

Title (en)  
PRINTED COIL TRANSFORMER

Title (de)  
TRANSFORMATOR MIT GEDRUCKTEN SPULEN

Title (fr)  
TRANSFORMATEUR A BOBINES IMPRIMEES

Publication  
**EP 0716435 A4 19961120 (EN)**

Application  
**EP 95921971 A 19950615**

Priority  
• JP 9501195 W 19950615  
• JP 14770294 A 19940629

Abstract (en)  
[origin: WO9600972A1] A flat transformer in which the central leg (33) of an EE-shaped core or EI-shaped core is provided at the center of the spiral of a laminated coil body which is formed by stacking spiral coils with an insulating resin to magnetically couple the spiral coils to each other. The cross-sectional area of the side legs (34) of the core is nearly equal to that of the connecting part (35) of the core, and the cross-sectional area (Ae) of the central leg (33) is nearly the double of that of the side leg (34). The cross-sectional area (Ae) and the volume (Ve) of the core meets the following inequalities:  $1.4 \leq V_e^{1/3}/A_e^{1/2} \leq 1.7$ . The interval (w) between the central leg (33) and side legs (34) and the height of the central leg (33) meet the following inequalities:  $0.5 \leq h/w \leq 2$ .

IPC 1-7  
**H01F 30/00**

IPC 8 full level  
**H01F 17/00** (2006.01); **H01F 17/04** (2006.01)

CPC (source: EP)  
**H01F 17/0006** (2013.01); **H01F 17/04** (2013.01)

Citation (search report)  
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• [A] GB 2059166 A 19810415 - KIJIMA MUSEN KK  
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• [A] "FX3700 series transformer cores and coil formers for SMPS", MULLARD TECHNICAL COMMUNICATIONS, JAN. 1975, UK, vol. 13, no. 125, ISSN 0027-3139, pages 225 - 228, XP002014291  
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• [A] CHONG H AHN: "A planar micromachined spiral inductor for integrated magnetic microactuator applications", JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol. 3, no. 2, June 1993 (1993-06-01), ATLANTA,USA, pages 37 - 44, XP002014204  
• See references of WO 9600972A1

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Designated contracting state (EPC)  
DE

DOCDB simple family (publication)  
**WO 9600972 A1 19960111**; EP 0716435 A1 19960612; EP 0716435 A4 19961120; TW 436823 B 20010528

DOCDB simple family (application)  
**JP 9501195 W 19950615**; EP 95921971 A 19950615; TW 84106066 A 19950614