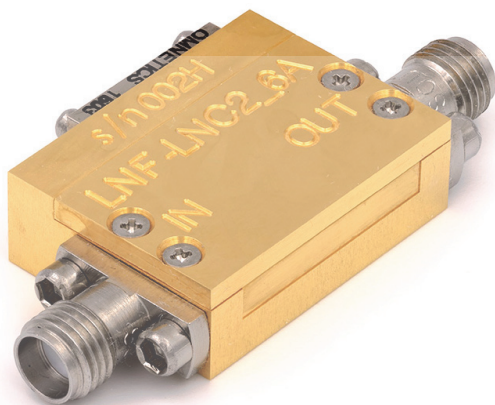


LNF-LNC2_6A

2-6 GHz Cryogenic Low Noise Amplifier

Rev: Feb 2017



Absolute maximum ratings

Parameter	Min	Max
V_{ds}	-0.5 V	3 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: 2-6 GHz
- Noise Temperature: 1.9 K typical
- Noise Figure: 0.028 dB typical
- Gain: 37 dB
- DC-power: $V_d=0.50$ V, $I_d=11$ mA
- One gate and one drain supply only
- RF-connectors: female SMA
- DC-connector: 9-pin female Nano-D

Typical RF Characteristics

Parameter	Test Condition	Value	Unit
Gain	2-4GHz	37	dB
Noise	2-4 GHz	1.9	K
IRL	2-4 GHz	8	dB
ORL	2-4 GHz	22	dB
P_{1dB}	3 GHz	-10	dBm
OIP3	3 GHz	0	dBm

Product description

LNF-LNC2_6A is an ultra-low noise cryogenic amplifier operating in the 2-6 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 24.80*18.50*7.80 mm excluding the connectors.

