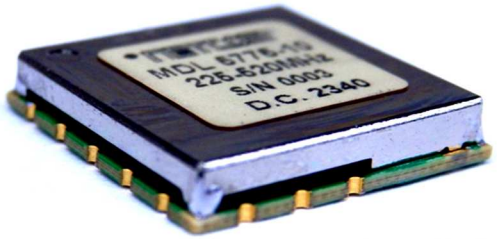
NETCOM
RF & MICROWAVE TECHNOLOGY

Model 5795-10 - Tunable Filter
1.0 GHz - 1.8 GHz

Specifications



FEATURES

Netcom's 5795-10 tunable filter covers the frequency range of 1GHz to 1.8GHz.

The filter is a single band tunable filter offering the advantage of small size with a control system comparable to larger size filters.. The 5795-10 filter has 2 watt power handling capability.

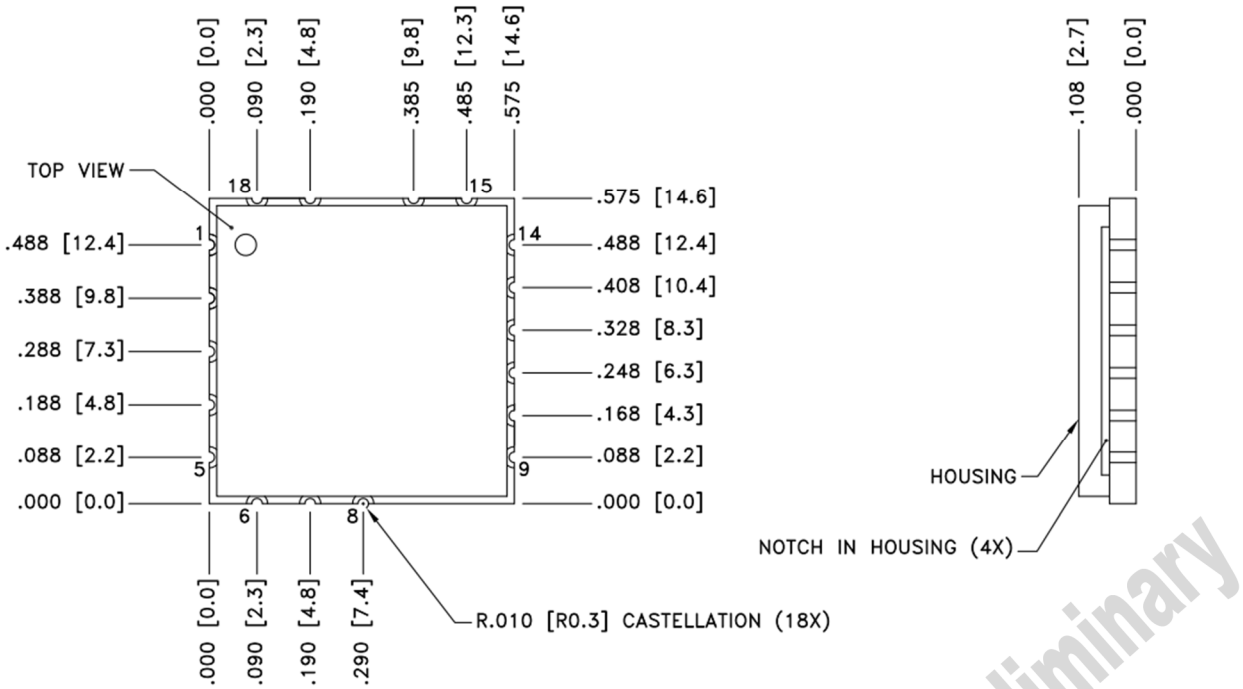
The following table shows the typical performance of the filter.

