

**Bandpass Filter for Digital Cable & STB Applications**

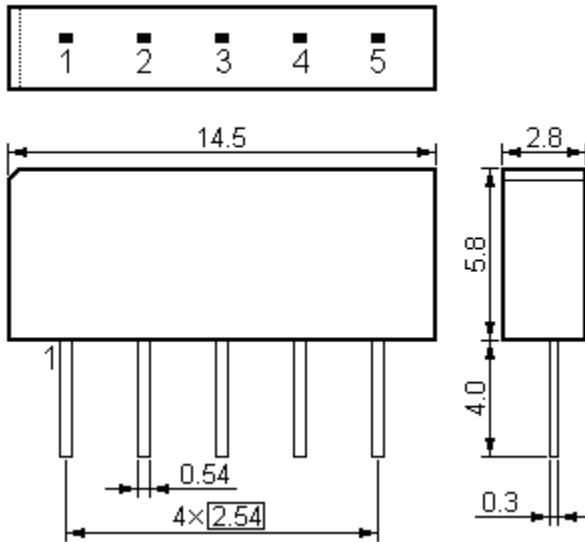
**36.125MHz**

**ACTX3033D/36.125/SIP5D**

**Features**

- n IF filter for digital cable TV
- n Plastic Package

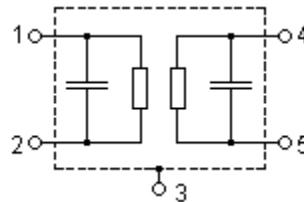
**Package Dimension**



**Pin Configuration**

- 1 Input
- 2 Input - ground
- 3 Chip carrier - ground
- 4 Output
- 5 Output

Plastic Package **SIP5D**  
 Unit: mm



**Performance**

**Maximum Ratings**

Rating		Value	Unit
Operable Temperature Range	$T_A$	-25 to +65	°C
Storage Temperature Range	$T_{stg}$	-40 to +85	°C
DC Voltage (between any terminals)	$V_{DC}$	5	V
AC Voltage (between any terminals)	$V_{PP}$	10	V

In keeping with our ongoing policy of product evolution and improvement, the above specification is subject to change without notice.

**ISO9001: 2000 Registered - Registration number 6830/2**

**For quotations or further information please contact us at:**

**3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK**

<http://www.actcrystals.com>

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Electronic Characteristics

Reference temperature:  $T_A = 25\text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 2\ \text{k}\Omega \parallel 3\ \text{pF}$

Item		min.	typ.	max.	Unit
<b>Centre frequency</b> (Centre between 10 dB points)	$f_C$	36.070	36.125	36.180	MHz
<b>Insertion attenuation</b> Reference level for the following data	$IL$ 36.13 MHz	18.8	20.3	21.8	dB
<b>Pass bandwidth</b>					
$\alpha_{rel} \leq 1\ \text{dB}$	$BW_{1\text{dB}}$	—	7.2	—	MHz
$\alpha_{rel} \leq 3\ \text{dB}$	$BW_{3\text{dB}}$	—	7.9	—	MHz
$\alpha_{rel} \leq 30\ \text{dB}$	$BW_{30\text{dB}}$	—	9.4	—	MHz
<b>Relative attenuation</b>	$\alpha_{rel}$				
	32.32 MHz	—	1.3	—	dB
	39.93 MHz	0.3	1.3	2.3	dB
	32.13 MHz	2.4	3.6	4.8	dB
	40.13 MHz	2.4	3.6	4.8	dB
	31.25 MHz	28.0	36.0	—	dB
	47.25 MHz	42.0	50.0	—	dB
Lower sidelobe	25.00 ... 29.50 MHz	24.0	30.0	—	dB
	29.50 ... 31.25 MHz	27.0	33.0	—	dB
Upper sidelobe	40.90 ... 43.50 MHz	26.0	32.0	—	dB
	43.50 ... 50.00 MHz	28.0	37.0	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K

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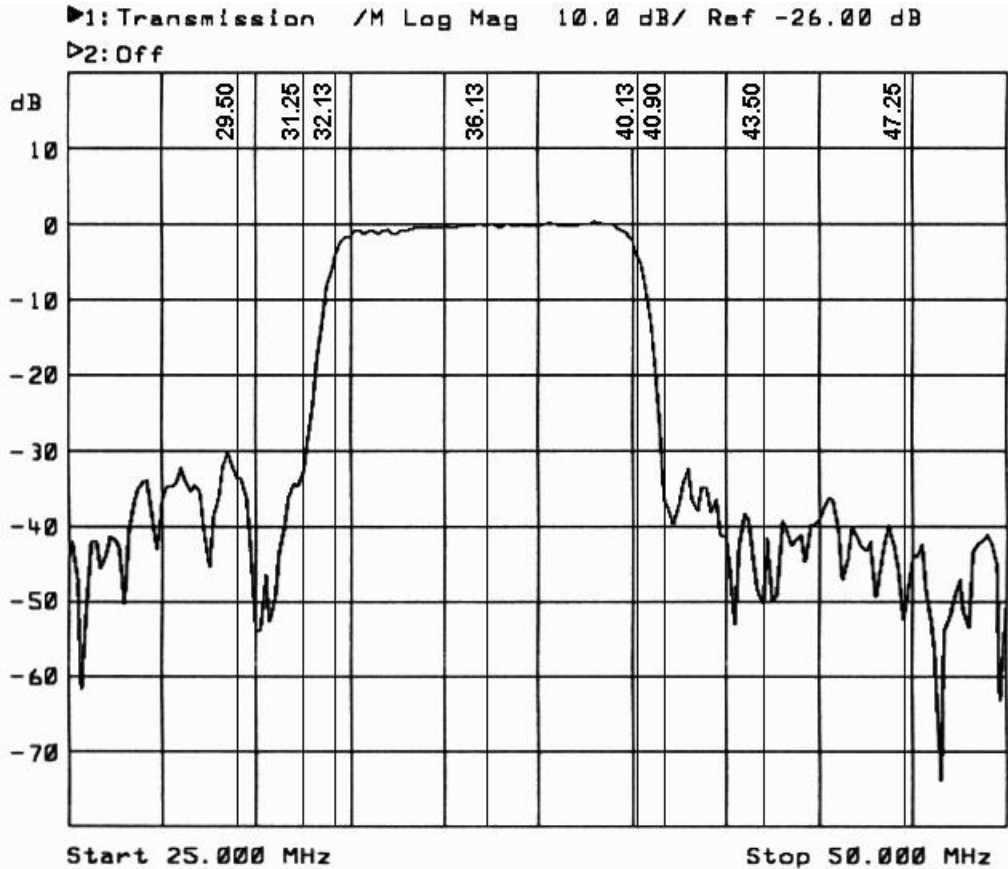
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## Frequency Response



i CAUTION: Electrostatic Sensitive Device. Observe precautions for handling!

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