FORM PTO-1619A Expires 06/30/99 OMB 0651-0027

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07-10-2000



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U.S. Department of Commerce Patent and Trademark Office **PATENT**

Resubmission (Non-Recordation) Document ID# Correction of PTO Error Reel # Frame #	Submission T	ype		Conveyance Type Assignment	X Security A	areement
Reel # Frame #						
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Name (line 1) Union Bank of California, N.A. Name (line 2)				l — `	Use ONLY by U.S. Go	vernment Agencies) Secret File
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PATENT REEL: 010892 FRAME: 0422

FORM PTO-1619A Expires 06/30/99 OMB 0651-0027	·	Pa	ge 2	U.S. De Patent	epartment of Commerce and Trademark Office PATENT
Corresponden	t Name and Addr	ess Tele	phone Number (6	519)238-0999	
Name (line 1)	James W. McClain				
Address (line 1)	Brown, Martin, Halle	er & McClain, LLP			
Address (line 2)	1660 Union Street				
Address (line 3)	San Diego, CA 9210	01			
Address (line 4)			*****		
Pages Enter th	ne total number of page ng any attachments.	es of the attached conv	eyance document	# 40	
Application Nu	ımber(s) or Paten	t Number(s)	×	Mark if additional r	numbers attached
Enter either the Pa	tent Application Numb	er or the Patent Numbe	er (DO NOT ENTER	BOTH numbers for the	same property).
Pat	ent Application Numl	ber(s)		Patent Number(s))
09/104,639	09/104,916	09/145,063	4,577,924	4,595,790	4,703,175
			4,726,644	4,789,214	4,816,687
			4,842,391	4,871,907	4,900,116
If this document is date the patent ap	being filed together wi plication was signed by	th a new Patent Application the first named execu	ation, enter the ting inventor.	Month	Day Year
Patent Cooperation	on Treaty (PCT)	PCT	РСТ	РСТ	
Enter PCT only if a U.S. has	application number Application Number not been assigned.	РСТ	PCT	РСТ	
Number of Prope	rties Enter the	e total number of prope	erties involved.	# 40	
Fee Amount Fee Amount for Properties Listed (37 CFR 3.41): \$ 1600.00					
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Depos	it Account	L			
(Enter for payment by deposit account or if additional fees can be charged to the account.)					
		Deposit Account N	Number:	# 02-4070	
	Aı	uthorization to charge a	additional fees:	Yes 🗸	No
Statement and Signature					
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.					
James	s W. McClain		Her		June 9, 2000
Name of	Person Signing		Sygnature		Date

[RECETACA00.C03]

FORM PTO-1619 Expires 06/30/99 OMB 0651-0027	C	CONTI	ORM COVER SHEET NUATION ITS ONLY	T U.S. D Pater	epartment of Commerce it and Trademark Office PATENT
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Address (line 2)					ignment.)
Address (line 3)	City		State/Country	Zip Code	
	umber(s) or Paten Application Number or the Pate	, ,	R BOTH numbers for the sai	Mark if additional numbers	attached
Pa	tent Application Numl	per(s)		Patent Number(s)
			4,901,327	4,910,539	4,943,970
			4,997,286	4,993,032	4,998,803
			5,001,937	5,002,352	5,022,042
			5,023,944	5,035,513	5,043,585
			5,043,991	5,054,875	5,056,099
			5,077,619	5,109,386	5,111,467
			5,111,519	5,119,448	5,123,070
			5,136,572	5,166,509	5,227,736

5,381,495

[RECETACA1.C03]

PATENT REEL: 010892 FRAME: 0424

5,491,764

5,428,314

CONFIRMATION AGREEMENT OF TERMINATION OF SECURITY INTEREST IN PATENTS, TRADEMARKS AND COPYRIGHTS BY SECURED PARTY OF RECORD

WITNESSETH, for good and valuable consideration, receipt of which is hereby acknowledged, UNION BANK OF CALIFORNIA, N.A. ("Secured Party") does hereby certify that the Secured Party reconveys and no longer claims any security interest or lien in the Schedule 1 collateral mortgaged, pledged, and granted to the Secured Party under an ASSIGNMENT FOR SECURITY OF PATENTS, TRADEMARKS AND COPYRIGHTS ("Assignment") executed on December 30, 1998, by TACAN CORPORATION, a California corporation, 2330 Faraday Ave., Carlsbad, California 92008, recorded on January 4, 1999, in the United States Patent and Trademark Office at Reel No. 9703, Frame No. 0068 (12 pages), and acknowledged for recordation on February 10, 1999, in the United States Copyright Office. All defined terms, including "Schedule 1 collateral," as set forth in the Assignment shall have the same meanings herein unless otherwise indicated. Schedule 1 includes a list of the patents, patent applications, and patent licenses mortgaged, pledged, and granted to the Secured Party in the Assignment. Schedule 1 is attached hereto and incorporated by reference into this Confirmation Agreement.

