From PTO-1595 (Rev. 09/04) OMB No. 0651-0027 (exp. 6/00/2005)	U.S. DEPARTMENT OF COMMERC United States Patent and Trademark Office
RECORDATION FOR	
PATENTS	S ONLY
To the Director of the U.S. Patent and Trademark Office: Please	record the attached documents or the new address(es) below.
Name of conveying party(ies)/Execution Date(s):	2. Name and address of receiving party(les)
RAJARISHI SINHA (03/17/2008), PETER	
LEDEL GAMMEL (02/22/2008), AND HUGO	
SAFAR (03/01/2008)	Name: RENAISSANCE WIRELESS CORP.
	Internal Address.
Execution Date(s): in parentheses after inventor name	Street Address:
Additional name(s) of conveying party(les) attached? Yes X No	
3. Nature of Conveyance:	425 N. CRAIG STREET
· -	SUITE 500
Security Agreement Change of Name	City: PITTSBURGH
Government Interest Assignment	State: PENNSYLVANIA
Executive Order 9424, Confirmatory Licenso	Country: United States of America Zio: 15213
Other	Additional name(s) & address(cs) Yes X No
4. Application or patent number(s):	
A. Patent Application No.(s)	This document is being filed together with a new application. B. Patent No.(s)
12/002.524	b. Falent No.(8)
Additional numbers attached	Yes X No
5. Name and address to whom correspondence concerning document should be mailed;	6. Total number of applications and patents involved:
Name: Richard J. Botos	TOTAL AND THE STATE OF THE STAT
LERNER, DAVID, LITTENBERG,	
KRUMHOLZ & MENTLIK, LLP	7. Total fee (37 CFR 1 21(h) & 3.41) \$ 40.00
Internal Address: Atty. Dkt.:	Authorized to be charged by credit card
Street Address. 600 South Avenue West	X Authorized to be charged to deposit account
	Enclosed
	None required (government interest not affecting title)
	Two te required the same in the same and the same in t
City: Westfield	8. Payment Information
State: NJ Zip. 07090	a. Credit Card Last 4 Numbers
Phone Number: (908) 654-5000	Expiration Date
Fax Number: (908) 654-0415	b. Deposit Account Number 12-1095 Authorized User Name Richard J. Botos
Email Address: rbotos@ldlkm.com	Additionated Gates Name 15,011a1d 3. Botos
9. Signature:	
Jichard J. With	August 10, 2011 Date
Richard J. Botos - 32,016	Total number of pages included cover
Name of Person Signing	sheet, attachments, and documents: 4

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PATENT REEL: 026737 FRAME: 0003

	Docket Number (Optional)
ASSIGNMENT OF UTILITY APPLICATION	N RENWIR 3.0-002
	Of .
5829 Holden Street; Pittsburgh, Pennsylvania 1523	2.4 July 2.7
hereafter referred to as assignor, have with others invented INTEGRATED ACOUSTIC BANDGAP DEVICES METHODS OF FABRICATING SAME	FOR ENERGY CONFINEMENT AND
X for which an application for a United States Letters Application Number 12/002,524	
for which an application for a United States Letters i	Patent was executed by me on
and	
Whereas, Renaissance Wireless Corp.	
a corporation of <u>Delaware</u> herein referred to as "assignee"	whose mailing address is
425 N. Craig Street; Suite 500; Pittsburgh, Pennsylvanta 15213	
is desirous of acquiring the entire right, title and interest in the	no samo;
NOW, THEREFORE, in consideration of the sum of one is acknowledged, and other good and valuable consideration assignee my entire right, title and interest for the United invention and the aforesaid utility patent application and substitute or reissue applications and patents applied for destination of the countries, for said invention, including without limitating priority or benefit of the aforesaid utility application pursuant priority or benefit and the Commissioner of Patents and Tripatents on said improvements or resulting therefrom to therein; and the undersigned for me and my legal representity and the undersigned for me and my legal representity for Lettors Patent on said improvements and all assignment to said assigned or its representatives all facts known to the requested, to testify in any interferences or other legal procedures to the said assigned all lawful papers, make all rightfor assignee, its successors, assigns and nominees to obtain perpenses incident to said applications to be borne and paid	on, I as assignor hereby sell, assign and set over to said States of America and all offer countries in and to said all original, divisional, continuation, continuation-in-part, in granted therefor in the United States of America and all on all applications and patents for said invention claiming to any law or treaty, and including the right to claim such ademarks is hereby authorized and requested to issue all said assignee herein, as assignee of the entire interest statives, heirs and assigns do hereby agree and coverant hal, divisional, continuation, reissue and other applications to thereof to said assignee or its assigns, to communicate the undersigned respecting said improvements, whenever beedings in which any of said applications or patents may all oaths, and to do generally everything necessary to aid atent protection for said improvements in all countries, the by said assignee.
And I do hereby authorize my attorneys to Insert on this dee when known.	d the filing date and application number of said application
03/17/2008	Rojaili Sala (Signature)
03/17/2008 (Date)	(Signature)
State of Pennisy / Janily) SS: County of Allog Mann)	
On this <u>)</u> day of <u>A ALCIF</u> , <u>Jac</u> E be <u>Sinha</u> , to me personally known as the individual who executed by him/her of his/her own free w	vill for the purposes theroin set forth.
	NOTARIAL SEAL
(Notary Public)	LEE DOUGLASS, Notary Public City of Patternuyh, Allegheny County
The fraction of the first of th	My Commission Expires 9/2/2010
*Total of 4 forms are submitted.	

