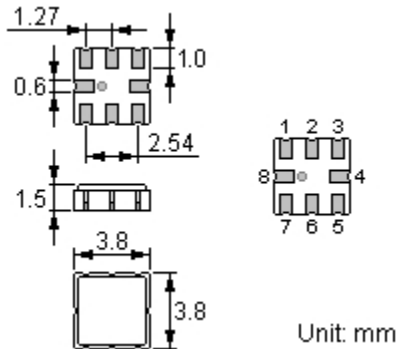


SAW FILTER

Part Number: VTF9165

The **VTF9165** is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) RF filter in a surface-mount ceramic **QCC8B** case with center frequency **916.500** MHz.

1. Package Dimension (QCC8B)



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

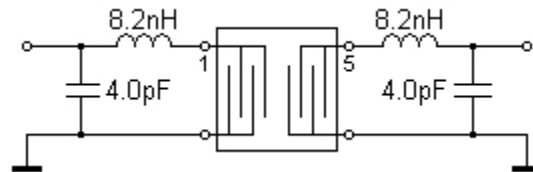
2. Marking

VTF
9165

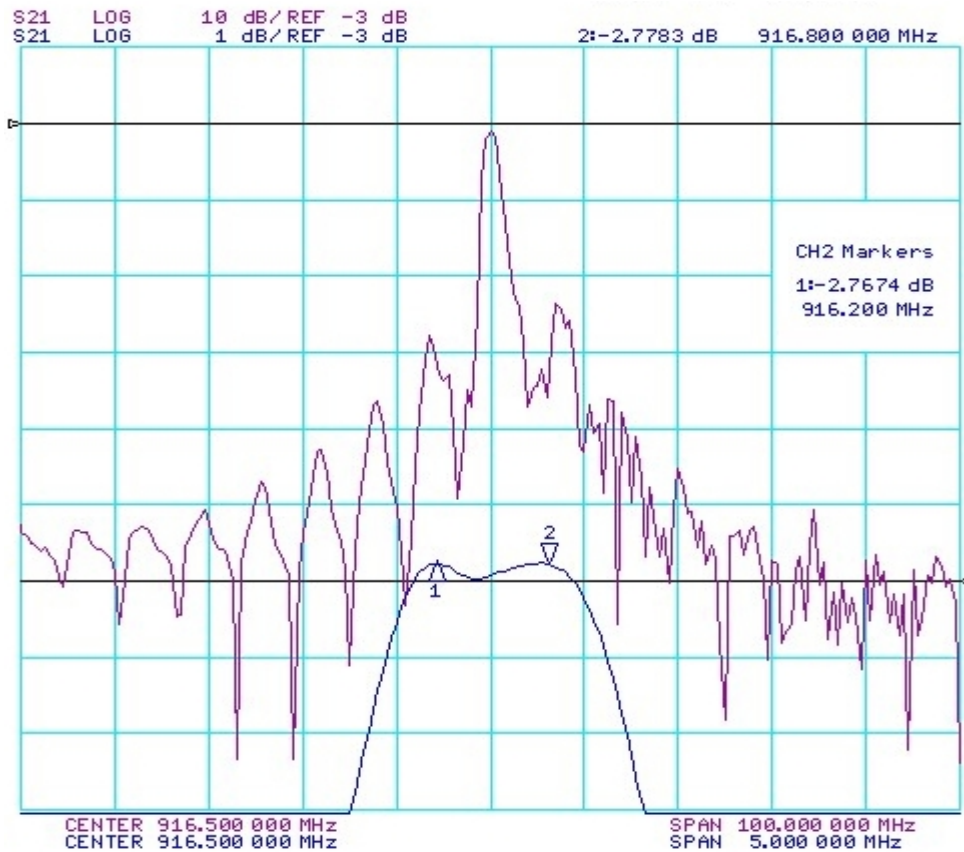
Laser Marking

4. Typical Frequency Response

3. Matching Circuit



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5. Performance

5-1. Maximum Ratings

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

5-2. Electronic Characteristics

Characteristic		Minimum	Typical	Maximum	Unit
Center Frequency	f_c	--	916.500	--	MHz
Insertion Loss	IL	--	3.0	4.5	dB
	$f_c \pm 300$ kHz				
Relative Attenuation (relative to IL)	α_{rel}				dB
	$f_c - 21.4$ MHz	40	50	--	dB
	$f_c - 10.7$ MHz	35	45	--	dB
	Ultimate	48	60	--	dB
Amplitude Ripple (p-p)	$\Delta\alpha$				dB
	$f_c \pm 300$ kHz	--	--	1.0	dB

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

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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.ca