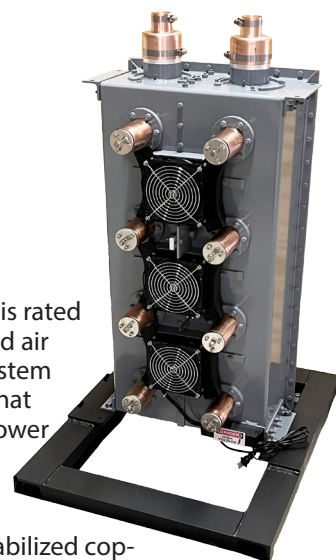


UF1500B and UF5000B Series UHF Bandpass Filters

Features

- ATSC, DVB-T and ISDB-T
- Tunable for 6, 7, or 8 MHz Channels
- Non-Critical and Critical Masks
- Temperature Compensated using Invar stabilized bellows resonators
- Highly effective targeted forced air-cooling

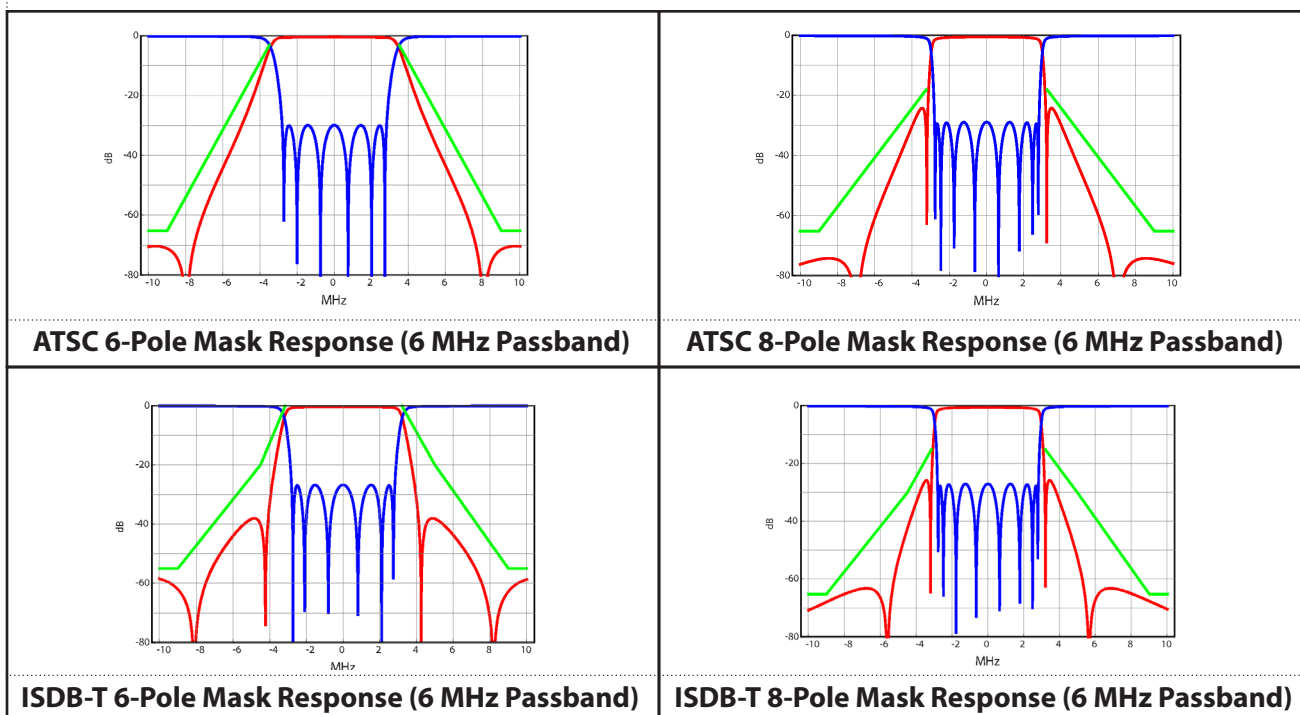
The UF1500B and UF5000B UHF bandpass filters are tunable and exceptionally efficient. The UF1500B is rated for 1.5 kW average power at the filter output and is convection cooled. The Model UF5000B adds forced air cooling, increasing the power handling capability to 5.0 kW. The unique targeted forced air-cooling system employed utilizes distributed finned heat sinks with individual cooling fans to target those locations that generate the most heat, based on laboratory testing. The system provides better heat removal using lower volumes of targeted airflow and has the benefits of less ambient noise and lower power consumption than traditional forced air-cooling methods. The filters are constructed of lightweight Aluminum, the resonators are copper, and no finger stock is used. Instead, a mechanical clamping and copper collar firmly hold the resonator at its proper setting. The filter is temperature compensated using an Invar stabilized copper bellows, which is part of the resonator assembly. Multiple cross-couplings are provided to increase the rejection of transmitter out-of-band emissions. Six and eight-pole designs are available for 8-VSB and COFDM applications and are listed below. Input and output connections are unflanged: 1-5/8, 3-1/8, or 4-1/16-inch.



