

# 700/800 MHz Filter Products

## Broad Product Range



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ANTENNAS  
FILTERS  
DUPLEXERS  
MULTICOUPLERS  
COMBINERS  
SYSTEMS

## 700/800 MHz Filter Products

Responding to the changes in frequency bands for public safety communications in North America, Sinclair now offers a full range of 700/800 MHz band filter products complementing our extensive line of 700/800 MHz antenna products. Sinclair's new offerings include a complete range of transmitter combiners, duplexers, receiver multicouplers, preselectors, cavity filters and tower top amplifiers.

## 700/800 MHz Filter Products

Sinclair's 700/800 MHz filter products are specifically designed in response to the changes in frequency bands for public safety communications.

### Transmitter Combiners

The TJ series 700/800 MHz Transmitter Combiners feature Sinclair's space efficient High "Q" bandpass cavity filters. These versatile transmitter combiners have a low-loss, dual or single stage isolator and are 19" rack mountable. They offer easy field retuning with simple testing equipment and are easily expandable to 20 channels.

MODEL	DESCRIPTION
TJ42 Family	70 dB min Tx-Tx isolation, 2-5 Ch 7" Can, 746-960 MHz.
TJ41 Family	35 dB min Tx-Tx isolation, 2-5 Ch 7" Can, 746-960 MHz.



TJ4235

### Duplexers

#### Mobile Duplexers

Sinclair's 700/800 MHz BandPass and BandReject duplexers offer maximum performance with a compact light weight construction. The MR456 and P4 mobile duplexer series are designed to minimize variations due to changing operating environments and are ideal for trunking and conventional applications.

#### Q-Circuit Cavity Duplexers

Sinclair's 700/800 MHz Q4220E Q-Circuit Duplexers feature Res-Lok™ construction which achieves maximum performance in an extremely compact package.



MR456

MODEL	DESCRIPTION
MR456 Family	Mobile duplexers, Frequency 746-960 MHz, 30/45 MHz Tx-Rx spacing, Avg input power 50W (max), 80 dB Tx-Rx isolation.
P4 Family	Combine bandpass mobile duplexers, Frequency 746-960 MHz.
Q4220E Family	4"x4" Res-Lok™ cavity duplexers, 746-960 MHz, 30/45 MHz Tx-Rx spacing, 1dB insertion loss & 75 dB isolation, Avg input power 150W (max).



Q4220E

### High Performance Receiver Multicouplers

The 700/800 MHz RM4 series receiver multicouplers offer 1 dB system gain and connecting capability of up to 2 to 16 channels.

MODEL	DESCRIPTION
RM4 Family	Receiver multicouplers, 746-960 MHz, Various preselector and power supply options available.



4 RM Channel Model



## Combine Preselectors

Sinclair's new 700/800 MHz compact combine bandpass preselectors for receivers offers compact construction and broad passband capabilities. Featuring 2dB insertion loss and 60dB isolation at adjacent band.

MODEL	DESCRIPTION
FP4 Receiver Family	Combine preselectors, 746-960 MHz, Various bandwidths available.

## Compact High Power Filters

### Combine Bandpass Filters

The FP4 series compact combine bandpass filters for transmitters feature high power 300W (max), 2dB insertion loss and 60dB isolation at adjacent band.

### High Power Transmitter Filters

This highly versatile Res-Lok™ construction preselector can be rack, wall or floor mounted to suit any system need. The 'PH' series can also be used as a transmitter filter. These filters are field retunable allowing efficient reuse.

MODEL	DESCRIPTION
FP4 High Power Family	Combine bandpass filter, High power, Frequency 746-894 MHz, Avg input power 300W (max), Various bandwidths available.
PH4040E Family	4"x 4" Res-Lok™ cavity filter, Frequency 746-960 MHz, Avg input power 400 W (max).
PH4060C Family	4"x 2.5" Res-Lok™ cavity filter, Frequency 806-940 MHz, Avg input power 400W (max).



FP40615CLB



PH4060C

## Tower Top Amplifiers

Sinclair's TM4 Series of Tower Mounted Amplifier/Receiver Multicouplers are designed to enhance receiver system sensitivity by compensating losses encountered in long feed cable runs. With this system the antenna output is fed directly into a weatherproof housing containing a low loss, wideband preselector and preamplifier. The TM series is available with special filtering, high performance amplifiers, a large number of Rx outputs and various power supply options.

Three different system configurations are available for ultimate performance:

**Option A:** Standard single amplifier in the tower mounted unit.

**Option B:** Single amplifier along with a relay bypass switch to allow for time for repairs without immediately taking the system out of service.

**Option C:** Incorporates a redundant amplifier which can be switched in the bypass circuit in the event of a primary LNA failure.

MODEL	DESCRIPTION
TM4 Family	Frequency 746-960 MHz, 2-16 channels, 18 dB system gain (excl. feed cable), 2.9 dB system noise figure (typical), Various power supply and preselector options available.



TM4 Series

**SINCLAIR**<sup>®</sup>  
Superior then, Superior now.  
A DIVISION OF NORSAT INTERNATIONAL INC.



RELIABILITY  
SECURITY  
CUSTOMIZATION  
COVERAGE

Sinclair provides antennas, filters, combining systems, and radio coverage solutions for RF telecommunications networks. Designed to function in extreme weather conditions, Sinclair's products enjoy a reputation for high performance, reliability, durability and value. We have been serving our markets with new innovative products for over 57 years.

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