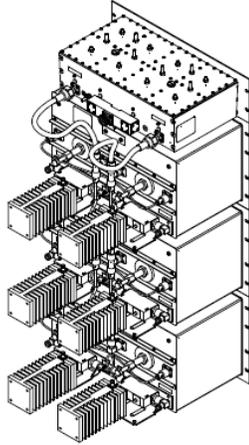


# DB4368BP Series (450-470 MHz) UHF Public Safety Best Practices Transmitter Combiner

## DESCRIPTION



The DB4368BP Transmitter Cavity Combiner Series is designed for Public Safety Critical Communications Systems. The combiner consists of 8" copper bandpass cavities. Each channel includes a broadband dual stage isolator with 100 watt load and RF sampling port. The sampling port provides the ability to tune each channel under power preventing system downtime concerns. The output of the combiner will have a 7/16 DIN female connector.

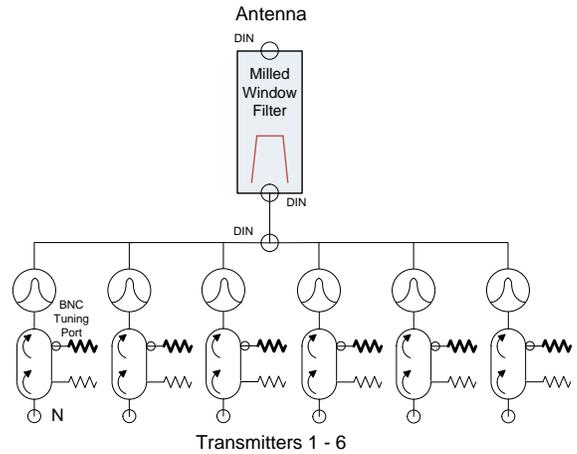
### Integrated Milled Filter Advantage

To further protect system receivers from transmitter noise, a dbSpectra universal milled filter is standard on the output of the combiner. For systems with frequencies in different UHF sub-bands (450/460, 470/480), an integrated milled filter diplexer is standard to combine the sub-bands and to also provide the additional transmitter noise attenuation.

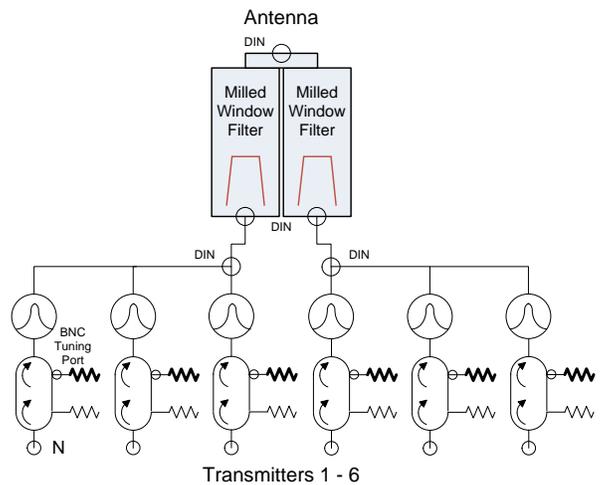
### Rack Mounting Options

The combiner can be installed in a separately ordered two or four post grounded rack. When installed in a rack at the dbSpectra factory all cavity phasing cables where multi-channel signals exist are sealed with shrink tubing to help ensure PIM compliance.

