Coaxial

Bandpass Filter

ZFBP-13.5+

50Ω 12 to 15 MHz

CASE STYLE: H16

The Big Deal

- High rejection, (50dB from 30-1000 MHz)
- Low frequency bandpass filter
- Connectorized package

Product Overview

ZFBP-13.5+ is a bandpass filter built in rugged connectorized package, covering 12 to 15 MHz. These units offer good matching within the band pass and high rejection. This will find its application in semiconductor processing equipment. It has repeatable performance across production lots and consistent performance across temperature.

Key Features

Feature	Advantages
Good passband insertion loss and roll-off	Low insertion loss will be used in designs optimized for high performance applications. Good roll-off will attenuate frequencies closer to the passband with good rejection value of >20dB.
Good ultimate rejection	This enables the filters to attenuate spurious signals and reject harmonics for broad band frequency.
Connectorized package	The connectorized packages can easily interface with other devices and well suited for test set-ups.
Good VSWR, 1.3:1 typical in passband	This model has very good return loss for this bandwidth and provides good interface when used with other devices.

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Connectors	Model	Price	Qty.
SMA-Female	ZFBP-13.5-S+	$79.95 ea.	(1-9)
BRACKET (OPTION "B")		$5.00 ea.	(1-9)

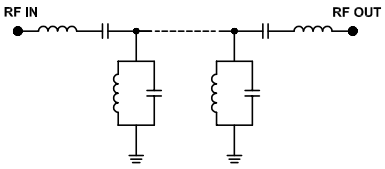
Features

- High stopband Rejection
- Good VSWR, 1.3:1 typical in passband
- Connectorized package

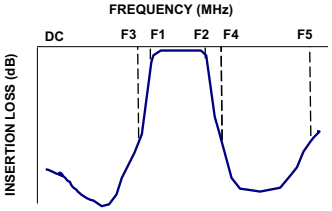
Applications

- Harmonic Rejection
- Medical Instrumentation
- Industrial process equipments
- Lab use

Functional Schematic



Typical Frequency Response



+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications at 25°C

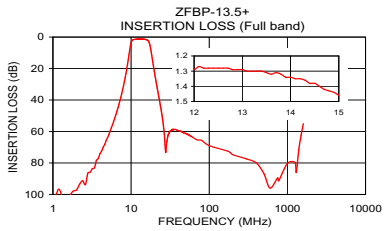
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	—	—	—	13.5	—	MHz
	Insertion Loss	F1-F2	12 -15	—	1.5	3.0	dB
	VSWR	F1-F2	12 -15	—	1.3	1.7	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC - 8	20	31	—	dB
	VSWR	DC-F3	DC - 8	—	46	—	:1
Stop Band, Upper	Insertion Loss	F4-F5	22 -1600	20	33	—	dB
	VSWR	F4-F5	22 -1600	—	12	—	:1

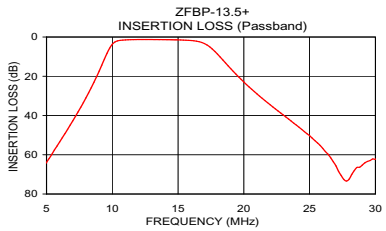
Maximum Ratings	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5W max.

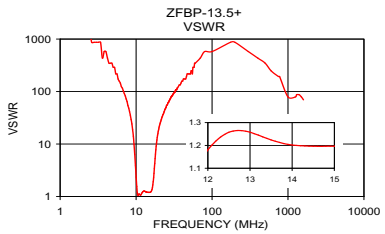
Permanent damage may occur if any of these limits are exceeded.

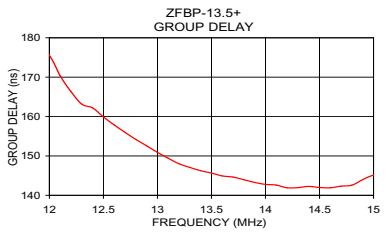
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
0.5	102.04	1737.18	12.0	175.55
5.0	63.88	289.53	12.2	166.33
7.0	42.69	91.43	12.4	162.19
8.0	30.99	48.26	12.6	157.87
8.8	20.32	24.14	12.8	154.19
9.2	14.38	14.03	13.0	150.90
9.6	8.31	6.32	13.2	148.00
10.4	1.96	1.16	13.4	146.25
12.0	1.29	1.18	13.5	145.64
13.5	1.31	1.22	13.6	144.92
15.0	1.46	1.20	13.8	143.96
17.0	3.32	2.27	14.0	142.77
17.6	6.10	4.27	14.1	142.59
18.6	13.17	10.50	14.2	141.92
20.0	22.92	20.22	14.3	141.95
22.0	34.52	32.79	14.4	142.26
50.0	61.41	217.15	14.5	141.98
500.0	86.71	347.44	14.6	141.92
1000.0	80.29	78.97	14.8	142.58
1600.0	55.07	69.49	15.0	145.14





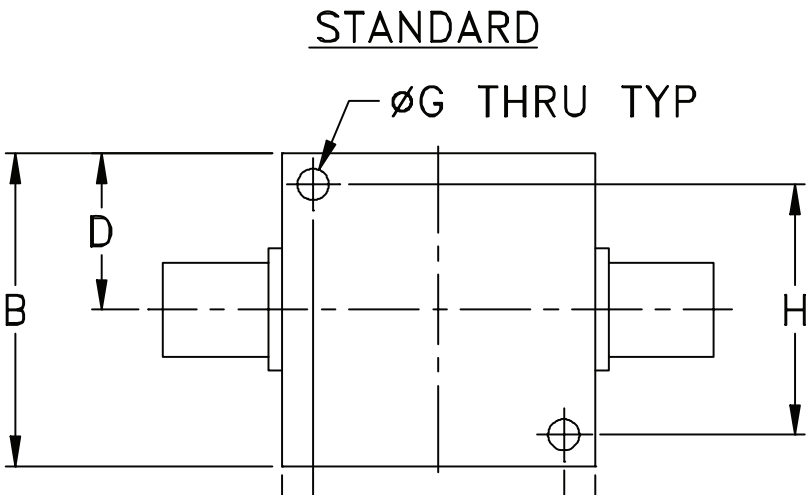




Coaxial Connections

INPUT	SMA Female
OUTPUT	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