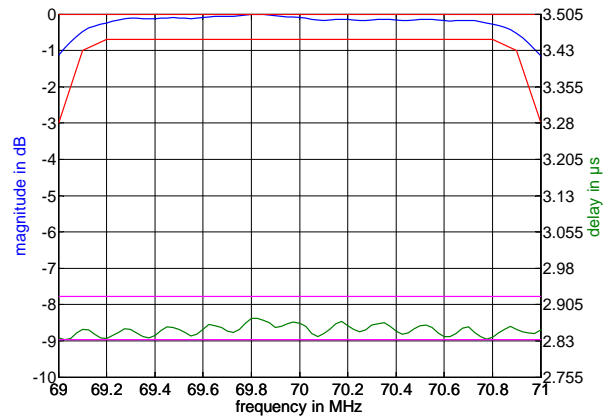
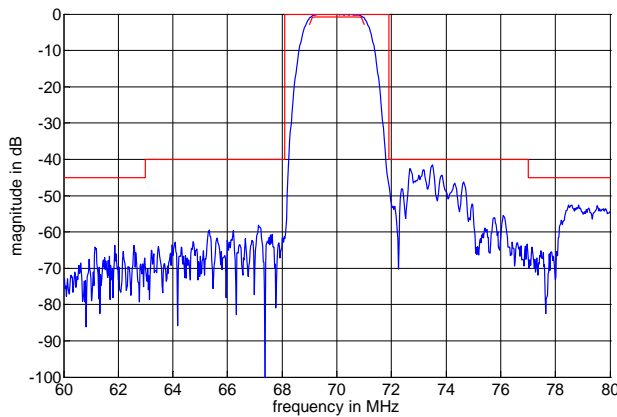


VI TELEFILTER

Filter specification

TFS 70H26A

Measurement condition



Parameter	Symbol	Typ. value	Unit	Tolerance / min.
Insertion loss (reference level)	a_e	23	dB	max. 26 dB
Centre frequency	f_c	70,0	MHz	$70,0 \pm 0,08$ MHz
Passband				$f_c \pm 1,00$ MHz
Bandwidth	BW			
1 dB		1,90	MHz	min. 1,8 MHz
3 dB		2,31	MHz	min. 2,0 MHz
40 dB		3,60	MHz	max. 3,8 MHz
Relative attenuation	a_{rel}			
f_c	$f_c \pm 0,8$ MHz	0,4	dB	max. 0,7 dB
$f_c \pm 0,8$ MHz	$f_c \pm 0,9$ MHz	0,5	dB	max. 1 dB
$f_c \pm 0,9$ MHz	$f_c \pm 1,0$ MHz	1,2	dB	max. 3 dB
$f_c \pm 1,9$ MHz	$f_c \pm 7,0$ MHz	43	dB	min. 40 dB
$f_c \pm 7,0$ MHz	$f_c \pm 30$ MHz	50	dB	min. 45 dB
Group delay	mean value in PB	2,85	μs	max. 3,5 μs min. 2,5 μs
Group delay ripple within PB		45	ns	max. 90 ns
Deviation from linear phase within PB		2,2	$^\circ$	max. 4 $^\circ$
Triple transit response suppression		56	dB	-
Crosstalk attenuation compared to main signal		50	dB	-
Operating temperature range	OTR	-		- 40 $^\circ C$... + 85 $^\circ C$
Storage temperature range		-		- 55 $^\circ C$... + 85 $^\circ C$
Frequency inversion temperature		32	$^\circ C$	-
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.

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

Generated:

Checked / Approved:

