

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Honeywell International Inc.	03/01/2004
RECEIVING PARTY DATA	
Name:	Finisar Corporation
Street Address:	1389 Moffett Park Drive
City:	Sunnyvale
State/Country:	CALIFORNIA
Postal Code:	94089
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	10933876
CORRESPONDENCE DATA	
Fax Number:	(801)328-1707
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	801-533-9800
Email:	tterry@wnlaw.com
Correspondent Name:	Eric L. Maschoff
Address Line 1:	60 E. South Temple
Address Line 2:	Suite 1000
Address Line 4:	Salt Lake City, UTAH 84111
ATTORNEY DOCKET NUMBER:	14384.439.1.1
NAME OF SUBMITTER:	Eric L. Maschoff, Reg No: 36,596

Total Attachments: 41  
 source=15436.439.1.1 Honeywell to Finisar Assignment#page1.tif  
 source=15436.439.1.1 Honeywell to Finisar Assignment#page2.tif  
 source=15436.439.1.1 Honeywell to Finisar Assignment#page3.tif

OP \$40.00 10933876



## **PATENT ASSIGNMENT**

**WHEREAS**, Honeywell International Inc., a Delaware corporation located and doing business at 101 Columbia Road, Morristown, NJ 07962-2245 (hereinafter "Honeywell International"), is the successor in interest to all of the assets of Honeywell Inc. as evidenced by Exhibit 1 attached herewith, and, subject to the rights of third parties, is the assignee of the granted patents, pending patent applications, and invention disclosures identified on the attached Exhibit A which is incorporated by reference and made an integral part hereof; and

**WHEREAS**, Finisar Corporation, a corporation located and doing business at 1308 Moffett Park Drive, Sunnyvale, California 94089 (hereinafter "Finisar"), is desirous of acquiring Honeywell International's entire right, title and interest in, to and under said granted patents, pending patent applications, and invention disclosures of Exhibit A.

**NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN**, as of January 24, 2004 ("Effective Date"), be it known that for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Honeywell International has sold, conveyed, assigned, transferred and set over, and does hereby sell, convey, assign, transfer and set over to said Finisar its entire right, title and interest in and to the granted patents, the pending patent applications, and the invention disclosures set forth in the Exhibit A, both foreign and domestic, and the invention(s) claimed in such patents and applications for patent and any divisional, continuation, continuation-in-part, revival, re-examination, reissue, renewal, or extension thereof, or any patent or application for patent claiming priority from such patents and applications for patent, that have issued or shall issue, including, without limitation, subject to the rights of third parties, all of its rights under any and all international conventions, treaties and/or agreements concerning patents to which the United States is a party ("Assigned Patents"), and including, without limitation, the right to own and to prosecute in Finisar's own name any reexaminations, reissues, interferences, oppositions, and all causes of action now in existence or arising in the future resulting from acts of infringement relating to any of the Assigned Patents, including, without limitation, the right to sue and recover for past or present infringement, and the sole right to settle such causes of action.

Honeywell International hereby authorizes and requests the Commissioner of Patents to recognize Finisar as having the full power to file patent applications based upon the invention disclosures, prosecute the pending applications set forth in the Attachments, and issue letters patent to said Finisar in accordance herewith, obtain certified copies thereof, make alterations and amendments therein, receive any patent issuing therefrom and transact all business in the Patent and Trademark Office connected therewith, the same to be held and enjoyed by said Finisar for its own use and enjoyment, and for the use and enjoyment of its successors, assigns or any other legal representatives, to the end of the term or terms for said Assigned Patents, as fully and entirely as the same would have been held and enjoyed by said Honeywell International if this assignment had not been made. Honeywell International further authorizes Finisar, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any of the Assigned Patents and/or otherwise take advantage of the provisions of any international convention, treaty and/or agreement.

[SIGNATURE PAGE FOLLOWS]

IN TESTIMONY WHEREOF, the parties have caused these presents to be signed by their duly authorized representative.

Agreed and Accepted:

FINISAR CORPORATION

By: S.K. Workman

Name: Stephen K. Workman

Senior Vice President, Finance, Chief  
Title: Financial Officer and Secretary

Date: 3/1/04

IN TESTIMONY WHEREOF, the parties have caused these presents to be signed by their duly authorized representative.

**Agreed and Accepted:**

**FINISAR, INC.**

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

Name: \_\_\_\_\_

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

Date: \_\_\_\_\_

**HONEYWELL INTERNATIONAL INC.**

By: Thomas F. Larkins

Name: Thomas F. Larkins

Title: VP & Deputy General Counsel & Corporate Secretary

Date: 3/1/04

State of New Jersey )

) ss:

County of Morris )

I, Christina A. Sanclimenti, a notary public in and for the above jurisdiction, do certify that Thomas F. Larkins, whose name is signed to the writing above bearing the date March 1, 2004, has acknowledged the same to me to be his free act and deed.

Given under my hand to me this 1st day of March, 2004

Christina A. Sanclimenti  
Notary Public

My Commission Expires:  
September 11, 2008

**CHRISTINA A. SANCLIMENTI**  
NOTARY PUBLIC  
STATE OF NEW JERSEY  
COMM. ID 2304785  
MY COMMISSION EXPIRES SEPT. 11, 2008

**EXHIBIT A**







Germany	P69814379.5	04MR1998	04MR2018
Japan	538720/98	04MR1998	
-----			
U.S.#	5940422	FILED: 28JUL1996	ISSUED: 17AUL1999
APPL#	08/674230	LASER WITH AN IMPROVED MODE CONTROL	EXPIRES: 28JUL2016
P.D.#	H16410	JOHNSON, Ralph Herbert	
-----			
U.S.#	5978401	FILED: 25OCT1996	ISSUED: 02NOV1999
APPL#	08/736803	MONOLITHIC VERTICAL CAVITY SURFACE EMITTING LASER AND RESONA	EXPIRES: 25OCT2016
P.D.#	H16335	MORGAN, Robert A.	
-----			
U.S.#	6055262	FILED: 11JUL1997	ISSUED: 25APR2000
APPL#	08/872534	RESONANT REFLECTOR FOR IMPROVED OPTOELECTRONIC DEVICE PERFO	EXPIRES: 11JUL2017
P.D.#	H16564	COX JAMES A MORGAN ROBERT A	
-----			
U.S.#	6064683	FILED: 12DEC1997	ISSUED: 16MY2000
APPL#	08/989734	BANDGAP ISOLATED LIGHT EMITTER	EXPIRES: 12DEC2017
P.D.#	H16870	JOHNSON RALPH H	
-----			
Canada		APPL.#	2286838
European Patent Convention		APPL.#	98926468.4
European Patent Convention		APPL.#	03075016.0
Japan		APPL.#	503093/99
-----			
U.S.#	6069905	FILED: 31DEC1997	ISSUED: 30MY2000
APPL#	09/001894	VERTICAL CAVITY SURFACE EMITTING LASER HAVING INTENSITY CONT	EXPIRES: 31DEC2017
P.D.#	H16885	DAVIS RICHARD A SMITH DAVID F GUENTER JAMES K MATZEN WALTER T	
-----			
U.S.#	6069991	FILED: 14AUL1998	ISSUED: 30MY2000
APPL#	09/134229	FLEXIBLE OPTIC CONNECTOR ASSEMBLY	EXPIRES: 31DEC2016
P.D.#	H16270	HIBBS-BRENNER, Mary K. WALKER, JR., Harold Youn	
-----			
France		PATENT#	EP0950204
Great Britain		PATENT#	EP0950204
Germany		PATENT#	P69710098.7
Japan		APPL.#	529991/98



Great Britain PATENT# EP1068552 29MR1999 29MR2019  
 Germany PATENT# P69900287.7 29MR1999 29MR2019  
 Japan APPL.# 541551-2000 29MR1999  
 Netherlands PATENT# EP1068552 29MR1999 29MR2019  
 Switzerland PATENT# EP1068552 29MR1999 29MR2019  
 U.S.# FILED: 22DE1997 ISSUED: 27FE2001 EXPIRES: 22DE2017  
 APPL# FLEXIBLE HERMETIC SEALING  
 P.D.# H17074 ZHOU PING

U.S.# FILED: 20JL1998 ISSUED: 20MR2001 EXPIRES: 20JL2018  
 APPL# FIBER OPTIC HEADER FOR AN EDGE EMITTING LASER  
 P.D.# H25126 ZHOU, Ping

U.S.# FILED: 12DE1997 ISSUED: 03JL2001 EXPIRES: 12DE2017  
 APPL# VCSEL STRUCTURE INSENSITIVE TO MOBILE HYDROGEN  
 P.D.# H16783 JOHNSON RALPH H

Belgium PATENT# EP1038339 20NO1998 20NO2018  
 France PATENT# EP1038339 20NO1998 20NO2018  
 Great Britain PATENT# EP1038339 20NO1998 20NO2018  
 Germany PATENT# P69811398.5 20NO1998 20NO2018  
 Italy PATENT# EP1038339 20NO1998 20NO2018  
 Japan APPL.# PCT/US98/24703 20NO1998 20NO2018  
 Netherlands PATENT# EP1038339 20NO1998 20NO2018  
 Sweden PATENT# EP1038339 20NO1998 20NO2018  
 Switzerland PATENT# EP1038339 20NO1998 20NO2018  
 United States APPL.# 10/350840 24JA2003  
 PATENT# 6459719 03NO2000 12DE2017  
 United States PATENT# 6522680 03NO2000 12DE2017

U.S.# FILED: 15MR1999 ISSUED: 11JE2002 EXPIRES: 31DE2016  
 APPL# FLEXIBLE OPTIC CONNECTOR ASSEMBLY  
 P.D.# H16270 HIBBS-BRENNER MARY K WALKER, JR HAROLD Y LIU YUE  
 BRISTOW JULIAN P

France PATENT# EP0950204 13NO1997 13NO2017  
 Great Britain PATENT# EP0950204 13NO1997 13NO2017  
 Germany PATENT# P69710098.7 13NO1997 13NO2017  
 Japan APPL.# 529991/98 13NO1997  
 Sweden PATENT# EP0950204 13NO1997 13NO2017  
 United States APPL.# 10/136871 30AP2002  
 United States PATENT# 6069991 14AUL1998 31DE2016  
 United States PATENT# 6088498 14AUL1998 31DE2016

U.S.# FILED: 31AUL1999 ISSUED: 25JE2002 EXPIRES: 31AUL2019  
 APPL# COUPLED CAVITY ANTI-GUIDED VERTICAL-CAVITY SURFACE-EMITTING  
 P.D.# H25556 CLARK ANDREW GUENTER JAMES K JOHNSON RALPH H  
 FILED EXPIRES

