

**TRADEMARK ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
ESS TECHNOLOGY, INC.		07/03/2008	CORPORATION: DELAWARE

RECEIVING PARTY DATA

Name:	THE PRIVATE BANK OF THE PENINSULA
Street Address:	505 Hamilton Ave.
Internal Address:	Suite 110
City:	Palo Alto
State/Country:	CALIFORNIA
Postal Code:	94301
Entity Type:	CORPORATION: CALIFORNIA

PROPERTY NUMBERS Total: 12

Property Type	Number	Word Mark
Serial Number:	78549998	HYPERSTREAM
Serial Number:	76625163	VISTA
Registration Number:	1815534	AUDIODRIVE
Registration Number:	2485758	CANYON3D
Registration Number:	2894637	ESS
Registration Number:	2818509	MUSIC SLIDESHOW
Registration Number:	2739296	SMARTBRIGHT
Registration Number:	2739298	SMARTCOLOR
Registration Number:	2843626	SMARTNAVI
Registration Number:	2836239	VIBRATTO
Registration Number:	2224580	VIDEODRIVE
Registration Number:	2559176	VISBA

CORRESPONDENCE DATA

**900110900**

**TRADEMARK  
 REEL: 003812 FRAME: 0779**

**CH \$315.00 78549998**

Fax Number: (858)550-6420  
*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*  
Phone: 858-550-6403  
Email: erin.obrien@cooley.com  
Correspondent Name: Erin O'Brien  
Address Line 1: c/o Cooley Godward Kronish LLP  
Address Line 2: 4401 Eastgate Mall  
Address Line 4: San Diego, CALIFORNIA 92121

ATTORNEY DOCKET NUMBER:	308866-119 ESS TECHNOLOGY
NAME OF SUBMITTER:	Erin O'Brien
Signature:	/Erin O'Brien/
Date:	07/09/2008

**Total Attachments: 41**

source=ESS Technology signed IPSA#page1.tif  
source=ESS Technology signed IPSA#page2.tif  
source=ESS Technology signed IPSA#page3.tif  
source=ESS Technology signed IPSA#page4.tif  
source=ESS Technology signed IPSA#page5.tif  
source=ESS Technology signed IPSA#page6.tif  
source=ESS Technology signed IPSA#page7.tif  
source=ESS Technology signed IPSA#page8.tif  
source=ESS Technology signed IPSA#page9.tif  
source=ESS Technology signed IPSA#page10.tif  
source=ESS Technology signed IPSA#page11.tif  
source=ESS Technology signed IPSA#page12.tif  
source=ESS Technology signed IPSA#page13.tif  
source=ESS Technology signed IPSA#page14.tif  
source=ESS Technology signed IPSA#page15.tif  
source=ESS Technology signed IPSA#page16.tif  
source=ESS Technology signed IPSA#page17.tif  
source=ESS Technology signed IPSA#page18.tif  
source=ESS Technology signed IPSA#page19.tif  
source=ESS Technology signed IPSA#page20.tif  
source=ESS Technology signed IPSA#page21.tif  
source=ESS Technology signed IPSA#page22.tif  
source=ESS Technology signed IPSA#page23.tif  
source=ESS Technology signed IPSA#page24.tif  
source=ESS Technology signed IPSA#page25.tif  
source=ESS Technology signed IPSA#page26.tif  
source=ESS Technology signed IPSA#page27.tif  
source=ESS Technology signed IPSA#page28.tif  
source=ESS Technology signed IPSA#page29.tif  
source=ESS Technology signed IPSA#page30.tif  
source=ESS Technology signed IPSA#page31.tif  
source=ESS Technology signed IPSA#page32.tif  
source=ESS Technology signed IPSA#page33.tif  
source=ESS Technology signed IPSA#page34.tif  
source=ESS Technology signed IPSA#page35.tif

source=ESS Technology signed IPSA#page36.tif  
source=ESS Technology signed IPSA#page37.tif  
source=ESS Technology signed IPSA#page38.tif  
source=ESS Technology signed IPSA#page39.tif  
source=ESS Technology signed IPSA#page40.tif  
source=ESS Technology signed IPSA#page41.tif



**INTELLECTUAL PROPERTY SECURITY AGREEMENT**

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT is entered into as of July 3, 2008 by and between THE PRIVATE BANK OF THE PENINSULA ("Bank") and ESS TECHNOLOGY, INC., a Delaware corporation ("Grantor").

**RECITALS**

Bank has agreed to make certain advances of money and to extend certain financial accommodation to Grantor (the "Loans") in the amounts and manner set forth in that certain Loan and Security Agreement by and between Bank and Grantor (as amended from time to time, the "Loan Agreement") dated of even date herewith. Capitalized terms used herein have the meaning assigned in the Loan Agreement. Bank is willing to make the credit extensions to Grantor, but only upon the condition, among others, that Grantor shall grant to Bank a security interest in all of Grantor's right title, and interest in, to and under all of the Collateral whether presently existing or hereafter acquired.

