

VI TELEFILTER

Filter specification

TFS 562

1/5

Measurement condition

Ambient temperature:	23	°C
Input power level:	0	dBm
Terminating impedance:		
Input:	50	Ω
Output:	50	Ω

Characteristics

Remark:

The maximum attenuation in the pass band is defined as the insertion loss a_e . The nominal frequency f_N is fixed at 562 MHz without any tolerance or limit. The values of absolute attenuation a_{abs} are guaranteed for the whole operating temperature range. The frequency shift of the filter in the operating temperature range is included in the production tolerance scheme.

D a t a			typ. Value		tolerance / limit	
Insertion loss within PB	a_e		2,1	dB	max.	3,0 dB
Nominal frequency	f_N		-			562 MHz
Passband	PB					24 MHz
Absolute attenuation	a_{abs}					
$f_N \pm 80$ MHz ... $f_N \pm 149$ MHz			50	dB	min.	33,5 dB
$f_N + 149$ MHz ... $f_N + 300$ MHz			49	dB	min.	45,0 dB
1 MHz ... 200 MHz			61	dB	min.	50,0 dB
200 MHz ... $f_N - 149$ MHz			64	dB	min.	55,0 dB
Group delay ripple within PB	p-p		10	ns	max.	0,2 μs
IIP3	*		-		min.	36 dBm
Input power level			-		max.	10 dBm
Operating temperature range	OTR		-		- 10 °C ... + 75 °C	
Storage temperature range			-		- 40 °C ... + 85 °C	
Temperature coefficient of frequency	TC_f **		-76	ppm/K	-	

*) $f_{in1} = f_c - 14$ MHz; $f_{in2} = f_c - 14,4$ MHz; $P_{in} = 0$ dBm; $f_{measurement1} = f_c - 13,6$ MHz; $f_{measurement2} = f_c - 14,8$ MHz. The centre frequency f_c is the arithmetic mean value of the upper and lower frequencies at the 3 dB filter attenuation level relative to the insertion loss a_e .

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

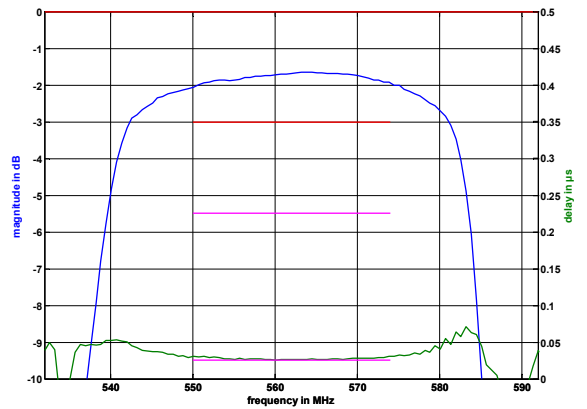
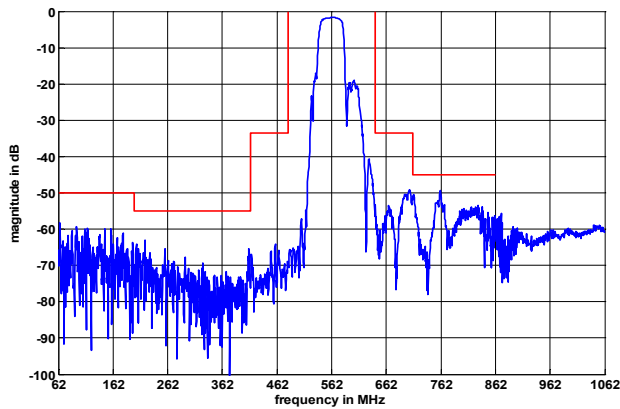
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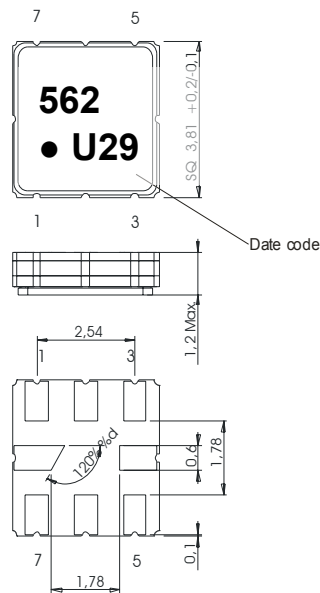
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Filter characteristic



