Surface Mount **Bandpass Filter**

645 to 695 MHz 50Ω

CBP-670F+



The Big Deal

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

Generic photo used for illustration purposes only 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.					

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. G. The parts covered by this specification document are subject to Mini-Circuit 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



Surface Mount **Bandpass Filter**

50Ω 645 to 695 MHz

CBP-670F+



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Тур.

670

1.9

15

31.6

20.0

29.1

20.0

Max.

3.0

1.9

-

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Unit

MHz

dB

:1

dB

:1

dB

:1

Min.

20.0

20.0

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

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

Center Frequency

Insertion Loss

Insertion Loss

Insertion Loss

VSWR

VSWR

VSWR

Parameter

Pass Band

Stop Band, Lower

Stop Band, Upper

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

Typical Performance Data at 25°C

Electrical Specifications at 25°C

Frequency (MHz)

645-695

645-695

DC-613

DC-613

728-1500

728-1500

F#

F1-F2

F1-F2

DC-F3

DC-F3

F4-F5

F4-F5

rypical i chomaneo Bata at 20 0								
Frequency	Insertion Loss	VSWR	Frequency	Group Delay				
(MHz)	(dB)	(:1)	(MHz)	(nsec)				
(MHz) 1 30 100 350 500 613 616 623 635 645 645 645 670 695 705	(dB) 101.59 93.10 104.24 86.32 78.50 34.15 30.30 20.20 3.34 1.68 1.33 1.57 3.25	(:1) 347.44 579.06 579.06 248.17 124.09 29.46 25.56 16.11 1.84 1.03 1.16 1.15 1.98	(MHz) 645 647 649 650 652 654 656 658 670 672 674 676 678	(nsec) 26.16 24.78 23.70 23.25 22.48 21.85 21.32 20.86 19.44 19.43 19.47 19.54 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				





665 675 FREQUENCY (MHz)

19

645

655

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695



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



Α	В	С	D	E	F	G	н	J	K	L	М	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
Р	Q	R	S	Т	U	V	W	Х	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

Notes
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