

# Coaxial Low Pass Filter

## ZX75LP-50-S+

50Ω DC to 50 MHz

### The Big Deal

- High rejection
- Low Insertion loss, 1.4 dB typical in passband
- Fast roll-off
- Good VSWR
- Connectorized package



Generic photo used for illustration purposes only  
CASE STYLE: KE1467

### Product Overview

ZX75LP-50-S+ is a 50Ω low pass filter built in a connectorized package. Covering DC-50 MHz bandwidth, these units offer good matching within the passband and high rejection in stopband. This will find its applications in receivers and transmitters to suppress spurious emission and harmonics. It has repeatable performance across production lots and consistent performance across temperature.

### Key Features

Feature	Advantages
Low passband insertion loss	Suitable for high performance application
Fast roll-off	Provides very good adjacent band rejection
Connectorized package	The connectorized package is easy to interface with other devices and well suited for test setups
Good VSWR	Provides good interface when used with other devices.

#### 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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# Low Pass Filter

50Ω

DC to 50 MHz

ZX75LP-50-S+



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Connectors	Model
SMA-MF	ZX75LP-50-S+

## Features

- High rejection
- Low insertion loss
- Fast roll-off
- Good VSWR
- Connectorized package

## Applications

- Satellite
- Wireless communications
- Receivers / Transmitters

## Electrical Specifications at 25°C

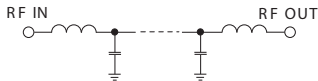
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	—	1.4	2.2	dB
	Freq. Cut-Off	F2	—	3.0	—	dB
	VSWR	DC-F1	—	1.2	1.8	:1
Stop Band	Rejection Loss	F3-F4	20	30	—	dB
	VSWR	F3-F4	—	12	—	:1

## Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

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

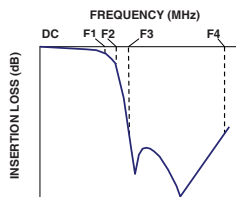
## Functional Schematic



## Typical Performance Data at 25°C

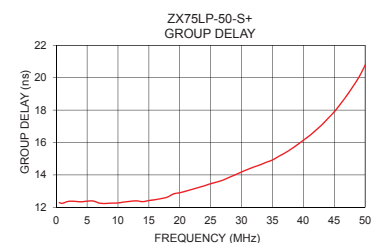
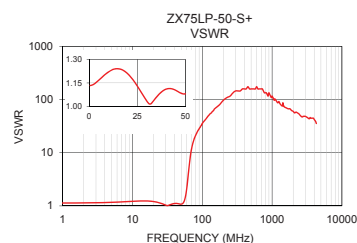
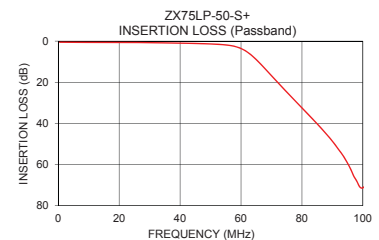
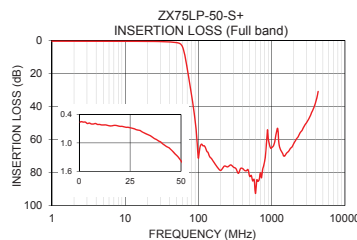
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1	0.55	1.13	1	12.25
10	0.61	1.22	5	12.38
50	1.38	1.08	10	12.27
56	2.03	1.31	12	12.37
59	3.01	1.85	15	12.42
70	16.79	11.46	18	12.63
75	24.74	16.56	20	12.90
79	30.91	19.76	23	13.22
90	48.69	28.03	25	13.46
100	71.31	34.07	27	13.68
200	78.72	91.43	30	14.18
250	76.60	115.81	32	14.49
500	82.37	157.93	35	14.92
750	78.28	157.93	37	15.35
500	82.37	157.93	40	16.14
1500	70.07	86.86	42	16.75
2000	62.42	78.97	44	17.49
3000	49.72	62.05	46	18.37
3500	43.72	35.46	48	19.44
4000	37.15	48.26	50	20.76

## Typical Frequency Response



## +RoHS Compliant

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



## Notes

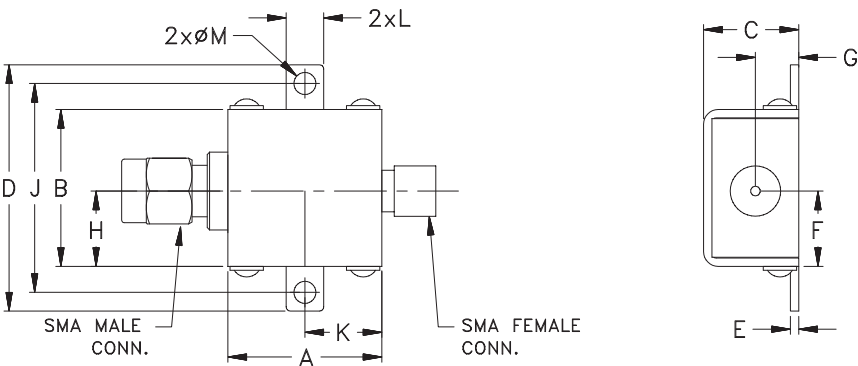
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Coaxial Connections

INPUT	SMA-Male
OUTPUT	SMA-Female

Outline Drawing



Outline Dimensions ( <sup>inch</sup><sub>mm</sub> )

A	B	C	D	E	F	G
.74	.75	.46	1.18	.04	.362	.21
18.80	19.05	11.68	29.97	1.02	9.19	5.33
H	J	K	L	M		Wt.
.362	1.00	.37	.18	.11		grams
9.19	25.40	9.40	4.57	2.79		24.4

*Note: Please refer to case style drawing for details*

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