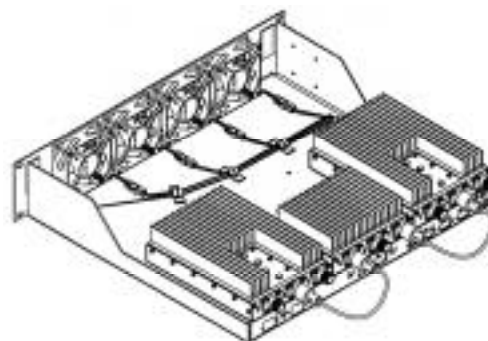


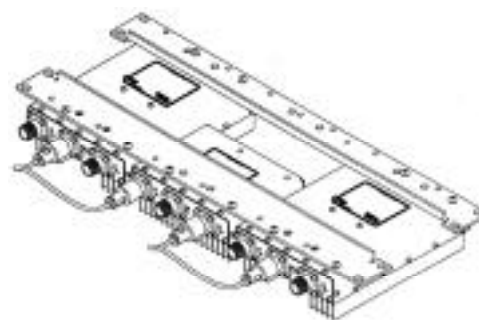
- **Compact and convenient** – Available in two styles: bracket-mountable or 2-rack unit tray.
- **Low Loss** – Efficient design maximum power output.
- **Fan Option** – Available for cooling when needed.

Compact and adaptable, the DB4398 hybrid combiners from Decibel Products offer both high performance and the ultimate in packaging flexibility. Employing dual-junction isolators to typically yield greater than 75 dB transmitter-to-transmitter isolation, the convertible design permits variable combining for narrow frequency separations. The isolators feed into a Wilkinson combiner, followed by a harmonic filter to generate an integrated multi-port hybrid system. An economical and reliable printed circuit board construction supplies rock-solid performance.

A special composition dielectric ensures a low insertion loss of between 3.8 and 7.1 dB, depending upon the model and number of channels, while a low-loss lumped-element LPF provides harmonic rejection of greater than 80 dB.



DB4398-41CNN



DB4398-41CBN

Electrical Data

Model Number(s) (Tray w/Fans)	DB4398-41CNN (Single, -48 VDC) DB4398-41CPN (Single, +12 VDC)
Model Number(s) (Bracket Mounted)	DB4398-41CBN (Single)
Application	Convertible 4-port or dual 2-port hybrid combiner for 800 MHz Trunking Transmitters
Frequency Range	851-869 MHz
Max. Input Power	70 Watts (avg.)/350 Watts (peak) 110 Watts with air cooling
Insertion Loss (Max.)	7.1 dB
Isolation (Tx to Tx)	65 dB
Isolation (Ant to Tx)	55 dB
Input Return Loss	19 dB
3rd Order IM (Max.)	-85 dBc @ 2 x 70 Watts input
2nd Harmonic Attn: (Max.)	55 dB
2nd Harmonic Output (Max.)	-70 dBc @ 70 Watts Input
Fan DC Input (Max.)	-48 VCD @ 0.4 Amps +12 VDC @ 1.2 Amps

Other models available. Contact factory for details.

Mechanical Data

Mounting	19" Rack, Tray (Horiz.) or Brackets (Vert.) Mount
Temp. Range	-30° to +50° C
Connectors	RF: Type N-Female DC: 4 Pin Mate-N-Lok
Finish	Tray: Black powder coat Combiners: Clear Alodine
Dimensions (W x H x D)	Rack Mount Unit: 19" x 3.5" x 16.5" (48 x 8.9 x 42 cm) Bracket Mount Unit: 19" x 2.7" x 8.3" (48 x 6.9 x 21 cm)
Weight	DB4398-41CPN/NN: 12.0 lbs. (5.5 kg) DB4398-41 CBN/NN: 7.5 lbs. (3.4 kg)