- ***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°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	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C

Electronic Characteristics (T_A=25°C)						
Parameter		Sym	Minimum	Typical	Maximum	Unit
Frequency (25°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)	433.76 ... 434.08 MHz	α	-	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	10.00 ... 414.00 MHz	α_{rel}	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	-	-	MΩ

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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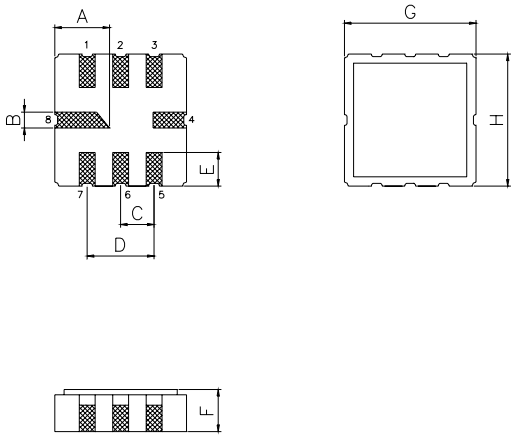
Package Dimensions (QCC8C)



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

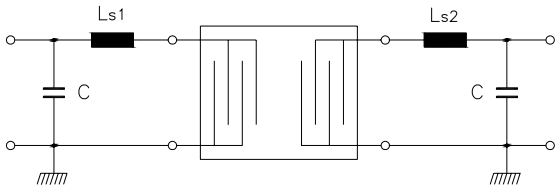
Marking

1. F5505 - Part Code
2. Frequency (MHz) in 6 digits
3. Date Code:

   Y : Last digit of year

   WW : Week No.

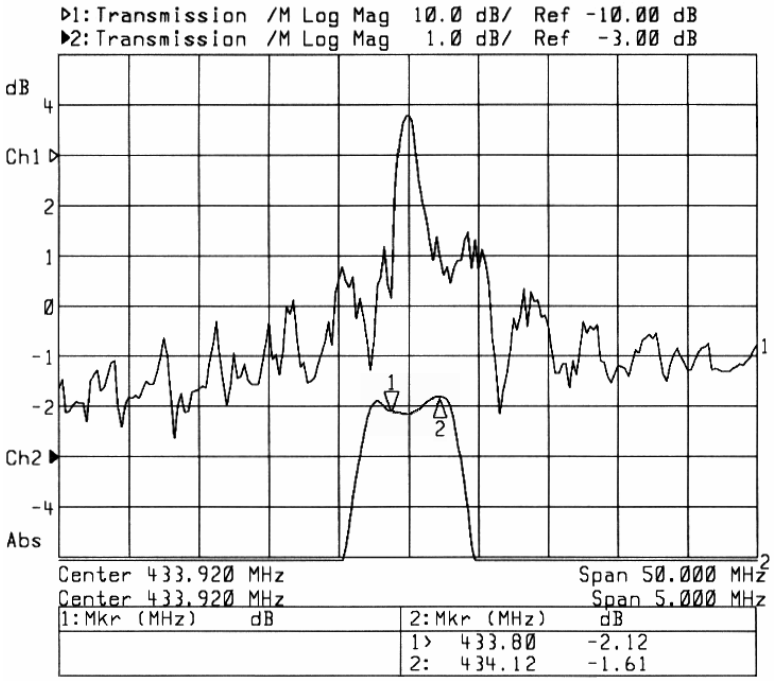
Test Circuit



C = 5.6 pF *
Ls1 = Ls2 = 33nH *

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

Typical Frequency Response



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