



Product features

- RF bandwidth: 0.3-14 GHz
- Noise Temperature: 4.2 K typical
- Noise Figure: 0.062 dB typical
- Gain: 42 dB
- DC-power: $V_d=0.80$ V, $I_d=15$ mA
- One gate and one drain supply only
- RF-connectors: Male G3PO
- DC-connector: 5-pin female strip connector
- Stackable: 140 mil pitch

Product description

LNF-LNC03_14A is a slim and stackable version of our very popular ultra-low noise cryogenic 0.3-14 GHz amplifier. The LNA is packaged in a module using Corning Gilbert G3PO coaxial connectors and a 5-pin strip DC connector. The lightweight gold plated aluminum module measures only 19.80*20.80*3.556 mm.

The LNA is stackable with a 140 mil pitch, suitable for Corning Gilbert G3PO multi-position blocks.

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

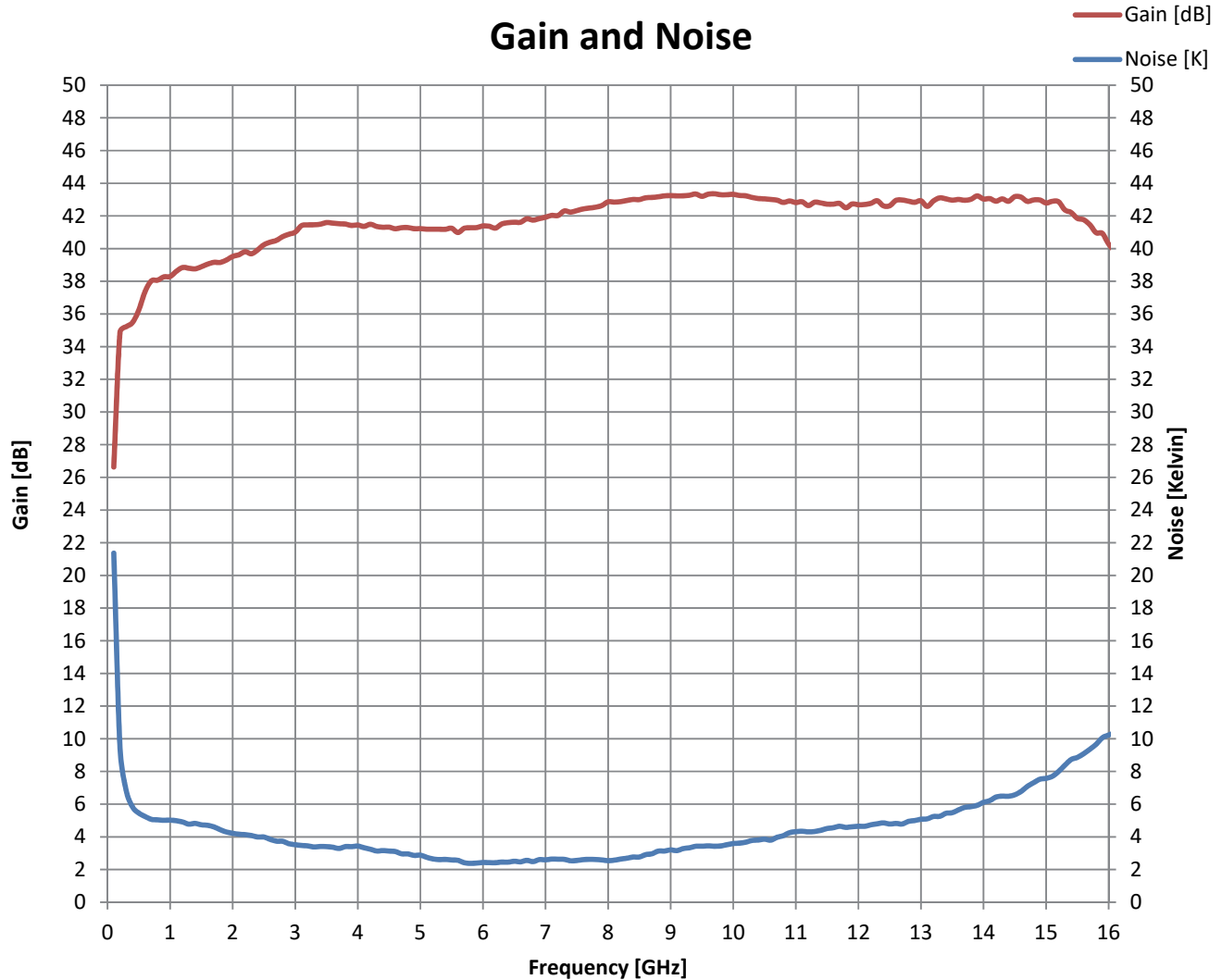
Typical RF Characteristics

Parameter	Test Condition	Value	Unit
Gain	0.3-14GHz	42	dB
Noise	0.3-14 GHz	4.2	K
IRL	4-14 GHz	15	dB
ORL	0.7-14 GHz	20	dB
P_{1dB}	5 GHz	-10	dBm
OIP3	5 GHz	0	dBm

