



Mini-Circuits

LTCC COAXIAL

## Low Pass Filter

VLFG-700+

50Ω

DC to 700 MHz SMA Male/Female

## KEY FEATURES

- Low Insertion Loss, 1.3 dB Typ.
- Return Loss, 15 dB Typ.
- Stopband Rejection, 48 dB Typ.
- Rugged Unibody Construction
- Power Handling: 3.5 Watts



Generic photo used for illustration purposes only

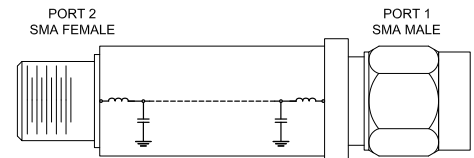
## APPLICATIONS

- VHF/UHF Transmitters/Receivers
- Medical Transmit

## PRODUCT OVERVIEW

VLFG-700+ is a Low Pass filter with DC to 700 MHz passband supporting a variety of applications. This model provides 1.3 dB typical insertion loss over a wide band due to its rugged unibody construction. VLFG-700+ offers low insertion loss, and excellent power handling capability. It handles up to 3.5 W RF input power and provides a wide operating temperature range from -55°C to 125°C.

## FUNCTIONAL DIAGRAM

ELECTRICAL SPECIFICATIONS<sup>1</sup> AT +25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Insertion Loss	DC-F1	DC - 700	—	1.3	2	dB
	Freq. Cut-Off <sup>2</sup>	Fc	880	—	3	—	dB
	Return Loss	DC-F1	DC - 700	—	15	—	dB
Stopband	Rejection	F2-F3	1100 - 1600	20	35	—	dB
		F3-F4	1600 - 3800	35	48	—	
		F4-F5	3800 - 8500	—	16	—	

1. This component should not be used as a DC-block. In applications where DC voltage and/or current is present at either the input or output ports, external DC blocking capacitors are required.

2. Typical variation ± 5%

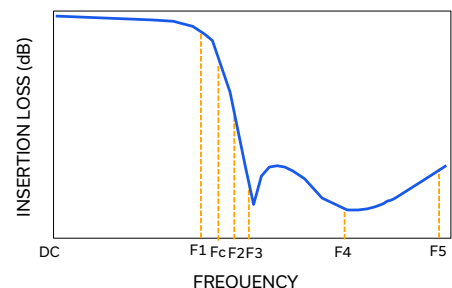
ABSOLUTE MAXIMUM RATINGS<sup>3</sup>

Parameter	Ratings
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +125°C
Input Power <sup>4</sup>	3.5 W @+25°C

3. Permanent damage may occur if any of these limits are exceeded.

4. Power rating applies only to signals within the passband. Power rating above +25°C operating temperature decreases linearly to 0.8 W at +125°C.

## TYPICAL FREQUENCY RESPONSE AT +25°C



Mini-Circuits

www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. OR  
ECO-026903  
VLFG-700+  
EDU5166  
URJ  
250910