UNION BANK OF CALIFORNIA,	N.A.
455 S. Figueroa, 4th Floor	

Robert Chaulk

Los Angeles, CA 90071

STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

On this 8th day of July , 1999, before me, a Notary Public, personally appeared

Bette J. McCole , known to me (or/proved to the basis of satisfactory /
exidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to

me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by/his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

MARILEN FEINMAN
Commission # 1156875
Notary Public - California
Los Angeles County
My Comm. Expires Sep 27, 2001

Notary Public in and for said County and State

Title: Vice Fresiden

Seal

PATENT REEL: 010892 FRAME: 0425

	Patent No.	Title/Description
^	4,577,924	Optical Recursive Filter
4	4,695,790	RF Frequency Spectrum Analyzer Subsystem
	4,703,175	Fiber-Optic Sensor With Two Different Wavelengths of Light Traveling Together Through the Sensor Head
	4,726,644	RF Frequency Multiplexed Fiber Optic Data Bus
	4,789,214	Micro-Optical Building Block System and Method of Making Same
	4,816,687	Method and Apparatus for Measurement of the Fluorescence Relaxation Period of a Fluorescent Substance
	4,842,391	Two Spherical Lens Optical Coupler
	4,871,907	Fiber Optic Linear Position Transducer
	4,900,116	Multiple Pole Optical Filter
	4,901,327	Transverse Injection Surface Emitting Laser
	4,910,539	RF Frequency Fiber Optic Power Coupling Device
	4,943,970	Surface Emitting Laser
	4,997,286	Apparatus for Measuring Temperature Using a Sensor Element
5/34	4,993,032	Monolithic Temperature Stabilized Optical Tuning Circuit for Channel Separation in WDM Systems Utilizing Tunable Lasers
4	4,998,803	Mounting Structure for Optical and Electro-Optical Components and Method of Making Same
1	5,001,937	Optically Based Torsion Sensor
()	5,002,352	Monolithic Array of Fiber Optic Bandpass Filters
	5,022,038	Wavelength Tunable Diode Laser
\bigcap	5,022,042	High Power Laser Array With Stable Wavelength
\sim	5,023,944	Optical Resonator Structures
	5,035,513	Fluorescent Material Temperature Sensor
	5,043,585	Method and Apparatus for Measurement of the Fluorescence Relaxation Period of a Fluorescent Substance
	5,043,991	Device for Compensating for Thermal Instabilities of Laser Diodes
	5,054,875	Fiber-Optic Equalizer
	5,056,099	Rugate Filter on Diode Laser for Temperature Stabilized Emission Wavelength
,	5,077,619	High Linearity Optical Transmitter
	5,109,386	Rugate Filter on Grating Coupled Surface Emitting Laser Array
	5,111,467	Hybrid Rugate Filter Assembly for Temperature Stabilized Emission of Grating Coupled Surface Emitting Lasers
	5,111,519	Method of Interference Reduction for Frequency Multiplexed Optical Fiber Communication
, ,	5,119,448	Modular Micro-Optical Systems and Method of Making Such Systems

Rhents	5,123,070	Method of Monolithic Temperature-Stabilization of a Laser Diode by Evanescent Coupling to a Temperature Stable Grating
~a →	5,136,572	Optical Data Storage Using Temperature Stabilizer Lasers
(1	5,166,509	Optical Modulator Nolse Nonlinearity Reduction Circuit
Ś	5,227,736	Second-Order Predistorter
:	5,381,495	Optical Fiber Coupler or Attenuator and Method of Use Thereof
7	5,428,314	Odd/Even Order Distortion Generator & Distortion Cancellation Circuit
	5,491,764	Narrowband Twisted Optical Fiber Wavelength Division Multiplexer
1	594693	Fibre Optic Sensor
	1,297,702	Fiber-Optic Sensor and Method of Use
	1,308,586	Micro-Optical Building Block System and Method of Making Same
	0387503	Use of a Fluorescent Substance (Vorrichtung zur Messung der Fluoreszenz- Abklingdauer einer fluoreszierenden Substanz)
1	2218512	Apparatus for Measuring Temperature Using a Sensor Element
4-	0238856	Method and Apparatus for Measuring Fluorescent Relaxation Time of a Fluorescent Substance
15	P3788230.9	Apparatus for Measuring Fluorescent Relaxation Time of a Fluorescent Substance
weign Pat	2661682	Method and Apparatus for Measuring Fluorescent Relaxation Time of a Fluorescent Substance
4	0214040	Fiber Optic Sensor
	3689840T2	Fiber Optic Sensor
ξ,	0379941	Fluorescent Material
A.	P3902001.0	Fluorescent Material
	P3770501.6	Method and Apparatus for Measuring Fluorescent Relaxation Time of a Fluorescent Substance
	59010250.8	Fluorescent Material
	68811/ BE /91	Method and Apparatus for Measuring Fluorescent Relaxation Time of a Fluorescent Substance

U.S. Patent Applications Pending

RECORDED: 06/06/2000

09/104,639	Method and Apparatus for Reducing Non-Linear Characteristics of a Signal Modulator by Cross-Correlation
09/104,916	Method and Appparatus for Reducing Non-Linear Characteristics of Signal Modulator by Coherent Data Collection
09/145,063	Method and Apparatus for Reducing Distortion Produced by a Nonlinear Device