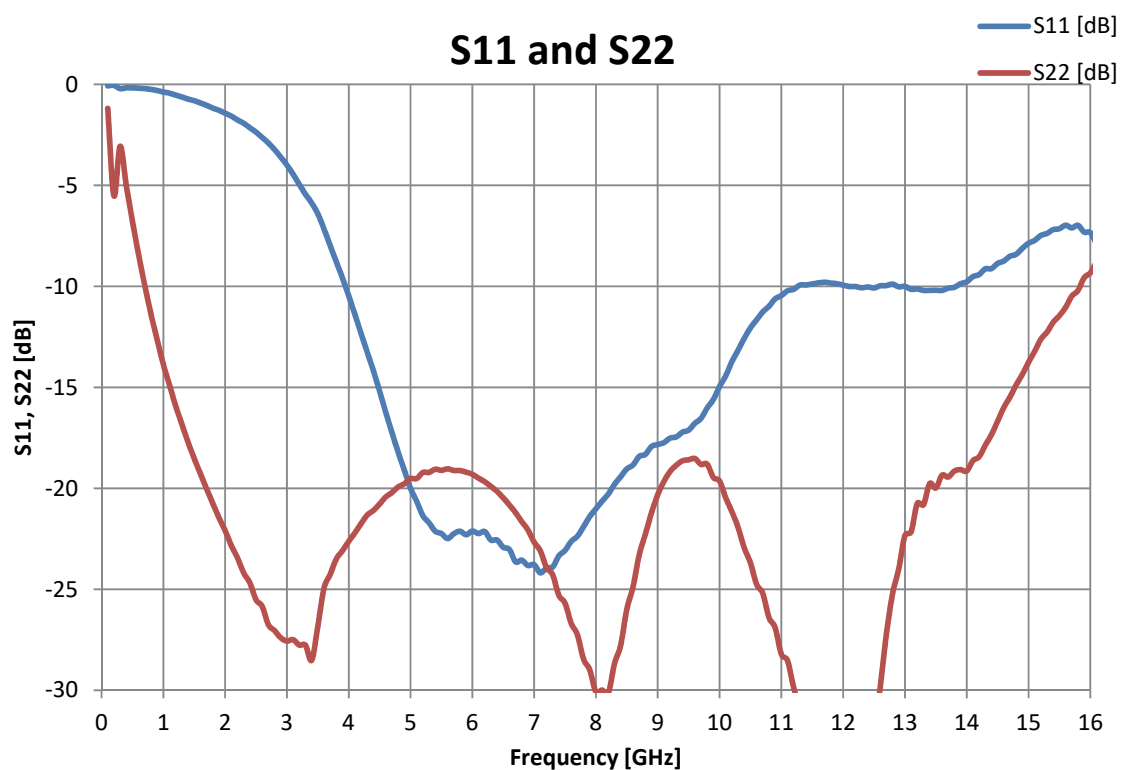
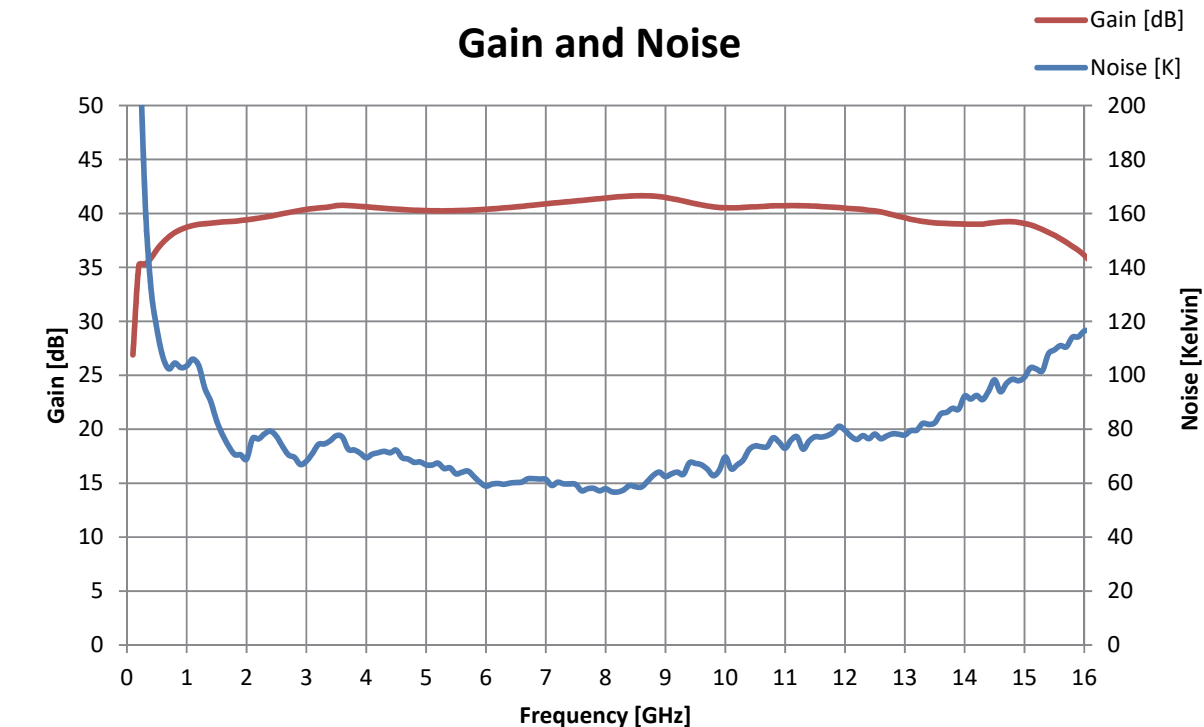
Typical DC Characteristics

