

# Ultra-Reliable Low Pass Filters

DC to 5400 MHz

## Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

## Features

- rugged unibody construction
- low insertion loss for passband, 0.7 dB typ.
- high power handling, up to 15W
- low cost

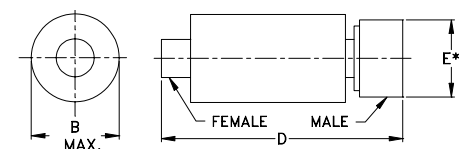
**NEW!**  
VLP-SERIES



CASE STYLE: FF704  
PRICE: \$24.95 ea. QTY (1-9)



## Outline Drawing



B—OVERALL BODY DIMENSION  
\* ACROSS FLATS

## Outline Dimensions (inch/mm)

B	D	E	wt.
.461	1.42	.312	grams
11.71	36.07	7.92	10

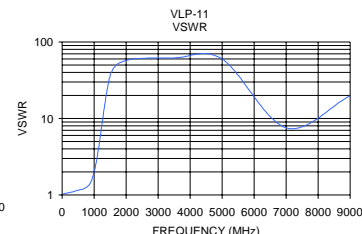
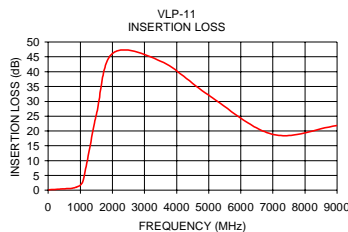
## Electrical Specifications (T<sub>AMB</sub>=25°C)

MODEL NO.	PASSBAND (MHz) (loss < 1dB) Typ.	f <sub>co</sub> , MHz Nom. (loss 3 dB) Typ.	STOP BAND (MHz)		fr20 dB Typ.	VSWR (:1) Passband Typ.	POWER INPUT* (W) Pmax.
			(loss >20 dB)	(loss >40 dB)			
VLP-11	DC-850	1078	1500	2000-3500	5500	1.2	16
VLP-16	DC-1350	1550	2100	2700-4000	7000	1.1	15
VLP-20	DC-1700	1980	2700	3300-3880	7200	1.1	14
VLP-24	DC-2000	2430	3400	4400	8000	1.2	10
VLP-41	DC-3300	4100	5500	—	11000	1.2	10
VLP-54	DC-4000	5400	7100	—	9500	1.2	10
VLP-64	DC-5400	6410	9000	—	18000	1.1	19

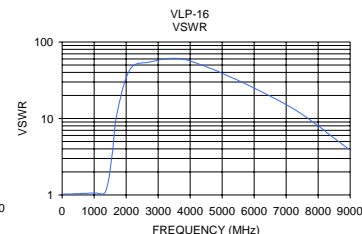
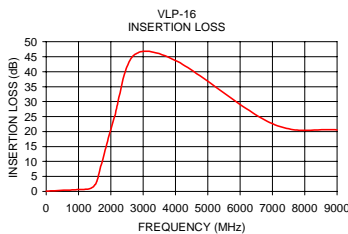
\* Derate linearly to 0.4\* (Pmax.) at 100°C

## Typical Performance Data/Curves

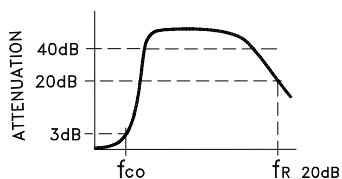
Freq. (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.10	1.03
400.00	0.42	1.13
850.00	0.93	1.38
1078.00	3.07	2.91
1500.00	25.53	36.68
2000.00	46.14	57.67
3500.00	43.58	62.18
5000.00	32.07	59.99
7000.00	18.86	7.58
9000.00	21.82	19.83



Freq. (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.06	1.02
1000.00	0.57	1.06
1350.00	0.89	1.10
1550.00	3.01	3.08
1700.00	8.83	10.93
2100.00	24.47	42.44
2700.00	45.40	54.42
4000.00	43.77	56.34
7000.00	22.60	15.17
9000.00	20.52	3.84



