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(54) ULTRASOUND SYSTEM FOR DISPLAYING STIFFNESS OF BLOOD VESSEL

(57) An ultrasound system includes a controller controlling generation of an ultrasound image showing a blood vessel based on an ultrasound echo signal obtained from an object including the blood vessel, and a display displaying the ultrasound image, in which the controller determines a first line and a second line spaced apart from each other with an inner space of the blood vessel interposed therebetween and indicating blood vessel walls in the ultrasound image and determines a color based on information about a change in an interval between the first line and the second line, and the display displays a partial area of the ultrasound image with the determined color.

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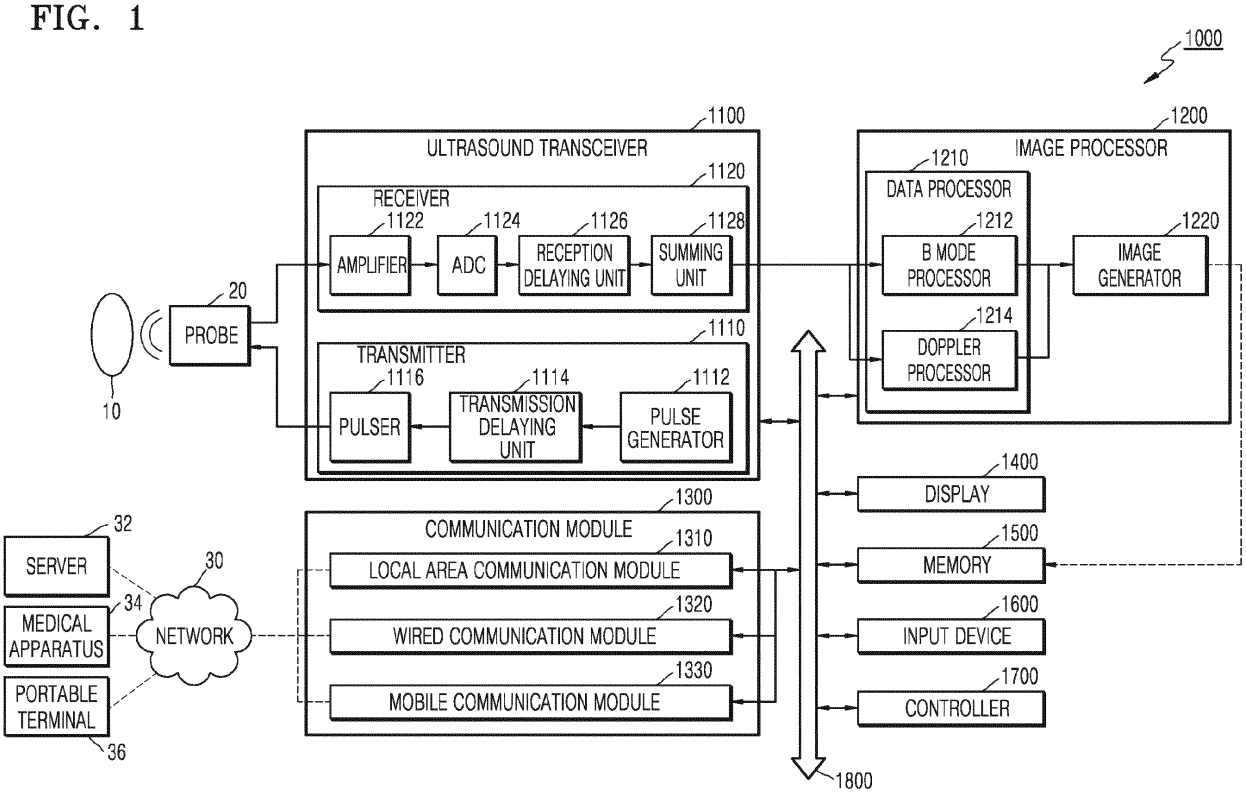
(Cont. next page)

FIG. 1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RECEIVER
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AMPLIFIER
1124
ADC
1126
RECEPTION DELAYING UNIT
1128
SUMMING UNIT
1110
TRANSMITTER
1116
PULSER
1114
TRANSMISSION DELAYING UNIT
1112
PULSE GENERATOR
20
PROBE
10
1200
IMAGE PROCESSOR
1210
DATA PROCESSOR
1212
B MODE PROCESSOR
1214
DOPPLER PROCESSOR
1220
IMAGE GENERATOR
1400
DISPLAY
1500
MEMORY
1600
INPUT DEVICE
1700
CONTROLLER
1800
1300
COMMUNICATION MODULE
1310
LOCAL AREA COMMUNICATION MODULE
1320
WIRED COMMUNICATION MODULE
1330
MOBILE COMMUNICATION MODULE
32
SERVER
34
MEDICAL APPARATUS
36
PORTABLE TERMINAL
30
NETWORK

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EUROPEAN SEARCH REPORT

Application Number
EP 16 16 5539

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 2012/310089 A1 (MIYACHI YUKIYA [JP] ET AL) 6 December 2012 (2012-12-06) * paragraphs [0007], [0011], [0014], [0015], [0016], [0020], [0024] - [0027], [0058], [0075], [0080], [0081], [0087], [0092], [0098] - [0099], [0121]; figures 1-3,5a,10a,10b,11a-g,12a,13, * * paragraphs [0123] - [0131], [0136], [0137], [0142] - [0149], [0154], [0157] - [0165], [0172] - [0184] * * paragraphs [0191] - [0204] *	1-3, 5-10, 12-15	INV. A61B8/08
X	US 2011/077518 A1 (MIYACHI YUKIYA [JP]) 31 March 2011 (2011-03-31) * paragraphs [0066] - [0073], [0076], [0077]; figures 1,2,6a,6b,7a-c,8a-c,9a-c *	1-3, 5-10, 12-15	
X	US 2014/343423 A1 (MIYACHI YUKIYA [JP]) 20 November 2014 (2014-11-20) * paragraphs [0014], [0026], [0033] - [0035], [0038] - [0042], [0048] - [0050]; figures 1-4 *	1-3, 5-10, 12-15	TECHNICAL FIELDS SEARCHED (IPC) A61B
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	19 September 2016	Daoukou, Eleni

CATEGORY OF CITED DOCUMENTS

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Application Number
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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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A	US 2008/021318 A1 (KATO MAKOTO [JP] ET AL) 24 January 2008 (2008-01-24) * figures 1-11b *	1-15	

TECHNICAL FIELDS SEARCHED (IPC)

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	19 September 2016	Daoukou, Eleni

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& : member of the same patent family, corresponding document

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19-09-2016

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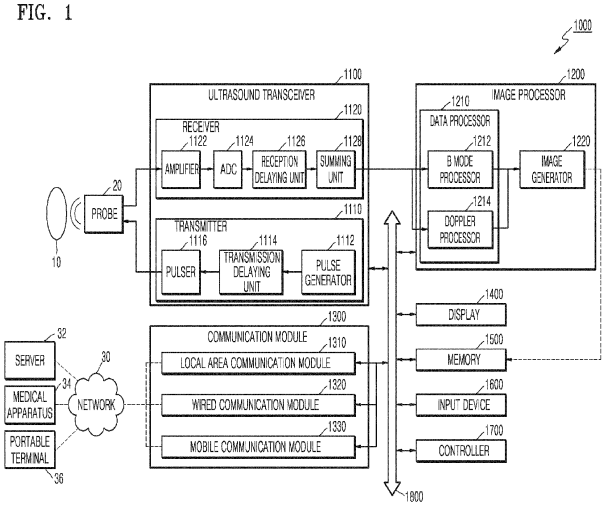
For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	用于显示血管硬度的超声系统		
公开(公告)号	EP3081167A3	公开(公告)日	2016-10-26
申请号	EP2016165539	申请日	2016-04-15
[标]申请(专利权)人(译)	三星麦迪森株式会社		
申请(专利权)人(译)	三星MEDISON CO.，LTD.		
当前申请(专利权)人(译)	三星MEDISON CO.，LTD.		
[标]发明人	LEE JIN YONG LEE BONG HEON PARK SUNG WOOK PARK JIN KI CHANG HYUK JAE CHUNG NAM SIK HONG GEU RU SHIM CHI YOUNG YOON JI HYUN CHO IN JEONG HEO RAN		
发明人	LEE, JIN-YONG LEE, BONG-HEON PARK, SUNG-WOOK PARK, JIN-KI CHANG, HYUK-JAE CHUNG, NAM-SIK HONG, GEU-RU SHIM, CHI-YOUNG YOON, JI-HYUN CHO, IN-JEONG HEO, RAN		
IPC分类号	A61B8/08		
CPC分类号	A61B8/0891 A61B5/02007 A61B8/14 A61B8/4427 A61B8/4472 A61B8/461 A61B8/463 A61B8/469 A61B8/483 A61B8/485 A61B8/488 A61B8/5207 A61B8/5223 A61B8/5284 A61B8/54		
代理机构(译)	JACOBS，BART		
优先权	62/147860 2015-04-15 US 1020150139998 2015-10-05 KR 1020150120538 2015-08-26 KR		
其他公开文献	EP3081167A2		
外部链接	Espacenet		

摘要(译)

超声系统包括：控制器，基于从包括血管的对象获得的超声回波信号，控制显示血管的超声图像的产生;以及显示器，显示超声图像，其中，控制器确定第一线和第二线，其间插入有血管的内部空间，并且指示超声图像中的血管壁，并且基于关于第一线和第二线之间的间隔的变化的信息来确定颜色，并且显示器以所确定的颜色显示超声图像的部分区域。

FIG. 1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SUMMING UNIT
1110
TRANSMITTER
1116
PULSER
1114
TRANSMISSION DELAYING UNIT
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PULSE GENERATOR
20
PROBE
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IMAGE PROCESSOR
1210
DATA PROCESSOR
1212
B MODE PROCESSOR
1214
DOPPLER PROCESSOR
1220
IMAGE GENERATOR
1400
DISPLAY
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MEMORY
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INPUT DEVICE
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CONTROLLER
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