31 -----  
 U.S.# 6459719 FILED: 03NO2000 ISSUED: 01OC2002 EXPIRES: 12DE2017  
 APPL# 09/819029 VCSEL STRUCTURE INSENSITIVE TO MOBILE HYDROGEN  
 P.D.# H16783 JOHNSON RALPH H  
 -----  
 Austria PATENT# 28AU2000 28AU2020  
 Belgium PATENT# 28AU2000 28AU2020  
 France PATENT# 28AU2000 28AU2020  
 Great Britain PATENT# 28AU2000 28AU2020  
 Germany PATENT# 28AU2000 28AU2020  
 Italy PATENT# 28AU2000 28AU2020  
 Japan PATENT# 28AU2000 28AU2020  
 Korea South PATENT# 28AU2000 28AU2020  
 Netherlands PATENT# 28AU2000 28AU2020  
 Patent Cooperation Treaty APPL.# 28AU2000 28AU2020  
 United States APPL.# 10/147136 13MY2002

32 -----  
 U.S.# 6465774 FILED: 30JE2000 ISSUED: 15OC2002 EXPIRES: 20MR2021  
 APPL# 09/607048 METHOD AND SYSTEM FOR VERSATILE OPTICAL SENSOR PACKAGE  
 P.D.# H25512 GUENTER JAMES K  
 -----  
 Belgium PATENT# 20NO1998 20NO2018  
 France PATENT# 20NO1998 20NO2018  
 Great Britain PATENT# 20NO1998 20NO2018  
 Germany PATENT# 20NO1998 20NO2018  
 Italy PATENT# 20NO1998 20NO2018  
 Japan PATENT# 20NO1998 20NO2018  
 Netherlands PATENT# 20NO1998 20NO2018  
 Sweden PATENT# 20NO1998 20NO2018  
 Switzerland PATENT# 20NO1998 20NO2018  
 United States PATENT# 20NO1998 20NO2018  
 United States APPL.# 10/350840 24JA2003  
 United States PATENT# 6522680 03NO2000 12DE2017  
 -----  
 European Patent Convention APPL.# 01952287.9 28JE2001  
 ISSUED: 18FE2003  
 VCSEL STRUCTURE INSENSITIVE TO MOBILE HYDROGEN  
 JOHNSON RALPH H

33 -----  
 U.S.# 6522680 FILED: 03NO2000 ISSUED: 18FE2003 EXPIRES: 12DE2017  
 APPL# 09/819024 VCSEL STRUCTURE INSENSITIVE TO MOBILE HYDROGEN  
 P.D.# H16783 JOHNSON RALPH H  
 -----  
 Belgium PATENT# 20NO1998 20NO2018  
 France PATENT# 20NO1998 20NO2018  
 Great Britain PATENT# 20NO1998 20NO2018  
 Germany PATENT# 20NO1998 20NO2018  
 Italy PATENT# 20NO1998 20NO2018  
 Japan PATENT# 20NO1998 20NO2018  
 Netherlands PATENT# 20NO1998 20NO2018  
 Sweden PATENT# 20NO1998 20NO2018

34 U.S.# 6558973 FILED: 22JJA2001 ISSUED: 06MY2003 EXPIRES: 22JJA2021  
 APPL# 09/766797 METAMORPHIC LONG WAVELENGTH HIGH SPEED PHOTODIODE  
 P.D.# H0001519 JOHNSON RALPH H BIARD JAMES R GUENTER JAMES K FILED EXPIRES

Canada 2435607 22JJA2002  
 European Patent Convention 02717369.9 22JJA2002  
 Japan 2002-558345 22JJA2002  
 United States 10/413186 14AP2003

35 U.S.# 6586776 FILED: 28NO2000 ISSUED: 01JL2003 EXPIRES: 12AP2020  
 APPL# 09/724249 INTEGRATION OF TOP-EMITTING AND TOP-ILLUMINATED OPTOELECTRON  
 P.D.# H25545 LIU YUE FILED EXPIRES

Australia 2001257028 12AP2001  
 Canada 2405859 12AP2001  
 China P.R. 01811055.X 12AP2001  
 Czech Republic PV 2002-3727 12AP2001  
 European Patent Convention 01930497.1 12AP2001  
 Israel 152265 12AP2001  
 Japan 2001-577584 12AP2001  
 Korea South 2002-7013741 12AP2001  
 Singapore 200206231-3 12AP2001  
 United States 09/547538 12AP2000  
 United States 10/284863 31OC2002

36 U.S.# 6588949 FILED: 30DE1998 ISSUED: 08JL2003 EXPIRES:  
 APPL# 09/224210 METHOD AND APPARATUS FOR HERMETICALLY SEALING PHOTONIC DEVIC  
 P.D.# H25171 ZHOU, Ping FILED EXPIRES

European Patent Convention 99960433.3 18NO1999  
 Japan 592918/2000 18NO1999  
 United States 10/444796 22MY2003

37 U.S.# 6603784 FILED: 21DE1998 ISSUED: 05AU2003 EXPIRES: 21DE2018  
 APPL# 09/217223 MECHANICAL STABILIZATION OF LATTICE MISMATCHED QUANTUM WELLS  
 P.D.# H17234 JOHNSON, Ralph Herbert FILED EXPIRES

European Patent Convention 99958857.7 10NO1999  
 Japan 590264/2000 10NO1999  
 United States 10/634558 04AU2003

38 U.S.# 6606199 FILED: 10OC2001 ISSUED: 12AU2003 EXPIRES: 10OC2021

APPL# 09/975299 GRADED THICKNESS OPTICAL ELEMENT AND METHOD OF MANUFACTURE T  
P.D.# H0002301 WANG TZU-YU  
Patent Cooperation Treaty APPL.# PCT/US02/32373 100C2002  
FILED EXPIRES  
-----  
end -----

Patent Applications

1		U.S.#	FILED: 31DE1996	ISSUED:	EXPIRES:	
APPL#	08/775330	A FLEXIBLE OPTIC CONNECTOR ASSEMBLY,				
P.D.#	H16270	HIBBS-BRENNER, Mary K. WALKER, JR., Harold Youn				
		France	PATENT#	EP0950204	13NO1997	13NO2017
		Great Britain	PATENT#	EP0950204	13NO1997	13NO2017
		Germany	PATENT#	P69710098.7	13NO1997	13NO2017
		Japan	APPL.#	529991/98	13NO1997	13NO2017
		Sweden	PATENT#	EP0950204	13NO1997	13NO2017
		United States	APPL.#	10/136871	30AP2002	
		United States	PATENT#	6069991	14AU1998	31DE2016
		United States	PATENT#	6404960	15MR1999	31DE2016
		United States	PATENT#	6088498	14AU1998	31DE2016
2		U.S.#	FILED: 04FE1997	ISSUED:	EXPIRES:	
APPL#	08/795029	MULTIPLE PACK ACTIVE DEVICE RECEPTACLE				
P.D.#	H17003	DOSS, Donald G GUENTER, James Kenneth PARRETT, George W. SELLI, Raman K WALTRIP, Philip W				
		Argentina	APPL.#	P970102575	13JE1997	
		India	APPL.#	1273/MAS/97	12JE1997	
		Malaysia	APPL.#	PI9702640	13JE1997	
		South Africa	PATENT#	97/5133	10JE1997	10JE2017
		Taiwan	PATENT#	NI097734	13JE1997	12JE2017
		United States	PATENT#	6086263	13JE1996	13JE2016
		Venezuela	APPL.#	1118/97	13JE1997	
3		U.S.#	FILED: 10MR1997	ISSUED:	EXPIRES:	
APPL#	08/814458	FIBER OPTIC S-BEND CONNECTOR				
P.D.#	H17003	DOSS, Donald G GUENTER, James Kenneth PARRETT, George W. SELLI, Raman K WALTRIP, Philip W				
		Argentina	APPL.#	P970102575	13JE1997	
		India	APPL.#	1273/MAS/97	12JE1997	
		Malaysia	APPL.#	PI9702640	13JE1997	
		South Africa	PATENT#	97/5133	10JE1997	10JE2017
		Taiwan	PATENT#	NI097734	13JE1997	12JE2017
		United States	PATENT#	6086263	13JE1996	13JE2016
		Venezuela	APPL.#	1118/97	13JE1997	
4		U.S.#	FILED: 29JE1999	ISSUED:	EXPIRES: PENDING	
APPL#	09/342801	HERMETIC CHIP-SCALE PACKAGE FOR PHOTONIC DEVICES				
P.D.#	H25073	JOHNSON, Klein L.				





Taiwan  
United States  
APPL.# 90121615 31AU2001  
APPL.# 10/427337 01MY2003

9 U.S.#  
APPL# 09/724820  
P.D.# H26341  
FILED: 28NO2000  
ISSUED:  
VERSATILE METHOD AND SYSTEM FOR SINGLE MODE VCSELS  
JOHNSON RALPH H  
MORALES GILBERTO  
EXPIRES: PENDING

	FILED	EXPIRES
Canada	2430348	26NO2001
European Patent Convention	01987106.0	26NO2001
Japan	2002-547270	26NO2001
Korea South	2003-7007204	26NO2001
Taiwan	NI167702	27NO2001
United States	10/617290	10JL2003
United States	10/617892	11JL2003

10 U.S.#  
APPL# 09/751422  
P.D.# H25181  
FILED: 29DE2000  
ISSUED:  
RESONANT REFLECTOR FOR USE WITH OPTOELECTRONIC DEVICES  
COX JAMES A  
MORGAN ROBERT A  
EXPIRES: PENDING

	FILED	EXPIRES
European Patent Convention	01994296.0	18DE2001
Japan	2002-560248	18DE2001
Korea South	2003-7008907	18DE2001
Taiwan	90132816	28DE2001

11 U.S.#  
APPL# 09/751423  
P.D.# H26549  
FILED: 29DE2000  
ISSUED:  
SPATIALLY MODULATED REFLECTOR FOR AN OPTOELECTRIC DEVICE  
MORGAN ROBERT A  
STRZELECKI EVA M  
EXPIRES: PENDING

	FILED	EXPIRES
Canada	2433357	20DE2001
European Patent Convention	01994427.1	20DE2001
Japan	2002-560170	20DE2001
Korea South	2003-7008908	20DE2001
Taiwan	NI169853	28DE2001

12 U.S.#  
APPL# 09/803821  
P.D.# H25985  
FILED: 12MR2001  
ISSUED:  
APPARATUS AND METHOD PROVIDING A BALANCING LOAD TO A LASER D  
GUENTER JAMES K  
TATUM JIM A  
EXPIRES: PENDING

