Coaxial

Low Pass Filter

SLP-850+

50Ω DC to 780 MHz

Generic photo used for illustration purposes only

CASE STYLE: FF99

Connectors	Model
SMA	SLP-850+

+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	0.5 W max.

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

Features

- Good Attenuation Rate, 1.35 Typ. 20 dB / 3 dB BW Ratio
- Rugged Shielded Case
- Other SLP Models Available with Wide Selection of Cut-Off Frequencies

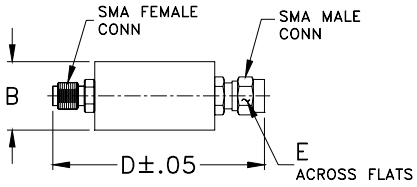
Applications

- Lab Use
- Test Equipment
- Video Equipment

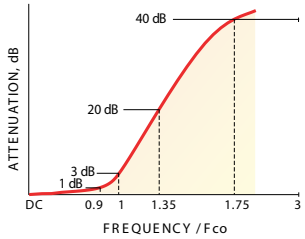
Low Pass Filter Electrical Specifications

PASSBAND (MHz) (loss < 1 dB)	fco (MHz) Nom. (loss 3 dB)	STOPBAND (MHz) (loss > 20 dB)	STOPBAND (MHz) (loss > 40 dB)	VSWR (:1) Passband Typ.	VSWR (:1) Stopband Typ.
DC-780	850	1100-1400	1400-2000	1.7	18

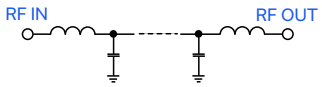
Outline Drawing



typical frequency response



electrical schematic



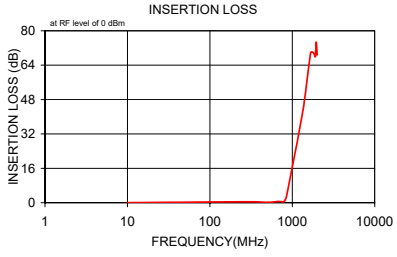
Outline Dimensions (inch / mm)

B	D	E	WT GRAMS
.70	1.98	.312	42.0
(17.78)	(50.29)	(7.92)	

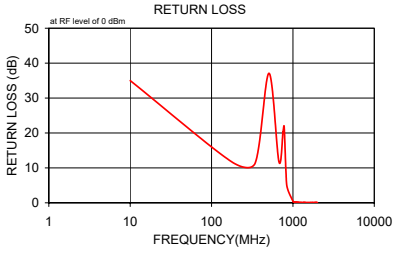
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
10.00	0.02	0.1	35.0	10.0	1.00
175.00	0.38	0.1	11.8	92.5	1.05
342.50	0.44	0.1	11.3	175.0	0.94
507.50	0.18	0.1	37.1	257.5	0.95
672.50	0.57	0.1	11.8	342.5	0.97
755.00	0.43	0.1	20.2	425.0	1.22
780.00	0.40	0.1	21.9	507.5	1.35
820.00	1.33	0.6	9.1	590.0	1.40
850.00	3.00	0.9	4.4	672.5	1.38
1010.00	17.47	1.1	0.3	755.0	1.85
1030.00	19.18	1.1	0.2	780.0	2.23
1050.00	20.83	1.1	0.2	790.0	2.22
1060.00	21.63	1.1	0.2	820.0	2.55
1070.00	22.41	1.1	0.2	840.0	2.57
1100.00	24.70	1.1	0.2	850.0	2.36
1110.00	25.52	1.1	0.2	1010.0	0.99
1150.00	28.51	1.2	0.2	1020.0	0.92
1350.00	43.25	1.6	0.1	1030.0	0.88
1360.00	44.10	1.9	0.1	1050.0	0.78
1380.00	45.39	1.8	0.1	1060.0	0.75
1400.00	47.43	2.2	0.1	1070.0	0.80
1420.00	48.89	2.1	0.1	1100.0	0.84
1667.50	69.86	3.1	0.1	1110.0	0.70
1750.00	70.13	6.6	0.1	1120.0	0.70
1835.00	69.30	4.7	0.1	1150.0	0.69
1900.00	67.90	2.7	0.1	1300.0	0.45
1920.00	70.63	3.5	0.1	1350.0	0.02
1930.00	69.67	2.6	0.1	1360.0	0.24
1950.00	74.71	7.2	0.1	1380.0	0.48
2000.00	68.74	4.9	0.1	1400.0	0.05

