

Datasheet

LNF-LNR4_8F

4-8 GHz Low Noise Amplifier



Product Features

RF Bandwidth	4-8 GHz
Noise Temperature	40 K
Noise Figure	0.56 dB
Gain	44 dB
DC power (typical)	$V_{in} = 5\text{ V}$, $I_{in} = 50\text{ mA}$
RF Connectors	Female SMA*
DC Connectors	Nano 4-pin Polarized
Single 5V supply only	
Reverse polarity and overvoltage protection	

* Contact factory for alternative configuration

Absolute maximum ratings

Parameter	Min	Max
DC Voltage on Input and Output	-20 V	20 V
RF Input Power		0 dBm
Operating Temperature	-40 °C	+85 °C

Typical Characteristics

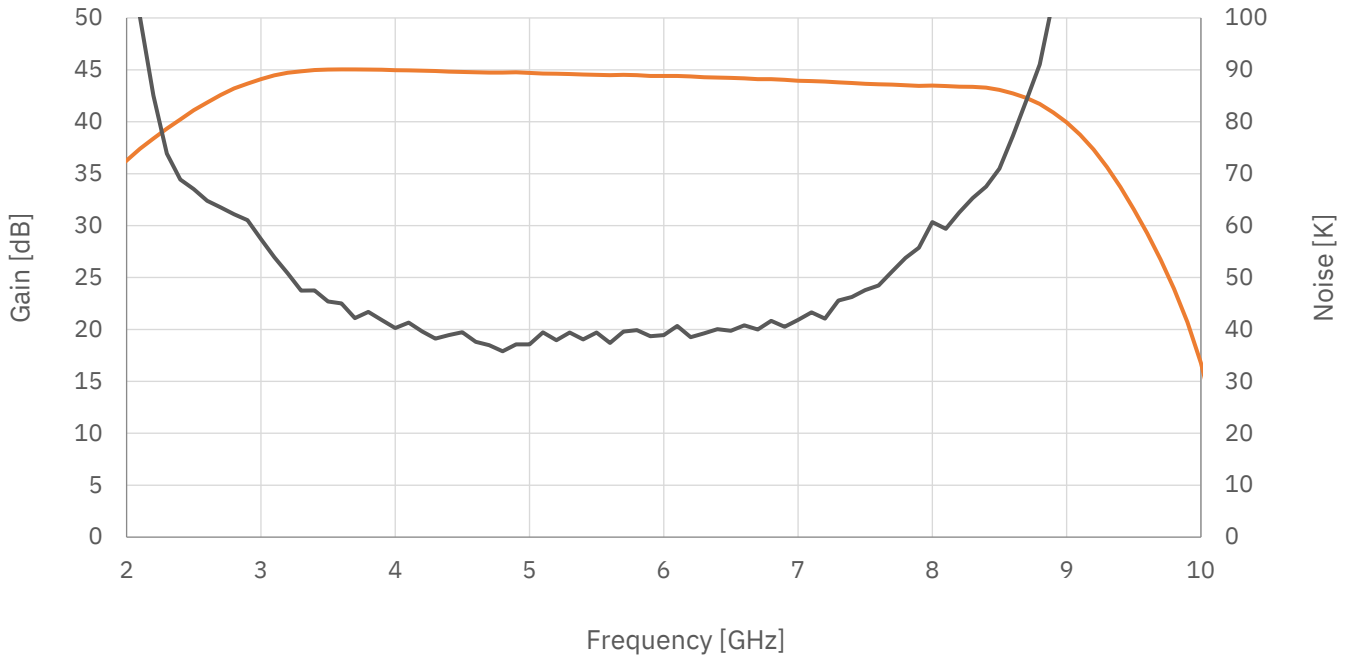
Parameter	Value	Unit
IRL	15	dB
ORL	20	dB
Output P1dB	-5	dBm
OIP3	3	dBm
Weight	11	grams

LNF-LNR4_8F is a room temperature amplifier using LNF's proprietary InP HEMT technology. The LNA is packaged in a coaxial module using industry standard SMA connectors for the RF ports and Nano 4-pin polarized connector to provide the DC. The lightweight gold plated aluminum body measures 18.31x21.5x7.0 mm excluding the connectors. The LNA is not hermetic and must be operated in a vacuum environment when below the dewpoint. All amplifiers are tested at 296 K and delivered with a test report.

