

L1 Filter, High Rejection

DESCRIPTION

Designed with the thin link margins of satellite navigation systems in mind, the L1FM-HR Passive Filter is a single input L1 High Rejection Band Passive Filter that passes only the L1 frequencies. The device features excellent side band rejection with an insertion loss of less than 4.0dB. The product may pass DC or can also be used as a DC block.

The L1FM Passive Filter comes with High Rejection standard.

FEATURES

- GPS L1 Band
- Excellent Out of Band Rejection
- Passes DC for Active Antennas

OPTIONS

The L1FM-HR can be custom configured. Please contact GPS Source for further information on product options and specifications.



1 L1FM-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	1575.4MHz	1.56		1.59	GHz
In/Out Impedance		IN, OUT			50		Ω
Insertion Loss		IN – OUT, IN/OUT 50Ω	1575MHz	3	3.7	4.4	dB
Rejection		IN – OUT, IN/OUT 50Ω	± 75MHz	-35			dB
			± 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 L1FM-HR

Figure 2-1. Gain vs. Frequency

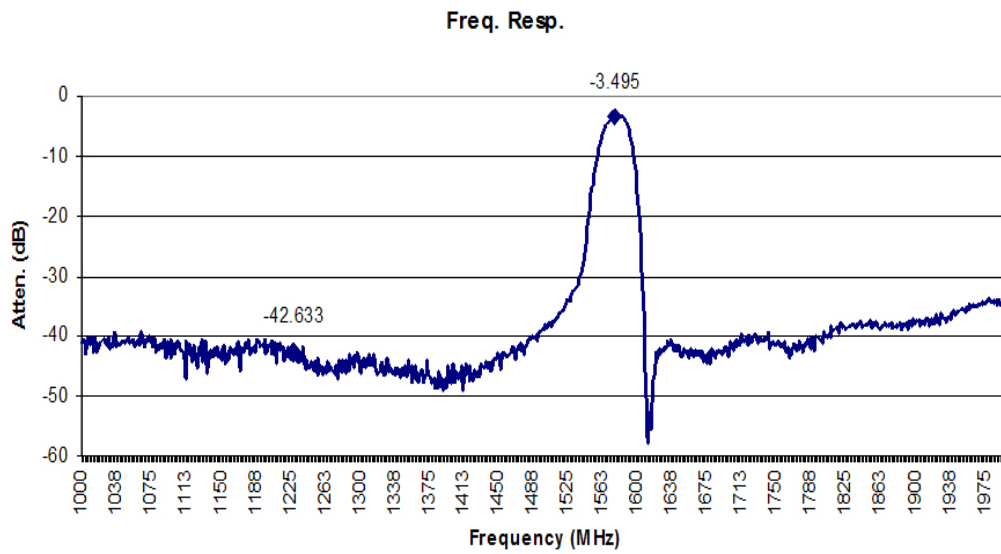
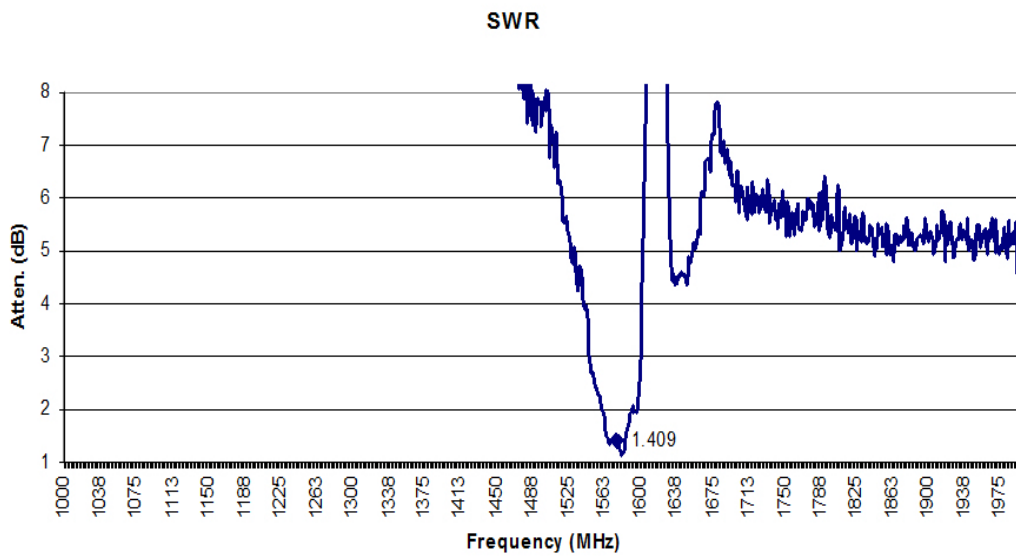


