

DEFINITION OF TERMINOLOGY

■ INPUT LINE FILTER(輸入線濾波器)

A power filter placed on the input to a circuit or assembly that attenuates noise introduced from the power bus. The filter is designed to reject noise within a frequency band. Typically these filters are low-pass filters meaning they pass low frequency signals such as the DC power and attenuate higher frequency signals which consist of mainly noise. Band pass or low pass filters are commonly made up of inductor and capacitor combinations. (Also see Noise, EMI.)

指一被置於輸入端與一電路或組合電路相接之電源濾波器，用以減低由電源線所產生的雜訊，此濾波器被設計成可在一頻帶內消除雜訊，通常這些濾波器是屬於低通濾波器，意思是只讓低頻帶的訊號通過，如直流電源，並減低主要以雜訊為主的高頻訊號，帶通或低通濾波器通常由電感及電容搭配而成(亦參閱雜訊及電磁波干擾)。

■ MATCHED IMPEDANCE(匹配的阻抗)

The condition that exists when two coupled circuits are adjusted so that the output impedance of one circuit equals the input impedance of the other circuit connected to the first. There is a minimum power loss between two circuits when their connecting impedances are equal. 指一個存在的條件，當調整兩個耦合電路使得其中一電路的輸出阻抗與另一電路的輸入阻抗相等時稱之，當他們連接的阻抗相等時，兩電路間的能量損失最低。

■ MOLDED INDUCTOR(鑄型電感)

An inductor whose case has been formed via a molding process. Common molding processes include injection and transfer molding. Molded inductors typically have well defined body dimensions which consist of smooth surfaces and sharper corners as compared to other case types such as epoxy coated and shrink wrap coatings. (Also see Inductor.)

一種以銀為主的液狀導體被以網版印刷的方式印在以氧化鐵體為主的片狀物體上，然後將其堆疊在一起並使各層的線路貫穿導通型或被氧化鐵體所包覆的線圈再經加工後形成一顆具有封閉磁路效果的電感器，在這種製程下所生產的電感器稱為積層電感器，堆疊的越多層將可取得越高的感值。

■ MULTILAYER INDUCTOR(積層電感器)

An inductor constructed by layering the coil between layers of core material. The coil typically consists of a bare metal material (no insulation). This technology is sometimes referred to as "non-wirewound". The inductance value can be made larger by adding additional layers for a given spiral pattern.

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■ NOISE(雜訊)

Unwanted electrical energy in a circuit that is unrelated to the desired signal. Sources of noise are most often generated by some type of switching circuit. Common sources include switching voltage regulators and clocked signals such as digital circuits.

指在一電路中與所要之訊號無關之多餘電能，雜訊的來源通常為某些形式的交流電路，常見的雜訊源為交流式電壓，調整器及時脈訊號，如一些數位電路。

■ OHM(歐姆)

The unit of measurement for resistance and impedance. Resistance is calculated by ohm's law:

為一導體所能阻止電流流過能力大小的單位，這個參數可經由歐姆定律計算而得：

$$R=V/I$$

where R = resistance 電阻

V = voltage 電壓

I = current 電流

■ OPERATING TEMPERATURE RANGE(工作溫度範圍)

Range of ambient temperatures over which a component can be operated safely. The operating temperature is different from the storage temperature in that it accounts for the component's self temperature rise caused by the winding loss from a given DC bias current. This power loss is referred to as the "copper" loss and is equal to:

指元件可以安全運作的環境溫度範圍，工作溫度與儲存溫度不同，工作溫度需把由直流偏壓電流所產生的繞線損失導致的自我溫升列入計算，此能量損失為“銅損”

$$\text{Power Loss} = (\text{DCR})(I_{\text{dc}}^2)$$

This power loss results in an increase to the component temperature above the given ambient temperature. Thus, the maximum, operating temperature will be less than the maximum storage temperature:

Maximum Operating Temperature = Storage Temperature-Self Temperature Rise(Also see Core Losses.)

銅損導致零件所增加的溫度高於規定的環境溫度，因此，工作溫度的最大值將小於最大的儲存溫度。

最大操作溫度=儲存溫度-自我溫升(亦參閱鐵損)