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(71) Applicant: **KABUSHIKI KAISHA
TOKAI-RIKA-DENKI-SEISAKUSHO
Niwa-gun, Aichi-ken 480-01 (JP)**

(72) Inventors:
• **Umeda, Fumio
Kani-gun, Gifu-ken 505-01 (JP)**

- **Noda, Takahisa
Kohnan-shi, Aiohi-ken 483 (JP)**
- **Shibagaki, Yuji
Nagoya-shi, Aichi-ken 452 (JP)**
- **Nakano, Yoshio
Showa-ku, Nagoya-shi, Aichi-ken 466 (JP)**

(74) Representative: **Browne, Robin Forsythe, Dr.
Urquhart-Dykes & Lord
Tower House
Merrion Way
Leeds LS2 8PA West Yorkshire (GB)**

(54) **Receiver and antenna incorporated in the receiver**

(57) A receiver, comprising a plurality of antennas is set in a vehicle. Each antenna comprises a cylindrical bobbin and a dipole helical antenna wound on the bobbin. The bobbin is made of a synthetic resin and has a certain permittivity. The bobbin has flanged securing members at both ends and each securing member has a notch. To secure each antenna to a printed circuit

board, built into the receiver, the notch of the securing member is fitted to the board. In this case, the arrangement of the antennas is determined in accordance with the electric field intensity and the electric field vector generated for various receiver setting positions in the vehicle.

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EUROPEAN SEARCH REPORT

Application Number
EP 94 30 7063

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.6)
Y	US-A-5 138 328 (ZIBRIK ET AL.) * column 1, line 29 - column 1, line 32 * * column 1, line 55 - line 62 * * column 2, line 14 - line 19 * * column 3, line 12 - line 16 * * figures 2-4 * ---	1-7	H01Q1/32 H01Q1/36 H04B7/08
Y	US-A-3 967 280 (MAYER ET AL.) * column 6, line 32 - line 49 * * column 7, line 18 - line 26 * * column 8, line 40 - line 54 * * figures 3-5 * * figure 6A * ---	1-7	
Y	US-A-4 025 856 (SODE) * column 3, line 4 - line 51 * * column 5, line 31 - line 52 * * figures 1,4 * ---	1-7	
A	US-A-4 821 042 (OHE ET AL.) * column 9, line 56 - line 60 * * column 11, line 3 - line 19 * * column 12, line 39 - line 46 * * column 14, line 30 - line 41 * * figure 15 * ---	1-13	TECHNICAL FIELDS SEARCHED (Int.Cl.6) H01Q H04B G01S
A	EP-A-0 505 765 (E-SYSTEMS INC.) * column 3, line 32 - line 35 * * figure 2 * * claims 1,5 * ---	1-7	
A	US-A-4 584 709 (KNEISEL ET AL.) * column 3, line 10 - line 20 * * column 3, line 43 - line 59 * * figures 2,3 * --- -/--	1-7	
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 19 January 1996	Examiner McLean, G
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	

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Application Number
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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.6)
A	H.JASIK 'antenna engineering handbook' 1961 , MCGRAW-HILL , NEW YORK * page 7-1 * * page 7-7 * * page 7-9 * -----	1-7	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
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