	FILED	EXPIRES
Canada	2441090	12MR2002
European Patent Convention	02736497.5	12MR2002
Japan	2002-586458	12MR2002
Korea South	2003-7011972	12MR2002

13 U.S.#  
APPL# 09/881167  
P.D.# H0001331  
FILED: 14JE2001  
ISSUED:  
METHOD AND APPARATUS FOR PRODUCING VCSELS WITH DIELECTRIC MI  
SKOGMAN RICHARD A  
EXPIRES: PENDING

	FILED	EXPIRES
United States		





27	U.S.#		Patent Cooperation Treaty	APPL.#	PCT/US02/40253	16DE2002	
	APPL#		Taiwan	APPL.#	091137478	26DE2002	
	P.D.#	H0002746					EXPIRES: PENDING
			FILED: 28DE2001	ISSUED:			FILED EXPIRES
			WAVELENGTH DIVISION MULTIPLEXED VERTICAL CAVITY SURFACE EMIT				
			WANG TZU-YU				
			Patent Cooperation Treaty	APPL.#	PCT/US02/41735	13DE2002	
28	U.S.#						
	APPL#		FILED: 28DE2001	ISSUED:			EXPIRES: PENDING
	P.D.#	H25543	INTEGRAL VERTICAL CAVITY SURFACE EMITTING LASER AND POWER MC				
			GUNTER JAMES K				
			Patent Cooperation Treaty	APPL.#	PCT/US02/41737	13DE2002	
			Taiwan	APPL.#	091137288	25DE2002	
29	U.S.#						
	APPL#		FILED: 31DE2001	ISSUED:			EXPIRES: PENDING
	P.D.#	H0001575	TUNABLE LASER ASSEMBLY				
			COX JAMES A				
			Patent Cooperation Treaty	APPL.#	PCT/US02/39413	10DE2002	
30	U.S.#						
	APPL#		FILED: 31DE2001	ISSUED:			EXPIRES: PENDING
	P.D.#	H0001589	OPTOELECTRONIC DEVICES AND METHODS OF PRODUCTION				
			JOHNSON KLEIN L				
			United States	APPL.#	10/669220	24SE2003	
31	U.S.#						
	APPL#		FILED: 21FE2002	ISSUED:			EXPIRES: PENDING
	P.D.#	H0002523	LONG-WAVELENGTH VCSEL BOTTOM MIRROR				
			KWON HOKI				
			Patent Cooperation Treaty	APPL.#	PCT/US03/07266	21FE2003	
			Taiwan	APPL.#	092103649	21FE2003	
32	U.S.#						
	APPL#		FILED: 21FE2002	ISSUED:			EXPIRES: PENDING
	P.D.#	H0002992	CARBON DOPED GaSSb SUITABEL FOR USE IN TUNNEL JUNCTIONS FOR				
			KWON HOKI				
			Patent Cooperation Treaty	APPL.#	PCT/US03/05471	21FE2003	
			Taiwan	APPL.#	092103650	21FE2003	
33	U.S.#						
	APPL#		FILED: 21FE2002	ISSUED:			EXPIRES: PENDING
	P.D.#	H0002992	GaAs/Al(Ga)AS DISTRIBUTED BRAGG REFLECTOR ON InP				



38 U.S.# FILED: 04JE2002 ISSUED: EXPIRES: PENDING  
 APPL# 10/162928 WAVELENGTH SELECTIVE DETECTOR  
 P.D.# H0002499 GUENTER JAMES K JOHNSON RALPH H FILED EXPIRES

39 U.S.# Patent Cooperation Treaty APPL.# PCT/US03/18205 03JE2003  
 APPL# Taiwan APPL.# 092115228 05JE2003  
 P.D.# FILED: 04JE2002 ISSUED: EXPIRES: PENDING  
 OPTICAL TRANSCEIVER  
 TATUM JIMMY A GUENTER JAMES K FILED EXPIRES

40 U.S.# Patent Cooperation Treaty APPL.# PCT/US03/17524 04JE2003  
 APPL# Taiwan APPL.# 092115239 05JE2003  
 P.D.# United States APPL.# 000000 11DE2002  
 FILED: 04JE2002 ISSUED: EXPIRES: PENDING  
 METHOD AND APPARATUS FOR MONITORING THE POWER OF A MULTI-WAY  
 TATUM JIMMY A GUENTER JAMES K FILED EXPIRES

41 U.S.# Patent Cooperation Treaty APPL.# PCT/US03/17523 04JE2003  
 APPL# Taiwan APPL.# 92115237 05JE2003  
 P.D.# FILED: 14AU2002 ISSUED: EXPIRES: PENDING  
 ATOMIC HYDROGEN AS A SURFACTANT IN PRODUCTION OF HIGHLY STRA  
 JOHNSON RALPH H  
 U.S.# FILED: 03SE2002 ISSUED: EXPIRES: PENDING  
 APPL# SINGLE MODE VCSEL  
 P.D.# 10/232382 GUENTER JAMES K JOHNSON RALPH H FILED EXPIRES  
 H0002313 TATUM JAMES A

43 U.S.# Patent Cooperation Treaty APPL.# PCT/US03/27685 02SE2003  
 APPL# FILED: 03SE2002 ISSUED: EXPIRES: PENDING  
 P.D.# 10/233112 HYBRID MIRROR VCSELS  
 H0003250 JOHNSON RALPH H WANG TZU-YU  
 U.S.# FILED: 04SE2002 ISSUED: EXPIRES: PENDING  
 APPL# NITROGEN SOURCES FOR MOLECULAR BEAM EPITAXY  
 P.D.# 10/233625 JOHNSON RALPH H KIM JIN K GUENTER JAMES K FILED EXPIRES  
 H0003322

45 U.S.# Patent Cooperation Treaty APPL.# PCT/US03/27463 04SE2003  
 APPL# FILED: 28OC2002 ISSUED: EXPIRES: PENDING  
 P.D.# 10/283381 OXIDE CONFINED VCSEL WITH A THIN OXIDE AND ENHANCED CONDUCTI  
 H0003150 JOHNSON RALPH H JOHNSON KLEIN L

FILED EXPIRES

46 Patent Cooperation Treaty APPL.# PCT/US03/33611 24OC2003

U.S.# FILED: 30OC2002 ISSUED: EXPIRES: PENDING  
APPL# 10/283298 LONG-WAVELENGTH VERTICAL CAVITY SURFACE EMITTING LASERS  
P.D.# H0003324 KIM JIN K

47 U.S.# FILED: 30OC2002 ISSUED: EXPIRES: PENDING  
APPL# 10/283311 SELECTIVELY-ETCHABLE HETEROGENEOUS COMPOSITE DISTRIBUTED BRA  
P.D.# H0003316 KIM JIN K

48 U.S.# FILED: 30OC2002 ISSUED: EXPIRES: PENDING  
APPL# 10/283835 METHOD AND APPARATUS FOR MONITORING THE POWER LEVEL OF TWO O  
P.D.# H0004180 GUENTER JAMES K

49 U.S.# FILED: 31OC2002 ISSUED: EXPIRES: PENDING  
APPL# 10/284863 INTEGRATION OF TOP-EMITTING AND TOP-ILLUMINATED OPTOELECTRON  
P.D.# H25545 LIU YUE

FILED EXPIRES

50 U.S.# FILED: 11NO2002 ISSUED: EXPIRES: PENDING  
APPL# 10/292578 HIGH SPEED OPTICAL TRANSCEIVER PACKAGE USING HETEROGENEOUS  
P.D.# H0001688 LIU YUE  
51 U.S.# FILED: 21NO2002 ISSUED: EXPIRES: PENDING  
APPL# 10/301380 LONG WAVELENGTH VCSEL WITH TUNNEL JUNCTION AND IMPLANT  
P.D.# H0004083 JOHNSON RALPH H WANG TZU-YU

FILED EXPIRES

52 Patent Cooperation Treaty APPL.# PCT/US03/40047 20NO2003

U.S.# FILED: 03DE2002 ISSUED: EXPIRES: PENDING  
APPL# 10/308308 BIDIRECTIONAL OPTICAL DEVICE  
P.D.# H0004155 GUENTER JAMES K TATUM JIMMY A

53 U.S.# FILED: 11DE2002 ISSUED: EXPIRES: PENDING  
APPL# 000000 OPTICAL TRANSCEIVER  
P.D.# H0003474 TATUM JIMMY A GUENTER JAMES K

FILED EXPIRES

Patent Cooperation Treaty APPL.# PCT/US03/17524 04JE2003  
Taiwan APPL.# 092115239 05JE2003  
United States APPL.# 10/163057 04JE2002

54 U.S.# FILED: 11DE2002 ISSUED: EXPIRES: PENDING  
APPL# OPTICAL TRANSCEIVER (THIS IS A CIP OF H0003474)  
P.D.# 10/316355 TATUM JIMMY A GUENTER JAMES K

FILED EXPIRES

Patent Cooperation Treaty APPL.# PCT/US03/39685 11DE2003

55 U.S.# FILED: 20DE2002 ISSUED: EXPIRES: PENDING  
APPL# ANGLED WAFER ROTATING ION IMPLANTATION  
P.D.# 10/323889 WANG TZU-YU

56 U.S.# FILED: 20DE2002 ISSUED: EXPIRES: PENDING  
APPL# MATERIAL SYSTEM FOR BRAGG REFLECTOR IN LONG WAVELENGTH VCSEL  
P.D.# 10/323923 KWON HOKI

57 U.S.# FILED: 22JA2003 ISSUED: EXPIRES: PENDING  
APPL# ZERO-CLEARANCE RECEPTACLE DESIGN FOR SINGLE MODE OPTICAL FIB  
P.D.# 10/347789 BLASINGAME RAYMOND W CHEN BO SU  
H0002353 ORENSTEIN JAMES D LEE JAMES C

58 U.S.# FILED: 24JA2003 ISSUED: EXPIRES: PENDING  
APPL# VCSEL STRUCTURE INSENSITIVE TO MOBILE HYDROGEN  
P.D.# 10/350840 JOHNSON RALPH H

FILED EXPIRES

Belgium PATENT# EP1038339 20NO1998 20NO2018  
France PATENT# EP1038339 20NO1998 20NO2018  
Great Britain PATENT# EP1038339 20NO1998 20NO2018  
Germany PATENT# P69811398.5 20NO1998 20NO2018  
Italy PATENT# EP1038339 20NO1998 20NO2018  
Japan APPL.# PCT/US98/24703 20NO1998 20NO2018  
Netherlands PATENT# EP1038339 20NO1998 20NO2018  
Sweden PATENT# EP1038339 20NO1998 20NO2018  
Switzerland PATENT# EP1038339 20NO1998 20NO2018  
United States PATENT# 6256333 12DE1997 12DE2017  
United States PATENT# 6459719 03NO2000 12DE2017  
United States PATENT# 6522680 03NO2000 12DE2017

