

## TFH70H Standard 70 MHz SAW Filter



### Features

- Industry Standard 14 pin & 18 pin DIP packages
- 6 pin versions
- 40 different codes available
- Bandwidths ranging from 0.25 to 40 MHz
- Compatible with existing industry standard specifications

### Description

The TFH70H is the latest SAW family to the Vectron International product range. Housed in industry standard packages, VI's optimization of design and high quality standards, combined with competitive prices ensures lowest total cost of ownership.

Developed for commercial applications, including spectrum-shaping in digital radio systems and general IF filtering for ground communications equipment. The TFH70H family offers a cost effective device, compatible to industry standard 70 MHz SAW filter specifications.

# TFH70H Standard 70 MHz SAW Filter

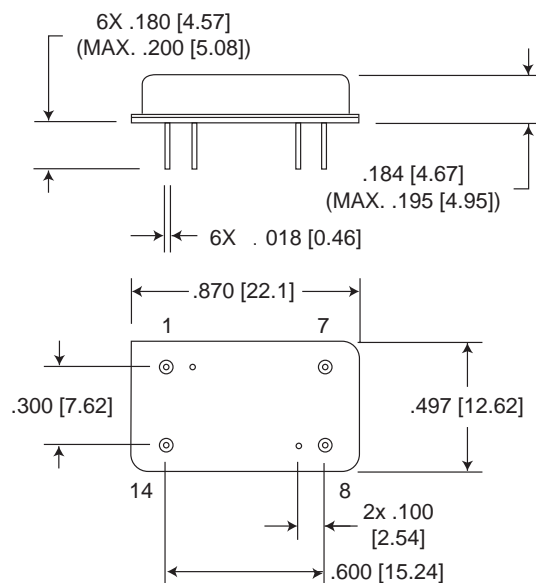
VI Part No.	1.dB BW	3.dB BW.	40.dB BW.	Center Freq. MHz	Insertion Loss dB Max.	Passband Variation dB Max.	Group Delay Variation nsec p-p Max.	Phase Linearity deg. p-p Max.	Ultimate Rejection dB Min.	Package Style Pin/DIP
TFH70H21	0.16	0.25	1.0	70+/- .04	20.0	0.1	300	3	50	6/18*
TFH70H22	0.31	0.5	1.9	70+/- .05	24.0	0.1	300	3	50	6/14*
TFH70H23	0.58	0.7	2.0	70+/- .07	23.0	0.4	300	4	50	6/18*
TFH70H24	0.90	1.0	2.3	70+/- .07	24.0	0.5	150	4	50	6/18*
TFH70H25	1.30	1.5	2.8	70+/- .08	25.0	0.5	200	6	50	6/18*
TFH70H26	1.80	2.0	3.8	70+/- .08	26.0	0.7	90	4	50	6/14*
TFH70H27	2.10	2.5	4.4	70+/- .08	27.0	0.7	100	4	50	6/14*
TFH70H28	2.50	3.0	4.9	70+/- .09	26.0	0.8	90	8	50	6/14*
TFH70H29	3.00	3.5	5.6	70+/- .09	27.0	0.8	100	8	50	6/14*
TFH70H31	3.70	4.0	6.1	70+/- .09	25.0	0.8	100	6	50	6/14*
TFH70H32	4.00	4.5	6.9	70+/- .09	26.0	0.8	90	4	50	6/14*
TFH70H33	4.50	5.0	7.5	70+/- .09	26.0	0.8	100	6	50	6/14*
TFH70H34	5.00	5.5	7.7	70+/- .09	25.0	0.8	140	9	50	6/14*
TFH70H35	5.60	6.0	8.4	70+/- .10	25.0	0.8	130	7	50	6/14*
TFH70H36	6.00	6.5	8.9	70+/- .10	25.0	0.8	100	6	50	6/14*
TFH70H11	6.50	7.0	9.7	70+/- .10	22.0	0.8	100	4	50	6/14
TFH70H12	7.30	7.5	10.2	70+/- .10	24.0	0.8	90	5	50	6/14
TFH70H13	7.50	8.0	10.6	70+/- .11	24.0	0.8	60	4	50	6/14
TFH70H14	8.00	8.5	11.1	70+/- .11	25.0	0.8	60	5	50	6/14
TFH70H15	8.60	9.0	11.7	70+/- .12	25.0	0.8	60	4	50	6/14
TFH70H16	9.10	9.5	12.3	70+/- .12	26.0	0.8	60	4	50	6/14
TFH70H17	9.00	10.0	12.0	70+/- .15	26.0	1.0	60	4	50	6/14
TFH70H37	10.70	11.0	14.2	70+/- .20	24.0	0.6	70	4	55	6/14
TFH70H38	11.60	12.0	15.4	70+/- .20	25.0	0.6	60	4	55	6/14
TFH70H39	12.75	13.0	17.1	70+/- .20	28.0	0.6	50	4	50	6/14
TFH70H310	13.50	14.0	17.9	70+/- .20	27.0	0.6	60	4	55	6/14
TFH70H311	14.60	15.0	19.2	70+/- .20	25.0	0.7	60	5	55	6/14*
TFH70H312	15.00	16.0	20.9	70+/- .15	26.0	0.7	50	4	50	6/14*
TFH70H313	17.60	18.0	23.5	70+/- .20	26.0	0.6	60	3	55	6/14*
TFH70H314	19.30	20.0	25.4	70+/- .20	27.0	0.7	35	4	50	6/14*
TFH70H41	20.60	22.0	28.2	70+/- .20	23.0	0.8	45	5	55	6/14*
TFH70H42	22.70	24.0	31.7	70+/- .20	24.0	1.0	40	6	50	6/14*
TFH70H43	24.50	26.0	34.0	70+/- .20	25.5	1.0	35	6	50	6/14*
TFH70H44	25.60	28.0	37.7	70+/- .20	27.5	1.0	40	6	50	6/14*
TFH70H45	26.30	30.0	49.5	70+/- .20	22.5	1.0	40	5	45	6/14
TFH70H46	29.00	32.0	50.0	70+/- .20	23.5	1.0	30	7	50	6/14
TFH70H47	31.00	34.0	52.8	70+/- .20	25.0	1.0	30	7	45	6/14
TFH70H48	32.70	36.0	55.5	70+/- .20	25.0	1.3	30	8	40	6/14
TFH70H49	34.80	38.0	57.5	70+/- .20	26.0	0.8	30	8	50	6/14

