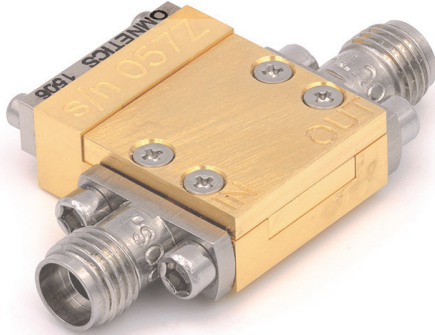


LNF-LNC15_29B

15-29 GHz Cryogenic Low Noise Amplifier

Rev: Feb 2017



Product features

- RF bandwidth: 15-29 GHz
- Noise Temperature: 8.5 K typical
- Noise Figure: 0.125 dB typical
- Gain: 32 dB
- DC-power: $V_d=0.50$ V, $I_d=8$ mA
- One gate and one drain supply only
- RF-connectors: female K (2.92mm)
- DC-connector: 9-pin female Nano-D

Product description

LNF-LNC15_29B is an ultra-low noise cryogenic amplifier operating in the 15-29 GHz frequency range. The LNA is packaged in a coaxial module using industry standard K (2.92mm) and Nano-D connectors. The lightweight gold plated aluminum module measures 17.80*15.15*6.80 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 V
I_{ds}		100 mA
V_{gs}	-20 V	+20 V
RF Input drive level		0 dBm

Typical RF Characteristics

Parameter	Test Condition	Value	Unit
Gain	15-29 GHz	32	dB
Noise	15-29 GHz	8.5	K
IRL	15-29 GHz	10	dB
ORL	15-29 GHz	10	dB
P_{1dB}	15-29 GHz	-12	dBm
OIP3	15-29 GHz	-2	dBm

