

# ERI 785 Series FM Notch Filters



**785-1 FM Notch Filter**

ERI filters and combiners have served the broadcast industry for over 40 years. The basic building block of ERI's combiner and multiplexers system is a unique filter cavity. Only ERI offers an all copper and brass cylindrical cavity and all internal components in the RF path are silver plated. The result is an extremely efficient (low loss) and stable filter. ERI filters include a unique temperature compensation assembly which maintains the filters performance from a cold start to normal operating temperature without causing high transmitter VSWR. With good antenna sites scarce and tower costs staggering, radio stations tend to operate their antennas in close proximity to one another. With close frequency spacing possible, radiation coupling between antennas is unavoidable and can be quite high. Ideally, a radio station transmitter would transmit power on just its assigned channel. Unfortunately, due to undesired coupling, a product frequency may be radiated as well. This product frequency or emission may actually compete with a station existing on or near its frequency. The FCC regulates these emissions and they must be suppressed. ERI 785 Notch Filter may be arranged in a series to achieve reduction of multiple frequencies and/or greater attenuation of any frequency.

## Features

- High stability temperature compensated cavities
- Copper/ brass construction with stainless steel hardware (critical components are silver plated)
- Easily assembled floor standing units (hardware for ceiling suspension available on request)
- Minor adjustment of cavity resonant frequency can be made during full power operation of the filter
- Filters may be arranged in series to achieve reduction of multiple frequencies and/or greater attenuation of any single frequency
- Each filter includes a built-in temperature indicator
- Factory tuned to customer's specified channel, yet can be easily field converted to any FM channel
- 785 Notch Filters are ideally suited to isolate radio station transmitters and reduce product emission to acceptable levels.

## 785 FM Notch Filter Specifications

Frequency Range:	88 to 108 MHz
Pass/Notch Frequency Separation:	1.2 MHz
Notch Frequency Suppression:	-40 dB
785 Through Power Handling:	30 kW
VSWR Typical:	1.05:1 ±150kHz
Insertion Loss:	<0.03dB
Frequency Stability ±50°F from Normal Operating Temperature:	±10kHz
Input and Output RF Connections	
Model 785	1-5/8-inch or 3-1/8-inch EIA Flange, captivated male

Specifications subject to change without notice.

