



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

Product features

- RF bandwidth: 6-20 GHz
- Noise: 5.9K typical
- Gain: 36dB
- DC-power: $V_d=1.10V$ @ 12mA
- One gate and one drain supply only
- RF-connectors: female SMA
- DC-connector: 9-pin female Nano-D

Product description

LNF-LNC6_20B is an ultra-low noise cryogenic amplifier operating in the 6-20 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.

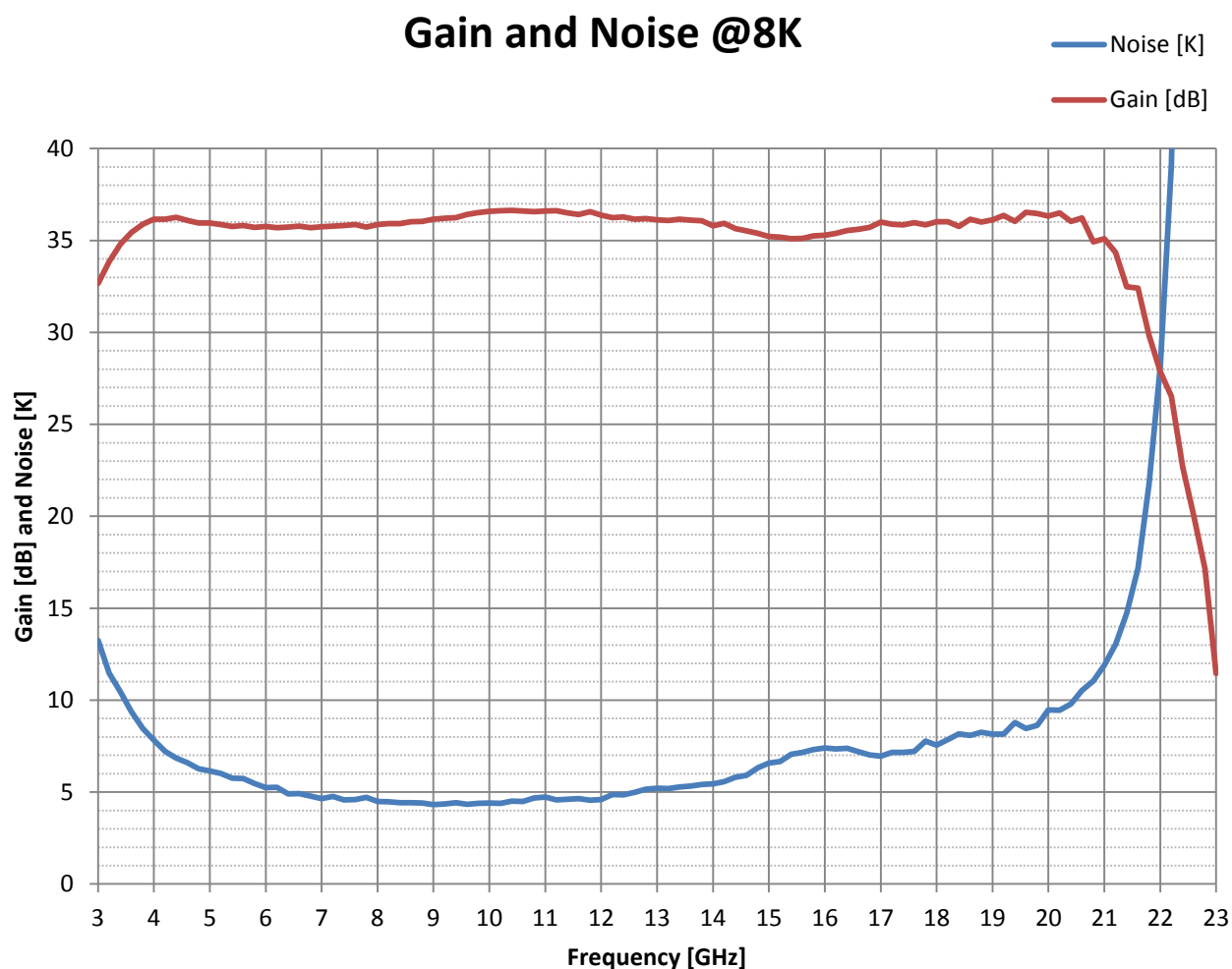
Typical RF Characteristics

Parameter	Test Condition	Value	Unit
Gain	6-20GHz	36	dB
Noise	6-20 GHz	5.9	K
IRL	6-20 GHz	15	dB
ORL	6-20 GHz	20	dB
P_{1dB}	6-20 GHz	0	dBm
OIP3	6-20 GHz	10	dBm

