

FM 4-Pole 400 mm Balanced Combiner

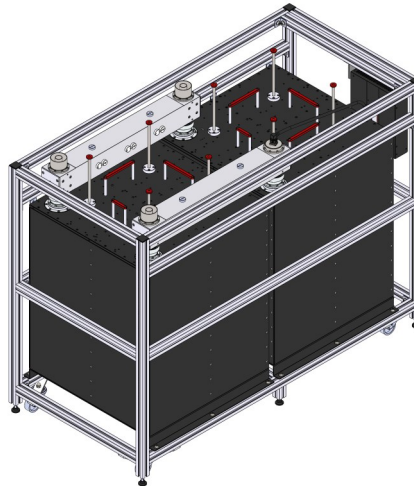
DF4E400RF

FEATURES

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

OPTIONS

- Heat Sinks



SPECIFICATIONS

Code / Revision	B-DF4E400RF/n / A <i>n: Number of Filtered Inputs</i>		
No. of Poles / Cavity Size	4-Pole / 400 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: 1890x900x1430 mm / 265 kg n≥2: 1890x(908·n)x1430 mm / 265·n kg		
Operating Position	As shown in drawing only		
Links	1+5/8" Rigid Line		
Connectors (NB Inputs) ⁽²⁾	1x 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		
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-HCC.15 Heat Sinks O-MTS.01 70 °C (158 °F) N.C. Thermoswitch		
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 14.9 kW Heat Sinks 17.9 kW	(108 MHz) Default 11.5 kW Heat Sinks 13.8 kW	(108 MHz) Default 8.0 kW Heat Sinks 9.5 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. < 0.27 dB < 0.30 dB ±150 kHz < 0.29 dB < 0.32 dB + 0.05·n dB	(87.5 MHz) (108 MHz) C.F. < 0.36 dB < 0.39 dB ±150 kHz < 0.38 dB < 0.42 dB + 0.05·n dB	(87.5 MHz) (108 MHz) C.F. < 0.53 dB < 0.58 dB ±150 kHz < 0.58 dB < 0.64 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 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