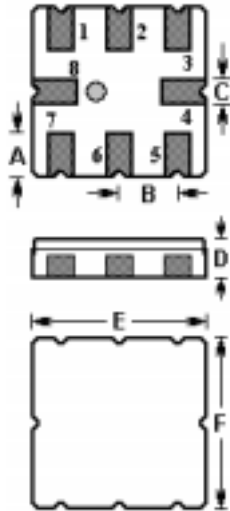


SAW Filter

VTF10906

The **VTF10906** is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) RF filter in a surface-mount ceramic **QCC8B** case for digital set top box.

1. Package Dimension (QCC8B)



Pin	Configuration
1, 2	Input
5, 6	Output
3, 7	To be grounded
4, 8	Case Ground

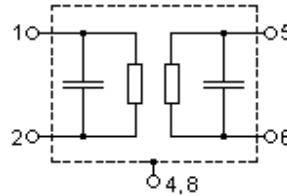
Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	1.00	D	1.50
B	1.27	E	3.80
C	0.60	F	3.80

2. Marking

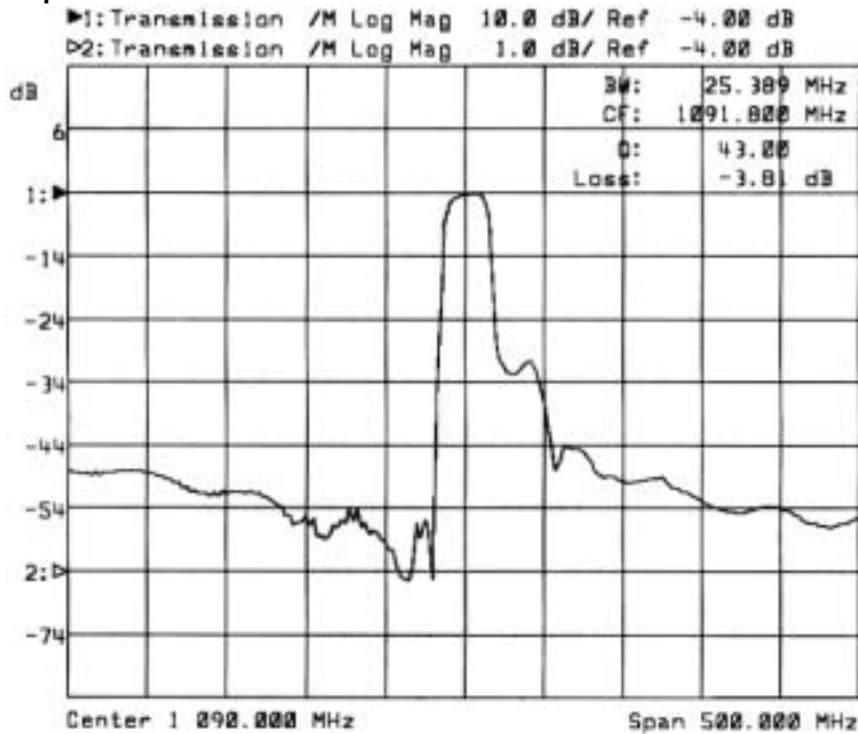
**VTF
10906**

Laser Marking

3. Equivalent LC Model



4. Typical Frequency Response



5. Performance

5-1. Maximum Ratings

Rating		Value	Unit
Input Power Level	P	0	dBm
DC Voltage	V_{DC}	0	V
Storage Temperature Range	T_{stg}	-40 to +85	
Operable Temperature Range	T_A	-40 to +85	

5-2. Electronic Characteristics

Characteristic		Min.	Typ.	Max.	Unit
Center Frequency	f_C		1090.0		MHz
Minimum Insertion Loss	IL_{min}				
	1084.00 1096.00 MHz	3.5	4.0	5.5	dB
Ripple in passband	$\Delta\alpha$				
	1084.00 1096.00 MHz		1.0	3.0	dB
Relative attenuation (relative to IL_{min})	α_{rel}				
	840.00 f_C 75.00 MHz	36.0	42.0		
	f_C 75.00 f_C 30.00 MHz	44.0	50.0		
	f_C 30.00 f_C 60.00 MHz	22.0	27.0		dB
	f_C 60.00 f_C 175.00 MHz	35.0	40.0		
	f_C 175.00 1340.00 MHz	42.0	50.0		
Input / Output Impedance (Nominal)		--	50	--	Ω

ⓘ CAUTION: Electrostatic Sensitive Device. Observe precautions for handling!

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 50 Ω test system with VSWR \leq 1.2:1.
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.