

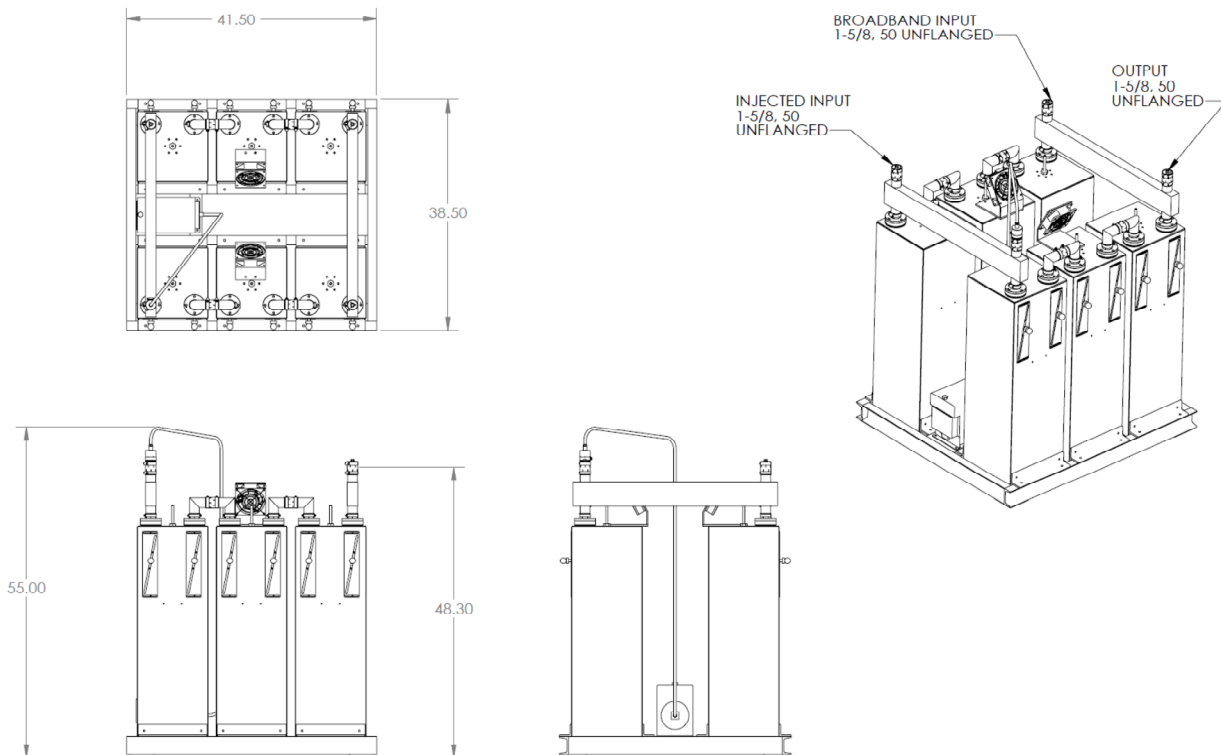
# ERI Model 955-6 Constant Impedance FM Combiner



ERI's 955-6 constant impedance combiner module is modular in construction and is designed so that additional stations may be added in the future. The frequency of the additional stations may be located anywhere within the FM broadcast band 2.0 MHz or more from any other system frequency.

All ERI filters are temperature compensated to enable the system to meet intermodulation product specifications at cold start as well as at normal operating temperature. The individual resonant cavities in the unit are made almost entirely of aluminum and copper.

The filter cavities are sized to provide low insertion loss resulting in minimal temperature rise and reduced transmitter power loss. The individual cavities are loop coupled so that each filter bank can be optimized for the particular application required and can be retuned in the field if necessary. The filters are provided with an integrated floor mounting frame, that can be suspended from a ceiling or wall mount, with appropriate optional mounting hardware.



**ERI Model 955-6 Constant Impedance FM Combiner Module. Shown with optional forced air cooling.**

Electronics Research, Inc. • 7777 Gardner Road • Chandler, IN 47610-9219 • USA  
+1 812 925-6000 (tel) • +1 812 925-4030 (fax)

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## ERI 955 Series Constant Impedance FM Combiner

### ERI Model 955-6 Specifications

Model:	955-6	
Combiner Type:	Band Pass Constant Impedance	
VSWR:	<1.10:1 at $\pm 200$ kHz	
Injected Port to Broad Port Isolation:	$\geq -30$ dB	
Injected Port to Injected Port Isolation:	$\geq -55$ dB, with two or more modules	
Output Connector:	1-5/8-inch or 3-1/8-inch EIA, 50 ohms	
Output Power Capability:	30 kW capability (limited by line size)	
Combiner Module Size and Weight:		
Convection cooled model:		
1-5/8-inch Output		
Height:	58.2 in	148 cm
Width:	38.5 in	98 cm
Length:	42.0 in	107 cm
Weight:	500 lbm	227 kg
With forced air cooling:		
Height:	58.2 in	148 cm
Width:	38.5 in	98 cm
Length:	42.0 in	107 cm
Weight:	510 lbm	231 kg
Convection cooled model:		
3-1/8-inch Output		
Height:	58.2 in	148 cm
Width:	38.5 in	98 cm
Length:	42.0 in	107 cm
Weight:	540 lbm	245 kg
With forced air cooling:		
Height:	58.2 in	148 cm
Width:	38.5 in	98 cm
Length:	42.0 in	107 cm
Weight:	520 lbm	236 kg
AC power required for forced air cooling:	115 VAC	3 amps

#### Multiple Station Broad Port:

Frequency:	All FM Broadcast Channels (88 to 108MHz)
Connector:	1-5/8-inch or 3-1/8-inch 50-Ohm EIA (flanged)
VSWR <sup>1</sup> :	<1.10:1 at $\pm 200$ kHz
Insertion Loss <sup>2</sup> :	-0.05dB Typical
Group Delay <sup>3</sup> :	<75ns Overall Variation, Carrier $\pm 150$ kHz

#### Injected Station Port Performance:

Frequency <sup>4</sup> :	All FM Broadcast Channels (88 to 108MHz)
Power Rating:	9 kW (16 kW with forced air cooling)
Connector:	1-5/8-inch 50-Ohm EIA (flanged)
VSWR <sup>1</sup> :	<1.10:1 at $\pm 200$ kHz
Insertion Loss <sup>2</sup> :	<0.40 dB
Group Delay <sup>3</sup> :	<75 nsec overall variation $\pm 150$ kHz

1) When terminated in 50-Ohm resistive load.

2) 2.0 MHz or more removed from any signal appearing at the broad port.

Data presented is typical and actual performance may vary depending on customer requirements and individual applications. Specifications subject to change without notice.