

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5185390

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
V-SILICON INC.	10/10/2018
V-SILICON INTERNATIONAL INC.	10/10/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	V-SILICON SEMICONDUCTOR (HEFEI) CO. LTD.
<b>Street Address:</b>	ROOM 2203/2207/2208, BUILDING F1, INNOVATION INDUSTRIAL PARK PHASE II, NO 2800, CHUANGXIN ROAD
<b>City:</b>	HEFEI
<b>State/Country:</b>	CHINA
<b>Postal Code:</b>	230088
<b>PROPERTY NUMBERS Total: 54</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	8019979
Patent Number:	8144778
Patent Number:	8154663
Patent Number:	7907215
Patent Number:	8159615
Patent Number:	7986736
Patent Number:	7379010
Patent Number:	7561092
Patent Number:	7433414
Patent Number:	7624327
Patent Number:	6421096
Patent Number:	7039356
Patent Number:	6882833
Patent Number:	7542516
Patent Number:	7551907
Patent Number:	7034464
Patent Number:	9066099
Patent Number:	8649436
Patent Number:	7525456
<b>PATENT</b>	

Property Type	Number
Patent Number:	8090024
Patent Number:	8811735
Patent Number:	8754792
Patent Number:	7804917
Patent Number:	6084909
Patent Number:	5719511
Patent Number:	6448825
Patent Number:	6128726
Patent Number:	6427203
Patent Number:	6184936
Patent Number:	6275263
Patent Number:	5790881
Patent Number:	5818468
Patent Number:	6124897
Patent Number:	6275269
Patent Number:	6654956
Patent Number:	6675297
Patent Number:	7508938
Patent Number:	6690834
Patent Number:	6614486
Patent Number:	6687770
Application Number:	60716725
Application Number:	60892783
Application Number:	60733064
Application Number:	60714703
Application Number:	60734525
Application Number:	60737566
Application Number:	60591336
Application Number:	60363530
Application Number:	61323483
Application Number:	60661121
Application Number:	61377091
Application Number:	61044060
Application Number:	61349855
Application Number:	60713652

**CORRESPONDENCE DATA**

Fax Number:

***Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.***

**Phone:** 3107883267  
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**Address Line 2:** P.O. BOX 1247  
**Address Line 4:** SEATTLE, WASHINGTON 98111

<b>ATTORNEY DOCKET NUMBER:</b>	129823-8000
<b>NAME OF SUBMITTER:</b>	QINGQING HUANG
<b>SIGNATURE:</b>	/Qingqing Huang/
<b>DATE SIGNED:</b>	10/11/2018

**Total Attachments: 8**

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source=Patent Assignment V-Silicon Inc. & V-Silicon International Inc. to V Silicon Hefei#page4.tif  
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## **ASSIGNMENT**

This Assignment Agreement (“**Agreement**”) is made as of October 10<sup>th</sup>, 2018 (the “**Effective Date**”), by and between **V-Silicon Inc., a Delaware company** and **V-Silicon International Inc., a Cayman Island company**, having a place of business at **47467 Fremont Blvd, Fremont CA 94538 USA** (“**Assignors**”), to **V-Silicon Semiconductor (Hefei) Co. Ltd.**, having a place of business at **Room 2203/2207/2208, Building F1, Innovation Industrial Park Phase II, No 2800, Chuangxin Road Hefei, 230088, People’s Republic of China** (“**Assignee**”).

**WHEREAS**, Assignors have agreed to irrevocably transfer and assign to Assignee all of its rights, title and interest, on a worldwide basis in and to those certain patent applications and patents set forth on Schedule 1 (the “**Patents**”);

**WHEREAS**, Assignors are the sole owners of all rights, title and interest in and to the Patents;

**NOW, THEREFORE**, in consideration of good and valuable consideration acknowledged by Assignors to have been received in full from Assignee:

### **AGREEMENT**

Assignors irrevocably assign, convey, sell grants and transfer to Assignee all of its rights, title and interest of every kind and character throughout the world in and to the Patents to the full extent of its ownership or interest therein, including, without limitation, all domestic and foreign patent applications and registrations therefor (and all patents that issue therefrom and all divisions, continuations, continuations-in-part, reexaminations, substitutions, reissues, extensions and renewals of such applications, registrations and patents, and the right to apply for any of the foregoing); and any and all other rights and interests arising out of, in connection with or in relation to the Patents.

Assignors, at the reasonable request of Assignee, agree to execute and deliver such other instruments and do and perform such other acts and things as may be reasonably necessary for effecting completely the consummation of the transfer of ownership in and to the Patents as contemplated hereby, including without limitation execution, acknowledgement and recordation of other such papers, and using reasonable efforts to obtain the same from the respective inventors, as necessary or desirable for fully

perfecting and conveying unto Assignee the benefit of the transfer of ownership in and to the Patents as contemplated hereby.

Assignors represent and warrant that they have not granted and will not grant to others any rights inconsistent with the rights granted herein.

Assignors authorize and request the Commissioner of Patents of the United States and of all foreign countries to issue any Letters Patent granted to any of the Patents, whether on said application or on any subsequently filed non-provisional, divisional, continuation, continuation-in-part or reissue application, to Assignee, its successors and assigns, as to the Assignee of the entire interest in and to the Patents.

**IN WITNESS WHEREOF**, Assignors and Assignee have executed this Assignment on the date written herein below.

**Assignors:**

10/10/18  
Date

**V-Silicon Inc., a Delaware company**

[Signature]  
Name: Think TEAM  
Title: CEO

10/10/18  
Date

**V-Silicon International Inc., a Cayman Island company**

[Signature]  
Name: Think TEAM  
Title: Director

**Assignee:**

10/10/18  
Date

**V-Silicon Semiconductor (Hefei) Co. Ltd.**

[Signature]  
Name: Think TEAM  
Title: Chairman

**SCHEDULE 1- PATENTS**

<b>No.</b>	<b>Title</b>	<b>Status</b>	<b>Country</b>	<b>Application No.</b>	<b>Patent No</b>
1	EFFICIENT IMPLEMENTATION OF BRANCH INTENSIVE ALGORITHMS IN VLIW AND SUPERSCALAR PROCESSORS	Granted	US	11/854,003	8019979
2	MOTION COMPENSATED FRAME CONVERSION SYSTEM AND METHOD	Granted	US	11/709,665	8144778
3	System and Method for Adaptive Contrast Enhancement of Video Signals	Granted	US	11/653,521	8,154,663
4	VIDEO ENHANCEMENT SYSTEMS AND METHODS	Granted	US	11/447,468	7907215
5	System and Method of Geometrical Predistortion of Overlaying Graphics Sources	Issued	US	11/782,813	8,159,615
6	ULTRA WIDEBAND BASEBAND CHIP WITH INTELLIGENT ARRAY RADIO AND METHOD OF USE THEREOF	Issued	US	11/467,914	7,986,736
7	EXTENSION OF ACCURACY OF A FLASH ADC BY 1-BIT THROUGH INTERPOLATION OF COMPARATOR OUTPUTS	Issued	US	11/553,464	7,379,010
8	EXTENSION OF ACCURACY OF A FLASH ADC BY 1-BIT THROUGH INTERPOLATION OF COMPARATOR OUTPUTS	Issued	US	12/019,627	7,561,092

9	INTELLIGENT ARRAY RADIO ARCHITECTURE	Issued	US	11/022,199	7,433,414
10	FAST DECODER AND METHOD FOR FRONT END OF CONVOLUTIONALLY ENCODED INFORMATION STREAM	Issued	US	11/278,536	7,624,327
11	ANALOG VIDEO CHROMAKEY MIXER	Issued	US	08/765,464	6,421,096
12	SELECTING A SET OF ANTENNAS FOR USE IN A WIRELESS COMMUNICATION SYSTEM	Issued	US	10/372,904	7,039,356
13	TRANSFERRING DATA IN A WIRELESS COMMUNICATION SYSTEM	Issued	US	10/079,751	6,882,833
14	SYNCHRONIZATION METHOD FOR SYMBOL BOUNDARY DETECTION IN UWB-OFDM	Issued	US	11/288,879	7,542,516
15	DIGITAL AUTOMATIC GAIN CONTROL WITH PARALLEL/SERIAL INTERFACE FOR MULTIPLE ANTENNA ULTRA WIDEBAND OFDM SYSTEM	Issued	US	11/423,145	7,551,907
16	GENERATING LIGHT FROM ELECTROMAGNETIC ENERGY	Issued	US	10/226,644	7,034,464
17	METHODS FOR EFFICIENT IMPLEMENTATION OF SKIP/DIRECT MODES IN DIGITAL VIDEO COMPRESSION ALGORITHMS	Issued	US	12/801,289	9,066,099

18	METHODS FOR EFFICIENT IMPLEMENTATION OF SKIP/DIRECT MODES IN DIGITAL VIDEO COMPRESSION ALGORITHMS	Issued	US	11/209,913	8,649,436
19	METHODS FOR ADAPTIVELY SELECTING ENTROPY ENCODING MODES	Issued	US	11/404,192	7,525,456
20	METHODS FOR PROCESSING TWO DATA FRAMES WITH SCALABLE DATA UTILIZATION	Issued	US	11/768,163	8,090,024
21	SYSTEM AND METHOD FOR SCALAR QUANTIZATION ERROR REDUCTION	Issued	US	13/591,204	8,811,735
22	SYSTEM AND METHOD FOR FIXED RATE ENTROPY CODED SCALAR QUANTIZATION	Issued	US	13/602,194	8,754,792
23	CLEAR CHANNEL ASSESSMENT METHOD AND SYSTEM FOR ULTRA WIDEBAND OFDM	Issued	US	11/532,097	7,804,917
24	ULTRA WIDEBAND BASEBAND CHIP WITH INTELLIGENT ARRAY RADIO	Completed	US	60/716,725	
25	APPARATUS AND METHOD TO COMBINE WIRED AND WIRELESS UWB APPLICATIONS	Completed	US	60/892,783	
26	EXTENSION OF THE ACCURACY OF A FLASH ADC BY 1-BIT THROUGH INTERPOLATION OF THE COMPARATOR OUTPUTS	Completed	US	60/733,064	

27	NOVEL SAMPLING FREQUENCY OFFSET ESTIMATION AND CORRECTION IN UWB/OFDM	Completed	US	60/714,703	
28	CLEAR CHANNEL ASSESSMENT METHOD FOR ULTRA WIDEBAND OFDM SYSTEM	Completed	US	60/734,525	
29	MULTIPLE RECEIVER RF INTEGRATED CIRCUIT ARCHITECTURE	Completed	US	60/737,566	
30	ADAPTIVE ANTENNA ARRAY ARCHITECTURE	Completed	US	60/591,336	
31	SELECTING A SET OF ANTENNAS FOR USE IN A WIRELESS COMMUNICATION SYSTEM	Completed	US	60/363,530	
32	CROSS-CORRELATION IN THE PRESENCE OF FREQUENCY OFFSET	Completed	US	61/323,483	
33	A NOVEL SYNCHRONIZATION METHOD FOR SYMBOL BOUNDARY DETECTION IN UWB-MBOA	Completed	US	60/661,121	
34	THROUGHPUT ENHANCEMENT AND MODULATION PROFILE MEMORY SIZE REDUCTION	Completed	US	61/377,091	

35	DUAL CORRELATION FRAME SYNCHRONIZATION METHOD	Completed	US	61/044,060	
36	MITIGATING THE RESIDUAL CFO EFFECT ON CHANNEL ESTIMATION FOR OFDM RECEIVERS	Completed	US	61/349,855	
37	DIGITAL AUTOMATIC GAIN CONTROL WITH PARALLEL/SERIAL INTERFACE FOR MULTIPLE ANTENNA ULTRA WIDEBAND OFDM SYSTEM	Completed	US	60/713,652	
38	METHOD OF ENCODING A STREAM OF MOTION PICTURE DATA	Expired	US	08/782,977	6,084,909
39	CIRCUIT FOR GENERATING AN OUTPUT SIGNAL SYNCHRONIZED TO AN INPUT SIGNAL	Expired	US	08/593,325	5,719,511
40	SYNCHRONIZING TO AN INPUT SIGNAL	Expired	US	09/024,414	6,448,825
41	ACCURATE HIGH SPEED DIGITAL SIGNAL PROCESSOR	Expired	US	08/657,555	6,128,726
42	ACCURATE HIGH SPEED DIGITAL SIGNAL PROCESSOR	Expired	US	09/643,373	6,427,203
43	MULTI-FUNCTION USB CAPTURE CHIP USING BUFFERLESS DATA COMPRESSION	Expired	US	08/943,772	6,184,936
44	MULTI-FUNCTION USB CAPTURE CHIP USING BUFFERLESS DATA COMPRESSION	Expired	US	09/606,372	6,275,263

45	COMPUTER SYSTEM INCLUDING COPROCESSOR DEVICES SIMULATING MEMORY INTERFACES	Expired	US	08/385,249	5,790,881
46	DECODING VIDEO SIGNALS AT HIGH SPEED USING A MEMORY BUFFER	Expired	US	08/658,994	5,818,468
47	METHOD AND APPARATUS FOR AUTOMATIC CALIBRATION OF ANALOG VIDEO CHROMAKEY MIXER	Expired	US	08/828,844	6,124,897
48	METHOD AND APPARATUS FOR AUTOMATIC CALIBRATION OF ANALOG VIDEO CHROMAKEY MIXER	Expired	US	09/655,990	6,275,269
49	METHOD, APPARATUS & COMPUTER PROGRAM PRODUCT FOR SYNCHRONIZING PRESENTATION OF DIGITAL VIDEO DATA WITH SERVING OF DIGITAL VIDEO DATA	Expired	US	09/546,055	6,654,956
50	METHOD AND APPARATUS FOR GENERATING AND USING A TAMPER- RESISTANT ENCRYPTION KEY	Abandoned	US	09/263,383	6,675,297
51	METHOD AND APPARATUS FOR GENERATING AND USING A TAMPER- RESISTANT ENCRYPTION KEY	Abandoned	US	10/751,678	7,508,938
52	COMPRESSION OF PIXEL DATA	Abandoned	us	09/235,937	6,690,834
53	MULTI-FUNCTION USB CAPTURE CHIP USING BUFFERLESS DATA COMPRESSION	Abandoned	US	09/888,187	6,614,486
54	CONTROLLING CONSUMPTION OF TIME-STAMPED INFORMATION BY A BUFFERED SYSTEM	Abandoned	US	09/264,829	6,687,770