Bird Technologies® TX RX Systems Brand

Control Station Combiner

43-83G-01A Series

Bird®, TX RX Systems Brand multi-channel combiners provide frequency-agile operation across their entire frequency range. 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.

Single antenna-port mobiles may be connected to the combiners to provide operation on two-antenna configurations (one Tx and one Rx), or through a duplexer to a single antenna (i.e. Tx/Rx). These capabilities can significantly reduce tower clutter and loading, and simplify cabling installation at Control Center facilities.

Models are available in the 746-869 MHz band in standard configurations for 4, 8,12 and 16 capacities. Other frequency bands and higher channel capacities are also available upon request.

- Low Profile for Space Efficient Installation
- Frequency Agile with Predictable Isolation
- Analog and Digital Compatible
- Duplexer and Triplexer Recommended to be used in conjunction with Control Station Combiners

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SPECIFICATIONS

Frequency Range		746-869 MHz
RF Power W	TX	Per Channel: 50 (50% duty cycle max)* Per Channel: <150 (intermittent)
	RX	N/A
Minimum Frequency Separation MHz		No limitations
Loss dB		See table below
Isolation dB	TX	TX - Tx: 60 min (70 typ.) Ant - Tx: 60 min (70 typ.)
	RX	Rx to Rx: 60 min (70 typ.) Tx to Rx: 60 min (70 typ.)
Return Loss dB		>14 (typ)
Operating Temperature Celsius		-10 ~ +50
Finish		Black
Dimensions mm/inches		H (See table below) W 483 / 19 D 420 / 16.5
Weight		See model matrix table below
Connectors		N female

* Applications with higher duty cycles may require cooling fan. Contact factory for more info.

DUPLEXER RECOMMENDED OPTIONS

Frequency Range (MHz)	26-83B-10A	762-776/792-806
	26-83G-10A	762-776/792-824/851-869
	26-89A-10A	806-824/851-869
Bandwidth (MHz)	26-83B-10A	14
	26-83G-10A	14/32/18
	26-89A-10A	18
Insertion Loss (dB), max.		1.5
Ripple in band (dB), max.		0.8
Rejection (dB), min.		70 between T/R
Isolation (dB), min.	26-83B-10A	80
	26-83G-10A	70
	26-89A-10A	80
Impedance		50
Return Loss (dB), min.	26-83B-10A	20
	26-83G-10A	18
	26-89A-10A	20
Connector		N-female
Power Rating (W)	26-83B-10A	100
	26-83G-10A	50
	26-89A-10A	100
Temperature (°C)		-20 ~ +70
Size (in/mm)*	26-83B-10A	8.0(204)x6.0(153)x1.4(36)
	26-83G-10A	10.1(257)x8.2(207)x1.7(44)
	26-89A-10A	8.0(204)x6.0(153)x1.4(36)

Attached to 1RU front panel for 19" rack mounting

CONTROL STATION COMBINER MODEL MATRIX

Model Numbers	Description	Insertion Loss	Height	Net Weight
43-83G-01A-04	746-869 MHz, 4 Channel	8dB	1RU	12.5 lbs
43-83G-01A-08	746-869 MHz, 8 Channel	11.5dB	1RU	24 lbs
43-83G-01A-12	746-869 MHz, 12 Channel	15dB	3RU	35.5 lbs
43-83G-01A-16	746-869 MHz, 16 Channel	15dB	3RU	47 lbs

Bird Technologies®

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