NOW, THEREFORE, Grantor agrees as follows:

**AGREEMENT**

To secure performance of Grantor's obligations under the Loan Agreement, Grantor grants to Bank a security interest in all of Grantor's right, title and interest in Grantor's intellectual property (including without limitation those Copyrights, Patents and Trademarks listed on Exhibits A, B and C hereto), including without limitation all proceeds thereof (such as, by way of example but not by way of limitation, license royalties and proceeds of infringement suits). This security interest is granted in conjunction with the security interest granted to Bank under the Loan Agreement. Each right, power and remedy of Bank provided for herein shall not preclude the simultaneous or later exercise by Bank of any or all other rights, powers or remedies.

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed as of the first date written above.

Address of Borrower:

ESS TECHNOLOGY, INC.

48401 Fremont Blvd.  
Fremont, CA 94538  
Attn:

By: \_\_\_\_\_

Title: \_\_\_\_\_

Address of Bank:

THE PRIVATE BANK OF THE PENINSULA

505 Hamilton Ave., Suite 110  
Palo Alto, CA 94301  
Attn: Mike Hansen

By: Mike Hansen

Title: EVP

**EXHIBIT A**

**Copyrights**

**NONE**

**EXHIBIT B**

**Patents**

SEE ATTACHED LIST

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
China	Active Application	Low Noise Digital to Analog Converter With Audio Applications	Analog	HB1060-4	9/26/2006 (estimated)		
U.S.	Active Application	Low Noise Digital Pulse Width Modulated Converter With Audio Applications	Analog	HB1061-1	11/236,215 (9/26/05)		Martin Mallinson, Dustin Forman, Simon Damphousse
China	Active Application	Low Noise Digital Pulse Width Modulated Converter With Audio Applications	Analog	HB1061-3	9/26/2006 (estimated)		Martin Mallinson, Dustin Forman, Simon Damphousse
China	Active Application	Low Noise Digital to Signal Interval Converter With Audio Applications	Analog	HB1062-3	9/26/2006 (estimated)		



Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Active Application	Digital Forced Oscillator by Direct Digital Synthesis (previously: Low Phase Noise Digitally Controlled Oscillator)	Analog	HB1063-1	11/750,959 (5/18/07)		Martin Mallinson
China	Active Application	Digital Forced Oscillator by Direct Digital Synthesis (previously: Low Phase Noise Digitally Controlled Oscillator)	Analog	HB1063-2			
U.S.	Active Application	Bi-Quad Digital Filter Configured with a Bit Binary Rate Multiplier	Analog	HB1066-10	11/691,412 (3/26/2007)		
China	Active Application	Bi-Quad Digital Filter Configured with a Bit Binary Rate Multiplier	Analog	HB1066-6	03826449.8 (6/2/2003)		

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of issue)	Inventors
China	Active Application	Advanced Asynchronous Sample Rate Converter (ASRC)	Analog	HB1067-3	200710127374.X (7/2/2007)		
China	Active Application	Differential Input Flash Analog-to-Digital Converter	Analog	HB1070-6	03807733.7 (2/24/2003)		Martin Mallinson
U.S.	Active Application	System & Method to Reduce Audio Artifacts from an Audio Signal Dispersed Among Multiple Audio Channels . . .	Analog	HB1085-1	11/480,013 (6/30/06)		Martin Mallinson, Dustin Forman

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Active Application	Asynchronous Sample Rate Converter	Analog	HB1086-3	11/946,751 (11/28/2007)		Martin Malinson, Dustin Foreman
China	Active Application	Asynchronous Sample Rate Converter	Analog	HB1086-4	200780000577.0 (8/15/2007)		Martin Malinson, Dustin Foreman
Canadian	Active Application	High Speed Filter	Analog	HB1106-0	2,332,609 (1/29/2001)		Martin Mallinson

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Active Application	High Speed Filter	Analog	HB1106-2	11/340,933 (1/27/2006)		Martin Mallinson
Eur	Active Application	High Speed Filter	Analog	HB1106-5	02709164.4 (1/26/2002)		Martin Mallinson
China	Active Application	High Speed Filter	Analog	HB1106-6	02804250.6 (1/26/2002)		Martin Mallinson
U.S.	Active Application	Digital Frequency Generator (Inv Disclosure: Use of Digital Frequency Generator to Suppress Phase Noise)	Analog	HB1126-1	Prov App # 61/019,811 (1/08/08)		

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Active Application	Method and Apparatus for a Digital-to-Analog Converter with Noise Cancellation	Analog	HB1127-1	61/013,868 (12/14/07) (Provisional app.)		Martin Mallinson
China	Active Application	Device and Method for Signal Processing	Analog	HBES 1000-3	200480026875.3 (7/16/04)		Mallinson, A. Martin
Eur	Active Application	Device and Method for Signal Processing	Analog	HBES 1000-4	04778547.2 (7/16/04)		Mallinson, A. Martin
U.S.	Active Application	Device and Method for Signal Processing	Analog	HBES 1000-7	11/422,289 (6/5/06)		Mallinson, A. Martin

