

Coaxial Low Pass Filter

NON-CATALOG

BBLP-300+
BBLP-300

50Ω Flat Time Delay DC to 180 MHz

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

Features

- flat group delay for low pulse distortion
- rugged shielded case
- other BBLP models available with wide selection of cut-off frequencies

Applications

- linear modulation techniques
- voice transmission applications
- digital communications



CASE STYLE: FF55

Connectors	Model	Price	Qty.
BNC	BBLP-300(+)		Contact Sales Dept.

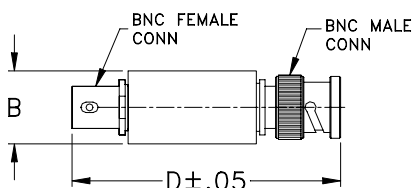
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

Low Pass Filter Electrical Specifications

PASSBAND (MHz)	fco, MHz Nom.	STOPBAND (MHz)	VSWR (:1)	GROUP DELAY VARIATION (nsec)
(loss < 1.2 dB) Min.	(loss 3 dB)	(loss > 10 dB) (loss > 20 dB)	DC-0.2fco DC-0.6fco X X	DC-fco DC-2fco DC-2.67fco X X X
DC-180	300	600-801 801	1.25:1 2.2:1	0.2 0.6 0.8

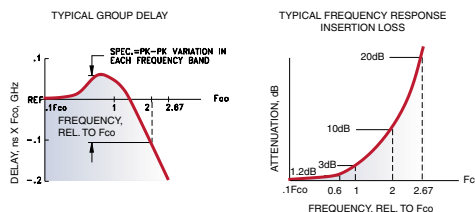
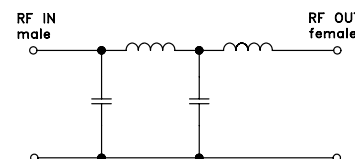
Outline Drawing



Outline Dimensions (inch/mm)

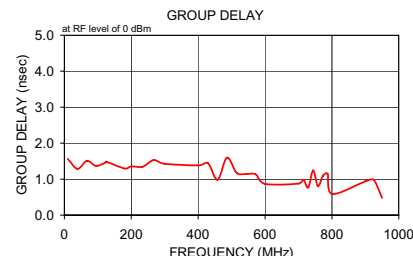
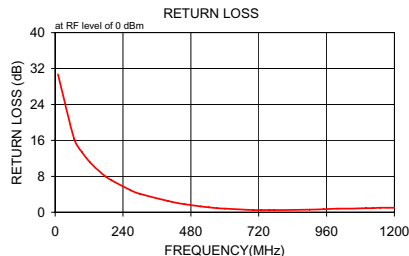
B	D	wt
.54	2.59	grams
13.72	65.79	40.0

Electrical Schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	X σ			
10.0	0.16	30.7	10.0	1.563
67.0	0.27	16.4	39.0	1.282
95.0	0.37	13.4	67.0	1.509
124.0	0.53	11.1	95.0	1.368
152.0	0.73	9.4	124.0	1.468
180.0	0.99	7.9	125.0	1.487
200.0	1.24	7.1	180.0	1.297
267.0	2.35	4.9	200.0	1.351
300.0	3.06	4.1	234.0	1.343
400.0	5.85	2.5	267.0	1.534
458.0	7.82	1.8	300.0	1.427
515.0	9.91	1.3	400.0	1.383
543.0	11.02	1.1	429.0	1.448
572.0	12.18	0.9	458.0	0.984
600.0	13.35	0.8	486.0	1.599
700.0	17.70	0.5	515.0	1.173
729.0	18.96	0.6	543.0	1.140
758.0	20.25	0.5	572.0	1.134
773.0	20.92	0.5	600.0	0.869
787.0	21.51	0.5	700.0	0.878
801.0	22.10	0.5	715.0	0.983
900.0	26.28	0.6	729.0	0.767
950.0	28.25	0.7	744.0	1.244
1000.0	30.16	0.8	758.0	0.807
1050.0	32.02	0.9	773.0	1.089
1100.0	33.74	0.9	787.0	1.144
1125.0	34.62	1.1	801.0	0.587
1150.0	35.50	1.2	900.0	0.940
1175.0	36.29	1.2	925.0	0.980
1200.0	37.10	1.4	950.0	0.475



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RF/IF MICROWAVE COMPONENTS

REV. A
M98898
BBLP-300
070509

Coaxial Low Pass Filter (Flat Time Delay)

BBLP-300+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	0.16	30.70	10.0	1.563
67.0	0.27	16.40	39.0	1.282
95.0	0.37	13.40	67.0	1.509
124.0	0.53	11.10	95.0	1.368
152.0	0.73	9.40	124.0	1.468
180.0	0.99	7.90	125.0	1.487
200.0	1.24	7.10	180.0	1.297
267.0	2.35	4.90	200.0	1.351
300.0	3.06	4.10	234.0	1.343
400.0	5.85	2.50	267.0	1.534
458.0	7.82	1.80	300.0	1.427
515.0	9.91	1.30	400.0	1.383
543.0	11.02	1.10	429.0	1.448
572.0	12.18	0.90	458.0	0.984
600.0	13.35	0.80	486.0	1.599
700.0	17.70	0.50	515.0	1.173
729.0	18.96	0.50	543.0	1.140
758.0	20.25	0.50	572.0	1.134
773.0	20.92	0.50	600.0	0.869
787.0	21.51	0.50	700.0	0.878
801.0	22.10	0.50	715.0	0.983
900.0	26.28	0.60	729.0	0.767
950.0	28.25	0.70	744.0	1.244
1000.0	30.16	0.80	758.0	0.807
1050.0	32.02	0.80	773.0	1.089
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1125.0	34.62	0.90	801.0	0.587
1150.0	35.50	1.00	900.0	0.940
1175.0	36.29	1.00	925.0	0.980
1200.0	37.10	1.00	950.0	0.475

REV. X1
BBLP-300+
060724
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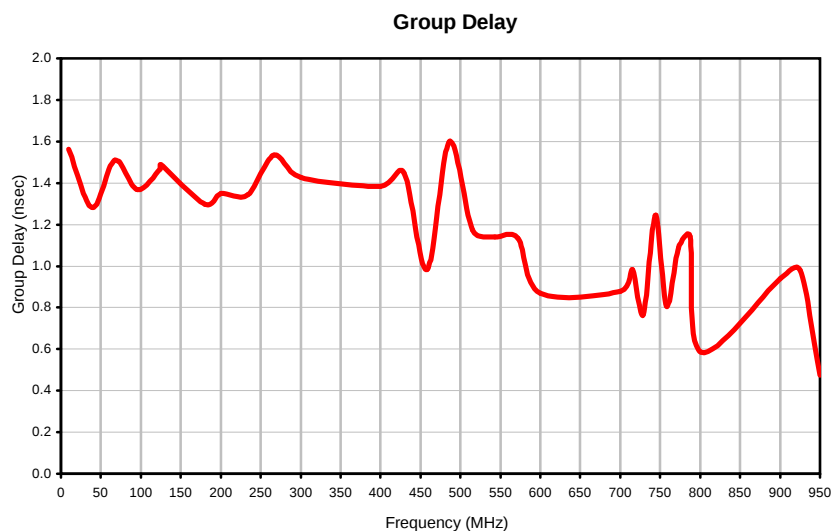
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Coaxial Low Pass Filter (Flat Time Delay)

BBLP-300+

Typical Performance Curves



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BBLP-300+
060724
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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