

Vectron International**Filter specification****TFS 1575AA****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 1575,42 MHz without any tolerance or limit. 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 (reference level)		a_e	1,5 dB	max.	2,5 dB	
Nominal frequency		f_N	-		1575,42 MHz	
Passband		PB	-	$f_N \pm$	1,2 MHz	
Pass band ripple			0,7 dB	max.	1,0 dB	
Absolute attenuation		a_{abs}				
0,3 MHz ... 1520 MHz			42 dB	min.	35 dB	
1520 MHz ... 1535 MHz			39 dB	min.	30 dB	
1625 MHz ... 1630 MHz			55 dB	min.	30 dB	
1630 MHz ... 2400 MHz			45 dB	min.	40 dB	
2400 MHz ... 3000 MHz			45 dB	min.	30 dB	
3000 MHz ... 6000 MHz			22 dB	min.	10 dB	
VSWR within PB			1,5 : 1	max.	2 : 1	
Operating temperature range		OTR	-	- 40 °C ... + 85 °C		
Storage temperature range			-	- 45 °C ... + 85 °C		
Temperature coefficient of frequency		TC_f *	-36 ppm/K	-		

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

Generated:

Checked / Approved:

Vectron International GmbH & Co. KG

Potsdamer Straße 18

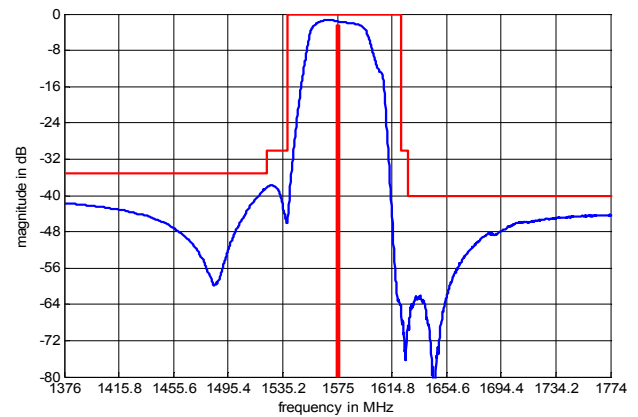
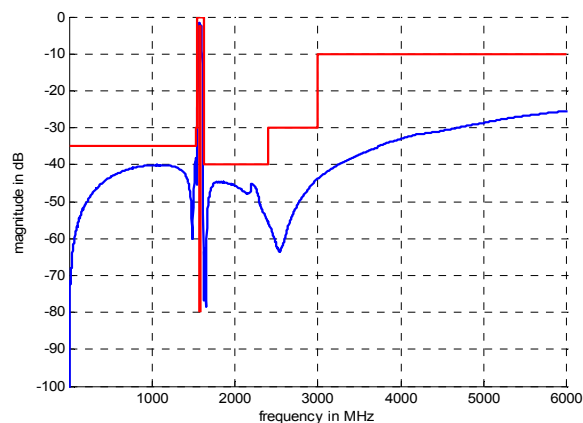
D 14 513 TELTOW / Germany

Tel: (+49) 3328 4784-0 / Fax: (+49) 3328 4784-30

E-Mail: tft@vectron.com

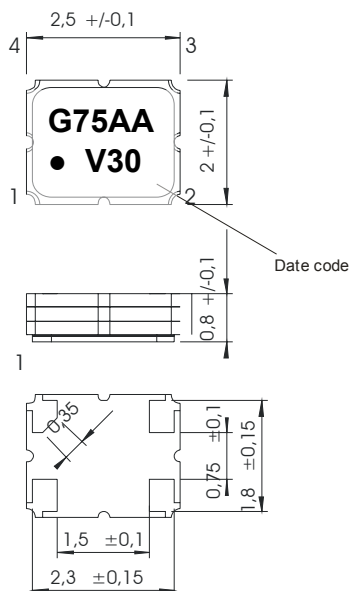
Vectron International GmbH & Co. KG reserves the right to make changes to the product(s) and/or information contained herein without notice. No liability is assumed as a result of their use or application. No rights under any patent accompany the sale of any such product(s) or information.

