



# *VATTENPDC*

*Variable GPS Attenuator*

## *Technical Product Data*



### Features

- **Variable Attenuation Range**  
Attenuation Range 0 - 20dB
- **Small Form Factor**  
2.5 (not including connectors) x 0.75 x 0.875 in.
- **Extremely Flat Group Delay**  
Less than 1ns variation
- **Excellent Flatness**  
Gain | L1 - L2 | < 1.0 dB
- **Low SWR** < 1.5dB typical

### Description

The VATTENPDC GPS Variable Attenuator (GNSS Attenuator) is a one input, one output device that operates with a variable attenuation range that can be user selected between 0 - 20dB in a miniaturized housing. The frequency response covers the GPS L1, L2, L5, Galileo and GLONASS frequencies (entire L-band) with excellent 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 mini amplifier.

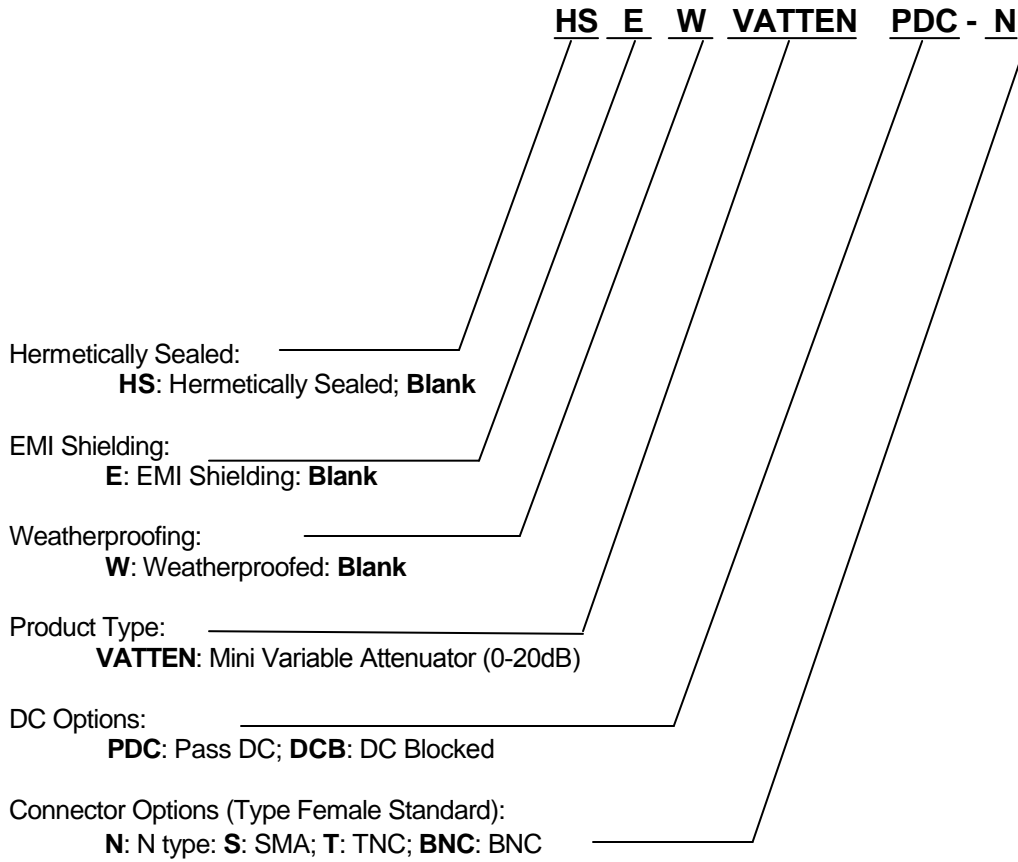
Electrical Specifications,  $T_A = 25^{\circ}\text{C}$

Parameter	Conditions	Min	Typ	Max	Units
Freq. Range	Ant – J1	1.1		1.7	GHz
In/Out Imped.	Ant, J1		50		$\Omega$
Attenuation	Ant – J1, User Selected Attenuation value (X) between 0 - 20dB	X-1	X	X+1	dB
Input SWR	J1 - 50 $\Omega$			1.8:1	-
Output SWR	Ant - 50 $\Omega$			1.8:1	-
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
Required DC Input	DC Input on J1	3.6		15	Vdc
Current	Amplifier Current Draw, All ports - 50 $\Omega$			15	mA

