



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 113 464 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
15.05.2002 Bulletin 2002/20

(51) Int Cl.7: **H01F 41/02**

(43) Date of publication A2:
04.07.2001 Bulletin 2001/27

(21) Application number: **00127941.3**

(22) Date of filing: **21.12.2000**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Billings, Robert L.**
Andover, Massachusetts 01810 (US)

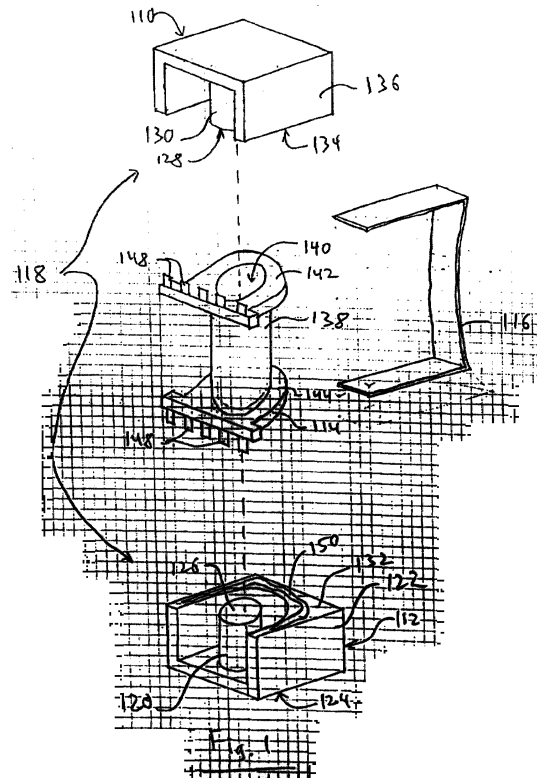
(74) Representative:
Dreiss, Fuhlendorf, Steimle & Becker
Patentanwälte,
Postfach 10 37 62
70032 Stuttgart (DE)

(30) Priority: **27.12.1999 US 472572**

(71) Applicant: **Alcatel USA Sourcing, L.P.**
Plano, TX 75075 (US)

(54) **Microgapping process for magnetic cores**

(57) A magnetic device is assembled by first applying an adhesive to the end surface of a leg of one core portion, slipping a bobbin onto one of the legs (preferably a different leg) of the core portion, and mating the two core portions together. Then while observing the inductance of the coil, the two core portions are ground toward each other, gradually narrowing the adhesive-induced gap between the mating surfaces, until the desired inductance is achieved. The adhesive is then cured. Preferably the adhesive includes particulate matter to help resist the narrowing of the gap during the grinding process. Alternatively, the particulate matter can be applied to the mating surface without adhesive, and the resulting assembly can be clamped together.



EP 1 113 464 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 12 7941

DOCUMENTS CONSIDERED TO BE RELEVANT				
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)	
X	GB 723 846 A (STANDARD TELEPHONES CABLES LTD) 9 February 1955 (1955-02-09) * page 1, line 81 - page 2, line 4 * ---	1,20,31, 34,41, 45,47	H01F41/02	
X	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 12, 25 December 1997 (1997-12-25) & JP 09 208912 A (TOYO COMMUN EQUIP CO LTD), 12 August 1997 (1997-08-12) * abstract *	45,47,49		
X	EP 0 715 323 A (VLT CORP) 5 June 1996 (1996-06-05) * claims 1-20 *	1,34,45, 47		
A	FR 773 066 A (NISSEN ALEXANDER) 10 November 1934 (1934-11-10) ---			
A	PATENT ABSTRACTS OF JAPAN vol. 009, no. 019 (E-292), 25 January 1985 (1985-01-25) & JP 59 168608 A (MURATA SEISAKUSHO:KK), 22 September 1984 (1984-09-22) * abstract *			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
A	US 5 745 367 A (CHA SANG YEOB) 28 April 1998 (1998-04-28) ---			H01F
A	FR 2 184 386 A (CIT ALCATEL) 28 December 1973 (1973-12-28) -----			
The present search report has been drawn up for all claims				
Place of search THE HAGUE		Date of completion of the search 26 March 2002	Examiner Vanhulle, R	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document		
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document				

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 12 7941

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-03-2002

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 723846	A	09-02-1955	NONE	
JP 09208912	A	12-08-1997	NONE	
EP 0715323	A	05-06-1996	EP 0715323 A1	05-06-1996
			JP 8250361 A	27-09-1996
FR 773066	A	10-11-1934	NONE	
JP 59168608	A	22-09-1984	NONE	
US 5745367	A	28-04-1998	JP 2780965 B2	30-07-1998
			JP 9035971 A	07-02-1997
			KR 190629 B1	01-06-1999
			TW 380267 B	21-01-2000
FR 2184386	A	28-12-1973	FR 2184386 A1	28-12-1973