

Transmitter Combiners
UHF and Tetra Transmitter Combiners
CTx450F Series

CT5450F

Cavity-ferrite combiner, 5 channel, High 'Q' 10" 1/4 wave cavities, 406-512 MHz

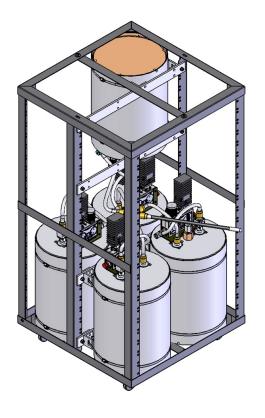
- High performance Tx combiner for the 406-512 MHz frequency band
- Dual isolators and 10 inch high Q 1/4 wave bandpass cavity for each channel
- · Available in 2 to 8 channels

This series of open-cabinet cavity-ferrite transmitter combiners is available in 2 or more channel configurations in both VHF and UHF frequencies. Each channel includes a dual, low-loss, Sinclair-manufactured isolator and a 10-inch, high Q bandpass cavity filter.

A unique low-loss junction is provided to combine channels to one antenna. Double shielded cable is used throughout the combiner to ensure high isolation between channels. These transmitter combiners are housed in painted steel 21 x 21 x 38 inch open-frame cabinets on castors for mobility. Two cabinets may be stacked vertically to conserve space.

The CTx450F series consists of two or more cavities with companion isolators mounted in open frames for use in the 406-512 MHz frequency range. CTx450F series combiners provide excellent performance with minimal insertion losses for frequency separation of 100 kHz or more. By incorporating a hybrid to couple two 4-channel units, 8 channels with 50 kHz spacing can be combined with a typical insertion loss of 8 dB, a significant improvement over a conventional hybrid-ferrite combiner. Other special frequency groupings can be made depending on the customer's application.

The CTx450 series combines the mechanical features of open-frame construction with UHF cavities to provide a high performance transmitter combiner for the 406-512 MHz frequency band. This series is also available using three-quarter wavelength cavities to permit spacing as close as 75 kHz.



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 018896 Customer Tech Manual 006443 CT5450F

Issue: 3

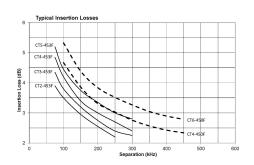
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## **Transmitter Combiners UHF and Tetra Transmitter Combiners** CTx450F Series

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Frequency Range	MHz	406 to 512	
Input VSWR (max)		1.25:1	
Input Connectors		N-Female	
Output Connectors		N-Female	
Power (Per Channel)	W	125	
Frequency separation (min)	MHz	0.1	
Insertion Loss (max) Tx to Ant	dB	4.6	
Isolation Tx to Tx	dB	70	
Isolation antenna to Tx	dB	60	
Output VSWR		1.5:1	
Number of channels		5	
number of channels		5	
Mechanical Specifications Width	in (mm)	21 (533)	
Mechanical Specifications	in (mm) in (mm)	·	
Mechanical Specifications Width	,	21 (533)	
<b>Mechanical Specifications</b> Width Depth	in (mm)	21 (533) 21 (533)	
Mechanical Specifications Width Depth Length/ Height	in (mm)	21 (533) 21 (533) 38 (965)	
Mechanical Specifications Width Depth Length/ Height Finish	in (mm) in (mm)	21 (533) 21 (533) 38 (965) chemical conversion	
Mechanical Specifications Width Depth Length/ Height Finish Weight	in (mm) in (mm) lbs (kg)	21 (533) 21 (533) 38 (965) chemical conversion 105 (47.67)	
Mechanical Specifications Width Depth Length/ Height Finish Weight Actual Shipping weight	in (mm) in (mm)  Ibs (kg) Ibs (kg)	21 (533) 21 (533) 38 (965) chemical conversion 105 (47.67) 110 (49.94)	
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Product Specification Sheet EPR 018896		CT5450F	Issue: 3	Dated: 27-11-15 Dated: 27-11-15