Form PTO-1595 (Rev. 07/05) OMB_No. 0651-0027 (exp. 6/30/2008)

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| 4. Application or patent number(s): This document is being filed together with a new application | | |
| A. Patent Applica | ` ' | B. Patent No.(s) |
| Serial No. 13/ | /652,238 | |
| | 1 | · · · |
| | Additional numbers att | ached? Yes No |
| | | 6. Total number of applications and patents |
| | | involved: 1 |
| _{Name:} Mark P. | | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ |
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| *************************************** | Michael J. Dobbs #58.093 | Total number of pages including cover sheet, attachments, and documents: 2 |
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PATENT

REEL: 030555 FRAME: 0464

CONFIRMATORY LICENSE

Title:

Back-Side Readout Semiconductor Photomultiplier

Contractor:

The Regents of the University of California

Contract No:

DE-AC02-05CH11231

LBNL Docket No:

IB-3150

DOE Docket No.: S-TBA

Inventor(s): Choong, Woon-Seng; Holland,

Stephen E.

US Patent App No.: 13/652,238

Filing Date:

15-Oct-2012

U.S. Patent No.: **Issue Date:**

Foreign patent applications filed or intended to be filed at contractor's expense in (countries): (None)

The Contractor certifies that a true copy of the provisions which govern patent rights in "subject inventions" under the above-identified contract is herewith submitted or has been submitted to the U.S. Department of Energy by certification dated October 29, 1996.

WHEREAS, the above-identified contract provides the Contractor with the right to elect to retain title in certain inventions and the Contractor has reported the above-identified invention as a subject invention under the contract, has elected to retain title therein, and has agreed to file a domestic patent application thereon, if not previously filed.

ACCORDINGLY, the Contractor hereby confirms that under the provisions of the above-identified contract governing patent rights, it has granted to the Government a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world. This license applies to the above-identified invention, the aboveidentified patent application(s), and any and all divisions or continuations thereof and any resulting patent or reissue patent which may be granted thereon.

The Government reserves for itself, and is hereby granted by the Contractor, the irrevocable power to inspect and make copies of the file wrapper(s) of the above-identified U.S. patent application and of any related or continuation patent application(s), whether domestic or foreign, for the above-identified invention.

It is understood and agreed that this instrument does not preclude the Government from asserting rights under the provisions of the above-identified contract or any other agreement between the Government and the Contractor, or any other rights of the Government with respect to the above-identified invention.

Signed on behalf of: The Regents of the University of California, Lawrence Berkeley National Laboratory (Contractor)

Mark D. Menge, Admin, Asst.

(Name and Title)

Stephen C. Glade

Patent Attorney

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Berkeley, CA 94720-8127

PATENT **REEL: 030555 FRAME: 0465**

RECORDED: 06/03/2013