

FM 4-Pole 280 mm Balanced Combiner

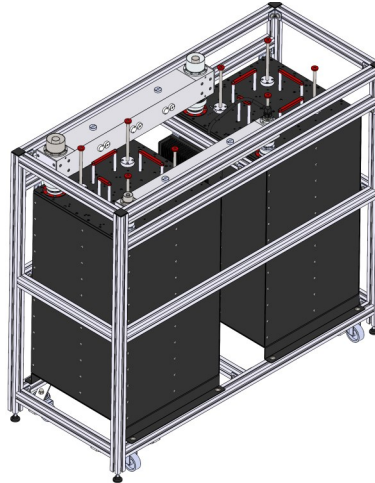
DF4E280F

FEATURES

- Cross Coupling
- Full-Band Tunability
- 0.4 MHz Minimum Frequency Spacing
- Temperature Stabilization
- DC-Short
- Modular Connector System
- Modular Frame System
- 10-Year Warranty

OPTIONS

- Heat Sinks
- Forced Air Cooling
- Liquid Cooling



SPECIFICATIONS

Code / Revision	B-DF4E280F/n / A <i>n: Number of Filtered Inputs</i>					
No. of Poles / Cavity Size	4-Pole / 280 mm					
Frequency Range	87.5-108 MHz					
Frequency Spacing	≥ 0.4 MHz					
Temperature Stability	< 400 Hz/K					
Max Operating Temperature (Body)	65°C (149°F)					
Environmental Conditions	-5 to +55°C (+23 to +131°F), IP60					
Dimensions / Weight ⁽¹⁾	n=1: 1586x660x1400 mm / 175 kg n≥2: 1586x(668·n)x1400 mm / 175·n kg					
Operating Position	As shown in drawing only					
Links	1+5/8" Rigid Line					
Connectors (NB Inputs) ⁽²⁾	1x 64 mm D-PC64J 1+5/8" FastLine Socket (Default) D-PC64K 1+5/8" FastLine Flange D-PC64M 3+1/8" FastLine Socket D-PC64N 3+1/8" FastLine Flange					
Connectors (WB Input; Output) ⁽²⁾	2x 100 mm D-PC100M 3+1/8" FastLine Socket (Default) D-PC100N 3+1/8" FastLine Flange D-PC100P 4+1/2" FastLine Socket D-PC100Q 4+1/2" FastLine Flange					
Options ⁽²⁾	O-HCS.12 Heat Sinks O-FTC.09 Forced Air Cooling O-LTC.12 Liquid Cooling O-MTS.01 70 °C (158 °F) N.C. Thermoswitch					
Liquid Cooling Interface ⁽²⁾ / Coolant	3/8" NPT Male / Water and Antifreeze					
TUNING	1.2		0.9		0.6	
Minimum Frequency Spacing	0.8 MHz		0.6 MHz		0.4 MHz	
Tuning Code	T-4F.10		T-4F.12		T-4F.14	
Max RMS NB Input Power ⁽³⁾	(108 MHz) Default 7.9 kW Heat Sinks 9.5 kW Forced Air Cooling 11.8 kW Liquid Cooling ⁽⁵⁾ 11.8 kW		(108 MHz) Default 6.1 kW Heat Sinks 7.3 kW Forced Air Cooling 9.1 kW Liquid Cooling ⁽⁵⁾ 9.1 kW		(108 MHz) Default 4.2 kW Heat Sinks 5.1 kW Forced Air Cooling 6.3 kW Liquid Cooling ⁽⁵⁾ 6.3 kW	
Max RMS Output Power ⁽³⁾	65.0 kW		65.0 kW		65.0 kW	
NB Insertion Loss	(87.5 MHz) (108 MHz) C.F. < 0.38 dB < 0.42 dB ±150 kHz < 0.41 dB < 0.44 dB + 0.05·n dB		(87.5 MHz) (108 MHz) C.F. < 0.50 dB < 0.55 dB ±150 kHz < 0.54 dB < 0.59 dB + 0.05·n dB		(87.5 MHz) (108 MHz) C.F. < 0.75 dB < 0.82 dB ±150 kHz < 1.82 dB < 0.90 dB + 0.05·n dB	
WB Insertion Loss	< 0.06·n dB		< 0.06·n dB		< 0.06·n dB	
Selectivity	C.F. ± 1.2 MHz > 25 dB		C.F. ± 0.9 MHz > 25 dB		C.F. ± 0.6 MHz > 25 dB	
Harmonic Attenuation ⁽⁶⁾	> 40 dB up to 324 MHz		> 40 dB up to 324 MHz		> 40 dB up to 324 MHz	
NB Return Loss (VSWR)	> 26 dB (1.11)		> 26 dB (1.11)		> 26 dB (1.11)	
WB Return Loss (VSWR)	Single Ch. > 30 dB (1.07) All band > 24 dB (1.14)		Single Ch. > 30 dB (1.07) All band > 24 dB (1.14)		Single Ch. > 30 dB (1.07) All band > 24 dB (1.14)	
Isolation Between Inputs	> 35 dB		> 35 dB		> 35 dB	
Group Delay Variation	< 150 ns		< 300 ns		< 1600 ns	

⁽¹⁾ Approximate, default configuration ⁽²⁾ Other Other Connectors, Options, Tunings available ⁽³⁾ Altitude < 1500 m (4,900 ft.), Free air, Ambient temp. < 30 °C (86 °F)

⁽⁶⁾ Up to 3rd harmonic atten. with LP/LC Series Lowpass Filter