

Product features

- RF bandwidth: 4-14 GHz
- Noise Figure: 0.75 dB typical
- Gain: 32 dB
- DC-power: $V_d=3.00V @ 70mA$
- One gate and one drain supply only
- RF-connectors: female SMA
- DC-connector: 9-pin female Nano-D

Product description

LNF-LNR4_14A is an ultra low noise amplifier operating in the 4-14 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 $22*19.6*7.8 \text{ mm}^3$ excluding the connectors. MMIC technology ensures reliable and repeatable unit-to-unit result.

Absolute maximum ratings

Parameter	Min	Max
V_{ds}	-0.5 V	4 V
I_{ds}		200 mA
V_{gs}	-7 V	+3.5 V
RF Input drive level		0 dBm

Typical RF Characteristics

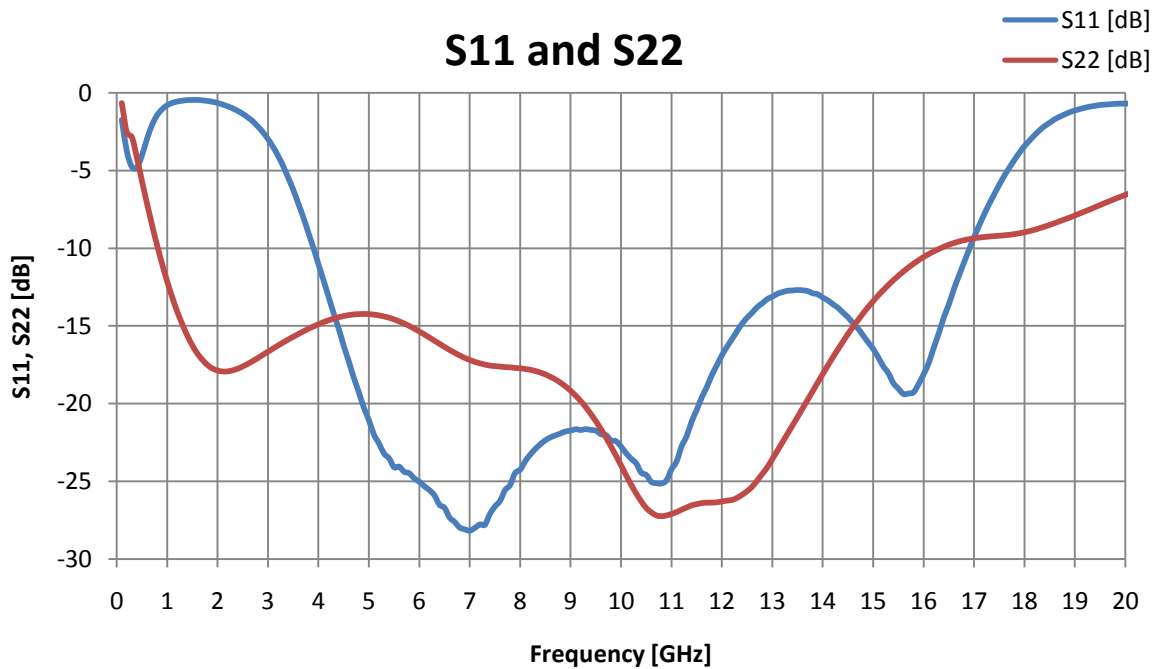
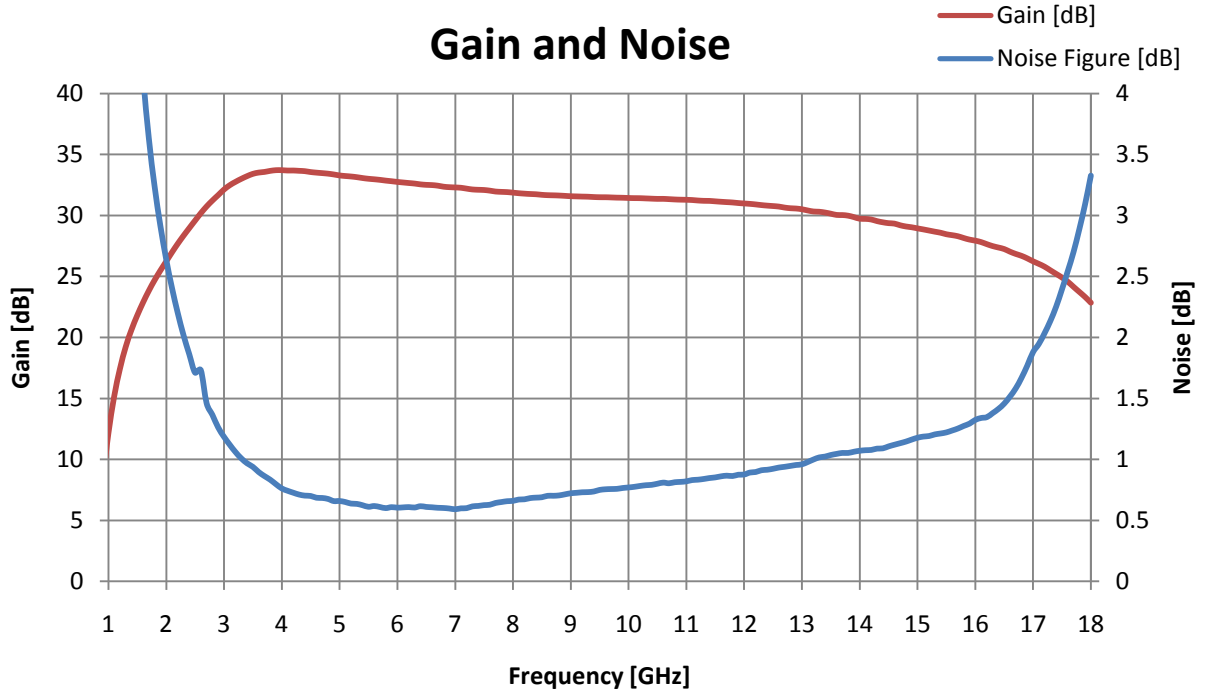
Parameter	Test Condition	Value	Unit
Gain	4-14 GHz	32	dB
Noise Figure	4-14 GHz	0.70	dB
IRL	4-14 GHz	17	dB
ORL	4-14 GHz	16	dB
P_{1dB}	4-14 GHz	2.5	dBm
OIP3	4-14 GHz	12	dBm

