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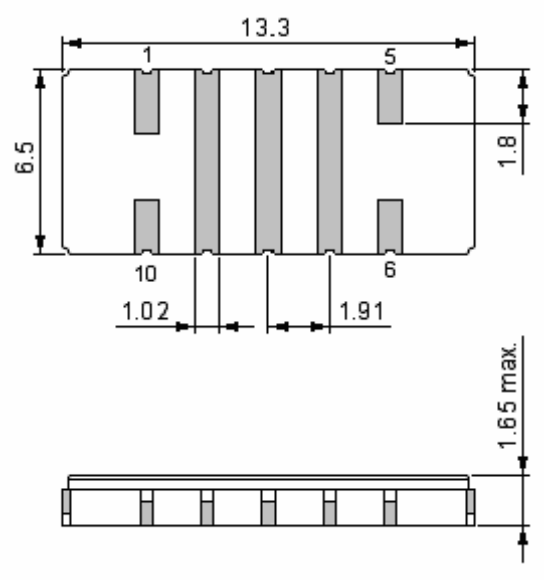
The **ACTF2035/211.00,13.3x6.5** is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) filter in a surface-mount ceramic case with **211.000** MHz centre frequency.

PRELIMINARY DATA SHEET

1. Package Dimension



Pin	Configuration
1	Input RF return
2	Ground
3	Ground
4	Ground
5	Output
6	Output RF return
7	Ground
8	Ground
9	Ground
10	Input

Unit: mm

2. Marking

- The dot "●"· on the lid of package indicates terminal 1

3. Maximum Ratings

Rating		Value	Unit
Operable temperature range	T_A	-40 to +85	°C
Storage temperature range	T_{stg}	-40 to +85	°C
Input power	P	10 max.	dBm
DC voltage between any two terminals	V_{DC}	±30	V

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4. Electrical Characteristics

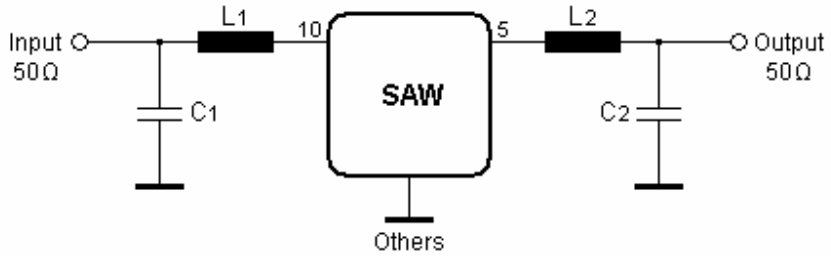
Item		Min.	Typ.	Max.	Unit
Centre Frequency	f_C		211.00		MHz
Insertion Loss	*IL*		5.2	6.5	dB
Relative Attenuation	α_{rel}				
f_C .... $f_C \pm$ 50 kHz			0.7	1.5	dB
$f_C \pm$ 50 kHz .... $f_C \pm$ 80 kHz			1.3	2.0	dB
$f_C \pm$ 80 kHz .... $f_C \pm$ 100 kHz			2.2	3.0	dB
$f_C \pm$ 0.2 MHz .... $f_C \pm$ 0.4 MHz		3	5		dB
$f_C \pm$ 0.4 MHz .... $f_C \pm$ 0.6 MHz		25	28		dB
$f_C \pm$ 0.6 MHz		40	42		dB
$f_C \pm$ 0.6 MHz .... $f_C \pm$ 0.8 MHz		38	42		dB
$f_C \pm$ 0.8 MHz .... $f_C \pm$ 20 MHz		46	49		dB
Group Delay Variation	$\Delta\tau$				
f_C-100 kHz .... f_C+100 kHz			250	500	ns
Absolute Group Delay	τ				
f_C-100 kHz .... f_C+100 kHz			2.5	5.0	µs
VSWR					
f_C-100 kHz .... f_C+100 kHz		10	16		dB
Temperature Coefficient of Frequency	TC_f		-0.036		ppm/K^2
Frequency Inversion Temperature	T_O		26		°C

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

NOTE:

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. 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 below 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.

5. Test Circuit



L_1 = 68nH L_2 = 56nH $C_1 = C_2$ = 15pF

*Actual matching values may vary due to PCB layout and parasitics.

