MLA20RPDC

Technical Product Data

Features

- **Amplifier Gain of 20dB**
  Gain ≥ 20dB

- **Small Form Factor**
  2.5 (not including connectors) x 0.75 x 0.875 in.

- **Extremely Flat Group Delay**
  Less that 1ns variation

- **Excellent Gain Flatness**
  Gain | L1 – L2 | < 1.0 dB

Description

The MLA20RPDC GPS Line Amplifier is a one input, one output device with a 20dB min. gain block in a miniaturized housing. The frequency response covers the GPS L1/L2 and GLONASS bands with excellent gain flatness. In the normal 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.

Electrical Specifications, T_A = 25°C

Parameter	Conditions	Min	Typ.	Max	Units
Freq. Range	Ant – J1	1.1		1.7	GHz
In/Out Imped.	Ant, J1		50		Ω
Gain	Ant – J1	20	24.5	26	dB
Input SWR	J1 - 50Ω			1.8:1	-
Output SWR	Ant - 50Ω			1.8:1	-
Noise Figure	Ant – J1		3.3	3.5	dB
Gain Flatness	| L1 – L2 | ; Ant – J1		0.5	1	dB
Reverse Isolation	J1 – Ant	35			dB
Group delay Flatness	$\tau_{d,max} - \tau_{d,min}$: Ant – J1			1	ns
Req. DC Input V.	DC Input on J1	3.6		15	Vdc
Current	Amplifier Current Draw, All ports - 50Ω			15	mA

Available Options

Pass/Block DC Options	
Pass DC	Pass DC J1 to Ant.
DC Blocked	Ant is DC blocked, Pass DC J1
RF Connector Options	
Connector Options	CONNECTOR STYLE
	Type N
	Type SMA
	Type TNC

Part Number

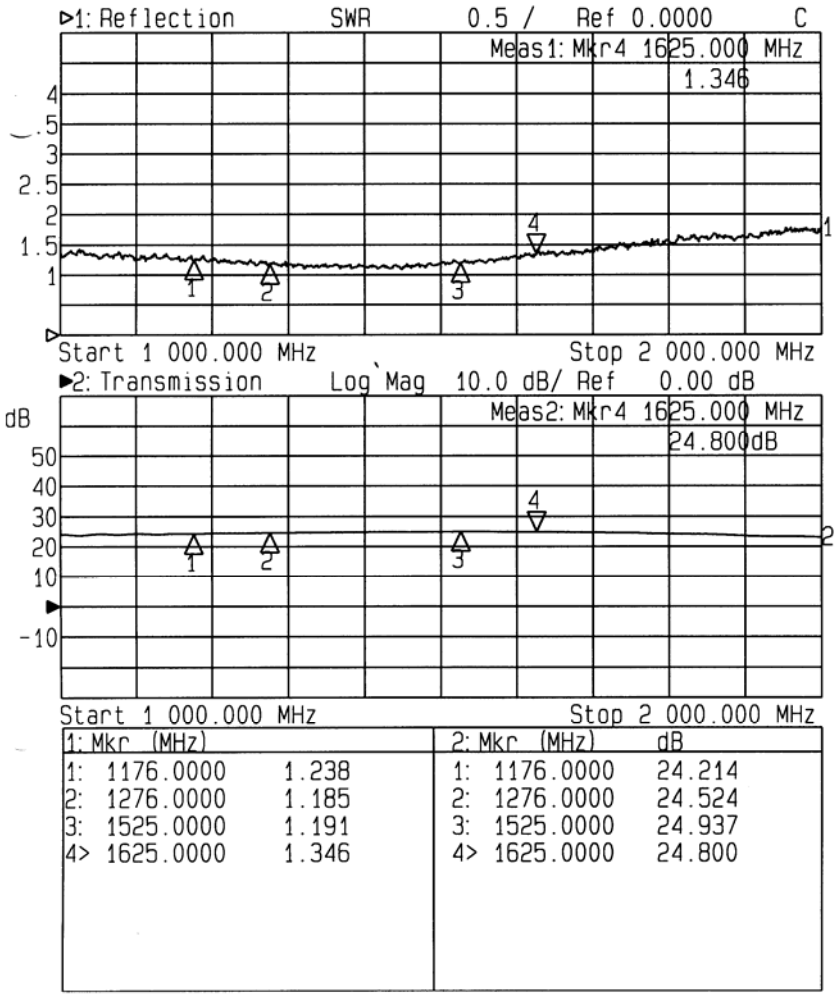
M LA20 RPDC - S

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

Connector Options:
N = N type; **S =** SMA; **T =** TNC; **B =** BNC

Performance

Input SWR (Ant. Port) and Frequency Response: Ant. To J1 (Typical, type N connector):



Mechanical

Dimensions: Height: 0.875”

Length (not including connectors) Body: 2.5”

Width: 0.75” (+0.438” including mounting tabs)

Weight: 3.13 oz. (88.7 grams)

Operating Temp. Range: -40^{o} to + 75^{o}C