Coaxial

Bandpass Filter

ZAFBP-2100-S+

50Ω 2050 to 2150 MHz

Generic photo used for illustration purposes only
CASE STYLE: CC1397

The Big Deal

- High Rejection
- Flat Group delay, 0.6 ns typical
- High power, 4.7W
- Good VSWR, 1.4:1 typical
- Connectorized package

Product Overview

ZAFBP-2100-S+ is a 50Ω filter built into a rugged connectorized package (size: 2.00" x 2.00" x 0.75") case. Covering the bandwidth of 2100 MHz ± 50 MHz, this bandpass filter offers good matching in the passband and high rejection in the stopband. Power handing capacity is as high as 4.7W at 25°C.

Key Features

Feature	Advantages
High rejection	This enables the filter to attenuate sub harmonics and spurious signals.
Flat group delay characteristics (0.6 ns typical)	This model has a group delay flatness of 0.6 ns which helps in minimizing the signal distortion.
High power (4.7W)	Suitable for base station and long-haul applications and test labs.
Good VSWR (1.4:1 typical in passband)	This provides good matching when used other devices.

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Connectors	Model
SMA-FEMALE	ZAFBP-2100-S+

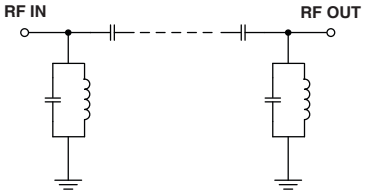
Features

- High rejection, 50 dB
- Flat group delay over passband, 0.6 ns typical
- Good VSWR, 1.4:1 typical in passband
- Connectorized package

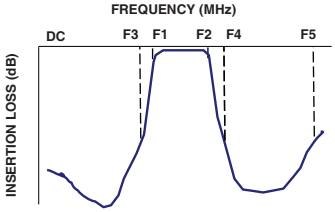
Applications

- Harmonic rejection
- Transmitters / receivers
- Lab use

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

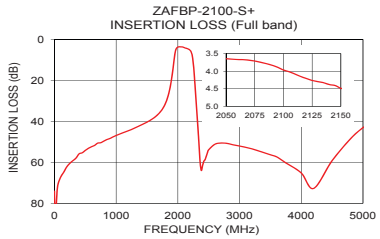
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	—	—	—	2100	—	MHz
	Insertion Loss	F1-F2	2050-2150	—	5.0	6.0	dB
	VSWR	F1-F2	2050-2150	—	1.4	1.7	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-1800	20	29	—	dB
	VSWR	DC-F3	DC-1800	—	29	—	:1
Stop Band, Upper	Insertion Loss	F4-F5	2340-5000	20	48	—	dB
	VSWR	F4-F5	2340-5000	—	12	—	:1

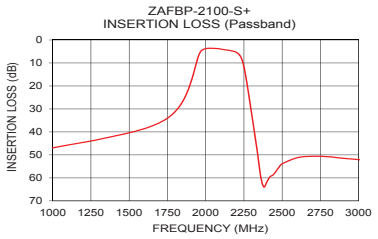
Maximum Ratings	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	4.7W max. at 25°C

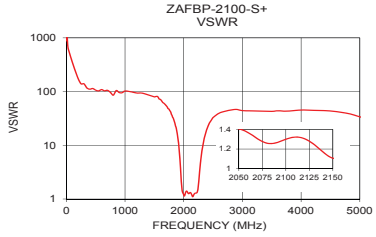
* Derate linearly to 2W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

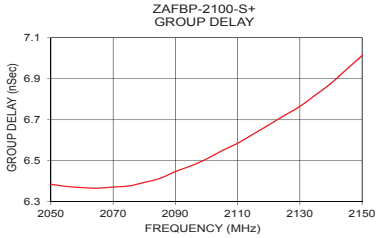
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
5	82.27	4585.90	2050	6.39
200	62.21	175.67	2055	6.37
1000	46.92	102.53	2060	6.37
1500	40.41	79.81	2065	6.37
1800	31.18	36.11	2070	6.37
1920	14.74	8.88	2075	6.38
1950	7.58	3.03	2080	6.39
2050	3.64	1.40	2085	6.41
2080	3.75	1.26	2090	6.45
2100	3.97	1.30	2095	6.48
2120	4.21	1.30	2100	6.51
2150	4.49	1.11	2105	6.55
2230	7.44	1.35	2110	6.59
2300	31.94	6.51	2115	6.63
2340	49.74	12.22	2120	6.67
2360	59.55	15.06	2125	6.72
2700	50.60	42.87	2130	6.77
3500	56.32	42.86	2140	6.88
4200	72.75	44.81	2145	6.95
5000	43.07	33.90	2150	7.01









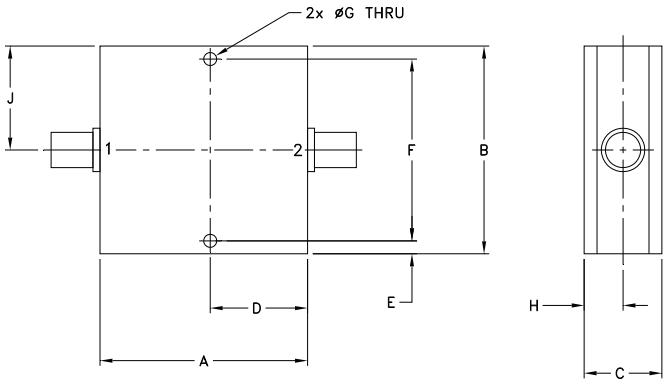
Notes

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

PORT - 1	SMA-Female
PORT - 2	SMA-Female

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F
2.00	2.00	.75	.938	.13	1.750
50.80	50.80	19.05	23.83	3.30	44.45

G	H	J	wt
.125	.38	1.00	grams
3.18	9.65	25.40	100.0

Note: Please refer to case style drawing for details