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(54) Title: ANTENNA WITH HIGH K BACKING MATERIAL

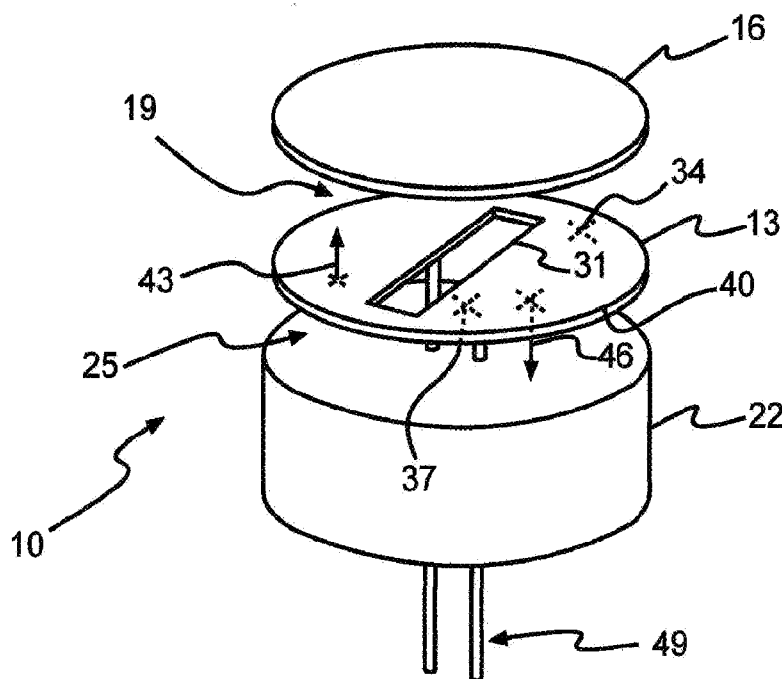


FIG. 3

(57) Abstract: An antenna is disclosed. The antenna may have a slotted conductive reference sheet, a first dielectric material and a second dielectric material. The first dielectric material may reside on a first side of the reference sheet, and the second dielectric material may reside on the second side of the reference sheet. The first dielectric material has a first K- value, and the second dielectric material has a second K- value. The second K- value is larger than the first K-value.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER***H01Q 13/10(2006.01)i, H01Q 13/08(2006.01)i, H01Q 11/08(2006.01)i***

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H01Q 13/10; G06F 1/16; H01Q 1/24; H01Q 1/38; H01Q 1/40; H01Q 13/16; H01Q 13/18; H01Q 13/22; H01Q 21/20

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: antenna, slot, dielectric, substrate, spiral

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2002-135028 A (NEC CORP) 10 May 2002 See the abstract; figures 1-4; paragraphs 8-21; and claims 1-3	1-20
Y	JP 06-090110 A (TOPPAN PRINTING CO LTD et al.) 29 March 1994 See the abstract; figures 1, 8; paragraphs 3-5, 35-38; and claim 1	1-20
Y	OZDEMIR, T. et al. "Analysis of thin multioctave cavity-backed slot spiral antennas," IEE Proceedings - Microwaves, Antennas and Propagation, vol. 146, no. 6, pp. 447-454, August 2002	11, 13, 14
A	See the abstract; figures 1, 2, 4; pages 447, 448	1-10, 12, 15-20
Y	JP 06-283923 A (NIPPON ANTENNA KK) 07 October 1994	1-14, 18-20
A	See the abstract; figures 1, 2; paragraphs 8-13; and claim 1	15-17
Y	JP 08-078931 A (PLESSEY SEMICONDUCTORS LIMITED) 22 March 1996	11
A	See the abstract; figure 2; paragraphs 12-15; and claims 1-5	1-10, 12-20



Further documents are listed in the continuation of Box C.



See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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