

VHF and UHF Control Station Combiners (118-512 MHz)

4, 8, 12 or 16 Channels

dbSpectra

ELECTRICAL SPECIFICATIONS

Frequency Range, MHz	See Ordering Information
Frequency Separation, kHz	No limitations
Number of Channels	4, 8, 12 or 16
Isolation, dB	
TX to TX	60 min / 70 typ
TX to RX	60 min / 70 typ
ANT to TX	45 min / 55 typ
RX to RX	60 min
Transmitter Loss, dB	See Ordering Information
Receiver Loss, dB	See Ordering Information
Receiver Gain, dB	See Ordering Information
Transmitter Return Loss, dB	14 (min)
Receiver Return Loss, dB	10 (min)
Power/Channel, Watts	50
Power Source VAC/VDC	110 to 240 VAC 50/60 Hz or 12 VDC (nominal)
Power Consumption, Watts	AC 30, DC 18

MECHANICAL SPECIFICATIONS

Construction/Finish	Aluminum/Black
Input Connector	N(F)
Mounting	EIA 19-inch Rack
Temperature Range, degrees	-30 to +60 C

DIMENSIONS

Width, in(mm)	19 (482.6)
Height, in(mm)	See Ordering Information
Depth, in(mm)	17 (431.8)
Net Weight, lb(kg)	See Ordering Information
Shipping Weight, lb(kg)	See Ordering Information

FEATURES AND BENEFITS

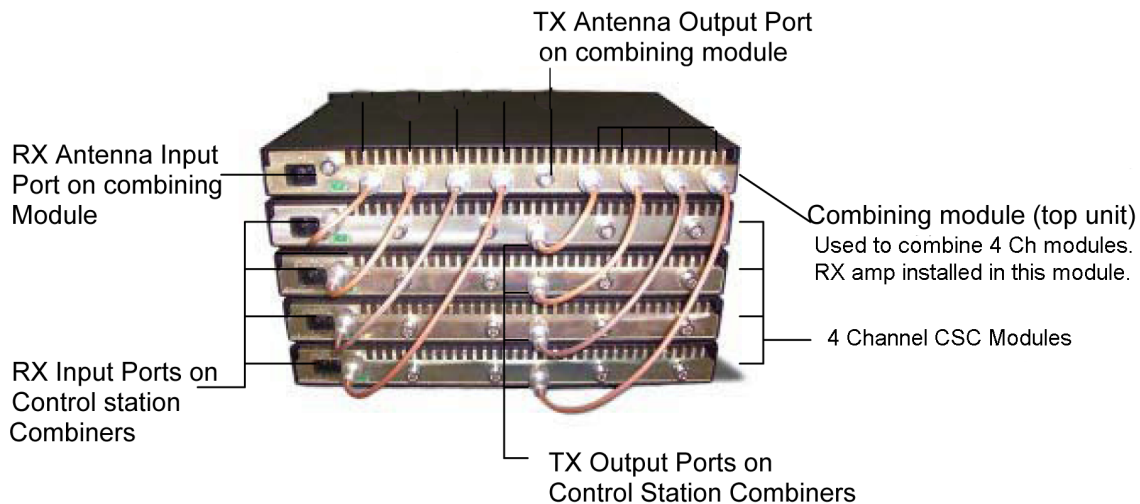
- Separate transmit and receive antennas.
- Low profile building block modules.
- Transmit and receive on each radio port.
- Enables combining of control stations.
- 50 Watts input per channel (continuous).
- Enhances system port-to-port isolation.
- Amplifier for receive signals.
- Analog or digital radio compatible.

The dbSpectra Control Station Combiner reduces the number of antennas needed. This combiner functions as both a combiner and multicoupler for either trunked or conventional mobile radio systems. Connect eight mobile radios with our 8-port model and reduce antenna requirements from eight to two. Your overall system port-to-port isolation can be increased using this combiner for applications where individual radio antennas do not provide enough spatial RF isolation, thus removing all the guesswork.

Models are available for 4, 8, 12 or 16 control stations. This combiner incorporates SMART thermally switched fans which operate only when needed. This unit is also designed to automatically switch the receive path to bypass mode if the amplifier is removed.

For optimum performance, it is recommended that unused ports be terminated with a 1 Watt N-type 50 Ohm load (model #DB8926).

Supplied with front panel EIA mounting brackets and adjustable EIA brackets for rear support or center mounting on a two-post rack.