## ERI 785 Series FM Notch Filters

**Model: 785-1**  
 Height: 48"  
 Width: 18-1/2"  
 Length: 16-3/8"  
 Weight: 105 LBS.



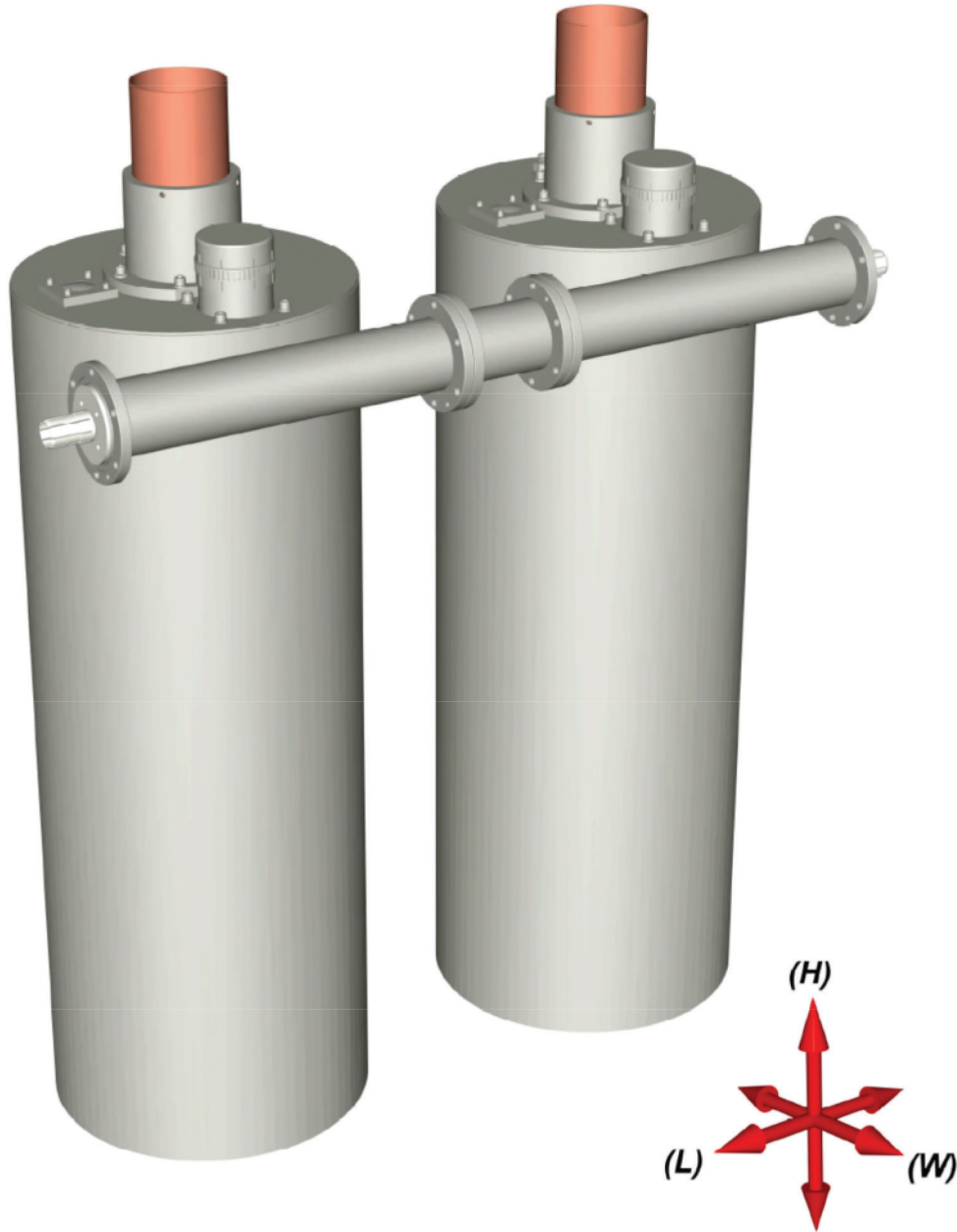
*Flange to Flange Dimension 16.35-inches*

**Note: DIMENSIONS & WEIGHT ARE APPROXIMATE AND SUBJECT TO CHANGE PER TUNING.**

Electronics Research Model 785-1 FM Notch Filter  
 Input and Output Connections 1-5/8-inch or 3-1/8-inch EIA Flanges, captivated male

