

# Surface Mount Bandpass Filter

## BPF-A355+

50Ω 310 to 400 MHz



Generic photo used for illustration purposes only

CASE STYLE: HQ1157

### The Big Deal

- Broader bandwidth
- High Rejection
- Good VSWR, 1.2:1 typical
- Miniature shielded package

### Product Overview

BPF-A355+ is a 50Ω bandpass filter in a shielded package fabricated using SMT technology. This bandpass filter covers from 310 to 400 MHz. This filter build with high Q capacitors and wire welded inductors for high reliability. This filter has fast roll-off and general application in the UHF range

### Key Features

Feature	Advantages
Low insertion loss	Can be used in industrial and medical application
Good rejection	This enables the filter attenuate spurious signals and reject harmonics for broad frequency band
Shielded package	The small surface mount package enables the BPF-A355+ to used in compact design

#### 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](http://www.minicircuits.com/MCLStore/terms.jsp)



# Surface Mount Bandpass Filter

## BPF-A355+

50Ω 310 to 400 MHz



Generic photo used for illustration purposes only  
CASE STYLE: HQ1157

### Features

- Broader bandwidth
- High rejection
- Miniature shielded package

### Applications

- UHF antenna
- Radio link
- Transmitters / Receivers

### Electrical Specifications at 25°C

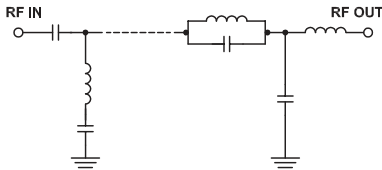
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Center Frequency	—	—	355	—	MHz	
	Insertion Loss	F1-F2	310-400	—	1.90	3.50	dB
	VSWR	F1-F2	310-400	—	1.22	1.92	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-237	20	27	—	dB
	VSWR	DC-F3	DC-237	—	20	—	:1
Stop Band, Upper	Insertion Loss	F4-F5	450-1400	20	30	—	dB
	VSWR	F4-F5	450-1400	—	20	—	:1

### Maximum Ratings

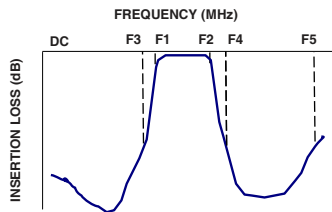
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.8W

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

### Functional Schematic



### Typical Frequency Response

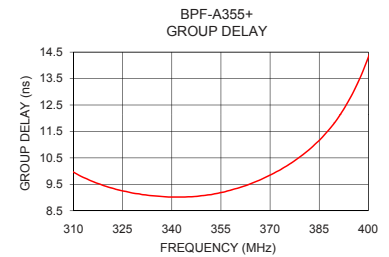
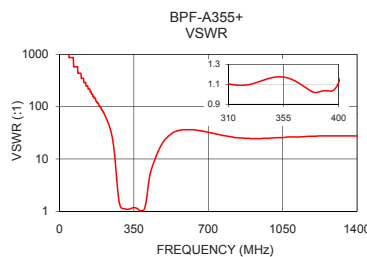
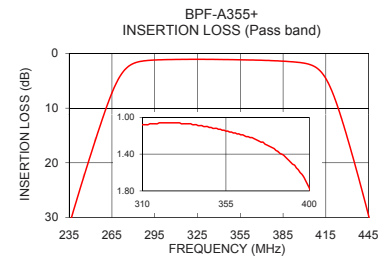
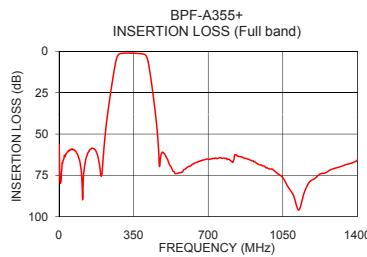


### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1	56.16	868.59	310	9.96
201	74.51	86.86	315	9.65
211	58.58	72.39	320	9.42
237	29.66	39.49	325	9.25
249	19.42	25.19	330	9.14
265	7.19	6.71	335	9.06
273	3.28	2.78	340	9.02
300	1.14	1.13	345	9.03
310	1.08	1.10	350	9.08
355	1.15	1.17	355	9.19
400	1.77	1.12	356	9.21
411	3.18	1.89	360	9.35
420	7.37	3.62	365	9.57
427	12.75	5.25	370	9.85
435	19.95	6.81	375	10.19
445	29.71	8.90	380	10.62
450	34.93	10.07	385	11.16
570	73.46	35.46	390	11.88
750	64.45	29.46	395	12.89
1400	65.76	27.59	400	14.31

### +RoHS Compliant

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



### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/MCLStore/terms.jsp)



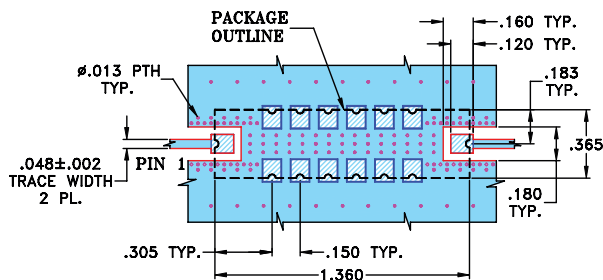
[www.minicircuits.com](http://www.minicircuits.com) P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV.B  
M174392  
BPF-A355+  
EDU1841  
URJ  
190620  
Page 2 of 3

## Pad Connections

INPUT	1
OUTPUT	8
GROUND	2,3,4,5,6,7,9,10,11,12,13,14

**Demo Board MCL P/N: TB-363+**  
**Suggested PCB Layout (PL-227)**

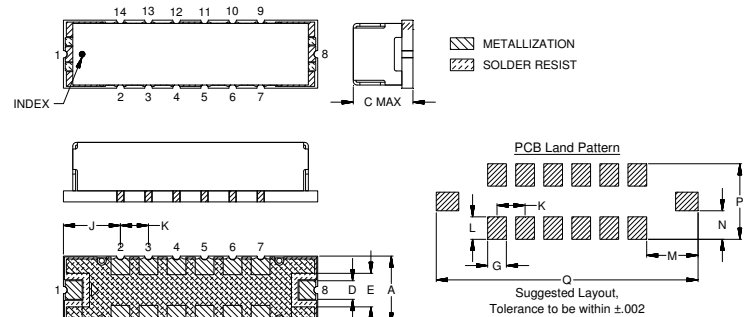


**NOTE:**

- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025"±.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 COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

## Outline Drawing



## Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H
.365	1.360	.35	.100	.180	.140	.100	.100
9.27	34.54	8.89	2.54	4.57	3.56	2.54	2.54
J	K	L	M	N	P	Q	Wt.
.305	.150	.120	.275	.152	.405	1.400	grams
7.75	3.81	3.05	6.99	3.86	10.29	35.56	4.0

*Note: Please refer to case style drawing for details*

**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](http://www.minicircuits.com/MCLStore/terms.jsp)