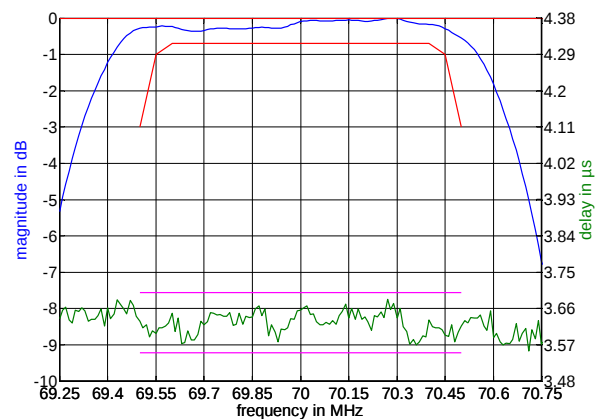
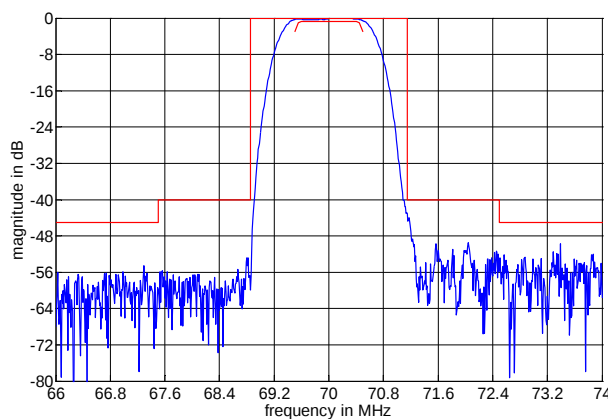


VI TELEFILTER**Filter specification****TFS 70H24A****1/5****Measurement condition**

		typ. value		tolerance / min.	
Insertion loss (reference level)		a_e	20 dB	max.	24 dB
Centre frequency		f_c	70,01 MHz	$70,0 \pm 0,07$ MHz	
Passband				$f_c \pm 0,50$ MHz	
Bandwidth		BW			
1 dB			1,12 MHz	min.	0,9 MHz
3 dB			1,33 MHz	min.	1,0 MHz
40 dB			2,18 MHz	max.	2,3 MHz
Relative attenuation		a_{rel}			
f_c	...	$f_c \pm 0,40$ MHz	0,4 dB	max.	0,7 dB
$f_c \pm 0,40$ MHz	...	$f_c \pm 0,45$ MHz	0,7 dB	max.	1 dB
$f_c \pm 0,45$ MHz	...	$f_c \pm 0,50$ MHz	1,8 dB	max.	3 dB
$f_c \pm 1,15$ MHz	...	$f_c \pm 2,5$ MHz	52 dB	min.	40 dB
$f_c \pm 2,5$ MHz	...	$f_c \pm 30$ MHz	60 dB	min.	50 dB
Group delay		mean value in PB	3,63 μ s	max.	4 μ s
				min.	3 μ s
Group delay ripple within PB			135 ns	max.	150 ns
Deviation from linear phase within PB			2,7 °	max.	4 °
Triple transit response suppression			48 dB	-	
Crosstalk attenuation compared to main signal			50 dB	-	
Operating temperature range		OTR	-	- 40 °C ... + 85 °C	
Storage temperature range			-	- 55 °C ... + 85 °C	
Frequency inversion temperature			30 °C	-	
Temperature coefficient of frequency		TC_f **	- 0,04 ppm/K ²	-	

*) The terminating impedances depend on parasitics and q-values of matching elements and the board used, and are to be understood as reference values only. Should there be additional questions do not hesitate to ask for an application note or contact our design team.

**) $\Delta f(\text{Hz}) = TC_f(\text{ppm/K}) \times (T - T_0)^2 \times f_{T0}(\text{MHz})$.

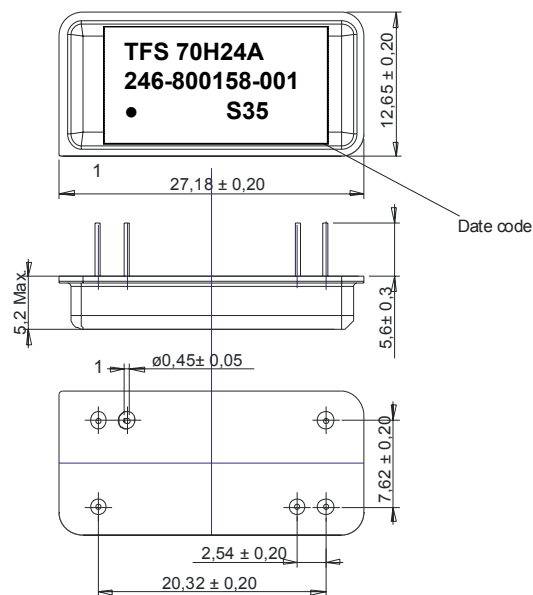
Generated:**Checked / Approved:****Filter characteristic**

Tele Filter GmbH
 Potsdamer Straße 18
 D 14 513 TELTOW / Germany
 Tel: (+49) 3328 4784-0 / Fax: (+49) 3328 4784-30
 E-Mail: tft@telefilter.com

VI TELEFILTER 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.

