



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		-10 dBm
DC voltage on RF input and output	-30V	30V

Product features

- RF bandwidth: 4-8 GHz
- Noise: 2.1K typical
- Gain: 39dB
- DC-power: $V_d=0.50V$ @ 8mA
- One gate and one drain supply only
- RF-connectors: female SMA
- DC-connector: 9-pin female Nano-D

Product description

LNF-LNC4_8C is an ultra-low noise cryogenic amplifier operating in the 4-8 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 25.66*20.00*7.80 mm excluding the connectors.

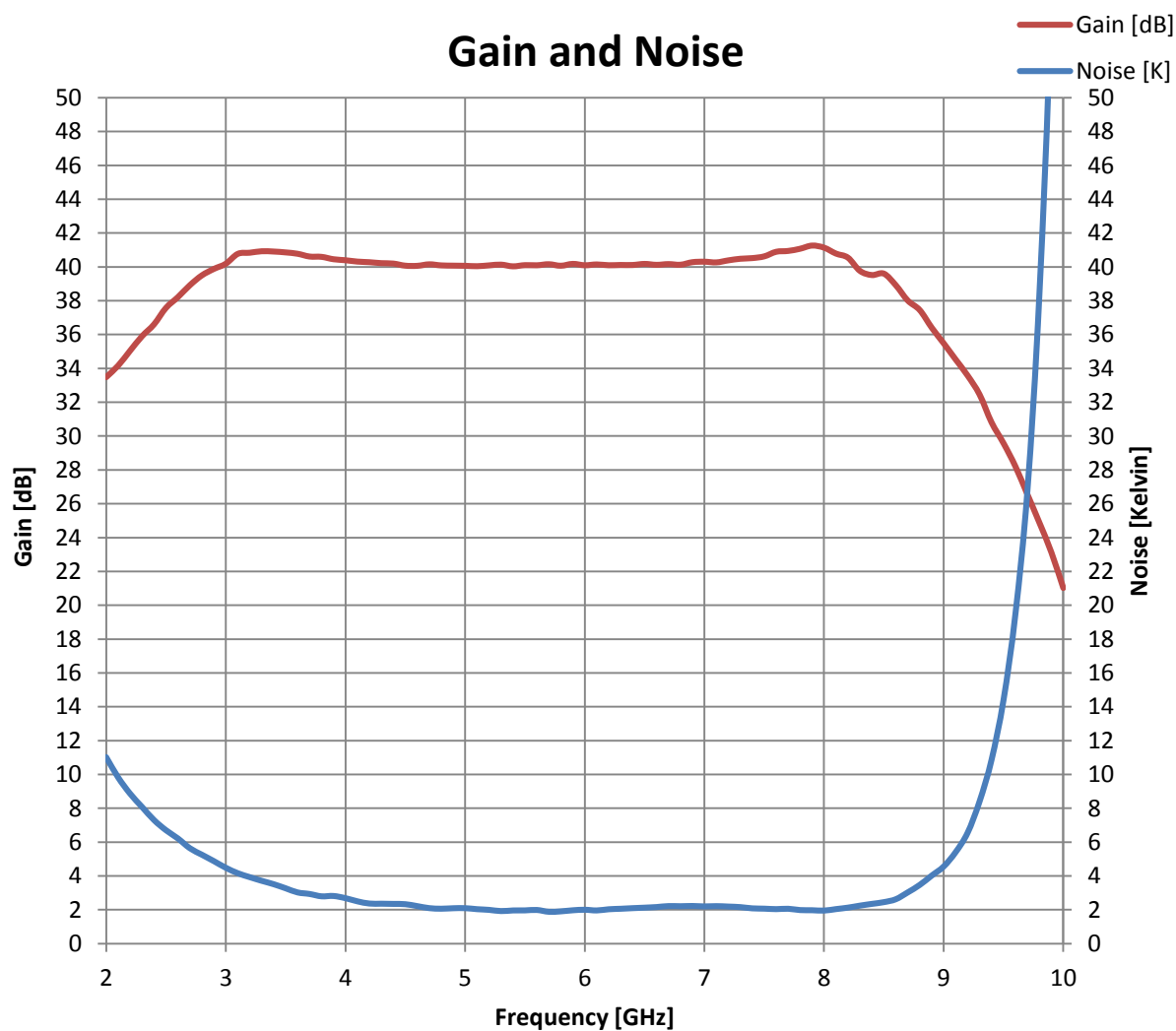
Typical RF Characteristics

Parameter	Test Condition	Value	Unit
Gain	4-8GHz	39	dB
Noise	4-8 GHz	2.1	K
IRL	4-8 GHz	18	dB
ORL	4-8 GHz	20	dB
P_{1dB}	5 GHz	-12	dBm
OIP3	5 GHz	-2	dBm

