



LA20RPDC

Line Amplifier 20dB Gain

Technical Product Data



Features

- Passes GPS L1, L2, L5, GLONASS and Galileo frequency bands (entire L-band)
- Excellent Gain Flatness
- Custom Gain Available by Request
- Very Low Noise Figure
- Excellent 1dB compression point, 3rd order intercept

Description

The LA20RPDC is a one input, one output Low Noise Amplifier with 20dB gain typical. The frequency response covers GPS L1, L2, L5, Galileo, GLONASS and all other L-band frequencies with excellent flatness. In the default configuration, the RF output (J1) passes DC from the connected GPS receiver through the amplifier to the active antenna, allowing the GPS receiver to power both the antenna and the LA20RPDC amplifier. In the Networked (Externally Powered) configuration, the output is DC Blocked and the user selects the input voltage that will be sent up the coax to power an external antenna. The LA20RPDC has a very low noise figure and an excellent 1dB compression point.

Electrical Specifications, T_A = 25°C

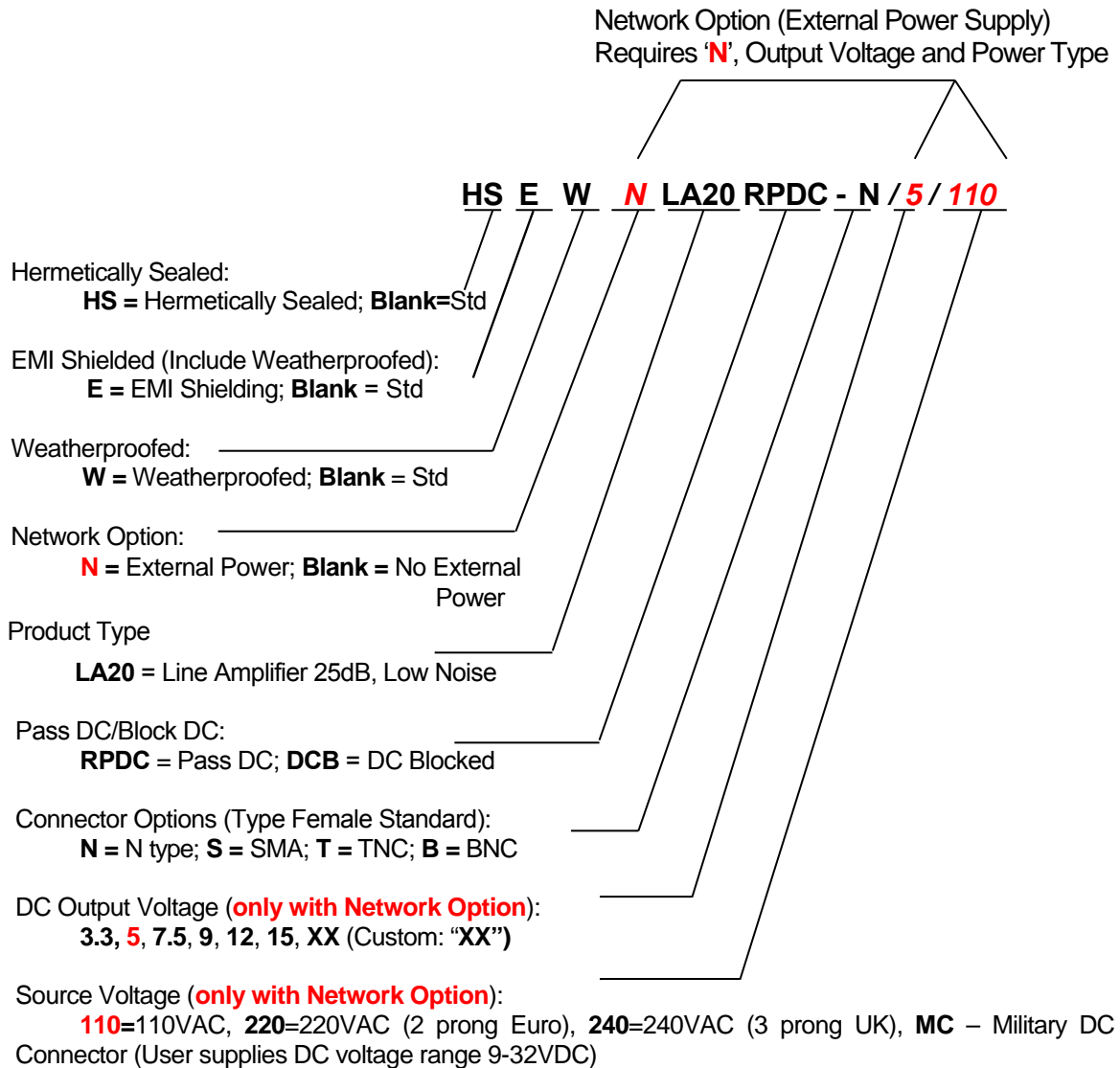
Parameter	Conditions	Min	Typ	Max	Units
Freq. Range	Antenna - J1	1.1	1.575	1.7	GHz
In/Out Impedance	Ant, J1		50		Ω
Gain	Ant – J1	19	20	21	dB
Input VSWR	J1 - 50 Ω			1.8:1	
Output VSWR	Ant – 50Ω			1.8:1	
Noise Figure	Ant – J1		1.5		dB
Gain Flatness	L5 – L1 , Ant – J1		1.8		dB
Reverse Isolation	J1 – Ant	50			dB
1dB Compression	Ant – J1		-32		dBm
3 rd Order Intercept	Ant – J1, Referred to Output		-22		dBm
DC Input Voltage	DC Input on J1	2.8		15	Vdc
DC Current	Amplifier current draw at 5vdc typical		36	40	mA