Figure 2-2. SWR vs. Frequency



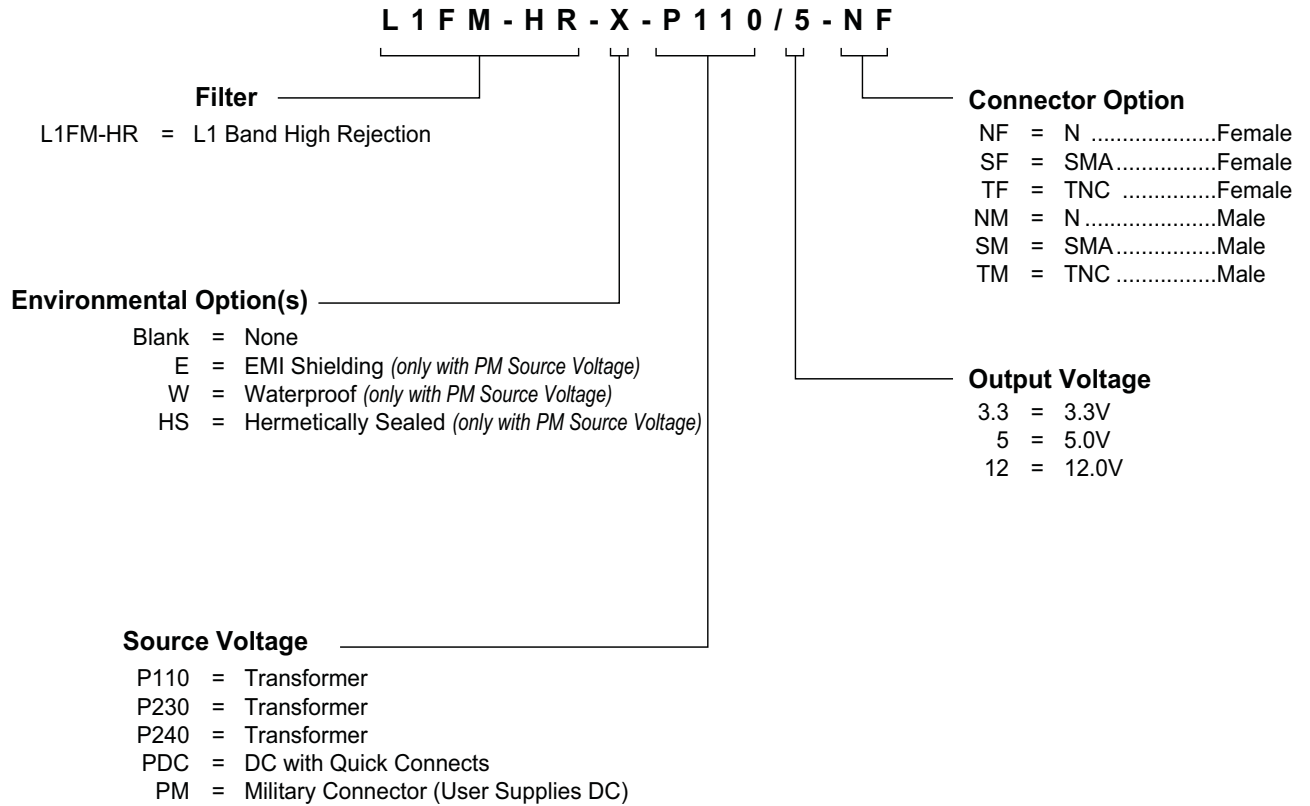
3 Product Options

Table 3-1. L1FM-HR Available Options

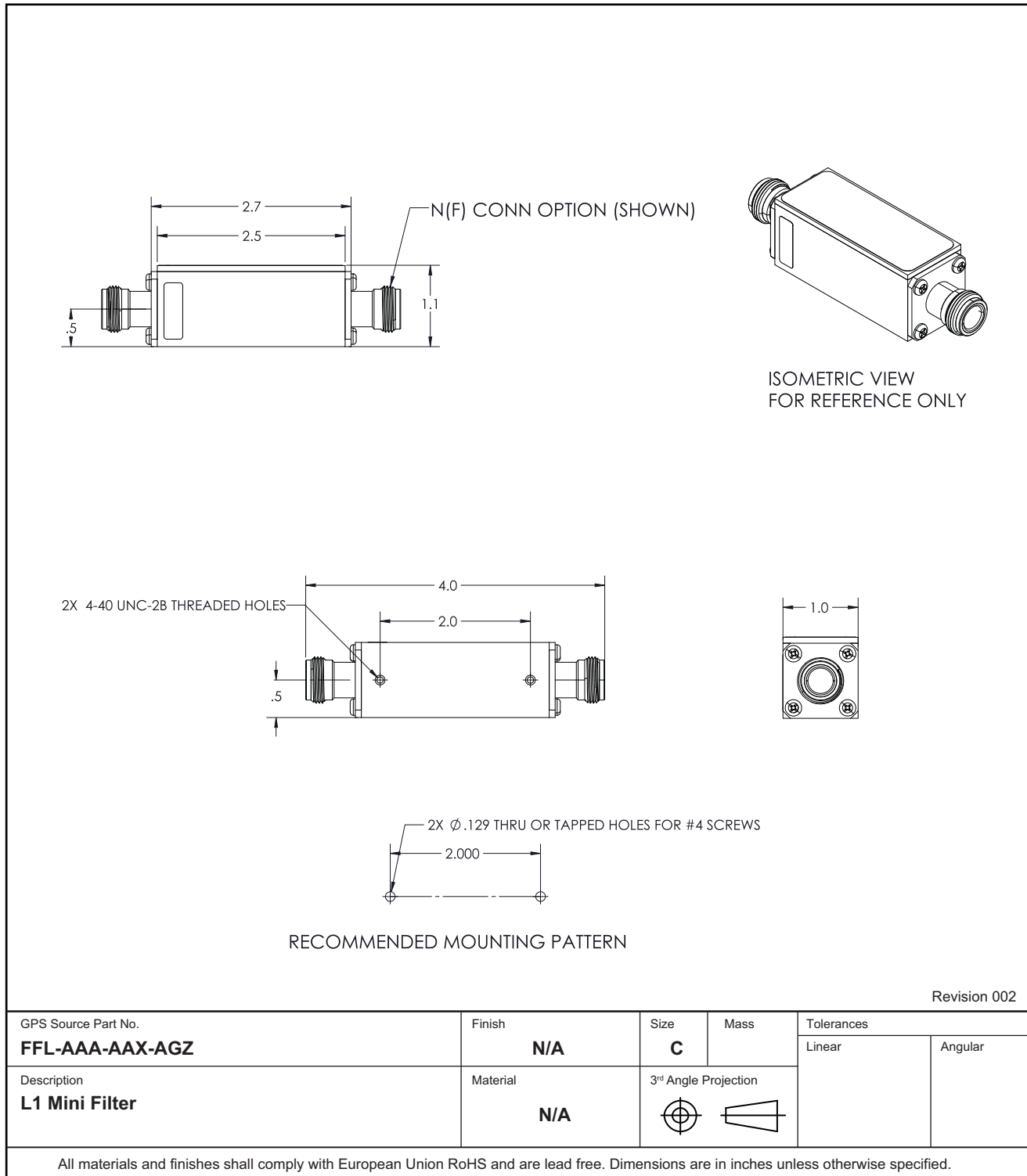
Power Supply		
Source Voltage	Voltage Input	Type
	110VAC	Wall Mount Transformer
	230VAC (Euro)	Wall Mount Transformer
	240VAC (U.K.)	Wall Mount Transformer
	DC 5VDC to 28VDC	Military Style Connector or Tinned Leads
Output Voltage ⁽¹⁾	DC Voltage Out ⁽¹⁾	
	3.3	
	5.0	
	12.0	
RF Connector		
Connector	Connector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



L1FM-HR Passive Filter Data Sheet

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