

# COIL SPECIFICATION



ZenithTek

Brand

ZenithTek

Product Series Code

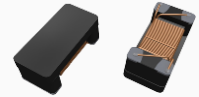
ZCMS-0504EA-900N

File Version

V0

Description

Wire Wound Common Mode Filter



## Features

- SMD Type Common Mode Filter.
- For High-Speed Differential Signal Line.
- Downsized Winding Construction for Filtering.
- Halogen Free, Lead Free, RoHS and REACH Compliance.

## Product Identification

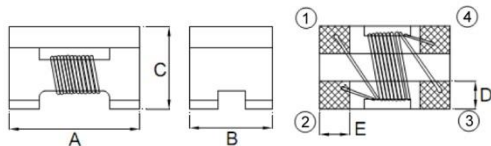
ZCMS - 0504 EA - 900 N  
 1            2            3            4            5

## Applications

- Fit for Signal Line Filtering.
- For IEEE1394, LVDS, DVI, HDMI, USB2.0/ USB3.0/ USB3.1.

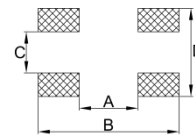
- 1.Product Code: ZCMS = ZenithTek Code.
- 2.Dimension Code: 0504 = 1.2 \* 1.0 \* 1.2 mm.
- 3.Type Code: EA.
- 4.Impedance Code: 900 = 90Ω.
- 5.Tolerance Code: N = 25%.

## Dimension (Unit: mm)



Type	A(±0.2)	B(±0.2)	C(Max.)	D(Ref.)	E(Ref.)
ZCMS-0504	1.20	1.00	1.20	0.36	0.33

## Land Pattern (Unit: mm)



Type	A(Ref.)	B(Ref.)	C(Ref.)	D(Ref.)
ZCMS-0504	0.60	1.50	0.30	1.20

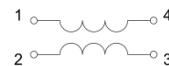
## Electrical Characteristic

Part Number	Impedance (Ω)	Tolerance (%)	Test Frequency (MHz)/0.5V	Rated Current (mA)/(Max.)	Rated Voltage (Vdc)	DC Resistance (Ω)/(Max.)	Insulation Resistance (MΩ)/(Min.)
ZCMS-0504EA-900N	90	25	100	280	20	0.50	10

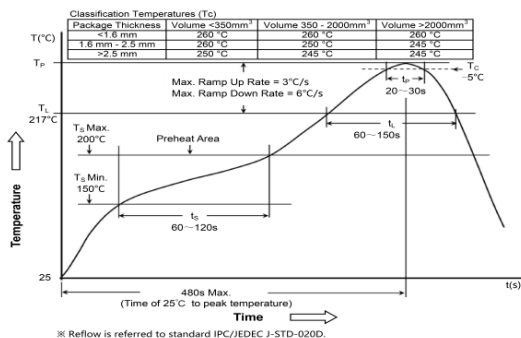
## Product Structure



## Schematic



## Reflow Heat Endurance



## Operating Conditions

Operating Temp. : -25°C~+85°C (including self-temp. rise)  
 Storage Temp. : <35°C and < 60%RH.

## Standard & Atmospheric Condition

Ambient Temp. : 20°C±15°C / Relative Humidity : 65±20%.  
 If there may be any doubt on the result, measurement shall be made within the following limits :  
 Ambient Temp. : 20°C±2°C / Relative Humidity : 65±5%.

## Test Equipment

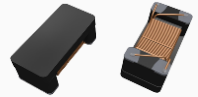
LCR Meter : Agilent E4291A.  
 Resistance Meter : HIOKI-RM3545.  
 Caliper : Mitsutoyo 150mm.

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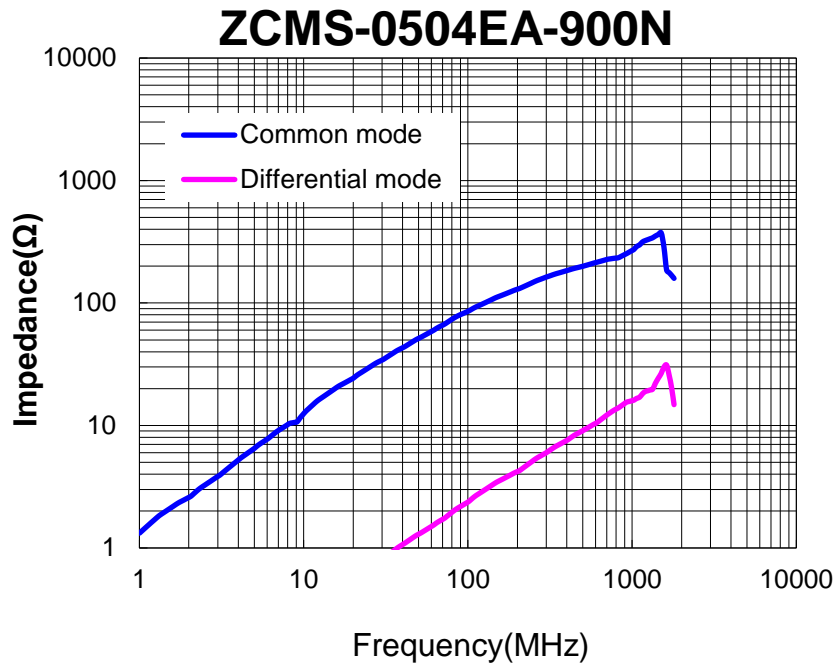


