

## Characteristic Analysis Chip Inductance Under Stress

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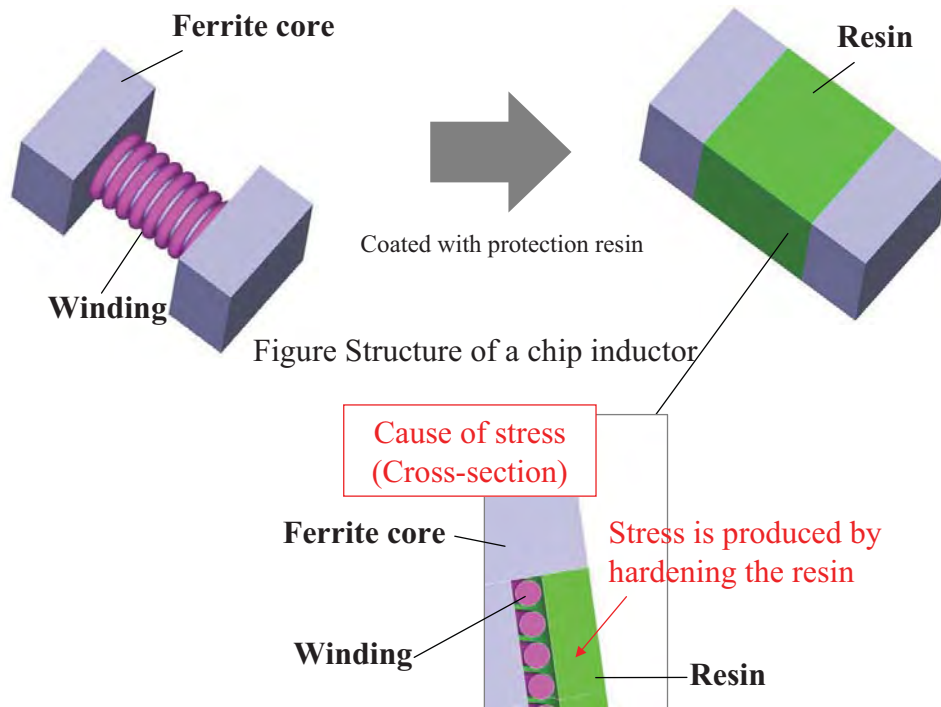
5607-2, Nakamuroda-machi, Takasaki-shi, Gunma 370-3347

### Abstract :

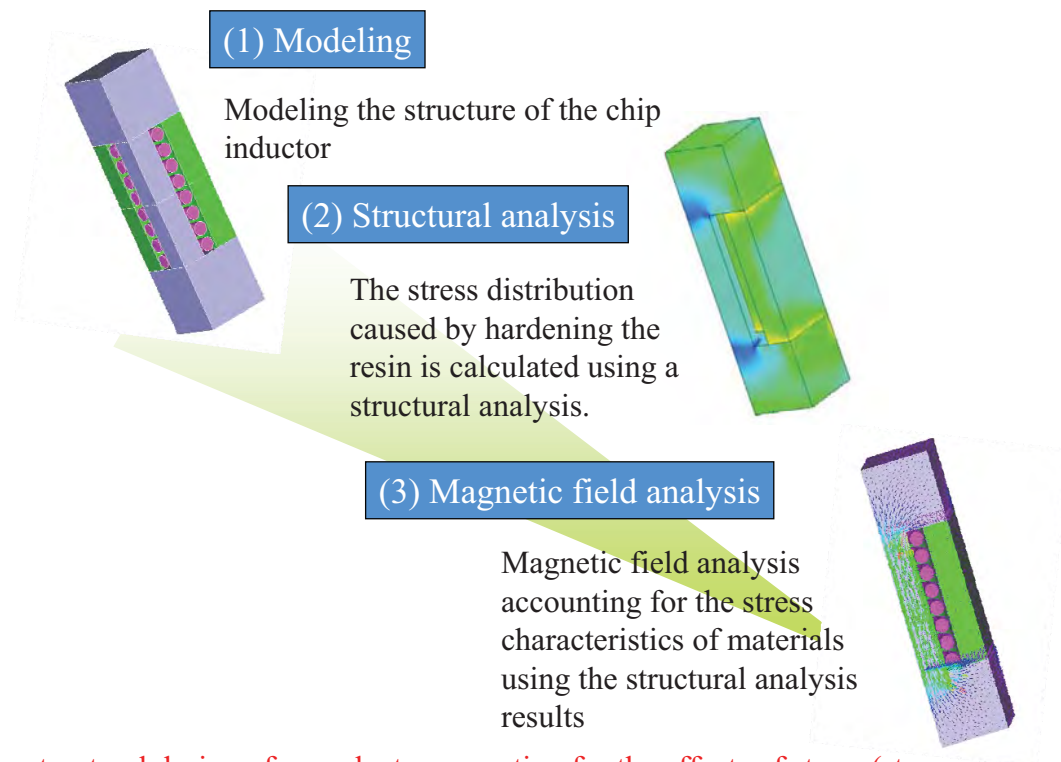
Generally, chip inductance is known to have varying magnetic properties caused by the effects of stress during manufacturing which also effects the electric properties such as inductance. These effects were examined using stress, magnetic, and coupled analysis to assist in the design and development through analytical understanding.

# Characteristic Analysis of a Chip Inductor under Stress

A design accounting for stress (variations in permeability caused by stress) is necessary when designing and developing chip inductors.



## Flow of Analysis



The structural design of a products accounting for the effects of stress (stress characteristics of magnetic materials) is examined by analyzing the stress distribution in the chip inductor.