

## 610.00 MHz SAW Filter



- **Ideal Front-End Filter for Wireless Receivers**
- **Low-Loss, Coupled-Resonator Quartz Design**
- **Simple External Impedance Matching**
- **Rugged, Hermetic, Low Profile F-11 Package**

# SF610

Absolute Maximum Rating (Ta=25°C)		
Parameter	Rating	Unit
RF Power Dissipation	0	dBm
DC Voltage VDC Between Any Two Pins	10	V
Operating Temperature Range	-10 ~ +65	°C
Storage Temperature Range	-40 ~ +85	°C

Electronic Characteristics						
Parameter	Sym	Minimum	Typical	Maximum	Unit	
Frequency (25°C) Nominal Frequency	$f_C$	NS	610.00	NS	MHz	
Image Carrier Frequency	$f_{IMG}$	NS	607.15	NS	MHz	
Insertion Loss Attenuation 607.25 MHz ... 613.75 MHz	$IL$	-	4.0	6.5	dB	
3dB Passband	$BW_3$	-	10.0	-	MHz	
Passband Ripple 607.25 MHz ... 613.75 MHz	-	-	±0.5	±1.0	dB	
Relative Attenuation (relative to IL)						
$f_C - 40.0$ MHz ... $f_C - 18.0$ MHz	-	36	48	-	dB	
600.75 MHz	-	35	48	-	dB	
$f_C + 12.0$ MHz ... $f_C + 40.0$ MHz	-	25	35	-	dB	
Frequency Aging Absolute Value during the First Year	$ f_A $	-	-	10	ppm/yr	
DC Insulation Resistance Between any Two Pins	-	1.0	-	-	MΩ	
Input / Output Impedance Nominal	-	-	50 // 0	-	Ω//pF	

NS = Not Specified

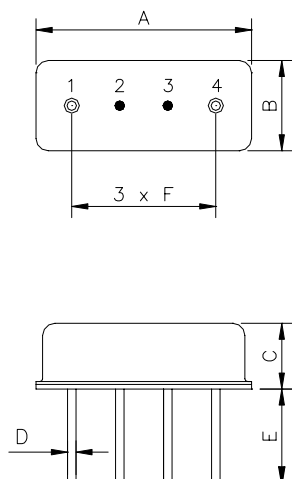
**Notes:**

- The frequency  $f_C$  is defined as the midpoint between the 3dB frequencies.
- Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50Ω test system with VSWR ≤ 1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency,  $f_C$ . Note that insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality.
- Unless noted otherwise, specifications apply over the entire specified operating temperature range.
- The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
- All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
- 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.
- For questions on technology, prices and delivery please contact our sales offices or e-mail to sales@vanlong.com.

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## Package Dimensions (F-11)



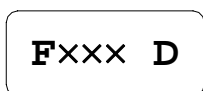
## Electrical Connections

Terminals	Connection
1	Input/Output
2	Case Ground
3	Case Ground
4	Output/Input

## Package Dimensions

Dimensions	Nom. (mm)	Tol. (mm)
A	11.0	±0.3
B	4.5	±0.3
C	3.2	±0.3
D	0.45	±0.1
E	5.0	±0.5
F	2.54	±0.2

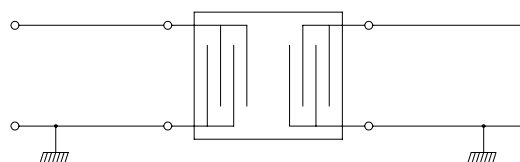
## Marking



F – SAW Filter  
 XXX – Part Code  
 D – Date Code

Year/Month	1	2	3	4	5	6
2004	n	p	q	r	s	t
2005	A	B	C	D	E	F
Year/Month	7	8	9	10	11	12
2004	u	v	w	x	y	z
2005	G	H	J	K	L	M

## Test Circuit



Nominal Source/Load Impedance : 50 Ω

## Typical Frequency Response