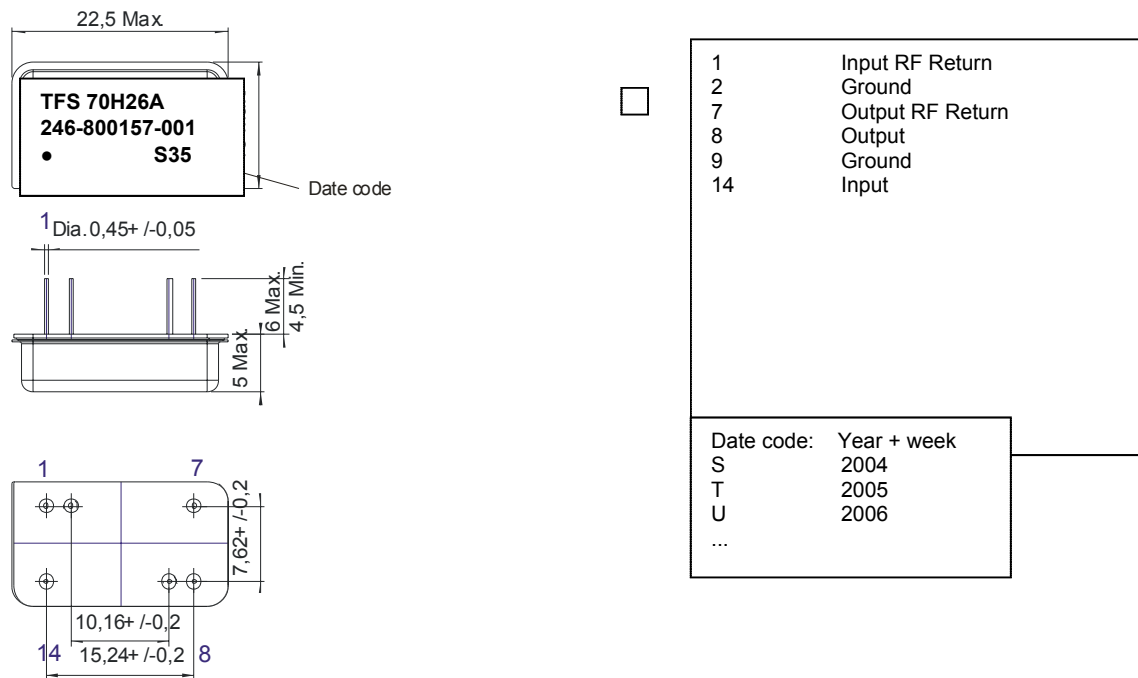
Filter characteristic

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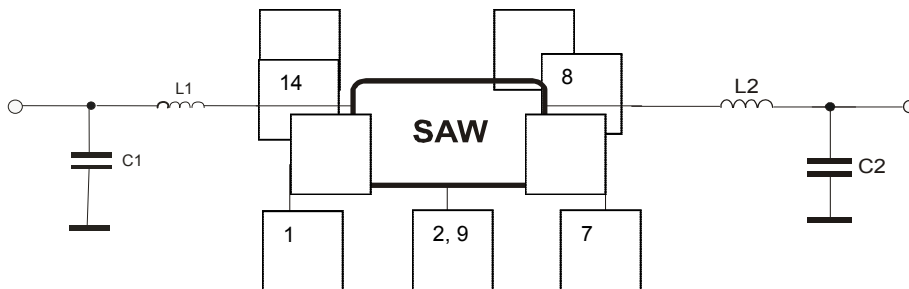
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Construction and pin connection

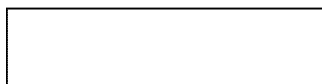
(All dimensions in mm)



50 Ohm Test circuit



Stability characteristics :



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VI TELEFILTER**Filter specification****TFS 70H26A****3/5**

After the following tests the filter shall meet the product specification

- | | |
|------------------|--|
| 1. Shock: | 30g, 11 ms, sawtooth pulse, MIL-STD-202, Method 210, test condition A |
| 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 |

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Air reflow temperature conditions :

1st and 2nd air reflow profile

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

Air reflow profile

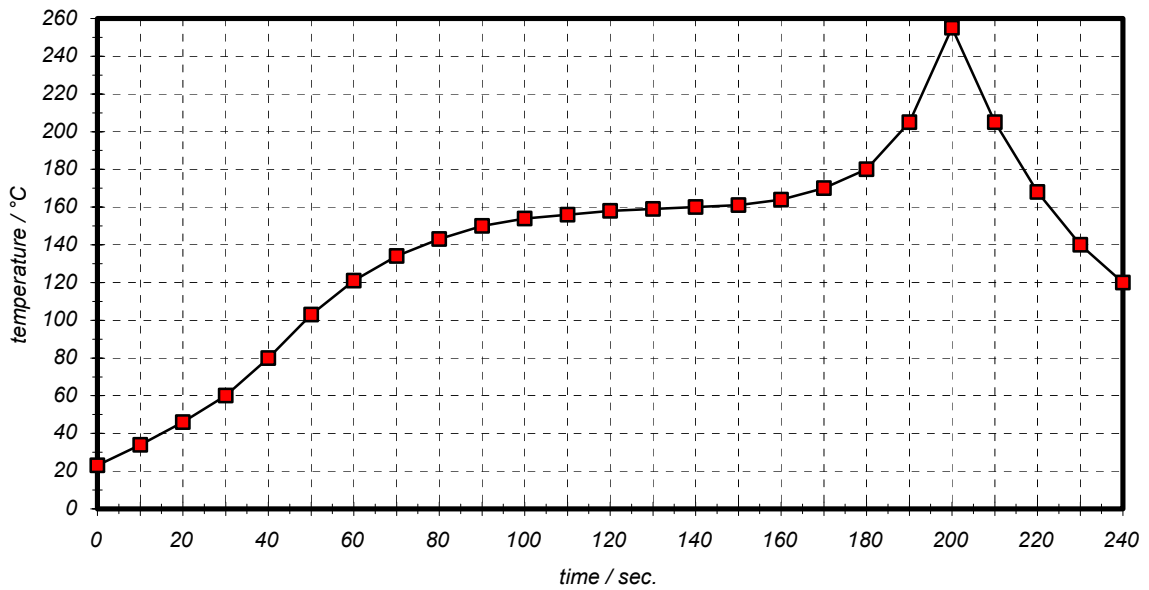


Table for temperature vs. time during the air reflow process

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

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VI TELEFILTER**Filter specification****TFS 70H26A****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

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