

**IF Filter for Intercarrier Applications**

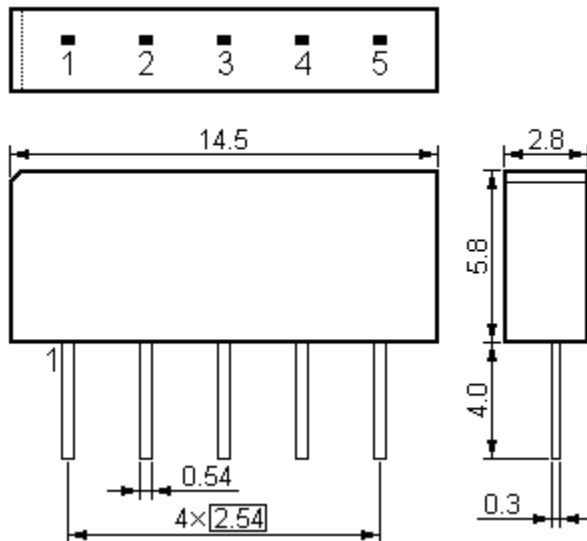
**38.90MHz**

**ACTK7033D/38.90/SIP5D**

**Features**

- n Standard: B/G, D/K
- n TV IF filter with Nyquist slope and sound shelf
- n Broad sound shelf for sound carriers at 32.40 MHz and 33.40 MHz
- n Group delay pre-distortion

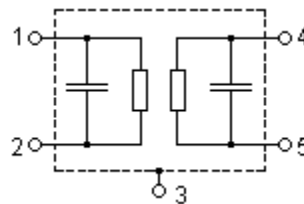
**Package Dimension**



**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
<b>Insertion attenuation</b>	$IL$				
Reference level for the following data	37.40 MHz	16.5	18.0	19.5	dB
<b>Relative attenuation</b>	$\alpha_{rel}$				
Picture carrier	38.90 MHz	6.5	7.5	8.5	dB
Colour carrier	34.47 MHz	1.0	2.0	3.0	dB
Sound carrier	32.40 MHz	15.5	17.0	18.5	dB
	33.40 MHz	16.7	18.2	—	dB
Adjacent picture carrier	30.90 MHz	46.0	58.0	—	dB
	31.90 MHz	25.0	35.0	—	dB
Adjacent sound carrier	40.40 MHz	28.0	38.0	—	dB
	41.40 MHz	40.0	50.0	—	dB
Lower sidelobe	25.00 ... 30.90 MHz	32.0	40.0	—	dB
Upper sidelobe	40.40 ... 45.00 MHz	28.0	36.0	—	dB
<b>Reflected wave signal suppression</b>					
1.2 $\mu\text{s}$ ... 6.0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 37.40 MHz)		42.0	54.0	—	dB
<b>Feed-through signal suppression</b>					
1.2 $\mu\text{s}$ ... 1.1 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 37.40 MHz)		50.0	56.0	—	dB
<b>Group delay pre-distortion</b>	$\Delta t$				
(reference frequency 38.90 MHz)					
	36.90 MHz	—	-55	—	ns
	34.47 MHz	—	45	—	ns
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K

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:**

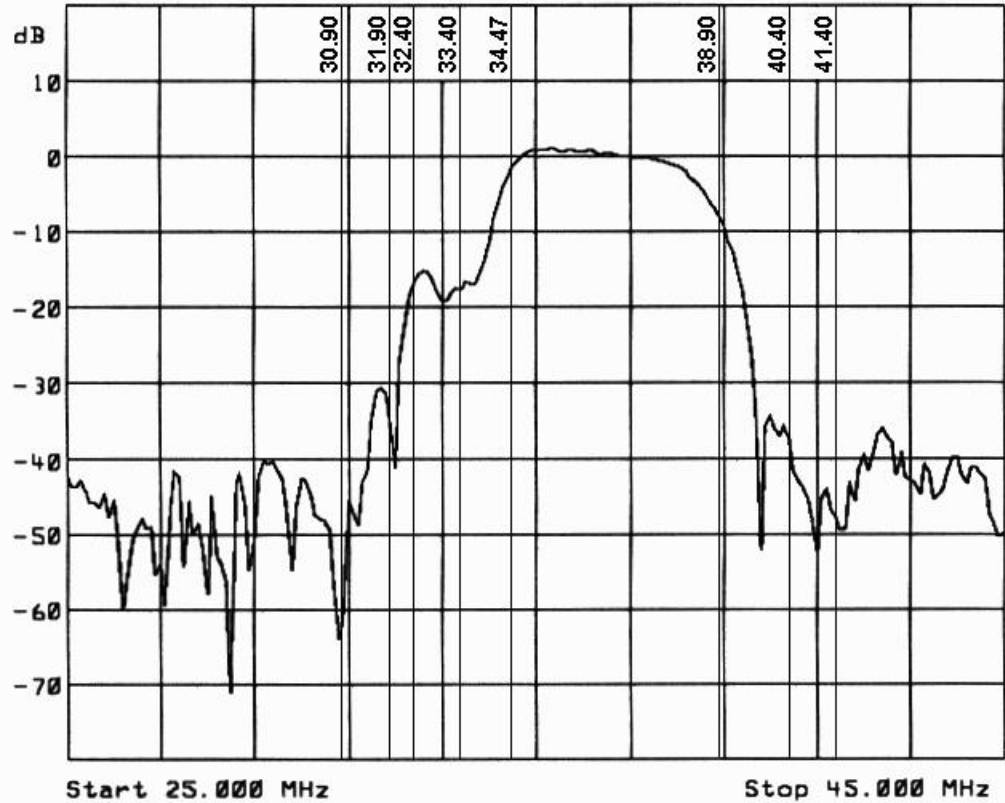
**3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK**

<http://www.actcrystals.com>

Issue : 1 C1

Date : SEPT 04

## Frequency Response



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

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