

VF-H2500-6D/VF-H4000-6x/VF-H8000-6x High Band VHF Band Pass Filters

Features

- Operating frequency range 174 to 230 MHz
- Fully band tunable
- Cross coupled filter design
- Can be configured for 6, 7, or 8 MHz bandwidths
- Available for analog or digital masks
- Power handling capability of up to 8 kilowatts, average power
- Temperature compensated design



The VF-H2500/4000/8000-6x is a compact, six-section, high band VHF bandpass filter that is adjustable for operating frequency, bandwidth, and mask slope. The filter can be configured to meet the requirements any standard digital or analog mask. This is a temperature compensated filter it maintains emissions compliance and an excellent input match from "cold start" and with variations in ambient temperature. All ERI filter and RF component products are manufactured and precision tested for optimum electrical and mechanical performance.

Specifications

Application	ATSC 1.0 or ATSC 3.0		
Band:	High Band VHF (174 to 216 MHz)		
RF Channels:	7 to 13		
Channel Bandwidth	6 MHz		
Passband (Extended)	±2.69 MHz		
Poles	6		
Model Number	VF-H2500-6D	VF-H4000-6x	VF-H8000-6x
Power Handling (average)	2.5 kW	4.0 kW	8.0 kW
	7dB Crest Factor ATSC1.0 (10 dB for 3.0)		
Cooling	Convection		
Standard Connectors	7-16 DIN, female	x=2 1-5/8-inch or x=3 3-1/8-inch EIA flanged male	Forced Air

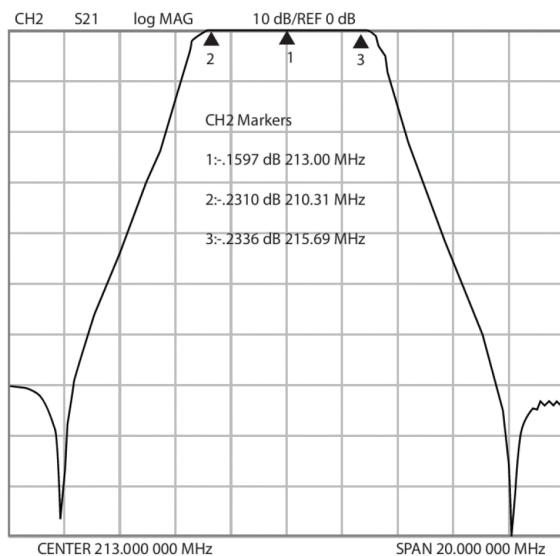
Electrical Specifications

VSWR (Passband)	1.10:1, maximum over $F_c \pm 2.69$ MHz	
Loss	Fc	0.20 dB
	Passband	0.35 dB
Rejection	±3.00 MHz	>0.75 dB
	±3.25 MHz	>2.50 dB
	±4.00 MHz	>5.30 dB
	±5.50 MHz	>25.00 dB
	±6.00 MHz	>30.00 dB
	±9.00 MHz	>64.00 dB
Group Delay	250 nsec, maximum over $F_c \pm 2.69$ MHz	

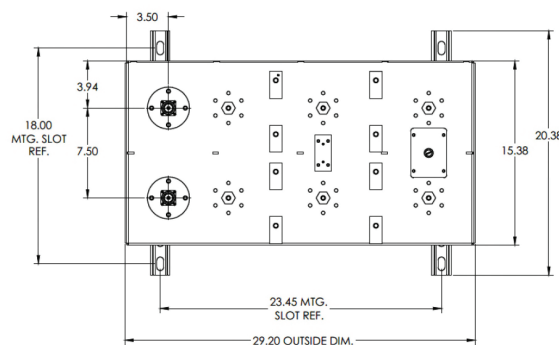
Mechanical Specifications

Length	29.2 in	(742 mm)
With Forced Air Cooling	41.8 in	(1060 mm)
Width	20.4 in	(518 mm)
Height	23.5 in	(597 mm)
With Forced Air Cooling	32.5 in	(826 mm)
Weight	29.0 lbm	(13.2 kg)
With Forced Air Cooling	33.0 lbm	(15.0 kg)

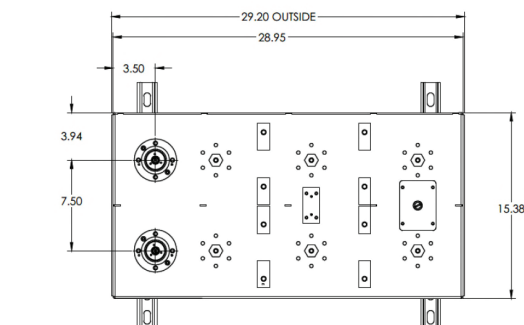
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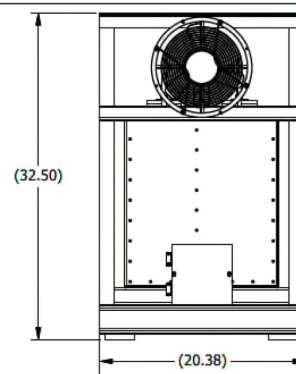
Typical Response Mask



VF-H2500-6D Outline Drawing



VF-H4000-62 Outline Drawing



VF-H8000-63 Outline Drawing

Notes: (1) Available in 6, 7, or 8 MHz bandwidth configurations. (2) Typical specification; Custom specifications available on request. (3) Power Ratings dependent on tuning of filter.