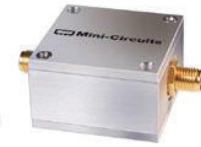


50Ω

2300 to 2500 MHz



Generic photo used for illustration purposes only
CASE STYLE: H16

The Big Deal

- Narrow bandwidth
- Good VSWR, 1.3:1 typical
- High rejection, 50 dB typical
- Flat group delay, 0.3 ns typical
- High power, 8.5W

Product Overview

ZFBP-2400-S+ is a 50Ω narrow band filter built into a shielded (size: 1.25" x 1.25" x 0.75") case. Covering a bandwidth of 2400 MHz \pm 100 MHz, this filter offers good matching in the passband and high rejection in the stopband. Power handling capacity is as high as 8.5W at 25°C.

Key Features

Feature	Advantages
Narrow bandwidth (Fractional bandwidth of 8.3%)	Suitable for Narrow bandwidth applications like Wireless Communication Service and ISM.
Good VSWR, 1.3:1 typical	The model has good return loss for a narrow bandwidth which provides good matching when used with other devices.
High rejection (50 dB typical on lower side band and > 35 dB rejection till 6000 MHz on upper side band)	This enables the filter to attenuate sub harmonics and spurious signals.
Flat group delay characteristics (0.3 ns typical)	The model has a group delay flatness of 0.3 ns which helps in reducing the signal distortion.
High power (8.5W)	Suitable for base station and long-haul applications and test labs.

Notes

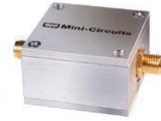
- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's 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



Bandpass Filter

50Ω 2300 to 2500 MHz

ZFBP-2400-S+



Generic photo used for illustration purposes only

CASE STYLE: H16

Connectors Model

SMA-FEMALE ZFBP-2400-S+

BRACKET (OPTION "B")

Features

- High rejection, 50 dB typical
- Flat group delay over passband, 0.3 ns typical
- Good VSWR, 1.3:1 typical in passband
- Connectorized package

Applications

- Harmonic rejection
- Transmitters / receivers
- Lab use

Electrical Specifications at 25°C

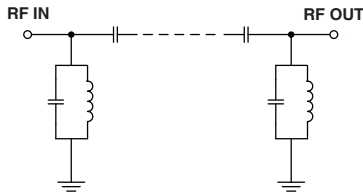
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	—	—	2400	—	MHz
	Insertion Loss	F1-F2	—	2.2	3.5	dB
	VSWR	F1-F2	—	1.3	1.65	:1
Stop Band, Lower	Insertion Loss	DC-F3	20	30	—	dB
	VSWR	DC-F3	—	50	—	:1
Stop Band, Upper	Insertion Loss	F4-F5	20	28	—	dB
	VSWR	F4-F5	—	16	—	:1

Maximum Ratings

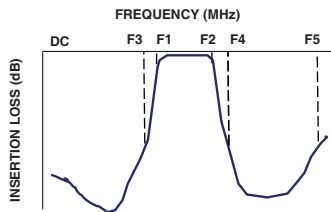
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8.5W max. at 25°C

* Derate linearly to 4W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

Functional Schematic



Typical Frequency Response

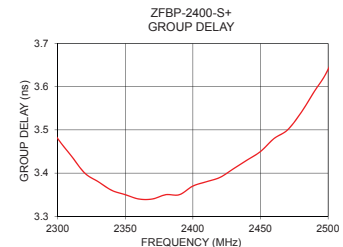
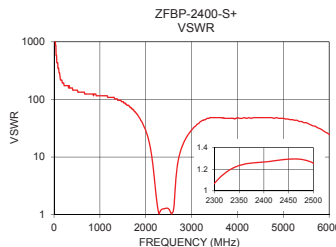
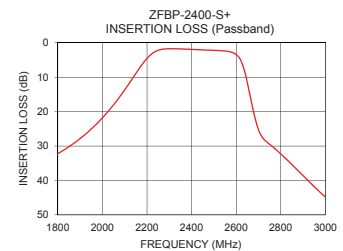
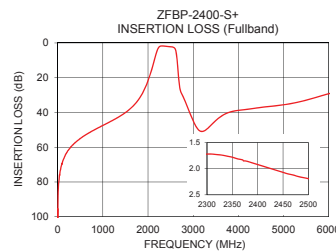


Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
0.5	95.43	1737.18	2300.0	3.48
500.0	55.03	144.77	2310.0	3.44
1100.0	46.14	115.81	2320.0	3.40
1800.0	32.22	56.04	2330.0	3.38
2070.0	16.34	18.70	2340.0	3.36
2150.0	8.89	7.94	2350.0	3.35
2200.0	4.52	3.42	2360.0	3.34
2270.0	1.86	1.19	2370.0	3.34
2300.0	1.72	1.07	2380.0	3.35
2400.0	1.92	1.27	2390.0	3.35
2500.0	2.19	1.26	2400.0	3.37
2600.0	3.40	1.14	2410.0	3.38
2620.0	5.02	1.52	2420.0	3.39
2660.0	14.64	4.39	2430.0	3.41
2800.0	32.28	15.81	2440.0	3.43
3050.0	47.48	32.79	2450.0	3.45
3300.0	49.58	44.55	2460.0	3.48
4800.0	36.24	46.96	2470.0	3.50
5600.0	32.22	36.20	2480.0	3.54
6000.0	29.22	24.83	2500.0	3.64

+RoHS Compliant

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



Notes

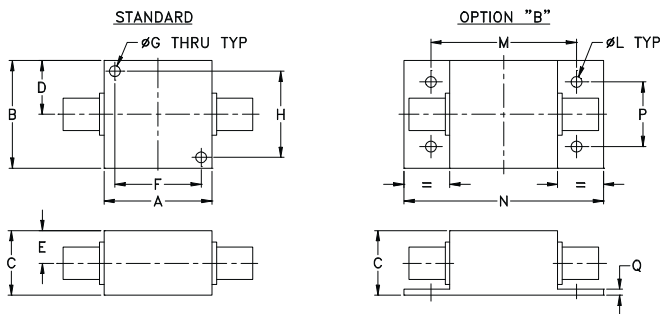
- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' 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

PORT - 1	SMA female
PORT - 2	SMA female

Outline Drawing



Outline Dimensions (inch mm)

A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.000	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.750	.06	grams
--	--	3.18	42.88	55.37	19.05	1.52	70.0

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Mini-Circuits:](#)

[ZFBP-2400-S+](#)