

Coaxial Low Pass Filter

SLP-44+

50Ω DC to 44 MHz



Generic photo used for illustration purposes only
CASE STYLE: FF99

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.

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

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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

CASE STYLE: FF99

Connectors	Model
SMA	SLP-44+

Electrical Specifications at 25°C

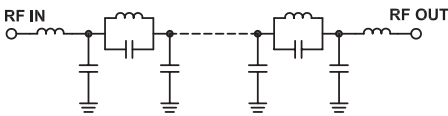
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC - 44	—	0.6	1	dB
	Freq. Cut-Off	F2	48.5	—	3.0	—	dB
	VSWR	DC-F1	DC - 44	—	1.2	1.5	:1
Stop Band	Rejection Loss	F3-F4	59 - 65.5	20	30	—	dB
		F4-F5	65.5 - 600	40	46	—	dB

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.

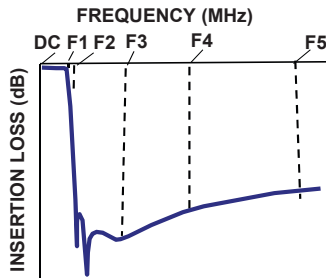
Functional Schematic



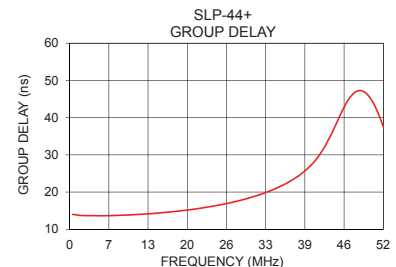
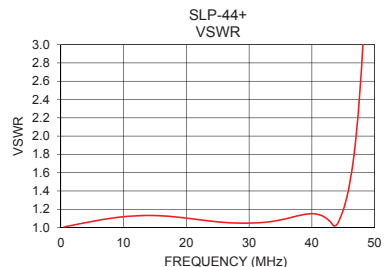
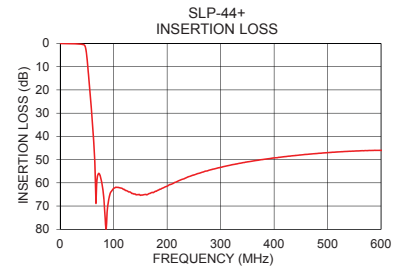
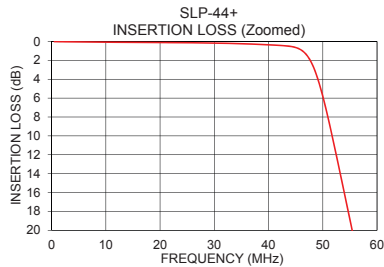
Typical Performance Data at 25°C

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

Typical Frequency Response



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