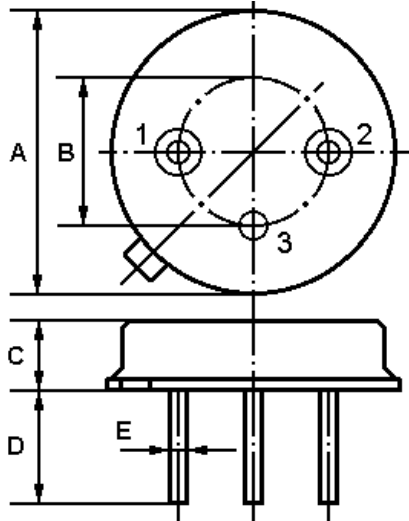


The ACTFF374S/374.0/TO39-2 is a low-loss, compact, and economical surface-acoustic-wave (SAW) filter in a low-profile metal TO-39 case for Wireless LAN applications.

1. Package Dimension (TO-39)

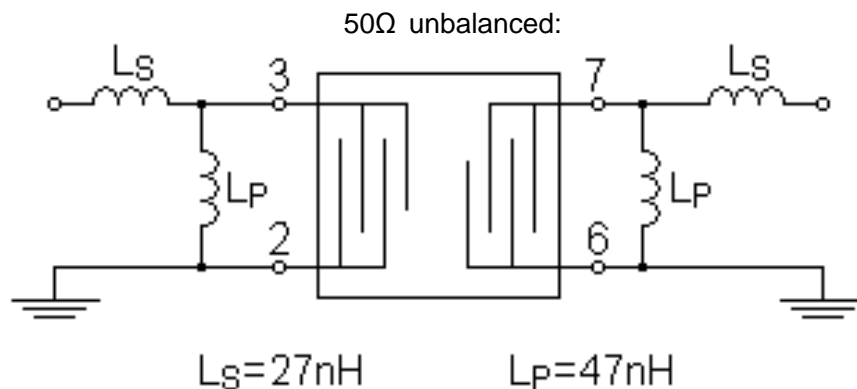


2,

Pin	Configuration
1	Input / Output
2	Output / Input
3	Case Ground

Dimension	Data (unit: mm)
A	9.30±0.20
B	5.08±0.10
C	3.40±0.20
D	3±0.20 / 5±0.20
E	0.45±0.20

3. Matching network (Element values may depend on PCB layout)



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

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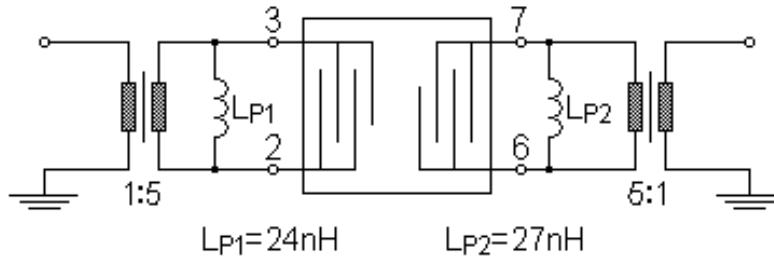
3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK

<http://www.actcrystals.com>

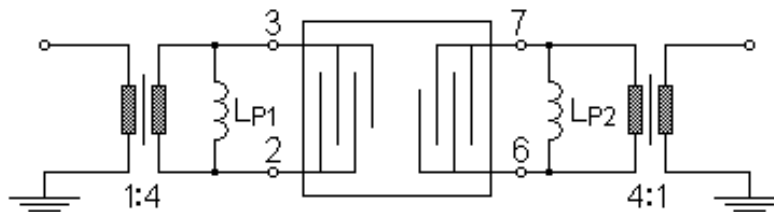
Issue : 1 C1

Date : SEPT 04

250Ω balanced:

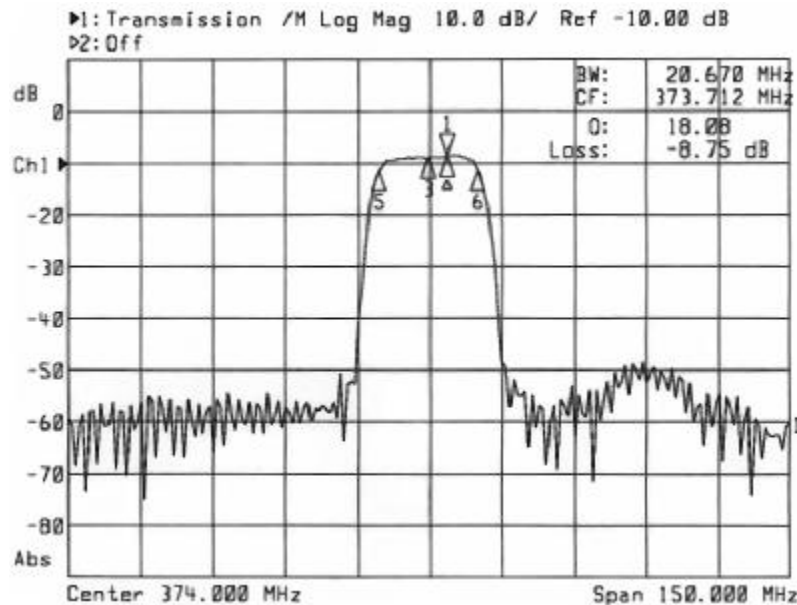


200Ω balanced:



4. Typical Response

Wide band



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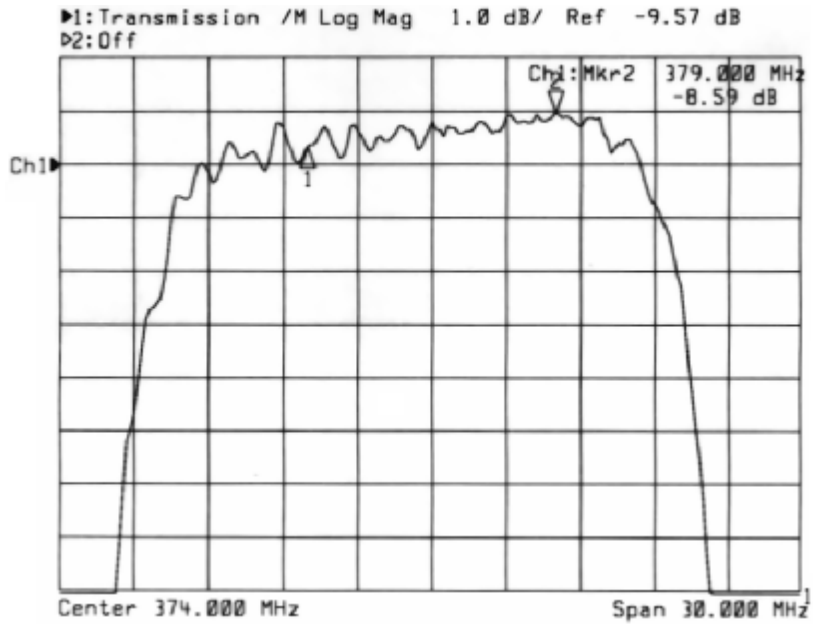
3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK

<http://www.actcrystals.com>

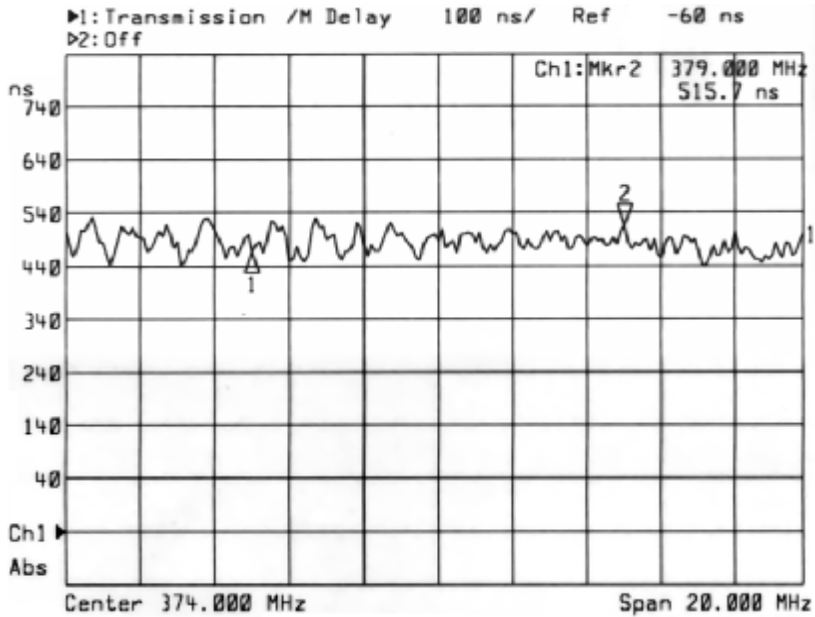
Issue : 1 C1

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Narrow band



Delay Ripple



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5. Performance

5-1. Maximum Ratings

Rating		Value	Unit
Source Power	P_S	10	dBm
DC Voltage	V_{DC}	0	V
Storage Temperature Range	T_{stg}	-40 to +85	°C
Operating Temperature Range	T_A	-10 to +65	°C

5-2. Electronic Characteristics

Terminating source impedance: $Z_S = 50\Omega$ unbalanced and matching network
 Terminating load impedance: $Z_L = 50\Omega$ unbalanced and matching network

Characteristics		Minimum	Typical	Maximum	Unit
Centre frequency	f_c	--	374.000	--	MHz
Insertion loss (including matching network)	IL	--	8.5	10.0	dB
3dB Bandwidth	BW_3	17	22	--	MHz
Amplitude ripple (p-p)	$f_c \pm 7\text{MHz}$ $\Delta\alpha$	--	0.5	1.0	dB
Group delay ripple (p-p)	$f_c \pm 7\text{MHz}$ Δt	--	40	100	ns
Triple transit suppression		30	40	--	dB
Relative attenuation (relative to IL)	α_{rel}				
357.5 ~ 352.0 MHz		30	42	--	dB
352.0 ~ 341.0 MHz		40	45	--	dB
341.0 ~ 224.0 MHz		48	52	--	dB
390.5 ~ 392.0 MHz		20	38	--	dB
392.0 ~ 396.0 MHz		30	42	--	dB
396.0 ~ 422.0 MHz		38	44	--	dB
422.0 ~ 454.0 MHz		40	45	--	dB
Temperature coefficient of frequency	TC_f	--	-87	--	ppm/K

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

1. The frequency f_c is defined as the midpoint between the 3dB frequencies.
2. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50 Ω test system with $VSWR \leq 1.2:1$. The test fixture L and C are adjusted for minimum insertion loss at the filter centre frequency, f_c . Note that insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality.
3. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
4. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
5. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
6. Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) per se, not for applications, processes and circuits implemented within components or assemblies.

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