

- **Designed to Wireless Audio Applications in 864.00 MHz**
- **Low-Loss, Coupled-Resonator Quartz Design**
- **Simple External Impedance Matching**
- **Ultra Miniature Ceramic QCC8C SMD Package**
- **Complies with Directive 2002/95/EC (RoHS Compliant)**

# SF5900

Absolute Maximum Rating (Ta=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

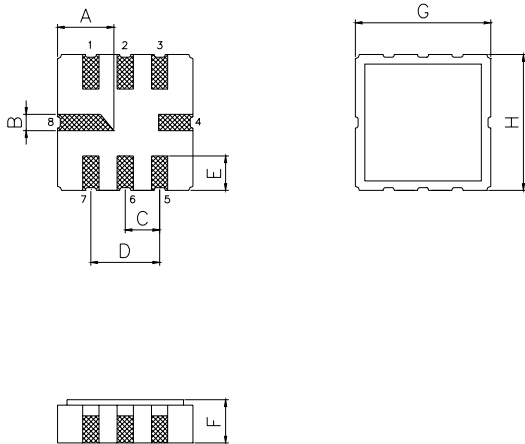
Electronic Characteristics					
Parameter	Sym	Minimum	Typical	Maximum	Unit
Nominal Frequency (at 25°C) (Center frequency between 3dB point)	$f_c$	NS	864.00	NS	MHz
Insertion Loss Attenuation 863.00 ... 865.00 MHz	$IL$	-	4.0	-	dB
Usable Bandwidth	$BW$	-	$\pm 1.0$	-	MHz
Passband Ripple 863.00 ... 865.00 MHz	$\Delta\alpha$	-	-	1.5	dB
Absolute Attenuation					
820.00 ... 823.00 MHz	$\alpha_{rel}$	40	-	-	dB
841.00 ... 844.00 MHz		35	-	-	dB
884.00 ... 887.00 MHz		35	-	-	dB
905.00 ... 908.00 MHz		40	-	-	dB
Frequency Aging Absolute Value during the First Year	$ fA $	-	-	10	ppm/yr
DC Insulation Resistance Between any Two Pins	-	1.0	-	-	MΩ
Input / Output Impedance (nominal)	-	-	50	-	Ω

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  $\leq 1.2:1$ . 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.
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 sales@vanlong.com.

Package Dimensions (QCC8C)



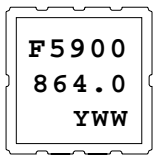
Electrical Connections

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

Package Dimensions

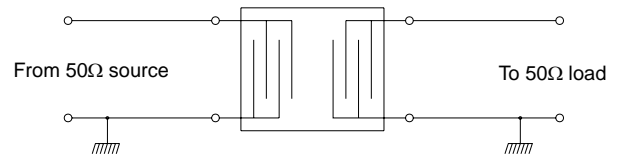
Dimensions	Nom (mm)	Dimensions	Nom (mm)
A	2.08	E	1.20
B	0.60	F	1.35
C	1.27	G	5.00
D	2.54	H	5.00

Marking



1. F5900 - Part Code
2. Frequency (MHz) in 5 digits
3. Date Code:  
 Y : Last digit of year  
 WW : Week No.

Test Circuit



Typical Frequency Response

