



# TV/RF Channel Bandpass Filter: CF7 Series

## Bandpass for Off-Air TV/FM reception and RF systems (any channel from 5 to 800 MHz)

Model CF7 is designed pass a standard TV channel, or, a preferred band of frequencies (6 to 8 MHz), and, attenuate (>20dB) all higher and lower signals at  $\pm 5$  MHz (VHF) to  $\pm 10$  MHz (UHF) from pass band edge (see example graphs below). Operating bandwidth is 5 to 1000 MHz.

- CF7 is available for 6 or 8 MHz Off-the-Air chs: VHF 2-13, UHF 14 - 69. Also CATV QAM chs: T7 - T13, 2 - 135
- CF7X is designed for outdoor antenna mounting.
- CF7 can be customized for special applications, e.g., passband from 7 to 12 MHz, 50 ohms impedance ports.

### Other Bandpass filter models:

Refer to model **CF7 HR** series and **BP7-UHC** series for premium UHF bandpass filtering (lower insertion loss, steeper skirts and higher out-of-band rejection).

Refer to model **CF7-ch.FM** for FM band filtering.

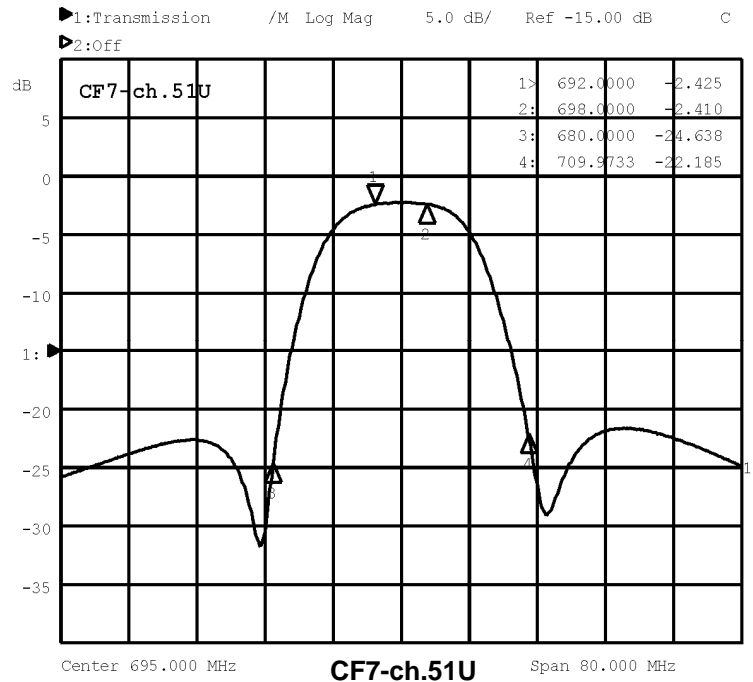
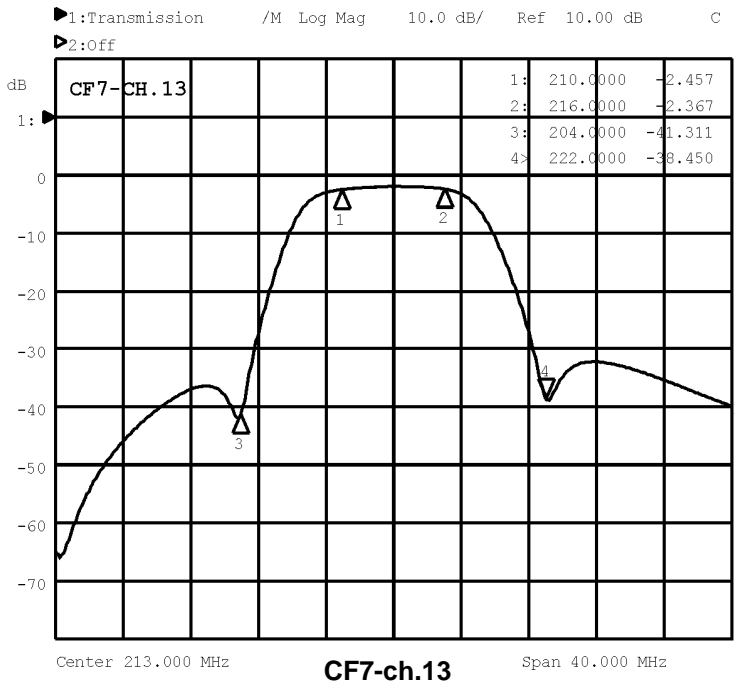


