

- **Ideal for Receivers of Satellite Broadcasting System**
- **Constant Group Delay**
- **Improved ESD capability by integrated shunt resistors**
- **Ultra Miniature Ceramic QCC8C SMD Package**
- **Complies with Directive 2002/95/EC (RoHS Compliant)**

SF5510

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

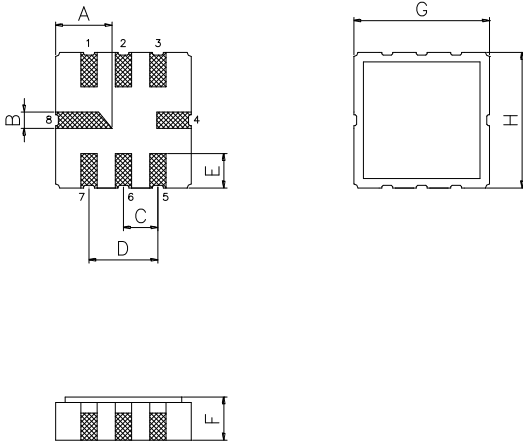
Electronic Characteristics						
Parameter		Sym	Minimum	Typical	Maximum	Unit
Center Frequency (25°C)	Between 3dB point	f_c	NS	479.50	NS	MHz
	Tolerance from 479.50 MHz	Δf_c	-	-	1.0	MHz
Insertion Attenuation	479.50 MHz	α	-	22.0	24.0	dB
Pass Bandwidth	$\alpha_{rel} \leq 3dB$	BW_3	-	15.8	-	MHz
Relative Attenuation	467.50 MHz	α_{rel}	-	-47	-30	dB
	469.50 MHz		-	-13	-10	dB
	471.50 MHz		-5	-2.5	-	dB
	487.50 MHz		-5	-4.0	-	dB
	489.50 MHz		-	-21	-10	dB
	491.50 MHz		-	-47	-30	dB
Amplitude Ripple (p-p)	474.50 ... 484.50 MHz	$\Delta\alpha$	-	0.6	1.5	dB
Group Delay Ripple (p-p) (Delay aperture = 1.25 MHz)	473.50 ... 485.50 MHz	$\Delta\tau$	-	14	40	ns
Temperature Coefficient of Frequency		FTC	-	-18	-	ppm/K

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

Package Dimensions (QCC8C)



Electrical Connections

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

Package Dimensions

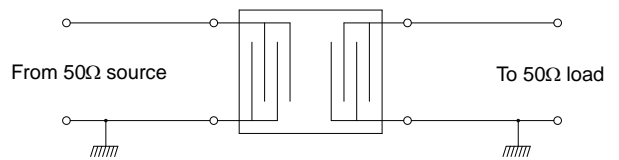
Dimensions	Nom (mm)	Dimensions	Nom (mm)
A	2.08	E	1.20
B	0.60	F	1.35
C	1.27	G	5.00
D	2.54	H	5.00

Marking



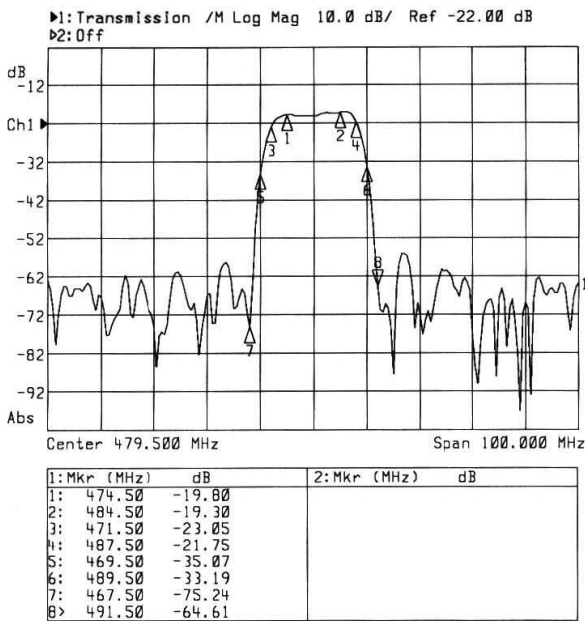
- Laser or ink marking
- SF5510 - Part Code
 - Date Code:
YY : Last 2 digits of year
WW : Week No.

Test Circuit



Typical Frequency Response

Wide Band



Narrow Band and Group Delay