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Active Application	System and Method for 3D Sound Processing	Analog / DVD	FF0190220	10/851,848 (5/21/04)		Qinglin Zhu
U.S.	Active Application	Spread Spectrum Clock Generator Having an Adjustable Delay Line	Analog / DVD	HB1068-2	11/479,537 (6/30/06)		Martin Mallinson, Simon Damphousse
U.S.	Active Application	Slide Show with Audio (Note: Top tier item)	DVD	HB1011-1	10/185,248 (6/27/2002)		Ming Hong Chan, Haisong Wang
China	Active Application	Slide Show with Audio (Note: Top tier item)	DVD	HB1011-3	03818166.5 (6/11/2003)		Ming Hong Chan, Haisong Wang

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
Eur	Active Application	Slide Show with Audio (Note: Top tier item)	DVD	HB1011-4	03741953.8 (6/11/2003)		Ming Hong Chan, Haisong Wang
China	Active Application	Data Access Arrangement Using A High Frequency Transformer for Electrical Isolation	Modem	HBES 1002-3	03813812.3 (5/12/03)		Cookman, Jordan C. Dong, Ping
Eur	Active Application	Data Access Arrangement Using A High Frequency Transformer for Electrical Isolation	Modem	HBES 1002-4	03736589.7 (5/12/03)		Cookman, Jordan C. Dong, Ping
China	Active Application	Optimized Structure for Digital Separation of Composite Video Signals	VIDEO	HB1004-4	200380110998.0 (12/1/2003)		Ping Dong, Jordan Cookman

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Active Application	System and Method for Video Frame Buffer Compression	VIDEO	HB1069-1	11/274,625 (11/14/05)		Siu-Leong Yu, Nien-Tsu Wang, Kou-Hu Tzou, Christos Chrysafis, Xuhui Wu
China	Active Application	System and Method for Video Frame Buffer Compression	VIDEO	HB1069-3	11/14/2006 (estimated)		Siu-Leong Yu, Nien-Tsu Wang, Kou-Hu Tzou, Christos Chrysafis, Xuhui Wu
U.S.	Active Patent Issuance in Process	Frequency Shaping Stream Signal Processor	DVD	HB1101-1	10/810,313 (3/26/04)		Martin Mallinson
U.S.	Active Patent Issuance in Process	Multiplexer	Modem	HB1002-9	10/833,772 (4/27/04)		Ping Dong, Jordan Cookman



Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Active Patent Issuance in Process	Separation of Composite Video Signals Using Dot Crawl Detector	VIDEO	HB1005-1	11/176,480 (7/07/05)		Jordan Cookman, Cai-Zhang Zhou
U.S.	Issued Patent	Flash Analog-to-Digital Converter	Analog	02601	10/346,034 (1/15/03)	6,803,871 (10/12/04)	Martin Mallinson
China	Issued Patent	Method and Integrated Circuit for Electronic Waveform Generation of Voiced Audio Tones	Analog	1105-3	95118442.3 (9/13/1995)	ZL 95118442.3 (4/21/2004)	Roi Peers, Jr.

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
Gr. Brit	Issued Patent	Method and Integrated Circuit for Electronic Waveform Generation of Voiced Audio Tones	Analog	1105-5	9517887.7 (9/01/1995)	GB 2293261 (9/16/1998)	Roi Peers, Jr.
U.S.	Issued Patent	Programmable Timing Generator	Analog	FF0190106	9/188,831 (11/09/98)	6,580,456 (6/17/03)	William Jacobs
U.S.	Issued Patent	System and Method for Designing Integrated Circuits Using Cells with Multiple Unrelated Outputs	Analog	FF0190136	9/382,361 (8/24/99)	6,223,330 (4/24/01)	Daniel Risler
U.S.	Issued Patent	Area Efficient Delay Circuits	Analog	FF0190137	9/567,862 (5/09/00)	6,425,115 (7/23/02)	Daniel Risler

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
Taiwan	Issued Patent	Programmable Reference Voltage Calibration Design	Analog	FF0190234TW		1294740 (3/11/2008)	
U.S.	Issued Patent	Multiple Input Comparator Circuit for a Switched Resistive Network	Analog	FF0190252	8/163,315 (12/07/93)	5,381,054 (1/10/95)	David Standley
U.S.	Issued Patent	Device and Method for Signal Processing	Analog	HB1000-1	10/621,504 (7/17/03)	7,058,464 (6/06/06)	Martin Mallinson

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Low Noise Digital to Analog Converter With Audio Applications	Analog	HB1060-1	11/236,216 (9/26/05)	7,116,257 (10/03/06)	Martin Mallinson, Dustin Forman, Simon Dampousse
U.S.	Issued Patent	Low Noise Digital to Analog Converter With Audio Applications, title changed to: Digital To Analog Converter Calculating a Difference between Multiple Indicators of a Multi-Bit Input Signal (Amended)	Analog	HB1060-3	11/538,000 (10/02/06)		Martin Mallinson, Dustin Forman, Simon Dampousse
U.S.	Issued Patent	Low Noise Digital to Signal Interval Converter With Audio Applications	Analog	HB1062-1	11/236,205 (9/26/05)	7,138,935 (11/21/06)	Simone Dampousse, Martin Mallinson, Dustin Forman

