Coaxial

Low Pass Filter

ZX75LP-105-S+

50Ω DC to 105 MHz

CASE STYLE: KE1467

The Big Deal

- High rejection
- Low Insertion loss, 1.3 dB typical in passband
- Fast roll-off
- Good VSWR
- Connectorized package

Product Overview

ZX75LP-105-S+ is a 50Ω low pass filter built in a connectorized package. Covering DC-105 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. This can also be used in wide-band down convertors and baseband circuitry. 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.

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Connectors	Model
SMA-M\F	ZX75LP-105-S+

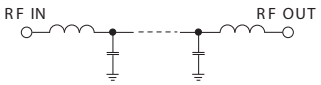
Features

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

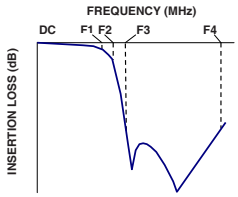
Applications

- Baseband
- Harmonic rejection
- Wideband down convertor
- Satellite
- Wireless communications
- Receivers / Transmitters

Functional Schematic



Typical Frequency Response



+RoHS Compliant

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

Electrical Specifications at 25°C

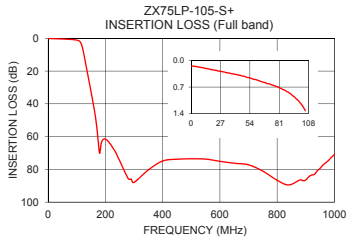
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC -105	—	1.3	2.0	dB
	Freq. Cut-Off	F2	115	—	3.0	—	dB
	VSWR	DC-F1	DC -105	—	1.2	1.6	:1
Stop Band	Rejection Loss	F3-F4	150 -1000	20	33	—	dB
	VSWR	F3-F4	150 -1000	—	26	—	:1

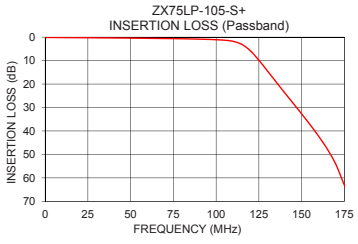
Maximum Ratings	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

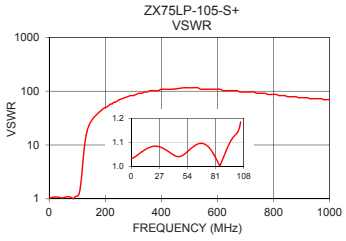
Permanent damage may occur if any of these limits are exceeded.

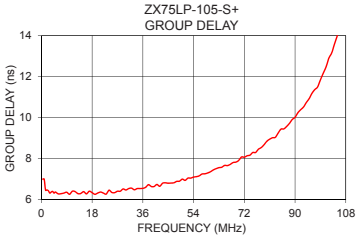
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1	0.15	1.03	1	7.00
20	0.25	1.08	10	6.26
74	0.64	1.08	20	6.32
105	1.32	1.18	30	6.47
115	3.07	2.38	40	6.64
120	5.80	4.56	50	7.00
125	9.83	8.51	55	7.12
130	14.39	13.39	60	7.36
140	23.61	21.73	65	7.67
150	32.69	27.59	70	7.91
180	70.23	41.37	75	8.30
200	61.56	49.64	80	8.85
250	74.74	69.49	93	10.52
300	88.00	82.73	85	9.44
400	74.90	108.58	90	10.02
500	73.56	115.81	95	10.93
600	75.10	108.58	98	11.50
700	77.23	96.51	100	12.17
800	86.64	86.86	102	12.91
1000	70.95	69.49	105	14.01









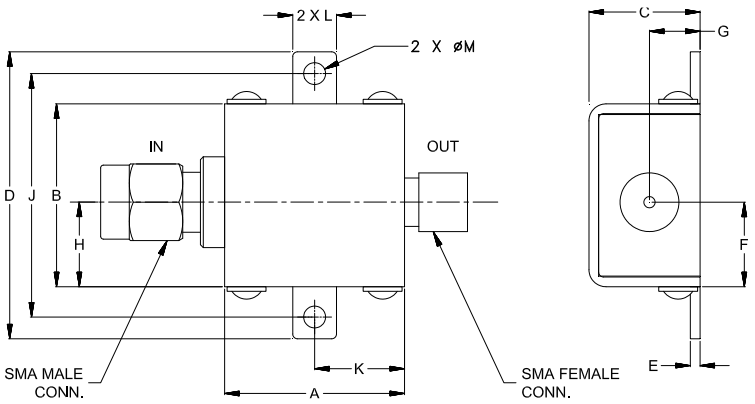
Notes

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.
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/MCLStore/terms.jsp

Coaxial Connections

INPUT	SMA-Male
OUTPUT	SMA-Female

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
.74	**.75**	**.46**	**1.18**	**.04**	**.349**	**.21**
18.80	19.05	11.68	29.97	1.02	8.86	5.33

H	J	K	L	M	Wt.
.349	**1.00**	**.37**	**.18**	**.09**	grams
8.86	25.40	9.40	4.57	2.29	24.4