

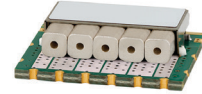
Surface Mount Bandpass Filter

CBP-804F+

50Ω 783 to 825 MHz

The Big Deal

- Excellent Rejection
- High selectivity
- Miniature shielded package



Generic photo used for illustration purposes only
CASE STYLE: KV1710

Product Overview

CBP-804F+ is a ceramic-coaxial-resonator based bandpass filter in a shielded package fabricated using SMT technology. This filter offers sharp rejection for use in narrowband, radar and navigation systems.

Key Features

Feature	Advantages
High Selectivity	The CBP-804F+ filter incorporates High-Q ceramic resonators that enables sharp rejection near passband.
Low Passband VSWR	This filter maintains typical VSWR over a passband frequency range making this filter easier to integrate into receiver and transmitter RF chains with less concerns for in band frequency ripple.
Rugged construction	The CBP-804+ has been qualified over wide range of thermal, mechanical and environmental conditions including withstanding the stress of extensive solder reflow cycles.

Notes

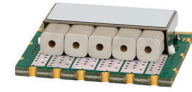
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Features

- Good rejection
- High selectivity
- Miniature shielded package

Applications

- Aeronautical radio navigation
- Radar and navigation systems
- Radio astronomy

Electrical Specifications at 25°C

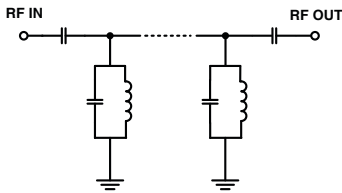
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Center Frequency	-	-	804	-	MHz	
	Insertion Loss	F1-F2	783-825	-	2.0	3.5	dB
	VSWR	F1-F2	783-825	-	1.3	1.92	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-750	20.0	31.9	-	dB
	VSWR	DC-F3	DC-750	-	20.0	-	:1
Stop Band, Upper	Insertion Loss	F4-F5	860-1900	20.0	30.2	-	dB
	VSWR	F4-F5	860-1900	-	20.0	-	:1

Maximum Ratings

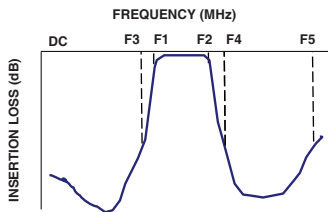
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	5 W max.

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

Functional Schematic



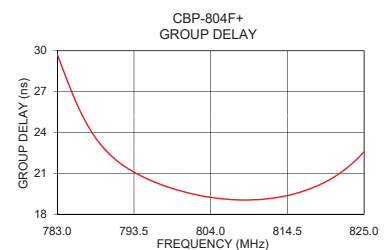
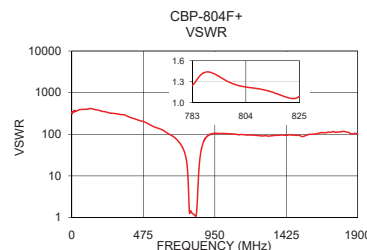
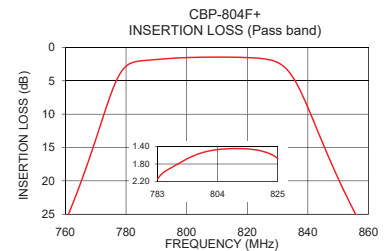
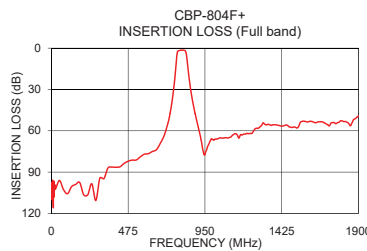
Typical Frequency Response



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1	101.33	341.82	785	26.95
50	96.08	385.81	787	24.68
350	86.99	291.66	789	23.07
750	35.81	35.70	791	21.99
756	30.26	29.67	793	21.24
765	20.35	19.07	795	20.67
779	3.30	1.90	797	20.21
783	2.15	1.25	799	19.84
804	1.47	1.22	801	19.55
825	1.67	1.09	803	19.32
830	2.25	1.49	805	19.16
833	3.26	2.20	807	19.06
851	20.62	26.03	809	19.04
860	28.58	42.44	811	19.08
862	30.16	45.98	815	19.42
900	53.10	90.39	817	19.75
950	77.33	105.27	819	20.18
1250	60.40	92.62	821	20.76
1700	54.99	112.45	823	21.55
1900	49.21	99.36	825	22.58

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



Notes

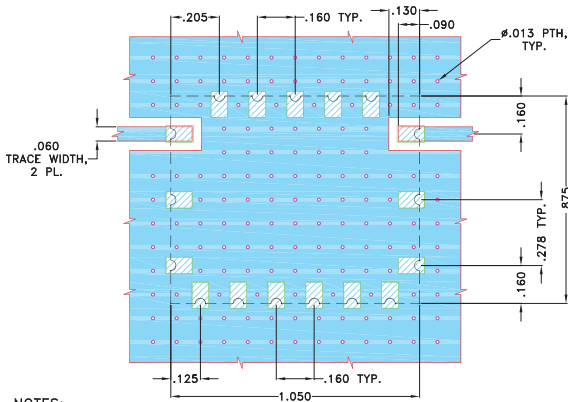
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Pad Connections

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)

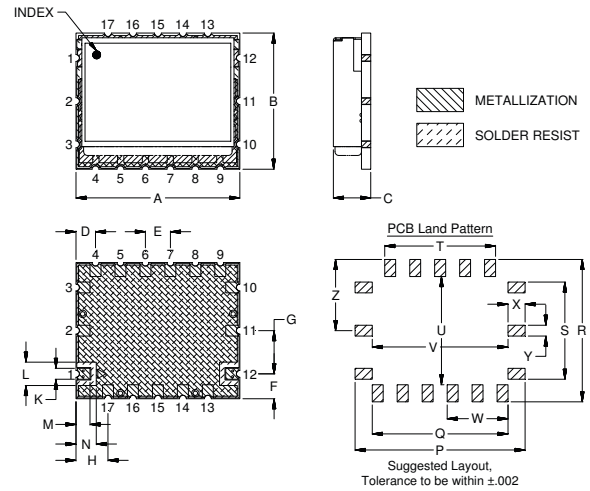


NOTES:

- TRACE WIDTH IS SHOWN FOR OAK (OAK-602) WITH DIELECTRIC THICKNESS .022"±.0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
- 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 SOLDERMASK

Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	M	N
1.050	.875	.239	.125	.160	.160	.278	.205	.160	.070	.150	.090	.130
26.67	22.23	6.07	3.18	4.06	4.06	7.06	5.21	4.06	1.78	3.81	2.29	3.30
P	Q	R	S	T	U	V	W	X	Y	Z	Wt.	
1.090	.870	.915	.625	.710	.695	.870	.390	.110	.070	.458	grams	
27.69	22.10	23.24	15.88	18.03	17.65	22.10	9.91	2.79	1.78	11.63	8.5	

Note: Please refer to case style drawing for details

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