16 Channel Model Shown

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ORDERING INFORMATION									
Model Number	Frequency (MHz)	Number of Channels	Transmitter Loss, typ (dB)	Receiver Gain with Amp, typ (dB)	Receiver Loss w/o Amp, typ (dB)	Height (RU)	Height in(mm)	Net Weight lb(kg)	Shipping Weight lb(kg)
HC119Q1-04F	118-128	4	8.5	2.8	9.7	1 RU	1.75 (44.5)	16 (7.3)	26 (11.8)
HC119Q1-08F	118-128	8	12	-0.5	13	3 RU	5.25 (133.4)	48 (21.8)	58 (26.3)
HC119Q1-12F	118-128	12	15	-3.5	16	4 RU	7 (177.8)	64 (29)	74 (33.5)
HC119Q1-16F	118-128	16	15	-3.5	16	5 RU	8.75 (222.3)	80 (36.3)	90 (40.8)
HC118Q1-04F	138-150	4	8.5	2.8	9.7	1 RU	1.75 (44.5)	16 (7.3)	26 (11.8)
HC118Q1-08F	138-150	8	12	-0.5	13	3 RU	5.25 (133.4)	48 (21.8)	58 (26.3)
HC118Q1-12F	138-150	12	15	-3.5	16	4 RU	7 (177.8)	64 (29)	74 (33.5)
HC118Q1-16F	138-150	16	15	-3.5	16	5 RU	8.75 (222.3)	80 (36.3)	90 (40.8)
HC115Q1-04F	150-174	4	8.5	2.8	9.7	1 RU	1.75 (44.5)	16 (7.3)	26 (11.8)
HC115Q1-08F	150-174	8	12	-0.5	13	3 RU	5.25 (133.4)	48 (21.8)	58 (26.3)
HC115Q1-12F	150-174	12	15	-3.5	16	4 RU	7 (177.8)	64 (29)	74 (33.5)
HC115Q1-16F	150-174	16	15	-3.5	16	5 RU	8.75 (222.3)	80 (36.3)	90 (40.8)
HC114R1-04F	350-405	4	8.5	2.8	9.7	1 RU	1.75 (44.5)	16 (7.3)	26 (11.8)
HC114R1-08F	350-405	8	12	-0.5	13	3 RU	5.25 (133.4)	48 (21.8)	58 (26.3)
HC114R1-12F	350-405	12	15	-3.5	16	4 RU	7 (177.8)	64 (29)	74 (33.5)
HC114R1-16F	350-405	16	15	-3.5	16	5 RU	8.75 (222.3)	80 (36.3)	90 (40.8)
HC117M1-04F	380-420	4	7.6	4	8	1 RU	1.75 (44.5)	16 (7.3)	26 (11.8)
HC117M1-08F	380-420	8	11	0	12	3 RU	5.25 (133.4)	48 (21.8)	58 (26.3)
HC117M1-12F	380-420	12	14.5	-3.5	15.5	4 RU	7 (177.8)	64 (29)	74 (33.5)
HC117M1-16F	380-420	16	14.5	-3.5	15.5	5 RU	8.75 (222.3)	80 (36.3)	90 (40.8)
HC114S1-04F	400-475	4	7.6	4	8	1 RU	1.75 (44.5)	16 (7.3)	26 (11.8)
HC114S1-08F	400-475	8	11	0	12	3 RU	5.25 (133.4)	48 (21.8)	58 (26.3)
HC114S1-12F	400-475	12	14.5	-3.5	15.5	4 RU	7 (177.8)	64 (29)	74 (33.5)
HC114S1-16F	400-475	16	14.5	-3.5	15.5	5 RU	8.75 (222.3)	80 (36.3)	90 (40.8)
HC116P1-04F	450-512	4	7.6	4	8	1 RU	1.75 (44.5)	16 (7.3)	26 (11.8)
HC116P1-08F	450-512	8	11	0	12	3 RU	5.25 (133.4)	48 (21.8)	58 (26.3)
HC116P1-12F	450-512	12	14.5	-3.5	15.5	4 RU	7 (177.8)	64 (29)	74 (33.5)
HC116P1-16F	450-512	16	14.5	-3.5	15.5	5 RU	8.75 (222.3)	80 (36.3)	90 (40.8)

Control Station Combiner Accessories

dbSpectra offers additional RF site equipment for Control Station Combiner applications. Please consider the use of transmit/receive filters, duplexers, and/or dual antennas to ensure the same level of isolation in the antenna network meets or exceeds the port to port isolation provided by the dbSpectra Control Station Combiner unit.

