



Product features

- RF bandwidth: 4-16 GHz
- Noise: 5.8K typical
- Gain: 39dB
- DC-power: $V_d=1.00V$ @ 15mA
- One gate and one drain supply only
- RF-connectors: female SMA
- DC-connector: 9-pin female Nano-D

Product description

LNF-LNC4_16A is an ultra-low noise cryogenic amplifier operating in the 4-16 GHz frequency range. The LNA is packaged in a coaxial module using industry standard SMA and Nano-D connectors. The lightweight gold plated aluminum module measures 22*19.6*7.8 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	3 V
I_{ds}		100 mA
V_{gs}	-12 V	+12 V
RF Input drive level		0 dBm

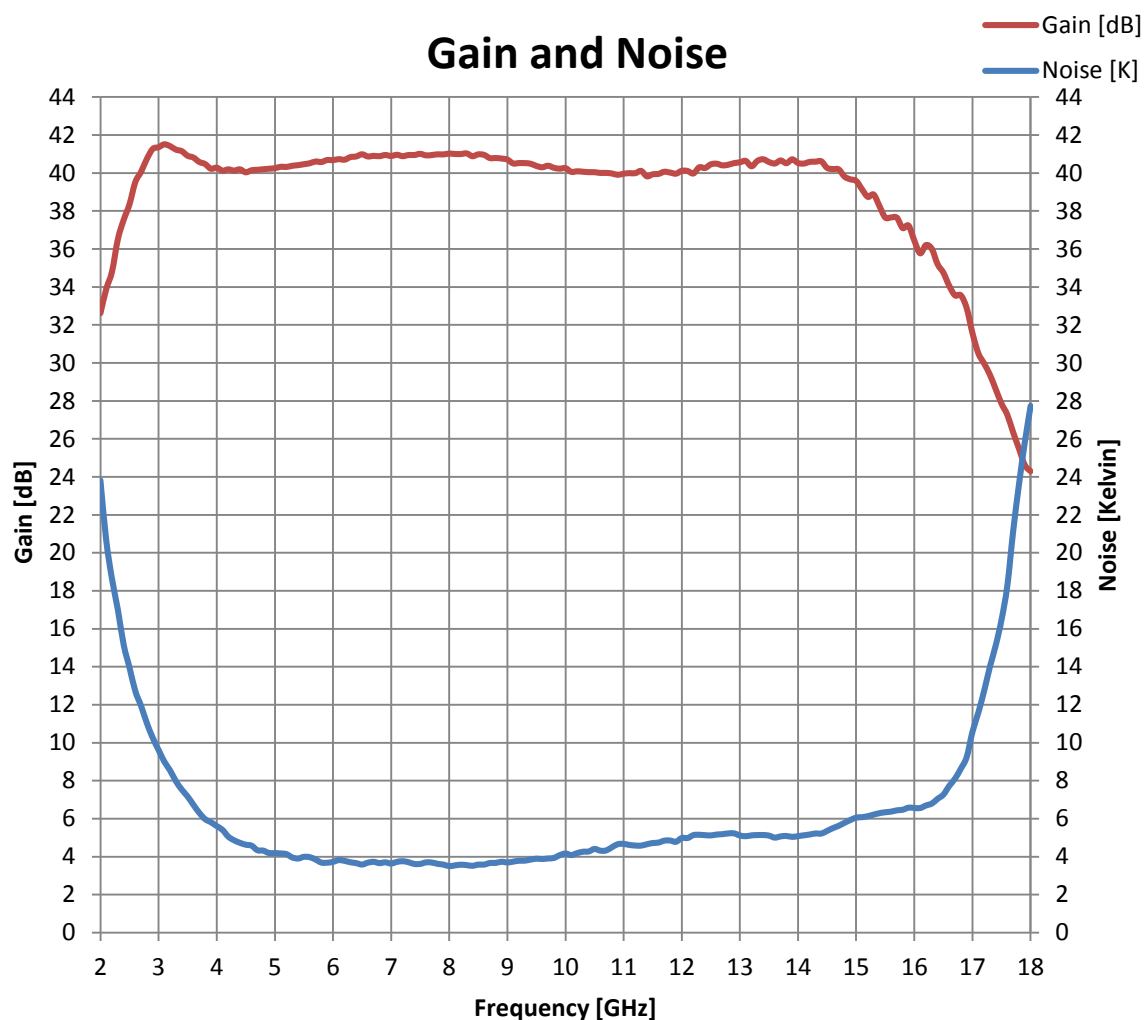
Typical RF Characteristics

Parameter	Test Condition	Value	Unit
Gain	4-16 GHz	41	dB
Noise	4-16 GHz	5	K
IRL	4-16 GHz	14	dB
ORL	4-16 GHz	20	dB
P_{1dB}	4-16 GHz	0	dBm
OIP3	4-16 GHz	10	dBm

