

Performance Specifications:

Electrical Performance		
Item	Requirement	Test Method
Inductance	Refer to standard Electrical Specifications	HP4291 or HP4284
Q		HP4291 or HP4284
SRF		HP4291
DC Resistance DCR		Agilent 34401A
Rated Current IDC		Applied the current to coils. The inductance change should be less than 10% to initial value

Mechanical Performance		
Item	Requirement	Test Method
Solderability	The electrodes shall be at least 90% covered with new solder coating	Lead-free inductor: after fluxing (alpha 100 or equivalent), inductor shall be dipped in a melted solder bath at $245 \pm 5^{\circ}\text{C}$ , $5 \pm 0.5$ seconds
Resistance to Soldering Heat	Appearance: No damage	Pre-heating: $150^{\circ}\text{C}$ , 1 min. Solder Temperature: $260 \pm 5^{\circ}\text{C}$ Immersion Time: $10 \pm 1$ seconds
Vibration	Appearance: No damage L change: within $\pm 10\%$ Q change: within $\pm 30\%$ DCR: within specification	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1 min. Amplitude: 1.5mm Time: 2 hours for each axis (X, Y & Z), total 6 hours

Climatic Tests																	
Item	Requirement	Test Method															
Temperature Cycle	Appearance: No damage L change: within $\pm 10\%$ Q change: within $\pm 30\%$ DCR within specification	One cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (<math>^{\circ}\text{C}</math>)</th> <th>Time (min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><math>-25 \pm 3</math></td> <td>30</td> </tr> <tr> <td>2</td> <td><math>25 \pm 2</math></td> <td>3</td> </tr> <tr> <td>3</td> <td><math>85 \pm 3</math></td> <td>30</td> </tr> <tr> <td>4</td> <td><math>25 \pm 2</math></td> <td>3</td> </tr> </tbody> </table>	Step	Temperature ( $^{\circ}\text{C}$ )	Time (min)	1	$-25 \pm 3$	30	2	$25 \pm 2$	3	3	$85 \pm 3$	30	4	$25 \pm 2$	3
Step		Temperature ( $^{\circ}\text{C}$ )	Time (min)														
1		$-25 \pm 3$	30														
2		$25 \pm 2$	3														
3	$85 \pm 3$	30															
4	$25 \pm 2$	3															
Damp Heat with Load	Total: 100 cycles Measured after exposure in the room condition for 24 hours Temperature: $40 \pm 2^{\circ}\text{C}$ Relative Humidity: 90 ~ 95% Time: 1000 hours																
High Temperature Storage	Measured after exposure in the room condition for 24 hours Temperature: $85 \pm 3^{\circ}\text{C}$ Relative Humidity: 20% Applied Current: Rated Current Time: 1000 hours																
Low Temperature Storage	Measured after exposure in the room condition for 24 hours Temperature: $-25 \pm 3^{\circ}\text{C}$ Relative Humidity: 0% Time: 1000 hours																

Storage Temperature:  $25 \pm 3^{\circ}\text{C}$ ; Humidity <80%RH