

VF-H2500-8D/VF-H4000-8x/VF-H8000-8x 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
- Temperature compensated design



The VF-H2500-8D/VF-H4000/VF-H8000-8x is a compact, eight section, high band VHF band pass 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-H2500-8D | VF-H4000-8x | VF-H8000-8x |
| Power Handling (average) | 2.5 kW | 4.0 kW | 8.0 kW |
| | 7dB Crest Factor ATSC1.0 (10 dB for 3.0) | | |
| Cooling | Convection | | Forced Air |
| Standard Connectors | 7-16 DIN, female | x=2 1-5/8-inch or x=3 3-1/8-inch EIA flanged male | |
| | Alternate input and output connectors are optionally available | | |

Electrical Specifications

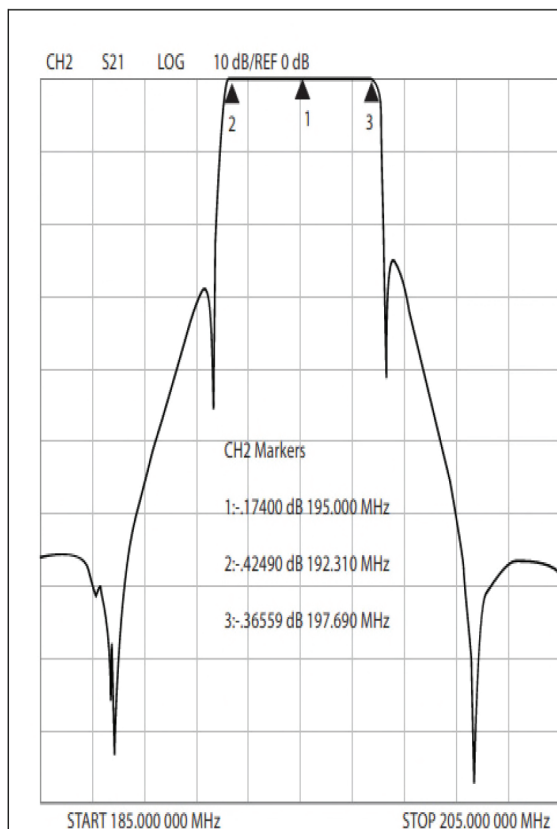
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| VSWR (Passband) | 1.10:1, maximum over $F_c \pm 2.69$ MHz | |
| Loss | F_c | 0.25 dB |
| | ±2.69 MHz | 0.45 dB |
| Rejection | ±3.25 MHz | 18.00 dB |
| | ±9.00 MHz | 64.00 dB |
| Group Delay | 400 nsec, maximum over $F_c \pm 2.69$ MHz | |

Mechanical Specifications

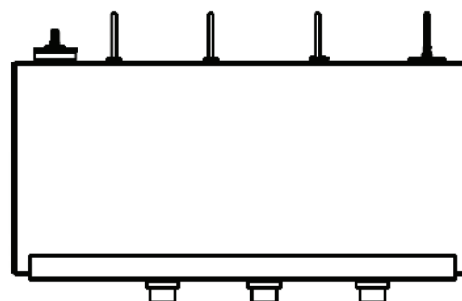
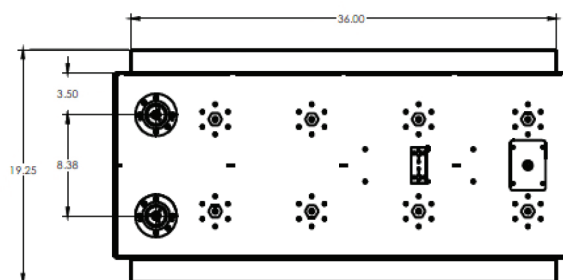
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| Length | 29.2 in | (742 mm) |
| With Forced Air Cooling | 41.8 in | (1060 mm) |
| Width | 20.4 in | (518 mm) |
| Height | 23.5 in | (597 mm) |
| With Forced Air Cooling | 32.5 in | (826 mm) |
| Weight | 29.0 lbm | (13.2 kg) |
| With Forced Air Cooling | 32.0 lbm | (14.5 kg) |

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. (4) Maximum Power Rating based on forced air cooling.

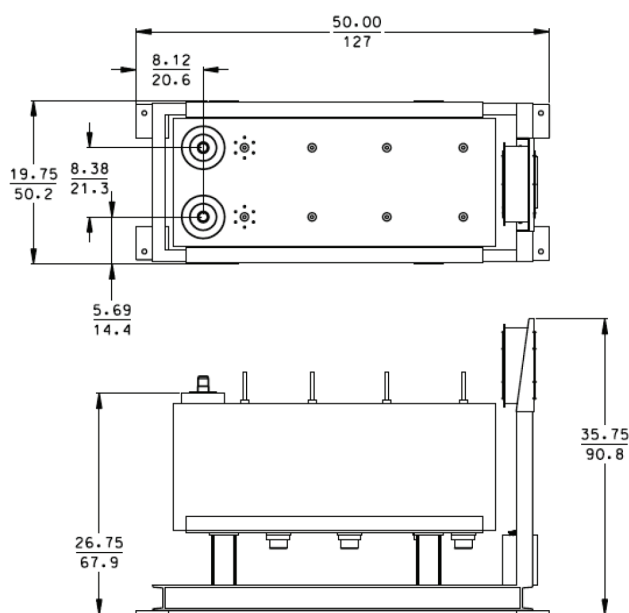
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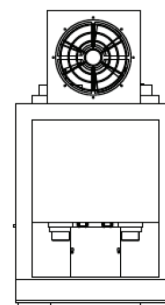
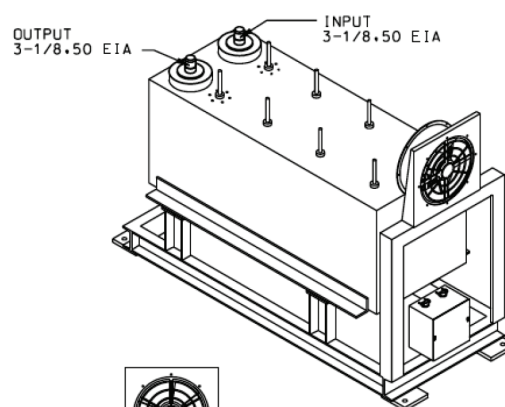
Typical Response Mask



VF-H4000-82 Outline Drawing



VF-H8000-83 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.

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