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(54) **An active antenna array.**

(57) An active antenna array (58) for use in a radar seeker has a preselected number antenna elements (60) which are individually connected to an identical plurality of transmitting and receiving modules (64) backed up by a cold plate (66) for removing heat produced during use. In a preferred embodiment each module has a rectangular prism housing (84) within each of which there are individually modifiable phase and gain circuits (76,78). In a further embodiment, the transmitting and receiving modules are constructed of a number of wafers, each wafer having the same number of separate identical circuit function blocks as there are antenna elements.

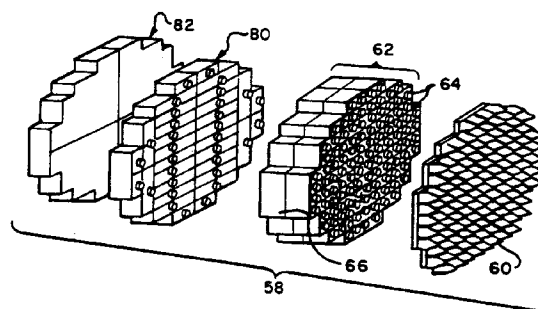


FIG. 4



European Patent
Office

EUROPEAN SEARCH REPORT

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EP 94 30 2699

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.5)
X	EP-A-0 448 318 (RAYTHEON) * column 1, line 44 - column 2, line 29 * * column 8, line 39 - line 56; figures 1A-3 *	1,2,5	H01Q21/00 H01Q21/06
X	--- MICROWAVE JOURNAL., vol.29, no.2, February 1986, DEDHAM US pages 109 - 122 ARMITAGE 'Electronic Warfare Solid-State Phased Arrays' * the whole document *	1,5	
A	--- 1990 INTERNATIONAL SYMPOSIUM DIGEST ANTENNAS AND PROPAGATION, May 1990, DALLAS, TEXAS pages 1402 - 1405 KINZEL 'Recent Advances in Monolithic Millimeter-Wave Arrays' * page 1404 - page 1405; figures 2,3 *	1-10	
A	--- PROCEEDINGS OF THE IEEE, vol.80, no.1, January 1992, NEW YORK US pages 163 - 173 MAILLOUX 'Antenna Array Architecture' * page 164 - page 165; figures 1,3,6 *	1-10	TECHNICAL FIELDS SEARCHED (Int.Cl.5) H01Q G01S
A	--- PROCEEDINGS OF THE IEEE, vol.80, no.1, January 1992, NEW YORK US pages 173 - 182 TANG ET AL. 'Array Technology' * page 179, paragraph IV - page 181, paragraph V; figures 1-3,9,10-13 *	1-10	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 31 January 1995	Examiner Angrabeit, F
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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