59 U.S.# FILED: 27JA2003 ISSUED: EXPIRES: PENDING  
APPL# WAFER INTEGRATION OF MICRO-OPTICS  
P.D.# 10/351710 COX JAMES A FRITZ BERNARD S LIU YUE  
H0003589 JOHNSON KLEIN L

60 U.S.# FILED: 27JA2003 ISSUED: EXPIRES: PENDING  
APPL# SYSTEM AND METHODS USING MIGRATION ENHANCED EPITAXY FOR FLAT  
P.D.# 10/352293



P.D.#	H0004081	BLASINGAME VIRGIL J	JOHNSON RALPH H				
61							
U.S.#		FILED: 14AP2003	ISSUED:			EXPIRES: PENDING	
APPL#	10/413186	METAMORPHIC LONG WAVELENGTH HIGH SPEED PHOTODIODE					
P.D.#	H0001519	JOHNSON RALPH H	BIARD JAMES R				
							FILED
							EXPIRES
		Canada	APPL.#	2435607	22JA2002		
		European Patent Convention	APPL.#	02717369.9	22JA2002		
		Japan	APPL.#	2002-558345	22JA2002		
		United States	PATENT#	6558973	22JA2001	22JA2021	
62							
U.S.#		FILED: 01MY2003	ISSUED:			EXPIRES: PENDING	
APPL#	10/427337	PROTECTIVE SIDE WALL PASSIVATION FOR VCSEL CHIPS					
P.D.#	H25508	LIU YUE	MORGAN ROBERT A				
		STRZELECKI EVA M					
							FILED
							EXPIRES
		Canada	APPL.#	2421009	30AU2001		
		European Patent Convention	APPL.#	01966374.9	30AU2001		
		Japan	APPL.#	2002-524271	30AU2001		
		Korea South	APPL.#	10-2003-7003120	30AU2001		
		Taiwan	APPL.#	90121615	31AU2001		
		United States	APPL.#	09/652555	31AU2000		
63							
U.S.#		FILED: 07MY2003	ISSUED:			EXPIRES: PENDING	
APPL#	10/430941	CONNECTORIZED OPTICAL COMPONENT MISALIGNMENT DETECTION SYSTE					
P.D.#	H0004792	WILLIAMS RICK S	LALONDE ANDRE R				
64							
U.S.#		FILED: 13MY2003	ISSUED:			EXPIRES: PENDING	
APPL#	10/436069	VCSEL MODE-TRANSFORMING PHASE FILTER WITH ENHANCED PERFORMAN					
P.D.#	H0003671	GUENTER JAMES K	COX JAMES A				
		BIARD ROBERT	JOHNSON RALPH H				
65							
U.S.#		FILED: 22MY2003	ISSUED:			EXPIRES: PENDING	
APPL#	10/444796	METHOD AND APPARATUS FOR HERMETICALLY SEALING PHOTONIC DEVIC					
P.D.#	H25171	ZHOU, Ping					
							FILED
							EXPIRES
		European Patent Convention	APPL.#	99960433.3	18NO1999		
		Japan	APPL.#	592918/2000	18NO1999		
		United States	PATENT#	6588949	30DEL1998		
66							
U.S.#		FILED: 03JE2003	ISSUED:			EXPIRES: PENDING	
APPL#	10/453307	INTEGRATED SLEEVE PLUGGABLE PACKAGE					
P.D.#	H0004529	LEE JAMES C					
67							
U.S.#		FILED: 06JE2003	ISSUED:			EXPIRES: PENDING	
APPL#	10/456123	PLUGGABLE OPTICAL OPTIC SYSTEM HAVING A LENS FIBER STOP					
P.D.#	H0003903	ORENSTEIN JAMES D	BLASINGAME RAYMOND W				
		GUENTER JAMES K	LEE JAMES C				
			CHEN BO SU				

68	U.S.#	FILED: 25JE2003	ISSUED:	EXPIRES: PENDING
	APPL#	10/606104	INP BASED LONG WAVELENGTH VCSEL	
	P.D.#	H0004823	PARK GYOUNGWON	RYOU JAE-HYUN
			WANG TZU-YU	
			KIM JIN K	
69	U.S.#	FILED: 27JE2003	ISSUED:	EXPIRES: PENDING
	APPL#	10/607629	A DIELECTRIC VCSEL GAIN GUIDE	
	P.D.#	H0004606	RYOU JAE-HYUN	
			PARK GYOUNGWON	
70	U.S.#	FILED: 27JE2003	ISSUED:	EXPIRES: PENDING
	APPL#	10/607758	VCSEL HAVING THERMAL MANAGEMENT	
	P.D.#	H0004788	RYOU JAE-HYUN	LIU YUE
			RINGLE MICHAEL D	
71	U.S.#	FILED: 27JE2003	ISSUED:	EXPIRES: PENDING
	APPL#	10/607887	ENHANCED LATERAL OXIDATION	
	P.D.#	H0004636	PARK GYOUNGWON	KWON HOKI
			RYOU JAE-HYUN	
			WANG TZU-YU	
72	U.S.#	FILED: 30JE2003	ISSUED:	EXPIRES: PENDING
	APPL#	10/607982	COMPACT PACKAGE DESIGN FOR VERTICAL CAVITY SURFACE EMITTING	
	P.D.#	H0004045	LIU YUE	
73	U.S.#	FILED: 30JE2003	ISSUED:	EXPIRES: PENDING
	APPL#	10/610256	A HIGH SPEED OPTICAL SYSTEM	
	P.D.#	H0004286	COX JAMES A	CHEN BO SU
74	U.S.#	FILED: 02JL2003	ISSUED:	EXPIRES: PENDING
	APPL#	10/612660	A LENS OPTICAL COUPLER	
	P.D.#	H0004667	CHEN BO SU	ORENSTEIN JAMES D
			BLASINGAME RAYMOND W	
75	U.S.#	FILED: 03JL2003	ISSUED:	EXPIRES: PENDING
	APPL#	10/611992	PSEUDOMORPHIC LAYER IN TUNNEL JUNCTION VCSEL	
	P.D.#	H0004618	RYOU JAE-HYUN	
76	U.S.#	FILED: 10JL2003	ISSUED:	EXPIRES: PENDING
	APPL#	10/617290	VERSATILE METHOD AND SYSTEM FOR SINGLE MODE VCSELS	
	P.D.#	H26341	JOHNSON RALPH H	MORALES GILBERTO
			JOHNSON RALPH H	
			MORALES GILBERTO	
			APPL.#	2430348
			APPL.#	26NO2001
			APPL.#	01987106.0
			APPL.#	26NO2001
			APPL.#	2002-547270
			APPL.#	26NO2001
			PATENT#	2003-7007204
			APPL.#	NI167702
			APPL.#	27NO2001
			APPL.#	09/724820
			APPL.#	28NO2000
			APPL.#	10/617892
			APPL.#	11JL2003
77	U.S.#	FILED: 11JL2003	ISSUED:	EXPIRES: PENDING
	APPL#	10/617892	VERSATILE METHOD AND SYSTEM FOR SINGLE MODE VCSELS	
	P.D.#	H26341	JOHNSON RALPH H	MORALES GILBERTO

FILED EXPIRES

Canada  
 European Patent Convention  
 Japan  
 Korea South  
 Taiwan  
 United States  
 United States

APPL.# 2430348 26NO2001  
 APPL.# 01987106.0 26NO2001  
 APPL.# 2002-547270 26NO2001  
 APPL.# 2003-7007204 26NO2001  
 PATENT# NT1167702 27NO2001 26NO2021  
 APPL.# 09/724820 28NO2000  
 APPL.# 10/517290 10JL2003

FILED: 16JL2003 ISSUED: EXPIRES: PENDING  
 AN OPTICAL COUPLING SYSTEM  
 BLASINGAME RAYMOND W LEE JAMES C LI BERNARD Q

FILED: 16JL2003 EXPIRES: PENDING  
 COUPLER HAVING REDUCTION OF REFLECTIONS TO LIGHT SOURCE  
 ORENSTEIN JAMES D BLASINGAME RAYMOND W CHEN BO SU  
 GUENTER JAMES K LEE JAMES C LI BERNARD Q

FILED: 17JL2003 EXPIRES: PENDING  
 OPTICAL COUPLING SYSTEM  
 CHEN BO SU LI BERNARD Q

FILED: 16JL2003 EXPIRES: PENDING  
 EDGE READ CONTROL METHOD AND APPARATUS  
 LI BERNARD Q

FILED: 04AU2003 EXPIRES: PENDING  
 MECHANICAL STABILIZATION OF LATTICE MISMATCHED QUANTUM WELLS  
 JOHNSON, Ralph Herbert

European Patent Convention  
 Japan  
 United States

APPL.# 99958857.7 10NO1999  
 APPL.# 590264/2000 10NO1999  
 PATENT# 6603784 21DE1998 21DE2018

FILED: 24SE2003 EXPIRES: PENDING  
 OPTOELECTRONIC DEVICES AND METHODS OF PRODUCTION  
 JOHNSON KLEIN L BAIER STEVEN M LIU YUE

United States  
 APPL.# 10/037013 31DE2001

FILED: 29OC2003 EXPIRES: PENDING  
 LONG WAVELENGTH VCSEL DEVICE PROCESSING  
 BIARD JAMES R JOHNSON KLEIN L  
 PARK GYOUNGWON WANG TZU-YU

FILED: 31OC2003 EXPIRES: PENDING  
 TUNNEL JUNCTION UTILIZING GAPSB, ALGAPSB  
 KIM JIN K

86 ----- EXPIRES: PENDING  
U.S.# FILED: 14NO2003 ISSUED:  
APPL# 10/706906 MODULATION DOPED TUNNEL JUNCTION  
P.D.# H0004299 KIM JIN K  
-----  
end

