

# VGLCDLA30RPDC

#### Technical Product Data



#### **Features**

- Variable Gain Amplifier
   0 ≤ Gain ≤ 30dB
- Excellent SWR Throughout Dynamic Range SWR ≤ 1.8:1 Max, SWR ≤ 1.5:1 Typical
- Excellent 1dB Compression Minimum 5dBm,
- Push Button Controls
   1dB Increments

Extremely Flat Group Delay
Less than 1ns Variation

Very Low Noise Figure Typical 1.7dB

Excellent 3<sup>rd</sup> Order Intercept 13dBm

**Rohs Compliant** 

#### **Description**

The VGLCDLA30RPDC is a GPS Variable Gain Line Amplifier featuring a variable gain range from 0 to 30dB with an LCD display and push button controls in 1dB increments. The frequency response covers the GPS L1/L2/L5, Galileo and GLONASS bands with excellent flatness throughout the attenuation range. The easy to read LCD display allows users to read the exact gain at any time and easily adjust the gain in 1dB increments to ensure precise control of the signal strength at all times. In the normal configuration, the RF output passes DC from the connected GPS receiver through the amplifier to the antenna, allowing the GPS receiver to power both the antenna and the amplifier.

# Electrical Specifications, $T_A = 25^{\circ}C$

Parameter	Conditions	Min	Тур	Max	Units
Freq. Range	Ant – J1	1.1		1.7	GHz
In/Out Impedance	Ant, J1		50		Ω
Gain, Max Setting	Ant – J1			30	dB
Gain, Min Setting	Ant – J1	0			dB
Input VSWR	J1 - 50 $\Omega$ , across full gain range			1.8:1	-
Output VSWR	Ant - $50\Omega$ , across full gain range			1.8:1	-
Gain Flatness	L1 - L2  , Ant – J1, from 0dB gain to 20+ dB gain			2.0	dB
Reverse Isolation	J1 – Ant, Max Gain setting	50			dB
1dB Compression	Ant – J1	5			dBm
3 <sup>rd</sup> Order Intercept	Ant – J1, Referred to Output	13			dBm
DC Input Voltage	DC Input on J1	2.8		15	Vdc
DC Current (1)	Amplifier Current Draw, All ports - $50\Omega$		15		mA

<sup>(1).</sup> Current draw on J1 port in the non-networked configuration.

## **Available Options**

Network Power Supply						
Source Voltage Options	VOLTAGE INPUT	STYLE				
	110VAC	Transformer (Wall Mount)				
	220 VAC	Transformer (Wall Mount)				
	240 VAC (United Kingdom)	Transformer (Wall Mount)				
	Customer Supplied DC 8-32 VDC	Military Style Connector				
Output Voltage Options <sup>(1)</sup>	2.8 - 15 VDC	500mA Maximum Current				
Pass/Block DC Options						
Pass DC <sup>(1)</sup>	All Ports Pa	All Ports Pass DC				
DC Blocked (1)	Ant is DC blocked	locked, Pass DC J1				
RF Connector Options						
Connector Options	CONNECTOR STYLE	CHARGE				
	Type N	NC				
	Type SMA	NC				
	Type TNC	NC				
	Type BNC	NC				

#### Mechanical

<u>Dimensions</u>: Height: 1.3"

Length (not including connectors) Body: 2.5"

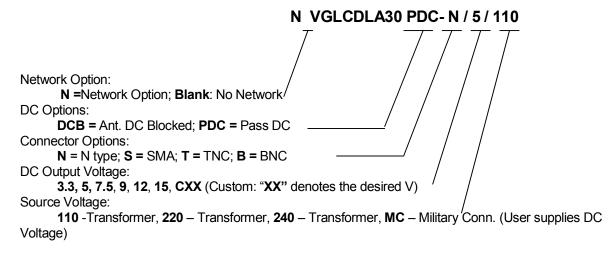
Base Plate: 3.25"

Width: 2.5"

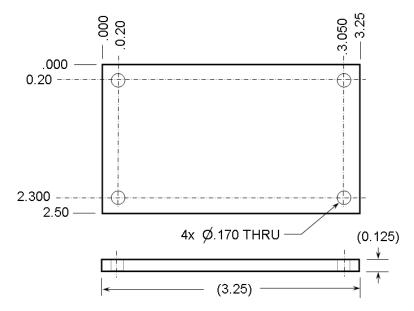
<u>Weight</u>: 9.8 oz. (272 grams)

Operating Temp. Range: -40° to + 75°C

#### **Part Number**



### Mechanical



#### Notes:

- 1. Material: 6061-T6 Aluminum, 0.125 Thick
- 2. Finish: Electroless Nickel Plated, 0.0001 0.0003 Max. Thickness

# **Mounting Base Plate**