NETCOM
RF & MICROWAVE TECHNOLOGY

Model 5679 - Tunable Filter
1.3- 1.7GHz

Specifications

FEATURES

Netcom's 5679 tunable filter covers the frequency range of 1.3GHz to 1.7GHz.

The filter is a single band tunable filter offering the advantage of small size with a control system comparable to larger size filters.

The following table shows the typical performance of the filter.

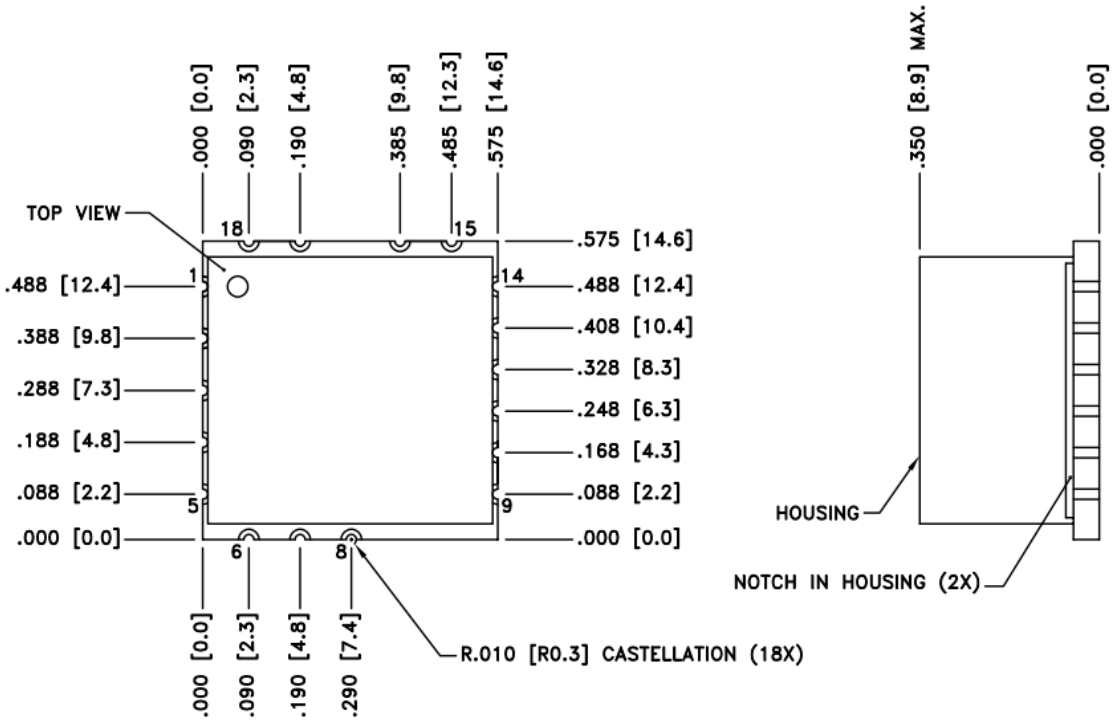
Frequency Range	1.3 to 1.7GHz
BW (Typical)	9.0%
Impedance (Input /Output) - Typical	50 Ω
Ftune +/- 10% Rejection	< -12dB
Ftune +/- 15% Rejection	< -16dB
Ftune +/- 20% Rejection	< -20dB
Tuning Speed	< 35 µs
Insertion Loss (Typical)	4.5dB
Tuning Resolution*	1MHz
P1dB	+30dBm
Maximum Power Handling	+33dBm
IIP3	+45dBm
DC Power - Typical Max	3.3 Volts 30 mA
Operating Temperature Range	-40 to +85°C
Control Interface	Serial Input
Dimensions	0.575 x 0.575 x 0.280 inches