Active Disclosures - Rated for Filing as Patent Applications

1	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	LONG WAVELENGTH VCSEL ACTIVE REGION USING SB IN GAASN BARRI		
	P.D.#	JOHNSON RALPH H		
		H0003732		
2	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	DESIGNS FOR LONG WAVELENGTH (1200 TO 1800 NM EMISSION) VERTI		
	P.D.#	KIM JIN K	WANG TZU-YU	
		H0003808		
3	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	METHODS FOR POLARIZATION CONTROL IN VCSELS		
	P.D.#	KIM JIN K		
		H0004365		
4	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	USE OF ALGAAS CONFINING LAYERS IN ACTIVE REGIONS CONTAINING		
	P.D.#	JOHNSON RALPH H		
		H0004841		
5	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	MULTICOMPONENT BARRIER LAYERS IN QUANTUM WELL ACTIVE REGIONS		
	P.D.#	JOHNSON RALPH H		
		H0004842		
6	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	A PLANO-CONVEX LENS GENERATES A RING LIGHT PATTERN TO REDUC		
	P.D.#	CHEN BO SU		
		H0005002		
7	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	CARRIER BONDED 1550 NM VCSEL DESIGN WITH INP SUBSTRATE REMOV		
	P.D.#	KIM JIN K	KWON HOKI -	
		H0005074	WANG TZU-YU -	PARK GYOUNGWON -
8	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	DIGITAL ALLOY OXIDATION LAYERS		
	P.D.#	RYOU JAE-HYUN -	KIM JIN K	
		H0005080		
9	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	METAL-ASSISTED DBERS FOR THERMAL MANAGEMENT IN VCSELS		
	P.D.#	KIM JIN K	WANG TZU-YU -	
		H0005083		PARK GYOUNGWON -
10	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	NEW DBR USING THE COMBINATION OF II-VI AND III-V MATERIALS F		
	P.D.#	KWON HOKI -		
		H0005115		
11	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	INALAS GROWN UNDER VERY LOW V/III TO ENHANCE THE OXIDATION R		
	P.D.#	KIM JIN K	WANG TZU-YU -	
		H0005125	PARK GYOUNGWON -	RYOU JAE-HYUN -
12	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE



Active Disclosures

1	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	SINUSOIDAL-RESPONSE DETECTOR (JOINT INVENTION W/ MICRO-E)		
	P.D.#	GUENTER JAMES K	MATZEN WALTER T	THORBURN WILLIAM G
2	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	MODE-SELECTIVE SEMICONDUCTOR MIRROR FOR VCSELS		
	P.D.#	PARK GYOUNGWON -	KIM JIN K	COX JAMES A
		PARK GYOUNGWON -	KIM JIN K	COX JAMES A
3	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	IMPROVED BAND OFFSET IN ALINGAP BASED LIGHT EMITTERS TO IMPR		
	P.D.#	JOHNSON RALPH H		
4	U.S.#	FILED:	ISSUED:	EXPIRES: DISCLOSURE
	APPL#	TEMPERATURE COMPENSATION FOR RELIABILITY ENHANCEMENT OF A HI		
	P.D.#	TATUM JIMMY A		

end

**Patents and Patent Applications (Acquired from Motorola)**

1	USA	GRANTED	756695	09-Sep-91	5164949	17-Nov-92	VERTICAL CAVITY SURFACE EMITTING LASER WITH LATERAL INJECTION
1	JAPA	GRANTED	4-262724	07-Sep-92	3339706	16-Aug-02	SEMICONDUCTOR LASER AND METHOD OF FABRICATING
2	USA	GRANTED	08/124065	21-Sep-93	5388120	07-Feb-95	VCSEL WITH UNSTABLE RESONATOR
3	USA	GRANTED	857877	26-Mar-92	5256596	26-Oct-93	TOP EMITTING VCSEL WITH IMPLANT
3	JAPA	GRANTED	5-87758	24-Mar-93	3306161	10-May-02	TOP EMITTING VCSEL WITH IMPLANT
4	USA	GRANTED	858288	26-Mar-92	5258316	02-Nov-93	PATTERNED MIRROR VERTICAL CAVITY SURFACE EMITTING LASER
5	USA	GRANTED	857856	26-Mar-92	5274655	28-Dec-93	TEMPERATURE INSENSITIVE VERTICAL CAVITY SURFACE EMITTING LASER
6	USA	GRANTED	08/271534	07-Jul-94	5446752	29-Aug-95	VCSEL WITH CURRENT BLOCKING LAYER OFFSET
7	USA	GRANTED	922719	31-Jul-92	5293392	08-Mar-94	TOP EMITTING VCSEL WITH ETCH STOP LAYER
8	USA	GRANTED	925139	06-Aug-92	5317587	31-May-94	VCSEL WITH SEPARATE CONTROL OF CURRENT DISTRIBUTION AND OPTICAL MODE
9	USA	GRANTED	08/020959	22-Feb-93	5337327	09-Aug-94	VCSEL WITH LATERAL INDEX GUIDE
9	USA	GRANTED	08/218402	28-Mar-94	5387543	07-Feb-95	METHOD OF MAKING A VCSEL WITH LATERAL INDEX GUIDE
9	NETH	GRANTED	94104719.3	24-Mar-94	EP0674367	29-Dec-97	VCSEL WITH LATERAL INDEX GUIDE
9	GERM	GRANTED	94104719.3	24-Mar-94	P69407566.3	29-Dec-97	VCSEL WITH LATERAL INDEX GUIDE
9	GBRI	GRANTED	94104719.3	24-Mar-94	EP0674367	29-Dec-97	VCSEL WITH LATERAL INDEX GUIDE
9	FRAN	GRANTED	94104719.3	24-Mar-94	EP0674367	29-Dec-97	VCSEL WITH LATERAL INDEX GUIDE
10	USA	GRANTED	028015	08-Mar-93	5351257	27-Sep-94	VCSEL WITH VERTICAL OFFSET OPERATING REGION PROVIDING A LATERAL WAVEGUIDE AND CURRENT LIMITING AND METHOD OF FABRICATION
10	JAPA	GRANTED	6-40594	16-Feb-94	3027901	04-Feb-00	VCSEL WITH LATERAL WAVEGUIDE AND CURRENT LIMITING
11	USA	GRANTED	08/069812	01-Jun-93	5359618	25-Oct-94	HIGH EFFICIENCY VCSEL AND METHOD OF FABRICATION
12	USA	GRANTED	08/075934	14-Jun-93	6156582	05-Dec-00	METHOD OF FABRICATING TOP EMITTING RIDGE VCSEL WITH SELF-ALIGNED CONTACT AND SIDEWALL REFLECTOR
12	JAPA	FILED	6-147025	07-Jun-94			METHOD OF FABRICATING TOP EMITTING RIDGE VCSEL WITH SELF-ALIGNED CONTACT AND SIDEWALL REFLECTOR
13	USA	GRANTED	08/151634	15-Nov-93	5422901	06-Jun-95	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY
13	USA	GRANTED	08/443609	18-May-95	5538919	23-Jul-96	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY
13	TAIW	GRANTED	83109217	05-Oct-94	NI-083506	21-Jan-97	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY
13	GERM	GRANTED	94117496.3	07-Nov-94	69412968.2	02-Sep-98	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY
13	GBRI	GRANTED	94117496.3	07-Nov-94	EP0653823	02-Sep-98	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY



13	FRAN	GRANTED	94117496.3	07-Nov-94	EP0653823	02-Sep-98	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY
14	USA	GRANTED	08/210851	21-Mar-94	5400352	21-Mar-95	SEMICONDUCTOR LASER AND METHOD THEREFOR
14	TAIW	GRANTED	84100220	11-Jan-95	NI-085158	16-Jul-97	SEMICONDUCTOR LASER AND METHOD THEREFOR
14	JAPA	FILED	7-65279	01-Mar-95			SEMICONDUCTOR LASER AND METHOD THEREFOR
14	GERM	GRANTED	95103479.2	10-Mar-95	69509962.0	02-Jun-99	SEMICONDUCTOR LASER AND METHOD THEREFOR
14	GBRI	GRANTED	95103479.2	10-Mar-95	EP0674371	02-Jun-99	SEMICONDUCTOR LASER AND METHOD THEREFOR
14	FRAN	GRANTED	95103479.2	10-Mar-95	EP0674371	02-Jun-99	SEMICONDUCTOR LASER AND METHOD THEREFOR
15	USA	GRANTED	08/529468	18-Sep-95	5547898	20-Aug-96	METHOD FOR P-DOPING OF A LIGHT-EMITTING DEVICE
15	KORS	GRANTED	10/1995-0019555	05-Jul-95	346532	16-Jul-02	METHOD FOR P-DOPING OF A LIGHT-EMITTING DEVICE
15	JAPA	FILED	7-189756	04-Jul-95			METHOD FOR P-DOPING OF A LIGHT-EMITTING DEVICE
16	USA	GRANTED	08/261502	15-Jun-94	5432809	11-Jul-95	VCSEL WITH A1-FREE CAVITY REGION
16	TAIW	GRANTED	84105244	24-May-95	NI-075480	21-Nov-95	VCSEL WITH A1-FREE CAVITY REGION
16	KORS	GRANTED	10-1995-0015822	15-Jun-95	381985	15-Apr-03	VCSEL WITH A1-FREE CAVITY REGION
16	JAPA	FILED	7-167886	12-Jun-95			VCSEL WITH A1-FREE CAVITY REGION
17	USA	GRANTED	08/261272	15-Jun-94	5557626	17-Sep-96	PATTERNED MIRROR VCSEL WITH ADJUSTABLE SELECTIVE ETCH REGION
17	TAIW	GRANTED	84105207	24-May-95	NI-075479	15-Apr-96	PATTERNED MIRROR VCSEL WITH ADJUSTABLE SELECTIVE ETCH REGION
17	KORS	GRANTED	10-1995-0015823	15-Jun-95	341946	12-Jun-02	PATTERNED MIRROR VCSEL WITH ADJUSTABLE SELECTIVE ETCH REGION
17	JAPA	FILED	7-167887	12-Jun-95			A PATTERNED MIRROR VCSEL WITH ADJUSTABLE SELECTIVE ETCH REGION
18	USA	GRANTED	08/384054	06-Feb-95	5661075	26-Aug-97	VCSEL WITH PASSIVATION
19	USA	GRANTED	08/407062	17-Mar-95	5482891	09-Jan-96	VCSEL WITH AN INTEGRATED HEAT SINK AND METHOD OF MAKING
20	USA	GRANTED	08/566388	01-Dec-95	5831295	03-Nov-98	CURRENT CONFINEMENT VIA DEFECT GENERATOR AND HETERO-INTERFACE INTERACTION
21	USA	GRANTED	08/346558	29-Nov-94	5468656	21-Nov-95	METHOD FOR MAKING A VCSEL
21	TAIW	GRANTED	84109916	21-Sep-95	NI-101440	01-Mar-99	METHOD FOR MAKING A VCSEL
21	NETH	GRANTED	95117900.1	14-Nov-95	EP0715378	20-Oct-99	METHOD FOR MAKING A VCSEL
21	JAPA	FILED	7-319810	15-Nov-95			METHOD FOR MAKING A VCSEL
21	GERM	GRANTED	95117900.1	14-Nov-95	69512870.1	20-Oct-99	METHOD FOR MAKING A VCSEL
21	GBRI	GRANTED	95117900.1	14-Nov-95	EP0715378	20-Oct-99	METHOD FOR MAKING A VCSEL
21	FRAN	GRANTED	95117900.1	14-Nov-95	EP0715378	20-Oct-99	METHOD FOR MAKING A VCSEL
22	USA	GRANTED	08/407061	17-Mar-95	5654228	05-Aug-97	VCSEL HAVING A SELF-ALIGNED HEAT SINK AND METHOD OF MAKING
23	USA	GRANTED	08/682473	17-Jul-96	5719893	17-Feb-98	PASSIVATED VERTICAL CAVITY SURFACE EMITTING LASER
23	JAPA	FILED	9-202435	11-Jul-97			PASSIVATED VERTICAL CAVITY SURFACE EMITTING LASER
24	USA	GRANTED	08/616419	15-Mar-96	5832017	03-Nov-98	RELIABLE NEAR IR VCSEL

