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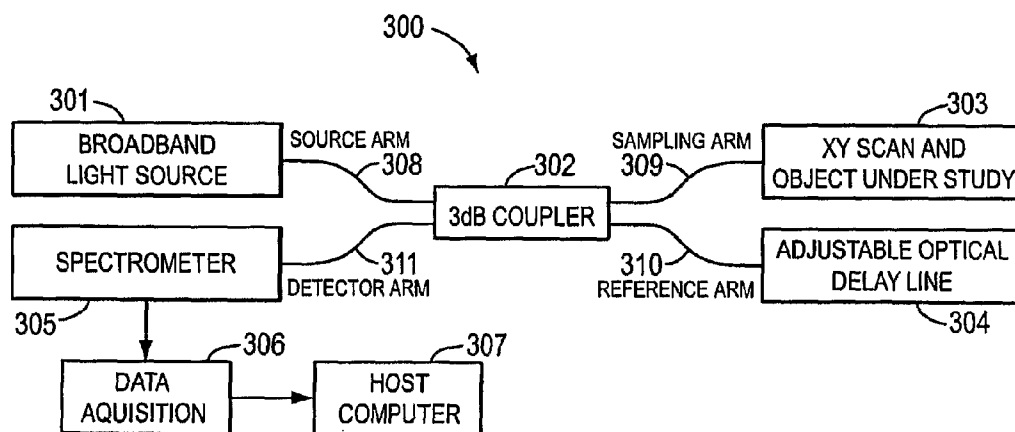
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(54) Title: A FOURIER-DOMAIN OPTICAL COHERENCE TOMOGRAPHY IMAGER



(57) Abstract: A Fourier-domain optical coherence tomography (OCT) imager is presented. An OCT imager according to the present invention can have an auto-alignment process. The auto-alignment process automatically adjusts at least one optical component of a spectrometer of the imager so that the spectrometer is aligned during an imaging session. In addition to the auto-alignment process, OCT spectra are normalized for background spectra and for noise characteristics in order to provide a more accurate and clear OCT image.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 07/01621

A. CLASSIFICATION OF SUBJECT MATTER

IPC: G01B 11/02 (2007.01) USPC: 356/508

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
USPC: 356/508

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: all classes/subclasses (text search - see terms below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PubWest (USPT, PG, PB, EPAB, JPAB); DialogPRO (Engineering); Google Scholar
Search Terms Used: coupler, source, reference, reflected, interference, broadband, optical delay, lateral scan

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 2003/0137669 A1 (Rollins et al.) 24 July 2003 (24.07.2003) (para [0052][0053][0066][0028][0058][0088][0054][0004][0022][0083][0104][0005])	16-19 2-8 and 13-15
X Y	US 2005/0171438 A1 (Chen et al.) 04 August 2005 (04.08.2005) (para [0037][0041][0079][0039][0043][0023])	1, 9-10 2-8 and 11-15
Y	US 2004/0254474 A1 (Seibel et al.) 16 December 2004 (16.12.2004) (para [0059][0028][0027][0072][0053][0024])	11-12, 6-8, and 13-15

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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