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(54) Ultrasound apparatus and method of generating ultrasound image

(57) A method of generating an ultrasound image in an ultrasound apparatus connected with at least one wired probe and at least one wireless probe is provided. A wired response signal corresponding to a first ultrasound response signal reflected from an object is received from the at least one wired probe, and a wireless response signal corresponding to a second ultrasound response signal reflected from the object is received from the at least one wireless probe. An ultrasound image of the object is generated by using the wired and wireless response signals.

FIG. 1A

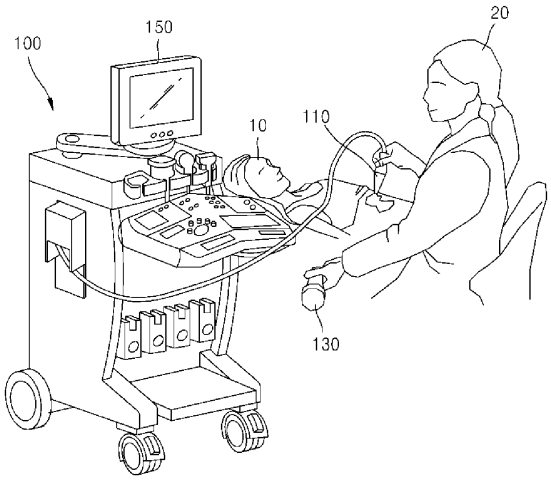

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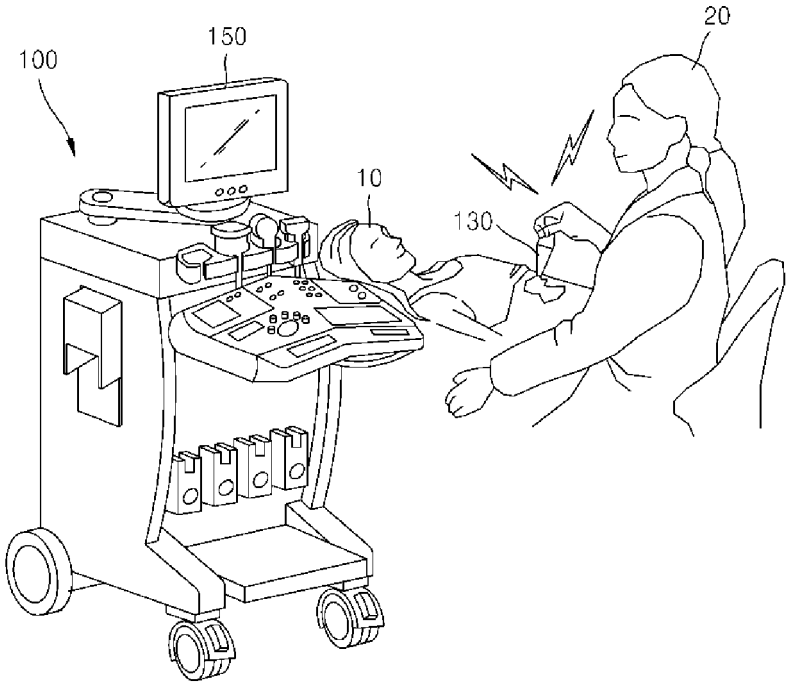
FIG. 1B



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EUROPEAN SEARCH REPORT

Application Number
EP 14 17 8701

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 2012/179037 A1 (HALMANN MENACHEM [US]) 12 July 2012 (2012-07-12) * paragraphs [0001], [0005] - [0007], [0017] - [0041], [0062] - [0065], [0084] - [0085], [0087], [0096] - [0100]; claims; figures *	1-15	INV. A61B8/00 A61B8/08
X A	US 2012/203107 A1 (KIM DONG HWAN [KR]) 9 August 2012 (2012-08-09) * paragraphs [0002] - [0003], [0012] - [0021], [0032], [0057]; claims; figures *	1,13,14 2-12,15	
A	US 2008/114249 A1 (RANDALL KEVIN S [US] ET AL) 15 May 2008 (2008-05-15) * the whole document *	1-15	
A	EP 2 570 082 A1 (SAMSUNG MEDISON CO LTD [KR]) 20 March 2013 (2013-03-20) * the whole document *	1-15	
A	CN 202 875 373 U (ZHUHAI YIKAI ELECTRONIC TECHNOLOGY CO LTD) 17 April 2013 (2013-04-17) * the whole document *	1-15	TECHNICAL FIELDS SEARCHED (IPC) A61B
A	CN 101 352 334 A (YAOSHENG LU [CN]) 28 January 2009 (2009-01-28) * the whole document *	1-15	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	6 February 2015	Mundakapadam, 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. EP 14 17 8701

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06-02-2015

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2012179037 A1	12-07-2012	CN 102579079 A	18-07-2012
		DE 102011057157 A1	12-07-2012
		JP 2012143555 A	02-08-2012
		US 2012179037 A1	12-07-2012
US 2012203107 A1	09-08-2012	CN 102626324 A	08-08-2012
		KR 20120090170 A	17-08-2012
		US 2012203107 A1	09-08-2012
US 2008114249 A1	15-05-2008	EP 2059172 A2	20-05-2009
		US 2008114249 A1	15-05-2008
		WO 2008066681 A2	05-06-2008
EP 2570082 A1	20-03-2013	EP 2570082 A1	20-03-2013
		KR 20130030664 A	27-03-2013
		US 2013072800 A1	21-03-2013
CN 202875373 U	17-04-2013	NONE	
CN 101352334 A	28-01-2009	NONE	

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	超声设备和产生超声图像的方法		
公开(公告)号	EP2829234A3	公开(公告)日	2015-03-18
申请号	EP2014178701	申请日	2014-07-28
[标]申请(专利权)人(译)	三星电子株式会社		
申请(专利权)人(译)	三星电子有限公司		
当前申请(专利权)人(译)	三星电子有限公司		
[标]发明人	CHO JEONG HAN HO SAN		
发明人	CHO, JEONG HAN, HO-SAN		
IPC分类号	A61B8/00 A61B8/08		
CPC分类号	A61B8/4477 A61B8/14 A61B8/4405 A61B8/4472 A61B8/463 A61B8/464 A61B8/5238 A61B8/5246 A61B8/565		
优先权	1020130088981 2013-07-26 KR		
其他公开文献	EP2829234A2		
外部链接	Espacenet		

摘要(译)

提供了一种在与至少一个有线探头和至少一个无线探头连接的超声设备中生成超声图像的方法。从所述至少一个有线探头接收与从物体反射的第一超声响应信号对应的有线响应信号，并且从所述至少一个无线探头接收与从所述物体反射的第二超声响应信号对应的无线响应信号。 。通过使用有线和无线响应信号生成对象的超声图像。

FIG. 1A