**CF7-ch.#**  
Dim (in):  
4.5 x 2 x 1.75



**Outdoor Enclosure**  
**CF7X-ch.#**  
Dim (in): 4.5 x 3.5 x 2

**Order as :** CF7-ch.# (Specify #. e.g., 41U) or CF7-Fc (BW), Specify Fc (MHz) & BW—e.g., CF7- 500 (8)



## Band pass Specifications (6 MHz)

Models	CF7-VHF	CF7-UHF	General Specifications	
<b>Pass band (6 MHz)</b>	VHF (54-216 MHz)	UHF (470-800 MHz)	<b>Connectors - 75 ohm</b>	F-female, Option: N, BNC
<b>Insertion Loss / Delay</b>	$\leq 2.5$ dB; <50 nS	$\leq 2.5$ dB; <50 nS	<b>RF Power Handling</b>	Up to 1 Watt
<b>Return Loss (dB) :</b>	$\geq 18$ (VSWR 1.30)	$\geq 16$ (VSWR 1.30)	<b>Dimensions (in):</b>	4 L x 3 D x 1.75H
<b>Attenuation &gt; 20 dB</b>	$\pm 3-4$ MHz band edge	$\pm 10-12$ MHz band edge	<b>Shipping Weight</b>	1 lbs
<b>Connectors options</b>	50 ohm: BNC, SMA, N or TNC		<b>Operating Temperature</b>	-10° to +40° C





## Bandpass for Off-Air TV/FM reception and RF systems (any channel from 150-800 MHz)

Model CF7 HR is designed to pass a standard TV channel, or a preferred 6 MHz frequency band and suppress upper and lower frequencies approximately 4 MHz to 10 MHz from pass band edges. It provides steep skirt and high out-of-band rejection. Available for VHF Hi-band, UHF TV channels and UHF +700 MHz Safety and Commercial bands. CF7 HR is available for any 6 to 8 MHz channel from 170 to 800 MHz.

Available in indoor case (outdoor enclosure—inquire). CF7 –HR pass band can be customized for any frequency band (4 to 8 mHz , from 150 to 800 MHz).

Refer to model BP7-UHC for UHF cavity type bandpass - low loss, steep skirts and higher out-of-band rejection at UHF frequencies (400 to 900 MHz).