# ERI 785 Series FM Notch Filters

**Model: 785-2**  
 Height: 48"  
 Width: 18-1/2"  
 Length: 37-3/4"  
 Weight: 215 LBS.



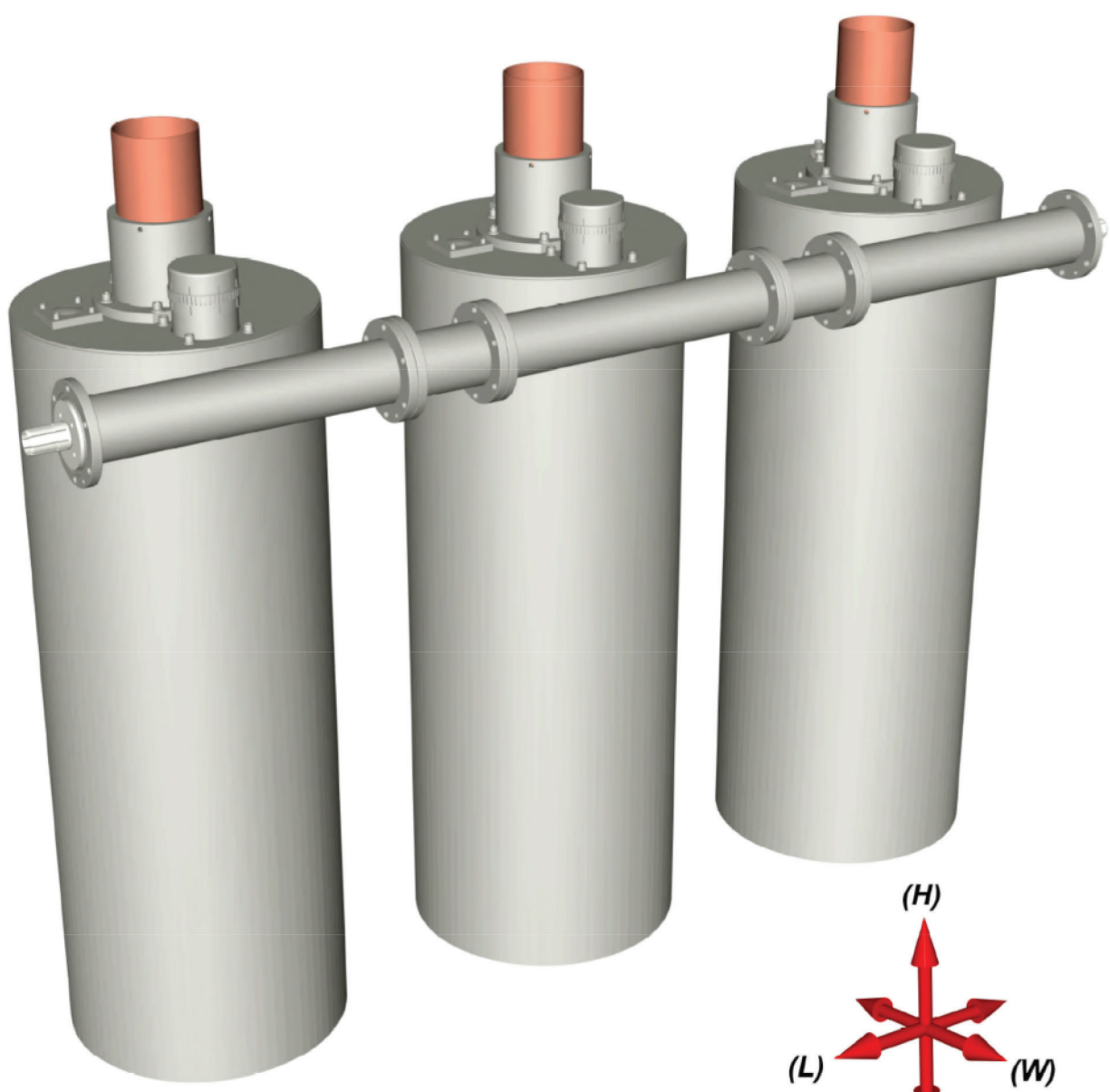
**Note: DIMENSIONS & WEIGHT ARE APPROXIMATE AND SUBJECT TO CHANGE PER TUNING.**

ERI 785-2 Series Notch Filter

Input and Output Connections 1-5/8-inch or 3-1/8-inch EIA Flanges, captivated male

# ERI 785 Series FM Notch Filters

**Model: 785-3**  
Height: 48"  
Width: 18-1/2"  
Length: 59-1/8"  
Weight: 325 LBS.



**Note: DIMENSIONS & WEIGHT ARE APPROXIMATE AND SUBJECT TO CHANGE PER TUNING.**

ERI 785-3 Series Notch Filter

Input and Output Connections 1-5/8-inch or 3-1/8-inch EIA Flanges, captivated male

