

L12F-HR

L1/L2 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.



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1. L12F-HR Electrical Specifications

Table 1.1 Electrical Specifications

Operating Temperature -40°C to 85°C

Parameter		Conditions		Min	Typical	Max	Units
Frequency Range		IN – OUT, IN/OUT 50 Ω	1227.6 MHz	1.20		1.25	GHz
			1575.4 MHz	1.56		1.59	
In/Out Impedance		IN – OUT			50		Ω
Insertion Loss		IN – OUT, IN/OUT 50 Ω	1227 MHz	3	5	7	dB
			1575MHz	4	5.5	7	
Rejection		IN – OUT, IN/OUT 50 Ω	1227 MHz	± 75 MHz	-16		dB
				± 100 MHz	-20		
			1575MHz	± 75 MHz	-35		
				± 100 MHz	-35		
Input SWR		OUT Port 50 Ω				2.5:1	—
Output SWR		IN Port 50 Ω				2.5:1	—
DC IN	Pass DC	Pass DC on Input and output		3		16	VDC
Max RF Input		Max RF Input Without Damage				30	dB

2. Performance Data

2.1 L12F-HR

Figure 2-1. Gain vs. Frequency

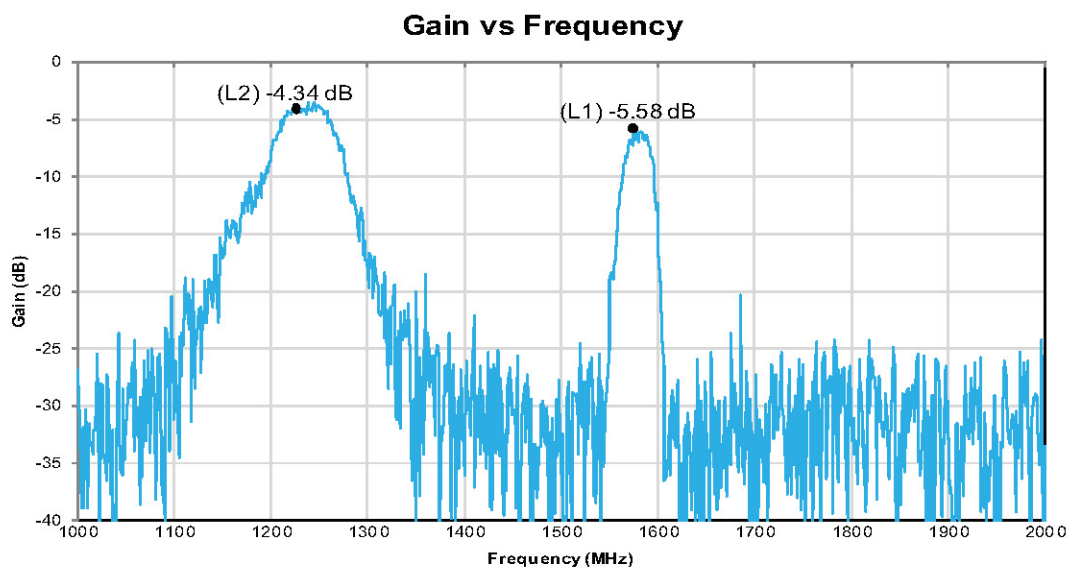
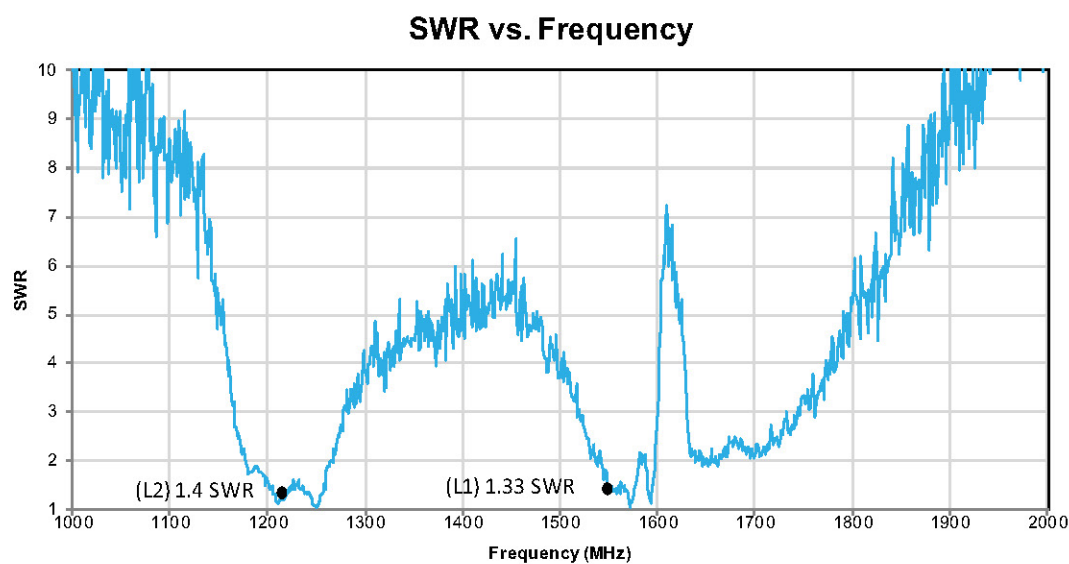


Figure 2-2. SWR vs. Frequency



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.

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4. Product Code Decoder

L12F-HR-X-P110/5-SF

Filter

L12F-HR = L1L2 Passive Filter
 L1-Band High Rejection
 L2 Band Standard Rejection

Environmental Option(s)

Blank = None
 E = EMI Shielding
 W = Waterproof
 HS = Hermetically Sealed

Source Voltage

P110 = Transformer
 P230 = Transformer
 P240 = Transformer
 PDC = DC with Tinned Leads
 PM = Military Connector (User Supplies DC)

Connector Option

NF = NFemale
 SF = SMA.....Female
 TF = TNCFemale
 NM = N.....Male
 SM = SMA.....Male
 TM = TNCMale

Output Voltage

3.3 = 3.3V
 5 = 5.0V
 12 = 12.0V