

**CLPA-3G8G-1160-S** is a GaAs HBT Ultra Low Noise Amplifier in a miniature, hermetic module designed to operate between 3 and 8 GHz. This high dynamic range amplifier module provides 11 dB of gain, 6 dB noise figure and up to +21 dBm of output power with a single supply of +7V.

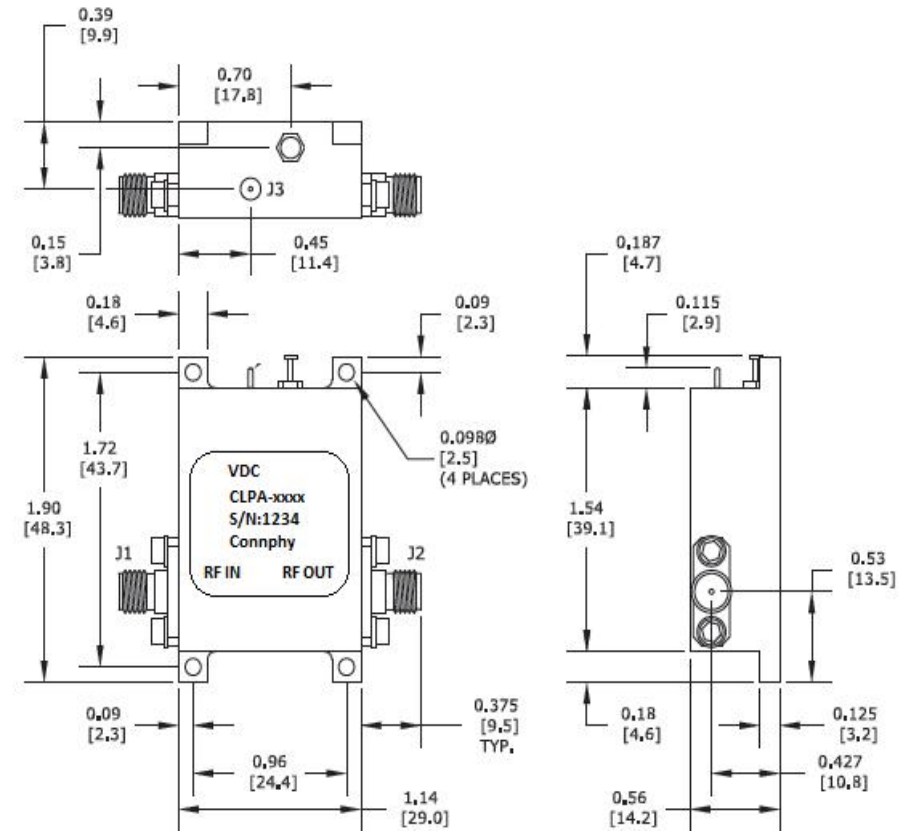
**Features:**

- Ultra Low Phase Noise: -162 dBc/Hz @ 1 kHz
- Gain: 11 dB
- Noise Figure: 4.5 dB

**Specifications:**


Frequency Range:	6.0-12.0 GHz
Gain:	11 dB Typ, 9 dB Min
Gain Flatness:	+/-1.0 dB Typ
Noise Figure:	6.0 dB Typ
P1dB:	11 dBm Typ
VSWR:	1.30 Typ
Psat:	21 dBm Typ
IP3:	25 dBm Typ
Phase Noise @ 100 Hz, Psat, 6 GHz:	-148 dBc Typ
Phase Noise @ 1 kHz, Psat, 6 GHz:	-162 dBc Typ
Phase Noise @ 10 kHz, Psat, 6 GHz:	-168 dBc Typ
Single Supply Voltage:	+7V @ 110mA
RF Connectors:	SMA Female

**Mechanical Outline(Inches/mm) :**



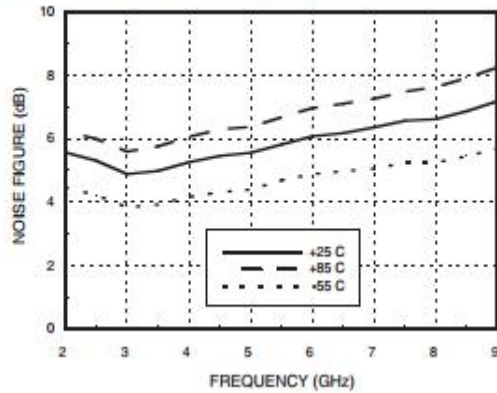
**Environmental Ratings:**

Temperature:	-25°C to +71 °C Operating
	-65 °C to +100 °C Non-Operating
Vibration:	MIL-STD-202F, Method 204D Cond. B
Altitude:	MIL-STD-202F, Method 105C Cond. B
Temperature Cycle:	MIL-STD-202F, Method 107D Cond. A

