



Mini-Circuits

SUSPENDED SUBSTRATE STRIPLINE COAXIAL

Low Pass Filter

ZLSS-V26G+

50Ω DC to 26 GHz 2.4mm Female

KEY FEATURES

- Low passband Insertion Loss, 1 dB Typ.
- High Rejection, 80 dB Typ.
- Wider Stopband up to 50 GHz

APPLICATIONS

- 5G Applications

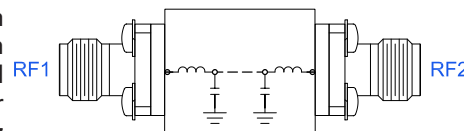
PRODUCT OVERVIEW

Mini-Circuits' Suspended Substrate Stripline filters offer low insertion loss combined with wide stopband, good power handling & temperature stability, small form factor with rugged build ideal for harsh operating environments making them an excellent choice for wideband instruments and systems like ECM, ECCM, ELINT and ultrabroadband receivers. Low pass, high pass, band pass, diplexer and multiplexer designs can be realized with this technology with passband, stopband up to 50GHz and stopband width greater than 6x cutoff frequency.



Generic photo used for illustration purposes only

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS AT +25°C

Parameter		F#	Frequency (GHz)	Min.	Typ.	Max.	Units
Passband	Insertion Loss	DC-F1	DC - 26	—	1	2	dB
	Return Loss	DC-F1	DC - 26	—	9	—	dB
Stopband	Rejection	F2-F3	32.5 - 35.5	20	40	—	dB
		F3-F4	35.5 - 39.5	40	60	—	
		F4-F5	39.5 - 50	60	80	—	

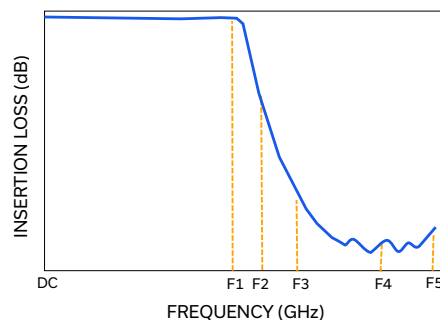
ABSOLUTE MAXIMUM RATINGS¹

Parameter	Ratings
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Input Power ²	1W @ 25°C

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

2. Power rating applies only to signals within the passband.

TYPICAL FREQUENCY RESPONSE



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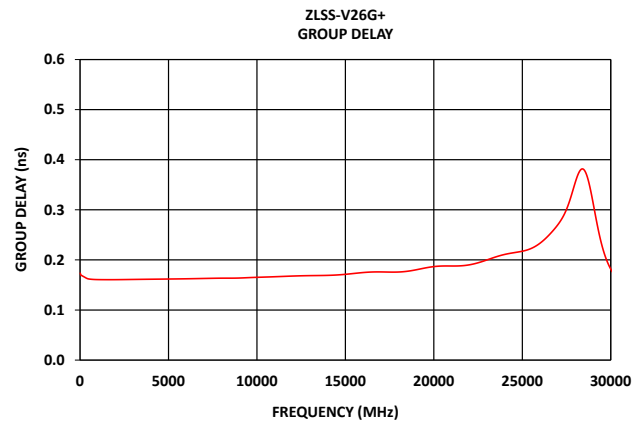
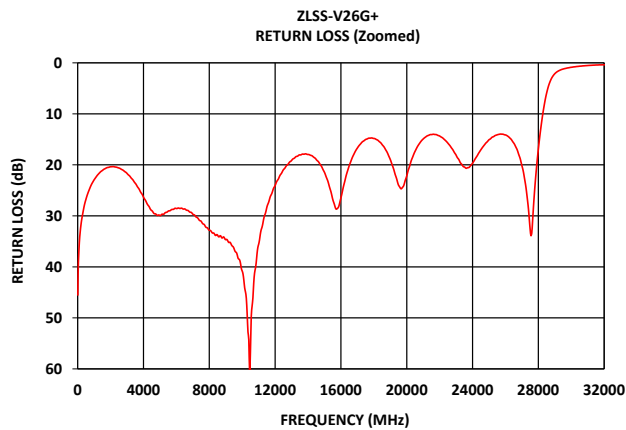
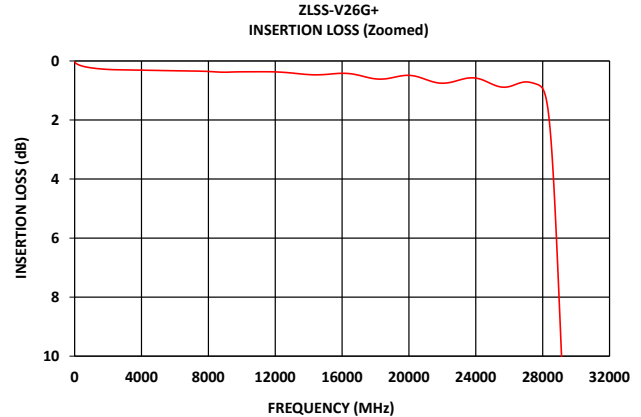
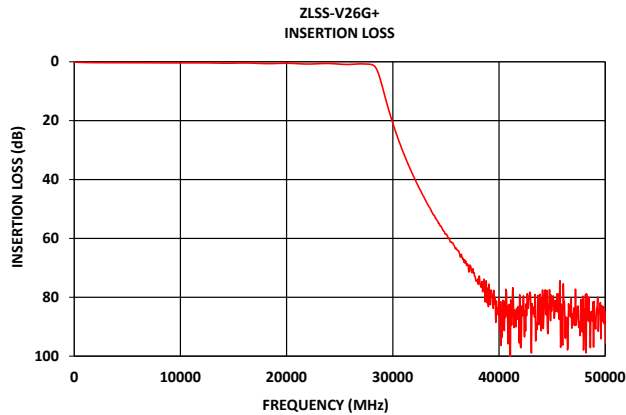
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50 Ω DC to 26 GHz 2.4mm Female

