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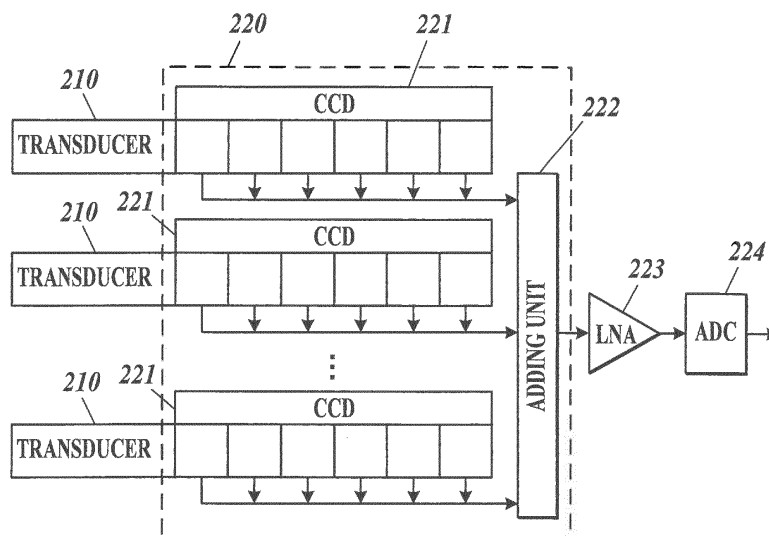
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(54) **Phasing adder and ultrasound probe**

(57) A phasing adder and an ultrasound probe there-with are disclosed. The phasing adder (220) includes a delay charge transferring unit (221), preferably a CCD, and a delay adding unit (222). The delay charge transferring unit obtains signal charge in an amount obtained without amplifying according to charge generated in each of a plurality of piezoelectric elements (210). Each of the plurality of piezoelectric elements includes a piezoelec-

tric body (211) to generate charge according to sound pressure of input ultrasound. The delay charge transferring unit holds the signal charge for a predetermined amount of time. The delay adding unit executes phasing adding of an amount of the signal charge held for the predetermined amount of time in the delay charge transferring unit.

FIG.5





EUROPEAN SEARCH REPORT

Application Number
EP 14 17 6427

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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Y	* paragraphs [0027] - [0044], [0060]; figures 1-3 *	3,4,8	A61B8/00 H01L27/20 H01L27/105 G10K11/34
X	WO 2007/000567 A1 (OCEANSCAN LTD) 4 January 2007 (2007-01-04)	1,2,5-7	
Y	* page 15, paragraph 2 - page 17, paragraph 1; figures 3-5 * * page 19, paragraphs 2, 3 *	3,4,8	
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	* column 4, lines 3-63; figures 6, 7 * * column 5, line 58 - column 6, line 42; figures 9, 10 *		
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 16 February 2015	Examiner Köpf, Christian
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	

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 14 17 6427

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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专利名称(译)	定相加法器 and 超声波探头		
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优先权	2013144297 2013-07-10 JP 2014139424 2014-07-07 JP		
其他公开文献	EP2824454A2		
外部链接	Espacenet		

摘要(译)

公开了一种定相加法和超声波探头。定相加法器 (220) 包括延迟电荷转移单元 (221)，优选地是CCD，以及延迟添加单元 (222)。延迟电荷转移单元获得的信号电荷的量是根据在多个压电元件 (210) 中的每一个中产生的电荷而不放大而获得的。多个压电元件中的每一个包括压电体 (211)，以根据输入超声的声压产生电荷。延迟电荷转移单元将信号电荷保持预定的时间量。延迟添加单元在延迟电荷传送单元中执行相位添加一段预定时间内保持的信号电荷。