Parameter	Value	Unit
V_{ds}	0.8	V
I_{ds}	15	mA
V_{gs}	+0.4	V
I_{gs}	36	μ A
P_{dc}	9.8	mW

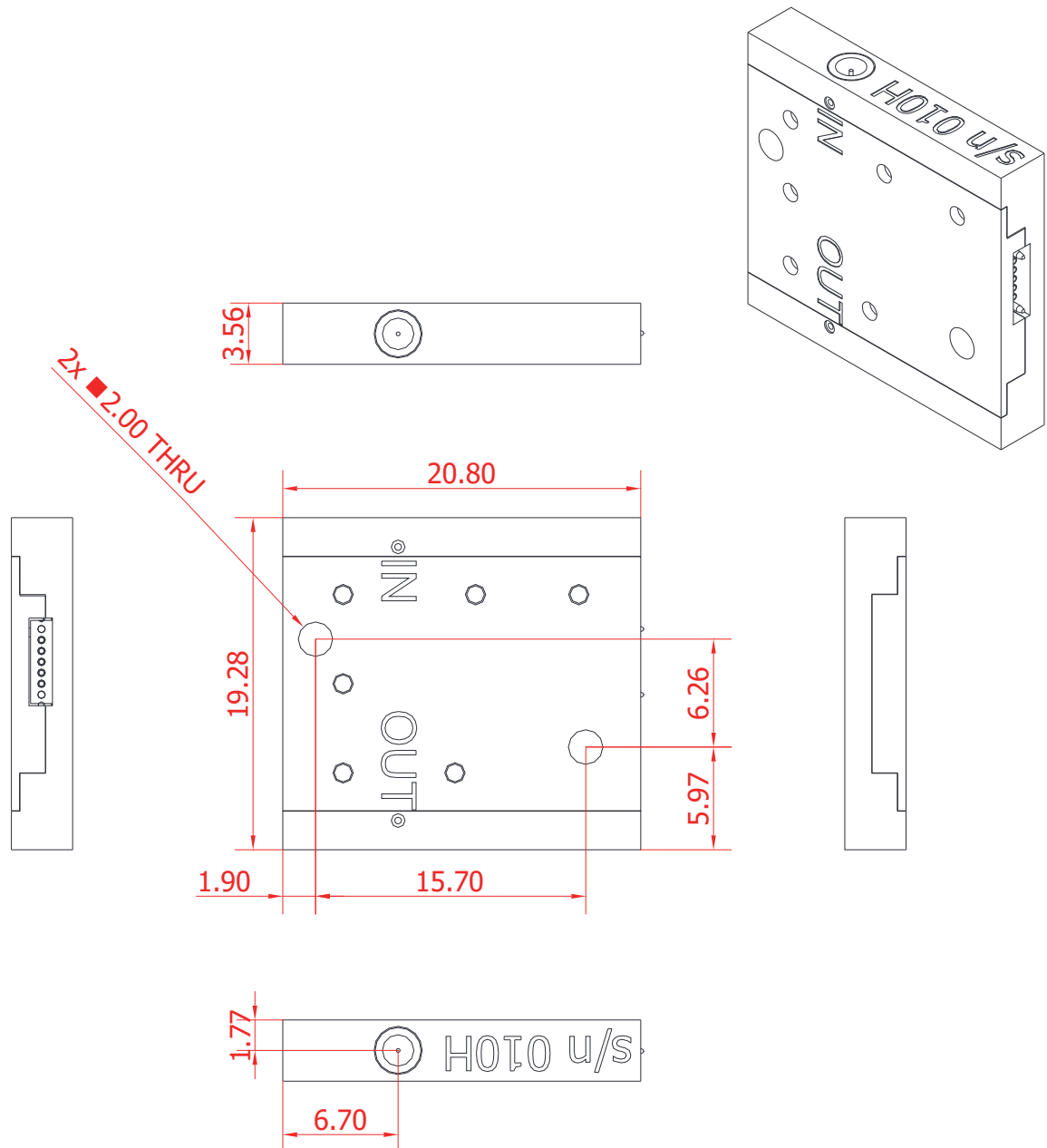
Measured typical data $T_{amb}=5\text{ K}$



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



Drawings



Dimensions are in millimeters