



# *LA25FPDC*

*Line Amplifier 25dB Gain L1/L2 Filtered*

*Technical Product Data*



## Features

- **Amplifier Gain 25dB typically**
- **Passes L1/L2 GPS, Galileo & GLONASS**
- **High Rejection outside L1 and L2**
- **Excellent Passband Ripple**

L1/L2 Ripple < 2.0 dB

## Description

The LA25FPDC GPS Filtered Line Amplifier is a one input, one output device with 25dB gain typical. The frequency response covers both GPS L1 & L2 bands in addition to passing GNSS frequencies. There is greater than 20dB rejection minimum +/- 200MHz relative to the passband. In the standard configuration, the RF output (J1) 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. Custom gain between 10-28dB may be ordered as well. Please contact GPS Networking Technical Support for any questions regarding the standard or special configurations at [salestech@gpsnetworking.com](mailto:salestech@gpsnetworking.com) or 1-800-463-3063.

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

Parameter	Conditions	Min	Typ	Max	Units
Pass Band: L1	Ant – J1	1.550	1.585	1.620	GHz
Pass Band: L2	Ant – J1	1.200	1.227	1.260	GHz
In/Out Imped.	Ant, J1		50		$\Omega$
Gain	Ant – J1, L1 & L2 Passbands	23.5	25	26.5	dB
Input SWR	J1 - 50 $\Omega$ , L1 & L2 Passbands			2.0:1	-
Output SWR	Ant - 50 $\Omega$			1.6:1	-
Noise Figure	Ant – J1		5.9		dB
Passband Ripple	Ant – J1, L1 & L2 Passbands		1	2	dB
Stopband Rej: L1	1595 +/- 200MHz, Relative to the passband	22			dB
Stopband Rej: L2	1241 +/- 150MHz	30			dB
Gain Flatness	[L1-L2] Input – Output		1.0	2.0	dB
Group delay Ripple: L1	$\tau_{d,max} - \tau_{d,min}$ : Ant – J1, Across L1 Passband			2	ns
Group delay Ripple: L2	$\tau_{d,max} - \tau_{d,min}$ : Ant – J1, Across L2 Passband			3	ns
Req. DC Input V.	Non-Network Configuration, DC Input on J1	4.0		15	Vdc
Current <sup>(1)</sup>	Amplifier Current Draw, All ports - 50 $\Omega$			30	mA

(1) Current draw on J1 port in the non-networked configuration.