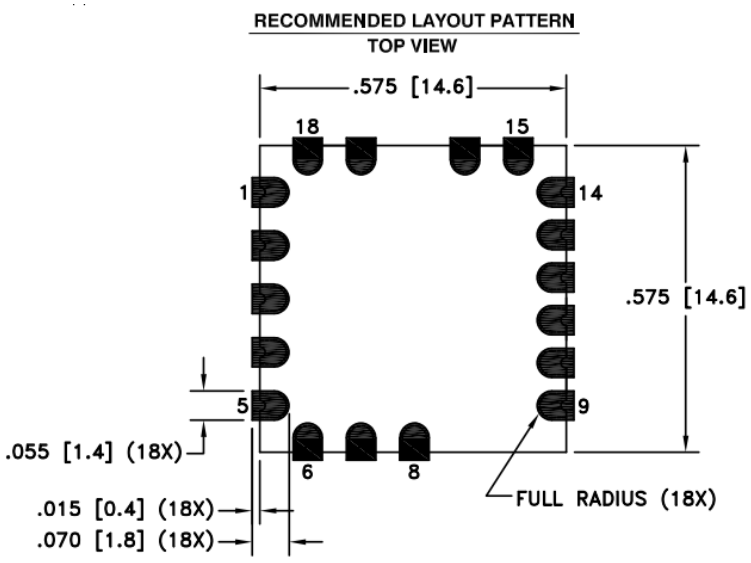
Frequency Range	1.0 to 1.8GHz
BW (Typical)	10%
Impedance (Input /Output) - Typical	50 Ω
Ftune +/- 10% Rejection	< -11dB
Ftune +/- 15% Rejection	< -16dB
Ftune +/- 20% Rejection	< -20dB
Tuning Speed	< 10 µs
Insertion Loss (Typical)	4.3dB
Tuning Resolution*	1MHz
P1dB	+33dBm
IIP3	+45dBm
DC Power - Typical Max	3.3 Volts 30 mA
Operating Temperature Range	-40 to +85°C
Control Interface	Serial Input
Dimensions [L x W x H]	0.575 x 0.575 x 0.0108 inches 14.605 x 14.605 x 2.7 mm

*See page 3 for details

RoHS COMPLIANT

Mechanical





PIN DESIGNATORS			
PIN Number	Description	PIN Number	Description
1	RF_IN	10	NC
2	GND	11	NC
3	SPI_CLK	12	TUNE_READY
4	SPI_MOSI	13	GND
5	NC	14	RF_OUT
6	NC	15	GND
7	NC	16	VCC (+3.3V)
8	NC	17	SPI_CS
9	NC	18	GND
NC = NO CONNECT			

NOTES:

1. TOLERANCES ±.010 (0.25) UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS ARE IN INCHES (mm).

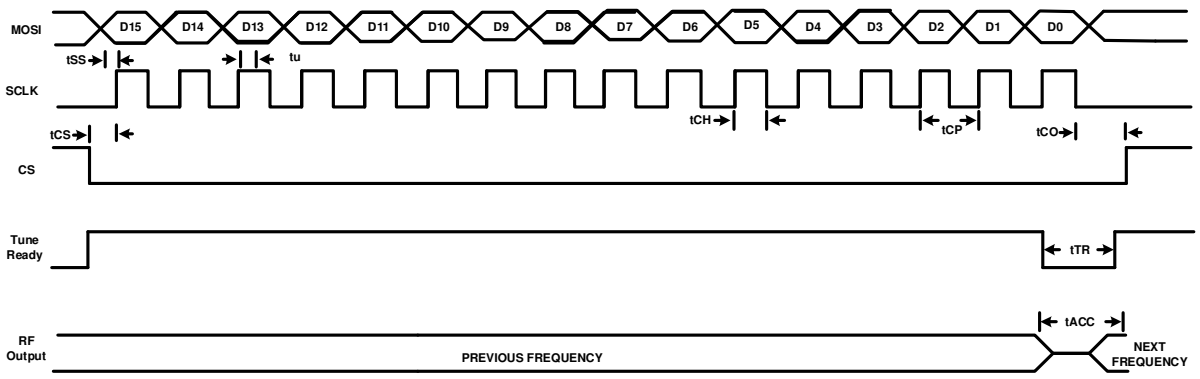
Serial Address Input Timing Diagram

Tuning resolution is 1MHz from address 1000 decimal (1000MHz) to 1800 decimal (1800MHz) .
Tuning of the filter starts when the last data clock (16th) pulse of the address is sent to the unit while the CS (Chip select) is low.

The filter will move to the correct tune channel which allows the tuned address frequency to pass while meeting all of the tuning parameters. In some cases the filter tune channel may not move.

