

Coaxial Bandpass Filter

ZX75BP-960-S+

50Ω 30 to 1890 MHz

The Big Deal

- Low insertion loss of typ. 0.6dB at center frequency
- Good Matching and good out of band rejection
- Stopband up to 8 GHz
- Excellent temperature stability
- Rugged construction to handle demanding environmental conditions.



Generic photo used for illustration purposes only
CASE STYLE: HY1239

Product Overview

ZX75BP-960-S+ is a low loss bandpass filter in a rugged connectorized package covering 30 to 1890 MHz. This offers lower pass band insertion loss and good rejection. It has repeatable performance across lots and consistent performance across temperature.

Key Features

Feature	Advantages
Low insertion loss	Lower insertion loss result in better SNR in receiver front end and better power delivery to antenna in transmitter.
Good matching and good out of band rejection	This filter has good matching, which enables maximum power transform and better out of band rejection results in wide spur free band.
Wide stopband	Wide spur-free stopband results in better receiver sensitivity
Temperature stability	Very minimal change in electrical performance across temperature makes these filters suitable for a wide range of operating conditions
Rugged construction	These filter assemblies have been qualified over a wide range of thermal, mechanical and environmental conditions including withstanding the stress of extensive solder reflow cycle

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



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Connectors	Model
SMA-F	ZX75BP-960-S+

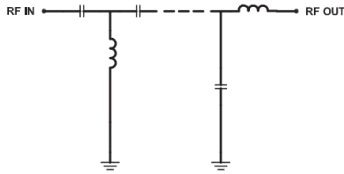
Features

- Wide passband
- Low insertion loss, 0.6dB typ.
- Higher rejection, 50dB typ.
- Good VSWR, 1.5:1 typ.
- Connectorized package
- Wide stopband up to 8GHz (center frequency x 8)

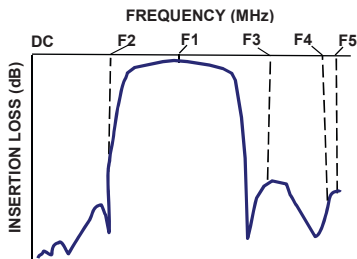
Applications

- All GPS bands
- UHF Military Radios
- LTE
- Mobile communication
- Satellite communication

Functional Schematic



Typical Frequency Response



Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	-	-	960	-	MHz
	3 dB Bandwidth	-	1860	-	-	MHz
	Insertion Loss	F1	960	0.6	1	dB
	VSWR	F1	960	1.5	-	:1
Stop Band, Lower	Insertion Loss	DC-F2	DC - 25	45	50	dB
Stop Band, Upper	Insertion Loss	F3-F4	2450 - 6000	45	50	dB
		F4-F5	6000 - 8000	-	50	dB

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	1 W Max @25°C.

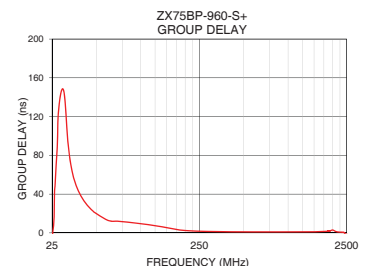
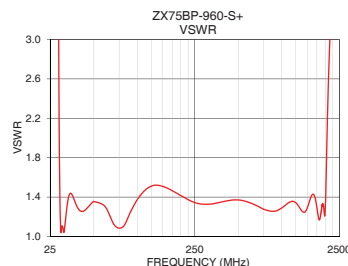
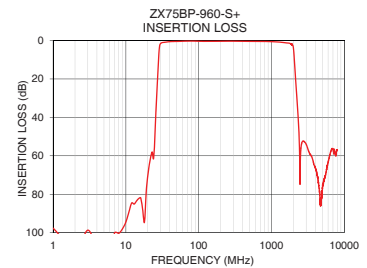
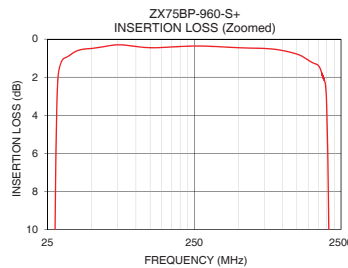
Permanent damage may occur if any of these limits are exceeded.

Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (ns)
1.0	97.64	59289.35	30.0	146.64
10.0	94.43	1339.38	150.0	5.41
20.0	70.33	152.40	270.0	1.56
25.0	51.00	43.90	390.0	1.18
26.4	30.15	25.89	510.0	1.06
27.2	20.48	16.42	630.0	1.01
29.0	3.12	1.76	750.0	1.00
30.0	1.56	1.09	870.0	1.00
500.0	0.45	1.37	890.0	1.00
960.0	0.57	1.27	960.0	1.01
1800.0	1.54	1.18	1050.0	1.02
1890.0	2.01	1.29	1140.0	1.03
1986.0	3.05	1.21	1240.0	1.06
2146.0	20.00	2.97	1320.0	1.09
2238.0	30.08	3.75	1410.0	1.12
2450.0	63.79	6.71	1500.0	1.17
4500.0	76.82	4.45	1620.0	1.28
6000.0	63.49	1.32	1700.0	1.39
7000.0	56.53	1.22	1800.0	1.56
8000.0	57.15	2.44	1890.0	1.84

+RoHS Compliant

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



Notes

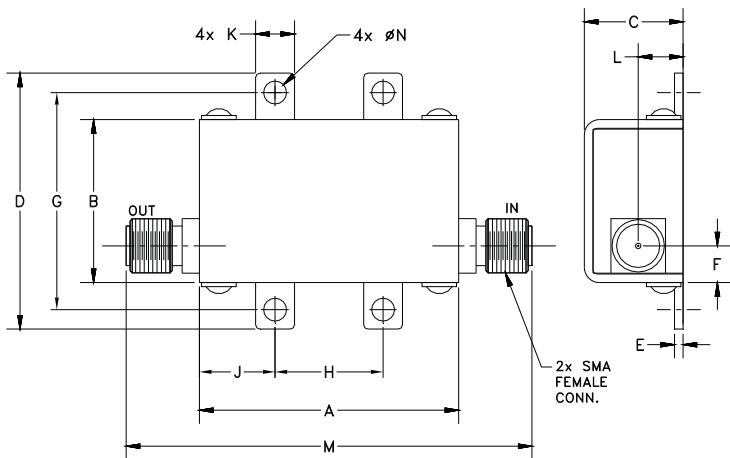
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Coaxial Connections

PORT - 1	SMA-FEMALE
PORT - 2	SMA-FEMALE

Outline Drawing



Outline Dimensions ($\frac{\text{inch}}{\text{mm}}$)

A	B	C	D	E	F	G
1.20	.75	.46	1.18	.04	.17	1.00
30.48	19.05	11.68	29.97	1.02	4.32	25.40
H	J	K	L	M	N	Wt.
.50	.35	.18	.21	1.88	.106	grams
12.70	8.89	4.57	5.28	47.75	2.69	35.0

Note: Please refer to case style drawing for details

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