# Coaxial Low Pass Filter

50Ω DC to 44 MHz

### The Big Deal

- Low insertion loss, 0.6 dB typ.
- High rejection, 46 dB typ.
- Sharp cut-off
- Good VSWR, 1.2:1 typ. in passband
- Connectorized package

### **Product Overview**

SLP-44+ is a 50Ω Low pass filter in a connectorized package covering DC to 44 MHz. This filter uses miniature high Q capacitors and wire welded inductors for high reliability. This filter offers high rejection and low insertion loss. It has consistent performance across temperature and repeatable performance across production lots.

## **Key Features**

Feature	Advantages
Low insertion loss, 0.6 dB typ.	It enables the filter to be used in high performance applications.
High rejection, 46 dB typ.	Attenuates unwanted spurious signals and harmonics.
Sharp cut-off	This enables the filter rejects the near band interaction and provides the high selectivity.
Good VSWR, 1.2:1 typical in passband	This provides good matching when used with other devices.
Connectorized package	Easy to interface with other devices and well suited for test setups.

Generic photo used for illustration purposes only CASE STYLE: FF99

Notes
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## **SLP-44+**

# Coaxial **Low Pass Filter**

#### 50Ω DC to 44 MHz

# SLP-44+



Generic photo used for illustration purposes only

CASE STYLE: FF99 Connectors Model SMA SLP-44+

- **Features**
- Low insertion loss, 0.6 dB typ.
- High rejection, 46 dB typ.
- · Good VSWR, 1.2:1 typical in passband
- Sharp cut-off
- · Rugged shielded case
- · Connectorized package

#### **Applications**

- Defense communications
- Transmitters / Receivers
- Harmonic rejection

#### **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

Pa	irameter	F#	Frequency (MHz)	Min.	Тур.	Max.	Unit
	Insertion Loss	DC-F1	DC - 44	—	0.6	1	dB
Pass Band	Freq. Cut-Off	F2	48.5	—	3.0	_	dB
	VSWR	DC-F1	DC - 44	_	1.2	1.5	:1
Stop Band	Rejection Loss	F3-F4	59 - 65.5	20	30	_	dB
		F4-F5	65.5 - 600	40	46	_	dB

Maximum Ratings			
Operating Temperature	-40°C to 85°C		
Storage Temperature	-55°C to 100°C		
RF Power Input	0.5 W 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 (ns)
1.0	0.02	1.01	1.0	13.91
10.0	0.07	1.12	4.0	13.67
20.0	0.11	1.10	6.0	13.65
25.0	0.13	1.06	8.0	13.74
30.0	0.17	1.05	10.0	13.88
35.0	0.23	1.08	12.0	14.05
44.0	0.51	1.04	14.0	14.27
48.5	3.02	3.52	16.0	14.54
56.0	21.62	42.22	18.0	14.88
59.0	30.07	60.63	20.0	15.28
60.0	33.03	65.90	22.0	15.74
65.5	55.69	94.88	24.0	16.28
100.0	62.41	200.00	26.0	16.91
300.0	53.29	136.70	28.0	17.65
420.0	48.73	122.03	30.0	18.53
450.0	48.00	117.87	32.0	19.57
480.0	47.40	115.60	34.0	20.84
500.0	47.02	115.56	40.0	27.18
540.0	46.42	113.14	44.0	37.65
600.0	46.03	109.91	48.5	47.17



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#### **Coaxial Connections**

FORI - I	SMA-Male		
PORT - 2	SMA-Female		

#### **Outline Drawing**



#### Outline Dimensions ( inch )

В	D	Е	Wt.
.70	1.98	.312	grams
17.78	50.29	7.92	42.0

Note: Please refer to case style drawing for details

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