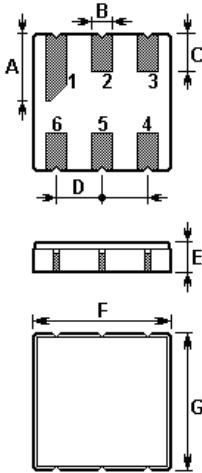


SAW FILTER

Part Number: VTF24392

The **VTF24392** is a low-loss, compact, and economical surface-acoustic-wave (SAW) filter in a surface-mount ceramic DCC6 case using as IF filter for **PHS** handset phone selectivity in **243.950** MHz receivers.

1. Package Dimension (DCC6)



Pin	Configuration
2	Input
5	Output
1, 3, 4, 6	Ground

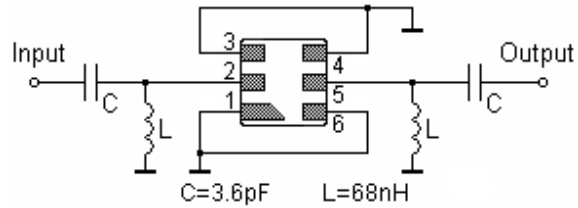
Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	1.90±0.1	E	1.35±0.15
B	0.64±0.1 (x6)	F	3.80±0.15
C	1.00±0.1 (x5)	G	3.80±0.15
D	1.27±0.1 (x4)		

2. Marking

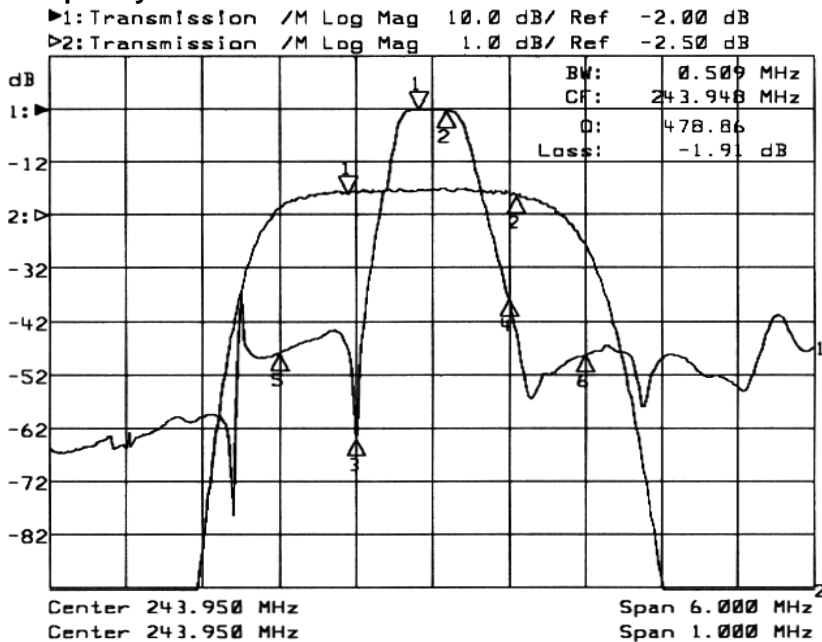
VTF
24392

Laser Marking

3. Test Circuit



4. Frequency Characteristics



1: Mkr (MHz)	dB
1 > 243.8400	-2.065
2: 244.0600	-2.164
3: 243.3500	-63.916
4: 244.5500	-37.760
5: 242.7500	-47.923
6: 245.1500	-40.360

2: Mkr (MHz)	dB
1 > 243.8400	-2.104
2: 244.0600	-2.147

5. Performance

5-1.Maximum Ratings

Rating		Value	Unit
Input Power Level	P	10	dBm
DC Voltage	V_{DC}	12	V
Storage Temperature Range	T_{stg}	-40 to +85	°C
Operable Temperature Range	T_A	-10 to +65	°C

5-2.Electronic Characteristics

Characteristic		Min.	Typ.	Max.	Unit
Center Frequency (center frequency between 3dB points)	f_C	--	243.950	--	MHz
Insertion Loss ($f_C \pm 110\text{kHz}$)	IL	--	2.2	5.0	dB
3dB Passband	BW_{3dB}	--	500	--	kHz
Amplitude Ripple ($f_C \pm 110\text{kHz}$)	$\Delta\alpha$	--	0.1	1.0	dB
Group Delay Ripple ($f_C \pm 110\text{kHz}$)	$\Delta\tau$	--	0.3	1.0	us
Out of Band Rejection (relative to IL)	α				
$f_C - 21.6\text{MHz}$		60	--	--	dB
$f_C - 1.2\text{MHz}$		36	--	--	dB
$f_C - 0.6\text{MHz}$		28	--	--	dB
$f_C + 0.6\text{MHz}$		25	35	--	dB
$f_C + 1.2\text{MHz}$		37	45	--	dB
$f_C + 21.6\text{MHz}$		55	--	--	dB

ⓘ 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 $VSWR \leq 1.2:1$. 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 info@v-torch.com