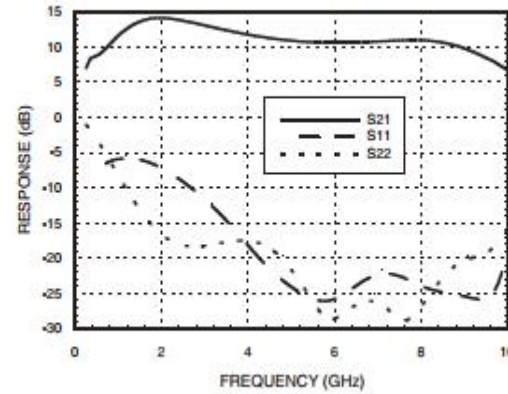
LOW PHASE NOISE AMPLIFIER			
CLPA-3G8G-1160-S			
DRAWN:	DWG NO.:	REV CODE: Rev.1.0	 <a href="http://www.connphy.com">www.connphy.com</a> <a href="mailto:sales@connphy.com">sales@connphy.com</a>
CHECKRD:	DATE: 08/07/15	SHEET : 1 OF 1	
ISSUED:	SIZE: A	SCALE : N / A	
			Notes: SPEC ARE SUBJECT TO CHANGE WITHOUT NOTICE.

## Typical Performance Data:

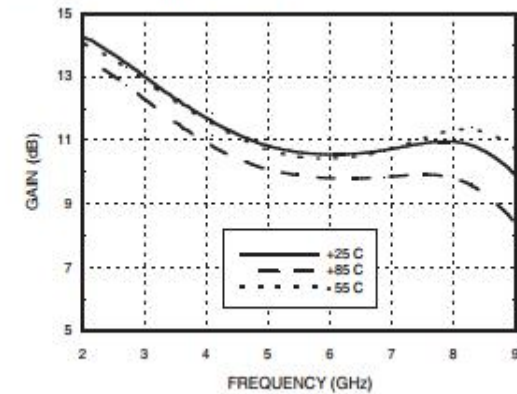
### Noise Figure vs. Temperature



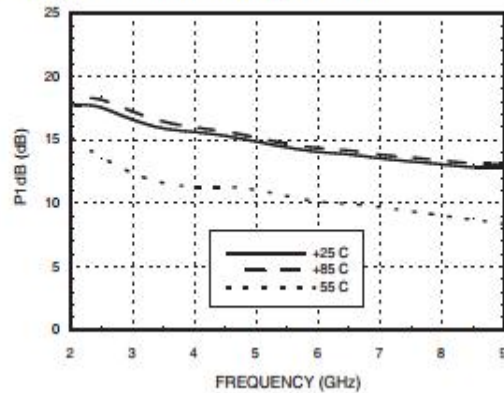
### Broadband, Gain & Return Loss



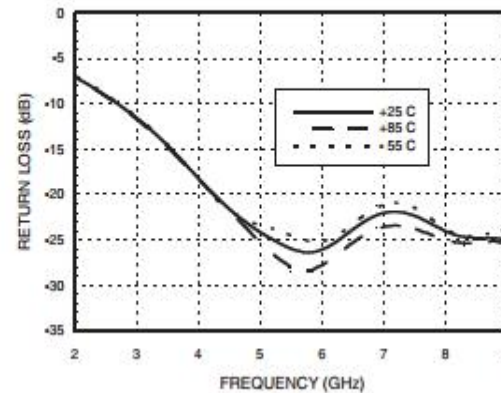
### Gain vs. Temperature



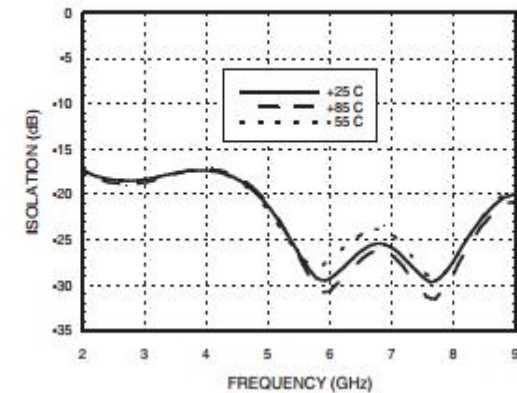
### Output P1dB vs. Temperature



### Input Return Loss vs. Temperature



### Output Return Loss vs. Temperature



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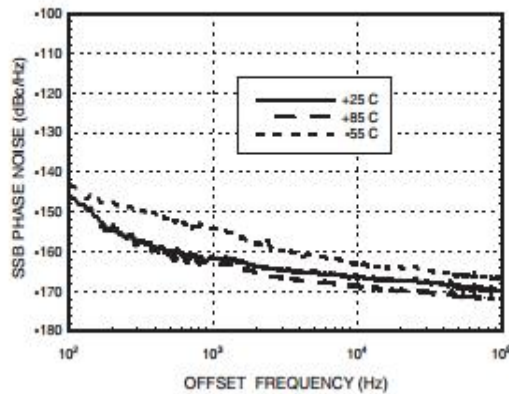
**CONNPHY**  
Microwave Inc.