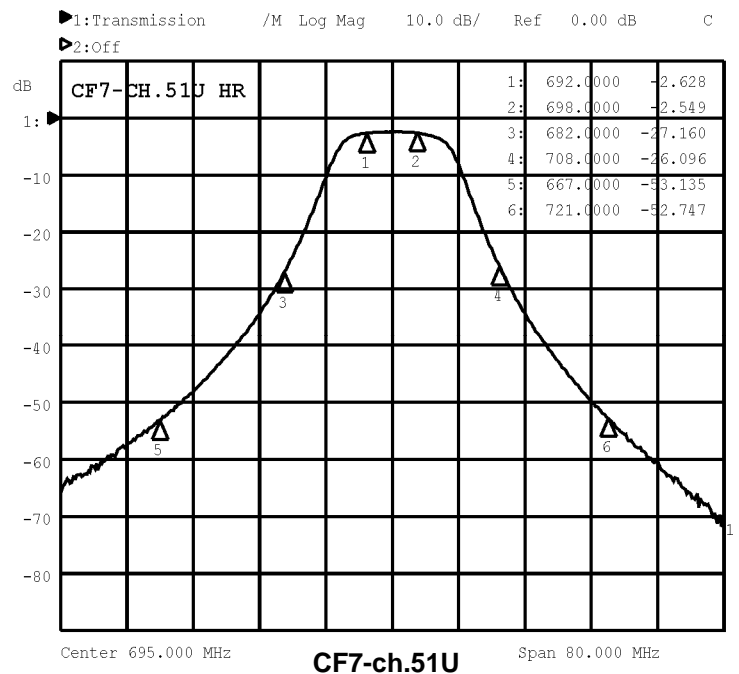
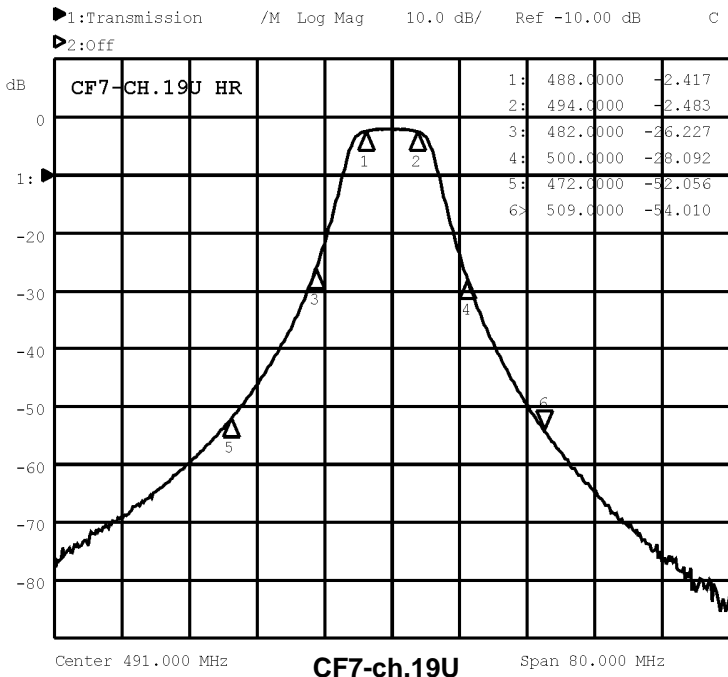


**CF7-ch.## HR**  
Dim (in): 7.5 L x 3 D x 1.75H



**Outdoor Enclosures**  
Dim (in): 4.5 x 6.6 x 6.5

**Order as :** CF7-ch.# HR (Specify ch. e.g., 19U) or CF7-Fc (BW) HR (Specify Fc (MHz)& bandwidth—e.g., 650 (8))



## Band pass Specifications (6 MHz)

Models	CF7- ch.VHF HR	CF7-ch.UHF HR	General Specifications
Pass band (6 MHz)	VHF (174-216 MHz)	UHF (470-700 MHz)	<b>Operating Bandwidth</b> 0 to 1000 MHz
Insertion Loss (dB)	≤1.75 dB	≤2.5 dB	<b>Connectors - 75 ohm</b> F-female (standard)
Return Loss (dB)	≥18 (VSWR 1.30)	≥16 (VSWR 1.38)	<b>RF Power Handling</b> Up to 1 Watt
Flatness / Delay	0.5 dB; <50 nS	0.5 dB; <50 nS	<b>Operating Temperature</b> -10° to +40° C
Attenuation > 25 dB	±5-6 MHz band edge	±6-10 MHz band edge	<b>Shipping Weight (lbs):</b> 1
Attenuation > 50 dB	±15 MHz band edge	±25 MHz band edge	<b>Connectors options:</b> 75 ohms : N, BNC female
			<b>Connectors 50 ohms</b> BNC, SMA, N or TNC

