

Coaxial Low Pass Filter

ZX75LP-2000-S+

50Ω DC to 2000 MHz

The Big Deal

- Excellent rejection of 90 dB typical
- Fast roll-off transition at stopband
- Low passband insertion loss of 1.3 dB typical
- Good VSWR of 1.5:1 typical
- Connectorized package



Generic photo used for illustration purposes only
CASE STYLE: HY1238

Product Overview

ZX75LP-2000-S+ is a 50Ω low pass filter built in connectorized package which is easy to interface with other devices and well suited for test setups. Covering DC-2000 MHz bandwidth, this filter is designed to have an excellent flatness in the passband to ensure amplitude variation is low. Apart from the high rejection in stopband, these units offer good return loss which makes signal transmission with less reflection and well-matched with the adjacent component used in the setup.

Key Features

Feature	Advantages
Low passband insertion loss of 1.3 dB typical	Can be used in high performance application.
Fast roll-off and high rejection of 90 dB typical.	Provides very good adjacent band rejection. This enables the filter to attenuate spurious signals and reject harmonics for broad band frequency.
Good VSWR of 1.5:1 typical	Provides good interface when used with other devices.
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.
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



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Connectors Model
SMA-M/F ZX75LP-2000-S+

Features

- Excellent rejection of 90 dB typical
- Fast roll-off transition at stopband
- Low passband insertion loss of 1.3 dB typical
- Good VSWR of 1.5:1 typical

Applications

- Satellite
- Wireless communications
- Receivers / Transmitters
- Harmonic rejection

Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC - 2000	—	1.3	2.3	dB
	VSWR	DC-F1	DC - 2000	—	1.5	2.0	:1
Stop Band	Rejection	F2-F3	2400 - 2600	20	35	—	dB
		F3-F4	2600 - 4000	40	55	—	dB
		F4-F5	4000 - 10000	—	90	—	dB

Maximum Ratings

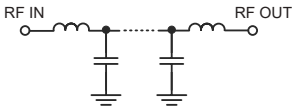
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	2W max.

Permanent damage may occur if one or combination of these limits are exceeded.

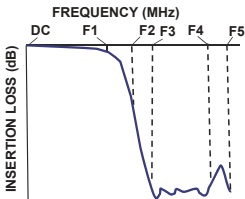
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
10	0.01	1.02	10	1.22
50	0.06	1.11	50	1.22
100	0.13	1.22	100	1.21
500	0.27	1.16	200	1.20
1000	0.47	1.24	250	1.20
1050	0.52	1.32	300	1.21
1500	0.65	1.15	350	1.22
1800	0.93	1.26	400	1.23
2000	1.27	1.30	450	1.23
2180	3.22	1.74	500	1.24
2240	12.17	8.88	550	1.23
2290	20.95	16.93	1000	1.31
2360	31.28	24.27	1100	1.33
2400	36.39	27.24	1200	1.36
2500	47.50	32.56	1300	1.41
2600	57.01	36.10	1400	1.46
4000	102.86	53.44	1500	1.52
7000	104.67	58.30	1600	1.59
8000	110.13	48.32	1700	1.67
10000	102.40	50.00	2000	2.33

Functional Schematic

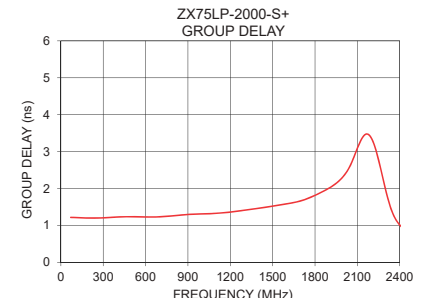
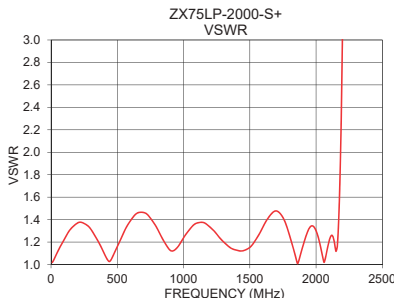
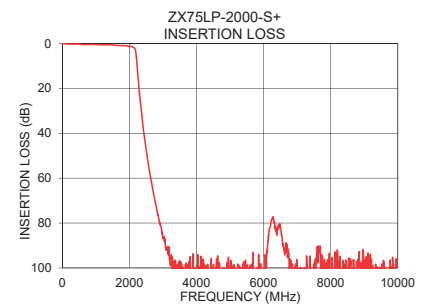
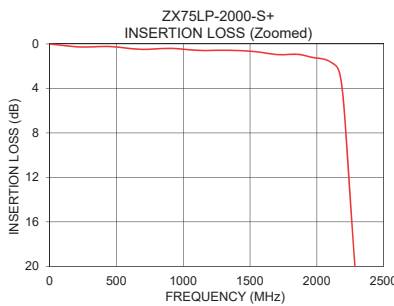


Typical Frequency Response



+RoHS Compliant

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



Notes

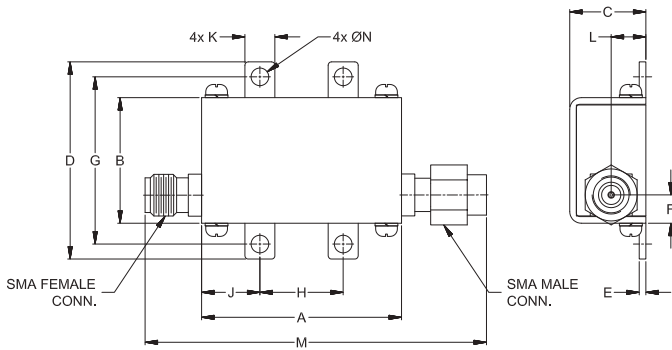
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Coaxial Connections

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

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
1.20	.75	.46	1.18	.04	.17	1.00
30.48	19.05	11.68	29.97	1.02	4.32	25.40
H	J	K	L	M	N	Wt.
.50	.35	.18	.21	2.05	.106	grams
12.70	8.89	4.57	5.28	52.07	2.69	35.0

Note: Please refer to case style drawing for details

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