

Low Pass Filter

BLP-300+

50Ω DC to 270 MHz

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

- rugged shielded case
- other standard and custom BLP models available with wide selection of fco

Applications

- test equipment
- lab use
- video equipment



Generic photo used for illustration purposes only

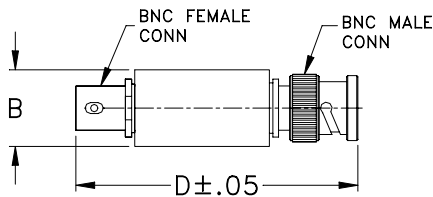
CASE STYLE: FF55

Connectors	Model
BNC	BLP-300+

+RoHS Compliant

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

Outline Drawing



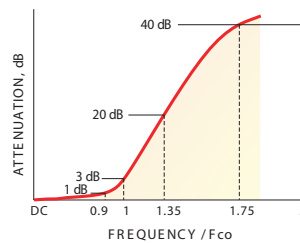
Outline Dimensions (inch/mm)

B	D	wt
.54	2.59	grams
13.72	65.79	40.0

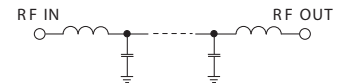
Low Pass Filter Electrical Specifications

PASSBAND (MHz)	fco (MHz) Nom.	STOPBAND (MHz)	VSWR (:1)
(loss < 1 dB)	(loss 3 dB)	(loss > 20 dB) (loss > 40 dB)	Passband Typ. Stopband Typ.
DC-270	297	410-550 550-1200	1.7 18

typical frequency response

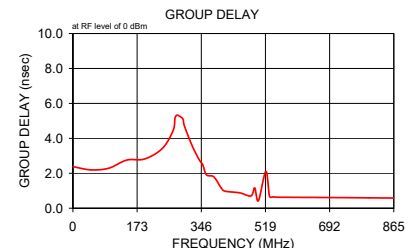
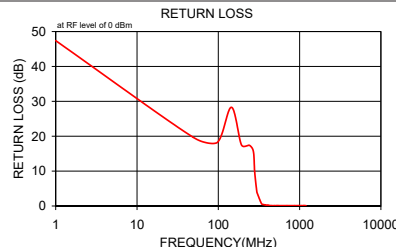
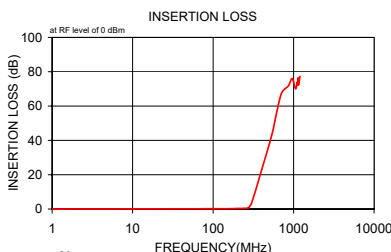


electrical schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$ σ			
1.00	0.02 0.1	47.4	1.00	2.37
49.00	0.13 0.1	19.7	49.00	2.20
97.00	0.17 0.1	18.2	97.00	2.29
145.00	0.15 0.1	28.3	145.00	2.76
193.00	0.28 0.1	17.5	193.00	2.82
241.00	0.36 0.1	17.4	241.00	3.42
270.00	0.53 0.1	15.6	270.00	4.45
280.00	1.00 0.1	9.8	275.00	5.14
297.00	2.83 0.2	4.3	280.00	5.33
300.00	3.29 0.2	3.8	290.00	5.24
340.00	11.27 0.3	0.7	297.00	5.08
360.00	15.31 0.3	0.4	300.00	4.75
380.00	19.09 0.4	0.3	320.00	3.64
400.00	22.62 0.4	0.2	340.00	2.79
410.00	24.31 0.4	0.2	350.00	2.49
450.00	30.64 0.6	0.1	360.00	1.91
490.00	36.51 0.9	0.1	380.00	1.79
520.00	40.88 1.2	0.1	400.00	1.15
530.00	42.34 1.3	0.1	410.00	0.98
540.00	43.72 1.3	0.1	450.00	0.88
550.00	45.07 1.5	0.1	480.00	0.70
700.00	66.82 5.7	0.1	490.00	1.16
864.00	71.78 6.6	0.1	500.00	0.43
960.00	76.06 6.9	0.1	520.00	2.11
1056.00	70.05 3.2	0.1	530.00	0.67
1110.00	73.87 7.7	0.1	540.00	0.65
1120.00	72.31 5.1	0.1	550.00	0.63
1140.00	76.33 5.1	0.1	700.00	0.61
1150.00	72.33 3.5	0.1	800.00	0.59
1200.00	77.29 5.8	0.1	864.00	0.58



