

## PATENT ASSIGNMENT

Electronic Version v1.1  
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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Alfred Asterjadhi</td> <td>02/28/2013</td> </tr> <tr> <td>Simone Merlin</td> <td>03/11/2013</td> </tr> <tr> <td>Maarten Menzo Wentink</td> <td>03/13/2013</td> </tr> <tr> <td>Santosh Paul Abraham</td> <td>03/12/2013</td> </tr> <tr> <td>Zhi Quan</td> <td>03/13/2013</td> </tr> </tbody> </table>		Name	Execution Date	Alfred Asterjadhi	02/28/2013	Simone Merlin	03/11/2013	Maarten Menzo Wentink	03/13/2013	Santosh Paul Abraham	03/12/2013	Zhi Quan	03/13/2013
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RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>QUALCOMM Incorporated</td> </tr> <tr> <td>Street Address:</td> <td>5775 Morehouse Drive</td> </tr> <tr> <td>Internal Address:</td> <td>Patent Department/Central Administration</td> </tr> <tr> <td>City:</td> <td>San Diego</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>92121</td> </tr> </table>		Name:	QUALCOMM Incorporated	Street Address:	5775 Morehouse Drive	Internal Address:	Patent Department/Central Administration	City:	San Diego	State/Country:	CALIFORNIA	Postal Code:	92121
Name:	QUALCOMM Incorporated												
Street Address:	5775 Morehouse Drive												
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PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13779907</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13779907								
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CORRESPONDENCE DATA													
Fax Number: 8586582502 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: 858-845-4265 Email: patent.docketing.us@qualcomm.com Correspondent Name: QUALCOMM INCORPORATED Address Line 1: 5775 MOREHOUSE DR. Address Line 4: SAN DIEGO, CALIFORNIA 92121													
ATTORNEY DOCKET NUMBER:	121019U6												
NAME OF SUBMITTER:	Gina Golia												

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**Total Attachments: 15**

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ASSIGNMENT

WHEREAS, WE,

1. **Alfred Asterjadhi**, a citizen of **Albania**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Breukelen, Netherlands**;
2. **Simone Merlin**, a citizen of **Italy**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **San Diego, California**;
3. **Maarten Menzo Wentink**, a citizen of the **Netherlands**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Breukelen, Netherlands**;
4. **Santosh Paul Abraham**, a citizen of the **United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **San Diego, California**;
5. **Zhi Quan**, a citizen of **China**, having a mailing address of 6582 Willowview Court, Livermore, California, 94551, US; and a resident of **Livermore, California**;

have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to **APPARATUS AND METHODS FOR BLOCK ACKNOWLEDGMENT COMPRESSION** (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, QUALCOMM Incorporated (hereinafter "**ASSIGNEE**"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said INVENTIONS, including all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in the United States, including but not limited to U.S. Application No(s). 13/779,907 filed **February 28<sup>th</sup>, 2013**, Qualcomm Reference No. 121019U6 and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/605,078, filed **February 29<sup>th</sup>, 2012**, Qualcomm

Reference No. 121019P1, U.S. Provisional Application No(s). 61/642,604, filed May 4<sup>th</sup>, 2012, Qualcomm Reference No. 121019P2, U.S. Provisional Application No(s). 61/672,157, filed July 16<sup>th</sup>, 2012, Qualcomm Reference No. 121019P3, U.S. Provisional Application No(s). 61/758,722, filed January 30<sup>th</sup>, 2013, Qualcomm Reference No. 121019P4, and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, and design applications thereof, and all issued patents of the United States which may have granted or may be granted hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon in the United States;

AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, or Agreements, and the entire right, title, and interest throughout the world in said INVENTIONS, including all inventions related thereto or thereof, and all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in any foreign country, countries, or treaty/union organizations, and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, patent of addition applications, confirmation applications, validation applications, utility model applications, and design applications thereof, and all issued patents which may have granted or may be granted hereafter for said INVENTIONS in any country or countries foreign to the United States, and all reissues, renewals, reexaminations, and extensions thereof;

