Coaxial

Bandpass Filter

ZABP-650+

50Ω 560 to 780 MHz

CASE STYLE: UU1842

The Big Deal

- High rejection
- Good VSWR
- Connectorized package

Product Overview

ZABP-650+ is a 50Ω bandpass filter with a rugged connectorized package covering the passband of 560 to 780 MHz. The bandpass filter offers good matching within the passband and provides high rejection. This filter has miniature high Q capacitors and wire welded inductors for high reliability. It has repeatable performance across lots and consistent performance across temperature.

Key Features

Feature	Advantages
High rejection	ZABP-650+ has sharper transition and rejects spurious signals in the stopband.
Good VSWR	This filter maintains typical VSWR over passband frequency range making this filter easier to integrate into receiver and transmitter RF chains with less concerns for in band frequency ripple.
Connectorized package	Connectorized package is easy to interface with other devices and well suited for test setups.

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Connectors	Model
SMA-M\F	ZABP-650-S+

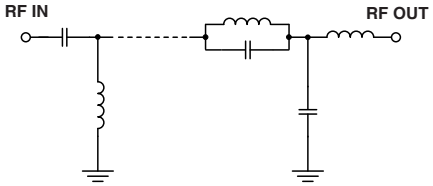
Features

- High rejection
- Good VSWR, 1.4:1 typical@ passband
- Connectorized package

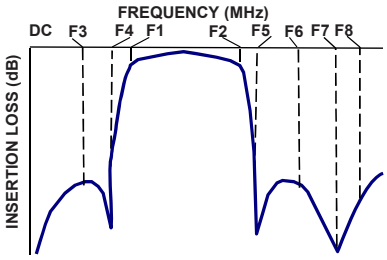
Applications

- Receivers / transmitters
- Wireless communication systems
- Test equipment

Functional Schematic



Typical Frequency Response



+RoHS Compliant

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

Electrical Specifications at 25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	-	-	-	650	-	MHz
	Insertion Loss	F1-F2	560 - 780	-	1.5	2.5	dB
	VSWR	F1-F2	560 - 780	-	1.4	1.8	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC - 185	40	48	-	dB
		F3-F4	185 - 280	20	30	-	dB
	VSWR	DC-F4	DC - 280	-	20	-	:1
Stop Band, Upper	Insertion Loss	F5-F6	890 - 920	-	30	-	dB
		F6-F7	920 - 1600	40	51	-	dB
		F7-F8	1600 - 3500	-	30	-	dB
	VSWR	F5-F8	890 - 3500	-	20	-	:1

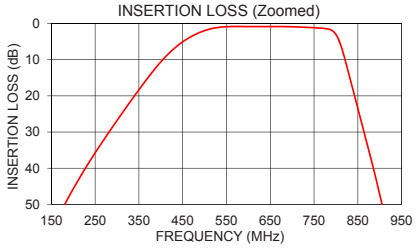
Maximum Ratings	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5 W max.

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

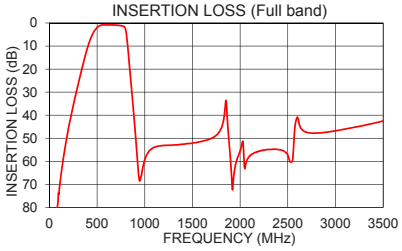
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (ns)
1	99.51	7853.07	560	3.66
2	88.76	12412.85	565	3.62
185	49.02	359.33	570	3.58
260	33.91	142.78	580	3.52
280	30.32	112.86	590	3.47
335	20.82	60.53	600	3.44
475	3.24	4.00	610	3.43
490	2.41	3.02	615	3.44
500	1.96	2.52	620	3.45
560	0.84	1.22	645	3.56
650	0.83	1.19	650	3.58
780	1.47	1.08	655	3.62
795	2.29	1.57	660	3.66
800	3.01	2.03	675	3.78
845	21.19	15.15	700	4.04
865	30.39	20.17	715	4.26
890	42.19	24.69	725	4.45
920	58.02	28.39	750	5.16
1600	51.34	33.11	770	6.25
3500	42.52	16.89	780	7.21

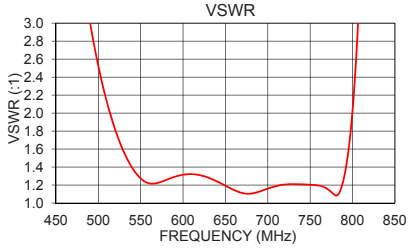
ZABP-650+
INSERTION LOSS (Zoomed)



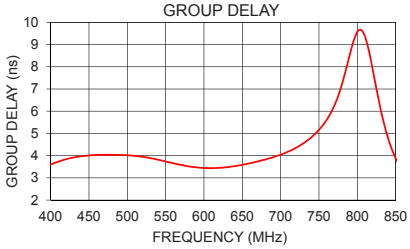
ZABP-650+
INSERTION LOSS (Full band)



ZABP-650+
VSWR



ZABP-650+
GROUP DELAY



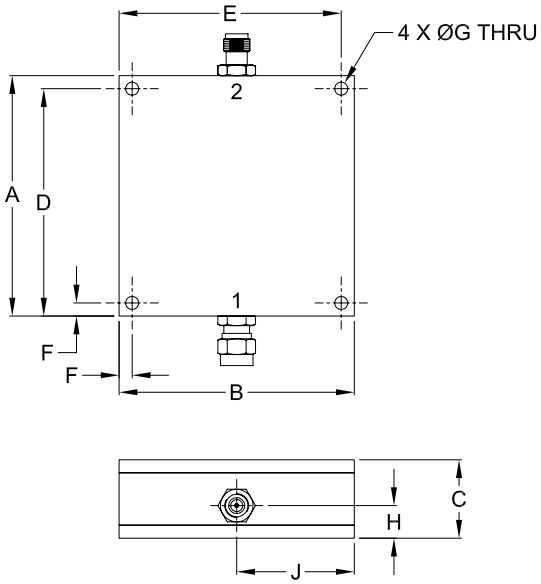
Notes

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

Coaxial Connections

INPUT	SMA-MALE
OUTPUT	SMA-FEMALE

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E
2.300	**2.250**	**.750**	**2.175**	**2.125**
58.42	57.15	19.05	55.25	53.98

F	G	H	J	wt.
.125	**.125**	**.312**	**1.125**	**grams**
3.18	3.18	7.93	28.58	124