

Datasheet

LNF-LNR23_42WB_SV

23-42 GHz Cryogenic Low Noise Amplifier



Product Features

RF Bandwidth	23-42 GHz
Noise Temperature	111 K
Noise Figure	1.41 dB
Gain	27 dB
DC power (typical)	V = 5 V, I = 40 mA
RF Connectors	WR28, UG-599/U
DC Connectors	2-pin Turret Connector
Single 5V supply only	

Absolute maximum ratings

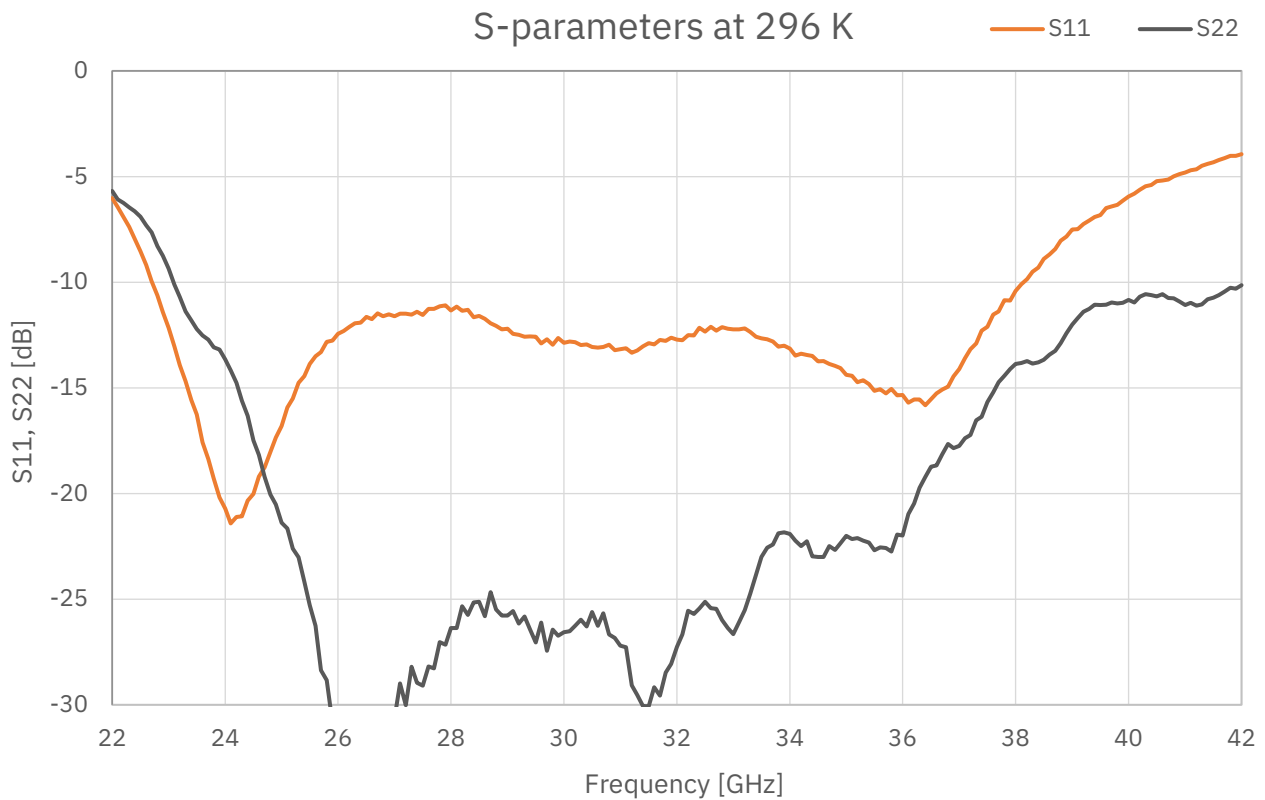
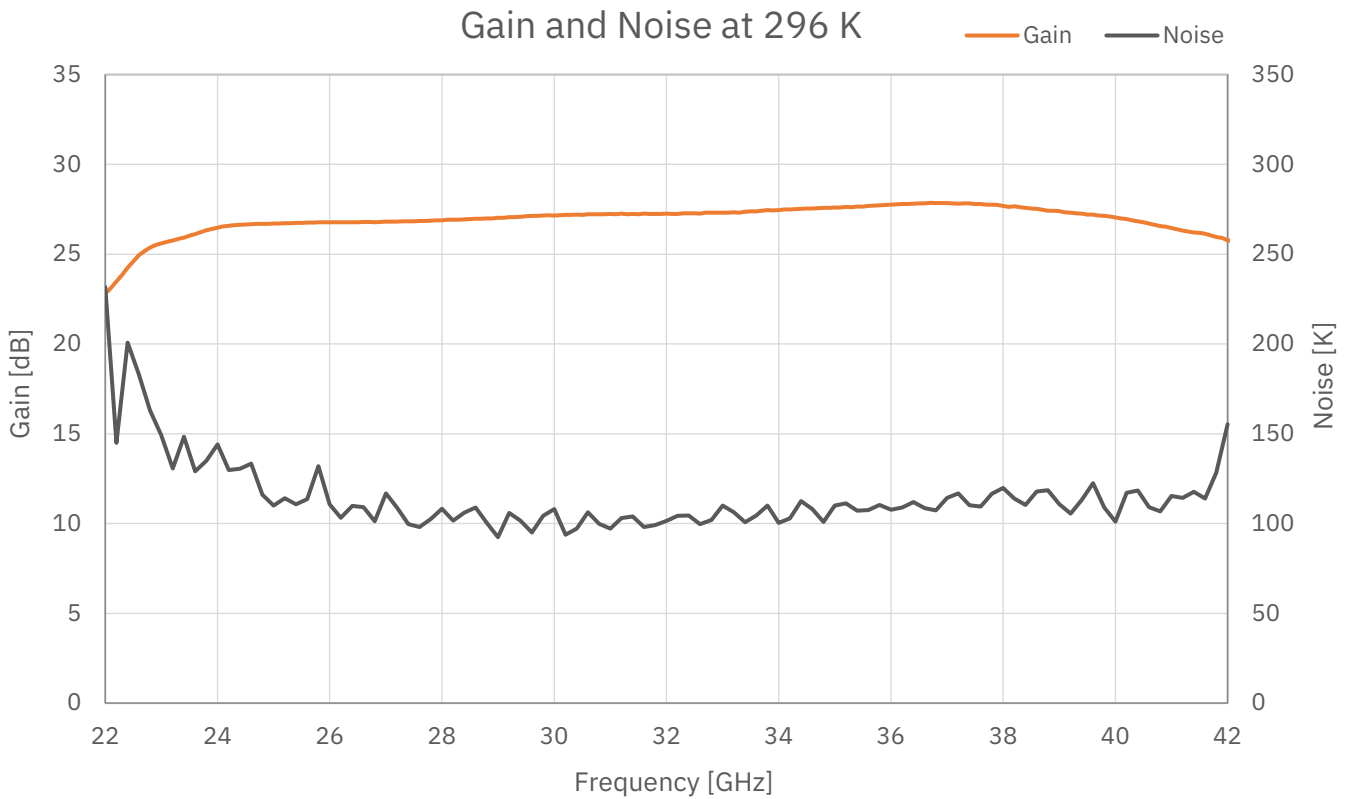
Parameter	Min	Max
DC Voltage on Input and Output	-30 V	30 V
RF Input Power		0 dBm
Operating Temperature	-40 °C	+85 °C

