# **Bandpass Filter**

# **BPF-A75+**

#### $50\Omega$ 72 to 78 MHz

## **Maximum Ratings**

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input*	0.5W at 25°C

<sup>\*</sup>Passband rating, derate linearly to 0.25W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

#### **Pin Connections**

RF IN	1_
RF OUT	8
GROUND	2.3.4.5.6.7.9.10.11.12.13.14

- **Features** · High rejection
- · Good VSWR, 1.2:1 typ @ passband
- · Shielded case
- · Aqueous washable

Generic photo used for illustration purposes only

CASE STYLE: HQ1157

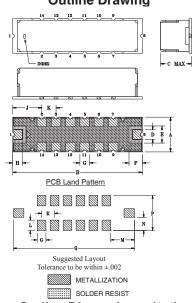
#### +RoHS Compliant

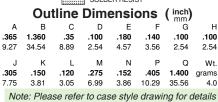
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

## **Applications**

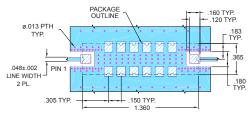
- · Military communications
- · Harmonic rejection
- Transmitters/receivers

#### **Outline Drawing**





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



#### NOTES:

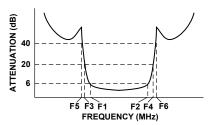
- 1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS: .025"  $\pm$  .002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
- 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

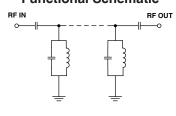
# Bandpass Filter Electrical Specifications (T<sub>AMB</sub>= 25°C)

CENTER FREQ.	PASSBAND (MHz)	STOPBANDS (MHz)			VSWR (:1)			
(MHz)	(Loss < 6dB)	Loss >	> 20dB	Los	s > 40dB	Pass	band	Stopband
Fc	F1 - F2	F3	F4	F5	F6	Тур.	Max.	Typ.
75	72 - 78	65	88	62	95 - 750	1.2	1.6	20

## **Typical Frequency Response**

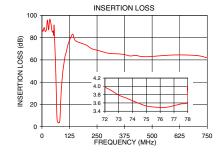


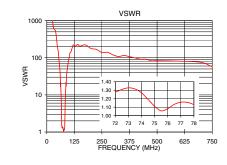
# **Functional Schematic**



# Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1	85.28	15791.02
30	87.00	643.78
62	54.00	17.39
65	31.77	9.42
67	14.81	2.76
68	8.71	1.46
72	3.98	1.28
73	3.79	1.33
75	3.53	1.11
76	3.49	1.08
78	3.63	1.13
82	7.61	2.11
84	17.18	7.70
88	35.00	17.39
95	49.71	61.14
101	58.45	99.98
400	63.54	99.13
750	61.94	57.39





- 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 limits 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/WCLStore/terms.jsp

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