TYPICAL PERFORMANCE GRAPHS AT +25°C



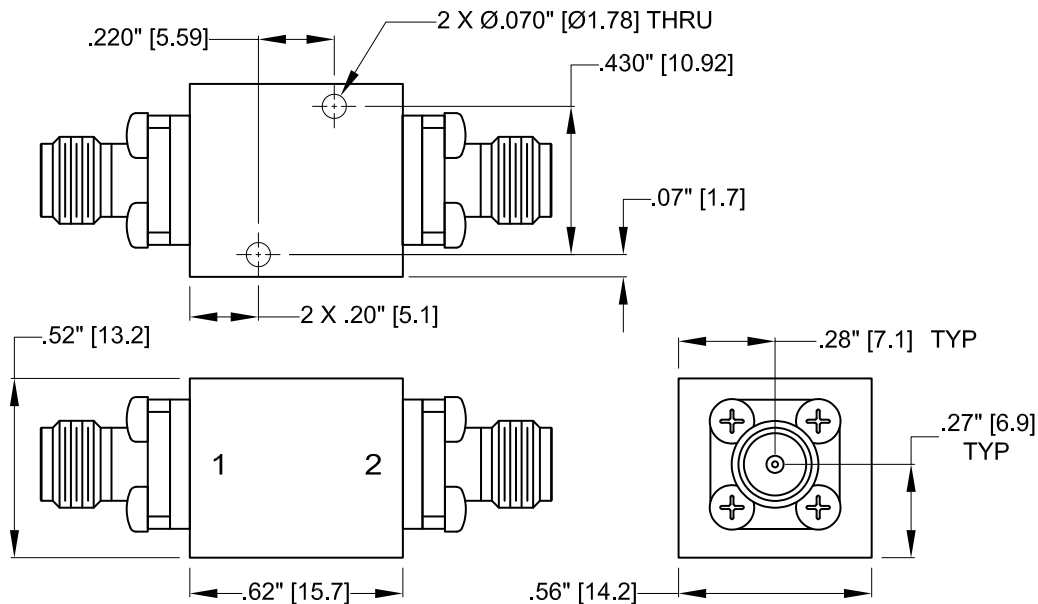


CONNECTOR DESCRIPTION

Function	Connector
RF1 ³	2.4mm Female
RF2 ³	2.4mm Female

3. This filter is bi-directional, RF1 and RF2 ports may be interchanged, see S-Parameters for actual performance.

CASE STYLE DRAWING



Unit Weight: 33 Grams.