Typical DC Characteristics

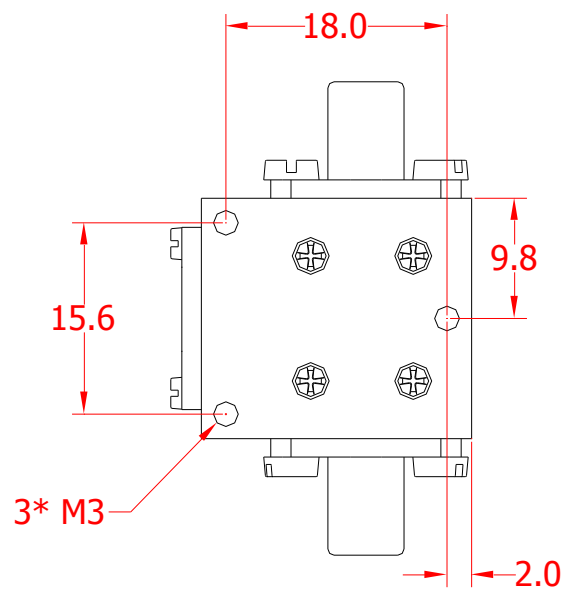
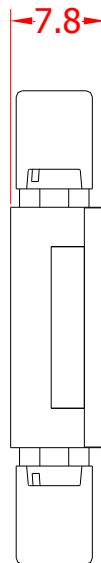
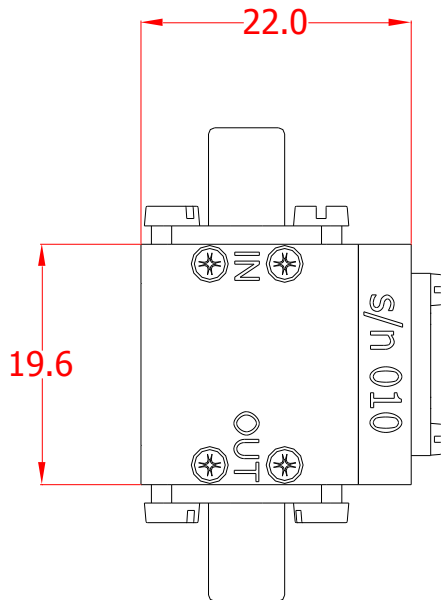
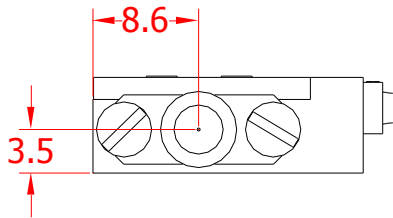
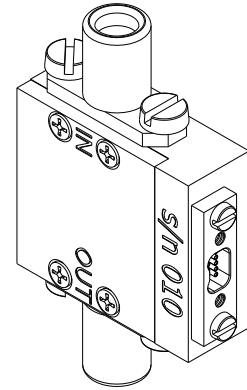
Parameter	Value	Unit
V_{ds}	3.00	V
I_{ds}	70	mA
V_{gs}	-2.0V ¹	V
I_{gs}	80	μA
P_{dc}	210	mW

¹ Will vary slightly from unit to unit. Adjust to give $I_{ds}=70mA$

Measured typical data



Drawings



Dimensions are in millimeters