## TYPICAL FREQUENCY RESPONSE



Mini-Circuits®

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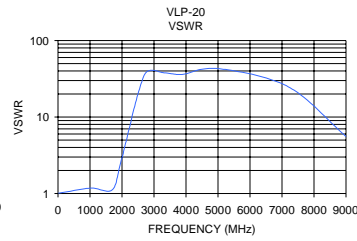
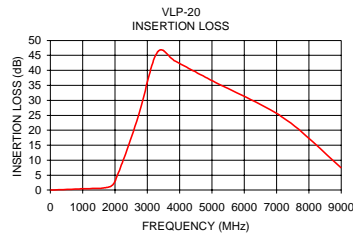
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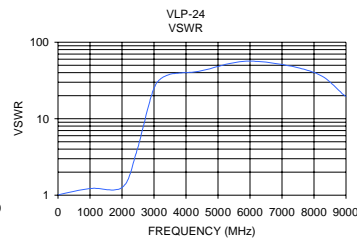
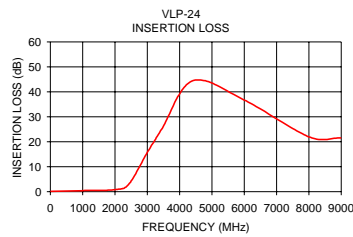
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VLF-41 ED-10545B/9  
VLF-54 ED-10545B/10  
VLF-64 ED-10545B/5  
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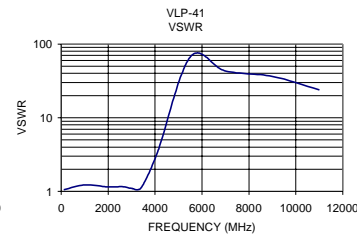
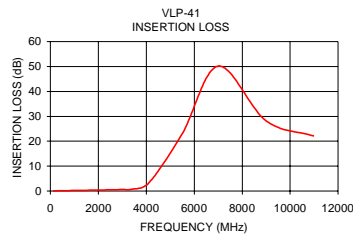
Freq. (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.05	1.01
1000.00	0.45	1.18
1700.00	0.80	1.13
1980.00	2.56	2.78
2700.00	24.06	35.85
3300.00	45.92	38.05
3880.00	42.96	36.25
5000.00	36.56	43.07
7200.00	24.22	24.89
9000.00	7.43	5.58



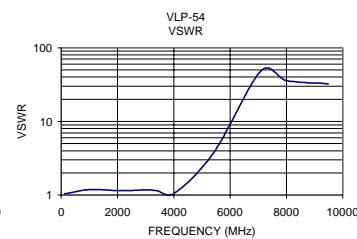
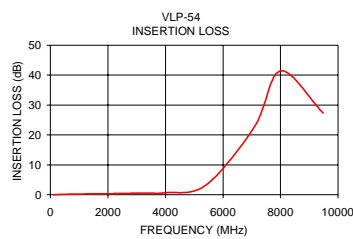
Freq. (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.04	1.01
1000.00	0.38	1.22
2000.00	0.76	1.26
2430.00	2.99	3.41
3000.00	15.69	25.23
3450.00	25.14	37.40
4400.00	44.45	41.80
6000.00	36.71	56.48
8000.00	21.96	40.32
9000.00	21.54	19.37



Freq. (MHz)	Insertion Loss (dB)	VSWR (:1)
100.00	0.07	1.05
1000.00	0.28	1.23
2000.00	0.43	1.15
2600.00	0.55	1.16
3000.00	0.66	1.10
3400.00	0.78	1.12
4100.00	3.24	3.40
5500.00	23.02	66.72
7000.00	50.13	42.99
9000.00	28.20	36.42
11000.00	22.06	23.89



Freq. (MHz)	Insertion Loss (dB)	VSWR (:1)
100.00	0.06	1.04
1000.00	0.27	1.19
2000.00	0.39	1.15
2600.00	0.49	1.16
3000.00	0.56	1.18
3400.00	0.59	1.15
4000.00	0.69	1.05
5400.00	3.23	3.69
7100.00	22.84	48.68
8000.00	41.39	35.82
9500.00	27.16	32.31



### Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)	VSWR (:1)
50.00	0.09	1.02
1000.00	0.16	1.04
2000.00	0.26	1.10
3000.00	0.38	1.19
4000.00	0.45	1.02
5400.00	0.73	1.11
6410.00	3.76	3.91
7000.00	9.80	11.81
9000.00	26.39	33.93
12000.00	37.61	49.56
15000.00	30.54	69.04
18000.00	27.29	55.01