Dimensions are in inches [mm]. Tolerances: 2 Pl. ± 0.06 [1.5]; 3 Pl. ± 0.015 [0.38]

PRODUCT MARKING*: ZLSS-V26G+

*Marking may contain other features or characters for internal lot control.



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Low Pass Filter

ZLSS-V26G+

50Ω DC to 26 GHz 2.4mm Female

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

Performance Data & Graphs	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file)
Case Style	BBM3796
RoHs Status	Compliant
Environmental Ratings	ENV001

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/terms/viewterm.html



Suspended substrate stripline Coaxial Low Pass Filter

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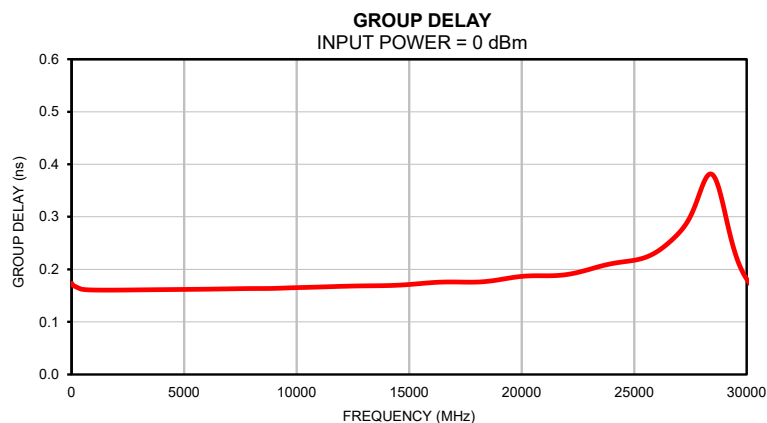
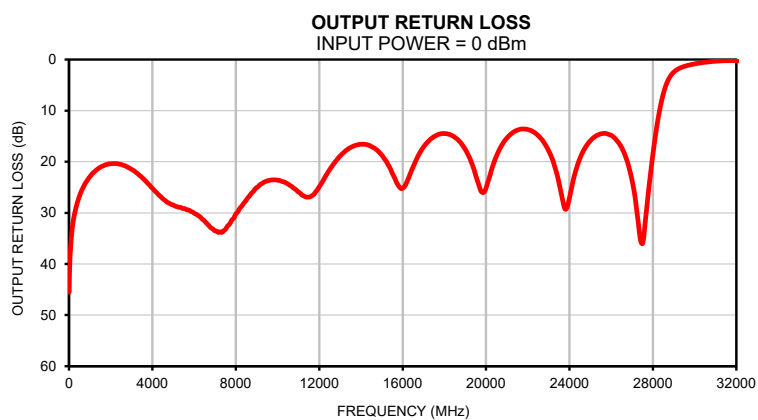
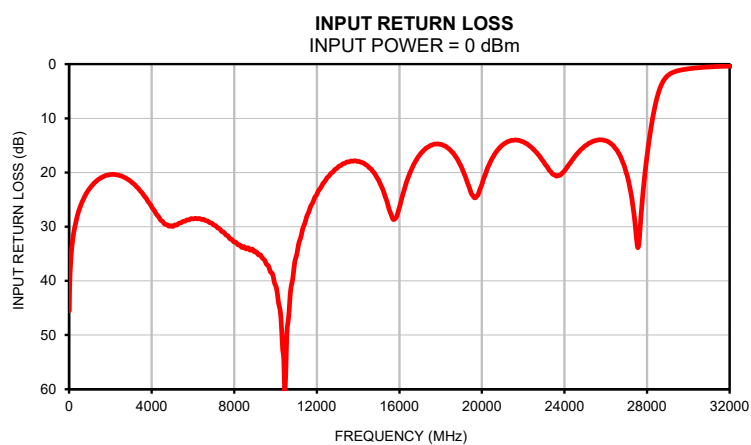
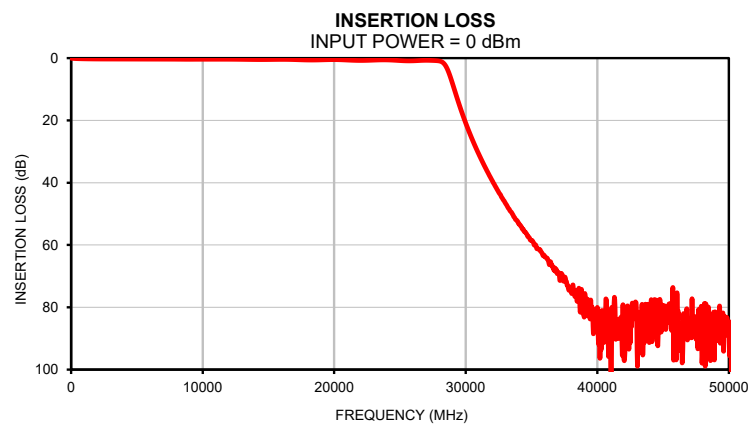
Typical Performance Data