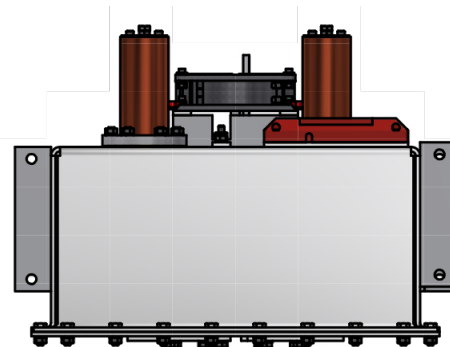
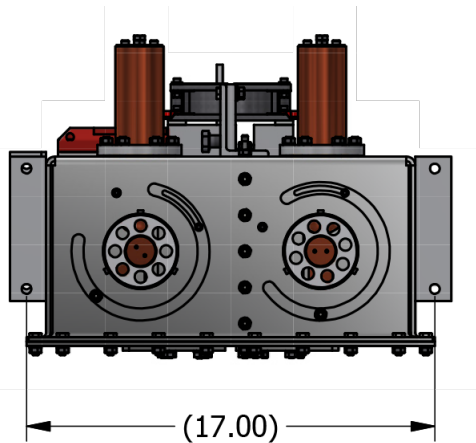
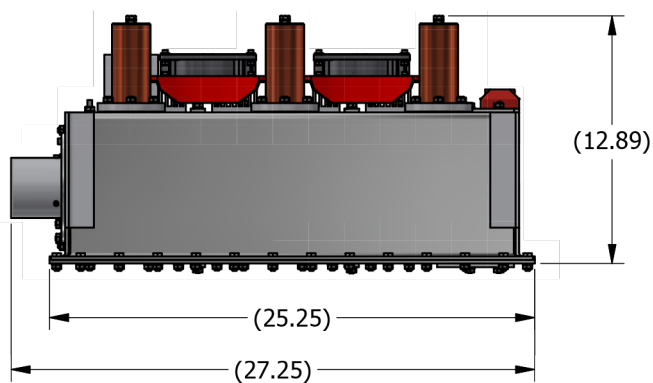
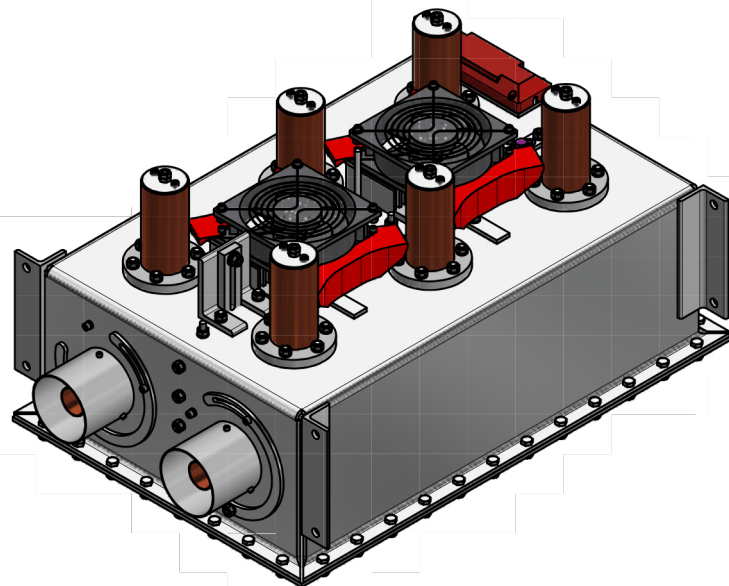
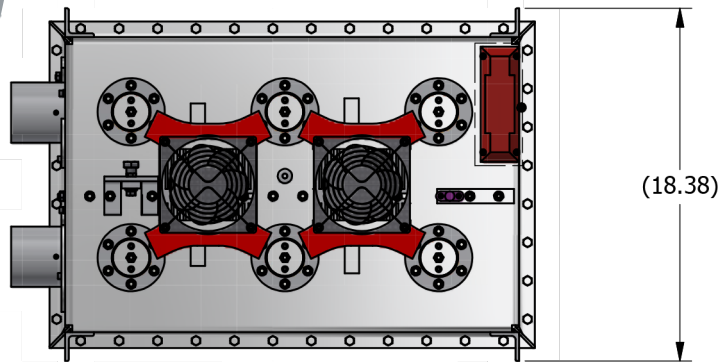
Optional Items:

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

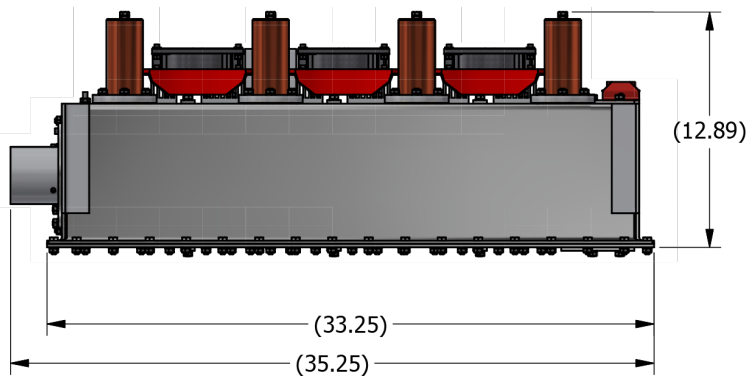
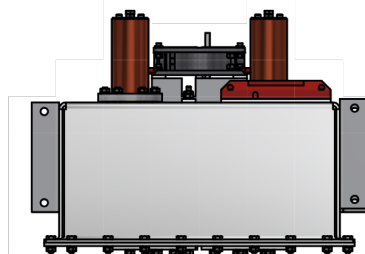
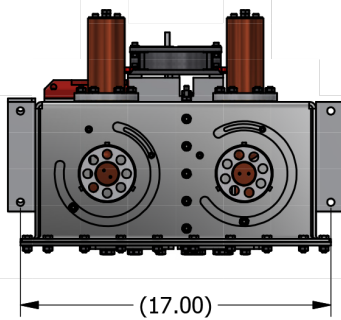
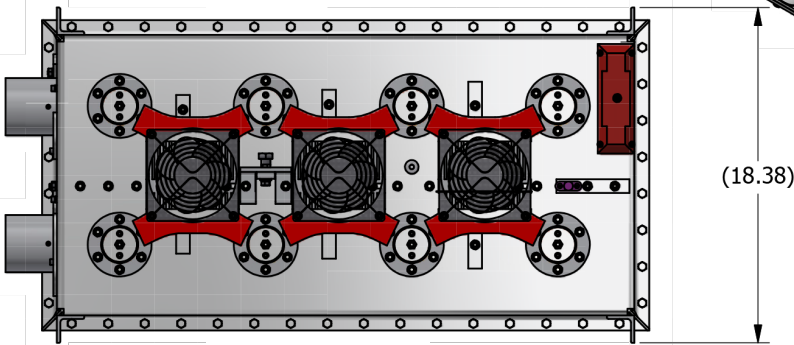
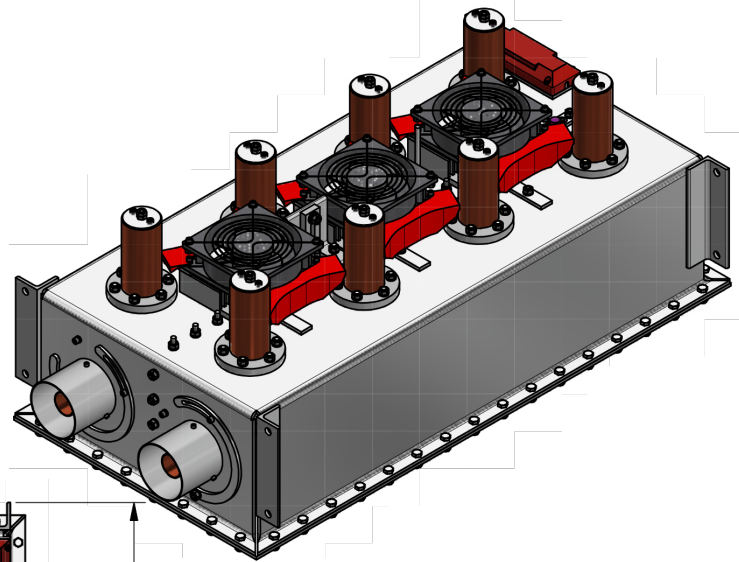
Typical DTV Mask Filter Response