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Bi-Quad Digital Filter Configured with a Bit Binary Rate Multiplier	Analog	HB1066-2	10/453,901 (6/2/03)	7,197,522 (3/27/07)	Martin Mallinson
Taiwan	Issued Patent	Bi-Quad Digital Filter Configured with a Bit Binary Rate Multiplier	Analog	HB1066-4	93100964 (1/15/2004)	1275245 (3/1/2007)	N/A
U.S.	Issued Patent	Asynchronous Sample Rate Correction by Time Domain Interpolation (previously: Advanced Asynchronous Sample Rate Converter)	Analog	HB1067-2	11/479,691 (6/30/06)	7,330,138 (2/12/2008)	Martin Mallinson

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Flash Analog-to-Digital Converter	Analog	HB1070-1	10/118,224 (4/5/2002)	6,646,585 (11/11/2003)	Martin Mallinson
U.S.	Issued Patent	Flash Analog-to-Digital Converter	Analog	HB1070-4	10/346,034 (1/15/2003)	6,803,871 (10/12/2004)	Martin Mallinson
U.S.	Issued Patent	Flash Analog-to-Digital Converter	Analog	HB1070-5	10/934,918 (9/03/04)	7,193,552 (3/20/07)	Martin Mallinson
U.S.	Issued Patent	System and Method for Compensating for Error in a Sigma Delta Circuit	Analog	HB1071-2	10/810,312 (3/26/04)	7,259,704 (8/21/07)	Martin Mallinson Simon Dampousse

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Transparent Direct Memory Access	Analog	HB1075-1	9/074,656 (5/06/98)	6,138,183 (10/24/00)	Paul Tien, Cheng-Yeuan Tsay, Rsong- Hsiang Shiao
U.S.	Issued Patent	Method, Integrated Circuit, Mechanical Analog clock Movement and Completed Assembly for a Talking Analog Clock	Analog	HB1076-1	8/102,140 (8/03/93)	5,309,413 (5/03/94)	Shiu-Leung Chan
U.S.	Issued Patent	PCI-PCI Bridge and PCI-Bus Audio Accelerator Integrated Circuit	Analog	HB1077-1	9/074,657 (5/06/98)	6,157,976 (12/05/00)	Paul Tien, Cheng-Yeuan Tsay, Rsong- Hsiang Shiao
U.S.	Issued Patent	Volume Control Device Using A Digitally Adjustable Resistor	Analog	HB1089-1	9/160,621 (9/24/98)	6,819,768 (11/16/04)	Terry Sculley

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Method and Integrated Circuit for the Flexible Combination of Four Operators in Sound Synthesis	Analog	HB1092-1	8/305,099 (9/13/94)	5,581,045 (12/03/96)	Roi Peers, Jr.
Taiwan	Issued Patent	Method, Integrated Circuit, Mechanical Analog clock Movement and Completed Assembly for a Talking Analog Clock	Analog	HB1093-1	82107424 (9/10/1993)	NI-74236 (2/14/1996)	Shiu-Leung Chan
U.S.	Issued Patent	Current Mode Switched Capacitor Circuit	Analog	HB1095-2	10/680,811 (10/06/03)	6,897,727 (5/24/05)	Martin Mallinson
U.S.	Issued Patent	Analog-To-Digital Converter	Analog	HB1096-1	10/351,267 (1/23/03)	6,677,874 (1/13/04)	Martin Mallinson



Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Variable Rate Sigma Delta Modulator	Analog	HB1097-1	10/731,885 (12/8/03)	6,943,716 (9/13/2005)	Martin Mallinson
U.S.	Issued Patent	System and Method for Digital Volume Control	Analog	HB1098-1	10/733,204 (12/09/03)	6,907,129 (6/14/05)	Martin Mallinson
U.S.	Issued Patent	Frequency Locked Loop With Improved Stability	Analog	HB1099-1	10/351,266 (1/23/2003)	6,833,765 (1/21/2004)	Martin Mallinson
U.S.	Issued Patent	Frequency Locked Loop With Improved Stability Using Binary Rate Multiplier Circuits	Analog	HB1099-2	10/948,043 (9/22/04)	6,937,105 (8/30/2005)	Martin Mallinson

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
Taiwan	Issued Patent	Frequency Locked Loop With Improved Stability	Analog	HB1099-4	93100961 (1/15/2004)	1246254 (12/21/2005)	Martin Mallinson
U.S.	Issued Patent	Voltage to Current Converter	Analog	HB1100-1	10/443,154 (5/21/03)	6,765,417 (7/20/04)	Martin Mallinson
U.S.	Issued Patent	Voltage to Current Converter	Analog	HB1100-2	10/865,176 (6/09/04)	6,985,013 (1/10/06)	Martin Mallinson
Taiwan	Issued Patent	Voltage to Current Converter	Analog	HB1100-4	93100962 (1/15/2004)	1234337 (6/11/2005)	

