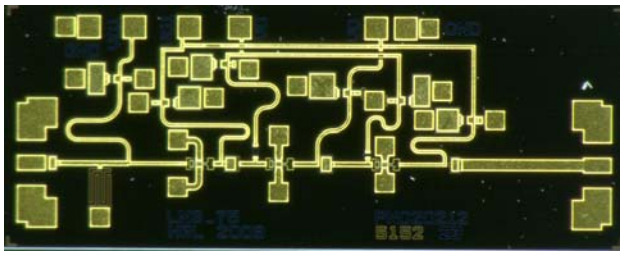
LN3-75



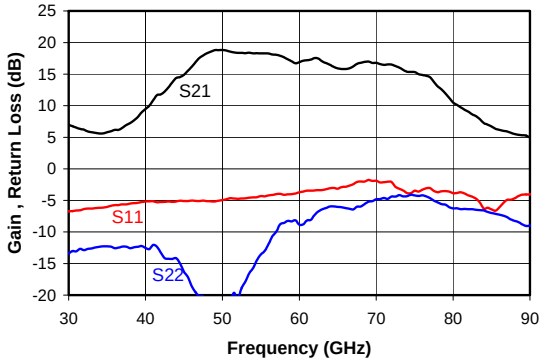
- **InP Low Noise Amplifier**
- **Wideband operation**
- **50-75 GHz**

The LN3-75 is a 3 stage MMIC amplifier die fabricated using HRL's H2 InP HEMT process that is AS9100B certified. The amplifier has a common drain and gate connections and an independent gate bias for the first stage. The first stage has a user breakable air bridge to allow for an independent drain bias on the first stage.

Electrical Specifications, T_A=25°C, Vd=1.2 V, Id=24 mA, 50 Ω Input and Output

Specification	Units	Min	Typ	Max
Frequency	GHz	50		75
Gain	dB	15	18	
Input Return Loss	dB		-3	0
Output Return Loss	dB		-7	-3
Saturated Output Power	dBm		0	

Typical Gain and Return Loss Performance



3/18/2011

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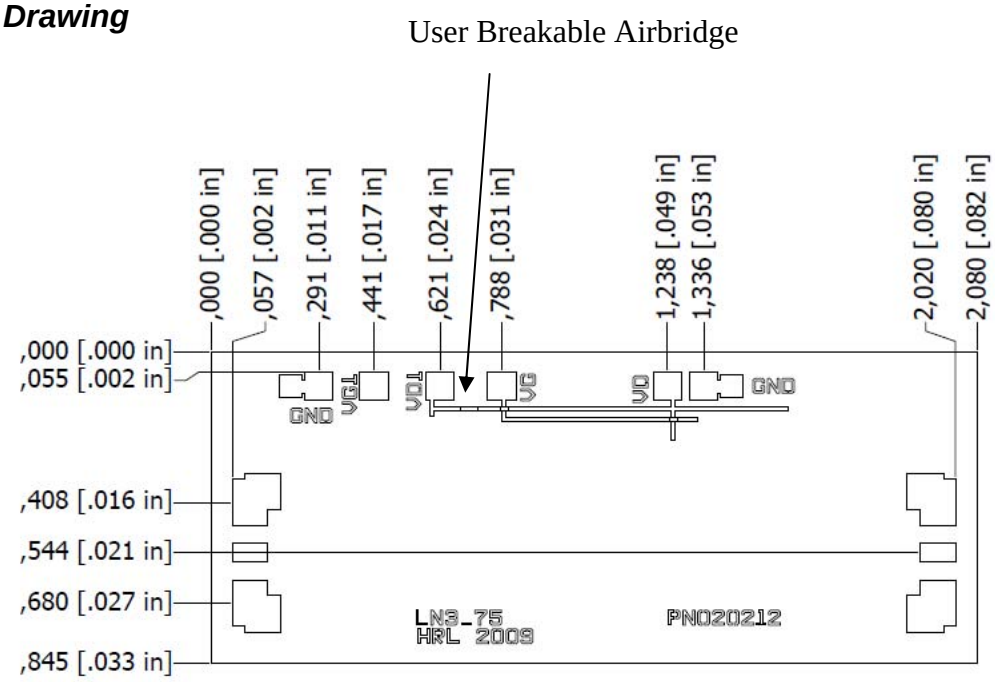
Table I Maximum Ratings

Symbol	Parameter	Value	Note
P_{IN}	Input Power	-10 dBm	
V_{DS}	Drain to Source Voltage	1.5 V	
V_{GD}	Gate to Drain Voltage	-2.5 to 0.2 VDC	
V_{GS}	Gate to Source Voltage	-1.0 to 0.2 VDC	
T_M	Die Attach Temperature (30 seconds)	290^{o} C	

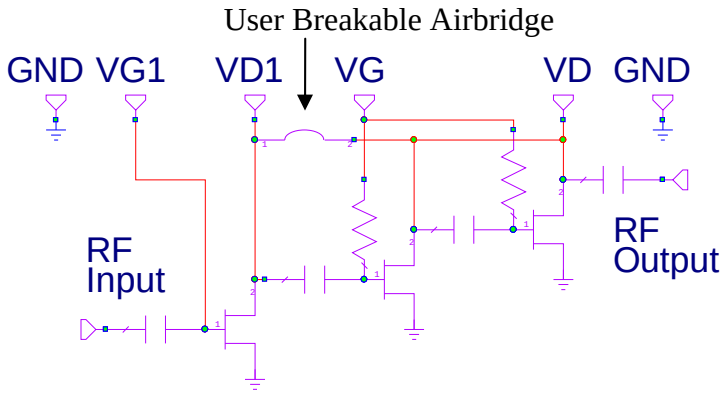
Outline Drawing



Bond pads are nominally 0.1 mm square
Bond pad locations shown from die edge to pad center
Die thickness is nominally 50 um

Solid models and CAD files available at
http://mmics.hrl.com

DC Schematic



Typical Assembly Drawing