

Bandpass Filter for Digital Terrestrial TV Applications

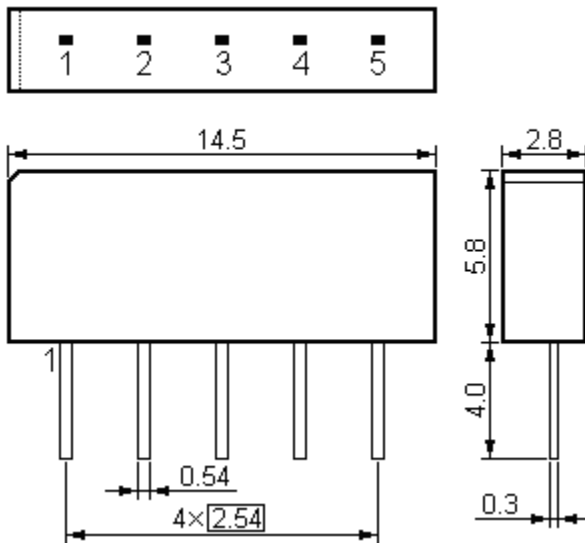
36.00 MHz

ACTX3142D/36.0/SIP5D

Features

- n IF filter for digital TV
- n Optimised for cascade of two devices
- n Plastic Package

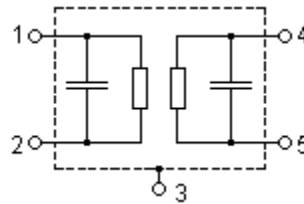
Package Dimension



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
Insertion attenuation	IL				
Reference level for the following data	36.00 MHz	19.0	20.5	22.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	32.35 ... 39.65 MHz	—	0.7	—	dB
Pass bandwidth					
$\alpha_{rel} \leq 1.5\ \text{dB}$	$BW_{1.5}$	—	7.7	—	MHz
$\alpha_{rel} \leq 3\ \text{dB}$	BW_{3dB}	—	8.0	—	MHz
$\alpha_{rel} \leq 15\ \text{dB}$	BW_{15dB}	—	8.9	—	MHz
$\alpha_{rel} \leq 30\ \text{dB}$	BW_{30dB}	—	9.4	—	MHz
Relative attenuation	α_{rel}				
	31.65 MHz	8.0	12.0	—	dB
	40.35 MHz	6.0	9.0	—	dB
	31.30 MHz	22.0	32.0	—	dB
	40.70 MHz	20.0	27.0	—	dB
Lower sidelobe	25.00 ... 31.00 MHz	35.0	40.0	—	dB
Upper sidelobe	41.00 ... 45.00 MHz	32.0	38.0	—	dB
Reflected wave signal suppression					
1.0 μs ... 6.0 μs after main pulse (test pulse 250 ns, carrier frequency 36.00 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 36.00 MHz)		—	50.0	—	dB
Group delay ripple (p-p)	Δt				
	32.35 ... 39.65 MHz	—	50	—	ns
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K

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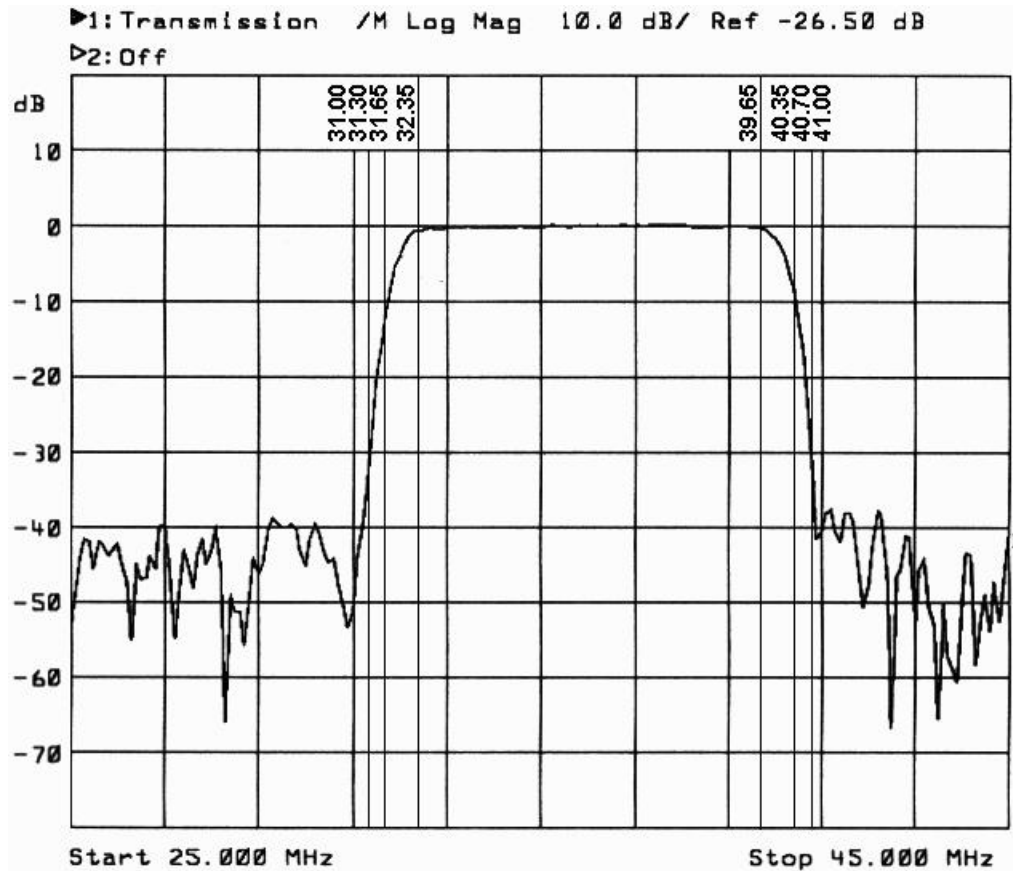
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Frequency Response



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

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