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Digital to Analog Converter Having a Low Power Semi-Analog Finite Impulse Response Circuit	Analog	HB1103-1	10/444,813 (5/22/03)	6,844,838 (1/18/05)	Martin Mallinson
U.S.	Issued Patent	Voltage Segmented Digital to Analog Converter	Analog	HB1104-1	10/810,310 (3/26/04)	6,954,165 (10/11/05)	Martin Mallinson
U.S.	Issued Patent	Method and Integrated Circuit for Electronic Waveform Generation of Voiced Audio Tones	Analog	HB1105-1	8/305,087 (9/13/94)	5,578,779 (11/26/96)	Roi Peers, Jr.
U.S.	Issued Patent	High Speed Filter	Analog	HB1106-1	10/057,087 (1/26/02)	7,028,070 (4/11/2006)	Martin Mallinson

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
Taiwan	Issued Patent	A Circuit for Correlating an Input Signal and Method of Correlation an Input Signal to an Apparent Reference Signal	Analog	HB1106-4	901101417 (1/29/2002)	185846 (1/14/2004)	Martin Mallinson
U.S.	Issued Patent	Audio Digital to Analog Converter With Harmonic Suppression (Note: 2 patents w same name)	Analog	HB1108-1	10/810,314 (3/26/04)	6,897,795 (5/24/05)	Martin Mallinson
U.S.	Issued Patent	Audio Digital to Analog Converter With Harmonic Suppression (Note: 3 patents w same name)	Analog	HB1108-2	11/115,974 (4/26/05)	6,987,475 (1/17/06)	Martin Mallinson
Taiwan	Issued Patent	Audio Digital to Analog Converter With Harmonic Suppression (Note: 3 patents w same name)	Analog	HB1108-4	93108461 (3/26/2004)	1275251 (3/01/2007)	Martin Mallinson
U.S.	Issued Patent	High Speed High Gain Amplifier	Analog	HB1120-1	10/402,391 (3/27/03)	6,822,516 (11/23/04)	Martin Mallinson

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Tone Modulation With Square Wave	Analog	HB1121-1	9/276,850 (3/26/99)	6,172,628 (1/09/01)	Terry Sculley, Edmund Chui
U.S.	Issued Patent	Efficient Decimation Filtering	Analog	HB1122-1 FF490496	9/049,604 (3/27/98)	6,041,339 (3/21/00)	Xiangang Yu, Terry Sculley, Jeffrey Niehaus
U.S.	Issued Patent	Attenuating Volume Control	Analog	HB1124-1	9/292,760 (4/14/99)	6,147,558 (11/14/00)	Terry Sculley
U.S.	Issued Patent	Delta-Sigma Sample and Hold	Analog		9/527,554 (3/16/00)	6,326,818 (12/04/01)	Terry Sculley

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Two-Way Voice and Digital Data Analyzer for Telephones	Analog / Audio	HB1091-1	7/292,584 (12/30/88)	5,022,071 (6/04/91)	Forrest Mozer, Shiu-Leung Chan
U.S.	Issued Patent	Flash Analog-To-Digital Converter	Analog / DVD	02600	10/118,224 (4/05/02)	6,646,585 (11/11/03)	Martin Mallinson

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Frequency Locked Loop with Improved Stability	Analog / DVD	02800	10/351,266 (1/23/03)	6,833,765 (12/21/04)	Martin Mallinson
U.S.	Issued Patent	Switched Multiple Sequence Excitation Model for Low Bit Rate Speech Compression	Analog / DVD		8/673,007 (7/01/96)	5,799,272 (8/25/98)	Qinglin Zhu
U.S.	Issued Patent	Combined Microphone and Mount	Design	HB1118-1	29/010,299 (7/1/93)	D355,915 (2/28/95)	Shiu-Leung Chan
U.S.	Issued Patent	System and Method for Controlling Multi-Component Communications Via a Bus By Causing Components to Enter and Exit a High-Impedance State	DVD	FF0190218	10/391,653 (3/18/03)	6,990,537 (1/24/06)	Ming Chan

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Devices and Methods for Converting a Digital Signal Into an Analog Signal	DVD	FF0190236	11/112,065 (4/22/05)	7,081,844 (7/25/06)	Elim Huang, Xun Xie
U.S.	Issued Patent	Data Access Arrangement Using A High Frequency Transformer for Electrical Isolation	Modem	HB1002-1	10/146,200 (5/14/02)	7,277,491 (10/2/07)	Ping Dong, Jordan Cookman
U.S.	Issued Patent	Data Communication Device	Modem	HB1102-1 FF0190194	9/369,034 (8/04/99)	6,327,249 (12/04/01)	Jordan Cookman, Ping Dong
U.S.	Issued Patent	Data Communication Device	Modem	HB1102-2	9/927,162 (8/09/01)	7,027,399 (4/11/06)	Jordan Cookman, Ping Dong
China	Issued Patent	Data Communication Device	Modem	HB1102-5	00813781.1 (8/04/2000)	ZL 00813781.1 (5/12/2004)	Jordan Cookman, Ping Dong



Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Device and Method for Performing Multiple Modulus Conversion Using Inverse Modulus Multiplication	Modem	HB1107-1	10/085,760 (2/28/02)	6,697,831 (2/24/04)	Jordan Cookman, Ping Dong
U.S.	Issued Patent	Device and Method for Performing Multiple Modulus Conversion Using Inverse Modulus Multiplication	Modem	HB1107-2	10/722,728 (11/25/03)	7,020,674 (3/28/06)	Jordan Cookman, Ping Dong
Taiwan	Issued Patent	Device and Method for Performing Multiple Modulus Conversion Using Inverse Modulus Multiplication	Modem	HB1107-4	92103833 (2/25/2003)	1240874 (10/01/2005)	Dong, Ping Cookman, Jordan C.
U.S.	Issued Patent	Frame-Based Sign Inversion Method and System for Spectral Shaping for Pulse-Coded-Modulation Modems	Modem	HB1119-1	9/008,101 (1/16/98)	6,343,101 (1/29/02)	Ping Dong, Kuo-Yu Lin
U.S.	Issued Patent	Frame-Based Sign Inversion Method and System for Spectral Shaping for Pulse-Coded-Modulation	Modem	HB1119-2	9/657,769 (9/08/00)	6,463,103 (10/08/02)	Ping Dong, Kuo-Yu Lin
U.S.	Issued Patent	Variable Codec Frame Length	Video	HB1087-1	9/075,669 (5/11/98)	6,678,243 (1/13/04)	Daryl Sartain, Terry Sculley

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Programmable Image Transform Processor for Digital Image Processing	Video	FF0190122	9/188,871 (11/09/98)	6,597,394 (7/22/03)	Kathleen Duncan, William Jacobs, Robert Taylor
U.S.	Issued Patent	Programmable Image Transform Processor	Video	FF0190125	9/679,854 (10/05/00)	6,961,084 (11/01/05)	Kathleen Duncan, Raymond Livingston
U.S.	Issued Patent	Adaptive Bit Rate Allocation	Video	FF0190134	10/226,531 (8/23/02)	7,016,410 (3/21/06)	Michael Chang, Ying-Ming Wang, Tai Jing
U.S.	Issued Patent	Off-Grid Interpolation in Image Processing	Video	FF0190141	9/949,688 (9/10/01)	6,961,480 (11/01/05)	Yiliang Bao, Maged Bishay, Joshua Pine

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Method of Sharing a Memory Between a Browser Mode and a Video to Reduce Memory Usage in a Video System	Video	FF0190146	9/096,811 (6/12/98)	7,035,527 (4/25/06)	Yu-Hai Mao, C.Y. Chu
U.S.	Issued Patent	System and Method for Controlling a Communication Bus	Video	FF0190149	10/411,716 (4/12/03)	7,016,983 (3/21/06)	Qinggang Zeng, Weibin Li
U.S.	Issued Patent	Memory Control Apparatus & Efficient Search Pattern for Block-Matching Motion Estimation	Video	FF0190151	9/910,684 (7/20/01)	7,072,395 (7/04/06)	Michael Y.T. Hwang, Chung-Ta Lee, Yi Liu
U.S.	Issued Patent	Bit Rate Control for Motion Compensated Video Compression System	Video	FF0190152	10/229,768 (8/27/02)	7,046,729 (5/16/06)	Siu-Leong Yu, Yi Liu
Taiwan	Issued Patent	Bit Rate Control for Motion Compensated Video Compression System	Video	FF0190152TW	92123569	1254580 (5/01/2006)	

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Color Motion Artifact Detection and Processing Apparatus Compatible with Video Coding Standards	Video	FF0190153	10/159,805 (5/30/02)	7,023,918 (4/04/06)	Siu-Leong Yu, Yi Liu
U.S.	Issued Patent	Intra-Prediction Using Intra-Macroblock Motion Compensation	VIDEO	FF0190154	10/424,205 (4/25/03)	7,120,196 (10/10/06)	Siu-Leong Yu Christos Chrysafis
U.S.	Issued Patent	Hierarchical Bus Arbitration	Video	FF0190157	10/302,723 (11/22/02)	7,051,135 (5/23/06)	Jun Zhu
U.S.	Issued Patent	Method and Apparatus for Concatenating Bits of Odd-Length Words	Video	FF0190158	9/536,252 (3/27/00)	6,614,934 (9/02/03)	Tony Wu, Ren-Yuh Wang

