



43-05-01X Series Multiband Short-Haul Control Station Combiner

DS034977-1
3/16/21

TX RX Systems multi-channel combiners provide frequency agile operation across multiple frequency bands. Control Station Combiners may be used to reduce the number of antennas required on a communications site while also ensuring that predictable radio to radio isolation is maintained at all times—irrespective of individual radio's Tx or Rx operating mode or antenna isolation characteristics.

Control Station Combiners can significantly reduce tower clutter, loading and simplify cabling installation at Control Center facilities.

PROBLEMS/SOLUTIONS

Many bands on site with frequencies from 100 MHz to 1000 MHz

- ◆ Multiband combiner allows operation in multiple bands

Standardization all sites

- ◆ Advanced coupler technology with no need for tuning—control stations can be connected without regard to frequency

Space constraints

- ◆ Low profile for space efficient installation

Cost reduction

- ◆ Multiple bands can utilize the same combiner for cost reduction

ELECTRICAL SPECIFICATIONS

Frequency Range	100-1000 MHz
TX/TX or RX/RX Isolation (dB) typical	60 dB
Input Return Loss (dB) min	28 dB
Output Return Loss (dB) min	18 dB
Operating Temperature (°C)	-30 to +60
Connector 50 Ohm	N-female or 4.3-10 female
Maximum Power Rating (Watts)	50 Watts @ 20% duty on all ports 25 Watts @ 40% duty on all ports 10 Watts @ 100% duty on all ports

Model Number	Number of Channels	Connectors	TX or RX Insertion Loss typical	Net Weight	Dimension WxDxH (inches)	Rack Spaces used
43-05-01A-04-SH	4	N female	29.5 dB	5.3 lbs	19.0 x 8.50 x 1.72	1 RU
43-05-01B-04-SH	4	4.3-10 female	29.5 dB	5.3 lbs	19.0 x 8.50 x 1.72	1 RU
43-05-01A-08-SH	8	N female	32.5 dB	11.6 lbs	19.0 x 11.06 x 1.72	1 RU
43-05-01B-08-SH	8	4.3-10 female	32.5 dB	11.6 lbs	19.0 x 11.06 x 1.72	1 RU
43-05-01A-12-SH	12	N female	40 dB	21.8 lbs	19.0 x 11.06 x 6.90	4 RU
43-05-01B-12-SH	12	4.3-10 female	40 dB	21.8 lbs	19.0 x 11.06 x 6.90	4 RU
43-05-01A-16-SH	16	N female	40 dB	27 lbs	19.0 x 11.06 x 6.90	4 RU
43-05-01B-16-SH	16	4.3-10 female	40 dB	27 lbs	19.0 x 11.06 x 6.90	4 RU
43-05-01A-20-SH	20	N female	40 dB	34.5 lbs	19.0 x 11.06 x 10.34	6 RU
43-05-01B-20-SH	20	4.3-10 female	40 dB	34.5 lbs	19.0 x 11.06 x 10.34	6 RU
43-05-01A-24-SH	24	N female	40 dB	39.6 lbs	19.0 x 11.06 x 10.34	6 RU
43-05-01B-24-SH	24	4.3-10 female	40 dB	39.6 lbs	19.0 x 11.06 x 10.34	6 RU
43-05-01A-28-SH	28	N female	40 dB	47.1 lbs	19.0 x 11.06 x 13.78	8 RU
43-05-01B-28-SH	28	4.3-10 female	40 dB	47.1 lbs	19.0 x 11.06 x 13.78	8 RU
43-05-01A-32-SH	32	N female	40 dB	52.3 lbs	19.0 x 11.06 x 13.78	8 RU
43-05-01B-32-SH	32	4.3-10 female	40 dB	52.3 lbs	19.0 x 11.06 x 13.78	8 RU

Optional Channel Upgrade Kits:

43-05-01A-01-KIT	4 port upgrade kit for Control Station Combiners w/ N connectors, from 12 to 14, 20 to 24, or 28 to 32 ports
43-05-01B-01-KIT	4 port upgrade kit for Control Station Combiners w/ 4.3-10 connectors, from 12 to 14, 20 to 24, or 28 to 32 ports
43-05-01A-02-KIT	4 port shelf upgrade kit for Control Station Combiners w/ N connectors, from 16 to 20 or 24 to 28 ports
43-05-01B-02-KIT	4 port shelf upgrade kit for Control Station Combiners w/ 4.3-10 connectors, from 16 to 20 or 24 to 28 ports
43-05-01A-03-KIT	4 port splitter & shelf upgrade kit for Control Station Combiners w/ N connectors, from 8 to 12 ports
43-05-01A-03-KIT	4 port splitter & shelf upgrade kit for Control Station Combiners w/ 4.3-10 connectors, from 8 to 12 ports