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ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)	
ASSIGNMENT OF CHEFT AFFEIGATION	RENWIR 3.0-002	
The second of the tenth of the second	1 (Au / Charles 1991) Orto (Albert 1964 / Charles a summa manus and a sum and decoration of the summa and a summa manus	
Whereas, I, Poter Ledel Gammel	of	
58 Whittingham Terrace; Millburn, New Jersey 07041	Amminian minima et lei est lei	
hereafter referred to as assignor, have with others invented certain new and useful improvements in		
INTEGRATED ACOUSTIC BANDGAP DEVICES FOR METHODS OF FABRICATING SAME		
X for which an application for a United States Letters Patent was filed on December 17, 2007		
Application Number 12/002,524		
for which an application for a United States Letters Paten	t was executed by me on	
and		
AAA AAA AAAA AAAA AAAAA AAAAA AAAAA AAAA		
Whereas, Renaissance Wireless Corp. a corporation of <u>Delaware</u> herein referred to as "assignee" whos:	o omiliar address is	
495 M. Cools Strant, Cuita 500, Dillahusst. Communication 15913		
is desirous of acquiring the entire right, title and interest in the sa	то на при	
· · · · · ·	,	
	tollars (\$ 1.00), the receipt whereof	
is acknowledged, and other good and valuable consideration, I assignee my entire right, title and interest for the United State		
invention and the aforesaid utility patent application and all c	original, divisional, continuation, continuation-in-part,	
substitute or reissue applications and patents applied for or grad		
other countries, for said invention, including without limitation all priority or benefit of the aforesaid utility application pursuant to a		
priority or benefit and the Commissioner of Patents and Tradem	arks is bereby authorized and requested to issue all	
patents on said improvements or resulting therefrom to said a	assigned herein, as assignee of the entire interest	
therein; and the undersigned for me and my legal representative without further remuneration, to execute and deliver all original, d	s, heirs and assigns do hereby agree and covenant	
for Letters Patent on said improvements and all assignments the	reof to said assignee or its assigns, to communicate	
to said assignce or its representatives all facts known to the un	dersigned respecting said improvements, whenever	
requested, to testify in any interferences or other legal proceedir become involved, to sign all lawful papers, make all rightful oat	ngs in which any of said applications or patents may he and to do paperally even thing pages any to aid	
assignee, its successors, assigns and nominees to obtain patent		
expenses incident to said applications to be borne and paid by sa		
And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application		
when known.		
8/22/2008	P. 14 ()	
Conference of a list of a list of a list of a list of a second conference of the second conferen	A Company of the Comp	
(Date)	/ (Signature)	
State of New Jersey) ss:		
County of <u>Flicalesex</u>)		
On this 22 day of February, 2008 before	me personally came the above-named Peter	
edel Gammel, to me personally known as the individual who executed the foregoing instrument, who		
acknowledged to me that the same was executed by him/her of his/her own free will for the purposes therein set forth.		
Donna Of		
(Notary Public)		
(TOTAL) TOTAL		

x *Total of 4 forms are submitted.

DONNA OSHRIN NOTARY PUBLIC STATE OF NEW JERSEY MY COMMISSION EXPIRES MARCH 6, 2011

REEL: 026737 FRAME: 0005

former PTO/S8/15 (8:90) Mod8fed LDLKAM

ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)	
ASSIGNMENT OF UTILITY APPLICATION	RENWIR 3.0-002	
Whereas, I, Hugo Safar	of	
709 Oak Avenue, Westfield, New Jersey 07090		
hereafter referred to as assignor, have with others invented certain now and useful improvements in INTEGRATED ACOUSTIC BANDGAP DEVICES FOR ENERGY CONFINEMENT AND METHODS OF FABRICATING SAME		
x for which an application for a United States Letters Patent was filed on December 17, 2007		
Application Number 12/002,524 [for which an application for a United States Letters Patent was executed by me on		
and	1 9908 GACGERGG Gy ING OF	
Whereas, Renaissance Wireless Corp.		
a corporation of <u>Dolaware</u> herein referred to as "assignee" whose	e mailing address is	
425 N. Craig Street, Suite 500; Pittsburgh, Pennsylvania 15213	CONTRACTOR	
is desirous of acquiring the entire right, title and intorost in the sai	mo;	
NOW, THEREFORE, in consideration of the sum of one is acknowledged, and other good and valuable consideration. It assignees my entire right, title and Interest for the United State invention and the aforesaid utility patent application and all constitute or relissue applications and patents application and all contents of the applications and patents applied for or grading other countries, for said invention, including without limitation all priority or benefit of the aforesaid utility application pursuant to a priority or benefit and the Commissioner of Patents and Tradem patents on said improvements or resulting therefrom to said therein; and the undersigned for me and my legal representative without further remuneration, to execute and deliver all original, defor Lettors Patent on said improvements and all assignments the to said assignee or its representatives all facts known to the unrequested, to testify in any interferences or other legal proceeding become involved, to sign all lawful papers, make all rightful oat assignee, its successors, assigns and nominees to obtain patent expenses incident to said applications to be borne and paid by sa And I do hereby authorize my atternoys to insert on this deed the when known.	s of America and all other countries in and to said original, divisional, continuation, continuation-in-part, inted therefor in the United States of America and all applications and patents for said invention claiming my law or treaty, and including the right to claim such arks is hereby authorized and requested to issue all assignee herein, as assignee of the entire interest as, heirs and assigns do hereby agree and covenant invisional, continuation, roissue and other applications proof to said assignee or its assigns, to communicate dersigned respecting said improvements, whenever the said applications or patents may his, and to do generally everything necessary to aid protection for said improvements in all countries, the id assignee.	
State of (Date) State of (Some very set of the set of	the purposes therein set forth ANNA R. ADUBATO ROTARY PURCEY ROTARY PURCEY	
	MY COMMISSION EXPIRES DECEMBER 11, 2010	
*Total of 4 forms are submitted.		

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RECORDED: 08/10/2011

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