Coaxial

Low Pass Filter

ZX75LP-176-S+

50Ω DC to 176 MHz

Generic photo used for illustration purposes only

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-176-S+ is a 50Ω low pass filter built in a connectorized package. Covering DC-176 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. It will also be useful in I.Q demodulator and harmonic suppression of Local Oscillator. 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
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Connectors	Model
SMA-M\F	ZX75LP-176-S+

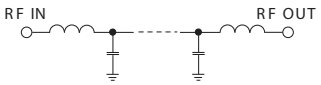
Features

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

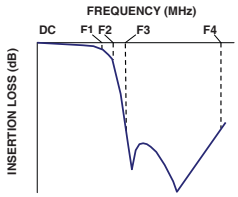
Applications

- Baseband
- Harmonic suppression
- I.Q Demodulators
- 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

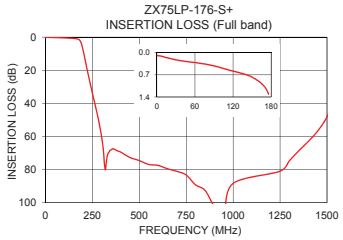
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-176	—	1.3	2.0	dB
	Freq. Cut-Off	F2	189	—	3.0	—	dB
	VSWR	DC-F1	DC-176	—	1.3	1.6	:1
Stop Band	Rejection Loss	F3-F4	245-1500	20	30	—	dB
	VSWR	F3-F4	245-1500	—	31	—	:1

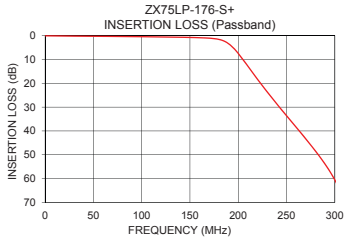
Maximum Ratings	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

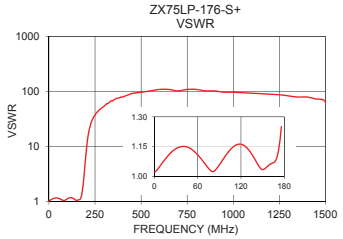
Permanent damage may occur if any of these limits are exceeded.

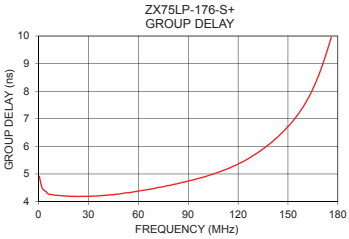
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1	0.09	1.02	1	4.75
25	0.20	1.13	5	4.32
120	0.58	1.16	10	4.23
176	1.31	1.25	25	4.19
189	3.12	2.66	50	4.29
200	7.48	6.89	75	4.54
210	12.86	13.81	100	4.90
230	23.63	27.59	110	5.10
245	31.15	35.46	120	5.36
275	45.87	46.96	125	5.52
350	68.10	69.49	130	5.70
450	72.68	91.43	135	5.91
500	74.54	96.51	140	6.14
600	77.46	108.58	145	6.41
700	81.06	102.19	150	6.72
800	89.23	108.58	160	7.52
900	102.10	102.19	165	8.09
1000	88.34	96.51	170	8.82
1250	80.97	86.86	175	9.75
1500	48.16	64.35	176	9.95









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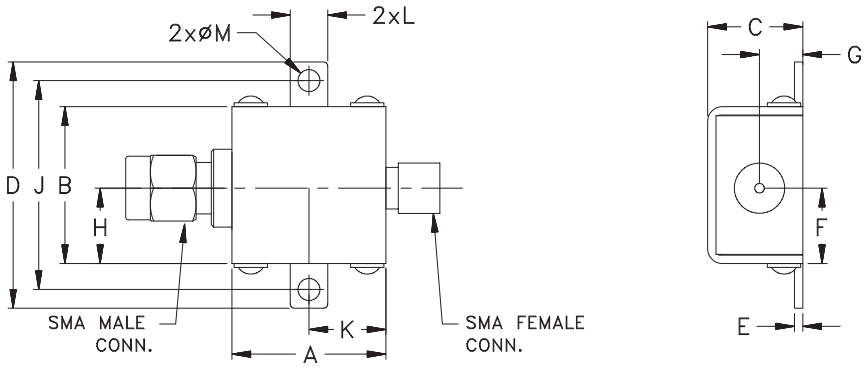
Coaxial Connections

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**	**.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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