

# Control Station Combiner

## Broad Band Short Haul

40-960MHz

CS0496-xx05-31



RFI's range of Broad Band Short Haul Control Station Combiners address the need to combine multiple shared Tx output / Rx input (T/R) ports onto a single feeder line or suitable antenna. The BB SH CSC provides predictable co-located control station radio transceiver to transceiver isolation and full frequency agility. Compatible with both analog and digital communication systems the BB SH CSC is modular in construction providing easy expansion accommodating from 4 up to 32 channels.

Mountable into a 19 inch rack frame or cabinet these units are compact and robust maximizing heat dissipation for relatively high per channel duty cycles. The BB SH CSC is typically used where the distance between the control station and base site/repeater is less than 5km.

### Features:

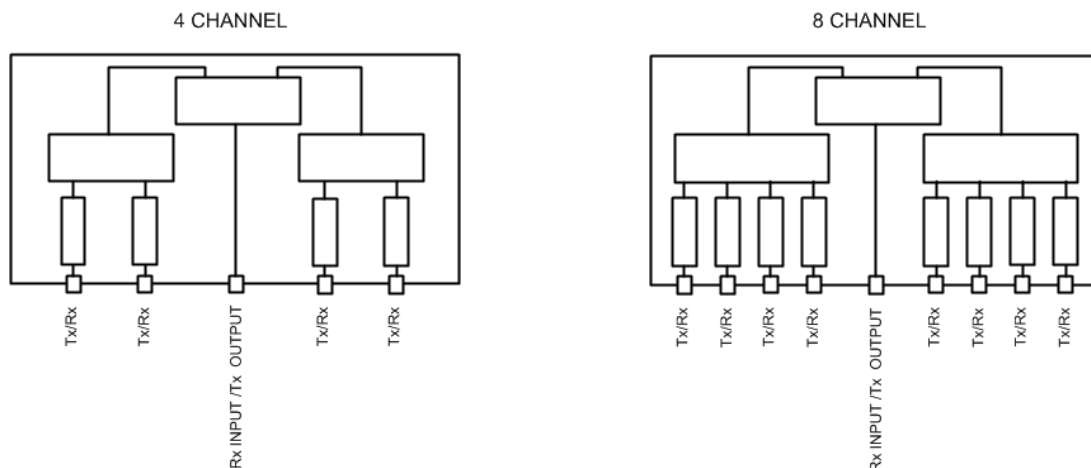
- Broad Band 40 to 960MHz
- Effective combining method for multi-band and or frequency agile single port control station radio transceivers
- For use where communicating distance is typically less than 5km
- Modular and expandable from 4 up to 32 channels
- Fixed non-tunable predictable T/R port to T/R port isolation
- 19 inch rack mountable
- 50W per channel rating



### Specifications:

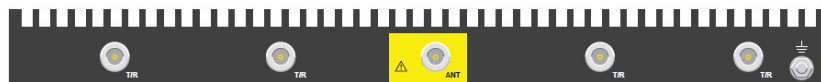
Model Number	CS0496-0405-31	CS0496-0805-31	CS0496-1605-31	CS0496-2405-31	CS0496-3205-31
Channel Capacity	1-4	1-8	1-16	1-24	1-32
Frequency Range	40-960MHz				
Insertion Loss T/R to Antenna Port ( <i>typical</i> )	27.5dB +/- 1.5dB	31dB +/- 1.5dB	35dB +/- 2.5dB	38.5dB +/- 2.5dB	38.5dB +/- 2.5dB
Antenna Port to T/R Port Isolation ( <i>typical</i> )	27.5dB	31dB	35dB	38.5dB	38.5dB
T/R Port to T/R Port Isolation	> 60dB				
T/R Port Return Loss	>20dB				
Antenna Port Return Loss	>14dB				
Input power rating per channel ( <i>maximum</i> )	50W ( <i>note 1</i> )				
Temperature range - operational ( <i>operational</i> )	- 30° to +50° C / -22° to +122°F				
RF Termination Connectors	N (F)				
Depth Dimensions mm / inches - Approx ( <i>excl/ conn</i> )	103mm / 4"	216mm / 8.5"			
Rack Unit Height requirement	1RU	1RU	2RU	4RU	5RU
Weight kg / lbs ( <i>approx</i> )	3kg / 6.6lbs	5.35kg / 11.66lbs	10.85kg / 23.9lbs	19.05kg / 42lbs	24.4kg / 53.7lbs
Grounding	M6 Earth Stud				

Note 1: Refer to product specific power de-rating curves vs duty cycle within QSG or User's Manual for more detail.



Functional Block Diagram of 4 and 8 way Broad Band Short Haul Control Station Combiners

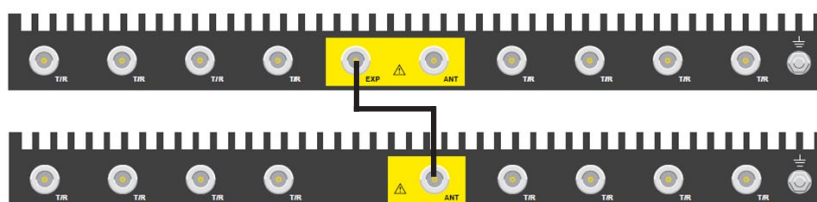
CS0496-0405-31 4-Way BB SH CSC



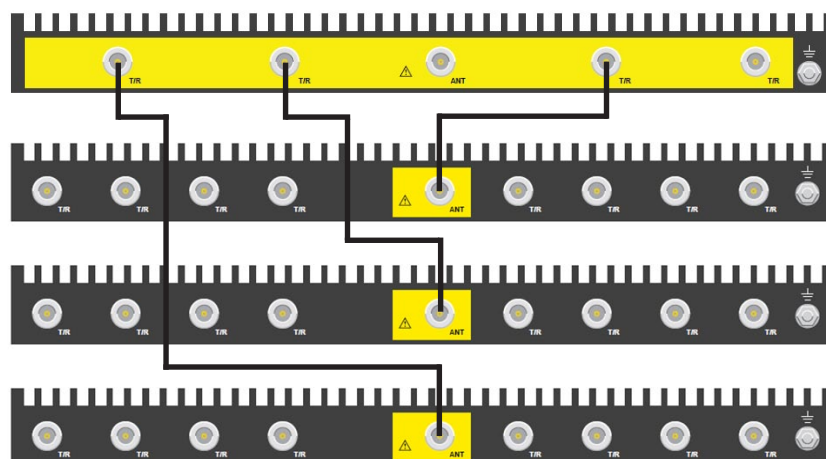
CS0496-0805-31 8-Way BB SH CSC



CS0496-1605-31 16-Way BB SH CSC



CS0496-2405-31 24-Way BB SH CSC



Ordering Information	Description
CS0496-0405-31	Control Station Combiner, Broad Band Short Haul 40-960MHz, 4 Ch 50W N(F)
CS0496-0805-31	Control Station Combiner, Broad Band Short Haul 40-960MHz, 8 Ch 50W N(F)
CS0496-1605-31	Control Station Combiner, Broad Band Short Haul 40-960MHz, 16 Ch 50W N(F)
CS0496-2405-31	Control Station Combiner, Broad Band Short Haul 40-960MHz, 24 Ch 50W N(F)
CS0496-3205-31	Control Station Combiner, Broad Band Short Haul 40-960MHz, 32 Ch 50W N(F)