



LTCC COAXIAL

High Pass Filter

VHFG-740+

50Ω

880 to 7000 MHz SMA Male/Female

KEY FEATURES

- Low Insertion Loss, 1 dB Typ.
- Return Loss, 10 dB Typ.
- Stopband Rejection, 47 dB Typ.
- Rugged Unibody Construction
- Power Handling: 2 Watts

APPLICATIONS

- Test and Measurement
- Satellite Communications
- 5G Sub 6 GHz and Wi-Fi 6E
- Drone Mitigation

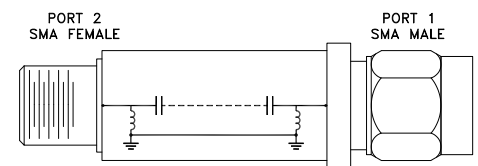


Generic photo used for illustration purposes only

PRODUCT OVERVIEW

VHFG-740+ is a 50Ω high pass filter built in rugged unibody construction. Covering 880-7000 MHz bandwidth, these units offer good matching within the passband and good rejection in stopband. VHFG-740+ offer low insertion loss, and excellent power handling capability. It handles up to 2 W RF input power and provides a wide operating temperature range from -55°C to 125°C.

FUNCTIONAL DIAGRAM

ELECTRICAL SPECIFICATIONS^{1,2} AT +25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Insertion Loss	F3-F4	880 - 1600	—	2.8	—	dB
		F4-F5	1600 - 5500	—	1	1.5	
		F5-F6	5500 - 7000	—	1	1.7	
	Return Loss	F3-F4	880 - 1600	—	7	—	dB
		F4-F5	1600 - 5500	—	9	—	
		F5-F6	5500 - 7000	—	10	—	
Stopband	Rejection	DC-F1	DC - 430	37	47	—	dB
		F1-F2	430 - 580	20	32	—	
	Freq. Cut-Off ³	Fc	800	—	3	—	dB

1. This filter is bi-directional, RF1 and RF2 ports may be interchanged, see S-Parameters for actual performance.

2. 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.

3. Typical variation ± 5%

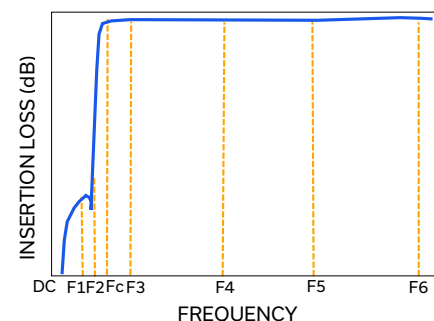
ABSOLUTE MAXIMUM RATINGS⁴

Parameter	Ratings
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +125°C
Input Power ⁵	2 W @+25°C

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

5. Power rating applies only to signals within the passband. Power rating above +25°C operating temperature decreases linearly to 0.5 W at +125°C.