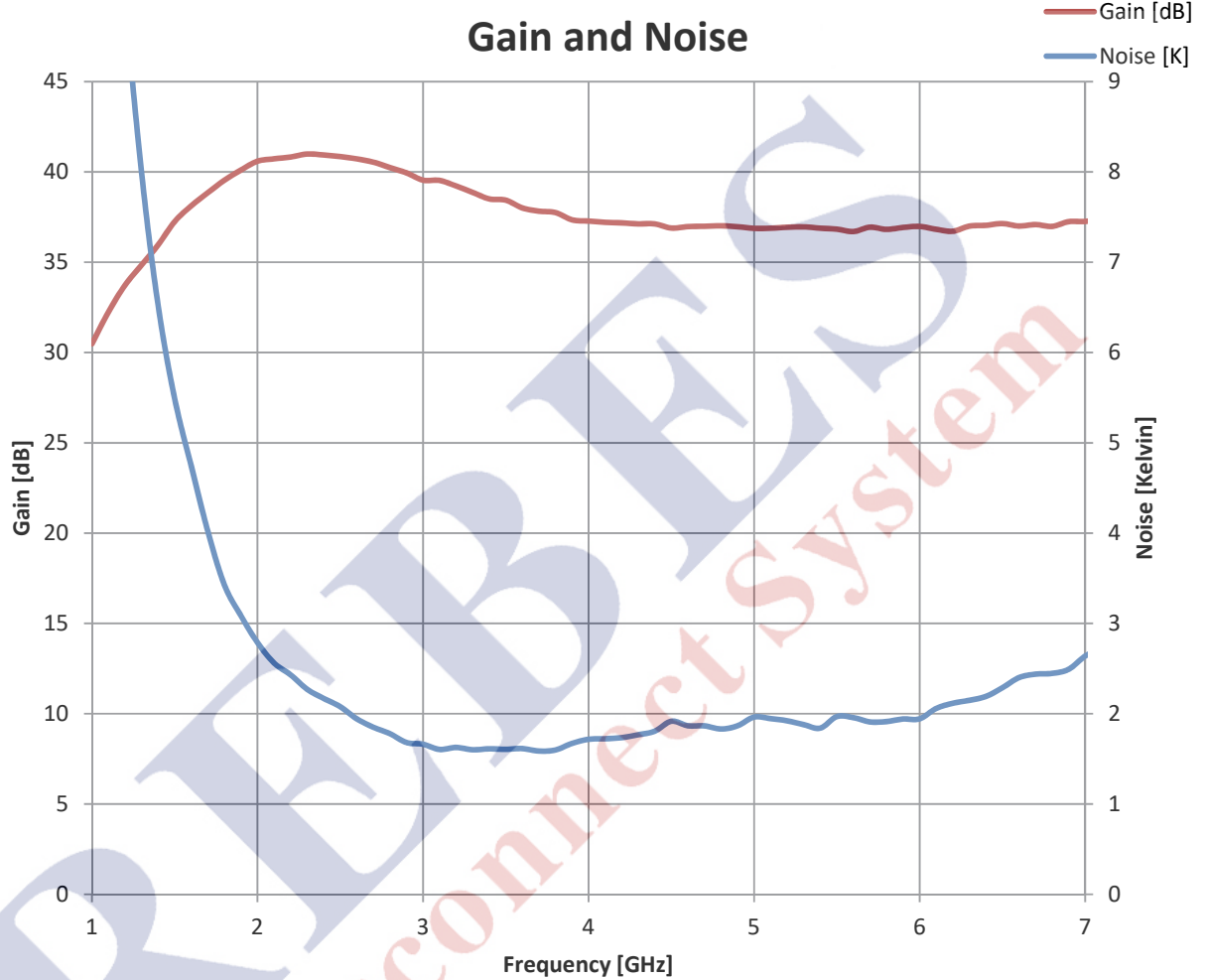
Typical DC Characteristics

Parameter	Value	Unit
V_{ds}	0.5	V
I_{ds}	11	mA
V_{gs}	+0.4	V
I_{gs}	36	μ A
P_{dc}	5.5	mW

