

L1L2 Band Pass Filter

DESCRIPTION

Designed with the thin link margins of satellite navigation systems in mind, the L12F-HR is a single input L1/L2 band pass filter that passes only the L1 and L2 GPS frequencies. The device features excellent side band rejection with an insertion loss of less than 5.5dB. The product may pass DC or can also be used as a DC block.

The L12F-HR Pass Filter comes with high rejection standard on the L1 band and standard rejection on the L2 band.

FEATURES

- Passes L1 & L2 GPS Frequency Bands
- Excellent Out of Band Rejection
- Passes DC for Active Antennas

OPTIONS

The L12F-HR can be custom configured. Please contact GPS Source for further information on product options and specifications.



1 L12F-HR Electrical Specifications

Table 1-1. Electrical Specifications

Operating Temperature -40°C to 85°C

Parameter	Conditions	Min	Typ	Max	Units	
Frequency Range	IN – OUT, IN/OUT 50Ω	1227.6MHz	1.20	1.25	GHz	
		1575.4MHz	1.56	1.59		
In/Out Impedance	IN, OUT		50		Ω	
Insertion Loss	IN – OUT, IN/OUT 50Ω	1227MHz	4	5	6	dB
		1575MHz	5	5.5	6	
Rejection	IN – OUT, IN/OUT 50Ω	1227MHz	± 75MHz	-16		dB
			± 100MHz	-20		
		1575MHz	± 75MHz	-35		
			± 100MHz	-35		
Input SWR	OUT Port 50Ω			2:1	—	
Output SWR	IN Port 50Ω			2:1	—	
DC IN	Pass DC	Pass DC on Input and output	3	16	VDC	
Max RF Input	Max RF Input Without Damage			30	dBm	

2 Performance Data

2.1 L12F-HR

Figure 2-1. Gain vs. Frequency

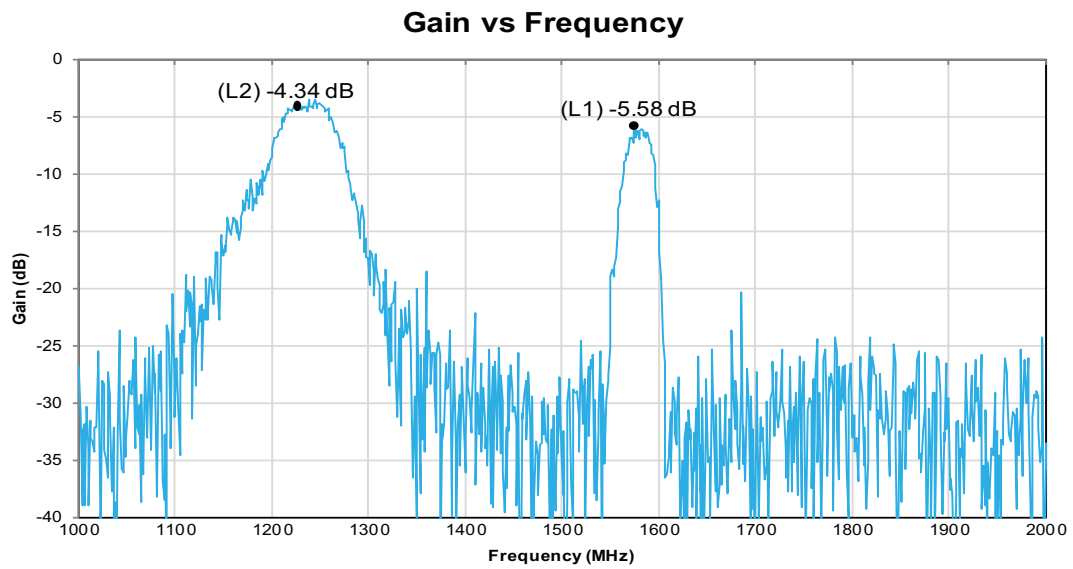
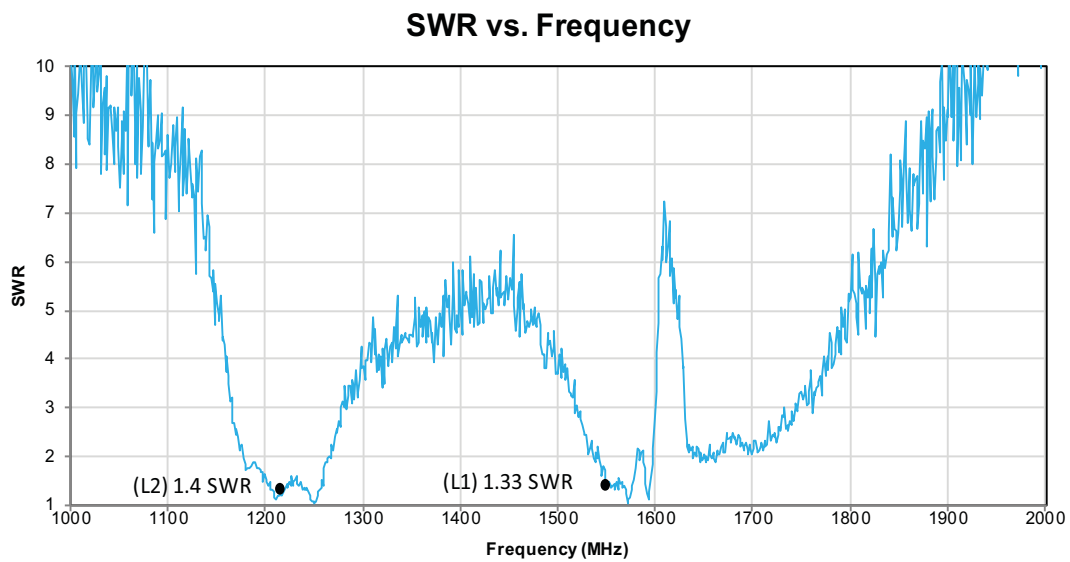


