

Title (en)

METHOD FOR OPTIMIZING HIGH FREQUENCY PERFORMANCE OF VIA STRUCTURES

Title (de)

VERFAHREN ZUR OPTIMIERUNG DER HOCHFREQUENZLEISTUNG VON DURCHGANGSSTRUKTUREN

Title (fr)

PROCEDE POUR OPTIMISER LA PERFORMANCE HAUTE FREQUENCE DE STRUCTURES DE TROUS D'INTERCONNEXION

Publication

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Application

**EP 03816274 A 20030306**

Priority

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Abstract (en)

[origin: WO2004082180A2] A method for enhancing the high frequency signal integrity performance of a printed circuit board (PCB) or backplane is provided. The method may involve the use of the S-parameters as the primary cost factors associated with an iterative process to optimize the physical dimensions and shape of a single or a collection of vias within the PCB or backplane. Such process involves the representation of the via components as equivalent lumped series admittances and impedances, as well as, RLGC sub-circuits upon which basic circuit analysis may be performed to optimize secondary characteristics, for example, the maximization of the sub-circuit's resistance and/or the minimization of the sub-circuit's capacitance. The iterative process involves the alteration of physical dimensions and the shape of the via components such that the secondary characteristics are optimized.

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