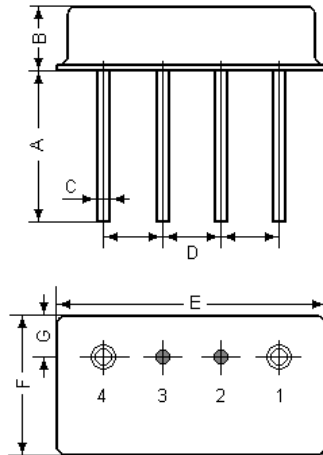


The **ACTF233/233.15/F16** is a low-loss, compact, and economical surface-acoustic-wave (SAW) RF filter in a through hole F-16 package for base station applications.  
 (Centre frequency : 233.15MHz)

## 1.Package Dimensions F16



2.

Pins	Configuration
1	Input / Output
4	Output / Input
2/3	Case Ground

Dimensions	Data (unit: mm)
A	5.0±0.3
B	3.5±0.3
C	4 - $\varnothing 0.5 \pm 0.2$
D	3 - 2.54
E	12.0±0.5
F	7.2±0.2
G	2.0±0.2

## 3.Characteristic

### 3.1 Absolute Maximum Ratings

Ratings	Value	Units
CW RF Power Dissipation	+0	dBm
DC Voltage between Any Two Pins	±30	VDC
Case Temperature	-35 to +85	°C

### 3.2 Electrical Characteristics

Characteristic		Sym	Minimum	Typical	Maximum	Units
Centre Frequency (+25°C)	Absolute Frequency	$f_c$	233.10	233.15	233.20	MHz
	Tolerance from 233.15 MHz			±50		KHz
Insertion Loss(at minimum loss point)		$I_L$		14.2	14.6	dB
3dB Bandwidth		$BW_3$	470	520		KHz
Group Delay Deviation(with $f_c \pm 150\text{kHz}$ ) $f_c$				100	200	ns
Input/Output Impedance			50			$\Omega$
Rejection at $f_c \pm 600\text{kHz}$			18	--	--	dB

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

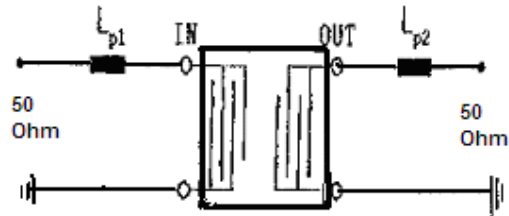
**ISO9001: 2000 Registered - Registration number 6830/2**

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>

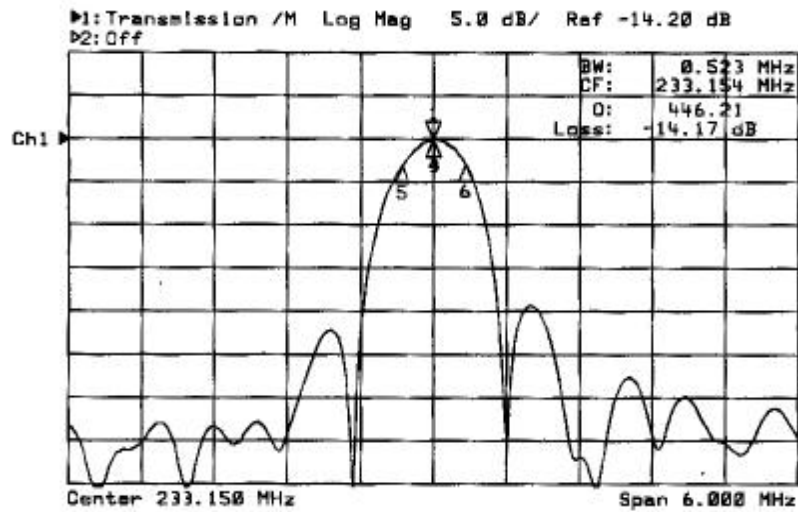
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## 4. Test Circuit

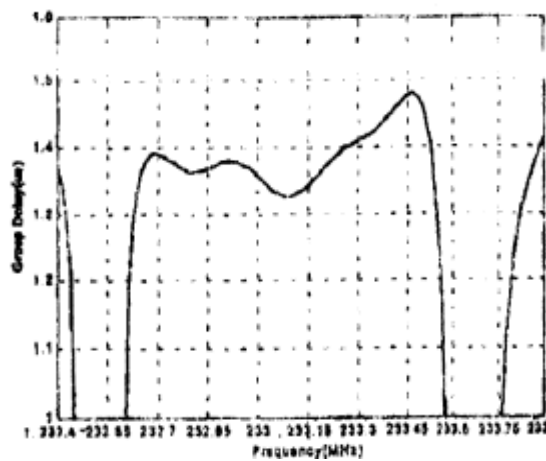


$L_{p1}=27\text{nH}$ ,  $L_{p2}=39\text{nH}$

## 5. Typical Frequency Characteristics



## 6. Group Delay



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

1. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a  $50\Omega$  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.
2. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
3. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
4. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
5. 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.

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

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