

# VLFG-1575+ Datasheet

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DiGi Electronics Part Number	VLFG-1575+-DG
Manufacturer	<a href="#">Mini-Circuits</a>
Manufacturer Product Number	VLFG-1575+
Description	RF FILTER LOWPASS 1.85GHZ INLINE
Detailed Description	1.85GHz (Cutoff) Frequency Low Pass RF Filter (Radio Frequency) Bandwidth 1.8dB Inline, SMA Connection, F and M

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## Purchase and inquiry

Manufacturer Product Number:

VLFG-1575+

Series:

-

Frequency:

1.85GHz (Cutoff)

Filter Type:

Low Pass

Insertion Loss:

1.8dB

Package / Case:

Inline, SMA Connection, F and M

Height (Max):

-

Manufacturer:

Mini-Circuits

Product Status:

Active

Bandwidth:

-

Ripple:

-

Mounting Type:

Free Hanging (In-Line)

Size / Dimension:

0.410" Dia x 1.430" L (10.41mm x 36.32mm)

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8548.00.0000

Moisture Sensitivity Level (MSL):

Not Applicable

ECCN:

EAR99

# Coaxial Low Pass Filter

## VLF-1575+

50Ω DC to 1575 MHz



Generic photo used for illustration purposes only  
CASE STYLE: FF704

### The Big Deal

- Excellent power handling, 5.5W
- Temperature stable
- Rugged unibody construction
- Good rejection, 45 dB typical

### Product Overview

VLF-1575+ is a 50Ω low pass filter built in rugged unibody construction. Covering DC-1575 MHz bandwidth, these units offer good matching within the passband and good rejection in stopband. VLF-1575+ offer low insertion loss, and excellent power handling capability. It handles up to 5.5W RF input power and provides a wide operating temperature range from -55°C to 125°C.

### Key Features

Feature	Advantages
Low passband insertion loss	Suitable for high performance application.
5.5W 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.

#### 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-Circuit's applicable established test performance criteria and measurement instructions.  
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Coaxial

# Low Pass Filter

## VLFG-1575+

50Ω DC to 1575 MHz



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**+RoHS Compliant**

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

### Features

- Low loss, 1.1 dB typical
- Good rejection 45 dB typical
- Excellent power handling, 5.5W
- Temperature stable
- Connectorized package
- Rugged unibody construction

### Applications

- Military radar applications
- Test and measurement
- Telecommunication and broadband wireless applications

### Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC - 1575	—	1.1	1.8	dB
	Freq. Cut-Off	F2*	1850	—	3.0	—	dB
	Return Loss	DC-F1	DC - 1575	—	15	—	dB
Stop Band	Rejection Loss	F3-F4	2175 - 2400	20	38	—	dB
		F4-F5	2400 - 7000	36	45	—	dB
		F5-F6	7000 - 12000	—	35	—	dB

In Application where DC voltage is present at either input or output port, DC blocks are required.

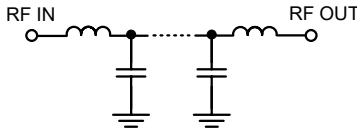
\* Typically, a ±5% frequency deviation from the stated value may occur on a unit-to-unit basis.

#### Maximum Ratings

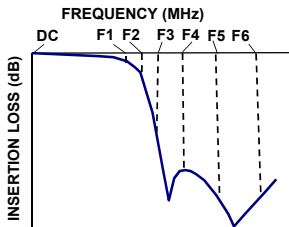
Operating Temperature	-55°C to 125°C
Storage Temperature	-55°C to 125°C
RF Power Input*	5.5W max. @25°C

\*Passband rating, derate linearly to 1W at 125°C ambient  
Permanent damage may occur if any of these limits are exceeded.

### Functional Schematic

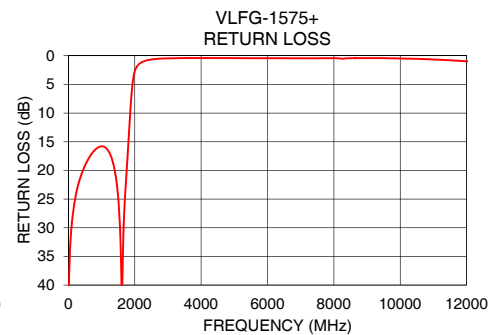
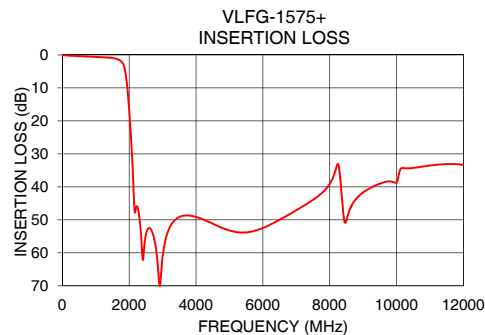
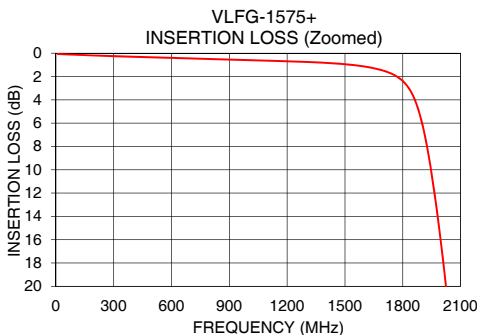


### Typical Frequency Response



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	0.06	41.92
100	0.13	29.52
1000	0.59	15.80
1100	0.64	15.95
1400	0.82	20.07
1500	0.94	24.62
1575	1.08	33.09
1850	3.53	11.28
1960	11.49	3.78
2035	21.64	2.19
2100	33.33	1.61
2175	47.80	1.25
2400	61.50	0.76
3000	61.27	0.45
7000	47.10	0.44
8000	39.12	0.43
9000	41.67	0.41
10000	38.68	0.47
11000	33.55	0.65
12000	33.35	0.97



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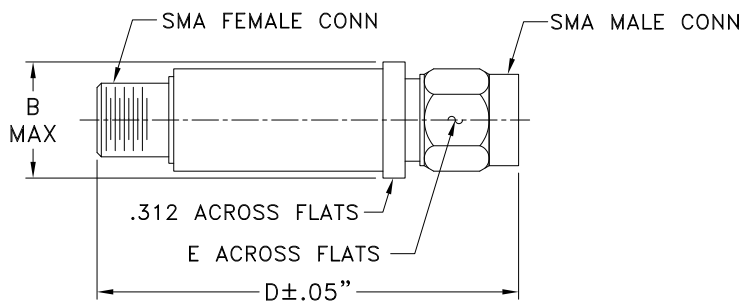
# Low Pass Filter

# VLFG-1575+

## Coaxial Connections

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

## Outline Drawing



## Outline Dimensions ( inch )

B	D	E	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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