## BLOCK DIAGRAMS



**6 Channel Single Band Configuration**



**6 Channel Dual Band Configuration**

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## UHF Public Safety Best Practices Transmitter Combiner

### ELECTRICAL SPECIFICATIONS

Frequency range	380 – 512 MHz
Number of channels	2 - 6
Frequency separation	50 kHz minimum
Output diplexer or TX Filter	Milled Window Filter Design
Diplexer or TX filter Passband	3.5 MHz (Max)
TX Noise Attenuation @ 1.5 MHz Frequency Separation from Passband edge	>45 dB
Insertion loss	See Insertion Loss chart
Isolator type	Dual Stage with 100 watt Load
Tuning Port	30 dB
Isolation Antenna to Transmitter	50 dB min / 55 dB typical
Isolation Transmitter to Transmitter	65 dB min / 70 dB typical
Impedance	50 Ohms
Return loss	14 dB
Power / channel (continuous)	100 Watts
Temperature range	-30 to +60° C

### MECHANICAL SPECIFICATIONS

Construction/Finish	Aluminum - Black powder coated
Input RF connectors	N- female
Output RF connector	DIN- female
Rack	Order rack as separate item with combiner

### DIMENSIONS

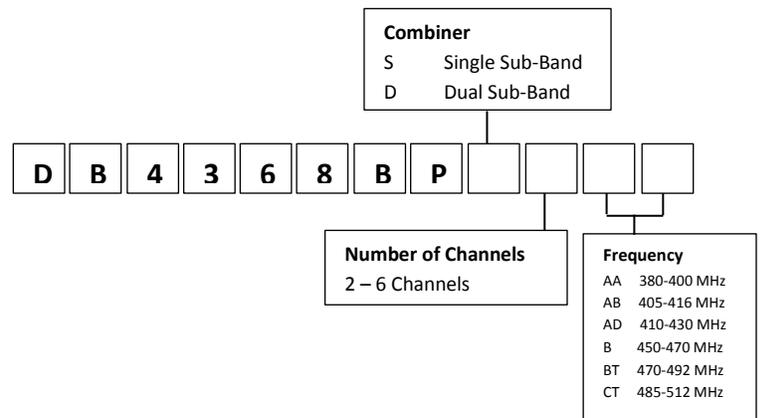
Mounting	EIA 19" rack mounting			
Width	19 in (482.6 mm)			
Depth	17.1 in (434.3 mm)			
# of CH	Height	RU	Net Weight	Shipping Weight*
2 CH	16 in (400 mm)	9 RU	56 lb (25.4 kg)	66 lb (29.9 kg)
3 CH	26 in (667 mm)	15 RU	75 lb (34.2 kg)	85 lb (38.6 kg)
4 CH	26 in (667 mm)	15 RU	94 lb (42.6 kg)	104 lb (47.2 kg)
5 CH	37 in (934 mm)	21 RU	113 lb (51.3 kg)	123 lb (55.8 kg)
6 CH	37 in (935 mm)	21 RU	132 lb (59.9 kg)	142 lb (64.4 kg)

\* Shipping weight of rack ordered must be added to combiner shipping weight.

### INSERTION LOSS CHART

Frequency Separation	Insertion Loss				
	2 CH	3 CH	4 CH	5 CH	6 CH
50-100 KHz	6.2 dB	8.4 dB	9.3 dB	9.5 dB	10.4 dB
100-150 KHz	5.9 dB	6.1 dB	6.3 dB	6.5 dB	6.7 dB
150-200 KHz	4.6 dB	4.8 dB	5.0 dB	5.2 dB	5.4 dB
200-300 KHz	3.9 dB	4.1 dB	4.3 dB	4.5 dB	4.7 dB
300-400 KHz	3.5 dB	3.6 dB	3.8 dB	4.0 dB	4.2 dB
400 KHz or greater	3.5 dB	3.5 dB	3.5 dB	3.7 dB	3.9 dB

### ORDERING INFORMATION



### ACCESSORIES

#### For Expansion Channels Order Separately:

DB4368BPWBXX – WB=with bracket, XX=Frequency  
 DB4368BPWOXX – WO=without bracket, XX=Frequency

#### For Power Monitor Order Separately:

DSPM Series, RF Power Monitors

#### For Rack Options Order Separately:

DBMOFR-43UM – 43 RU Rack with copper ground bar  
 DSTU45BM – 45 RU (84") Rack with copper ground bar