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(54) **Balanced dipole antenna**

(57) A balanced dipole antenna (100) has a coaxial cable connected between a load or source and the left (101) and right (102) dipole arms to substantially eliminate common mode current and radiative coupling between the coaxial cable and the left and right dipole arms. The connection between the source/load coaxial cable and the left and right dipole arms is a symmetric balun (110) having a center branch that is an extension of the source/load coaxial cable, and left and right stubs. When the stubs are segments of coaxial cable, the outer conductors (105,125) of the left and right stubs of the symmetric balun are respectively coupled to the left and right

dipole arms (101,102), and one of the inner conductors (106) of the left and right stubs is connected to the inner conductor of the center branch (116), while the other of the inner conductor (126) of the left and right stubs is connected to the outer conductor of the center branch (115). When the stubs are metallic, the inner conductor of the center branch is electrically connected to one of the left and right dipole arms, while the outer conductor of the center branch is electrically connected to the other of the left and right dipole arms. A sliding bar (108) at the base of the stubs electrically connects the outer conductors (105,125) of the left and right stubs and the center branch (115).

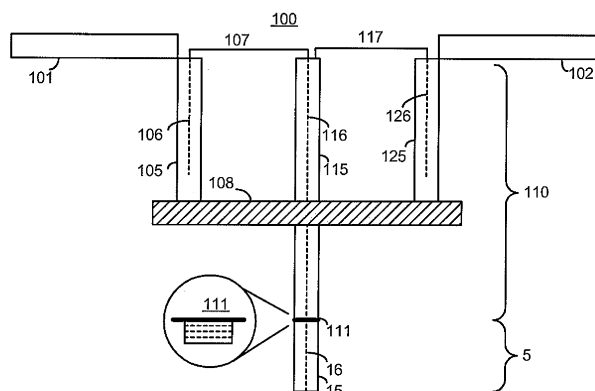


Fig. 5



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 07 10 8068

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	US 2 473 328 A (BROWN GEORGE H ET AL) 14 June 1949 (1949-06-14) * page 55, line 01, paragraph 2 *	1,3-11, 13-19	INV. H01P5/10 H01Q9/20
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			TECHNICAL FIELDS SEARCHED (IPC)
			H01P H01Q
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 3 July 2007	Examiner LA CASTA MUNOA, S
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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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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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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03-07-2007

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