

VF-H1000-6D High Band VHF Band Pass Filter

The VF-H1000-6D Series high band VHF ATSC mask filter is tunable and exceptionally efficient allowing 1 kW average ATSC power without any additional cooling. The filter is constructed of lightweight Aluminum with copper resonators. The Interdigital resonator design provides reasonably constant coupling across the high VHF band and tunes easily. Tuning elements are designed with the tuner in mind, allowing precise tuning for today's stringent applications in significantly less time for additional cost savings. Non-adjacent coupling increases rejection of transmitter out of band emissions. Six-pole design is available for 8-VSB and COFDM applications and listed below. Input and output connections are 7-16 DIN.



VF-H1000-6D Series Filter:

- ATSC, DVB-T and ISDB-T
- Tunable for 6, 7, or 8MHz Channels
- Non-Critical Masks
- Temperature Compensated

Optional Items:

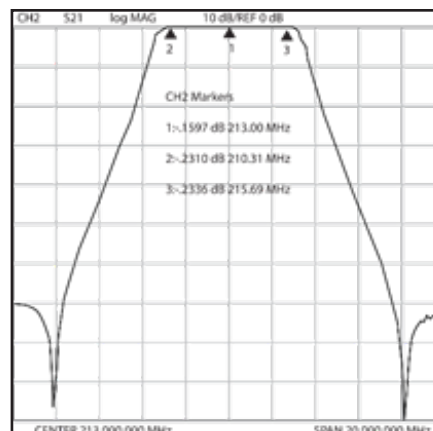
- Fine-Matchers to optimize system performance
- Directional Couplers to monitor system performance
- Output Switching/Patching to test system performance
- Harmonic Filter

Specifications

| | |
|---------------------|---|
| Application | ATSC |
| Band | High Band VHF (174 to 216 MHz) |
| RF Channels | 7 to 13 |
| Power Handling | 1 kW average, 7dB Crest Factor ATSC1.0 (10 dB for 3.0) |
| Channel Bandwidth | 6 MHz |
| Passband (Extended) | ±2.69 MHz |
| Poles | 6 |
| Part Number | VF1000-6D |

Electrical Specifications

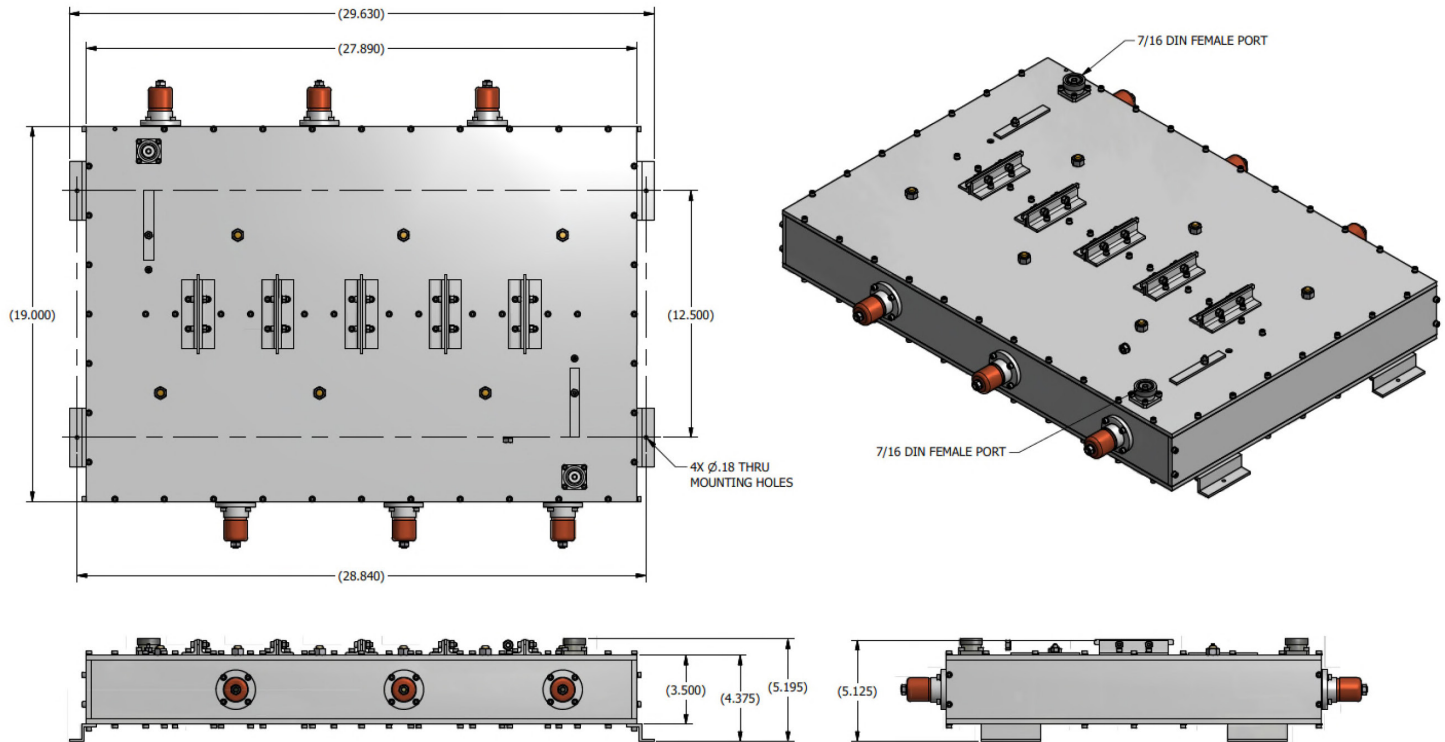
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|-----------------|---|-----------|
| VSWR (Passband) | 1.10:1, maximum over $F_c \pm 2.69$ MHz | |
| Loss | Fc | 0.35 dB |
| | Passband | 0.50 dB |
| Rejection | ±3.00 MHz | >0.75 dB |
| | ±3.25 MHz | >2.50 dB |
| | ±4.00 MHz | >5.30 dB |
| | ±5.50 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 | |
| Connectors | 7-16 DIN, female | |



Mechanical Specifications

| | | |
|--------|----------|-----------|
| Length | 29.6 in | (753 mm) |
| Width | 24.0 in | (610 mm) |
| Height | 5.1 in | (130 mm) |
| Weight | 45.0 lbm | (20.4 kg) |

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ERI VF-H1000-6D Series High Band VHF ATSC Mask Filter (dimensions shown in inches)