

# *L1FPDC*

## *L1 GPS Filter Technical*

### *Product Data*



#### Features

- **Passes GPS L1 Frequency**
- **Excellent Passband Ripple**  
L1/L2 Ripple < 1.0 dB

#### Description

The L1FPDC is a one input, one output RF device that provides additional GPS L1 filtering from a GPS Antenna. The frequency response covers L1 centered at 1575MHz. In the normal configuration, the RF output (J1) passes DC from the connected GPS receiver through the input port to the antenna, allowing the GPS receiver to power the antenna.

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

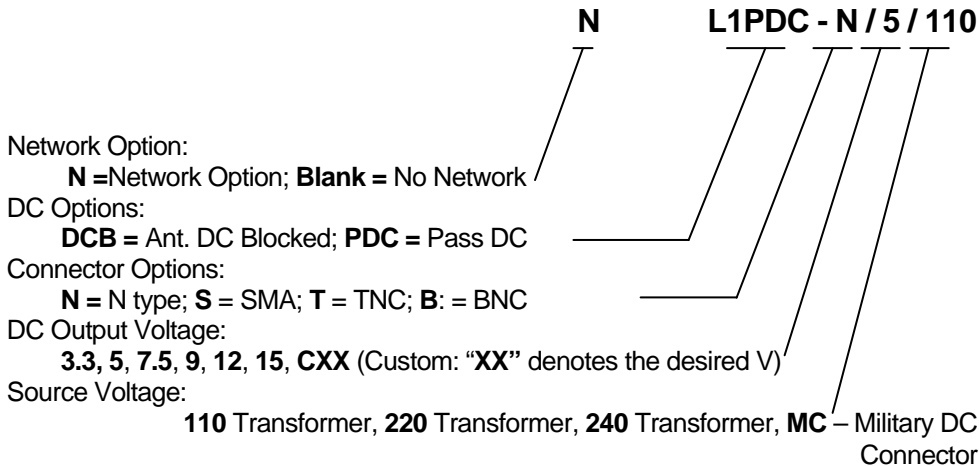
Parameter	Conditions	Min	Typ	Max	Units
Pass Band: L1	Ant – J1	1.570	1.575	1.580	GHz
In/Out Imped.	Ant, J1		50		$\Omega$
Insertion Loss	Ant – J150 $\Omega$ , L1	-2.8	-3.0	-3.2	dB
Input SWR	J1 - 50 $\Omega$ , L1			2.0:1	-
Output SWR	Ant - 50 $\Omega$			1.6:1	-
Gain	J1	-2.0	-2.5	-3.0	dB
Passband Ripple	Ant – J1, L1 & L2 Passbands		1	2	dB
Stopband Rej: L1	1575 +/- 30MHz, Relative to the passband		30		dB

## Available Options

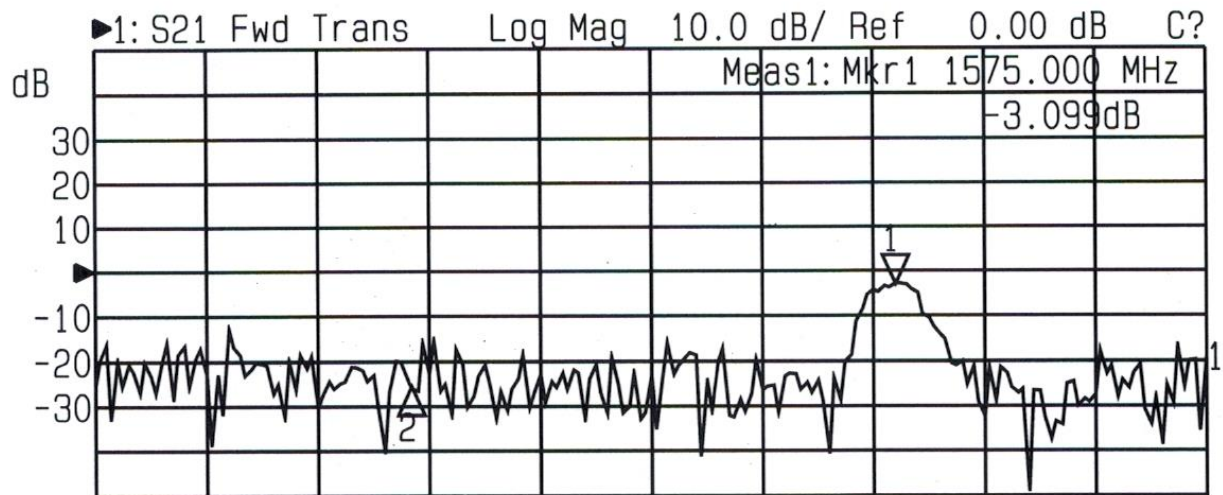
<b>Network Power Supply</b>		
Source Voltage Options	VOLTAGE INPUT	STYLE
	110VAC	Transformer (Wall Mount)
	220 VAC	Transformer (Wall Mount)
	240 VAC (United Kingdom)	Transformer (Wall Mount)
Output Voltage Options <sup>(1)</sup>	Customer Supplied DC 9-32 VDC	Military Style Connector
	DC VOLTAGE OUT	MAX CURRENT OUT FOR CORRESPONDING Vout <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	NC
	Type SMA	NC
	Type TNC	NC
	Type BNC	NC