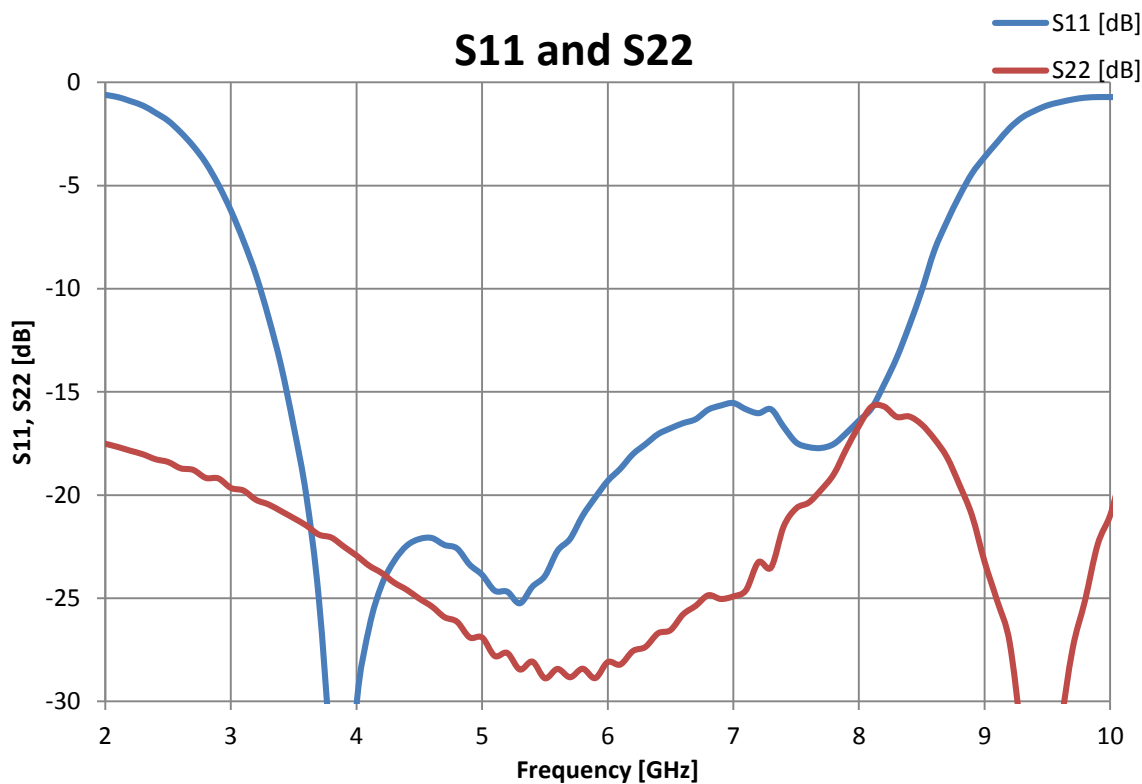
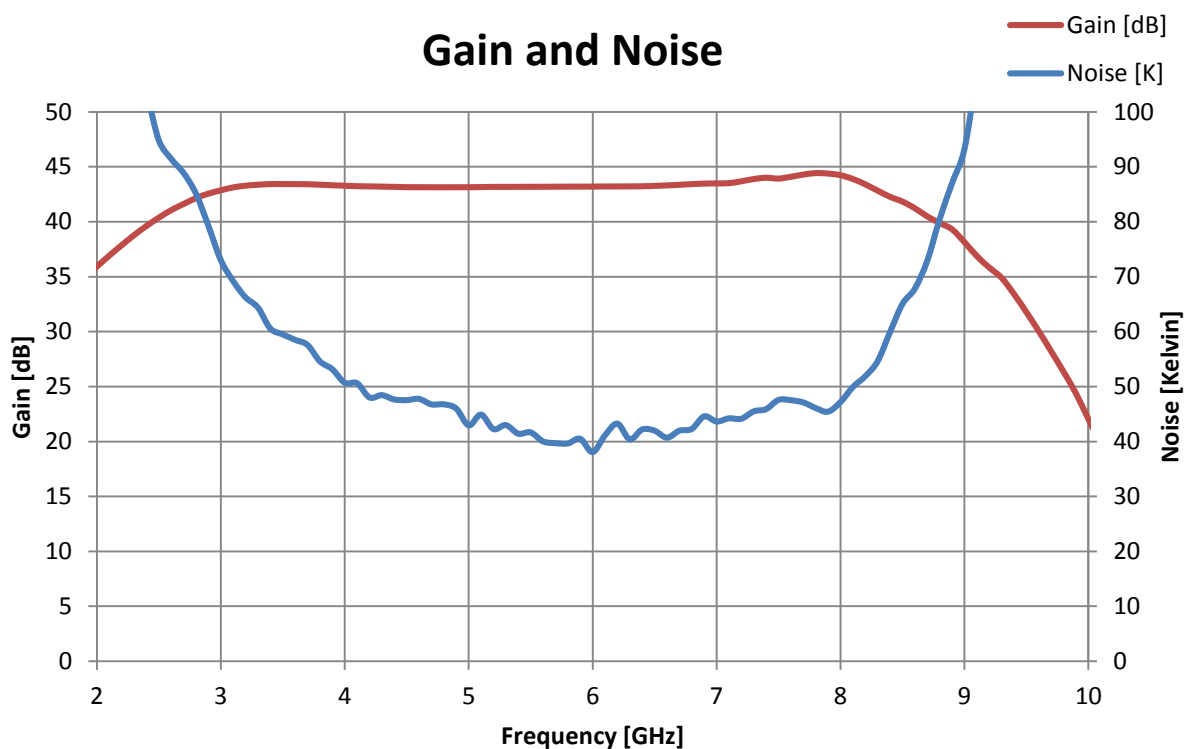
Typical DC Characteristics

