



VGLCDLA30RPDC

Technical Product Data



Features

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| <ul style="list-style-type: none"> • Variable Gain Amplifier
0 ≤ Gain ≤ 30dB | <p>Extremely Flat Group Delay
Less than 1ns Variation</p> |
| <ul style="list-style-type: none"> • Excellent SWR Throughout Dynamic Range
SWR ≤ 1.8:1 Max, SWR ≤ 1.5:1 Typical | <p>Very Low Noise Figure
Typical 1.7dB</p> |
| <ul style="list-style-type: none"> • Excellent 1dB Compression
Minimum 5dBm, | <p>Excellent 3rd Order Intercept
13dBm</p> |
| <ul style="list-style-type: none"> • Push Button Controls
1dB Increments | <p>Rohs Compliant</p> |

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°C

Parameter	Conditions	Min	Typ	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 - 50Ω, across full gain range			1.8:1	-
Output VSWR	Ant - 50Ω, 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 rd 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 - 50Ω		15		mA

(1). 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 ⁽¹⁾	2.8 - 15 VDC	500mA Maximum Current
Pass/Block DC Options		
Pass DC ⁽¹⁾	All Ports Pass DC	
DC Blocked ⁽¹⁾	Ant is DC blocked, Pass DC J1	
RF Connector Options		
Connector Options	CONNECTOR STYLE	CHARGE
	Type N	NC
	Type SMA	NC
	Type TNC	NC
	Type BNC	NC

Mechanical

Dimensions:

Height: 1.3"

Length (not including connectors) Body: 2.5"
Base Plate: 3.25"

Width: 2.5"

Weight:

9.8 oz. (272 grams)

Operating Temp. Range: -40° to + 75°C

Part Number

N VGLCDLA30 PDC- N / 5 / 110

Network Option:

N = Network Option; **Blank**: No Network

DC Options:

DCB = Ant. DC Blocked; **PDC** = Pass DC

Connector Options:

N = N type; **S** = SMA; **T** = TNC; **B** = BNC

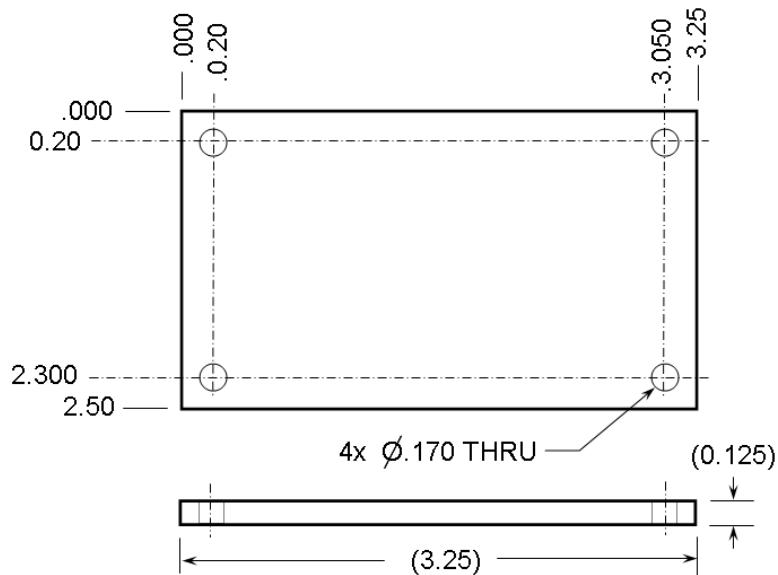
DC Output Voltage:

3.3, 5, 7.5, 9, 12, 15, CXX (Custom: "XX" denotes the desired V)

Source Voltage:

110 - Transformer, **220** - Transformer, **240** - Transformer, **MC** - Military Conn. (User supplies DC Voltage)

Mechanical



Notes:

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

Mounting Base Plate