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(54) Universal/upgrading pulse oximeter

(57) A universal/upgrading pulse oximeter (UPO) (210) comprises a portable unit (610) and a docking station (660, 910) together providing three-instruments-in-one functionality for measuring oxygen saturation and related physiological parameters. The portable unit functions as a handheld pulse oximeter. The combination of the docked portable and the docking station functions as a stand-alone, high-performance pulse oximeter. The portable-docking station combination is also connectable to, and universally compatible with, pulse oximeters from various manufacturers through use of a waveform generator (320, 930). The UPO provides a universal sensor to pulse oximeter interface and a pulse oximeter measurement capability that upgrades the performance of conventional instruments by increasing low perfusion performance and motion artifact immunity, for example. Universal compatibility combined with portability allows the UPO to be transported along with patients transferred between an ambulance and a hospital ER, or between various hospital sites, providing continuous patient monitoring in addition to plug-compatibility and functional upgrading for multiparameter patient monitoring systems. The image on the portable display (264, 740) is rotatable, either manually when undocked or as a function of orientation (950), In one embodiment, the docking station (660) has a web server and network interface (1410) that allows UPO data to be downloaded and viewed as web pages over a local area network (1420) or the Internet.

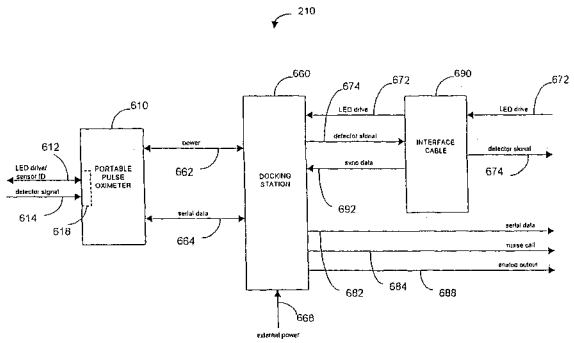

FIG. 6

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EUROPEAN SEARCH REPORT

Application Number
EP 08 01 2674

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 5 687 717 A (HALPERN ARIEH S [US] ET AL) 18 November 1997 (1997-11-18) * figures 1-6,8 *	1-8	INV. A61B5/00
X	US 4 715 385 A (CUDAHY MICHAEL J [US] ET AL) 29 December 1987 (1987-12-29) * figures 1-3 *	1,2,5	
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TECHNICAL FIELDS SEARCHED (IPC)

A61B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	21 October 2009	Schießl, Werner

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 08 01 2674

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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)	通用/升级脉搏血氧仪		
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[标]申请(专利权)人(译)	梅西莫股份有限公司		
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IPC分类号	A61B5/00 G01N21/27 A61B5/0205 A61B5/145 A61B5/1455 G01N21/35		
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代理机构(译)	法思博事务所		
优先权	60/117097 1999-01-25 US 60/161565 1999-10-26 US		
其他公开文献	EP1992278B1 EP1992278A2		
外部链接	Espacenet		

摘要(译)

通用/升级脉冲血氧计（UPO）（210）包括便携式单元（610）和对接站（660,910），它们一起提供用于测量氧饱和度和相关生理参数的三仪器一体机功能。便携式装置用作手持式脉搏血氧仪。对接便携式和对接站的组合可用作独立的高性能脉搏血氧仪。便携式对接站组合还可通过使用波形发生器（320,930）连接到各种制造商的脉冲血氧计并且通用地与之兼容。 UPO提供通用传感器，用于脉搏血氧仪接口和脉搏血氧仪测量功能，可提升性能例如，通过增加低灌注性能和运动伪影免疫力的常规仪器。通用兼容性与便携性相结合，允许UPO与在救护车和医院ER之间或在各医院站点之间转移的患者一起运输，除了插件兼容性和多参数患者监测系统的功能升级之外，还提供连续的患者监测。便携式显示器（264,740）上的图像可以是可旋转的，可以在未对接时手动或者根据方向（950）旋转。在一个实施例中，对接站（660）具有允许的网络服务器和网络接口（1410）。要通过局域网（1420）下载和查看为网页的UPO数据互联网。

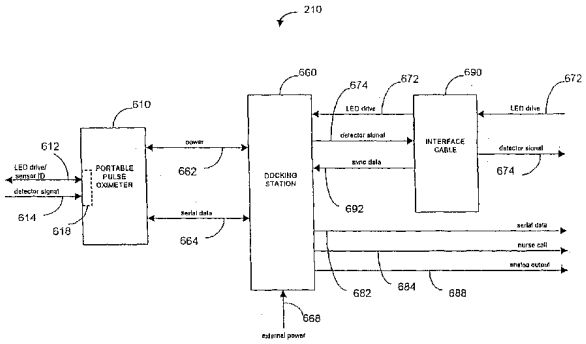

FIG. 6