Available Options

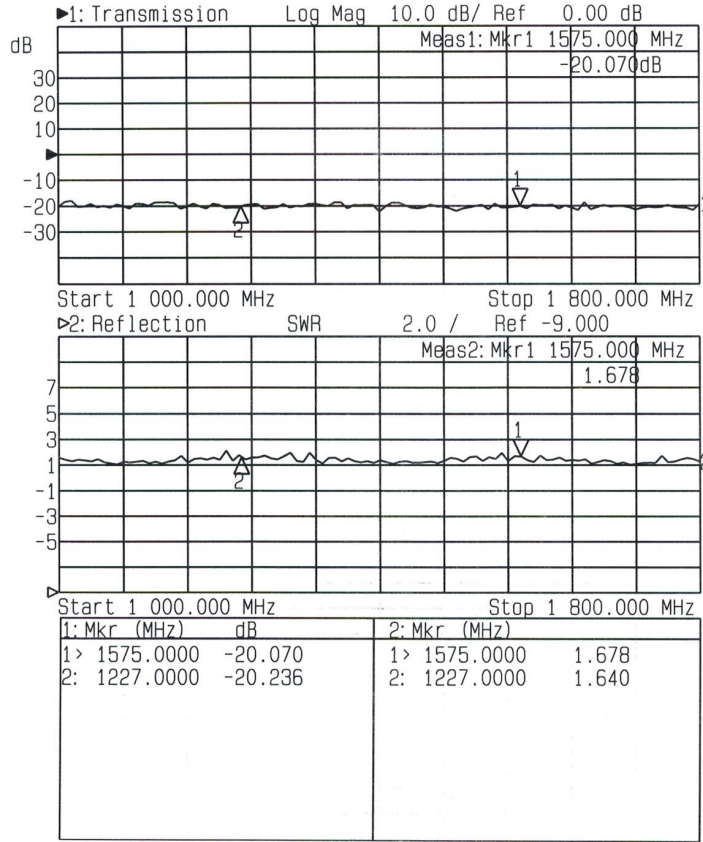
<b>Pass/Block DC Options</b>	
Pass DC - PDC	Pass DC J1 to Ant.
DC Blocked - DCB	DC Blocked
<b>RF Connector Options</b>	
Connector Options	CONNECTOR STYLE
	Type N-female
	Type SMA-female
	Type TNC-female
	Type BNC-female

Part Number



# Performance

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

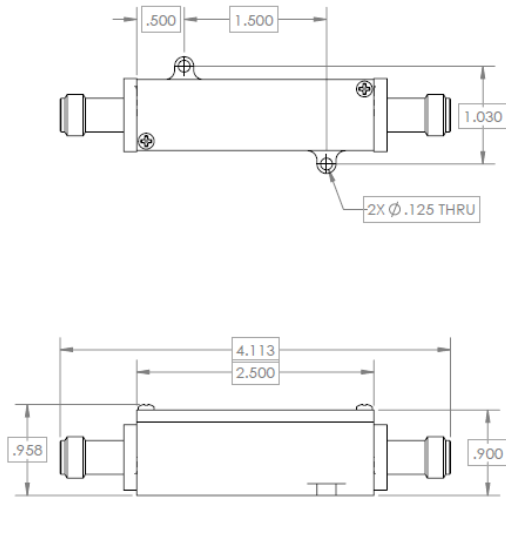


# Mechanical

**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° to + 75°C



GPS NETWORKING	<b>ASSY, 1X1 MINI</b>	2x Mini Serials, Rev. B Mini-PC-AS-B011 Final Design - Signals for 250 Road Meter
REV: B	08/17/15	Designing
Character:	Sub:	Proj: King
Scale:	Quantity: 1 Each Ass'y	Material: 1.0000
Part Name:	Material:	See Note
Draw Number:	ASSY, 1X1 MINI	REV: B
		SHEET 1 OF 1