Parameter	Value	Unit
V_{ds}	0.5	V
I_{ds}	8	mA
V_{gs}	+0.04V	V
I_{gs}	3.6	μA
P_{dc}	4.0	mW

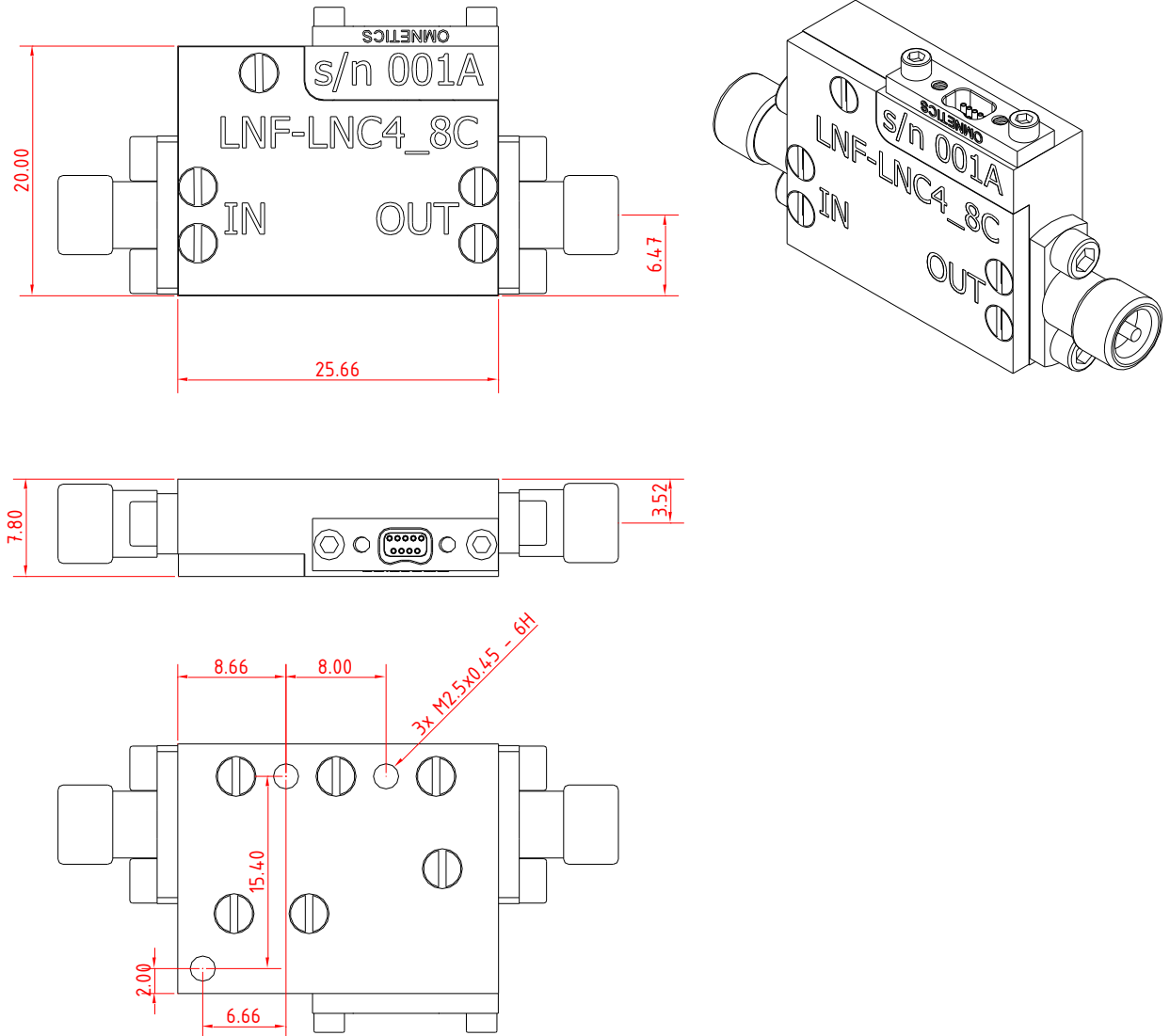
Measured typical data $T_{amb}=6K$



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



Drawings



Dimensions are in millimeters