Coaxial

Low Pass Filter

SLP-2400+

50Ω DC to 2200 MHz

Generic photo used for illustration purposes only

CASE STYLE: FF99

Connectors	Model
SMA	SLP-2400+

+RoHS Compliant

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

Maximum Ratings

Operating Temperature	-55°C to 100°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.

Features

- good attenuation rate, 1.35 typ. 20dB/ 3dB BW ratio
- rugged shielded case
- other SLP models available with wide selection of cut-off frequencies

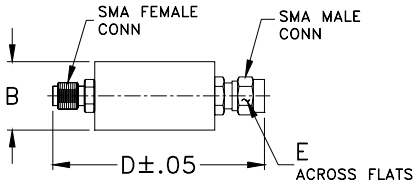
Applications

- lab use
- test equipment
- video equipment

Low Pass Filter Electrical Specifications

PASSBAND (MHz)	fco (MHz) Nom.	STOPBAND (MHz)		VSWR (:1)	
				Passband Typ.	Stopband Typ.
(loss < 1 dB)	(loss 3 dB)	(loss > 20 dB)	(loss > 40 dB)		
DC-2200	2400	3150-4000	4000-6000	1.3	18

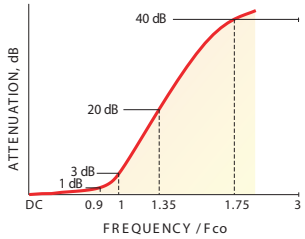
Outline Drawing



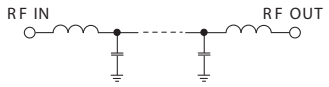
Outline Dimensions (inch / mm)

B	D	E	wt
.67	1.98	.312	grams
17.02	50.29	7.92	42.0

typical frequency response



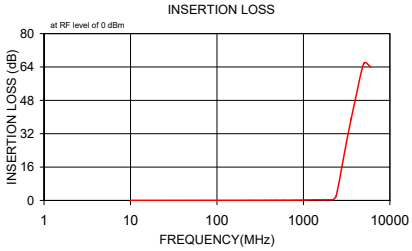
electrical schematic



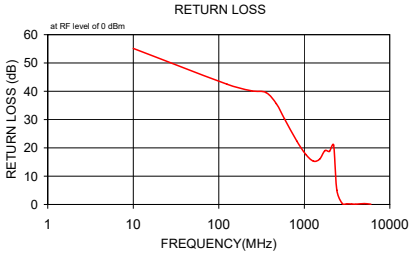
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10.00	0.01	0.00	55.15	10.00	0.52
125.26	0.04	0.00	42.47	125.26	0.53
240.52	0.06	0.00	40.19	240.52	0.53
355.78	0.07	0.00	39.56	355.78	0.53
471.05	0.09	0.00	35.62	471.05	0.53
586.31	0.11	0.00	30.29	586.31	0.54
816.84	0.15	0.01	22.41	816.84	0.55
1047.36	0.22	0.02	17.59	1047.36	0.56
1277.89	0.29	0.03	15.33	1277.89	0.57
1508.42	0.30	0.03	15.99	1508.42	0.60
1738.94	0.29	0.03	19.02	1738.94	0.65
1969.47	0.34	0.02	18.76	1969.47	0.73
2200.00	0.40	0.09	20.98	2200.00	0.86
2400.00	2.33	0.51	5.06	2400.00	1.12
2775.00	15.86	0.66	0.35	2775.00	0.57
3150.00	28.00	0.65	0.22	3150.00	0.39
3575.00	39.27	0.75	0.17	3575.00	0.33
4000.00	48.63	0.94	0.10	4000.00	0.28
5000.00	65.70	2.14	0.31	5000.00	0.43
6000.00	63.98	12.24	0.08	6000.00	0.49