Typical Specifications									
Model:	UF1500B-6x		UF1500B-8x		UF5000B-6x		UF5000B-8x		
Poles:	Six (6)		Eight (8)		Six (6)		Eight (8)		
Cooling:	Convection				Forced Air				
Power Handling at Filter Output:	1.5 kilowatts				5.0 kilowatts				
Frequency Range:	470 to 698 MHz								
VSWR (Passband), maximum									
ATSC 1.0 (6 MHz)	1.08		1.10		1.08		1.10		
ATSC 3.0 (6 MHz)	1.12		1.12		1.12		1.12		
ISDB-T (6 MHz)	1.13		1.13		1.13		1.13		
DVB-T (8 MHz)	1.12		1.12		1.12		1.12		
DVB-T (7 MHz)	1.12		1.12		1.12		1.12		
DVB-T (6 MHz)	1.15		1.15		1.15		1.15		
Insertion Loss, Fc									
ATSC 1.0 (6 MHz)	0.50 dB		0.65 dB		0.50 dB		0.65 dB		
ATSC 3.0 (6 MHz)	0.55 dB		0.60 dB		0.55 dB		0.60 dB		
ISDB-T (6 MHz)	0.40 dB		0.60 dB		0.40 dB		0.60 dB		
DVB-T (8 MHz)	0.35 dB		0.50 dB		0.40 dB		0.50 dB		
DVB-T (7 MHz)	0.40 dB		0.50 dB		0.40 dB		0.50 dB		
Group Delay (Typical)									
ATSC 1.0 (6 MHz)	< 250 nsec		< 800 nsec		< 250 nsec		< 800 nsec		
ATSC 3.0 (6 MHz)	< 250 nsec		< 400 nsec		< 250 nsec		< 400 nsec		
ISDB-T (6 MHz)	< 200 nsec		< 400 nsec		< 200 nsec		< 400 nsec		
DVB-T (8 MHz)	< 250 nsec		< 500 nsec		< 250 nsec		< 500 nsec		
DVB-T (7 MHz)	< 275 nsec		< 450 nsec		< 275 nsec		< 450 nsec		
Rejection (typical)									
ATSC (6 MHz)	+/- 3.25 MHz	N/A		> 18 dB		N/A		> 18 dB	
	+/- 3.5 MHz	> 0 dB		> 23 dB		> 0 dB		> 23 dB	
	+/- 9.0 MHz	> 64 dB		> 64 dB		> 64 dB		> 64 dB	
ATSC 3.0 (6 MHz)	+/- 3.15 MHz	> 0 dB		> 15 dB		> 0 dB		> 15 dB	
	+/- 4.5 MHz	> 20 dB		> 30 dB		> 20 dB		> 30 dB	
	+/- 9.0 MHz	> 55 dB		> 65 dB		> 55 dB		> 65 dB	
ISDB-T (6 MHz)	+/- 4.2 MHz	> 4 dB		> 4 dB		> 4 dB		> 15 dB	
	+/- 6.0 MHz	> 20 dB		> 20 dB		> 20 dB		> 40 dB	
	+/- 12.0 MHz	> 40 dB		> 40 dB		> 40 dB		> 55 dB	
DVB-T (8 MHz)	+/- 3.7 MHz	> 3.5 dB		> 3.5 dB		> 3.5 dB		> 15 dB	
	+/- 5.25 MHz	> 18 dB		> 18 dB		> 18 dB		> 28 dB	
	+/- 10.5 MHz	> 43 dB		> 43 dB		> 43 dB		> 53 dB	
DVB-T (7 MHz)	+/- 3.2 MHz	> 4 dB		> 4 dB		> 4 dB		> 15 dB	
	+/- 5.0 MHz	> 20 dB		> 20 dB		> 20 dB		> 40 dB	
	+/- 9.0 MHz	> 40 dB		> 40 dB		> 40 dB		> 55 dB	
RF Connectors	X=2 1-5/8-inch or X=3 3-1/8-inch				X=2 1-5/8-inch, X=3 3-1/8-inch, or X=4 4-1/16-inch unflanged				
Physical Size:									
Length	27.3 inches		35.3 inches		27.3 inches		35.3 inches		
	(692 mm)		(895 mm)		(692 mm)		(895 mm)		
Width	18.4 inches		18.4 inches		18.4 inches		18.4 inches		
	(467 mm)		(467 mm)		(467 mm)		(467 mm)		
Height	12.9 inches		12.9 inches		12.9 inches		12.9 inches		
	(327 mm)		(327 mm)		(327 mm)		(327 mm)		
Weight	58 pounds		77 pounds		60 pounds		79 pounds		
	(26.3 kg)		(34.9 kg)		(27.2 kg)		(35.8 kg)		
Ambient Operating Temperature	68 to 95 degrees, F (20 to 35 degrees, C)								
Storage Temperature	32 to 122 degrees, F (0 to 50 degrees, C)								
Ambient/Storage Humidity	95% Relative Humidity, Non-condensing								



UF-5000B-63 Six-Pole UHF Bandpass Filter with 3-1/8-inch input and output. The dimensions shown are inches.



UF-5000B-83 Eight-Pole UHF Bandpass Filter with 3-1/8-inch input and output. The dimensions shown are inches.