Typical DC Characteristics

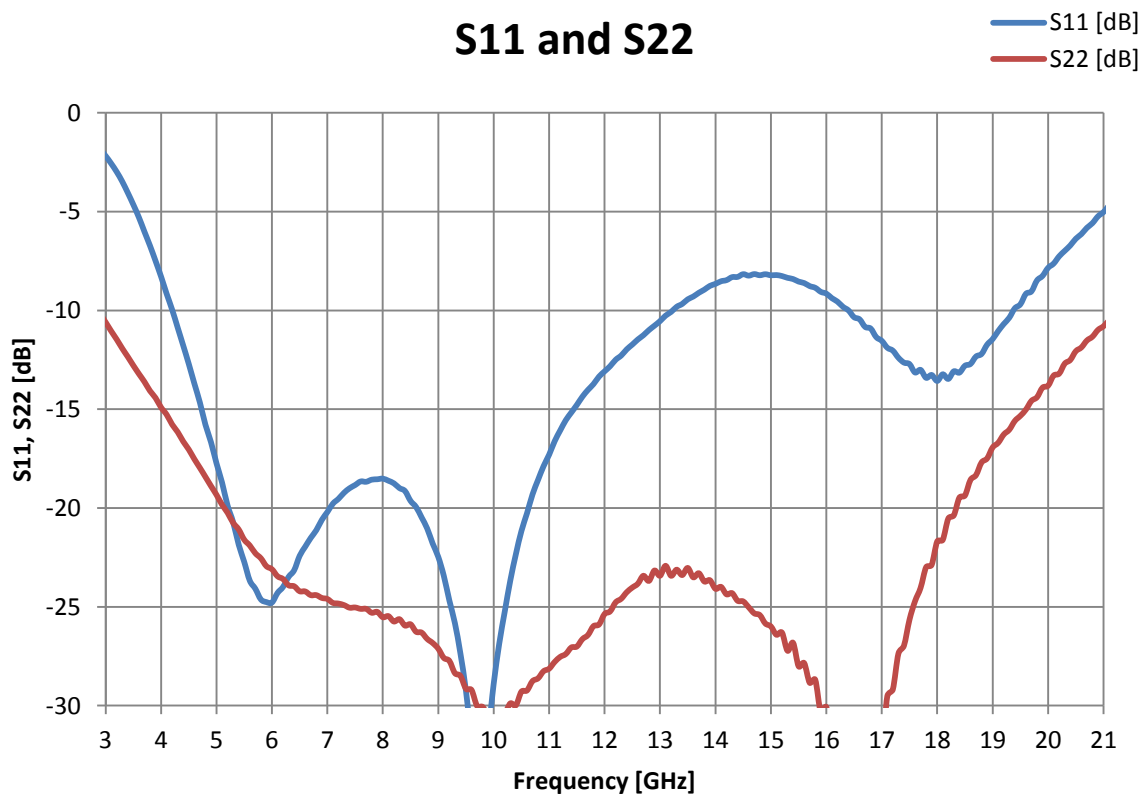
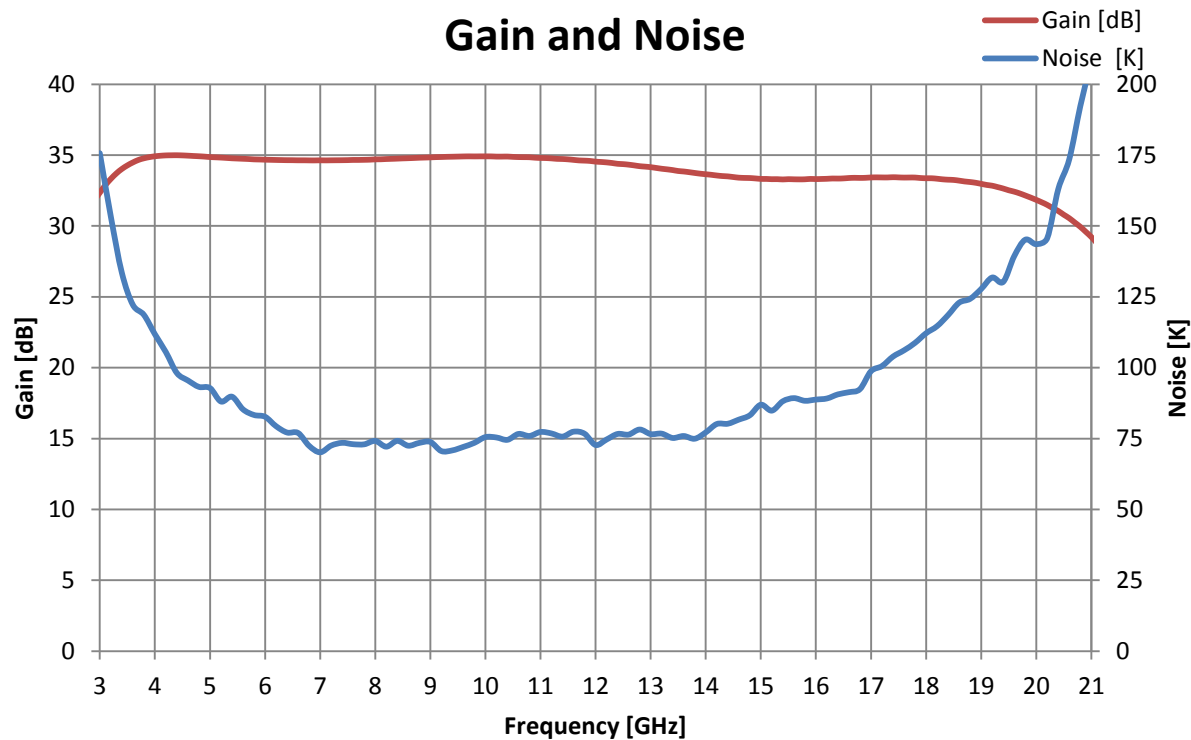
Parameter	Value	Unit
V_{ds}	1.10	V
I_{ds}	12	mA
V_{gs}	+0.04V	V
I_{gs}	3.6	μA
P_{dc}	13.2	mW

Measured typical data $T_{amb}=8K$

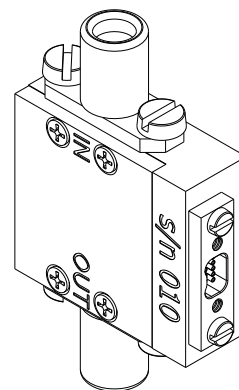


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Measured typical data @ $T_{amb}=296K$



Drawings



Dimensions are in millimeters

