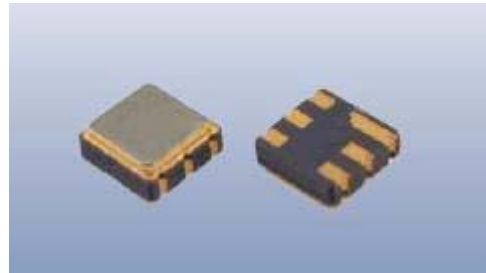
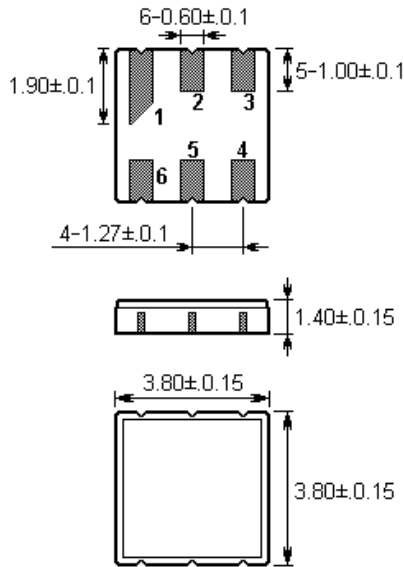


The ACTF4065(455-465 465) ZTQEQ15650 DCC6 is a low-loss, compact, and economical surface-acoustic-wave (SAW) filter in a surface-mount ceramic DCC6 case with 465.0 MHz centre frequency.

1. Package Dimension (DCC6)



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

Unit: mm

2. Marking

Laser Marking

3. Maximum Ratings

Rating		Value	Unit
Operable Temperature Range	T_A	-30 to +80	°C
Storage Temperature Range	T_{stg}	-40 to +85	°C
DC Voltage (between each Terminal)	V_{DC}	0	V
RF Power (in BW)	P	100	mW
ESD Voltage (HB)	V	150	V

In keeping with our ongoing policy of product evolution and improvement, the above specification is subject to change without notice.

1

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4. Electrical Characteristics

Item		Min.	Typ.	Max.	Unit
Operable Temperature Range	T_A	-30	+25	+80	°C
Centre Frequency	f_C	462.50	465.00	467.50	MHz
Insertion Loss at f_C 462.50 467.50 MHz	IL	2.1	2.6	3.5	dB
-1dB Pass Bandwidth	BW_1	8.0	9.25		MHz
-3dB Pass Bandwidth	BW_3	9.9	11.15		MHz
-40dB Pass Bandwidth	BW_{40}		29.65	31.00	MHz
Amplitude Ripple 462.50 467.50 MHz	$\Delta\alpha$		0.6	1.2	dB
Stopband Rejection	α				
0.30 452.50 MHz		42	48	--	dB
452.50 457.50 MHz		40	48	--	dB
485.00 507.50 MHz		42	56	--	dB
507.50 1200.0 MHz		40	45	--	dB
1200.0 1700.0 MHz		30	40	--	dB
1700.0 2000.0 MHz		15	25	--	dB
Phase Linearity (90% of dB Bandwidth)			±5	±7	deg
Group Delay Variation 462.50 467.50 MHz	$\Delta\tau$		60		ns
Absolute Delay at f_C	τ		95		ns
Temperature Coefficient of Frequency	TC_f		-36		ppm/°C
Source / Load Impedance			50		Ω
Input V.S.W.R.			1.3	1.6	
Output V.S.W.R.			1.3	1.6	
Package Type & Size		DCC6 (3.8×3.8×1.4 6pin)			

ⓘ 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 \leq 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 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.