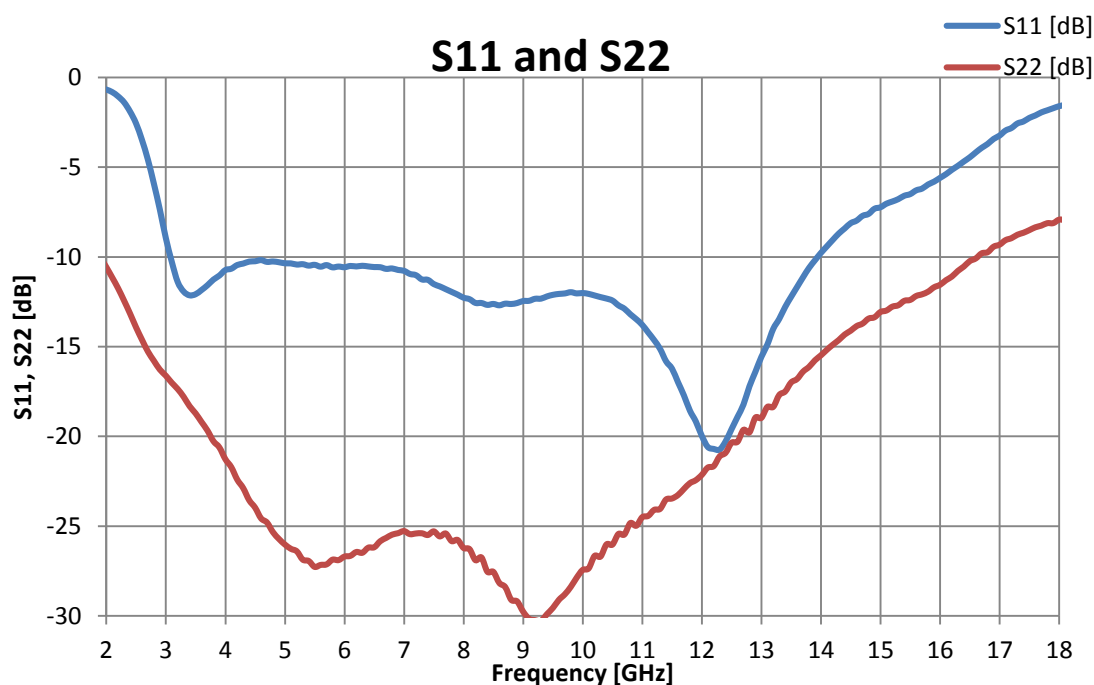
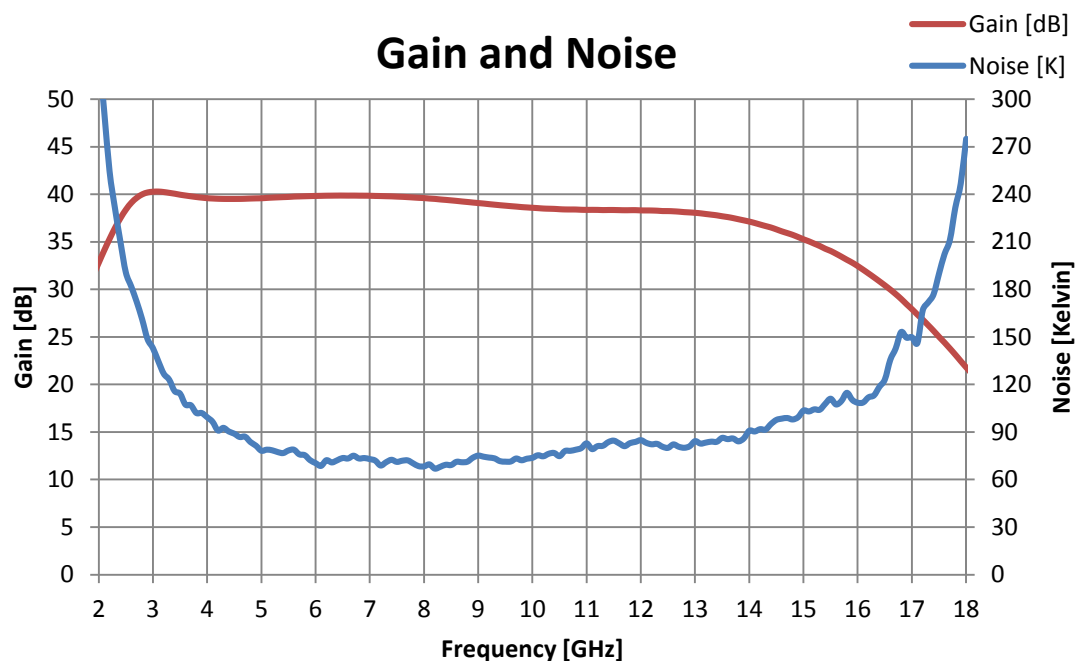
Typical DC Characteristics