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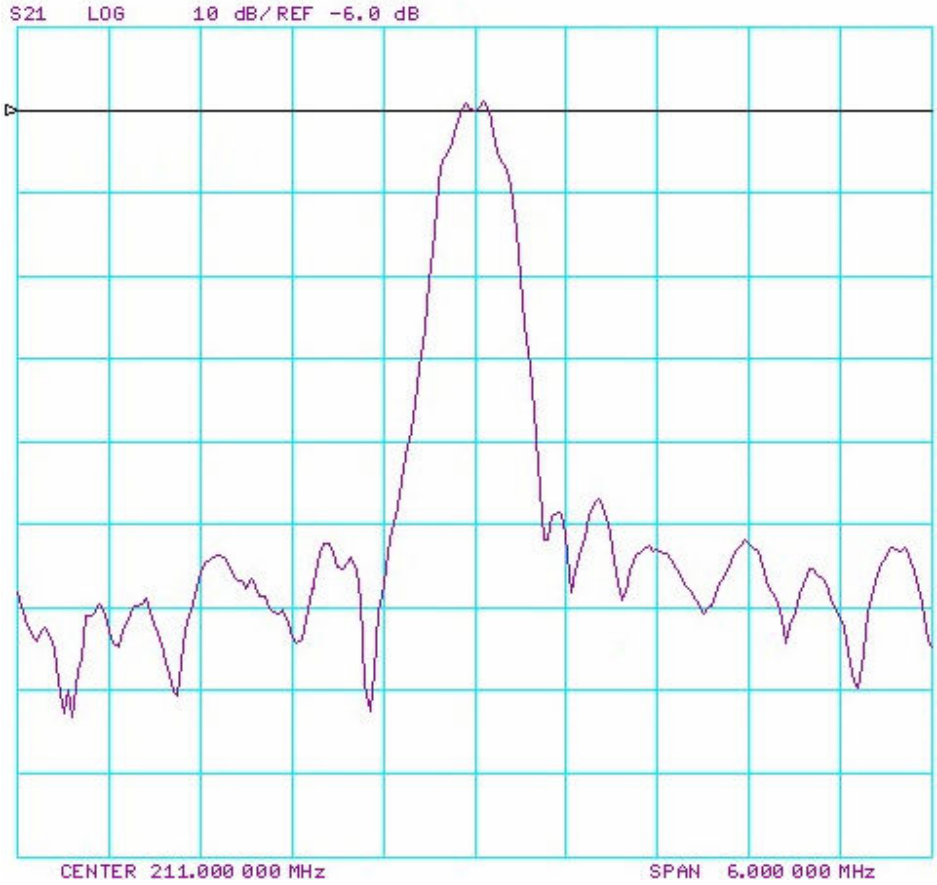
6. Frequency Response



7. Environmental Characteristics

	Test item	Condition of test	Requirements
1	Mechanical shock	(a) Drops: 3 times on concrete floor (b) Height: 1.0m	The SAW filter shall remain within the electrical specifications after tests.
2	Vibration resistance	(a) Frequency of vibration: 10~55Hz (b) Amplitude: 1.5mm (c) Directions: X,Y and Z (d) Duration: 2 hours	
3	Moisture resistance	(a) Condition: 40°C, 90~95% R.H. (b) Duration: 96 hours (c) Wait 4 hours before measurement	
4	Climatic sequence	(a) +70°C for 16 hours (b) +55°C for 24 hours, 90~95% R.H. (c) -25°C for 2 hours (d) +40°C for 24 hours, 90~95% R.H. (e) Wait 4 hours before measurement	
5	High Temperature Exposure	(a) Temperature: 70°C (b) Duration: 250 hours (c) Wait 4 hours before measurement	
6	Thermal impact	(a) +70°C for 30 minutes ⇒ -25°C for 30 minutes repeated 3 times (b) Wait 4 hours before measurement	

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8. Remarks

8-1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the SAW filter. Please avoid static voltage.

8-2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the SAW filter. Please avoid ultrasonic cleaning.

8-3 Soldering

Only terminals of the SAW filter may be soldered. Please avoid soldering other parts of the SAW filter.

9. Soldering Profile