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

BLP-300+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
1.0	0.02	47.40	1.0	2.370
49.0	0.13	19.70	49.0	2.200
97.0	0.17	18.20	97.0	2.290
145.0	0.15	28.30	145.0	2.760
193.0	0.28	17.50	193.0	2.820
241.0	0.36	17.40	241.0	3.420
270.0	0.53	15.60	270.0	4.450
280.0	1.00	9.80	275.0	5.140
297.0	2.83	4.30	280.0	5.330
300.0	3.29	3.80	290.0	5.240
340.0	11.27	0.70	297.0	5.080
360.0	15.31	0.40	300.0	4.750
380.0	19.09	0.30	320.0	3.640
400.0	22.62	0.20	340.0	2.790
410.0	24.31	0.20	350.0	2.490
450.0	30.64	0.10	360.0	1.910
490.0	36.51	0.10	380.0	1.790
520.0	40.88	0.10	400.0	1.150
530.0	42.34	0.10	410.0	0.980
540.0	43.72	0.10	450.0	0.880
550.0	45.07	0.10	480.0	0.700
700.0	66.82	0.10	490.0	1.160
864.0	71.78	0.10	500.0	0.430
960.0	76.06	0.10	520.0	2.110
1056.0	70.05	0.10	530.0	0.670
1110.0	73.87	0.10	540.0	0.650
1120.0	72.31	0.10	550.0	0.630
1140.0	76.33	0.10	700.0	0.610
1150.0	72.33	0.10	800.0	0.590
1200.0	77.29	0.10	864.0	0.580

REV. X1
BLP-300+
060724
Page 1 of 1



Mini-Circuits®
IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED • RoHS compliant
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

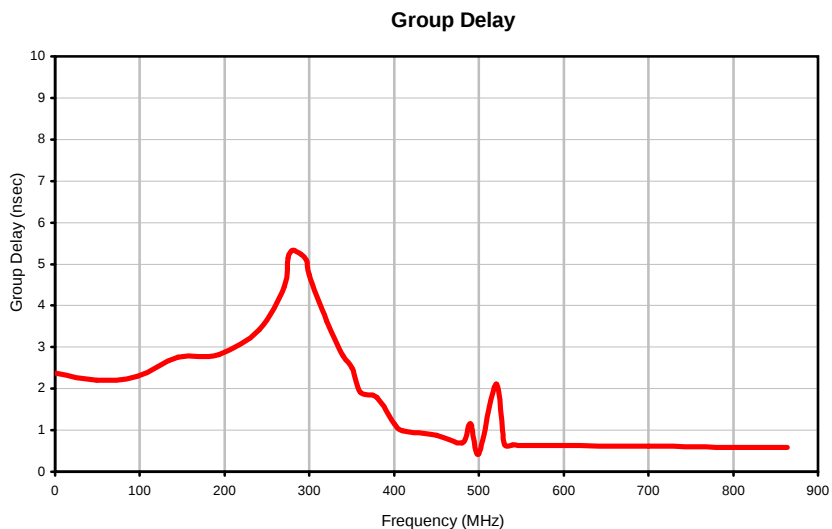
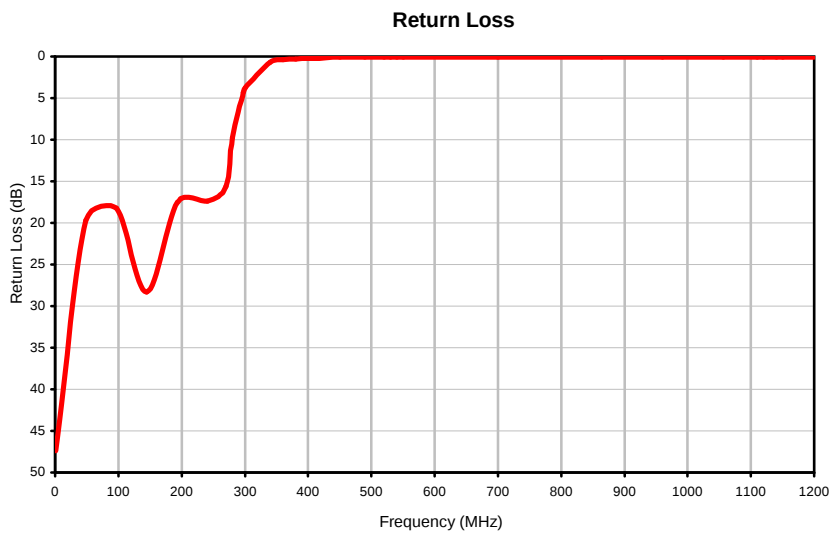
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



Coaxial Low Pass Filter

Typical Performance Curves

BLP-300+



Mini-Circuits®

IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED RoHS compliant
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



Patent Pending

The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



REV. X1
BLP-300+
060724
Page 1 of 1

Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF55	--	.57 (14.47)	--	2.59 (65.79)	--	40.0

Dimensions are in inches (mm). Tolerances: 2Pl. +.03/-.04; 3Pl. ± .015

Note:

1. Case material: Stainless steel.



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