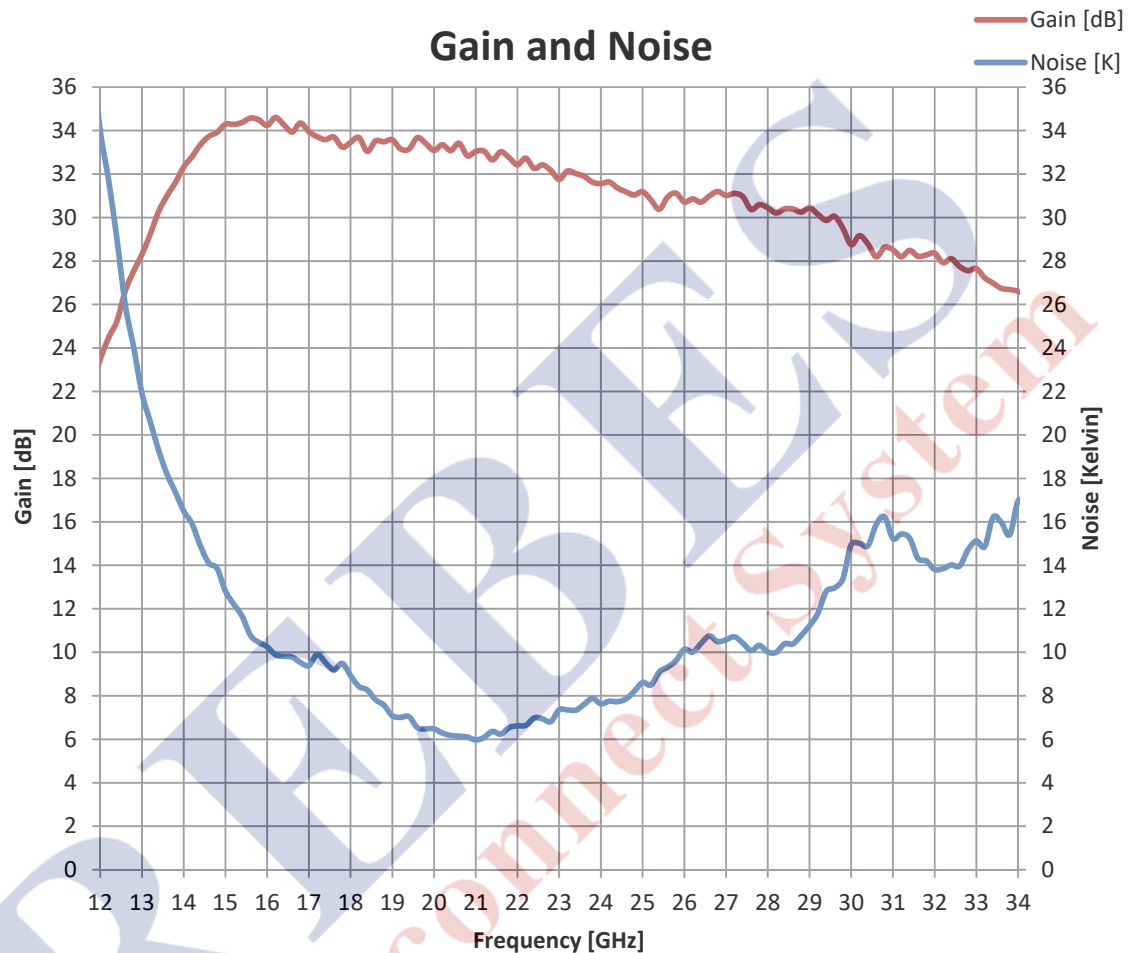
Typical DC Characteristics

Parameter	Value	Unit
V_{ds}	0.50	V
I_{ds}	8	mA
V_{gs}	0.30	V
I_{gs}	30	μ A
P_{dc}	4	mW

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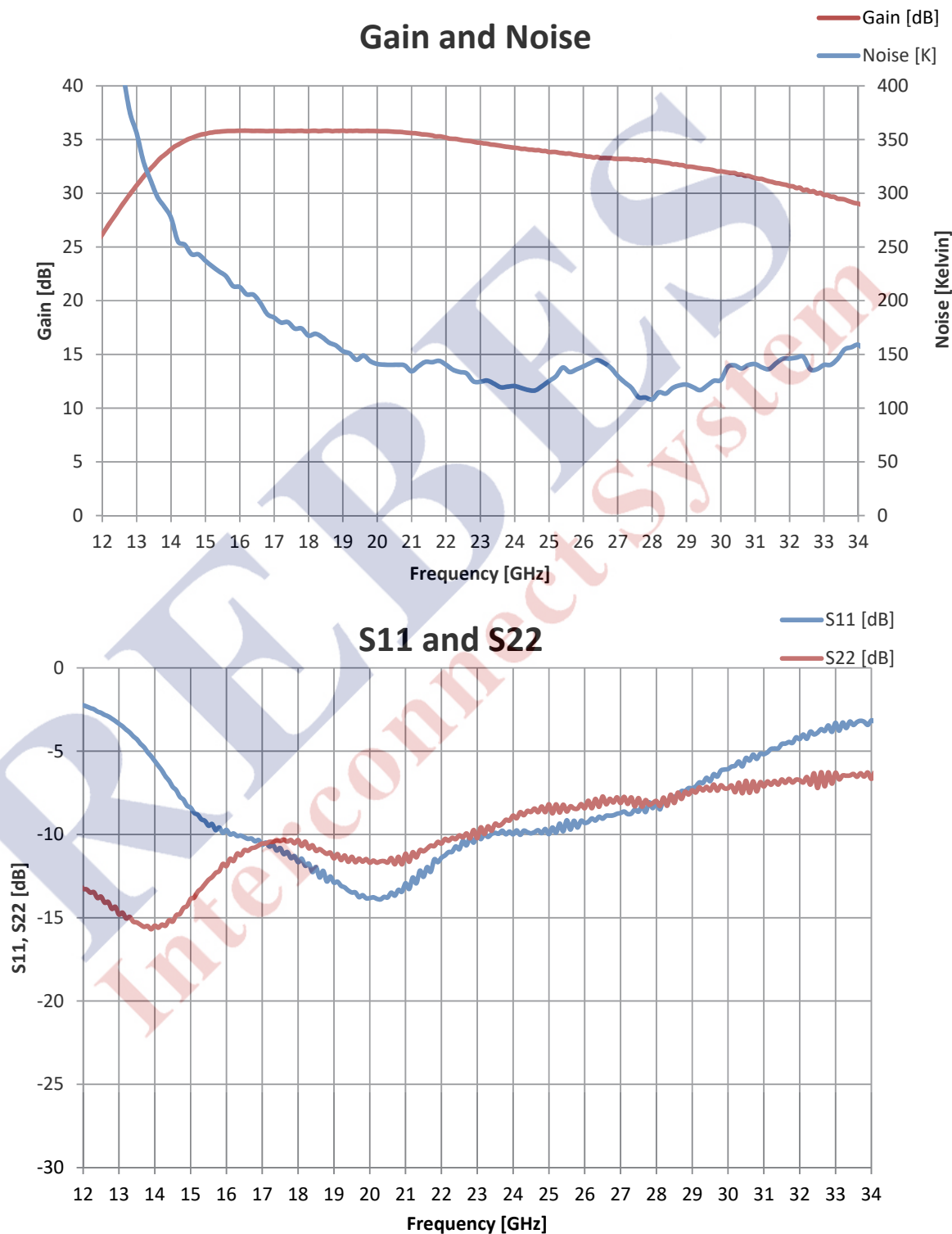
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Measured typical data $T_{amb}=5\text{ K}$ 