Typical Characteristics

Parameter	Value	Unit
IRL	12	dB
ORL	18	dB
Output P1dB	-3	dBm
OIP3	5	dBm
Weight	33	grams

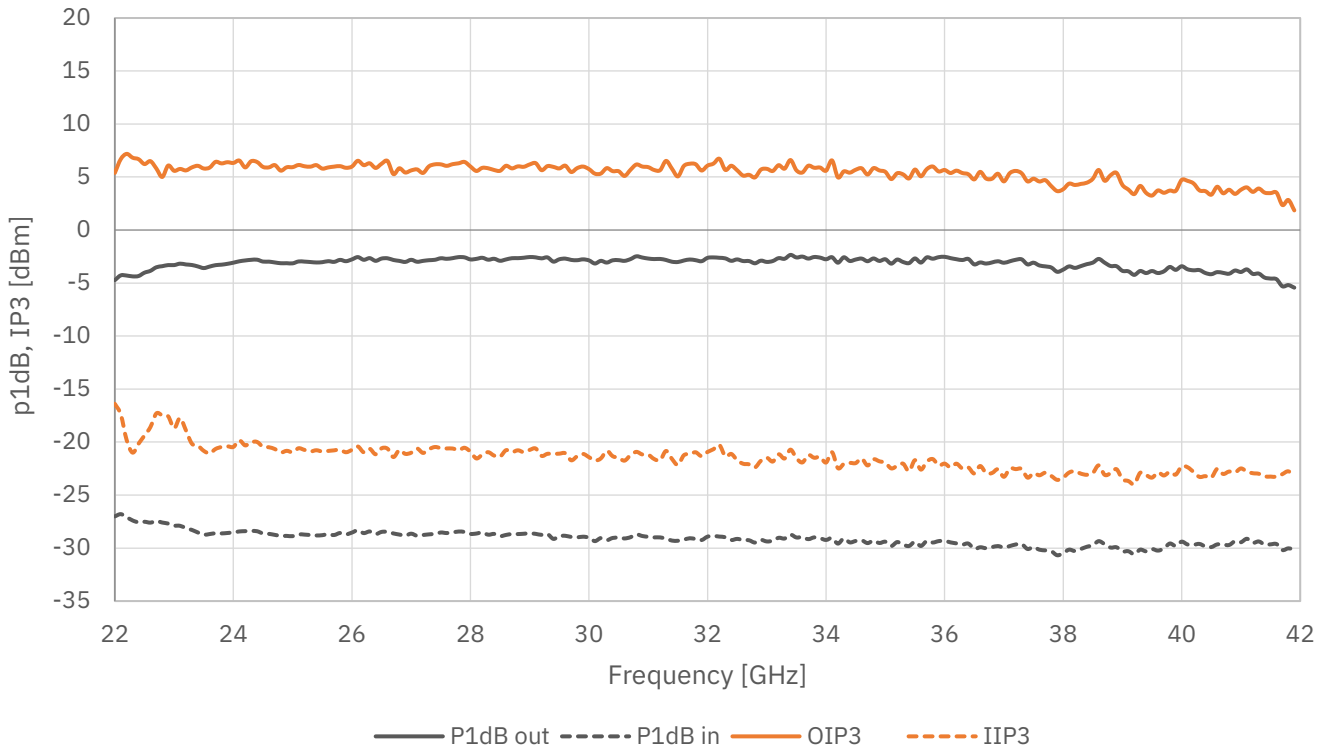
LNF-LNR23_42WB_SV is a room temperature amplifier using LNF's proprietary InP HEMT technology. MMIC technology ensures excellent unit-to-unit variation. The LNA is packaged in a waveguide module using industry standard WR28 connectors for the RF ports and 2-pin turret connectors to provide the DC. The lightweight gold plated aluminum body measures 22.70x29.91x19.20 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, $T_{amb} = 296\text{ K}$



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

p1dB and IP3 at 296 K



Dimensions and wiring

Units: mm

