

Ceramic

Bandpass Filter

50Ω

4800 to 5000 MHz

Features

- Small size
- (0.126"x0.098"x0.039")
- Temperature stable
- Hermetically sealed

Applications

- 5G Telecommunications
- Cellular

BFCV-492+



Generic photo used for illustration purposes only

CASE STYLE: JV1210C-5-S

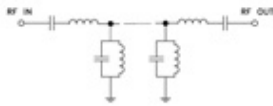
+RoHS Compliant

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

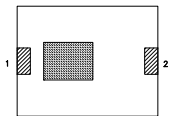
Available Tape and Reel
at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000, 2000

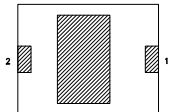
Simplified Schematic



Top View



Bottom View



Pad Connections

Input	1
Output	2
Ground	3

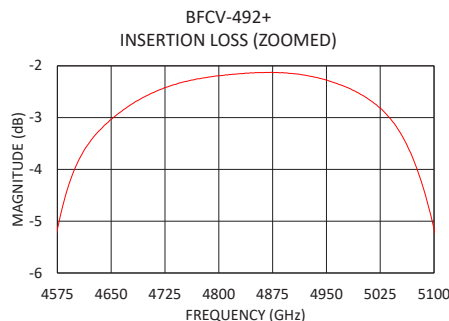
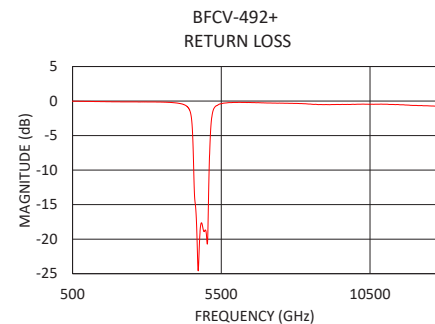
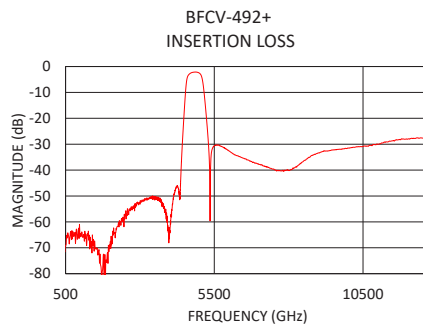
Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band Center Freq.				4900		GHz
Pass Band Insertion Loss	F1-F2	4800-5000		1.8	3	dB
Pass Band Return Loss		4800-5000		14		dB
Stop Band, Lower Insertion Loss		DC-2000	40			dB
Stop Band, Lower Insertion Loss		2000-4330	25			dB
Stop Band, Lower Insertion Loss		4330-4440	15			dB
Stop Band, Upper Insertion Loss		5375-5900	12			dB
Stop Band, Upper Insertion Loss		5900-8000	25			dB
Stop Band, Upper Insertion Loss		8000-12750	10			dB

Maximum Ratings

Operating Temperature	-55°C to +125°C
Storage Temperature ¹	-55°C to +125°C
RF Power Input ²	0.5W max

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



www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. OR
ECO-003110
BFCV-492+
WY/CP/AM
200626
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Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10.00	72.13	0.00
500.00	69.13	0.02
1000.00	64.41	0.05
2000.00	67.69	0.11
3000.00	53.22	0.13
4000.00	64.27	0.28
4440.00	26.83	1.36
4800.00	2.19	18.22
4900.00	2.15	18.72
5000.00	2.56	19.36
5500.00	30.63	0.37
7000.00	37.83	0.27
8000.00	39.97	0.34
10000.00	31.46	0.48
12750.00	27.43	0.73

ALPHANUMERIC MARKING MAY APPEAR ON THE DEVICE
SEE SPECIFIC MODELS

INDEX AREA

1 2

$.012 \pm .006$ $[.30 \pm 0.15]$

$.098 \pm .008$ $[2.50 \pm 0.2]$

$.126 \pm .008$ $[3.20 \pm 0.2]$

TOP VIEW

$\varnothing .012$ $[\varnothing 0.30]$ TYP
PLATED THRU HOLE
ON GROUND PAD
PREFERABLY PLUGGED

PCB Land Pattern

$.039 \pm .004$ $[1.00 \pm 0.1]$

3

$.047$ $[1.20]$

1 2

$.079$ $[2.00]$

$.024$ $[\ .60]$

$.087$ $[2.20]$

$.047$ $[1.20]$

$.026$ $[\ .65]$

$.079$ $[2.00]$

$.059$ $[1.50]$

$.205$ $[5.20]$

**Suggested Layout,
Tolerance to be within $\pm .002$**

DENOTES METALLIZATION

Weight: 0.03 grams

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .01$; 3 Pl. $\pm .005$

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.

