

- **Ideal Front-End Filter for 433.92 MHz Receivers**
- **Low-Loss, Coupled-Resonator Quartz Design**
- **Simple External Impedance Matching**
- **Ultra Miniature Ceramic SMD Package**

SF5506

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}	12	V
Operating Temperature Range	T_A	-10 ~ +60	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C

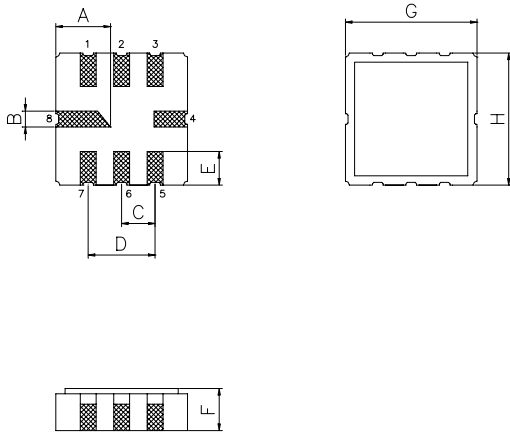
Electronic Characteristics (T _A =25°C)						
Parameter		Sym	Minimum	Typical	Maximum	Unit
Frequency (25°C) (Center frequency between 3dB points)		f_c	NS	433.92	NS	MHz
Minimum Insertion Loss	433.80 ... 434.12 MHz	IL	-	2.5	4.0	dB
3dB Passband		BW_3	500	-	750	KHz
Passband (relative to IL)	433.76 ... 434.08 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		40	45	-	dB
	428.00 ... 432.84 MHz		15	25	-	dB
	434.92 ... 442.00 MHz		10	20	-	dB
	442.00 ... 550.00 MHz		33	38	-	dB
550.00 ... 1000.0 MHz	45	50	-	dB		
Frequency Aging	Absolute Value during the First Year	$ fA $	-	-	10	ppm/yr
DC Insulation Resistance Between any Two Pins		-	1.0	-	-	MΩ

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.

Package Dimensions (QCC8C)



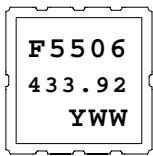
Electrical Connections

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

Package Dimensions

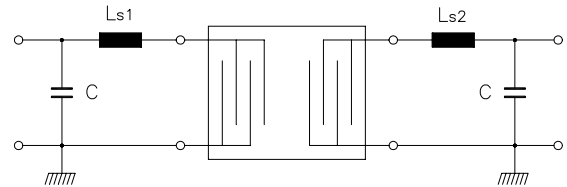
Dimensions	Nom (mm)	Dimensions	Nom (mm)
A	2.08	E	1.20
B	0.60	F	1.35
C	1.27	G	5.00
D	2.54	H	5.00

Marking



1. F5506 - 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

