



Features and Benefits

- 18.0-26.5GHz Frequency Range
- Gain Flatness $<\pm 1.0\text{dB}$
- Typical N.F. $<2.5\text{dB}$
- High Gain (40dB)
- Typical I/O VSWR $<2.5:1/2.0:1$
- Advance PHEMT Technology
- Reverse Voltage Protection
- MIL-883, MIL45208 construction and reliability
- Painted
- Weatherproofed



Typical Applications

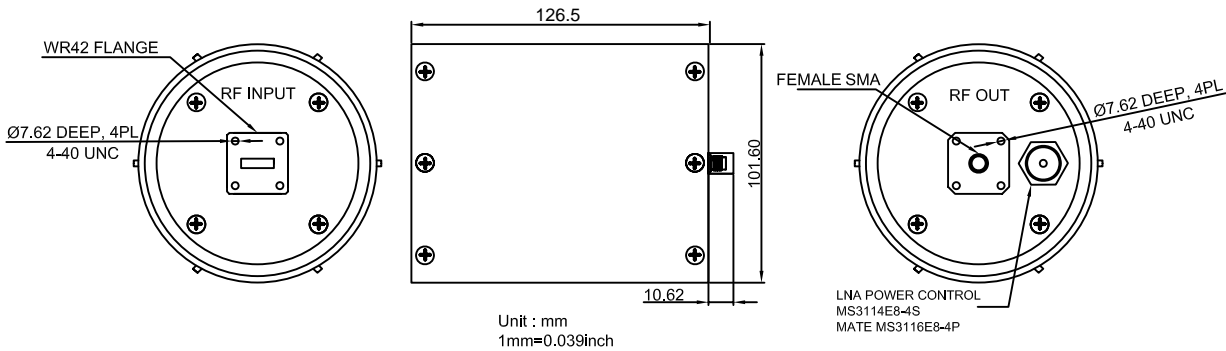
- SATCOM
- Radar Systems
- Wireless
- Cellular

Description

The LNA126-101X-18GHz-26.5GHz-A is a K-Band, high gain, medium power, low noise waveguide amplifier with very low output return loss and a very smooth Gain curve ($\pm 0.7\text{dB}$ typical). The device is designed for receiving systems for radar, SATCOM and other wireless applications. The amplifier can be optimized for any subset band within the 18.0-26.5GHz range.

Mechanical Drawing & Pin Connections

Drawing No:MD170007-1





Key Specifications at 23°C

Parameter	Value			Unit	Note
	Min.	Typ.	Max.		
Frequency	18.0		26.5	GHz	Customizable
Gain	40	40	-	dB	Customizable
Gain Flatness	-	±0.75	±1.00	dB	Customizable
In/Out VSWR	2.0	2.3	2.5	-	Customizable
P@1dB	+10	+18	-	dBm	Customizable
DC Power	+15	-	-	V@mA	@215 mA
Noise Figure	-	2.3	2.4	dB	@23°C
Outline / Package	-	-	-	-	WR42

Absolute Maximum Ratings

Parameter	Min.	Max.	Unit	Note
Operating Temperature (Case)	-40	+95	°C	95% humidity, non-condensing
Storage Temperature (Case)	-54	+115	°C	95% humidity, non-condensing
RF Input Power	-	+16	dBm	CW
Die Junction Temp (Tj)	-	+150	°C	For GaAs devices
Positive Supply Voltage		+16	V	At +V DC Terminal
Negative Voltage	-	-10	V	Reverse Voltage

Typical Data

*****Important*** - must use heat sink if case temperature exceeds 50°C**

Specifications at +23°C					
Frequency	18.0 - 26.5 GHz	Output Power @ 1 dB Comp. Pt. (min / Psat (max)		+10 dBm	
Gain	40 dB min.	Voltage / Current DC Power		+15 VDC @275 mA, norm.	
Gain Flatness	±2 dB max	Measured Current		215 mA	
VSWR Input	2.5:1	Max. Noise Figure		2.4 dB	
VSWR Output	2.0:1 Z = 50 Ohms				
Note: Test data taken with case temperature of +23°C					
Frequency (GHz)	Gain (dB)	VSWR		Noise Figure (dB)	Output Power @ 1dB Comp./Psat (+dBm)
		In	Out		
18.0	40.8	1.95	1.82	2.39	18.5
20.0	40.8	1.16	1.66	2.15	19.0
22.0	40.7	2.26	1.30	2.24	19.5
24.0	41.8	2.48	1.93	2.33	19.0
26.5	40.6	2.25	1.36	2.36	17.5