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Method and Apparatus for Run-Length Encoding Video Data	Video	FF0190159	9/535,063 (3/23/00)	6,594,398 (7/15/03)	Tony H. Wu, Ren-Yuh Wang
U.S.	Issued Patent	Automatic Bit-Rate Controlled Encoding and Decoding of Digital Images	Video	FF0190161	9/426,407 (10/25/99)	6,442,299 (8/27/02)	Johnny Wang
U.S.	Issued Patent	Method and Apparatus for Video Encoding Decision	Video	FF0190162	9/263,601 (3/05/99)	6,507,673 (1/14/03)	Ren-Yuh Wang, Yi-Yung Jeng
U.S.	Issued Patent	Method and Apparatus for Concatenating Bits of Odd-Length Words	Video	FF0190163	9/263,588 (3/05/99)	6,512,852 (1/28/03)	Tony Wu Ren-Yuh Wang

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Method and Apparatus for Adaptive Video Encoding	Video	FF0190164	9/264,221 (3/05/99)	6,516,029 (2/04/03)	Ren-Yuh Wang
U.S.	Issued Patent	Method and Apparatus for Providing Audio in a Digital Video System	Video	FF0190166	9/410,445 (10/01/99)	6,509,932 (1/21/03)	Der-Ren Chu, Ren-Yuh Wang
U.S.	Issued Patent	Optimized Structure for Digital Separation of Composite Video Signals	VIDEO	HB1004-1	10/725,955 (12/01/03)	7,151,574 (12/19/06)	Ping Dong, Jordan Cookman
U.S.	Issued Patent	Method and Apparatus for Low Cost Line-Based Video Compression of Digital Video Stream Data	Video	HB1018-1	9/042,124 (3/13/98)	6,256,350 (7/03/01)	Maged Bishay Behnam Katblan

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Method and Apparatus for Image Compression	Video	HB1079-5	9/386,251 (8/31/99)	6,353,685 (3/05/02)	Hung-Yao (Tony) Wu, Wei-Chun Lee, et al.
China	Issued Patent	Method and Apparatus for Image Compression	Video	HB1079-8	99810514.7 (9/11/1999)	ZL 99810514.7 (9/19/2007)	
U.S.	Issued Patent	Variable Codec Frame Length for Multistream Applications	Video	HB1088-1	9/111,918 (7/08/98)	6,169,747 (1/02/01)	Daryl Sartain, Terry Sculley
U.S.	Issued Patent	Method and Apparatus for Bit-Shuffling Video Data	Video		9/595,815 (6/16/00)	6,765,625 (7/20/04)	Wilbur Lee, Ren-Yuh Wang

Country	App / Patent Type & Status	Title	Technology	Docket Number	App. number (Filing date)	Patent Number (Date of Issue)	Inventors
U.S.	Issued Patent	Method and Device for Controlling Fast Periodic Motion	Video		9/042,343 (3/13/98)	6,040,567 (3/21/00)	Erwin Neher, Frank Wurriehausen
U.S.	Issued Patent	Method and Apparatus for Horizontally Scaling Computer Video Data for Display on a Television	Video		9/239,925 (1/28/99)	6,441,857 (8/27/02)	David Wicker, Benjamin Felts, III
U.S.	Issued Patent	Digital Video Teleconferencing Camera System Having A Base	Video		9/110,812 (7/06/98)	6,437,826 (8/20/02)	Thomas Arnold
U.S.	Issued Patent	Method and System for Code Packing in a Digital Video System	Video			6,515,715 (2/04/03)	Sophie Essen, Ren-Yuh Wang



