



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 17 93 68 00

Classification of the application (IPC):
G02B 23/24, A61B 1/002

Technical fields searched (IPC):
A61B, G02B

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
Y	US 2017209050 A1 (FENGLER JOHN JOSEF PAUL [CA] ET AL) 27 July 2017 (2017-07-27) * abstract * * paragraph [0093] * * paragraphs [0117] - [0124] * * paragraphs [0127] - [0128] * * paragraphs [0145] - [0147] * * figures 1, 2B, 5 *	1-16
Y	US 4905082 A (NISHIGAKI SHINICHI [JP] ET AL) 27 February 1990 (1990-02-27) * abstract * * column 33, line 14 - column 36, line 22 * * figures 53-54 *	1, 3, 4, 8-16
Y	WO 2017216969 A1 (OLYMPUS CORP [JP]) 21 December 2017 (2017-12-21) * abstract * * paragraphs [0198] - [0203] * * figures 23, 24a *	2, 5-7
Y	US 2011199471 A1 (TOMIOKA MAKOTO [JP]) 18 August 2011 (2011-08-18) * abstract * * paragraphs [0021] - [0031] * * figure 1 *	2
Y	US 6306082 B1 (TAKAHASHI SUSUMU [JP] ET AL) 23 October 2001 (2001-10-23) * abstract * * figures 20-22, 24 *	2

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 12 July 2021	Examiner Schenke, Cordt
---------------------------	--	----------------------------

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

Disclaimer: this document has been automatically generated using data structured in accordance with WIPO standard ST.36 from the database of search reports of the European Patent Office. For technical reasons, its content and layout may differ from that of the original publication. Only the original published information is legally binding.



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 17 93 68 00

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
Y	US 2014354950 A1 (BUCKLAND ERIC L [US] ET AL) 04 December 2014 (2014-12-04) * abstract * * paragraphs [0077] - [0078] * * figures 9A, 9B *	7

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 12 July 2021	Examiner Schenke, Cordt
---------------------------	--	----------------------------

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

Disclaimer: this document has been automatically generated using data structured in accordance with WIPO standard ST.36 from the database of search reports of the European Patent Office. For technical reasons, its content and layout may differ from that of the original publication. Only the original published information is legally binding.



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 17 93 68 00

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1, 3, 4, 8-16

An endoscope system, comprising an object lens module, a relay module, an eye lens module, an optical interface light path module, and a digital ultra-high-definition camera, which are sequentially arranged along a light path direction, wherein an image formed by the object lens module is projected to the optical interface light path module in a form of non-parallel light/divergent light after passing through the relay module and the eye lens module.

2. claims: 2, 5-7

An integrated design method for an endoscope camera optical system, wherein the system comprises an object lens module, a relay module, an eye lens module, an optical interface light path module, and a digital ultra-high-definition camera, which are sequentially arranged along a light path direction; and wherein a relative aperture of the system is increased by increasing an exit pupil diameter of the eye lens module so that a resolution of an image formed on the digital ultra-high-definition camera is improved.

All further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for all claims.

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 12 July 2021	Examiner Schenke, Cordt
---------------------------	--	----------------------------

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

Disclaimer: this document has been automatically generated using data structured in accordance with WIPO standard ST.36 from the database of search reports of the European Patent Office. For technical reasons, its content and layout may differ from that of the original publication. Only the original published information is legally binding.


**ANNEX TO SUPPLEMENTARY EUROPEAN
SEARCH REPORT**

 Application number:
EP 17 93 68 00

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 12-07-2021
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2017209050 A1	27-07-2017	CA 3009419 A1 EP 3408654 A1 US 2017209050 A1 US 2021307613 A1 WO 2017127929 A1	03-08-2017 05-12-2018 27-07-2017 07-10-2021 03-08-2017
US 4905082 A	27-02-1990	NONE	
WO2017216969 A1	21-12-2017	JP WO2017216969 A1 US 2019121117 A1 WO 2017216969 A1	04-04-2019 25-04-2019 21-12-2017
US 2011199471 A1	18-08-2011	CN 102282496 A EP 2369395 A1 JP 4746723 B2 JP WO2011013518 A1 US 2011199471 A1 WO 2011013518 A1	14-12-2011 28-09-2011 10-08-2011 07-01-2013 18-08-2011 03-02-2011
US 6306082 B1	23-10-2001	DE 19509885 A1 DE 29504623 U1 US 5743846 A US 6306082 B1 US 2002082476 A1	21-09-1995 07-09-1995 28-04-1998 23-10-2001 27-06-2002
US 2014354950 A1	04-12-2014	CN 105473055 A EP 3003123 A2 JP 6373366 B2 JP 2016523613 A US 2014354950 A1 US 2018084993 A1 WO 2014197553 A2	06-04-2016 13-04-2016 15-08-2018 12-08-2016 04-12-2014 29-03-2018 11-12-2014