PAGE 1 OF 4



LTCC COAXIAL

# Low Pass Filter

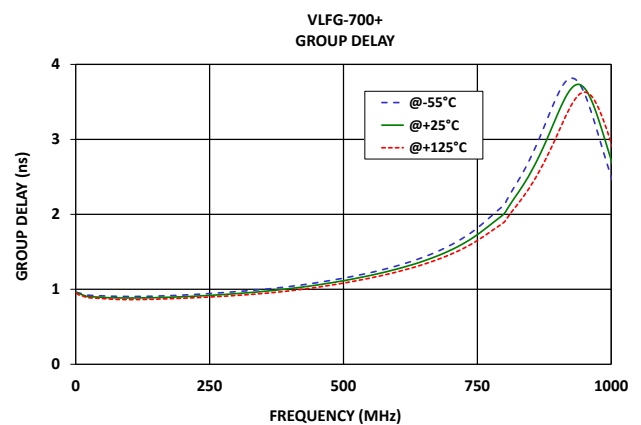
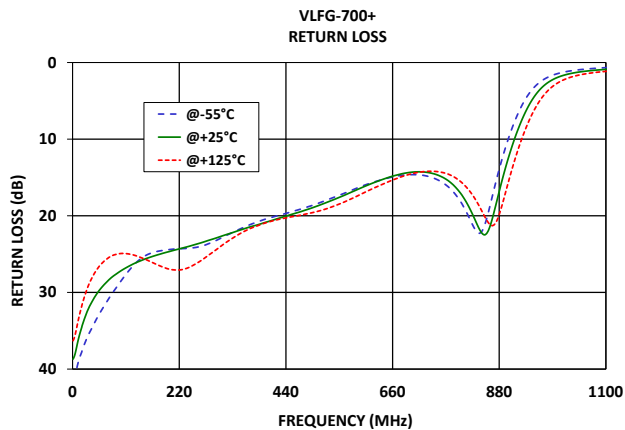
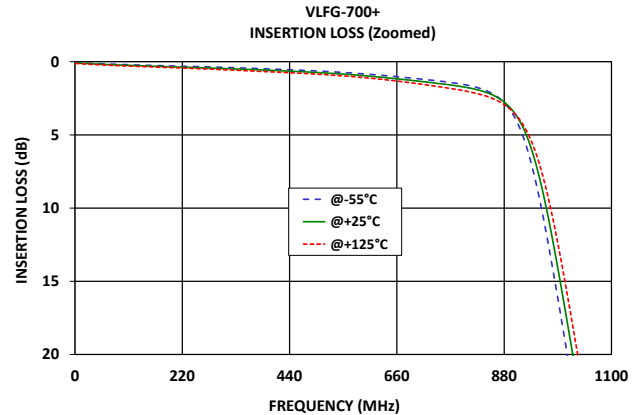
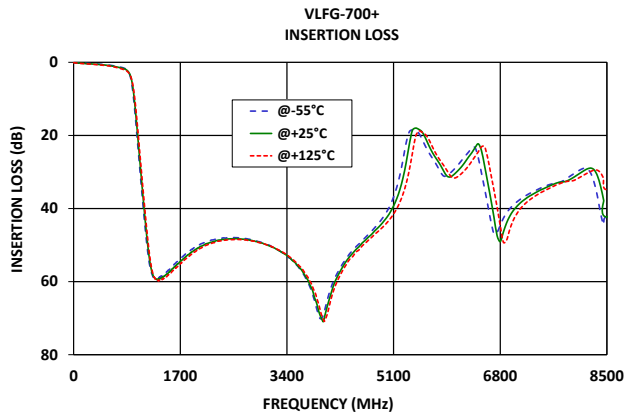
**VLFG-700+**

Mini-Circuits

50Ω

DC to 700 MHz SMA Male/Female

## TYPICAL PERFORMANCE GRAPHS AT +25°C

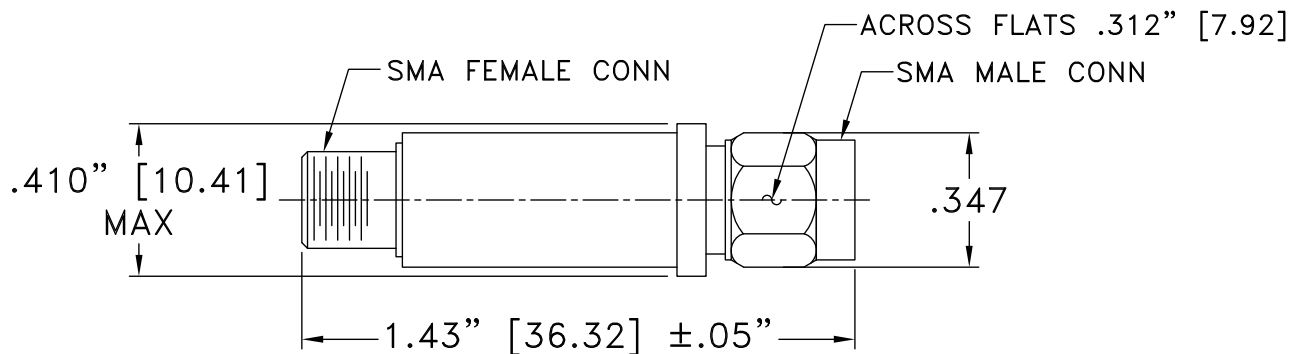




## CONNECTOR DESCRIPTION

Function	Functionality	Connector
RF1	Port-1	SMA MALE
RF2	Port-2	SMA FEMALE

## CASE STYLE DRAWING



Unit weight: 10.0grams

Dimensions are in inches (mm). Tolerances: 2 Pl.  $\pm.04$ "; 3 Pl.  $\pm.30$ "

## PRODUCT MARKING\*: VLFG-700+

\*Marking may contain other features or characters for internal lot control.



Mini-Circuits

LTCC COAXIAL

# Low Pass Filter

VLFG-700+

50Ω

DC to 700 MHz

SMA Male/Female

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

Performance Data & Graphs	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file)
Case Style	FF704
RoHS Status	Compliant
Environmental Ratings	ENV113

## NOTES

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/terms/viewterm.html](http://www.minicircuits.com/terms/viewterm.html)