25	USA	GRANTED	08/692003	01-Jul-96	5703892	30-Dec-97	METHOD OF MODE DETECTION AND CONTROL IN SEMICONDUCTOR LASERS
25	KORS	FILED	10-1997-0027673	26-Jun-97			METHOD OF MODE DETECTION AND CONTROL IN SEMICONDUCTOR LASERS
25	JAPA	FILED	9-191819	01-Jul-97			METHOD OF MODE DETECTION AND CONTROL IN SEMICONDUCTOR LASERS
26	USA	GRANTED	08/963624	04-Nov-97	5995531	30-Nov-99	VCSEL HAVING POLARIZATION CONTROL
27	USA	GRANTED	08/762475	09-Dec-96	5848086	08-Dec-98	ELECTRICALLY CONFINED VCSEL
28	USA	GRANTED	08/762489	09-Dec-96	5732103	24-Mar-98	LONG WAVELENGTH VCSEL
29	USA	GRANTED	08/762490	09-Dec-96	5883912	16-Mar-99	LONG WAVELENGTH VCSEL
30	USA	GRANTED	08/795260	10-Feb-97	5914973	22-Jun-99	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	TAIW	GRANTED	87101797	10-Mar-98	NI-104797	01-Jul-99	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	JAPA	FILED	10-46204	10-Feb-98			VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	GERM	GRANTED	98102181.9	09-Feb-98	69813655.1	23-Apr-03	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	GBRI	GRANTED	98102181.9	09-Feb-98	EP0860915	23-Apr-03	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	FRAN	GRANTED	98102181.9	09-Feb-98	EP0860915	23-Apr-03	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	EPC	GRANTED	98102181.9	09-Feb-98	EP0860915	23-Apr-03	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
31	USA	GRANTED	08/959572	28-Oct-97	6026111	15-Feb-00	VERTICAL CAVITY SURFACE EMITTING LASER DEVICE HAVING AN EXTENDED CAVITY
32	USA	GRANTED	08/734569	21-Oct-96	5764671	09-Jun-98	VCSEL WITH SELECTIVE OXIDE TRANSITION REGIONS
33	USA	GRANTED	08/743288	04-Nov-96	5838705	17-Nov-98	LIGHT EMITTING DEVICE HAVING A DEFECT INHIBITION LAYER
34	USA	GRANTED	08/795261	10-Feb-97	5835521	10-Nov-98	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
35	USA	GRANTED	09/047954	26-Mar-98	6121068	19-Sep-00	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
34	TAIW	GRANTED	87101798	10-Mar-98	NI-110433	11-Jan-00	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
34	JAPA	FILED	10-46205	10-Feb-98			LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
34	GERM	GRANTED	98102210.6	09-Feb-98	69809482.4	20-Nov-02	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION

34	GBRI	GRANTED	98102210.6	09-Feb-98	EP0860913	20-Nov-02	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
34	FRAN	GRANTED	98102210.6	09-Feb-98	EP0860913	20-Nov-02	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
35	USA	GRANTED	08/806269	25-Feb-97	5815524	29-Sep-98	WAVELENGTH VCSEL
35	TAW	GRANTED	87102717	10-Mar-98	NI-110918	01-Feb-00	WAVELENGTH VCSEL
35	JAPA	FILED	10-58804	24-Feb-98			LONG WAVELENGTH VCSEL
35	EPC	FILED	98102770.9	18-Feb-98			WAVELENGTH VCSEL
36	USA	GRANTED	08/813399	10-Mar-97	5898722	27-Apr-99	DUAL WAVELENGTH MONOLITHICALLY INTEGRATED VERTICAL CAVITY SURFACE EMITTING LASERS AND METHOD OF FABRICATION
36	TAW	GRANTED	87103512	10-Mar-98	NI-108681	11-Nov-99	DUAL WAVELENGTH MONOLITHICALLY INTEGRATED VERTICAL CAVITY SURFACE EMITTING LASERS AND METHOD OF FABRICATION
36	JAPA	FILED	10-67805	02-Mar-98			DUAL WAVELENGTH MONOLITHICALLY INTEGRATED VERTICAL CAVITY SURFACE EMITTING LASERS AND METHOD OF FABRICATION
37	USA	GRANTED	08/839112	23-Apr-97	5943359	24-Aug-99	LONG WAVELENGTH VCSEL
37	TAW	GRANTED	87106110	21-Apr-98	NI-116648	01-Jul-00	LONG WAVELENGTH VCSEL
37	JAPA	FILED	10-126809	21-Apr-98			LONG WAVELENGTH VCSEL
37	GERM	GRANTED	98106843.0	15-Apr-98	69811553.8	26-Feb-03	LONG WAVELENGTH VCSEL
37	GBRI	GRANTED	98106843.0	15-Apr-98	EP0874428	26-Feb-03	LONG WAVELENGTH VCSEL
37	FRAN	GRANTED	98106843.0	15-Apr-98	EP0874428	26-Feb-03	LONG WAVELENGTH VCSEL
37	EPC	GRANTED	98106843.0	15-Apr-98	EP0874428	26-Feb-03	LONG WAVELENGTH VCSEL
38	USA	GRANTED	08/990267	15-Dec-97	6016326	18-Jan-00	METHOD FOR BIASING SEMICONDUCTOR LASERS
39	USA	GRANTED	09/034279	04-Mar-98	6160830	12-Dec-00	SEMICONDUCTOR LASER DEVICE AND METHOD OF MANUFACTURE
39	USA	GRANTED	09/641003	17-Aug-00	6356571	12-Mar-02	SEMICONDUCTOR LASER DEVICE AND METHOD OF MANUFACTURE
40	USA	GRANTED	08/903670	31-Jul-97	5903586	11-May-99	LONG WAVELENGTH VERTICAL CAVITY SURFACE EMITTING LASER
41	USA	GRANTED	08/904189	31-Jul-97	5978398	02-Nov-99	LONG WAVELENGTH VERTICAL CAVITY SURFACE EMITTING LASER
42	USA	GRANTED	08/912940	15-Aug-97	5956363	21-Sep-99	LONG WAVELENGTH VERTICAL CAVITY SURFACE EMITTING LASER WITH OXIDATION LAYERS AND METHOD OF FABRICATION
43	USA	GRANTED	08/929515	15-Sep-97	6061380	09-May-00	VERTICAL CAVITY SURFACE EMITTING LASER WITH DOPED ACTIVE REGION AND METHOD OF FABRICATION
44	USA	GRANTED	08/929377	15-Sep-97	6021146	01-Feb-00	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER SINGLE MODE OPERATION AND METHOD OF FABRICATION
45	USA	GRANTED	08/963623	04-Nov-97	6021147	01-Feb-00	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER SINGLE MODE OPERATION AND METHOD OF FABRICATION

**Patents and Patent Applications (Acquired from Motorola)**

1	USA	GRANTED	756695	09-Sep-91	5164949	17-Nov-92	VERTICAL CAVITY SURFACE EMITTING LASER WITH LATERAL INJECTION
1	JAPA	GRANTED	4-262724	07-Sep-92	3339706	16-Aug-02	SEMICONDUCTOR LASER AND METHOD OF FABRICATING
2	USA	GRANTED	08/124065	21-Sep-93	5388120	07-Feb-95	VCSEL WITH UNSTABLE RESONATOR
3	USA	GRANTED	857877	26-Mar-92	5256596	26-Oct-93	TOP EMITTING VCSEL WITH IMPLANT
3	JAPA	GRANTED	5-87758	24-Mar-93	3306161	10-May-02	TOP EMITTING VCSEL WITH IMPLANT
4	USA	GRANTED	858288	26-Mar-92	5258316	02-Nov-93	PATTERNED MIRROR VERTICAL CAVITY SURFACE EMITTING LASER
5	USA	GRANTED	857856	26-Mar-92	5274655	28-Dec-93	TEMPERATURE INSENSITIVE VERTICAL CAVITY SURFACE EMITTING LASER
6	USA	GRANTED	08/271534	07-Jul-94	5446752	29-Aug-95	VCSEL WITH CURRENT BLOCKING LAYER OFFSET
7	USA	GRANTED	922719	31-Jul-92	5293392	08-Mar-94	TOP EMITTING VCSEL WITH ETCH STOP LAYER
8	USA	GRANTED	925139	06-Aug-92	5317587	31-May-94	VCSEL WITH SEPARATE CONTROL OF CURRENT DISTRIBUTION AND OPTICAL MODE
9	USA	GRANTED	08/020959	22-Feb-93	5337327	09-Aug-94	VCSEL WITH LATERAL INDEX GUIDE
9	USA	GRANTED	08/218402	28-Mar-94	5387543	07-Feb-95	METHOD OF MAKING A VCSEL WITH LATERAL INDEX GUIDE
9	NETH	GRANTED	94104719.3	24-Mar-94	EP0674367	29-Dec-97	VCSEL WITH LATERAL INDEX GUIDE
9	GERM	GRANTED	94104719.3	24-Mar-94	P69407566.3	29-Dec-97	VCSEL WITH LATERAL INDEX GUIDE
9	GBRI	GRANTED	94104719.3	24-Mar-94	EP0674367	29-Dec-97	VCSEL WITH LATERAL INDEX GUIDE
9	FRAN	GRANTED	94104719.3	24-Mar-94	EP0674367	29-Dec-97	VCSEL WITH LATERAL INDEX GUIDE
10	USA	GRANTED	028015	08-Mar-93	5351257	27-Sep-94	VCSEL WITH VERTICAL OFFSET OPERATING REGION PROVIDING A LATERAL WAVEGUIDE AND CURRENT LIMITING AND METHOD OF FABRICATION
10	JAPA	GRANTED	6-40594	16-Feb-94	3027901	04-Feb-00	VCSEL WITH LATERAL WAVEGUIDE AND CURRENT LIMITING
11	USA	GRANTED	08/069812	01-Jun-93	5359618	25-Oct-94	HIGH EFFICIENCY VCSEL AND METHOD OF FABRICATION
12	USA	GRANTED	08/075934	14-Jun-93	6156582	05-Dec-00	METHOD OF FABRICATING TOP EMITTING RIDGE VCSEL WITH SELF-ALIGNED CONTACT AND SIDEWALL REFLECTOR
12	JAPA	FILED	6-147025	07-Jun-94			METHOD OF FABRICATING TOP EMITTING RIDGE VCSEL WITH SELF-ALIGNED CONTACT AND SIDEWALL REFLECTOR
13	USA	GRANTED	08/151634	15-Nov-93	5422901	06-Jun-95	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY
13	USA	GRANTED	08/443609	18-May-95	5538919	23-Jul-96	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY
13	TAIW	GRANTED	83109217	05-Oct-94	NI-083506	21-Jan-97	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY
13	GERM	GRANTED	94117496.3	07-Nov-94	69412968.2	02-Sep-98	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY
13	GBRI	GRANTED	94117496.3	07-Nov-94	EP0653823	02-Sep-98	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY

