

ERI UF10000/UF15000/UF20000 Series UHF Band Pass Filter

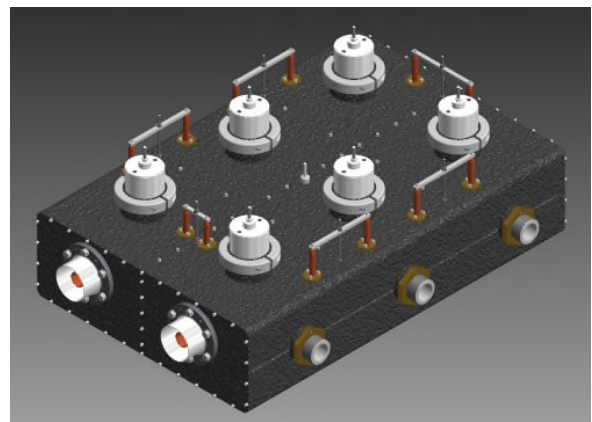
The UF10000/UF15000/UF20000 is a product family that shares a common case and handles up to 10 kW average power convection cooled. The power handling is increased to 15 kW, average power, with the addition of forced air cooling and to 20 kW with liquid cooling. The filter is tunable and exceptionally efficient. The filter is constructed of lightweight silver plated Aluminum with silver plated Brass resonators. The Evanescent coupled TEM resonators are durable and provide a rugged design that 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. Multiple cross couplings are provided to increase rejection of transmitter out of band emissions. Six and eight pole designs are available for 8-VSB and COFDM applications and listed below. Input and output connections are 3-1/8, 4-1/16, or 6-1/8 inch EIA 50 ohm flanged or unflanged.

UF10000/UF15000/UF20000 Series Filter:

- ATSC, DVB-T and ISDB-T
- Tunable for 6, 7, or 8 MHz Channels
- Non-Critical and 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
- Low Pass Harmonic Filter



UF10000 10 kW Six Section DTV Mask Filter

Typical Specifications

UF10000/UF15000/UF20000 Series												
Application	ATSC						ISDB-T					
Power	10 kW (convection cooling)/15 kW (forced air cooling)/20 kW (liquid cooling) Ave. 4dB Crest Factor						10 kW (convection cooling)/15 kW (forced air cooling)/20 kW (liquid cooling) Ave. 13dB Crest Factor					
Channel Bandwidth	6 MHz											
Passband (Extended)	+/- 2.69MHz						+/- 2.79MHz					
Poles	6			8			6			8		
P/N	UF20000-6X-01			UF20000-8X-01			UF20000-6X-02			UF20000-8X-02		
VSWR (Passband)	1.08			1.10			1.13			1.13		
Insertion Loss, Fc	0.20 dB			0.30 dB			0.15 dB			0.30 dB		
Rejection	+/- 3.25MHz			N/A			+/- 3.15MHz			> 15 dB		
	+/- 3.5MHz			> 0 dB			+/- 4.5MHz			> 30 dB		
	+/- 9.0MHz			> 64 dB			+/- 9.0MHz			> 65 dB		
Group Delay	< 150 ns			< 400 ns			< 250 ns			< 400 ns		
Connectors (X in P/N)	X = 3 = 3-1/8inch 4 = 4-1/16 inch 6 = 6-1/8 inch											
Size	Inches			Inches			Inches			Inches		
	43	24	35	57	24	35	43	24	35	57	24	35
	Millimeters			Millimeters			Millimeters			Millimeters		
	1092	610	889	1448	610	889	1092	610	889	1448	610	889

UF10000/UF15000/UF20000 Series																			
Application	DVB-T																		
Power	10 kW (convection cooling)/15 kW (forced air cooling)/20 kW (liquid cooling) Ave. 13dB Crest Factor																		
Channel Bandwidth	8 MHz					7 MHz					6 MHz								
Passband (Extended)	+/- 3.885MHz					+/- 3.33MHz					+/- 2.855MHz								
Poles	6			8			6			8			6			8			
P/N	UF20000-6X-03			UF20000-8X-03			UF20000-6X-03			UF20000-8X-03			UF20000-6X-03			UF20000-8X-03			
VSWR (Passband)	1.15			1.15			1.12			1.12			1.12			1.12			
Insertion Loss, Fc	0.12 dB			0.20 dB			0.15 dB			0.20 dB			0.20 dB			0.25 dB			
Rejection	+/- 4.2MHz			> 4 dB			+/- 3.7MHz			> 4 dB			+/- 3.2MHz			> 15 dB			
	+/- 6.0MHz			> 20 dB			+/- 5.25MHz			> 18 dB			+/- 5.0MHz			> 20 dB			
	+/- 12.0MHz			> 40 dB			+/- 10.5MHz			> 43 dB			+/- 9.0MHz			> 55 dB			
Group Delay	< 200 ns			< 400 ns			< 250 ns			< 500 ns			< 275 ns			< 450 ns			
Connectors (X in P/N)	X = 3 = 3-1/8inch 4 = 4-1/16 inch 6 = 6-1/8 inch																		
Size	Inches			Inches			Inches			Inches			Inches			Inches			
	43	24	35	57	24	35	43	24	35	57	24	35	43	24	35	57	24	35	
	Millimeters			Millimeters			Millimeters			Millimeters			Millimeters			Millimeters			
	1092	610	889	1448	610	889	1092	610	889	1448	610	889	1092	610	889	1448	610	889	

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