FREQ.	Insertion Loss	Input Return Loss	Output Return Loss	FREQ.	Group Delay
(MHz)	(dB)	(dB)	(dB)	(MHz)	(ns)
10	0.03	45.53	45.49	10	0.17
20	0.04	42.64	42.66	20	0.17
40	0.06	39.56	39.73	40	0.17
100	0.09	35.26	35.45	50	0.17
150	0.11	33.24	33.26	100	0.17
200	0.12	31.76	31.70	500	0.16
250	0.13	30.60	30.54	1000	0.16
400	0.16	28.01	28.01	1500	0.16
500	0.18	26.78	26.75	2000	0.16
800	0.22	24.11	24.09	2500	0.16
900	0.23	23.48	23.48	3000	0.16
1000	0.23	22.93	22.94	3500	0.16
1500	0.27	21.10	21.08	4000	0.16
2000	0.29	20.38	20.39	4500	0.16
2500	0.30	20.61	20.53	5000	0.16
3000	0.30	21.68	21.48	5500	0.16
3500	0.31	23.61	23.06	6000	0.16
4000	0.31	26.33	25.19	6500	0.16
4500	0.32	28.96	27.25	7000	0.16
5000	0.32	29.95	28.45	7500	0.16
5500	0.33	29.08	29.15	8000	0.16
6000	0.33	28.56	30.05	8500	0.16
6500	0.34	28.63	31.59	9000	0.16
6700	0.34	28.93	32.45	9500	0.16
7000	0.34	29.68	33.52	10000	0.17
8000	0.36	32.83	30.22	10500	0.17
9000	0.38	34.68	25.05	11000	0.17
10000	0.37	40.82	23.61	11500	0.17
15000	0.46	21.47	18.70	12000	0.17
20000	0.49	22.19	25.13	12500	0.17
26000	0.87	14.13	14.84	13000	0.17
28550	3.10	5.32	5.98	13500	0.17
29150	10.29	1.72	1.99	14000	0.17
29950	20.33	0.89	0.90	14500	0.17
30000	20.90	0.87	0.86	15000	0.17
31000	30.92	0.52	0.33	15500	0.17
32500	43.04	0.35	0.27	16000	0.17
33000	46.48	0.35	0.38	16500	0.18
34000	53.08	0.40	0.61	17000	0.18
35500	61.24	0.59	0.69	17500	0.18
36000	63.74	0.57	0.64	18000	0.18
37000	68.70	0.59	0.48	18500	0.18
38000	73.80	0.64	0.44	19000	0.18
39500	77.64	0.68	0.63	19500	0.18
40000	80.03	0.64	0.71	20000	0.19
41000	89.34	0.64	0.74	20500	0.19
41500	87.06	0.62	0.71	21000	0.19
42000	95.46	0.59	0.63	21500	0.19
42500	91.43	0.54	0.54	22000	0.19
43000	85.58	0.50	0.42	23000	0.20
43500	90.44	0.47	0.34	23500	0.21
45000	80.26	0.43	0.27	24000	0.21
45500	84.95	0.43	0.32	24500	0.21
46000	96.23	0.39	0.37	24600	0.21
46500	93.36	0.36	0.43	24700	0.22
47000	87.73	0.36	0.46	25000	0.22
47500	90.07	0.36	0.50	25100	0.22
48000	94.07	0.38	0.54	25500	0.22
49000	88.39	0.49	0.60	25800	0.23
50000	85.56	0.62	0.73	26000	0.23

