

- **Ideal Front-End Filter for 433.92 MHz Receivers**
- **Low-Loss, Coupled-Resonator Quartz Design**
- **Simple External Impedance Matching**
- **Ultra Miniature Ceramic SMD Package**
- **Complies with Directive 2002/95/EC (RoHS Compliant)**

# SF5505

Absolute Maximum Rating ( $T_A=25^\circ\text{C}$ )		
Parameter	Rating	Unit
Input Power Level $P_{in}$	10	dBm
DC Voltage VDC Between Any Two Pins $V_{DC}$	0	V
Operating Temperature Range $T_A$	-10 ~ +60	$^\circ\text{C}$
Storage Temperature Range $T_{stg}$	-40 ~ +85	$^\circ\text{C}$

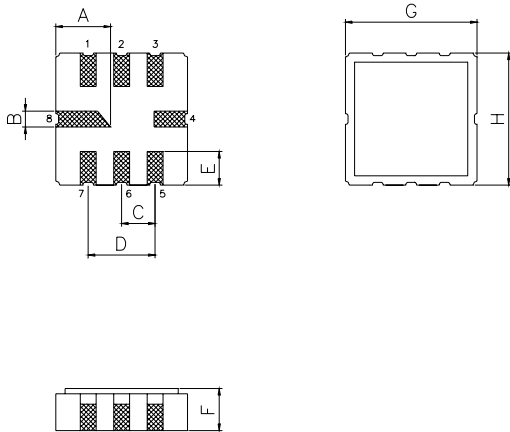
Electronic Characteristics ( $T_A=25^\circ\text{C}$ )						
Parameter	Sym	Minimum	Typical	Maximum	Unit	
Frequency (25 $^\circ\text{C}$ ) (Center frequency between 3dB points)	$f_c$	NS	433.92	NS	MHz	
Minimum Insertion Loss 433.80 ... 434.12 MHz	$IL$	-	2.0	4.0	dB	
3dB Passband	$BW_3$	670	730	790	KHz	
Passband (relative to IL)	$\alpha$	433.76 ... 434.08 MHz	-	1.0	2.0	dB
		433.74 ... 434.10 MHz	-	1.0	3.0	dB
		433.68 ... 434.16 MHz	-	1.5	6.0	dB
Relative Attenuation	$\alpha_{rel}$	10.00 ... 414.00 MHz	45	50	-	dB
		414.00 ... 428.00 MHz	35	40	-	dB
		428.00 ... 432.84 MHz	15	20	-	dB
		434.92 ... 442.00 MHz	10	15	-	dB
		442.00 ... 550.00 MHz	35	40	-	dB
550.00 ... 1000.0 MHz	45	50	-	dB		
Frequency Aging Absolute Value during the First Year	$ f_A $	-	-	10	ppm/yr	
DC Insulation Resistance Between any Two Pins	-	1.0	-	-	$\text{M}\Omega$	

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  $50\Omega$  test system with  $VSWR \leq 1.2:1$ . The test fixture L and C are adjusted for minimum insertion loss at the filter 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.

Package Dimensions (QCC8C)



Electrical Connections

Terminals	Connection
1	Input Ground
2	Input
5	Output
6	Output Ground
3,7	To be Grounded
4,8	Case Ground

Package Dimensions

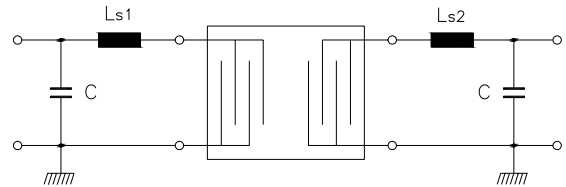
Dimensions	Nom (mm)	Dimensions	Nom (mm)
A	2.08	E	1.20
B	0.60	F	1.35
C	1.27	G	5.00
D	2.54	H	5.00

Marking



1. F5505 - Part Code
2. Frequency (MHz) in 6 digits
3. Date Code:  
 Y : Last digit of year  
 WW : Week No.

Test Circuit



C = 5.6 pF \*

Ls1 = Ls2 = 33nH \*

\*Note: Component values may change depending on Board layout.

Typical Frequency Response

