Surface Mount

Bandpass Filter

CBP-670F+

50Ω 645 to 695 MHz

The Big Deal

- Sharp roll-off
- Low passband Insertion Loss
- Miniature shielded package



CASE STYLE: KV1710

Product Overview

CBP-670F+ is a ceramic-coaxial-resonator based bandpass filter in a shielded package fabricated using SMT technology. This filter offers outstanding close in rejection, low insertion loss for use in digital television, point-to-point radio and test and measurements.

Key Features

Feature	Advantages
High Selectivity	The CBP-670F+ filter incorporates High-Q ceramic resonators that enables sharp rejection near passband.
Low Passband VSWR	This filter maintains typical VSWR over a wide 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-670F+ has been qualified over wide range of thermal, mechanical and environmental conditions including withstanding the stress of extensive solder reflow cycles.

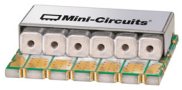
Notes
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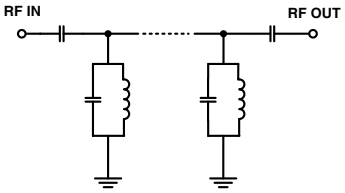
Features

- Sharp roll-off
- Low Passband Insertion loss
- Miniature shielded package

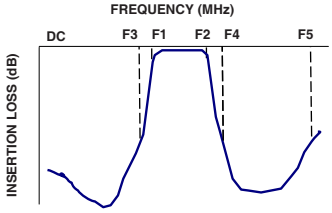
Applications

- Digital television
- Wireless microphones
- Test and measurement
- Point-to-point radio

Functional Schematic



Typical Frequency Response



+RoHS Compliant

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

Electrical Specifications at 25°C

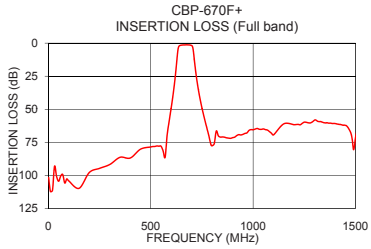
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	-	-	-	670	-	MHz
	Insertion Loss	F1-F2	645-695	-	1.9	3.0	dB
	VSWR	F1-F2	645-695	-	1.5	1.9	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-613	20.0	31.6	-	dB
	VSWR	DC-F3	DC-613	-	20.0	-	:1
Stop Band, Upper	Insertion Loss	F4-F5	728-1500	20.0	29.1	-	dB
	VSWR	F4-F5	728-1500	-	20.0	-	:1

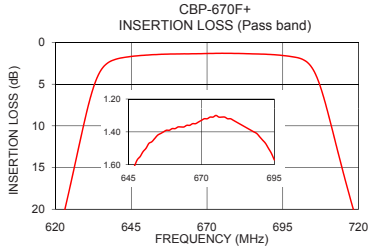
Maximum Ratings	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	5 W max.

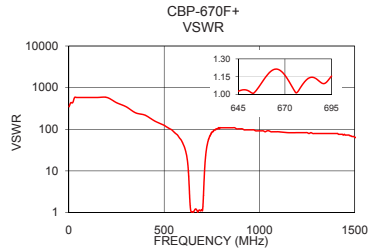
Permanent damage may occur if any of these limits are exceeded.

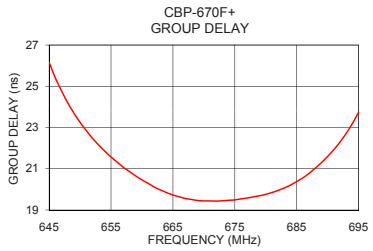
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
1	101.59	347.44	645	26.16
30	93.10	579.06	647	24.78
100	104.24	579.06	649	23.70
350	86.32	248.17	650	23.25
500	78.50	124.09	652	22.48
613	34.15	29.46	654	21.85
616	30.30	25.56	656	21.32
623	20.20	16.11	658	20.86
635	3.34	1.84	670	19.44
645	1.68	1.03	672	19.43
670	1.33	1.16	674	19.47
695	1.57	1.15	676	19.54
705	3.25	1.98	678	19.64
719	20.93	26.33	680	19.76
728	30.92	46.96	682	19.95
900	71.47	102.19	684	20.21
1000	65.50	91.43	686	20.56
1100	69.33	86.86	688	21.03
1450	62.18	72.39	691	21.93
1500	71.49	64.35	695	23.74









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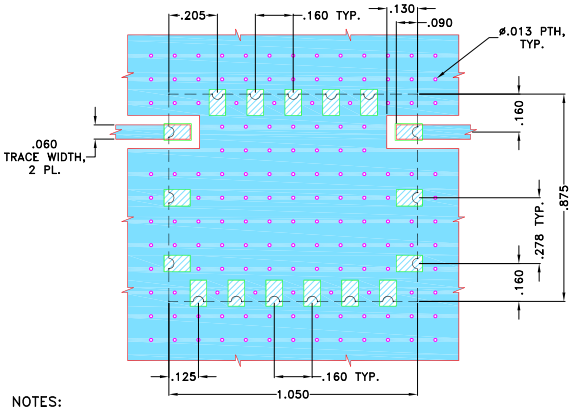
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Pad Connections

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)



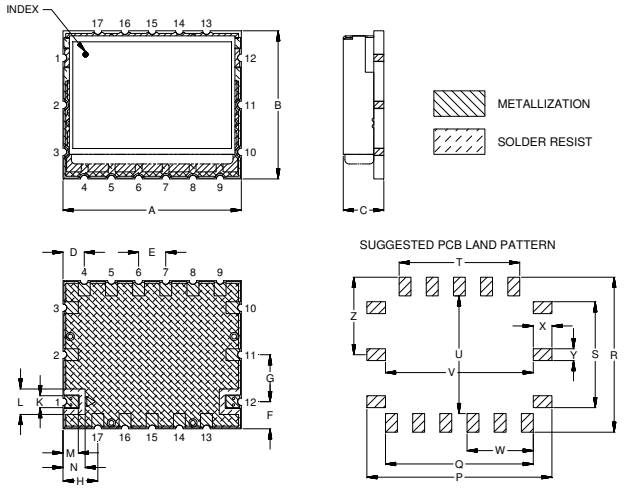
NOTES:

1. 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.
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 SOLDERMASK

Outline Drawing



Outline Dimensions (inch / 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**	**.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

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