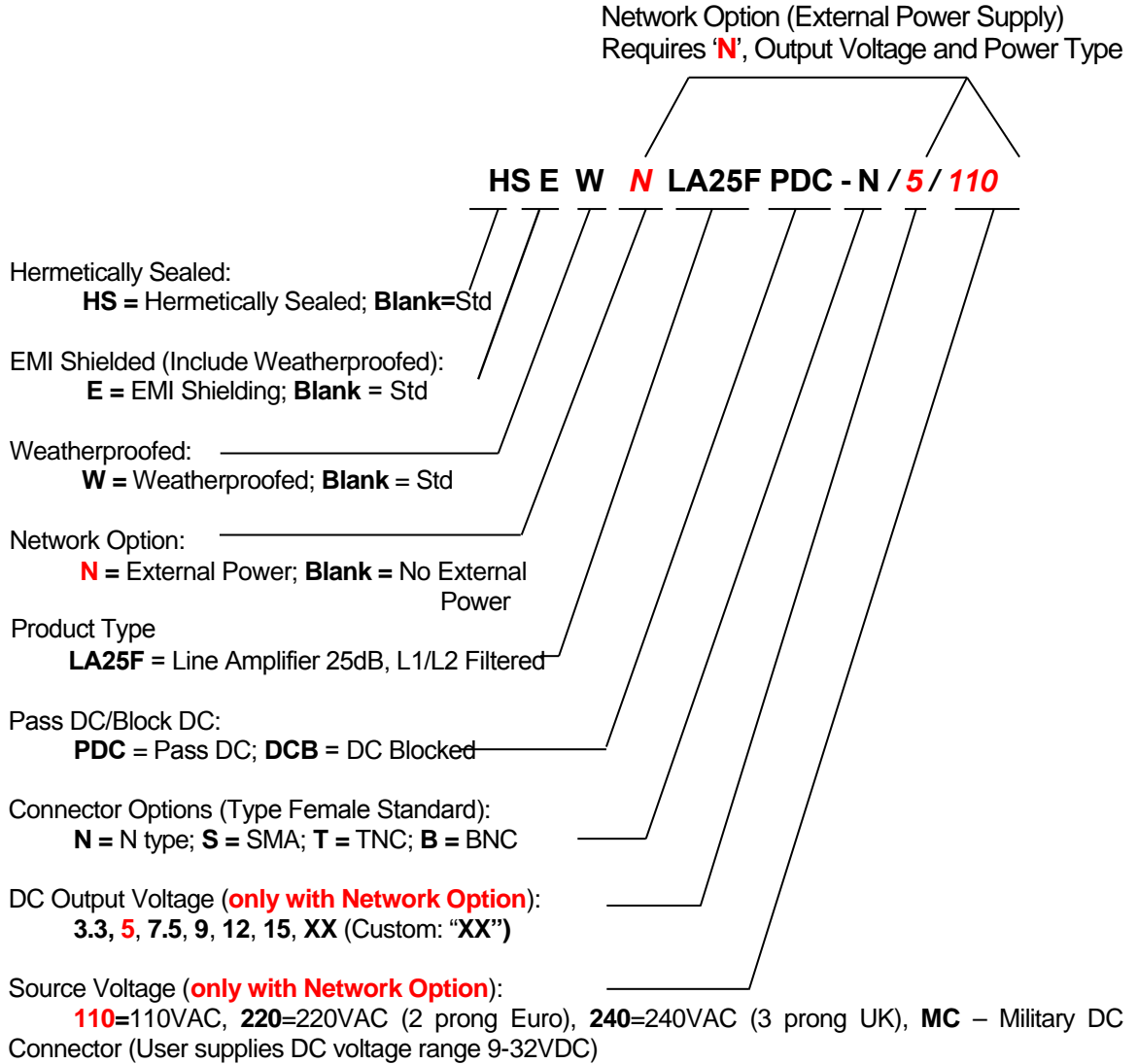
Available Options

<b>Network Power Supply</b>		
Source Voltage Options	VOLTAGE INPUT	STYLE
	110VAC	Transformer (Wall Mount)
	220 VAC (2 prong Euro)	Transformer (Wall Mount)
	240 VAC (3 prong United Kingdom)	Transformer (Wall Mount)
Output Voltage Options <sup>(1)</sup>	Customer Supplied DC 9-32 VDC	Military Style Connector
	DC VOLTAGE OUT	MAX CURRENT OUT FOR CORRESPONDING $V_{out}$ <sup>(2)</sup>
	5 V	100mA
	7.5V	120mA
	9V	130mA
	12V	160mA
	15V	200mA
Custom	TDB	
<b>Pass/Block DC Options</b>		
Pass DC <sup>(1)</sup>	All Ports Pass DC	
DC Blocked <sup>(1)</sup>	Ant is DC blocked, Pass DC J1	
<b>RF Connector Options</b>		
Connector Options	CONNECTOR STYLE	CHARGE
	Type N-female	NC
	Type SMA-female	NC
	Type TNC-female	NC
	Type BNC-female	NC

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

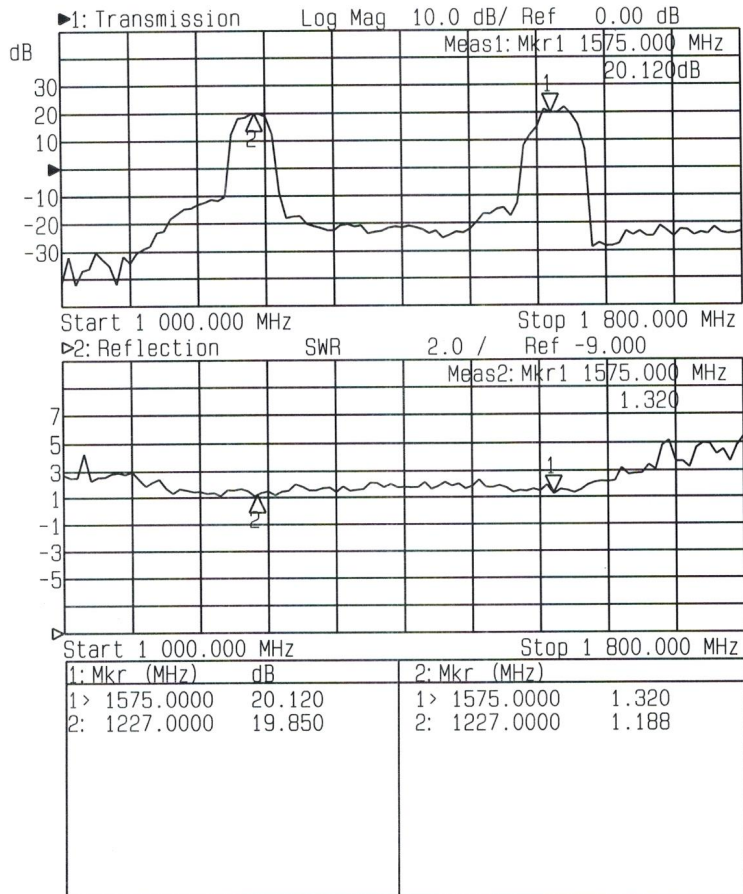
(2)  $T_A = +50^{\circ}\text{C}$ . Assuming Source of 110V or 220V Wall Mount Transformer. In general, maximum output current can be determined by:  $I_{out} < 2.9 / (V_{sourceDC} - V_{out})$

## Part Number Configuration



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

# Performance



## Mechanical

Dimensions:

Height: 1.3"

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

Width: 2.5"

Weight:

9.4 oz. (266 grams)

Operating Temp. Range: -40° to + 75°C