**EXHIBIT C**

**Trademarks**

**SEE ATTACHED LIST**

IP / Trademark	Status	Jurisdiction	Applicant / Registrant / Current owner	Application number	Application date	Registration number	Registration date	Governmental Filing Authority	Proceedings or actions before any court or tribunal
ESS & DESIGN	Abandoned	US	ESS Technology, Inc	74/573661	9/6/1994	1991968	8/6/1996	USPTO	N/A
SUPERKTV	Abandoned	Hong Kong	ESS Technology, Inc	10752/1999	8/11/1999			Hong Kong Intellectual Property Department	N/A
THE NEW INTERNET EXPERIENCE	Abandoned	Hong Kong	ESS Technology, Inc	13420/1999	9/24/1999			Hong Kong Intellectual Property Department	N/A
TOTAL E-SOLUTION	Abandoned	Hong Kong	ESS Technology, Inc	12119/1999	9/3/1999			Hong Kong Intellectual Property Department	N/A
WE DO IT FOR YOU	Abandoned	Hong Kong	ESS Technology, Inc	13770/1999	9/30/1999			Hong Kong Intellectual Property Department	N/A
WE REVOLUTIONIZE THE INTERNET	Abandoned	Hong Kong	ESS Technology, Inc	10753/1999	8/11/1999			Hong Kong Intellectual Property Department	N/A
WE REVOLUTIONIZE THE INTERNET	Abandoned	Japan	ESS Technology, Inc	11-072568	8/11/1999	4520747	11/9/2001	Japan Patent Office	N/A
ZORO	Abandoned	Hong Kong	ESS Technology, Inc	12722/1999	9/13/1999			Hong Kong Intellectual Property Department	N/A
HYPERSTREAM	Filed	US	ESS Technology, Inc	78/549998	1/19/2005			USPTO	N/A
VISTA	Filed	US	ESS Technology, Inc	76/625163	12/20/2004			USPTO	N/A
AUDIODRIVE	Registered	US	ESS Technology, Inc	74/318494	9/28/1992	1815534	1/4/1994	USPTO	N/A
CANYON 3D & DESIGN	Registered	US	ESS Technology, Inc	75/666793	3/23/1999	2485758	9/4/2001	USPTO	N/A
ESS & DESIGN	Registered	Taiwan	ESS Technology, Inc	8601105	3/10/1997	796145	2/16/1999	Taiwan Patent and Trademark Office	N/A
ESS (STYLIZED)	Registered	US	ESS Technology, Inc	76/519658	5/14/2003	2894637	10/19/2004	USPTO	N/A
MUSIC SLIDESHOW	Registered	US	ESS Technology, Inc	76/412682	5/28/2002	2818509	2/24/2004	USPTO	N/A
SMARTBRIGHT	Registered	US	ESS Technology, Inc	76/412680	5/28/2002	2739296	7/15/2003	USPTO	N/A
SMARTCOLOR	Registered	US	ESS Technology, Inc	76/414436	5/28/2002	2739298	7/15/2003	USPTO	N/A
SMARTNAVI	Registered	US	ESS Technology, Inc	76/414437	5/28/2002	2843626	5/18/2004	USPTO	N/A
SUPERKTV	Registered	European Union	ESS Technology, Inc	1273218	8/10/1999	1273218	2/20/2001	European Trademark Office	N/A

IP / Trademark	Status	Jurisdiction	Applicant / Registrant / Current owner	Application number	Application date	Registration number	Registration date	Governmental Filing Authority	Proceedings or actions before any court or tribunal
SUPERKTV	Registered	Taiwan	ESS Technology, Inc	8839859	8/12/1999	930468	2/16/2001	Taiwan Patent and Trademark Office	N/A
THE NEW INTERNET EXPERIENCE	Registered	Taiwan	ESS Technology, Inc	(88)047597	9/28/1999	152502	11/16/2001	Taiwan Patent and Trademark Office	N/A
THE NEW INTERNET EXPERIENCE	Registered	Canada	ESS Technology, Inc	1029823	9/23/1999	TMA564747	7/16/2002	Canadian Intellectual Property Office	N/A
VIBRATTO	Registered	US	ESS Technology, Inc	76/519660	5/14/2003	2836239	4/27/2004	USPTO	N/A
VIDEO DRIVE	Registered	US	ESS Technology, Inc	75/113174	6/3/1996	2224580	2/16/1999	USPTO	N/A
VIPHONE	Registered	China	ESS Technology, Inc	2000098486	7/6/2000	1742774	4/7/2002	China Trademark Office	N/A
VISBA	Registered	US	ESS Technology, Inc	75/487921	5/19/1998	2559176	4/9/2002	USPTO	N/A
WE DO IT FOR YOU	Registered	Singapore	ESS Technology, Inc			T99/09708A	6/15/1999	Intellectual Property Office of Singapore	N/A
WE DO IT FOR YOU	Registered	Japan	ESS Technology, Inc	11-078871	9/1/1999	4502183	8/31/2001	Japan Patent Office	N/A
WE DO IT FOR YOU	Registered	Canada	ESS Technology, Inc	1027909	9/3/1999	TMA564613	7/12/2002	Canadian Intellectual Property Office	N/A

Trademarks – Unregistered

AGOGO-XP	Unregistered
ALLEGRO	Unregistered
AUDIORACK	Unregistered
AURA	Unregistered
COLDTHUNDER	Unregistered
DAP	Unregistered
DHS	Unregistered
DISSCAN	Unregistered
DMP	Unregistered
DORADO	Unregistered
ESFM	Unregistered
ESSPHONE	Unregistered

PA\10355401.2  
2101819-901000  
720537 v2/HN

HUMMINGBIRD	Unregistered
JEDI	Unregistered
MAESTRO	Unregistered
MAXVIEW	Unregistered
MDVD	Unregistered
MPEG4V	Unregistered
PHOENIX	Unregistered
QUICKSCAN	Unregistered
SABRE	Unregistered
SDCAM	Unregistered
SMARTART	Unregistered
SMARTLOGO	Unregistered
SMARTPITCH	Unregistered
SMARTSCALE	Unregistered
SMARTSCAN	Unregistered
SMARTSTREAM	Unregistered
SMARTZOOM	Unregistered
SOLO	Unregistered
SUPERLINK	Unregistered
SWAN	Unregistered
SYNTONY	Unregistered
TELEDRIVE	Unregistered
TRACKSCAN	Unregistered
UNIMP	Unregistered
UNVGA	Unregistered
VANTAGE	Unregistered
VIBA	Unregistered
VIDVD	Unregistered
VORTEX	Unregistered
VOYAGER	Unregistered