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

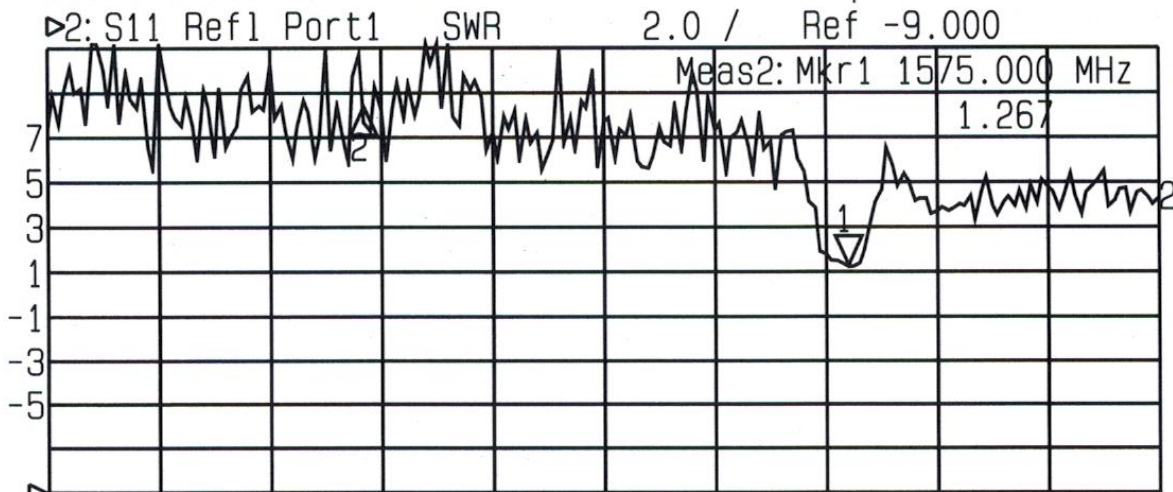
## Part Number



Contact NavtechGPS for product details. [www.NavtechGPS.com](http://www.NavtechGPS.com)  
+1-703-256-8900 • 800-628-0885 • [info@navtechgps.com](mailto:info@navtechgps.com)



Start 1 000.000 MHz Stop 1 800.000 MHz



Start 1 000.000 MHz Stop 1 800.000 MHz

1: Mkr (MHz) dB		2: Mkr (MHz)	
1>	1575.0000 -3.099	1>	1575.0000 1.267
2:	1227.0000 -25.580	2:	1227.0000 8.429

**Mechanical**

Dimensions:

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

Weight: 10 oz. (286 grams)  
Operating Temperature Range: -40° to + 75°C

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

Top View Dimensions: 3.17 (width), 2.850 (height), 2.100 (bottom width), 4X  $\varnothing .166$  THRU (hole pattern).

Side View Dimensions: 4.11 (height).

Front View Dimensions: 1.25 (top height), .71 BOTH SIDES (top offset), .63 (bottom offset), 3.17 (width).

GPS NETWORKING	ASSY, 1X1 STANDARD		Do Not Specify Design Remove All Burrs Final Design Release By: 520 Rick Maki
BPC	09/04/15	HW/PL	
DATE	09/04/15	REV	
DATE	09/04/15	REV	A
DATE	09/04/15	REV	B
DATE	09/04/15	REV	C
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