## ERI 785 Series FM Notch Filters

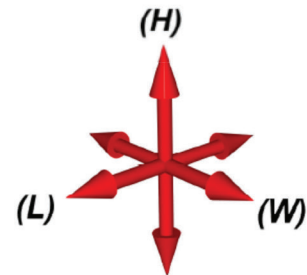
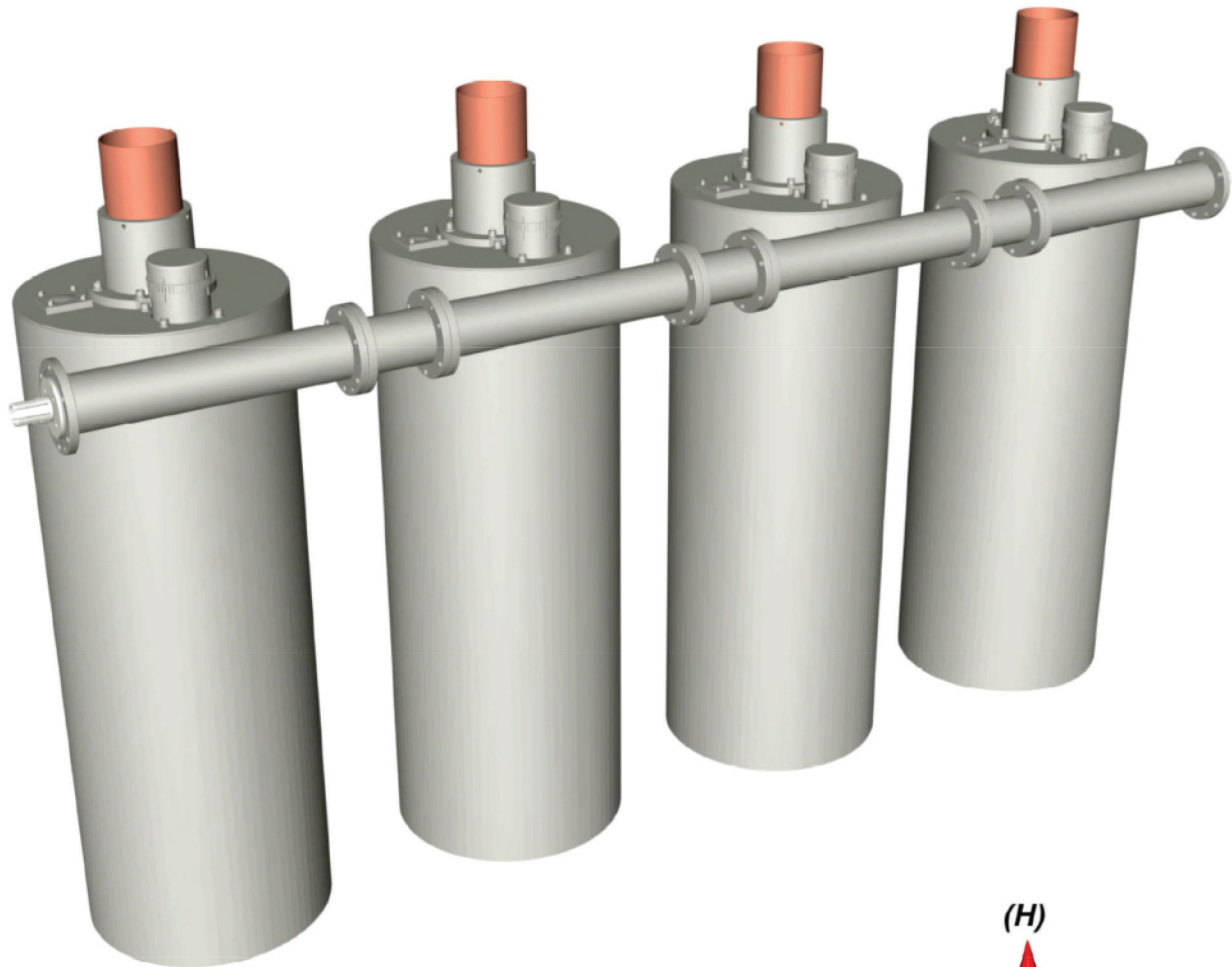
**Model: 785-4**

Height: 48"

Width: 18-1/2"

Length: 80-1/2"

Weight: 435 LBS.