13	FRAN	GRANTED	94117496.3	07-Nov-94	EP0653823	02-Sep-98	A SEMICONDUCTOR DEVICE WITH HIGH HEAT CONDUCTIVITY
14	USA	GRANTED	08/210851	21-Mar-94	5400352	21-Mar-95	SEMICONDUCTOR LASER AND METHOD THEREFOR
14	TAIW	GRANTED	84100220	11-Jan-95	NI-085158	16-Jul-97	SEMICONDUCTOR LASER AND METHOD THEREFOR
14	JAPA	FILED	7-65279	01-Mar-95			SEMICONDUCTOR LASER AND METHOD THEREFOR
14	GERM	GRANTED	95103479.2	10-Mar-95	69509962.0	02-Jun-99	SEMICONDUCTOR LASER AND METHOD THEREFOR
14	GBRI	GRANTED	95103479.2	10-Mar-95	EP0674371	02-Jun-99	SEMICONDUCTOR LASER AND METHOD THEREFOR
14	FRAN	GRANTED	95103479.2	10-Mar-95	EP0674371	02-Jun-99	SEMICONDUCTOR LASER AND METHOD THEREFOR
15	USA	GRANTED	08/529468	18-Sep-95	5547898	20-Aug-96	METHOD FOR P-DOPING OF A LIGHT - EMITTING DEVICE
15	KORS	GRANTED	10/1995-0019555	05-Jul-95	346532	16-Jul-02	METHOD FOR P-DOPING OF A LIGHT-EMITTING DEVICE
15	JAPA	FILED	7-189756	04-Jul-95			METHOD FOR P-DOPING OF A LIGHT - EMITTING DEVICE
16	USA	GRANTED	08/261502	15-Jun-94	5432809	11-Jul-95	VCSEL WITH A1-FREE CAVITY REGION
16	TAIW	GRANTED	84105244	24-May-95	NI-075480	21-Nov-95	VCSEL WITH A1-FREE CAVITY REGION
16	KORS	GRANTED	10-1995-0015822	15-Jun-95	381985	15-Apr-03	VCSEL WITH A1-FREE CAVITY REGION
16	JAPA	FILED	7-167886	12-Jun-95			VCSEL WITH A1-FREE CAVITY REGION
17	USA	GRANTED	08/261272	15-Jun-94	5557626	17-Sep-96	PATTERNED MIRROR VCSEL WITH ADJUSTABLE SELECTIVE ETCH REGION
17	TAIW	GRANTED	84105207	24-May-95	NI-075479	15-Apr-96	PATTERNED MIRROR VCSEL WITH ADJUSTABLE SELECTIVE ETCH REGION
17	KORS	GRANTED	10-1995-0015823	15-Jun-95	341946	12-Jun-02	PATTERNED MIRROR VCSEL WITH ADJUSTABLE SELECTIVE ETCH REGION
17	JAPA	FILED	7-167887	12-Jun-95			A PATTERNED MIRROR VCSEL WITH ADJUSTABLE SELECTIVE ETCH REGION
18	USA	GRANTED	08/384054	06-Feb-95	5661075	26-Aug-97	VCSEL WITH PASSIVATION
19	USA	GRANTED	08/407062	17-Mar-95	5482891	09-Jan-96	VCSEL WITH AN INTEGRATED HEAT SINK AND METHOD OF MAKING
20	USA	GRANTED	08/566388	01-Dec-95	5831295	03-Nov-98	CURRENT CONFINEMENT VIA DEFECT GENERATOR AND HETERO-INTERFACE INTERACTION
21	USA	GRANTED	08/346558	29-Nov-94	5468656	21-Nov-95	METHOD FOR MAKING A VCSEL
21	TAIW	GRANTED	84109916	21-Sep-95	NI-101440	01-Mar-99	METHOD FOR MAKING A VCSEL
21	NETH	GRANTED	95117900.1	14-Nov-95	EP0715378	20-Oct-99	METHOD FOR MAKING A VCSEL
21	JAPA	FILED	7-319810	15-Nov-95			METHOD FOR MAKING A VCSEL
21	GERM	GRANTED	95117900.1	14-Nov-95	69512870.1	20-Oct-99	METHOD FOR MAKING A VCSEL
21	GBRI	GRANTED	95117900.1	14-Nov-95	EP0715378	20-Oct-99	METHOD FOR MAKING A VCSEL
21	FRAN	GRANTED	95117900.1	14-Nov-95	EP0715378	20-Oct-99	METHOD FOR MAKING A VCSEL
22	USA	GRANTED	08/407061	17-Mar-95	5654228	05-Aug-97	VCSEL HAVING A SELF-ALIGNED HEAT SINK AND METHOD OF MAKING
23	USA	GRANTED	08/682473	17-Jul-96	5719893	17-Feb-98	PASSIVATED VERTICAL CAVITY SURFACE EMITTING LASER
23	JAPA	FILED	9-202435	11-Jul-97			PASSIVATED VERTICAL CAVITY SURFACE EMITTING LASER
24	USA	GRANTED	08/616419	15-Mar-96	5832017	03-Nov-98	RELIABLE NEAR IR VCSEL

25	USA	GRANTED	08/692003	01-Jul-96	5703892	30-Dec-97	METHOD OF MODE DETECTION AND CONTROL IN SEMICONDUCTOR LASERS
25	KORS	FILED	10-1997-0027673	26-Jun-97			METHOD OF MODE DETECTION AND CONTROL IN SEMICONDUCTOR LASERS
25	JAPA	FILED	9-191819	01-Jul-97			METHOD OF MODE DETECTION AND CONTROL IN SEMICONDUCTOR LASERS
26	USA	GRANTED	08/963624	04-Nov-97	5995531	30-Nov-99	VCSEL HAVING POLARIZATION CONTROL
27	USA	GRANTED	08/762475	09-Dec-96	5848086	08-Dec-98	ELECTRICALLY CONFINED VCSEL
28	USA	GRANTED	08/762489	09-Dec-96	5732103	24-Mar-98	LONG WAVELENGTH VCSEL
29	USA	GRANTED	08/762490	09-Dec-96	5883912	16-Mar-99	LONG WAVELENGTH VCSEL
30	USA	GRANTED	08/795260	10-Feb-97	5914973	22-Jun-99	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	TAIW	GRANTED	87101797	10-Mar-98	NI-104797	01-Jul-99	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	JAPA	FILED	10-46204	10-Feb-98			VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	GERM	GRANTED	98102181.9	09-Feb-98	69813655.1	23-Apr-03	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	GBRI	GRANTED	98102181.9	09-Feb-98	EP0860915	23-Apr-03	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	FRAN	GRANTED	98102181.9	09-Feb-98	EP0860915	23-Apr-03	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
30	EPC	GRANTED	98102181.9	09-Feb-98	EP0860915	23-Apr-03	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER OPERATION AND METHOD OF FABRICATION
31	USA	GRANTED	08/959572	28-Oct-97	6026111	15-Feb-00	VERTICAL CAVITY SURFACE EMITTING LASER DEVICE HAVING AN EXTENDED CAVITY
32	USA	GRANTED	08/734569	21-Oct-96	5764671	09-Jun-98	VCSEL WITH SELECTIVE OXIDE TRANSITION REGIONS
33	USA	GRANTED	08/743288	04-Nov-96	5838705	17-Nov-98	LIGHT EMITTING DEVICE HAVING A DEFECT INHIBITION LAYER
34	USA	GRANTED	08/795261	10-Feb-97	5835521	10-Nov-98	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
35	USA	GRANTED	09/047954	26-Mar-98	6121068	19-Sep-00	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
34	TAIW	GRANTED	87101798	10-Mar-98	NI-110433	11-Jan-00	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
34	JAPA	FILED	10-46205	10-Feb-98			LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
34	GERM	GRANTED	98102210.6	09-Feb-98	69809482.4	20-Nov-02	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION

34	GBRI	GRANTED	98102210.6	09-Feb-98	EP0860913	20-Nov-02	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
34	FRAN	GRANTED	98102210.6	09-Feb-98	EP0860913	20-Nov-02	LONG WAVELENGTH LIGHT EMITTING VERTICAL CAVITY SURFACE EMITTING LASER AND METHOD OF FABRICATION
35	USA	GRANTED	08/806269	25-Feb-97	5815524	29-Sep-98	WAVELENGTH VCSEL
35	TAIW	GRANTED	87102717	10-Mar-98	NI-110918	01-Feb-00	WAVELENGTH VCSEL
35	JAPA	FILED	10-58804	24-Feb-98			LONG WAVELENGTH VCSEL
35	EPC	FILED	98102770.9	18-Feb-98			WAVELENGTH VCSEL
36	USA	GRANTED	08/813399	10-Mar-97	5898722	27-Apr-99	DUAL WAVELENGTH MONOLITHICALLY INTEGRATED VERTICAL CAVITY SURFACE EMITTING LASERS AND METHOD OF FABRICATION
36	TAIW	GRANTED	87103512	10-Mar-98	NI-108681	11-Nov-99	DUAL WAVELENGTH MONOLITHICALLY INTEGRATED VERTICAL CAVITY SURFACE EMITTING LASERS AND METHOD OF FABRICATION
36	JAPA	FILED	10-67805	02-Mar-98			DUAL WAVELENGTH MONOLITHICALLY INTEGRATED VERTICAL CAVITY SURFACE EMITTING LASERS AND METHOD OF FABRICATION
37	USA	GRANTED	08/839112	23-Apr-97	5943359	24-Aug-99	LONG WAVELENGTH VCSEL
37	TAIW	GRANTED	87106110	21-Apr-98	NI-116648	01-Jul-00	LONG WAVELENGTH VCSEL
37	JAPA	FILED	10-126809	21-Apr-98			LONG WAVELENGTH VCSEL
37	GERM	GRANTED	98106843.0	15-Apr-98	69811553.8	26-Feb-03	LONG WAVELENGTH VCSEL
37	GBRI	GRANTED	98106843.0	15-Apr-98	EP0874428	26-Feb-03	LONG WAVELENGTH VCSEL
37	FRAN	GRANTED	98106843.0	15-Apr-98	EP0874428	26-Feb-03	LONG WAVELENGTH VCSEL
37	EPC	GRANTED	98106843.0	15-Apr-98	EP0874428	26-Feb-03	LONG WAVELENGTH VCSEL
38	USA	GRANTED	08/990267	15-Dec-97	6016326	18-Jan-00	METHOD FOR BIASING SEMICONDUCTOR LASERS
39	USA	GRANTED	09/034279	04-Mar-98	6160830	12-Dec-00	SEMICONDUCTOR LASER DEVICE AND METHOD OF MANUFACTURE
39	USA	GRANTED	09/641003	17-Aug-00	6356571	12-Mar-02	SEMICONDUCTOR LASER DEVICE AND METHOD OF MANUFACTURE
40	USA	GRANTED	08/903670	31-Jul-97	5903586	11-May-99	LONG WAVELENGTH VERTICAL CAVITY SURFACE EMITTING LASER
41	USA	GRANTED	08/904189	31-Jul-97	5978398	02-Nov-99	LONG WAVELENGTH VERTICAL CAVITY SURFACE EMITTING LASER
42	USA	GRANTED	08/912940	15-Aug-97	5956363	21-Sep-99	LONG WAVELENGTH VERTICAL CAVITY SURFACE EMITTING LASER WITH OXIDATION LAYERS AND METHOD OF FABRICATION
43	USA	GRANTED	08/929515	15-Sep-97	6061380	09-May-00	VERTICAL CAVITY SURFACE EMITTING LASER WITH DOPED ACTIVE REGION AND METHOD OF FABRICATION
44	USA	GRANTED	08/929377	15-Sep-97	6021146	01-Feb-00	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER SINGLE MODE OPERATION AND METHOD OF FABRICATION
45	USA	GRANTED	08/963623	04-Nov-97	6021147	01-Feb-00	VERTICAL CAVITY SURFACE EMITTING LASER FOR HIGH POWER SINGLE MODE OPERATION AND METHOD OF FABRICATION

# EXHIBIT B



**Exhibit B****Patents and Patent Applications Subject to Assignment from Honeywell International, Inc. to Finisar Corporation**

15436.432.4	08/775330	31-Dec-96		
15436.432.4.4	10/136817	30-Apr-02		
15436.432.6.1	09/481627	12-Jan-00		
15436.432.7.1	08/795029	14-Feb-97		
15436.432.7.2	08/814458	10-Mar-97		
15436.433.3.3	10/350840	24-Jan-03		
15436.433.4.1	10/147136	13-May-02		
15436.433.6.1	10/413186	14-Apr-03		
15436.434.1.1	10/284863	31-Oct-02		
15436.434.1.2	09/547538	12-Apr-00		
15436.434.2.1	10/444796	22-May-03		
15436.434.3.1	10/634558	4-Aug-03		
15436.434.5	09/342801	29-Jun-99		
15436.434.6	09/577034	23-May-00		
15436.434.7	09/652555	31-Aug-00		
15436.434.7.1	10/427337	1-May-03		
15436.435.1	09/724820	28-Nov-00		
15436.435.1.1	10/617290	10-Jul-03		
15436.435.1.2	10/617892	11-Jul-03		
15436.435.2	09/751422	29-Dec-00		
15436.435.3	09/751423	29-Dec-00		
15436.435.4	09/803821	12-Mar-01		
15436.435.5	09/881167	14-Jun-01		
15436.435.6	60/311916	13-Aug-01		
15436.435.7	09/970073	20-Oct-01		
15436.436.1	10/006103	6-Dec-01		
15436.436.2	10/026016	20-Dec-01		
15436.436.3	10/026019	20-Dec-01		
15436.436.4	10/026055	20-Dec-01		
15436.436.5	10/026020	27-Dec-01		
15436.436.6	10/026044	27-Dec-01		
15436.436.7	10/028288	28-Dec-01		
15436.436.8	10/028303	28-Dec-01		
15436.437.1	10/028435	28-Dec-02		
15436.437.2	10/028436	28-Dec-02		
15436.437.3	10/028437	28-Dec-01		
15436.437.4	10/028438	28-Dec-01		
15436.437.5	10/028439	28-Dec-01		
15436.437.6	10/037010	31-Dec-01		
15436.437.7	10/037013	31-Dec-01		
15436.437.7.1	10/669220	24-Sep-03		
15436.437.8	10/078422	21-Feb-02		
15436.438.1	10/078473	21-Feb-02		
15436.438.2	10/078474	21-Feb-02		
15436.438.3	10/121490	12-Apr-02		
15436.438.4	10/156324	24-May-02		
15436.438.5	10/162928	4-Jun-02		
15436.438.6	10/163057	4-Jun-02		
15436.438.7	10/163440	4-Jun-02		

**Exhibit B**  
**Patents and Patent Applications Subject to Assignment from Honeywell International, Inc. to Finisar Corporation**

15436.438.8	10/219425	14-Aug-02		
15436.438.9	10/232382	3-Sep-02		
15436.439.1	10/233112	3-Sep-02		
15436.439.2	10/233625	4-Sep-02		
15436.439.3	10/283381	28-Oct-02		
15436.439.4	10/283298	30-Oct-02		
15436.439.5	10/283311	30-Oct-02		
15436.439.6	10/283835	30-Oct-02		
15436.439.7	10/292578	11-Nov-02		
15436.439.8	10/301380	21-Nov-02		
15436.439.9	10/308308	3-Dec-02		
15436.440.1	10/316355	11-Dec-02		
15436.440.10	10/456123	6-Jun-03		
15436.440.11	10/606104	25-Jun-03		
15436.440.12	10/607629	27-Jun-03		
15436.440.13	10/607758	27-Jun-03		
15436.440.14	10/607887	27-Jun-03		
15436.440.2	10/323889	20-Dec-02		
15436.440.3	10/323923	20-Dec-02		
15436.440.4	10/347789	22-Jan-03		
15436.440.5	10/351710	27-Jan-03		
15436.440.6	10/352293	27-Jan-04		
15436.440.7	10/430941	7-May-03		
15436.440.8	10/436069	13-May-03		
15436.440.9	10/453307	3-Jun-03		
15436.441.1	10/607982	30-Jun-03		
15436.441.10	10/697028	31-Oct-03		
15436.441.11	10/706906	14-Nov-03		
15436.441.2	10/610256	30-Jun-03		
15436.441.3	10/612660	2-Jul-03		
15436.441.4	10/611992	30-Jul-03		
15436.441.5	10/620489	16-Jul-03		
15436.441.6	10/620512	16-Jul-03		
15436.441.7	10/622042	17-Jan-03		
15436.441.8	10/623351	18-Jul-03		
15436.441.9	10/697660	29-Oct-03		
15436.431.1	07/916785	17-Jul-92	5231686	27-Jul-93
15436.431.2	07/909270	6-Jul-92	5264715	23-Nov-93
15436.431.3	08/175016	29-Dec-93	5475701	
15436.431.4	08/476965	7-Jun-95	5574738	12-Nov-96
15436.431.5	08/739471	28-Oct-96	5737348	7-Apr-98
15436.431.6	08/683277	18-Jul-96	5745515	28-Apr-98
15436.431.7	08/671995	28-Jun-96	5767674	9-Jun-98
15436.431.8	08/734403	16-Oct-96	5774487	30-Jun-98
15436.431.9	08/687701	26-Jul-96	5799030	25-Aug-98
15436.431.10	08/743367	4-Nov-96	5805318	8-Sep-98
15436.431.11	08/686895	26-Jul-96	5812518	22-Sep-98
15436.431.12	08/743369	4-Nov-96	5841915	24-Nov-98
15436.431.13	08/843116	28-Apr-97	5893722	13-Apr-99

**Exhibit B****Patents and Patent Applications Subject to Assignment from Honeywell International, Inc. to Finisar Corporation**

15436.431.14	08/812620	6-Mar-97	5903588	11-May-99
15436.431.15	08/674230	28-Jun-96	5940422	17-Aug-99
15436.431.16	08/736803	25-Oct-96	5978401	2-Nov-99
15436.432.1	08/872534	11-Jun-97	6055262	25-Apr-00
15436.432.2	08/989734	12-Dec-97	6064683	16-May-00
15436.432.3	09/001894	31-Dec-97	6069905	30-May-00
15436.432.4.1	09/134229	14-Aug-98	6069991	30-May-00
15436.432.4.2	09/135412	14-Aug-98	6088498	11-Jul-00
15436.432.4.3	09/268191	15-Mar-99	6404960	11-Jun-02
15436.432.5	08/813751	7-Mar-97	6078601	20-Jun-00
15436.432.6	09/119089	20-Jul-98	6081638	27-Jun-00
15436.432.7	08/664039	13-Jun-96	6086263	11-Jul-00
15436.432.8	09/052643	31-Mar-98	6095697	1-Aug-00
15436.433.1	08/995690	22-Dec-97	6194789	27-Feb-01
15436.433.2	09/119273	20-Jul-98	6205274	20-Mar-01
15436.433.3	08/989731	12-Dec-97	6256333	3-Jul-01
15436.433.3.1	09/819029	30-Nov-00	6459719	1-Oct-02
15436.433.3.2	09/819024	30-Nov-00	6522680	18-Feb-03
15436.433.4	09/387424	31-Aug-99	6411638	25-Jun-02
15436.433.5	09/607048	30-Jun-00	6465774	15-Oct-02
15436.433.6	09/766797	22-Jan-01	6558973	6-May-03
15436.434.1	09/724249	28-Nov-00	6586776	1-Jul-03
15436.434.2	09/224210	30-Dec-98	6588949	8-Jul-03
15436.434.3	09/217223	21-Dec-98	6603784	5-Aug-03
15436.434.4	09/975299	10-Oct-01	6606199	12-Aug-03