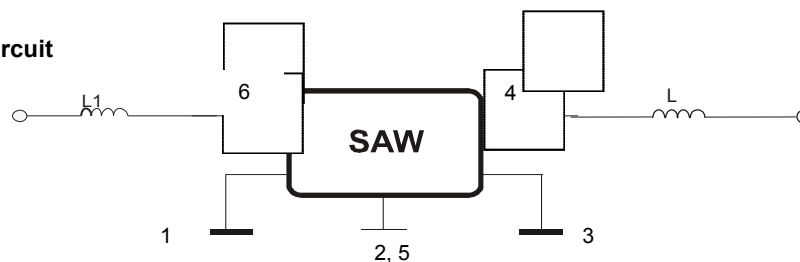
Construction and pin connection

(All dimensions in mm)



1	Input RF Return
2	Ground
3	Output RF Return
4	Output
5	Ground
6	Input

Date code:	Year + week
S	2004
T	2005
U	2006
...	

50 Ohm Test circuit

Tele Filter GmbH
 Potsdamer Straße 18
 D 14 513 TELTOW / Germany
 Tel: (+49) 3328 4784-0 / Fax: (+49) 3328 4784-30
 E-Mail: tft@telefilter.com

VI TELEFILTER 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.

VI TELEFILTER**Filter specification****TFS 70H24A****3/5****Stability characteristics :**

After the following tests the filter shall n



1. Shock: 30g, 11 ms, sawtooth, 3 shocks each plane;
MIL-STD-202, Method 213 test condition K
2. Vibration: 10 Hz to 2000 Hz, 15g, 20min per cycle, 12 cycles per plan, 3 plans;
MIL-STD 202, Method 204, test condition B
3. Thermal shock: -40°C to 85°C, 5 cycles
MIL-STD 202, Method 107, test condition A

Air reflow temperature conditions :

1st and 2nd air reflow profile

Name:	<u>pre-heating periods</u>	<u>main-heating periods</u>	<u>peak temperature</u>
Temperature:	150 °C - 170 °C	over 200 °C	255 °C ± 5 °C
Time:	60 sec. - 90 sec.	20 sec. - 25 sec.	

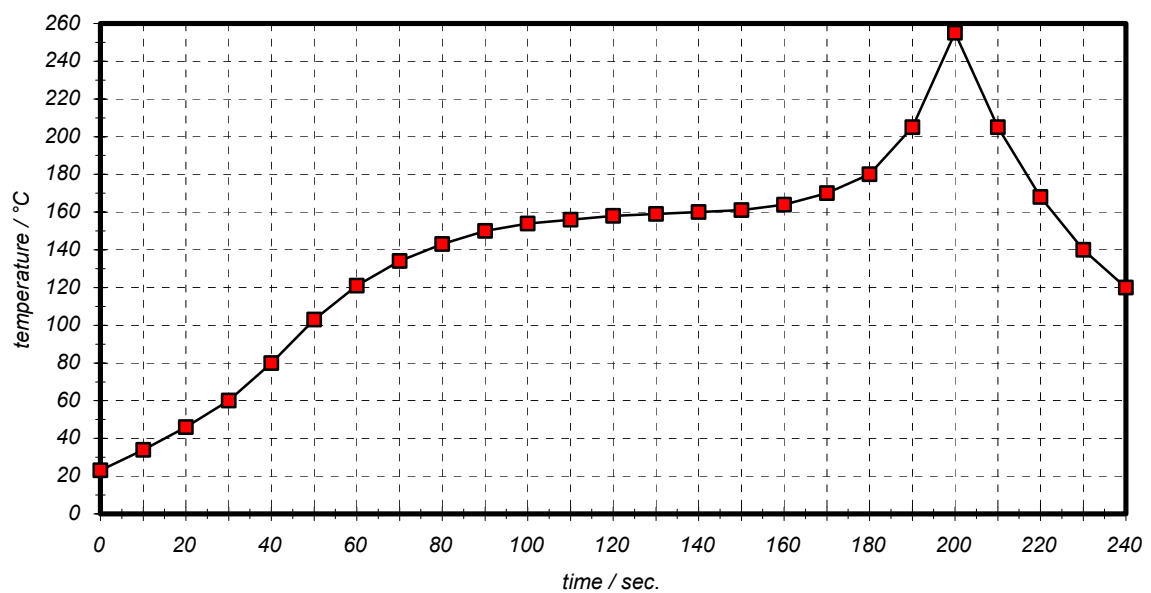
Air reflow profile

Table for temperature vs. time during the air reflow process

Tolerance of temperatures: ± 5 °C

time / sec.	temperature / °C	time / sec.	temperature / °C
0	23	140	160
10	34	150	161
20	46	160	164
30	60	170	170
40	80	180	180
50	103	190	205
60	121	195	230
70	134	200	255
80	143	205	230
90	150	210	205
100	154	215	180
110	156	220	165
120	158	230	140
130	159	240	120

VI TELEFILTER**Filter specification****TFS 70H24A****5/5****History**

Version	Reason of changes	Name	Date
1.0	filter specification created	Pfeiffer	17.06.2004
1.1	operating and storage temperature range extended	Pfeiffer	26.08.2004

Tele Filter GmbH
Potsdamer Straße 18
D 14 513 TELTOW / Germany
Tel: (+49) 3328 4784-0 / Fax: (+49) 3328 4784-30
E-Mail: tft@telefilter.com

VI TELEFILTER 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.