Filter characteristic



Construction and pin connection

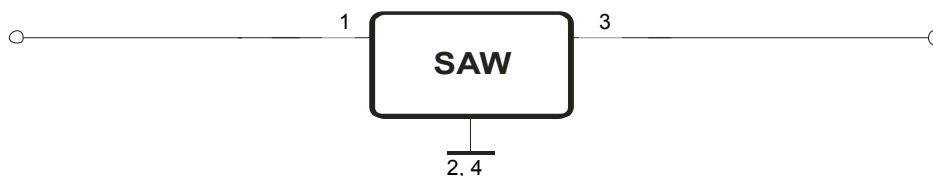
(All dimensions in mm)



- | | |
|---|--------|
| 1 | Input |
| 2 | Ground |
| 3 | Output |
| 4 | Ground |

Date code: Year + week
 V 2007
 W 2008
 X 2009
 ...

50 Ω Test circuit



Vectron International GmbH & Co. KG

Potsdamer Straße 18

D 14 513 TELTOW / Germany

Tel: (+49) 3328 4784-0 / Fax: (+49) 3328 4784-30

E-Mail: tft@vectron.com

Vectron International GmbH & Co. KG 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.

Stability characteristics, reliability

After the following tests the filter shall meet the whole specification:

1. Shock: 500g, 1 ms, half sine wave, 3 shocks each plane;
DIN IEC 68 T2 - 27
2. Vibration: 10 Hz to 500 Hz, 0,35 mm or 5 g respectively, 1 octave per min, 10 cycles per plan, 3 plans;
DIN IEC 68 T2 - 6
3. Change of temperature: -55 °C to 125°C / 30 min. each / 10 cycles
DIN IEC 68 part 2 – 14 Test N
4. Resistance to solder heat (reflow): reflow possible: three times max.;
for temperature conditions refer to the attached "Air reflow temperature conditions" on page 4;

This filter is RoHS compliant (2002/95/EG, 2005/618/EG)

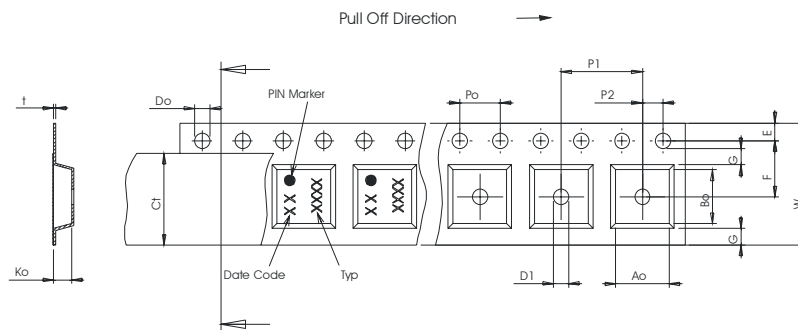
Packing

Tape & Reel: IEC 286 – 3, with exeption of value for N and minimum bending radius;
tape type II, embossed carrier tape with top cover tape on the upper side;

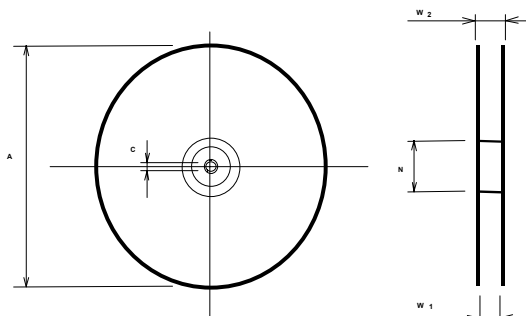
max. pieces of filters peer reel:	9000
reel of empty components at start:	min. 300 mm
reel of empty components at start including leader:	min. 500 mm
trailer:	min. 300 mm

