Form PTO-1595 (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)	2 - 20 - 2005 U.S. DEPARTMENT OF COMMERCE ted States Patent and Trademark Off		
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3. Nature of conveyance/Execution Date(s):	Street Address: GROENENWOUDSEWEG 1		
Execution Date(s) JULY 14, 16, 2003			
✓ Assignment	City: EINDHOVEN		
Security Agreement Change of Name			
Joint Research Agreement	State:		
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4. Application or patent number(s):	his document is being filed together with a new application		
71. I atom Application 140.(3)	B Patent No (s)		
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Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
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PATENT REEL: 017361 FRAME: 0566

SOLE/JOINT ASSIGNMENT

For good and valuable consideration, receipt of which is hereby acknowledged, I/we, as a below-named Assignor(s), hereby sell, assign, and transfer the entire and exclusive right, title, and interest in the following to **Koninklijke Philips Electronics N.V.**, having a place of business at Groenewoudseweg 1, 5621 BA Eindhoven, NL, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee"):

(1) my/our invention relating to <u>"HIGH RESOLUTION PWM GENERATOR OR</u> DIGITALLY CONTROLLED OSCILLATOR"

for which

[] a U.S. provisional application for patent will be filed in the United States Patent and Trademark Office,

[XX] a U.S. provisional patent application was filed in the United States Patent and Trademark Office on $\underline{\text{June }11,\ 2003}$ having a Serial Number 60/477,701 ,

- (2) the foregoing application and all other United States, foreign and international patent applications associated therewith, based thereon, or claiming priority therefrom including, but not limited to, any and all provisionals, non-provisionals divisions, continuations, continuations-in-part, reexaminations, reissues, and extensions thereof, and
- (3) the right to claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents granted on these applications.

I/We authorize and request that the Patent Office officials in the United States and in any and all foreign countries to issues any and all Letters Patent when granted, solely to Koninklijke Philips Electronics N.V., for its sole use, and that of its successors, assigns, and legal representatives.

I/we will provide my/our cooperation to enable the Assignee to enjoy the foregoing right, title, and interest to the fullest extent. Upon request at the expense of the Assignee, I/we agree to execute all papers, take all rightful oaths, testify in all legal proceedings including patent prosecutional actions and infringement actions, and do all other such acts which may be necessary, desirable, or convenient for securing and maintaining patents on the foregoing invention or for perfecting title thereto in the Assignee.

I/We certify that I/we have the full right to convey the above rights.

× 07/14/03	× 2îny Li	, Assignor
Date	QIONG M. LI	
		, Assignor
Date	DEMETRI GIANNOPOULOS	

PATENT REEL: 017361 FRAME: 0567

SOLE/JOINT ASSIGNMENT

For good and valuable consideration, receipt of which is hereby acknowledged, I/we, as a below-named Assignor(s), hereby sell, assign, and transfer the entire and exclusive right, title, and interest in the following to **Koninklijke Philips Electronics N.V.**, having a place of business at Groenewoudseweg 1, 5621 BA Eindhoven, NL, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee"):

(1) my/our invention relating to <u>"HIGH RESOLUTION PWM GENERATOR OR DIGITALLY CONTROLLED OSCILLATOR"</u>

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- (2) the foregoing application and all other United States, foreign and international patent applications associated therewith, based thereon, or claiming priority therefrom including, but not limited to, any and all provisionals, non-provisionals divisions, continuations, continuations-in-part, reexaminations, reissues, and extensions thereof, and
- (3) the right to claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents granted on these applications.

I/We authorize and request that the Patent Office officials in the United States and in any and all foreign countries to issues any and all Letters Patent when granted, solely to Koninklijke Philips Electronics N.V., for its sole use, and that of its successors, assigns, and legal representatives.

I/we will provide my/our cooperation to enable the Assignee to enjoy the foregoing right, title, and interest to the fullest extent. Upon request at the expense of the Assignee, I/we agree to execute all papers, take all rightful oaths, testify in all legal proceedings including patent prosecutional actions and infringement actions, and do all other such acts which may be necessary, desirable, or convenient for securing and maintaining patents on the foregoing invention or for perfecting title thereto in the Assignee.

I/We certify that I/we have the full right to convey the above rights.

July 16 2003

MANUALY DEMETRI GIANNOPOULOS

QIONG M.

Assignor

PATENT REEL: 017361 FRAME: 0568

RECORDED: 12/08/2005