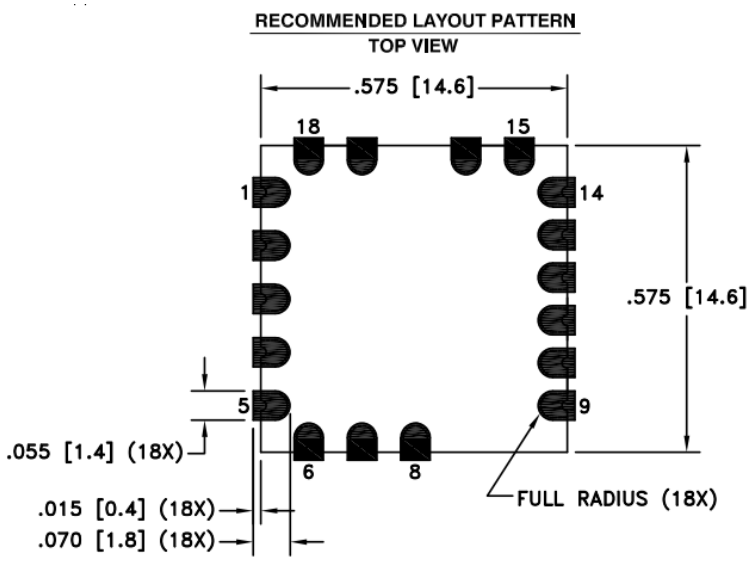
*See page 3 for details

Note: Parameters subject to change

RoHS COMPLIANT

Mechanical





NOTES:
1. TOLERANCES ±.010 [0.25] UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS ARE INCHES [mm].

PIN DESIGNATORS	
PIN NUMBER	DESCRIPTION
1	RF_IN
2	GND
3	SPI_CLK
4	SPI_MOSI
5	NC
6	NC
7	NC
8	NC
9	NC
10	NC
11	NC
12	TUNE_READY
13	GND
14	RF_OUT
15	GND
16	VCC (+3.3V)
17	SPI_CS
18	GND

NC = NO CONNECT

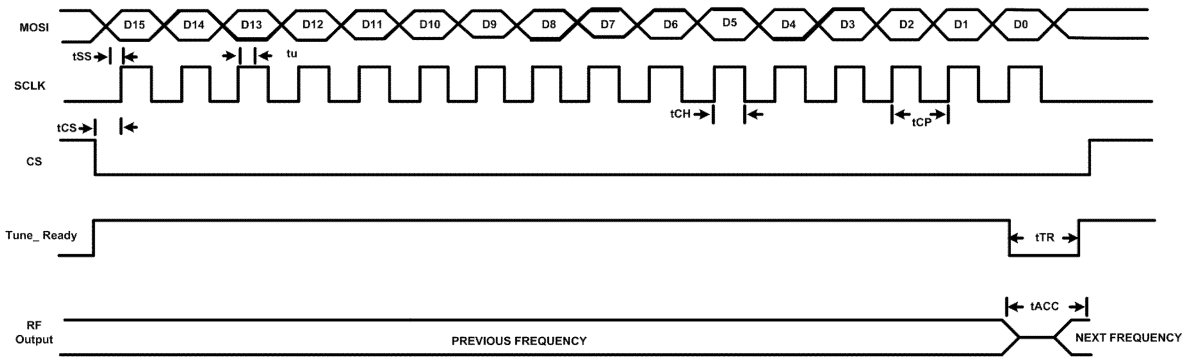
Serial Address Input Timing Diagram

Tuning resolution is 1MHz from address 1300 decimal (1300MHz) to 1700 decimal (1700MHz) .
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***		35	us
tACC	Access time from Last (16th) SCLK edge to Fo**		35	us

56XX 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

Temperature:

- High temperature shall meet MIL-STD-810E, 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]

NETCOM
RF & MICROWAVE TECHNOLOGY

599 Wheeling Road
Wheeling, IL 60090
USA
Phone 847.537.6300
Fax 847.537.2700
www.netcominc.com