

Ceramic

Bandpass Filter

50Ω 5150 to 5990 MHz

Features

- Low loss < 2.0 dB typ.
- Rejection up to 16 GHz
- Small size (0.079" x 0.049" x 0.037")
- Temperature stable
- Hermetically sealed
- LTCC construction

Applications

- Harmonic Rejection
- Transmitters / Receivers
- WiFi / WLAN

BFCG-5600+



CASE STYLE: GE0805C3

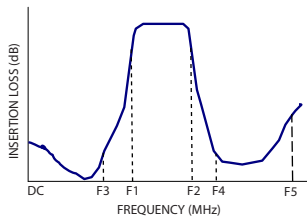
+RoHS Compliant

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

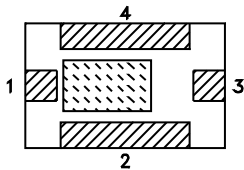
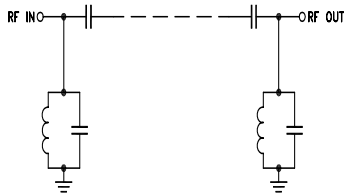
Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000, 3000

Specification Definition



Functional Schematic



Pad Connections

Input	1
Output	3
Ground	2,4

Electrical Specifications at 25°C

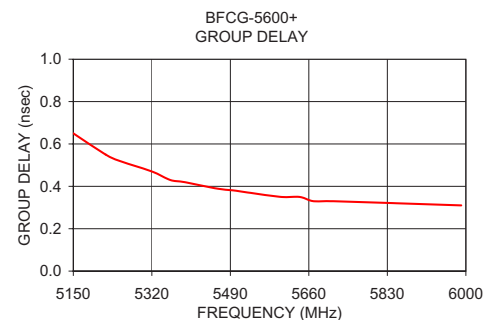
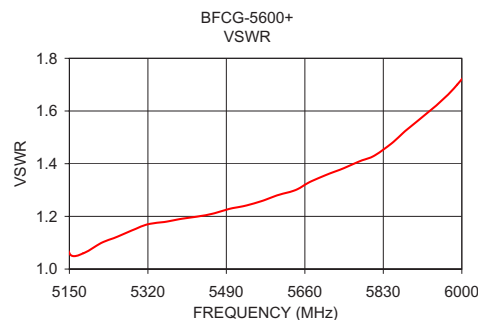
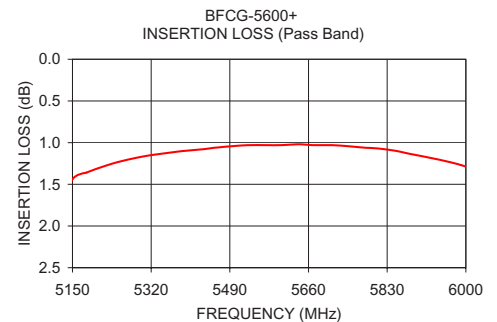
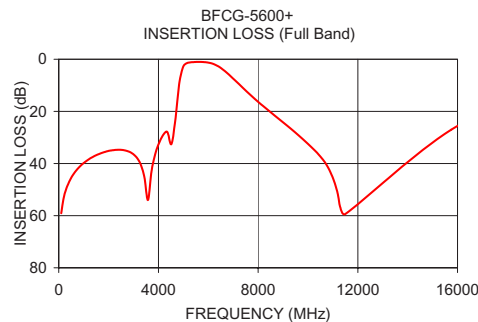
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	—	—	5600	—	MHz
	Insertion Loss	F1 - F2	—	1.2	2.2	dB
	VSWR	F1 - F2	—	1.6	—	:1
Stop Band, Lower	Insertion Loss	DC - F3	—	25	—	dB
	VSWR	DC - F3	—	30	—	:1
Stop Band, Upper	Insertion Loss	F4 - F5	—	20	—	dB
	VSWR	F4 - F5	—	40	—	:1

Maximum Ratings

Operating Temperature	-40°C to +85°C
Storage Temperature*	-55°C to +100°C
RF Power Input**	0.5W at 25°C

*12 months max.

**Passband rating, derate linearly to 0.125W at 85°C ambient. Permanent damage may occur if any of these limits are exceeded.



www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. A
M151107
ED-15034
BFCG-5600+
WZ/CP/AM
150601
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Full Band Performance

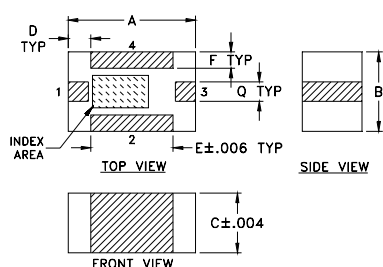
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Insertion Loss (dB)	Group Delay (nsec)
100.00	59.09	174.29	5150.00	1.44	0.65
500.00	45.49	110.80	5220.00	1.28	0.55
1000.00	39.81	95.13	5250.00	1.23	0.52
2510.00	34.76	86.40	5320.00	1.15	0.47
3020.00	36.65	78.27	5360.00	1.12	0.43
4200.00	28.90	32.67	5390.00	1.10	0.42
4840.00	9.06	5.90	5460.00	1.06	0.39
5150.00	1.44	1.06	5500.00	1.04	0.38
5990.00	1.27	1.70	5530.00	1.03	0.37
6470.00	3.13	3.83	5600.00	1.03	0.35
8030.00	16.59	46.23	5640.00	1.02	0.35
9310.00	26.63	386.49	5670.00	1.03	0.33
10300.00	35.24	61.58	5710.00	1.03	0.33
11500.00	59.35	109.64	5850.00	1.10	0.32
15750.00	27.00	45.89	5990.00	1.27	0.31

Pass Band Performance

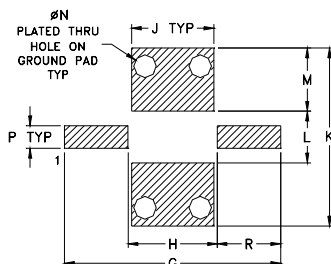
Pad Connections

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Ground	2,4

Outline Drawing

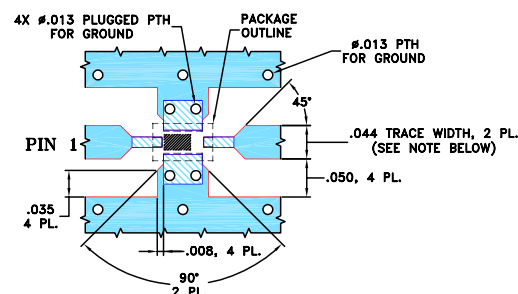


PCB Land Pattern



Suggested Layout,
Tolerance to be within ± 0.02

Demo Board MCL P/N: TB-703+ Suggested PCB Layout (PL-397)



NOTES:

1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS $.020" \pm .0015"$. COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER).
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK.

Outline Dimensions (inch mm)

A	B	C	D	E	F	G	H	J
.079	.049	.037	.014	.051	.010	.134	.055	.051
2.01	1.24	0.94	0.36	1.30	0.25	3.40	1.40	1.00
K	L	M	N	P	Q	R	wt	
.110	.032	.039	.014	.012	.039		grams	
2.80	0.81	0.99	0.36	0.36	0.30	0.99	.020	

Additional 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