Coaxial **.ow Pass Filter**

50Ω DC to 490 MHz

VLFG-490+

The Big Deal

- Good power handling, 3.5 W
- Temperature stable
- Rugged, unibody construction
- Very good rejection, 45 dB typical



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Product Overview

VLFG-490+ is a 50 Ω low pass filter built in rugged unibody construction. Covering DC-490 MHz bandwidth, these units offer good matching within the passband and high rejection in stopband. VLFG-490+ offer low insertion loss, and good power handling capability. It handles up to 3.5W RF input power and provides a wide operating temperature range from -55°C to 125°C.

Key Features

Feature	re Advantages	
Low passband insertion loss	Suitable for high performance application.	
3.5W Power handling	Supports a range of system power requirements.	
Connectorized package	The connectorized package is easy to interface with other devices and well suited for test setups.	

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Coaxial Low Pass Filter

50 Ω DC to 490 MHz

Features

- Low loss, 1.5 dB typical
- Very good rejection 45 dB typical
- Good power handling, 3.5 W
- Temperature stable
- Rugged unibody construction
- Connectorized package

Applications

- Harmonic Rejection
- VHF/UHF transmitters / receivers
- Military radar applications
- Test and measurement
- Telecommunications & broadband wireless applications
- Satcom modems

Functional Schematic



Typical Frequency Response



'LFG-490+



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+RoHS Compliant The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications at 25°C

Pa	rameter	F#	Frequency (MHz)	Min.	Тур.	Max.	Unit
	Insertion Loss	DC-F1	DC - 490	_	1.5	2	dB
Pass Band	Freq. Cut-Off	F2*	590	_	3.0	-	dB
	Return Loss	DC-F1	DC - 490	_	16	_	dB
Stop Band	Rejection Loss	F3-F4	800 - 960	20	56	—	dB
		F4-F5	960 - 1500	40	52	_	dB
		F5-F6	1500 - 3000	35	46	-	dB
		F6-F7	3000 - 8500	_	17	_	dB

In Application where DC voltage is present at either input or output port, DC blocks are required. * Typically, a $\pm 5\%$ frequency deviation from the stated value may occur on a unit-to-unit basis.

Maximum Ratings Operating Temperature -55°C to 125°C Storage Temperature -55°C to 125°C RF Power Input* 3.5 W max.@25°C

*Passband rating, derate linearly to 0.9 W at 125°C ambient Permanent damage may occur if any of these limits are exceeded.

Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	0.17	32.63
100	0.37	20.53
300	0.77	16.33
400	1.03	24.48
490	1.52	20.16
590	3.26	13.48
685	20.46	3.93
720	31.32	3.07
800	63.43	1.77
960	60.60	0.77
1500	52.72	0.32
3000	51.14	0.31
4200	29.76	0.50
6100	34.59	0.43
6600	30.47	0.82
7000	39.07	1.30
7600	30.39	1.44
8000	27.16	0.92
8400	25.12	1.12
8500	24.71	1.26



Notes
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Coaxial Connections

PORT - 1	SMA-Male
PORT - 2	SMA-Female

Outline Drawing



Outline Dimensions (inch)

в	D	Е	wt.
.410	1.43	.312	grams
10.41	36.32	7.92	10

Note: Please refer to case style drawing for details

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