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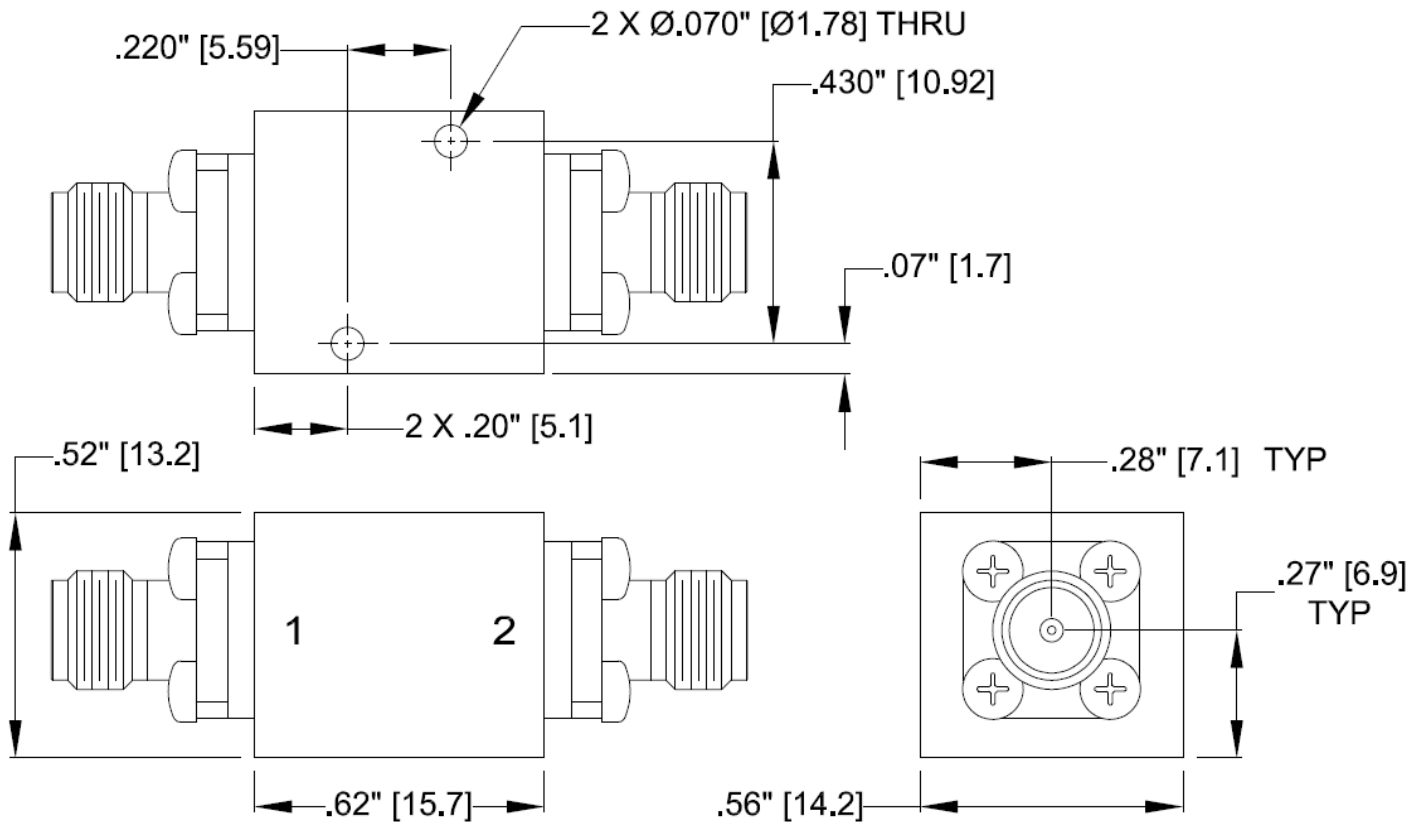
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Typical Performance Curves



Outline Dimensions

BBM3796



Dimensions are in inches [mm]. Tolerances: 2 Pl. ± 0.06 [1.5]; 3 Pl. ± 0.015 [0.38]

Notes:

1. Case material: Brass.
2. Case Finish: Silver plating.
3. Unit Weight: 33 grams.
4. Refer to the individual model data sheet for the type of connectors available.



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Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85° C Ambient Temperature	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet