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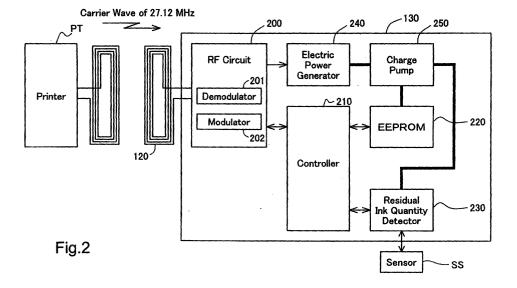
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(54) Power conditioning in printing fluid container powered by radio waves

(57) The present invention is a container for holding printing fluid material. The container comprises a detector (230), a memory unit (220), a communication module (200), a first electric power generator (240), and a second electric power generator (250). The communication module is configured to transmit at least one of a result of the detection and the information regarding the con-

tainer to the printing device. The first electric power generator is configured to generate a first electric power by utilizing the radio wave received from the printing device. The second electric power generator is configured to generate a second electric power from the first electric power. The second electric power is supplied to both the detector and the memory unit.





RCH REPORT

Application Number

EP 03 25 5103

		RED TO BE RELEVANT		
Category	Citation of document with indi of relevant passage		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	WO 02/061578 A (HEWL) 8 August 2002 (2002-0 * page 10, line 12 - * page 14, line 1 -	98-08) line 30 *	1-8	B41J2/175
A	US 6 385 407 B1 (INO 7 May 2002 (2002-05-0 * column 3, line 58 * column 4, line 47 * column 5, line 31 * figures 1-3 *	97) - line 67 *	1-8	
A	EP 1 153 752 A (CANOR 14 November 2001 (200 * paragraphs [0057], * figure 49 *	91-11-14)	1-8	
A	EP 1 164 022 A (CANOI 19 December 2001 (200 * paragraphs [0022],	91-12-19)	1-8	TECHNICAL FIELDS
-				SEARCHED (Int.CI.7)
				B41J G03G
	The present search report has be	on drawn up for all elaims		
	Place of search	Date of completion of the search	1	Examiner
_	Munich	10 November 2003	Bri	dge, S
X : part Y : part docu A : tech	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with another ument of the same category nological background	L : document cited fo	cument, but publi e n the application or other reasons	shed on, or
	n-written disclosure rmediate document	& : member of the sa document	ame patent family	, corresponding



Application Number

EP 03 25 5103

CLAIN	IS INCURRING FEES
The pre	sent European patent application comprised at the time of filing more than ten claims.
	Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
	No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.
LACK	OF UNITY OF INVENTION
	arch Division considers that the present European patent application does not comply with the ments of unity of invention and relates to several inventions or groups of inventions, namely:
se	e sheet B
- 🖯	All further search fees have been paid within the fixed time limit. The present European search report habeen drawn up for all claims.
	As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
	Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
IV T	None of the further search fees have been paid within the fixed time limit. The present European search
X	report has been drawn up for those parts of the European patent application which relate to the inventior first mentioned in the claims, namely claims:
	1-8



LACK OF UNITY OF INVENTION SHEET B

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-8

PROBLEM: providing electric power to the electrical consumers of an ink container; SOLUTION: a container with a detector, a memory unit, a communication module, a first electric power generator and a second electric power generator;

2. claims: 9-14

PROBLEM: providing different levels of electrical power in an ink container; SOLUTION: a container with a first electric power generator, a plurality of operating circuits and a boosting circuit.

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

EP 03 25 5103

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
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10-11-2003

	Patent document cited in search report		Publication date		Patent family member(s)	Publication date
	WO 02061578	A	08-08-2002	US CA EP WO	2001019343 A1 2436712 A1 1386228 A2 02061578 A2	06-09-2001 08-08-2002 04-02-2004 08-08-2002
Ç	US 6385407	В1	07-05-2002	JР	2000246921 A	12-09-2000
	EP 1153752	A	14-11-2001	JP JP JP JP CN EP CN CN CN EP TW USS USS	2001293883 A 2002005818 A 2002007984 A 2002001990 A 2001358292 A 2343853 A1 1325795 A 1153752 A2 2002008724 A1 2350392 A1 2350397 A1 2350402 A1 1333133 A 1339359 A 1367080 A 1164022 A2 1164023 A2 1164024 A2 508632 B 504465 B 514964 B 2002154181 A1 2002033855 A1 2002008722 A1 2002030710 A1	23-10-2001 09-01-2002 11-01-2002 08-01-2002 26-12-2001 14-10-2001 12-12-2001 14-11-2002 16-12-2001 16-12-2001 16-12-2001 30-01-2002 13-03-2002 04-09-2002 19-12-2001 19-12-2001 19-12-2001 19-12-2001 01-11-2002 21-12-2002 21-12-2002 21-12-2002 24-01-2002 24-01-2002 14-03-2002
FORM P0459	EP 1164022	A	19-12-2001	JP JP JP CA CN EP TW US CA CA	2001358291 A 2002005818 A 2002005724 A 2002113882 A 2350397 A1 1367080 A 1164022 A2 514964 B 2002154181 A1 2002033855 A1 2343853 A1 2350392 A1 2350402 A1	26-12-2001 09-01-2002 09-01-2002 16-04-2002 16-12-2001 04-09-2002 19-12-2001 21-12-2002 24-10-2002 21-03-2002 14-10-2001 16-12-2001

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EP 03 25 5103

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
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10-11-2003

Patent document cited in search report		Publication date		Patent family member(s)		Publication date	on
EP 1164022	A		CN CN CN EP EP TW TW	1325795 1333133 1339359 1153752 1164023 1164024 508632 504465	A A A2 A2 A2 B B	12-12-3 30-01-3 13-03-3 14-11-3 19-12-3 01-11-3	2002 2002 2001 2001 2001 2002 2002
			US 2	2002008 72 4 2002008722 2002030710	A1	24-01-7 24-01-7 14-03-7	2002
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r more details about this annex							