

# Surface Mount Bandpass Filter

## CBP-1280F+

50Ω 1160 to 1400 MHz



Generic photo used for illustration purposes only  
CASE STYLE: KV1710

### The Big Deal

- High Q
- Good selectivity
- Low VSWR
- Small shielded package

### Product Overview

CBP-1280F+ is a coaxial-ceramic-resonator based bandpass filter in a shielded package fabricated using SMT technology. This filter has low insertion loss with high rejection and low VSWR for use in L-band application, Aviation / Aeronautical, defence systems and radio astronomy.

### Key Features

Feature	Advantages
High Q	The CBP-1280F+ filter incorporates High-Q ceramic resonators that enables low insertion loss.
Good selectivity	This filter designed with six pole. So this providing good selectivity in the stopband performance.
Low VSWR	This filter maintains typical VSWR over a passband frequency range.
Rugged construction	The CBP-1280F+ has been qualified over wide range of thermal, mechanical and environmental conditions including withstanding the stress of extensive solder reflow cycles.

#### Notes

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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.  
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# Surface Mount Bandpass Filter

50 $\Omega$  1160 to 1400 MHz

## CBP-1280F+



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CASE STYLE: KV1710

### Features

- High Q
- Good selectivity
- Low VSWR
- Small shielded package

### Applications

- L-band application
- Aviation/Aeronautical
- Defence systems
- Radio astronomy

### Electrical Specifications at 25°C

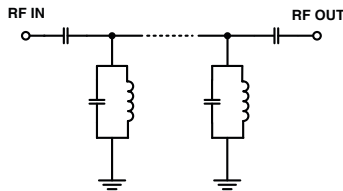
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	-	-	-	1280	-	MHz
	Insertion Loss	F1-F2	1160-1400	-	1.0	2.0	dB
	VSWR	F1-F2	1160-1400	-	1.5	1.9	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-1000	20	30	-	dB
	VSWR	DC-F3	DC-1000	-	20	-	:1
Stop Band, Upper	Insertion Loss	F4-F5	1570-2100	20	30	-	dB
	VSWR	F4-F5	1570-2100	-	20	-	:1

### Maximum Ratings

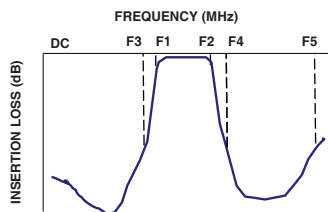
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	1 W max.

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

### Functional Schematic



### Typical Frequency Response

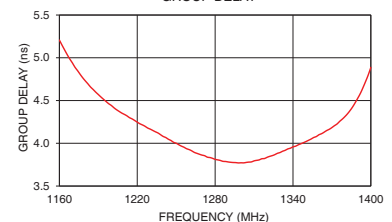
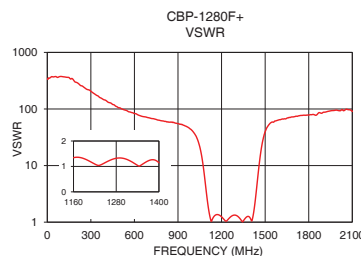
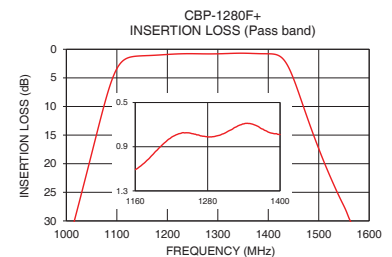
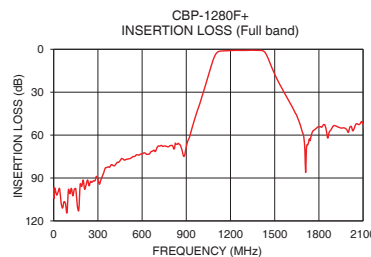


### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1	96.75	340.69	1160	5.21
100	98.16	374.91	1170	4.94
500	76.83	104.83	1180	4.73
1000	35.23	40.81	1190	4.57
1015	30.23	36.27	1200	4.44
1045	20.00	23.79	1210	4.34
1055	16.53	18.82	1220	4.25
1080	8.16	7.28	1230	4.17
1100	3.39	2.66	1240	4.08
1160	1.11	1.34	1250	4.00
1280	0.81	1.32	1260	3.93
1400	0.79	1.14	1270	3.86
1440	3.12	3.72	1280	3.81
1480	12.62	24.83	1290	3.78
1510	19.60	45.76	1300	3.77
1560	29.53	58.87	1320	3.84
1570	31.31	61.35	1340	3.96
1500	17.38	39.61	1360	4.10
2000	58.12	94.37	1380	4.31
2100	52.14	90.80	1400	4.89

### +RoHS Compliant

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



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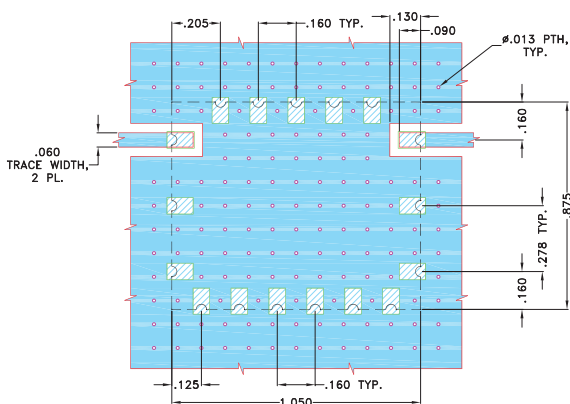
[www.minicircuits.com](http://www.minicircuits.com) P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 [sales@minicircuits.com](mailto:sales@minicircuits.com)

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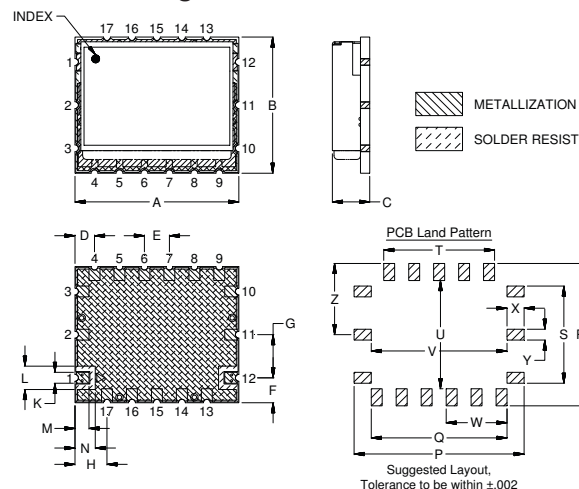
## Pad Connections

INPUT	1
OUTPUT	12
GROUND	2,3,4,5,6,7,8,9,10,11,13,14,15,16,17

**Demo Board MCL P/N: TB-693+**  
**Suggested PCB Layout (PL-378)**



## Outline Drawing



### Outline Dimensions ( $\frac{\text{inch}}{\text{mm}}$ )

A	B	C	D	E	F	G	H	J	K	L	M	N
1.050	.875	.239	.125	.160	.160	.278	.205	.160	.070	.180	.090	.130
26.67	22.23	6.07	3.18	4.06	4.06	7.06	5.21	4.06	1.78	3.51	2.29	3.30
P	Q	R	S	T	U	V	W	X	Y	Z		Wt. grams
1.090	.870	.915	.625	.710	.695	.870	.390	1.10	.070	.458		
27.69	22.10	23.24	15.88	18.03	17.65	22.10	9.91	27.19	1.78	11.63		8.5

*Note: Please refer to case style drawing for details*

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