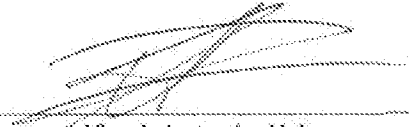
AND WE DO HEREBY authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument;

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at Breukelen, Netherlands on 02/28/2013  
LOCATION DATE

  
Alfred Asterjadhi

Done at San Diego, California on \_\_\_\_\_  
LOCATION DATE

Simone Merlin

Done at Breukelen, Netherlands on \_\_\_\_\_  
LOCATION DATE

Maarten Menzo Wentink

Done at San Diego, California on \_\_\_\_\_  
LOCATION DATE

Santosh Paul Abraham

Done at Livermore, California on \_\_\_\_\_  
LOCATION DATE

Zhi Quan

## ASSIGNMENT

WHEREAS, WE,

1. **Alfred Asterjadhi**, a citizen of **Albania**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Breukelen, Netherlands**;
2. **Simone Merlin**, a citizen of **Italy**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **San Diego, California**;
3. **Maarten Menzo Wentink**, a citizen of the **Netherlands**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Breukelen, Netherlands**;
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WHEREAS, QUALCOMM Incorporated (hereinafter "**ASSIGNEE**"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said **INVENTIONS**, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto **ASSIGNEE**, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said **INVENTIONS**, including all patent applications therefor that may have been filed or may be filed hereafter for said **INVENTIONS** in the United States, including but not limited to U.S. Application No(s). **13/779,907** filed **February 28<sup>th</sup>, 2013**, Qualcomm Reference No. **121019U6** and all provisional applications relating thereto, together with U.S. Provisional Application No(s). **61/605,078**, filed **February 29<sup>th</sup>, 2012**, Qualcomm

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AND WE DO HEREBY authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument;

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at <u>Breukelen, Netherlands</u> on _____	_____	_____
LOCATION	DATE	<b>Alfred Asterjadhi</b>
Done at <u>San Diego, California</u> on <u>3/11/13</u>	_____	<u><i>Simone Merlin</i></u>
LOCATION	DATE	<b>Simone Merlin</b>
Done at <u>Breukelen, Netherlands</u> on _____	_____	_____
LOCATION	DATE	<b>Maarten Menzo Wentink</b>
Done at <u>San Diego, California</u> on _____	_____	_____
LOCATION	DATE	<b>Santosh Paul Abraham</b>
Done at <u>Livermore, California</u> on _____	_____	_____
LOCATION	DATE	<b>Zhi Quan</b>



**ASSIGNMENT**

WHEREAS, WE,

1. **Alfred Asterjadhi**, a citizen of **Albania**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Breukelen, Netherlands**;
2. **Simone Merlin**, a citizen of **Italy**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **San Diego, California**;
3. **Maarten Menzo Wentink**, a citizen of the **Netherlands**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Breukelen, Netherlands**;
4. **Santosh Paul Abraham**, a citizen of the **United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **San Diego, California**;
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have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to **APPARATUS AND METHODS FOR BLOCK ACKNOWLEDGMENT COMPRESSION** (collectively the "**INVENTIONS**") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, QUALCOMM Incorporated (hereinafter "**ASSIGNEE**"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said **INVENTIONS**, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto **ASSIGNEE**, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said **INVENTIONS**, including all patent applications therefor that may have been filed or may be filed hereafter for said **INVENTIONS** in the United States, including but not limited to U.S. Application No(s). **13/779,907** filed **February 28<sup>th</sup>, 2013**, Qualcomm Reference No. **121019U6** and all provisional applications relating thereto, together with U.S. Provisional Application No(s). **61/605,078**, filed **February 29<sup>th</sup>, 2012**, Qualcomm

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AND WE DO HEREBY authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument;

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

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AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at <u>Breukelen, Netherlands</u> on _____	_____ DATE	_____ <b>Alfred Asterjadhi</b>
LOCATION		
Done at <u>San Diego, California</u> on _____	_____ DATE	_____ <b>Simone Merlin</b>
LOCATION		
Done at <u>Breukelen, Netherlands</u> on <u>13 March 2013</u>	_____ DATE	_____ <b>Maarten Menzo Wentink</b>
LOCATION		
Done at <u>San Diego, California</u> on _____	_____ DATE	_____ <b>Santosh Paul Abraham</b>
LOCATION		
Done at <u>Livermore, California</u> on _____	_____ DATE	_____ <b>Zhi Quan</b>
LOCATION		

## ASSIGNMENT

WHEREAS, WE,

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Done at Breukelen, Netherlands on \_\_\_\_\_  
LOCATION DATE Alfred Asterjadhi

Done at San Diego, California on \_\_\_\_\_  
LOCATION DATE Simone Merlin

Done at Breukelen, Netherlands on \_\_\_\_\_  
LOCATION DATE Maarten Menzo Wentink

Done at San Diego, California on 3/12/2003  
LOCATION DATE Santosh Paul Abraham

Done at Livermore, California on \_\_\_\_\_  
LOCATION DATE Zhi Quan

## ASSIGNMENT

WHEREAS, WE,

1. **Alfred Asterjadhi**, a citizen of **Albania**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Breukelen, Netherlands**;
2. **Simone Merlin**, a citizen of **Italy**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **San Diego, California**;
3. **Maarten Menzo Wentink**, a citizen of the **Netherlands**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Breukelen, Netherlands**;
4. **Santosh Paul Abraham**, a citizen of the **United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **San Diego, California**;
5. **Zhi Quan**, a citizen of **China**, having a mailing address of 6582 Willowview Court, Livermore, California, 94551, US; and a resident of **Livermore, California**;

have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to **APPARATUS AND METHODS FOR BLOCK ACKNOWLEDGMENT COMPRESSION** (collectively the "**INVENTIONS**") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, QUALCOMM Incorporated (hereinafter "**ASSIGNEE**"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said **INVENTIONS**, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto **ASSIGNEE**, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said **INVENTIONS**, including all patent applications therefor that may have been filed or may be filed hereafter for said **INVENTIONS** in the United States, including but not limited to U.S. Application No(s). **13/779,907** filed **February 28<sup>th</sup>, 2013**, Qualcomm Reference No. **121019U6** and all provisional applications relating thereto, together with U.S. Provisional Application No(s). **61/605,078**, filed **February 29<sup>th</sup>, 2012**, Qualcomm

Reference No. **121019P1**, U.S. Provisional Application No(s). **61/642,604**, filed **May 4<sup>th</sup>, 2012**, Qualcomm Reference No. **121019P2**, U.S. Provisional Application No(s). **61/672,157**, filed **July 16<sup>th</sup>, 2012**, Qualcomm Reference No. **121019P3**, U.S. Provisional Application No(s). **61/758,722**, filed **January 30<sup>th</sup>, 2013**, Qualcomm Reference No. **121019P4**, and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, and design applications thereof, and all issued patents of the United States which may have granted or may be granted hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon in the United States;

AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, or Agreements, and the entire right, title, and interest throughout the world in said INVENTIONS, including all inventions related thereto or thereof, and all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in any foreign country, countries, or treaty/union organizations, and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, patent of addition applications, confirmation applications, validation applications, utility model applications, and design applications thereof, and all issued patents which may have granted or may be granted hereafter for said INVENTIONS in any country or countries foreign to the United States, and all reissues, renewals, reexaminations, and extensions thereof;

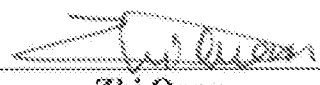
AND WE DO HEREBY authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument;

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;



AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at <u>Breukelen, Netherlands</u> on _____	_____
LOCATION	DATE
	Alfred Asterjadhi
Done at <u>San Diego, California</u> on _____	_____
LOCATION	DATE
	Simone Merlin
Done at <u>Breukelen, Netherlands</u> on _____	_____
LOCATION	DATE
	Maarten Menzo Wentink
Done at <u>San Diego, California</u> on _____	_____
LOCATION	DATE
	Santosh Paul Abraham
Done at <u>Livermore, California</u> on <u>3/13/2013</u>	_____
LOCATION	DATE
	 Zhi Quan