

- **Ideal Front-End Filter for 401.65MHz Receivers**
- **Low-Loss, Coupled-Resonator Quartz Design**
- **Simple External Impedance Matching**
- **Ultra Miniature Ceramic QCC8C Package**

SF5501

Absolute Maximum Rating (Ta=25°C)		
Parameter	Rating	Unit
Input Power Level P_{in}	10	dBm
DC Voltage V_{DC}	12	V
Operating Temperature Range T_A	-10 ~ +60	°C
Storage Temperature Range T_{stg}	-40 ~ +85	°C

Electronic Characteristics					
Parameter	Sym	Minimum	Typical	Maximum	Unit
Nominal Frequency (25°C) (Center frequency between 3dB points)	f_c	NS	401.65	NS	MHz
Insertion Loss	IL	-	3.0	5.0	dB
3dB Bandwidth	BW_3	-	550	-	KHz
Rejection					
at f_c - 21.4 MHz (Image)	-	40	50	-	dB
at f_c - 10.7 MHz (LO)	-	15	25	-	dB
Ultimate	-	-	60	-	dB
Temperature Stability					
Operating Temperature Range	T_C	-10	-	+60	°C
Turnover Temperature	T_O	25	-	55	°C
Turnover Frequency	f_O	-	f_c	-	KHz
Frequency Temperature Coefficient	FTC	-	0.032	-	ppm/°C
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

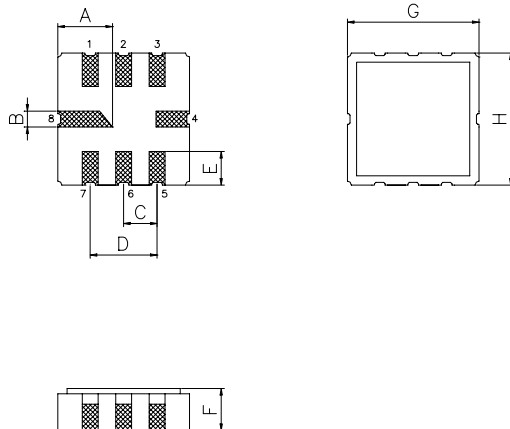
Notes:

- 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.
- Frequency aging is the change in f_c with time and is specified at +65°C or less. Aging may exceed the specification for prolonged temperatures above +65°C. Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.
- Turnover temperature, T_O , is the temperature of maximum (or turnover) frequency, f_O . The nominal frequency at any case temperature, T_C , may be calculated from: $f = f_O [1 - FTC (T_O - T_C)^2]$.
- 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 sales@vanlong.com.

401.65 MHz SAW Filter



Package Dimensions (QCC8C)



Electrical Connections

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

Package Dimensions

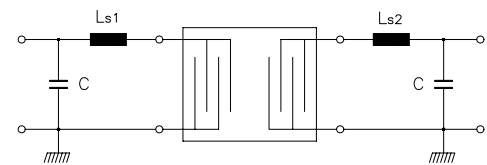
Dimensions	Nom (mm)	Dimensions	Nom (mm)
A	2.08	E	1.20
B	0.60	F	1.35
C	1.27	G	5.00
D	2.54	H	5.00

Marking



- F5501 - Part Code
- Frequency (MHz) in 6 digits
- Date Code:
Y : Last digit of year
WW : Week No.

Test Circuit



C = 8.2 pF

Ls1 = Ls2 = 5 turns of 0.5mm insulated copper, 2.0 ID.

Typical Frequency Response

