

Bandpass Filter for Digital Audio Applications

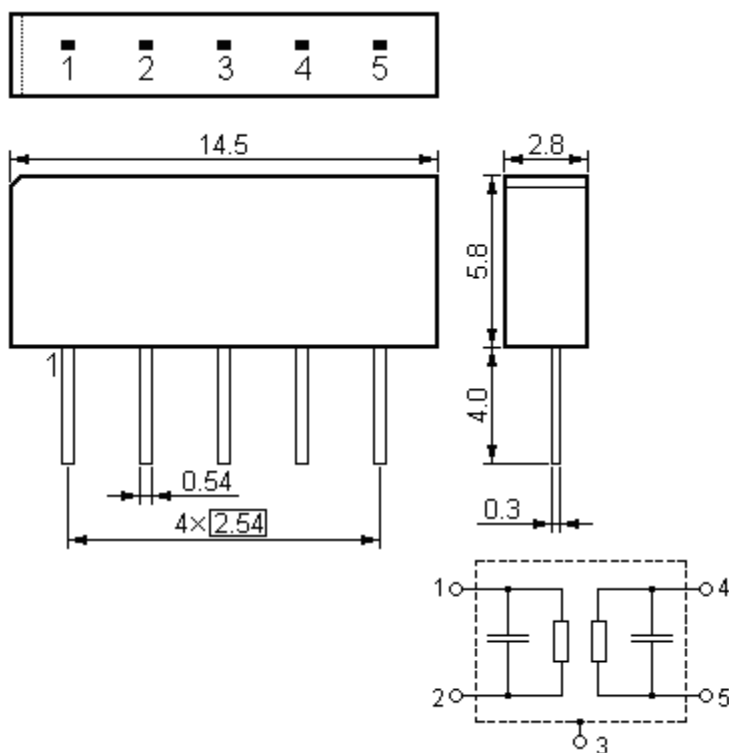
38.912MHz

ACTX3077D/38.912/SIP5D

Features

- n Standard: DAB
- n IF filter for Digital Audio Broadcasting
- n Constant group delay
- 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}	0	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: $T_A = 25 (45) ^\circ\text{C}$

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	f_C				
(Centre between 10 dB points)		(38.874)	(38.912)	(38.950)	MHz
Insertion attenuation	IL				
Reference level for the following data	38.922 (38.912) MHz	17.2	18.7	20.2	dB
Pass bandwidth					
$\alpha_{\text{rel}} \leq 3 \text{ dB}$	$BW_{3\text{dB}}$	—	1.5	—	MHz
$\alpha_{\text{rel}} \leq 30 \text{ dB}$	$BW_{30\text{dB}}$	—	2.7	—	MHz
Relative attenuation	α_{rel}				
36.27 ... 37.31 (36.26 ... 37.30) MHz		40.0	52.0	—	dB
40.61 ... 41.41 (40.60 ... 41.40) MHz		38.0	46.0	—	dB
Lower sidelobe (incl. second adjacent channel)					
30.01 ... 36.27 (30.00 ... 36.26) MHz		43.0	53.0	—	dB
Upper sidelobe (incl. second adjacent channel)					
41.41 ... 50.01 (41.40 ... 50.00) MHz		42.0	47.0	—	dB
Reflected wave signal suppression					
1.6 μs ... 6.0 μs after main pulse (test pulse 250 ns, carrier frequency 38.922 MHz)		42.0	52.0	—	dB
Group delay ripple (p-p)	Δt				
38.12 ... 39.72 (38.11 ... 39.71) MHz		—	35	—	ns
Temperature coefficient of frequency	TC_f	—	-18	—	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:

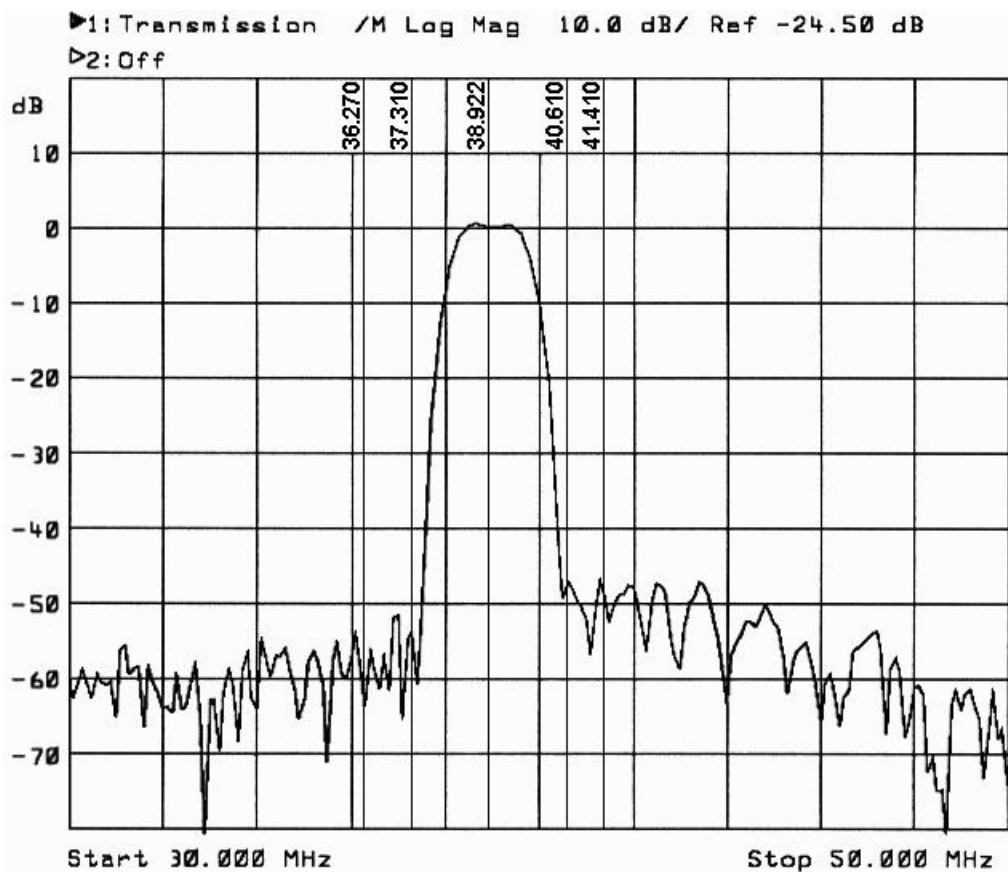
3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK

<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