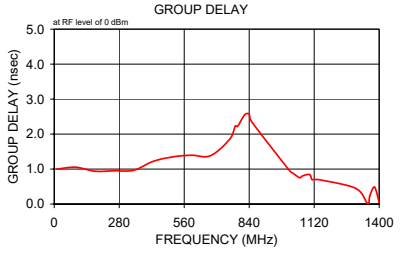
INSERTION LOSS



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-850+

Typical Performance Data

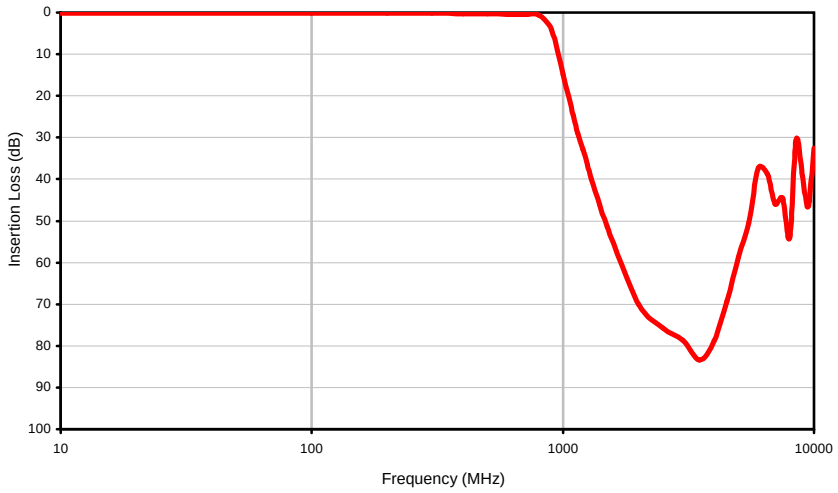
FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
10.0	0.12	33.96
100.0	0.13	23.01
200.0	0.20	20.50
300.0	0.22	24.85
400.0	0.25	30.95
500.0	0.34	20.45
600.0	0.42	19.56
700.0	0.53	18.48
800.0	0.64	28.06
900.0	4.11	3.68
1000.0	14.94	0.65
1100.0	24.71	0.37
1150.0	28.96	0.31
1200.0	32.87	0.29
1250.0	36.52	0.29
1300.0	39.91	0.26
1400.0	46.08	0.26
1500.0	51.50	0.27
2000.0	70.11	0.32
2500.0	75.80	0.34
3000.0	78.70	0.37
3500.0	83.46	0.35
4000.0	78.75	0.34
4500.0	69.28	0.31
5000.0	58.72	0.32
5500.0	50.57	0.39
6000.0	37.33	0.31
6500.0	38.75	0.46
7000.0	45.96	0.35
7500.0	44.52	0.32
8000.0	54.05	0.32
8500.0	30.57	0.73
9000.0	39.15	0.32
9500.0	46.55	0.36
10000.0	32.50	0.96

FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	0.810
100.0	1.160
200.0	1.170
300.0	1.210
400.0	1.280
500.0	1.350
600.0	1.480
700.0	1.690
800.0	2.230
900.0	2.730
1000.0	1.190
1100.0	0.830
1150.0	0.710
1200.0	0.630
1250.0	0.570
1300.0	0.520
1400.0	0.460
1450.0	0.430
1500.0	0.420
2000.0	0.310
2500.0	0.190
3000.0	0.360
3500.0	0.540
4000.0	0.440
4500.0	0.190
5000.0	0.470
5500.0	2.160
6000.0	0.280
6500.0	0.510
7000.0	0.180
7500.0	0.510
8500.0	1.790
9000.0	0.260
9500.0	0.070
10000.0	1.180

