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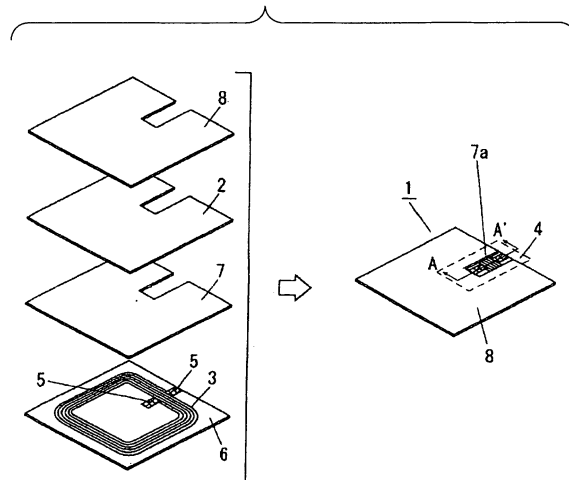
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(54) **Antenna apparatus**

(57) An antenna apparatus includes a magnetic sheet and an antenna that is provided in the magnetic sheet and has a looped conductor and terminal electrode parts arranged at both ends of the conductor, and a matching circuit that is provided in the magnetic sheet, includes a first capacitor and a second capacitor each of which has a pair of electrodes, and sets a resonant frequency by the antenna and the first and second capacitors. One electrode of the pair of electrodes of the first capacitor is connected to one of the terminal electrode parts, and the other electrode of the pair of electrodes of the first capacitor is connected to the looped conductor. One electrode of the pair of electrodes of the second capacitor is connected to the other one of the terminal electrode parts, and the other electrode of the pair of electrodes of the second capacitor is connected to the looped conductor.

FIG. 1





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 07 10 1353

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 98/40846 A (KABA SCHLISSSYSTEME AG [CH]; LOCHER JOHANN [CH]; RUEDISUEHLI ANDRES []) 17 September 1998 (1998-09-17) * page 11, lines 10-21 * * figure 4 *	1,5,6	INV. H01Q1/22 H01Q7/00 G06K19/077
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			TECHNICAL FIELDS SEARCHED (IPC)
			H01Q G06K
-The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 7 May 2007	Examiner Kruck, Peter
CATEGORY OF CITED DOCUMENTS 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 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			

2

EPO FORM 1503 03.82 (P04C01)

**CLAIMS INCURRING FEES**

The present 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

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:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been 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:
- ☒ None 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 invention first mentioned in the claims, namely claims:

1-13



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: 1-13

relating to an antenna apparatus having a looped conductor
and a matching circuit with capacitors connected to said
loop conductor

2. claim: 14

relating to a magnetic sheet comprising a sheet base holding
a magnetic layer

3. claim: 15

relating to an antenna apparatus comprising a loop antenna
provided in proximity to a magnetic sheet

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

EP 07 10 1353

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.

07-05-2007

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