Construction and pin connection

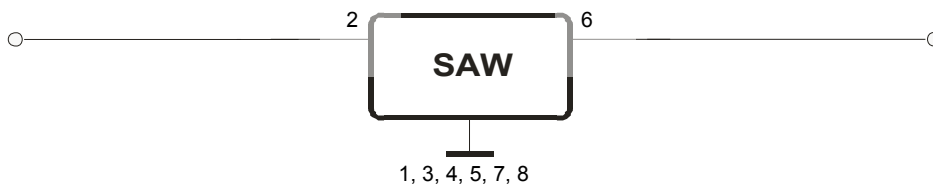
(All dimensions in mm)



- 1 Ground
- 2 Input
- 3 Ground
- 4 Ground
- 5 Ground
- 6 Output
- 7 Ground
- 8 Ground

Date code: Year + week
 U 2006
 V 2007
 W 2008
 ...

50 Ω Test circuit



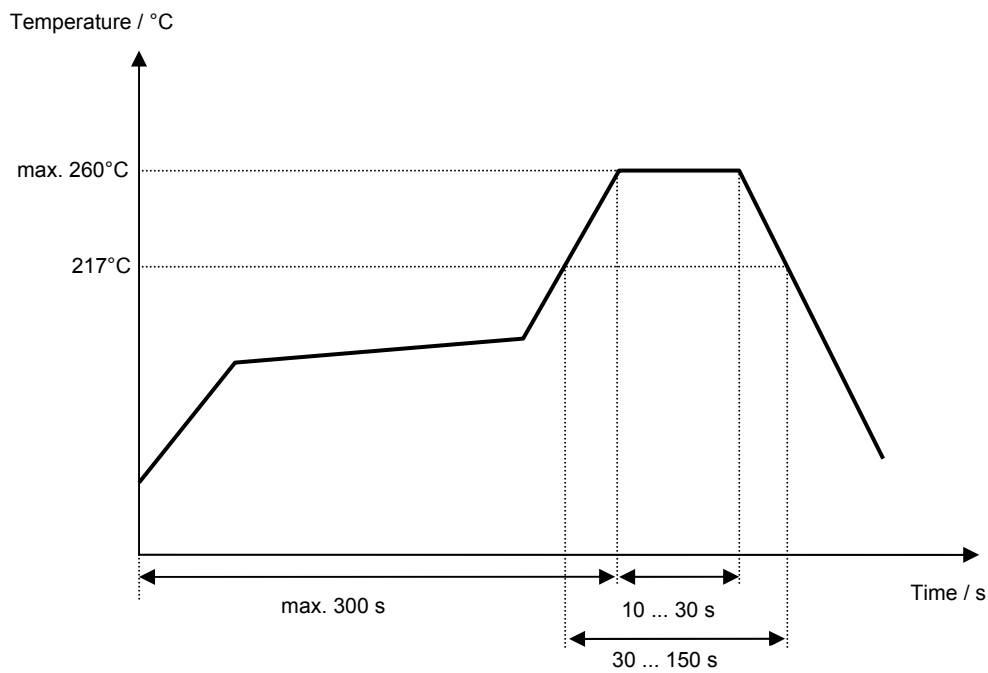
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Air reflow temperature conditions

Conditions	Exposure
Average ramp-up rate (30°C to 217°C)	less than 3°C/second
> 100°C	between 300 and 600 seconds
> 150°C	between 240 and 500 seconds
> 217°C	between 30 and 150 seconds
Peak temperature	max. 260°C
Time within 5°C of actual peak temperature	between 10 and 30 seconds
Cool-down rate (Peak to 50°C)	less than 6°C/second
Time from 30°C to Peak temperature	no greater than 300 seconds

Chip-mount air reflow profile



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VI TELEFILTER**Filter specification****TFS 562****5/5****History**

Version	Reason of Changes	Name	Date
1.0	Generation of development specification	Springfeldt	14.04.2004
1.1	Change of absolute attenuation $f_N + 149 \dots 300\text{MHz}$ change insertion loss	Strehl	20.01.2005
1.2	Change stability characteristics add typical values and filter characteristic generation of filter specification	Strehl	09.05.2005
1.3	Add IIP3 and change stability characteristics	Strehl	19.07.2006

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