# Core Data

## Inductance calculation by $A_L$ vs NI Curves;

Inductor specification
- Core : CM270125
- Number of Winding : 22Turns
- Current : DC 10Amperes

**solution**

a) Calculate NI (Ampere · Turns)    NI = 22Turns × 10Ampere = 220

b) Read the $A_L$ value of CM270125 using the $A_L$ vs NI curve on page 40.
   $A_L$ value of CM270125 yields 92.6 when NI is 220.

c) Calculate L at 10Ampere by using formula;    $L_N = A_L \times N^2 \times 10^3$ ($\mu$H)

**Therefore, L(@10A) = $92.6 \times 22^2 \times 0.001$**

**= 44.8 ($\mu$H)**

※ Inductance calculation by Permeability vs DC Bias Curve is also available on 12page.