Tape (all dimensions in mm)

W	: 8,00 +0,3/-0,1
Po	: 4,00 ± 0,1
Do	: 1,55 ± 0,05
E	:
F	: 3,50 ± 0,05
G(min)	: 0,75
P2	: 2,00 ± 0,1
P1	: 4,00 ± 0,1
D1(min)	: 1,00
Ao	: 2,25 ± 0,1
Bo	: 2,80 ± 0,1
Ct	: 5,5 ± 0,1

**Reel (all dimensions in mm)**

A	: 330
W1	: 8,4 +1,5/-0
W2(max)	: 14,4
N(min)	: 50
C	: 13,0 +0,5/-0,2



The minimum bending radius is 45 mm.

Vectron International GmbH & Co. KG

Potsdamer Straße 18

D 14 513 TELTOW / Germany

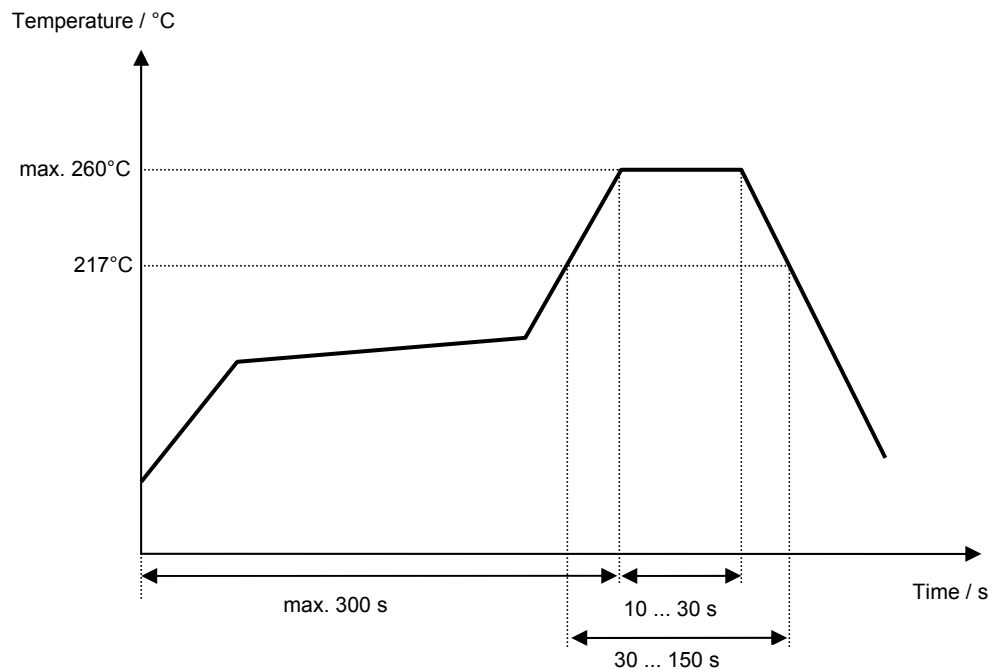
Tel: (+49) 3328 4784-0 / Fax: (+49) 3328 4784-30

E-Mail: tft@vectron.com

Vectron International GmbH & Co. KG 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.

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**Vectron International GmbH & Co. KG****Potsdamer Straße 18****D 14 513 TELTOW / Germany****Tel: (+49) 3328 4784-0 / Fax: (+49) 3328 4784-30****E-Mail: tft@vectron.com**

Vectron International GmbH & Co. KG 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.

Vectron International**Filter specification****TFS 1575AA****5/5****History**

Version	Reason of Changes	Name	Date
1.0	- Generation of filter specification	Noack	17.05.2011

Vectron International GmbH & Co. KG
Potsdamer Straße 18
D 14 513 TELTOW / Germany
Tel: (+49) 3328 4784-0 / Fax: (+49) 3328 4784-30
E-Mail: tft@vectron.com

Vectron International GmbH & Co. KG 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.