**Note: DIMENSIONS & WEIGHT ARE APPROXIMATE AND SUBJECT TO CHANGE PER TUNING.**

ERI 785-4 Series Notch Filter

Input and Output Connections 1-5/8-inch or 3-1/8-inch EIA Flanges, captivated male

## ERI 785 Series FM Notch Filters

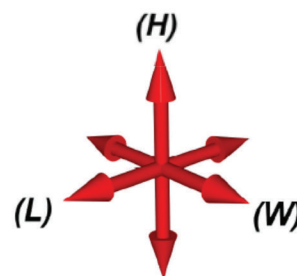
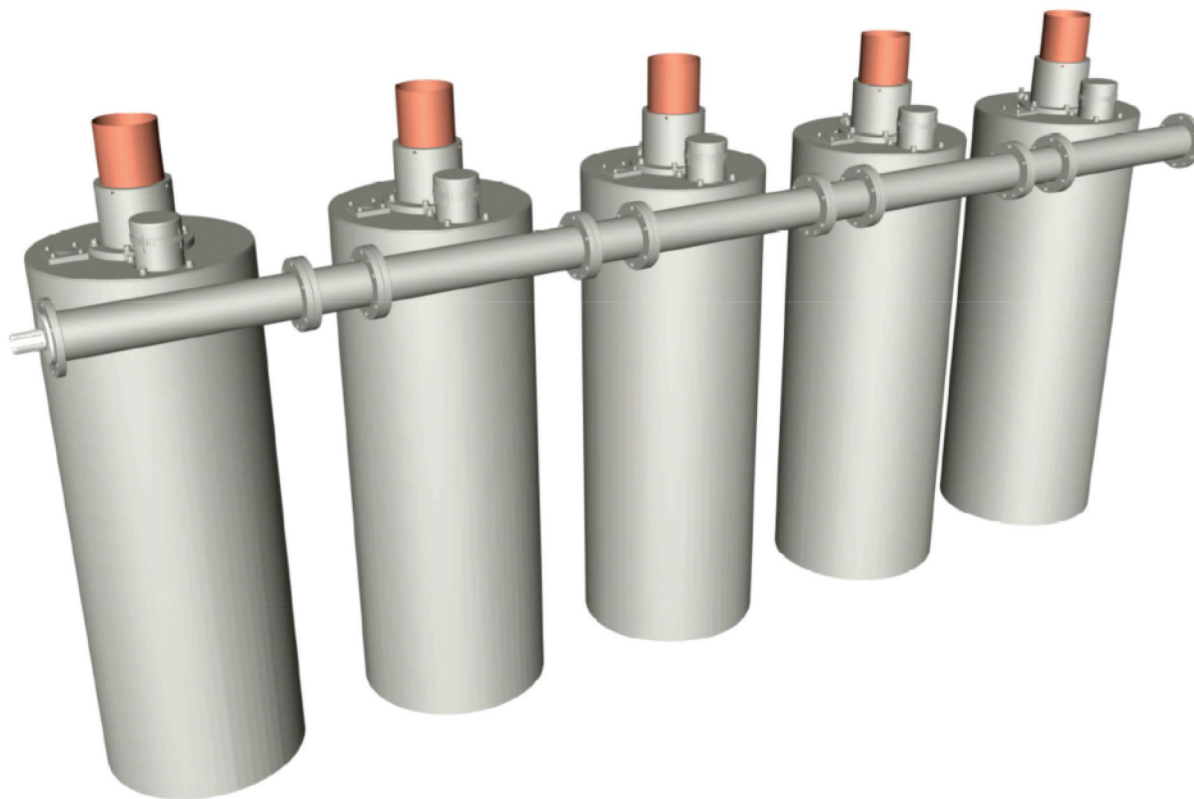
**Model: 785-5**

Height: 48"

Width: 18-1/2"

Length: 101-7/8"

Weight: 545 LBS.



**Note: DIMENSIONS & WEIGHT ARE APPROXIMATE AND SUBJECT TO CHANGE PER TUNING.**

ERI 785-5 Series Notch Filter

Input and Output Connections 1-5/8-inch or 3-1/8-inch EIA Flanges, captivated male