- ***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 V_{DC} 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		*BW3*	-	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:

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 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.
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.
7. For questions on technology, prices and delivery please contact our sales offices or e-mail to sales@vanlong.com.

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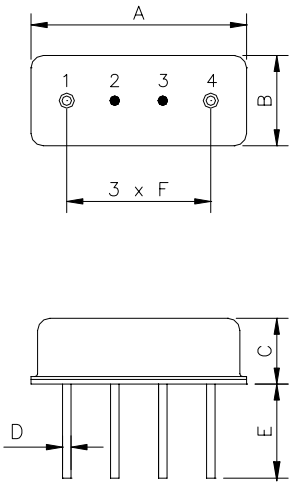
610.00 MHz SAW Filter

Package Dimensions (F-11)



Electrical Connections

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

Package Dimensions

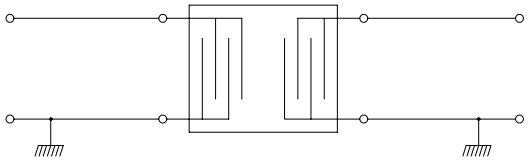
Dimensions	Nom. (mm)	Tol. (mm)
A	11.0	±0.3
B	4.5	±0.3
C	3.2	±0.3
D	0.45	±0.1
E	5.0	±0.5
F	2.54	±0.2

Marking

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

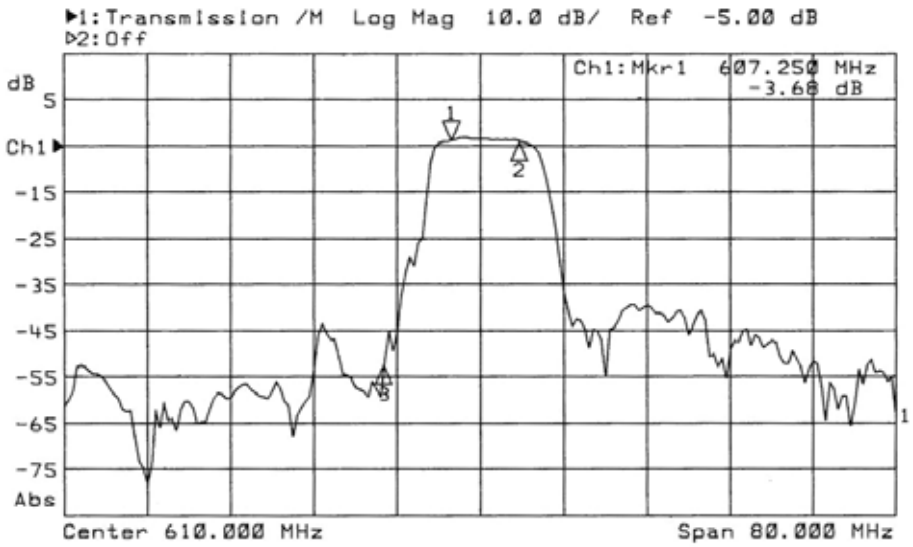
Year\Month	1	2	3	4	5	6
2004	n	p	q	r	s	t
2005	A	B	C	D	E	F
Year/Month	7	8	9	10	11	12
2004	u	v	w	x	y	z
2005	G	H	J	K	L	M

Test Circuit



Nominal Source/Load Impedance : 50 Ω

Typical Frequency Response



Marker	Freq (MHz)	Ch 1 (dB)	Ch 2 (dB)
1	607.250	-3.68	
2	613.750	-3.82	
3	600.750	-52.23	

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