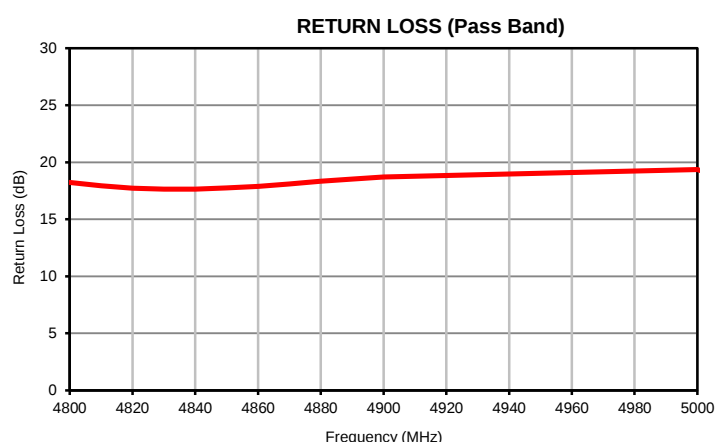
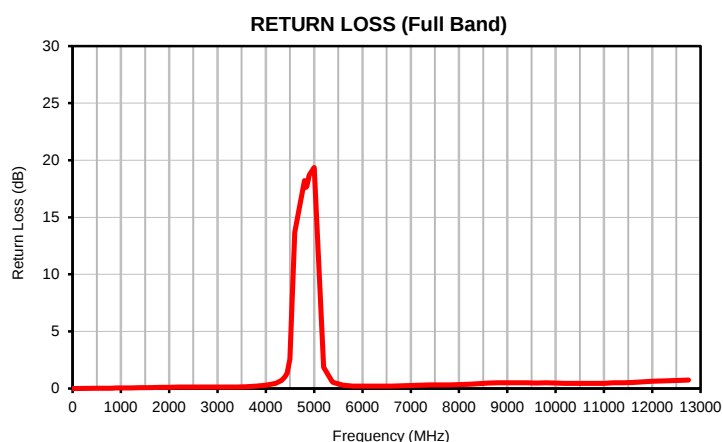
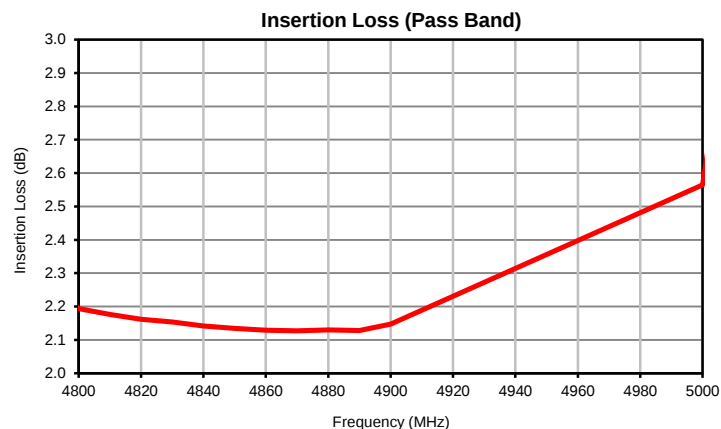
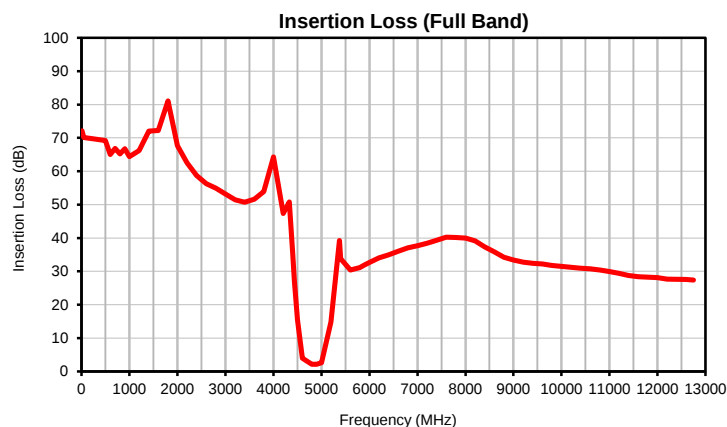
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.

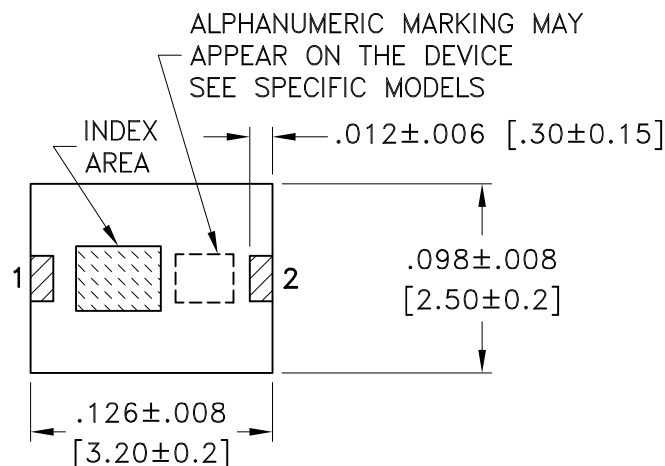
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