LNF-LNC2_6A

2-6 GHz Cryogenic Low Noise Amplifier

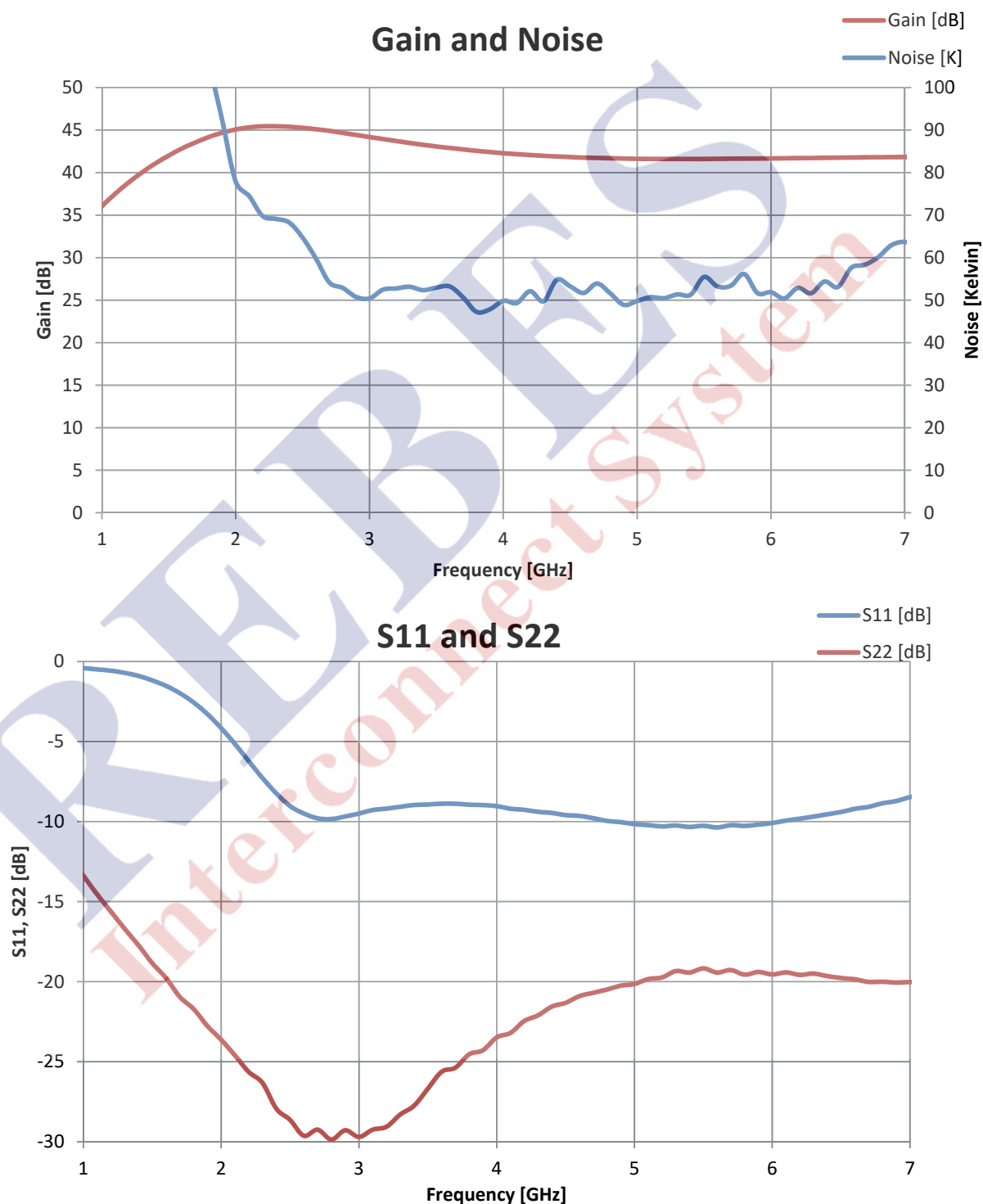
Rev: Feb 2017

Measured typical data $T_{amb}=4\text{ K}$ 

LNF-LNC2_6A

2-6 GHz Cryogenic Low Noise Amplifier

Rev: Feb 2017

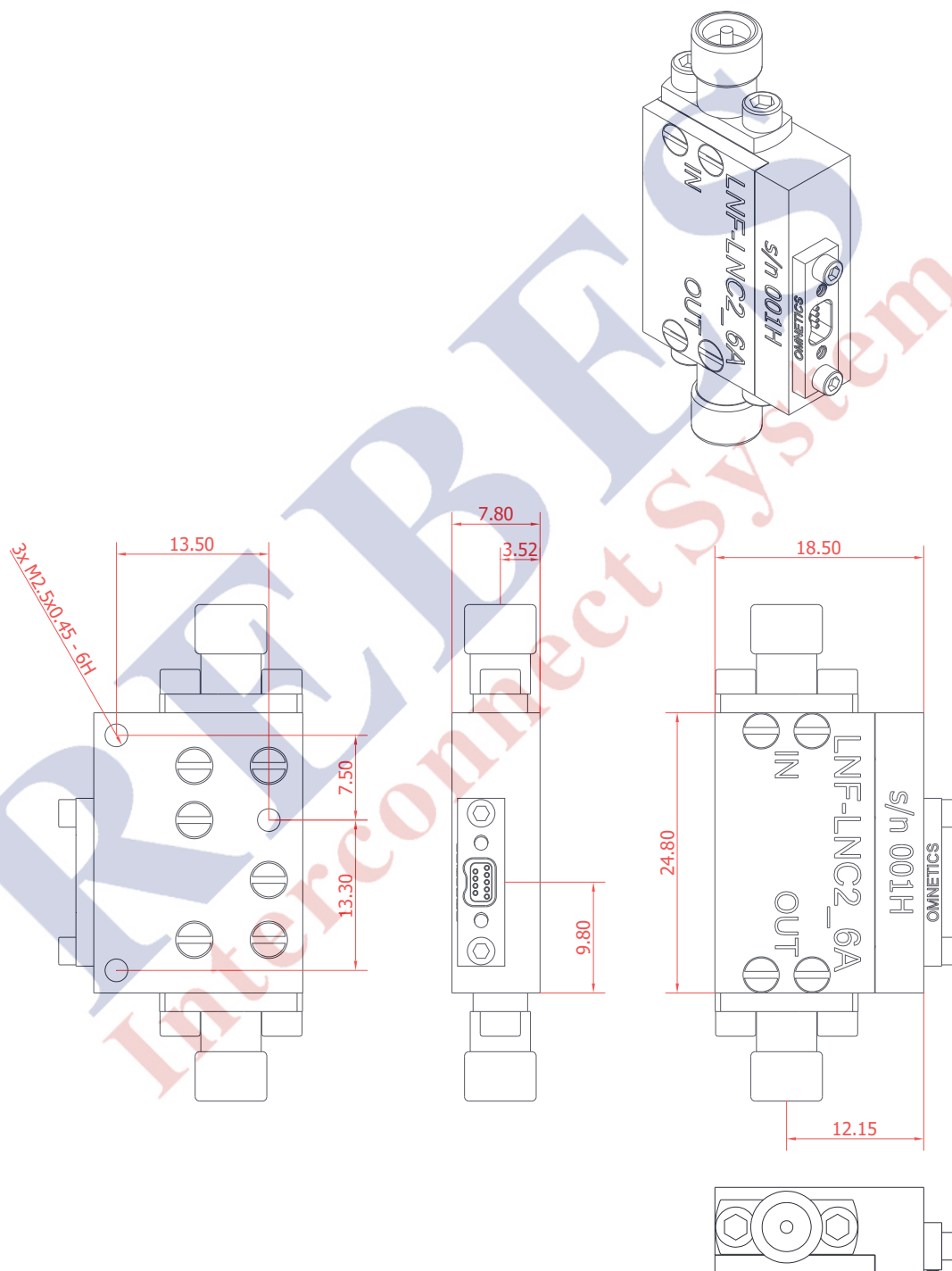
Measured typical data @ $T_{\text{amb}}=296\text{ K}$ 

LNF-LNC2_6A

2-6 GHz Cryogenic Low Noise Amplifier

Rev: Feb 2017

Drawings



Dimensions are in millimeters