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

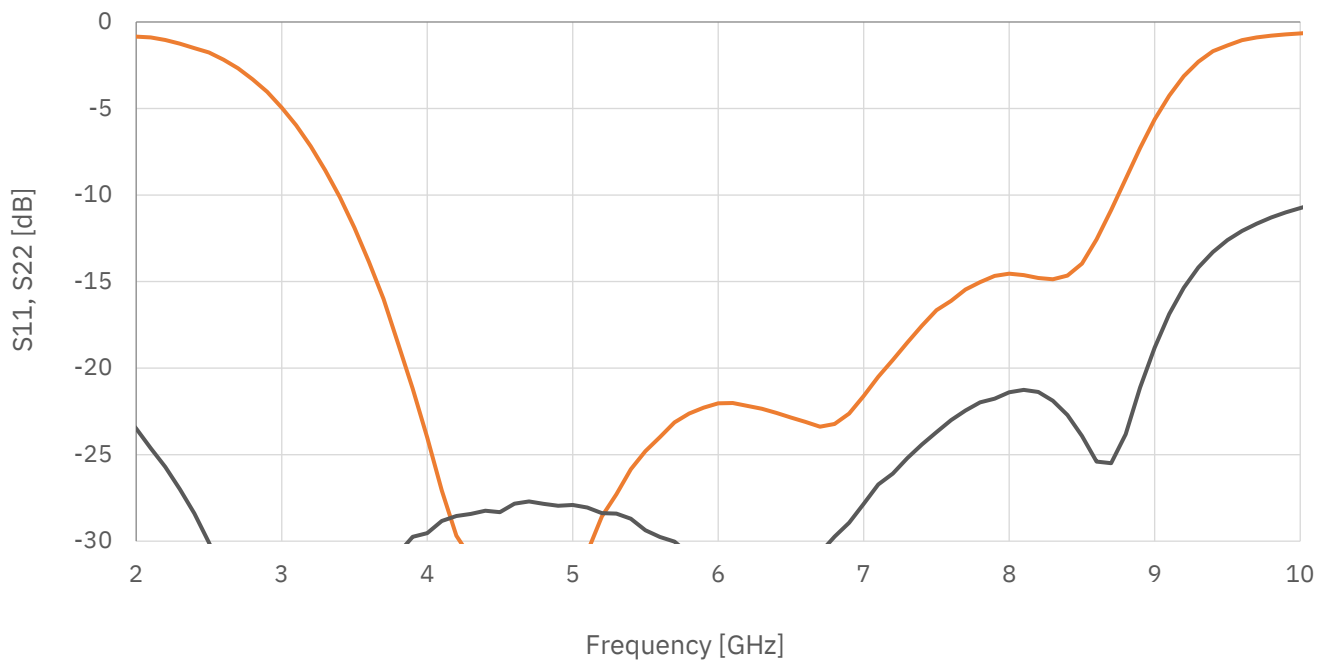
Gain and Noise at 296 K

Gain Noise



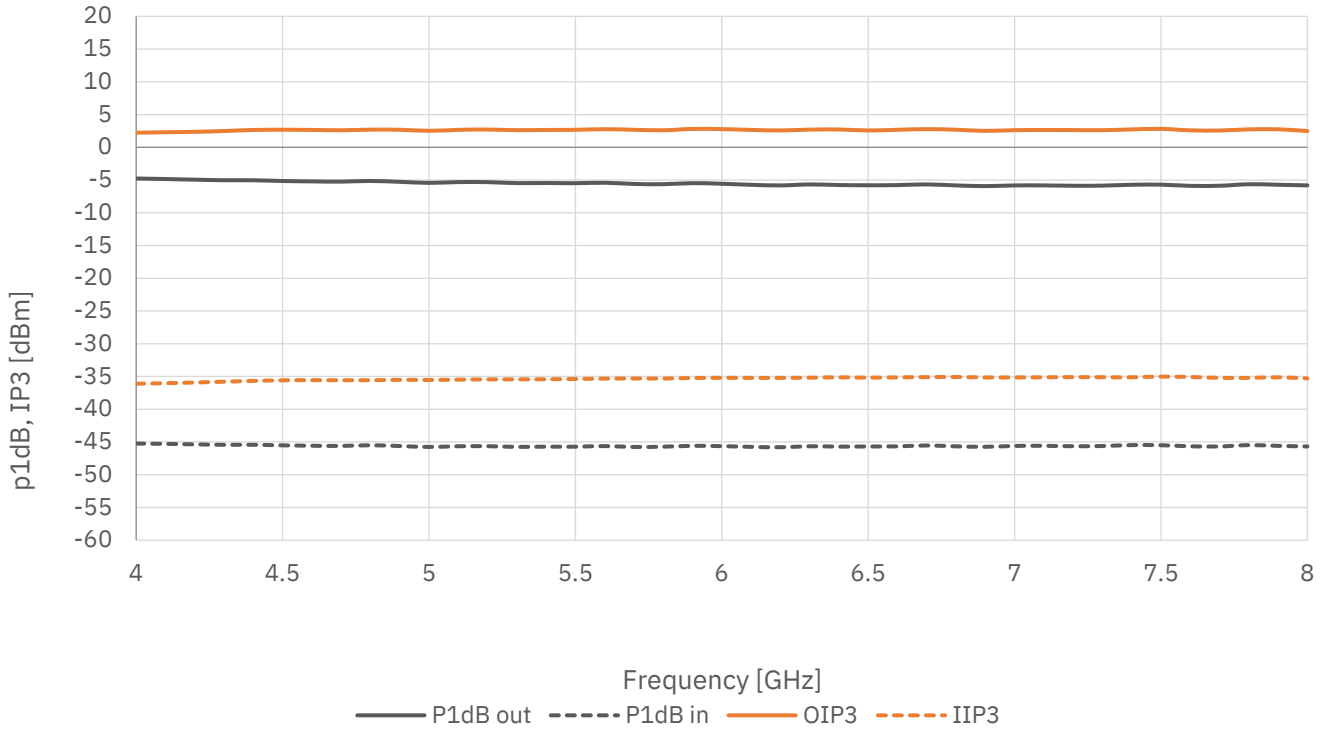
S-parameters at 296 K

S11 S22



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

P1dB and IP3 at 296 K



Dimensions and wiring

Units: mm