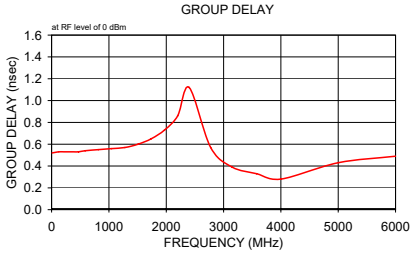
INSERTION LOSS



RETURN LOSS



GROUP DELAY



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 Low Pass Filter SLP-2400+

Typical Performance Data

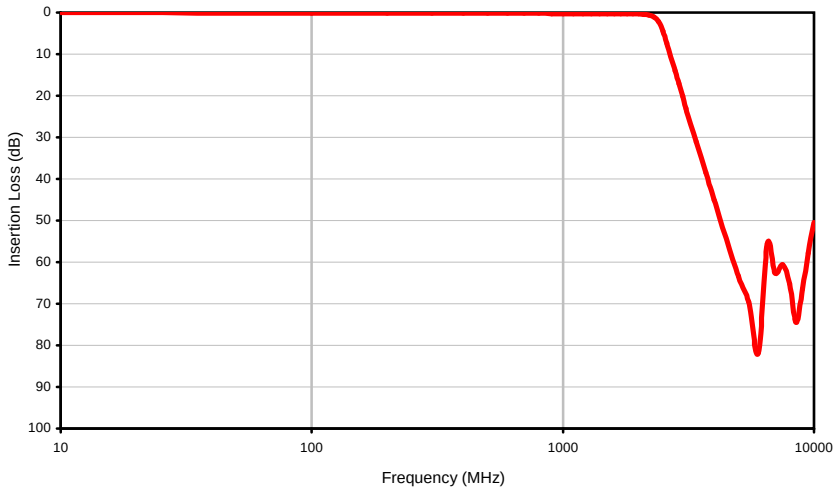
FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
10.0	0.05	31.11
100.0	0.09	42.09
200.0	0.09	35.95
300.0	0.12	31.55
400.0	0.14	28.29
500.0	0.16	25.79
600.0	0.18	23.88
700.0	0.20	22.40
800.0	0.21	21.25
900.0	0.24	20.44
1000.0	0.26	20.00
1100.0	0.27	19.98
1200.0	0.27	20.34
1300.0	0.27	21.13
1400.0	0.28	22.61
1500.0	0.28	25.31
1600.0	0.29	28.74
1700.0	0.31	29.21
1800.0	0.33	26.76
1900.0	0.35	25.45
2000.0	0.37	26.89
2100.0	0.42	28.57
2200.0	0.55	17.82
2300.0	1.01	10.34
2400.0	2.22	5.58
2500.0	4.44	2.83
2600.0	7.38	1.44
2800.0	13.96	0.52
2900.0	17.11	0.42
3000.0	20.18	0.36
3100.0	23.11	0.33
3400.0	31.12	0.28
3700.0	38.39	0.21
4000.0	45.04	0.28
5000.0	63.33	0.23
5500.0	69.56	0.26
6000.0	81.77	0.25
6500.0	55.57	0.27
7000.0	62.64	0.25
7500.0	60.68	0.24
8000.0	65.25	0.25
8500.0	74.53	0.26
9000.0	66.47	0.24
9500.0	57.82	0.27
10000.0	50.52	0.28

FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	0.310
100.0	0.520
200.0	0.530
300.0	0.530
400.0	0.520
500.0	0.530
600.0	0.530
700.0	0.520
800.0	0.530
900.0	0.540
1000.0	0.550
1100.0	0.550
1200.0	0.560
1300.0	0.570
1400.0	0.580
1500.0	0.600
1600.0	0.610
1700.0	0.630
1800.0	0.650
1900.0	0.680
2000.0	0.710
2100.0	0.770
2200.0	0.860
2300.0	0.950
2400.0	1.000
2500.0	0.930
2600.0	0.790
2800.0	0.580
2900.0	0.510
2980.0	0.470
3000.0	0.450
3100.0	0.420
3400.0	0.330
3700.0	0.310
4000.0	0.270
4500.0	0.230
5000.0	0.230
5500.0	0.230
6500.0	1.360
7000.0	0.150
7500.0	0.380
8000.0	0.160
9000.0	0.080
9500.0	0.100
10000.0	0.170

