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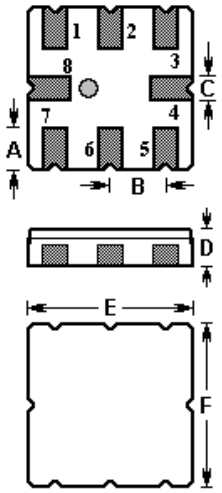
The **ACTF9001/1220.0/QCC8B** is a low-loss, compact and economical" surface wave acoustic" (**SAW**) RF filter in an **SMD QCC8B** package for Digital Set Top Box applications.

1.Package Dimension (QCC8B)



2.

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

3. Matching Circuit

No matching network required for operation at 200 Ω

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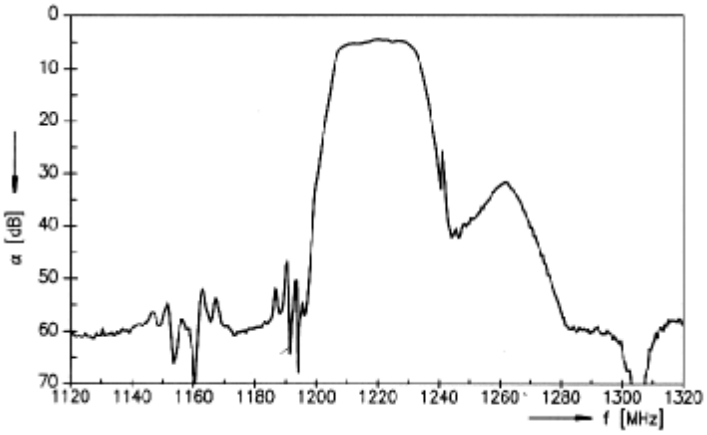
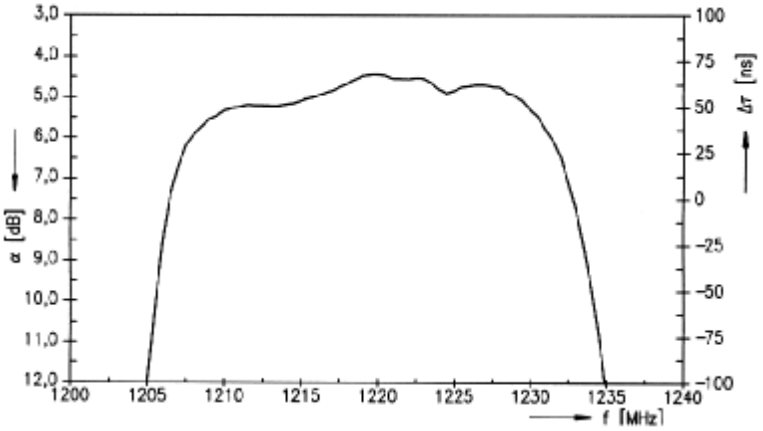
4. Typical Frequency Response





5.Performance

5-1.Maximum ratings

Rating	Value	Units
Input Power Level	0	dBm
DC Voltage	0	V
Operable temperature range	-40 to +85	°C
Storage temperature range	-40 to +85	°C

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5-2.Electronic characteristics

Operating temperature range: T = -40 °c… +85 °c
Terminating source impedance: Z_S= 200 Ω
Terminating load impedance: Z_L = 200 Ω

Characteristic		Min.	Typ.	Max.	Units
Centre Frequency	f_C		1220.0		MHz
Maximum insertion Loss (±4MHz)	IL_{max}	3.5	4.7	5.8	dB
Ripple in passband (±4MHz)	$\Delta\ \alpha$		0.8	1.5	dB
Attenuation	α_{rel}				dB
	500.00 …. f_C–91.00 MHz	50.0	60.0		
	f_C–91.00 …. f_C–85.00 MHz	50.0	60.0		
	f_C–76.00 …. f_C–68.00 MHz	46.0	55.0		
	f_C–88.00 MHz	50.0	60.0		
	f_C–72.00 MHz	48.0	58.0		
	f_C–44.00 MHz	50.0	60.0		
	f_C–36.00 MHz	46.0	52.0		
	f_C+70.00 …. 2000.00 MHz	50.0	55.0		
Group delay ripple Aperture 500 kHz	$\Delta\ \tau$ 1216.00 …… 1224.00 MHz		15		ns

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5-3.Electronic characteristics

Operating temperature range: T = 20 °c … 70 °c
Terminating source impedance: Z_S= 200 Ω
Terminating load impedance: Z_L = 200 Ω

Characteristic		Min.	Typ.	Max.	Units
Centre Frequency	f_C		1220.0		MHz
Minimum Insertion Loss	IL_{min}				
1210.00 …. 1229.00 MHz		3.5	4.5	5.8	dB
Ripple in passband	Δ α				
1210.00 …. 1229.00 MHz			1.0	3.0	dB
Relative attenuation (relative to IL_{min})	α_{rel}				
500.00 …. f_C–91.00 MHz		46.0	56.0		dB
f_C–91.00 …. f_C–85.00 MHz		46.0	56.0		
f_C–76.00 …. f_C–68.00 MHz		42.0	51.0		
f_C–88.00 MHz		46.0	56.0		
f_C–72.00 MHz		44.0	54.0		
f_C–44.00 MHz		46.0	56.0		
f_C–36.00 MHz		42.0	48.0		
f_C +70.00 …. 2000.00 MHz		46.0	51.0		
Group delay ripple	Δ τ				
Aperture 500 kHz	1210.00 …… 1229.00 MHz		40		ns

i **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≤1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter centre 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.