Figure 2-2. SWR vs. Frequency



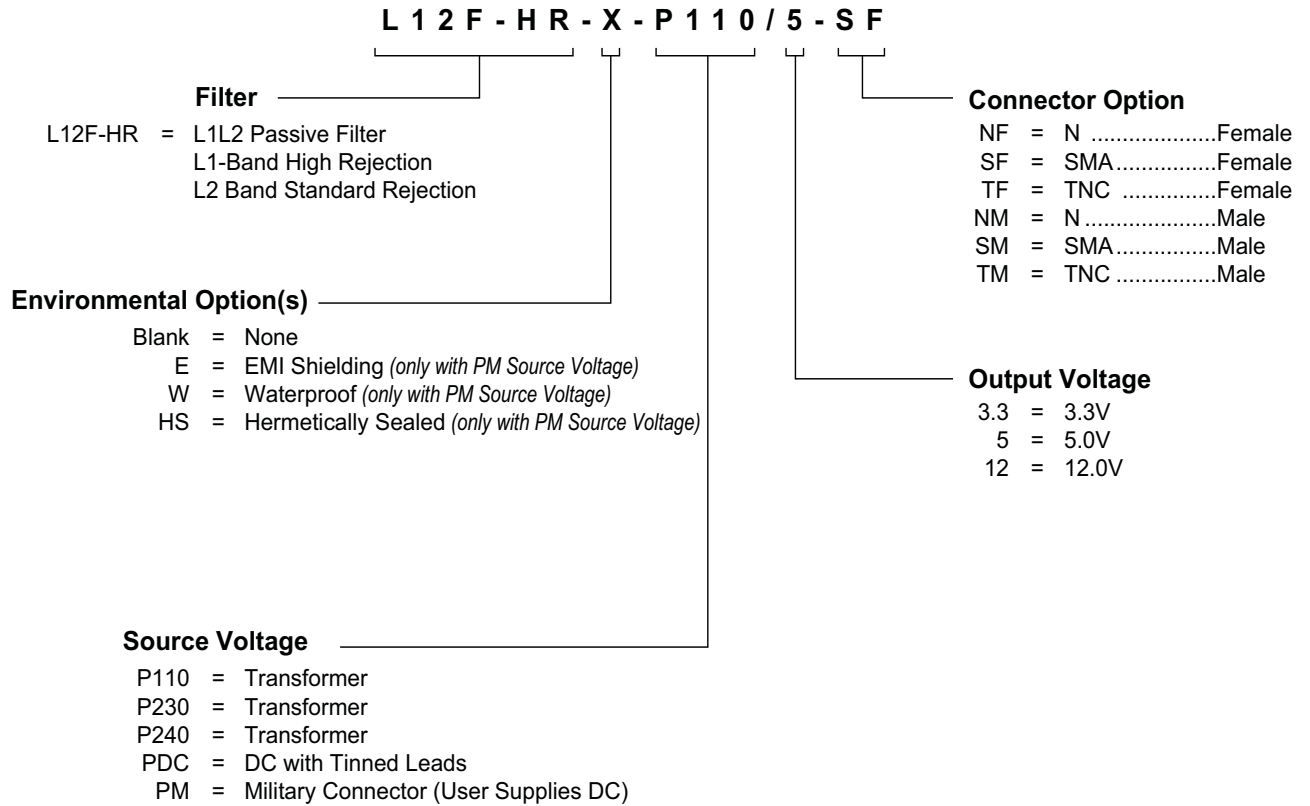
3 Product Options

Table 3-1. L12F-HR Available Options

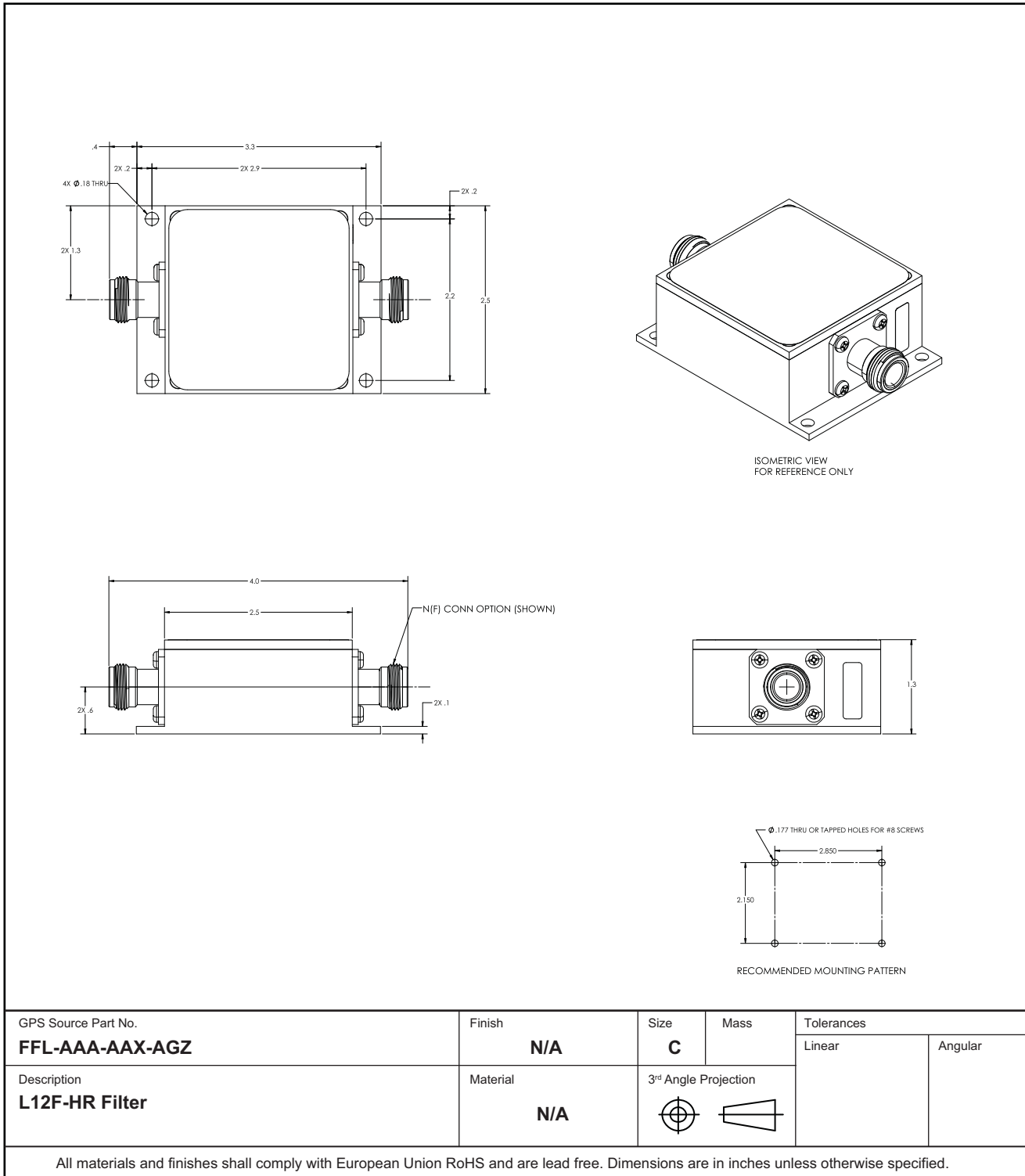
Power Supply		
Source Voltage	Voltage Input	Type
	110VAC	Wall Mount Transformer
	230VAC (Euro)	Wall Mount Transformer
	240VAC (U.K.)	Wall Mount Transformer
	DC 5VDC to 28VDC	Military Style Connector or Tinned Leads
Output Voltage ⁽¹⁾	DC Voltage Out	
	3.3	
	5.0	
	12.0	
RF Connector		
Connector	Connector Type	Limitations
	N (Female/Male)	N/A
	SMA (Female/Male)	N/A
	TNC (Female/Male)	N/A
Housing		
Housing	Housing Type	Limitations
	Standard	None
Port ⁽¹⁻¹⁾		
Standard Configuration	Pass DC ⁽¹⁾	Input and Output pass DC
	Non-Standard ⁽¹⁾	Blocks DC Input

Notes: 1. Powered Option: any or all RF ports (input or output) can be DC Blocked or can pass the powered DC voltage.

4 Product Code Decoder



5 Mechanical Drawing



L12F-HR Passive Filter Data Sheet

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