Typical Performance Data

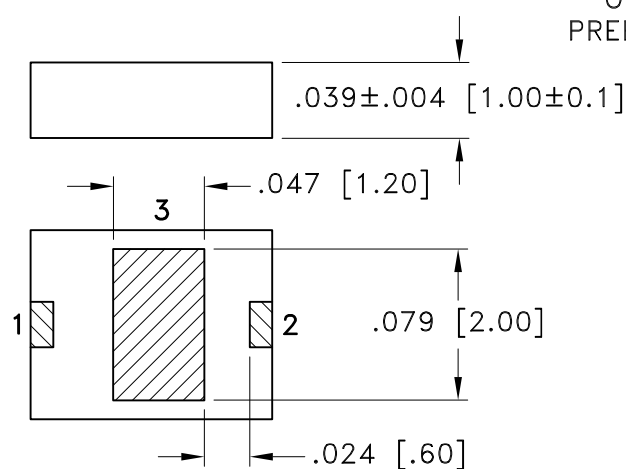
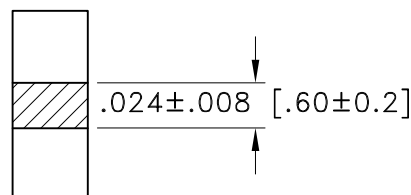
FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
10	72.13	0.00
50	70.15	0.00
500	69.23	0.02
800	65.21	0.03
1000	64.41	0.05
1200	66.18	0.06
1400	72.01	0.08
1600	72.26	0.09
1800	81.08	0.10
2000	67.69	0.11
2200	62.49	0.12
2400	58.74	0.12
2600	56.26	0.12
2800	54.88	0.13
3000	53.22	0.13
3200	51.41	0.13
3400	50.72	0.14
3600	51.60	0.16
3800	53.94	0.20
4000	64.27	0.28
4200	47.38	0.45
4330	50.82	0.71
4400	35.70	1.03
4440	26.83	1.36
4500	15.44	2.58
4600	3.97	13.69
4800	2.19	18.22
4810	2.18	17.93
4820	2.16	17.72
4830	2.15	17.64
4840	2.14	17.64
4850	2.13	17.75
4860	2.13	17.89
4870	2.13	18.10
4880	2.13	18.34
4890	2.13	18.53
4900	2.15	18.72
5000	2.56	19.36
5200	14.85	1.87
5375	39.20	0.61
5400	33.73	0.53
5600	30.36	0.29
5800	31.15	0.22
5900	31.91	0.21
6000	32.64	0.20
6200	34.08	0.20
6400	35.00	0.21
6600	36.08	0.22
6800	37.04	0.24
7000	37.73	0.27
7200	38.38	0.29
7400	39.31	0.31
7600	40.27	0.31
7800	40.12	0.33
8000	39.97	0.34
8200	39.11	0.37
8400	37.34	0.41
8600	35.85	0.48
8800	34.24	0.51
9000	33.38	0.51
9200	32.74	0.51
9400	32.38	0.49
9600	32.23	0.49
9800	31.80	0.50
10000	31.46	0.48
10200	31.18	0.46
10400	30.94	0.46
10600	30.80	0.46
10800	30.40	0.46
11000	29.96	0.46
11200	29.42	0.50
11400	28.79	0.50
11600	28.36	0.54
12000	28.08	0.63
12200	27.66	0.65
12600	27.58	0.71
12750	27.43	0.73

Typical Performance Curves





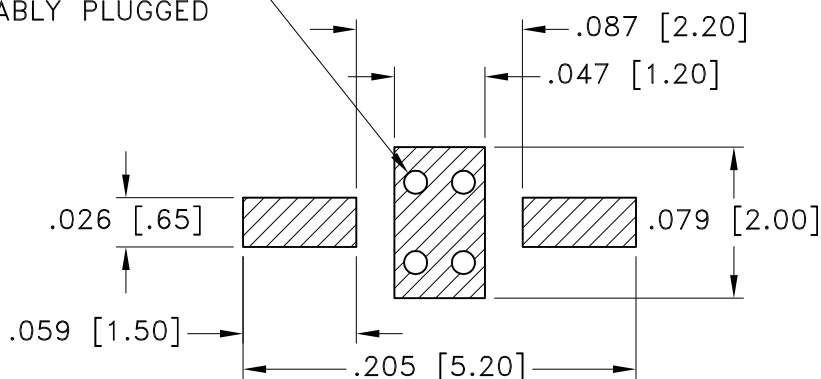
TOP VIEW



BOTTOM VIEW

Ø.012 [Ø0.30] TYP
PLATED THRU HOLE
ON GROUND PAD
PREFERABLY PLUGGED

PCB Land Pattern



DENOTES METALLIZATION

Suggested Layout,
Tolerance to be within ±.002

Weight: 0.03 grams

Dimensions are in inches (mm). Tolerances: 2 Pl. ± .01; 3 Pl. ± .005

Notes:

1. Open style, Ceramic base.
2. Termination finish: **as shown below or indicated on Data Sheet.**
For RoHS Case Styles: Silver Plate. All models, (+) suffix.
3. Pad tolerance is non-cumulative. Minimum spacing between each pad is .004.



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The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS