PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Red Sky Subsea Limited	02/12/2009

RECEIVING PARTY DATA

Name:	Huawei Marine Networks Co., Limited	
Street Address:	5th-6th Floor, Block W3, Jinrong Road, Disanda Road,	
Internal Address:	Tianjin Economic-Technological Development Area	
City:	Tianjin	
State/Country:	CHINA	
Postal Code:	300457	

PROPERTY NUMBERS Total: 61

Property Type	Number
Patent Number:	6842586
Patent Number:	6917465
Patent Number:	6930825
Patent Number:	6934442
Patent Number:	6950229
Patent Number:	7068419
Patent Number:	7083334
Patent Number:	7085456
Patent Number:	7099581
Patent Number:	7436584
Patent Number:	7469104
Patent Number:	7471895
Application Number:	10313965
Application Number:	10417657
	DATENT

PATENT

REEL: 022248 FRAME: 0814

Application Number:	10430358
Application Number:	10453898
Application Number:	10462011
Application Number:	10613506
Application Number:	10613521
Application Number:	10613917
Application Number:	10618454
Application Number:	10619094
Application Number:	10621028
Application Number:	10621115
Application Number:	10687547
Application Number:	10693614
Application Number:	10699604
Application Number:	10725199
Application Number:	10739929
Application Number:	10741809
Application Number:	10792268
Application Number:	10794174
Application Number:	10794178
Application Number:	10800424
Application Number:	10831336
Application Number:	10870327
Application Number:	10883040
Application Number:	10967717
Application Number:	10967720
Application Number:	10976603
Application Number:	11031517
Application Number:	11091740
Application Number:	11116101
Application Number:	11125298
Application Number:	11145008
Application Number:	11433750
Application Number:	11660663
Application Number:	60404585
Application Number:	60404608
	PATENT REFL: 022248 FRAME:

REEL: 022248 FRAME: 0815

I.	
Application Number:	60404609
Application Number:	60404610
Application Number:	60404611
Application Number:	60404613
Application Number:	60404615
Application Number:	60404616
Application Number:	60434753
Application Number:	60535135
Application Number:	60546802
Application Number:	60602408
Application Number:	60658321
Application Number:	60681063

CORRESPONDENCE DATA

Fax Number: (617)502-5002

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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Address Line 4: Boston, MASSACHUSETTS 02110

ATTORNEY DOCKET NUMBER:	2006669-0000

NAME OF SUBMITTER: Kellan D. Ponikiewicz

Total Attachments: 19

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PATENT REEL: 022248 FRAME: 0816 source=HMNAssignment#page19.tif

PATENT REEL: 022248 FRAME: 0817

ASSIGNMENT

WHEREAS, Red Sky Subsea Limited (UK), a corporation organized under and pursuant to the laws of England and Wales having its principal place of business at New Saxon House, 1 Winsford Way, Boreham Interchange, Chemlsford, Essex CM2 5PD, England (hereinafter referred to as Assignor), is the sole and exclusive owner, by assignment, of the Patents and Patent Applications listed in Schedule A; and

WHEREAS, Huawei Marine Networks Co., Limited, a corporation organized under and pursuant to the laws of P.R. China having its principal place of business at 5th-6th Floor, Block W3, Jinrong Road, Disanda Road, Tianjin Economic—Technological Development Area, 300457, People's Republic of China, (hereinafter referred to as Assignee), is desirous of acquiring right, title and interest in, to and under said Patents and Patent Applications listed in Schedule A, and the inventions covered thereby;

NOW, THERFORE, in consideration of good and valuable consideration, the receipt and sufficiency of which are hereby mutually acknowledged, Assignee and Assignor hereby agrees as follows:

1. The Assignor does sell, transfer, assign and set over to the Assignee the entire right, title and interest of Assignor in and to the Patents and Patent Applications, and all registrations and applications therefore, in the United States and for all foreign countries, including any divisions, reissues, renewals, continuations, continuations-in-part, improvements and extensions thereof that are or may be secured under the laws of the United States and all foreign countries, now or hereafter in effect, for Assignee's own use and enjoyment, and for the use and enjoyment of Assignee's successors, assigns or other legal representatives, as fully and entirely as the same would have beenheld and enjoyed by the Assignor if the assignment and sale had not been made, together with the right or priority under any international agreements to which the United States adheres and with all income, royalties or payments due or payable as of the effective date of this Assignment or thereafter, including, without limitation, all claims for damages by reason of past, present or future infringement or other unauthorized use of the Patents and Patent

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Applications with the right to sue for, and collect the same for Assignce's own use and enjoyment and for the use and enjoyment of its successors, assigns or other legal representatives;

- 2. The Assignor requests the Commissioner of Patents and Trademarks, any other governmental or judicial entity and any and all foreign countries to record Assignee as the assignee and owner of the Patents and Patent Applications;
- 3. The Assignor shall provide to Assignee, its successors, assigns or other legal representatives, reasonable cooperation and assistance at Assignee's request and expense (including the execution and delivery of any and all affidavits, declarations, oaths, samples, exhibits, specimens and other documentation as may be reasonably required):

 (a) in the preparation and prosecution of any application for registration or any application for renewal of a registration covering any of the Patents and Patent Applications, (b) in the prosecution or defense of any cancellation, opposition, infringement or other proceedings that may arise in connection with any of the Patents and Patent Applications, including, but not limited to, testifying as to any facts relating to the Patents and Patent Applications assigned herein, (c) in obtaining any additional protection for the Patents and Patent Applications that Assignee reasonably may deem appropriate that may be secured under the laws now or hereafter in effect in the United States or for any or all foreign countries and (d) in the implementation or perfection of this Assignment; and
- 4. This Assignment shall be binding upon and inure to the benefit of the parties hereto and to their respective heirs, successors and assigns, and shall be construed and enforced in accordance with the laws of Hong Kong, without regard to its conflicts of law provisions. This Assignment may be executed in one or more counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument. Delivery of executed signature pages hereof by facsimile transmission shall constitute effective and binding execution and delivery hereof.

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IN WITNESS WHEREOF, Assignor and Assignee has caused this instrument to be executed effective as of the date first above written.

ASSIGNEE

Huawei Marine Networks Co., Limited

By:______Name: Guo Ping

Title: EVP

Date: 2009, 2, 12

Witnessed By: 37 M F. Name: Zhang Liying

Date: 209-02-12

Date: 2009-02-/2



ASSIGNOR

Red Sky Subsea Limited

By: G. Rulan Name: G. RUHAN

Title: DIRECTOR

Date: 27/1/09

Witnessed By: ○ PHELAN

Date: 27/01/09

Witnessed By: Teshillam

Name:

Nother and a 9

MATTANY PARLIC

Garren Cust

Date: 27+ January 2009

SCHEDULE A

Application Number/Patent Number	Filing Date	Title	Country
2496183	August 20, 2003	METHOD AND APPARATUS FOR PROVIDING OPTICAL TERMINAL INDEPENDENT INTERFACE BETWEEN A TERRESTRIAL OPTICAL TEMRINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	Canada
2496185	August 20, 2003	OPTICAL TRANSMISSION SYSTEM EMPLOYING ERBIUM-DOPED OPTICAL AMPLIFIERS AND RAMAN AMPLIFIERS	Canada
2496206	August 20, 2003	ADAPTOR ARRANGEMENT FOR DETECTING FAULTS IN AN OPTICALLY AMPLIFIED MULTI-SPAN TRANSMISSION SYSTEM USING A REMOTELY LOCATED OTOR	Canada
2496237	August 20, 2003	OTUR ARRANGEMENT FOR DETECTING FAULTS IN AN OPTICAL TRANSMISSION SYSTEM ON A SPAN BY SPAN BASIS	Canada
2496309	August 20, 2003	METHOD AND APPARATUS FOR PERFORMING SYSTEM MONITORING IN A TERMINAL INDEPENDENT INTERFACE LOCATED BETWEEN A TERRESTRIAL OPTICAL TERMINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	Canada
2496310	August 20, 2003	METHOD AND APPARATUS FOR SHARING PUMP ENERGY FROM A SINGLE PUMP ARRANGEMENT TO OPTICAL FIBERS LOCATED IN DIFFERENT FIBER PAIRS	Canada
2506567	November 19, 2003	OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Canada
2509576	December 15, 2003	METHOD AND APPARATUS FOR ELECTRICALLY ISOLATING AN OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT	Canada
2510832	December 19, 2003	HERMETICALLY SEALED OPTICAL APLIFIER MODULE TO BE INTEGRATED INTO A PRESSURE VESSEL FOR UNDERSEA APPLICATIONS	Canada

2532204	July 12, 2004	MODULAR DISPERSION COMPENSATOR	Canada
2535393	April 19, 2004	METHOD AND APPARATUS FOR DISTRIBUTING PUMP ENERGY TO AN OPTICAL AOMPLIFIER ARRAY IN AN ASYMMMETRIC MANNER	Canada
2543016	October 15, 2004	UNDERSEA BRANCHING UNIT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Canada
2544388	October 29, 2004	CABLE STATION FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Canada
2545960	November 17, 2004	ELECTRICAL INSULATING RING LOCATED BETWEEN AN END CAP AND A TENSION SLEEVE OF AN UNDERSEA PRESSURE VESSEL	Canada
2552578	January 7, 2005	METHOD AND APPARATUS FOR IN- SERVICE MONITORING OF A REGIONAL UNDERSEA OPTICAL TRANSMISSION SYSTEM USING COTOR	Canada
2552711	January 7, 2005	METHOD AND APPARATUS FOR OBTAINING STATUS INFORMATION CONCERNING OPTICAL AMPLIFIERS LOCATED ALONG AN UNDERSEA OPTICAL TRANSMISSION LINE USING COTDR	Canada
2559456	March 11, 2005	OVERMOLDED, ULTRA-SMALL FORM FACTOR OPTICAL REPEATER	Canada
2561559	March 29, 2005	UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLOYING LOW POWER CONSUMPTION OPTICAL AMPLIFIERS	Canada
2607821	April 27, 2006	COTDR ARRANGEMENT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM COMPRISING MULTIPLE CABLE STATIONS AND MULTIPLE TRANSMISSION SEGMENTS	Canada
2608401	May 13, 2006	ARTICULATING OPTICAL REPEATER FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Canada
No Number Assigned	July 5, 2005	METHOD AND APPARATUS FOR IN- SERVICE MONITORING OF A REGIONAL UNDERSEA OPTICAL TRANSMISSION SYSTE, USING COTOR	Canada
03819763.4	August 20, 2003	METHOD AND APPARATUS FOR PROVIDING OPTICAL TERMINAL INDEPENDENT INTERFACE BETWEEN A TERRESTRIAL OPTICAL TEMRINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	China (Peoples Republic)

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03822232.9	August 20, 2003	METHOD AND APPARATUS FOR SHARING PUMP ENERGY FROM A SINGLE PUMP ARRANGEMENT TO OPTICAL FIBERS LOCATED IN DIFFERENT FIBER PAIRS	China (Peoples Republic)
200480026362,2	July 12, 2004	MODULAR DISPERSION COMPENSATOR	China (Peoples Republic)
200480035280.4	October 29, 2004	CABLE STATION FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	China (Peoples Republic)
200480033628.6	October 15, 2004	UNDERSEA BRANCHING UNIT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	China (Peoples Republic)
200580015344.9	March 11, 2005	OVERMOLDED, ULTRA-SMALL FORM FACTOR OPTICAL REPEATER	China (Peoples Republic)
200580016003,3	March 29, 2005	UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLOYING LOW POWER CONSUMPTION OPTICAL AMPLIPIERS	China (Peoples Republic)
200680023015,3	April 27, 2006	COTDR ARRANGEMENT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM COMPRISING MULTIPLE CABLE STATIONS AND MULTIPLE TRANSMISSION SEGMENTS	China (Peoples Republic)
200680025716.0	May 13, 2006	ARTICULATING OPTICAL REPEATER FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	China (Peoples Republic)
No Number Assigned	July 5, 2005	METHOD AND APPARATUS FOR IN- SERVICE MONITORING OF A REGIONAL UNDERSEA OPTICAL TRANSMISSION SYSTE, USING COTOR	China (Peoples Republic)
No Number Assigned	January 7, 2005	METHOD AND APPARATUS FOR OBTAINING STATUS INFORMATION CONCERNING OPTICAL AMPLIFIERS LOCATED ALONG AN UNDERSEA OPTICAL TRANSMISSION LINE USING COTDR	China (Peoples Republic)
ZL200380104765.X	November 19, 2003	OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	China (Peoples Republic)
ZL200380106006.7	December 15, 2003	METHOD AND APPARATUS FOR ELECTRICALLY ISOLATING AN OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT	China (Peoples Republic)
ZL200480033932.0	November 17, 2004	ELECTRICAL INSULATING RING LOCATED BETWEEN AN END CAP AND A TENSION SLEEVE OF AN UNDERSEA PRESSURE VESSEL	China (Peoples Republic)

04777899.8	July 12, 2004	MODULAR DISPERSION COMPENSATOR	European Patent Convention
03749086.9	August 20, 2003	METHOD AND APPARATUS FOR SHARING PUMP ENERGY FROM A SINGLE PUMP ARRANGEMENT TO OPTICAL FIBERS LOCATED IN DIFFERENT FIBER PAIRS	European Patent Convention
03749087.7	August 20, 2003	OPTICAL TRANSMISSION SYSTEM EMPLOYING ERBIUMDOPED OPTICAL AMPLIFIERS AND RAMAN AMPLIFIERS	European Patent Convention
03749088.5	August 20, 2003	ADAPTOR ARRANGEMENT FOR DETECTING FAULTS IN AN OPTICALLY AMPLIFIED MULTI-SPAN TRANSMISSION SYSTEM USING A REMOTELY LOCATED OTDR	European Patent Convention
03789831.9	November 19, 2003	OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	European Patent Convention
03793145,8	August 20, 2003	ARRANGEMENT FOR DETECTING FAULTS IN AN OPTICAL TRANSMISSION SYSTEM ON A SPAN BY SPAN BASIS	European Patent Convention
03793185.4	August 20, 2003	METHOD AND APPARATUS FOR PROVIDING OPTICAL TERMINAL INDEPENDENT INTERFACE BETWEEN A TERRESTRIAL OPTICAL TEMRINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	European Patent Convention
03793187.0	August 20, 2003	METHOD AND APPARATUS FOR PERFORMING SYSTEM MONITORING IN A TERMINAL INDEPENDENT INTERFACE LOCATED BETWEEN A TERRESTRIAL OPTICAL TERMINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	European Patent Convention
03813448.2	December 15, 2003	METHOD AND APPARATUS FOR ELECTRICALLY ISOLATING AN OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT	European Patent Convention
03813808.7	December 19, 2003	HERMETICALLY SEALED OPTICAL APLIPIER MODULE TO BE INTEGRATED INTO A PRESSURE VESSEL FOR UNDERSEA APPLICATIONS	European Patent Convention
04760027.5	April 19, 2004	METHOD AND APPARATUS FOR DISTRIBUTING PUMP ENERGY TO AN OPTICAL AOMPLIFIER ARRAY IN AN ASYMMMETRIC MANNER	European Patent Convention
04795395.5	October 15, 2004	UNDERSEA BRANCHING UNIT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	European Patent Convention

04796896.1	October 29, 2004	CABLE STATION FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	European Patent Convention
04817840.4	November 17, 2004	ELECTRICAL INSULATING RING LOCATED BETWEEN AN END CAP AND A TENSION SLEEVE OF AN UNDERSEA PRESSURE VESSEL	European Patent Convention
05705213.6	July 5, 2005	METHOD AND APPARATUS FOR IN- SERVICE MONITORING OF A REGIONAL UNDERSEA OPTICAL TRANSMISSION SYSTE, USING COTOR	European Patent Convention
05705215.1	January 7, 2005	METHOD AND APPARATUS FOR OBTAINING STATUS INFORMATION CONCERNING OPTICAL AMPLIFIERS LOCATED ALONG AN UNDERSEA OPTICAL TRANSMISSION LINE USING COTOR	European Patent Convention
05728257.6	March 11, 2005	OVERMOLDED, ULTRA-SMALL FORM FACTOR OPTICAL REPEATER	European Patent Convention
05732330.5	March 29, 2005	UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLOYING LOW POWER CONSUMPTION OPTICAL AMPLIFIERS	European Patent Convention
06751695.5	April 27, 2006	COTDR ARRANGEMENT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM COMPRISING MULTIPLE CABLE STATIONS AND MULTIPLE TRANSMISSION SEGMENTS	European Patent Convention
06770319.9	May 13, 2006	ARTICULATING OPTICAL REPEATER FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	European Patent Convention
06784533.9	June 2, 2006	OPTICAL SUPERVISORY CHANNEL TRANSLATOR	European Patent Convention
06102667.2	November 19, 2003	OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Hong Kong
06103286.1	December 15, 2003	METHOD AND APPARATUS FOR ELECTRICALLY ISOLATING AN OFFICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT	Hong Kong
07100205.4	October 15, 2004	UNDERSEA BRANCHING UNIT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Hong Kong
07101323.9	November 17, 2004	ELECTRICAL INSULATING RING LOCATED BETWEEN AN END CAP AND A TENSION SLEEVE OF AN UNDERSEA PRESSURE LEVEL	Hong Kong
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07101574.5	December 15, 2003	METHOD AND APPARATUS FOR ELECTRICALLY ISOLATING AN OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT	Hong Kong
07108607.1	March 29, 2005	UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLOYING LOW POWER CONSUMPTION OPTICAL AMPLIFIERS	Hong Kong
08107867.7	Aprīl 27, 2006	COTDR ARRANGEMENT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM COMPRISING MULTIPLE CABLE STATIONS AND MULTIPLE TRANSMISSION SEGMENTS.	Hong Kong
08108945.1	May 13, 2006	ARTICULATING OPTICAL REPEATER FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Hong Kong
4480/KOLNP/2007	May 13, 2006	ARTICULATING OPTICAL REPEATER FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	India
4350/KOLNP/2007	April 27, 2006	COTDR ARRANGEMENT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM COMPRISING MULTIPLE CABLE STATIONS AND MULTIPLE TRANSMISSION SEGMENTS	India
2004-531146	August 20, 2003	METHOD AND APPARATUS FOR PROVIDING OPTICAL TERMINAL INDEPENDENT INTERFACE BETWEEN A TERRESTRIAL OPTICAL TEMRINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	Japan
2004-531148	August 20, 2003	METHOD AND APPARATUS FOR SHARING PUMP ENERGY FROM A SINGLE PUMP ARRANGEMENT TO OPTICAL FIBERS LOCATED IN DIFFERENT FIBER PAIRS	Japan
2004-553933	November 19, 2003	OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Japan
2004~560872	December 15, 2003	METHOD AND APPARATUS FOR ELECTRICALLY ISOLATING AN OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT	Зарав
2006-520239	July 12, 2004	MODULAR DISPERSION COMPENSATOR	Japan
2006-535381	October 15, 2004	UNDERSEA BRANCHING UNIT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Japan
2006-540027	November 17, 2004	ELECTRICAL INSULATING RING LOCATED BETWEEN AN END CAP AND A TENSION SLEEVE OF AN UNDERSEA PRESSURE VESSEL	Japan

2007-503105	March 11, 2005	OVERMOLDED, ULTRA-SMALL FORM	Japan
2007-506447	March 29, 2005	FACTOR OPTICAL REPEATER UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLOYING LOW POWER CONSUMPTION OPTICAL AMPLIFIERS	Japan
2008-509148	April 27, 2006	COTDR ARRANGEMENT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM COMPRISING MULTIPLE CABLE STATIONS AND MULTIPLE TRANSMISSION SEGMENTS	Japan
2008-511444	May 13, 2006	ARTICULATING OPTICAL REPEATER FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Japan
No Number Assigned	October 29, 2004	CABLE STATION FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Јарап
No Number Assigned	January 7, 2005	METHOD AND APPARATUS FOR OBTAINING STATUS INFORMATION CONCERNING OPTICAL AMPLIFIERS LOCATED ALONG AN UNDERSEA OPTICAL TRANSMISSION LINE USING COTDR	Japan
20051449	March 18, 2005	METHOD AND APPARATUS FOR SHARING PUMP ENERGY FROM A SINGLE PUMP ARRANGEMENT TO OPTICAL FIBERS LOCATED IN DIFFERENT FIBER PAIRS	Norway
20051450	March 18, 2005	METHOD AND APPARATUS FOR PERFORMING SYSTEM MONITORING IN A TERMINAL INDEPENDENT INTERFACE LOCATED BETWEEN A TERRESTRIAL OPTICAL TERMINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	Norway
20051452	March 18, 2005	OPTICAL TRANSMISSION SYSTEM EMPLOYING ERBIUMDOPED OPTICAL AMPLIFIERS AND RAMAN AMPLIFIERS	Norway
20051458	March 18, 2005	ADAPTOR ARRANGEMENT FOR DETECTING FAULTS IN AN OPTICALLY AMPLIFIED MULTI-SPAN TRANSMISSION SYSTEM USING A REMOTELY LOCATED OTDR	Norway
20051460	March 18, 2005	ARRANGEMENT FOR DETECTING FAULTS IN AN OPTICAL TRANSMISSION SYSTEM ON A SPAN BY SPAN BASIS	Norway
20051462	March 18, 2005	METHOD AND APPARATUS FOR PROVIDING OPTICAL TERMINAL INDEPENDENT INTERFACE BETWEEN A TERRESTRIAL OPTICAL TEMRINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	Norway

20052913	June 15, 2005	OPTICAL AMPLIFIER MODULE BOUSED IN A UNIVERSAL CABLE JOINT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Norway
20053406	July 13, 2005	METHOD AND APPARATUS FOR ELECTRICALLY ISOLATING AN OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT	Norway
20060662	February 10, 2006	MODULAR DISPERSION COMPENSATOR	Norway
20062196	May 15, 2006	UNDERSEA BRANCHING UNIT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Norway
20062218	May 16, 2006	CABLE STATION FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Norway
20062788	June 14, 2006	ELECTRICAL INSULATING RING LOCATED BETWEEN AN END CAP AND A TENSION SLEEVE OF AN UNDERSEA PRESSURE VESSEL	Norway
20064646	October 12, 2006	OVERMOLDED, ULTRA-SMALL FORM FACTOR OPTICAL REPEATER	Norway
20064954	October 30, 2006	UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLOYING LOW POWER CONSUMPTION OPTICAL AMPLIFIERS	Norway
20053515	July 18, 2005	HERMETISK TETTER OPTISK FORSTERKERMODUL	Norway
No Number Assigned	January 7, 2005	METHOD AND APPARATUS FOR OBTAINING STATUS INFORMATION CONCERNING OPTICAL AMPLIFIERS LOCATED ALONG AN UNDERSEA OPTICAL TRANSMISSION LINE USING COTOR	Norway
PCT/US2003/026019	August 20, 2003	ARRANGEMENT FOR DETECTING FAULTS IN AN OPTICAL TRANSMISSION SYSTEM ON A SPAN BY SPAN BASIS	Patent Cooperation Treaty
PCT/US2003/026103	August 20, 2003	METHOD AND APPARATUS FOR PROVIDING OPTICAL TERMINAL INDEPENDENT INTERFACE BETWEEN A TERRESTRIAL OPTICAL TEMRINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	Patent Cooperation Treaty
PCT/US2003/026104	August 20, 2003	METHOD AND APPARATUS FOR USING OPTICAL IDLER TONED FOR PERFORMANCE MONITORING IN A WDM OPTICAL TRANSMISSION SYSTEM	Patent Cooperation Treaty

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PCT/US2003/026105	August 20, 2003	METHOD AND APPARATUS FOR PERFORMING SYSTEM MONITORING IN A TERMINAL INDEPENDENT INTERFACE LOCATED BETWEEN A TERRESTRIAL OPTICAL TERMINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	Patent Cooperation Treaty
PCT/US2003/026106	August 20, 2003	METHOD AND APPARATUS FOR SHARING PUMP ENERGY FROM A SINGLE PUMP ARRANGEMENT TO OPTICAL FIBERS LOCATED IN DIFFERENT FIBER PAIRS	Patent Cooperation Treaty
PCT/US2003/026107	August 20, 2003	OPTICAL TRANSMISSION SYSTEM EMPLOYING ERBIUMDOPED OPTICAL AMPLIFIERS AND RAMAN AMPLIFIERS	Patent Cooperation Treaty
PCT/US2003/026108	August 20, 2003	ADAPTOR ARRANGEMENT FOR DETECTING FAULTS IN AN OPTICALLY AMPLIFIED MULTI-SPAN TRANSMISSION SYSTEM USING A REMOTELY LOCATED OTDR	Patent Cooperation Treaty
PCT/US2003/036966	November 19, 2003	OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Patent Cooperation Treaty
PCT/US2003/039811	December 15, 2003	METHOD AND APPARATUS FOR ELECTRICALLY ISOLATING AN OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT	Patent Cooperation Treaty
PCT/US2003/040708	December 19, 2003	HERMETICALLY SEALED OPTICAL APLIFIER MODULE TO BE INTEGRATED INTO A PRESSURE VESSEL FOR UNDERSEA APPLICATIONS	Patent Cooperation Treaty
PCT/US2004/038589	November 17, 2004	TERNAY CERAMIC DIELECTRIC COATING FOR AN OPTICAL REPEATER PRESSURE VESSEL	Patent Cooperation Treaty
PCT/US2004/042113	December 16, 2004	METHOD FOR COMMODITIZING ELEMENTS OF PREVIOUSLY SPECIALIZED COMMUNICATIONS LINK	Patent Cooperation Treaty
PCT/US2004/012100	April 19, 2004	METHOD AND APPARATUS FOR DISTRIBUTING PUMP ENERGY TO AN OPTICAL AOMPLIFIER ARRAY IN AN ASYMMMETRIC MANNER	Patent Cooperation Treaty
PCT/US2004/022106	July 12, 2004	MODULAR DISPERSION COMPENSATOR	Patent Cooperation Treaty
PCT/US2004/034222	October 15, 2004	UNDERSEA BRANCHING UNIT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Patent Cooperation Treaty
PCT/US2004/036316	October 29, 2004	CABLE STATION FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Patent Cooperation Treaty

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PCT/US2004/037996	October 29, 2004	HERMETICALLY SEALED OPTICAL FIBER FERRULE ASSEMBLY SUPPORTING MULTIPLE OPTICAL FIBERS	Patent Cooperation Treaty
PCT/US2004/038588	November 17, 2004	ELECTRICAL INSULATING RING LOCATED BETWEEN AN END CAP AND A TENSION SLEEVE OF AN UNDERSEA PRESSURE VESSEL	Patent Cooperation Treaty
PCT/US2004/038590	November 17, 2004	DIELECTRIC COATING FOR AN OPTICAL REPEATER PRESSURE VESSEL	Patent Cooperation Treaty
PCT/US2004/040101	December 1, 2004	UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLYING RAMAN GAIN TO MITIGATE SHALLOW WATER REPAIR PANALTIES	Patent Cooperation Treaty
PCT/US2005/000450	January 7, 2005	METHOD AND APPARATUS FOR OBTAINING STATUS INFORMATION CONCERNING OPTICAL AMPLIFIERS LOCATED ALONG AN UNDERSEA OPTICAL TRANSMISSION LINE USING COTDR	Patent Cooperation Treaty
PCT/US2005/000448	January 7, 2005	METHOD AND APPARATUS FOR IN- SERVICE MONITORING OF A REGIONAL UNDERSEA OPTICAL TRANSMISSION SYSTEM USING COTOR	Patent Cooperation Treaty
PCT/US2005/005613	February 23, 2005	STRENGTH BYPASS AND SPLICE CHAMBER FOR INTERCONNECTING TWO OR MORE OPTICAL AMPLIFIER MODULES	Patent Cooperation Treaty
PCT/US2005/008393	March 11, 2005	OVERMOLDED, ULTRA-SMALL FORM FACTOR OPTICAL REPEATER	Patent Cooperation Treaty
PCT/US2005/013717	April 22, 2005	IDLER TONE BLOCKER	Patent Cooperation Treaty
PCT/US2005/006905	March 3, 2005	OPTICAL PERFORMANCE MONITORING BETWEEN TERMINAL EQUIPMENT AND AN OPTICAL INTERFACE TO AN OPTICAL SUBMARINE TRANSMISSION LINE	Patent Cooperation Treaty
PCT/US2005/007450	March 4, 2005	METHOD AND APPARATUS FOR OBTAINING STATUS INFORMATION CONCERNING AN IN-SERVICE OPTICAL TRANSMISSION LINE	Patent Cooperation Treaty
PCT/US2005/007451	March 4, 2005	COTDR ARRANGEMENT WITH SWEPT FREQUENCY PULSE GENERATOR FOR AN OPTICAL TRANSMISSION SYSTEM	Patent Cooperation Treaty
PCT/US2005/008394	March 11, 2005	THERMAL MANAGEMENT OF AN OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT	Patent Cooperation Treaty

PCT/US2005/010419	March 29, 2005	UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLOYING LOW POWER CONSUMPTION OPTICAL AMPLIFIERS	Patent Cooperation Treaty
PCT/US2005/031967	August 18, 2005	AN UNDERSEA OPTICAL AMPLIFIER MODULE HAVING COUPLED OUTBOARD SPLICE ENCLOSURES	Patent Cooperation Treaty
PCT/US2006/007721	March 3, 2006	ELECTROCODING IN AN UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLOYING SMALL FACTOR REPEATERS	Patent Cooperation Treaty
PCT/US2006/017903	May 9, 2006	METHOD AND APPARATUS FOR IDENTIFYING PUMP FAILURES USING AN OPTICAL LINE INTERFACE	Patent Cooperation Treaty
PCT/US2006/021303	June 2, 2006	OPTICAL SUPERVISORY CHANNEL TRANSLATOR	Patent Cooperation Treaty
PCT/US2006/016124	April 27, 2006	COTDR ARRANGEMENT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM COMPRISING MULTIPLE CABLE STATIONS AND MULTIPLE TRANSMISSION SEGMENTS	Patent Cooperation Treaty
PCT/US2006/018600	May 13, 2006	ARTICULATING OPTICAL REPEATER FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	Patent Cooperation Treaty
PCT/US2006/021303	June 2, 2006	OPTICAL SUPERVISORY CHANNEL TRANSLATOR	Patent Cooperation Treaty
6842586	October 31, 2003	OTDR ARRANGEMENT FOR DETECTING FAULTS IN AN OPTICAL TRANSMISSION SYSTEM EMPLOYING TWO PAIRS OF UNIDIRECTIONAL OPTICAL FIBERS	United States of America
6917465	November 17, 2003	METHOD AND APPARATUS FOR ELECTRICALLY ISOLATING AN OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT	United States of America
6930825	August 20, 2003	METHOD AND APPARATUS FOR SHARING PUMP ENERGY FROM A SINGLE PUMP ARRANGEMENT TO OPTICAL FIBERS LOCATED IN DIFFERENT FIBER PAIRS	United States of America
6934442	October 16, 2003	UNDERSEA BRANCHING UNIT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	United States of America
6950229	June 16, 2004	ELECTRICAL INSULATING RING LOCATED BETWEEN AN END CAP AND A TENSION SLEEVE OF AN UNDERSEA PRESSURE VESSEL HOUSING AN OPTICAL AMPLIFIER MODULE	United States of America
7068419	March 12, 2004	OVERMOLDED, ULTRA-SMALL FORM FACTOR OPTICAL REPEATER	United States of America
7083334	October 31, 2003	HERMETICALLY SEALED OPTICAL FIBER FERRULE ASSEMBLY SUPPORTING MULTIPLE OPTICAL FIBERS	United States of America
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October 22, 2004	ELECTRICAL AND OPTICAL ISOLATING UNIT FOR AN UNDERSEA BRANCHING UNIT	United States of America
July 11, 2003	INTEGRATED SINGLE SPAN OTDR	United States of America
September 21, 2004	OPTICAL AMPLIFIER MODULE HOUSED IN A FACTORY CABLE JOINT	United States of America
April 27, 2005	COTDR ARRANGEMENT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM COMPRISING MULTIPLE CABLE STATIONS AND MULTIPLE TRANSMISSION SEGMENTS	United States of America
January 7, 2005	METHOD AND APPARATUS FOR OBTAINING STATUS INFORMATION CONCERNING OPTICAL AMPLIFIERS LOCATED ALONG AN UNDERSEA OPTICAL TRANSMISSION LINE USING COTOR	United States of America
December 6, 2002	OPTICAL TRANSMISSION SYSTEM EMPLOYING ERBIUMDOPED OPTICAL AMPLIPIERS AND RAMAN AMPLIFIERS	United States of America
April 17, 2003	METHOD AND APPARATUS FOR DISTRIBUTING PUMP ENERGY TO AN OPTICAL AOMPLIFIER ARRAY IN AN ASYMMMETRIC MANNER	United States of America
May 6, 2003	METHOD AND APPARATUS FOR PROVIDING STAGGERED GROUPWISE DISPERSION COMPENSATION IN A WDM OPTICAL COMMUNICATION SYSTEM	United States of America
June 3, 2003	OPTICAL COMMUNICATION SYSTEM HAVING AN ANTIRESONANT DISPERSION MAP SUPPRESSING FOUR WAVE MIXING AND CROSS PHASE MODULATION	United States of America
June 13, 2003	ADAPTOR ARRANGEMENT FOR DETECTING FAULTS IN AN OPTICALLY AMPLIFIED MULTI-SPAN TRANSMISSION SYSTEM USING A REMOTELY LOCATED OTDR	United States of America
July 3, 2003	MODULAR DISPERSION MAP FOR AN OPTICAL COMMUNICATION SYSTEM	United States of America
July 3, 2003	METHOD AND APPARATUS FOR USING OPTICAL IDLER TONED FOR PERFORMANCE MONITORING IN A WDM OPTICAL TRANSMISSION SYSTEM	United States of America
July 3, 2003	OPTICAL REPEATER EMPLYED IN AN OPTICAL COMMUNICATION SYSTEM HAVING A MODULAR DISPERSION MAP	United States of America
	July 11, 2003  September 21, 2004  April 27, 2005  December 6, 2002  April 17, 2003  May 6, 2003  June 3, 2003  June 13, 2003  July 3, 2003  July 3, 2003	UNIT FOR AN UNDERSEA BRANCHING UNIT

10/618454	July 11, 2003	METHOD AND APPARATUS FOR PROVIDING A COMMON OPTICAL LINE MONITORING AND SERVICE CHANNEL OVER A WDM OPTICAL TRANSMISSION SYSTEM.	United States of America
10/619094	July 11, 2003	MODULAR DISPERSION COMPENSATOR.	United States of America
10/621028	July 16, 2003	METHOD AND APPARATUS FOR PROVIDING OPTICAL TERMINAL INDEPENDENT INTERPACE BETWEEN A TERRESTRIAL OPTICAL TEMRINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	United States of America
10/621115	July 16, 2003	METHOD AND APPARATUS FOR PERFORMING SYSTEM MONITORING IN A TERMINAL INDEPENDENT INTERFACE LOCATED BETWEEN A TERRESTRIAL OPTICAL TERMINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	United States of America
10/687547	October 16, 2003	OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	United States of America
10/693614	October 24, 2003	INTERCONNECT INCLUDING A REPEATER FOR AN OPTICAL TRANSMISSION CABLE	United States of America
10/699604	October 31, 2006	CABLE STATION FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	United States of America
10/725199	December 1, 2003	UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLYING RAMAN GAIN TO MITIGATE SHALLOW WATER REPAIR PANALTIES	United States of America
10/739929	December 18, 2003	METHOD OF COMMODITIZING ELEMENTS OF PREVIOUSLY SPECIALIZED COMMUNICATION LINK	United States of America
10/741809	December 19, 2003	HERMETICALLY SEALED OPTICAL APLIFIER MODULE TO BE INTEGRATED INTO A PRESSURE VESSEL FOR UNDERSEA APPLICATIONS	United States of America
10/792268	March 3, 2004	OPTICAL PERFORMANCE MONITORING BETWEEN TERMINAL EQUIPMENT AND AN OPTICAL INTERFACE TO AN OPTICAL SUBMARINE TRANSMISSION LINE	United States of America
10/794174	March 5, 2004	COTDR ARRANGEMENT WITH SWEPT PREQUENCY PULSE GENERATOR FOR AN OPTICAL TRANSMISSION SYSTEM	United States of America
10/794178	March 5, 2004	METHOD AND APPARATUS FOR OBTAINING STATUS INFORMATION CONCERNING AN IN-SERVICE OPTICAL TRANSMISSION LINE	United States of America
10/800424	March 12, 2004	THERMAL MANAGEMENT OF AN OPTICAL AMPLIFIER MODULE HOUSED IN A UNIVERSAL CABLE JOINT	United States of America

10/831336	April 23, 2004	IDLER TONE BLOCKER	United State of America
10/870327	June 17, 2004	SUBMARINE OPTICAL TRANSMISSION SYSTEMS HAVING OPTICAL AMPLIFIERS OF UNITARY DESIGN	United State of America
10/883040	July 1, 2004	METHOD AND APPARATUS FOR COMMUNICATING WITH POWER FEED EQUIPMENT REMOTELY LOCATED FROM A CABLE STATION EMPLOYED IN AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	United State of America
10/967717	October 18, 2004	DIELECTRIC COATING FOR AN OPTICAL REPEATER PRESSURE VESSEL	United State of America
10/967720	October 18, 2004	TERNAY CERAMIC DIELECTRIC COATING FOR AN OPTICAL REPEATER PRESSURE VESSEL	United States of America
10/976603	October 29, 2004	STRENGTH BYPASS AND SPLICE CHAMBER FOR INTERCONNECTING TWO OR MORE OPTICAL AMPLIFIER MODULES	United States of America
11/031517	January 7, 2005	METHOD AND APPARATUS FOR IN- SERVICE MONITORING OF A REGIONAL UNDERSEA OPTICAL TRANSMISSION SYSTE, USING COTDR	United States of America
11/091740	March 28, 2005	UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLOYING LOW POWER CONSUMPTION OPTICAL AMPLIFIERS	United States of America
11/1.16101	April 27, 2005	METHOD AND APPARATUS FOR PERFORMING ELECTRODING IN AN UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLOYING SMALL FORM FACTOR REPEATERS	United States of America
11/125298	May 9, 2005	METHOD AND APPARATUS FOR IDENTIFYING PUMP FAILURES USING AN OPTICAL LINE INTERFACE	United States of America
11/145008	June 3, 2005	OPTICAL SUPERVISORY CHANNEL TRANSLATOR	United States of America
11/433750	May 12, 2006	ARTICULATING OPTICAL REPEATER FOR AN UNDERSEA OPTICAL TRANSMISSION SYSTEM	United States of America
11/660663	February 20, 2007	UNDERSEA OPTICAL AMPLIFIER MODULE HAVING COUPLED OUTBOARD SPLICE ENCLOSURES	United States of America
60/404585	August 20, 2002	STAGGERED GROUPWISE DISPERSION COMPENSATION	United States of America
60/404608	August 20, 2002	METHOD AND APPARATUS FOR USING OPTICAL IDLER TONED FOR PERFORMANCE MONITORING IN A WDM OPTICAL TRANSMISSION SYSTEM	United States of America

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60/404609	August 20, 2002	ADAPTOR ARRANGEMENT FOR DETECTING FAULTS IN AN OPTICALLY AMPLIPIED MULTI-SPAN TRANSMISSION SYSTEM USING A REMOTELY LOCATED OTDR	United States of America
60/404610	August 20, 2002	OPTICAL TRANSMISSION SYSTEM EMPLOYING ERBIUMDOPED OPTICAL AMPLIFIERS AND RAMAN AMPLIFIERS	United States of America
60/404611	August 20, 2002	OPTICAL LINE MONITOR AND SERVICE CHANNEL	United States of America
60/404613	August 20, 2002	INTEGRATED SINGLE SPAN OTDR	United States of America
60/404615	August 20, 2002	METHOD AND APPARATUS FOR PROVIDING OPTICAL TERMINAL INDEPENDENT INTERFACE BETWEEN A TERRESTRIAL OPTICAL TEMRINAL AND AN UNDERSEA OPTICAL TRANSMISSION PATH	United States of America
60/404616	August 20, 2002	MODULAR DISPERSION MAP	United States of America
60/434753	December 19, 2002	HERMETICALLY SEALED OPTICAL APLIFIER MODULE TO BE INTEGRATED INTO A PRESSURE VESSEL FOR UNDERSEA APPLICATIONS	United States of America
60/535135	January 7, 2004	METHOD AND APPARATUS FOR IN- SERVICE MONITORING OF A REGIONAL UNDERSEA OPTICAL TRANSMISSION SYSTE, USING COTOR	United States of America
60/546802	February 23, 2004	STRENGTH BYPASS AND SPLICE CHAMBER FOR INTERCONNECTING TWO OR MORE OPTICAL AMPLIFIER MODULES	United States of America
60/602408	August 18, 2004	AN UNDERSEA OPTICAL AMPLIFIER MODULE HAVING COUPLED OUTBOARD SPLICE ENCLOSURES	United States of America
60/658321	March 3, 2005	ELECTROCODING IN AN UNDERSEA OPTICAL TRANSMISSION SYSTEM EMPLOYING SMALL FACTOR REPEATERS	United States of America
N/A	March 5, 2004	ARRANGEMENT WITH SWEPT FREQUENCY PULSE GENERATOR FOR AN OPTICAL TRANSMISSION SYSTEM	United States of America
60/681,063	May 13, 2005	ARTICULATING REPEATER	United States of America
PCT/US2004/038589	November 17, 2004	TERNARY CERAMIC DIELECTRIC COATING FOR AN OPTICAL REPEATER PRESSURE VESSEL	Patent Cooperation Treaty

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