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(54) Title: ULTRASONIC MATRIX ARRAY PROBE WITH THERMALLY DISSIPATING CABLE

(57) Abstract: A matrix array probe including a transducer array and integrated circuitry coupled to the transducer elements dissipates heat generated by the array and integrated circuitry through the cover of the transducer probe. A pump in the probe connector pumps fluid through a closed loop system including inbound and outbound fluid conduits in the cable. The fluid conduits in the cable are separated by the cable electrical conductors for the probe. The heat transfer in the probe is done by a heat exchanger in the probe spaceframe or transducer stack backing block and may use a Peltier device. Additional cooling may be provided by metal to metal contact with a chiller in the ultrasound system.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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ADD.

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)
G10K A61B

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

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

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	the whole document	14,15
X	EP 0 782 125 A2 (GEN ELECTRIC [US]) 2 July 1997 (1997-07-02) column 7, line 15 - column 8, line 7	1-13
X	US 5 560 362 A (SLIWA JR JOHN W [US] ET AL) 1 October 1996 (1996-10-01) column 6, line 1 - line 7 column 13, line 47 - column 15, line 9; figures 3d,3e	1-10
X	US 2006/173344 A1 (MARIAN VAUGHN R [US] ET AL) 3 August 2006 (2006-08-03) abstract; figures 1,2	1,10
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Date of the actual completion of the international search	Date of mailing of the international search report
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Lorne, Benoît
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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