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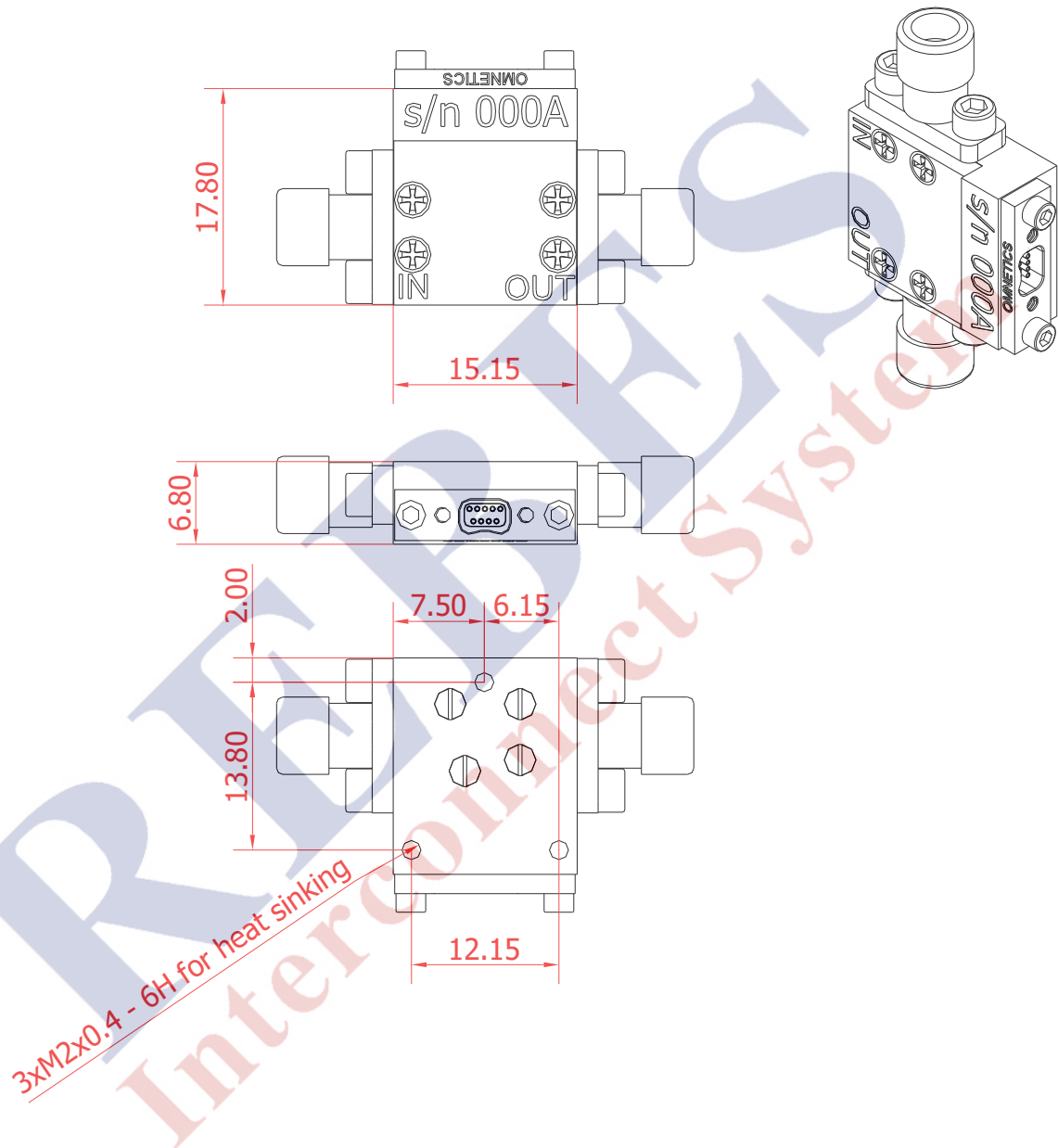
Measured typical data @ $T_{amb}=296\text{ K}$ 

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Drawings



Dimensions are in millimeters