Available Options

Network Power Supply			
Source Voltage Options	VOLTAGE INPUT		STYLE
		110VAC	Transformer (Wall Mount)
		220VAC (2 prong Euro)	Transformer (Wall Mount)
		240VAC (3 prong UK)	Transformer (Wall Mount)
		DC input 9 – 32 VDC	Military Style Connector
Output Voltage Options ⁽¹⁾	2.8 to 15 VDC	500mA Max. Current	
Pass/Block DC Options			
Pass DC ⁽¹⁾	All Ports Pass DC		
DC Blocked ⁽¹⁾	Ant is DC blocked, Pass DC J1/Output		
RF Connector Options	CONNECTOR STYLE		COMMENTS
		Type N-female	No Charge
		Type SMA-female	No Charge
		Type TNC-female	No Charge
		Type BNC-female	No Charge

(1) With Network Option, any RF port (input or output) can be DC blocked or can pass the network DC voltage.

Part Number Configuration

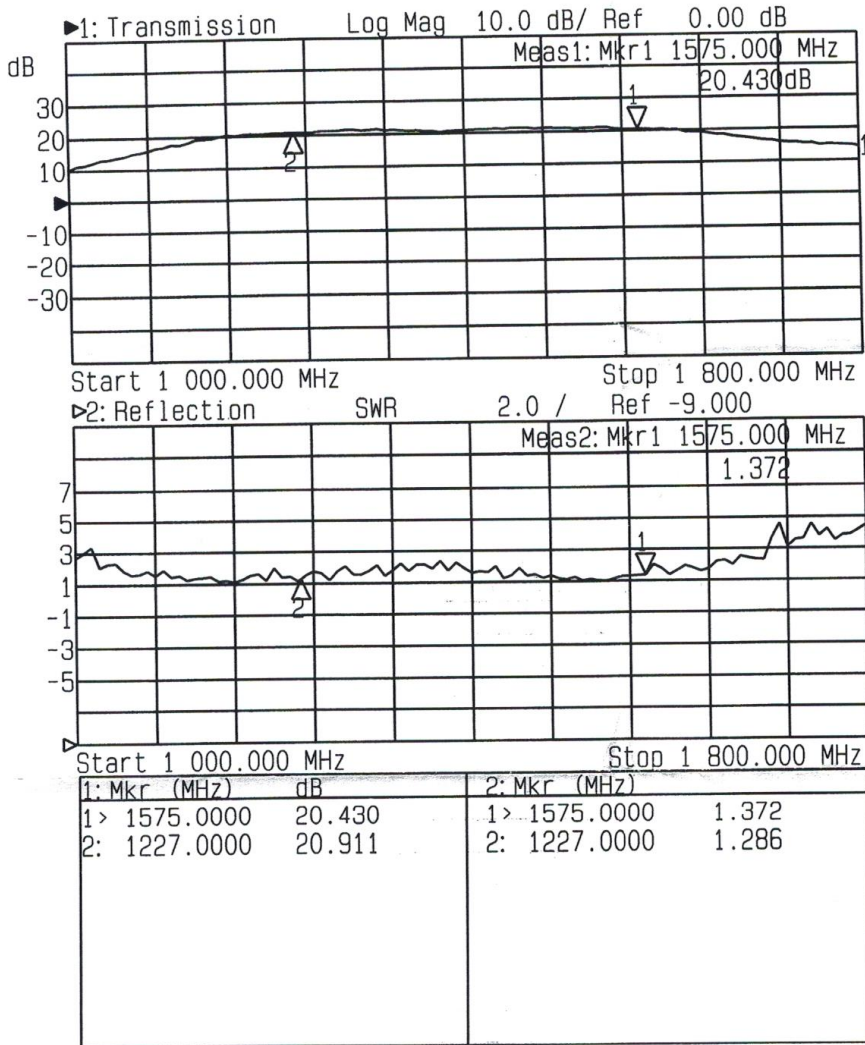


(Contact GPS Networking Technical Support at 719-595-9880 or salestech@gpsnetworking.com for any questions regarding non-standard configurations and corresponding part numbers)

Performance

LA20RPDC (Standard Gain)

Input SWR (Ant. port) and Frequency Response: Ant. To J1, J2, (Typical, Type N connectors)