\* Matching Required

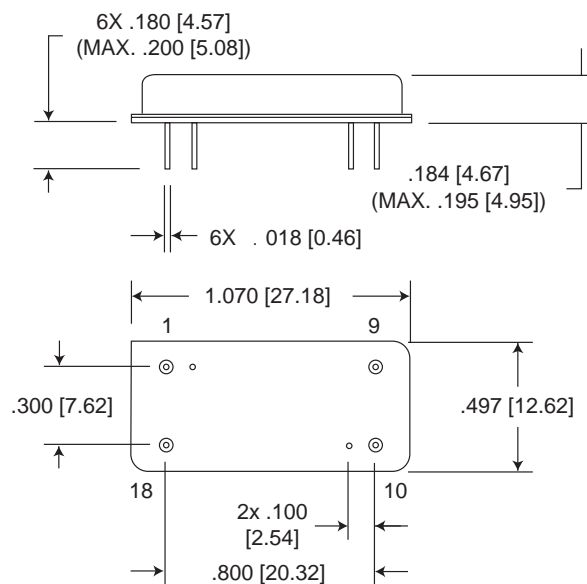
# TFH70H Standard 70 MHz SAW Filter

## Outline Diagrams

### 6/14 Package DIP



### 6/18 Package DIP



# TFH70H Standard 70 MHz SAW Filter

## Mechanical & Environmental Characteristics

Parameter	Description
Physical Dimensions	Package exterior dimensions comply with MIL.STD.883C, Method 2016.
Solderability	Tested using MIL.STD. 883C, Method 2003.4
Resistance to Solvents	Compliant with MIL.STD.883C, Method 2015.6
Interior Water Vapor	Residual gas analysis complies with MIL.STD.883C, Method 1018.2.
Leak test	Gross and fine leak tests are performed to MIL.STD.883C, Method 1014.7 (Tests A,C) to 5 x 10-8 atm-cc/s.
Mechanical Shock Test along	Uses a 100 g, half sine pulse of 0.5 ms duration, 5 pulses per axis, x, y and z axes, per MIL.STD.883C, Method 2002.3.
Mechanical Vibration Test	Uses a 20 g, peak acceleration, 20 Hz to 2000 Hz, 4 min. up and down in frequency, 4 times per axis, along x, y, and z axis, per MIL.STD.883C, Method 2007.1, Test A.
Temperature Cycle and Thermal Shock Test	Air-to-air thermal shock over a temperature range of -40°C to +130°C, dwelling 5 min. at each temperature extreme, and repeating for 300 cycles.
Wirebond Strength	Destructive wirebond pull test per MIL.STD.883C, Method 2011.5.
ESD Sensitivity	ESD threshold level is measured using a charged device model and a human body model.

**Visit Our Website at  
[www.vectron.com](http://www.vectron.com)**



**[www.vectron.com](http://www.vectron.com)**

**USA:** Vectron International • 166 Glover Avenue, Norwalk, CT 06856 . . . . . **Tel: 1-888-VECTRON-1 • Fax: 1-888-FAX-VECTRON**  
**EUROPE:** In Denmark, Finland, Ireland, Israel, Norway, Spain, UK. . . . . **Tel: 44 (0) 1703 766 288 • Fax: 44 (0) 1703 766 822**  
In Austria, Belgium, France, Germany, Italy, Luxembourg  
Netherlands, Sweden, Switzerland, . . . . . **Tel: 49 (0) 72 63 6480 • Fax: 49 (0) 72 63 6196**  
**ASIA:** In China, Taiwan, Japan . . . . . **Tel: 603-598-0070 • Fax: 603-598-0075**  
In Korea, Singapore, Australia, India . . . . . **Tel: 203-853-4433 • Fax: 203-849-1423**

Vectron International reserves the right to make changes to the product(s) and/or information contained herein without notice.  
No liability is assumed as a result of their use or application. No rights under any patent accompany the sale of any such product(s) or information.