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2

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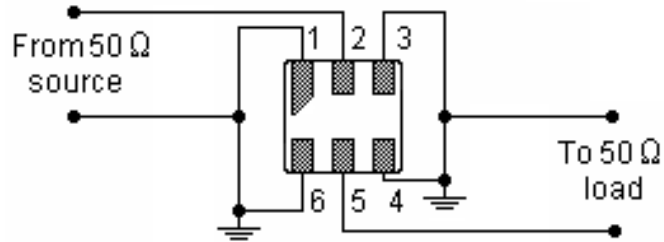
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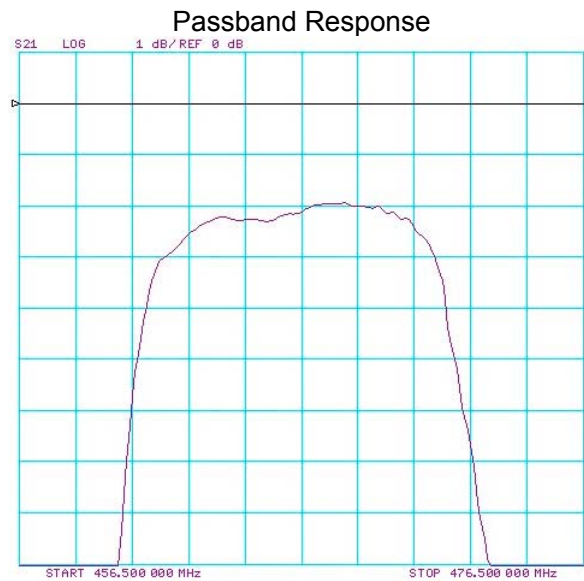
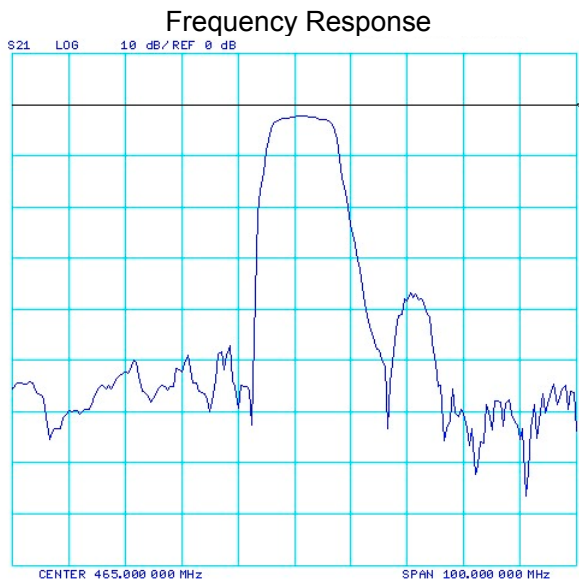
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5. Test Circuit



6. Performance



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3

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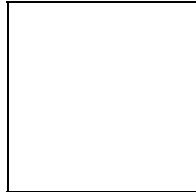
Issue : 1 C1

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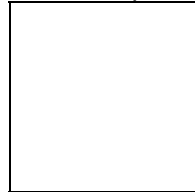


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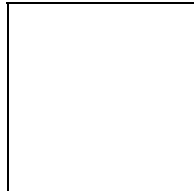
Wideband Response



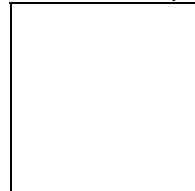
Input / Output Return Loss



Input Smith Chart



Output Smith Chart



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Date : 02/09/05

7. Environmental Characteristics

	Test item	Condition of test	Requirements
1	Mechanical shock	(a) Drop: 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	

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.

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5

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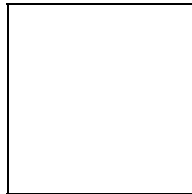
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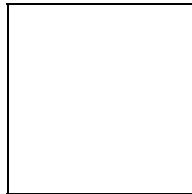
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9. Packing

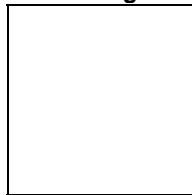
9-1. Carrier Tape



9-2. Reel Dimensions



10. Soldering Profile



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