Mechanical

Dimensions: Height: 1.3"
 Length (not including connectors) Body: 2.5"
 Base Plate: 3.25"

Width (not including connectors): 2.5"

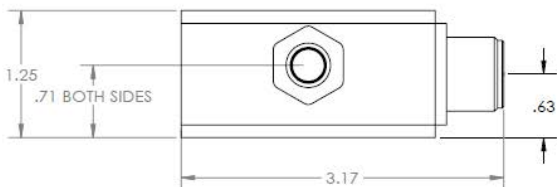
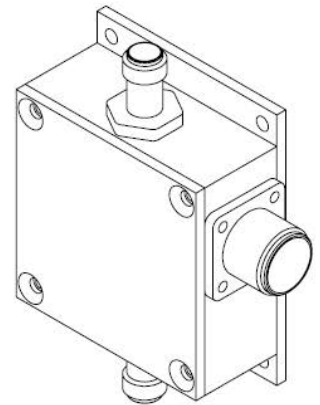
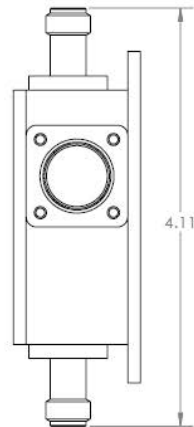
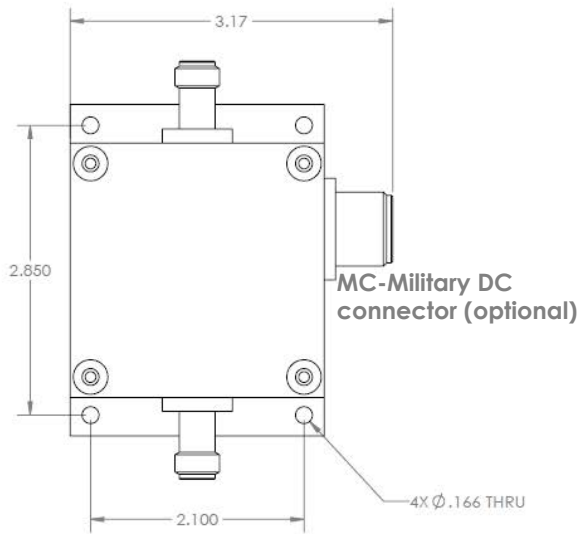
Weight: 11 oz. (316 grams)

Operating Temp. Range: -40° to + 75°C

Finish Housing and Base Plate: ELECTROLESS NICKEL PLATED
 MIL-C-26074C CLASS 1, .0001-.0003 MAX
 Finish Lid: ANODIZE, TYPE II, CLASS 2, BLACK, per MIL-A-8625

NOTES:
 1. CAD FILES AVAILABLE

REVISIONS				
ZONE	REV.	DESCRIPTION	REV. BY	DATE
-	A	INITIAL RELEASE	-	-



GPS NETWORKING		ASSY, 1X1 STANDARD			Do Not Scale Dwg Remove All Burrs And Sharp Edges! No .000 Rad Max
Drawn By	BPC	Date	09/04/15	Design Mfg	
Checked By		Scale		Fit Mfg	
Title		Quantity/Lead Key		Heat Treatment	
Heat Angle Protection		Material		Heat Key	See Note
303 Stainless Steel Pueblo West CO 81002		Dwg Number		SEE	REV SHEET
		ASSY, 1X1 STANDARD		B	A 1 OF 1