[www.connphy.com](http://www.connphy.com)  
[sales@connphy.com](mailto:sales@connphy.com)

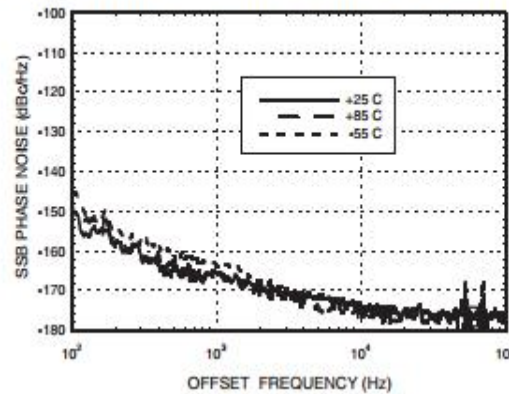
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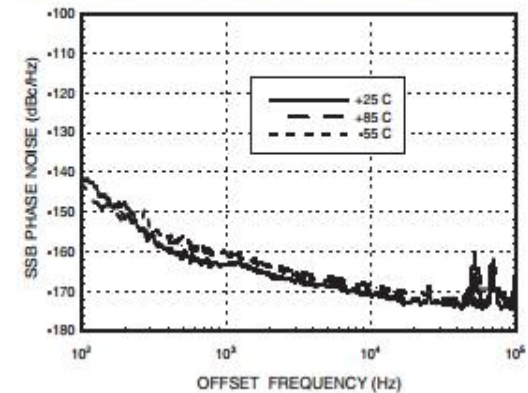
Phase Noise at Pout = Psat @ 3.5 GHz



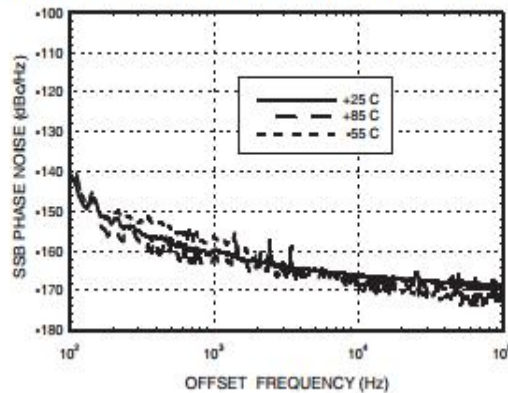
Phase Noise at Pout = Psat @ 5.12 GHz



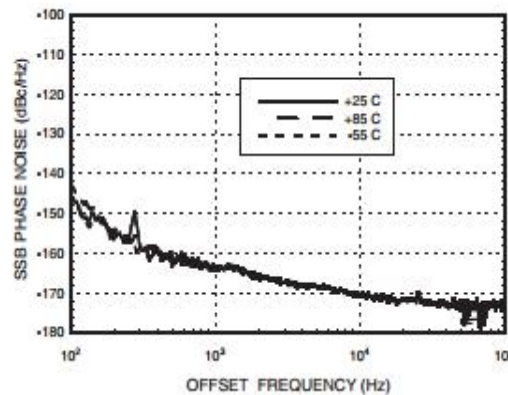
Phase Noise at Pout = Psat @ 7 GHz



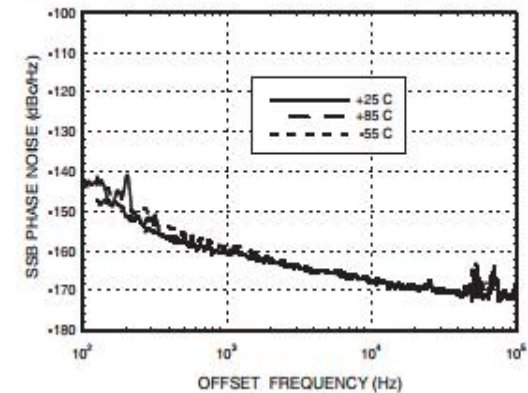
Phase Noise at Pout = 10 dBm @ 3.5 GHz



Phase Noise at Pout = 10 dBm @ 5.12 GHz



Phase Noise at Pout = 10 dBm @ 7 GHz



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