

Bandpass Filter for Digital Cable Applications

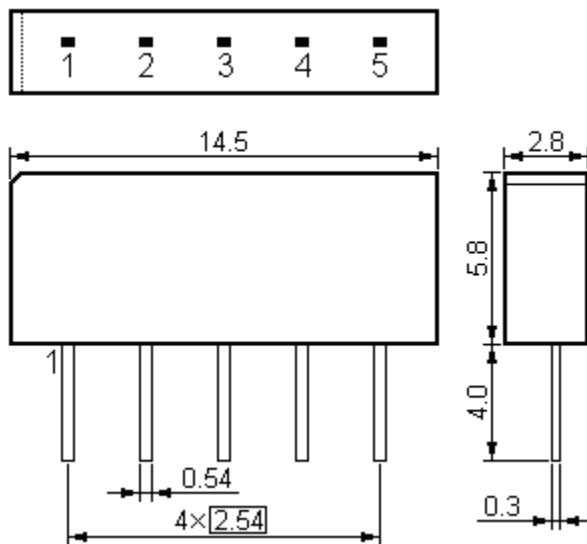
36.125MHz

ACTX3134D/36.125/SIP5D

Features

- n IF filter for digital cable TV
- n 3 dB bandwidth: 6.0 MHz
- n Plastic Package

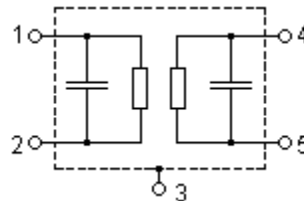
Package Dimension



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}	12	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>

Issue : 1 C1

Date : SEPT 04

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
Centre frequency (Centre between 3 dB points)	f_c	—	36.125	—	MHz
Insertion attenuation Reference level for the following data	IL 36.13 MHz	16.0	17.5	19.0	dB
Pass bandwidth $\alpha_{rel} \leq 3\ \text{dB}$	$BW_{3\text{dB}}$	5.8	6.0	6.2	MHz
$\alpha_{rel} \leq 30\ \text{dB}$	$BW_{30\text{dB}}$	7.4	7.6	7.8	MHz
Relative attenuation	α_{rel}				
	33.59 MHz	-0.4	0.8	2.0	dB
	38.65 MHz	-1.0	0.2	1.4	dB
	33.12 MHz	1.8	3.0	4.2	dB
	39.12 MHz	1.1	2.3	3.5	dB
Lower sidelobe	25.00 ... 32.12 MHz	25.0	30.0	—	dB
Upper sidelobe	40.12 ... 41.42 MHz	26.0	33.0	—	dB
	41.42 ... 45.00 MHz	28.0	35.0	—	dB
Reflected wave signal suppression 1.3 μs ... 6.0 μs after main pulse (test pulse 250 ns, carrier frequency 36.13 MHz)		42.0	52.0	—	dB
Feed-through signal suppression 1.3 μs ... 1.2 μs before main pulse (test pulse 250 ns, carrier frequency 36.13 MHz)		50.0	56.0	—	dB
Group delay ripple (p-p)	Δt				
	32.12 ... 39.12 MHz	—	40	—	ns
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K

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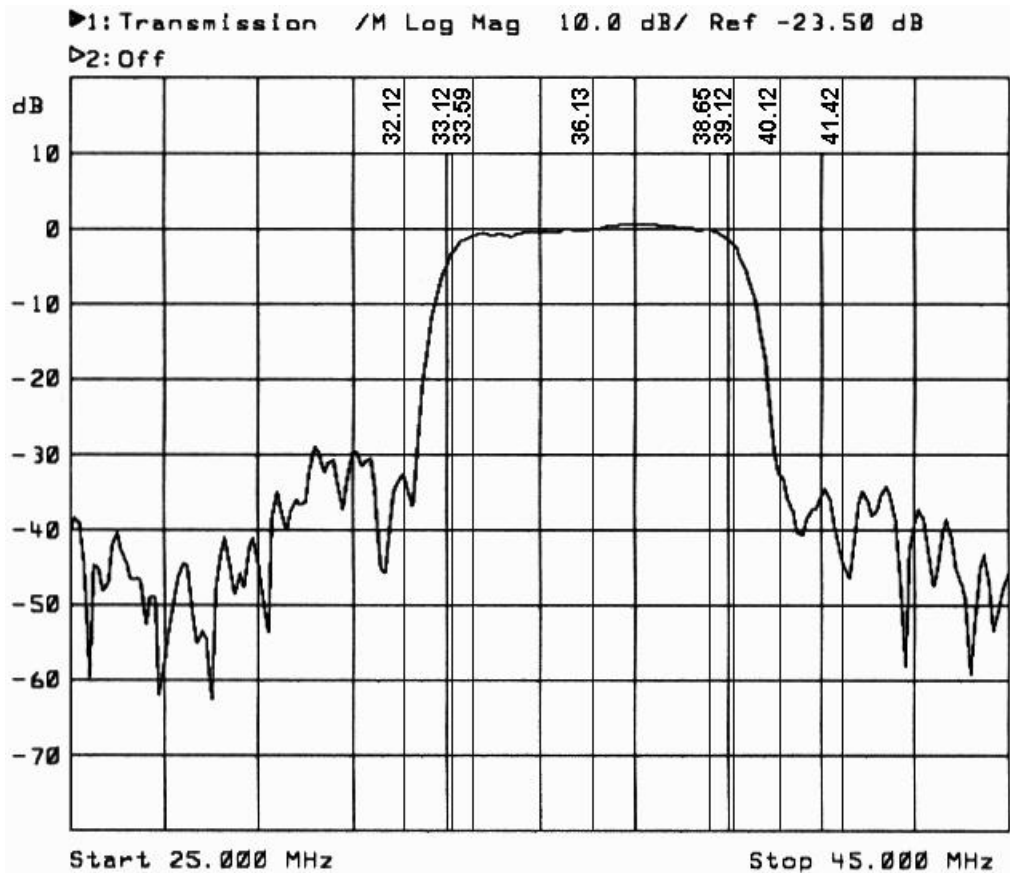
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Frequency Response



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

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