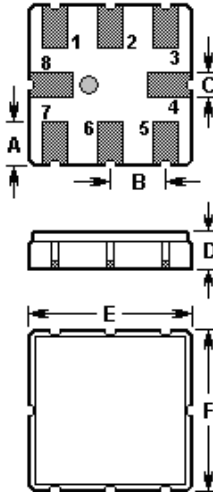


# SAW FILTER

Part Number: VTF43396

The **VTF43396** is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) RF filter in a surface-mount ceramic **QCC8B** case for remote control receivers.

## 1. Package Dimension (QCC8B)



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

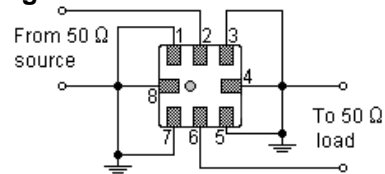
Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	1.00	D	1.50
B	1.27	E	3.80
C	0.60	F	3.80

## 2. Marking

**VTF**  
**43396**

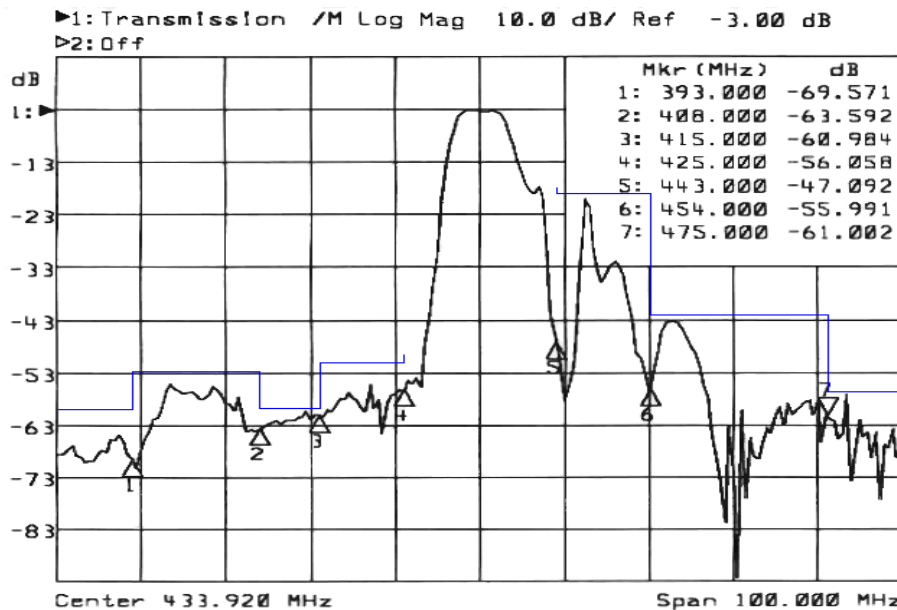
Laser Marking

## 3. Matching Circuit



No matching network required for operation at 50Ω

## 4. Typical Frequency Response



## 5. Performance

### 5-1. Maximum Ratings

Rating		Value	Unit
Source Power	$P_S$	10	dBm
DC Voltage	$V_{DC}$	0	V
Operable Temperature Range	$T_A$	-40 to +85	°C
Storage Temperature Range	$T_{stg}$	-45 to +90	°C

### 5-2. Electronic Characteristics

Operating Temperature Range:  $T = -40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$

Terminating Impedance:  $Z_S = 50\Omega$ ,  $Z_L = 50\Omega$

Characteristic		Min.	Typ.	Max.	Unit
Center Frequency	$f_c$		433.920		MHz
Insertion Loss	$IL$	--	2.8	4.0	dB
	433.00 .... 434.71 MHz				
Amplitude Ripple (p-p)	$\Delta\alpha$	--	0.3	1.0	dB
	433.00 .... 434.71 MHz				
Relative Attenuation (relative to $IL$ )	$\alpha_{rel}$				dB
	10.00 .... 350.00 MHz	60	65	--	dB
	350.00 .... 393.00 MHz	52	57	--	dB
	393.00 .... 408.00 MHz	45	50	--	dB
	408.00 .... 415.00 MHz	52	57	--	dB
	415.00 .... 425.50 MHz	40	48	--	dB
	443.50 .... 454.00 MHz	12	16	--	dB
	454.00 .... 475.00 MHz	34	39	--	dB
	475.00 .... 650.00 MHz	48	53	--	dB
	650.00 .... 1000.0 MHz	45	49	--	dB
Temperature Coefficient of Frequency	$TC_f$	--	-30	--	ppm/K

**ⓘ 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 50Ω test system with VSWR≤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.
7. For questions on technology, prices and delivery, please contact our sales offices or e-mail [info@v-torch.com](mailto:info@v-torch.com)