

SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application Number
EP 15 84 9729

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	TRIGER S ET AL: "Low-voltage coded excitation utilizing a miniaturized integrated ultrasound system employing piezoelectric 2-D arrays", IEEE TRANSACTIONS ON ULTRASONICS, FERROELECTRICS AND FREQUENCY CONTROL, IEEE, US, vol. 57, no. 2, 1 February 2010 (2010-02-01), pages 353-362, XP011303271, ISSN: 0885-3010 * the whole document *	1-15	INV. G01S7/52 A61B8/00
A	US 2013/324851 A1 (COHEN BENJAMIN A [US] ET AL) 5 December 2013 (2013-12-05) * the whole document *	1-15	
A	US 2012/113759 A1 (OSHIKI MITSUHIRO [JP] ET AL) 10 May 2012 (2012-05-10) * abstract *; figures 1-4,10,11 * * paragraph [0021] - paragraph [0025] * * paragraph [0045] - paragraph [0061] * * paragraph [0096] - paragraph [0104] *	1-15	TECHNICAL FIELDS SEARCHED (IPC) G01S A61B
A	WO 2013/088196 A1 (SUPER SONIC IMAGINE [FR]; MAURICE FRANCOIS [FR]; FELIX NICOLAS [FR]) 20 June 2013 (2013-06-20) * the whole document *	1-15	
A	LEWANDOWSKI M ET AL: "Modular & scalable ultrasound platform with GPU processing", ULTRASONICS SYMPOSIUM (IUS), 2012 IEEE INTERNATIONAL, IEEE, 7 October 2012 (2012-10-07), pages 1-4, XP032434323, ISSN: 1948-5719, DOI: 10.1109/ULTSYM.2012.0518 ISBN: 978-1-4673-4561-3 * the whole document *	1-15	
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search Munich		Date of completion of the search 16 May 2018	Examiner Zaneboni, Thomas
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 15 84 9729

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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

16-05-2018

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2013324851	A1	05-12-2013	CN 101680948 A	24-03-2010
			EP 2135110 A2	23-12-2009
			EP 2450723 A1	09-05-2012
			ES 2397553 T3	07-03-2013
			JP 5452468 B2	26-03-2014
			JP 2010523284 A	15-07-2010
			KR 20100016338 A	12-02-2010
			KR 20150042870 A	21-04-2015
			US 2008255451 A1	16-10-2008
			US 2013324851 A1	05-12-2013
			WO 2008124841 A2	16-10-2008

US 2012113759	A1	10-05-2012	JP 5552062 B2	16-07-2014
			JP WO2010090160 A1	09-08-2012
			US 2012113759 A1	10-05-2012
			WO 2010090160 A1	12-08-2010

WO 2013088196	A1	20-06-2013	CA 2858306 A1	20-06-2013
			CN 103987322 A	13-08-2014
			EP 2790584 A1	22-10-2014
			IL 232795 A	31-01-2018
			JP 5968460 B2	10-08-2016
			JP 2015500117 A	05-01-2015
			KR 20140107321 A	04-09-2014
			US 2014347954 A1	27-11-2014
			WO 2013088196 A1	20-06-2013

专利名称(译)	用于超声探头的参数加载器及相关设备和方法		
公开(公告)号	EP3203915A4	公开(公告)日	2018-06-20
申请号	EP2015849729	申请日	2015-10-07
[标]申请(专利权)人(译)	蝴蝶网络有限公司		
申请(专利权)人(译)	蝶形网络INC.		
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IPC分类号	A61B8/00		
CPC分类号	A61B8/44 A61B8/54 G01S7/5208 G01S7/52082 A61B8/4411 A61B8/4472 A61B8/565 H04B11/00 H04L5/0048 H04L41/0803 H04L69/324		
优先权	62/061613 2014-10-08 US		
其他公开文献	EP3203915A1		
外部链接	Espacenet		

摘要(译)

描述了可编程超声探头和操作方法。超声探头可以包括存储参数数据的存储器，并且还可以包括参数加载器，其将参数数据加载到超声探头的可编程电路中。在一些情况下，超声探头可以包括分组成模块的电路，这些模块可以是可重复的并且可以耦合在一起以允许在模块之间交换数据。

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Category	Content of paragraph with indication, where appropriate, of relevant passages	Relevant to claim	Relevant to claim
X	TEIGER S ET AL: "Low-voltage coded excitation utilizing a miniaturized integrated ultrasound system employing piezoelectric 2-D arrays", IEEE TRANSACTIONS ON ULTRASONICS, FERROELECTRICS AND FREQUENCY CONTROL, IEEE, US, vol. 57, no. 2, February 2010 (2010-02-01), pages 323-362, XP01103271, ISSN: 0885-3010	1-15	INV. G0157/52 A61B8/00
A	US 2013/324851 A1 (COHEN BENJAMIN A [US] ET AL) 5 December 2013 (2013-12-05)	1-15	
A	US 2012/113759 A1 (OSHIMI MITSUHIRO [JP] ET AL) 10 May 2012 (2012-05-10)	1-15	
A	WO 2013/088196 A1 (SUPER SONIC IMAGINE [FR] MAURICE FRANCOIS [FR], FELIX NICOLAS [FR]) 29 June 2013 (2013-06-29)	1-15	
A	LEWANDOWSKI M ET AL: "Modular & scalable ultrasound platform with GPU processing", ULTRASONICS SYMPOSIUM (IUS), 2012 IEEE INTERNATIONAL, IEEE, 7 October 2012 (2012-10-07), pages 1-4, XP032434323, ISSN: 1548-3719, DOI: 10.1109/ULSYM.2012.6518, ISBN: 978-1-4673-4561-3	1-15	
1	The applicant's research report filed on the test		
2	Munich	16 May 2018	Zaneboni, Thomas
3	DATE OF CITATION OF THE DOCUMENTS		
4	DATE OF CITATION OF THE DOCUMENTS		
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