■ PERMEABILITY (CORE)(導磁率(鐵芯))

The permeability of a magnetic core is the characteristic that gives the core the ability to concentrate lines of magnetic flux. The core materials, as well as the core geometry, affect the core's "effective permeability". For a given core shape, size and material, and a given winding, higher permeability magnetic materials result in higher inductance values as opposed to lower permeability materials.
磁性鐵芯的導磁率是令鐵芯具有集中磁力線能力的特性，鐵芯的材質及鐵芯的形狀會影響鐵芯的"有效導磁率"對一個已知的鐵芯形狀，尺寸及材質和特定的繞線，具較高導磁率的磁性材質與較低導磁率的材質比較起來，會有較高的電感值。

■ POWDERED IRON CORE(鐵粉芯)

Powdered iron is a magnetic material that has an inherent distributed air gap. The distributed air gap allows the core to store higher levels of magnetic flux when compared to other magnetic materials such as ferrites. This characteristic allows a higher DC current level to flow through the inductor before the inductor saturates.Powered iron cores are made of nearly 100% iron. The iron particles are insulated from each other, mixed with a binder (such as pheonlic or epoxy) and pressed into the final core shape. The cores are cured via a baking process. Other characteristics of powdered iron cores include: they are typically the lowest cost alternative and their permeabilities typically have a more stable temperature coefficient than ferrites. (Also see Saturation Current.)
粉狀鐵是一種磁性材料，其內分佈著許多空隙，與其他之磁性材料如鐵氧磁體比較起來，此分散的空隙使得鐵芯能儲存較高的磁通量，這種特性使得在電感達飽和之前得以允許通過較高的直流電流，粉狀鐵鐵芯幾乎以100%鐵製造，鐵粒子間相互絕緣，混入黏結劑(如碳 酸 樹脂或環氧樹脂)在壓製成最後的鐵芯形狀，最後這些粉狀鐵芯以烘烤製程保存，其他一些粉狀鐵鐵芯的特性包括：一般它是最經濟的替代品且它的導磁率一般比鐵氧磁體有較穩定的溫度係數(亦參閱飽和電流)

■ Q(品質因數)

The Q value of an inductor is a measure of the relative losses in an inductor. The Q is also known as the "quality factor" and is technically defined as the ratio of inductive reactance to effective resistance and is represented by:
電感的品質係數是量測一電感相對損失的指標，這Q值被稱為"品質因數"，品質因素越高表示該電感特性越好，它的定義為感抗(XL)對有效電阻(Re)之比，如下所示：

$$Q = \frac{X_L}{R_e} = \frac{2\pi fL}{R_e}$$

Since XL and Re are functions of frequency, the test frequency must be given when specifying Q. XL typically increases with frequency at a faster rate than Re at lower frequencies, and vice versa at higher frequencies. This results in a bell shaped curve for Q vs frequency. Re is mainly comprised of the DC resistance of the wire, the core losses and skin effect of the wire. Based on the above formula, it can be shown that the Q is Zero at the self resonant frequency since the inductance is Zero at this point.
因為感抗及有效電阻都相關於頻率，當要確定品質係數時需指定一個頻率，在低頻時，感抗一般隨頻率增加的增加速率比有效電阻來的大，在高頻時掉的也快，故品質係數對頻率的關係形成一鐘型的曲線，有效電阻主要由繞線的直流電阻，鐵損及表面效應所產生，由上列之公式可看出在共振頻率時之品質係數為零，因為此時的電感值為零。

■ RF CHOKE(射頻扼流線圈)

Another name for a radio frequency inductor which is intended to filter or choke out signals. (Also see Inductor.)
射頻電感的另一稱呼，用以過濾或抑制訊號(亦參閱電感)

■ RFI(射頻干擾)

RFI is an acronym for Radio-Frequency Interference. It is an older and more restrictive term that is used interchangeably with "EMI" (Also see EMI.)
RFI為射頻干擾之簡稱，為一較舊及較嚴謹的名詞，可和"EMI(電磁波干擾)"互換(亦參閱電磁波干擾)

■ RADIAL INDUCTOR(徑向電感)

An inductor constructed on a core with leads exiting from the same side of the inductor body as to be mounted in the same plane. Radial inductors most often refer to two leaded devices but technically include devices with more than two leads as well. Some common core shapes include rod cores, bobbins and toroids. (Also see Inductor.)
指一電感其引出導線位於鐵芯本體的同一側以安插至相同平面，徑向電感通常指具有兩引出導線之裝置，但技術上亦包含兩引出導線上之裝置，常見的形式包括棒形鐵芯，線軸鐵芯及環形鐵芯(亦參閱電感)

Radial Inductor styles