Symbol	Parameter	Min	Max	Units
tSS	Setup time MOSI Data to SCLK*	50		ns
tu	Hold Time MOSI Data From SCLK		0	ns
tCH	Clock High Time	125		ns
tCP	Clock Period	250		ns
tCS	Chip Setup Time (CS falling edge to SCLK start)	125		ns
tTR	Tune_Ready indicator***		10	us
tACC	Access time from Last (16th) SCLK edge to Fo**		10	us

57XX ADDRESS PROTOCOL



* Data clocked in on SCLK leading edge.
** Filter tunes to address on last clock bit of address SCLK.
*** Tune_Ready at logic low when filter processing tuned address.

Environmental Specification Standards (Development stage testing)

Temperature: MIL-STD-810E,

- High temperature shall meet Method 501.3, Procedure I to 125°C storage, and procedure II to 85°C operating.
- Low temperature shall meet Method 502.3, Procedure I to -57°C storage, and Procedure II to -40°C operating.

Vibration: MIL-STD-810E Method 514.4

Shock: MIL-STD-810E Procedure VI, Method 516.4

Solder Reflow: 245°C [max] for 30 seconds [max]

Ordering Information

Model Number	(-)	Bandwidth	(-)	Options	Add “-EB” for Unit Mounted on Evaluation Board	
5795	(-)	10	(-)		(-)	EB

Options:

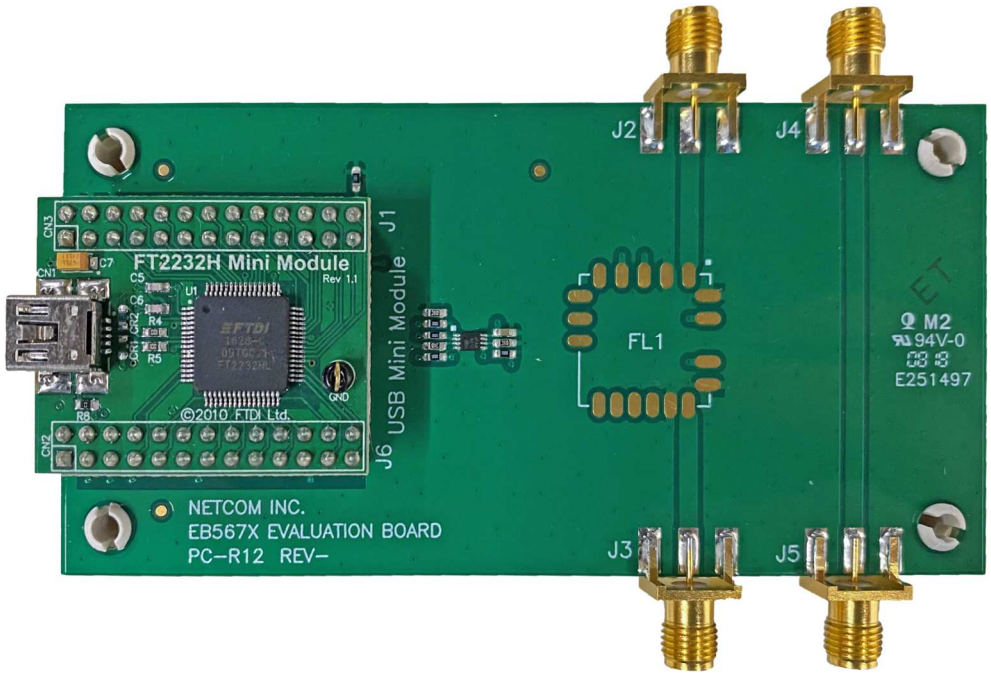
A:
B:
C:

Corresponding Evaluation Board

Netcom's TunePro2 Series Filters are tunable bandpass filters with frequency ranges from 1.1MHz to 1.85GHz.

The EB567X Evaluation Board is designed to test and evaluate Netcom's Model TunePro2 series and the 5795 Frequency Agile Filter. The evaluation board is used to supply power to the filter, provide tuning control. Facilitate measurement of the filter's RF parameters. Switching speed and power consumption.

Tuning control of the filter is provided by the EB567X Evaluation Board in the form of frequency tuning control for the 5795 which uses a USB input and user interface program to provide frequency tuning control for the 5795 Frequency Agile Filter. The EB567X Evaluation Board includes a separate RF thru path for calibration of test equipment to improve the accuracy of RF measurements.



Note: Parameters subject to change

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