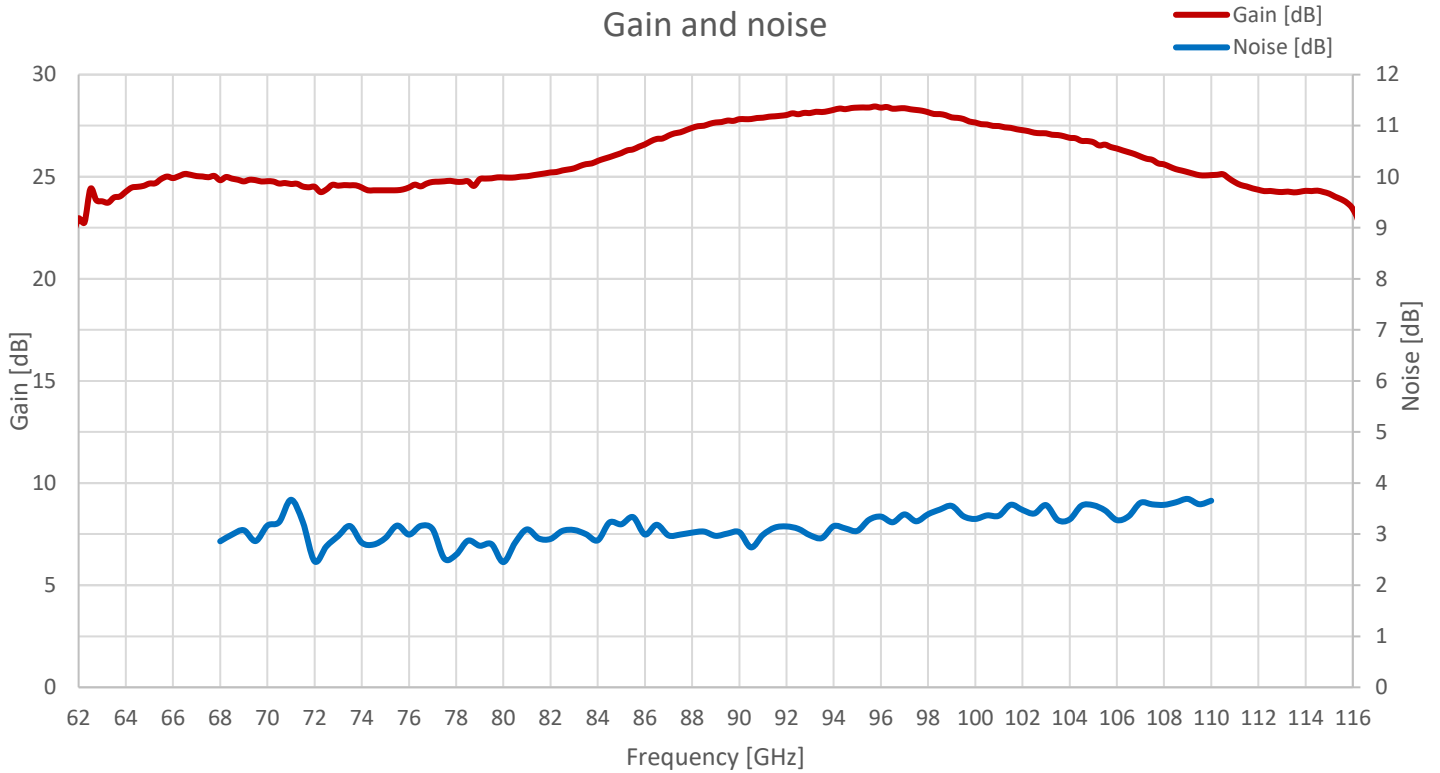
Typical DC Characteristics

Parameter	Value	Unit
V_{ds}	1.00	V
I_{ds}	7	mA
V_{gs}	-0.15	V
I_{gs}	14	μ A
P_{dc}	7	mW

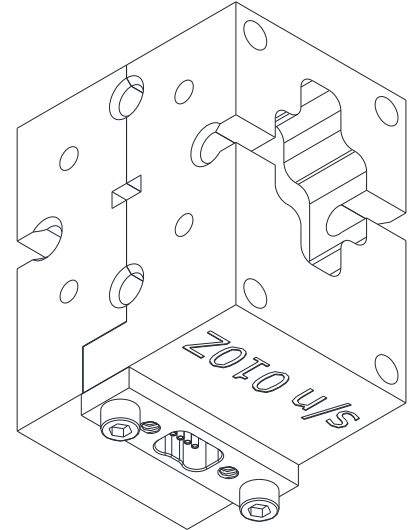
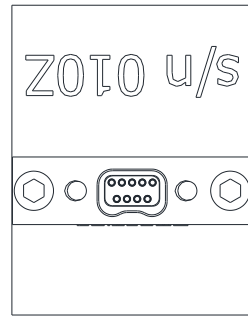
Measured typical data $T_{amb}=5\text{ K}$



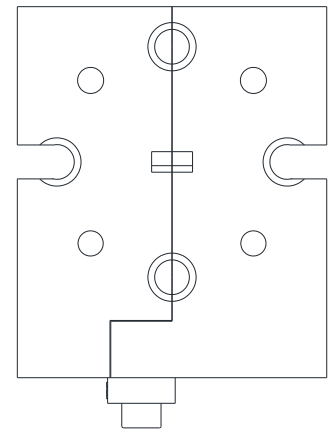
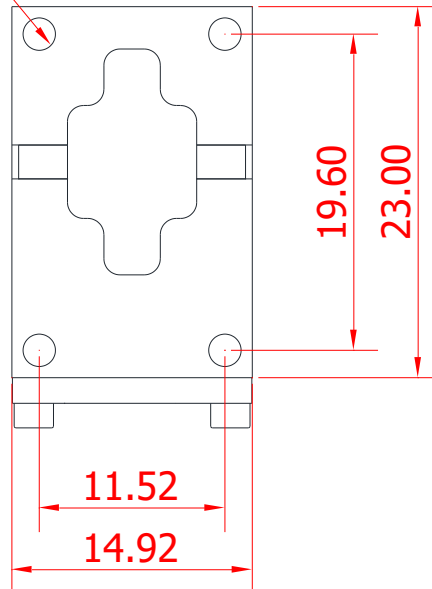
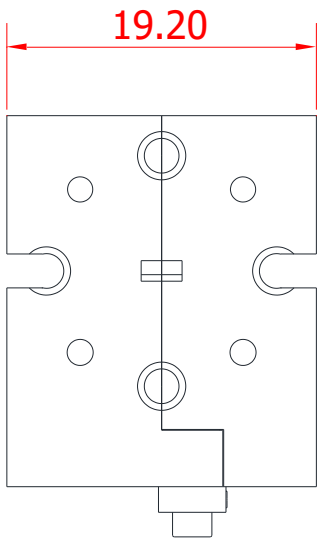
Measured typical data @ $T_{amb}=296$ K



Drawings



*4x M2.5x0.45 - 6H
for heat sinking*



Dimensions are in millimeters