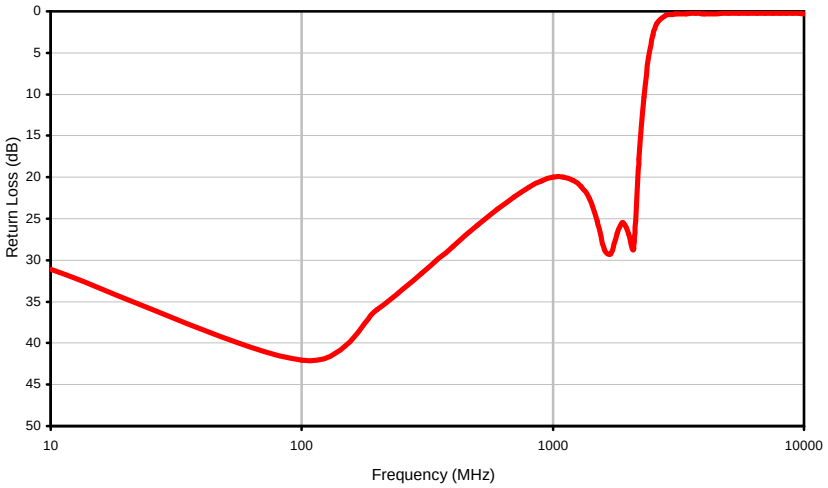
Coaxial Low Pass Filter SLP-2400+

Typical Performance Curves

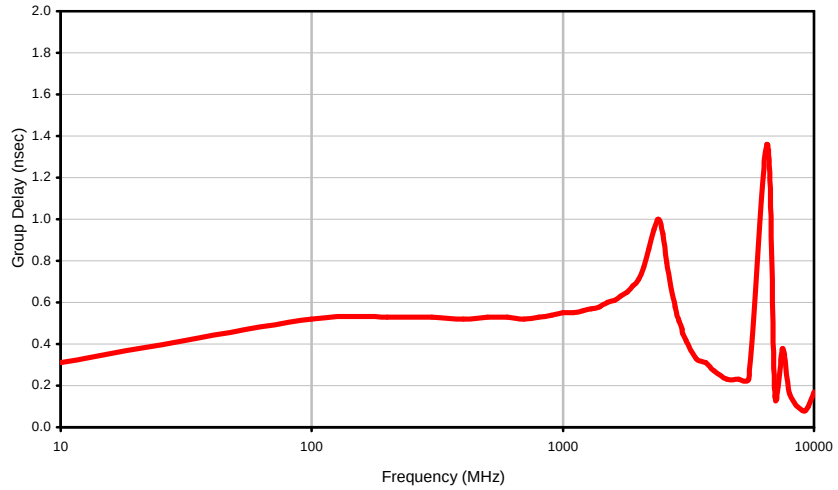
Insertion Loss



Return Loss

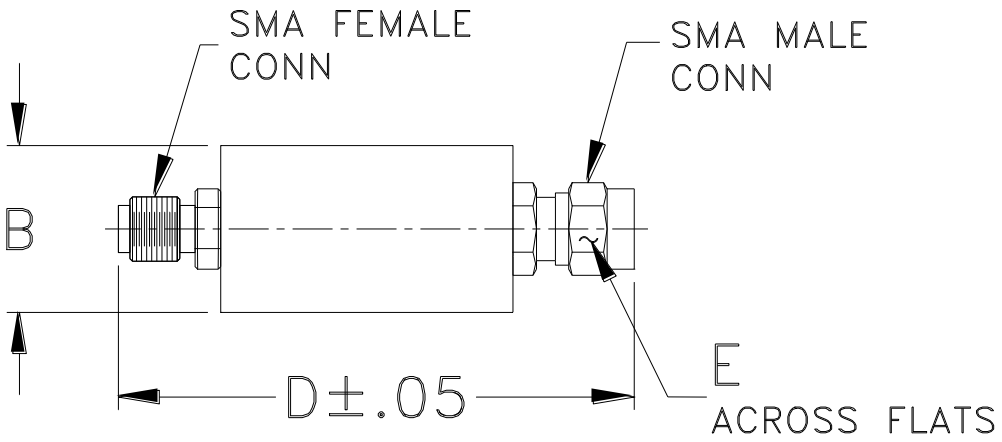


Group Delay



FF56
FF99

Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF56	--	.46 (11.68)	--	1.70 (43.18)	.312 (7.92)	18.0
FF99	--	.70 (17.78)	--	1.98 (50.29)		42.0

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

Notes:
1. Case material: Brass.
2. Case finish: Nickel plate.

Mini-Circuits

Environmental Specifications ENV28

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I