TYPICAL FREQUENCY RESPONSE AT +25°C





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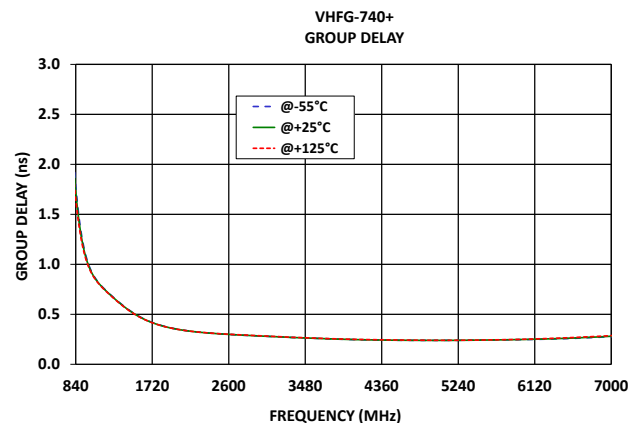
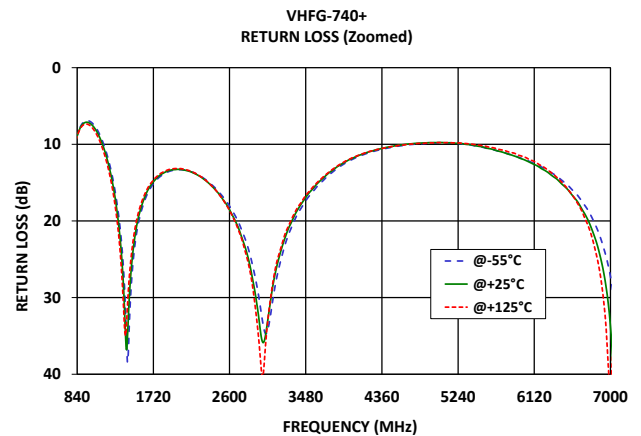
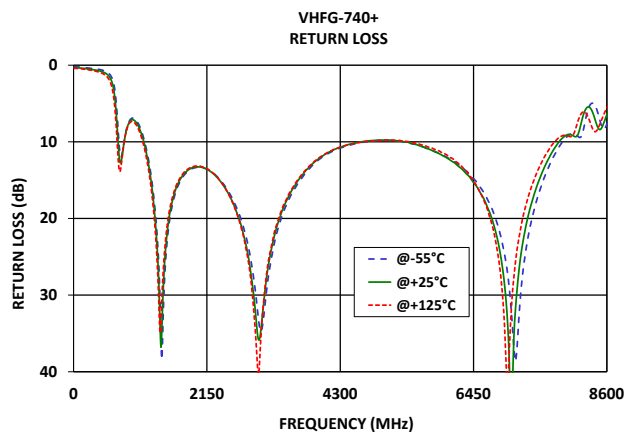
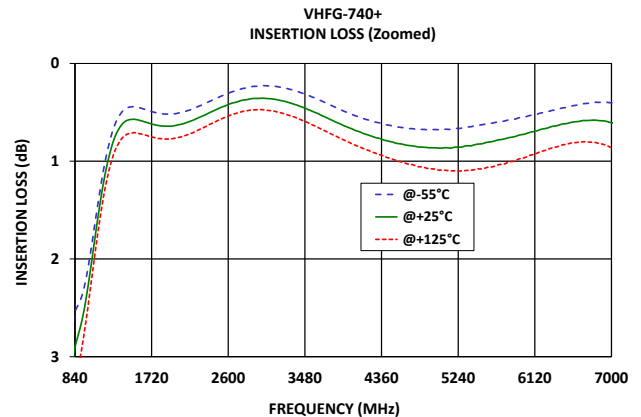
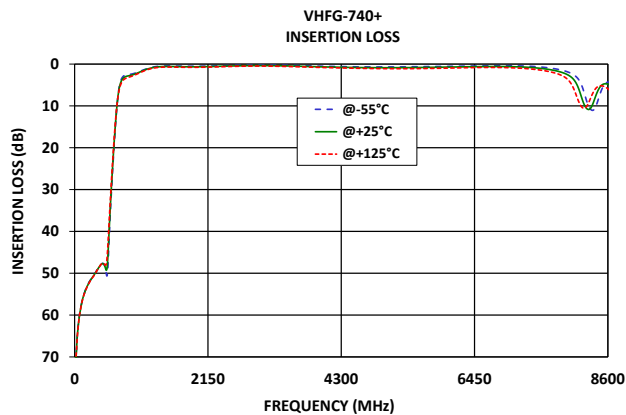
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SMA Male/Female

TYPICAL PERFORMANCE GRAPHS

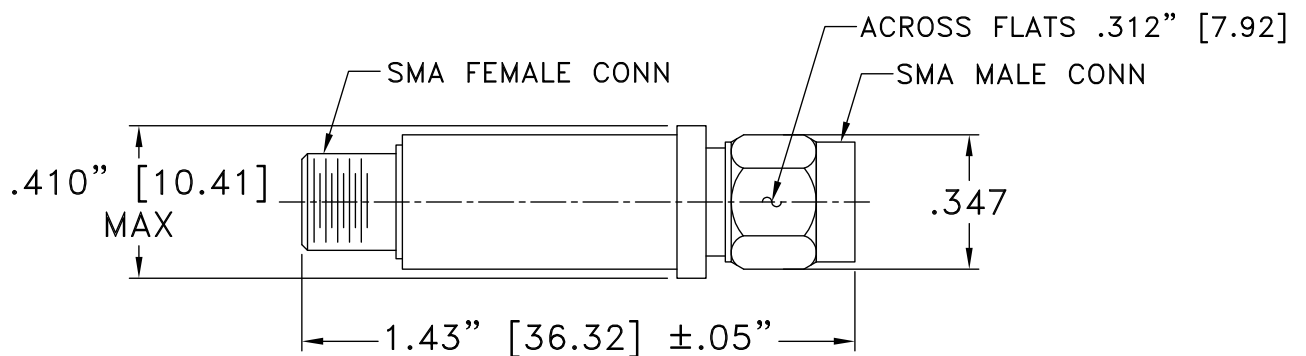




CONNECTOR DESCRIPTION

Function	Functionality	Connector
RF1 ¹	Port-1	SMA MALE
RF2 ¹	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*: VHFG-740+

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



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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.
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