

Surface Mount Bandpass Filter

BPF-C45+

50Ω 30 to 70 MHz

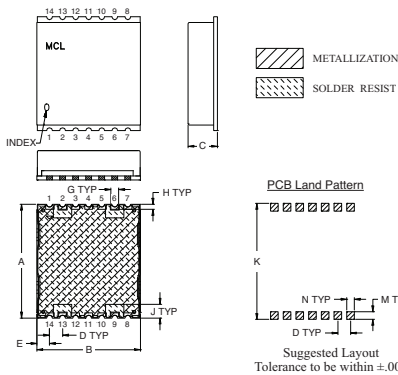
Maximum Ratings

Operating Temperature	-40°C to 85°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.	

Pin Connections

INPUT	2
OUTPUT	9
NOT CONNECTED	6,13
GROUND	1,3,4,5,7,8,10,11,12,14

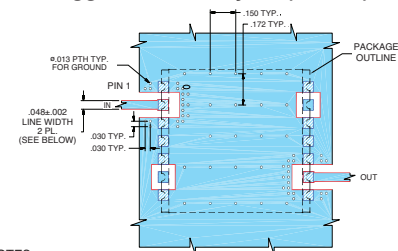
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	G	H	J	K	M	N	wt.
.870	.800	.25	.100	.097	.060	.040	.105	.910	.060	.060	grams
22.10	20.32	6.35	2.54	2.46	1.52	1.02	2.67	23.11	1.52	1.52	2.85

Demo Board MCL P/N: TB-500+ Suggested PCB Layout (PL-294)



- NOTES:
- TRACE WIDTH IS SHOWN FOR ROGERS RO4350B. DIELECTRIC THICKNESS: .030"±.002"; COPPER: 1/2 OZ EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COOPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- High Rejection
- Good VSWR, 1.2:1 Typ @ Passband
- Shielded case
- Aqueous washable

Applications

- Military communications
- Receivers / Transmitters
- Harmonic rejection



CASE STYLE: HU1186
PRICE: \$26.95 ea. QTY (1-9)

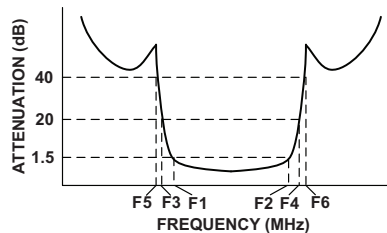
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

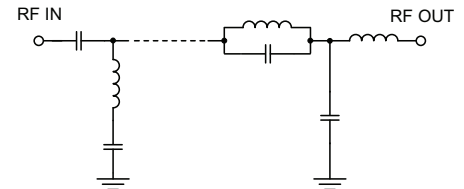
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

CENTER FREQ. (MHz)	PASSBAND (MHz) (Loss < 1.5dB)	STOPBANDS (MHz)				VSWR (:1)		
		Loss > 20dB		Loss > 40dB		Passband		Stopband
F _c	F ₁ - F ₂	F ₃	F ₄	F ₅	F ₆	Typ.	Max.	Typ.
45	30 - 70	23	95	21	120 - 2500	1.2	1.5	18

Typical Frequency Response

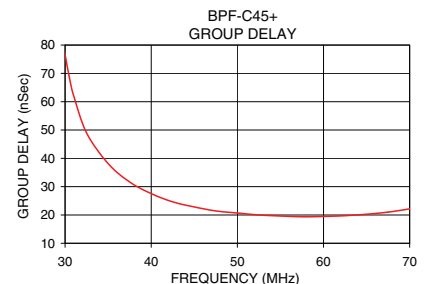
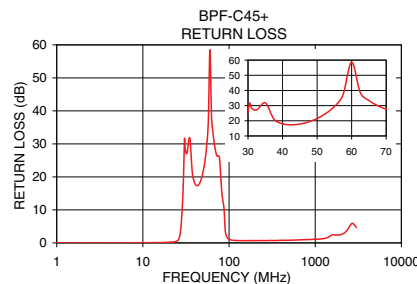
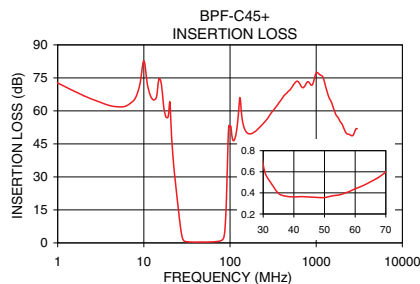


Functional Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nSec)
	$\bar{x}$	σ			
0.5	78.80	1.42	0.01	30.0	76.63
5.0	61.88	0.25	0.01	30.5	68.58
23.0	29.29	1.18	0.30	31.0	62.06
26.0	10.40	1.15	1.10	35.0	38.15
27.0	5.46	1.00	2.59	37.5	31.64
29.0	1.02	0.21	13.59	40.0	27.53
30.0	0.67	0.05	26.03	42.5	24.63
40.0	0.36	0.03	18.08	45.0	22.83
45.0	0.36	0.03	17.85	47.5	21.42
60.0	0.44	0.03	58.55	50.0	20.68
70.0	0.60	0.02	27.63	52.5	19.99
80.0	1.18	0.13	20.42	55.0	19.62
87.5	6.28	4.17	10.47	57.5	19.36
90.0	15.44	6.96	4.33	60.0	19.46
95.0	47.02	8.60	1.62	62.5	19.74
120.0	51.78	3.04	0.74	65.0	20.27
500.0	69.64	3.27	0.82	67.5	21.00
2500.0	49.02	1.51	4.97	70.0	22.16



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

REV. OR
M121478
EDR-9409U
BPF-C45+
URJ/RAV
091215
Page 1 of 1

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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.