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## Electrical Characteristic Curve

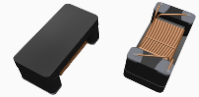


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## Reliability Test

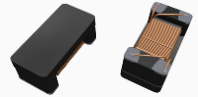
No.	Item	Specification	Test Method
1	Temperature Shock.	Appearance: No damage. Impedance: within $\pm 10\%$ of initial.	Temperature: $-25\pm 2^{\circ}\text{C}$ ~ $+85\pm 2^{\circ}\text{C}$ Kept for 30 minutes. Transition time : 5 minutes. 100 Cycles.
2	Humidity Resistance.	Appearance: No damage. Impedance: within $\pm 10\%$ of initial.	Temperature: $40\pm 2^{\circ}\text{C}$ . Relative Humidity: 90%. Duration: 500 +4/-0 hours.
3	High Temperature Resistance.	Appearance: No damage. Impedance: within $\pm 10\%$ of initial.	Temperature: $85\pm 2^{\circ}\text{C}$ . Duration: 1000 +4/-0 hours.
4	Low Temperature Resistance.	Appearance: No damage. Impedance: within $\pm 10\%$ of initial.	Temperature: $-25\pm 2^{\circ}\text{C}$ . Duration: 1000 +4/-0 hours.
5	Vibration test.	Appearance: No damage. Impedance: within $\pm 10\%$ of initial.	Oscillation Frequency: 10Hz to 55Hz to 10Hz in 60 seconds as a period. Total amplitude: 1.5mm. Testing Time: a period of 2 hours in each 3 mutually perpendicular directions (total of 6 hours).
6	Solderability Heat test.	Appearance: No damage. Impedance: within $\pm 10\%$ of initial.	Solder temperature: $260 +0/-5^{\circ}\text{C}$ . Duration: 5 sec. Allowed reflow time: 2 times.
7	Solderability test.	90% or more of electrode area shall be coated by new solder.	Preheating: $160^{\circ}\text{C}$ , 60sec. Solder temperature: $245\pm 5^{\circ}\text{C}$ . Duration : 5 sec.
8	Flexure Strength.	No visible mechanical damage.	Flexure: 2mm. Pressurizing Speed: 0.5mm/sec. Keep time: $30\pm 1$ sec.
9	Terminal Strength.	No visible mechanical damage.	Reflow 2 times. Force: 10N , Keep time: 5 sec , X,Y directs.

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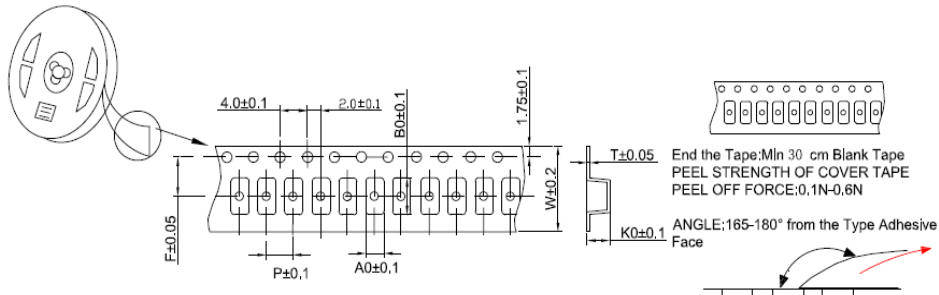
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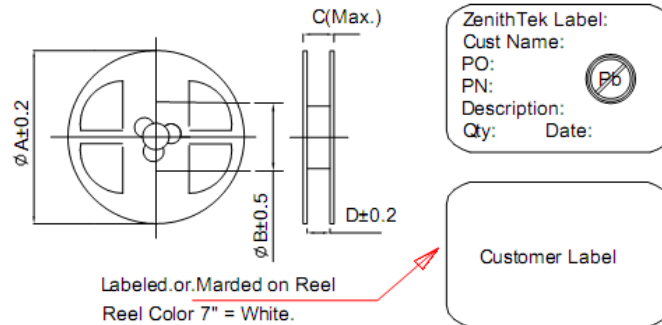
## Package

### Taping Dimension (mm)



Size(mm)	W	P	A0	B0	K0	T	F
ZCMS-0504	8.00	4.00	1.15	1.40	1.10	0.22	3.50

### Reel Dimension (mm)



Size(mm)	A	B	C	D	Reel/Size	Qty./Size
ZCMS-0504	178	60	14.4	8.4	7"	3000 Pcs

### Box Dimension (mm)

