■DISTRIBUTED CAPACITANCE(雜散電容值)

In the construction of an inductor, each turn of wire or conductor acts as a capacitor plate. The combined effects of each turn can be represented as a single capacitance known as the distributed capacitance. This capacitance is in parallel with the inductor. This parallel combination will resonate at some frequency which is called the self-resonant frequency (SRF). Lower distributed capacitances for a given inductance value will result in a higher SRF value and vice versa. (Also see SRF.)
在電感的結構中，每一圈的繞線或導體有如電容電板一般的作用，其每圈結合起來的效果，有如單一之電容值，稱之分雜散電容值，與電感並聯的，如此並聯的結合使得電感在某頻率下會產生諧振，稱之自我諧振頻率(SRF)，在一定電感值下，較低的雜散電容值會有較高之自我諧振頻率，反之亦然。

■EMI(電磁波干擾)

EMI is an acronym for Electromagnetic Interference. It is unwanted electrical energy in any form. EMI is often used interchangeable with "noise".
EMI是Electromagnetic Interference之縮寫，意指所不要之任何形式的電氣能量，EMI通常與"NOISE"(雜訊)互用。

■EDDY CURRENT LOSSES(渦流損)

Eddy current losses are present in both the magnetic core and winding of an inductor. Eddy currents in the winding (or conductor) contribute to two main types of losses: losses due to proximity effects and skin effects. As for the core losses, an electric field around the flux lines in the magnetic field is generated by alternating magnetic flux. This will result in eddy currents if the magnetic core material has electrical conductivity. Losses result from this phenomenon since the eddy currents flow in a plane that is perpendicular to the magnetic flux lines.
渦流損同時會出現在電感中的繞線及磁性鐵芯中，在繞線(導體)中的渦電流會促進兩種形式的損失:鄰近效應之損失及肌膚效應之損失，至於鐵損，可視為在一磁場中之磁力線周圍的一電場，是由交互的磁通量所產生，如果此磁性鐵芯具有導電性，則形成渦電流，因渦電流在一垂直於磁力線方向的平面流動，損失因此而產生。

■EPOXY COATED INDUCTOR(環氧樹脂包覆的電感)

Inductors that have been coated with epoxy as opposed to having a molded case, shrink wrapped tubing or left with an open construction body. Epoxy coated inductors typically have smooth edges and surfaces. The epoxy coat acts as an insulation. Both radial and axial styles can be found with epoxy coated surfaces.
指電感有著被環氧樹脂包覆的結構，而非有一成形的框架或是有伸縮的套管或是開放式的結構體，環氧樹脂包覆之電感通常有平滑的邊及表面，環氧樹脂層作為絕緣體，有一些徑向及軸向型式的電感其表面會有環氧樹脂包覆。

■FERRITE CORE(鐵氧磁體鐵芯)

Ferrite is a magnetic material which consists of a mixed oxide of iron and other elements that are made to have a crystalline molecular structure. The crystalline structure is created by firing the ferrite material at a very high temperature for a specified amount of time and profile. The general composition of ferrites is xxFe2O4 where xx represents one or several metals. The most popular maetal combinations are manganese and zinc (MnZn)and nickel and zinc (NiZn). These metals can be easily magnetized.
鐵氧磁體是一種磁性材料，主要的是以鐵及其他元素所組成的氧化物而且該氧化物具有結晶分子的構造，這種結晶構造可在高溫及特定的方式下燒結鐵氧磁體材料一段特定時間而得，其一般的組成為xx Fe204，其中xx代表一種或好幾種金屬，最為常見的金屬組合為錳和鋅(MnZn)及鎳和鋅(NiZn)，這些金屬都很容易被磁化。

■FILTER(濾波器)

A circuit or device whose purpose is to control electrical energy at a given frequency or over a range of frequencies. Groups of passive components are commonly used to construct many types of filters. These passive components include resistors, capacitors and inductors.
指一電路或裝置其功能是在一特定頻率或頻帶下控制電能，不同種類的被動元件常被用來建構不同的濾波器，這些被動元件包含電阻，電容及電感。

■IMPEDANCE(阻抗值)

The impedance of an inductor is the total resistance to the flow of current, including the AC and DC component. The DC component of theimpedance is simply the DC resistance of the winding. The AC component of the impedance includes the inductor reactance. The following formula calculates the inductive reactance of an ideal inductor (i.e., one with no losses) to a sinusoidal AC signal.
一電感器的阻抗值(Z)是指該電感器在通過電流的情況下所有的阻抗總和，包含了交流及直流的部份，直流部份的阻抗值僅僅是線材本身的直流電阻，交流部份的阻抗值則包括電感的電抗，下列的方程式用來計算一理想電感(沒有能量損失)在一正弦波交流訊號下的電抗:

$$Z = XL = 2\pi fL$$