Parameter	Value	Unit
V_{ds}	1.10	V
I_{ds}	13	mA
V_{gs}	0V	V
I_{gs}	360	μA
P_{dc}	14	mW

Measured typical data $T_{amb}=12K$

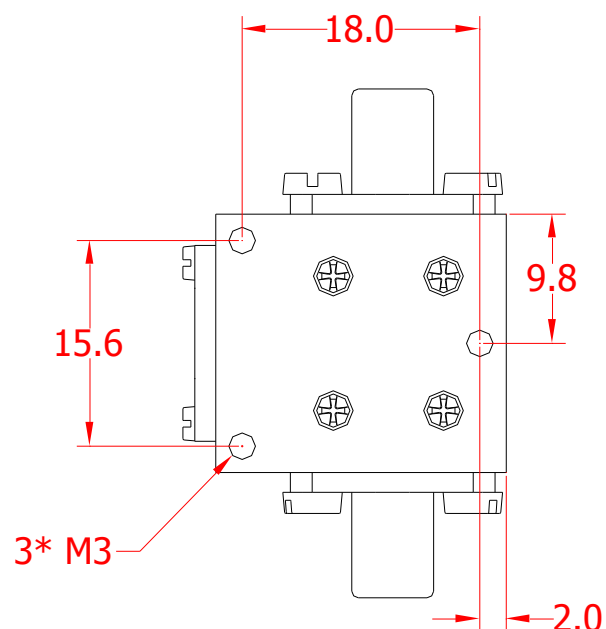
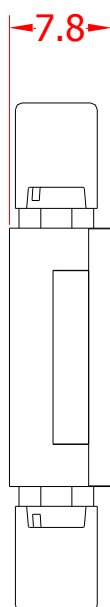
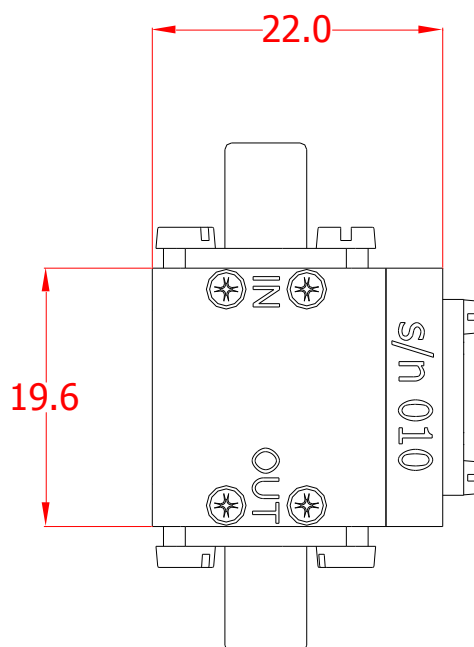
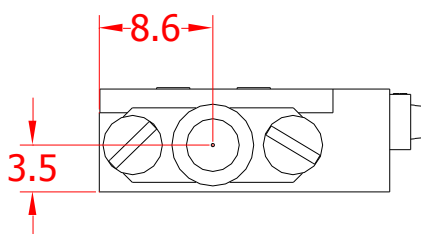
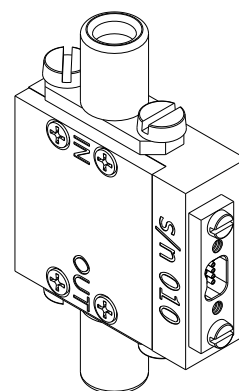


Measured typical data @ $T_{amb}=296K$



Drawings

Rev: Oct 2014



Dimensions are in millimeters