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## Transmitter Combiners Low Band, Aviation, and VHF Transmitter Combiners CS2 Series

### CS2211-2S VHF Single 8.5", Tx channel w/SC (starter channel), 150-174 MHz

- A 8.5" quarter-wave Pass-thru cavity filter;
- A 125 Watt dual ferrite isolator with sampling port;
- Isolator and channel mounting hardware;
- Short circuit (starter channel)

Sinclair's CS series of transmitter combiners incorporates expandability, close frequency spacing, and performance that is equivalent to a 10" cavity from an 8.5" cavity. Using the 8.5" cavity, the CS series easily support Tx-Tx spacings as close as 50 KHz at VHF and 80 KHz at UHF. Each cavity has a black finish, silver plated loops, and temperature compensated for operation between -30 to +60 degrees C. Every cavity is equipped with a coarse tuning rod and fine tuning nut for quick and easy field or lab re-tuning.

The CS series of combiners can combine 2 to 6 channels with single channel expansions available. All combiners include dual stage isolators with 30 watt loads on the primary stage, and 125 watt loads on the secondary. The combiner can be ordered with Sinclair's newest open frame rack for horizontally mounting of the cavities, or can be ordered without the rack if an existing rack is already present.

The CS Series of combiners are field expandable up to 10 channels.



Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
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Product Specification Sheet EPR 018105 Rev 1		CS2211-2S	Issue: 47	Dated: 08-10-13 Dated: 29-08-07

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Electrical Specifications			
Frequency Range	MHz	150 to 174	
Input VSWR (max)		1.25:1	
Number of Cavities		1	
Average Power Input (max)	W	125	
Input Connectors		N-Female	
Output Connectors		N-Female	*1
Frequency separation (min)	MHz	0.05	
Insertion loss Tx to antenna (typ)	dB	2.5	*2
Isolation Tx to Tx	dB	70	
Isolation antenna to Tx	dB	60	
Number of channels		1	

Notes \*1 : Includes 1 short circuit

\*2 : @ minimum Tx-Tx spacing

#### **Ordering Information**

Consult with Sinclair Systems Engineer before purchase.

### Mechanical Specifications

Depth	in (mm)	26 (660)	
Length/ Height	in (mm)	8.5 (216)	
Width	in (mm)	n) 8.5 (216)	
Outer Conductor Material		aluminum	
Weight	lbs (kg)	20 (9.08)	
Finish		Black	
Cavity width or diameter	in (mm)	8.5 (216)	

#### **Environmental Specifications**

Temperature range	°F (°C)	-22 to +140 (-30 to +60)	
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