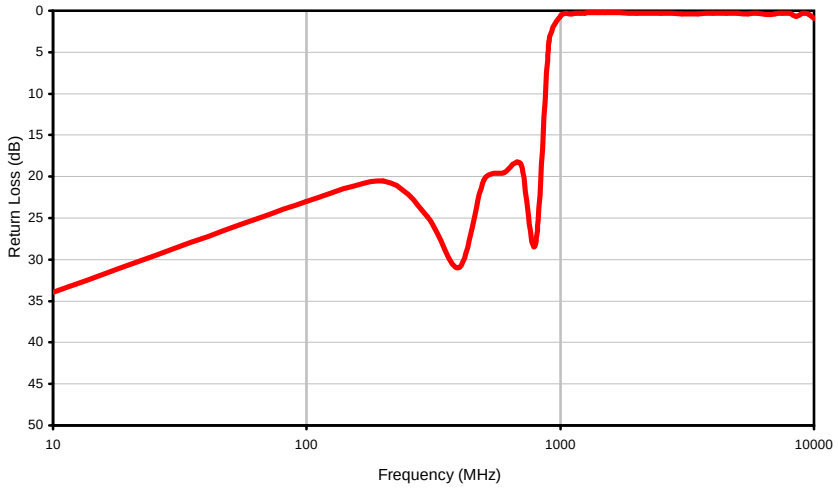
Coaxial Low Pass Filter SLP-850+

Typical Performance Curves

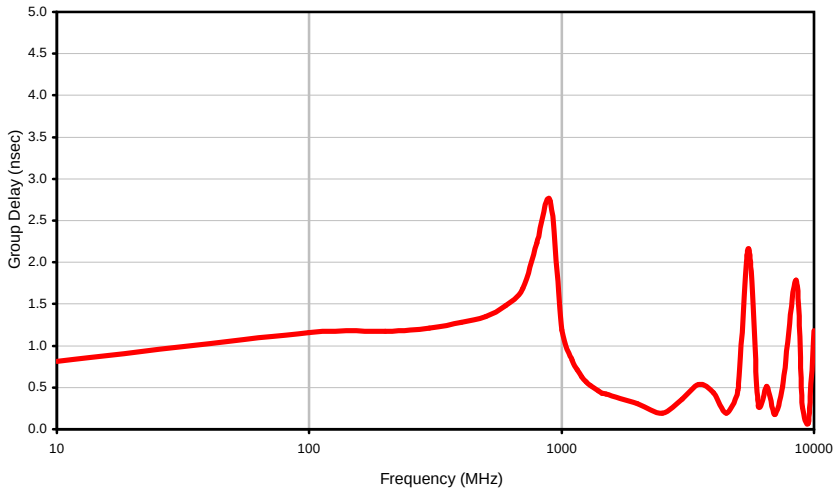
Insertion Loss



Return Loss

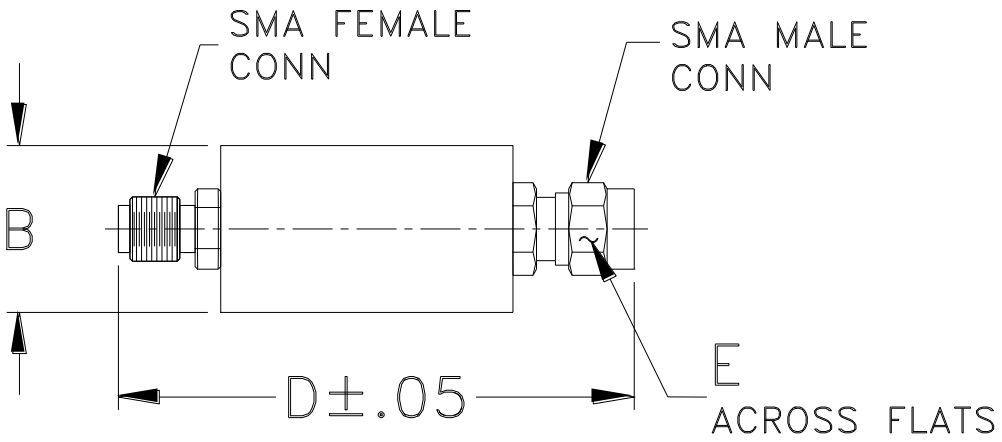


Group Delay



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